REDLANDS GENERAL PLAN TRANSIT VILLAGES DISTRICT AND SPECIFIC PLAN PROJECT

SCH NO. 2021080622

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Draft Environmental Impact Report

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
µg/m³	micrograms per cubic meter
AB 52	California Assembly Bill 52
ACM	asbestos-containing material
AF	acre-feet
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
amsl	above mean sea level
AQIA	Air Quality Impact Analyses
AQMP	Air Quality Management Plan
APN	Assessor's Parcel Number
ATCM	airborne toxic control measure
BAAQMD	Bay Area Air Quality Management District
BACM	best available control measure
BACT	best available control technology
Basin	South Coast Air Quality Basin
BAU	business as usual
BFE	base flood elevation
bgs	below ground surface
BMPs	Best Management Practices
CAA	Clean Air Act of 1970
CAAA	CAA Amendments of 1990
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan of 2013
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act of 1988
CDFW	California Department of Fish and Wildlife
CC&Rs	Covenants, Conditions, and Restrictions
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGEU	California Gas and Electric Utilities 2016 California Gas Report
CGS	California Geological Survey
CH_4	methane
CHAPIS	Community Health Air Pollution Information System (CARB)
CHRIS	California Historical Resources Inventory System
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CTP	Clean Truck Program
CUP	Conditional Use Permit
dB	decibel

dBA	A-weighted decibels
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EMS	Emergency Medical Services
ESA	Environmental Site Assessment
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act of 1973
FMMP	Farmland Mapping and Monitoring Program
gal/day	gallons per day
GHG	greenhouse gas
GWP	global warming potential
Handbook	Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005)
HAPs	hazardous air pollutants
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HDT	Heavy Duty Trucks
HFCs	hydrofluorocarbons
Hot Spots Act	Air Toxics Hot Spots Information and Assessment Act of 1987
HP	horsepower
HPLV	High Pressure Low Volume
HVAC	heating, ventilating, and air conditioning
ICU	intersection capacity utilization
I	Interstate
I-5	Santa Ana Freeway
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
LEED	Leadership in Energy and Environmental Design
LEV	Low Emission Vehicle
LID	low impact development
LOS	level of service
LSTs	localized significance thresholds
MACT	maximum available control technology
MBTA	Migratory Bird Treaty Act of 1918
MCC	Material Culture Consulting
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NALs	numeric action levels
NCCP	Natural Community Conservation Plan
NESHAP	national emissions standards for HAPs
NH_3	ammonia
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic and Safety Administration
NMC	New Model Colony

NOP	Notice of Preparation
NO_2	nitrogen oxide
NO_x	nitrogen oxide
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	U.A. Department of Agriculture Natural Resources Conservation Service
O_3	ozone
ODC	Ontario Development Code
ONT	Ontario International Airport
PA	Planning Area
Pb	lead
PDF	project design feature
PFCs	perfluorocarbons
$PM_{2.5}$	particulate matter less than 2.5 micrometers in aerodynamic diameter
PM_{10}	particulate matter less than 10 micrometers in aerodynamic diameter
ppb	parts per billion
PPP	Plans, Programs, and Policies
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Plan
PWS	public water supplier
REC	recognized environmental conditions
ROG	reactive organic gas
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SB 18	California Senate Bill 18, Ch. 905 (2004)
SC	Standard Condition
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison Company
SCS	Sustainable Communities Strategy
SF	square feet
SF_6	sulfur hexafluoride
SIP	state implementation plan
SO_2	sulfur dioxide
SO_3	sulfur trioxide
SO_4	sulfates
SoCalGas	Southern California Gas Company
SO_x	sulfur oxides
SP	Specific Plan
SR	State Route
SR-60	Pomona Freeway
SR-83	Euclid Avenue
SRA	Source Receptor Area
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	Storm Water Resources Control Board
TACs	toxic air contaminants
TIA	Traffic Impact Analysis
TVDSP	Transit Villages District and Specific Plan
tpy	tons per year

TTCP	traditional tribal cultural places
TUA	traditional use area
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UTRs	utility tractors
UWMP	Urban Water Management Plan
VdB	velocity levels expressed in decibel notation
VMT	vehicle miles travelled
VOC	volatile organic compounds
WDR	Waste Discharge Requirements
WFA	Water Facilities Authority
Williamson Act	California Land Conservation Act of 1965
WQC	Water Quality Certification

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1. Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the environmental effects that may result from the construction and operation of the proposed Redlands General Plan Transit Villages District and Specific Plan Project (proposed Project). This Draft EIR has been prepared in conformance with the City of Redlands environmental policy guidelines for implementation of the California Environmental Quality Act (CEQA).

The EIR is being circulated for review and comment by the public and other interested parties, agencies and organizations for 45 days in accordance with Section 15087 and Section 15105 of the CEQA Guidelines. During the 45-day review period, the Draft EIR will be available for public review at the City's website.

Written comments related to environmental issues in the Draft EIR should be addressed to:

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A Notice of Availability of the Draft EIR was published concurrently with distribution of this document.

1.1 PROJECT LOCATION

A new commuter rail line, called the Arrow, is under construction in the city that will be operated by San Bernardino County Transportation Authority (SBCTA). The Arrow will initially include five stations connecting the existing San Bernardino Transit Center in downtown San Bernardino and the University of Redlands using an approximately 9-mile stretch of former Atchison, Topeka, and Santa Fe railway right-of-way. Three of the new Arrow stations are located in the city, which include: 1) New York Street/Esri Station near the intersection of Redlands Boulevard and New York Street across from the existing Esri campus, 2) Downtown Station north of the Santa Fe Depot between Eureka Street and Orange Street, and 3) University Street Station adjacent to the University of Redlands at the south end of campus near North University Street (see Figure 3-2, *Local Vicinity*, and Figure 3-3, *Aerial Photograph*).

The proposed Transit Villages Specific Plan (TVSP) area generally includes the parcels located within approximately one-half mile, or a 10-minute walk, of the three new Arrow stations in the city. The entire TVSP area, which covers approximately 947 acres (approximately 1.5 square miles) is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The TVSP area also includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue (see Figure 3-4, *Specific Plan Station Areas*).

1.2 PROJECT DESCRIPTION SUMMARY

The proposed TVSP includes amending the GP2035 to establish a new Transit Village Development (TVD) land use designation to provide for infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations. The existing GP2035 Transit Village Overlay Zone (TVOZ)

boundaries of the New York Street, Downtown, and University stations would be adjusted as part of this Specific Plan process, and the adopted TVSP boundary would be the TVOZ boundary. The form-based code that would be implemented by the proposed TVSP emphasizes building form, a mix and density of different transit-oriented development, pedestrian circulation, and public realm improvements and amenities.

The TVSP provides for infill development, redevelopment and development of a number of vacant parcels located within the Project area, that are shown in Figure 3-17, *Vacant and Non-Conforming Parcels*. The maximum development that would occur from buildout of the TVSP would include up to 2,400 dwelling units, 220 hotel rooms, 265,000 square feet (SF) of retail commercial uses, 238,000 SF of office uses, and 280,000 SF of open space and parks. The total square-footage and dwelling units that are included in buildout of the TVSP could be constructed at the present time under the current GP2035 land use designations and current zoning designations within the Project area, as shown in Figure 3-18, *Areas of Change,* and Figure 3-19, *Illustrative Plan*. In other words, buildout pursuant to the TVSP would be within the buildout provided for within the GP2035. However, the proposed TVSP would provide a form-based code to achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options (and reduce vehicle trips and vehicle miles traveled), and provide more public open space and amenities that provide aesthetic and community benefits.

Infrastructure and Open Space Improvements

The TVSP would also provide a framework for a network of complete, multi-modal streets that provide for pedestrians, bicyclists, transit users, and motorists. The proposed street and open space network would provide a contiguous green space connecting the TVSP villages. The proposed Zanja Greenway would be located along a historic existing irrigation feature that traverses the Project area from Sylvan Boulevard in the University Transit Village southwest past the New York Street/Esri Transit Village. The TVSP would install riparian landscaping along the Zanja Greenway, which also runs parallel to the Orange Blossom Trail. The TVSP also includes an open space plaza at State Street/Third Street, a midtown greenbelt in the Downtown Transit Village, a central park in the University Transit Village, and a neighborhood park in the New York Street/Esri Transit Village.

Water system infrastructure improvements include upgrading potable water mains due to age and size to provide reliable fire suppression and adding non-potable water mains to serve the New York Street/Esri and Downtown station areas. The University Station area would be served by extending a private university-owned non-potable system. The Project proposes to install new 12-inch non-potable waterlines in New York between Colton Avenue and State Street that would connect to future non-potable pipelines, ultimately connecting to the existing non-potable pipeline in Lugonia Avenue. The Project proposes to install a new 8-inch non-potable waterline in Orange Street and Redlands Boulevard that would connect to a proposed non-potable pipeline in State Street, ultimately connecting to the proposed non-potable pipeline in New York Street. and the Project would include a new 8-inch non-potable line in University Street and Colton Avenue that would connect to the existing non-potable line in Colton Avenue. The Project also proposes the construction of various other new non-potable waterlines and improvements to existing sewer lines through replacement or construction of new sewer mains. The precise timing of infrastructure improvements are not known with certainty, as improvements would likely depend on the timing of future developments, buildout of private development projects, future availability and amounts of public grant funding or other public funds, and other factors.

1.3 PROJECT OBJECTIVES

The following objectives have been identified in order to aid decision makers in their review of the proposed Project and its associated environmental impacts.

1. A vision for the future of the three station areas that recognizes the importance of Redlands' unique history and tradition while embracing opportunities for continued reinvestment, growth, and beneficial change.
2. Application of the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area.
3. New form-based zoning standards for the Plan Area that will replace current zoning regulations. These new standards are calibrated to deliver new development that is consistent with Redlands' physical character, history, and culture, as well as the community's vision for its future growth.
4. An implementation strategy for transforming the Plan Area's streets, infrastructure, parks, and other public spaces in line with the City of Redland's unique culture and history.
5. Transform streets and create neighborhood connectivity through pedestrian-oriented improvements.
6. Provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs.
7. Provide for transit-oriented development around the three new Arrow Line stations in line with the City's General Plan.

1.4 SUMMARY OF ALTERNATIVES

Section 6.0, *Alternatives*, of this EIR analyzes a range of reasonable alternatives to the proposed Project. The alternatives that are analyzed in detail in Section 6.0 are summarized below.

Alternative 1: No Project/Buildout of the Existing Zoning. Under this alternative, the proposed Specific Plan would not be developed. In accordance with the CEQA Guidelines, the No Project/ Buildout of Existing Zoning Alternative will be the continuation of the existing plan, policy or operation into the future when the project is the revision of an existing land use or regulatory plan, policy or ongoing operation. Section 15126.6(e)(3)(A) of the CEQA Guidelines states that, "typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan."

This alternative evaluates the environmental effects of buildout of the TVSP area according to the existing General Plan and zoning designations. Because the TVSP area is an urban area that is generally built out, most new development would occur as adaptive reuse of existing buildings, development on existing vacant sites, and infill or redevelopment of existing uses at the intensity allowed by the existing zoning. The majority of development under this alternative would similarly occur on vacant and non-conforming parcels as shown on Figure 3-17, *Vacant and Non-Conforming Parcels*. The addition of residential uses and mixed residential uses within the TVSP area would not occur, as proposed by the project. However, as described in Chapter 3.0, Project Description, the amount of square-footage and dwelling units listed in Table 3-1 could be constructed at the present time under the current General Plan land use designations and current zoning designations within the Project area. Because the land use and zoning designations of the non-residential parcels would not change as a result of the proposed Specific Plan, the No Project/ Buildout of Existing Zoning Alternative assumes development of 2,400 dwelling units, 220 hotel rooms, 265,000 SF of retail commercial, 238,000 SF of office space, and 280,000 SF of open space and parks as allowed by existing General Plan and Zoning. However, development would occur in line with the existing zoning and General Plan land use designations in the area, and an increase in density in areas immediately surrounding the new Arrow Line Stations in the proposed Village Center district would not occur. In addition, areas within the proposed TVSP area would remain largely commercial within the New York Street Village and Downtown Village, and an increase in multi-family development in these areas would not be realized.

The Alternative 1: No Project/Buildout of Existing Zoning Alternative evaluation provides a comparison between the environmental impacts of the proposed Specific Plan in contrast to the result from not approving, or denying, the proposed Specific Plan. Thus, this alternative is intended to meet the requirements of CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

Alternative 2: Reduced TVSP Area Alternative. Under this alternative, the parcels located within Traffic Analysis Zone (TAZ) 53827101 outside of the Transit Priority Area (TPA), which include parcels north of Colton Avenue on the northwestern tip of the TVSP area, as demonstrated by Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, would not be included in the TVSP area. Under this alternative, implementing developments in TPAs would meet the criteria set forth by Screening Criteria 1. Under this alternative, a 25 percent reduction in the number of proposed dwelling units, commercial retail, and office space would be developed in the New York Street Village. Based on the reduction in land included in the TVSP area within the New York Street Village, only 150 dwelling units, 26,250 SF of retail commercial, and 131,250 SF of office uses would be developed in the New York Street Village. Under this alternative a total of 2,350 dwelling units, 256,250 SF of retail commercial, and 194,250 SF of office uses could be developed under buildout of the TVSP. This alternative includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP, with exception to those only applicable to areas outside of TPAs within TAZ 53827101.

Alternative 3: Reduced Intensity Alternative. Under this alternative, a 60 percent reduction in the number of dwelling units, retail commercial uses, and office uses would be developed throughout all of the proposed Transit Villages. The proposed TVSP would allow for development of up to 960 dwelling units, 88 hotel rooms, 106,000 SF of retail commercial, and 95,200 SF of office uses through the year 2040. Overall, 60 percent less development would occur within each Transit Village. Under this alternative, redevelopment would still be concentrated on vacant and non-conforming parcels within the TVSP area, as shown on Figure 3-17, *Vacant and Non-Conforming Parcels*. This alternative includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP.

1.5 SUMMARY OF IMPACTS

Table 1-1 summarizes the conclusions of the environmental analysis contained in this Draft EIR. The level of significance of impacts after the proposed mitigation measures are applied are identified as significant and unavoidable, less than significant, and no impact. Relevant standard conditions of approval are identified, and mitigation measures are provided for all potentially significant impacts.

Table 1-1: Summary of Impacts, Mitigation Measures, and Level of Significance

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.1 Aesthetics				
Impact AE-2: The Project would not substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	**PPP CUL-1,** as described below.	Potentially significant	**MM CUL-1,** as described below.	Less than significant
Impact AE-3: The Project is located within an urban area and would not conflict with applicable zoning and other regulations governing scenic quality.	None	Less than significant	None required	Less than significant
Impact AE-4: The Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	None	Potentially significant	**Mitigation Measure AES-1: Construction Lighting.** The developer and construction contractors shall install all temporary construction lighting such that: (a) lamps and reflectors do not illuminate upon areas beyond the implementing project site, including any off-site security buffer areas; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky; (d) illumination of the project site and its immediate vicinity is minimized; and (e) lighting is directed toward construction work areas and shielded from offsite areas.	Less than significant
Cumulative	None	Less than significant	None required	Less than significant
5.2 Air Quality				
Impact AQ-1: The Project would conflict with or obstruct implementation of an applicable air quality plan.		Potentially significant	**MM AQ-1 through MM AQ-10,** as listed below.	Significant and Unavoidable

Impact AQ-2: The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.		Potentially significant	**MM AQ-1: Tier 3 Construction Equipment.** Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that for construction equipment greater than 150 horsepower (>150 HP), the Construction Contractor shall use off-road diesel construction equipment that complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 3 emissions standards during all construction phases and will ensure that all construction equipment be tuned and maintained in accordance with the manufacturer's specifications. **MM AQ-2: Low VOC Paints.** Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that "Super-Compliant" low VOC paints shall be utilized that have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings. **MM AQ-3: Electric Construction Equipment.** Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that contract specifications for construction activities rely on the electricity infrastructure surrounding the construction site, if available rather than electrical generators powered by internal combustion engines. **MM AQ-4: Alternative Fueled Construction Equipment.** Construction plans and specifications and construction permitting for developments within the TVSP area shall	Significant and Unavoidable

			include the requirement to use of alternative fueled, engine retrofit technology, after-treatment products (e.g., diesel oxidation catalysts, diesel particulate filters), and/or other options as they become available, including all off-road and portable diesel-powered equipment. **MM AQ-5: Construction Equipment Maintenance.** Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that construction equipment be maintained in good operating condition pursuant to manufacturer specifications to reduce emissions. The Construction Contractor shall ensure that all construction equipment is being properly serviced and maintained as per the manufacturer's specification. Maintenance records shall be available at the construction site for City verification. **MM AQ-6: Construction Vehicle Management Plan.** Prior to the issuance of any grading permits for developments within the TVSP area, the applicant and/or building operators shall submit construction plans and a construction vehicle management plan to the City of Redlands denoting the proposed schedule and projected equipment use. The construction vehicle management plan shall include such things as: idling time requirements; requiring hour meters on equipment; documenting the serial number, horsepower, age, and fuel of all onsite equipment. The plan shall include that California state law requires equipment fleets to limit idling to no more than 5 minutes. Construction contractors shall provide evidence that low emission mobile construction equipment will be utilized, or that their use was investigated and found to be infeasible for the project as determined by	

			the City. Contractors shall also conform to any construction measures imposed by the SCAQMD as well as City Planning Staff. **MM AQ-7: Enhanced Energy Efficiency.** Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 5 percent (%) efficiency beyond the incumbent California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable): • Increase in insulation such that heat transfer and thermal bridging is minimized; • Limit air leakage through the structure and/or within the heating and cooling distribution system; • Use of energy-efficient space heating and cooling equipment; • Installation of electrical hook-ups at loading dock areas; • Installation of dual-paned or other energy efficient windows; • Use of interior and exterior energy efficient lighting that exceeds then incumbent California Title 24 Energy Efficiency performance standards; • Installation of automatic devices to turn off lights where they are not needed; • Application of a paint and surface color palette that emphasizes light	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			and off-white colors that reflect heat away from buildings; • Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors; • Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems; Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products. **MM AQ-8: Enhanced Water Conservation.** To reduce water demands and associated energy use, subsequent development proposals within the TVSP area shall incorporate a Water Conservation Strategy and demonstrate a minimum 30% reduction in outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[1]. Development proposals within the TVSP area shall also implement the following: • Landscaping palette emphasizing drought tolerant plants; • Use of water-efficient irrigation techniques; • U.S. EPA Certified WaterSense labeled or equivalent faucets,	

[1] The analysis includes a reduction of 20% indoor water usage consistent with the current CALGreen Code (11) for residential and non-residential land uses. Per CALGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			high-efficiency toilets (HETs), and water-conserving shower heads; • Use of recycled water, when available.	
Impact AQ-3: The Project would not expose sensitive receptors to substantial pollutant concentrations		Potentially significant	**MM AQ-9: Localized Emissions.** For implementing projects within the TVSP area, the applicant shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed development. During the City's review process of development applications in the TVSP area, the applicant shall conduct or shall have conducted modeling of the regional and the localized emissions (nitrogen oxides [NO_X], carbon monoxide [CO], Particulate Matter 10 microns in diameter or less [PM_{10}], and Particulate Matter 2.5 microns in diameter or less [$PM_{2.5}$]) associated with the maximum daily grading activities estimated for the proposed individual developments. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, the maximum daily grading activities of the proposed development shall be limited to the extent that could occur without resulting in emissions in excess of SCAQMD's significance thresholds for those emissions. **MM AQ-10: Toxic Air Contaminants.** Applicants for residential and other sensitive land use projects (e.g., hospitals, nursing homes, day care centers) in the TVSP area within 1,000 feet of a major sources of TACs	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			(e.g., warehouses, industrial areas, freeways, roadways, and rail lines with traffic volumes over 10,000 vehicle per day), as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Redlands prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of CEQA and the SCAQMD. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), PM_{10} concentrations exceed 2.5 microgram per cubic meter ($\mu g/m^3$), $PM_{2.5}$ concentrations exceed 2.5 $\mu g/m^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to: • Air intakes located away from high volume roadways and/or truck loading zones. • Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters (e.g., MERV 13 or better).	
Cumulative		Potentially significant	**MM AQ-1 through MM AQ-10**, as listed above.	Significant and Unavoidable

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.3 Cultural Resources				
Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.	**PPP CUL-1:** The City of Redlands Historic Architectural Design Guidelines shall apply to all projects within the TVSP Area. The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* may also be applicable to properties or projects that may affect historic buildings and resources.	Potentially Significant	**MM CUL-1: Historical Properties.** Prior to issuance of a permit for a development project within the TVSP area that could directly or indirectly impact a building/structure in excess of 50 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as age, location, context, association with an important person or event, uniqueness, or structural integrity. Preferred mitigation for historic buildings or structures shall be to avoid significant impacts to the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. An historical resource assessment report shall be prepared by a qualified architectural historian meeting the U.S. Secretary of the Interior standards for each project to document the methods used to determine the presence or absence of historical resources, to identify potential impacts from a project, and to evaluate the significance of any historical resources identified. If potentially significant impacts to a historical resource are identified, the report will also recommend appropriate mitigation to reduce the impacts to below a significant degree, where possible. If mitigation is required, mitigation programs can also be included in the report. Depending upon project impacts, measures shall include, but are not limited to: • Preparing a historic resource management plan;	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			• Adding new construction that is compatible in size, scale, materials, color, and workmanship to the historical resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric); • Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation; • Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource; and • Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning.	
Impact CUL-2: The Project would not cause a substantial adverse change in the significance of an archaeological resources pursuant to CEQA Guidelines Section 15064.5.	None	Potentially significant	**MM CUL-2: Desktop Review.** During environmental review for future projects located within the TVSP area, a qualified archaeologist will prepare a brief letter report to determine the likelihood for the project site to contain archaeological resources. This letter report will contain the results of background research and will tier off the research conducted in the Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments prepared by Material Culture Consulting, Inc. Additional reference material will be reviewed, including project area specific historic photographs, topographic maps and	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			existing historic information. The background information provided in the Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments will be valid for five (5) years, after which time an updated search of the CHRIS will be required and submitted as an addendum to the original document. If there is any evidence that the project site has an increased sensitivity for archaeological or tribal cultural resources, based on existing onsite historic-age buildings or structures, or if previously identified resources are present within the project area or vicinity, then Mitigation Measure CUL-4 through Mitigation Measure CUL-6 shall be implemented. **MM CUL-3: Native American Coordination.** Where a recorded Native American archaeological site is identified, the City shall initial coordination with identified California Indian tribes. It should be noted that during the coordination process, tribal representative(s) will be directly involved in making recommendations regarding the significance of a prehistoric archaeological site, which could be considered a historic tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). **MM CUL-4: Phase 2 Archaeological Site Testing.** If previously identified archaeological resources are present within the project area, a Phase 2 Archaeological Site Testing program shall be recommended, which would include evaluating the horizontal and vertical dimensions of a site, the	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. Results of the testing program, in tandem with the Native American coordination process required by Mitigation Measure CUL-3 will determine the historic significance of the resource. When appropriate, the final testing report must be submitted to the City for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document, should one be required. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found but results of the initial evaluation and testing phase indicate there is still a potential for resources to be present in portions of the property that could not be tested, then development of a mitigation and monitoring program is required. **MM CUL-5: Data Recovery Program.** If significant cultural resources are present within a given Project Area, preferred mitigation for significant cultural resources is avoidance through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			harm shall be taken. For archaeological resources where preservation is not an option, a Data Recovery Program is required, which includes a Collections Management Plan. The program and plan will be subject to City review and approval prior to implementation. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA Section 21083.2. The data recovery program must be reviewed and approved by the City Development Services Department. **MM CUL-6: Archaeological Resources Management Plan (ARMP).** If resources are discovered within a given Project Area, or if there is a high potential for encountering resources, an Archaeological Resources Management Plan (ARMP) will be required. In this case, the ARMP should include the following, at a minimum: At least 90 days prior to issuance of grading permits, the project permittee/owner shall retain a qualified archaeological monitor to prepare the ARMP and to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Qualified archaeological monitor(s) will have a minimum of a bachelor's degree, verifiable training and one year of monitoring experience in Southern California on similar projects. Prior to grading, the project permittee/owner shall provide to the City Development Services Department verification that a qualified monitor has been retained. Monitors will report to the Project Archaeologist for the Project and may work in collaboration with Native American monitors for tribal cultural	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			resources that may be a historical resource as defined in Public Resources Code section 5020.1(k). • The Project Archaeologist shall meet the U.S. Secretary of the Interior Standards. • Any newly discovered archaeological resource deposits shall be subject to a formal significance evaluation. • The Project Archaeologist will work in coordination with consulting tribes, the permittee/owner, and the City on the ARMP to address the details, timing, and responsibility of all archaeological activities that will occur on the project site. Details in the plan shall include, at a minimum: a. Project grading and development scheduling; b. The development of a schedule in coordination with the permittee/owner/consulting Native American tribes and the Project Archaeologist during grading, excavation and ground-disturbing activities on the site: including the scheduling, safety requirements, duties, scope of	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; and, c. The protocols and stipulations that the permittee/owner, City, tribes, and Project Archaeologist will follow in the event of inadvertent archaeological resource discoveries, including any newly discovered archaeological resource deposits that shall be subject to a archaeological resources evaluation. • A final report documenting the monitoring activity and disposition of any recovered archaeological resources shall be submitted to the City of Redlands, South Central Coast Information Center (SCCIC), and consulting tribes within 60 days of completion of monitoring. *A. Pregrading Conference*	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			The Project Archaeologist and/or designee shall participate in a pre-grading conference with development staff and construction operations, to ensure an understanding of the monitoring requirements and implementation procedures to be utilized during construction. This meeting shall take place before the initiation of major ground-disturbing activities. Training at this meeting shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological resources, general archaeological items, including the archaeology and culture history of the area, as well as pictures of typical artifacts, sites, and resources that can be found during construction. This training should stress applicable state, federal, and local laws, and include information on what to do in case an unanticipated discovery is made by a worker. All construction personnel should be instructed to stop work within a 50-foot radius of the find and immediately inform their field supervisor upon any discovery in the Project Area. The Project Archaeologist and Native American monitors shall be called to assess the find to determine if additional monitors should be mobilized to the Project Area to examine and evaluate the resources. *B. Archaeological Monitoring* An adequate number of qualified archaeological monitors shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored, including 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	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			frequency and location of inspections will be determined by the Project Archaeologist. Archaeological monitoring will include inspection of exposed cut surfaces and spoils piles. Monitors maintain close communication with the on-site construction personnel to maintain a safe working environment and to be fully appraised of the upcoming Project activity areas and any schedule changes. All monitors shall complete daily documentation of all construction activities requiring monitoring, including the location of monitoring activities throughout the day, observations of sediment type and distribution, observations regarding resources, collection of resources and other information. This documentation will be prepared by each monitor on each shift, in a Daily Field Monitoring Summary and Daily Artifact Collection log, as relevant to the discoveries each day. The monitor shall photograph ground disturbing activities, sediment, and resources for documentation purposes and will fill out a Photograph Log each day. The Daily Field Monitoring Summary, Daily Artifact Collection Log and/or Photograph Log comprise the field notes. These notes shall be filed weekly with the Project Archaeologist and be made available to the Proponent and City upon request. *C. Monitor's Authority to Temporarily Halt Project Activities* Archaeological monitors have the authority to initiate a temporary work stoppage of construction activities to assess and/or recover a potentially significant discovery. It is important that all earthmoving contractor	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			personnel recognize the authority of the monitor(s) to redirect Project construction activities. The monitor(s) will attempt to minimize schedule impacts, however, in cases of significant discovery, this process can be quite lengthy, and recent discoveries in the region have shown the area to be highly sensitive for cultural materials. The monitor(s) will stay with the discovery and notify the construction foreman and the Project Archaeologist. If phone communication is problematic, the monitor will demarcate a 50-ft buffer zone around the specimen using flagging pins until the find is assessed and potential impacts to archaeological resources are avoided, minimized, or mitigated. *D. Unanticipated Discovery Protocol* If inadvertent discoveries of subsurface archaeological resources are discovered during grading, the Project Archaeologist shall assess the significance of such resources and shall meet and confer with the City Development Services Department and designated Native American monitors from consulting tribes regarding the mitigation for such resources. *E. Data Recovery Plan for Archaeological Resources* The following plan identifies protocol for assessing newly discovered resources. This section follows state guidelines for management of archaeological resources, as well as current best practices and industry standards for cultural resource management professional. Please note that when inadvertent discoveries of Native American archaeological resources occur, coordination with consulting Native American	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			tribes/affiliations should be completed prior to removal or treatment of these resources, to ensure proper treatment and disposition, as outlined in Mitigation Measures TCR-3. The Project Archaeologist shall be contacted to flag the area in the field and determine if the archaeological deposits meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)) and/or unique archaeological resource (Public Resources Code 21083.2(g)). If the find is considered a "resource" the archaeologist shall pursue either protection in place or recovery, salvage and treatment of the deposits. *F. Isolates* Less than three artifacts in one location are defined as isolates. These may consist of, for example, a single projectile point, a culturally modified animal bone, or a glass bottle. When isolates are discovered, the monitor carefully examines the surrounding area to ensure that other artifacts are not present. Subsequently, the monitor photographs the isolate with a scale bar, obtains GPS coordinates of the location and records the isolate using standard California Department of Parks and Recreation (DPR) series 523 forms. *I. Archaeological Sites* Archaeological sites consist of more than three artifacts in one location. In addition, sites may have features such as rock ovens, burials, and other human-created alterations of the natural environment - with or without the presence of artifacts. Sites and features require evaluation to determine if they meet significance criteria as per CEQA. An archaeological site is considered significant if	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			it is eligible or potentially eligible for listing in the CRHR. When an archaeological site is discovered during any Project activity, the archaeological monitor will divert construction away from the area at a minimum distance of 50 ft from the find and establish an exclusionary zone (flagging pins/tape) around the resource. The archaeological monitor(s) will then notify the Project Archaeologist for direction on how to proceed. Regardless of the outcome of the significance and CRHR eligibility assessment, every feature and site require a standard set of data collection for analysis and recordation on standard DPR forms. Features or sites older than 50 years must be delineated and photographed, GPS coordinates must be taken, and features and site records are completed including production of field maps and sketch map drawings. Thorough mapping is required for all features or sites, and include an accurate elevation measurement, the depth the deposit extends below surface and true north reading. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If unique archaeological resources cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the applicant's expense. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the archaeologist. Resources shall be identified and curated into an established accredited	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			professional repository, at the Western Science Center in Hemet. Excavation as a treatment option will be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. All items found in association with Native American human remains shall be considered grave goods and sacred in origin and subject to special handling pursuant to Mitigation Measure TCR-4. **MM CUL-7: Human Remains**. Procedures taken upon discovery of human remains will be consistent with State Law (California Health and Safety Code Section 7050.5; California PRC Section 5907.98) and CR-3. If human remains are encountered during project grading, no further disturbance shall occur until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The monitor(s) will immediately divert work a minimum of 100 feet and place an exclusion zone (flagging pins) around the burial. In-place preservation and protection from further disturbance shall always be the preferred approach. If the San Bernardino County Coroner determines the remains to be Native American, the NAHC shall be contacted within a twenty-four (24) hour timeframe. Subsequently, the NAHC shall identify the "most likely descendant." The most likely descendant (MLD) shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			Code 5097.98. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052). If the coroner determines the remains represent a historic-era, non-Native American burial, standard non-invasive analysis of the skeletal remains and any artifacts will be performed on any burials removed. Reburial in place is preferred, but if burials are removed, they will be reinterred in an appropriate setting. If the coroner determines the remains to be modern, the coroner will take custody of the remains. Reburial locations will be formally recorded on standard DPR forms as an Archaeological Redeposit. The site record will include maps of the original and reburial locations. The record will include dates of excavation and interment and a list of individuals (with affiliation) present during reburial. A burial treatment report will be prepared separately from any other reports and will be a confidential document. Copies will be filed with the Eastern Information Center, the MLD and the NAHC (latter two for Native American burials only). Any skeletal analysis or artifact analysis will be included in the final monitoring compliance report for the Project. **MM CUL-8: Monitoring Compliance Report.** The Project Archaeologist shall prepare a final archaeological report prior to issuance of final building inspection, or other City milestone, to verify compliance with project conditions and mitigation measures. The report shall follow industry standard	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			guidelines and City of Redlands requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any artifacts recovered, an inventory of any resources recovered, updated DPR forms, if any, and any other site(s) identified, final disposition of the resources, and any additional recommendations. A final copy shall be submitted to the City of Redlands Development Services Department and the South Central Coast Information Center (SCCIC). **MM CUL-9: Curation of Archaeological Resources.** All archaeological materials, including original maps, field notes, non-burial related artifacts, catalog information, and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one that has the proper facilities and staffing for ensuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historic deposit is encountered during construction monitoring, a collections management plan would be required in accordance with the project Mitigation and Monitoring Program. The disposition of human remains and burial-related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 [Coto] and California Native American Graves Protection and Repatriation Act of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., Native American Graves	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			Protection and Repatriation Act [U.S. Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation, as further stipulated in Mitigation Measures TCR-3 and TCR-4. Arrangements for long-term curation of all recovered artifacts, with the exception of tribal cultural resources, must be established between the applicant/property owner and the consultant prior to the initiation of the Phase 2 Archaeological Site Testing Program. This information must then be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, Title 36 of the Code of Federal Regulations, Part 79.	
Cumulative	**PPP CUL-1**, listed above	Potentially Significant	**MM CUL-1 through MM CUL-9**, listed above.	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.4 Energy				
Impact E-1: The Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.	None	Less than significant	None required	Less than significant
Impact E-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	None	No Impact	None required	No impact
Cumulative	None	Less than significant	None required	Less than significant
5.5 Geology and Soils				
Impact GEO-6: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	None.	Potentially significant	**MM GEO-1: Paleontological Resources Management Program (PRMP).** If a project proposes subsurface disturbance within an area mapped as a high sensitivity geologic unit (i.e., older alluvial deposits), or subsurface disturbance greater than 5 feet deep within an area mapped at the surface as a low sensitivity geologic unit (i.e., younger alluvial deposits), a paleontological resource management program (PRMP) is required unless a qualified paleontologist retained by a Project Proponent provides a letter to the City verifying that a PRMP is not warranted based on the results of a project-specific assessment. The PRMP will be reviewed and approved by the City prior to the issuance of a grading permit. The PRMP will be designed and implemented prior to any ground disturbance activities to monitor, salvage, and curate any recovered fossils associated with the project area, should these be unearthed. It is recommended that, if	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			necessary, a project's PRMP implement the following standard procedures: 1. The applicant shall retain a qualified paleontologist (Project Paleontologist) approved by the City to create and implement a project-specific plan for monitoring site grading/earthmoving activities. As per Society of Vertebrate Paleontology (SVP) guidelines, a qualified paleontological monitor is an individual who has demonstrated sufficient paleontological training and field experience to have acceptable knowledge and experience of fossil identification, salvage and collection methods, paleontological techniques, and stratigraphy. An undergraduate degree in geology or paleontology is preferable but is less important than documented experience performing paleontological monitoring. The paleontological monitor must work under the direction of the Project Paleontologist. 2. The project paleontologist retained shall review the approved development plan	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			and grading plan and conduct any pre-construction work necessary to render appropriate monitoring requirements as appropriate. These requirements shall be documented by the project paleontologist in a paleontological resource management program (PRMP). This PRMP shall be submitted to the City for approval prior to issuance of a grading permit. Information to be contained in the PRMP, at a minimum and in addition to other industry standards and Society of Vertebrate Paleontology standards, are as follows: a. The Project Paleontologist shall participate in a pre-construction project meeting with development staff and construction operations to ensure an understanding of any monitoring measures required during construction, as applicable. b. Paleontological monitoring of	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			earthmoving activities will be conducted on an as-needed basis by the project paleontologist during all earthmoving activities that may expose sensitive strata. Earthmoving activities in areas of the project area where previously undisturbed strata will be buried but not otherwise disturbed will not be monitored. The project paleontologist or his/her assign will have the authority to reduce monitoring once he/she determines the probability of encountering fossils has dropped below an acceptable level. c. If the Project Paleontologist finds fossil remains, earthmoving activities will be diverted	

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			temporarily around the fossil site until the remains have been evaluated, documented, and recovered. Earthmoving will be allowed to proceed through the site when the Project Paleontologist determines the fossils have been recovered and/or the site mitigated to the extent necessary. d. If fossil remains are encountered by earthmoving activities when the Project Paleontologist is not onsite, these activities will be diverted around the fossil site and the Project Paleontologist called to the site immediately to evaluate, document, and recover the remains. e. If fossil remains are encountered,	

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			fossiliferous rock and soil will be recovered from the fossil site and processed to allow for the recovery of smaller fossil remains. Test samples may be recovered from other sampling sites in the geologic unit if appropriate. f. Any recovered fossil remains will be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains then will be curated (assigned and labeled with museum* repository fossil specimen numbers and corresponding fossil site numbers, as appropriate; placed in specimen trays and, if necessary, vials with completed	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			specimen data cards) and catalogued, an associated specimen data and corresponding geologic and geographic site data will be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized data bases) at the museum repository by a laboratory technician. The remains will then be accessioned into the museum* repository fossil collection, where they will be permanently stored, maintained, and, along with associated specimen and site data, made available for future study by qualified scientific investigators.	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			g. A qualified paleontologist shall prepare a report of findings made during all site grading activity with an appended itemized list of fossil specimens recovered during grading (if any). This report shall be submitted to the Development Services Department for review and approval prior to building final inspection as described elsewhere in these conditions. *A. Pregrading Conference* The Project Paleontologist and/or designee shall participate in a pre-grading conference with development staff and construction operations, to ensure an understanding of the monitoring requirements and implementation procedures to be utilized during construction. This meeting shall take place before the initiation of major ground-disturbing activities. Training at this meeting shall inform all construction personnel of the procedures to be followed upon the discovery of	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			paleontological resources, general paleontological items, including the paleontology and geology of the area, as well as pictures of typical fossils that can be found during construction. This training should stress applicable state, federal, and local laws, and include information on what to do in case an unanticipated discovery is made by a worker. All construction personnel should be instructed to stop work within a 50-foot radius of the find and immediately inform their field supervisor upon any discovery in the project area. The Project Paleontologist shall be called to assess the find to determine if monitors should be mobilized to the project area to examine and evaluate the fossils. *B. Paleontological Monitoring* Paleontological monitoring of earthmoving activities within older Quaternary alluvial deposits will be initially conducted on a full-time basis, and earthmoving activities below five feet within younger Quaternary alluvial deposits will be conducted on a part-time (spot-checking) basis by the paleontological monitor. The Project Paleontologist may re-evaluate the necessity for paleontological monitoring after initial examination of the affected sediments during excavation, which may result in part-time or spot-checking the remainder of excavations, or cessation of monitoring. Paleontological monitoring of construction excavations involves field inspection of trenches, spoils piles, scraped or graded surfaces. Monitors shall maintain	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			close communication with the on-site construction personnel to maintain a safe working environment and to be fully appraised of the upcoming Project activity areas and any schedule changes. All monitors shall complete daily documentation of all construction activities requiring monitoring, including the location of monitoring activities throughout the day, observations of sediment type and distribution, observations regarding paleontological resources, collection of resources and other information. This documentation will be prepared by each monitor on each shift, in a Daily Field Monitoring Summary and Daily Paleontological Locality Collection log, as relevant to the discoveries each day. The monitor shall photograph ground disturbing activities, sediment, and resources for documentation purposes and will fill out a Photograph Log each day. The Daily Field Monitoring Summary, Daily Paleontological Locality Collection Log and/or Photograph Log shall comprise the field notes. These notes shall be filed weekly with the Project Paleontologist and be made available to the Proponent and City upon request. *C. Monitor's Authority to Temporarily Halt Project Activities* Paleontological monitors have authority to initiate a temporary work stoppage of construction activities to assess and/or recover paleontological discoveries. It is important that all earthmoving contractor	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			personnel recognize the authority of the paleontological monitor(s) to redirect project construction activities. The monitor(s) will attempt to minimize schedule impacts, however, in cases of large discoveries, this process can be quite lengthy, and recent discoveries in the region have shown the area to be highly sensitive for paleontological materials. The monitor(s) will stay with the discovery and notify the construction foreman and the Project Paleontologist. The monitor will demarcate a 50-foot buffer zone around the specimen using flagging or other high-visibility methods until the find is assessed and potential impacts to paleontological resources are avoided, minimized, or mitigated. *D. Data Recovery Plan for Paleontological Resources* If fossils are discovered, the qualified paleontological monitor shall recover them. In the instance of an extended salvage period, the Project Paleontologist shall work with the construction manager to temporarily direct, divert, or halt earthwork to allow recovery of fossil remains in a timely manner. If the find is too large to be managed by one monitor, additional assistance will be called upon to expedite the process. Because of the potential for the recovery of small fossil remains, it may be necessary to collect bulk samples (up to 6,000 pounds) of sedimentary rock matrix. Screen-washing will only occur in the event of a significant discovery. The Project Paleontologist will consult with the Project Applicant/Proponent prior to	

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			collecting any bulk samples. Scientifically significant fossils of microscopic size consisting of vertebrates, invertebrates, plants, or trace fossils, may be in sediments that produce significant finds. The locations of any significant discoveries should be sampled and later screen-washed and picked in the paleontological laboratory to fully document the microfaunal or microfloral diversity of the locality. Construction activities shall continue outside of a 50-foot buffer to the discovery site based on the size of the fossil and in consultation with the foreperson and other construction leads. All scientifically important fossils shall be salvaged and fully documented within a detailed stratigraphic framework as construction conditions and safety considerations permit. Fossils will only be retrieved from within the project boundaries. Once the fossils have been partially prepared in the laboratory, non-significant resources such as bone fragments lacking identifiable features (processes or definable skeletal structures) shall be discarded or used only for educational or public outreach purposes. *F. Monitoring Compliance Report* The Project Paleontologist shall prepare a final paleontological report prior to issuance of final building inspection, or other City milestone, to verify compliance with project conditions and mitigation measures. The report shall follow industry standard	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			guidelines and City of Redlands requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any fossils recovered, an inventory of any resources recovered, locality forms, if any, final disposition of the resources, and any additional recommendations. *G. Curation of Paleontological Resources* Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and catalogued as part of the monitoring program. When potentially scientifically significant fossil discoveries are made by paleontological monitors, they should be quickly and professionally explored, assessed, and evaluated to minimize construction delays; the City Development Services Department and Project Paleontologist will be notified immediately. Additional paleontologists will be brought in to assist with the salvage as needed. Salvages may consist of the relatively rapid removal of small isolated fossils from an active cut, to hand-quarrying of larger fossils over several hours, to excavations of large fossils or large numbers of smaller fossils from a bone bed over several days or weeks. At each paleontological locality, the Project Paleontologist or paleontological monitor will record the field number, date of discovery and date of collection, geographic coordinates, elevation, formation, stratigraphic provenance, lithologic description of sediment that	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			produced the fossil(s), type(s) of fossils and type(s) of element(s), taphonomic and paleoenvironmental interpretations, associations with other fossils, photograph(s), and collector(s). All fossils and matrix samples must be properly labeled prior to removal from the locality where they were discovered and taken to a secure laboratory for preparation to the point of identification and curation.	
Cumulative	None	Potentially significant	**MM GEO-1**, listed above.	Less than significant
5.6 Greenhouse Gases				
IMPACT GHG-1: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	None	Less than significant	**MM AQ-7 and MM AQ-8**, listed above.	Less than significant
IMPACT GHG-2: The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	None	Less than significant	None required	Less than significant
Cumulative	None	Less than significant	**MM AQ-7 and MM AQ-8**, listed above.	Less than significant
5.7 Hazards and Hazardous Materials				
Impact HAZ-4: The Project would not 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 create a significant hazard to the public or the environment.	None	Less than significant	None required.	Less than significant
Cumulative		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.8 Hydrology and Water Quality				
Impact WQ-2: The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None	Less than significant	None required	Less than significant
Impact WQ-3i: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site.	**PPP HYD-1 National Pollutant Discharge Elimination System (NPDES).** Projects will be constructed in accordance with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002. Compliance requires a risk assessment, a SWPPP, and associated BMPs. **PPP HYD-3 Santa Ana RWQCB MS4 Permit.** Projects will be constructed and operated in accordance with the Santa Ana RWQCB Municipal Stormwater (MS4) Permit for the part of the Santa Ana Basin in San Bernardino County in 2010 (Order No. R8-2010-0036). The MS4 Permit requires new development and redevelopment projects to adopt a WQMP to: • Control contaminants into storm drain systems • Educate the public about stormwater impacts • Detect and eliminate illicit discharges • Control runoff from construction sites	Less than significant	None required	Less than significant
Impact WQ-3ii: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.		Less than significant	None required	Less than significant
Impact WQ-3iii: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.		Less than significant	None required	Less than significant
Impact WQ-3iv: The Project would not substantially alter the existing drainage pattern of the site or area,		Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.	• Implement BMPs and site-specific runoff controls and treatments			
Impact WQ-4: The Project would not risk release of pollutants due to project inundation within a flood hazard zone.		Less than significant	None required	Less than significant
Cumulative	**PPP HYD-1:** NPDES, listed above **PPP HYD-2:** Santa Ana RWQCB MS4 Permit, listed above	Less than significant	None required	Less than significant
5.9 Land Use and Planning				
Impact LU-2: The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.		Less than significant	None required	Less than significant
Cumulative		Less than significant	None required	Less than significant
5.10 Noise				
Impact NOI-1: The Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	None.	Potentially Significant	**MM NOI-1: Construction Equipment:** Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall require that construction contractors equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards, and all stationary construction equipment shall be placed so that emitted noise is directed away from the noise-sensitive use nearest the construction activity.	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			MM NOI-2: Construction Staging: Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall require that the construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receiver nearest to the construction activity. **MM NOI-3: Construction Noise Levels:** Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall demonstrate that all construction activity within the TVSP will satisfy the exterior construction noise level of 80 dBA L_{eq} at a sensitive receiver (e.g., residential). **MM NOI-4: Construction Noise Barriers:** Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP that could exceed the exterior construction noise level of 80 dBA L_{eq} at a sensitive receiver (e.g. residential), the project plans and specifications shall detail the installation of temporary construction noise barriers for occupied noise-sensitive uses for the duration of construction activities that could exceed the TVSP construction noise level thresholds. The noise control barrier(s) must provide a solid face from top to bottom and shall: • Provide a minimum transmission loss of 20 dBA and be constructed with an acoustical blanket (e.g.	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts; • 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; and • Be removed and the site appropriately restored upon the conclusion of the construction activity. **MM NOI-5: Residential Exterior Noise:** Prior to the issuance of a building permit for new residential dwelling units within the TVSP, the Project plans and specifications shall demonstrate compliance with the 60 dBA CNEL exterior noise level standard as defined by Table 7-11 of the City of Redlands General Plan Healthy Community Element through preparation of an acoustical analysis. The outdoor environment is limited to private yard of single family as measured at the property line; multifamily private patio or balcony which is served by a means of exit from inside; mobile home park; hospital patio; park picnic area; school playground; hotel and recreational area as intended by the General Plan Healthy Community Element. **MM NOI-6: Residential Interior Noise:** Prior to the issuance of a building permit for new residential dwelling units within the TVSP, the Project plans and specifications shall demonstrate compliance with the 45 dBA	

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			CNEL interior noise level standard as defined by Table 7-11 of the General Plan Healthy Community Element and by Title 24, Part 2, of the California Building Code through preparation of an acoustical analysis. **MM NOI-7: Non-Residential Developments:** Prior to the issuance of a building permit for a non-residential development within the TVSP that has the potential to impact noise sensitive residential land uses, the project plans and specifications shall demonstrate compliance with Municipal Code Section 8.06.090(F).	
Impact NOI-2: The Project would not generate excessive groundborne vibration or groundborne noise levels.		Potentially Significant	**MM NOI-8: Construction Vibration:** Prior to approval of a demolition permit, grading plans, and/or issuance of building permits for construction activities within 100 feet of existing residential structures or occupied noise-sensitive uses that require the use of large bulldozers, large loaded trucks, jackhammers, pile drivers, and/or caisson drills, the City of Redlands Building and Safety Division shall ensure that construction plans and specifications state that the use of such vibratory equipment shall be prohibited within 100 feet of existing residential structures or occupied noise-sensitive uses. Instead, small rubber-tired bulldozers shall be used within this area during demolition and/or grading operations to reduce vibration effects. If the use of large bulldozers, loaded trucks, jackhammers, pile drivers, and/or caisson drills is necessary within 100 feet of existing residential structures or occupied noise-sensitive uses, the project Applicant/Developer shall demonstrate compliance with Municipal Code, Section 8.06.020 vibration perception	Less than significant

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			threshold as 0.01 inches per second (in/sec) RMS. **MM NOI-9: Construction Vibration Near Fragile Historic:** Any site-specific development project within 25 feet of an extremely fragile historic building shall engage a qualified structural engineer to conduct a pre-construction assessment of the structural integrity of the nearby historic structure(s) and submit evidence to the City of Redlands Building and Safety Division detailing that the operation of vibration-generating equipment associated with the new development would not result in structural damage to the adjacent historic building(s). If recommended by the pre-construction assessment, groundborne vibration monitoring of nearby historic structures shall be required.	
Cumulative		Potentially Significant	**MM NOI-1 through MM NOI-9**, listed above.	Less than significant
5.11 Population and Housing				
Impact POP-1: The Project would not induce substantial unplanned 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).	None	Less than significant	None required	Less than significant
Cumulative	None	Less than significant	None required	Less than significant
5.12 Public Services				
Impact PS-1: The Project would not result in substantial adverse physical impacts associated with fire protection	**PPP PS-1: Development Impact Fees.** As a standard requirement for implementing projects within the	Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
services or the provision of new or physically altered fire station facilities.	TVSP Area, and prior to issuance of any building permits for the implementing project, the project applicants/developers shall pay all applicable City of Redlands Development Impact Fees (DIF) pursuant to the Redlands Municipal Code and/or adopted fee schedules.			
Impact PS-2: The Project would not result in substantial adverse physical impacts associated with police services or the provision of new or physically altered police station facilities.		Less than significant	None required	Less than significant
Impact PS-4: The Project would not result in substantial adverse physical impacts associated with park and recreation services or the provision of new or physically altered park facilities.	None	Less than significant	None required	Less than significant
Impact PS-5: The Project would not result in substantial adverse physical impacts associated with other governmental services or the provision of new or physically altered public facilities.	**PPP PS-1**, listed above.	Less than significant	None required	Less than significant
Cumulative	**PPP PS-1** and **PPP PS-2**, listed above.	Less than significant	None required	Less than significant
5.13 Recreation				
Impact REC-1: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	**PPP PS-2**, listed above.	Less than significant	None required	Less than significant
Impact REC-2: The Project would not include recreational facilities or requires the construction or expansion recreational facilities which might have an adverse physical effect on the environment.	None	Less than significant	None required	Less than significant
Cumulative	**PPP PS-2**, listed above.	Less than significant	None required	Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5.14 Transportation				
Impact TR-1: The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle or pedestrian facilities.	None	Less than significant	None required	Less than significant
Impact TR-2: The Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (B) regarding vehicle miles traveled.	None	TAZs 53835601, 53827301, 53835602, 53834101, 53834102, 53835302, 53835303, 53835304, 53835702, 53834701, 53835701, 53834702, 53834303, 53835204, 53835501, 53834202, 53834302, 53834501, 53835203, 53835502, 53834201, 53834301, 53839202, 53839301, 53839201, 53840205, 53839101, 53834401, 53834502, 53837201, 53835202, 53837101, 53834601 would be less than significant. TAZ 53827101 would be potentially significant.	**Mitigation Measure TR-1: VMT Screening.** Prior to approval of any site plan, any applicant for an implementing project within a TPA or TAZ 53827101 shall prepare a VMT Screening Analysis pursuant to the City of Redlands CEQA Assessment VMT Analysis Guidelines and provide this Analysis to the City of Redlands Planning Division and Engineering Division. The VMT Screening Analysis shall demonstrate that the implementing project meets the screening criteria set forth in in the City of Redlands CEQA Assessment VMT Analysis Guidelines. If the implementing project does not meet the screening criteria set forth in Screening Criteria 1, 2, 3, or 4, the implementing project applicant shall prepare a VMT analysis pursuant to the City of Redlands CEQA Assessment VMT Analysis Guidelines, and, if necessary, provide mitigation in order to reduce VMT generated by the implementing project such as: • Modifying the project's build environment characteristics to	TAZ 53827101 would be significant and unavoidable

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			reduce VMT generated by the project • Implementing Transportation Demand Management (TDM) measures to reduce VMT generated by the project • Participating in an available VMT fee program and/or VMT mitigation exchange or banking program, if any exist, to reduce VMT from the project or other land uses to achieve acceptable levels Implementing pedestrian and sidewalk improvements consistent with the TVSP (i.e., wider than typical 5-foot-wide sidewalks for high-pedestrian traffic areas) Constructing bicycle network improvements along the project's frontage consistent with the TVSP	
Cumulative	None	Less than significant	None required	Less than significant
5.15 Tribal Cultural Resources				
Impact TCR-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	None.	Potentially Significant	**Mitigation Measure CUL-2 through CUL-9**, listed previously. **Mitigation Measure TCR-1: Archaeological Resources Management Plan (ARMP).** If resources are discovered within a given Project Area, for any ground disturbing activities within 300 feet of the Mill Creek Zanja, or if there is a high potential for encountering resources, an Archaeological	Less than significant
Impact TCR-2: The Project would not cause a substantial adverse change in		Potentially significant		Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
the significance of a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, that considers the significance of the resource to a California Native American tribe.			Resources Management Plan (ARMP) and tribal monitoring shall be required. In this case, the ARMP should include the following, at a minimum: • At least 90 days prior to issuance of grading permits, the project permittee/owner shall retain a qualified archaeological monitor to prepare the ARMP and to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Qualified archaeological monitor(s) will have a minimum of a bachelor's degree, verifiable training and one year of monitoring experience in Southern California on similar projects. Prior to grading, the project permittee/owner shall provide to the City Development Services Department verification that a qualified monitor and a Native American monitor from the consulting tribe(s) have been retained. Archaeological monitors will report to the project Archaeologist for the project and may work in collaboration with Native American monitors from consulting tribes. The project Archaeologist shall meet the U.S. Secretary of the Interior Standards. • Any newly discovered archaeological resource deposits shall be subject to a formal significance evaluation.	
Cumulative		Potentially significant		Less than significant

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			• The project Archaeologist will work in coordination with consulting tribes, the permittee/owner, and the City on the ARMP to address the details, timing, and responsibility of all archaeological activities that will occur on the project site. Details in the plan shall include, at a minimum: a. Project grading and development scheduling; b. The development of a schedule in coordination with the permittee/owner, consulting Native American tribes, and the Project Archaeologist during grading, excavation and ground-disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; and, c. The protocols and stipulations that the permittee/owner, City, tribes, and Project Archaeologist will follow in the event of inadvertent archaeological resource discoveries, including any newly discovered archaeological resource deposits that shall be subject to an archaeological resources evaluation.	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			• A final report documenting the monitoring activity and disposition of any recovered archaeological resources shall be submitted to the City of Redlands, South Central Coast Information Center (SCCIC), and consulting tribes within 60 days of completion of monitoring. **Mitigation Measure TCR-2: Inadvertent Discovery of Tribal Cultural Resources.** In the event that Native American tribal cultural resources are inadvertently discovered during the course of grading for any project being developed under the Transit Villages Specific Plan, the following procedures will be carried out for treatment and disposition of the discoveries: 1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the Project archaeologist. The removal of any artifacts from the Project Site will need to be thoroughly inventoried with tribal monitor oversight of the process. Construction staff should also be provided with cultural sensitivity training, including identification of possible in situ tribal cultural resources. 2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			methods and provide the City of Redlands with evidence of same: a. Accommodate the process for onsite reburial of the discovered items with the interested Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. b. A curation agreement with an appropriate qualified repository within San Bernardino County or Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Bernardino County or Riverside County, to be accompanied by payment of the fees necessary for permanent curation. c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the Project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum (or similar appropriate qualified repository able and willing to accept the tribal cultural resources) by default.	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			d. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City of Redlands documenting monitoring activities conducted by the Project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grading meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Redlands, CHRIS, and consulting tribe(s). **Mitigation Measure TCR-3: Treatment and Disposition of Tribal Cultural Resources.** In the event that tribal cultural resources, including historic and pre-contact materials, are discovered during the course of ground disturbance for any project being developed under the Transit Villages Specific Plan, the following procedures shall be implemented: 1. All work in the immediate vicinity of the find (within a 50-foot buffer) shall cease and the find shall be assessed by an archaeologist meeting the Secretary of the Interior's standards. Work on the other portions of the project, outside of the	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			buffered area, may continue during this assessment period. 2. Notification and information regarding the nature of the find shall be made to the representatives of all consulting tribe(s). 3. Temporary Curation and Storage: During construction, any cultural resources discovered shall be temporarily curated in a secure onsite location, as determined appropriate with consideration of input from consulting tribe(s). The removal of any cultural resources from the project site shall be thoroughly inventoried and overseen by the Native American Tribal Monitor(s). 4. Treatment and Final Disposition: The Applicant shall relinquish ownership of all cultural resources, including sacred items, burial goods, archaeological artifacts, and non-human remains discovered during construction of the proposed project. The Applicant shall relinquish the cultural resources through one or more of the following methods and provide the City of Redlands with evidence of same: a. Accommodate the onsite reburial of the discovered cultural resources in consultation with the consulting Native American tribe(s) or band(s). The reburial area shall be protected from any future impacts. All reburials are subject to a reburial agreement that shall be developed between the landowner and the consulting tribes outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			(vis-a-vis project plans, conservation/preservation easements, etc.). Reburial shall not occur until all cataloguing and recordation have been completed. b. In the event that reburial is infeasible, and/or if more than one Native American tribe or band is involved with the proposed project and cannot come to a consensus as to the disposition of cultural resources within one hundred and twenty (120) days from the initial recovery of the items, the cultural resources shall be curated. The landowner shall relinquish all ownership and rights to this material and confer with the consulting tribes to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. c. Within 60 days following the completion of ground-disturbing activities, a Monitoring Compliance Report shall be submitted to the City of Redlands. The Monitoring Report shall document monitoring activities conducted by the Project Archaeologist and Native Tribal Monitor(s) including:	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			any impact to cultural resources discovered on the project site; how each mitigation measure was fulfilled; the type of cultural resources recovered and the disposition of such resources; evidence of completion of pre-grading cultural sensitivity training required for the construction staff; and daily/weekly monitoring notes from the archaeologist in a confidential appendix. The Monitoring Compliance Report shall be submitted to the City of Redlands, the South Central Coastal Information Center, and the consulting tribe(s). **Mitigation Measure TCR-4: Discovery of Human Remains.** In the event that human remains are encountered on any project site of any project being developed under the Transit Villages Specific Plan, the construction contractors, Project Archaeologist, and designated Native American Tribal Monitor (if any) shall immediately stop all work within 100 feet of the discovery. The Applicant shall immediate notify the San Bernardino County Coroner, the City of Redlands Police Department, and the City of Redlands Development Services Department. The County Coroner shall be permitted to examine the remains consistent with the requirements of California Code of Regulations (CCR) §15064.5(e). State Health & Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) §5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC),	

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			which shall determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment. The specific location of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the Project Archaeologist in conjunction with the various stakeholders and a report of findings will be filed with the South Central Coastal Information Center and/or NAHC. According to the California Health & Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). In the event that the project proponent and the MLD are in disagreement regarding the disposition of the remains, State law will apply and the mediation and decision process will occur with the NAHC (see Public Resources Code Sections 5097.98(e) and 5097.94(k)).	
5.16 Utilities and Service Systems				

Impact	Applicable Standard Conditions or Plan, Program, Policy	Level of Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact UT-1: The Project would not require or result in the relocation or construction of new water facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.	None.	Potentially significant.	**Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4,** listed above.	Less than significant
Impact UT-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable development during normal, dry, and multiple dry years.	None.	Less than significant	None required	Less than significant
Impact UT-3: The Project would not require or result in the relocation or construction of new wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.	None.	Potentially significant	**Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4,** listed above.	Less than significant
Impact UT-4: The Project would not result in a determination by the wastewater treatment provider that would serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the providers existing commitments.	None.	Less than significant	None required	Less than significant
Impact UT-5: The Project would not require or result in the relocation or construction of new drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.	None.	Potentially significant	**Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4,** listed above.	Less than significant
Impact UT-6: The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	None.	Less than significant	None required	Less than significant
Cumulative	None	Less than significant	None required	Less than significant

2. Introduction

This Draft Environmental Impact Report (EIR) evaluates the environmental effects that may result from the construction and operation of the proposed Project. This EIR has been prepared by the City of Redlands in its capacity as Lead Agency, as that term is defined in Section 15367 of the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.) and in conformance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). This EIR has been prepared to identify, analyze, and mitigate the significant environmental effects of the proposed Project.

CEQA requires each EIR to reflect the independent judgment of the Lead Agency, including but not limited to the thresholds of significance used to analyze Project impacts, analyses and conclusions regarding the level of significance of impacts both before and after mitigation, the identification and application of mitigation measures to avoid or reduce Project-related impacts, and the consideration of alternatives to the proposed Project. In preparing this Draft EIR, the City of Redlands has employed CEQA and environmental technical specialists; however, the analyses and conclusions set forth in this Draft EIR reflect the independent judgment of the City as Lead Agency.

2.1 PURPOSE OF AN EIR

CEQA requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. Pursuant to the provisions of CEQA Guidelines Section 15121(a), this Draft EIR is intended as an informational document to inform public agency decision makers and the general public of the significant environmental effects of the proposed Project, identify possible ways to avoid or minimize those significant effects, and describe reasonable alternatives to the Project that might avoid or lessen significant environmental effects. Thus, this Draft EIR is intended to aid the review and decision-making process.

The CEQA Guidelines provide the following information regarding the purpose of an EIR:

- **Project Information and Environmental Effects.** An EIR is an informational document that will inform public agency decision-makers and the public generally of the significant environmental effect(s) of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information that may be presented to the agency (CEQA Guidelines Section 15121(a)).
- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to enable decision makers to make an intelligent decision that takes account of environmental consequences. An evaluation of the environmental effects of a proposed Project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (CEQA Guidelines Section 15151).

As a public disclosure document, the purpose of an EIR is not to recommend either approval or denial of a project, but to provide information regarding the physical environmental changes that would result from an action being considered by a public agency to aid in the agency's decision-making process.

2.2 EIR SCOPE AND CONTENT

Impacts Found to Be Potentially Significant. Based on the Initial Study conducted for the proposed Project, the City determined that an EIR should be prepared for the Redlands General Plan Transit Villages District and Specific Plan Project ("TVSP" or "proposed Project"). Topics requiring a detailed level of analysis evaluated in this Draft EIR have been identified based upon the responses to both the NOP and a review of the Project by the City of Redlands. The City determined through the Initial Study process that impacts related to the following topics are potentially significant and require a detailed level of analysis in this Draft EIR:

- Aesthetics
- Air Quality
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Impacts Found Not to Be Significant. CEQA Guidelines Section 15126.2(a) states that "[a]n EIR shall identify and focus on the significant effects on the environment". Topics that have been determined not to be significant and are therefore not discussed in detail in the EIR were identified based upon the responses to the NOP and an Initial Study prepared by the City of Redlands. The City determined through the initial review process that impacts related to the following topics are not potentially significant and are not required to be analyzed in this Draft EIR:

- Agriculture & Forest Resources
- Biological Resources
- Mineral Resources
- Wildfire

2.3 EIR PROCESS

Notice of Preparation/Initial Study

Pursuant to the requirements of CEQA, the City of Redlands, as Lead Agency, prepared an Initial Study (IS) and Notice of Preparation (NOP) for the proposed Project, which was distributed on September 1, 2021 for a 30-day public review and comment period that ended on September 30, 2021. The NOP requested members of the public and public agencies to provide input on the scope and content of environmental impacts that should be included in the Draft EIR being prepared. Comments received on the NOP are included in Appendix A and summarized in Table 2-1, which also includes a reference to the EIR section(s) in which issues raised in the comment letters are addressed.

Table 2-1: Summary of NOP/Initial Study Comment Letters

Comment Letter and Comment	Relevant EIR Section
State Agencies	
California Department of Transportation (Caltrans), October 13, 2021	
This letter provides background on Caltrans and their role as a responsible agency, as well as their recommendations for the Project. They recommend preparing a Traffic Impact Analysis (TIA) from data no more than 2 years old, and submitting the TIA prior to the circulation of the DEIR. They also included the following comments: They recommend designing local streets to serve circulation and safety equally, and to consider the standards provided by the Americans with Disability Act and the California Highway Design Manual. They also recommend placing all non-preferential parking behind buildings, and to provide electric vehicle charging stations and consider them as preferential parking.	Transportation
South Coast Air Quality Management District, September 20, 2021	
This letter provides background on CEQA Air Quality Analysis and the South Coast Air Quality Management District (SCAQMD) recommendations for the analysis of potential air quality impacts. The SCAQMD requested that these recommendations are included, and requested electronic versions of all related documents. The recommendations include the use of the SCAQMD's CEQA Air Quality Handbook and website as guidance when preparing the air quality and greenhouse gas analyses, and CalEEMod2 land use emissions software. The letter also suggests mitigation measures, including list of resources to utilize that involve the aforementioned handbook, South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2016 Air Quality Management Plan, and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities. Lastly, they also provided a point of contact.	Air Quality, Greenhouse Gas Emissions
Native American Heritage Commission, September 20, 2021	
This letter discusses Project compliance with AB 52 and SB 18. The letter recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project as early as possible. The letter also outlines the AB 52 requirements. In addition, the letter provides recommendations for the Cultural Resources Assessment in order to adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources.	Cultural Resources, Tribal Cultural Resources
Regional/Local Agencies	
Department of Public Works, San Bernardino County, September 28, 2021	
This letter provides two comments with information regarding the District's Comprehensive Storm Drain Plan (CSDP), and San Bernardino County Flood Control District (SBCFCD) permitting. The Department of Public Works has advised that the Project is subject to the CSDP, which is available at the County's Flood Control District Offices. The CSDP should be used as a guideline for drainage in the area, and any revision to the existing drainage should be reviewed and approved by the City of Redlands. They also state that if construction of new, or alterations to	Hydrology & Water Quality, Land Use & Planning, Utilities & Service Systems

Comment Letter and Comment	Relevant EIR Section
any existing storm drains would be necessary as part of the Proposed Project, their impacts and any required mitigation should be discussed within the Draft EIR before the document is adopted by the Lead Agency. The Department also noted that San Bernardino County Flood Control District (SBCFCD) right-of way and facilities are located within the proposed Project area. They also stated that any encroachments in the right-of-way or facilities that is not authorized under Permit P-22017018 to SBCTA for rail line construction would require a permit from the SBCFCD prior to start of construction. They have also stated that the necessity for permits, and any impacts associated with them, should be addressed in the EIR prior to adoption and certification. The Department has also requested to be included in the circulation list for all project notices, public reviews, or public hearings.	
San Manuel Band of Mission Indians, September 2, 2021	
This letter provides the desired level of involvement of the San Manuel Band of Mission Indians (SMBMI) in the Project. The letter informs that the Project site is included under Serrano ancestral territory, and borders the Asistencia and the Zanja. The commenter requests that the following actions are taken and submitted to SMBWI for review upon availability: - Cultural report - Geotechnical report (if required for the project) - Project plans showing the depth of proposed disturbance The letter states that the above information will help the Tribe be consulted as per AB 52. The letter also provides a point of contact for the tribe.	Cultural Resources, Tribal Cultural Resources
University of Redlands, September 29, 2021	
This letter provides concerns regarding the costs associated with infrastructure, floodplain mitigation, and appropriate required density. The letter also states that the impacts of the 3,000 dwelling units across the three transit villages need to be studied.	Population & Housing, Hydrology & Water Quality
Individuals	
Andrew Hoder, September 30, 2021	
This letter provides the commenter's opposition to the Project. The commenter states that the Project is not transparent enough. The commenter cited the bulldozing and replacement of the La Posada hotel to be replaced with the Redlands Mall, and believes that this similar venture will impact the historic resources within the area. The commenter implored the City to collaborate with residents and provide alternatives. The letter also suggests that residents would like to replace the mall with a Civic Center to support public utilities. The letter also provides comments directly concerning the NOP. The commenter notes not all proposed platforms are within the Project area. They also state that the historic buildings proposed to be preserved are already mostly torn down. The commenter also pointed out that parking facilities are needed but there isn't mention of who would pay for them. The commenter is concerned that the city will become more like Santa Monica and Los Angeles. They also mentioned concerns regarding water resources and associated infrastructure, as well as associated costs.	Aesthetics, Cultural Resources, Public Services, Utilities & Service Systems, Alternatives
Christian Bogan, September 27, 2021	
This letter provides the commenter's opposition to the Project. The commenter is concerned as that traffic would increase and impact their small business. They stated that there are many issues affecting the city that are more important to invest in than developments.	Transportation
Jeanne Munz, October 4, 2021	

Comment Letter and Comment	Relevant EIR Section
This letter provides the commenter's opposition to the Project. The commenter states that Redlands doesn't need a train, and that the already crowding downtown area would be negatively impacted by tall buildings. They also enquired as to if the City had the right to alter the residential area, and as to whether the current residents had been asked their opinions. Commenter suggested ceasing Project activity before further action is taken by them.	Aesthetics
Teresa McNally, September 25, 2021	
This letter provides the commenter's opposition to the Project. The commenter expressed concern that unrestricted development would turn the city into Los Angeles. They cited the mall at Alabama and Lugonia as a good example of positive development but wants the Redlands Mall to be demolished and believes other residents do as well. They also cited the vote for limiting growth and said that the residents will fight against this and won't give up.	Aesthetics
Richard Bledsoe, Saturday, September 25	
This letter provides the commenter's opposition to the Project. The commenter states that they are a longtime resident that has noticed orange groves have been disappearing. They noted concerns for the short-term new residents and traffic impacts. They stated that they want to slow down development.	Aesthetics, Population & Housing, Transportation
Sharen Wilbur, September 28, 2021	
This letter provides the commenter's opposition to the Project. The commenter states that they are concerned with overdevelopment near the transit stop. The commenter is also expressed concerns that traffic and exhaust will become a major problem. They are interested in keeping the visual character of the city. They want to increase open space and trees to preserve groundwater and air quality. The state is in a water crisis, we are next. They also expressed concerns that tax payers will be supporting the infrastructure required in relation to the Project.	Aesthetics, Air Quality, Hydrology & Water Quality, Transportation, Utilities & Service Systems
Merry Smith, September 3, 2021	
This letter provides the commenter's opposition to the Project. The commenter cited the passing of measure G and has requested that buildings above three stories remain prohibited. They believe that future generations would be impacted by aesthetic changes to downtown.	Aesthetics
Royce, September 4, 2021	
This commenter enquired as to when high rises became categorized under villages.	Aesthetics
Richard O'Donnell, September 1, 2021	
This letter provides the commenter's opposition to the Project. The commenter states that the Project is a violation of the restrictions of voter approved initiative Measure U. They believe the Project is using City Council Resolution 7173 to bypass citizens, and that if the Project was submitted to a popular vote it would fail.	Transportation
Marcia Hemphill, September 27, 2021	
This comment provides the commenter's concern for the Project and its potential to lower the quality of life in Redlands by obstructing mountain views, impacting population density, parking, water supply and traffic.	Aesthetics, Population & Housing, Hydrology & Water Quality, Transportation, Utilities & Service Systems
Lynda Stewart, September 28, 2021	
This comment provides the commenter's opposition to obstructing mountain views.	Aesthetics
Virginia Carlson, September 4, 2021	
This letter provides the commenter's opposition to the Project. The comment states that the City of Redlands should wait to implement the project until after	Not applicable

Comment Letter and Comment	**Relevant EIR Section**
the next election after expressing concerns of termination due to Proposition G. They are also concerned about the allocation of tax dollars.	
Fred H. Dill, September 29, 2021	
This letter provides the commenter's disapproval of the methods for circulation of the NOP; stating that the Project was not sufficiently circulated. The commenter states that in order to be properly made available to the public, paper mail should be sent to every resident, and that newspapers and other media should have involvement. They also expressed that the scoping meeting over Zoom should be disregarded, as it was not done in person. Lastly, the commenter expressed concerns that judicial disapproval is likely.	Introduction
Pamela Resheske Clark, October 2021	
This letter provides the commenter's opposition to the Project. The comment states that the City of Redlands' Residents voted against developing the mall site over 2 stories high, and that the City should wait to implement the project until after the next election due to Proposition G. The commenter also noted opposition to the parking structure and its impact on downtown aesthetics. The commenter stated that there are ample apartments in Redlands, and this is a concern due to short tenancy and lack of commitment to the area. They also noted concerns regarding water restrictions in place. Lastly, the commenter They also noted concerns regarding increased traffic congestion and the implication on air quality that it would have.	Aesthetics, Air Quality, Population & Housing, Transportation
Susan Williams, June 28, 2021	
This letter provides both praise concerning the thoroughness of the IS/NOP, as well as disapproval of the Project from the commenter. They noted naivety of the speakers at the City Council Meeting, and that Redlands is too small to become more like cities mentioned in the meeting. They stated that there are thousands of apartment buildings already and expressed concern for people coming from out of town to fill the new buildings. They also expressed concern about the building heights. The commenter also expressed concerns about water usage, sewer infrastructure, and impacts to traffic and parking. The commenter would like it to be known that they have experience reviewing EIRs within the nearby territories and stated that they are suspicious about the intentions of the Project.	Population & Housing, Transportation, Utilities & Service Systems
Julia Lambson, September 15, 2021	
This letter provides support of the Project from the commenter, and expresses concerns of a small group of advocates with the intention of ceasing necessary growth within the City. The commenter stated that they have been a resident of the city since 1968, and is excited to see more growth. They expressed avoiding urban sprawl and habitat destruction by increasing building heights. They stated that increasing density downtown would decrease traffic and increase support of local institutions. They also expressed concern for housing affordability and interest in tax revenue. The commenter would like streetlights and tree trimming in their neighborhood.	Public Services, Population & Housing
Cindy Pratt Holter, September 15, 2021	
This letter provides the commenter's disapproval of the Project. The commenter stated that there was a vote to keep the city small, and expressed concern for the impact on the uniqueness of the town. They state that the increased population is affecting traffic, air pollution, noise, and parking. They stated that Redlands is the Emerald Jewel of the Inland Empire and requested to keep the height of the buildings to 3 stories max. The commenter	Air Quality, Cultural Resources, Land Use & Planning, Noise, Population & Housing, Transportation

Comment Letter and Comment	Relevant EIR Section
would like it to be known that they grew up in the city, and that old buildings and orange groves should not be replaced by housing.	
Richard O'Donnell, September 20, 2021	
This comment provides concerns from the commenter regarding the true intentions of the Project, and that they believe future infrastructure updates are the eventual goal. They cited a railway plan from Redlands to San Bernadino as a similar Project with hidden intentions. They noted that the project area is prone to flooding. The commenter suggested that the plan should be divided into an infrastructure plan and a building plan in order to fully disclose costs, and allow for the two plans to be judged separately. The commenter enquired who would pay for the Project, and if there were hidden funds involved.	Hydrology & Water Quality
William E. Cunningham, September 29, 2021	
This letter provides the commenter's opinions as to which impact areas would have significant impacts. They believe aspects of the Project would have significant and unmitigable impacts for several impact areas, including air quality and greenhouse gasses. The commenter provided a variety of concerns related to population growth induced by the Project. They believe that parks are at maximum capacity and stated that 6 acres are required per resident by the city. They stated that the projected population increase was inaccurate and provided an alternative estimate of 6,720 new residents. They also believe that parks are at maximum capacity and stated that 6 acres are required per resident by the city. The commenter stated that the historic value of the town would be impacted due to the increase in residents and new buildings. The commenter also noted that the buildings would impact mountain views both physically and with light and glare.	Aesthetics, Air Quality, Cultural Resources, Noise, Greenhouse Gas Emissions, Recreation, Population & Housing, Public Services, Water & Hydrology
Diane Christensen, September 25, 2021	
This letter provides the commenter's concerns regarding the Project. The concerns include decreased visibility of historic buildings and the construction of large parking structures changing the historic nature of the area. The commenter has also expressed disapproval of existing 3 story apartments. They also stated that SB 9 and SB10 are merely to acquire land. The commenter believes that a hotel would eliminate space for housing, increase traffic, and impact Franklin Elementary School.	Aesthetics, Cultural Resources, Population & Housing, Public Services, Transportation
Organizations	
Southwest Regional Council of Carpenters, September 30, 2021	
This letter provides background information on the Southwest Regional Council of Carpenters (SRCC) and its members, as well as the organization's suggestions and requests regarding the Project. The SRCC requests that the Lead Agency provide notice all notices referring or related to the Project. The SRCC has suggested that City should require development projects constructed within the Project Area to hire a percentage of workers within 10 miles of the project site, and that those workers have graduated from a Joint Labor Management apprenticeship training program approved by the State of California or have equal hours of on-the-job experience in the applicable craft. The SRCC also described community and environmental benefits of hiring a local and skilled workforce, and further outlined some of these benefits by including GHG modeling and VMT analysis.	Population and Housing, Greenhouse Gas Emissions, Transportation

Comment Letter and Comment	Relevant EIR Section
Friends of Redlands, September 3 and September 15, 2021	
The Friends of Redlands (FOR) submitted two letters: one in regard to the Project impacts, and one in regard to the scoping meeting. This first letter from the Friends of Redlands (FOR) provides recommendations and questions regarding the Project. The FOR noted that the Downtown Historical District is a significant and unique cultural to downtown Redlands, and that structures built in the Project area should be constructed in proportion to existing structures, and enquired about the building heights in relationship to obstruction of mountain views. The commenter requested that the Project ensure that the increased traffic caused by the additional population will not degrade the existing Level of Service (LOS C) and allow for easy access on and off the I-10 Freeway. They noted that Downtown Redlands lacks adequate parking, and requested the Project assure that there is ample parking to meet the increase in population in the Project area. They also requested mitigation be provided for the increased noise due to the increase in traffic and the Arrow train. They requested that the Project provide increased policing and fire protection in proportion to the expected increase in population due to apartment living and to increased foot traffic due to the Arrow commuter train stations. They also suggested that the Project account for taxpayer costs imposed by potential modifications to water and sewage infrastructure to meet increased demand. They questioned if infrastructural changes can be completed at an acceptable cost, and asked what the impact of increased population would be on both services. They have also enquired about the impact of increased population on Redlands schools. Lastly, they suggested considering the increased population density in relationship to social distancing in planning for any future pandemic. The second letter was written regarding the scoping meeting. The commenter noted that there was low attendance, they weren't able to figure out the system, and that there needs to be more public outreach to inform voters. They also referred to the above letter and enquired as to whether or not their concerns would be incorporated into the NOP. They also enquired about the anticipated maximum building height would be. They stated that water supply is a concern, and enquired where the water was going to come from. Lastly, they expressed concern for taxpayers supporting the required infrastructure.	Aesthetics, Hazards & Hazardous Materials, Hydrology & Water Quality, Noise, Public Services, Transportation, Utilities & Service Systems
The Redlands Area Historic Society Inc, September 21, 2021	
This letter provides information regarding the Project location and what could be hundreds of historic resources within and adjacent to it, and an attached list including some of those resources. The letter also states that some structures have received the Historic Society's Heritage Awards over the years. The letter requests that appropriate mitigation measures be applied in regard to these resources.	Cultural Resources, Tribal Cultural Resources

Public Scoping Meeting

Pursuant to Section 15082(c)(1) of the CEQA Guidelines, the City of Redlands hosted two public scoping meetings for members of the public and public agencies to provide input as to the scope and content of the environmental information and analysis to be included in the Draft EIR for the proposed Project. The Agency Scoping Meeting was held on September 15, 2021, at 4:00 p.m. via Zoom. The Public Scoping Meeting was held on September 15, 2021, at 5:00 p.m. via Zoom. Comments received during the scoping meeting are summarized in Table 2-2, which also includes a reference to the EIR section(s) in which issues raised in the comment letters are addressed.

Table 2-2: Summary of Public Scoping Meeting Comments

Comment Letter and Comment	Relevant EIR Section
Bruce Wick	
The commenter stated that they understand that vehicle miles traveled (VMT) is a concern related to air quality and pollution. The commenter asked if adjustments are being made within VMT analysis regarding individuals working from home more.	Transportation
Sharen Wilbur	
The commenter stated that Redlands has an adequate water supply currently and asks how much the Draft EIR will take into account the years of drought that the region is currently facing or potential drought in the future. The commenter further stated that the Inland Empire has some of the worst air quality in the country and asked what the Draft EIR will use to analyze air quality pollution. The commenter further stated that the influx of residents to the area will make air quality worse.	Air Quality, Hydrology & Water Quality
Katherine Vienne	
The commenter asked if the Draft EIR will analyze impacts from increased residents on schools.	Public Services
Richard O'Donnell	
The commenter asked for an explanation as to why the majority of the TVSP area is not currently developed and asks if the proposed Project would make the property owners want to develop.	Project Description
Mike Schneblin	
The commenter asked if there are any green spaces included in the plan as Redlands' founding fathers wanted to create green space within the city. The commenter asked if there is a conceptual plan to capture stormwater as the Downtown area has experienced flooding in the past.	Project Description, Hydrology & Water Quality

Public Review of the Draft EIR

The City of Redlands filed a Notice of Completion with the Governor's Office of Planning and Research, State Clearinghouse, indicating that this Draft EIR has been completed and is available for review. A Notice of Availability of the Draft EIR was published concurrently with distribution of this document. The Draft EIR is being circulated for review and comment by the public and other interested parties, agencies and organizations for 45 days in accordance with Section 15087 and Section 15105 of the CEQA Guidelines.

During the 45-day review period, the Draft EIR is available for public review digitally on the City's website: (https://www.cityofredlands.org/post/environmental-documents)

Written comments related to environmental issues in the Draft EIR should be addressed to:

Brian Foote, Planning Manager/City Planner
City of Redlands
35 Cajon Street, Suite 20
Mailing: P.O. Box 3005
Redlands, CA 92373

Email: bfoote@cityofredlands.org

Final EIR

Upon completion of the 45-day review period, written responses to all comments related to the environmental issues in the Draft EIR will be prepared and incorporated into a Final EIR. The written responses to comments will be made available at least 10 days prior to the public hearing at which the certification of the Final EIR will be considered. These comments, and their responses, will be included in the Final EIR for consideration by the City, as well as other responsible agencies per CEQA. The Final EIR may also contain corrections and additions to the Draft EIR, and other information relevant to the environmental issues associated with the Project. The Final EIR will be available for public review prior to its certification by the City. Notice of the availability of the Final EIR will be sent to all who commented on the Draft EIR.

2.3 ORGANIZATION OF THIS DRAFT EIR

The Draft EIR is organized into the following Sections. To help the reader locate information of interest, a brief summary of the contents of each chapter of this Draft EIR is provided.

- **Section 1 Executive Summary:** This section provides a brief summary of the Project area, the proposed Project, and alternatives. The section also provides a summary of environmental impacts and mitigation measures that lists each identified environmental impact, applicable Project design features, standard conditions, proposed mitigation measure(s) (if any), and the level of significance after implementation of the mitigation measure. The level of significance after implementation of the proposed mitigation measure(s) will be characterized as either less than significant or significant and unavoidable.
- **Section 2 Introduction:** This section provides an overview of the purpose and use of the Draft EIR, the scope of this Draft EIR, a summary of the legal authority for the Draft EIR, a summary of the environmental review process, and the general format of the document.
- **Section 3 Project Description:** This section provides a detailed description of the proposed Project, its objectives, and a list of Project-related discretionary actions.
- **Section 4 Environmental Setting:** This section provides a discussion of the existing conditions within the Project area.
- **Section 5 Environmental Impact Analysis:** This section includes a summary of the existing statutes, ordinances and regulations that apply to the environmental impact area being discussed; the analysis of the Project's direct and indirect environmental impacts on the environment, including potential cumulative impacts that could result from the proposed Project; any applicable Project

design features; standard conditions and plans, policies, and programs that could reduce potential impacts; and the feasible mitigation measures that would reduce or eliminate the significant adverse impacts identified. Impacts that cannot be mitigated to less than significant are identified as significant and unavoidable.

This section also summarizes the significant and unavoidable impacts that would occur from implementation of the proposed Project and provides a summary of the environmental effects of the implementation of the proposed Project that were found not to be significant. Additionally, this section provides a discussion of various CEQA-mandated considerations including growth-inducing impacts and the identification of significant irreversible changes that would occur from implementation of the proposed Project.

- **Section 6 Alternatives:** This section describes and analyzes a reasonable range of alternatives to the proposed Project. The CEQA-mandated No Project Alternative is included along with alternatives that would reduce one or more significant effects of the proposed Project. As required by the CEQA Guidelines, the environmentally superior alternative is also identified.
- **Section 7 Report Preparation and Persons Contacted:** This section lists authors of the Draft EIR and City staff that assisted with the preparation and review of this document. This section also lists other people that were contacted for information that is included in this Draft EIR document.

2.4 INCORPORATION BY REFERENCE

State CEQA Guidelines Section 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." The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of this Draft EIR. Where this Draft EIR incorporates a document by reference, the document is identified in the body of the Draft EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this Draft EIR.

The Project is within the geographical limits of the City of Redlands and is covered by its General Plan 2035. The General Plan 2035 was adopted by the City on December 5, 2017 and provides the fundamental basis for the City's land use and development policies. The General Plan 2035 was the subject of an environmental review under CEQA; a Program EIR for the General Plan 2035 was certified by the City in 2017 (State Clearinghouse Number 2016081041). The Program EIR contains information relevant to the Project. Accordingly, the Program EIR for the General Plan 2035 is herein incorporated by reference in accordance with State CEQA Guidelines Section 15150. The documents are available at https://www.cityofredlands.org/post/planning-division-general-plan.

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3. Project Description

3.1 INTRODUCTION

The City of Redlands ("City") proposes the Redlands Transit Villages Specific Plan (TVSP) ("proposed Project" or "Project") as a means of implementing the Transit Village Concept included in the City of Redlands General Plan 2035 (GP2035), which encourages infill transit-oriented development (TOD) surrounding three new train stations in the City. TOD is a planning concept that provides for residential and commercial uses around a transit station or corridor to facilitate transit use. The TVSP provides a land use plan and form-based code for the TVSP area that is anticipated to be developed by the year 2040. The form-based code provided by the TVSP would emphasize regulating the form of the built environment and public realm amenities, as compared to conventional zoning that primarily focuses on the land uses. However, under the TVSP, it is estimated that buildout of the TVSP area would include the development of an additional 2,400 dwelling units, 265,000 square feet of retail commercial, 238,000 square feet of office, 220 hotel rooms, and 280,000 square feet of open space and park area over existing conditions. The total square-footage and dwelling units that are included in buildout of the TVSP could be constructed at the present time under the current GP2035 land use designations and current zoning designations within the Project area, as shown in Figure 3-18, *Areas of Change,* and Figure 3-19, *Illustrative Plan.* In other words, buildout pursuant to the TVSP would be within the buildout provided for within the GP2035.

This Project Description section of the Draft Environmental Impact Report (EIR) provides program-level information related to development and operation of the TVSP. As set forth in State CEQA Guidelines Section 15146, the information herein corresponds to the degree of specificity within the proposed TVSP and provides a level of detail needed for evaluation of potential environmental impacts from implementation of the Project. However, future development projects may require additional detailed plan level CEQA analyses.

3.2 PROJECT LOCATION

The City of Redlands is located near the base of the San Bernardino Mountains in San Bernardino County, approximately 60 miles northeast from the City of Los Angeles and approximately 45 miles west from the City of Palm Springs. The city is situated along the Interstate 10 (I-10) corridor, which links the city with the cities of San Bernardino, Fontana, Ontario, and Los Angeles to the west, and Yucaipa, Beaumont, and Coachella Valley cities to the east. State Route 210 (SR-210) originates in the City of Redlands and traverses the northwest part of the city, heading north then west towards the cities of Highland and Pasadena (see Figure 3-1, *Regional Location*).

Redlands encompasses approximately 36 square miles with an estimated 2019 population of approximately 71,513 residents (U.S. Census, 2020). A new commuter rail line, called the Arrow Line, is under construction in the city that will be operated by San Bernardino County Transportation Authority (SBCTA). The Arrow Line will initially include five stations connecting the existing San Bernardino Transit Center in downtown San Bernardino and the University of Redlands using an approximately 9-mile stretch of former Atchison, Topeka, and Santa Fe railway right-of-way.

Three of the new Arrow Line stations are located in the city, which include: 1) New York Street/Esri Station near the intersection of Redlands Boulevard and New York Street across from the existing Esri campus, 2) Downtown Station north of the Santa Fe Depot between Eureka Street and Orange Street, and 3) University Street Station adjacent to the University of Redlands at the south end of campus near North University Street (see Figure 3-2, *Local Vicinity*, and Figure 3-3, *Aerial Photograph*).

The proposed TVSP area generally includes the parcels located within approximately one-half mile, or a 10-minute walk, of the three new Arrow stations in the city. The entire TVSP area, which covers approximately 947 acres (approximately 1.5 square miles) is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The TVSP area also includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue (see Figure 3-4, *Specific Plan Station Areas*).

3.3 SITE CHARACTERISTICS

The TVSP area is approximately 947 acres of land that is divided into three planning areas referred to as transit villages, which generally circle each new Arrow station, as shown on Figure 3-4. The New York Street/Esri Transit Village area is generally west of Texas Street and Center Street. The Downtown Transit Village area is generally bounded to the east by Church Street, and to the west by Texas Street, and includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue. The University Street Transit Village area is located east of Church Street and west of Judson Street.

Existing General Plan and Zoning Designation

The City of Redlands GP2035 designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Most of the New York Street/Esri Transit Village area consists of non-residential land use designations except for the multi-family residential area in the southern portion of the village. The Downtown Transit Village area is also primarily non-residential, with multi-family allowed along the eastern edge. Land use designations in the University Street Transit Village are primarily medium and high density residential, except the institutional designations associated with the University of Redlands campus to the north of the station site. The General Plan Transit Villages Overlay provides for residential/mixed uses within a half-mile of each station (see Figure 3-5, *General Plan Land Use Designation*).

The GP2035 Livable Community Element includes a Transit Villages section that provides for the Transit Villages Overlay Zone (TVOZ), which applies to areas within a half-mile radius of five rail stations that were anticipated in the GP2035, which includes the three new Arrow stations (see Figure 3-6, *General Plan Transit Villages*).

Existing residential zoning within the TVSP area is primarily Multi-Family Residential (R-2 and R-3); however, there are two small areas with existing single-family zoning. The parcels on 11th Street between the I-10 and Colton Avenue in the Downtown Transit Village are zoned Single-Family Residential (R-1) and the parcels in the University Street Transit Villages bounded by the I-10, East Cypress Avenue, and East Citrus Avenue are zoned Suburban Residential (R-S). See Figure 3-7, *Existing Zoning Districts*.

Non-residential zoning in the TVSP area include Industrial (I-P), Light Industrial (M-1), Planned Industrial (M-P), Administrative and Professional Office (A-P), Neighborhood Stores (C-1), General Commercial (C-3), Highway Commercial (C-4), Commercial (C-M), Educational (E), Transitional (T), Open Land (O), Floodplain (FP), East Valley-General Commercial (EV/CG), and East Valley-Public Institutional (EV/PI).

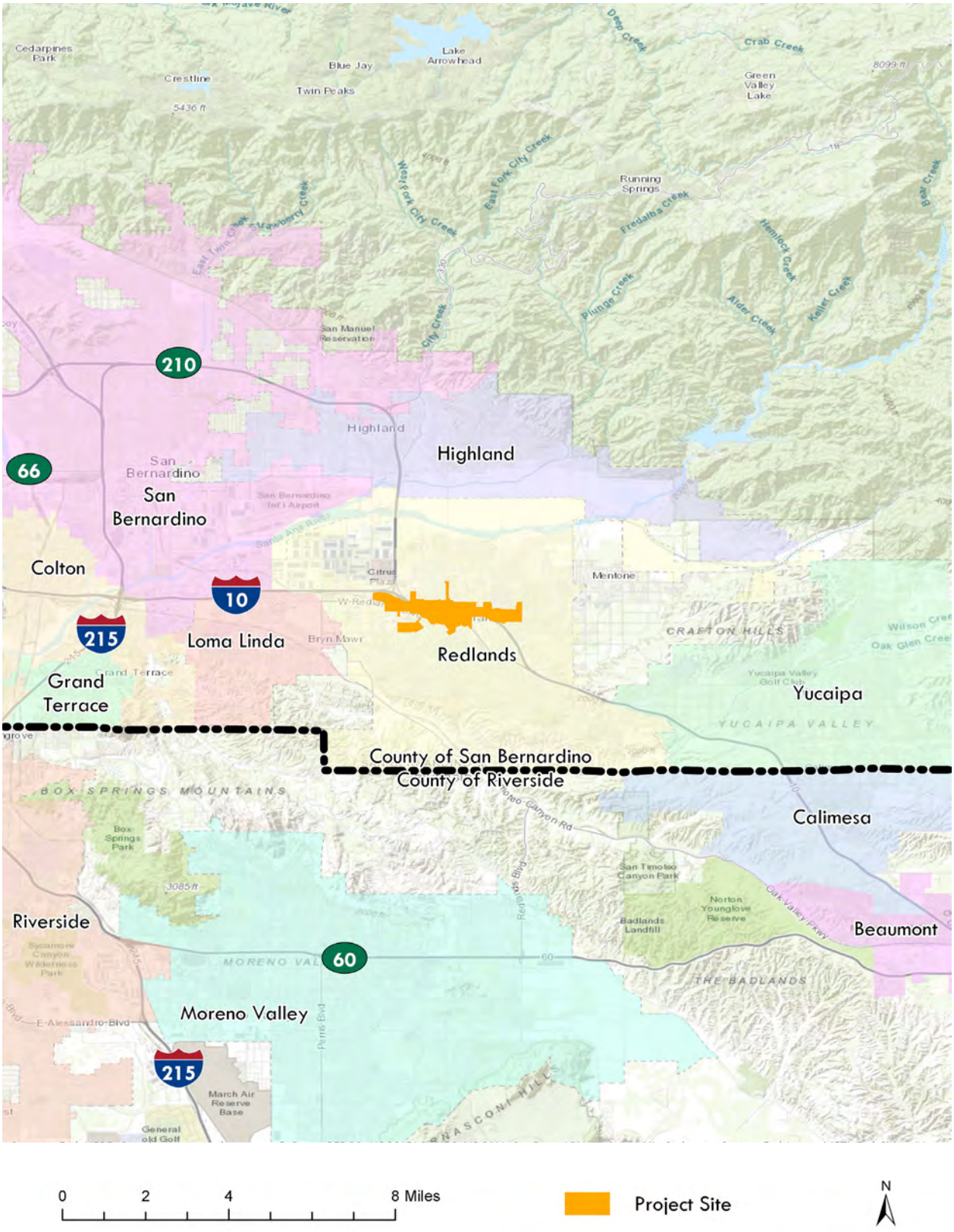
The Downtown Specific Plan (Specific Plan No. 45), which is located within the proposed Downtown Village of the TVSP area, currently provides development regulations for the parcels in the downtown area, which is divided into Town Center, Town Center-Historic District, and Service-Commercial District.

3.4 DESCRIPTION OF ADJACENT AREAS

The TVSP area is surrounded by a variety of GP2035 land use designations and zones including industrial, institutional, agricultural, commercial, and single- and multi-family residential. Views of the surrounding GP2035 land use designations can also be seen on Figure 3-5, *General Plan Land Use Designation,* and views of the surrounding zoning can be seen on Figure 3-7, *Existing Zoning Districts*.

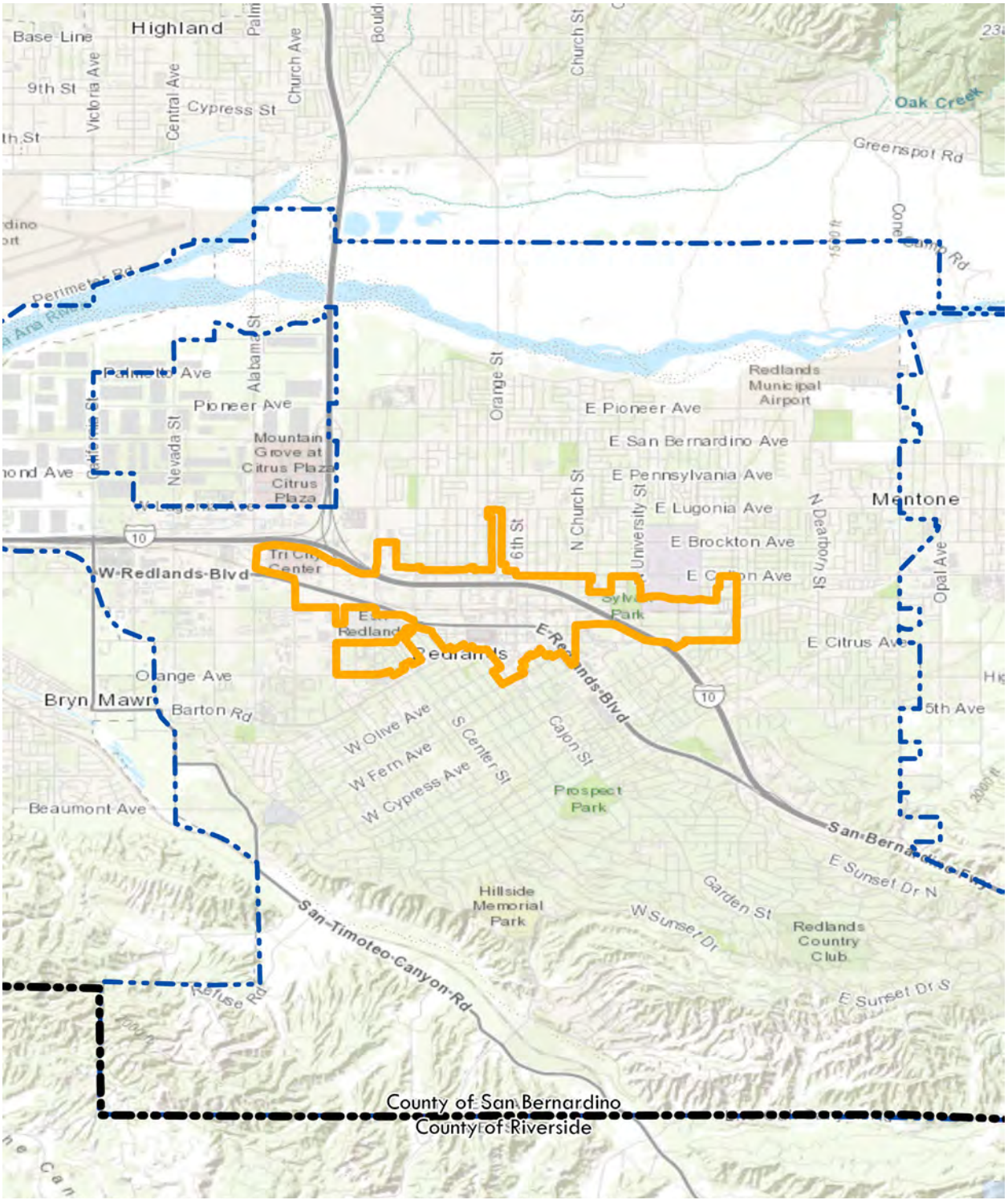
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Regional Location



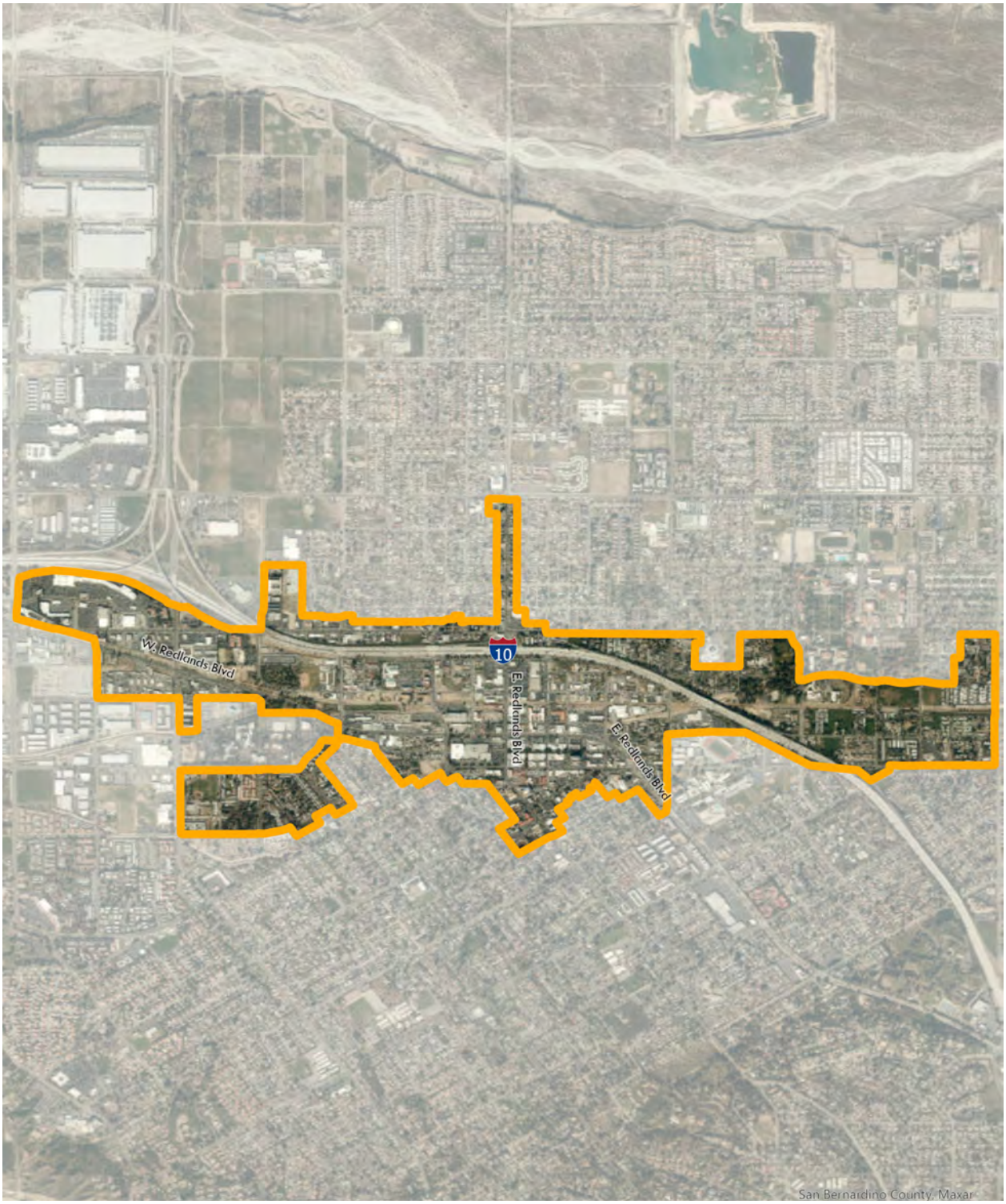
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Local Vicinity



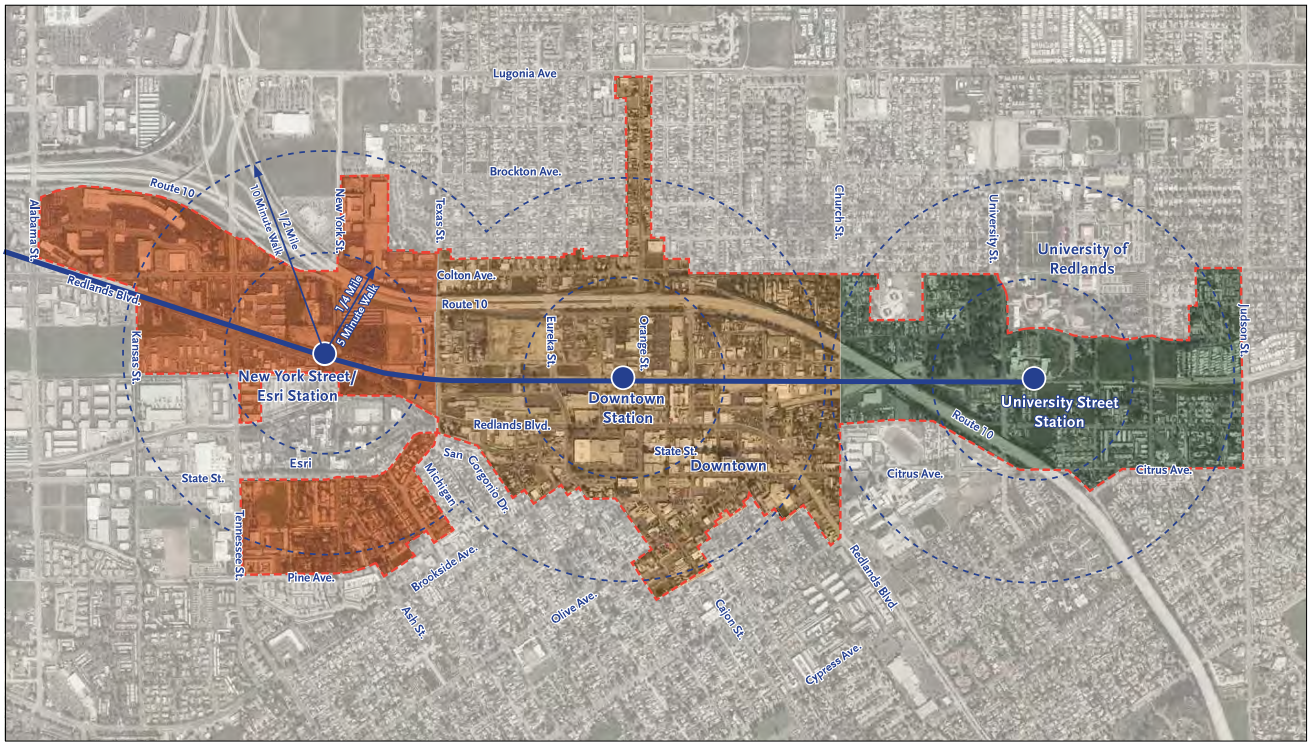
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Aerial View


W. Redlands Blvd
10
E. Redlands Blvd
E. Redlands Blvd
San Bernardino County, Maxar
Project Site
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Specific Plan Station Areas



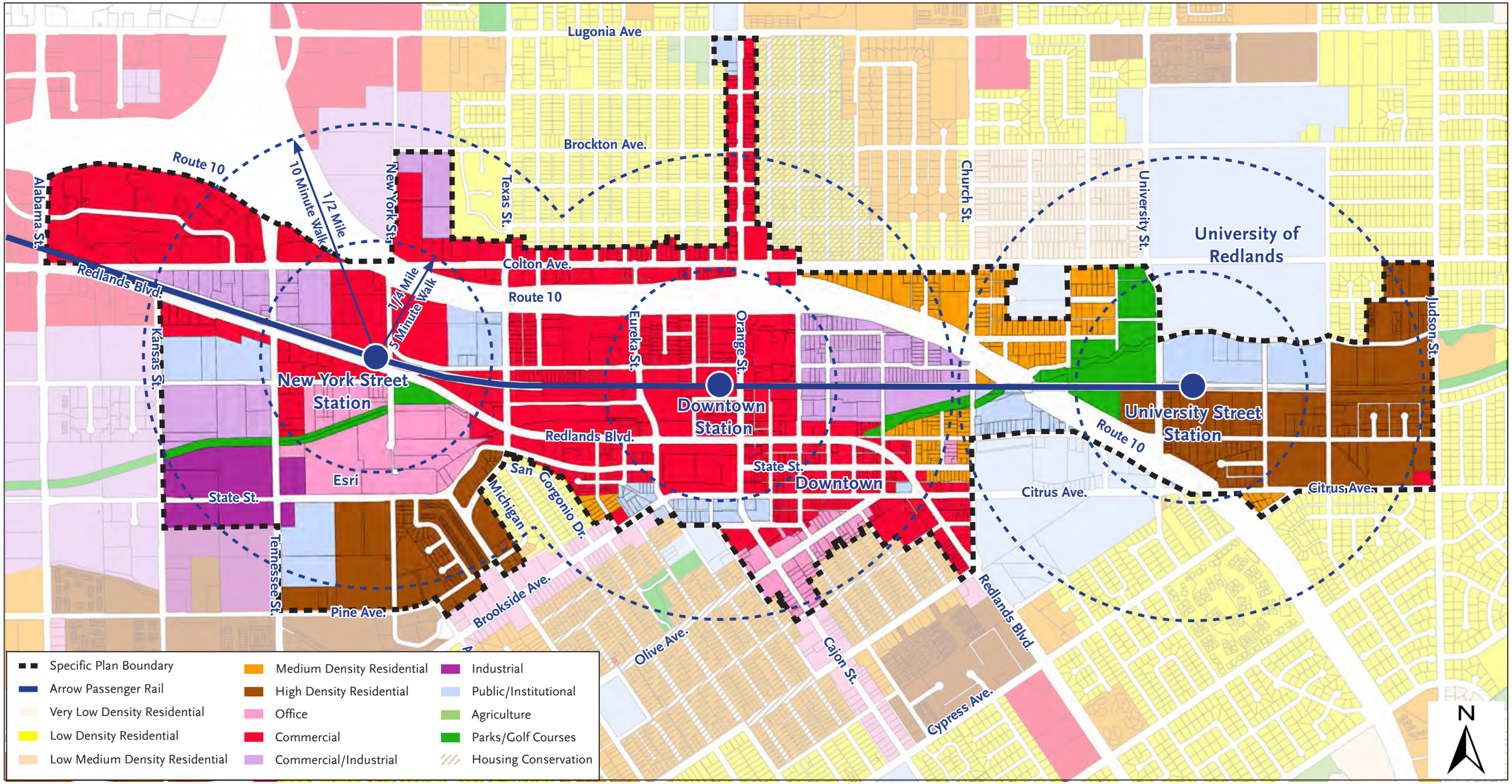
LEGEND

- Specific Plan Boundary
- Arrow Passenger Rail
- University Street Transit Village
- Downtown Transit Village
- New York Street/Esri Transit Village

N

Source: Moule & Polyzoides Architects and Urbanists: *Redlands Transit VIllages Speci ic Plan (April 20, 2020)*

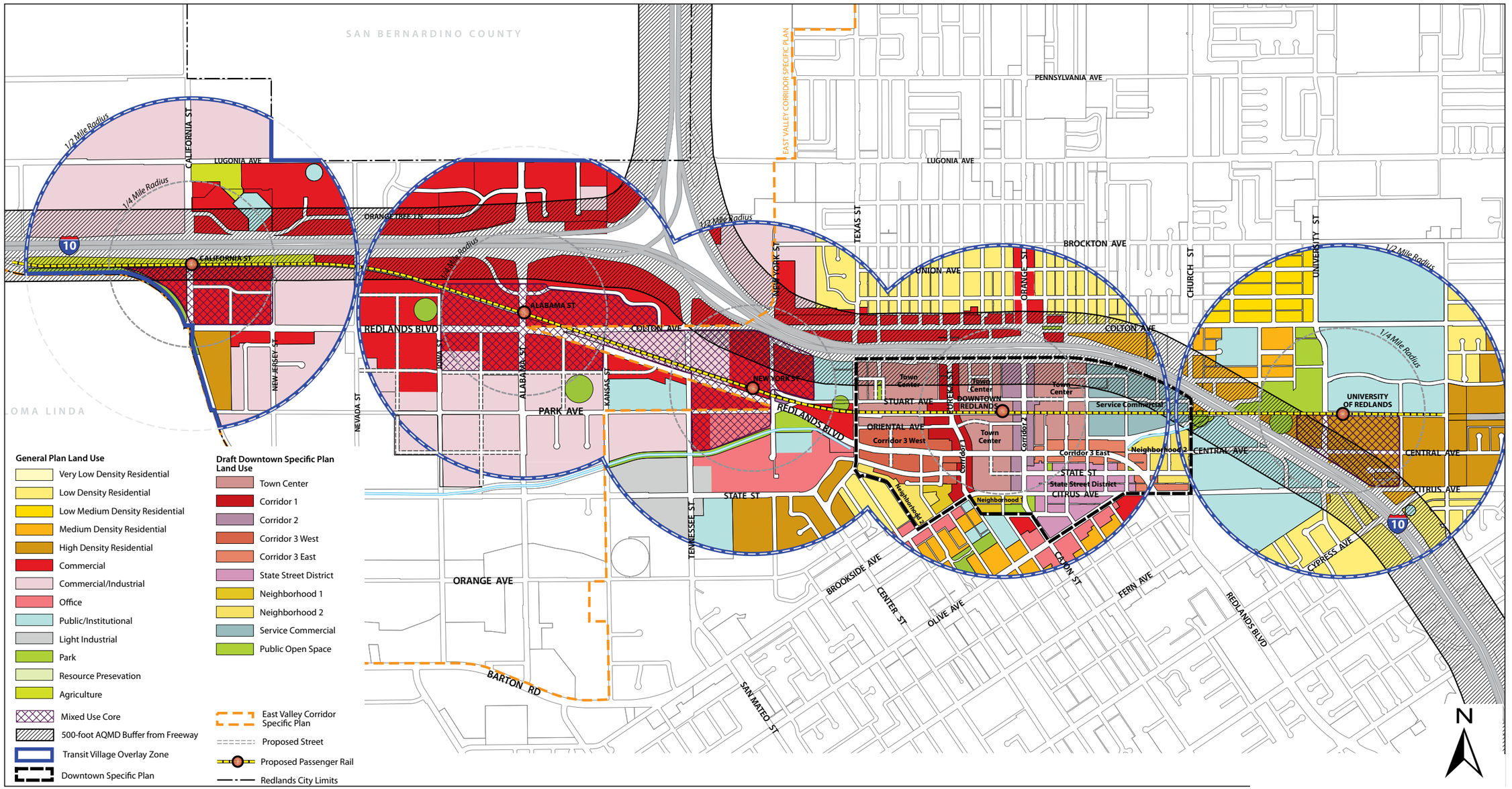
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Source: Moule & Polyzoides Architects and Urbanists: Existing Conditions Analysis for *Redlands Transit VIllages Speci ic Plan (Nov 26, 2018)*

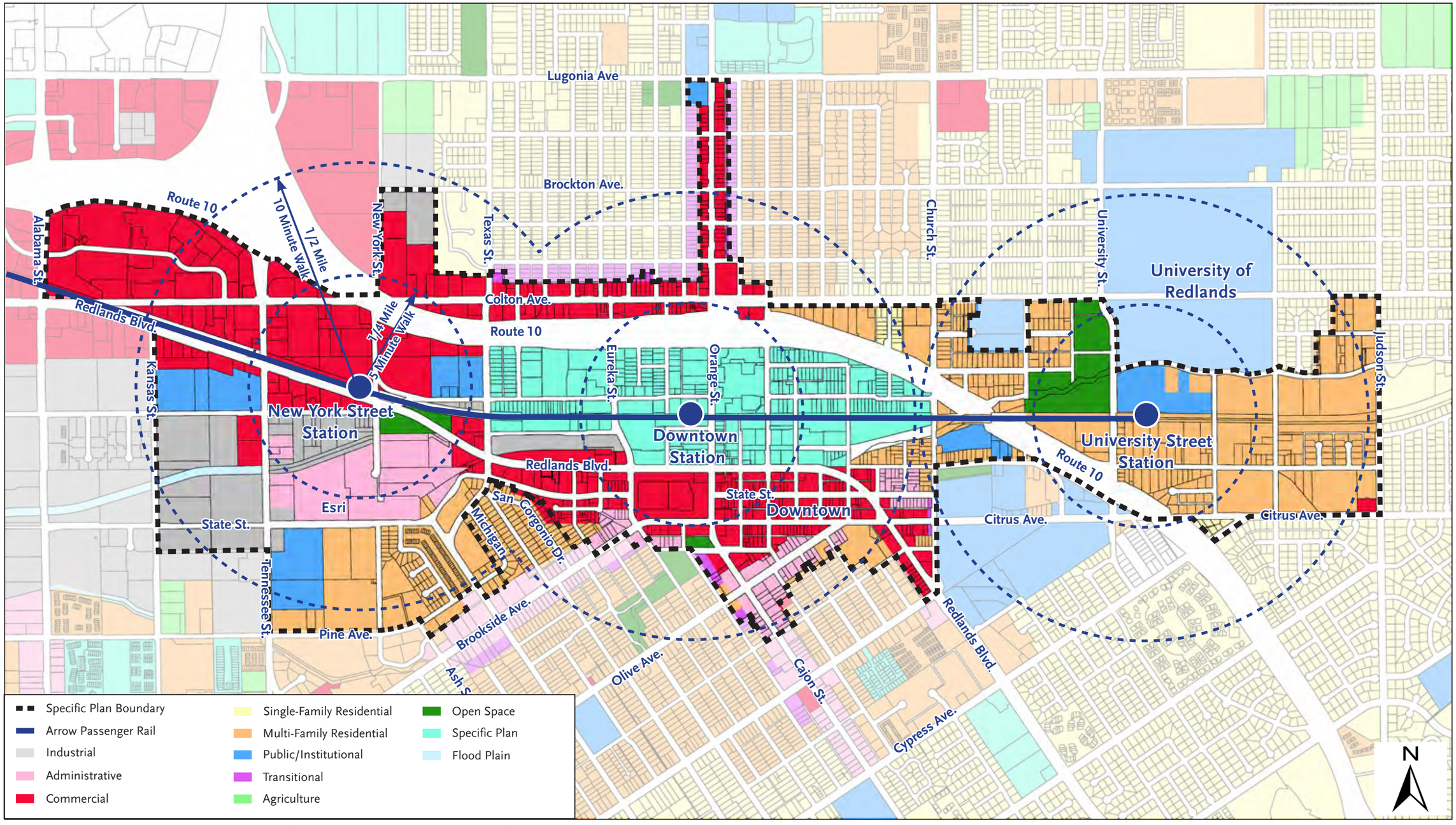
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General Plan Transit Villages



Source: Moule & Polyzoides Architects and Urbanists: Existing Conditions Analysis for *Redlands Transit VIllages Speci ic Plan (Nov 26, 2018)*

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Source: Moule & Polyzoides Architects and Urbanists: Existing Conditions Analysis for *Redlands Transit VIllages Specific Plan (Nov 26, 2018)*

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3.5 PROJECT OBJECTIVES

State CEQA Guidelines Section 15124(b) (14) California Code of Regulations [CCR]) requires "A statement of objectives sought by the proposed project. A clearly written statement of objectives would help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR and would aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project." The proposed TVSP has the following objectives:

1. A vision for the future of the three station areas that recognizes the importance of Redlands' unique history and tradition while embracing opportunities for continued reinvestment, growth, and beneficial change.
2. Application of the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area.
3. New form-based zoning standards for the Plan Area that will replace current zoning regulations. These new standards are calibrated to deliver new development that is consistent with Redlands' physical character, history, and culture, as well as the community's vision for its future growth.
4. An implementation strategy for transforming the Plan Area's streets, infrastructure, parks, and other public spaces in line with the City of Redland's unique culture and history.
5. Transform streets and create neighborhood connectivity through pedestrian-oriented improvements.
6. Provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs.
7. Provide for transit-oriented development around the three new Arrow Line stations in line with the City's General Plan.

3.6 PROJECT CHARACTERISTICS

"Project," as defined by the State CEQA Guidelines, means:

> the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700." (14 Cal. Code of Reg. § 15378(a).)

The Project analyzed in this Draft EIR is the adoption of the TVSP that would be developed in multiple phases based on market level conditions and implementing developments. The Draft EIR analyzes buildout of the TVSP at a programmatic level of detail.

3.7 DESCRIPTION OF THE PROJECT

3.7.1 PROJECT OVERVIEW

The proposed TVSP includes amending the GP2035 to establish a new "Transit Village" (TV) District land use designation to provide for infill development of new residential and commercial uses within approximately one-half (0.5) mile of each of the three new Arrow stations. The existing GP2035 TVOZ boundaries of the New York Street, Downtown, and University stations would be adjusted as part of this

Specific Plan process, and the adopted TVSP boundary would replace the TVOZ boundary. The form-based code that would be implemented by the proposed TVSP emphasizes building form, a mix and density of different transit-oriented development, pedestrian circulation, and public realm improvements and amenities.

It is anticipated that individual development projects on privately-owned parcels would occur incrementally and over an extended period of time (i.e., infill development) such as the 20-year or longer lifespan of the TVSP. Public realm and infrastructure improvements related to individual development projects would similarly be constructed incrementally and over time as projects are built throughout the plan area.

Other public realm and infrastructure improvements (e.g., pedestrian and bicycle network improvements, or landscape and lighting improvements, or stormwater and flood prevention improvements, for example) would likewise occur incrementally in segments throughout the plan area over an extended period of time, subject to the availability of public funding sources such Federal, State, or regional grants that may become available in the future.

3.7.2 TRANSIT VILLAGES

New York Street/Esri Village

Within the New York Street/Esri Village, the Project would implement mixed-use development on the vacant and underutilized parcels and provide tree-lined streets and sidewalks for pedestrian access to the station, Esri campus, and Downtown Village area. Landscaping would be installed in the Zanja Channel west of New York Street and the New York Street Neighborhood Park could be sited in the center of the residential planning areas north of the Arrow station. Bike lanes and street trees would be installed on New York Street. Redlands Boulevard between Texas Street and Tennessee Street would be improved to facilitate access to the new station by installing sidewalks, a planted center median, bicycle lanes, and a crosswalk at New York Street.

Downtown Transit Village

Within the Downtown Transit Village, the TVSP vision is to provide a walkable mixed-use district consisting of pedestrian-scaled blocks, tree-lined streets with seating and exterior dining opportunities, and squares and plazas. Surface parking lots would be redeveloped as mixed-use developments with onsite parking garages. Orange Street and Redlands Boulevard would be enhanced with new street trees, streetlights, and other streetscape elements.

The Downtown Transit Village includes redevelopment of the Redlands Mall site, (for which applications are presently being processed with the City) and realignment of State Street and Third Street to restore the interconnected block pattern that existed prior to construction of the mall. Redevelopment of the mall site would include up to 4-story tall mixed-use and/or multi-family residential buildings located throughout the mall site. Within the High Avenue neighborhood, the Project would include infill development of vacant and underutilized parcels, and a parking garage on the Ed Hales Park parking lot located south of Redlands Boulevard between Fifth and Sixth Streets.

The Project would include development of multi-family residential uses between Eureka Street to the east and Texas Street to the west, Stuart Avenue to the north, and State Street to the south. Additionally, a neighborhood park would be located between the railway and Oriental Avenue, east of Texas Street, and a greenway and park network would extend between the Esri campus and downtown.

University Village

This village would be redeveloped with pedestrian-oriented mixed-use buildings and include pedestrian connections directly to the University of Redlands campus. The mixed-use buildings are proposed to be

concentrated along the Rambla corridor. The University Transit Village includes Village North, Village Center, and Village South, and the Sylvan Neighborhood. Village North would provide academic and campus-oriented uses as well as mixed-use buildings with ground floor retail and residential, office, or academic uses on the upper floors. A central park would be located east of the station, and a university-oriented hotel and conference center north of the central park.

Village Center, located between the Arrow station to the north and Citrus Avenue to the south of west of the Rambla, would include mixed-use blocks with neighborhood-serving ground floor uses, such as a market hall or grocery store. Village South, located between Central Avenue to the north and Citrus Avenue to the south, would include commercial and mixed-use buildings that provide regional retail uses, and residential uses along Cook Street. A parking structure lined on the outside by ground floor retail uses and upper floor office or residential uses would be added as the area infills. Also, the Sylvan Neighborhood would be located to the east of Village North and consist of residential uses.

3.7.3 REGULATING PLANS AND ZONES

The proposed TVSP provides detailed standards for building placement, height, massing, articulation, frontage, landscape, and parking based through a form-based code. The form-based code incorporates a gradual transitioning of the height and mass of buildings from larger to smaller to avoid incompatible buildings heights next to each other. The TVSP's regulating plan is shown in Figure 3-8, *Regulating Plan*, and would serve as the zoning map for the TVSP. The Regulating Plan includes the following districts:

- **Village Center (VC).** This district applies to the parcels immediately surrounding the three Arrow stations. New buildings in this zone would have a maximum height of four stories and would be mixed-use, all residential, or all office. Parking would be located within structured garages behind buildings or storefront liners or constructed subterranean.

- **Downtown (DT).** The district applies to parcels facing State Street east of Orange Street, and along the east side of Orange Street between the railway right of way and State Street. This district is largely built out. New buildings would be a maximum of three stories in height and accommodate a mix of uses with commercial ground floors and residential or commercial upper floors. Parking would be located within structured garages behind buildings or storefront liners, subterranean, or in park-once lots or structures.

- **Village General (VG).** This district applies to parcels located around the periphery of the three Arrow stations and permits multi-family and mixed-use buildings with an average height of three stories. Parking may be within structured garages or surface lots that would be located behind buildings, or subterranean garages.

- **Village Corridor (COR).** This district applies to parcels located along the north side of Colton Avenue, both sides of Orange Street north of the I-10, and both sides of Olive Avenue. This district provides for small-scale mixed-use buildings up to two stories in height, with commercial ground floors and residential or commercial upper floors. Parking lots would be located behind and to the sides of buildings.

- **Village Neighborhood 1 (NG1).** This district applies to parcels located between Sixth Street and Church Street and would provide for small-scale commercial and residential-style buildings that accommodate commercial, light industrial, and live-work uses. New buildings would be up to two stories in height. Parking lots would be allowed behind and to the side of buildings.

- **Village Neighborhood 2 (NG2).** This district applies to parcels located between Sixth Street and Chapel Street north of the I-10 and parcels located between Ninth Street and Church Street south of the I-10. This district would enable house-form buildings that accommodate residential and office uses. New buildings would be up to two stories in height and set back from the sidewalk behind front yards. Parking lots would be located behind buildings. New buildings would match or complement prevalent building setbacks along the length of the block and complement building heights and massing of adjacent buildings or buildings across the street.

- **Special District (SD).** This district applies to existing school and other institutional sites throughout the TVSP area. New buildings would accommodate educational, religious, and other civic uses. Parking would be in surface parking lots or garages.

- **Civic Space (CS).** This district applies to parks, plazas, greens, and other open spaces within the TVSP area. These open spaces may accommodate small structures such as gazebos, restrooms, and community centers.

3.7.4 PROJECT AREA BUILDOUT

The TVSP provides for infill development, redevelopment and development of a number of vacant parcels located within the Project area, that are shown in Figure 3-17, *Vacant and Non-Conforming Parcels*. The maximum development that would occur from buildout of the TVSP is shown on Table 3-1, *TVSP Proposed Buildout*. The amount of square-footage and dwelling units listed in Table 3-1 could be constructed at the present time under the current GP2035 land use designations and current zoning designations within the TVSP area (e.g., General Commercial (C-3) and Downtown Specific Plan (SP 45) in the Downtown Transit Village area), as shown in Figure 3-18, *Areas of Change,* and Figure 3-19, *Illustrative Plan*. Buildout pursuant to the TVSP would be within the buildout provided for within the GP2035. However, the proposed TVSP would provide a form-based code to achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options (and reduce vehicle trips and vehicle miles traveled), and provide more public open space and amenities that provides aesthetic and community benefits.

Table 3-1: TVSP Proposed Buildout

Residential			
Type of Dwelling Unit *(estimate only)*	Number of Units (and %) *(estimate only)*	Avg. Floor Area per Dwelling Unit *(estimate only)*	Gross building square-footage *(estimate only)*
Studio	600 (25%)	650	390,000
1 bedroom	600 (25%)	750	450,000
2 bedrooms	600 (25%)	1,000	600,000
3 bedrooms	600 (25%)	1,300	780,000
Residential Total	**2,400 (100%)**	**925 avg.**	**2,220,000**
Retail Commercial	--	--	265,000
Office	--	--	238,000
Hotel	220	--	110,000
Open Space and Parks	--	--	280,000
Total Square Footage			**3,113,000**

3.7.5 TRANSPORTATION

The TVSP provides a framework for development of a walkable, mixed-use environment around the three new Arrow stations. A key component of this framework is a network of complete, multi-modal streets that provide for pedestrians, bicyclists, transit patrons, and motorists that includes the following (as shown in Figure 3-9, *Future Street Network Improvements*).

Street improvements proposed within the TVSP may include the following (i.e., conceptual plans that may or may not be implemented during the timeframe of the specific plan, depending on the timing of future developments and buildout):

- Converting Colton Avenue, Tennessee Street, State Street, Redlands Boulevard, Brookside Avenue, Citrus Avenue, Texas Street, Stuart Avenue, Eureka Street, Sixth Street, University Street, and Grove Street into multi-modal streets.
- Adding multiple new streets north of the New York/Esri station, within the existing Redlands Mall site, and surrounding the University station.
- Converting State Street east of Orange Street into a two-way street.
- Transforming New York Street, Orange Street, and University Street into gateway streets.
- Creating a roundabout on Cypress Avenue at the southeast corner of the TVSP area.

Pedestrian infrastructure improvements proposed within the TVSP may include the following (i.e., conceptual plans that may or may not be implemented during the timeframe of the specific plan, depending on the timing of future developments, availability of public grant funding or other public funds, and other factors):

- Highway underpass improvements at the New York Street, Texas Street, Eureka Street, Orange Street, Sixth Street, Sylvan Boulevard, University Street, and Citrus Avenue I-10 underpasses.
- New signalized intersections at the Orange Street and Shoppers Lane intersection; the University Street and Colton Avenue intersection; and the University Street and Central Avenue intersection.
- Midblock crossing improvements along Brookside Avenue, Citrus Avenue, University Street, Olive Avenue, Eureka Street, and Grant Street.
- Intersection improvements, including bulb-outs and crosswalk redesign, at the following intersections:
    - Redlands Boulevard & Tennessee Street
    - Redlands Boulevard & New York Street
    - Colton Avenue & Texas Street
    - Redlands Boulevard & Texas Street
    - Colton Avenue & Eureka Street
    - Redlands Boulevard & Eureka Street
    - Citrus Avenue & Eureka Street
    - Glenwood Drive & Parkwood Drive
    - Vine Street & 4th Street
    - Colton Avenue & Orange Street
    - Redlands Boulevard & Orange Street
    - Citrus Avenue & Orange Street
    - Colton Avenue & 6th Street
    - Redlands Boulevard & 5th Street
    - Redlands Boulevard & 6th Street
    - Citrus Avenue & 6th Street
    - Vine Street & 6th Street
    - Park Avenue & University Street

- Citrus Avenue & Cypress Avenue (see Figure 3-10, *Future Pedestrian Network Improvements*).

Bicycle infrastructure improvements proposed within the TVSP may include the following (i.e., conceptual plans that may or may not be implemented during the timeframe of the specific plan, depending on the timing of future developments, availability of public grant funding or other public funds, and other factors):

- Class 1 Orange Blossom Trail. A Class 1 bicycle facility is a separate right-of-way for exclusive use for bicyclists and pedestrians. A Class 1 bike lane would be developed on Orange Street from Colton Avenue to Citrus Avenue within the TVSP area.
- Class 2 lanes, which are on-street facilities dedicated to bicycles and identified with lane striping and pole signs, would be developed on Colton Avenue between Orange Street and Redlands Boulevard, Redlands Boulevard, Tennessee Street, Texas Street, Center Street, Eureka Street, Sixth Street, University Street, Gove Street, and State Street west of Eureka Street within the TVSP area;
- Class 3 routes, which are on-street bike routes shared with motorists, would be developed on New York Street and Church Street within the TVSP area (see Figure 3-11, *Future Bicycle Network Improvements*).

The Project includes installation of on-street parallel parking, angled parking, parking lot expansion, and new parking garages in the Downtown Transit Village.

3.7.6 OPEN SPACE AND LANDSCAPE

The proposed street and open space network would provide a contiguous green space connecting the TVSP villages. The proposed Zanja Greenway is located along a historic existing irrigation feature that traverses the TVSP area from Sylvan Boulevard in the University Transit Village southwest past the New York Street/Esri Transit Village. The TVSP would install riparian landscaping along the Zanja Greenway, which also runs parallel to the Orange Blossom Trail. The TVSP also includes an open space plaza at State Street/Third Street, a midtown greenbelt in the Downtown Transit Village, a central park in the University Transit Village, and a neighborhood park in the New York Street/Esri Transit Village. See Figure 3-12, *Public Realm Plan*. The precise timing of open space or other public improvements are not known with certainty, as improvements would likely depend on the timing of future developments, buildout of private development projects, future availability and amounts of public grant funding or other public funds, and other factors.

3.7.7 INFRASTRUCTURE IMPROVEMENTS

Infrastructure plans are conceptual and identify a vision of future improvements based on an assumed buildout of the proposed Specific Plan. The identified infrastructure improvements will likely occur incrementally depending on the location(s), type(s), and extent of future private development projects that would need to utilize the public and private infrastructure. The precise timing of infrastructure and other public improvements are not known with certainty, as improvements would likely depend on the extent and timing of future development projects, buildout of private development projects, future availability and amounts of public grant funding, and other factors. Adoption of the TVSP would provide the policy framework and specific types of improvements (i.e., sufficient specificity to articulate the community's goals for the future) with which the City can then pursuit Federal, State, or regional grant funding that may be available in the future for such public improvements.

Potable Water

Water system infrastructure improvements include upgrading potable water mains due to age and size to provide reliable fire suppression and adding non-potable water mains to serve the New York Street/Esri

and Downtown station areas. The University Station area would be served by extending a private university-owned non-potable system. The TVSP would include the following water main upgrades, as shown in Figure 3-13, *Existing and Proposed Domestic Water Distribution:*

- Upgrading the existing water main in Colton Avenue to a 12-inch main between Texas Street and Orange Street
- Upgrading the existing water main in Stuart Avenue to a 12-inch main west of Texas Street
- Upgrading the existing water main in Eureka Street to a 12-inch water main between Oriental Avenue and Redlands Boulevard
- Upgrading the existing water main in Redlands Boulevard to a 12-inch water main between Orange Street and Sixth Street
- Upgrading the existing water main on Ninth Street to an 8-inch water main between E. Central Avenue and State Street
- Upgrading the existing water main on Church Street to a 12-inch water main between Colton Avenue and Citrus Avenue
- Upgrading the existing water main on University Street to a 12-inch water main between Colton Avenue and E. Central Avenue
- Upgrading the existing water main on E. Central Avenue to a 12-inch water main between University Street and Judson Street

Non-Potable Water

The TVSP proposes to install new 12-inch non-potable waterlines in New York between Colton Avenue and State Street that would connect to future non-potable pipelines, ultimately connecting to the existing non-potable pipeline in Lugonia Avenue. The TVSP proposes to install a new 8-inch non-potable waterline in Orange Street and Redlands Boulevard that would connect to a proposed non-potable pipeline in State Street, ultimately connecting to the proposed non-potable pipeline in New York Street. The TVSP would include a new 8-inch non-potable line in University Street and Colton Avenue that would connect to the existing non-potable line in Colton Avenue. The TVSP also proposes the construction of various other new non-potable waterlines as shown in Figure 3-14, *Existing and Proposed Non-Potable Water Distribution.*

Sewer

The TVSP proposes the following improvements of existing sewer lines, as shown in Figure 3-15, *Existing Sewer System and Proposed Upgrades:*

- Replacing the 8-inch sewer in University Street from Park Avenue to the I-10 Freeway with a new 12-inch sewer (or adding an additional 8-inch sewer line)
- Replacing the 15-inch sewer in Citrus Avenue from Central Avenue to Church Street with a new 18-inch sewer (or adding an additional 8-inch sewer line)
- Adding a new 12-inch sewer line in State Street from Eureka Street to First Street, then north on First Street to Redland Boulevard, then west on Redlands Boulevard to Texas Street.

Flooding and Drainage Improvements

While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the TVSP area including:

- Preparing and processing a Letter of Map Revision based on hydrologic modeling included as Appendix A to the TVSP in order to remove approximately 155 properties from being subject to the City's Floodplain Regulations
- Implement the 2014 Master Plan of Drainage (MPD) Alternative 1 for the Downtown Village
- Explore opportunities to implement a diversion drainage system that intercepts Zanja channel flows near or east of North Grove Street, where it would be conveyed parallel to the Zanja and be discharged into the Zanja upstream of the I-10 underpass
- Increase the size of the Zanja at the Kansas Street, New York Street, and Tennessee Street crossings to increase flow capacity.

Dry Utilities

As new development occurs within the TVSP area, undergrounding of dry utilities would be required for electrical transmission lines less than 66 kilovolts (kV).

3.8 INTENDED USES OF THE EIR

This Draft EIR will serve as the primary source of environmental information for the actions and approvals associated with the TVSP. In accordance with California Public Resources Code Section 21002.1, the purpose of this Draft EIR is to provide the City, serving as the lead agency, information on: the potentially significant environmental impacts that would result from implementation of the TVSP; alternatives to the TVSP; and mitigation measures, which may reduce or avoid any significant effects. This Draft EIR will also be used as an informational document by other public agencies, in connection with any approvals or permits necessary for construction and operation of the TVSP.

This Draft EIR is intended to serve as a Program EIR, as defined in State CEQA Guidelines Section 15168, for use by the City as lead agency and by responsible agencies as needed. The Program EIR will evaluate the broad-scale impacts of the TVSP regulations and may evaluate project-level impacts where more detail is available at this time. Program EIRs are typically prepared for public policy programs such as a general plan or new zoning districts; for a series of related actions that can be characterized as one large project; or for large-scale, multi-phase development projects such as specific plans.

In a Program EIR, CEQA allows the general analysis of broad environmental effects of the program, with the acknowledgement that subsequent, project-specific environmental review may be required for particular aspects or portions of the program at the time of project implementation, in accordance with State CEQA Guidelines Section 15162. The Program EIR would serve as the first-tier environmental analysis. The Program EIR can be incorporated by reference into subsequently prepared environmental documentation to address issues such as cumulative impacts and growth-inducing impacts, allowing the subsequent documents to focus on new or site-specific impacts pursuant to State CEQA Guidelines Section 15168(d). To assess the potential broad-scale environmental impacts that may result from implementation of the TVSP, development assumptions have been made at this time and are described in the section 3.7.4, *Project Area Buildout*, above.

3.9 DISCRETIONARY APPROVALS AND PERMITS

The City of Redlands has primary approval responsibility for the Project. As such, the City serves as the Lead Agency for this Draft EIR pursuant to State CEQA Guidelines Section 15050. The City's Planning Commission will evaluate this Draft EIR and TVSP and make a recommendation to the City Council whether the TVSP should be adopted and the Draft EIR be certified. The City Council is the decision-making authority for the Project and will consider the Project along with the Planning Commission's recommendations and will make a

final decision to approve, approve with changes, or deny the Project. The City, including the Planning Commission and City Council, will consider the information in this Draft EIR and the Project's administrative record in its decision-making processes. In the event of approval of the Project and certification of the Draft EIR, the City would conduct administrative and discretionary review and grant ministerial and discretionary permits and approvals to implement Project requirements, conditions of approval, and future developments within the Project Area. Approval and implementation of the TVSP requires City approval of the following discretionary actions:

CITY OF REDLANDS

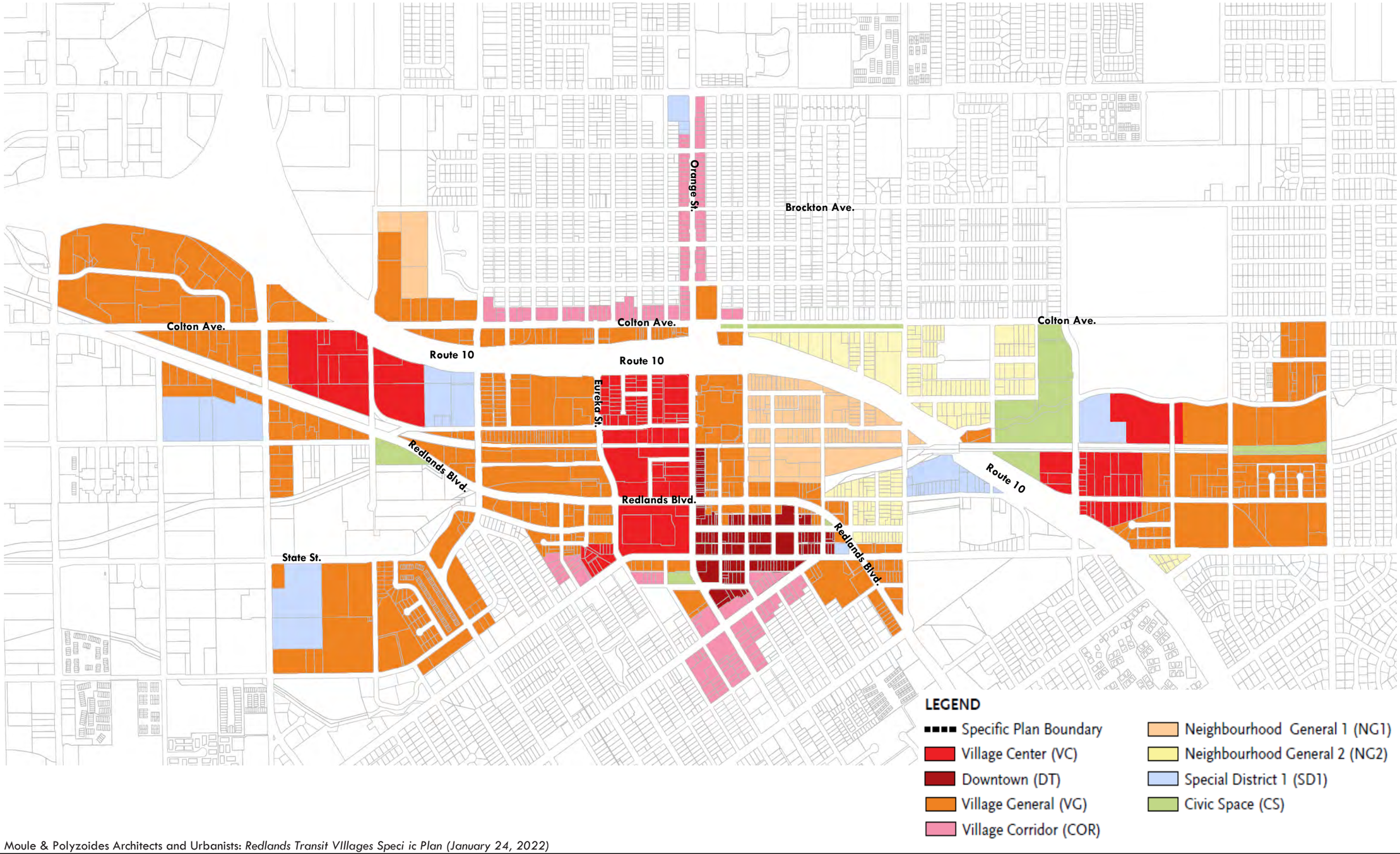
- Adoption of the TVSP
- Amendments to the GP2035 to change land use designations of parcels from various GP2035 land use designations to a "Transit Village" (TV) District (or similar) land use classification.
- Amendments to the GP2035 for minor changes to the design or designations of certain street segments, and minor text amendments to one or more policies to achieve consistency with the proposed TVSP, as required.
- Zone Change from various zones (RMC Title 18 – Zoning Regulations) within the TVSP area to "Transit Villages Specific Plan (Specific Plan No. 65)".
- Replace the existing Downtown Specific Plan (Specific Plan No. 45) with the proposed "Transit Villages Specific Plan (Specific Plan No. 65)".
- Certification of the related EIR.

This Draft EIR may be used by various governmental decision-makers for discretionary permits and actions that are necessary or may be requested in connection with implementation of future development projects pursuant to the TVSP. Additional discretionary, administrative and/or ministerial actions may be necessary from other responsible agencies to fully implement the Project. The state or local agencies that may rely upon the information contained in this Draft EIR when considering approval of permits may include, but are not limited to, the following:

- South Coast Air Quality Management District (point source emissions permits)
- California Regional Water Quality Control Board (National Pollutant Discharge Elimination System [NPDES] permit)
- State Water Resources Control Board (General Construction Activity Stormwater Permit)
- California Department of Transportation (Caltrans) (improvements to intersections and roadway and underpass design modifications within Caltrans jurisdiction)

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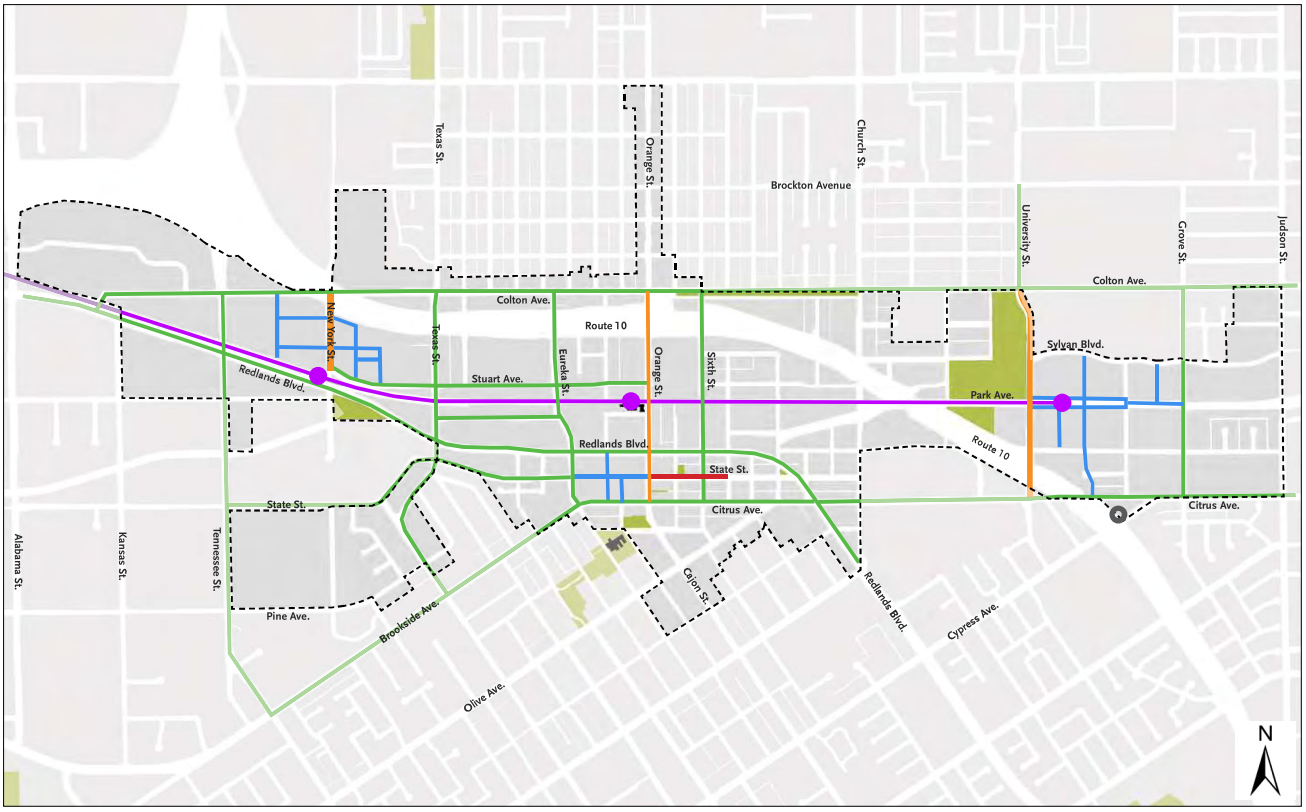
Regulating Plan



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Future Street Network Improvements



LEGEND

- Specific Plan Boundary
- Arrow Passenger Rail and Station
- Gateway Street
- New Street
- Multi-modal Street
- Convert to Two-Way
- Potential Cypress Ave. Roundabout

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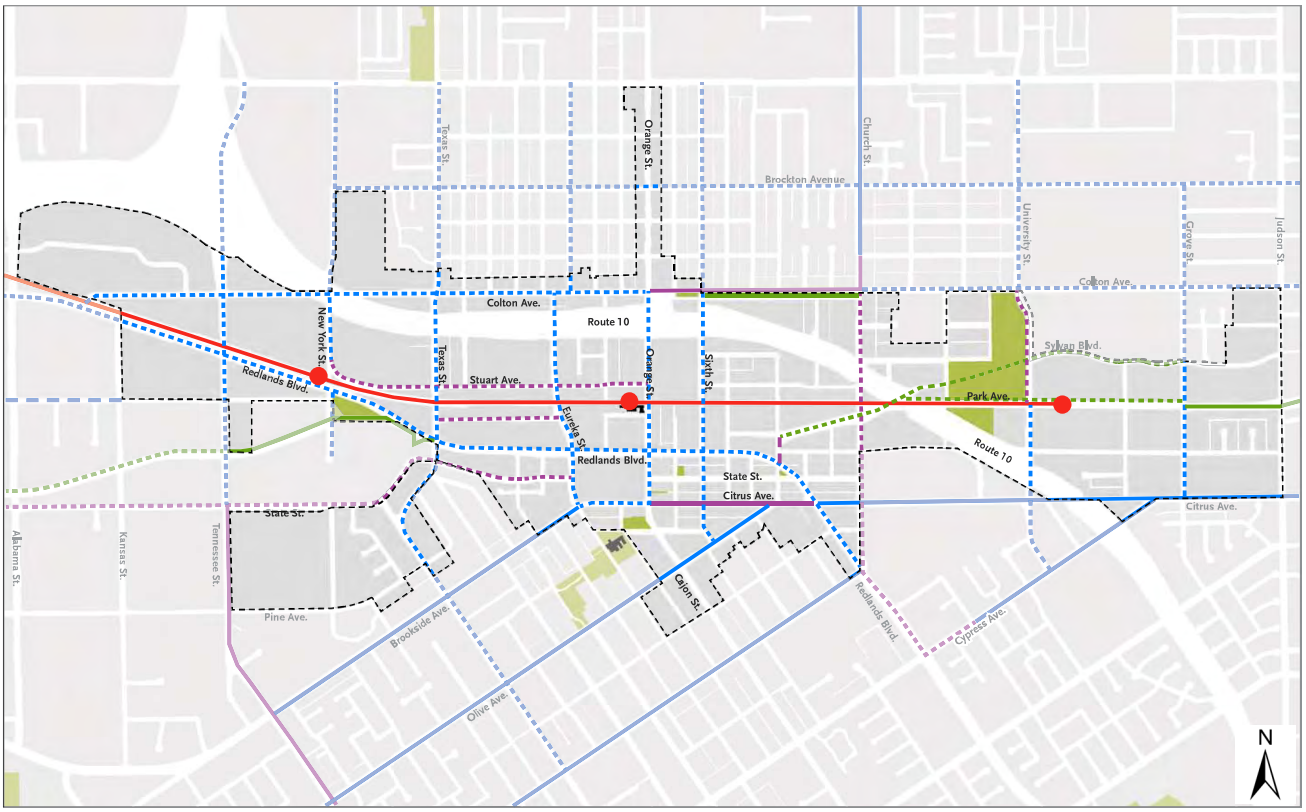
Future Pedestrian Network Improvements



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Future Bicycle Network Improvements

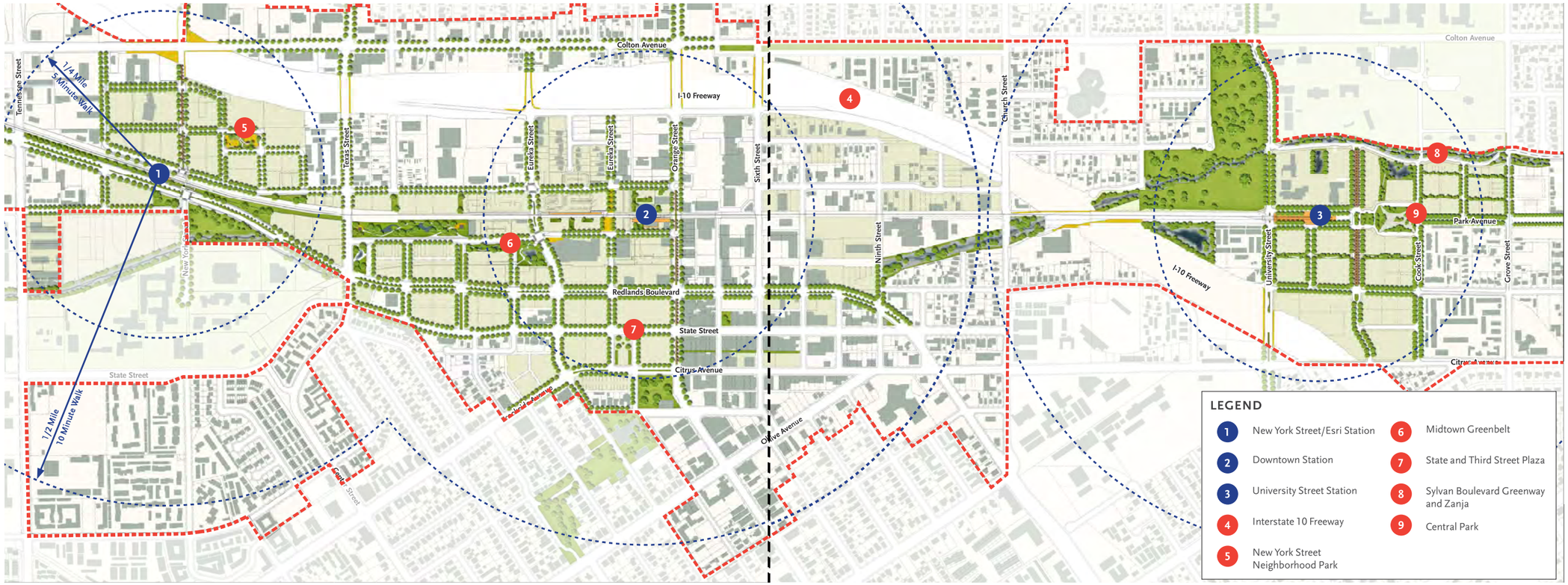


LEGEND

- Specific Plan Boundary
- 1/4 Mile Pedestrian Shed
- 1/2 Mile Pedestrian Shed
- Existing Shared-Use Path
- Existing Bicycle Lane
- Existing Bicycle Route
- Future Shared-Use Path
- Future Bicycle Lane
- Future Bicycle Route
- Arrow Passenger Rail and Station

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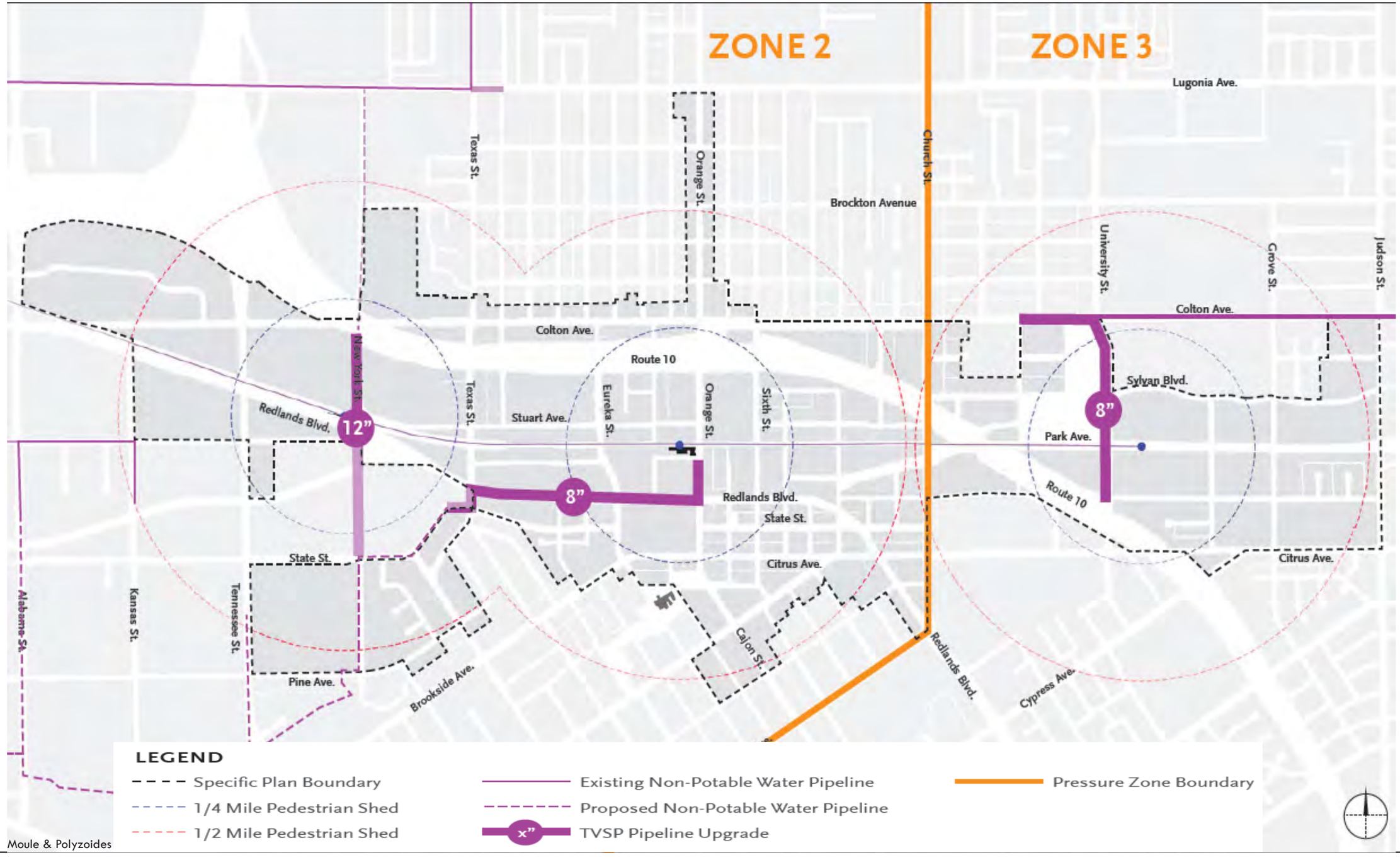
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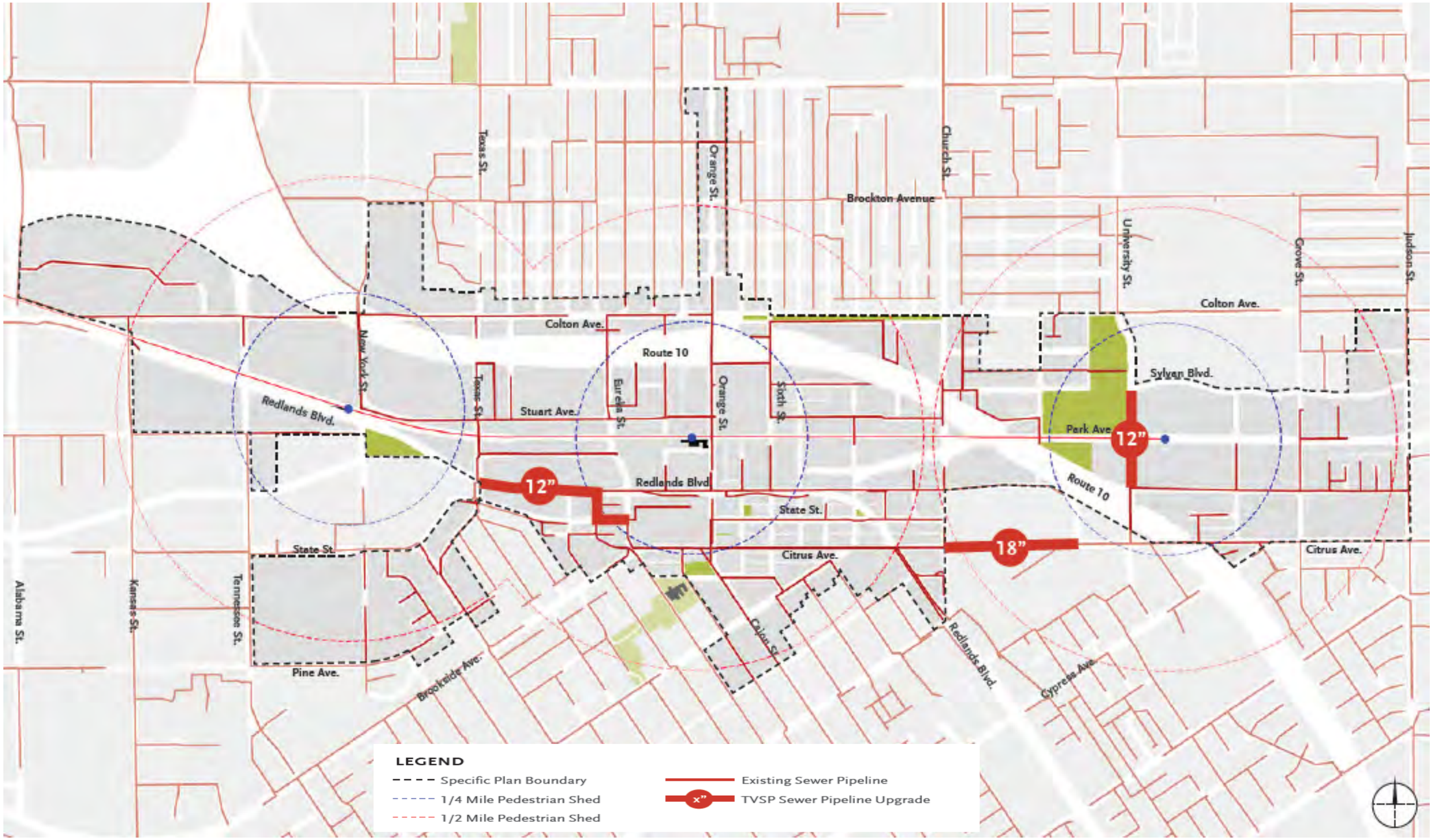
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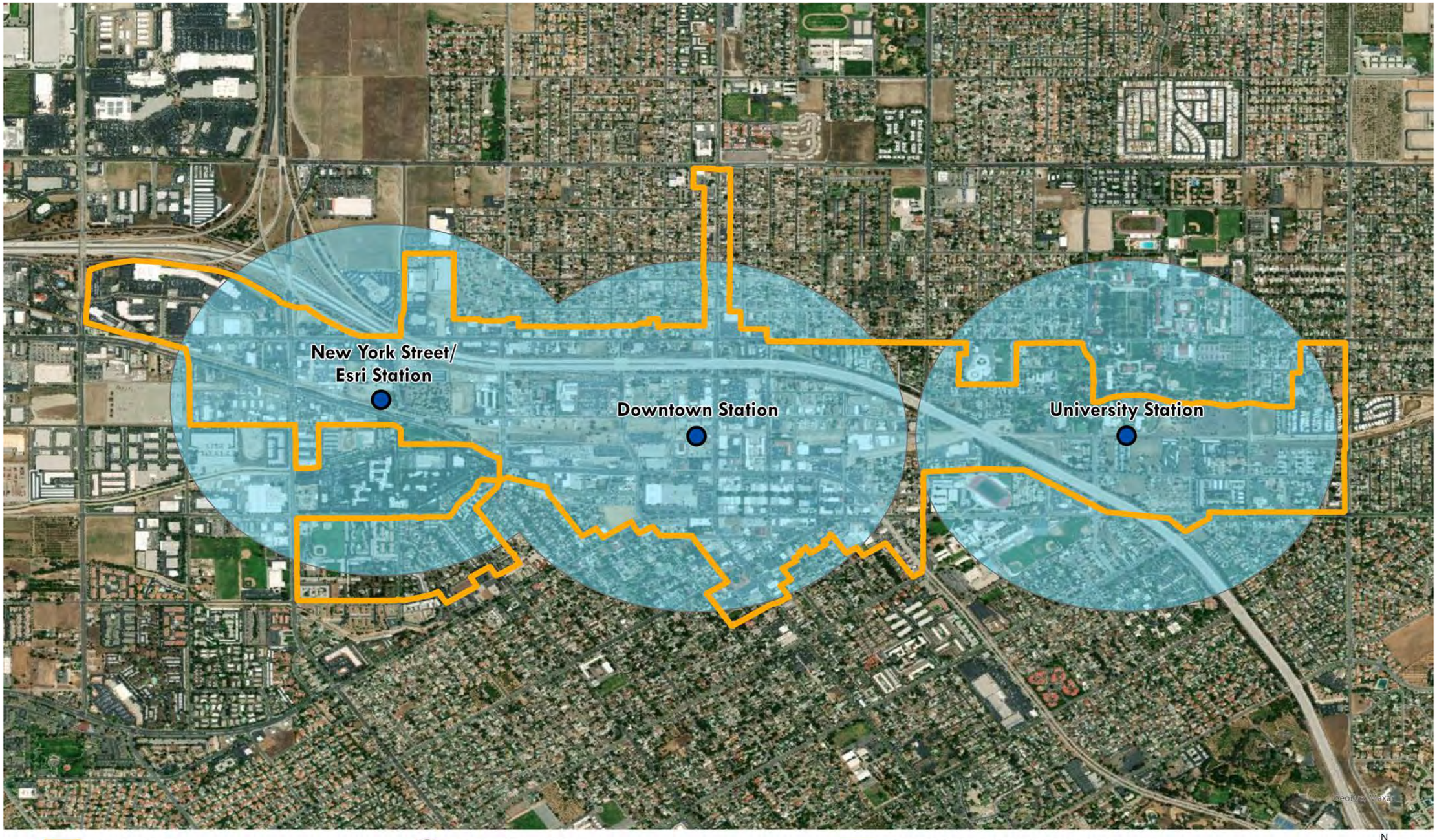
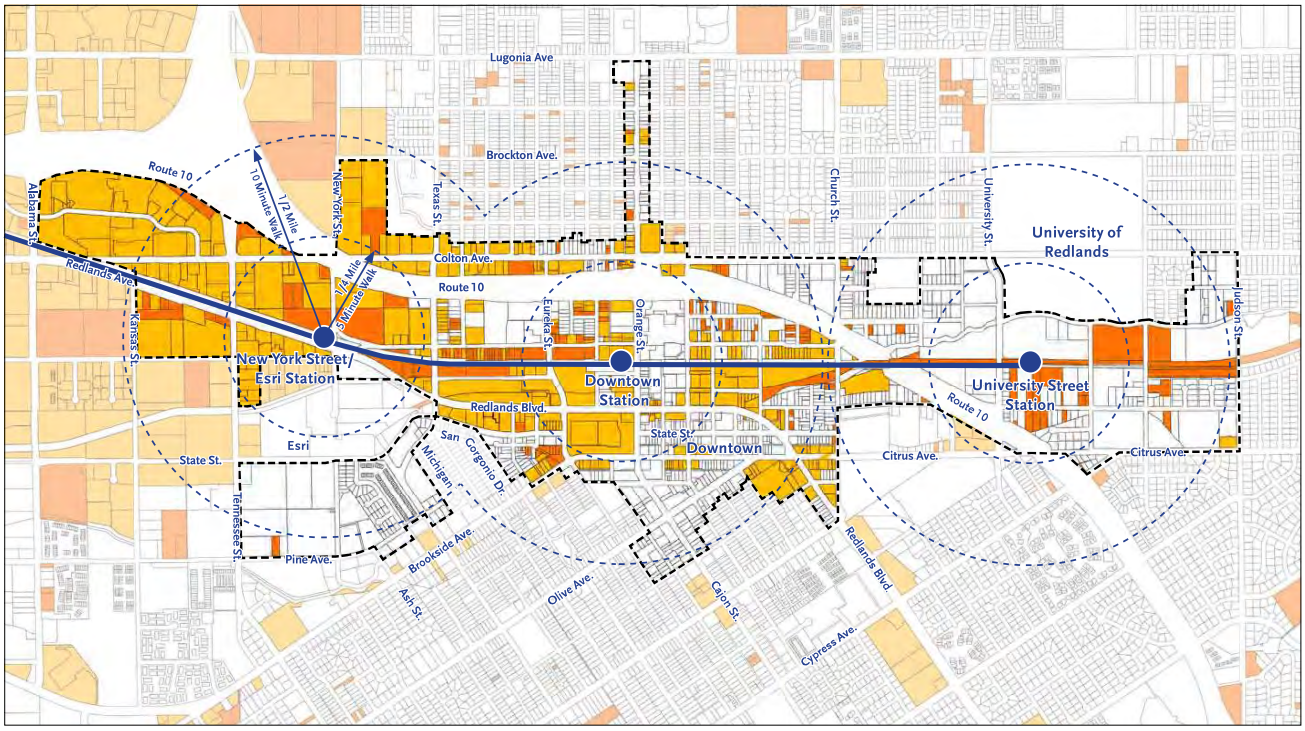

New York Street/
Esri Station
Downtown Station
University Station
Project Site
Major Transit Stop
Transit Priority Area (1/2 Mile Radius)
N

Figure 3-16

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Vacant and Non-Conforming Parcels



LEGEND

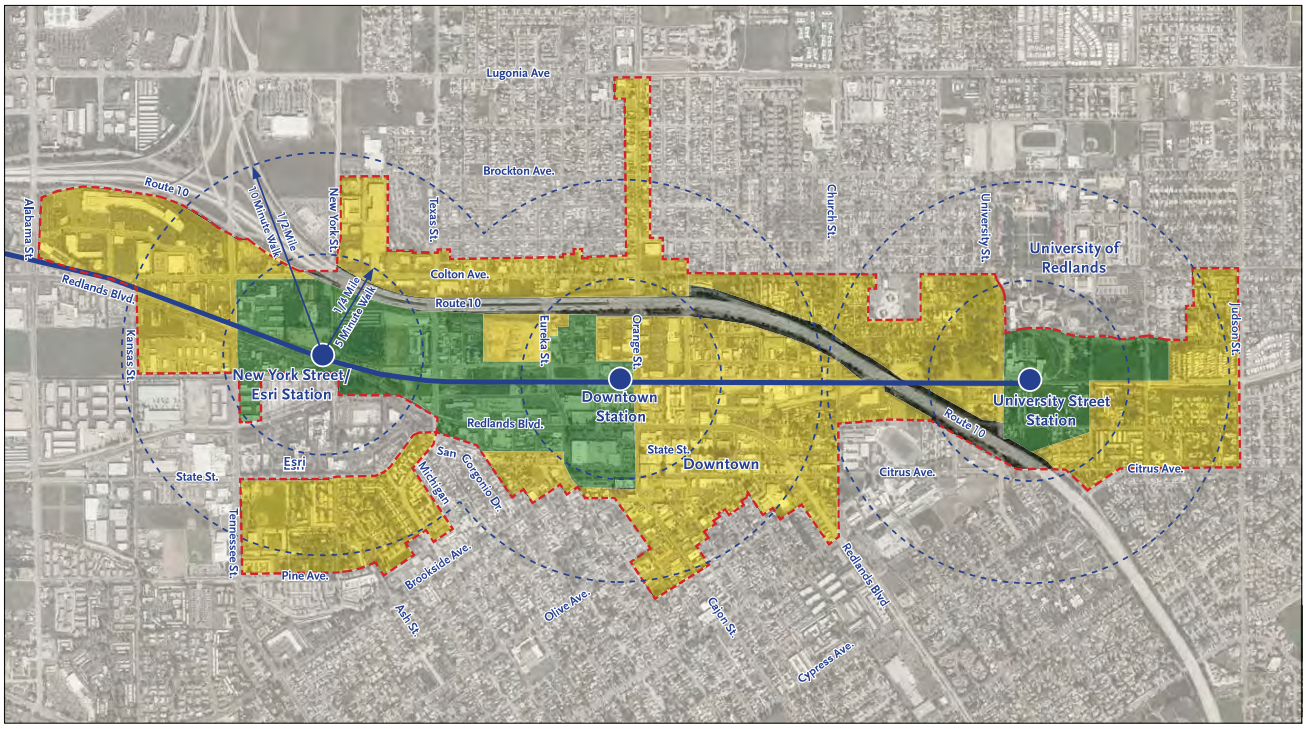
- Specific Plan Boundary
- Arrow Passenger Rail
- Vacant Parcels
- Non-Conforming Parcels

N

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Areas of Change



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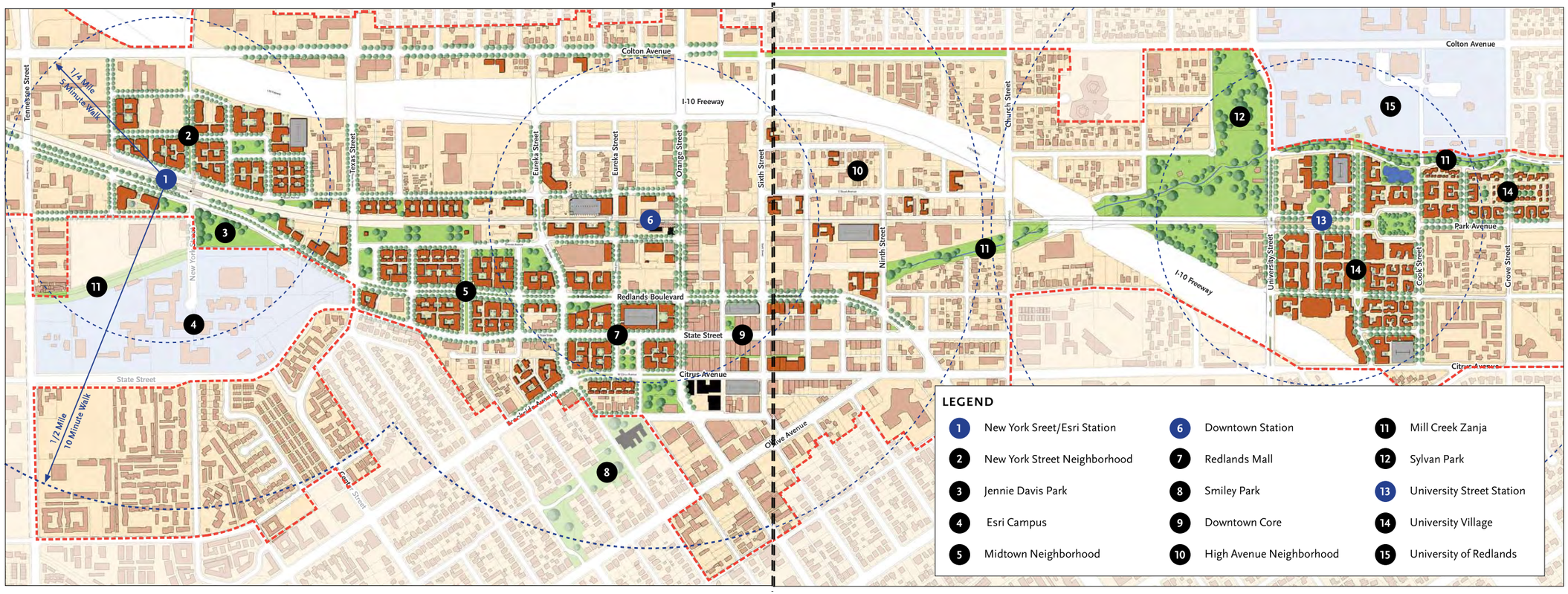
- Specific Plan Boundary
- Arrow Passenger Rail
- Areas of Immediate Change
- Areas of Incremental/Future Change

N

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Illustrative Plan



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4. Environmental Setting

The purpose of this section is to provide a "description of the physical environmental conditions in the vicinity of the Project, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and a regional perspective" pursuant to CEQA Guidelines Section 15125(a). In addition to the summary below, detailed environmental setting descriptions are provided in each subsection of Section 5 of this Draft EIR.

4.1 PROJECT LOCATION

Three of the new Arrow stations are located in the city, which include: 1) New York Street/Esri Station near the intersection of Redlands Boulevard and New York Street across from the existing Esri campus, 2) Downtown Station north of the Santa Fe Depot between Eureka Street and Orange Street, and 3) University Street Station adjacent to the University of Redlands at the south end of campus near North University Street (see Figure 3-2, *Local Vicinity*, and Figure 3-3, *Aerial Photograph*).

The proposed Transit Villages Specific Plan (TVSP, or Specific Plan) area generally includes the parcels located within approximately one-half mile, or a 10-minute walk, of the three new Arrow stations in the city. The entire TVSP area, which covers approximately 947 acres (approximately 1.5 square miles) is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The TVSP area also includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue (see Figure 3-4, *Specific Plan Station Areas*).

4.2 PROJECT SITE DESCRIPTION

The TVSP area is approximately 947 acres of land that is divided into three planning areas referred to as transit villages, which generally circle each new Arrow station, as shown on Figure 3-4. The New York Street/Esri Transit Village area is generally west of Texas Street and Center Street. The Downtown Transit Village area is generally bounded to the east by Church Street, and to the west by Texas Street, and includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue. The University Street Transit Village area is located east of Church Street and west of Judson Street, which are further described below.

- **New York Street/Esri Transit Village.** The area around this station is currently car oriented. Large blocks generally comprise the area with commercial and light industrial buildings set back away from the street behind parking lots or landscaped front yards. The I-10 and SR-210 interchange is to the northwest of this transit village. Freeway access is provided at Alabama Street and Tennessee Street. Alabama Street, Tennessee Street, and Texas Street pass beneath the I-10, connecting the transit village area to the neighborhoods north of the freeway. The transit village is traversed east-west by the railways, which run along the north side of Redlands Boulevard, until New York Street, where they branch off from one another as they proceed eastward.

  Sidewalks line roadways. There are limited street trees, although trees in some areas are planted in front yards of adjacent properties. There are no existing bicycle facilities within this village area aside from the western segment of the Orange Blossom Trail (a Class 1 bicycle facility).

  The Arrow station will be located along the north side of Redlands Boulevard at New York Street. To the south of the station site is Esri's campus headquarters and to the southeast (across the roadway

intersection) from the station site is Jennie Davis Park, a 5.2-acre neighborhood park with picnic and playground facilities. Land uses to the west of the Esri campus and south of the railway consists primarily of light industrial warehouse buildings.

North of the railway, existing development consists of car-oriented uses, strip mall shopping centers, fast-food restaurants, hotels, and recreational facilities. North of the I-10 are commercial and single-family residences. Buildings within this area range from one to three-story buildings. Many of the one-story light industrial and retail buildings are tall one-story buildings facing the street. The parcels surrounding the station are largely vacant.

- **Downtown Transit Village.** This area includes the city's urban core and Santa Fe Depot. The station site will be north of the Santa Fe Depot. Blocks located east of Orange Street within downtown are small and promote walkability with commercial and mixed-use buildings built adjacent to, and accessed directly from, the sidewalk. Blocks west of Orange Street are larger and less pedestrian-friendly with buildings and site designs that are more car-oriented, with buildings located behind street-facing parking lots. Access to the I-10 is via Sixth Street, Orange Street, and Eureka Street. Streets that pass underneath the freeway include Texas Street, Eureka Street, Orange Street, Sixth Street, and Church Street.

  State Street, which is lined with buildings that face and are accessed from the sidewalk and shaded by Ficus trees, is the city's prime pedestrian-friendly street. Sidewalks within the Downtown Village are typically eight feet wide and located adjacent to the curb. Additionally, bicycle facilities exist along segments of Colton Avenue and Citrus Avenue.

  Many parcels west of the Downtown Station are vacant. Additionally, vacant packinghouse buildings lie to the north and south of the Santa Fe Depot. Most of the buildings within this transit village are one- and two-story in height. However, some buildings are taller, such as the Citibank building, which is six stories tall. In addition, many of the old packinghouse buildings surrounding the Santa Fe Depot are one-story buildings with tall interiors.

  There are two parks within this transit village, Terrace Park and the northeastern tip of Smiley Park. Terrace Park is a linear park built along the south side of Colton Avenue between Orange Street and Church Street. The portion of Smiley Park within the transit village consist of the lawns, paths, and benches that surround the historic Police Annex building. The rest of Smiley Park that is not within the TVSP area, includes the Redlands Bowl amphitheater, the Lincoln Memorial Shrine, the A.K. Smiley Library, shuffleboard courts, and a restroom building.

- **University Street Transit Village.** This area includes the portion of the University of Redlands campus located south of Sylvan Boulevard and Sylvan Park, which is 18-acres. Access to the I-10 is provided via University Street and Cypress Avenue. Church Street, University Street, and Citrus Street pass underneath the freeway providing access to other areas in the city.

  Many streets within this village area, particularly those surrounding the station area, do not have sidewalks. Sidewalks within the residential neighborhoods tend to be separated from the curb by continuous planters planted with trees. The Orange Blossom Trail, a Class I bicycle trail to the east, provides limited bicycle connectivity in the village area.

  Land uses located north of the I-10 and west of University Street include Sylvan Park, single-family residences, and some multi-family buildings. The southeast portion of the village primarily consists of multi-family buildings. Most of the buildings within this transit village area are one- and two-story in height. Single-family residences are mostly one-story and multi-family buildings are two stories. Most of the land surrounding the station site is vacant.

Existing General Plan and Zoning Designation

The City of Redlands General Plan 2035 (GP2035) designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Most of the New York Street/Esri Transit Village area consists of non-residential land use designations except for the multi-family residential area in the southern portion of the village. The Downtown Transit Village area is also primarily non-residential, with multi-family allowed along the eastern edge. Land use designations in the University Street Transit Village are primarily medium and high density residential, except the institutional designations associated with the University of Redlands campus to the north of the station site. The General Plan Transit Villages Overlay provides for residential/mixed uses within a half-mile of each station (see Figure 3-5, *General Plan Land Use Designation*).

The GP2035 Livable Community Element includes a Transit Villages section that provides for the Transit Villages Overlay Zone (TVOZ), which applies to areas within a half-mile radius of the five rail stations that were anticipated in the GP2035, which includes the three new Arrow stations. The TVOZ includes strategies for transportation system enhancements including vehicle, pedestrian, and bicycle connectivity to each station and mixed-use development. Land use designations in the TVOZ include modified residential land use designations for low medium-, medium-, and high-density residential, commercial, commercial/industrial, office, public/institutional, park, and agriculture that are designed to provide for higher intensities and compact development patterns within the TVOZ than elsewhere in the city (see Figure 3-6, *General Plan Transit Villages*).

Existing residential zoning within the TVSP area is primarily Multi-Family Residential (R-2 and R-3); however, there are two small areas with existing single-family zoning. The parcels on 11th Street between the I-10 and Colton Avenue in the Downtown Transit Village are zoned Single-Family Residential (R-1) and the parcels in the University Street Transit Villages bounded by the I-10, East Cypress Avenue, and East Citrus Avenue are zoned Suburban Residential (R-S). See Figure 3-7, *Existing Zoning Districts*.

Non-residential zoning in the TVSP area include Industrial (I-P), Light Industrial (M-1), Planned Industrial (M-P), Administrative and Professional Office (A-P), Neighborhood Stores (C-1), General Commercial (C-3), Highway Commercial (C-4), Commercial (C-M), Educational (E), Transitional (T), Open Land (O), Floodplain (FP), East Valley-General Commercial (EV/CG), and East Valley-Public Institutional (EV/PI).

The Downtown Specific Plan (Specific Plan No. 45), located in the proposed Downtown Village, governs the parcels in the downtown area, which is divided into Town Center, Town Center-Historic District, and Service-Commercial District. The objective of the Downtown Specific Plan is to create a compact, pedestrian-oriented environment.

4.1 AESTHETICS

State Scenic Highway

There are no officially designated state scenic highways traversing the TVSP area; however, State Route 38 is an eligible, albeit not officially designated, state scenic highway. State Route 38 traverses the Downtown Transit Village area as Orange Street north of the I-10 to Lugonia Avenue. State Route 38 then continues outside of the TVSP area easterly as Lugonia Avenue, which then turns into Mentone Boulevard and Mill Creek Road as the highway continues into the San Bernardino Mountains.

City Scenic Roadways

The City has designated numerous roadway segments as scenic highways, drives, and historic streets subject to special development standards (GP2035 EIR, p. 3.1-11). City-designated scenic roadways include Brookside Avenue, Olive Avenue, Center Street, Highland Avenue, Sunset Drive, Cajon Street, Mariposa Drive, and Dwight Street. Additionally, the City is considering designating Riverview Drive, Live Oak Canyon Drive, San Timoteo Canyon Road, Sylvan Boulevard, Nevada Street, and Pioneer Road.

Visual Character of the Project Site

Existing setting of the New York Street/Esri Transit Village area. The area around this station is car-oriented. Large blocks generally comprise the area with commercial and light industrial buildings set back away from the street behind parking lots or landscaped front yards. The I-10 and SR-210 interchange is to the northwest of this transit village. The transit village is traversed east-west by the railways, which run along the north side of Redlands Boulevard, until New York Street, where they branch off from one another as they proceed eastward.

The Arrow station will be located along the north side of Redlands Boulevard at New York Street. To the south of the station site and Redlands Boulevard is Esri's campus headquarters, and to the southeast (across the intersection) from the station site is Jennie Davis Park, a 5.2-acre neighborhood park. Land uses to the west of the Esri campus (across Tennessee Street) consist primarily of light industrial warehouse buildings and commercial services or office uses. To the south of the Esri campus is a neighborhood of apartments and multifamily buildings.

North of the railway, existing development consists of car-oriented uses, strip mall shopping centers, fast-food restaurants, hotels, and recreational facilities. North of the I-10 are commercial and single-family residences. Buildings within this area range from one to three-story buildings. Many of the one-story light industrial and retail buildings are tall one-story buildings facing the street. The parcels surrounding the station are largely vacant.

Existing setting of the Downtown Transit Village area. This area includes the City's urban core and the historic Santa Fe Depot. The station site will be at the north side of the Santa Fe Depot (for the new Arrow platform) and immediately west of the Depot (for the new Metrolink platform). Blocks located east of Orange Street within Downtown are small and promote walkability, with commercial and mixed-use buildings built adjacent to and accessed directly from the sidewalk. Blocks west of Orange Street are larger and less pedestrian-friendly with buildings and site designs that are more car-oriented, with buildings located behind street-facing parking lots.

Many parcels west of the Downtown Station are vacant as well as a few vacant remnant packinghouse buildings to the north and south of the Santa Fe Depot. Most of the buildings within this transit village are one- and two-story in height. A notable exception is the Citibank building, which is six stories tall. In addition, many of the old packinghouse buildings surrounding the Santa Fe Depot are one-story buildings with tall interiors.

Existing setting of the University Transit Village area. This area includes the portion of the University of Redlands campus located south of Sylvan Boulevard and Sylvan Park (which is 18-acres). Land uses located north of the I-10 and west of University Street include Sylvan Park, single-family residences, and some multi-family buildings. The southeast portion of the village primarily consists of multi-family buildings. Most of the buildings within this transit village area are one- and two-story in height. Single-family residences are mostly

one-story and multi-family buildings are two stories. Most of the land immediately surrounding the station site is vacant and unimproved.

Visual Character of Adjacent Areas

The existing visual character of the area surrounding the TVSP area is urban. There is no consistent architectural or visual theme within the surrounding area. However, multiple areas surrounding the TVSP area include historic and scenic districts, such as the Smiley Park Neighborhood District and Scenic District and the East Fern Avenue Historic and Scenic District, located south of the Downtown Village area.

Areas to the north of the TVSP area generally include industrial uses, commercial buildings, single-family residences, and the University of Redlands. Areas to the east of Project Area, directly east of Judson Street, include one-story single-family residences and a mobile home park. Areas south of the TVSP area include one- to two-story single-family residences, Redlands High School, multi-family residential units, Smiley Park, and commercial uses. Areas west of the TVSP area include multi-family residences, commercial uses, and industrial uses.

Light and Glare

The TVSP area is mostly developed with a limited number of vacant parcels and include multiple sources of nighttime lighting. Additionally, the TVSP area is surrounded by sources of nighttime lighting that includes streetlights along roadways, illumination from vehicle headlights, offsite exterior residential, commercial, and industrial lighting, and interior illumination passing through windows. Sensitive receptors relative to lighting and glare include residents, motorists, and pedestrians passing through the TVSP area.

Glare in the vicinity of the TVSP area is generated by building and vehicle windows reflecting light. Substantial sources of glare within the TVSP area include windows of taller buildings, such as the six-story Citibank building. However, the majority of buildings within the TVSP area are shorter one- to two-story buildings that are constructed of non-reflective materials and are not surfaced with a substantial number of windows adjacent to one another that would create a large reflective area.

4.2 AIR QUALITY

Climate and Meteorology

The TVSP area is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of Southern California combine to make the Basin an area of high air pollution

potential. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions which produce ozone.

Existing Conditions

SCAQMD maintains monitoring stations within district boundaries, Source/Receptor Areas (SRAs), that monitor air quality and compliance with associated ambient standards. The TVSP area is located within SRA 35, East San Bernardino. The East San Bernardino monitoring station is located approximately 0.5 mile east of the TVSP area and reports air quality statistics for O_3 and PM_{10}. The East San Bernardino Valley monitoring station does not provide information for CO, NO_2, and $PM_{2.5}$, as such, statistics were obtained from the Central San Bernardino 2 monitoring station. The Central San Bernardino monitoring station is located within SRA 34 that is located 4.6 miles northwest of the TVSP area. The most recent 3 years of data is shown on Table 5.2-2 and identifies the number of days ambient air quality standards were exceeded in the area. Additionally, data for SO_2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO_2 concentrations.

In 2020, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone and PM_{10} at most monitoring locations. No areas of the SCAB exceeded federal or state standards for NO_2, SO_2, CO, sulfates, or lead.

The TVSP area consists of approximately 947 acres of land that surrounds three proposed Arrow stations. The area is current developed with a mix of commercial, industrial, and residential uses. Air quality emissions are currently generated by operation of these existing uses and the related vehicular trips.

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Existing sensitive receptors within and in the vicinity of the TVSP area consists of residences.

4.3 CULTURAL RESOURCES

Archaeological Resources

A total of 54 cultural studies have been performed within a 0.5-mile radius of the TVSP area. Of these, 34 have been conducted within the TVSP area, with only one of the reports having been conducted within the

last five years. The records search conducted for the Project identified one previously recorded prehistoric archaeological resource, one historic archaeological resource with a prehistoric component, and twenty-four historic archaeological resources within TVSP area.

Historic Setting

An asistencia was established in Redlands in 1819 to help facilitate the Mission San Gabriel Arcángel's control and colonization of the surrounding rancheria. Missionaries instructed Serrano, Gabrielino, and Cahuilla workers to build the Mill Creek Zanja, a 12-mile long irrigation ditch routing water from Mill Creek to Guachama Rancheria, which served as the area's first stable water resource. In 1842, the Lugo family, including José del Carmen Lugo, José María Lugo, Vicente Lugo, and Diego Sepulveda, received a land grant, Rancho San Bernardino, which encompassed the San Bernardino and Yucaipa valleys, including present day City of Redlands.

In 1881, E.G. Judson and Frank E. Brown formed the Redlands Water Company and began construction of a water canal to supply future citrus groves. During the development, the pair noticed the red-colored adobe soil and gave the new town its name, Redlands. Three years later, Brown built the Bear Valley Dam and reservoir, securing a steady supply of water for the town and associated citrus groves. With a stable water source and booming railways, the City of Redlands experienced a development boom with the creation of paved streets, sidewalks, sewage, and electricity systems. The City was officially incorporated in 1888. For 75 years, citrus growing was the main economic source for the City. The citrus industry eventually declined and agricultural areas were replaced with subdivisions. The former 15,000 acres of citrus groves, spanning the entirety of the city, have been reduced to only one grove left today, the Redlands Foothill Grove (CUL, 2022).

Historic Resources

There are 182 historic properties located within the TVSP area, with most of the eligible historic properties located in Downtown Redlands. The California Office of Historic Preservation's Built Environment Resources Directory (BERD) for San Bernardino County, the City of Redlands' General Plan EIR (2017a), the City of Redlands' Downtown Specific Plan (2017b), the City of Redlands' List of Historic Resources (2019), the National Register (NR), the California Register of Historic Places (CR), California Historic Landmarks, and California Point of Historical Interest identify 114 historic properties within the TVSP area. Of these historic resources, 25 historic properties are listed in the National Register (NR) and/or the California Register (CR), three properties appear eligible for NR or CR, and 63 properties are recognized as historically significant by the City of Redlands. Eleven properties have been determined ineligible for listing or designation and 13 properties have not been evaluated for NR or NR or need evaluation. In addition, there are two historic districts located within the TVSP area, the Smiley Park Historic District and Santa Fe Depot Historic District.

4.4 ENERGY

Electricity

The Southern California Edison Company (SCE) is the electrical purveyor in the City of Redlands. SCE provides electricity service to more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California. California utilities are experiencing increasing demands that require modernization of the electric distribution grid to, among other things, accommodate two-way flows of electricity and increase the grid's capacity. SCE is in the process of implementing infrastructure upgrades to ensure the ability to meet future demands. In addition, as described by the Edison International 2020 Annual Report, the SCE electrical grid modernization effort supports implementation of California Senate Bill 32 that requires the

state to cut greenhouse gas emissions 40 percent below 1990 levels by 2030 and 80 percent from the same baseline by 2050 in order to help achieve carbon neutrality by 2045. It describes that in 2020 approximately 43% of power that SCE delivered to customers came from carbon-free resources (SCE 2020).

The Project site is currently served by the electricity distribution systems that exists along the roadways throughout the TVSP area.

Natural Gas

The Southern California Gas Company (SoCalGas) is the natural gas purveyor in the City of Redlands and is the principal distributor of natural gas in Southern California. SoCalGas estimates that gas demand will decline at an annual rate of 1 percent each year through 2035 due to modest economic growth, mandated energy efficiency standards and programs, renewable electricity goals, and conservation savings linked to advanced metering infrastructure (CGEU 2020). The gas supply available to SoCalGas is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources, the Rocky Mountains, and Canada (CGEU 2020). SoCalGas designs its facilities and supplies to provide continuous service during extreme peak demands and has identified the ability to meet peak demands through 2035 in its 2020 report (CGEU 2020).

The TVSP area is currently served by the natural gas distribution system that exists within the roadways throughout the TVSP area.

4.5 GEOLOGY AND SOILS

Paleontological Resources

The TVSP area is situated at the foot of the San Bernardino Mountains, a part of the Transverse Ranges Geomorphic Province. The mountains within the province, including the San Gabriel and San Bernardino mountains to the north and northeast, were uplifted by tectonic activity, and provide a major sedimentary source for the alluvium basins of the adjacent areas.

The geologic units underlying the TVSP area are mapped as younger and older Quaternary surficial deposits, more specifically very young wash deposits, active (Qvyw), young axial-valley deposits, Unit 3 (Qya3), old alluvial-fan deposits, Unit 3 (Qof3), and very old axial-valley deposits, Unit 3 (Qvoa3). Very young surficial deposits are the result of recently transported and deposited sediment into channels and washes on surfaces of alluvial fans, alluvial plains, and on hill slopes. Older surficial deposits contain sedimentary units that are moderately consolidated and slightly to moderately dissected. Alluvial-fan deposits (Qof series) are gravelly sand and silt sediments. Very old surficial deposits are sedimentary units that are moderately to well consolidated to lithified, and moderately to well dissected. Valley-filling deposits (Qvoa series) are dominated by sand with minor gravel alluvial deposits and includes residuum or pedogenic-soil profile developed on the San Timoteo Formation beds. The Plio-Pleistocene San Timoteo Formation is located south of the TVSP area in more elevated terrain and may underlie younger and older Quaternary deposits in the TVSP area (MCC 2022).

4.6 GREENHOUSE GASSES

Gases that trap heat in the atmosphere are called GHGs. The major concern with GHGs is that increases in their concentrations are contributing to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts

attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different warming potential, and CO_2 is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG, with 22,800 times the global warming potential as CO_2. Therefore, an emission of one metric ton (MT) of SF_6 could be reported as an emission of 22,800 MT of CO_2e. Large emission sources are reported in million metric tons (MMT) of CO_2e. The principal GHGs are described below, along with their global warming potential.

Carbon dioxide: Carbon dioxide (CO_2) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (manmade) sources are from burning coal, oil, natural gas, and wood.

Methane: Methane (CH_4) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years, and its global warming potential is 28. Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Nitrous oxide: Nitrous oxide (N_2O) (laughing gas) is a colorless GHG that has a lifetime of 121 years, and its global warming potential is 265. Sources include microbial processes in soil and water, fuel combustion, and industrial processes.

Sulfur hexafluoride: Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas that has a lifetime of 3,200 years and a high global warming potential of 23,500. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Their global warming potential ranges from 7,000 to 11,000. Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Their global warming potential ranges from 100 to 12,000. Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.

Some of the potential effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more forest fires, and more drought years. Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and

- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

GHGs are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal.

Existing Project Site Conditions

The TVSP area consists of approximately 947 acres of land that surrounds three proposed Arrow stations. The area is current developed with a mix of commercial, industrial, and residential uses. The primary GHG emissions in the TVSP area are from on-road transportation; building energy; and waste.

4.7 HAZARDS AND HAZARDOUS MATERIALS

In the 2015 Redlands Hazard Mitigation Plan, the probability of future hazardous materials release within the city was determined to be High, with Medium Impact. The California Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) track and identify sites with known or potential contamination. The DTSC Envirostor hazardous waste facility and cleanup sites database identifies sites that have known contamination or potentially contaminated sites requiring further investigation, as well as facilities permitted to treat, store, or dispose of hazardous waste. The SWRCB GeoTracker database tracks hazardous materials sites that impact groundwater or have the potential to impact groundwater.

Data for the analysis was downloaded from Envirostor and GeoTracker databases on February 22, 2022. A total of 25 sites were identified as permitted hazardous waste facilities, land disposal sites, or USTs by DTSC, the EPA, or SWRCB. Three sites were identified by DTSC as cleanup sites having known or potential hazardous substance release; 23 were identified as such by SWRCB. Sites within the TVSP area are listed below in Table 4-1.

Table 4-1: Hazardous Materials Sites

Site Name	Site Type	Database	Status	Location
Teledyne Battery Products	HAZ WASTE - RCRA, LUST Cleanup SIte	DTSC, SWRCB	Closed	840 W Brockton Ave
So Cal Gas/Redlands I	Voluntary Cleanup	DTSC	Active	501-525 W. Redlands Blvd
Edison/Redlands II	Voluntary Cleanup	DTSC	Active	501-525 W. Redlands Blvd
California Target ENTP. #943	LUST Cleanup Site	SWRCB	Closed	1580 Redlands Blvd
Redlands Corporate Yard	LUST Cleanup Site	SWRCB	Closed	1270 Park Ave
Argon Fuel	Cleanup Program Site	SWRCB	Open	1205/1255 Redlands Blvd

Redlands Oil Company (former)	Cleanup Program Site	SWRCB	Closed	395 Texas Street
Stop N' Go	LUST Cleanup Site	SWRCB	Closed	765 W Redlands Blvd
Redlands Redevelopment Agency	LUST Cleanup Site	SWRCB	Closed	325 N Eureka St
Redlands Battery	LUST Cleanup Site	SWRCB	Closed	305 W Colton Ave
City of Redlands 31 and 205 West Stuart Ave Property	LUST Cleanup Site	SWRCB	Open	31 W. Stuart Ave
GTE	LUST Cleanup Site	SWRCB	Closed	11 4th St
9 West Colton Avenue Property	Cleanup Program Site	SWRCB	Open	9 W. Colton Ave
Chevron #9-7222	LUST Cleanup Site	SWRCB	Closed	1256 Orange St
Rich Oil Co., Inc	LUST Cleanup Site	SWRCB	Closed	1029 Orange St
Arco Petroleum Products #9716	LUST Cleanup Site	SWRCB	Closed	902 Orange St
Thrifty Oil #346	LUST Cleanup Site	SWRCB	Closed	902 Orange St
Tosco/76 Station #6019	LUST Cleanup Site	SWRCB	Closed	901 N. Orange Ave
Stater Bros. Site	Cleanup Program Site	SWRCB	Closed	11 E. Colton Ave
Mobil #08-EV5	LUST Cleanup Site	SWRCB	Closed	604 Orange St
Orange Plaza Cleaners	Cleanup Program Site	SWRCB	Closed	450 Orange St
Redlands Shell	LUST Cleanup Site	SWRCB	Closed	127 Redlands Blvd East
Conoco Phillips	LUST Cleanup Site	SWRCB	Closed	201 Redlands Blvd East
Performance Auto	LUST Cleanup Site	SWRCB	Closed	520 E. State St
Arco #6052	LUST Cleanup Site	SWRCB	Closed	539 E. Redlands Blvd

Sources: DTSC, 2022; SWRCB 2022

4.8 HYDROLOGY AND WATER QUALITY

Watershed

The proposed Transit Villages Specific Plan (TVSP, or Specific Plan) area covers approximately 947 acres (approximately 1.5 square miles) and is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The TVSP area is located within the Santa Ana River Watershed. The watershed is located south and east of Los Angeles and includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. The watershed is

bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea and Southern Mojave watersheds, and on the north and west by the Mojave and San Gabriel watersheds. Disputes over use of water led to the subdivision of the watershed into the Upper and Lower Santa Ana River Watersheds. The TVSP area is in the Upper Santa Ana River Watershed.

The Upper Santa Ana River Watershed consists of many tributaries flowing to the Santa Ana River. These tributaries range from natural streams to concrete-lined channels. Many of the streams flow through heavily developed areas. The San Bernardino County Flood Control District (SBCFCD) operates and maintains many of the tributary systems that are deemed "regional" (750 cubic feet per second (cfs) or greater flow and/or 640 acres or greater of watershed as well as portions of the Santa Ana River). Smaller-scale control facilities are generally operated by local jurisdictions. This watershed is in an arid region and therefore has little natural perennial surface water. Surface waters start in the upper erosion zone of the watershed, primarily in the San Bernardino and San Gabriel mountains. This upper zone has the highest gradient and soils and geology that do not allow large quantities of percolation of surface water into the ground. A variety of downstream water storage reservoirs (Lake Perris, Lake Mathews, and Big Bear Lake) and flood control areas (Prado Dam area and Seven Oaks Dam area) have been created to hold surface water.

The Santa Ana River watershed is regulated by the Santa Ana RWQCB. The Santa Ana RWQCB manages a large watershed area, which includes most of San Bernardino County to the east and then southwest through northern Orange County to the Pacific Ocean. The Santa Ana RWQCB's jurisdiction encompasses 2,800 square miles.

Groundwater Basin

The TVSP area is located in the Bunker Hill Subbasin of the Upper Santa Ana Groundwater Basin. The Bunker Hill Basin encompasses approximately 120 square miles of the Upper Santa Ana River watershed. It lies within San Bernardino County. The Bunker Hill Basin has approximately 5,976,000-acre feet of storage capacity and as of 1998, the total amount of water in storage in the Bunker Hill Subbasin was 5,890,300 acre feet. The Bunker Hill Subbasin contains several contamination plumes. The Redlands plume, located between Judson Street and Mountain Avenue in Redlands, is primarily composed of trichloroethylene (TCE), with lower levels of (tetrachloroethylene) PCE and dibromochloropropane (DBCP), and contaminates approximately 150,000 acre-ft of groundwater. The basin was adjudicated by the Western Judgment in 1969.

Water Quality

Water Quality Impairments: Section 303(d) of the federal CWA requires states to identify water bodies that are "impaired," or those that do not meet water quality standards and are not supporting their beneficial uses. Total Maximum Daily Loads (TMDLs) are then designed to serve as pollution control plans for these specific pollutants.

The Santa Ana River Watershed drains to the Santa Ana River, extends approximately 100 miles beginning at the crest of the San Bernardino Mountains and ending at the coast near Huntington Beach. Tributaries of the Santa Ana River within the Upper Santa Ana River Watershed include Mill Creek, City Creek, Plunge Creek (a tributary of City Creek), Mission Zanja Creek (located upstream of San Timoteo Creek), San Timoteo Creek, East Twin Creek, Warm Creek, and Lytle Creek. The following tributaries have been placed on the 303(d) list for the identified impairments.

Table 4-2: 303(d) Water Quality Impairments

Water Body	Impairments
Big Bear Lake	Mercury, Noxious Aquatic Plants, Nutrients, PCBs
Grout Creek	Nutrients
Knickerbocker Creek	Pathogens
Lytle Creek	Pathogens
Mill Creek, Reach 1	Pathogens
Mill Creek, Reach 2	Pathogens
Mountain Home Creek	Pathogens
Mountain Home Creek, East Fork	Pathogens
Rathbone (Rathbun) Creek	Cadmium, Copper, Nutrients, Sediment/ Siltation
Santa Ana River, Reach 6	Cadmium, Copper, Lead
Santa Ana River, Reach 4	Pathogens
Santa Ana River, Reach 3	Copper (wet weather only), Lead, Pathogens
Summit Creek	Nutrients

Two TMDLs have been adopted to address the above impairments in the Upper SAR: TMDLs for Bacterial Indicators in the Middle Santa Ana River Watershed (February 3, 2005), which addresses pathogens in the Santa Ana River, Reach 3, and Nutrient TMDL for Dry Hydrological Conditions for Big Bear Lake (April 21, 2006), which addresses nutrients in Big Bear Lake.

The City of Redlands has adopted the EPA's National Pollutant Discharge Elimination System (NPDES) regulations, which aims to reduce pollutants in urban runoff and stormwater flows. The Santa Ana RWQCB issued the County a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R8-2010-0036), which establishes pollution prevention requirements for planned developments. The County participates in an Area-wide Urban Stormwater Runoff Management Program to comply with the MS4 Permit requirements. Runoff from the development upland site is managed and regulated under the NDPES MS4 Permit and associated Storm Water Management Program.

Groundwater Supply

The Redlands Planning Area domestic water sources consist of both surface (about 50 percent of total supply) and groundwater (about 50 percent of total supply). The City of Redlands uses 15 wells that pump directly into the system or into reservoirs. Because of contamination, the City has wells that are not used for domestic purposes and are instead used for irrigation. It is anticipated that the contaminant levels will not decrease for many years due to the slow movement of water through the basin. Groundwater from the Bunker Hill Subbasin provides approximately half of Redland's water supply (13,601 acre-feet [AF] in 2020). A small portion (1,531 AF in 2020) of groundwater is also pumped from the Yucaipa Subbasin. The remaining supply comes from the Santa Ana River, Mill Creek, and the State Water Project (SWP). The basin was adjudicated by the Western Judgment in 1969 to regulate the amount of groundwater that can be pumped from the basin. Western Judgment allocated the Non-Plaintiffs' (agencies within San Bernardino County including Redlands) rights 167,238 acre-feet per year (AFY), which equates to 72.05 percent of the safe yield. San Bernardino agencies are allowed to extract more than 167,238 AFY from the SBB, as long as they import and recharge a like amount of supplemental water into the basin. The Western-San Bernardino

Watermaster provides an annual accounting of both the plaintiff and non-plaintiff extractions and a comparison to the safe yield. The Judgment requires the non-plaintiffs to provide replenishment water whenever the cumulative extractions exceed the cumulative safe yield.

Storm Drainage Facilities

The TVSP area is approximately 947 acres of land that is divided into three planning areas referred to as transit villages, which generally circle each new Arrow station, as shown on Figure 3-4. As shown in Figure 3-3, the TVSP area is developed and urbanized. The existing topography of the TVSP area is relatively flat and, according to the City of Redlands Drainage Master Plan, the area generally drains from the east to the west via the existing storm drain system.

Soil Infiltration

Recharge to the Bunker Hill Subbasin historically has resulted from infiltration of runoff from the San Gabriel and San Bernardino Mountains. The Santa Ana River, Mill Creek, and Lytle Creek contribute more than 60 percent of the total recharge to the groundwater system. The subbasin is also replenished by deep percolation of water from precipitation and resulting runoff, percolation from delivered water, and water spread in streambeds and spreading grounds. The TVSP area is approximately 1.5 miles south of the Santa Ana River and site soils primarily consist of Ramona Sandy Loam, Tujunga Loamy Sand, and Hanford Coarse Sandy Loam. These soils are generally well draining and support stormwater infiltration.

Flood Zone, Tsunami, Seiche

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the TVSP area (06071C8716H and 06071C8712H) shows that the southern portion of the TVSP area is located within "Zone X," which is an area of minimal flood hazard potential outside of the 0.2 percent annual chance flood. The northern portion of the TVSP area is within "Zone AO", an area of 1 percent annual flood with flood depth of 1 to 3 feet (usually areas of ponding) where Base Flood Elevations have been determined.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The TVSP area is over 50 miles from the Pacific Ocean, and outside of the Tsunami Hazard Zone identified by the California Department of Conservation Tsunami Hazard Area Map.

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no water bodies in the vicinity of the TVSP area, and no existing risks related to seiche flood hazards exist on or near the site.

4.9 LAND USE AND PLANNING

The City of Redlands General Plan 2035 (GP2035) designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Most of the New York Street/Esri Transit Village area consists of non-residential land use designations except for the multi-family residential area in the southern portion of the village. The Downtown Transit Village area is also primarily non-residential, with multi-family allowed along the eastern edge. Land use designations in the University Street Transit Village are primarily medium and high density residential, except the institutional designations associated with the University of Redlands campus to the north of the station site. The General

Plan Transit Villages Overlay provides for residential/mixed uses within a half-mile of each station (see Figure 3-5, *General Plan Land Use Designation*).

The GP2035 Livable Community Element includes a Transit Villages section that provides for the Transit Villages Overlay Zone (TVOZ), which applies to areas within a half-mile radius of the five rail stations that were anticipated in the GP2035, which includes the three new Arrow stations (see Figure 3-6, *General Plan Transit Villages*).

Existing residential zoning within the TVSP area is primarily Multi-Family Residential (R-2 and R-3); however, there are two small areas with existing single-family zoning. The parcels on 11th Street between the I-10 and Colton Avenue in the Downtown Transit Village are zoned Single-Family Residential (R-1) and the parcels in the University Street Transit Villages bounded by the I-10, East Cypress Avenue, and East Citrus Avenue are zoned Suburban Residential (R-S). See Figure 3-7, *Existing Zoning Districts*.

Non-residential zoning in the TVSP area include Industrial (I-P), Light Industrial (M-1), Planned Industrial (M-P), Administrative and Professional Office (A-P), Neighborhood Stores (C-1), General Commercial (C-3), Highway Commercial (C-4), Commercial (C-M), Educational (E), Transitional (T), Open Land (O), Floodplain (FP), East Valley-General Commercial (EV/CG), and East Valley-Public Institutional (EV/PI).

The Downtown Specific Plan (Specific Plan No. 45), which is located within the proposed Downtown Village, governs the parcels in the downtown area, which is divided into Town Center, Town Center-Historic District, and Service-Commercial District.

The Project area is surrounded by a variety of GP2035 land use designations and zones including industrial, institutional, agricultural, commercial, and single- and multi-family residential as described below. Views of the surrounding GP2035 land use designations can also be seen on Figure 3-5, and views of the surrounding zoning can be seen on Figure 3-7, *Existing Zoning Districts*.

North: Uses to the north include transitional, commercial, multi-family residential, University of Redlands, and single-family residential.
South: Uses to the south include multi-family residential, University of Redlands, industrial, open space, and administrative buildings.

West: Uses to the west of the Project site include industrial and commercial buildings.

East: Uses to the east primarily consist of single-family residences.

4.10 NOISE

Sensitive Receptors

Noise sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: residences, schools, hospitals, and recreation areas. Sensitive receptors are located throughout the TVSP area.

Existing Noise Levels

To assess the existing noise levels, 24-hour noise level measurements were taken at 10 locations near sensitive receivers in the vicinity of the TVSP area as shown in Figure 5.10-1. The field survey noted that noise within the TVSP area is generally characterized by vehicle traffic on area roadways and operation of the rail line and transit stations. A description of these locations and the existing noise levels are provided in Table 4-3. As shown, ambient noise levels range from 62.9 to 73.4 CNEL throughout the TVSP area.

Table 4-3: Existing Ambient Noise Measurement Results

Location	TVSP Land Use		Description	Energy Average Noise Level (dBA L_{eq})		CNEL
				Daytime	Nighttime	
L1	Village General	(VG)	Located southwest of the New York Street/ESRI Station north of Redlands Boulevard.	69.6	63.6	72.0
L2	Village Center	(VC)	Located near Historic Redlands Train Station at 383-389 Orange Street.	69.9	63.1	71.7
L3	Special District 1	(SD1)	Located west of the University Street Station north Park Avenue near Frederick Loewe Theatre.	57.1	57.6	64.4
L4	Village General	(VG)	Located north of Colton Avenue in the Tri City Shopping Center south of the CVS Pharmacy.	66.4	62.0	69.7
L5	Civic Space	(CS)	Located northwest of the University Street Station near Sylvan Park at 601 North University Street.	64.6	64.0	70.7
L6	Downtown	(DT)	Located north of East Vine Street and south of East Citrus Avenue.	57.6	56.0	62.9
L7	Village Corridor	(COR)	Located near the single-family residence at 1154 Orange Street.	70.2	65.5	73.4
L8	Neighborhood General 2	(NG2)	Located near the single-family residence at 410 East Stuart Street.	63.1	59.3	66.9
L9	Neighborhood General 1	(NG1)	Located near the single-family residence at 801 Stillman Avenue.	65.1	59.2	67.5
L10	Special District 1	(SD1)	Located south of the ESRI campus near the Redlands Adventist Academy at 130 Tennessee Street.	64.4	55.3	65.0

Source: Noise Study, 2022. Appendix G.

San Bernardino International Airport

The San Bernardino International Airport is located approximately 2.4 miles northwest of the TVSP area, which is within the Airport Influence Area. The latest aircraft noise contour boundaries for the airport were published as part of the Eastgate Air Cargo Facility Final Environmental Assessment. The TVSP area is located outside of the airport's 60 dBA CNEL noise level contours in 2024 and is considered normally acceptable by the General Plan Community Noise and Land Use Compatibility guidelines.

4.11 POPULATION AND HOUSING

Population

The California Department of Finance (DOF) estimates that the City of Redlands population is 71,154, representing approximately 3.3 percent of the County's total population. SCAG estimates that the City will have a population increase of 13.6 percent between 2021 and 2045, and the County will have population growth rate of over 29 percent over the same period. Table 4-4 provides population figures for the City of Redlands and the County in 2021, and SCAG projections for year 2045.

Table 4-4: Population Estimates and Projections, 2021–2045

	2021[1]	2045[2] Projection	2021-2045 Change
City of Redlands	71,154	80,800	13.6%
San Bernardino County	2,175,909	2,815,000	29.4%

[1] California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.
[2] SCAG 2045 Growth Forecasts.

Housing and Households

The DOF estimates that there were 27,214 housing units in Redlands in 2021, which is 3.7 percent of the County total. The City's housing stock is 64 percent single-family residential and is estimated to be 93.4 percent occupied. The DOF estimated persons per household is 2.71.

Table 4-5: City of Redlands Existing Housing Stock, 2021

Residence Type	Number	Percentage
Single-Family Detached	17,451	64.1%
Single-Family Attached	1,202	4.4%
Two to Four Units	3,144	11.6%
Five Plus	4,331	15.9%
Mobile Homes	1,086	4.0%
Total	**27,214**	**100%**
Occupied	25,405	93.4%
Vacancy	1,809	6.6%

California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.

According to SCAG's 2020-2045 RTP/SCS, the City of Redlands is projected to add approximately 5,395 households by 2045. This averages approximately 225 new households annually through 2045.

Table 4-6: SCAG Household Projections, 2021–2045

	2021[1] Households	2045[2] Households	2021-2045 Increase
City of Redlands	25,405	30,800	21.2%
San Bernardino County	649,259	875,000	34.8%

[1] California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.
[2] SCAG 2045 Growth Forecasts.

Employment

According to SCAG's 2020-2045 RTP/SCS, the number of jobs within the City is projected to increase from 42,600 jobs in 2016 to 56,300 jobs in 2045. This represents an increase of over 32 percent, and an average of 472 jobs annually through the year 2045.

Table 4-7: SCAG Projected Employment Trends 2016-2045

	2016	2045	2016 – 2045 Increase
City of Redlands	42,600	56,300	13,700 (32.2%)
San Bernardino County	791,000	1,064,000	273,000 (34.5%)

Source: SCAG 2045 Growth Forecasts.

In addition, the 2020 Census estimates that 63 percent of the City's residents that are over 16 years of age are in the labor force and have an average 26.9-minute commute. This is similar to San Bernardino County as a whole, where 60.3 percent of residents over 16 years old are in the labor force and the average commute time was 31.6 minutes.

Jobs – Housing Balance

SCAG considers an area balanced when the jobs-housing ratio is 1.36; communities with more than 1.36 jobs per dwelling unit are considered jobs-rich; those with fewer than 1.36 are "housing rich," meaning that more housing is provided than employment opportunities in the area (SCAG 2004).

As described above, the City currently has approximately 25,405 households and approximately 34,900 jobs (2022 State of California Employment Development Department Labor Force data), which results in a jobs-to-housing ratio of 1.37 jobs per household. SCAG projects a jobs-to-housing ratio of 1.83 in 2045, which indicates that employees would be commuting into the City for employment, and that additional housing would improve the jobs to housing balance within the City. The City is projected to have a higher percentage of jobs to households in comparison to the County, which is projected to have a jobs to housing ratio of 1.22 in 2045. Table 4-8 provides the existing and projected jobs-to-housing ratios for the City and the County.

Table 4-8: Existing and Projected Jobs - Housing Balance in the City and County

	Year	Employment	Households	Jobs-Housing Ratio
City of Redlands	2022[1]	34,900	25,405	1.37
	2045	56,300	30,800	1.83
San Bernardino County	2022[1]	940,800	649,245	1.45
	2045	1,064,000	875,000	1.22

Sources:[1]Employment Development Department, 2022.
SCAG 2020

4.12 PUBLIC SERVICES

Redlands Fire Department

The Redlands Fire Department (City Fire) would serve the TVSP area. City Fire provides fire suppression, emergency medical services (paramedic and non-paramedic), ambulance services, hazardous materials (HAZMAT) response, arson investigation, technical rescue, winter rescue operations, hazard abatement, and terrorism and weapons of mass destruction. The Fire Department provides services including fire prevention and suppression, emergency medical services, technical rescue, and hazardous materials response.

The Fire Department consists of approximately 52 total sworn personnel, (including 44 firefighter/paramedics and 16 firefighter/EMTs) and covers an area of 37 square miles. Each year, Redlands averages 264 fires, including 64 vegetation fires, 53 structure fires, 47 vehicle fires, and 100 miscellaneous fires.

Redlands Police Department

Public safety services in the City, including the TVSP area, are provided by the Redlands Police Department (RPD). RPD's main police station is located at 1270 West Park Avenue within the boundaries of the New York Street/Esri Transit Village. The main police station is located at 1270 West Park Avenue, with four other divisions located citywide. The Police Department personnel is made up of approximately 100

volunteers, 80 sworn officers and 58 full and part-time civilians, resulting in a service level of 1.12 officers per 1,000 residents. In 2020, the Department had an average response time of 9.08 minutes for Priority one police service calls and a service ratio of 1.1 officers per 1,000 residents. Although there are no industry standards for response time to emergency calls, according to the Redlands Police Department, a response time of 4.5 minutes is desirable in a city of this size. RPD maintains other locations in the City where it houses other divisions.

Park Services

Existing parks within the City include four pocket parks (1.8 acres), eight neighborhood parks (76.8 acres), six community parks (143.2 acres), and three other parks (202.4 acres) for a total of approximately 424.2 acres (GP2035 EIR, Table 3.13-1). At the estimated 2019 population of 71,513 residents, the ratio of existing parkland acres per 1,000 residents is 5.9, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents consistent with state law (Quimby Act). There are several parks within the TVSP area that provide open space and recreational opportunities to surrounding residents, workers, and visitors.

Other Public Services

Other governmental services include the City's library system. The A. K. Smiley Public Library, established in 1894, is a 34,000-square-foot facility located at 125 West Vine Street. In addition to its diverse collection of resource materials, the library system offers services and programs for all ages, including an adult literacy program. It also houses a museum, and the Lincoln Memorial Shrine. At the time the GP2035 was drafted, the library was in need of additional storage space for the museums, and plans were underway for an adjunct building at 700 Brookside Avenue (formerly the Redlands Daily Facts building) for the Redlands Historical Museum (GP2035 EIR, p. 3.13-13).

4.13 RECREATION

Regional

The San Bernardino County Regional Parks Department manages and maintains nine Regional Parks throughout San Bernardino County totaling approximately 9,200 acres. Each park offers diverse outdoor recreation opportunities in settings that range from metro, mountain, and desert scenery. Regional County recreational facilities near the TVSP area include the Santa Ana River Trail and Parkway which is approximately 6.9 miles from the Project site and the Yucaipa regional park which is approximately 10 miles from the Project site.

Local

Existing parks within the City include four pocket parks (1.8 acres), eight neighborhood parks (76.8 acres), six community parks (143.2 acres), and three other parks (202.4 acres) for a total of approximately 424.2 acres (GP2035 EIR, Table 3.13-1). At the estimated 2019 population of 71,513 residents, the ratio of existing parkland acres per 1,000 residents is 5.9, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents consistent with state law (Quimby Act). There are several parks within the TVSP area that provide open space and recreational opportunities to surrounding residents, workers, and visitors. Table 4-9, *Existing Parks within the TVSP Area*, shows the existing parks within the TVSP area as well as additional park information.

Table 4-9: Existing Parks within the TVSP Area

Park Type	Park Name	Location (in Redlands)	Park Size	Park Details
Pocket Park	Ed Hales Park	101 E. State St.	0.7 acre	Picnic facilities in the downtown central business district

Park Type	Park Name	Location (in Redlands)	Park Size	Park Details
Neighborhood Park	Smiley Park (Portion)	126 E. Eureka St.	9.2 acres (Only a portion located within TVSP area)	Located at the Redlands Civic Center, this park is home to A. K. Smiley Public Library, the Lincoln Memorial Shrine, and the Redlands Bowl
	Jennie Davis Park	923 W. Redlands Blvd.	5.2 acres	Playground facilities and location of the annual Veteran's Day Parade and Celebration
Community Park	Sylvan Park	University St. between Colton Ave. and Park Ave.	23.3 acres	Open grassy areas, rose garden, picnic areas, a playground, a stage/bandstand area, a skate park, a baseball/softball field, horseshoe pits, bag toss, lawn bowling, and trails.
Other Park	Terrace Park	Between N. Sixth St. and Church St. on Colton Ave.	2.4 acres	Linear park featuring landscaped tree-lined walkway with benches and drinking fountain

Source: City of Redlands, Facilities & Community Services Department

4.14 TRANSPORTATION

Table 4-10, *Existing Major Roadway Characteristics within TVSP Area*, shows the roadway characteristics that are observed within the TVSP area.

Table 4-10: Existing Major Roadway Characteristics within TVSP area

Roadway	Classification	Number of Lanes	Bike Lane?
Redlands Boulevard (E/W)	Boulevard (between Alabama Street and E Citrus Avenue), Major Arterial elsewhere	4-Lane Divided w/Concrete median, except between Center Street and 1st Street	No
Orange Street (N/S)	Boulevard (between Redlands Boulevard and Union Avenue), Minor Arterial elsewhere	4-Lane Divided w/Painted median	No
Cajon Street (N/S)	Minor Arterial	2-Lane Divided w/Painted median	Class II
Colton Avenue (E/W)	Boulevard (between Redlands Boulevard and 6th Street)	2-Lane Divided w/Painted median	Class III between Orange Street and Church Street
Brookside Avenue (E/W)	Major Arterial	2-Lane Divided w/Concrete median	Class II
Citrus Avenue (E/W)	Major Arterial west of Orange Street, Minor Arterial East of Orange Street	4-Lane Divided w/Concrete median between Eureka Street and Orange Street, 2-Lane Divided w/Painted median elsewhere	Class III west of Redlands Boulevard, Class II east of Redlands Boulevard
University Street (N/S)	Boulevard between I-10 and Colton Avenue, Minor Arterial south of I-10 and between Colton Avenue and Lugonia	4-Lane Divided w/Painted median	None

Roadway	Classification	Number of Lanes	Bike Lane?
	Avenue, Collector north of Lugonia Avenue		
Tennessee Street (N/S)	Minor Arterial	4-Lane Divided w/Painted median	Class III south of State Street
Olive Avenue (E/W)	Collector	2-Lane Divided w/Painted median	Class II

Existing Transit Service

The TVSP area is served by bus service via Omnitrans, which serves the San Bernardino Valley. Omnitrans Route 8 connects San Bernardino and Yucaipa via Loma Linda, Redlands, and Mentone, including the TVSP area, with buses running every 60 minutes Monday through Sunday, and has stops along Redlands Boulevard and Lugonia Avenue. Omnitrans Route 15 serves the cities of Fontana and Redlands (including the TVSP area) via San Bernardino and Rialto, with buses running every 60 minutes Monday through Sunday, and has stops along Orange Street, Redlands Boulevard, and Eureka Street. Omnitrans Route 19 provides service between Fontana, the San Bernardino Transit Center, and Yucaipa. Route 19 has stops at the Redlands Mall and has buses running every 60 minutes, Monday through Sunday.

Furthermore, the San Bernardino County Transportation Authority's newly built Arrow line connects the City of Redlands to the City of San Bernardino and provides further direct rail trips once a day to the City of Los Angeles. The Arrow line has three stops located at the center of each proposed Transit Village:

- New York/Esri Station: located north of the intersection of Redlands Boulevard and New York Street across from the Esri campus
- Downtown Station: located at the historic Redlands Santa Fe Depo, between Eureka Street and Orange Street
- University Station: located at the University of Redlands at the south end of campus near North University Street

Starting in 2022, during morning and afternoon peak commute hours, trains operate every 30 minutes. During non-commute or off-peak hours, trains operate every 60 minutes. Weekday and weekend service is planned to start at 5 a.m. and run until 10 p.m. In addition to standard passenger rail service, the Metrolink Express train will be extended to serve the Redlands – Downtown Station with limited stop service to and from Los Angeles during peak commute hours.

Existing Bicycle and Pedestrian Facilities

As shown on Table 5.14-1, above, in the TVSP area, Brookside Avenue, Citrus Avenue, Cajon Street, Olive Street, and Colton Avenue, contain bicycle lanes. Furthermore, a Class I bicycle lane currently exists west of Center Street and east of Grove Street within the TVSP area.

Generally, throughout the TVSP area, sidewalks are provided on both sides of the street. University Street currently lacks sidewalks on some segments near the I-10 and Redlands Boulevard currently lacks sidewalks on some segments. Additionally, a multi-use trail, the Orange Blossom Trail, transverses the TVSP area east of Center Street and west of Grove Street. Other multi-use trails exist on Church Street and a portion of Colton Avenue between 6th Street and Church Street.

4.15 TRIBAL CULTURAL RESOURCES

The TVSP area is within a region where the traditional use territories of the Serrano, Cahuilla, and Gabrielino meet. These three cultural groups spoke languages belonging to the Takic branch of the Shoshonean family, a part of the larger Uto-Aztecan language stock.

Serrano

The Serrano people once occupied the Mountain, North Desert, and East Desert Regions of present-day San Bernardino County. Mainly due to the inland territory that the Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was minimal. As early as 1790, some Serrano people were drawn into mission life. After a failed attack of the Mission San Gabriel in 1811, some Serrano people relocated to Morongo with the Cahuilla tribe. Others followed the Serrano leader Santos Manuel toward the San Bernardino County valley floors and eventually settled to become the San Manuel Band of Mission Indians Reservation.

Cahuilla

The eastern portion of the Valley Region, the southeastern part of the Mountain Region, and the southern portion of the East Desert Region of San Bernardino County were once home to the Cahuilla people. It is thought that the Cahuilla migrated to southern California approximately 2,000 to 3,000 years ago with related sociolinguistic groups, most likely from the southern Sierra Nevada Mountain ranges. The Cahuilla settled in a territory that extended from the present-day city of Riverside to the central portion of the Salton Sea in the Colorado Desert, and from the San Jacinto Valley to the San Bernardino Mountains.

Gabrielino

The Gabrielino historically occupied the southwestern portion of San Bernardino County, including the Valley Region. The name Gabrielino denotes the people who were under the control of the Spanish from Mission San Gabriel, which included people from the Gabrielino proper as well as other social groups. Many contemporary Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term Tongva. Historic-era Tongva settlements in the San Bernardino Valley were primarily located at the base of the foothills and along perennial watercourses.

Tribal Cultural Resources

Two prehistoric archaeological resource sites are located within the TVSP area. Furthermore, the Mill Creek Zanja transverses the proposed TVSP area. The historic feature was designated a California Historical Landmark No. 43 in 1932 and placed on the National Register of Historic Places in 1977. The Mill Creek Zanja was built in 1819 to convey water from Mentone to the Assistencia de Mission San Gabriel. Today, it carries drainage water and storm runoff. It is the oldest continuously operating irrigation canal in California, and the oldest civil engineering project in Southern California. It runs through University Street and New York Street.

Through a study for the Passenger Rail Project by ICF International in 2014, a segment of the Mill Creek Zanja was found ineligible for the NR. The portion of the Mill Creek Zanja that is located west of Division Street to the southwest and terminates west of the concrete channel at Ninth Street. This portion is no longer eligible for listing in the NR due to its loss of historic integrity (ICF International 2014). The segment mentioned above does not resemble the Mill Creek Zanja segment to the east which was described in the 1976 Nomination Form and appears it was excluded from the 1976 nomination because of its lack of resemblance (ICF International 2014). In August 2014, SHPO concurred with the determination of National Register

eligibility and Section 106 finding of effect regarding the evaluated segment of the Mill Creek Zanja (MCC 2022)

4.16 UTILITIES

Water

The TVSP area is located within the water service area of the City of Redlands Municipal Utilities and Engineering Department (MUED), which provides retail water service to the majority of the City of Redlands, a portion of the City of Loma Linda, and unincorporated areas of the Donut Hole, Mentone, and most of Crafton.

WVWD participates in the Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan. This Urban Water Management Plan (UWMP) is a tool that provides a summary of anticipated supplies and demands for the years 2020 to 2045 within the Valley Region of San Bernardino County, including various incorporated cities such as the City of Redlands.

Water Supply and Demand- MUED

The MUED utilizes four primary sources for drinking water supply: groundwater, surface water, imported water, and recycled water. The MUED's water supply is a combination of groundwater from the Bunker Hill Subbasin; groundwater from the Yucaipa Subbasin; surface water from the Santa Ana River; surface water from Mill Creek; imported water from the State Water Project (SWP) Water; and recycled water. As shown on Table 4-11, in 2020 the MUED obtained the majority of its water supply from the Bunker Hill Subbasin.

Table 4-11: MUED Water Supply 2020

Water Supply	Source	Water Quality	Volume (acre-feet)	Percentage
Groundwater	Bunker Hill	Drinking Water	12,088	43%
Groundwater	Bunker Hill	Non-Potable	1,531	5.4%
Groundwater	Yucaipa	Non-Potable	297	1.1%
Surface Water	Santa Ana River	Drinking Water	5,796	20.6%
Surface Water	Mill Creek	Drinking Water	6,045	21.5%
Purchased or Imported Water	SWP-Direct Deliveries	Drinking Water	535	1.9%
Recycled	Recycled Water-Direct	Recycled Water	1,806	6.5%
Total			**28,098**	**100%**

Source: 2020 UWMP.

As shown in Table 4-12, the 2020 UWMP estimates that water supplies in the future are anticipated to be obtained through a similar mix of surface water, groundwater, and purchased or imported water. The 2020 UWMP anticipates that the MUED's water supply will increase from 31,039 AF in 2025 to 35,544 AF in 2045 (increase of 4,505 AFY) to meet MUED's anticipated growth in water demands.

Table 4-12: MUED Projected Water Supply (AF)

Water Supply	Source	2025	2030	2035	2040	2045	2045 Percentage
Groundwater	Bunker Hill	12,973	13,922	14,861	15,677	16,484	46.4%
Groundwater	Bunker Hill	3,766	4,015	4,275	4,513	4,760	13.4%
Groundwater	Yucaipa	1,000	1,000	1,000	1,000	1,000	2.8%

Surface Water	Santa Ana River	5,000	5,000	5,000	5,000	5,000	14.1%
Surface Water	Mill Creek	5,500	5,500	5,500	5,500	5,500	15.5%
Purchased or Imported Water	SWP-Direct Deliveries	700	700	700	700	700	1.9%
Recycled	Recycled Water-Direct	2,100	2,100	2,100	2,100	2,100	5.9%
	Total	**31,039**	**32,238**	**33,436**	**34,490**	**35,544**	**100%**

Source: 2020 UWMP.

The 2045 projections anticipate that 62.6 percent of supply would be from the groundwater sources, 29.6 percent from surface water, 1.9 percent from imported/purchased sources, and 5.9 percent from recycled water. The UWMP also describes that there has been a historical trend associated with drier years and an increase in water use among agencies. Conservation efforts have proven to be effective in decreasing water use in dry years. Additionally, according to the UWMP, MUED has adequate supplies to serve 100 percent of its customers during normal, dry year, and multiple dry year demand through 2045 with projected population increases and accompanying increases in water demand (UWMP 2020).

Groundwater: Redlands MUED extracts groundwater from the Bunker Hill Subbasin (also known as San Bernardino Basin or SBB) and Yucaipa Subbasin. Extractions from both basins include potable and non-potable water. In 2020, Redlands MUED extracted 13,619 AF of groundwater from the Bunker Hill Subbasin and 297 AF from the Yucaipa Subbasin. The City of Redlands uses 15 wells that pump directly into the system or into reservoirs (UWMP 2020).

Purchased or Imported Water: Imported water from the SWP is available for the MUED to purchase from Valley District when needed. The MUED has purchased supplemental SWP water only in years when surface water flows have not been able to meet demands and on occasion when surface water supplies are turbid and require blending or for other operational purposes. The MUED contributes to regional efforts to recharge the Bunker Hill groundwater basin with SWP water and local surface water in wet years when available so that storage is available for use in dry years when other supplies may be limited (UWMP 2020).

Surface Water: The MUED receives water from the Mill Creek watershed and the Santa Ana River watershed. Water from the Mill Creek watershed is treated at Henry Tate Surface Water Treatment Plant. Water from the Santa Ana River watershed is treated at the Horace P. Hinckley Surface Water Treatment Plant. The MUED has ownership in a variety of private and mutual water companies to supply water to the City's Tate and Hinckley Surface Water Treatment Plants (UWMP 2020).

Recycled Water: The City's Wastewater Treatment Plant has the capability of treating 7.2 million gallons per day (mgd) of wastewater to a Title 22 Recycled Water level. The City's recycled water customers include Southern California Edison, a landfill, and recycled/non-potable water customers in the 1350 pressure zone. Southern California Edison uses recycled water for its Mountain View Power Plant and recycled water customers use recycled water for irrigation.

Water Infrastructure

The City's water treatment plants include the Henry Tate Water Treatment Plant and the Horace Hinckley Surface Water Treatment Plant. The Henry Tate Water Treatment Plant is a conventional water treatment plant built in 1967. The design capacity of the Tate plant is 20 million gallons per day (mgd). The City added enhancements to the Tate WTP to provide more water supply reliability by allowing State Water Project water to be mixed with Mill Creek water for treatment. The Horace Hinckley Surface Water Treatment Plant started operation in 1987 and has a permitted capacity of 14.5 mgd. The 10-year average flow (up to and including 2016) is 6,363 AF at the Henry Tate Plant, and 6,697 AF at the Horace Hinckley

Plant. The TVSP area contains a network of water lines from 1 to 36-inches in diameter, which operate within capacity for existing development within the TVSP area. The City of Redlands maintains approximately 400 miles of pipeline with over 21,500 metered connections that serve potable water (MUED 2022).

Water Use in TVSP Area

Within the TVSP area, there are currently 2,318 multi-family dwelling units, approximately 6.5 million square feet of commercial (or non-residential) uses, and 5.7 million square feet of landscaped areas. Currently, residential uses comprise approximately 40 percent of the water demand in the TVSP area, commercial/non-residential uses comprise approximately 27 percent of the water demand, and landscaping irrigation comprises approximately 33 percent of the water demand. The TVSP area currently has an annual water usage of approximately 1,357 AF (WSA 2022).

Wastewater

Sewer service in the TVSP area is provided by the City of Redlands. The City's Wastewater Treatment Plant is located on the south side of the Santa Ana River Wash at Nevada Street. The City's Wastewater Treatment Plant has a secondary treatment capacity of 9.5 mgd and a tertiary treatment capacity of 7.2 mgd. As of 2021, average flow to the City's Wastewater Treatment Plant was approximately 5.8 mgd (MUED 2021).

In 2020, 6,620 AF of wastewater was treated at the City's Wastewater Treatment Plant. In 2020, 3,813 AF were treated to a secondary level and released to spreading basins east of the City's Wastewater Treatment Plant for percolation into the Bunker Hill groundwater basin, while 1,806 AF were treated to a tertiary level and distributed as recycled water (UWMP 2020).

The wastewater system has one lift station that serves the western-most portion of the city south of Interstate 10 (I-10). The collections system in the City of Redlands consists of approximately 250 miles of pipelines. Within the TVSP area, wastewater pipelines range from 6-inches to 48-inches in diameter.

Stormwater

The City of Redlands' stormwater drainage system serves an area of approximately 37 square miles. The Downtown stormwater drainage system is composed of reinforced concrete pipe (RCP) and corrugated metal pipe (CMP) with diameters ranging from 8 inches to 96 inches, box culverts, covered rubble rock and concrete channels, and concrete and natural drains. Stormwater runoff from the City's drainage systems flows by gravity into the Mission Channel, Morrey Arroyo Creek, and San Timoteo Canyon, and discharges to the Santa Ana River.

Drainage throughout the TVSP area is generally from east to west to one of two main existing major stormwater drainage facilities. The existing stormwater drainage system within the TVSP area lacks capacity, as evidenced by flooding within the Downtown area during storm events. The main cause of flooding within the TVSP area is the lack of capacity in the Zanja, the Redlands Boulevard Storm Drain, and the Oriental Storm Drain. With a stormwater capacity of approximately 2,400 cubic feet per second (cfs), the Redlands Boulevard Storm Drain can receive approximately 4,200 cfs from the Zanja and the Carrot Storm Drain and 4,000 cfs from the Reservoir Canyon and Oriental Storm Drains. These tributaries result in a confluence of stormwater within the Redlands Boulevard Storm Drain near the intersection of Redlands Boulevard and Ninth Street, which can lead to flooding. In 2017, the City adopted the 2017 Master Plan of Drainage.

Solid Waste

Solid waste collection services are provided within the TVSP area by the City of Redlands. The City's Quality of Life Department provides residential waste collection, green waste collection for yard waste, and curbside recycling. Hazardous and electronic waste is managed by the Redlands Fire Department, which operates a household hazardous and electronic waste disposal site on a weekly basis.

Solid waste from the TVSP area is primarily disposed of at the California Street Landfill operated by the City of Redlands Quality of Life Department and the San Timoteo Sanitary Landfill operated by the County, both within the city limits. The California Street Landfill is located at 2151 Nevada Street and encompasses 115 acres and is permitted to operate through 2042. The California Street Landfill design capacity is 11.4 million cubic yards, and its maximum permitted throughput is 829 tons per day. It has a remaining capacity of 5,168,182 cubic yards. In 2020, the California Street Landfill received an average throughput of 146 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the California Street Landfill has an approximate extra capacity of 683 tons per day.

The San Timoteo Sanitary Landfill is located on San Timoteo Canyon Road and is 366 acres in size and is permitted to operate through 2039. It has a permitted capacity of 23,685,785 cubic yards and a maximum permitted daily throughput of 2,000 tons. It has a remaining capacity of 12,360,396 cubic yards. In 2020, the San Timoteo Sanitary Landfill received an average throughput of 772 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the San Timoteo Sanitary Landfill has an approximately extra capacity of 1,228 tons per day.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Jurisdictional Disposal and Alternative Daily Cover Tons by Facility. CalRecycle. https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility

Landfill Tonnage Reports. CalRecycle. https://www2.calrecycle.ca.gov/LandfillTipFees/

Material Cultural Consulting. Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments (MCC 2022). January 2022. Appendix C.

5.0 Environmental Impact Analysis

Chapter 5 examines the environmental setting of the Project, analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for each environmental issue area that was determined to need further study in the Draft EIR. This scope was determined in the Initial Study and Notice of Preparation (NOP), which was published September 1, 2021, and through public and agency comments received during the NOP comment period that ended on September 30, 2021 (see Appendix A). Environmental issues and their corresponding sections are:

5.1 Aesthetics
5.2 Air Quality
5.3 Cultural Resources
5.4 Energy
5.5 Geology and Soils
5.6 Greenhouse Gas
5.7 Hazards and Hazardous Materials
5.8 Hydrology and Water Quality
5.9 Land Use and Planning
5.10 Noise
5.11 Population and Housing
5.12 Public Services
5.13 Recreation
5.14 Transportation
5.15 Tribal Cultural Resources
5.16 Utilities and Service Systems

This Draft EIR evaluates the direct and indirect impacts resulting from the planning, construction, and operations of the Project. Under CEQA, EIRs are intended to focus their discussion on significant impacts and may limit discussion of other impacts to a brief explanation of why the impacts are not significant.

Format of Environmental Topic Sections

Each environmental topic section generally includes the following main subsections:

- **Introduction:** This describes the purpose of analysis for the environmental topic and referenced documents used to complete the analysis. This subsection may define terms used.
- **Regulatory Setting:** This subsection describes applicable federal, state, and local plans, policies, and regulations that the Project must address and may affect its implementation.
- **Environmental Setting:** This subsection describes the existing physical environmental conditions (environmental baseline) related to the environmental topic being analyzed.
- **Thresholds of Significance:** This subsection sets forth the thresholds of significance (significance criteria) used to determine whether impacts are "significant." The thresholds of significance used to assess the significant of impacts are based on those provided in Appendix G of the CEQA Guidelines.
- **Methodology:** This subsection provides a description of the methods used to analyze the impact and determine whether it would be significant or less than significant.
- **Environmental Impacts:** This subsection provides an analysis of the impact statements for each identified significance threshold. The analysis of each impact statement is organized as follows:
    - A statement of the CEQA threshold being analyzed,
    - The Draft EIR's conclusion as to the significance of the impact.

  - An impact assessment that evaluates the changes to the physical environment that would result from the Project.
  - An identification of significance comparing identified impacts of the Project to the significance threshold with implementation of existing regulations, prior to implementation of any required mitigation.

- **Cumulative Impacts:** This subsection describes the potential cumulative impacts that would occur from the Project's environmental effects in combination with other cumulative projects (See Table 4-8).

- **Existing Regulations and Regulatory Requirements.** A list of applicable laws and regulations that would reduce potentially significant impacts.

- **Level of Significance Before Mitigation.** A determination of the significance of the impacts after the application of applicable existing regulations and regulatory requirements.

- **Mitigation Measures.** For each impact determined to be potentially significant after the application of applicable laws and regulations, feasible mitigation measure(s) to be implemented are provided. Mitigation measures include enforceable actions to:
  - avoid a significant impact;
  - minimize the severity of a significant impact;
  - rectify an impact by repairing, rehabilitating, or restoring the effected physical environment;
  - reduce or eliminate the impact over time through preservation and/or maintenance operations during the life of the project; and/or
  - compensating for the impact by replacing or providing substitute resources or environmental conditions.

- **Level of Significance after Mitigation.** This section provides the determination of the impact's level of significance after the application of regulations, regulatory requirements, and mitigation measures.

Impact Significance Classifications

The below classifications are used throughout the impact analysis in this Draft EIR to describe the level of significance of environmental impacts. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines.

- **No Impact.** The Project would not change the environment.
- **Less Than Significant.** The Project would not cause any substantial, adverse change in the environment.
- **Less Than Significant with Mitigation Incorporated.** The Draft EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
- **Significant and Unavoidable.** The Project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less than significant level.

5.1 Aesthetics

5.1.1 INTRODUCTION

This section describes the existing visual setting and aesthetic character of the Project site and vicinity and evaluates the potential for the Project to impact scenic vistas, visual character and quality, and light and glare. This analysis focuses on changes that would be seen from public viewpoints and provides an assessment of whether aesthetic changes from implementation of the Project would result in substantially degraded aesthetic conditions. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017; and
- *City of Redlands Municipal Code.*

Aesthetics Terminology

- **Aesthetic Resources** include a combination of numerous elements, such as landforms, vegetation, water features, urban design, and/or architecture, that provide an overall visual impression that is pleasing to, or valued by, its observers. Factors important in describing the aesthetic resources of an area include visual character, scenic resources, and scenic vistas. These factors together not only describe the intrinsic aesthetic appeal of an area, but also communicate the value placed upon a landscape or scene by its observers.
- **Scenic Resources** are visually significant hillsides, ridges, water bodies, and buildings that are critical in shaping the visual character and scenic identity of the area and surrounding region.
- **Scenic Vistas** are defined as panoramic views of important visual features, as seen from public viewing areas. This definition combines visual quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting.
- **Visual Character** broadly describes the unique combination of aesthetic elements and scenic resources that characterize a particular area. The quality of an area's visual character can be qualitatively assessed considering the overall visual impression or attractiveness created by the particular landscape characteristics. In urban settings, these characteristics largely include land use type and density, urban landscaping and design, architecture, topography, and background setting.

5.1.2 REGULATORY SETTING

5.1.2.1 Local Regulations

City of Redlands General Plan 2035

City policies pertaining to visual character are contained in the Distinctive City, Livable Community, and Vital Environment Chapters of the Redlands General Plan. The following goals and policies from the Redlands General Plan are relevant to the proposed Project:

Principle 2-P.8 Identify, maintain, protect, and enhance Redlands' cultural, historic, social, economic, architectural, agricultural, archaeological, and scenic heritage. In so doing, Redlands will preserve its unique character and beauty, foster community pride, conserve the character and architecture of its neighborhoods and commercial and rural areas, enable citizens and visitors to enjoy and learn about local history, and provide a framework for making appropriate physical changes.

Principle 2-P.13 Encourage preservation of and public access to defined and established significant scenic vistas, viewpoints, and view corridors.

Action 2-A.25 Require any application that would alter or demolish an undesignated and unsurveyed resource over 50-years-old to be assessed on the merits of the structure, and to be approved by the Historic and Scenic Preservation Commission.

Action 2-A.28 Develop strategies or guidelines to enhance the public realm and context sensitive landscapes in the historic and scenic districts.

Action 2-A.29 Retain existing easements and rights of way for use as viewpoints, turnouts, and scenic walkways where feasible.

Action 2-A.30 Identify historic design features characteristic of the city and its individual neighborhoods that can be used to establish themes and design guidelines.

Action 2-A.34 Uphold the designation of the following streets within the city as scenic highways, drives, and historic streets. Special development standards have been adopted by Resolution for these streets. The streets are:

- Brookside Avenue, from Lakeside Avenue to Eureka Street;
- Olive Avenue, from Lakeside Avenue to Cajon Street;
- Center Street, from Brookside Avenue to Crescent Avenue;
- Highland Avenue, from Serpentine Drive to Cajon Street;
- Sunset Drive, from Serpentine Drive to Edgemont Drive;
- Cajon Street;
- Mariposa Drive, between Halsey and Sunset Drive; and
- Dwight Street, between Pepper Street and Mariposa Drive.

In addition, consider designating the following roads as scenic drives within the community as neighborhood connectors and recreational routes for drivers and bike riders.

- Riverview Drive along the Santa Ana River Wash;
- Live Oak Canyon Road;
- San Timoteo Canyon Road;
- Sylvan Boulevard;
- Nevada Street, from the Orange Blossom Trail to Barton Road;
- Pioneer Avenue, from River Bend Drive to Judson Street; and
- Rural roads in Crafton.

Action 2-A.35 Establish standards for the evaluation of exterior lighting for new development and redevelopment to ensure that exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) is minimized, restricted to low-intensity fixtures, shielded, and concealed to the maximum feasible extent, and that high-intensity perimeter lighting and

lighting for sports and other private recreational facilities is limited to reduce light pollution visible from public viewing areas.

Action 2-A.38 Use exemplary design quality and sensitivity to surrounding historic structures in new City construction, public works, entry ways, and City signs.

Action 2-A.39 Ensure that permanent changes to the exterior or setting of a designated historic resource be done in accordance with the Secretary of the Interior standards for historic properties.

Action 2-A.42 Should demolition of a designated historic resource occur, endeavor to ensure that a building of equal or greater design quality and/or use of equal or greater benefit to the community be constructed. Require that a report documenting the history of the property and archival-quality drawings and/or photographic records be prepared to document the historic resource.

Action 2-A.49 Encourage compatibility of new land uses and new construction adjacent to historical buildings. Encourage construction that is physically and aesthetically complementary to the historic buildings in architectural features and relationship to adjoining structures.

Action 2-A.67 Permit densities, design, and uses that will help preserve the character and amenities of existing older neighborhoods.

Principle 2-P.21 Encourage conservation and preservation of citrus groves and farms, especially those that have cultural or scenic significance. Encourage retention of existing privately-owned citrus groves of all sizes.

Principle 2-P.23 Incorporate citrus trees, in groves of sufficient size and depth to be a viable grove, as part of streetscapes and scenic views, and encourage their conservation in historic neighborhoods.

Action 2-A.92 Provide public improvements for traffic and pedestrian circulation, flood control, utility services, and aesthetic amenities that will attract new private investment and economic development.

Action 2-A.100 Encourage public art and community gatherings through a wide range of visual and physical forms—from banners on light posts, paving and artwork on sidewalks, murals, light displays at night, music, and sculptures, to the design and shaping of public spaces and plazas—all of which set the stage for people to gather, play, and observe. Build on existing activities and events and incorporate facilities to support them.

Principle 4-P.10 Ensure that the scale and character of new development is appropriate for surrounding terrain and the character of existing development.

Action 4-A.32 Discourage larger-scale warehouses and big box architecture that would negatively impact aesthetics such as long, blank walls. Break up the massing of larger structures through setbacks and indentation of facades, appropriate fenestration of windows and doors, and a variety of architectural treatments.

Principle 4-P.40 Encourage the revitalization of the commercial corridors on Colton Avenue at Orange Street by providing opportunities for a variety of commercial uses and providing guidelines for site design to create a more welcoming visual environment.

Principle 4-P.51 Complete a Transit Village Plan that will define: village character, design guidelines for architecture and site development, permitted and conditional uses, building setbacks and heights, yards, interfaces with the public streets and sidewalks, security measures, and transitions to existing neighborhoods.

Action 4-A.102 Create a "sense of arrival" at the city's western gateway through aesthetic improvements such as landscaping, citrus groves, and signage.

City of Redlands Municipal Code

Chapter 2.24, Historic and Scenic Preservation Commission

Chapter 2.24 of the Redlands Municipal Code establishes the City's Historic and Resource Preservation Commission. The Commission has the responsibility of making a recommendation to the City Council on the formation of a Historic District, a geographical area that has a significant architectural enclave of historic buildings or scenic vistas. Properties of scenic significance, as defined by the Municipal Code, may include landscaping, light standards, trees, curbing, and signs that contribute aesthetically to the scenic heritage of the city.

Section 18.12.170, Architectural Review; Criteria

City of Redlands architectural review criteria pursuant to Section 18.12.170 of the City of Redlands Municipal Code establishes architectural criteria for development located within the City. These criteria are intended to provide design professionals, property owners, residents, staff, and decision makers with a clear and common understanding of the City's expectations for the planning, design, and review of development proposals. According to RMC Section 18.12.170(B), conformance is to be evaluated based on consideration of the following criteria:

1. Site layout, orientation, location of structures and relationship to one another, as well as open spaces and topography;
2. Harmonious relationship of building with existing and proposed adjoining developments;
3. Maximum height, area, setbacks and overall mass of buildings, as well as other structures such as walls, screens, towers or signs, and effective concealment of all mechanical equipment;
4. Harmony of construction materials and colors in relation to all exterior elevations;
5. Location and type of planting, with due regard for the preservation of specimen trees upon a site;
6. Design and appropriateness of signs in relation to the architectural style of the building;
7. Glazing or image reflective surfaces (specular reflectance) shall be limited to a maximum reflectance value of twenty five percent (25%). "Specular reflectance" means any mirror like reflection, as contrasted to diffused reflection from such surfaces as concrete or vegetation.

However, the criteria contained in RMC 18.12.170 do not constitute "objective design standards" as defined in the Housing Crisis Act of 2019 (i.e., Senate Bill 330).

In addition, the City also uses a document titled "Architectural Design Guidelines" that contains examples of architectural design that is sensitive to the cultural and historic character of Redlands. Topics covered in the Guidelines include building articulation, windows, the pedestrian realm, entryways, building materials, contextual design, signage, energy efficient design, adaptive reuse of structures, public art, site design, and landscaping, among others. However, these general guidelines do not constitute "objective design standards" as defined in the Housing Crisis Act of 2019 (i.e., Senate Bill 330).

5.1.3 ENVIRONMENTAL SETTING

Aesthetic resources include a combination of numerous elements, such as landforms, vegetation, water features, urban design, and/or architecture, that impart an overall visual impression that is pleasing to, or valued by, its observers. Factors important in describing the aesthetic resources of an area include visual character, scenic resources, and scenic vistas. These factors together not only describe the intrinsic aesthetic appeal of an area, but also communicate the value placed upon a landscape or scene by its observers.

State Scenic Highway

There are no officially designated state scenic highways traversing the TVSP area; however, State Route 38 is an eligible, albeit not officially designated, state scenic highway. State Route 38 traverses the Downtown Transit Village area as Orange Street north of the I-10 to Lugonia Avenue. State Route 38 then continues outside of the Project area easterly as Lugonia Avenue, which then turns into Mentone Boulevard and Mill Creek Road as the highway continues into the San Bernardino Mountains.

City Scenic Roadways

The City of Redlands has designated numerous roadway segments as scenic highways, drives, and historic streets subject to special development standards (GP2035 EIR, p. 3.1-11). Table 5.1-1, *Scenic Roadways in the City*, lists the City-designated scenic roadways and roadways being considered for scenic designation as well as their relationship to the TVSP area.

Table 5.1-1: Scenic Roadways in the City

Scenic Roadway	Scenic Segment	Relationship to TVSP Area
Brookside Avenue	from Lakeside Avenue to Eureka Street	A small portion of the easternmost terminus of this roadway segment at the intersection of Eureka Street enters the Project area in the Downtown Transit Village
Olive Avenue	from Lakeside Avenue to Cajon Street	A small portion of the easternmost terminus of this roadway segment at the intersection of Cajon Street enters the Project area in the Downtown Transit Village
Center Street	from Brookside Avenue to Crescent Avenue	Outside of the TVSP area
Highland Avenue	from Serpentine Drive to Cajon Street	Outside of the TVSP area
Sunset Drive	from Serpentine Drive to Edgemont Drive	Outside of the TVSP area
Cajon Street	(Whole street)	The northern terminus of this segment at Citrus Avenue/Orange Street south to Clark Street is within the Project area in the Downtown Transit Village
Mariposa Drive	between Halsey and Sunset Drive	Outside of the TVSP area
Dwight Street	between Pepper Street and Mariposa Drive	Outside of the TVSP area
Roadways Being Considered for Scenic Designations		
Riverview Drive	Along the Santa Ana River wash	Outside of the TVSP area
Live Oak Canyon Drive	(Whole street)	Outside of the TVSP area

Scenic Roadway	Scenic Segment	Relationship to TVSP Area
San Timoteo Canyon Road	(Whole street)	Outside of the TVSP area
Sylvan Boulevard	(Whole street)	The western terminus at the intersection of University Street east to Judson Street is within the Project area in the University Transit Village
Nevada Street	from Orange Blossom Trail to Barton Road	Outside of the TVSP area
Pioneer Avenue	from River Bend Drive to Judson Street	Outside of the TVSP area
Rural roads in Crafton area		Outside of the TVSP area

Visual Character of the Project Site

Existing setting of the New York Street/Esri Transit Village area. The area around this station is car oriented. Large blocks generally comprise the area with commercial and light industrial buildings set back away from the street behind parking lots or landscaped front yards. The I-10 and SR-210 interchange is to the northwest of this transit village. The transit village is traversed east-west by the railways, which run along the north side of Redlands Boulevard, until New York Street, where they branch off from one another as they proceed eastward.

The Arrow station will be located along the north side of Redlands Boulevard at New York Street. To the south of the station site and Redlands Boulevard is Esri's campus headquarters, and to the southeast (across the intersection) from the station site is Jennie Davis Park, a 5.2-acre neighborhood park. Land uses to the west of the Esri campus (across Tennessee Street) consist primarily of light industrial warehouse buildings and commercial services or office uses. To the south of the Esri campus is a neighborhood of apartments and multifamily buildings.

North of the railway, existing development consists of car-oriented uses, strip mall shopping centers, fast-food restaurants, hotels, and recreational facilities. North of the I-10 are commercial and single-family residences. Buildings within this area range from one to three-story buildings. Many of the one-story light industrial and retail buildings are tall one-story buildings facing the street. The parcels surrounding the station are largely vacant.

Existing setting of the Downtown Transit Village area. This area includes the City's urban core and the historic Santa Fe Depot. The station site will be at the north side of the Santa Fe Depot (for the new Arrow platform) and immediately west of the Depot (for the new Metrolink platform). Blocks located east of Orange Street within Downtown are small and promote walkability, with commercial and mixed-use buildings built adjacent to and accessed directly from the sidewalk. Blocks west of Orange Street are larger and less pedestrian-friendly with buildings and site designs that are more car-oriented, with buildings located behind street-facing parking lots.

Many parcels west of the Downtown Station are vacant. Additionally, a few vacant remnant packinghouse buildings exist to the north and south of the Santa Fe Depot. Most of the contemporary buildings and extant historic buildings within this transit village are one- and two-story in height. A notable exception is the Citibank building, which is six stories tall. In addition, many of the old packinghouse buildings surrounding the Santa Fe Depot are one-story buildings with tall interiors.

The historical setting of the downtown core (i.e., along Orange Street and State Street in the general vicinity of the historic Santa Fe Depot and other no longer extant railroad stops) included several three- and four-story buildings. Historical photos from the City Archives at the A.K. Smiley Public Library show multiple hotels, commercial buildings, and mixed-use buildings with residential upper floors along Orange Street, West State Street, and East State Street. Such buildings were demolished long ago and included: Casa Loma Hotel; Windsor Hotel (also known as the I.O.O.F. Building); Alvarado Hotel; La Posada Hotel; P.O. Block building (also known as the Atwood Block); the Elks Club; First National Bank building; Bank of America building; The Academy of Music building; and others as shown in historical photos of the area.

Existing setting of the University Transit Village area. This area includes the portion of the University of Redlands campus located south of Sylvan Boulevard and Sylvan Park (which is 18-acres). Land uses located north of the I-10 and west of University Street include Sylvan Park, single-family residences, and some multi-family buildings. The southeast portion of the village primarily consists of multi-family buildings. Most of the buildings within this transit village area are one- and two-story in height. Several prominent buildings on the University campus (and near the new University train station) are three- and four-stories high, such as the Administration Building, the Chapel, as well as other buildings such as residence halls. Single-family residences in the neighborhoods around the University campus are mostly one-story and multi-family buildings are two stories. Most of the land immediately surrounding the station site (to the east and south) is vacant and unimproved.

Visual Character of Adjacent Areas

The existing visual character of the area surrounding the TVSP area is urban and suburban. There is no consistent architectural or visual theme within the surrounding area. However, multiple areas surrounding the TVSP area include historic and scenic districts, such as the Smiley Park Neighborhood District and Scenic District, and the East Fern Avenue Historic and Scenic District, located south of the Downtown Village area.

Areas to the north of the TVSP area generally include light industrial uses, commercial buildings, single-family residences and neighborhoods, and the University of Redlands campus. Areas to the east of TVSP area, directly east of Judson Street, include one-story single-family residences and a mobile home park. Areas south of the TVSP area include one- to two-story single-family residences and neighborhoods, Redlands High School, multi-family residential units, Smiley Park, and commercial uses. Areas west of the TVSP area include multi-family residences, commercial uses, and light industrial uses.

Light and Glare

The TVSP area is mostly developed with a limited number of vacant parcels and includes multiple sources of nighttime lighting. Additionally, the TVSP area is surrounded by sources of nighttime lighting that include streetlights along roadways, illumination from vehicle headlights, offsite exterior residential, commercial, and industrial lighting, and interior illumination passing through windows. Sensitive receptors relative to lighting and glare include residents, motorists, and pedestrians passing through the TVSP area.

Glare can emanate from many different sources, some of which include direct sunlight, sunlight reflecting from cars or buildings, and bright outdoor or indoor lighting. Glare in the TVSP vicinity is generated by building and vehicle windows reflecting light. Substantial sources of glare within the TVSP area include windows of taller buildings, such as the six-story Citibank building. However, the majority of buildings within the TVSP area are shorter one- to two-story buildings that are constructed of non-reflective materials and

are not surfaced with a substantial number of windows adjacent to one another that would create a large reflective area.

5.1.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the State CEQA Guidelines indicates that a project could have a significant effect if it were to:

AE-1 Have a substantial adverse effect on a scenic vista?

AE-2 Substantially damage scenic resources, including, trees, rock outcroppings, and historic buildings within a state scenic highway?

AE-3 In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Initial Study established that the proposed Project would not result in impacts related to Threshold AE-1; and no further assessment of these impacts is required in this Draft EIR.

5.1.5 METHODOLOGY

Aesthetic resources were assessed based on the visual quality of the TVSP area and surrounding area and the changes that would occur from implementation of the proposed Project. The evaluation of aesthetics character identifies the proposed Specific Plan's development characteristics and the expected appearance of full buildout pursuant to the TVSP and compares it to the TVSP area's existing appearance and character, compared to the character of adjacent existing and future planned uses to determine whether and/or to what extent a degradation of the visual character of the area could occur. Factors considered include the blending/contrasting of new and existing buildings given the proposed uses, density, height, bulk, setbacks, signage, etc. An impact would be considered significant if the Project would result in development that is incompatible with existing uses in relation to type of use or scale or is inconsistent with adopted policies regarding visual and urban design quality.

The EIR recognizes that assessment of whether changes in the character of development from existing conditions would be comparatively better (substantially improved) or worse (substantially degraded) is largely subjective. The following analysis, therefore, focuses in a factual manner on the extent to which new development pursuant to the proposed TVSP would be compatible or conflict with the area's existing character or features.

The analysis of light and glare identifies light-sensitive land uses and describes the Project's proposed light and glare sources, and the extent to which lighting, including illuminated signage from implementing projects, could spill off the implementing project site onto adjacent existing and future light-sensitive areas. The analysis also considers the potential for sunlight to reflect off building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles or other activities.

5.1.6 ENVIRONMENTAL IMPACTS

State Transit Priority Regulations

Public Resources Code (PRC) Section 21099(d) (Senate Bill 743 (2013)) sets forth guidelines for evaluating project transportation impacts under CEQA, as follows: "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment."

PRC Section 21099 defines a "transit priority area" as an area within 0.5-mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations."

PRC Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."

PRC Section 21099 defines an "employment center project" as "a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area."

PRC Section 21099 defines an "infill site" as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

The under-construction Arrow stations constitute major transit stops as they will serve rail transit. The Project area within a half-mile of each Arrow station is a TPA (see Figure 3-16, *Transit Villages Specific Plan and Transit Priority Areas*). Accordingly, PRC Section 21099 applies to these areas. There are no other major transit stops in the City. Therefore, individual development projects under the TVD within the TVSP that are within a TPA are exempt from aesthetic impacts under CEQA.

However, the following analysis analyzes impacts to aesthetics from Project implementation. While portions of the TVSP area are within TPAs, the following analysis analyzes impacts to aesthetics from future development in areas of the TVSP inside and outside of TPAs.

IMPACT AE-2: THE PROJECT WOULD NOT SUBSTANTIALLY DAMAGE SCENIC RESOURCES, INCLUDING TREES, ROCK OUTCROPPINGS, AND HISTORIC BUILDINGS WITHIN A STATE SCENIC HIGHWAY.

Less than Significant with Mitigation Incorporated. As previously discussed, there are no officially designated state scenic highways traversing the TVSP area; however, State Route 38 is an eligible state scenic highway. State Route 38 traverses the Downtown Transit Village area as Orange Street north of the I-10 to Lugonia Avenue. State Route 38 then continues outside of the Project area easterly as Lugonia Avenue, which then turns into Mentone Boulevard and Mill Creek Road as the highway continues into the San Bernardino Mountains. Parcels along the eligible portion of Orange Street include two undeveloped parcels, commercial uses, one- to two-story single-family residences, a gas station, and the Redlands Unified School District buildings. Per the City of Redlands General Plan, most parcels along the eligible portion of Orange Street are designated for Commercial (C) and a few parcels for Public/Institutional (PI) uses. Additionally, the parcels along the eligible portion of Orange Street are zoned Highway Commercial (C-4) and Educational (E).

As shown in Figure 3-8, *Regulating Plan,* upon implementation of the TVSP parcels along Orange Street north of the I-10 to Lugonia Avenue would be designated as Village General (VG), Village Corridor (COR), and Special District 1 (SD1). Individual development projects proposed under the Project could be built along State Route 38 per the design guidelines and standards set forth in the TVSP. The TVSP would guide infill development, which would alter the existing visual character of the State Route 38 corridor over the plan implementation period (through 2040) by introducing additional commercial, residential, and/or mixed-use development to the Orange Street area. However, as previously discussed, the majority of the State Route 38 corridor along Orange Street is already developed with commercial, residential, and institutional uses, and all of the parcels along the corridor area already designated for Commercial or Public/Institutional development by the City of Redlands General Plan. As discussed above, parcels along the eligible portion of Orange Street are zoned Highway Commercial (C-4), which does not prescribe a building height limit, and Educational (E), which does not prescribe a building height limit and requires a Conditional Use Permit for structures over 35 feet. The TVSP would designate these parcels as Village General (VG), which prescribes an average building height of three stories, Village Corridor (COR), which prescribes a building height of two stories maximum, and Special District 1 (SD1). The majority of parcels along the eligible portion of Orange Street, besides those adjacent to the freeway, would be designated as Village Corridor (COR), which would limit height of new development to two stories, consistent with existing building heights. Therefore, structures resulting from the TVSP would be generally within the heights of the existing developed parcels, as allowed by the Redlands General Plan and Municipal Code, along State Route 38 and would not block views of scenic resources, such as the San Bernardino foothills, as implementing project structures would be consistent with views presently found in the area. As shown on Figure 2-1 of the City of Redlands General Plan, three properties along the State Route 38 corridor within the TVSP Area are Local Historic Landmarks/Resources. Any future development projects that might affect or alter historic or scenic resources must first be reviewed and approved by the City's Historic and Scenic Preservation Commission.

Moreover, the City has designated numerous roadway segments as scenic highways, drives, and historic streets subject to special development standards (GP2035 EIR, p. 3.1-11). As discussed above in Table 5.1-1, portions of Brookside Avenue, Olive Avenue, and Cajon Street, which are designated by the City as scenic roadways are within the Project Area. Additionally, a portion of Sylvan Boulevard, which is being considered by the City for scenic designation, is within the TVSP area. As shown on General Plan Figure 2-1, one property along Sylvan Boulevard is a Local Historic Landmark/Resource (Redlands Lawn Bowling Club within Sylvan Park). Three properties along Cajon Street are Local Historic Landmarks/Resources. Six properties along Olive Avenue are considered Local Historic Landmarks/Resources. Any future development projects that might affect or alter historic or scenic resources must first be reviewed and approved by the City's Historic and Scenic Preservation Commission.

As such, the adoption of the TVSP would not substantially damage scenic resources, trees, rock outcroppings within a state scenic highway, but could potentially result in substantial changes to historic buildings if future development projects are proposed on those properties. As discussed further in Section 5.3, *Cultural Resources,* implementing projects would be required to adhere to Mitigation Measure CUL-1, which requires preparation of historical resource assessments for any implementing project which impacts buildings over 50 years old. Furthermore, pursuant to TVSP Section 4.1.2 F, all rehabilitations and additions to historic buildings within the TVSP area must first be reviewed and approved by the city's Historic and Scenic Preservation Commission, and shall conform to the recommendations of the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* and the *Redlands Historic Architectural Design Guidelines* (both of which are incorporated by reference in the TVSP Chapter 4). Therefore, with implementation of the historic design standards that would be implemented as part of the TVSP (provided as PPP CUL-1) and Mitigation Measure CUL-1, impacts related to damaging historic resources within a state scenic highway would be less than significant.

IMPACT AE-3: THE PROJECT IS LOCATED WITHIN AN URBAN AREA AND WOULD NOT CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY.

Less than Significant Impact. As defined by Public Resources Code Section 21071; "Urbanized area" means either of the following:

(a) An incorporated city that meets either of the following criteria:
(1) Has a population of at least 100,000 persons.
(2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.

According to the California Department of Finance E-5 Population Estimates in January 2021, the City of Redlands has a current population of 71,154. Combined with the adjacent cities of Loma Linda, Highland, San Bernardino, and Yucaipa, the population exceeds 100,000 persons thus qualifying the City as being in an "Urbanized Area" (CDF, 2022). Therefore, a significant impact would occur if an implementing project under the TVSP conflicts with applicable zoning and other regulations governing scenic quality.

The proposed Project would guide infill development, which would alter the existing visual character of the TVSP area over the plan implementation period (through 2040) by introducing additional mixed-use development to the area. The proposed Project does not call for any substantial changes to land use or building design in comparison to existing Redlands Municipal Code architectural review criteria for most commercial districts and residential neighborhoods within the TVSP area and includes provisions to preserve or improve the existing visual character of the city. Proposed land use designations and policies would direct new development into underutilized or previously developed areas, where any proposed changes in land use and physical design are intended to increase visual quality. The TVSP provides design standards (including objective architectural design standards), which includes requirements and guidelines for specific development sites, new community amenities, and architectural designs specific to each of the regulating zones. The design standards in the TVSP provide for compatibility with existing uses to enhance the aesthetics and character of the TVSP area. Infill development in the area would be compatible with surrounding buildings to provide consistency in scale within the TVSP area and surrounding pre-World War II residential neighborhoods. The TVSP would create building height and development standards that would be substantially similar to the existing zoning standards. The TVSP provides design and development standards for streetscape improvements that includes a specified palette of street trees, street furniture (planters, benches, bicycle parking, trash receptacles, etc.), wayfinding signage, and open space areas. Implementation of the TVSP's design criteria with improvements to existing streetscapes, would enhance the existing visual character of the TVSP area as the TVSP's design standards would promote compatibility for new improvements with the area.

Redlands General Plan. The Redlands General Plan designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks. The proposed Project includes a General Plan Amendment to change the designation parcels within the TVSP area to a "Transit Village (TV)" District. The new Transit Village (TV) land use designation would encourage development in the center of town by providing a plan for introducing new residential and commercial uses located within approximately 0.5 mile of each of these three new train stations.

California law (Government Code §65450-§65453) allows cities to develop and administer specific plans as an implementation tool for their General Plan. As a requirement of state law, specific plans must demonstrate consistency in regulations, guidelines and programs with the goals, objectives, policies,

standards, programs and uses that are established in the General Plan. The proposed TVSP would implement General Plan policies related to infill development, providing for mixed use, transit-oriented development within the core area of the City and increasing use of alternative methods of transportation (especially walking, bicycling, bus and train, rideshare, electric vehicles, and other modes that reduce motor vehicle trips). Chapter 1 of the TVSP addresses the consistency of the TVSP with the City's General Plan and said analysis is incorporated by reference into this Draft EIR. As shown, the proposed Project would be consistent with the City's General Plan.

The Project would advance the Redlands General Plan's present Transit Village Strategy and Concept by amending the Redlands General Plan to establish the new Transit Village (TV) land use designation to encourage development in the center of town by providing a plan for introducing new residential and commercial uses located within 0.5 mile of each of these three new train stations. The proposed adoption of the Transit Village (TV) district, along with the implementing TVSP, will set regulations for the community's long-term vision for compact, efficient, responsible, and environmentally sustainable development. As a form-based code, the TVSP will emphasize building form, a mix and density of different uses, strong pedestrian orientation and transit-oriented development, and public realm improvements and amenities. Therefore, implementation of the Project would not result in conflict with the City's General Plan, and impacts would not occur.

City of Redlands Municipal Code. Existing residential zoning within the TVSP area is primarily Multi-Family Residential (R-2 and R-3); however, there are two small areas with existing single-family zoning. The parcels on 11th Street between the I-10 and Colton Avenue in the Downtown Transit Village are zoned Single-Family Residential (R-1) and the parcels in the University Street Transit Village bounded by the I-10, East Cypress Avenue, and East Citrus Avenue are zoned Suburban Residential (R-S). See Figure 3-7, *Existing Zoning Districts*. Non-residential zoning in the TVSP area include Industrial (I-P), Light Industrial (M-1), Planned Industrial (M-P), Administrative and Professional Office (A-P), Neighborhood Stores (C-1), General Commercial (C-3), Highway Commercial (C-4), Commercial (C-M), Educational (E), Transitional (T), Open Land (O), Floodplain (FP), East Valley-General Commercial (EV/CG), and East Valley-Public Institutional (EV/PI). The Downtown Specific Plan (Specific Plan No. 45), located in the proposed Downtown Village, governs the parcels in the downtown area (which is divided into Town Center, Town Center-Historic, and Service-Commercial districts within SP No. 45). The objective of the Downtown Specific Plan is to create a compact, pedestrian-oriented environment, although new mixed-use developments and transit-oriented developments have not come to fruition under the existing Downtown Specific Plan. The proposed Project would replace the current zones within the TVSP area with the "Specific Plan" zone, which then would implement the TVSP's Regulating Plan districts, as shown in Figure 3-8, *Regulating Plan*.

TVSP Chapter 4, Development Code, provides detailed regulations for development and new land uses within the TVSP area, and describes how these regulations would be used as part of the City's development review process. These provisions supersede and replace regulations under the City of Redlands Zoning Code (Title 18 of the Municipal Code). Where specific provisions are not set forth for development standards within the TVSP, or where otherwise applicable requirements of the Zoning Code are not covered by the TVSP Development Code, implementing projects within the TVSP area would be subject to current or future Municipal Code regulations. However, while regulations within the TVSP supersede regulations set forth by the current Municipal Code, the majority of regulations align with the development standards set forth throughout the Municipal Code. For example, the R-3 Multiple Family Residential District set forth in Chapter 18.60 of the Municipal Code allows for development of buildings and structure with a height of no greater than four stories. As discussed in Section 3, *Project Description*, of this Draft EIR, buildings within the Village Center (VC) district would have a maximum height of four stories and buildings within the Village General (VG) district would be required to have an average height of three stories. Therefore, the new building

standards, such as those for building height, provided for by the TVSP would largely remain consistent with existing Municipal Code development standards.

As previously discussed in Section 3.0, *Project Description*, the TVSP provides a road map for buildout of the TVSP area through 2040 and beyond. There are a number of vacant parcels located within the TVSP area, mostly concentrated along and near the railway right-of-way, as well as other developed or vacant parcels near the train stations. Full buildout of the TVSP area would potentially result in the development of up to 2,400 dwelling units, up to 265,000 SF of commercial space, up to 238,000 SF of office space, up to 220 hotel rooms, and up to 280,000 SF of parkland throughout all three transit villages. However, the TVSP as a form-based code would achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options, and provide more public open space and amenities, among other aesthetic and community benefits. These goals also have associated environmental benefits and long-term reduction of cumulative environmental effects, as summarized in the City's certified *General Plan Update and Climate Action Plan Environmental Impact Report*. Implementing projects pursuant to the TVSP would undergo development review in order to ensure that the project would meet all applicable development standards pursuant to the Redlands General Plan, TVSP, and Redlands Municipal Code. Overall, the TVSP area is located within an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. Hence, the proposed Project would not degrade the visual character of the TVSP area and surrounding area; and impacts would be less than significant.

IMPACT AE-4: THE PROJECT WOULD NOT CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE WHICH WOULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE AREA.

Less than Significant with Mitigation Incorporated. Light and glare sensitive uses include the existing residences, motorists, and pedestrians and the proposed residences, motorists, and pedestrians that are located within the TVSP area.

Construction

Limited, if any, nighttime lighting would be needed during construction projects allowed by the Project because RMC Section 8.06.120 limits construction activities to the hours of 7:00 a.m. and 6:00 p.m. on a weekday and Saturdays. Construction activities may be permitted outside of those limitations identified in the case of urgent necessity or upon a finding that such approval will not adversely impact adjacent properties and the health, safety and welfare of the community if a temporary exception is granted. Thus, most construction activity would occur during daytime hours, and construction-related low-level illumination would be used for safety and security purposes only, as provided by Mitigation Measure AES-1. In addition, construction activities do not include any materials or machinery that would generate offsite glare. Therefore, with implementation of Mitigation Measure AES-1, impacts related to lighting and glare during construction activities would be less than significant.

Operation

Lighting

The proposed TVSP area is urbanized and includes a mix of residential, commercial, industrial, and office land uses. As shown on Figure 3-17, the majority of the TVSP area is developed with few vacant parcels. Sources of light include interior and exterior building lighting, parking lot lighting, vehicular lighting, street lighting, and landscape lighting. Implementation of the proposed Project would increase overall nighttime lighting because it would result in greater intensity and density of land uses than currently exists. New lighting would accompany all new development, including exterior lighting for streetlights, parking lots, signs,

walkways, and interior lighting, which could be visible through windows to the outside. In addition, existing and proposed residential uses, considered light-sensitive receptors, would be located throughout the TVSP area.

Section 4.11 of the TVSP sets requirements related to lighting and shielding of light sources limit the potential for increased lighting on sensitive uses. Light emanating from new uses within the TVSP area would be required to be shielded to focus lighting and prevent lighting from spilling onto adjacent sensitive uses, such as residential, or from streaming directly into streets, which could impair views of drivers on streets at night. With compliance with the TVSP, which would be checked by the City through the building plan check and project permitting process, impacts related to increased sources of light would be less than significant.

Glare

Glare can emanate from many different sources, some of which include direct sunlight, sunlight reflecting from cars or buildings, and bright outdoor or indoor lighting. Glare from reflective surfaces could occur if development uses large expanses of glass, metal, and other reflective surfaces for building façades. However, the TVSP area is currently developed with similar urban land uses, and implementation of the Project would not result in a substantial net increase in daytime glare, even though an increase in building area would occur over current conditions, due to proposed design criteria set forth in the TVSP. Implementation of the TVSP's design criteria, Section 4.7.E, *Design Standards* would encourage use of traditional materials including brick, stone, and wood and discourage the use of reflective materials. Furthermore, all implementing projects would require design review, which would ensure that reflective surfaces that would result in glare are not used in projects implemented pursuant to the proposed TVSP. Section 4.11 of the TVSP sets requirements related to lighting and requires shielding of light sources to minimize glare. Thus, with compliance with the TVSP's design criteria that are checked by the City through the design review, plan check and development permit process, and compliance with the Redlands Municipal Code, impacts related to increased sources of glare would be less than significant.

5.1.7 CUMULATIVE IMPACTS

Visual Character

The cumulative aesthetics analysis area for the proposed TVSP area is the viewshed that the TVSP area lies within. Like the TVSP area, the cumulative analysis area has been long developed with urban uses and is defined by a grid system of roadways. Thus, cumulative development would be characterized as infill, and would primarily consist of increasing existing development intensities. As a result, cumulative development would reinforce the existing urban and developed character of the area. Future cumulative development would result in changes to the existing development intensities through conversion of vacant land to developed uses, as well as through the conversion of existing land uses to higher development intensities. However, because the General Plan, Municipal Code, and TVSP set forth policies to protect the character of existing development (as previously listed), it is anticipated that cumulative projects adopted in a manner consistent with those General Plan, Municipal Code, and TVSP policies would not cumulatively degrade the existing character of area land uses. As a result, there would be no significant cumulative impact to which implementation of the proposed Project could contribute.

The cumulative change in visual condition that would result from the proposed Project, in combination with nearby projects, would not be considered adverse because, as described previously, the proposed Project would provide design criteria with respect to architecture, landscaping, parking, and other related items. The design criteria have the goal of improving the visual quality of the TVSP area by providing requirements and guidelines to ensure consistent, quality development. Thus, with implementation of the proposed TVSP's associated development standards and design criteria (and the Redlands Municipal Code where the TVSP

is directing and/or silent), implementation of the proposed Project would result in a less than significant cumulatively considerable impact related to degradation of the existing visual character or quality of the site and its surroundings.

Light and Glare

The cumulative study area for light and glare for the proposed TVSP area is immediately adjacent to lands that could receive light or glare from new development within the TVSP area or could generate daytime glare or nighttime lighting that would be visible within the TVSP area. All such areas contain a variety of sources of nighttime lighting, such as roadways, vehicle lights, exterior security lighting, as well as sources of daytime glare, such as glass windows on buildings. Because cumulative projects would result in more intense development than currently exists, the proposed Project in combination with past, present, and reasonably foreseeable future projects could create potentially significant cumulative nighttime lighting and daytime glare impacts. However, application of the Redlands Municipal Code regulations and the TVSP's design criteria would avoid potentially significant effects. These regulations state that lighting shall be shielded to prevent light from shining onto adjacent properties and exclude features that could create excessive glare. With implementation of the existing City regulations and the TVSP's development and design standards, the future developments that could occur by the implementation of the Project would not result in a cumulatively considerable contribution of light and glare. Thus, the cumulative effects of development from the Project in combination with cumulative projects related to light and glare are less than significant.

5.1.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- City of Redlands GP2035
- City of Redlands Municipal Code

Standard Conditions

None.

Plans, Programs, or Policies

PPP CUL-1, as further detailed in Section 5.3, *Cultural Resources*.

5.1.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and the proposed Project's design criteria, Impact AE-3 would be less than significant. Without mitigation, Impacts AE-2 and AE-4 would be potentially significant.

5.1.10 MITIGATION MEASURES

Mitigation Measure CUL-1 as detailed in Section 5.3, *Cultural Resources*.

Mitigation Measure AES-1: Construction Lighting. The developer and construction contractors shall install all temporary construction lighting such that: (a) lamps and reflectors do not illuminate upon areas beyond the implementing project site, including any off-site security buffer areas; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky; (d) illumination of the project site and its immediate vicinity is minimized; and (e) lighting is directed toward construction work areas and shielded from offsite areas.

5.1.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure CUL-1 would reduce impacts to historical resources within a scenic highway to less than significant. Implementation of Mitigation Measure AES-1 would reduce impacts related to construction lighting to less than significant.

REFERENCES

California Department of Finance. E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021. Accessed: https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

California State Scenic Highway System Map. California Department of Transportation.

City of Redlands (City Zoning 2021), Zoning Map, https://www.cityofredlands.org/sites/main/files/file-attachments/zoning.pdf?1633557844 (accessed December 6, 2021)

City of Redlands (GP2035 EIR), General Plan 2035 Environmental Impact Report, https://www.cityofredlands.org/post/planning-division-general-plan (accessed December 3, 2021)

City of Redlands (GP2035), General Plan 2035, https://www.cityofredlands.org/post/planning-division-general-plan (accessed December 3, 2021)

City of Redlands, Draft Transit Villages Specific Plan, http://redlandstransitvillages.org

5.2 Air Quality

5.2.1 INTRODUCTION

This section provides an overview of the existing air quality within the TVSP area and surrounding region, a summary of applicable regulations, and analyses of potential short-term and long-term air quality impacts from implementation of the proposed TVSP. Mitigation measures are recommended as necessary to reduce significant air quality impacts. This analysis is based on the following City documents and report prepared by Urban Crossroads (UC 2022) that is included in Appendix B to this Draft EIR:

- *City of Redlands 2035 General Plan*, 2017
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (GP EIR), 2017
- *City of Redlands Municipal Code*
- *Transit Villages District and Specific Plan Air Quality Impact Analysis*, Urban Crossroads, 2022, Appendix B.

5.2.2 REGULATORY SETTING

5.2.2.1 Federal Regulations

United States Environmental Protection Agency

Criteria Air Pollutants

At the federal level, the United States Environmental Protection Agency (USEPA) has been charged with implementing national air quality programs. The USEPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments to the CAA were made by Congress in 1990.

The CAA requires the USEPA to establish National Ambient Air Quality Standards (NAAQS). The USEPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. Table 5.2-1 shows the NAAQS for these pollutants. The CAA also requires each state to prepare an air quality control plan, referred to as a state implementation plan (SIP). The CAA Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. The USEPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing the SIPs will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area.

The USEPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. The USEPA's primary role at the state level is to oversee state air quality programs. The USEPA sets federal vehicle and stationary source emissions standards and provides research and guidance in air pollution programs.

Hazardous Air Pollutants

The USEPA has programs for identifying and regulating hazardous air pollutants (HAPs). Title III of the CAAA directed the USEPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. The emissions standards are to be promulgated in two phases. In the first phase (1992–2000), the USEPA developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring maximum achievable control technology (MACT). For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), the USEPA promulgated health-risk-based emissions standards that were deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

Table 5.2-1: Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when ROG and NO_X react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial/industrial mobile equipment.
	8 hours	0.07 ppm	0.075 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO_x)	1 hour	0.18 ppm	0.100 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Arithmetic Mean	0.030 ppm	0.053 ppm		
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	75 ppb	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.50 ppm		
	24 hours	0.04 ppm	0.14 ppm		
	Annual Arithmetic Mean	---	0.03 ppm		
Respirable Particulate Matter (PM_{10})	24 hours	50 µg/m³	150 µg/m³	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	20 µg/m³	---		
Fine Particulate Matter ($PM_{2.5}$)	24 hours	---	35 µg/m³	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
	Annual Arithmetic Mean	12 µg/m³	12 µg/m³		
Lead (Pb)	30 Day Average	1.5 µg/m³	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).	*Present source:* lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	---	1.5 µg/m³		
	Rolling 3-Month Average	---	0.15 µg/m³		

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	…	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal power plants, petroleum production and refining
Sulfates (SO_4)	24 hour	25 µg/m³	…	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Industrial processes.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	…	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See $PM_{2.5}$.

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter.
Source: AQ, 2022 (Appendix B)

The CAAA also required the USEPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

5.2.2.2 State Regulations

California Air Resources Board

Criteria Air Pollutants

The California Air Resources Board (CARB), a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California. CARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementation of the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, requires CARB to establish the California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. Applicable CAAQS are shown in Table 5.2-1.

The CCAA requires all local air districts in the state to endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts shall focus particular attention on reducing the emissions from transportation and area-wide emission sources and provides districts with the authority to regulate indirect sources.

Among CARB's other responsibilities are overseeing compliance by local air districts with California and federal laws, approving local air quality plans, submitting SIPs to the USEPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

Toxic Air Contaminants

Air quality regulations also focus on toxic air contaminants (TACs). In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no safe level of exposure. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established. Instead, the USEPA and CARB

regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the MACT or best available control technology (BACT) for toxics and to limit emissions. These statutes and regulations, in conjunction with additional rules set forth by the districts, establish the regulatory framework for TACs.

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) (Health and Safety Code Section 39650 et seq.) and the Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) (AB 2588 [Chapter 1252, Statutes of 1987]) (Health and Safety Code Section 44300 et seq.). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted the USEPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an airborne toxics control measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The Air Toxics Hot Spots Information and Assessment Act requires existing facilities emitting toxic substances above a specified level to prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (Handbook), which provides guidance concerning land use compatibility with TAC sources. Although it is not a law or adopted policy, the Handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way. In addition, CARB has promulgated the following specific rules to limit TAC emissions:

- **CARB Rule 2485** (13 CCR, Chapter 10 Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- **CARB Rule 2480** (13 CCR Chapter 10 Section 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- **CARB Rule 2477** (13 CCR Section 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

California Assembly Bill 1493– Pavley

In 2002, the California Legislature adopted AB 1493 requiring the adoption of regulations to develop fuel economy standards for the transportation sector. In September 2004, pursuant to AB 1493, the CARB approved regulations to reduce fuel use and emissions from new motor vehicles beginning with the 2009 model year (Pavley Regulations). CARB, EPA, and the U.S. Department of Transportation's National Highway Traffic and Safety Administration (NHTSA) have coordinated efforts to develop fuel economy standards for model 2017-2025 vehicles, which are incorporated into the "Low Emission Vehicle" (LEV) Regulations.

California Code of Regulations (CCR) Title 13, Motor Vehicles, Section 2449(d)(3)

No vehicle or engines subject to this regulation may idle for more than 5 consecutive minutes. The idling limit does not apply to:

- idling when queuing,
- idling to verify that the vehicle is in safe operating condition,

- idling for testing, servicing, repairing or diagnostic purposes,
- idling necessary to accomplish work for which the vehicle was designed (such as operating a crane),
- idling required to bring the machine system to operating temperature, and
- idling necessary to ensure safe operation of the vehicle.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CalGreen) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrade requirements. The 2019 CALGreen standards that are applicable to the proposed Project include, but are not limited to, the following:

- Short-term bicycle parking. Provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.

- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

- Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Title 24 Part 6 Table 5.106.5.2.

- Electric vehicle charging stations. Facilitate the future installation of electric vehicle supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load.

- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Title 24 Part 6 Table 5.106.8.

- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste.

- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.

- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

    - Water Closets. The effective flush volume of all water closets shall not exceed

      1.28 gallons per flush

- Urinals. The effective flush volume of wall-mounted urinals shall not exceed

  0.125 gallons per flush. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

- Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi. When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi.

- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute. Metering faucets shall not deliver more than 0.20 gallons per cycle. Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle.

- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent.

- Water meters. Separate submeters or metering devices shall be installed for new buildings or where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day.

- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit.

- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.

The 2019 CalGreen Building Standards Code has been adopted by the City of Redlands in Municipal Code Chapter 15.16.

5.2.2.3 Regional Regulations

SCAQMD

Criteria Air Pollutants

The South Coast Air Quality Management District (SCAQMD) attains and maintains air quality conditions in the Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SCAQMD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. SCAQMD also inspects stationary sources of air pollution and responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements programs and regulations required by the CAA, CAAA, and CCAA. Air quality plans applicable to the proposed Project are discussed below.

Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for preparing the air quality management plan (AQMP), which addresses federal and state CAA requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin.

The 2012 AQMP was adopted by the SCAQMD Governing Board on December 12, 2012. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the region into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the Basin's commitment towards meeting the federal 8-hour ozone standards. The AQMP would also serve to satisfy recent USEPA requirements for a new attainment demonstration of the revoked 1-hour ozone standard, as well as a vehicle miles travelled (VMT) emissions offset demonstration.[1] The 2012 AQMP, as approved by CARB, serves as the official SIP submittal for the federal 2006 24-hour $PM_{2.5}$ standard. In addition, the AQMP updates specific new control measures and commitments for emissions reductions to implement the attainment strategy for the 8-hour ozone SIP. The 2012 AQMP set forth programs which require integrated planning efforts and the cooperation of all levels of government: local, regional, state, and federal.

In March 2017 AQMD finalized the 2016 AQMP, which continues to evaluate integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 RTP/SCS and updated emission inventory methodologies for various source categories. The 2022 AQMP is currently being developed by SCAQMD to address the EPA's strengthened ozone standard. Development of the 2022 AQMP is in its early stages and no formal timeline for completion and adoption is currently known.

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations. Specific rules applicable to the proposed Project include the following:

Rule 203 – Permit to Operate. A person shall not operate or use any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate from the Executive Officer or except as provided in Rule 202. The equipment or agricultural permit unit shall not be operated contrary to the conditions specified in the permit to operate.

Rule 401 – Visible Emissions. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

Rule 402 – Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

[2] Additional sources of information on the health effects of criteria pollutants can be found at CARB and USEPA's websites at http://www.arb.ca.gov/research/health/health.htm and http://www.epa.gov/air/airpollutants.html, respectively.

Rule 403 – Fugitive Dust. SCAQMD Rule 403 governs emissions of fugitive dust during and after construction. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires project applicants to control fugitive dust using the best available control measures such that dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating an offsite nuisance. Applicable Rule 403 dust suppression (and PM_{10} generation) techniques to reduce impacts on nearby sensitive receptors may include, but are not limited to, the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. Locations where grading is to occur shall be thoroughly watered prior to earthmoving.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspend all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Provide bumper strips or similar best management practices where vehicles enter and exit the construction site onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- Replant disturbed areas as soon as practical.
- Sweep onsite streets (and offsite streets if silt is carried to adjacent public thoroughfares) to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

Rule 481 – Spray Coating. This rule applies to all spray painting and spray coating operations and equipment and states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
- Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
- An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

Rule 1108 - Volatile Organic Compounds. This rule governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the Basin. This rule also regulates the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the Project must comply with SCAQMD Rule 1108.

Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule.

Rule 1143 – Paint Thinners and Solvents. This rule governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

5.2.2.4 Local Regulations

City of Redlands 2035 General Plan

The General Plan Healthy Community Element contains the following policies related to air quality that are applicable to the Project:

Principle 7-P.44 Protect air quality within the city and support efforts for enhanced regional air quality.

Principle 7-P.45 Aim for a diverse and efficiently-operated ground transportation system that generates the minimum amount of pollutants feasible.

Principle 7-P.46 Increase average vehicle ridership during peak commute hours as a way of reducing vehicle miles traveled and peak period auto travel.

Principle 7-P.47 Cooperate in efforts to expand bus, rail, and other forms of mass transit in the portion of the South Coast Air Basin within San Bernardino County.

Principle 7-P.49 Protect sensitive receptors from exposure to hazardous concentrations of air pollutants.

Action 7-A.147 Cooperate with the ongoing efforts of the U.S. Environmental Protection Agency, the South Coast Air Quality Management District, and the State of California Air Resources Board in improving air quality in the regional air basin.

Action 7-A.149 Ensure that construction and grading projects minimize short-term impacts to air quality.

a. Require grading projects to provide a stormwater pollution prevention plan (SWPPP) in compliance with City requirements, which include standards for best management practices (BMPs) that control pollutants from dust generated by construction activities and those related to vehicle and equipment cleaning, fueling, and maintenance;

b. Require grading projects to undertake measures to minimize mono-nitrogen oxides (NOx) emissions from vehicle and equipment operations; and

c. Monitor all construction to ensure that proper steps are implemented

Action 7-A.152 Enforce regulations to prevent trucks from excessive idling in residential areas.

Action 7-A.153 Require applicants for sensitive land uses (e.g. residences, schools, daycare

centers, playgrounds, and medical facilities) to site development and/or incorporate design features (e.g. pollution prevention, pollution reduction, barriers, landscaping, ventilation systems, or other measures) to minimize the potential impacts of air pollution on sensitive receptors.

Action 7-A.154 Require applicants for sensitive land uses within a Proposition 65 warning contour to conduct a health risk assessment and mitigate any health impacts to a less than significant level.

5.2.3 ENVIRONMENTAL SETTING

Climate and Meteorology

The TVSP area is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

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

Criteria Air Pollutants

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. These pollutants are referred to as "criteria air pollutants" because they are the most prevalent air pollutants known to be injurious to human health. Extensive health-effects criteria documents regarding the effects of these pollutants on human health and welfare have been prepared over the years.[2] Standards have been established for each criteria pollutant to meet specific public health and welfare criteria set forth in the federal Clean Air Act (CAA). California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (referred to as State Ambient Air Quality Standards, or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard, such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air; but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROGs) or volatile organic compounds (VOCs), and oxides of nitrogen (NOx).

[2] Additional sources of information on the health effects of criteria pollutants can be found at CARB and USEPA's websites at http://www.arb.ca.gov/research/health/health.htm and http://www.epa.gov/air/airpollutants.html, respectively.

While both ROGs and VOCs refer to compounds of carbon, ROG is a term used by CARB and is based on a list of exempted carbon compounds determined by CARB. VOC is a term used by the USEPA and is based on its own exempt list. The time period required for ozone formation allows the reacting compounds to spread over a large area, producing regional pollution problems. Ozone concentrations are the cumulative result of regional development patterns rather than the result of a few significant emission sources.

Once ozone is formed, it remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth ("rainout"), or absorption by water molecules in clouds that later fall to earth with rain ("washout").

Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. In addition to causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

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 during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NOx, which are reported as equivalent NO_2. Aside from its contribution to ozone formation, NO_2 can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Sulfur Dioxide

SO_2 is a colorless, extremely irritating gas or liquid that 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 sulfur trioxide (SO_3). Collectively, these pollutants are referred to as sulfur oxides (SOx).

Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis. This compound also constricts the breathing passages, especially in people with asthma and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. Long-term SO_2 exposure has been associated with increased risk of mortality from respiratory or cardiovascular disease.

Particulate Matter

PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis and respiratory illnesses in children. Particulate matter can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel exhaust emissions.

PM_{10} consists of particulate matter emitted directly into the air (e.g., fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, and natural windblown dust) and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROG. Traffic generates particulate matter emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} and $PM_{2.5}$ are also emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. $PM_{2.5}$ can also be formed through secondary processes such as airborne reactions with certain pollutant precursors, including ROGs, ammonia (NH_3), NOx, and SOx.

Lead

Lead is a metal found naturally in the environment and present in some manufactured products. There are a variety of activities that can contribute to lead emissions, which are grouped into two general categories, stationary and mobile sources. On-road mobile sources include light-duty automobiles; light-, medium-, and heavy-duty trucks; and motorcycles.

Emissions of lead have dropped substantially over the past 40 years. The reduction before 1990 is largely due to the phase-out of lead as an anti-knock agent in gasoline for on-road automobiles. Substantial emission reductions have also been achieved due to enhanced controls in the metals processing industry. In the Basin, atmospheric lead is generated almost entirely by the combustion of leaded gasoline and contributes less than one percent of the material collected as total suspended particulates.

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (DPM). DPM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Unlike the other TACs, no ambient monitoring data are available for DPM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a particulate matter exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

CO Hotspots

An adverse CO concentration, known as a "hot spot" is an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, and CO concentrations in the region have steadily declined (AQ 2022).

Odorous Emissions

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Offensive odors are unpleasant and can lead to public distress generating citizen complaints to local governments. Although unpleasant, offensive odors rarely cause physical harm. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed, direction, and the sensitivity of receptors.

EXISTING CONDITIONS

SCAQMD maintains monitoring stations within district boundaries, Source/Receptor Areas (SRAs), that monitor air quality and compliance with associated ambient standards. The TVSP area is located within SRA 35, East San Bernardino. The East San Bernardino monitoring station is located approximately 0.5 mile east of the TVSP area and reports air quality statistics for O_3 and PM_{10}. The East San Bernardino Valley monitoring station does not provide information for CO, NO_2, and $PM_{2.5}$, as such, statistics were obtained from the Central San Bernardino 2 monitoring station. The Central San Bernardino monitoring station is located within SRA 34 that is located 4.6 miles northwest of the TVSP area. The most recent 3 years of data is shown on Table 5.2-2 and identifies the number of days ambient air quality standards were exceeded in the area. Additionally, data for SO_2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO_2 concentrations.

In 2020, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone and PM_{10} at most monitoring locations. No areas of the SCAB exceeded federal or state standards for NO_2, SO_2, CO, sulfates, or lead. See Table 5.2-3, for attainment designations for the SCAB.

Table 5.2-2: Air Quality Monitoring Summary 2018-2020

Pollutant	Standard	Year		
		2018	2019	2020
O_3				
Maximum Federal 1-Hour Concentration (ppm)		.136	0.137	0.173
Maximum Federal 8-Hour Concentration (ppm)		.114	0.117	0.136
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	3	73	104
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	4	109	141
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	2.7	1.3	1.9
Maximum Federal 8-Hour Concentration	> 20 ppm	2.5	1.1	1.4
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.057	0.059	0.054
Annual Federal Standard Design Value		0.016	0.014	0.015
PM_{10}				

Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	4	4	7
Annual Federal Arithmetic Mean (µg/m^3)		25.9	21.2	23.4
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3			
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3			
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	30.10	34.80	25.70
Annual Federal Arithmetic Mean (µg/m^3)	> 12 µg/m^3	11.17	10.06	11.6
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	0	0	0

ppm = Parts Per Million

µg/m3 = Microgram per Cubic Meter

Source: AQ, 2022 (Appendix B)

Both CARB and the USEPA use this type of monitoring data to designate areas with air quality problems and to initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Nonattainment is defined as any area that does not meet, or that contributes to ambient air quality in a nearby area that does not meet the primary or secondary ambient air quality standard for the pollutant. Attainment is defined as any area that meets the primary or secondary ambient air quality standard for the pollutant. Unclassifiable is defined as any area that cannot be classified on the basis of available information as meeting or not meeting the primary or secondary ambient air quality standard for the pollutant. California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment.

Table 5.2-3: Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb[3]	Attainment	Unclassifiable/Attainment

Source: AQ, 2022 (Appendix B).

The TVSP area consists of approximately 947 acres of land that surrounds three proposed Arrow stations. The area is current developed with a mix of commercial, industrial, and residential uses (including Redlands' downtown business district and a segment of Interstate 10 freeway). Air quality emissions are currently generated by operation of these existing uses and the related vehicular trips.

[3] The federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Existing sensitive receptors within and in the vicinity of the TVSP area consists of residences.

5.2.4 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project could have a significant adverse effect on air quality resources if it would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan;

AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

AQ-3 Expose sensitive receptors to substantial pollutant concentrations; or

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Initial Study established that the proposed Project would not result in impacts related to Threshold AQ-4; and no further assessment of this impact is required in this EIR.

Regional Thresholds

The SCAQMD's most recent regional significance thresholds from April 2019 for regulated pollutants are listed in Table 5.2-4. The SCAQMD's CEQA air quality methodology provides that any projects that result in daily emissions that exceed any of the thresholds in Table 5.2-4 would be considered to have both an individually (project-level) and cumulatively significant air quality impact.

Table 5.2-4: SCAQMD Regional Air Quality Thresholds

Pollutant	Construction	Operations
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

Source: AQ, 2022 (Appendix B)

Localized Significance Thresholds

SCAQMD developed LSTs to determine if emissions of NO_2, CO, PM_{10}, or $PM_{2.5}$ generated at a project site would expose sensitive receptors to substantial concentrations of criteria air pollutants. LSTs are the maximum emissions from a project's onsite activities that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive

receptor. However, an LST analysis can only be conducted at a development project level, as LST thresholds are based on specific project site data points such as graded acres per day and distance to sensitive receptors, and quantification of LSTs is not applicable for this program-level environmental analysis. For informational purposes, Table 5.2-5, provides the localized significance thresholds for projects in the South Coast Air Basin.

Table 5.2-5: SCAQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO2 Standard (CAAQS)	0.18 ppm
Annual NO2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (SCAQMD)	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (SCAQMD)	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)	2.5 µg/m^3
Annual Average PM_{10} Standard (SCAQMD)	1.0 µg/m^3

Source: SCAQMD 2015

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels as well as implementation of control technology on industrial facilities, CO concentrations in the South Coast Air Basin and the state have steadily declined. The analysis of CO hotspots compares the volume of traffic that has the potential to generate a CO hotspot and the volume of traffic generated by the proposed Project.

5.2.5 METHODOLOGY

This analysis focuses on the nature and magnitude of the change in the air quality environment due to implementation of the proposed Project, based on the maximum development assumptions that are outlined in Section 3.0*, Project Description*.

Air pollutant emissions associated with the proposed Project would result from construction equipment usage and from construction-related traffic. Additionally, emissions would be generated from operations of the future residential and business uses and from traffic volumes generated by these new uses. The net increase in emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to the applicable thresholds of significance recommended by SCAQMD.

Although the Project would comply with all of the applicable AQMD requirements, it should be noted that emission reductions associated with Rules 402, 1301, 1401, and 2305 cannot be quantified in the California Emissions Estimator Model (CalEEMod) and are therefore not reflected in the emissions presented herein. Conversely, Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings) can be modeled in CalEEMod. As such, credit for Rule 403 and Rule 1113 have been taken in the analysis.

AQMP Consistency

SCAQMD's CEQA Handbook suggests an evaluation of the following two criteria to determine whether a project involving a legislative land use action (such as the proposed General Plan land use and zoning designation changes) would be consistent or in conflict with the AQMP:

1. The project would not generate population and employment growth that would be inconsistent with SCAG's growth forecasts.
2. The project would 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 the SCAG's growth forecast and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities and counties located within the SCAG region. Therefore, if the level of housing or employment related to the proposed Project are consistent with the applicable assumptions used in the development of the AQMP, the Project would not jeopardize attainment of the air quality levels identified in the AQMP.

Consistency Criterion No. 2 refers to the California Ambient Air Quality Standards. An impact would occur if the long-term emissions associated with the proposed Project would exceed SCAQMD's regional significance thresholds for operation-phase emissions.

Construction

Buildout of the TVSP is anticipated to occur over 18 years (2022 through 2040), with the location, type, and timing of site-specific development projects and construction activities determined by market demand. Because of the uncertainty of the specific timing and methods of construction activities for future site-specific development projects that would occur by the proposed TVSP, a worst-case construction scenario is analyzed in this EIR. It was conservatively assumed that construction would occur throughout the 18-year period, and the emissions that would be generated from buildout of the proposed TVSP was averaged over this timeframe. Given a 18-year buildout, it is conservatively assumed that project-related development might be undergoing some stage of onsite activity (demolition, site preparation, and construction) on the theoretical "maximum construction day." In addition, an estimate of the construction equipment that might be active on the theoretical "maximum construction day" was identified based on the size of parcels and type of existing development within the TVSP area. Further, it was assumed that construction from several projects could overlap. Thus, the EIR identifies the potentially worst case scenario.

Construction-generated emissions of criteria air pollutants and ozone precursors were assessed in accordance with methods recommended by SCAQMD. The proposed Specific Plan's regional emissions were modeled using the California Emissions Estimator Model (CalEEMod), as recommended by SCAQMD. CalEEMod was used to determine whether construction-related emissions of criteria air pollutants associated with the proposed TVSP could exceed applicable regional thresholds and if mitigation would be required.

Operations

Long-term (i.e., operational) regional emissions of criteria air pollutants and precursors, including mobile- and area-source emissions from the Project, were also quantified using the CalEEMod computer model. Area-source emissions were modeled according to the size and type of the land uses proposed. Mass mobile-source emissions were modeled based on the increase in daily vehicle trips that would result from the proposed Project. Predicted long-term operational emissions were compared with applicable SCAQMD thresholds for determination of significance.

5.2.6 ENVIRONMENTAL IMPACTS

As detailed in Section 3.0, *Project Description*, the proposed Project would provide a form-based code that would allow development of up to 2,400 residential units; 613,000 square feet of retail commercial, hotel, and office space; and 280,000 square feet of open space and parks within the TVSP area. However, the timing of development and operation of the development pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. Due to the unknown nature and incremental timing of the Project, the air quality impact analysis includes conservative assumptions that provides for identification of the maximum potential impacts.

IMPACT AQ-1: THE PROJECT WOULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF AN APPLICABLE AIR QUALITY PLAN

Significant and Unavoidable Impact. The SCAQMD's 2016 AQMP is the applicable air quality plan for the proposed TVSP area. Pursuant to Consistency Criterion No. 1, the SCAQMD's 2016 AQMP is the applicable air quality plan for the proposed Project. Projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. Additionally, because SCAG's regional growth forecasts are based upon, among other things, land uses designated in general plans, a project that is consistent with the land use designated in a general plan would also be consistent with the SCAG's regional forecast projections, and thus also with the AQMP growth projections.

The proposed TVSP includes amending the GP2035 to establish a new TVD land use designation to provide for infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations. The form-based code that would be implemented by the proposed TVSP emphasizes building form, a mix and density of different transit-oriented development, pedestrian circulation, and public realm improvements and amenities. This includes a network of complete, multi-modal streets that provide for pedestrians, bicyclists, transit patrons, and motorists.

As detailed in Section 5.11, *Population and Housing*, buildout of the proposed TVSP would allow development of 2,400 residential units and 613,000 square feet of retail commercial, hotel, and office space, representing a population of approximately 6,360 persons and 1,226 employees at buildout and full occupancy (maximum impact condition). Development pursuant to the proposed TVSP would consist mostly of infill, mixed-use, and redevelopment projects that are market and need dependent. Because the employment land designated areas in the TVSP area are existing and would not change with implementation of the TVSP, the 1,226 jobs expected in the TVSP area are included in the SCAG projections.

The SCAG 2020 RTP/SCS projections for the City of Redlands anticipate a 32.2 percent increase in employment in the City between 2016 and 2045 (an increase of 13,700 jobs). The 1,226 jobs that are anticipated to occur within the TVSP area would be approximately 8.9 percent of the anticipated job growth, and within the growth assumptions of the SCAG AQMP.

The housing added by the Specific Plan would help to meet housing demands from projected employment growth in the City while maintaining a healthy vacancy rate. The provision of housing within walking distance to the three new Arrow stations and community retail would reduce vehicle miles traveled and the related air quality emissions. In addition, the TVSP implements infill development, located in an urbanized area with existing infrastructure, near transit, and implements bicycle and pedestrian infrastructure; all of which are intended to reduce vehicle miles traveled and vehicular emissions. This is consistent with the SCAG objective to "Encourage patterns of urban development and land use that reduce costs in infrastructure construction and make better use of existing facilities." Thus, the proposed TVSP would support AQMP objectives to reduce trips, promote infill development, and balance jobs and housing, and would not conflict with implementation of the AQMP. As a result, the proposed TVSP would comply with AQMD AQMP Consistency Criterion No. 1.

Regarding Consistency Criterion No. 2, which evaluates the potential of the proposed Project to increase the frequency or severity of existing air quality violations; as described previously, an impact related to Consistency Criterion No. 2 would occur if the long-term emissions associated with the proposed Project would exceed SCAQMD's regional significance thresholds for operation-phase emissions. As detailed below in Impact AQ-2, the Project would result in regional operational-source emissions that would exceed the thresholds of significance for CO, VOC, and NO_X emissions after implementation of regulatory requirements and Mitigation Measures AQ-8 through AQ-10; and therefore, would result in an increase in the frequency or severity of existing air quality violations and contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP. Therefore, the proposed Project would result in an impact related to Consistency Criterion No. 2.

Overall, despite the Project's consistency with SCAG's regional growth forecasts, the Project would lead to increased regional air quality emissions that would exceed thresholds. Therefore, the proposed TVSP would result in a conflict with, or obstruct, implementation of the AQMP and impacts would be significant and unavoidable after implementation of the mitigation measures detailed below.

IMPACT AQ-2: THE PROJECT WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD

Construction

Significant and Unavoidable Impact. Construction activities associated with the Project would result in emissions of CO, VOCs, NOx, SOx, PM_{10}, and $PM_{2.5}$. Pollutant emissions associated with construction would be generated from the following construction activities: (1) demolition, grading, and excavation; (2) construction workers traveling to and from the TVSP area; (3) delivery and hauling of construction supplies to, and debris from, the TVSP area; (4) fuel combustion by onsite construction equipment; (5) building construction; application of architectural coatings; and paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants.

As described previously, the timing of development and operation of the development pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. Thus, construction activities associated with buildout of the proposed TVSP would likely occur sporadically over an 18-year period or longer. Due to the uncertainty of the specific timing and methods of construction activities related to TVSP development projects, the maximum daily emissions are based on a very conservative scenario that construction could occur throughout the TVSP implementation period, based on maximum equipment use, and multiple future TVSP development projects overlapping. The construction modeling of potential construction impacts assumed the following construction equipment would be used during construction of TVSP development projects.

Table 5.2-6: Construction Equipment Assumptions

Construction Activity	Equipment	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8

	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: AQ, 2022 (Appendix B).

The maximum daily construction emissions for the proposed TVSP were estimated using CalEEMod; and the modeling includes compliance with SCAQMD Rules 403 and 1113 (described above). Table 5.2-7 provides the maximum daily emissions of criteria air pollutants from construction under the scenario of multiple development projects being implemented simultaneously. As shown, under this scenario emissions from construction would exceed thresholds established by the SCAQMD for emissions of VOCs and NO_X.

Table 5.2-7: Maximum Peak Construction Emissions Without Mitigation

Construction Activity	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Demolition	21.19	219.81	206.38	0.41	16.69	10.76
Site Preparation	24.85	287.64	147.08	0.37	73.31	40.27
Grading	34.10	384.79	249.01	0.65	55.35	29.27
Building Construction	48.18	288.26	532.02	1.45	94.37	32.79
Paving	7.08	65.36	105.42	0.17	4.33	3.26
Architectural Coating	590.53	13.78	33.00	0.07	5.20	1.89
Winter						
Demolition	21.21	220.19	205.88	0.41	16.69	10.76
Site Preparation	24.87	287.67	146.63	0.37	73.31	40.27
Grading	34.12	385.10	248.40	0.64	55.35	29.27
Building Construction	49.49	292.42	508.98	1.41	94.37	32.79
Paving	7.10	65.38	105.12	0.17	4.33	3.26
Architectural Coating	590.61	13.85	31.72	0.07	5.20	1.89
Maximum Daily Emissions	**590.61**	**385.10**	**532.02**	**1.45**	**94.37**	**40.27**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**No**	**No**	**No**	**No**

Source: AQ, 2022 (Appendix B).

As shown in Table 5.2-7, emissions resulting from construction would exceed criteria pollutant thresholds for VOC and NOx. Development projects would be required, through City review and construction permitting, to implement SCAQMD rules, including: Rule 401, Rule 402, Rule 403, Rule 481, Rule 1108, Rule 1113, and Rule 1143 (described previously) that would reduce construction related emissions. Also, Mitigation Measures AQ-1 through AQ-7 are included to require the construction activities to utilize "Super-Compliant" low VOC paints that have no more than 10g/L of VOC, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113, require all construction equipment greater than 150 horsepower (>150 HP) to be CARB certified tier 3 or higher, use of electrical and alternative fueled equipment, and other similar measures. With implementation of Mitigation Measures AQ-1 through AQ-6, emissions of VOC and NOx from construction activities would be reduced and emissions from most TVSP developments would be reduced to below the SCAQMD significance thresholds. However, due to the potential overlap of development projects and construction activities, it cannot be assured that the mitigation measures would reduce emissions below the SCAQMD significance thresholds. As shown in Table 5.2-7, VOC emissions have the potential to be 7.9 times higher than the threshold, and NO_X emissions have the potential to be over 3.8 times higher

than the threshold, with this level of potential emissions exceedances during overlapping construction projects, construction emissions could continue to exceed thresholds with implementation of Mitigation Measures AQ-1 through AQ-6. Therefore, based on the very conservative scenario of construction timing and construction equipment use, impacts related to construction emissions would remain significant and unavoidable.

Operation

Significant and Unavoidable. Development pursuant to the proposed TVSP would consist mostly of infill, mixed-use, and redevelopment projects that are market and need dependent. Additionally, the residential development that would occur would help to meet housing demands from projected employment growth in the City and be in the proximity to transit and commercial uses that would reduce dependence of vehicles and result in a reduction in vehicle miles traveled.

The new development identified by the TVSP would generate in long-term emissions of criteria air pollutants from area sources generated by vehicular emissions, natural gas consumption, landscaping, applications of architectural coatings, and use of consumer products, which are typical of residential, commercial, and office uses. As shown in Table 5.2-8, operation of the land uses included in the TVSP at buildout and full occupancy would generate emissions that would exceed the applicable SCAQMD thresholds for CO, VOC, and NO_X.

Table 5.2-8: Summary of Peak Operational Emissions

Area	Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Summer						
State Street Village	26.07	10.36	110.85	0.13	11.36	0.76
The Grand Apartments	5.52	4.66	29.63	0.06	5.40	1.68
City Center Mixed-Use	6.38	5.16	35.94	0.07	7.47	2.22
Downtown Village Future Projects	15.19	11.18	96.27	0.20	24.41	6.82
University Village	45.99	36.52	245.15	0.47	47.53	14.42
New York Street Village	18.34	12.06	97.36	0.20	24.32	6.88
Total Maximum Daily Emissions	**117.49**	**79.95**	**615.20**	**1.13**	**120.48**	**32.78**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**
Winter						
State Street Village	25.80	10.74	110.20	0.13	11.36	0.76
The Grand Apartments	5.47	4.77	29.25	0.06	5.40	1.68
City Center Mixed-Use	6.27	5.33	35.59	0.07	7.47	2.22
Downtown Village Future Projects	14.78	11.76	95.36	0.19	24.41	6.82
University Village	45.31	37.57	242.81	0.46	47.53	14.42
New York Street Village	17.99	12.61	96.11	0.19	24.32	6.88
Total Maximum Daily Emissions	**115.61**	**82.78**	**609.31**	**1.09**	**120.48**	**32.78**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Source: AQ, 2022 (Appendix B).

As a result, Mitigation Measure AQ-7 would be implemented to require development projects in the TVSP area to achieve 5 percent efficiency beyond the incumbent California Building Code Title 24 requirements; and Mitigation Measure AQ-8 would require enhanced water conservation for TVSP development projects. However, similar to the analysis presented in the General Plan EIR, even with implementation of Mitigation Measures AQ-7 and AQ-8, emissions would continue to exceed regional thresholds of significance established by the SCAQMD, and impacts would be significant and unavoidable.

It is important to note that the majority of VOC emissions are derived from consumer products. For analytical purposes, consumer products include cleaning supplies, aerosols, and other consumer products. As such, the Project applicant cannot meaningfully control the use of consumer products by future building users via

mitigation. On this basis, it is concluded that Project operational-source VOC emissions cannot be definitively reduced below applicable SCQMD thresholds.

Additionally, it should be noted that the majority of the Project's CO and NO_X emissions are derived from vehicle usage. Since neither future project applicants nor the City have regulatory authority to control tailpipe emissions, no feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant.

Health Impacts of Exceeded Criteria Pollutant Emissions. The Draft EIR identifies a significant and unavoidable impact with respect to CO, NOx, and VOC emissions, due largely to the use of consumer products and vehicle trips. NOx is a "criteria" pollutant, a pollutant that is regulated by the US EPA pursuant to the federal Clean Air Act. The potential health impacts of criteria pollutants are analyzed on a regional level, not on a facility/project level. The SCAQMD and the San Joaquin Valley Unified Air Pollution Control District (SJVAPD), experts in the area of air quality, both recognize that a meaningful, accurate analysis of potential health impacts resulting from criteria pollutants is not currently possible and not likely to yield substantive information that promotes informed decision making. The SJVAPD, in its amicus curiae brief for the recent California Supreme Court decision in *Sierra Club v. County of Fresno* (2018)6 Cal.5th 502, explained that "it is not feasible to conduct a [health impact analysis] for criteria air pollutants because currently available computer modeling tools are not equipped for this task." The SJVAPD described a project-specific health impact analysis as "not practicable and not likely to yield valid information" because "currently available modeling tools are not well suited for this task." The SJVAPD further noted that "…the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional" cumulative impacts.

It should also be noted that CO, NOx, and VOCs are "precursor" pollutants, which makes analysis of potential health impacts even more difficult. CO, NOx, and VOCs are precursors to ozone, which is formed in the atmosphere from the chemical reaction of CO, NOx, and VOCs in the presence of sunlight. As explained by the SCAQMD in its amicus curiae brief for *Sierra Club v. County of Fresno*, it takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources." Given this, "…it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region." Therefore, SCAQMD opined that while it "may be feasible" for large, regional projects with very high emissions of CO, NOx, and VOCs to conduct an accurate health impact analysis, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by CO, NOx, or VOC emissions from relatively small projects.

Thus, the difficulties with preparing potential health impact analysis related to the Project's CO, NOx, and VOC emissions are twofold. First, current modeling is not capable of correlating emissions of criteria pollutants to concentrations that can be reasonably linked to specific health impacts. Second, CO, NOx, and VOCs are precursor emissions and concentrations of CO, NOx, and VOC are impacted by regional atmospheric conditions. CO, NOx, and VOCs emitted by the Project may, depending upon interactions with the sun and other emissions, convert to ozone by complex chemical processes. Thus, there is a significant level of unpredictability associated with such conversion to ozone, as noted by the SCAQMD and the SJVAPD. It should also be noted that the EIR does identify health concerns related to CO and NOx emissions. Table 5.2-1 includes a list of criteria pollutants and summarizes common sources and effects. Thus, the EIR's analysis is reasonable and intended to foster informed decision making.

IMPACT AQ-3: THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS

CO Hotspots

Less than Significant Impact. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the State's one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

The 2003 AQMP estimated traffic volumes that could generate CO concentrations to result in a "hot spot". As shown in Table 5.2-10, the Wilshire-Veteran intersection had a daily traffic volume of approximately 100,000 vehicles per day, and the 1-hour CO concentration was 4.6 ppm. This indicates that, even with a traffic volume of 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not exceed the most stringent 1-hour CO standard (20.0 ppm).[4]

Table 5.2-10: Traffic Volumes for Intersections Evaluated in 2003 AQMP

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (a.m./p.m.)	Westbound (a.m./p.m.)	Southbound (a.m./p.m.)	Northbound (a.m./p.m.)	Total (a.m./p.m.)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: AQ, 2022 (Appendix B).

Operation of the proposed Project at buildout during AM peak hour would result in a total of 1,896 trips throughout the TVSP area and a total of 1,816 trips in the PM peak hour throughout the TVSP area. These trips distributed throughout the TVSP area would not result in daily traffic volumes of 100,000 vehicles per day or more. As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP; and are not high enough to generate a CO "hot spot". Therefore, impacts related to CO "hot spots" from operation of the proposed Project would be less than significant.

Localized Construction Air Quality Impacts

Less than Significant with Mitigation Incorporated. As described previously, an LST analysis can only be conducted at a development project level, and quantification of LST's is not applicable for this program-level environmental analysis. However, implementation of developments pursuant to the TVSP could result in localized emissions that exceed air quality standards. Thus, implementation of the TVSP could result in a significant impact related to LST's. As a result, Mitigation Measure AQ-9 is included, which requires development projects to provide modeling of the regional and the localized emissions (NO_X, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development; and requires grading activity to be limited to ensure that there would be no impacts related to LST's. Therefore, impacts related to localized construction air quality impacts would be less than significant with implementation of Mitigation Measure AQ-9.

Toxic Air Contaminants

Less than Significant with Mitigation Incorporated. CARB has issued advisory recommendations for siting new sensitive land uses in proximity to sources associated with Toxic Air Contaminants (TAC's) and recommends performing site specific environmental evaluations. However, it is currently unknown what development projects that could include a sensitive receptor would be proposed next to an existing TAC, such as warehouses, industrial areas, freeways, roadways, and rail lines with traffic volumes over 10,000 vehicle per day. Therefore, consistent with CARB guidance, Mitigation Measure AQ-10 is included to require a site-specific evaluation prior to approving any sensitive land use in proximity to an existing TAC within the TVSP area. Implementation of Mitigation Measure AQ-10 would reduce potential impacts related to TACs to a less than significant level.

5.2.7 CUMULATIVE IMPACTS

[4] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

As described previously, per SCAQMD's methodology, if an individual project would result in air emissions of criteria pollutants that exceeds the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants.

As described in Impact AQ-2 above, emissions from construction of the proposed Project could exceed SCAQMD's threshold for VOC and NOx after implementation of SCAQMD Rules and mitigation measures if several development projects within the TVSP area overlap.

Also, emissions from operation of the proposed Project at buildout would exceed SCAQMD's threshold for CO, VOC, and NOx after implementation of mitigation measures. Because the large majority of operational-source CO and NOx emissions (by weight) would be generated by project vehicles, and the VOC emissions would be generated by consumer products that neither future project applicants nor the City have the ability to reduce emissions of. Therefore, similar to the analysis presented in the General Plan EIR, operational-source CO, VOC, and NOx emissions from implementation of the proposed Project would be cumulatively considerable, and cumulative air quality impacts would be significant and unavoidable.

5.2.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

State

- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR 2449)
- California Green Building Standards Code (Code of Regulations, Title 24 Part 6)

Regional

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1108: Volatile Organic Compounds
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1143: Paint Thinners and Solvents

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.2.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, the following impacts would be **potentially significant**:

Impact AQ-1: Buildout of the proposed TVSP would increase the frequency or severity of existing air quality violations, and an impact regarding AQMP Consistency Criterion No. 2 would occur.

Impact AQ-2: Construction and operation associated with buildout of the proposed TVSP would generate a substantial increase in criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SCAB.

Impact AQ-3: Buildout of the proposed TVSP could result in new sources of criteria air pollutant emissions and/or toxic air contaminants proximate to existing or planned sensitive receptors.

5.2.10 MITIGATION MEASURES

Mitigation Measure AQ-1: Tier 3 Construction Equipment. Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that for construction equipment greater than 150 horsepower (>150 HP), the Construction Contractor shall use off-road diesel construction equipment that complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 3 emissions standards during all construction phases and will ensure that all construction equipment be tuned and maintained in accordance with the manufacturer's specifications.

Mitigation Measure AQ-2: Low VOC Paints. Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that "Super-Compliant" low VOC paints shall be utilized that have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10 grams per liter (g/L) of VOC. Alternatively, the applicant may utilize tilt-up concrete buildings that do not require the use of architectural coatings.

Mitigation Measure AQ-3: Electric Construction Equipment. Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that contract specifications for construction activities rely on the electricity infrastructure surrounding the construction site, if available rather than electrical generators powered by internal combustion engines.

Mitigation Measure AQ-4: Alternative Fueled Construction Equipment. Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement to use of alternative fueled, engine retrofit technology, after-treatment products (e.g., diesel oxidation catalysts, diesel particulate filters), and/or other options as they become available, including all off-road and portable diesel-powered equipment.

Mitigation Measure AQ-5: Construction Equipment Maintenance. Construction plans and specifications and construction permitting for developments within the TVSP area shall include the requirement that construction equipment be maintained in good operating condition pursuant to manufacturer specifications to reduce emissions. The Construction Contractor shall ensure that all construction equipment is being properly serviced and maintained as per the manufacturer's specification. Maintenance records shall be available at the construction site for City verification.

Mitigation Measure AQ-6: Construction Vehicle Management Plan. Prior to the issuance of any grading permits for developments within the TVSP area, the applicant and/or building operators shall submit construction plans and a construction vehicle management plan to the City of Redlands denoting the proposed schedule and projected equipment use. The construction vehicle management plan shall include such things as: idling time requirements; requiring hour meters on equipment; documenting the serial number, horsepower, age, and fuel of all onsite equipment. The plan shall include that California state law requires equipment fleets to limit idling to no more than 5 minutes. Construction contractors shall provide evidence that low emission mobile construction equipment will be utilized, or that their use was investigated and found to be infeasible for the project as determined by the City. Contractors shall also conform to any construction measures imposed by the SCAQMD as well as City Planning Staff.

Mitigation Measure AQ-7: Enhanced Energy Efficiency. Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 5 percent (%) efficiency beyond the incumbent California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable):

- Increase in insulation such that heat transfer and thermal bridging is minimized;
- Limit air leakage through the structure and/or within the heating and cooling distribution system;
- Use of energy-efficient space heating and cooling equipment;
- Installation of electrical hook-ups at loading dock areas;
- Installation of dual-paned or other energy efficient windows;
- Use of interior and exterior energy efficient lighting that exceeds then incumbent California Title 24 Energy Efficiency performance standards;
- Installation of automatic devices to turn off lights where they are not needed;
- Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;
- Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;
- Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;
  Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products.

Mitigation Measure AQ-8: Enhanced Water Conservation. To reduce water demands and associated energy use, subsequent development proposals within the TVSP area shall incorporate a Water Conservation Strategy and demonstrate a minimum 30% reduction in outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[5]. Development proposals within the TVSP area shall also implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.
- Use of recycled water when available.

Mitigation Measure AQ-9: Localized Emissions. For implementing projects within the TVSP area, the applicant shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed development. During the City's review process of development applications in the TVSP area, the applicant shall conduct or shall have conducted modeling of the regional and the localized emissions (nitrogen oxides [NO_X], carbon monoxide [CO], Particulate Matter 10 microns in diameter or less [PM_{10}], and Particulate Matter 2.5 microns in diameter or less [$PM_{2.5}$]) associated with the maximum daily grading activities estimated for the proposed individual developments. If the modeling shows that emissions would exceed the

[5] The analysis includes a reduction of 20% indoor water usage consistent with the current CALGreen Code (11) for residential and non-residential land uses. Per CALGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

SCAQMD's significance thresholds for those emissions, the maximum daily grading activities of the proposed development shall be limited to the extent that could occur without resulting in emissions in excess of SCAQMD's significance thresholds for those emissions.

Mitigation Measure AQ-10: Toxic Air Contaminants. Applicants for residential and other sensitive land use projects (e.g., hospitals, nursing homes, day care centers) in the TVSP area within 1,000 feet of a major sources of TACs (e.g., warehouses, industrial areas, freeways, roadways, and rail lines with traffic volumes over 10,000 vehicle per day), as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, shall submit a health risk assessment (HRA) to the City of Redlands prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of CEQA and the SCAQMD. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), PM_{10} concentrations exceed 2.5 microgram per cubic meter ($\mu g/m^3$), $PM_{2.5}$ concentrations exceed 2.5 $\mu g/m^3$, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes located away from high volume roadways and/or truck loading zones.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters (e.g., MERV 13 or better).

5.2.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impact AQ-1: Land use change of the Project would not result in an exceedance of SCAG's growth projections, but the Project would result in an increase of criteria pollutants that would exceed regional thresholds after implementation of mitigation. Therefore, the proposed Project would result in a conflict with, or obstruct, implementation of the AQMP and impacts would be **significant and unavoidable**.

Impact AQ-2: Emissions from the construction of the implementing projects have the potential to overlap, which could result in a significant impact after implementation of SCAQMD Rules and Mitigation Measures AQ-1 through AQ-7.

Emissions from operation of the proposed TVSP at buildout would exceed SCAQMD's thresholds for CO, VOC, and NOx after implementation of regulations and mitigation measures. Because a majority of operational-source CO and NOx emissions (by weight) would be generated by vehicle trips, and the VOC emissions would be generated by consumer products that neither future Project applicants nor the City have the ability to reduce emissions of. Therefore, operational-source CO, VOC, and NOx emissions from implementation of the proposed Project would be cumulatively considerable, and cumulative air quality impacts would be **significant and unavoidable**.

Impact AQ-3: After implementation of Mitigation Measures AQ-9 and AQ-10, localized and toxic air contaminant emissions would not exceed the SCAQMD's localized significance threshold for any of the pollutants or TAC related threshold. Thus, impacts would be **less than significant**.

REFERENCES

City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands 2035 General Plan, 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed:

https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

SCAG 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. Accessed: https://scag.ca.gov/sites/main/files/file-attachments/2016_2040rtpscs_finalgrowthforecastbyjurisdiction.pdf?1605576071

Urban Crossroads. "Transit Villages District and Specific Plan Air Quality Impact Analysis" 2022. Appendix B.

5.3 Cultural Resources

5.3.1 INTRODUCTION

This section addresses potential environmental effects of the Project related to cultural resources, which include historic and archaeological resources. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017;
- *City of Redlands Municipal Code;*
- *Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments*, Material Culture Consulting, February 2022 (Appendix C).

In accordance with Public Resources Code Section 15120(d), certain information and communications that disclose the location of archaeological sites and sacred lands are allowed to be exempt from public disclosure.

Cultural Resources Terminology

- **Archaeological resources** include any material remains of human life or activities that are at least 100 years of age, and that are of scientific interest. A unique or significant archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality, such as being the oldest of its type or the best available example of its type; and (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.
- **Cultural resources** are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance, according to the California Environmental Quality Act (CEQA).
- **Historic building** or **site** is one that is noteworthy for its significance in local, state, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts.
- **Historic context** refers to the broad patterns of historical development in a community or its region that is represented by cultural resources. A historic context statement is organized by themes such as economic, residential, and commercial development.
- **Historic integrity** is defined as "the ability of a property to convey its significance."
- **Historical resources** are defined as "a resource listed or eligible for listing on the California Register of Historical Resources" (CRHR) (Public Resources Code, Section 5024.1; 14 CCR 15064.5). Under CEQA Guidelines Section 15064.5(a), the term "historical resources" includes 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 (Public Resources Code, Section 5024.1).

(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 a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will 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 a 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 (Public Resources Code Section 5024.1) 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 California's 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 a 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.

5.3.2 REGULATORY SETTING

5.3.2.1 Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established the National Register of Historic Places (National Register), which is the official register of designated historic places. The National Register is administered by the National Park Service, and includes listings of buildings, structures, sites, objects, and districts that possess historical, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

To be eligible for the National Register, a property must be significant under one or more of the following criteria per 36 Code of Federal Regulations Part 60:

a) Properties that are associated with events that have made a significant contribution to the broad patterns of our history;

b) Properties that are associated with the lives of persons significant in our past;

c) Properties that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) Properties that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the aforementioned criteria, an eligible property must also possess historic "integrity," which is "the ability of a property to convey its significance." The National Register criteria recognize seven qualities that define integrity: location, design, setting, materials, workmanship, feeling, and association.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the National Register as significant historical resources. Properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the National Register.

Properties listed in or eligible for listing in the NRHP are also eligible for listing in the California Register of Historic Resources, and as such, are considered historical resources for CEQA purposes.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

A property is eligible for the NRHP if it is significant under one or more of the following criteria:

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

Criterion B: It is associated with the lives of persons who are significant in our past;

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

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

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands. The ARPA regulates authorized archaeological investigations on federal lands; increased penalties for looting and vandalism of archaeological resources; required that the locations and natures of archaeological resources be kept confidential in most cases. In 1988, amendments to the ARPA included a requirement for public awareness programs regarding archaeological resources.

5.3.2.2 State Regulations

California Register of Historical Resources

Eligibility for inclusion in the California Register of Historical Resources (CRHR) is determined by applying the following criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) It is associated with the lives of persons important in California's past;
3) 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 value; or
4) It has yielded or is likely to yield information important in prehistory or history. The Register includes properties which are listed or have been formally determined to be eligible for listing in the National Register, State Historical Landmarks, and eligible Points of Historical Interest (PRC §5024.1).

In addition to meeting one or more of the above criteria, the CRHR requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources." (CCR 4852 [d][2]). The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

California Health and Safety Code, Section 7050.5

This code requires that if human remains are discovered on a project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Public Resources Code Section 5097.98

Public Resources Code Section 5097.98 provides guidance on the appropriate handling of Native American remains. Once the NAHC receives notification from the Coroner of a discovery of Native American human remains, the NAHC is required to 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 discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall 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 Section 5097.98(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.

CEQA Guidelines Section 15064.5

Section 15064.5 provides guidelines for determining the significance of impacts to archaeological and historical resources. The section provides the definition of historical resources, and how to analyze impacts to

resources that are designated or eligible for designation as a historical resource. Section 15064.5 additionally provides provisions for the accidental discovery or recognition of human remains in any location other than a dedicated cemetery.

5.3.2.3 Local Regulations

City of Redlands General Plan 2035

The GP2035 Distinctive City Element contains the following policies and actions related to historical and archaeological resources that are applicable to the proposed Project:

Principle 2-P.8 Identify, maintain, protect, and enhance Redlands' cultural, historic, social, economic, architectural, agricultural, archaeological, and scenic heritage. In so doing, Redlands will preserve its unique character and beauty, foster community pride, conserve the character and architecture of its neighborhoods and commercial and rural areas, enable citizens and visitors to enjoy and learn about local history, and provide a framework for making appropriate physical changes.

Principle 2-P.9 Provide incentives to protect, preserve, and maintain the City's heritage

Principle 2-P.11 Encourage retention of the character of existing historic structures and urban design elements that define the built environment of the City's older neighborhoods.

Principle 2-P.12 Encourage retention of historic structures in their original use or reconversion to their original use where feasible. Encourage sensitive, adaptive reuse where the original use is no longer feasible.

Principle 2-P.14 Coordinate preservation of historic resources with policies designed to preserve neighborhoods and support the affordability of housing in historical structures.

Principle 2-P.15 Balance the preservation of historic resources with the desire of property owners of historic structures to adopt energy efficient strategies.

Action 2-A.25 Require any application that would alter or demolish an undesignated and unsurveyed resource over 50 years old to be assessed on the merits of the structure, and to be approved by the Historic and Scenic Preservation Commission.

Action 2-A.26 Provide development standards and guidelines to encourage conversion of historic structures to alternative uses without compromising the quality of the neighborhood if preservation of the original use is an economic hardship.

Action 2-A.34 Uphold the designation of the following streets within the city as scenic highways, drives, and historic streets. Special development standards have been adopted by Resolution for these streets. The streets are:

- Brookside Avenue, from Lakeside Avenue to Eureka Street;
- Olive Avenue, from Lakeside Avenue to Cajon Street;
- Center Street, from Brookside Avenue to Crescent Avenue;
- Highland Avenue, from Serpentine Drive to Cajon Street;
- Sunset Drive, from Serpentine Drive to Edgemont Drive;
- Cajon Street;
- Mariposa Drive, between Halsey and Sunset Drive; and

- Dwight Street, between Pepper Street and Mariposa Drive.

In addition, consider designating the following roads as scenic drives within the community as neighborhood connectors and recreational routes for drivers and bike riders.

- Riverview Drive along the Santa Ana River Wash;
- Like Oak Canyon Road;
- San Timoteo Canyon Road;
- Sylvan Boulevard;
- Nevada Street, from the Orange Blossom Trail to Barton Road;
- Pioneer Avenue, from River Bend Drive to Judson Street; and
- Rural roads in Crafton.

Action 2-A.37 Maintain and improve City-owned historic buildings and houses in an architecturally and environmentally sensitive manner.

Action 2-A.38 Use exemplary design quality and sensitivity to surrounding historic structures in new City construction, public works, entry ways, and City signs.

Action 2-A.39 Ensure that permanent changes to the exterior or setting of a designated historic resource be done in accordance with the Secretary of the Interior standards for historic properties.

Action 2-A.41 Encourage appropriate adaptive reuse of historic resources in order to prevent disuse, disrepair, and demolition, taking care to protect surrounding neighborhoods from disruptive intrusions.

Action 2-A.42 Should demolition of a designated historic resource occur, endeavor to ensure that a building of equal or greater design quality and/or use of equal or greater benefit to the community be constructed. Require that a report documenting the history of the property and archival-quality drawings and/or photographic records be prepared to document the historic resource.

Action 2-A.43 Institute an architectural salvage program to preserve architectural artifacts from buildings that are demolished.

Action 2-A.48 Establish design review guidelines for historic areas to ensure that new architecture will relate to and respect the historical and environmental context.

Action 2-A.70 Encourage preservation of historic public and private improvements, such as street curbs, street trees, specimen trees, streetlights, hitching posts, masonry walls, unpaved and early paved sidewalks, etc.

City of Redlands Historic and Scenic Preservation Ordinance

The City of Redlands maintains its own local designation program for historic and scenic properties within the city. The Redlands Historic and Scenic Preservation Commission was established in 1986 to make recommendations, decisions, and determinations regarding the designation and protection of the historical, scenic, and cultural resources in Redlands. The Historic and Scenic Preservation Commission also reviews any exterior modifications to a designated historic resource or the demolition of a designated resource or any structure over fifty years old.

Redlands has eight locally-designated historic districts:

- Eureka Street Historic District
- West Highland Avenue Historic and Scenic District
- Early Redlands Historic and Scenic District
- Normandie Court Historic District
- East Fern Avenue Historic and Scenic District
- Garden Hill Historic and Scenic District
- La Verne Street Historic and Scenic District
- Smiley Park Historic and Scenic District

Redlands Historic Architectural Design Guidelines

The City of Redlands has drafted an update to the City of Redlands Historic Architectural Design Guidelines (currently under review since January 2021). The Redlands Historic Architectural Design Guidelines provide historic preservation standards and resources for property owners, design professionals, the City of Redlands Planning Department, and the Historic and Scenic Preservation Committee. The Design Guidelines provide standards for best preservation practices and contextual design when undertaking an exterior alteration or addition, changes to site or accessory features, restoration or rehabilitation of a historic building, or new construction on or adjacent to a historic site, historic and/or scenic district, or Character Category. The Design Guidelines also inform the reviews of demolition permit applications for structures that may be eligible or potentially eligible for local designation or preservation.

5.3.3 ENVIRONMENTAL SETTING

Archaeological Resources

A total of 53 cultural studies have been performed within a 0.5-mile radius of the TVSP area. Of these, 33 have been conducted within the TVSP area, with only one of the reports having been conducted within the last five years. The records search conducted for the Project identified one (1) previously recorded prehistoric archaeological resource, one (1) historic archaeological resource with a prehistoric component, and twenty-four (24) historic archaeological resources within TVSP area. The prehistoric archaeological resources are shown in Table 5.3-1, *Recorded Prehistoric Archaeological Resources*.

Table 5.3-1: Recorded Prehistoric Archaeological Resources

Primary No.	Description	Location
P-36-012014/CA-SBR-012014H	One mano, a refuse dump, and a septic tank. The site was removed by construction activities in 2004.	Within TVSP area
P-36-032951	Prehistoric isolate.	Within TVSP area

Source: MCC, 2022, Appendix C.

Historic Setting

An asistencia was established in Redlands in 1819 to help facilitate the Mission San Gabriel Arcángel's control and colonization of the surrounding rancheria. Missionaries instructed Serrano, Gabrielino, and Cahuilla workers to build the Mill Creek Zanja, a 12-mile long irrigation ditch routing water from Mill Creek to Guachama Rancheria, which served as the area's first stable water resource. In 1842, the Lugo family, including José del Carmen Lugo, José María Lugo, Vicente Lugo, and Diego Sepulveda, received a land grant, Rancho San Bernardino, which encompassed the San Bernardino and Yucaipa valleys, including present day City of Redlands.

In 1881, E.G. Judson and Frank E. Brown formed the Redlands Water Company and began construction of a water canal to supply future citrus groves. During the development, the pair noticed the red-colored adobe soil and gave the new town its name, Redlands. Three years later, Brown built the Bear Valley Dam and reservoir, securing a steady supply of water for the town and associated citrus groves. With a stable water source and booming railways, the City of Redlands experienced a development boom with the creation of paved streets, sidewalks, sewage, and electricity systems. The City was officially incorporated in 1888. For 75 years, citrus growing was the main economic source for the City. The citrus industry eventually declined and agricultural areas were replaced with subdivisions. The former 15,000 acres of citrus groves, spanning the entirety of the city, have been reduced to only one grove left today, the Redlands Foothill Grove (CUL, 2022).

Historic Resources

There are 182 historic properties located within the TVSP area, with most of the eligible historic properties located in Downtown Redlands. The California Office of Historic Preservation's (OHP) Built Environment Resources Directory (BERD) for San Bernardino County, the City of Redlands' General Plan EIR (2017a), the City of Redlands' Downtown Specific Plan (2017b), the City of Redlands' List of Historic Resources (2019), the National Register (NR), the California Register of Historic Places (CR), California Historic Landmarks, and California Point of Historical Interest identify 114 historic properties within the TVSP area. Of these historic resources, 25 historic properties are listed in the National Register (NR) and/or the California Register (CR), three properties appear eligible for NR or CR, and 63 properties are designated as local historic resources. Eleven properties have been determined ineligible for listing or designation and 13 properties have not been evaluated for NR or NR or need evaluation. In addition, there are two historic districts located within the TVSP area, the Smiley Park Historic District and Santa Fe Depot Historic District, as outlined on Table 5.3-2.

Table 5.3-2: List of Historical Properties within TVSP Area

Name	Address	NR/CR Eligibility
Smiley Park Historic District	Michigan, Buena Vista, Parkwood, Alvarado, Grant, Eureka, Fourth, and Cajon Streets between Palm, Cypress, Home Place, Fern, Clark, Olive, Vine, and Brookside Streets	1S
n/a	251 S Fourth St	SPHD, HD8
n/a	255 S Fourth St	SPHD, HD8
n/a	201 Brookside Ave	5S2
n/a	122 Cajon St	5S2
n/a	123 Cajon St	5S2
Charles G. Rohrer House	131 Cajon St	5S2
n/a	215 Cajon St	1D, 5S2
n/a	243 Cajon St	1D, 5S2
n/a	248 Cajon St	6X
n/a	256 Cajon St	1D
n/a	261 Cajon St	1D, 5S2
A Harvey Collins House, Trolley Car Barn	746 E Citrus Ave	7N, NR, HL27

Name	Address	NR/CR Eligibility
Gold Banner Packing, Packing House Antiques	1 E Olive Ave	7N
Star Grocery	1 E Redlands Blvd	5S2
Redlands Photographers	109 E State St	5S2
n/a	112 E State St	5S2
Frame N Lens	101 E Olive Ave	5S2
Underpinings	219 E Olive Ave	5S2
n/a	255 E Olive Ave	5S2
McMahan's	37 E Olive Ave	5S2
Rose of Sharon Salon	21 E Redlands Blvd	5S2
Goodie Shop	214 E Redlands Blvd	5S2
Children's Carousel	215 E Redlands Blvd	7N
n/a	1 E State St	5S2
Citrograph house	10 E State St	5S2
J.C. Penney	104 E Olive Ave	5S2
Sligers Music	108 E Olive Ave	5S2
n/a	124 E Olive Ave	5S2
L And T Hobby	204 E Olive Ave	5S2
Pizza Chalet	208 E Olive Ave	5S2
Greg Wolfin Co. Grocery	213 E Olive Ave	5S2
Branch-Cooch Real Estate, Wilmouth House	214 E Olive Ave	5S2, SPHD, HR26
Patio Shop	215 E Olive Ave	5S2, SPHD, HD8
Norris House	110 E State St	5S2
Medical Arts Building, Courtyard	113 E State St	5S2
Redlands Motorcycle Club, Redlands Copies And Card	114 E State St	5S2
J.W. Hollett House	122 E State St	7N
Frank Meyer House	27 E State St	7N
Mission Gables Apartments	117 E State St	1D, 7N
E.D. Donham	120 E State St	7R
W.P. Griffitts House	14 E State St	7N
Walter Lynn House	15 E State St	7N
Daniel Cotcher House	17 E State St	7N
Dr. M. M. Horton House	18 E State St	7N
n/a	2 E State St	5S2
n/a	204 E State St	5S2
n/a	22 E State St	5S2
Buster Building	24 E State St	5S2, HR33
n/a	25 E State St	5S2
n/a	28 E State St	5S2
Cousin House	430 E State St	5S2

Name	Address	NR/CR Eligibility
n/a	6 E State St	5S2
n/a	609 E State St	5S2
n/a	150 E Vine St	5S2
I.N. Hoag House	816 E High Ave	HR13
Charles Midgley House	612 Lawton St	7N
Ferndinand Montiegel House	214 Myrtle St	7N
C.J. Crafts House	14 N 5th St	7N
Charles A. Nicholas House	345 N 5th St	7N
n/a	220 Nordina St	7N
Redlands Santa Fe Depot Historic District	Orange St	1S
Pioneer Transfer	348 (1001) Orange St	1D, 3D, SFDD
Atchison, Topeka, and Santa Fe Railway Redlands Station	108 Orange St	1D,3B,7P
C.C. McCarty House	1101 Orange St	1D, 3D, HR82
Packard Motor Company Sales Office, Coast Federal	415 (1157) Orange St	1D, SFDD
Home Oil Company	118 Orange St	5S2
E F Edwards Photography Shop	120 Orange St	5S
Lombard Building, Hamilton Block	206 Orange St	5S2, SFDD
Levine's	208 Orange St	SFDD, 6Y
Gregg Block	216 Orange St	SFDD, 5S2
Phinney Block	220 Orange St	SFDD, HL34, 5S
E.J. Martin Home and Nursery	328 Orange St	SFDD, 6X1
Gregory Packing House, Hamilton Block	330 Orange St	SFDD, 3D, 6X
203 Oriental Ave, Beacon Printery	336 Orange St	SFDD, 6X
Redland Fruit Association Warehouse, Worley Bldg	338 Orange St	SFDD, 1D
Poundstone & Hamilton Building, Oriental Street	342 Orange St	SFDD, HL37, 7R
Palace Livery Stable	346 Orange St	SFDD, 5S2
Santa Fe Railroad Station	351 Orange St	SFDD, 5S2
Pioneer Transfer, Nordoff Home	348 Orange St	SFDD, 3S, 7P
Redlands City Transfer, Lite House, Wade House	360 Orange St	SFDD, 1D, 7N
Kohlman House, Packard Motor Co. Sales Office	415 Orange St	SFDD. 6X
n/a	418 Orange St	1D, 7N
Willard And Alice Cannady House	501 Orange St	1D
Kimberly Crest	921 Orange St	1C, 1D, 3S
Pergola, Major David Shaw House	928 Orange St	HR75, 6X
Semi-Circular Pergola	930 Orange St	1CL, 1D
La Casada, Edward C Sterling Mansion	812 Stillman Ave	3S
n/a	107 W Colton Ave	1D

Name	Address	NR/CR Eligibility
J.H. Logie House	206 W Colton Ave	1D, 5S2, SPHD, HD8
n/a	208 W Colton Ave	1D, 5S2
W.F. Holt House	2 W Olive Ave	1D, 3S
C.C. Ames House	24 W Olive Ave	1D, 5S2
n/a	329 W State St	5S2
Cope Commercial Co. Warehouse	21 W Stuart Ave	1D, SFDD
Rettig Machine Shop	205 W Stuart Ave	2B
Property Acquistion And Rehabilitation	816 Clay St	6Y
n/a	411 N University St	HR124
Second Baptist Church	420 E Stuart Ave	Significant Historic Properties (City of Redlands 2017b)
First Presbyterian Church	100 Cajon St	2S2
n/a	816 Clay St	5S2
n/a	1131 Columbia St	6Y
n/a	812 Stillman Ave	6Y
Old Chamber of Commerce	347 Orange St	HL 40
Deming Building	526-528 Orange St	Local Listing
Joseph E. Brown House	124 Eleventh St	HR63
n/a	314 W Colton Ave	HR110
Reasoner Residence	620 W Colton Ave	HR83
Boettger House	809 E High Ave	HR92
William Risch House	47 First St	HR129
n/a	30 Cajon St	HR109
YWCA Building	201 Cajon St	HD8
n/a	237 S Fourth St	HD8
n/a	254 S Fourth St	HD8

Source: MCC, 2022, Appendix C.

5.3.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;

CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

CUL-3: Disturb any human remains, including those interred outside of formal cemeteries.

The initial study established that the proposed Project would result in less than significant impacts related to Threshold CUL-3; and no further assessment of these impacts is required in this Draft EIR.

Historic Resources Thresholds

Historic resources are usually 50 years old or older and must meet at least one of the criteria for listing in the California Register (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]). Additionally, CEQA Guidelines Section 15064.5(b), states that a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that would have a significant effect on the environment. A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

5.3.5 METHODOLOGY

To determine whether a historic related impact would result from the proposed Project, the analysis includes consideration of the history of use and development of the TVSP area, and whether any of the existing structures are older than 50 years of age. The analysis combines these factors to identify the potential of implementing projects to impact any historic resources in the TVSP area.

In determining whether an archaeological related impact would result from the proposed Project, the analysis includes consideration of the archaeologic sensitivity of the TVSP area and the past disturbance within the TVSP area. The analysis combines these factors to identify the potential of construction from implementing projects to impact any unknown archaeological resources.

As part of preparation of the Cultural Assessment for the proposed Project a records search was completed on September 22, 2020 at the South Central Coast Information Center (SCCIC), California State University at Fullerton. Other sources consulted include the National Register of Historic Places, California Register of Historical Resources, California Inventory of Historic Resources, Bureau of Land Management General Land Office Records, California Historical Landmarks, California Points of Historical Interest, and Redlands Historical Preservation Program.

5.3.6 ENVIRONMENTAL IMPACTS

IMPACT CUL-1: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5.

Less than Significant with Mitigation Incorporated. The TVSP area has a rich history, and as listed above, contains 25 historic properties are listed in the California Register of Historical Resources and the National Register of Historic Places. In addition, other structures are eligible or potentially eligible for a historic designation (however, application for local designation would require the property owner's authorization). Also, the Specific Plan would be built out through 2040, and over that time additional buildings and/or structures in the city could become 50 years of age or more, and therefore potentially historic resources if certain criteria are met.

Recognizing the important role of historic resources in Redlands, the proposed TVSP intends to preserve the City's historic resources and enhance their role in future development styles by implementing historic architectural styles and reestablishing the historic downtown street layout of Redlands. As described in the proposed TVSP, development within the TVSP area shall be based on the historic architectural styles found throughout the proposed villages. Furthermore, buildings adjacent to historic structures shall be designed in a manner that safeguards the prominence and integrity of the historic structure, as detailed in the Secretary of the Interior's Standards and the City's design guidelines for historic resources. Additionally, the proposed TVSP sets forth restrictions for historic residential structures, as listed below to support the preservation of historic resources.

Historic residential structures are subject to the following provisions:

1. All rehabilitations and additions to historic buildings shall conform to the applicable recommendations of the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* and/or the *Redlands Historic Architectural Design Guidelines*.
2. Buildings on project sites located immediately adjacent to lots (i.e., that share side or rear property lines) that have designated or eligible historic structures on them shall be designed per the requirements of this Specific Plan and per the recommendations of the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings s* and/or the *Redlands Historic Architectural Design Guidelines*.

In addition, all implementing projects within the TVSP area are subject to the Redlands Historic Architectural Design Guidelines and any project altering a historic resource would be subject to a Certificate of Appropriateness application reviewed by the Historic and Scenic Preservation Commission, and a demolition permit application for a structure over 50 years of age is subject to review by the Redlands Historic and Scenic Preservation Commission, as described previously. Although no historically significant buildings are planned for alteration or demolition, and the proposed TVSP aims to ensure preservation of historic resources, implementation of site-specific development projects pursuant to the proposed TVSP could cause a substantial adverse change in the significance of a historical resource by altering a historical resource's physical characteristics, which convey its historical significance. Adherence to Redlands Municipal Code Section 2.62.200 and Certificate of Appropriateness procedures, would address unidentified, potential historical resources (buildings, structures, and features aged 50 years and older) and would ensure preservation of known historic resources as new development within the TVSP area occurs. A project that follows the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* is considered to have a less than significant impact. Furthermore, Mitigation Measure CUL-1 is included to require evaluation of potential historic resources for implementing projects that could potentially impact a building or structure in excess of 50 years of age. Therefore, with implementation of the historic design standards that would be implemented

as part of the proposed TVSP, Mitigation Measure CUL-1, and Redlands Municipal Code Section 2.62.200 (provided as PPP CUL-1), impacts related to a substantial adverse change in the significance of a historic resource would be less than significant.

IMPACT CUL-2: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5.

Less than Significant with Mitigation Incorporated. The records search conducted for the Project identified that 53 cultural resources investigations have been previously completed within a 0.5-mile radius of the TVSP area. Of these, 33 of the previously conducted investigations are directly within the TVSP area (MCC 2022). The records search conducted for the Project identified one previously recorded prehistoric archaeological resource, one historic archaeological resource with a prehistoric component, and twenty-four historic archeological resources within TVSP area (MCC 2022).

The Specific Plan is located in an urbanized area, with a limited number of vacant parcels that have been previously disturbed by past development activities. While the TVSP area has been previously disturbed and developed, future site-specific development projects pursuant to the TVSP could involve grading and excavation to greater depths than previously undertaken. In addition, infill development would occur on vacant parcels, some of which may not have been previously exposed to ground disturbing activities, and therefore could result in the disturbance of unknown archaeological resources.

Because future site-specific development pursuant to the proposed TVSP could involve grading and excavation to greater depths than was previously undertaken, such future development could disturb buried archaeological resources. Thus, Mitigation Measures CUL-2 through CUL-9 are included to reduce the potential for archaeological resources to be impacted during earthmoving activities and provides for preservation of any identified resources. With implementation of these mitigation measures, impacts related to a substantial adverse change in the significance of an archaeological resource would be less than significant.

5.3.7 CUMULATIVE IMPACTS

Cumulative effects involving cultural resources occur as the result of multiple projects affecting cultural resources involving a resource type or theme, such as historic ethnic sites or an industry (e.g., Santa Fe Depot), that occur within a larger geographic context than a site-specific development project site. Thus, this analysis considers cumulative development projects that are located immediately adjacent to the TVSP area.

Historic Resources

Because all historical resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Federal and state laws and regulations protect historical resources when feasible. However, it is not always feasible to protect historical resources, particularly when an historic building has deteriorated beyond repair. For this reason, the cumulative effects of development on historical resources from cumulative projects in the region are considered significant.

However, the proposed TVSP requirements and special use restrictions include provisions related to preservation of historic resources, as described above. In addition, projects within the TVSP area are required to adhere to the City of Redlands Historic Architectural Design Guidelines, described previously. Furthermore, implementation of PPP CUL-1 would avoid demolition of historically significant structures and would ensure that adaptive reuse of historically significant structures comply with Secretary of the Interior Standards and thereby protect the historic integrity of the structure's façade. Furthermore, Mitigation

Measure CUL-1 requires preparation of historical resource analyses for future developments that have the potential of impacting a building over 50 years in age. Thus, with the application of PPP CUL-1 and Mitigation Measure CUL-1, and the applicable Specific Plan design criteria, the proposed Project's contribution to the cumulative effect to historic resources in the region would be less than cumulatively considerable.

Archaeological Resources

As described above, there is a possibility that ground-disturbing activities during future construction may uncover or disturb unknown archaeological resources. However, the Project has included Mitigation Measures CUL-2 through CUL-9 that would reduce the potential impact to unknown resources. The likelihood of uncovering multiple currently unknown resources within the previously developed area that is sufficient to create a significant cumulative impact is low given the built nature of the TVSP area and few archaeological resources that have been found in the area to date. Thus, the cumulative effects of development on archaeological resources from implementation of the proposed Project in combination with other projects would be less than significant.

5.3.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- City of Redlands Municipal Code Chapter 2.62

Standard Conditions

None.

Plans, Programs, or Policies

PPP CUL-1: The City of Redlands Historic Architectural Design Guidelines shall apply to all projects within the TVSP area. The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* may also be applicable to properties or projects that may affect historic buildings and resources.

5.3.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impacts CUL-1 and CUL-2 would be **potentially significant.**

5.3.10 MITIGATION MEASURES

Mitigation Measure CUL-1: Historical Properties. Prior to issuance of a permit for a development project within the TVSP area that could directly or indirectly impact a building/structure in excess of 50 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as age, location, context, association with an important person or event, uniqueness, or structural integrity. Preferred mitigation for historic buildings or structures shall be to avoid significant impacts to the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. An historical resource assessment report shall be prepared by a qualified architectural historian meeting the U.S. Secretary of the Interior standards for each project to document the methods used to determine the

presence or absence of historical resources, to identify potential impacts from a project, and to evaluate the significance of any historical resources identified. If potentially significant impacts to a historical resource are identified, the report will also recommend appropriate mitigation to reduce the impacts to below a significant degree, where possible. If mitigation is required, mitigation programs can also be included in the report. Depending upon project impacts, measures shall include, but are not limited to:

- Preparing a historic resource management plan;
- Adding new construction that is compatible in size, scale, materials, color, and workmanship to the historical resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric);
- Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;
- Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource; and
- Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning.

Mitigation Measure CUL-2: Desktop Review. During environmental review for future projects located within the TVSP area, a qualified archaeologist will prepare a brief letter report to determine the likelihood for the project site to contain archaeological resources. This letter report will contain the results of background research and will tier off the research conducted in the Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments prepared by Material Culture Consulting, Inc. Additional reference material will be reviewed, including project area specific historic photographs, topographic maps and existing historic information. The background information provided in the Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments will be valid for five (5) years, after which time an updated search of the CHRIS will be required and submitted as an addendum to the original document. If there is any evidence that the project site has an increased sensitivity for archaeological or tribal cultural resources, based on existing onsite historic-age buildings or structures, or if previously identified resources are present within the project area or vicinity, then Mitigation Measure CUL-4 through Mitigation Measure CUL-6 shall be implemented.

Mitigation Measure CUL-3: Native American Coordination. Where a recorded Native American archaeological site is identified, the City shall initiate coordination with identified California Indian tribes. It should be noted that during the coordination process, tribal representative(s) will be directly involved in making recommendations regarding the significance of a prehistoric archaeological site, which could be considered a historic tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Mitigation Measure CUL-4: Phase 2 Archaeological Site Testing. If previously identified archaeological resources are present within the project area, a Phase 2 Archaeological Site Testing program shall be recommended, which would include evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. Results of the testing program, in tandem with the Native American coordination process required by Mitigation Measure CUL-3 will determine the historic significance of the resource.

When appropriate, the final testing report must be submitted to the City for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document, should one be required. If no significant resources are found, and site

conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found but results of the initial evaluation and testing phase indicate there is still a potential for resources to be present in portions of the property that could not be tested, then development of a mitigation and monitoring program is required.

Mitigation Measure CUL-5: Data Recovery Program. If significant cultural resources are present within a given Project Area, preferred mitigation for significant cultural resources is avoidance through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Data Recovery Program is required, which includes a Collections Management Plan. The program and plan will be subject to City review and approval prior to implementation. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA Section 21083.2. The data recovery program must be reviewed and approved by the City Development Services Department.

Mitigation Measure CUL-6: Archaeological Resources Management Plan (ARMP). If resources are discovered within a given TVSP area, or if there is a high potential for encountering resources, an Archaeological Resources Management Plan (ARMP) will be required. In this case, the ARMP should include the following, at a minimum:

At least 90 days prior to issuance of grading permits, the project permittee/owner shall retain a qualified archaeological monitor to prepare the ARMP and to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Qualified archaeological monitor(s) will have a minimum of a bachelor's degree, verifiable training and one year of monitoring experience in Southern California on similar projects. Prior to grading, the project permittee/owner shall provide to the City Development Services Department verification that a qualified monitor has been retained. Monitors will report to the Project Archaeologist for the Project and may work in collaboration with Native American monitors for tribal cultural resources that may be a historical resource as defined in Public Resources Code section 5020.1(k).

- The Project Archaeologist shall meet the U.S. Secretary of the Interior Standards.
- Any newly discovered archaeological resource deposits shall be subject to a formal significance evaluation.
- The Project Archaeologist will work in coordination with consulting tribes, the permittee/owner, and the City on the ARMP to address the details, timing, and responsibility of all archaeological activities that will occur on the project site. Details in the plan shall include, at a minimum:
    a. Project grading and development scheduling;
    b. The development of a schedule in coordination with the permittee/owner/consulting Native American tribes and the Project Archaeologist during grading, excavation and ground-disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; and,
    c. The protocols and stipulations that the permittee/owner, City, tribes, and Project Archaeologist will follow in the event of inadvertent archaeological resource discoveries, including any newly discovered archaeological resource deposits that shall be subject to a archaeological resources evaluation.
- A final report documenting the monitoring activity and disposition of any recovered archaeological resources shall be submitted to the City of Redlands, South Central Coast Information Center (SCCIC), and consulting tribes within 60 days of completion of monitoring.

A. Pregrading Conference

The Project Archaeologist and/or designee shall participate in a pre-grading conference with development staff and construction operations, to ensure an understanding of the monitoring requirements and implementation procedures to be utilized during construction. This meeting shall take place before the initiation of major ground-disturbing activities. Training at this meeting shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological resources, general archaeological items, including the archaeology and culture history of the area, as well as pictures of typical artifacts, sites, and resources that can be found during construction. This training should stress applicable state, federal, and local laws, and include information on what to do in case an unanticipated discovery is made by a worker. All construction personnel should be instructed to stop work within a 50-foot radius of the find and immediately inform their field supervisor upon any discovery in the TVSP area. The Project Archaeologist and Native American monitors shall be called to assess the find to determine if additional monitors should be mobilized to the TVSP area to examine and evaluate the resources.

B. Archaeological Monitoring

An adequate number of qualified archaeological monitors shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored, including 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.

Archaeological monitoring will include inspection of exposed cut surfaces and spoils piles. Monitors maintain close communication with the on-site construction personnel to maintain a safe working environment and to be fully appraised of the upcoming Project activity areas and any schedule changes. All monitors shall complete daily documentation of all construction activities requiring monitoring, including the location of monitoring activities throughout the day, observations of sediment type and distribution, observations regarding resources, collection of resources and other information. This documentation will be prepared by each monitor on each shift, in a Daily Field Monitoring Summary and Daily Artifact Collection log, as relevant to the discoveries each day. The monitor shall photograph ground disturbing activities, sediment, and resources for documentation purposes and will fill out a Photograph Log each day. The Daily Field Monitoring Summary, Daily Artifact Collection Log and/or Photograph Log comprise the field notes. These notes shall be filed weekly with the Project Archaeologist and be made available to the Proponent and City upon request.

C. *Monitor's Authority to Temporarily Halt Project Activities*

Archaeological monitors have the authority to initiate a temporary work stoppage of construction activities to assess and/or recover a potentially significant discovery. It is important that all earthmoving contractor personnel recognize the authority of the monitor(s) to redirect Project construction activities. The monitor(s) will attempt to minimize schedule impacts, however, in cases of significant discovery, this process can be quite lengthy, and recent discoveries in the region have shown the area to be highly sensitive for cultural materials. The monitor(s) will stay with the discovery and notify the construction foreman and the Project Archaeologist. If phone communication is problematic, the monitor will demarcate a 50-ft buffer zone around the specimen using flagging pins until the find is assessed and potential impacts to archaeological resources are avoided, minimized, or mitigated.

D. Unanticipated Discovery Protocol

If inadvertent discoveries of subsurface archaeological resources are discovered during grading, the Project Archaeologist shall assess the significance of such resources and shall meet and confer with the City

Development Services Department and designated Native American monitors from consulting tribes regarding the mitigation for such resources.

E. Data Recovery Plan for Archaeological Resources

The following plan identifies protocol for assessing newly discovered resources. This section follows state guidelines for management of archaeological resources, as well as current best practices and industry standards for cultural resource management professional. Please note that when inadvertent discoveries of Native American archaeological resources occur, coordination with consulting Native American tribes/affiliations should be completed prior to removal or treatment of these resources, to ensure proper treatment and disposition, as outlined in Mitigation Measures TCR-3. The Project Archaeologist shall be contacted to flag the area in the field and determine if the archaeological deposits meet the CEQA definition of historical (State CEQA Guidelines 15064.5(a)) and/or unique archaeological resource (Public Resources Code 21083.2(g)). If the find is considered a "resource" the archaeologist shall pursue either protection in place or recovery, salvage and treatment of the deposits.

F. Isolates

Less than three artifacts in one location are defined as isolates. These may consist of, for example, a single projectile point, a culturally modified animal bone, or a glass bottle. When isolates are discovered, the monitor carefully examines the surrounding area to ensure that other artifacts are not present. Subsequently, the monitor photographs the isolate with a scale bar, obtains GPS coordinates of the location and records the isolate using standard California Department of Parks and Recreation (DPR) series 523 forms.

I. Archaeological Sites

Archaeological sites consist of more than three artifacts in one location. In addition, sites may have features such as rock ovens, burials, and other human-created alterations of the natural environment - with or without the presence of artifacts. Sites and features require evaluation to determine if they meet significance criteria as per CEQA. An archaeological site is considered significant if it is eligible or potentially eligible for listing in the CRHR. When an archaeological site is discovered during any Project activity, the archaeological monitor will divert construction away from the area at a minimum distance of 50 ft from the find and establish an exclusionary zone (flagging pins/tape) around the resource. The archaeological monitor(s) will then notify the Project Archaeologist for direction on how to proceed. Regardless of the outcome of the significance and CRHR eligibility assessment, every feature and site require a standard set of data collection for analysis and recordation on standard DPR forms. Features or sites older than 50 years must be delineated and photographed, GPS coordinates must be taken, and features and site records are completed including production of field maps and sketch map drawings. Thorough mapping is required for all features or sites, and include an accurate elevation measurement, the depth the deposit extends below surface and true north reading.

Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If unique archaeological resources cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the applicant's expense. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the archaeologist. Resources shall be identified and curated into an established accredited professional repository, at the Western Science Center in Hemet. Excavation as a treatment option will be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. All items found in association with Native American human remains shall be considered grave goods and sacred in origin and subject to special handling pursuant to Mitigation Measure TCR-4.

Mitigation Measure CUL-7: Human Remains. Procedures taken upon discovery of human remains will be consistent with State Law (California Health and Safety Code Section 7050.5; California PRC Section 5907.98) and CR-3. If human remains are encountered during project grading, no further disturbance shall occur until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The monitor(s) will immediately divert work a minimum of 100 feet and place an exclusion zone (flagging pins) around the burial. In-place preservation and protection from further disturbance shall always be the preferred approach. If the San Bernardino County Coroner determines the remains to be Native American, the NAHC shall be contacted within a twenty-four (24) hour timeframe. Subsequently, the NAHC shall identify the "most likely descendant." The most likely descendant (MLD) shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

If the coroner determines the remains represent a historic-era, non-Native American burial, standard non-invasive analysis of the skeletal remains and any artifacts will be performed on any burials removed. Reburial in place is preferred, but if burials are removed, they will be reinterred in an appropriate setting. If the coroner determines the remains to be modern, the coroner will take custody of the remains. Reburial locations will be formally recorded on standard DPR forms as an Archaeological Redeposit. The site record will include maps of the original and reburial locations. The record will include dates of excavation and interment and a list of individuals (with affiliation) present during reburial. A burial treatment report will be prepared separately from any other reports and will be a confidential document. Copies will be filed with the Eastern Information Center, the MLD and the NAHC (latter two for Native American burials only). Any skeletal analysis or artifact analysis will be included in the final monitoring compliance report for the Project.

Mitigation Measure CUL-8: Monitoring Compliance Report. The Project Archaeologist shall prepare a final archaeological report prior to issuance of final building inspection, or other City milestone, to verify compliance with project conditions and mitigation measures. The report shall follow industry standard guidelines and City of Redlands requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any artifacts recovered, an inventory of any resources recovered, updated DPR forms, if any, and any other site(s) identified, final disposition of the resources, and any additional recommendations. A final copy shall be submitted to the City of Redlands Development Services Department and the South Central Coast Information Center (SCCIC).

Mitigation Measure CUL-9: Curation of Archaeological Resources. All archaeological materials, including original maps, field notes, non-burial related artifacts, catalog information, and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one that has the proper facilities and staffing for ensuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historic deposit is encountered during construction monitoring, a collections management plan would be required in accordance with the project Mitigation and Monitoring Program.

The disposition of human remains and burial-related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 [Coto] and California Native American Graves Protection and Repatriation Act of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., Native American Graves Protection and Repatriation Act [U.S. Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over

to the appropriate Native American group for repatriation, as further stipulated in Mitigation Measures TCR-3 and TCR-4.

Arrangements for long-term curation of all recovered artifacts, with the exception of tribal cultural resources, must be established between the applicant/property owner and the consultant prior to the initiation of the Phase 2 Archaeological Site Testing Program. This information must then be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, Title 36 of the Code of Federal Regulations, Part 79.

5.3.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts CUL-1 and CUL-2 would be less than significant after mitigation.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Historic Architectural Design Guidelines. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/attachment_b-exhibit_to_resolution_historic_design_guidelines.pdf?1612492494

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Material Cultural Consulting. Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments (MCC 2022). January 2022. Appendix C.

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5.4 Energy

5.4.1 INTRODUCTION

This section of the Draft EIR assesses the significance of the use of energy, including electricity, natural gas and gasoline, and diesel fuels, that would result from implementation of the TVSP. It discusses existing energy use patterns and examines whether the proposed TVSP (including development and operation) would result in the consumption of large amounts of fuel or energy or use such resources in a wasteful manner.

Refer to Section *5.6, Greenhouse Gas Emissions*, for a discussion of the relationship between energy consumption and greenhouse gas (GHG) emissions, and Section *5.16, Utilities and Service Systems*, for a discussion of water consumption. This section includes data from the following City documents and reports:

- *City of Redlands 2035 General Plan*, 2017
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (GP EIR), 2017
- *City of Redlands Municipal Code*
- *Transit Villages District and Specific Plan Energy Tables*, Urban Crossroads, 2022, Appendix D.

5.4.2 REGULATORY SETTING

5.4.2.1 Federal Regulations

Energy Independence and Security Act, Corporate Average Fuel Efficiency Standards

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law, requiring an increased Corporate Average Fuel Economy (CAFÉ) standard of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by the 2020 model year.

In addition to setting increased CAFÉ standards for motor vehicles, the Energy Independence and Security Act includes the following additional provisions:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

Additional provisions of the Act address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.

5.4.2.2 State Regulations

California Code of Regulations (CCR) Title 13, Motor Vehicles, Section 2449(d)(3)

No vehicle or engines subject to this regulation may idle for more than 5 consecutive minutes. The idling limit does not apply to:

- idling when queuing,
- idling to verify that the vehicle is in safe operating condition,
- idling for testing, servicing, repairing or diagnostic purposes,
- idling necessary to accomplish work for which the vehicle was designed (such as operating a crane),

- idling required to bring the machine system to operating temperature, and
- idling necessary to ensure safe operation of the vehicle.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CalGreen) is updated every three years. The most recent update is the 2019 California Green Building Code Standards that became effective January 1, 2020.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrade requirements.

The 2019 CALGreen standards that are applicable to the TVSP include, but are not limited to, the following:

- Electric vehicle charging stations. Facilitate the future installation of electric vehicle supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Title 24 Part 6 Table 5.106.8.
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads).
- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent.

The 2019 CalGreen Building Standards Code has been adopted by the City of Redlands in Municipal Code Chapter 15.16.

5.4.2.3 Local Regulations

City of Redlands 2035 General Plan

The General Plan Sustainable Community Element contains the following policies related to greenhouse gas emissions that are applicable to the Project:

Principle 8-P.1 Promote energy efficiency and conservation technologies and practices that reduce the use and dependency of nonrenewable resources of energy by both City government and the community.

Action 8-A.8 Implement and enforce California Code of Regulations Title 24 building standards (parts 6 and 11) to improve energy efficiency in new or substantially remodeled construction. Consider implementing incentives for builders that exceed the standards included in Title 24 and recognize their achievements over the minimum standards.

Action 8-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.

5.4.3 ENVIRONMENTAL SETTING

Electricity

The Southern California Edison Company (SCE) is the electrical purveyor in the City of Redlands. SCE provides electricity service to more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California. California utilities are experiencing increasing demands that require modernization of the electric distribution grid to, among other things, accommodate two-way flows of electricity and increase the grid's capacity. SCE is in the process of implementing infrastructure upgrades to ensure the ability to meet future demands. In addition, as described by the Edison International 2020 Annual Report, the SCE electrical grid modernization effort supports implementation of California Senate Bill 32 that requires the state to cut greenhouse gas emissions 40 percent below 1990 levels by 2030 and 80 percent from the same baseline by 2050 in order to help achieve carbon neutrality by 2045. It describes that in 2020 approximately 43% of power that SCE delivered to customers came from carbon-free resources (SCE 2020).

The Project site is currently served by the electricity distribution systems that exists along the roadways throughout the TVSP area.

Natural Gas

The Southern California Gas Company (SoCalGas) is the natural gas purveyor in the City of Redlands and is the principal distributor of natural gas in Southern California. SoCalGas estimates that gas demand will decline at an annual rate of 1 percent each year through 2035 due to modest economic growth, mandated energy efficiency standards and programs, renewable electricity goals, and conservation savings linked to advanced metering infrastructure (CGEU 2020). The gas supply available to SoCalGas is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources, the Rocky Mountains, and Canada (CGEU 2020). SoCalGas designs its facilities and supplies to provide continuous service during extreme peak demands and has identified the ability to meet peak demands through 2035 in its 2020 report (CGEU 2020).

The TVSP area is currently served by the natural gas distribution system that exists within the roadways throughout the TVSP area.

5.4.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines indicates that a project could have a significant effect if it were to:

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

E-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.4.5 METHODOLOGY

A number of factors are considered when weighing whether a project would use a proportionately large amount of energy or whether the use of energy would be wasteful in comparison to other projects. Factors such as the use of on-site renewable energy features, energy conservation features or programs, and relative use of transit are considered.

According to Appendix F of the CEQA Guidelines, conserving energy is defined as decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable

energy sources. Neither Appendix F of the CEQA Guidelines nor Public Resources Code Section 21100(b)(3) offer a numerical threshold of significance that might be used to evaluate the potential significance of energy consumption of a project. Rather, the emphasis is on reducing "the wasteful, inefficient, and unnecessary consumption of energy."

Construction activities would result in wasteful, inefficient, or unnecessary use of energy if construction equipment is old or not well maintained, if equipment is left to idle when not in use, if travel routes are not planned to minimize vehicle miles traveled, or if excess lighting or water is used during construction activities. Energy usage during project operation would be considered "wasteful, inefficient, and unnecessary" if the project were to violate federal, state, and/or local energy standards, including Title 24 of the California Code of Regulations, inhibit pedestrian or bicycle mobility, inhibit access to transit, or inhibit feasible opportunities to use alternative energy sources, such as solar energy, or otherwise inhibit the conservation of energy.

5.4.6 ENVIRONMENTAL IMPACTS

As detailed in Section 3.0, *Project Description*, the proposed Project would provide a form-based code that would allow development of up to 2,400 residential units; 613,000 square feet of retail commercial, hotel, and office space; and 280,000 square feet of open space and parks within the TVSP area. However, the timing of development and operation of the development pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. However, buildout of the Project is evaluated to occur by 2040 to provide a conservative analysis.

IMPACT E-1: THE PROJECT WOULD NOT RESULT IN POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, DURING PROJECT CONSTRUCTION OR OPERATION

Construction

Less than Significant Impact. During construction of the proposed TVSP development projects energy would be consumed in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment, construction worker travel to and from the TVSP area, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction activities related to the infill and redevelopment projects in the TVSP area and the associated infrastructure from implementation of the TVSP are not expected to result in demand for fuel greater on a per-unit-of-development basis than other development projects in Southern California as the main intention of all development is to reduce costs, which can be done by reducing energy usage. Furthermore, future construction within the TVSP area would occur in an area served by existing utility infrastructure and would not require extensive energy from construction in remote locations. Demolition of existing structures that would be required for the TVSP would generate demolition materials, 65 percent of which are required to be recycled per existing state regulations. Also, CCR 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 trucks and equipment. The energy analysis modeling for buildout of the TVSP (included as Appendix D) details that the total construction electricity usage for would be approximately 2,282,064 kWh, as detailed in Table 5.4-1.

Table 5.4-1: Estimated Construction Electricity Usage for Buildout of the TVSP

TVSP Area	Electricity Usage (kWh)
City Center Mixed-Use	30,299
Downtown Village Future Projects	71,290
New York Street Village	74,308
State Street Village	918,450
The Grand Apartments	29,830
University Village	1,157,886
Total Construction Electricity Usage	**2,282,064**

Source: Energy, Appendix D.

Table 5.4-2 shows that construction equipment used for buildout of the TVSP would use approximately 661,217 gallons of diesel fuel.

Table 5.4-2: Estimated Construction Equipment Fuel for Buildout of the TVSP

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
City Center Mixed-Use								
Demolition	20	Concrete/Industrial Saws	81	1	8	0.73	473	511
		Excavators	158	3	8	0.38	1,441	1,558
		Rubber Tired Dozers	247	2	8	0.4	1,581	1,709
Site Preparation	10	Crawler Tractors	212	4	8	0.43	2,917	1,577
		Rubber Tired Dozers	247	3	8	0.4	2,371	1,282
Grading	20	Crawler Tractors	212	3	8	0.43	2,188	2,365
		Excavators	158	1	8	0.38	480	519
		Graders	187	1	8	0.41	613	663
		Rubber Tired Dozers	247	1	8	0.4	790	854
Building Construction	230	Cranes	231	1	8	0.29	536	6,663
		Forklifts	89	3	8	0.2	427	5,311
		Generator Sets	84	1	8	0.74	497	6,182
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	10,709
		Welders	46	1	8	0.45	166	2,059
Paving	20	Pavers	130	2	8	0.42	874	944
		Paving Equipment	132	2	8	0.36	760	822
		Rollers	80	2	8	0.38	486	526
Architectural Coating	20	Air Compressors	78	1	8	0.48	300	324
Downtown Village								

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Demolition	20	Concrete/Industrial Saws	81	1	8	0.73	473	511
		Excavators	158	3	8	0.38	1,441	1,558
		Rubber Tired Dozers	247	2	8	0.4	1,581	1,709
Site Preparation	10	Crawler Tractors	212	4	8	0.43	2,917	1,577
		Rubber Tired Dozers	247	3	8	0.4	2,371	1,282
Grading	30	Crawler Tractors	212	2	8	0.43	1,459	2,365
		Excavators	158	2	8	0.38	961	1,558
		Graders	187	1	8	0.41	613	995
		Rubber Tired Dozers	247	1	8	0.4	790	1,282
		Scrapers	367	2	8	0.48	2,819	4,571
Building Construction	300	Cranes	231	1	8	0.29	536	8,691
		Forklifts	89	3	8	0.2	427	6,928
		Generator Sets	84	1	8	0.74	497	8,064
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	13,968
		Welders	46	1	8	0.45	166	2,685
Paving	20	Pavers	130	2	8	0.42	874	944
		Paving Equipment	132	2	8	0.36	760	822
		Rollers	80	2	8	0.38	486	526
Architectural Coating	20	Air Compressors	78	1	8	0.48	300	324
New York Street Village								
Demolition	20	Concrete/Industrial Saws	81	1	8	0.73	473	511
		Excavators	158	3	8	0.38	1,441	1,558
		Rubber Tired Dozers	247	2	8	0.4	1,581	1,709
Site Preparation	10	Crawler Tractors	212	4	8	0.43	2,917	1,577
		Rubber Tired Dozers	247	3	8	0.4	2,371	1,282
Grading	30	Crawler Tractors	212	2	8	0.43	1,459	2,365
		Excavators	158	2	8	0.38	961	1,558
		Graders	187	1	8	0.41	613	995
		Rubber Tired Dozers	247	1	8	0.4	790	1,282
		Scrapers	367	2	8	0.48	2,819	4,571
Building Construction	300	Cranes	231	1	8	0.29	536	8,691
		Forklifts	89	3	8	0.2	427	6,928
		Generator Sets	84	1	8	0.74	497	8,064
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	13,968
		Welders	46	1	8	0.45	166	2,685

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Paving	20	Pavers	130	2	8	0.42	874	944
		Paving Equipment	132	2	8	0.36	760	822
		Rollers	80	2	8	0.38	486	526
Architectural Coating	20	Air Compressors	78	1	8	0.48	300	324
State Street Village								
Demolition	84	Concrete/Industrial Saws	81	2	8	0.73	946	4,296
		Excavators	158	5	8	0.38	2,402	10,905
		Rubber Tired Dozers	247	3	8	0.4	2,371	10,767
Site Preparation	125	Crawler Tractors	97	4	8	0.43	1,335	9,018
		Rubber Tired Dozers	247	3	8	0.4	2,371	16,022
Grading	130	Crawler Tractors	97	2	8	0.43	667	4,690
		Excavators	158	3	8	0.38	1,441	10,126
		Graders	187	1	8	0.41	613	4,310
		Rubber Tired Dozers	247	1	8	0.4	790	5,554
		Scrapers	367	2	8	0.48	2,819	19,806
Building Construction	865	Cranes	231	1	8	0.29	536	25,058
		Forklifts	89	3	8	0.2	427	19,974
		Generator Sets	84	1	8	0.74	497	23,251
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	40,274
		Welders	46	1	8	0.45	166	7,743
Paving	125	Pavers	130	2	8	0.42	874	5,903
		Paving Equipment	132	2	8	0.36	760	5,137
		Rollers	80	2	8	0.38	486	3,286
Architectural Coating	125	Air Compressors	78	1	8	0.48	300	2,024
The Grand Apartments								
Demolition	20	Concrete/Industrial Saws	81	1	8	0.73	473	511
		Excavators	158	3	8	0.38	1,441	1,558
		Rubber Tired Dozers	247	2	8	0.4	1,581	1,709
Site Preparation	10	Crawler Tractors	212	4	8	0.43	2,917	1,577
		Rubber Tired Dozers	247	3	8	0.4	2,371	1,282
Grading	20	Crawler Tractors	212	3	8	0.43	2,188	2,365
		Excavators	158	1	8	0.38	480	519
		Graders	187	1	8	0.41	613	663
		Rubber Tired Dozers	247	1	8	0.4	790	854

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Building Construction	230	Cranes	231	1	8	0.29	536	6,663
		Forklifts	89	3	8	0.2	427	5,311
		Generator Sets	84	1	8	0.74	497	6,182
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	10,709
		Welders	46	1	8	0.45	166	2,059
Paving	20	Pavers	130	2	8	0.42	874	944
		Paving Equipment	132	2	8	0.36	760	822
		Rollers	80	2	8	0.38	486	526
Architectural Coating	20	Air Compressors	78	1	8	0.48	300	324
University Village								
Demolition	70	Concrete/Industrial Saws	81	1	8	0.73	473	1,790
		Excavators	158	3	8	0.38	1,441	5,452
		Rubber Tired Dozers	247	2	8	0.4	1,581	5,981
Site Preparation	40	Crawler Tractors	212	4	8	0.43	2,917	6,307
		Rubber Tired Dozers	247	3	8	0.4	2,371	5,127
Grading	110	Crawler Tractors	212	2	8	0.43	1,459	8,673
		Excavators	158	2	8	0.38	961	5,712
		Graders	187	1	8	0.41	613	3,647
		Rubber Tired Dozers	247	1	8	0.4	790	4,700
		Scrapers	367	2	8	0.48	2,819	16,759
Building Construction	1110	Cranes	231	1	8	0.29	536	32,155
		Forklifts	89	3	8	0.2	427	25,632
		Generator Sets	84	1	8	0.74	497	29,837
		Tractors/Loaders/Backhoes	97	3	8	0.37	861	51,682
		Welders	46	1	8	0.45	166	9,936
Paving	75	Pavers	130	2	8	0.42	874	3,542
		Paving Equipment	132	2	8	0.36	760	3,082
		Rollers	80	2	8	0.38	486	1,972
Architectural Coating	75	Air Compressors	78	1	8	0.48	300	1,214
Total Construction Fuel Demand (Gallons Diesel Fuel)								**661,217**

Source: Energy, Appendix D.

Table 5.4-3 shows that construction workers would use approximately 864,212 gallons of fuel to travel to and from the TVSP area. Table 5.4-4 shows that approximately 291,668 gallons of fuel would be used by vendor trucks (vehicles that deliver materials to the site during construction) and hauling during construction.

Table 5.4-3: Estimated Construction Worker Fuel Consumption for TVSP Buildout

Area	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Estimated Fuel Consumption (gallons)
Light Duty Autos					
City Center Mixed-Use	320	115	14.7	187,425	5,753
Downtown Village	400	206	14.7	336,777	10,279
New York Street Village	400	278	14.7	484,071	14,773
State Street Village	1,454	1,681	14.7	5,096,931	149,865
The Grand Apartments	582	193	14.7	454,406	13,943
University Village	1,480	2,110	14.7	6,587,144	188,263
Light Duty Trucks 1					
City Center Mixed-Use	320	59	14.7	93,933	3,423
Downtown Village	400	105	14.7	170,814	6,193
New York Street Village	400	140	14.7	242,256	8,782
State Street Village	1,454	843	14.7	2,550,920	89,499
The Grand Apartments	582	141	14.7	393,872	14,345
University Village	1,480	1,056	14.7	3,294,417	112,719
Light Duty Trucks 2					
City Center Mixed-Use	320	59	14.7	93,933	3,633
Downtown Village	400	105	14.7	170,814	6,563
New York Street Village	400	140	14.7	242,256	9,307
State Street Village	1,454	843	14.7	2,550,920	94,017
The Grand Apartments	582	141	14.7	393,872	15,225
University Village	1,480	1,056	14.7	3,294,417	117,631
Total Construction Worker Fuel Consumption					**864,212**

Source: Energy, Appendix D.

Table 5.4-4: Estimated Construction Vendor and Hauling Fuel Consumption

TVSP Area	Duration (Days)	Vendor/ Hauling Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)
MHDT					
City Center Mixed-Use	320	8	6.9	12,696	1,333
Downtown Village	386	16	6.9	6,182	639
New York Street Village	400	28	6.9	10,819	1,118
State Street Village	865	352	6.9	525,228	53,893
The Grand Apartments	346	28	6.9	44,436	4,666
University Village	1,110	455	6.9	497,835	50,213
HHDT (Vendor)					
City Center Mixed-Use	320	8	6.9	12,696	1,839
Downtown Village	386	16	6.9	6,182	884
New York Street Village	400	28	6.9	10,819	1,547
State Street Village	865	352	6.9	525,228	74,538

TVSP Area	Duration (Days)	Vendor/ Hauling Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)
The Grand Apartments	346	28	6.9	44,436	6,436
University Village	1,110	455	6.9	497,835	69,478
HHDT (Hauling)					
City Center Mixed-Use	320	0	20	0	0
Downtown Village	386	0	20	0	0
New York Street Village	400	0	20	0	0
State Street Village	865	104	20	171,840	25,085
The Grand Apartments	346	0	20	0	0
University Village	1,110	0	20	0	0
Total Construction *Vendor/Hauling Fuel Consumption*					***291,668***

Source: Energy, Appendix D.

Construction contractors are required to demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. In addition, compliance with existing CARB idling restrictions and the use of newer engines and equipment would reduce fuel combustion and energy consumption.

Overall, construction activities would require limited energy consumption in comparison to operational energy consumption. Additionally, construction energy consumption related to buildout of the TVSP area would be consistent with construction energy usage throughout Southern California, would comply with all existing regulations, and would therefore not be expected to use large amounts of energy or fuel in a wasteful manner. Thus, impacts related to construction energy usage would be less than significant.

Operation

Less than Significant Impact. Once operational, the new developments within the TVSP area would generate demand for electricity, natural gas, as well as gasoline for motor vehicle trips. Operational use of energy includes the heating, cooling, and lighting of buildings, water heating, operation of electrical systems and plug-in appliances within buildings, parking lot and outdoor lighting, and the transport of electricity, natural gas, and water to the areas where they would be consumed. This use of energy is typical for urban development, and no operational activities or land uses would occur that would result in extraordinary energy consumption.

As detailed in Table 5.4-5, operation of the TVSP at buildout is estimated to annually use 1,535,977 gallons of fuel. CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of vehicles to no more than 5 minutes. The idling restrictions would preclude unnecessary and wasteful consumption of fuel due to unproductive idling of trucks.

Table 5.4-5: Estimated Annual Operational Vehicle Fuel Consumption at Buildout

TVSP Area	Annual VMT	Estimated Annual Fuel Consumption (gallons)
City Center Mixed-Use	2,729,821	102,440
Downtown Village	8,226,402	308,706
New York Street Village	8,446,360	316,960
State Street Village	4,191,505	145,892
The Grand Apartments	2,324,950	87,247
University Village	17,171,689	574,733
Total Fuel Consumption	**43,090,727**	**1,535,977**

Source: Energy, Appendix D.

Table 5.4-6 details that operation of the TVSP at buildout would use approximately 47,182,575 thousand British thermal units (kBTU) per year of natural gas and 20,065,361 kWh per year of electricity.

Table 5.4-6: Estimated Operational Annual Natural Gas Demand (kBTU/year) and Electricity (kWh/year) Consumption at Buildout

TVSP Area	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
City Center Mixed-Use	2,207,321	693,553
Downtown Village	2,931,934	1,809,216
New York Street Village	5,035,670	3,452,534
State Street Village	17,537,640	7,847,988
The Grand Apartments	2,364,910	601,650
University Village	17,105,100	5,660,420
Total Project Energy Demand	**47,182,575**	**20,065,361**

Source: Energy, Appendix D.

Because this use of energy is typical for urban development, no operational activities or land uses would occur that would result in extraordinary energy consumption, and through City permitting assurance would be provided that existing regulations related to energy efficiency and consumption, such as Title 24 regulations and CCR Title 13, Motor Vehicles, section 2449(d)(3) related to idling, would be implemented. Therefore, impacts related to operational energy consumption would be less than significant.

IMPACT E-2: THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY

No Impact. As described previously, the development that would occur pursuant to the proposed TVSP would be required to meet the CCR Title 24 energy efficiency standards in effect during permitting of future development projects. The City's administration of the CCR Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. In addition, as described in Section 5.2 *Air Quality*, the TVSP would be implemented to require development projects in the TVSP area to surpass state and local plans for energy efficiency and achieve 5 percent efficiency beyond the incumbent California Building Code Title 24 requirements, and enhanced water conservation (per Mitigation Measures AQ-7 and AQ-8). These mitigation measures would further ensure adherence to energy efficiency and renewable energy regulations. Furthermore, the TVSP would not conflict with or obstruct opportunities to use renewable energy, such as solar energy. The non-residential buildings would be solar ready and residences would have solar infrastructure as required by CCR Title 24 requirements. Thus, the TVSP would not obstruct use of renewable energy or energy efficiency. Overall, the TVSP would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.4.7 CUMULATIVE IMPACTS

The geographic context for analysis of cumulative impacts regarding energy includes past, present, and future development within southern California because energy supplies (including electricity, natural gas, and petroleum) are generated and distributed throughout the southern California region.

All development projects throughout the region would be required to comply with the energy efficiency standards in the Title 24 requirements. Additionally, some of the developments could provide for additional reductions in energy consumption by use of solar panels, sky lights, or other LEED type energy efficiency

infrastructure. With implementation of the existing energy conservation regulations, cumulative electricity and natural gas consumption would not be cumulatively wasteful, inefficient, or unnecessary.

Petroleum consumption associated with the proposed mixed uses would be primarily attributable to transportation, especially vehicular use. However, state fuel efficiency standards and alternative fuels policies (per AB 1007 Pavely) would contribute to a reduction in fuel use, and the federal Energy Independence and Security Act and the state Long Term Energy Efficiency Strategic Plan would reduce reliance on non-renewable energy resources. For these reasons, the consumption of petroleum would not occur in a wasteful, inefficient, or unnecessary manner and would be less than cumulatively considerable.

5.4.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

The following standard regulations would reduce potential impacts related to energy:

- California Energy Code (Code of Regulations, Title 24 Part 6).
- CalGreen Building Standards Code as included in the City's Municipal Code in Chapter 15.16.

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.4.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts E-1and E-2 would be less than significant.

5.4.10 MITIGATION MEASURES

Impacts related to energy would be less than significant and no mitigation measures are required.

5.4.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to energy would be less than significant.

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5.5 Geology and Soils

5.5.1 INTRODUCTION

This section addresses potential environmental effects of the proposed Project related to geology, soils, seismicity, and paleontological resources. The impacts examined include risks related to geologic hazards such as earthquakes, landslides, liquefaction, expansive soils; impacts on the environment related to soil erosion and sedimentation; and impacts related to paleontological resources. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017;
- *City of Redlands Municipal Code;*
- *Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments*, Material Culture Consulting, February 2022 (Appendix C)

5.5.2 REGULATORY SETTING

5.5.2.1 Federal Regulations

Society of Vertebrate Paleontology

The Society of Vertebrate Paleontology's Handbook for Society of Vertebrate Paleontology and Official Society Policy and Guidelines outlines practices and guidelines for practicing paleontologists. Additionally, the Society provides standard procedures for the assessment and mitigation of adverse impacts to paleontological resources.

5.5.2.2 State Regulations

Public Resources Code (PRC) Section 5097.5

Requirements for paleontological resource management are included in the PRC Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244, which states: No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. These statutes prohibit the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor, and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) lands.

5.5.2.3 Local Regulations

City of Redlands General Plan 2035

The following policies contained in the City of Redlands General Plan 2035 are relevant to implementing projects within the proposed TVSP related to paleontological resources:

Principle 2-P.16 Work with local paleontologists to identify significant non-renewable paleontological resources.

Action 2-A.75 Require, as a standard condition of approval, that project applicants provide an assessment as to whether grading for the Proposed Project would impact underlying soil units or geologic formations that have a moderate to high potential to yield fossiliferous materials, prior to issuance of a grading permit. If the potential for fossil discovery is moderate to high, require applicants to provide a paleontological monitor during rough grading of the project.

Action 2-A.76 Establish a procedure for the management of paleontological materials found onsite during a development, including the following provisions:

- If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource.
- If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within San Bernardino County if feasible.

5.5.3 ENVIRONMENTAL SETTING

Paleontological Resources

Paleontological resources include 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 any materials associated with an archaeological resource or any cultural item defined as Native American human remains. Significant paleontological resources are defined as fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or important to define a particular time frame or geologic strata, or that add to an existing body of knowledge in specific areas, in local formations, or regionally.

The Specific Plan Area is situated at the foot of the San Bernardino Mountains, a part of the Transverse Ranges Geomorphic Province. The mountains within the province, including the San Gabriel and San Bernardino mountains to the north and northeast, were uplifted by tectonic activity, and provide a major sedimentary source for the alluvium basins of the adjacent areas.

The geologic units underlying the Specific Plan Area are mapped as younger and older Quaternary surficial deposits, more specifically very young wash deposits, active (Qvyw), young axial-valley deposits, Unit 3 (Qya3), old alluvial-fan deposits, Unit 3 (Qof3), and very old axial-valley deposits, Unit 3 (Qvoa3). Very young surficial deposits are the result of recently transported and deposited sediment into channels and washes on surfaces of alluvial fans, alluvial plains, and on hill slopes. Older surficial deposits contain sedimentary units that are moderately consolidated and slightly to moderately dissected. Alluvial-fan deposits (Qof series) are gravelly sand and silt sediments. Very old surficial deposits are sedimentary units that are moderately to well consolidated to lithified, and moderately to well dissected. Valley-filling deposits

(Qvoa series) are dominated by sand with minor gravel alluvial deposits and includes residuum or pedogenic-soil profile developed on the San Timoteo Formation beds. The Plio-Pleistocene San Timoteo Formation is located south of the Specific Plan Area in more elevated terrain and may underlie younger and older Quaternary deposits in the Specific Plan Area (MCC 2022).

5.5.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

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

- GEO-1i Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 4),
- GEO-1ii Strong seismic ground shaking,
- GEO-1iii Seismic-related ground failure, including liquefaction;
- GEO-1iv Landslides;

GEO-2 Result in substantial soil erosion or the loss of topsoil;

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

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

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

GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The Initial Study established that the proposed Project would not result in impacts related to Thresholds GEO-1i, GEO-1iv, and GEO-5 and less than significant impacts related to Thresholds GEO-1ii, GEO-1iii, GEO-2, GEO-3, and GEO-4. No further assessment of these impacts is required in this Draft EIR.

5.5.5 METHODOLOGY

In determining whether a paleontological related impact would result from the proposed Project, the analysis includes consideration of the types of soils that exist within the Specific Plan Area, the paleontological sensitivity of those soils, the past disturbance on the site, and the proposed excavation. The analysis combines these factors to identify the potential of construction from implementing projects within the Specific Plan Area to impact any unknown paleontological resources.

5.5.6 ENVIRONMENTAL IMPACTS

IMPACT GEO-6: THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE.

Less than Significant Impact with Mitigation Incorporated.

Unique Geologic Feature

Notable geological features in the Valley Region of San Bernardino County include the San Andreas Fault at the southwest foot of the San Bernardino Mountains, the San Jacinto Fault at the southwest edge of the San Bernardino Basin, and the Cucamonga Fault at the southern foot of the San Gabriel Mountains. However, there are no unique geological features in the vicinity of the Specific Plan Area (PlaceWorks, 2019). As such, construction of implementing projects pursuant to the TVSP would not result in impacts to unique geologic features.

Paleontological Resources

The paleontological record search did not yield any fossil localities within the Specific Plan Area and no fossil localities within one mile of the Specific Plan Area. However, nine fossil localities from similar sedimentary deposits have been recorded within a 70-mile radius of the Specific Plan Area. The closest fossil locality from the LACM Records Search is LACM IP 437, located approximately 20-miles east of the Specific Plan Area. The locality came from an unknown Pleistocene formation and consisted of invertebrates at an unknown depth. Additional literature was consulted, including the University of California Museum of Paleontology (UCMP)'s Miocene Mammal Mapping Project (MioMap), resulting in eight fossil localities from the San Timoteo Formation located approximately five miles south-southeast of the Specific Plan. These eight localities are the closest fossils to the Specific Plan Area. Additionally, 11 localities from the San Timoteo Formation and 13 localities from the Mount Eden Formation are located approximately 13 to 18 miles southeast of the Specific Plan Area, near the city of Beaumont (MCC 2022).

Additionally, Older Quaternary alluvium, similar to the old alluvial-fan and very old axial-valley deposits mapped within the Specific Plan Area, have produced significant Pleistocene fossils throughout Southern California. While the younger deposits typically do not contain significant fossils within the uppermost layers, it is likely they are underlain by older Quaternary deposits and, potentially, Plio-Pleistocene San Timoteo Formation. Therefore, excavations have the potential to impact paleontologically sensitive sediments throughout the Specific Plan Area (both at the surface and in the subsurface) and potentially destroy the fossil resources contained within. Therefore, Mitigation Measure GEO-1 is included to require preparation of paleontological resources management program (PRMP) for future projects that propose subsurface disturbance greater than five feet deep within areas mapped as low sensitivity or any subsurface disturbance within an area mapped as a high sensitivity geologic unit. With implementation of Mitigation Measure GEO-1, impacts related to paleontological resources would be less than significant.

5.5.7 CUMULATIVE IMPACTS

Impacts to paleontological resources are also site-specific rather than cumulative. Soils within the Valley Region of San Bernardino County, including the Specific Plan Area, are sensitive for paleontological resources. However, with incorporation of Mitigation Measure GEO-1, which protects paleontological resources from loss or destruction and requires that new development within the Specific Plan Area include appropriate measures to preserve the quality and integrity of these resources, avoid them when possible, and salvage and preserve them if avoidance is not possible, cumulative impacts would be less than significant.

5.5.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

None.

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.5.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impact GEO-6 would be **potentially significant.**

5.5.10 MITIGATION MEASURES

Mitigation Measure GEO-1: Paleontological Resources Management Program (PRMP). If a project proposes subsurface disturbance within an area mapped as a high sensitivity geologic unit (i.e., older alluvial deposits), or subsurface disturbance greater than 5 feet deep within an area mapped at the surface as a low sensitivity geologic unit (i.e., younger alluvial deposits), a paleontological resource management program (PRMP) is required unless a qualified paleontologist retained by a Project Proponent provides a letter to the City verifying that a PRMP is not warranted based on the results of a project-specific assessment. The PRMP will be reviewed and approved by the City prior to the issuance of a grading permit. The PRMP will be designed and implemented prior to any ground disturbance activities to monitor, salvage, and curate any recovered fossils associated with the project area, should these be unearthed. It is recommended that, if necessary, a project's PRMP implement the following standard procedures:

1. The applicant shall retain a qualified paleontologist (Project Paleontologist) approved by the City to create and implement a project-specific plan for monitoring site grading/earthmoving activities. As per Society of Vertebrate Paleontology (SVP) guidelines, a qualified paleontological monitor is an individual who has demonstrated sufficient paleontological training and field experience to have acceptable knowledge and experience of fossil identification, salvage and collection methods, paleontological techniques, and stratigraphy. An undergraduate degree in geology or paleontology is preferable but is less important than documented experience performing paleontological monitoring. The paleontological monitor must work under the direction of the Project Paleontologist.
2. The project paleontologist retained shall review the approved development plan and grading plan and conduct any pre-construction work necessary to render appropriate monitoring requirements as appropriate. These requirements shall be documented by the project paleontologist in a paleontological resource management program (PRMP). This PRMP shall be submitted to the City for approval prior to issuance of a grading permit. Information to be contained in the PRMP, at a minimum and in addition to other industry standards and Society of Vertebrate Paleontology standards, are as follows:
    a. The Project Paleontologist shall participate in a pre-construction project meeting with development staff and construction operations to ensure an understanding of any monitoring measures required during construction, as applicable.

b. Paleontological monitoring of earthmoving activities will be conducted on an as-needed basis by the project paleontologist during all earthmoving activities that may expose sensitive strata. Earthmoving activities in areas of the project area where previously undisturbed strata will be buried but not otherwise disturbed will not be monitored. The project paleontologist or his/her assign will have the authority to reduce monitoring once he/she determines the probability of encountering fossils has dropped below an acceptable level.
c. If the Project Paleontologist finds fossil remains, earthmoving activities will be diverted temporarily around the fossil site until the remains have been evaluated, documented, and recovered. Earthmoving will be allowed to proceed through the site when the Project Paleontologist determines the fossils have been recovered and/or the site mitigated to the extent necessary.
d. If fossil remains are encountered by earthmoving activities when the Project Paleontologist is not onsite, these activities will be diverted around the fossil site and the Project Paleontologist called to the site immediately to evaluate, document, and recover the remains.
e. If fossil remains are encountered, fossiliferous rock and soil will be recovered from the fossil site and processed to allow for the recovery of smaller fossil remains. Test samples may be recovered from other sampling sites in the geologic unit if appropriate.
f. Any recovered fossil remains will be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains then will be curated (assigned and labeled with museum* repository fossil specimen numbers and corresponding fossil site numbers, as appropriate; placed in specimen trays and, if necessary, vials with completed specimen data cards) and catalogued, an associated specimen data and corresponding geologic and geographic site data will be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized data bases) at the museum repository by a laboratory technician. The remains will then be accessioned into the museum* repository fossil collection, where they will be permanently stored, maintained, and, along with associated specimen and site data, made available for future study by qualified scientific investigators.
g. A qualified paleontologist shall prepare a report of findings made during all site grading activity with an appended itemized list of fossil specimens recovered during grading (if any). This report shall be submitted to the Development Services Department for review and approval prior to building final inspection as described elsewhere in these conditions.

A. Pregrading Conference

The Project Paleontologist and/or designee shall participate in a pre-grading conference with development staff and construction operations, to ensure an understanding of the monitoring requirements and implementation procedures to be utilized during construction. This meeting shall take place before the initiation of major ground-disturbing activities. Training at this meeting shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological resources, general paleontological items, including the paleontology and geology of the area, as well as pictures of typical fossils that can be found during construction. This training should stress applicable state, federal, and local laws, and include

information on what to do in case an unanticipated discovery is made by a worker. All construction personnel should be instructed to stop work within a 50-foot radius of the find and immediately inform their field supervisor upon any discovery in the project area. The Project Paleontologist shall be called to assess the find to determine if monitors should be mobilized to the project area to examine and evaluate the fossils.

B. Paleontological Monitoring

Paleontological monitoring of earthmoving activities within older Quaternary alluvial deposits will be initially conducted on a full-time basis, and earthmoving activities below five feet within younger Quaternary alluvial deposits will be conducted on a part-time (spot-checking) basis by the paleontological monitor. The Project Paleontologist may re-evaluate the necessity for paleontological monitoring after initial examination of the affected sediments during excavation, which may result in part-time or spot-checking the remainder of excavations, or cessation of monitoring. Paleontological monitoring of construction excavations involves field inspection of trenches, spoils piles, scraped or graded surfaces. Monitors shall maintain close communication with the on-site construction personnel to maintain a safe working environment and to be fully appraised of the upcoming Project activity areas and any schedule changes. All monitors shall complete daily documentation of all construction activities requiring monitoring, including the location of monitoring activities throughout the day, observations of sediment type and distribution, observations regarding paleontological resources, collection of resources and other information. This documentation will be prepared by each monitor on each shift, in a Daily Field Monitoring Summary and Daily Paleontological Locality Collection log, as relevant to the discoveries each day. The monitor shall photograph ground disturbing activities, sediment, and resources for documentation purposes and will fill out a Photograph Log each day. The Daily Field Monitoring Summary, Daily Paleontological Locality Collection Log and/or Photograph Log shall comprise the field notes. These notes shall be filed weekly with the Project Paleontologist and be made available to the Proponent and City upon request.

C. *Monitor's Authority to Temporarily Halt Project Activities*

Paleontological monitors have authority to initiate a temporary work stoppage of construction activities to assess and/or recover paleontological discoveries. It is important that all earthmoving contractor personnel recognize the authority of the paleontological monitor(s) to redirect project construction activities. The monitor(s) will attempt to minimize schedule impacts, however, in cases of large discoveries, this process can be quite lengthy, and recent discoveries in the region have shown the area to be highly sensitive for paleontological materials. The monitor(s) will stay with the discovery and notify the construction foreman and the Project Paleontologist. The monitor will demarcate a 50-foot buffer zone around the specimen using flagging or other high-visibility methods until the find is assessed and potential impacts to paleontological resources are avoided, minimized, or mitigated.

D. Data Recovery Plan for Paleontological Resources

If fossils are discovered, the qualified paleontological monitor shall recover them. In the instance of an extended salvage period, the Project Paleontologist shall work with the construction manager to temporarily direct, divert, or halt earthwork to allow recovery of fossil remains in a timely manner. If the find is too large to be managed by one monitor, additional assistance will be called upon to expedite the process. Because of the potential for the recovery of small fossil remains, it may be necessary to collect bulk samples (up to 6,000 pounds) of sedimentary rock matrix. Screen-washing will only occur in the event of a significant discovery. The Project Paleontologist will consult with the Project Applicant/Proponent prior to collecting any bulk samples. Scientifically significant fossils of microscopic size consisting of vertebrates, invertebrates,

plants, or trace fossils, may be in sediments that produce significant finds. The locations of any significant discoveries should be sampled and later screen-washed and picked in the paleontological laboratory to fully document the microfaunal or microfloral diversity of the locality.

Construction activities shall continue outside of a 50-foot buffer to the discovery site based on the size of the fossil and in consultation with the foreperson and other construction leads. All scientifically important fossils shall be salvaged and fully documented within a detailed stratigraphic framework as construction conditions and safety considerations permit. Fossils will only be retrieved from within the project boundaries. Once the fossils have been partially prepared in the laboratory, non-significant resources such as bone fragments lacking identifiable features (processes or definable skeletal structures) shall be discarded or used only for educational or public outreach purposes.

F. Monitoring Compliance Report

The Project Paleontologist shall prepare a final paleontological report prior to issuance of final building inspection, or other City milestone, to verify compliance with project conditions and mitigation measures. The report shall follow industry standard guidelines and City of Redlands requirements and shall include at a minimum: a discussion of monitoring methods and techniques uses, the results of the monitoring program including any fossils recovered, an inventory of any resources recovered, locality forms, if any, final disposition of the resources, and any additional recommendations.

G. Curation of Paleontological Resources

Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and catalogued as part of the monitoring program. When potentially scientifically significant fossil discoveries are made by paleontological monitors, they should be quickly and professionally explored, assessed, and evaluated to minimize construction delays; the City Development Services Department and Project Paleontologist will be notified immediately. Additional paleontologists will be brought in to assist with the salvage as needed. Salvages may consist of the relatively rapid removal of small isolated fossils from an active cut, to hand-quarrying of larger fossils over several hours, to excavations of large fossils or large numbers of smaller fossils from a bone bed over several days or weeks.

At each paleontological locality, the Project Paleontologist or paleontological monitor will record the field number, date of discovery and date of collection, geographic coordinates, elevation, formation, stratigraphic provenance, lithologic description of sediment that produced the fossil(s), type(s) of fossils and type(s) of element(s), taphonomic and paleoenvironmental interpretations, associations with other fossils, photograph(s), and collector(s). All fossils and matrix samples must be properly labeled prior to removal from the locality where they were discovered and taken to a secure laboratory for preparation to the point of identification and curation.

5.5.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure GEO-1 would reduce potential impacts associated unique paleontological resource impacts to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to geology and soils and paleontological resources would occur.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Material Cultural Consulting. Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments (MCC 2022). January 2022. Appendix C.

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5.6 Greenhouse Gases

5.6.1 INTRODUCTION

This section evaluates the potential for implementation of the proposed Specific Plan to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, impacts of the proposed Specific Plan are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). This section also addresses the Specific Plan's consistency with applicable plans, policies, and public agency regulations adopted for the purpose of reducing the emissions of greenhouse gases. The analysis within this section is based on the following City documents and the technical report prepared for the Project:

- *City of Redlands 2035 General Plan*, 2017
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (GP EIR), 2017
- *City of Redlands Municipal Code*
- *Transit Villages District and Specific Plan Greenhouse Gas Impact Analysis*, Urban Crossroads, 2022, Appendix E.

5.6.2 REGULATORY SETTING

5.6.2.1 State Regulations

California Assembly Bill 1493– Pavley

In 2002, the California Legislature adopted AB 1493 requiring the adoption of regulations to reduce GHG emissions in the transportation sector. In September 2004, pursuant to AB 1493, the CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year (Pavley Regulations). In September 2009, CARB adopted amendments to the Pavley Regulations to reduce GHG from 2009 to 2016. CARB, EPA, and the U.S. Department of Transportation's National Highway Traffic and Safety Administration (NHTSA) have coordinated efforts to develop fuel economy and GHG standards for model 2017-2025 vehicles. The GHG standards are incorporated into the "Low Emission Vehicle" (LEV) Regulations.

California Executive Order S-3-05 – Statewide Emission Reduction Targets

Executive Order S-3-05 was signed by Governor Arnold Schwarzenegger in June 2005. Executive Order S-3-05 establishes statewide emission reduction targets through the year 2050:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

California Assembly Bill 32 (AB 32), Global Warming Solutions Act of 2006 (Chapter 488, Statutes of 2006)

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (CARB or Board) to develop a Scoping Plan

that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated at least every five years. Since 2008, there have been two updates to the Scoping Plan. Each of the Scoping Plans have included a suite of policies to help the State achieve its GHG targets, in large part leveraging existing programs whose primary goal is to reduce harmful air pollution. The 2017 Scoping Plan identifies how the State can reach the 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The AB 32 Scoping Plan also anticipates that local government actions will result in reduced GHG emissions because local governments have the primary authority to plan, zone, approve, and permit development to accommodate population growth and the changing needs of their jurisdictions. The Scoping Plan also relies on the requirements of Senate Bill 375 (discussed below) to align local land use and transportation planning for achieving GHG reductions.

The Scoping Plan must be updated every five years to evaluate AB 32 policies and ensure that California is on track to achieve the 2020 GHG reduction goal. In 2014, CARB released the First Update to the Scoping Plan, which builds upon the Initial Scoping Plan with new strategies and recommendations. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. This update defines CARB's climate change priorities for the next five years and sets the groundwork to reach long-term goals set forth in Executive Order S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals in the original 2008 Scoping Plan. It also evaluates how to align the state's "longer-term" GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

In 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update would reflect the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes.

Senate Bill 375 (**Chapter 728, Statutes of 2008**)

In August 2008, the Legislature passed, and on September 30, 2008, Governor Schwarzenegger signed, SB 375, which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emission reductions associated with vehicle emission standards (see SB 1493), the composition of fuels (see Executive Order S-1-07), and other CARB-approved measures to reduce GHG emissions. Regional metropolitan planning organizations (MPOs) will be responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining CEQA requirements by substantially reducing the requirements for "transit priority projects," as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects

are consistent with the SCS or Alternative Planning Strategy. On September 23, 2010, CARB adopted the SB 375 targets for the regional MPOs.

Executive Order B-30-15 – 2030 Statewide Emission Reduction Target

Executive Order B-30-15 was signed by Governor Jerry Brown on April 29, 2015, establishing an interim statewide GHG reduction target of 40 percent below 1990 levels by 2030, which is necessary to guide regulatory policy and investments in California in the midterm, and put California on the most cost-effective path for long-term emission reductions. Under this Executive Order, all state agencies with jurisdiction over sources of GHG emissions are required to continue to develop and implement emissions reduction programs to reach the state's 2050 target and attain a level of emissions necessary to avoid dangerous climate change. According to the Governor's Office, this Executive Order is in line with the scientifically established levels needed in the United States to limit global warming below 2°C - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

Senate Bill 32 (Chapter 249, Statutes of 2016)

Senate Bill 32 was signed on September 8, 2016 by Governor Jerry Brown. SB 32 requires the state to reduce statewide GHG emissions to 40 percent 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 GHG reduction target of 80 percent below 1990 levels by 2050. A related bill that was also approved in 2016, AB 197 (Chapter 250, Statutes of 2016) creates a legislative committee to oversee regulators to ensure that ARB is not only responsive to the Governor, but also the Legislature.

Senate Bill 97 (Chapter 185, Statutes of 2007)

SB 97 (Health and Safety Code Section 21083.5) was adopted in 2007 and required the Office of Planning and Research to prepare amendments to the CEQA Guidelines for the mitigation of GHG impacts. The amendments became effective on March 18, 2010. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The CEQA Section gives discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. CEQA does not provide guidance to determine whether the project's estimated GHG emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. However, GHG mitigation measures are referenced in general terms, and no specific measures are identified. Additionally, the revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze GHG emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic GHG analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code (CalGreen) is updated every three years. The most recent update was the 2019 California Green Building Code Standards that became effective January 1, 2020.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrade requirements.

The 2019 CALGreen standards that reduce GHG emissions and are applicable to the proposed Project include, but are not limited to, the following:

- Bicycle parking at new buildings to encourage non-vehicular transportation.
- Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles per Title 24 Part 6 Table 5.106.5.2.
- Electric vehicle charging stations. The regulation requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Title 24 Part 6 Table 5.106.8.
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste.
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) meeting Title 24 standards shall be installed.
- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent.

The 2019 CalGreen Building Standards Code has been adopted by the City of Redlands in Municipal Code Chapter 15.16.

5.6.2.2 Local Regulations

City of Redlands 2035 General Plan

The General Plan Sustainable Community Element contains the following policies related to greenhouse gas emissions that are applicable to the Project:

Principle 8-P.1 Promote energy efficiency and conservation technologies and practices that reduce the use and dependency of nonrenewable resources of energy by both City government and the community.

Action 8-A.8 Implement and enforce California Code of Regulations Title 24 building standards (parts 6 and 11) to improve energy efficiency in new or substantially remodeled construction. Consider implementing incentives for builders that exceed the standards included in Title 24 and recognize their achievements over the minimum standards.

Action 8-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.

Action 8-A.10 Integrate trees and shade into the built environment to mitigate issues such as stormwater runoff and the urban heat island effect.

Principle 8-P.8 Promote sustainability by reducing the community's greenhouse gas (GHG) emissions and fostering green development patterns – including buildings, sites, and landscapes.

City of Redlands Climate Action Plan

The City of Redlands Climate Action Plan (CAP) was designed to reinforce the City's commitment to reducing GHG emissions and demonstrate compliance with the State's GHG emissions reduction standards. The CAP includes goals and policies to promote energy efficiency, waste reduction, and resource conservation and recycling. The CAP's GHG emission targets and goals were based on meeting the goals in EO B-30-15 and SB 32 and the following guidance established in the 2017 Scoping Plan. The CAP used the 2017 Scoping Plan recommended Plan Level emissions target of 6.0 MTCO2e per capita per year for 2030. Based on the CAP analysis, the City of Redlands will achieve the 2030 target based on state actions and existing development standards and would not require any specific measures to reduce GHG emissions. Regardless, the CAP does recommend some actions including encourage the development of solar photovoltaic systems on residential and non-residential development, increase energy efficiency 5 percent over standards, increase the use of high efficiency lighting, and reduce the intensity of GHG emissions associated with water delivery and treatment.

5.6.3 ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are called GHGs. The major concern with GHGs is that increases in their concentrations are contributing to global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different warming potential, and CO_2 is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG, with 22,800 times the global warming potential as CO_2. Therefore, an emission of one metric ton (MT) of SF_6 could be reported as an

emission of 22,800 MT of CO_2e. Large emission sources are reported in million metric tons (MMT) of CO_2e. The principal GHGs are described below, along with their global warming potential.

Carbon dioxide: Carbon dioxide (CO_2) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (manmade) sources are from burning coal, oil, natural gas, and wood.

Methane: Methane (CH_4) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years, and its global warming potential is 28. Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Nitrous oxide: Nitrous oxide (N_2O) (laughing gas) is a colorless GHG that has a lifetime of 121 years, and its global warming potential is 265. Sources include microbial processes in soil and water, fuel combustion, and industrial processes.

Sulfur hexafluoride: Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas that has a lifetime of 3,200 years and a high global warming potential of 23,500. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Their global warming potential ranges from 7,000 to 11,000. Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Their global warming potential ranges from 100 to 12,000. Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.

Some of the potential effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more forest fires, and more drought years. Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

GHGs are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal.

Existing Project Site Conditions

The TVSP area consists of approximately 947 acres of land that surrounds three proposed Arrow stations. The area is current developed with a mix of commercial, industrial, and residential uses. The primary GHG emissions in the TVSP area are from on-road transportation; building energy; and waste.

5.6.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

GHG-1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

GHG-2 Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

CEQA Guidelines Section 15064.4 provides discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. In addition, CEQA does not provide guidance to determine whether the project's estimated GHG emissions are significant, but recommends that lead agencies consider several factors that may be used in the determination of significance of project related GHG emissions, including:

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Section 15130(f) describes that the effects of GHG emissions are by their very nature cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis. Additionally, CEQA Guidelines Section 15064(h)3 states that a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides requirements to avoid or lesson the cumulative problem.

The SCAQMD formed a working group to identify greenhouse gas emissions thresholds for land use projects that could be used by local lead agencies in the Basin in 2008. The working group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold, that could be applied by lead agencies, which includes the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - All land use types: 3,000 $MTCO_2E$ per year
    - Based on land use type:
        - Residential: 3,500 $MTCO_2E$ per year
        - Commercial: 1,400 $MTCO_2E$ per year
        - Mixed use: 3,000 $MTCO_2E$ per year
- Tier 4 has the following options:
    - Option 1: Reduce business as usual emissions by a certain percentage; this percentage is currently undefined.
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
    - Option 3, 2020 Target: For service populations (SP), including residents and employees, 4.8 $MTCO_2E$/SP/year for projects and 6.6 $MTCO_2E$/SP/year for plans.
    - Option 3, 2035 Target: 3.0 $MTCO_2E$/SP/year for projects and 4.1 $MTCO_2E$/SP/year for plans.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO2 concentrations at 450 ppm, thus stabilizing global climate.

The SCAQMD defines the Service Population (SP) as used under Tier 4 thresholds the total residents and employees associated with a project. The origin of the SP is based on CARB's *2008 Scoping Plan*. The *2008 Scoping Plan* identified that based on the GHG emissions inventories for the state, the people of California generate approximately 14 tons of GHG emissions per capita and would need to reduce annual emissions to approximately 10 tons per capita in order to meet the GHG reduction target of AB 32.

The SP threshold is widely accepted and used by numerous cities in the basin and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. The SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* identifies a screening threshold to determine whether additional analysis is required. As noted by the SCAQMD:

> *"…the…screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects...the policy objective of [SCAQMD's] recommended interim GHG significance threshold proposal is to achieve an emission capture rate of 90 percent of all new or modified stationary source projects. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the*

> *cumulative statewide GHG emissions. This assertion is based on the fact that [SCAQMD] staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 [MMTCO2e/yr]). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to [Best Available Control Technology] (BACT) for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.*"

Based on the type of programmatic planning project being proposed and the SCAQMD guidance described above, the City has determined that the SCAQMD's Tier 4, Option 3 project-level efficiency threshold methodology is an appropriate significance criterion by which to determine whether the Project emits a significant amount of GHG due to the threshold's applicability to programmatic planning projects. The City of Redlands CAP was adopted on December 5, 2017. The CAP was prepared pursuant to Section 15183.5(b) of the CEQA Guidelines to be utilized as a tiering document for the General Plan as well as future projects within the City of Redlands that are consistent with the General Plan. The CAP incorporates the guidelines established in CARB's 2017 Scoping Plan. The 2017 Scoping Plan was prepared to meet the most current GHG emissions reduction targets set in Executive Order S-3-15 and SB 32 that recommends local governments to develop plans to reduce GHG emissions to 6 MTCO2e/yr by the year 2030 and 2 MTCO2e/yr by the year 2050. Since the CAP was prepared in coordination with the General Plan that has a horizon year of 2035, the Redlands CAP also provided a year 2035 target of 5 MTCO2e/yr, which was determined through interpolation of the 2030 and 2050 GHG emissions targets from the 2017 Scoping Plan.

Since the Project is anticipated to be fully operational by 2040, for analysis purposes herein, the service population threshold for the Project's buildout year of 2040 was calculated by linear interpolation between the 2035 target of 5 MTCO2e/yr and the 2050 target of 2 MTCO2e/yr. As such, the target for the Project's buildout year of 2040 is 4.0 MTCO2e/yr and the proposed Project would be considered to create a significant cumulative GHG impact if implementation of the Project would exceed this threshold.

5.6.5 METHODOLOGY

The California Emissions Estimator Model (CalEEMod) v2020.4.0 has been used to determine construction and operational GHG emissions for buildout of the proposed Project, based on the maximum development assumptions outlined in Section 3.0*, Project Description*.

The purpose of this model is to calculate construction-source and operational-source GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from measures incorporated into the Project to reduce or minimize GHG emissions. For construction phase project emissions, GHGs are quantified and, per SCAQMD methodology, the total GHG emissions for construction activities are divided by 30-years, and then added to the annual operational phase of GHG emissions.

In addition, CEQA requires the lead agency consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Therefore, this section addresses whether the Project complies with various programs and measures designed to reduce GHG emissions.

5.6.6 ENVIRONMENTAL IMPACTS

As detailed in Section 3.0, *Project Description*, the proposed Project would provide a form-based code that would allow development of up to 2,400 residential units; 613,000 square feet of retail commercial, hotel, and office space; and 280,000 square feet of open space and parks within the TVSP area. However, the timing of development and operation of the development pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. However, buildout of the Project is evaluated to occur by 2040 to provide a conservative analysis.

IMPACT GHG-1: THE PROJECT WOULD NOT GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT

Less than Significant with Mitigation Incorporated.

Construction

Construction activities would occur at different sites throughout the TVSP area through the Plan's estimated 18-year build out. The site-specific development projects that would occur pursuant to the TVSP would be temporary at any one location, but numerous site-specific development projects are anticipated to occur pursuant to buildout of the proposed TVSP. Construction of site-specific development projects would create new sources of GHG and could contribute to global climate change. Construction activities would result in the emission of GHGs from equipment exhaust, construction-related vehicular activity, and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers.

Total estimated construction related GHG emissions from build out of the proposed TVSP were amortized over 30 years per SCAQMD methodology, and as shown on Table 5.6-1 would equal approximately 554.66 MT/yr CO_2E per year.

Table 5.6-1: TVSP Construction Greenhouse Emissions

TVSP Area	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e[1]
State Street Village	6,532.27	0.69	0.31	6,638.88
The Grand Apartments	552.90	0.11	0.01	557.94
City Center Mixed-Use	547.52	0.11	0.01	552.52
Downtown Village Future Projects	832.62	0.15	0.02	841.62
University Village	6,959.00	0.66	0.26	7,054.30
New York Street Village	982.08	0.16	0.03	994.59
Total GHG Emissions	16,406.39	1.88	0.64	16,639.84
Amortized Construction Emissions ($MTCO_2e$)	**546.88**	**0.06**	**0.02**	**554.66**

Source: GHG, 2022 (Appendix E).

Operation

Long-term operations of uses included in the TVSP would generate GHG emissions from the following primary sources:

- **Area Source Emissions.** Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers,

[1] CalEEMod reports the most common GHGs emitted which include CO_2, CH_4, and N_2O. These GHGs are then converted into the CO_2e by multiplying the individual GHG by the GWP.

shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping.

- **Energy Source Emissions.** 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.
- **Mobile Source Emissions.** The Project related GHG emissions are derived primarily from vehicle trips generated by the Project, including employee trips to and from the TVSP area, truck trips associated with the proposed uses, and trips related to residential uses. Trip characteristics from the Trip Generation (Appendix H) were utilized to quantify the GHGs from operation of the TVSP at buildout.
- **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 depends on the volume of water as well as the sources of the water. For purposes of analysis, CalEEMod default parameters were used in modeling GHGs from Project water demand.
- **Solid Waste.** The proposed land uses would result in the generation and disposal of solid waste. A 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. For purposes of analysis, CalEEMod default parameters were used in modeling GHGs from Project generation of solid waste.

Service Population. Based on the 2035 General Plan estimates of 2.65 persons per household, buildout of the TVSP would generate approximately 6,421 people; and the estimate of 1 employee per 500 square feet would generate 1,039 employees, which would result in a total service population of 7,460.

Table 5.6-2: TVSP Service Population

TVSP Area	Residents	Employees	Total
State Street Village	1,916	200	2,116
The Grand Apartments	395	-	395
City Center Mixed-Use	366	21	387
Downtown Village Future Projects	432	178	610
University Village	2,783	220	3,003
New York Street Village	530	420	950
Total Service Population	**6,421**	**1,039**	**7,460**

Source: GHG, 2022 (Appendix E)

The annual GHG emissions from operation of the TVSP at buildout are summarized in Table 5.6-3. As shown, construction and operation of the Project would generate a CO2e per service population of 2.84, which would not exceed the threshold of 4.0. Thus, operational impacts would be significant.

Table 5.6-3: Operational Greenhouse Emissions

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	546.88	0.06	0.02	554.66
State Street Village	4,049.78	11.79	0.13	4,385.13
The Grand Apartments	950.09	1.19	0.04	991.16
City Center Mixed-Use	1,007.15	1.28	0.04	1,052.03
Downtown Village Future Projects	2,869.47	2.82	0.12	2,975.89
University Village	7,273.88	10.17	0.29	7,616.10
New York Street Village	3,463.45	5.24	0.15	3,638.55
Total CO_2e (All Sources)	**21,213.54**			
Service Population	**7,460**			
Total CO_2e/Service Population	**2.84**			
Screening Threshold (CO_2e)	**4.0**			
Threshold Exceeded?	**NO**			

Source: GHG, 2022 (Appendix E).

Additionally, Mitigation Measure AQ-7 would be implemented to require development projects in the TVSP area to achieve 5 percent efficiency beyond the incumbent California Building Code Title 24 requirements; and Mitigation Measure AQ-8 would require enhanced water conservation for TVSP development projects. These measures are designed to reduce Project operational-source emissions of GHGs. However, it should be noted that there is no way to quantify these reductions in the CalEEMod. Therefore, to provide a conservative disclosure of Project emissions, no reductions in emissions are assumed to occur even with implementation of the below measures. As the Project total GHG emissions per service population would not exceed the screening threshold of 4.0 $MTCO_2e$ per service population per year, Project related GHG emissions would be less than significant.

IMPACT GHG-2: THE PROJECT WOULD NOT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES

Less than Significant Impact. As described previously, the City of Redlands CAP was designed to reinforce the City's commitment to reducing GHG emissions and demonstrate compliance with the State's GHG emissions reduction standards. The CAP used the 2017 Scoping Plan recommended Plan Level emissions target of 6.0 MTCO2e per capita per year for 2030. As described in Impact GHG-1, the TVSP would result in GHG emissions per service population that would be less than 4.0 MTCO2e, and therefore would be consistent with the CAP emission goals. Also, the Project would implement CalGreen building standards, as verified through the City's permitting process, that include requirements such as solar photovoltaic systems, increased energy and water efficiency.

The TVSP development would include contemporary, energy-efficient/energy-conserving design features and operational procedures. The proposed TVSP would not interfere with the state's implementation of Executive Order B-30-15 and SB 32's target of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030; or Executive Order S-3-05's target of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050 because it does not interfere with implementation of the GHG reduction measures listed in CARB's 2007 Scoping Plan or CARB's Updated Scoping Plan (2017). CARB's Updated Scoping Plan reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order S-3-05, and codified by AB 32.

The development resulting from the TVSP would include sustainable design features related to reduction of GHG emissions that would be consistent with CARB's Scoping Plans (the 2007 and 2017) that provide measures to reduce GHG emissions, which the Project is consistent with as discussed below and detailed in Tables 5.6-4 and 5.6-5 and the requirements listed and described below. Thus, the TVSP would not conflict with the CARB Scoping Plans and related regulations.

- Pavley emissions standard and Low Carbon Fuel Standard: Pavley emissions standards (AB 1493) apply to all new passenger vehicles starting with model year 2009, and the Low Carbon Fuel Standard became effective in 2010 and regulates the transportation fuel used. The second phase of implementation of the Pavley regulations per AB 1493 is referred to as the Advanced Clean Car program, which combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The TVSP is consistent with these requirements as they apply to all new passenger vehicles and vehicle fuel purchased in California.
- Energy Efficiency – Title 24/CalGreen: The proposed TVSP are subject to the CalGreen Code Title 24 building energy efficiency requirements that offer builders better windows, insulation, lighting, ventilation systems, and other features as listed in Section 5.6.2, *Regulatory Setting* that reduce energy consumption. Compliance with the CalGreen standards would be verified by the City during building permitting process.
- Renewable Portfolio Standard. As a customer of Southern California Edison (SCE), the development within the TVSP would purchase from an increasing supply of renewable energy sources and more efficient baseload generations, reduce GHG emissions, and be consistent with this requirement.
- Million Solar Roofs Program: The TVSP is consistent with this scoping plan measure as the TVSP structures would provide either solar powered or solar ready roofs, as appliable to each structure.
- Water Efficiency and Waste Diversion: Development and operation of new development pursuant to the TVSP would be implemented in consistency with water conservation requirements (as included in Title 24) and solid waste recycling and landfill diversion requirements of the State.

Table 5.6-4: Project Consistency with the CARB 2007 Scoping Plan

Action	Supporting Measures[2]	Consistency
Cap-and-Trade Program	--	**Not applicable.** These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not directly affect residential, office, and commercial projects.
Light-Duty Vehicle Standards	T-1	**Not applicable.** While these are CARB-enforced measures that are not directly applicable to the Project, vehicles that access the TVSP area are required to comply with the standards and would comply with this strategy. Electric Vehicle (EV) charging stations within the TVSP area are required to be installed on site per the 2019 Title 24 standards.
Energy Efficiency	E-1	**Consistent.** The TVSP would implement a variety of building, water, and solid waste efficiencies consistent with the most current CALGreen requirements.
	E-2	
	CR-1	
	CR-2	

[2] Supporting measures can be found at the following link: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf

Action	Supporting Measures[2]	Consistency
Renewables Portfolio Standard	E-3	**Not applicable.** Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	**Not applicable.** Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related GHG Targets	T-3	**Not applicable.** This is a statewide measure and is not within the purview of this Project.
Vehicle Efficiency Measures	T-4	**Not applicable.** Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5 T-6	**Not applicable.** Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are not directly applicable to the Project, any activity associated with Goods Movement would be required to comply with these measures as adopted. As such, the Project would not interfere with their implementation.
Million Solar Roofs (MSR) Program	E-4	**Consistent.** The MSR program sets a goal for use of solar systems throughout the state as a whole. While the TVSP does not include solar energy generation, the non-residential building roof structures would be solar ready and residential structures would include solar power, consistent with Title 24 requirements.
Medium- & Heavy-Duty Vehicles	T-7 T-8	**Not applicable.** MD and HD trucks and trailers for industrial uses are subject to aerodynamic and hybridization requirements as established by CARB; the Project would not interfere with implementation of these requirements and programs.
Industrial Emissions	I-1 I-2 I-3 I-4 I-5	**Not applicable.** These measures are applicable to large industrial facilities (> 500,000 $MTCO_2e/yr$) and other intensive uses such as refineries.
High Speed Rail	T-9	**Not applicable.** Supports increased mobility choice.
Green Building Strategy	GB-1	**Consistent.** The Project would include a variety of building, water, and solid waste efficiencies consistent with the current CALGreen requirements.
High Global Warming Potential Gases	H-1 H-2 H-3 H-4 H-5 H-6 H-7	**Not applicable.** The Project is not a substantial source of high GWP emissions and would comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
Recycling and Waste	RW-1 RW-2 RW-3	**Consistent.** The Project would be required to recycle a minimum of 65 percent from construction activities and Project operations per State and City requirements.
Sustainable Forests	F-1	**Consistent.** The TVSP would support carbon sequestration by providing new trees per the Project landscaping.
Water	W-1 W-2 W-3 W-4 W-5 W-6	**Consistent.** The development projects within the TVSP area would be required to install low-flow fixtures and efficient landscaping per State requirements.
Agriculture	A-1	**Not applicable.** The Project is not an agricultural use and the TVSP area does not include agricultural uses.

Table 5.6-5: Project Consistency with the CARB 2017 Scoping Plan

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	**Consistent.** The TVSP area would use energy from SCE, which has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The TVSP would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**Consistent.** The development projects under the TVSP would be designed and constructed to implement the energy efficiency measures. The TVSP would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		**Consistent.** The development projects pursuant to the TVSP would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The TVSP development would include energy efficient HVAC, lighting and equipment that meet the current Title 24 Standards.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2025 targets.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be		**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB efforts improve transit-source emissions.

Action	Responsible Parties	Consistency
zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.		**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		**Consistent.** The Project implements infill residential in walkable communities near transit stations, which that would act to reduce VMT. Please refer to the Project VMT Assessment and EIR Section 5.14 *Transportation.*
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**Consistent.** This is a CARB Mobile Source Strategy. The TVSP would not obstruct or interfere with CARB efforts to Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).
By 2019, adjust performance measures used to select and design transportation facilities. Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	**Consistent.** The TVSP would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.

Action	Responsible Parties	Consistency
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	**Consistent.** The TVSP would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	**Consistent.** This measure would apply to all trucks accessing the TVSP area, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The TVSP would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		**Consistent.** The TVSP would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.	CARB	**Consistent.** When adopted, this measure would apply to all fuel purchased and used in the state. The TVSP would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	**Consistent.** The TVSP would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The TVSP would not obstruct or interfere agency efforts to reduce SLPS emissions.
50 percent reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA SWRCB, Local Air Districts	**Consistent.** The TVSP would implement waste reduction and recycling measures consistent with State requirements. The TVSP would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Consistent.** The TVSP would be required to comply with any applicable Cap-and-Trade Program provisions. The TVSP would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.

Action	Responsible Parties	Consistency
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	**Consistent.** The TVSP would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		**Consistent.** The TVSP area is urban and disturbed property and does not comprise an area that would effectively provide for substantial carbon sequestration. The TVSP would install landscaping that would enhance the sequestration capacity and would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		**Consistent.** Where appropriate, project designs would incorporate wood or wood products. The TVSP would not obstruct or interfere agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		**Consistent.** The TVSP would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB	**Consistent.** The TVSP would not obstruct or interfere agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	**Consistent.** The TVSP would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	**Consistent.** The TVSP would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

Further, the TVSP is consistent with AB 32 and SB 32 through implementation of regulatory requirements that address GHG emissions related to building energy, solid waste management, wastewater, and water conveyance. Thus, the Project would be consistent with the State's requirements for GHG reductions. In

addition, as detailed in Table 5.6-6 below, the Project would not conflict with the relevant General Plan policies related to GHG emissions.

Table 5.6-6: Project Consistency with the City General Plan Sustainable Community Element Policies

General Plan Policy	Consistency
Principle 8-P.1 Promote energy efficiency and conservation technologies and practices that reduce the use and dependency of nonrenewable resources of energy by both City government and the community.	**Consistent.** As described in previously, the TVSP would implement a variety of building, water, and solid waste efficiencies consistent with the most current CALGreen requirements. Therefore, the Project is consistent with Principle 8-P.1.
Action 8-A.8 Implement and enforce California Code of Regulations Title 24 building standards (parts 6 and 11) to improve energy efficiency in new or substantially remodeled construction. Consider implementing incentives for builders that exceed the standards included in Title 24 and recognize their achievements over the minimum standards.	**Consistent.** As described previously, the TVSP would implement the most current CALGreen requirements and Mitigation Measure AQ-8 requires enhanced energy efficiency to achieve a 5% efficiency beyond the most current Title 24 building standards. Therefore, the proposed TVSP is consistent with Action 8-A.8.
Action 8-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.	**Consistent.** As described previously, the TVSP would implement the most current CALGreen requirements and Mitigation Measure AQ-8 requires enhanced energy efficiency to achieve a 5% efficiency beyond the most current Title 24 building standards. This includes use of materials with solar reflectance and thermal emittance required by Title 24. Therefore, the proposed Project is consistent with Action 8-A.9.
Action 8-A.10 Integrate trees and shade into the built environment to mitigate issues such as stormwater runoff and the urban heat island effect.	**Consistent.** The proposed Project includes substantial landscaping throughout the public realm and requires landscaping be included in private development projects. Therefore, the proposed TVSP is consistent with Action 8-A.10.
Principle 8-P.8 Promote sustainability by reducing the community's greenhouse gas (GHG) emissions and fostering green development patterns – including buildings, sites, and landscapes.	**Consistent.** As detailed in Section 3.0, *Project Description*, the TVSP would implement green development patterns of mixed-use communities with pedestrian and bicycle circulation near transit stations. The pattern of development is intended to reduce vehicle miles traveled while providing for projected growth. Thus, the proposed TVSP is consistent with Action 8-P.8.

Overall, the proposed TVSP would not result in a conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The TVSP would be implemented in compliance with state energy standards provided in Title 24, in addition to provision of sustainable design features. The TVSP would not interfere with the state's implementation of Executive Order B-30-15 and SB 32's target of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030; or Executive Order S-3-05's target of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050 because it would be consistent with the CARB 2007 and 2017 Scoping Plans, which are intended to achieve the reduction targets required by the state. In addition, the TVSP would be consistent with the relevant City General Plan policies and the City's Climate Action Plan. Thus, the proposed TVSP would not result in a

conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

5.6.7 CUMULATIVE IMPACTS

GHG emissions impacts are assessed in a cumulative context, since no single project can cause a discernible change to climate. Climate change impacts are the result of incremental contributions from natural processes, and past and present human-related activities. Therefore, the area in which a TVSP in combination with other past, present, or future projects, could contribute to a significant cumulative climate change impact would not be defined by a geographical boundary such as a project site or combination of sites, city or air basin. GHG emissions have high atmospheric lifetimes and can travel across the globe over a period of 50 to 100 years or more. Even though the emissions of GHGs cannot be defined by a geographic boundary and are effectively part of the global issue of climate change, CEQA places a boundary for the analysis of impacts at the state's borders. Thus, the geographic area for analysis of cumulative GHG emissions impacts is the State of California.

Executive Order S-3-05, Executive Order B-30-15, AB 32, and SB 32 recognizes that California is the source of substantial amounts of GHG emissions and recognizes the significance of the cumulative impact of GHG emissions from sources throughout the state and sets performance standards for reduction of GHGs.

The analysis of GHG emission impacts under CEQA contained in this EIR effectively constitutes an analysis of a project's contribution to the cumulative impact of GHG emissions. As described previously, the estimated GHG emissions from development and operation of the proposed TVSP at buildout would not exceed the service population threshold of 4.0 MTCO2e per year. Therefore, the contribution of the TVSP to significant cumulative GHG impacts is less than significant and not cumulatively considerable.

5.6.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

State

- Clean Car Standards – Pavley Assembly Bill 1493
- California Executive Order S-3-05
- Assembly Bill 32 (Global Warming Solutions Act of 2006)
- Senate Bill 375
- California Executive Order B-30-15
- Senate Bill 32
- California Green Building Standards Code (Code of Regulations, Title 24 Part 6)

Local

- City of Redlands Climate Action Plan
- City of Redlands General Plan Sustainable Community Element

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.6.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact GHG-1 would be less than significant. As a result of compliance with existing regulatory requirements Impact GHG-2 would be less than significant.

5.6.10 MITIGATION MEASURES

Mitigation measures identified below are also listed in Draft EIR Section 5.2.15, *Air Quality*.

Mitigation Measure AQ-7: Enhanced Energy Efficiency: Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 5 percent (%) efficiency beyond the incumbent California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable):

- Increase in insulation such that heat transfer and thermal bridging is minimized;
- Limit air leakage through the structure and/or within the heating and cooling distribution system;
- Use of energy-efficient space heating and cooling equipment;
- Installation of electrical hook-ups at loading dock areas;
- Installation of dual-paned or other energy efficient windows;
- Use of interior and exterior energy efficient lighting that exceeds then incumbent California Title 24 Energy Efficiency performance standards;
- Installation of automatic devices to turn off lights where they are not needed;
- Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;
- Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;
- Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;
  Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products.

Mitigation Measure AQ-8: Enhanced Water Conservation. To reduce water demands and associated energy use, subsequent development proposals within the TVSP area shall incorporate a Water Conservation Strategy and demonstrate a minimum 30% reduction in outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[3]. Development proposals within the TVSP area shall also implement the following:

- Landscaping palette emphasizing drought tolerant plants;

[3] The analysis includes a reduction of 20% indoor water usage consistent with the current CALGreen Code (11) for residential and non-residential land uses. Per CALGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

5.6.113 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Though impacts related to Impact GHG-1 would be below thresholds prior to inclusion of mitigation, Mitigation Measure AQ-7 and AQ-8 would further reduce GHG emissions and impacts would be less than significant.

REFERENCES

City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands 2035 General Plan, 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

SCAG 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. Accessed: https://scag.ca.gov/sites/main/files/file-attachments/2016_2040rtpscs_finalgrowthforecastbyjurisdiction.pdf?1605576071

Urban Crossroads. "Transit Villages District and Specific Plan Greenhouse Gas Impact Analysis" 2022. Appendix E.

5.7 Hazards and Hazardous Materials

5.7.1 INTRODUCTION

This section considers the nature and range of foreseeable hazardous materials and physical hazards/ impacts that would result from implementation of the proposed Project. It identifies the ways that hazardous materials and other types of hazards could expose people and the environment to various health and safety risks during construction activities and operation of proposed Project.

This section also describes routine hazardous materials that are likely to be used, handled, or processed within the Project area, and the potential for upset and accident conditions in which hazardous materials could be released. The impact analysis identifies ways in which hazardous materials might be routinely used, stored, handled, processed, or transported, and evaluates the extent to which existing and future populations could be exposed to hazardous materials. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017; and
- *City of Redlands Municipal Code.*

Hazards and Hazardous Materials Terminology

- **Hazardous Material.** Hazardous material is defined in the California Health and Safety Code, Chapter 6.95, Section 25501(o) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

5.7.2 REGULATORY SETTING

5.7.2.1 Federal Regulations

Hazardous Materials Management

The primary federal agencies responsible for hazardous materials management include the U.S. Environmental Protection Agency (USEPA) and the U.S. Department of Labor Occupational Safety and Health Administration (OSHA).

Resource Conservation and Recovery Act of 1976

Federal hazardous waste regulations are generally promulgated under the Resource Conservation and Recovery Act (RCRA). Pursuant to RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in a "cradle to grave" manner. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources.

The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions, reaffirming the regulation from generation to disposal and to

prohibiting the use of certain techniques for hazardous waste disposal. The USEPA has largely delegated responsibility for implementing the RCRA program in California to the State, which implements this program through the California Hazardous Waste Control Law.

RCRA regulates landfill siting, design, operation, and closure (including identifying liner and capping requirements) for licensed landfills. In California, RCRA landfill requirements are delegated to the California Department of Resources Recycling and Recovery (CalRecycle), which is discussed in detail below.

RCRA allows the USEPA to oversee the closure and post-closure of landfills. Additionally, the federal Safe Drinking Water Act, 40 CFR Part 141, gives the USEPA the power to establish water quality standards and beneficial uses for waters from below- or above-ground sources of contamination. For the Project area, water quality standards are administered by the Regional Water Quality Control Board (RWQCB).

RCRA also allows the USEPA to control risk to human health at contaminated sites. Vapor intrusion presents a significant risk to human populations overlying contaminated soil and groundwater and is considered when conducting human health risk assessments and developing Remedial Action Objectives.

Occupational Safety and Health Act of 1970

Federal and state occupational health and safety regulations also contain provisions regarding hazardous waste management through the Occupational Safety and Health Act of 1970 (amended), which is implemented by OSHA. Title 29 of the Code of Federal Regulations (29 CFR) requires special training of handlers of hazardous materials; notification to employees who work in the vicinity of hazardous materials; acquisition from the manufacturer of material safety data sheets (MSDS), which describe the proper use of hazardous materials; and training of employees to remediate any hazardous material accidental releases. OSHA regulates administration of 29 CFR.

OSHA also establishes standards regarding safe exposure limits for chemicals to which construction workers may be exposed. Safety and Health Regulations for Construction (29 CFR Part 1926.65 Appendix C) contains requirements for construction activities, which include occupational health and environmental controls to protect worker health and safety. The guidelines describe the health and safety plan(s) that must be developed and implemented during construction, including associated training, protective equipment, evacuation plans, chains of command, and emergency response procedures.

Adherence to applicable hazard-specific OSHA standards is required to maintain worker safety. For example, methane is regulated by OSHA under 29 CFR Part 1910.146 with regard to worker exposure to a "hazardous atmosphere" within confined spaces where the presence of flammable gas vapor or mist is in excess of 10 percent of the lower explosive limit. Title 49 of the CFR governs the manufacture of packaging and transport containers, packing and repacking, labeling, and the marking of hazardous material transport. Title 42, Part 82 governs solid waste disposal and resource recovery.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC § 9601 et seq.), commonly known as the Superfund, protects water, air, and land resources from the risks created by past chemical disposal practices such as abandoned and historical hazardous waste sites. It gave the EPA power to seek out the parties responsible for a release and ensure their cooperation in the cleanup. CERCLA also enabled the revision of the National Contingency Plan, which established the National Priority List (NPL) of sites, known as Superfund sites. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986 to continue cleanup activities.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act (HMTA), which is administered by the Research and Special Programs Administration (RSPA) of the US Department of Transportation (USDOT). The Hazardous Materials Transportation Act provides USDOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting the nation against risk to life and property, which is inherent in the commercial transportation of hazardous materials. The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes, excluding bulk transportation by water. The Research and Special Programs Administration carries out these responsibilities by prescribing regulations and managing a user-funded grant program for planning and training grants for states and Indian tribes. USDOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or are involved in any way with the manufacture or testing of hazardous materials packaging or containers. USDOT regulations pertaining to the actual movement govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards, and highway routing. Additionally, USDOT is responsible for developing curriculum to train for emergency response and administers grants to states and Indian tribes for ensuring the proper training of emergency responders. Hazardous Materials Transportation Act was enacted in 1975 and was amended and reauthorized in 1990, 1994, and 2005.

Title 49 of the Code of Federal Regulations, Chapter I

Under Code of Federal Regulations (CFR) Title 49, Chapter I, USDOT's Pipeline and Hazardous Materials Safety Administration regulates the transport of hazardous materials. Title 49, Chapter I sets forth regulations for response to hazardous materials spills or incidents during transport and requirements for shipping and packaging of hazardous materials.

Emergency Planning and Community Right-to-Know Act

Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA)(42 USC § 11001 et seq.) to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored onsite to state and local agencies; releases to the environment of more than 600 designated toxic chemicals; offsite transfers of waste; and pollution prevention measures and activities and to participate in chemical recycling. The EPA maintains and publishes an online, publicly available, national database of toxic chemical releases and other waste management activities by certain industry groups and federal facilities—the Toxics Release Inventory. To implement EPCRA, each state appointed a state emergency response commission to coordinate planning and implementation activities associated with hazardous materials. The commissions divided their states into emergency planning districts and named a local emergency planning committee for each district. The federal EPCRA program is implemented and administered in California Governor's Office of Emergency Services (Cal OES), a state commission, 6 local committees, and 81 Certified Unified Program agencies. Cal OES coordinates and provides staff support for the commission and local committees.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 (15 USC § 2601 et seq.) gave the EPA the ability to track the 75,000 industrial chemicals produced or imported into the United States. The EPA repeatedly screens these chemicals; can require reporting or testing of any that may pose an environmental or human health hazard; and can ban the manufacture and import of chemicals that pose an unreasonable risk. The EPA tracks the thousands of new chemicals each year with unknown or dangerous characteristics. The act supplements other federal statutes, including the Clean Air Act and the Toxics Release Inventory under EPCRA.

Code of Federal Regulations Title 29, Section 1926.62

CFR Title 29, Section 1926.62 provides federal regulations for construction work where an employee may be occupationally exposed to lead. It includes standards for exposure assessment, worker protection, methods of compliance, biological monitoring, and medical surveillance.

Code of Federal Regulations Title 40, Part 761

CFR Title 40, Part 761 provides federal regulations for the manufacturing, processing, distribution, use, and clean up of polychlorinated biphenyls (PCBs). It provides remediation standards for the clean up of PCB waste in soils.

5.7.2.2 State Regulations

Hazardous Materials Management and Waste Handling

In the regulation of hazardous waste management, California law often mirrors or is more stringent than federal law. The California Environmental Protection Agency (CalEPA) and California Occupational Safety and Health Administration (CalOSHA) are the primary state agencies responsible for hazardous materials management. Additionally, the California Emergency Management Agency (CalEMA) administers the California Accidental Release Prevention (CalARP) program. The California Department of Toxic Substances Control (DTSC), which is a branch of CalEPA, regulates the generation, transportation, treatment, storage, and disposal hazardous waste, as well as the investigation and remediation of hazardous waste sites. The California DTSC program incorporates the provisions of both federal (RCRA) and State hazardous waste laws. The California Department of Pesticide Regulation, which is a branch of CalEPA, regulates the sale, use, and cleanup of pesticides (CCR, Title 3).

Excavated soil containing hazardous substances and hazardous building materials would be classified as a hazardous waste if they exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity (CCR, Title 22, Division 4.5, Chapter 11, Article 3). State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws and regulations are overseen by a variety of state and local agencies. The California Integrated Waste Management Board and the RWQCB specifically address management of hazardous materials and waste handling in their adopted regulations (CCR, Title 14 and CCR, Title 27).

The primary local agency, known as the Certified Unified Program Agency (CUPA), with responsibility for implementing federal and State laws and regulations pertaining to hazardous materials management is the San Bernardino County Fire Department (SBCFD). The Unified Program is the consolidation of six state environmental regulatory programs into one program under the authority of a CUPA. A CUPA is a local agency that has been certified by Cal-EPA to implement the six state environmental programs within the local agency's jurisdiction. This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994. The six consolidated programs are:

- Hazardous Materials Release Response Plan and Inventory (Business Plans)
- California Accidental Release Prevention (CalARP)
- Hazardous Waste (including Tiered Permitting)
- Underground Storage Tanks (USTs)
- Above Ground Storage Tanks (Spill Prevention Control and Countermeasures (SPCC) requirements)
- Uniform Fire Code (UFC) Article 80 Hazardous Material Management Program (HMMP) and Hazardous Material Identification System (HMIS)

As CUPA, SBCFD manages six hazardous material and hazardous waste programs, described below. The CUPA program is designed to consolidate, coordinate, and uniformly and consistently administer permits,

inspection activities, and enforcement activities throughout San Bernardino County (with the exception of the City of Victorville). This approach strives to reduce overlapping and sometimes conflicting requirements of different governmental agencies independently managing these programs.

Hazardous Materials Release Response Plans and Inventory (Business Plan)

This CUPA program provides information to emergency responders and the general public regarding hazardous materials at certain facilities, and coordinates reporting of releases and spill response among businesses and local, state, and federal government authorities. Businesses are required to disclose all hazardous materials and wastes above certain quantities that are used, stored, or handled at their facility. They are also required to train their employees to safely handle chemicals and to take appropriate emergency response actions. Inspections are conducted periodically to verify the inventory and other information on the business emergency/contingency plan.

California Accidental Release Prevention Program

This program aims to reduce risks involving regulated substances through the evaluation of hazards and consequences and the development of risk management plans and prevention programs. The program requires certain facilities (referred to as "stationary sources") that handle specified chemicals (termed "regulated substances") to take specified actions to prevent and prepare for chemical accidents.

Underground Storage Tank Program

The Hazardous Materials Division oversees the Underground Storage Tank (UST) Program throughout San Bernardino County, with the exception of the city of Victorville. The purpose of this program is to ensure that hazardous substances are not released into the groundwater and/or the environment from UST systems. Specialists annually inspect tank system components, associated monitoring equipment, and inventory records to ensure that the UST systems comply with applicable laws and regulations.

Aboveground Petroleum Storage Act /Spill Prevention, Control, and Countermeasure Plan

Facilities that have cumulative aboveground storage capacities of petroleum products at or exceeding 1,320 gallons are subject to the Aboveground Petroleum Storage Act. Facilities that are subject to this act must prepare a Spill Prevention, Control, and Countermeasure Plan. Facilities handling petroleum or any other hazardous material require a business emergency/contingency plan. Both petroleum and nonpetroleum aboveground storage tanks are subject to the fire code requirements of the authority having fire code jurisdiction.

Hazardous Waste Generation and Onsite Treatment

The Hazardous Waste Inspection Program works to ensure that all hazardous wastes generated by San Bernardino County facilities are properly managed. Specialists in this program inspect facilities that generate hazardous waste, investigate complaints of unlawful hazardous waste disposal, and participate in public education. These programs are designed to provide information about laws and regulations relating to safe management of hazardous waste.

Hazardous Materials Management Plans (HMMPs) and Hazardous Materials Inventory Statements (HMISs)

The Uniform Fire Code has a provision for the local fire agency to collect information regarding hazardous materials at facilities for purposes of fire code implementation. A fire chief may require additional information to a Business Plan to meet the California Fire Code HMMP/HMIS requirements.

Hazardous Waste Control Act

The Hazardous Waste Control Act was passed in 1972 and established the California Hazardous Waste Control Program within the Department of Health Services. California's hazardous waste regulatory effort

became the model for the federal Resource Conservation and Recovery Act (RCRA). California's program, however, was broader and more comprehensive than the federal system, regulating wastes and activities not covered by the federal program. California's Hazardous Waste Control Law was followed by emergency regulations in 1973 that clarified and defined the hazardous waste program, as follows:

- Included definitions of what was a waste and what was hazardous as well as what was necessary for appropriate handling, processing, and disposal of hazardous and extremely hazardous waste in a manner that would protect the public, livestock, and wildlife from hazards to health and safety.
- The early regulations also established a tracking system for the handling and transportation of hazardous waste from the point of waste generation to the point of ultimate disposition, as well as a system of fees to cover the costs of operating the hazardous waste management program.
- Advancing the newly developing awareness of hazardous waste management issues, the program established a technical reference center for public and private use dealing with all aspects of hazardous waste management.

California Government Code Section 65962.5 (a), Cortese List

The Hazardous Waste and Substance Sites List (Cortese List) is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies.

Title 23, Division 3, Chapter 16 of the California Code of Regulations, Underground Storage Tank Regulations

The Title 23, Division 3, Chapter 16 regulations are intended to protect waters of the state from discharges of hazardous substances from underground storage tanks. These regulations establish construction requirements for new underground storage tanks; establish separate monitoring requirements for new and existing underground storage tanks; establish uniform requirements for unauthorized release reporting, and for repair, upgrade, and closure of underground storage tanks.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs or "Chisels") are concentrations of 54 hazardous chemicals in soil or soil gas that CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose

a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

Occupational Safety: Title 8 – CalOSHA

CalOSHA administers federal occupational safety requirements and additional state requirements in accordance with California Code of Regulations Title 8. CalOSHA requires preparation of an Injury and Illness Prevention Program (IIPP), which is an employee safety program of inspections, procedures to correct unsafe conditions, employee training, and occupational safety communication. This program is administered via inspections by the local CalOSHA enforcement unit.

CalOSHA regulates lead exposure during construction activities under CCR Title 8, Section 1532.1, Lead, which establishes the rules and procedures for conducting demolition and construction activities such that worker exposure to lead contamination is minimized or avoided.

Compliance with CalOSHA regulations and associated programs would be required for the proposed Project due to the potential hazards posed by onsite construction activities and contamination from former uses.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by the California Emergency Management Agency and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, Regional Water Quality Control Board, South Coast Air Quality Management District, County Fire Department, and the County Health Department.

Hazardous Materials in Structures: Asbestos-Containing Materials and Lead-Based Paint

Several regulations and guidelines pertain to abatement of and protection from exposure to asbestos-containing materials (ACM) and lead-based paint (LBP), including Construction Safety Orders 1529 (pertaining to ACM) and Section 1532.1 (pertaining to LBP) from Title 8 of the California Code of Regulations, and Part 61, Subpart M, of the Code of Federal Regulations (pertaining to ACM). California Health and Safety Code Section 39650 et seq. provides further regulations on airborne toxic control measures. In California, ACM and LBP abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. Asbestos is also regulated as a hazardous air pollutant under the Clean Air Act and a potential worker safety hazard under the authority of Cal/OSHA. Requirements for limiting asbestos emissions from building demolition and renovation are specified in SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). California Government Code Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and ACMs.

5.7.2.3 Regional Regulations

Santa Ana RWQCB

The Santa Ana RWQCB issued a Municipal Stormwater (MS4) Permit for the part of the Santa Ana Basin in San Bernardino County in 2010 (Order No. R8-2010-0036). The principal permittee of the MS4 Permit is the San Bernardino County Flood Control District. Priority projects—generally, redevelopment projects that add or replace 5,000 or more square feet of impervious surfaces, and new development projects that create

10,000 or more square feet of impervious surfaces—must implement LID BMPs to the maximum extent practicable. The MS4 Permit requires individual priority projects to prepare and implement a water quality management plan (WQMPs) that may include source control BMPs, mitigation measures, and treatment control BMPs.

South Coast Air Quality Management District Rule 1403

SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices to minimize asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, handling and cleanup procedures, storage, and disposal requirements for asbestos containing waste materials.

5.7.2.4 Local Regulations

County of San Bernardino Emergency Plan

County Fire's Office of Emergency Services (OES) is responsible for countywide emergency planning, mitigation, response and recovery activities, including planning for the City of Redlands. OES manages the County's emergency operations center and develops and maintains the County's emergency operations plan and hazard mitigation plan. The current emergency operations plan, adopted by the County Board of Supervisors in 2013, specifies roles and responsibilities of various County and other local agencies in each of the four phases of emergency management: preparedness/planning, response, recovery, and mitigation. The San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan, approved by FEMA in July 2017, includes risk assessments for many types of hazards, both natural and man-made; an assessment of community capabilities for hazard mitigation; and mitigation strategies. County-identified evacuation routes consist of major and secondary highways.

San Bernardino County implements an extensive emergency preparedness system that adheres to the National Incident Management System (NIMS), which provides a comprehensive and standardized incident management system. Because San Bernardino County is NIMS compliant, it is eligible for federal preparedness grants. The County also follows the Standardized Emergency Management System (SEMS) adopted by California, which makes it eligible for reimbursement of response-related costs under state disaster assistance programs.

San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan

The San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan documents plans for reducing and/or eliminating risk in the unincorporated area of the County and its five Special Districts, including the San Bernardino County Fire Protection District, the San Bernardino County Flood Control District, Big Bear Valley Recreation and Parks District, Bloomington Recreation and Parks District (Districts), and those Board-governed Special Districts administered by the San Bernardino County Special Districts Department.

City of Redlands Hazard Mitigation Plan (HMP)

The City of Redlands adopted a Hazard Mitigation Plan (HMP) in 2015 in accordance with 44 CFR. The purpose of the HMP is to demonstrate the plan for reducing and/or eliminating risk in the city. The HMP assesses risks associated with flooding, earthquake, wildfire, hazardous material, and drought hazards, and identifies mitigation goals, objectives, and projects to reduce the risk.

City of Redlands General Plan 2035

The City General Plan 2035 includes the following policies related to hazards that are relevant to the proposed Project:

Action 7-A.123 Regulate development on sites with known contamination of soil and groundwater to ensure that construction workers, future occupants, the public, and the environment are adequately protected from hazards associated with contamination. Work with State and local agencies to encourage cleanup of such sites.

Action 7-A.127 Use the City of Redlands Local Hazard Mitigation Plan as the guide for identifying hazard risks and vulnerabilities, identifying and prioritizing mitigation actions, encouraging the development of local mitigation, and providing technical support for these efforts.

City of Redlands Municipal Code

Chapter 2.52: Emergency Organization. The City of Redlands adopted the standardized emergency management system (SEMS). Under Chapter 2.52 of the Municipal Code, the City provides for the preparation of and carrying out of plans for the protection of persons and property within the city in the event of an emergency. The chapter provides for the direction of the emergency organization and the coordination of emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons.

5.7.3 ENVIRONMENTAL SETTING

In the 2015 Redlands Hazard Mitigation Plan, the probability of future hazardous materials release within the city was determined to be High, with Medium Impact. The California Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) track and identify sites with known or potential contamination. The DTSC Envirostor hazardous waste facility and cleanup sites database identifies sites that have known contamination or potentially contaminated sites requiring further investigation, as well as facilities permitted to treat, store, or dispose of hazardous waste. The SWRCB GeoTracker database tracks hazardous materials sites that impact groundwater or have the potential to impact groundwater.

Data for the analysis was downloaded from Envirostor and GeoTracker databases on February 22, 2022. A total of 25 sites were identified as permitted hazardous waste facilities, land disposal sites, or USTs by DTSC, the EPA, or SWRCB. Three sites were identified by DTSC as cleanup sites having known or potential hazardous substance release; 23 were identified as such by SWRCB. Sites within the TVSP area are listed below in Table 5.7-1.

Table 5.7-1: Hazardous Materials Sites

Site Name	Site Type	Database	Status	Location
Teledyne Battery Products	HAZ WASTE - RCRA, LUST Cleanup SIte	DTSC, SWRCB	Closed	840 W Brockton Ave
So Cal Gas/Redlands I	Voluntary Cleanup	DTSC	Active	501-525 W. Redlands Blvd
Edison/Redlands II	Voluntary Cleanup	DTSC	Active	501-525 W. Redlands Blvd
California Target ENTP. #943	LUST Cleanup Site	SWRCB	Closed	1580 Redlands Blvd

Redlands Corporate Yard	LUST Cleanup Site	SWRCB	Closed	1270 Park Ave
Argon Fuel	Cleanup Program Site	SWRCB	Open	1205/1255 Redlands Blvd
Redlands Oil Company (former)	Cleanup Program Site	SWRCB	Closed	395 Texas Street
Stop N' Go	LUST Cleanup Site	SWRCB	Closed	765 W Redlands Blvd
Redlands Redevelopment Agency	LUST Cleanup Site	SWRCB	Closed	325 N Eureka St
Redlands Battery	LUST Cleanup Site	SWRCB	Closed	305 W Colton Ave
City of Redlands 31 and 205 West Stuart Ave Property	LUST Cleanup Site	SWRCB	Open	31 W. Stuart Ave
GTE	LUST Cleanup Site	SWRCB	Closed	11 4th St
9 West Colton Avenue Property	Cleanup Program Site	SWRCB	Open	9 W. Colton Ave
Chevron #9-7222	LUST Cleanup Site	SWRCB	Closed	1256 Orange St
Rich Oil Co., Inc	LUST Cleanup Site	SWRCB	Closed	1029 Orange St
Arco Petroleum Products #9716	LUST Cleanup Site	SWRCB	Closed	902 Orange St
Thrifty Oil #346	LUST Cleanup Site	SWRCB	Closed	902 Orange St
Tosco/76 Station #6019	LUST Cleanup Site	SWRCB	Closed	901 N. Orange Ave
Stater Bros. Site	Cleanup Program Site	SWRCB	Closed	11 E. Colton Ave
Mobil #08-EV5	LUST Cleanup Site	SWRCB	Closed	604 Orange St
Orange Plaza Cleaners	Cleanup Program Site	SWRCB	Closed	450 Orange St
Redlands Shell	LUST Cleanup Site	SWRCB	Closed	127 Redlands Blvd East
Conoco Phillips	LUST Cleanup Site	SWRCB	Closed	201 Redlands Blvd East
Performance Auto	LUST Cleanup Site	SWRCB	Closed	520 E. State St
Arco #6052	LUST Cleanup Site	SWRCB	Closed	539 E. Redlands Blvd

Sources: DTSC, 2022; SWRCB 2022

Two active hazardous waste sites were identified through Envirostor, meaning that an investigation, remediation, and/or site monitoring is currently in progress and that DTSC is actively involved in a lead or support capacity. An additional permitted hazardous waste facility related to Teledyne Battery Products, received a closed case in 2007 and is cleared for unrestricted, residential land use. Of the 23 sites identified through Geotracker, five are Cleanup Program sites and 18 are LUST Cleanup sites. As shown on Table 5.7-1, of the five Cleanup Program sites, two sites remain open. Of the 18 LUST Cleanup sites, one remains open. These open designations mean that an investigation, remediation, and/or site monitoring is currently in progress and SWRCB is actively involved in a lead or support capacity.

The Site Cleanup Program regulates and oversees the investigation and cleanup of non-federally owned sites where recent or historical unauthorized releases of pollutants have occurred. These releases are

generally not from USTs and pollutants encountered at these sites can include solvents, pesticides, heavy metals, and fuel constituents.

Leaking underground storage tanks (LUSTs) are a significant source of petroleum impacts on groundwater. Cleanup is conducted under the direction of the lead regulatory agency and could include product removal, vapor extraction, or soil excavation and disposal.

5.7.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;

HAZ-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment;

HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;

HAZ-4 Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

HAZ-5 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 or excessive noise for people residing or working in the project area?

HAZ-6 Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; or

HAZ-7 Expose people or structures either directly or indirectly to a significant risk of loss, injury, or death involving wildland fires.

The initial study established that the proposed Project would result in less than significant impacts related to Threshold HAZ-1 through HAZ-3 and HAZ-5 through HAZ-7; no further assessment of these impacts is required in this Draft EIR.

5.7.5 METHODOLOGY

This evaluation of the significance of potential impacts related to hazards and hazardous materials considers both direct effects to the resource and indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of public health and safety or conflict with local, state, or federal agency regulations. Information for this section was obtained, in part, from the DTSC's EnviroStor database and the SWRCB's GeoTracker database.

5.7.6 ENVIRONMENTAL IMPACTS

IMPACT HAZ-4: THE PROJECT WOULD NOT 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 CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT.

Less than Significant Impact. As discussed above in Section 5.7.3, *Environmental Setting*, there are numerous sites in the TVSP area that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation (See Table 5.7-1). Several of the sites have reported releases to the ground resulting in soil and groundwater contamination and which are subject to various State and federal laws and regulators, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Environmental Protection Agency (EPA), DTSC, and the Regional Water Quality Control Board (RWQCB), and are in various stages of the cleanup process as stipulated by the relevant agencies. Redevelopment of sites with existing soil or groundwater contamination in accordance with the TVSP could potentially pose a significant hazard to the public or the environment through releases of hazardous materials into the environment. However, these sites are being regulated by existing federal and state policies and have been or in the process of being investigated and remediated pursuant to existing regulation. Existing regulations (such as CFR, Title 49, Chapter I; CCR, Title 8; CCR, Title 22; CFR, Title 40, Part 263 that are enforced by the USEPA, USDOT, CalEPA, CalOSHA, DTSC, and the City of Redlands) and CUPA programs would also help by ensuring the reporting and documentation of any hazardous materials incidents in the TVSP area such that property owners could be aware of potential hazards. For future projects, CEQA requires developers to reference the Cortese List and discuss if the project would be located on a listed site. Additionally, the City's development review process would require preparation of Phase I Environmental Site Assessments (ESAs) for future projects that would identify potential hazardous materials onsite. If future redevelopment is proposed on listed sites, potential contamination at these sites, if not already remediated, would be addressed through the City's development review requirements and in compliance with applicable state and federal regulations. Compliance with these policies, regulations, and programs would reduce the impact to less than significant.

5.7.7 CUMULATIVE IMPACTS

Cumulative land use changes within the city would have the potential to expose future area residents, employees, and visitors to chemical hazards through redevelopment of sites and structures that may be contaminated from either historic or ongoing uses. The severity of potential hazards for individual projects would depend upon the location, type, and size of development and the specific hazards associated with individual sites. All hazardous material users and transporters, as well as hazardous waste generators and disposers, are subject to regulations that require proper transport, handling, use, storage, and disposal of such materials to ensure public safety. Thus, if hazardous materials are found to be present on present or future project sites appropriate remediation activities would be required pursuant to standard federal, state, and regional regulations. Compliance with the relevant federal, state, and local regulations during the construction and operation of related projects would ensure that cumulative impacts from hazardous materials would be less than significant.

5.7.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

Federal

- United States Code of Federal Regulations Title 42, Sections 6901 et seq.: Resource Conservation and Recovery Act
- United States Code of Federal Regulations Title 42, Sections 11001 et seq.: Emergency Planning & Community Right to Know Act
- United States Code of Federal Regulations Title 49, Parts 101 et seq.: Regulations implementing the Hazardous Materials Transportation Act (United States Code of Federal Regulations Title 49 Sections 5101 et seq.)
- United States Code of Federal Regulations Title 15, Sections 2601 et seq.: Toxic Substances Control Act
- US Environmental Protection Agency Asbestos Hazard Emergency Response Act, 40 United States Code of Regulations Section 763
- United States Code of Federal Regulations Title 49, Chapter I
- United States Code of Federal Regulations Title 29, Section 1926.62
- United States Code of Federal Regulations Title 40, Part 761
- United States Code of Federal Regulations Title 29, Section 1910.120

State

- California Occupational Safety and Health Administration Regulation 29, CFR Standard 1926.62
- California Code of Regulations Title 24, Part 2: California Building Code
- California Code of Regulations Title 24, Part 9: California Fire Code
- California Code of Regulations Title 8, Section 1532.1: Lead in Construction Standard
- California Code of Regulations Title 23, Chapter 16: Underground Storage Tanks
- California Code of Regulations Title 8, Section 1529: Asbestos
- California Health and Safety Code Division 20, Chapter 6.9.1, Sections 25400.10 through 25400.47
- California Health and Safety Code Section 39650 et seq.

Regional

- South Coast Air Quality Management District Rule 1403: Asbestos

Local

- *Municipal Code Chapter 2.52: Emergency Organization.*

Standard Conditions

None.

Plans, Programs, or Policies

None

5.7.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impact HAZ-4 would be **less than significant.**

5.7.9 MITIGATION MEASURES

None.

5.7.10 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Existing regulatory programs described previously would reduce potential impacts associated with hazardous materials for Impact HAZ-4 to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to hazards and hazardous materials would occur.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_deir_compiled_lo_071917_0.pdf?1554321669

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Department of Toxic Substances Control. EnviroStor. Accessed: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Redlands

State Water Resources Control Board. GeoTracker. Accessed: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=redlands

5.8 Hydrology and Water Quality

5.8.1 INTRODUCTION

This section describes the environmental and regulatory settings and identifies potential impacts for hydrology and water quality resources. The analysis in this section is based, in part, on the following documents and resources:

- CGS Information Warehouse, California Department of Conservation, 2015
- *City of Redlands General Plan 2035,* City of Redlands, December 2017
- *City of Redlands Drainage Master Plan,* RBF Consulting, May 15, 2014
- *Redlands Transit Village Water Supply Assessment, Fuscoe Engineering, Inc., January 26, 2022* (Appendix F)
- *Upper Santa Ana River Watershed Integrated Regional Water Management Plan, Upper Santa Ana Water Resources Association, January 2015*

5.8.2 REGULATORY SETTING

5.8.2.1 Federal Regulations

Clean Water Act

The United States Environmental Protection Agency (USEPA) is the federal agency that implements the Clean Water Act (CWA), which is responsible for water quality management. The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies.

CWA Section 303, Total Maximum Daily Loads (TMDL): Section 303 of the CWA requires states to establish water quality standards consisting of designated beneficial uses of water bodies and water quality standards to protect those uses for all Waters of the United States. Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of impaired waters. Impaired waters are waters that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish a priority ranking for listed waters and develop action plans to improve their water quality. This process includes development of Total Maximum Daily Loads (TMDL) that set discharge limits for non-point source pollutants.

A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The Ducheny Bill (AB 1740) requires the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) to post this list and to provide an estimated completion date for each TMDL.

CWA Section 402, National Pollutant Discharge Elimination System (NPDES) Permit: Direct discharges of pollutants into Waters of the United States are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA. The main goal of the NPDES program is to protect human health and the environment. Pursuant to the NPDES program, permits that apply to storm water discharges from municipal storm drain systems, specific industrial activities, and construction activities (one acre [ac] or more)

have been issued. NPDES permits establish enforceable effluent limitations on discharges, require monitoring of discharges, designate reporting requirements, and require the permittee to include use of Best Management Practices (BMPs). Industrial (point source) storm water permits are required to meet effluent limitations, while municipal and construction permits are governed by the maximum extent practicable (MEP) or the Best Available Technology (BAT)/Best Control Technology (BCT) application of BMPs. SWRCBs are required to ensure that state-specific permits comply with the NPDES Permit.

5.8.2.2 State Regulations

Porter-Cologne Act

The Porter-Cologne Water Quality Control Act of 1969, codified as Division 7 of the California Water Code, authorizes the State Water Resources Control Board (SWRCB) to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirements of CWA and establishes water quality standards that have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act establishes the responsibilities and authorities of the 9 Regional Water Quality Control Boards (RWQCB), including preparing water quality plans for areas in the region, and identifying water quality objectives and waste discharge requirements (WDRs). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. Beneficial uses consist of all the various ways that water can be used for the benefit of people and/or wildlife.

The Specific Plan Area is within the Santa Ana River Watershed. The Santa Ana River Basin Water Quality Control Plan was adopted in February 2016. This Basin Plan gives direction on the beneficial uses of the waters, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the established standards.

California Anti-Degradation Policy

A key policy of California's water quality program is the State's Anti-Degradation Policy. This policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California (SWRCB Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Anti-Degradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of the water; and (3) not result in water quality less than that prescribed in water quality plans and policies (i.e., will not result in exceedances of water quality objectives).

California Construction General Permit

The State of California adopted a Statewide NPDES Permit for General Construction Activity (Construction General Permit) on September 2, 2009 (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The last Construction General Permit amendment became effective on July 17, 2012. The Construction General Permit regulates construction site stormwater management. Dischargers whose projects disturb one or more acres of soil, or whose projects disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the general permit for discharges of stormwater associated with construction activity. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular operational maintenance activities.

To obtain coverage under this permit, project operators must electronically file Permit Registration Documents, which include a Notice of Intent, a Stormwater Pollution Prevention Plan (SWPPP), and other compliance-related documents, including a risk-level assessment for construction sites, an active stormwater effluent monitoring and reporting program during construction, rain event action plans, and numeric action levels for pH and turbidity as well as requirements for qualified professionals to prepare and implement the plan. An appropriate permit fee must also be mailed to SWRCB.

The Construction General Permit requires project applicants to file a Notice of Intent with the SWRCB to discharge stormwater, and to prepare and implement a SWPPP for projects that will disturb greater than 1 acre of soil. The SWPPP would include a site map, description of stormwater discharge activities, and best management practices (BMPs) taken from the menu of BMPs set forth in the California Stormwater Quality Association BMP Handbook that will be employed to prevent water pollution. The SWPPP is required to include BMPs that will be used to control soil erosion and discharges of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. It must demonstrate compliance with local and regional erosion and sediment control standards, identify responsible parties, provide a detailed construction timeline, and implement a BMP monitoring and maintenance schedule. The Construction General Permit also requires the SWPPP to identify BMPs that will be implemented to reduce controlling potential chemical contaminants from impacting water quality. Types of BMPs include erosion control (e.g., preservation of vegetation), sediment control (e.g., fiber rolls), non-stormwater management (e.g., water conservation), and waste management. The SWPPP is also required to include BMPs to reduce pollutants in stormwater discharges after all construction phases have been completed at the site (post-construction BMPs).

California Water Resources Control Board Low Impact Development Policy

The SWRCB adopted the Low Impact Development (LID) Policy which, at its core, promotes the idea of "sustainability" as a key parameter to be prioritized during the design and planning process for future development. The SWRCB has directed its staff to consider sustainability in all future policies, guidelines, and regulatory actions. LID is a proven approach to manage stormwater. The RWQCBs are advancing LID in California in various ways, including provisions for LID requirements in renewed Phase I municipal stormwater NPDES permits.

5.8.2.3 Regional Regulations

Santa Ana Regional Water Quality Control Board Water Quality Control Plan

The City of Redlands is within the jurisdiction of the Santa Ana RWQCB. The RWQCB sets water quality standards for all ground and surface waters within its region through implementation of a Water Quality Control Plan (Basin Plan). The Basin Plan describes existing water quality conditions and establishes water quality goals and policies. The Basin Plan is also the basis for the Regional Board's regulatory programs. To this end, the Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality which must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions that are necessary to achieve and maintain target water quality standards. The Santa Ana Basin Plan has been in place since 1995, (with updates in 2008, 2011, 2016, and 2019). The goal of the Basin Plan is to protect public health and welfare and maintain or enhance water quality and potential beneficial uses of the water.

Municipal Regional Stormwater NPDES Permit

Within the San Bernardino County area of the Santa Ana River Basin, management and control of the municipal separate storm sewer system (MS4) is shared by a number of agencies, including the San Bernardino County Flood Control District, San Bernardino County, and the cities of Big Bear Lake, Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Lom a Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, and Yucaipa. The San Bernardino County Public Works Department is the local enforcing agency of the MS4 NPDES Permit.

On January 29, 2010, the Santa Ana RWQCB issued an area wide MS4 permit to the County and municipalities in San Bernardino County. Waste discharge requirements for stormwater entering municipal storm drainage systems are set forth in the MS4 permit, Order No. R8-2010-0036, NPDES No. CAS618036. This permit expired on January 29, 2015. On August 1, 2014, the San Bernardino County Flood Control District submitted a Report of Waste Discharge (ROWD) on behalf of San Bernardino County and the 16 incorporated cities within San Bernardino County. The submitted ROWD serves as the permit renewal application for the fifth term MS4 permit for San Bernardino County.

Under the County's NPDES permit, priority projects—generally, redevelopment projects that add or replace 5,000 or more square feet of impervious surfaces, and new development projects that create 10,000 or more square feet of impervious surfaces—must implement LID BMPs to the maximum extent practicable. The MS4 Permit requires individual priority projects to prepare and implement a water quality management plan (WQMPs) that may include source control BMPs, mitigation measures, and treatment control BMPs.

5.8.2.4 Local Regulations

San Bernardino County Stormwater Program

The Technical Guidance Document for Water Quality Management Plans (WQMPs) for the Santa Ana Region of San Bernardino County is the guidance document for the Project's stormwater design in compliance with Santa Ana RWQCB requirements for Priority Projects or Transportation Projects. The MS4 Permit requires that a preliminary project-specific WQMP be prepared for review early in the project development process and that a Final WQMP be submitted prior to the start of construction. A project specific WQMP is required to address the following:

- Develop site design measures using Low Impact Development (LID) principles
- Evaluate feasibility of on-site LID Best Management Practices (BMPs)
- Maximum hydrologic source control, infiltration, and biotreatment BMPs
- Select applicable source control BMPs
- Address post-construction BMP maintenance requirements

City of Redlands General Plan

The following goals and policies from the City of Redlands General Plan 2035, adopted December 2017, are relevant to the proposed Project:

Policy 6-P.19 Promote the protection of waterways in Redlands from pollution and degradation as a result of urban activities.

Policy 6-P.20 Pursue creative, innovative, and environmentally sound methods to capture and use stormwater and urban runoff for beneficial purposes.

Policy 6-A.35 Promote the use of Low Impact Development strategies, BMPs, pervious paving materials, and on-site infiltration for treating and reducing stormwater runoff before it reaches the municipal stormwater system.

Policy 6-A.36 Require measures during construction and post construction to limit land disturbance activities such as clearing and grading and cut-and-fill; avoid steep slopes, unstable areas, and erosive soils; and minimize disturbance of natural vegetation and other physical or biological features important to preventing erosion or sedimentation

Policy 6-A.38 Encourage development that reflects an integrated approach to building design, civil engineering, and landscape architecture that maximizes rainwater harvesting and stormwater retention for landscape irrigation.

Policy 6-A.39 Require that new development provides landscaping and re-vegetation of graded or disturbed areas with drought-tolerant native or non-invasive plants.

Policy 6-A.40 Maximize the amount of pervious surfaces in public spaces to permit the percolation of urban runoff.

Policy 6-A.43 Ensure that post-development peak stormwater runoff discharge rates do not exceed the estimated pre-development rate. Dry weather runoff from new development must not exceed the pre-development baseline flow rate to receiving waterbodies.

City of Redlands Water Efficient Landscape Requirements

Chapter 15.54 of the Redlands Municipal Code establishes the City's Water Efficient Landscape Requirements to promote the benefits provided by landscapes while recognizing the need to use water as efficiently as possible. The chapter requires applicable landscaping projects to submit a landscape documentation package that contains project information, hydrozone information table, water budget calculations, soil management report, and landscape, irrigation, and grading design plans. The chapter establishes requirements for irrigation scheduling, maintenance, and audits to ensure efficient use of water. The requirements also include provisions for non-potable water irrigation systems and encourage stormwater best management practices to increase on-site retention and infiltration.

City of Redlands Municipal Code Requirements

The City's Municipal Code, Section 13.54, Storm Drains, provides regulation of discharges into the Redlands storm drain system. This is achieved by elimination of all nonpermitted discharges to Redlands separate storm sewers; control discharges to the Redlands separate storm sewers through prohibition of spills, dumping, or disposal of materials other than stormwater; and reduction of pollutants in stormwater discharges to the maximum extent practicable. City dischargers are required to comply with the applicable NPDES permit and follow the City's standard BMP practices.

Additionally, the City's Pretreatment and Regulation of Wastes Ordinance, codified under Section 13.52 of the City Municipal Code, further protects water quality in the City through uniform requirements for all users of the City's publicly owned treatment works. The ordinance enables the City to comply with all applicable state and federal laws, including the Clean Water Act (33 USC section 1251 et seq.) and the General Pretreatment Regulations (40 CFR part 403).

5.8.3 ENVIRONMENTAL SETTING

Watershed

The proposed Transit Villages Specific Plan (TVSP, or Specific Plan) area covers approximately 947 acres (approximately 1.5 square miles) and is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The Specific Plan Area is located within the Santa Ana River Watershed. The watershed is located south and east of Los Angeles and includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. The watershed is bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea and Southern Mojave watersheds, and on the north and west by the Mojave and San Gabriel watersheds. Disputes over use of water led to the subdivision of the watershed into the Upper and Lower Santa Ana River Watersheds. The Specific Plan Area is in the Upper Santa Ana River Watershed.

The Upper Santa Ana River Watershed consists of many tributaries flowing to the Santa Ana River. These tributaries range from natural streams to concrete-lined channels. Many of the streams flow through heavily developed areas. The San Bernardino County Flood Control District (SBCFCD) operates and maintains many of the tributary systems that are deemed "regional" (750 cubic feet per second (cfs) or greater flow and/or 640 acres or greater of watershed as well as portions of the Santa Ana River). Smaller-scale control facilities are generally operated by local jurisdictions. This watershed is in an arid region and therefore has little natural perennial surface water. Surface waters start in the upper erosion zone of the watershed, primarily in the San Bernardino and San Gabriel mountains. This upper zone has the highest gradient and soils and geology that do not allow large quantities of percolation of surface water into the ground. A variety of downstream water storage reservoirs (Lake Perris, Lake Mathews, and Big Bear Lake) and flood control areas (Prado Dam area and Seven Oaks Dam area) have been created to hold surface water.

The Santa Ana River watershed is regulated by the Santa Ana RWQCB. The Santa Ana RWQCB manages a large watershed area, which includes most of San Bernardino County to the east and then southwest through northern Orange County to the Pacific Ocean. The Santa Ana RWQCB's jurisdiction encompasses 2,800 square miles.

Groundwater Basin

The Specific Plan Area is located in the Bunker Hill Subbasin of the Upper Santa Ana Groundwater Basin. The Bunker Hill Basin encompasses approximately 120 square miles of the Upper Santa Ana River watershed. It lies within San Bernardino County. The Bunker Hill Basin has approximately 5,976,000-acre feet of storage capacity and as of 1998, the total amount of water in storage in the Bunker Hill Subbasin was 5,890,300 acre feet. The Bunker Hill Subbasin contains several contamination plumes. The Redlands plume, located between Judson Street and Mountain Avenue in Redlands, is primarily composed of trichloroethylene (TCE), with lower levels of (tetrachloroethylene) PCE and dibromochloropropane (DBCP), and contaminates approximately 150,000 acre-ft of groundwater. The basin was adjudicated by the Western Judgment in 1969.

Water Quality

Water Quality Impairments: Section 303(d) of the federal CWA requires states to identify water bodies that are "impaired," or those that do not meet water quality standards and are not supporting their beneficial uses. Total Maximum Daily Loads (TMDLs) are then designed to serve as pollution control plans for these specific pollutants.

The Santa Ana River Watershed drains to the Santa Ana River, extends approximately 100 miles beginning at the crest of the San Bernardino Mountains and ending at the coast near Huntington Beach. Tributaries of

the Santa Ana River within the Upper Santa Ana River Watershed include Mill Creek, City Creek, Plunge Creek (a tributary of City Creek), Mission Zanja Creek (located upstream of San Timoteo Creek), San Timoteo Creek, East Twin Creek, Warm Creek, and Lytle Creek. The following tributaries have been placed on the 303(d) list for the identified impairments.

Table 5.8-1: 303(d) Water Quality Impairments

Water Body	Impairments
Big Bear Lake	Mercury, Noxious Aquatic Plants, Nutrients, PCBs
Grout Creek	Nutrients
Knickerbocker Creek	Pathogens
Lytle Creek	Pathogens
Mill Creek, Reach 1	Pathogens
Mill Creek, Reach 2	Pathogens
Mountain Home Creek	Pathogens
Mountain Home Creek, East Fork	Pathogens
Rathbone (Rathbun) Creek	Cadmium, Copper, Nutrients, Sediment/ Siltation
Santa Ana River, Reach 6	Cadmium, Copper, Lead
Santa Ana River, Reach 4	Pathogens
Santa Ana River, Reach 3	Copper (wet weather only), Lead, Pathogens
Summit Creek	Nutrients

Source: Upper Santa Ana River Watershed Integrated Regional Water Management Plan, 2020.

Two TMDLs have been adopted to address the above impairments in the Upper SAR: TMDLs for Bacterial Indicators in the Middle Santa Ana River Watershed (February 3, 2005), which addresses pathogens in the Santa Ana River, Reach 3, and Nutrient TMDL for Dry Hydrological Conditions for Big Bear Lake (April 21, 2006), which addresses nutrients in Big Bear Lake.

The City of Redlands has adopted the EPA's National Pollutant Discharge Elimination System (NPDES) regulations, which aims to reduce pollutants in urban runoff and stormwater flows. The Santa Ana RWQCB issued the County a Municipal Separate Storm Sewer System (MS4) Permit (Order No. R8-2010-0036), which establishes pollution prevention requirements for planned developments. The County participates in an Area-wide Urban Stormwater Runoff Management Program to comply with the MS4 Permit requirements. Runoff from the development upland site is managed and regulated under the NDPES MS4 Permit and associated Storm Water Management Program.

Groundwater Supply

The Redlands Planning Area domestic water sources consist of both surface (about 50 percent of total supply) and groundwater (about 50 percent of total supply). The City of Redlands uses 15 wells that pump directly into the system or into reservoirs. Because of contamination, the City has wells that are not used for domestic purposes and are instead used for irrigation. It is anticipated that the contaminant levels will not decrease for many years due to the slow movement of water through the basin. Groundwater from the Bunker Hill Subbasin provides approximately half of Redland's water supply (13,601 acre-feet [AF] in 2020). A small portion (1,531 AF in 2020) of groundwater is also pumped from the Yucaipa Subbasin. The remaining supply comes from the Santa Ana River, Mill Creek, and the State Water Project (SWP). The basin was adjudicated by the Western Judgment in 1969 to regulate the amount of groundwater that can be pumped from the basin. Western Judgment allocated the Non-Plaintiffs' (agencies within San Bernardino County including

Redlands) rights 167,238 acre-feet per year (AFY), which equates to 72.05 percent of the safe yield. San Bernardino agencies are allowed to extract more than 167,238 AFY from the SBB, as long as they import and recharge a like amount of supplemental water into the basin. The Western-San Bernardino Watermaster provides an annual accounting of both the plaintiff and non-plaintiff extractions and a comparison to the safe yield. The Judgment requires the non-plaintiffs to provide replenishment water whenever the cumulative extractions exceed the cumulative safe yield.

Storm Drainage Facilities

The TVSP area is approximately 947 acres of land that is divided into three planning areas referred to as transit villages, which generally circle each new Arrow station, as shown on Figure 3-4. As shown in Figure 3-3, the Specific Plan Area is developed and urbanized. The existing topography of the Specific Plan Area is relatively flat and, according to the City of Redlands Drainage Master Plan, the area generally drains from the east to the west via the existing storm drain system.

Soil Infiltration

Recharge to the Bunker Hill Subbasin historically has resulted from infiltration of runoff from the San Gabriel and San Bernardino Mountains. The Santa Ana River, Mill Creek, and Lytle Creek contribute more than 60 percent of the total recharge to the groundwater system. The subbasin is also replenished by deep percolation of water from precipitation and resulting runoff, percolation from delivered water, and water spread in streambeds and spreading grounds. The Specific Plan Area is approximately 1.5 miles south of the Santa Ana River and site soils primarily consist of Ramona Sandy Loam, Tujunga Loamy Sand, and Hanford Coarse Sandy Loam. These soils are generally well draining and support stormwater infiltration.

Flood Zone, Tsunami, Seiche

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the Specific Plan Area (06071C8716H and 06071C8712H) shows that the southern portion of the Specific Plan Area is located within "Zone X," which is an area of minimal flood hazard potential outside of the 0.2 percent annual chance flood. The northern portion of the Specific Plan Area is within "Zone AO", an area of 1 percent annual flood with flood depth of 1 to 3 feet (usually areas of ponding) where Base Flood Elevations have been determined.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Specific Plan Area is over 50 miles from the Pacific Ocean, and outside of the Tsunami Hazard Zone identified by the California Department of Conservation Tsunami Hazard Area Map.

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no water bodies in the vicinity of the Specific Plan Area, and no existing risks related to seiche flood hazards exist on or near the site.

5.8.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

WQ-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

WQ-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

WQ-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

WQ-3 i) result in substantial erosion or siltation on- or off-site;

WQ-3 ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
WQ-3 iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
WQ-3 iv) impede or redirect flood flows;

WQ-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

WQ-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The Initial Study established that the proposed Project would result in less than significant impacts related to Threshold WQ-1 and WQ-5; and no further assessment of these impacts is required in this Draft EIR.

5.8.5 METHODOLOGY

This evaluation of the significance of potential impacts related to hydrology and water quality is based on a review of published information and reports regarding regional hydrology, groundwater conditions, and surface water quality. The potential impacts on hydrology and water quality were evaluated by considering the general type of pollutants that operation of the Project would generate during construction and operation. In determining the level of significance, the analysis recognizes that development under the proposed Project would be required to comply with relevant federal, state, and regional laws and regulations that are designed to ensure compliance with applicable water quality standards and waste discharge requirements. Because the regional and local regulations related to water quality standards have been developed to reduce the potential of pollutants in the water resources (as described in the Regulatory Setting Section above), and are implemented to specific waterbodies, such as 303(d) TMDL requirements, or development projects such as grading and construction permit regulations, implementation of all relevant water quality and hydrology requirements would limit the potential of the proposed Project to a less than significant impact.

5.8.6 ENVIRONMENTAL IMPACTS

IMPACT WQ-2: THE PROJECT WOULD NOT SUBSTANTIALLY DECREASE GROUNDWATER SUPPLIES OR INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE SUCH THAT THE PROJECT MAY IMPEDE SUSTAINABLE GROUNDWATER MANAGEMENT OF THE BASIN.

Less than Significant Impact. A Water Supply Assessment (WSA) was prepared for the Project in order to coordinate local water supply and land use decisions per Senate Bill 610 (SB 610). Future land uses within

the TVSP will utilize water from the local groundwater from the San Bernardino Basin (SBB) (also known as Bunker Hill Basin) and surface water supplies from Mill Creek and the Santa Ana River. Supplemental water is purchased from the State Water Project for direct deliveries only when the local sources cannot provide it or is needed for water quality.

Under the TVSP, it is estimated that buildout of the Specific Plan area would include the development of an additional 2,400 dwelling units, 265,000 square feet of retail commercial, 238,000 square feet of office, 220 hotel rooms, and 280,000 square feet of open space and park area. In 2020, approximately 13,916 AF of groundwater was pumped from the Bunker Hill and Yucaipa basins. The change in land use proposed under the TVSP would result in a net increase of approximately 570,746 gallons per day, or 639 AFY, with a total demand of 1,996 AFY. In 2020, the volume of water pumped from the Bunker Hill Subbasin of the San Bernardino Basin (SBB) and Yucaipa Subbasin was 13,916 AFY. Table 5.8-2 below shows projected groundwater supply sources for the City of Redlands.

Table 5.8-2. Projected Groundwater Supplies (AFY)

Water Supply	Additional Detail on Water Supply	Projected Water Supply				
		2025	2030	2035	2040	2045
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater (not desalinated)	Bunker Hill (part of SBB)	12,973	13,922	14,861	15,677	16,484
Groundwater (not desalinated)	Bunker Hill (part of SBB)	3,766	4,015	4,275	4,513	4,760
Groundwater (not desalinated)	Yucaipa	1,000	1,000	1,000	1,000	1,000
Total		**17,739**	**18,937**	**20,136**	**21,190**	**22,244**

Source: WSA, (Appendix F)

Even with the additional demand of 639 AFY from the proposed TVSP land uses (639 AFY in addition to existing 13,916 AFY is approximately 14,555 AFY), the City will have surplus groundwater supplies available over the next 25 years. The WSA, included as Appendix F, includes an analysis of reliability of the City's water supplies and concludes with a sufficiency analysis of water supply during normal, single-dry, and multiple dry years. The WSA identifies programs and activities that the City is managing to enforce lowering water demand and assist with sustainable water supply for the future. The City, inclusive of the proposed TVSP Project, will have an adequate supply of water now and 25 years into the future. The Western Judgment would continue to monitor and ensure the basins, as adjudicated, are pumped and replenished in accordance with imposed allocations and rights.

Additionally, the proposed Specific Plan would allow for additional development and redevelopment within the city that would increase the area of impervious surfaces. However, projects proposed within the Specific Plan area would be required to comply with City policies, such as Policy 6-A.40 and Policy 6-A.43, that

require post-development stormwater runoff of projects to not exceed pre-development rates and to maximize the amount of pervious surfaces for the percolation of urban runoff. Depending on the type or size of the project, each project would be required to provide a WQMP, or if no WQMP is required, comply with other requirements which would include measures to collect and infiltrate stormwater in compliance with the requirements of the NPDES stormwater permit (NPDES Permit No. CAS618036 and RWCB Order R8-2010-0036 for San Bernardino County) and support the recharge of the underlying groundwater basins. Therefore, the Project would not substantially interfere with groundwater recharge, and impacts would be less than significant.

IMPACT WQ-3i: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, IN A MANNER WHICH WOULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE.

Less than Significant Impact. The proposed TVSP includes amending the GP2035 to establish a new land use designation to provide for infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations. The Transit Villages Overlay Zone (TVOZ) boundaries of the New York Street, Downtown, and University stations would be adjusted as part of this Specific Plan process, and the adopted TVSP boundary would be the TVOZ boundary. A form-based code that would be implemented by the proposed TVSP, which emphasizes building form, a mix and density of different transit-oriented development, pedestrian circulation, and public realm improvements and amenities.

The Specific Plan Area is transected by the Mill Creek Zanja (The Zanja) and bordered by the Morey Wash (Morey Arroyo). The Mill Creek Zanja was built in 1819 to convey water from Mentone to the Assistencia de Mission San Gabriel. Today, it carries drainage water and stormwater runoff. It runs through University Street and New York Street. The Morey Arroyo is also an artificial ditch that conveys drainage water and stormwater runoff. As previously identified, the Project site is located within a floodplain. The main cause of the flooding is a lack of conveyance capacities in the Zanja Channel, the Redlands Boulevard storm drain, and the Oriental storm drain.

Construction

Construction of the proposed Project could result in demolition of the existing structures and vegetation removal, that would expose and loosen building materials and sediment, which has the potential to mix with storm water runoff and result in erosion or siltation off-site. However, the Specific Plan Area does not include any steep slopes, which reduces the erosion potential. Additionally, a large majority of soil disturbance would be related to excavation and backfill for installation of building foundations and underground utilities.

The existing NPDES Construction General Permit requires preparation and implementation of a SWPPP by a QSD for the proposed construction activities (included as PPP HYD-1). The SWPPP is required to address site-specific conditions related to potential sources of sedimentation and erosion and would list the required BMPs that are necessary to reduce or eliminate the potential of erosion or alteration of a drainage pattern during construction activities. Common types of construction BMPs include:

- Silt fencing, fiber rolls, or gravel bags
- Street sweeping and vacuuming
- Storm drain inlet protection
- Stabilized construction entrance/exit
- Vehicle and equipment maintenance, cleaning, and fueling
- Hydroseeding

- Material delivery and storage
- Stockpile management
- Spill prevention and control
- Solid waste management
- Concrete waste management

In addition, all grading plans within the City of Redlands require an accompanying set of "stand alone" Erosion Control Plans to minimize water and windborne erosion. Mandatory compliance with the SWPPP and the erosion control plan would ensure that the Project's implementation does not violate any water quality standards or waste discharge requirements during construction activities implemented as part of the TVSP.

As part of the permitting approval process, construction plans would be required to demonstrate compliance with these regulations to minimize the potential of the Project to result in a degradation of the quality of receiving waters. Plans for grading, drainage, erosion control and water quality would be reviewed by the City's Public Works Department prior to issuance of grading permits to ensure that the applicable and required BMPs are constructed during implementation of the Project.

Therefore, compliance with the City of Redlands Municipal Code Chapter 13.54, Storm Drains, MS4 Permit, and other applicable requirements, which would be verified during the City's construction permitting process, would ensure that impacts of future development implemented as part of the TVSP impacts related to construction activities resulting in a degradation of water quality would be less than significant.

Operation

The TVSP provides a land use plan and form-based code for the TVSP area that is anticipated to be developed by the year 2040. The form-based code provided by the TVSP would emphasize regulating the form of the built environment and public realm amenities, as compared to conventional zoning that primarily focuses on the land uses. However, under the TVSP, it is estimated that buildout of the Project Area would include the development of an additional 2,400 dwelling units, 265,000 square feet of retail commercial, 238,000 square feet of office, 220 hotel rooms, and 280,000 square feet of open space and park area. After completion of Project construction, the site would have a greater amount of impermeable surfaces. The increase in impervious surfaces could result in a potential increase in stormwater volume and peak runoff rates.

The TVSP area has historically experienced flooding during moderate storm events. Portions of the Project area, particularly the majority of the parcels within a quarter mile of the three stations, are located within the flood zone. Per the 2014 Master Plan of Drainage, the causes of the flooding in this area include both local and regional storm drain deficiencies. The main cause of flooding is lack of conveyance capacities in the Mission Zanja, the Redland Boulevard storm drain, and the Oriental storm drain. With a capacity of approximately 2,400 cubic feet per second (cfs), the Redlands Boulevard storm drain receives over 4,200 cfs from the Zanja and the Carrot storm drain, and 4,000 cfs from Reservoir Canyon and the Oriental storm drain. All four of these tributaries experience a confluence near the intersection of Redlands Boulevard and Ninth Street. Over the past three decades, the focus of several studies has been to reduce the flood potential from the Zanja and Reservoir Canyon storm drain. Several alternatives have been investigated and proposed as part of developing the draft TVSP, ranging from multiple detention basins to a downtown underground "bypass" pipeline that would direct Zanja flows around the Redlands Boulevard storm drain.

While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the Project Area including:

- Preparing and processing a Letter of Map Revision based on hydrologic modeling, included as Appendix A to the TVSP, in order to remove approximately 155 properties from being subject to the City's Floodplain Regulations;
- Implement the 2014 Master Plan of Drainage Alternative 1 for the Downtown Village;
- Explore opportunities to implement a diversion drainage system that intercepts Zanja channel flows near or east of North Grove Street, where it would be conveyed parallel to the Zanja and be discharged into the Zanja upstream of the I-10 underpass; and
- Increase the size of the Zanja at the Kansas Street, New York Street, and Tennessee Street crossings to increase flow capacity.

Projects built pursuant to the Specific Plan would be required to comply with requirements included under Chapter 3.56 of the City's Municipal Code, Storm Drain Facilities Fees. Section 3.56.030 of the City's Municipal Code states that:

> "No development permit shall be approved for new development unless the city finds that the storm drain facilities proposed within the development satisfy the requirements of the city's master storm drain plan. To ensure consistency with the plan, the city may impose conditions to approval of the development which are necessary to implement the plan. The requirements of this chapter are imposed as a condition of development to ensure implementation of and consistency with the city's general plan and to protect the public health, safety and welfare by ensuring that adequate public facilities and improvements will be installed and available to serve new development prior to, or concurrently with, the need."

Additionally, development applicants are required to pay development storm drain impact fees per Section 3.56.040, Storm Drain Fees, established for the purpose of constructing the storm facilities provided in the City's Master Storm Drain Plan.

Development proposed through the Specific Plan would consist of infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations, which is not anticipated to result in direct modifications to existing drainage channels, Mill Creek Zanja and the Morey Wash. The Project could implement development that could result in substantial changes to existing drainage patterns within the Project area, through direct modification of existing storm drains or indirectly through the anticipated development of 2,400 dwelling units, 265,000 square feet of retail commercial, 238,000 square feet of office, 220 hotel rooms, and 280,000 square feet of open space and park area. However, drainage proposed as part of future development projects would comply with the City's Master Storm Drain Plan, which would facilitate improvements to the City's storm drain system.

Additionally, the MS4 permit requires any new development project to prepare a WQMP (included as PPP HYD-2) that includes post-construction BMPs to reduce the potential of erosion and/or sedimentation through site design and structural treatment control BMPs. As part of the permitting approval process for each project, proposed drainage and water quality design and engineering plans would be reviewed by the City's Engineering Division to ensure that the site-specific design limits the potential for erosion and siltation. Overall, the proposed drainage system and adherence to the existing regulations would ensure that Project impacts related to alteration of a drainage pattern and erosion/siltation from operational activities would be less than significant.

IMPACT WQ-3ii: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES, IN A MANNER WHICH WOULD SUBSTANTIALLY

INCREASE THE RATE OR AMOUNT OF SURFACE RUNOFF IN A MANNER WHICH WOULD RESULT IN FLOODING ON- OR OFF-SITE.

Less than Significant Impact. As described previously, the Specific Plan Area would consist of infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations, which is not anticipated to result in direct modifications to existing drainage channels, Mill Creek Zanja and the Morey Wash.

Construction

Construction of the proposed Project could require demolition of the existing building structures, including foundations, floor slabs, and utilities systems. These activities could temporarily alter the existing drainage pattern of the site and could result in flooding on- or off-site if drainage is not properly controlled. However, as described previously, implementation of the Project requires a SWPPP (included as PPP HYD-1) that would address site specific drainage issues related to construction and include BMPs to eliminate the potential of flooding or alteration of a drainage pattern during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP HYD-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to potential alteration of a drainage pattern or flooding on or off-site from development activities. Therefore, impacts would be less than significant.

Operation

As discussed previously, the Project area contains areas of flood risk. Per the Redlands Floodplain Regulations, in a FEMA Flood zone any new "occupiable" finished floor must be at least two feet above the one percent (100-year) base flood elevation. Any floodplain cross-section modifications (earthen platforms) may not cause more than one-foot water surface elevation increase upstream. These floodplain conditions create significant challenges to existing and new development, especially in commercial zones where zero-step entries are required.

The buildout of the Project is anticipated to increase impervious surfaces, which would result in an increase of stormwater runoff volume and peak flow rates. While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the Project Area. Improvements would be implemented by the City as regional drainage improvements. However, projects proposed in implementation of the Specific Plan would be required to manage any increases of on-site runoff flows through either direct storm drain improvements, provided through direct modifications to storm drain facilities, or via payment of a storm drain development impact fee that will go towards funding storm drain projects to meet increased flows. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Overall, the proposed drainage system and adherence to the existing NPDES permit regulations would ensure that Project impacts related to alteration of a drainage pattern or flooding from operational activities would be less than significant.

IMPACT WQ-3iii: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES, IN A MANNER WHICH WOULD CREATE OR CONTRIBUTE RUNOFF WATER WHICH WOULD EXCEED THE CAPACITY OF

EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF.

Less than Significant Impact. As described previously, the Specific Plan Area would consist of infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations, which is not anticipated to result in direct modifications to existing drainage channels, Mill Creek Zanja and the Morey Wash.

Construction

As described in the previous response, construction of the proposed Project could require demolition and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased runoff and polluted runoff if drainage is not properly controlled. However, as described previously, implementation of the Project requires a SWPPP (included as PPP HYD-1) that would address site specific pollutant and drainage issues related to construction of the Project and include BMPs to eliminate the potential of polluted runoff and increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP HYD-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in runoff and pollution from development activities. Therefore, impacts would be less than significant.

Operation

The existing topography of the Specific Plan area is relatively flat and generally drains from the east to the west. The Project area drains to an existing storm drain network that is discharged to five drainage areas within the City, including Mission Zanja, Reservoir Canyon, Downtown, North City, and South City. The TVSP area has historically experienced flooding during moderate storm events. Development of the Project could increase impervious surface area within the TVSP area, which could result in additional stormwater runoff that could further exceed the existing drainage system and contribute to additional sources of stormwater pollutants. While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the Project Area. Additionally, the City's Master Drainage Plan outlines several alternatives that would reduce the City's flooding issues through incorporation of new stormwater infrastructure and BMPs, such as construction of a large culvert adjacent to Redlands Boulevard and implementation of a bypass structure for the Zanja drainage system. Projects proposed in implementation of the TVSP would be required to be consistent with the City's drainage plans. Additionally, projects would be required to manage any increases of on-site runoff flows through either direct storm drain improvements, provided through direct modifications to storm drain facilities, or via payment of a storm drain development impact fee that will go towards funding storm drain projects to meet increased flows. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Proposed project design would be reviewed for consistency during design check by the City.

Additionally, the MS4 permit requires any new development project to prepare a WQMP (included as PPP HYD-2), or if a WQMP is not required, comply with other measures that includes post-construction BMPs to reduce the potential of stormwater runoff pollution through site design and structural treatment control BMPs. As part of the permitting approval process for each project, proposed drainage and water quality design and engineering plans would be reviewed by the City's Engineering Division to ensure that the site-specific design would adequately treat and capture onsite stormwater runoff. Overall, with compliance to the

existing regulations as verified by the City's permitting process, Project impacts related to the capacity of the drainage system and polluted runoff would be less than significant.

IMPACT WQ-3iv: THE PROJECT WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES, IN A MANNER WHICH WOULD IMPEDE OR REDIRECT FLOOD FLOWS.

Less than Significant Impact.

Construction

As described in the previous response, construction of the proposed Project could require demolition and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased runoff. However, as described previously, implementation of the Project requires a SWPPP (included as PPP HYD-1) that would address site specific pollutant and drainage issues related to construction of the Project and include BMPs to eliminate the potential of increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP HYD-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in runoff from development activities. Therefore, impacts would be less than significant.

Operation

As discussed previously, the Project area contains areas of flood risk. Per the Redlands Floodplain Regulations, in a FEMA Flood zone any new "occupiable" finished floor must be at least two feet above the one percent (100-year) base flood elevation. Any floodplain cross-section modifications (earthen platforms) may not cause more than one-foot water surface elevation increase upstream. These floodplain conditions create significant challenges to existing and new development, especially in commercial zones where zero-step entries are required.

The buildout of the Project is anticipated to increase impervious surfaces, which would result in an increase of stormwater runoff volume and peak flow rates. The City's Master Drainage Plan outlines several alternatives that would reduce the City's flooding issues through incorporation of new stormwater infrastructure and BMPs, such as construction of a large culvert adjacent to Redlands Boulevard and implementation of a bypass structure for the Zanja drainage system. Projects proposed in implementation of the TVSP would be required to be consistent with the City's drainage plans. While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the Project Area. Improvements would be implemented by the City as regional drainage improvements. However, projects proposed in implementation of the Specific Plan would be required to manage any increases of on-site runoff flows through either direct storm drain improvements, provided through direct modifications to storm drain facilities, or via payment of a storm drain development impact fee that will go towards funding storm drain projects to address the City's flooding issues. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Overall, the proposed drainage system and adherence to the existing NPDES permit regulations would ensure that Project impacts related to alteration of a drainage pattern or flooding from operational activities would be less than significant.

IMPACT WQ-4: THE PROJECT WOULD NOT RISK RELEASE OF POLLUTANTS DUE TO PROJECT INUNDATION WITHIN A FLOOD HAZARD ZONE.

Less than Significant Impact. As described previously, the Specific Plan Area would consist of infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations, which is not anticipated to result in direct modifications to existing drainage channels, Mill Creek Zanja and the Morey Wash.

Construction

As described in the previous response, construction of the proposed Project could require demolition and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased polluted runoff. However, as described previously, implementation of the Project requires a SWPPP (included as PPP HYD-1) that would address site specific pollutant and drainage issues related to construction of the Project and include BMPs to eliminate the potential of polluted runoff and increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP HYD-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in runoff and pollution from development activities. Therefore, impacts would be less than significant.

Operation

The project would facilitate the development of new residential uses within the TVSP area. Development of the Project could increase impervious surface areas and introduce additional residential uses within the TVSP area, which could result in additional sources of stormwater pollutants. The TVSP has historically experienced flooding and parts of the TVSP area are within a designated floodplain. While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the Project Area. Additionally, the City's Master Drainage Plan outlines several alternatives that would reduce the City's flooding issues through incorporation of new stormwater infrastructure and BMPs, such as construction of a large culvert adjacent to Redlands Boulevard and implementation of a bypass structure for the Zanja drainage system. Projects proposed in implementation of the TVSP would be required to be consistent with the City's drainage plans. Additionally, projects would be required to manage any increases of on-site runoff flows through either direct storm drain improvements, provided through direct modifications to storm drain facilities, or via payment of a storm drain development impact fee that will go towards funding storm drain projects to meet increased flows. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Proposed project design would be reviewed for consistency during design check by the City.

Additionally, the MS4 permit requires any new development project to prepare a WQMP (included as PPP HYD-2) that includes post-construction BMPs to reduce the potential of stormwater runoff pollution through site design and structural treatment control BMPs. As part of the permitting approval process for each project, proposed drainage and water quality design and engineering plans would be reviewed by the City's Engineering Division to ensure that the site-specific design would adequately treat and capture onsite stormwater runoff. Overall, with compliance to the existing regulations as verified by the City's permitting process, Project impacts related to the c release of pollutants due to project inundation would be less than significant.

5.8.7 CUMULATIVE IMPACTS

Water Quality: The geographic scope for cumulative impacts related to hydrology and water quality includes the Santa Ana Watershed because cumulative projects and developments pursuant to the proposed Project could incrementally exacerbate the existing impaired condition and could result in new pollutant related impairments.

Related developments within the watershed would be required to implement water quality control measures pursuant to the same NPDES General Construction Permit that requires implementation of a SWPPP (for construction), a WQMP (for operation) and BMPs to eliminate or reduce the discharge of pollutants in stormwater discharges, reduce runoff, reduce erosion and sedimentation, and increase filtration and infiltration, in areas permitted. The NPDES permit requirements have been set by the SWRCB and implemented by the RWQCB to reduce incremental effects of individual projects so that they would not become cumulatively considerable. Therefore, overall potential impacts to water quality associated with present and future development in the watershed would not be cumulatively considerable with compliance with all applicable laws, permits, ordinances and plans. As detailed previously, the proposed Project would be implemented in compliance with all regulations, as would be verified during the permitting process. Therefore, cumulative impacts related to water quality would be less than significant.

Drainage: The geographic scope for cumulative impacts related to stormwater drainage includes the geographic area served by the existing stormwater infrastructure for the City's Master Drainage Plan area, from capture of runoff through final discharge points. As described above, TVSP does not include specific drainage system improvements; however, the TVSP includes multiple recommendations related to drainage improvements within the Project Area. Additionally, the City's Master Drainage Plan outlines several alternatives that would reduce the City's flooding issues. Projects proposed in implementation of the TVSP would be required to be consistent with the City's drainage plans. Additionally, projects would be required to manage any increases of on-site runoff flows through either direct storm drain improvements, provided through direct modifications to storm drain facilities, or via payment of a storm drain development impact fee that will go towards funding storm drain projects to meet increased flows. As a result, the proposed Project would not generate runoff that could combine with additional runoff from cumulative Projects that could cumulatively combine to impact drainage. Thus, cumulative impacts related to drainage would be less than significant.

Groundwater Basin: The geographic scope for cumulative impacts related to the groundwater basin is the Bunker Hill Subbasin of the Upper Santa Ana Groundwater Basin. As described previously, the volume of water that would be needed by the Project is within the anticipated groundwater pumping volumes. Therefore, the Project would not result in changes to the projected groundwater pumping that would decrease groundwater supplies. As a result, the proposed Project would not generate impacts related to the groundwater basin that have the potential to combine with effects from other projects to become cumulatively considerable. Therefore, cumulative impacts related to the groundwater basin would be less than significant.

5.8.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- Construction General Permit, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ
- California Water Resources Control Board Low Impact Development (LID) Policy

- Regional MS4 Permit (Order No. R8-2010-0036)
- City Municipal Code, Section 13.52, Pretreatment and Regulation of Wastes Ordinance
- City Municipal Code, Section 13.54, Storm Drains
- City Municipal Code Chapter 3.56, Storm Drain Facilities Fees

Standard Conditions

None.

Plans, Programs, or Policies

PPP HYD-1 **National Pollutant Discharge Elimination System (NPDES).** Projects will be constructed in accordance with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, NPDES No. CAS000002. Compliance requires a risk assessment, a SWPPP, and associated BMPs.

PPP HYD-2 **Santa Ana RWQCB MS4 Permit.** Projects will be constructed and operated in accordance with the Santa Ana RWQCB Municipal Stormwater (MS4) Permit for the part of the Santa Ana Basin in San Bernardino County in 2010 (Order No. R8-2010-0036). The MS4 Permit requires new development and redevelopment projects to adopt a WQMP to:

- Control contaminants into storm drain systems
- Educate the public about stormwater impacts
- Detect and eliminate illicit discharges
- Control runoff from construction sites
- Implement BMPs and site-specific runoff controls and treatments

5.8.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements Impacts WQ-1 through WQ-7 would be less than significant.

5.8.10 MITIGATION MEASURES

No mitigation measures are required.

5.8.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to hydrology and water quality have been identified and impacts would be less than significant.

REFERENCES

Basin Technical Advisory Committee. Upper Santa Ana River Watershed Integrated Regional Water Management Plan. January 2015. Accessed: https://www.sbvwcd.org/docman-projects/upper-santa-ana-integrated-regional-water-management-plan/3802-usarw-irwmp-2015-ch1-9-final/file

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City of Redlands. City of Redlands Drainage Master Plan. May 15, 2014. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/drainage_master_plan_2014.pdf?1584549796

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FEMA Flood Map Service Center. Accessed: https://msc.fema.gov/portal/search

5.9 Land Use and Planning

5.9.1 INTRODUCTION

This section provides an analysis of the consistency of the proposed Project with applicable land use plans, policies, and regulations that guide development of the Project site and evaluates the relationship of the Project with surrounding land uses. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035, December 2017*
- *City of Redlands General Plan Update and Climate Action Plan DEIR, July 2017*

5.9.2 REGULATORY SETTING

5.9.2.1 Regional Regulations

SCAG Regional Transportation Plan and Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is designated by federal law 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 transportation and housing strategies for southern California as a whole. On September 3, 2020, SCAG's Regional Council adopted Connect SoCal - The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS), which includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Most of the plan's goals are related to regional transportation infrastructure and the efficiency of transportation in the region.

5.9.2.2 Local Regulations

Redlands General Plan 2035

The City of Redlands adopted the 2035 General Plan on December 15, 2017. The General Plan serves as a policy document or blueprint for future development to guide future growth in Redlands. The seven themes in the 2035 General Plan include the following:

1. Distinctive City. This chapter sets policies to preserve and enhance the City's unique architectural, historical, and cultural resources.
2. Prosperous Economy. This chapter sets forth principles and actions specific to major sectors of Redlands' economy – including tourism, innovation, and retail, - in order to ensure prosperity and opportunity for all Redlanders.
3. Livable Community. This chapter describes the existing land use pattern and growth management framework. Development and other factors impacting quality of life – including public facilities, public safety, and education – are guided so as to retain the community's character.
4. Connected City. This chapter includes policies, programs, and standards to maintain efficient circulation for all modes of travel. It identifies future street and traffic improvements, and addresses walking, biking, transit, and parking to enable a multi-model circulation system.

5. Vital Environment. Redlands is renowned for its natural beauty. This chapter sets forth policies regarding land conservation, open space, agriculture, and water supply, in order to protect the Planning Area's natural environment.
6. Healthy Community. This chapter shapes policy specific to health outcomes of Redlanders. Topics addressed include recreational activity, public health, safety, and air quality.
7. Sustainable Community. This chapter outlines strategies to preserve Redlands' natural resources for the benefit of future Redlanders. This chapter incorporates innovative strategies to minimize the environmental footprint associated with water, energy, and resource consumption.

City of Redlands Municipal Code

Chapter 18.16 Districts and Zoning Map
The City's Code or Ordinances Chapter 18.16, Districts and Zoning Maps establishes the zoning districts and boundaries of those districts within the City.

5.9.3 ENVIRONMENTAL SETTING

The City of Redlands is located near the base of the San Bernardino Mountains in San Bernardino County, approximately 60 miles northeast from the City of Los Angeles and approximately 45 miles west from the City of Palm Springs. The city is situated along the Interstate 10 (I-10) corridor, which links the city with the cities of San Bernardino, Fontana, Ontario, and Los Angeles to the west, and Yucaipa, Beaumont, and Coachella Valley cities to the east.

The proposed Transit Villages Specific Plan (TVSP, or Specific Plan) area generally includes the parcels located within approximately one-half mile, or a 10-minute walk, of the three new Arrow stations in the city. The entire TVSP area, which covers approximately 947 acres (approximately 1.5 square miles) is generally bounded to the west by Kansas Street, Redlands Boulevard, Alabama Street, and Tennessee Street; to the north by the I-10, Colton Avenue, and Sylvan Boulevard; to the east by Judson Street; and to the south by Citrus Avenue, Central Avenue, Redlands Boulevard, Olive Avenue, Brookside Avenue, Ash Street, Pine Avenue, Tennessee Street, and State Street. The TVSP area also includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue (see Figure 3-4, *Specific Plan Station Areas*).

The TVSP area is approximately 947 acres of land that is divided into three planning areas referred to as transit villages, which generally circle each new Arrow station, as shown on Figure 3-4. The New York Street/Esri Transit Village area is generally west of Texas Street and Center Street. The Downtown Transit Village area is generally bounded to the east by Church Street, and to the west by Texas Street, and includes the parcels along both sides of Orange Street between Colton Avenue and Lugonia Avenue. The University Street Transit Village area is located east of Church Street and west of Judson Street.

Existing General Plan and Zoning Designation

The City of Redlands General Plan 2035 (GP2035) designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Most of the New York Street/Esri Transit Village area consists of non-residential land use designations except for the multi-family residential area in the southern portion of the village. The Downtown Transit Village area is also primarily non-residential, with multi-family allowed along the eastern edge. Land use designations in the University Street Transit Village are primarily medium and high density residential, except the institutional designations associated with the University of Redlands campus to the north of the station site. The General

Plan Transit Villages Overlay provides for residential/mixed uses within a half-mile of each station (see Figure 3-5, *General Plan Land Use Designation*).

The GP2035 Livable Community Element includes a Transit Villages section that provides for the Transit Villages Overlay Zone (TVOZ), which applies to areas within a half-mile radius of the five rail stations that were anticipated in the GP2035, which includes the three new Arrow stations (see Figure 3-6, *General Plan Transit Villages*).

Existing residential zoning within the TVSP area is primarily Multi-Family Residential (R-2 and R-3); however, there are two small areas with existing single-family zoning. The parcels on 11th Street between the I-10 and Colton Avenue in the Downtown Transit Village are zoned Single-Family Residential (R-1) and the parcels in the University Street Transit Villages bounded by the I-10, East Cypress Avenue, and East Citrus Avenue are zoned Suburban Residential (R-S). See Figure 3-7, *Existing Zoning Districts*.

Non-residential zoning in the TVSP area include Industrial (I-P), Light Industrial (M-1), Planned Industrial (M-P), Administrative and Professional Office (A-P), Neighborhood Stores (C-1), General Commercial (C-3), Highway Commercial (C-4), Commercial (C-M), Educational (E), Transitional (T), Open Land (O), Floodplain (FP), East Valley-General Commercial (EV/CG), and East Valley-Public Institutional (EV/PI).

The Downtown Specific Plan (Specific Plan No. 45), which is located within the proposed Downtown Village, governs the parcels in the downtown area, which is divided into Town Center, Town Center-Historic District, and Service-Commercial District.

The Project area is surrounded by a variety of GP2035 land use designations and zones including industrial, institutional, agricultural, commercial, and single- and multi-family residential as described below. Views of the surrounding GP2035 land use designations can also be seen on Figure 3-5, and views of the surrounding zoning can be seen on Figure 3-7, *Existing Zoning Districts*.

North: Uses to the north include transitional, commercial, multi-family residential, University of Redlands, and single-family residential.
South: Uses to the south include multi-family residential, University of Redlands, industrial, open space, and administrative buildings.

West: Uses to the west of the Project site include industrial and commercial buildings.

East: Uses to the east primarily consist of single-family residences.

5.9.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a Project could have a significant effect if it were to:

LU-1 Physically divide an established community; or

LU-2 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The Initial Study established that the proposed Project would not result in impacts related to Threshold LU-1; no further assessment of this impact is required in the Draft EIR.

5.9.5 METHODOLOGY

The analysis of land use consistency impacts considers whether the proposed Project physically divide an established community and if the Project would be inconsistent with (or conflict with) with regional and local plans, policies, and regulations that are applicable to the proposed Project and Project site, including the:

SCAG RTP/SCS, City of Redlands General Plan, and City Municipal Code. Consistent with the scope and purpose of this Draft EIR, this discussion primarily focuses on those goals and policies that relate to avoiding or mitigating environmental impacts, and an assessment of whether any inconsistency with these standards creates a significant physical impact on the environment. Thus, a project's inconsistency with a policy is only considered significant if such inconsistency would cause significant physical environmental impacts (as defined by CEQA Guidelines Section 15382).

CEQA Guidelines Section 15125(d) requires that an EIR discuss inconsistencies with applicable plans that the decision-makers should address. A project need not be consistent with each and every policy and objective in a planning document. Rather, a project is considered consistent with the provisions of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary goals of the land use plan or policy.

5.9.6 ENVIRONMENTAL IMPACTS

IMPACT LU-2: THE PROJECT WOULD NOT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY LAND USE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT.

Less than Significant Impact.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

The 2020 RTP/SCS Goals that are relevant to the proposed Project focus largely on maximizing mobility, encouraging development patterns and densities that reduce infrastructure costs, and provide for efficiency.

The proposed Project would be consistent with the applicable SCAG's 2020 RTP/SCS goals, as detailed in Table 5.9-1. Therefore, implementation of the proposed Project would not result in conflict with RTP/SCS goals, and impacts would not occur.

Table 5.9-1: Consistency with SCAG Regional Transportation Plan/Sustainable Communities Strategy

RTP/SCS Goal Statements	Proposed Project Consistency with Applicable Goals
RTP/SCS G1: Encourage regional economic prosperity and global competitiveness.	**Consistent.** The Project would enhance the region's overall economic development and competitiveness.
RTP/SCS G2: Improve mobility, accessibility, reliability, and travel safety for people and goods.	**Consistent.** As a city-level planning document, the Project is limited in its ability to maximize mobility and access for people and goods throughout the SCAG region. However, the Project would not create substantial traffic impediments. Additionally, the Project would promote development within the 0.5-mile of the Arrow Line, which would help improve mobility in the City.
RTP/SCS G3: Enhance the preservation, security, and resilience of the regional transportation system.	**Consistent**. As a city-level planning document, the Project is limited in its ability to ensure security and resilience of the regional transportation system. There are no components of the Project that would result in the deterioration of the transportation system. However, as a measure to safeguard security, the Project would comply with applicable policies included in the City's General Plan, including development outside 100-year flood zones, dam inundation areas, Alquist-Piolo

RTP/SCS Goal Statements	Proposed Project Consistency with Applicable Goals
	earthquake fault zones, and very high fire severity zones.
RTP/SCS G4: Increase person and goods movement and travel choices within the transportation system...	**Consistent.** As a city-level planning document, the Project is limited in its ability to maximize the goods movement and travel choices within the SCAG region. However, the Project would not create substantial traffic impediments. Additionally, the Project would promote development within the 0.5-mile of the Arrow Line, which would help improve travel choices in the City.
RTP/SCS G5: Reduce greenhouse gas emissions and improve air quality.	**Consistent.** While the Project would not improve air quality or reduce greenhouse gas emissions, it would set standards for infill development adjacent to transit, which would reduce vehicle trips and associated emissions. Additionally, it would not prevent SCAG from implementing actions that would improve air quality within the region and the Project would incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy, pursuant to Title 24 CALGreen Code and Building Energy Efficiency Standards and Consistent with Policy NR-1.9.
RTP/SCS G6: Support healthy and equitable communities.	**Consistent.** The Project would comply with Countywide goal and policies to support healthy and equitable communities. Additionally, the Project would include street network improvements, bike lane improvements, and sidewalk improvements that would increase the walkability in the Project area.
RTP/SCS G7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**Consistent.** This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system.
RTP/SCS G8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**Consistent.** This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would not conflict with this goal.
RTP/SCS G9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**Consistent**. The proposed Project would contribute to meeting the regional goal of developing residential housing in an area that is supported by multiple transportation options.
RTP/SCS G10: Promote conservation of natural and agricultural lands and restoration of habitats	**Consistent.** The proposed Project would be consistent with goals and policies of the City's General Plan and would not cause significant environmental impacts to agricultural lands or biological resources. The TVSP area is located within a largely developed, urbanized setting and would not result in the conversion of farmland or open space.

City of Redlands General Plan 2035

Land Use Consistency: As mentioned above, the City of Redlands General Plan 2035 (GP2035) designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per

acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Areas south of the Project have a General Plan Land Use Designation of low density residential, medium density residential, high density residential, public institutional, commercial, and office. Areas to the north have a General Plan Land Use Designation of low density residential, medium density residential, low medium density residential, and commercial. Areas to the west have a land use designation of commercial/industrial and commercial. Areas to the east have a low density residential General Plan Land Use Designation.

California law (Government Code §65450-§65453) allows cities to develop and administer Specific Plans as an implementation tool for their General Plan. As a requirement of state law, Specific Plans must demonstrate consistency in regulations, guidelines and programs with the goals, objectives, policies, standards, programs and uses that are established in the General Plan. The proposed Specific Plan would implement General Plan policies related to infill development, providing a supply of non-residential development area within the City, provision of housing for employees, and increasing use of alternative methods of circulation. The proposed TVSP provides for infill development that would make use of the existing circulation and utility infrastructure and provide mixed-use and higher density housing opportunities that provide affordability. The TVSP addresses the consistency of the TVSP with the relevant City's General Plan and said analysis is incorporated by reference into this EIR.

Table 5.9-2, *Project Consistency with Applicable General Plan Actions and Policies*, lists the policies from the City of Redlands General Plan that are relevant to the proposed Specific Plan. For each topic of the General Plan, the General Plan established policies that consist of principles and actions that form the supporting policies for the goal. As shown in Table 5.9-2 below, the Project would be consistent with the actions and policies of the City's General Plan.

Table 5.9-2: Project Consistency with Applicable General Plan Actions and Policies

General Plan Policy	Proposed Project
Policy 2-P.8 Identify, maintain, protect, and enhance Redlands' cultural, historic, social, economic, architectural, agricultural, archaeological, and scenic heritage. In so doing, Redlands will preserve its unique character and beauty, foster community pride, conserve the character and architecture of its neighborhoods and commercial and rural areas, enable citizens and visitors to enjoy and learn about local history, and provide a framework for making appropriate physical changes.	**Consistent.** The TVSP encourages infill transit-oriented development surrounding three new train stations in the City. Transit-oriented development is a planning concept that provides for residential and commercial uses around a transit station or corridor to facilitate transit use. the proposed TVSP would provide a form-based code to achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options (and reduce vehicle trips and vehicle miles traveled), and provide more public open space and amenities that provides aesthetic and community benefits.
Policy 2-P.9 Provide incentives to protect, preserve, and maintain the city's heritage.	**Consistent.** The proposed TVSP would utilize a form-based code to achieve preferred building forms and design that would maintain the City's heritage.
Policy 2-P.11 Encourage retention of the character of existing historic structures and urban design elements that define the built environment of the city's older neighborhoods.	**Consistent.** The proposed Project would require evaluation of potential historic resources for implementing projects that could potentially impact a building or structure in excess of 45 years of age as included as Mitigation Measure CUL-1.
Policy 2-P.12 Encourage retention of historic structures in their original use or reconversion to their original use where feasible. Encourage sensitive, adaptive reuse where the original use is no longer feasible.	**Consistent.** Implementing developments could impact historic structures. However, the proposed Project would require evaluation of potential historic resources for implementing projects that could potentially impact a

	building or structure in excess of 45 years of age as included as Mitigation Measure CUL-1.
Policy 2-P.13 Encourage preservation of and public access to defined and established significant scenic vistas, viewpoints, and view corridors.	**Consistent.** As discussed in the Initial Study (Appendix A), the Project area consists of an urbanized environment that does not include or provide scenic vistas. Land use changes that would occur under the TVSP are in or near already developed areas of the City and coincide with areas designated for development under the GP2035.
Action 2-A.25 Require any application that would alter or demolish an undesignated and unsurveyed resource over 50 years old to be assessed on the merits of the structure, and to be approved by the Historic and Scenic Preservation Commission.	**Consistent.** Implementing developments could impact historic structures. However, as discussed above, the proposed Project would require evaluation of potential historic resources for implementing projects that could potentially impact a building or structure in excess of 45 years of age as included as Mitigation Measure CUL-1.
Action 2-A.26 Provide development standards and guidelines to encourage conversion of historic structures to alternative uses without compromising the quality of the neighborhood if preservation of the original use is an economic hardship.	**Consistent.** Implementing developments would be consistent with the form-based code provided by the TVSP. As discussed in Chapter 4 of the TVSP, all rehabilitations and additions to historic buildings shall conform to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines.*
Action 2-A.38 Use exemplary design quality and sensitivity to surrounding historic structures in new City construction, public works, entry ways, and City signs.	**Consistent.** Implementing developments would be consistent with the form-based code provided by the TVSP. As discussed in Chapter 4 of the TVSP, all rehabilitations and additions to historic buildings shall conform to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines.*
Action 2-A.39 Ensure that permanent changes to the exterior or setting of a designated historic resource be done in accordance with the Secretary of the Interior standards for historic properties.	**Consistent.** Implementing developments would be consistent with the form-based code provided by the TVSP. As discussed in Chapter 4 of the TVSP, all rehabilitations and additions to historic buildings shall conform to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines.*
Action 2-A.70 Encourage preservation of historic public and private improvements, such as street curbs, street trees, specimen trees, street lights, hitching posts, masonry walls, unpaved and early paved sidewalks, etc	**Consistent.** Implementing developments would be consistent with the form-based code provided by the TVSP. As discussed in Chapter 4 of the TVSP, all rehabilitations and additions to historic buildings shall conform to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines.*
Principle 2-P.18 Reinforce Redlands' identity as a "Tree City" through cohesive streetscapes that enhance its sense of place and its heritage, and that promote pedestrian comfort.	**Consistent.** Section 4.15 of Chapter 4 Development Code in the TVSP includes street and streetscape design standards which includes street tree spacing, street tree location, tree species, tree wells, and parkway landscape materials. Implementing developments would be consistent with Section 4.15 of the form-based code.

Action 2-A.78 Consider creating tree-lined medians on arterials, boulevards, and collectors where the width of the street is adequate to accommodate the anticipated traffic flows along with a landscaped median.	**Consistent.** As discussed above, section 4.15 of Chapter 4 Development Code in the TVSP includes street and streetscape design standards which includes street tree spacing, street tree location, tree species, tree wells, and parkway landscape materials. Implementing developments would be consistent with Section 4.15 of the form-based code.
Principle 2-P.24 Promote Downtown as Redlands' vibrant center for residents, visitors, and workers, infused with thriving commerce and active streets.	**Consistent.** Implementing developments would comply with the form-based code which includes a mixture of land uses including shops, restaurants, entertainment venues, workplaces, and residences. The area would be pedestrian-oriented and frontages would enhance the pedestrian activity of the streets.
Principle 2-P.25 Encourage a variety of uses and activities, such as a mix of commercial, office, restaurant, specialty retail, and residential uses, and civic, cultural, and entertainment activities to attract visitors and residents from across the community by creating a lively, interesting social environment.	**Consistent.** As discussed above, implementing developments would comply with the form-based code which includes a mixture of land uses including shops, restaurants, entertainment venues, workplaces, and residences. The area would be pedestrian-oriented and frontages would enhance the pedestrian activity of the streets.
Principle 2-P.26 Foster transit-oriented development that is consistent/compatible with and sensitive to the historical structures in the vicinity of the proposed railway station	**Consistent.** Implementing developments would comply with the form-based code included as Chapter 4 of the TVSP. Page 4-2 of the TVSP Development Code states buildings on project sites located immediately adjacent to lots that have designated or eligible historic structures on them shall be deigned per the requirements of the Specific Plan and per the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines*
Principle 2-P.27 Conserve Downtown's character and historic assets while infusing it with new uses, buildings, and activities. New development should proportionately relate to and complement existing structures and the pedestrian environment.	**Consistent.** As discussed above, implementing developments would comply with the form-based code included as Chapter 4 of the TVSP. Page 4-2 of the TVSP Development Code states buildings on project sites located immediately adjacent to lots that have designated or eligible historic structures on them shall be deigned per the requirements of the Specific Plan and per the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines*
Action 2-A.92 Provide public improvements for traffic and pedestrian circulation, flood control, utility services, and aesthetic amenities that will attract new private investment and economic development.	**Consistent.** Figure 3.9 shows the future street network improvements that would occur over time from implementation of the TVSP.
Action 2-A.93 Preserve historic buildings and sites while permitting sensitive adaptive reuse.	**Consistent.** As discussed previously, implementing developments would be consistent with the form-based code provided by the TVSP. As discussed in Chapter 4 of the TVSP, all rehabilitations and additions to historic buildings shall conform to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines*.
Action 2-A.94 Encourage mixed-use projects Downtown that integrate retail, restaurant, office, and residential	**Consistent.** As discussed in Table 3-1 of Section 3.0 *Project Description*, the TVSP proposed buildout includes

uses. Permit urban housing at a density up to the High-Density Residential standard.	residential, retail commercial, office, hotel, and open space and parks.
Action 2-A.95 Enhance and extend the civic realm through vibrant streetscapes.	**Consistent.** As shown on Figure 3-11, buildout of the TVSP would include street network improvements, landscaping, and building design that is consistent with the TVSP development code that would be consistent with the architectural styles throughout the City of Redlands.
Action 2-A.97 Seek an increased presence of both residents and activity in Downtown with new development—particularly residential as part of mixed-use development—as well as commercial, entertainment, and cultural uses that serve both residents and visitors.	**Consistent.** As discussed above and in Table 3-1 of Section 3.0 *Project Description*, the TVSP proposed buildout includes residential, retail commercial, office, hotel, and open space and parks.
Action 2-A.98 Promote a variety of housing types to attract a spectrum of households to live Downtown.	**Consistent.** When fully implemented, the TVSP would allow for development of medium- to high-density residential buildings.
Action 2-A.99 Ensure that new development along Redlands Boulevard is pedestrian-oriented.	**Consistent.** The TVSP would include pedestrian facility improvements including pedestrian-scaled blocks, intersection improvements, mid-block intersection crossings, and new signalized intersections.
Action 2-A.101 Address parking demand by finding additional areas to provide parking for Downtown, and by developing creative parking management strategies, such as shared parking, maximum parking standards, "smart" metering, utilizing on-street parking for reuse of existing buildings, paid parking, etc. Monitor the impacts of new technology such as the autonomous vehicle and car hire /car share services on the total demand for parking.	**Consistent.** The TVSP would introduce a future parking structure located north of the downtown rail crossing. In addition, parallel parking spaces would be introduced with the future transportation network improvements. Furthermore, the TVSP would provide parking standards for shared parking for future developments and park-once methodologies to limit vehicle miles traveled.
Action 2-A.102 Improve connections from Downtown to adjacent neighborhoods, including areas north of I-10, through streetscape enhancement and multi-modal improvements.	**Consistent.** Figure 3-9, *Future Street Network Improvements*, shows the network connections that would occur from implementation of the TVSP and where the street improvements would connect to adjacent neighborhoods.
Principle 3-P.2 Seek varied, resilient, high-quality office and other commercial uses appropriate to Redlands to support the projected population.	**Consistent.** The TVSP would provide a variety of housing, office, and retail opportunities within walking and biking distance of the three proposed Redlands Passenger Rail stations, the Downtown commercial district, Smiley and Sylvan Parks, and the Esri and University of Redlands campuses.
Action 3-A.3 Assist in the expansion and retention of existing businesses and industries.	**Consistent.** The TVSP would provide opportunities for expansion of retail and office businesses through development of commercial and office space. Existing businesses would be able to continue to operate as development occurs.
Action 3-A.5 Promote revitalization and rehabilitation of older commercial and industrial areas to make them more competitive, accessible, aesthetically appealing, and economically viable.	**Consistent.** The TVSP includes a form-based development code that would allow for similar architectural styles that would make the commercial and industrial areas more aesthetically appealing. The future network improvements shown in Figure 3-9 would increase accessibility.
Action 3-A.8 Support design and development of a transportation system to service the business and industrial needs of the Planning Area in order to minimize congestion and circuitous travel.	**Consistent.** As shown in Figure 3-9, future network improvements would occur upon implementation of the TVSP.
Action 3-A.10 Encourage mixed-use projects within the Transit Villages that will attract a wide array of uses including retail, restaurant, entertainment, office, residential, and cultural offerings.	**Consistent.** As discussed above and in Table 3-1 of Section 3.0 *Project Description*, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks.

Principle 3-P.6 Maintain the appropriate land use balance that fosters and enhances economic development within the City of Redlands	**Consistent.** As discussed above, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks.
Principle 3-P.7 Encourage balance between economic development and all other aspects of community life that make Redlands a desirable place to live, work, and shop.	**Consistent.** The proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks.
Action 3-A.12 Encourage the location of commercial centers according to function and scale regional, general, and neighborhood so that centers of different scales complement one another and each is accessible to the primary market it is designed to serve.	**Consistent.** The form-based code that would be implemented by the proposed TVSP emphasizes building form, a mix and density of different transit-oriented development, pedestrian circulation, and public realm improvements and amenities. The TVSP would include three villages; The New York Street/Esri Village, Downtown Transit Village, and University Village which would comply with the Development Code included as Chapter 4 of the TVSP.
Action 3-A.14 Encourage commercial development, neighborhood retail, and professional offices and services of the appropriate scale and business types along neighborhood commercial corridors, such as Orange Street and Colton Avenue	**Consistent.** The TVSP would designate the area along Orange Street and Colton Avenue as Corridor 1 and Neighborhood 2 which allows for residential and commercial uses. Chapter 4 of the TVSP provides development standards that would ensure new development is appropriately scaled.
Action 3-A.17 Support neighborhood markets of appropriate size and scale and in the appropriate locations where there is support from neighborhood and community groups.	**Consistent.** In Table 3-1 of Section 3.0 *Project Description*, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks. Chapter 4 of the TVSP provides development standards that would ensure new development is sized and scaled in appropriate locations.
Action 3-A.25 Support the development of business incubators, live-work lofts, and other flexible, multi-purpose, and open-office concept workspaces designed to assist entrepreneurs and start-up businesses.	**Consistent.** The proposed TVSP buildout would include multip-story office and mixed-use buildings that would allow for multi-purpose uses. Allowed office types are identified in Table 4-2 in Chapter 4 of the TVSP.
Principle 3-P.12 Promote Redlands as a destination where visitors can shop, dine, play, and stay, and help create opportunities for increased visitation, hotel stays, sales tax generation, and employment.	**Consistent.** In Table 3-1 of Section 3.0 *Project Description*, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks.
Action 3-A.32 Support commercial recreation businesses as uses that would revitalize older commercial areas and draw new visitors to the city.	**Consistent.** In Table 3-1 of Section 3.0 *Project Description*, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks. These uses would attract local residents, workers, and regional visitors.
Principle 3-P.16 Strengthen Downtown as a center of commerce and culture, with attractions for local residents, workers, and regional visitors year-round.	**Consistent.** In Table 3-1 of Section 3.0 *Project Description*, the proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks. These uses would attract local residents, workers, and regional visitors.
Action 3-A.33 Support efforts to improve the economic and physical environment in the Downtown area by enhancing and expanding tourism-related activities and capital improvements, and generating external in-kind and monetary support for these efforts.	**Consistent.** The proposed TVSP buildout would include retail, commercial, and hotels that would increase tourism. The network improvements including increasing walkability throughout the area would also expand tourism-related activities.
Action 3-A.34 Encourage and support unique specialty retail and restaurant uses in the Downtown core	**Consistent.** The proposed TVSP buildout would provide space for retail and restaurant spaces. Shops and restaurants within walking distance of the New York Street, Downtown, and University Street Passenger Rail Stations.
Action 3-A.36 Support revitalization of underutilized commercial space throughout Downtown, including the Redlands Mall, which could create new opportunities for	**Consistent.** The proposed TVSP would introduce areas for commercial and retail uses within walking distance of the New York Street, Downtown, and University Street

businesses and residents, and provide a critical link to rail.	Passenger Rail Stations which would create new opportunities for businesses and residents and provide a critical link to rail.
Action 3-A.37 Ensure adequate parking Downtown and efficiency in traffic flow to enable the continued revitalization of the commercial core.	**Consistent.** Figure 3-9 shows the future street network improvements which would increase efficiency in traffic flow.
Action 3-A.39 Encourage and support the development of additional housing Downtown to increase the vitality and diversity of Downtown retail and services.	**Consistent.** Buildout of the TVSP would include medium- to high-density residential buildings.
Action 3-A.40 Enhance and expand the public spaces Downtown (streetscapes, plazas, parks) to improve the pedestrian experience.	**Consistent.** Figure 3-11 shows the streetscapes and parks that would contribute to improving the pedestrian experience.
Principle 4-P.5 Maintain a land use pattern of various uses designed and arranged to protect and enhance Redlands' unique character.	**Consistent.** The proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks. Implementing developments would comply with Chapter 4 of the TVSP which includes development standards that would be consistent with Redlands' unique character.
Principle 4-P.6 Provide for a balance among a variety of different land uses and their distribution among the city's neighborhoods.	**Consistent.** The proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks which would provide for a balance of different land uses.
Principle 4-P.7 Promote a diversity of compatible land uses throughout the city, providing opportunities for the development of a range of businesses, services, residential types, and public facilities to meet the needs of the community.	**Consistent.** The proposed TVSP buildout includes residential, retail commercial, office, hotel, and open space and parks which would provide for a balance of different land uses.
Principle 4-P.8 Provide for buffers and transitions between low- and high-intensity land uses.	**Consistent.** The proposed TVSP buildout would include setbacks within the development standards that would serve as buffers between low- and high-intensity land uses.
Principle 4-P.9 Locate medium- and high-density development near regional access routes, transit stations, employment centers, shopping areas, and public services.	**Consistent.** The proposed TVSP buildout would develop medium- to high-density residential uses within walking distance of the New York Street, Downtown, and University Street Passenger Rail Stations.
Principle 4-P.10 Ensure that the scale and character of new development is appropriate for surrounding terrain and the character of existing development.	**Consistent.** Implementing projects would adhere to the design guidelines set forth in Chapter 4 of the TVSP, which would ensure that new development in consistent in scale and visual character with existing development.
Principle 4-P.12 In areas planned to accommodate new growth, such as Downtown and the Transit Villages, use area plans, design standards and guidelines, and other tools to ensure cohesive transition in scale to existing neighborhoods.	**Consistent.** Implementing projects would adhere to the design guidelines set forth in Chapter 4 of the TVSP, which would ensure that new development in consistent in scale and visual character with existing development.
Principle 4-P.13 Encourage mixed-use development (two or more uses within the same building or in close proximity on the same site) in Downtown, the Transit Villages, and along Redlands Boulevard to promote vibrancy	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses focused on the first floor and multi-family residential uses on higher floors in order to enhance each village area.
Principle 4-P.14 Encourage mixed-use projects Downtown that integrate retail, restaurant, office, and residential uses. Permit urban housing at a density up to the High Density Residential standard.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors in order to enhance the Downtown area.
Principle 4-P.16 Promote a variety of housing types to serve the diverse needs of the community	**Consistent.** As outlined in Section 3.0, one of the primary objectives of the TVSP is to provide a variety of housing

	options to accommodate and attract a range of household types in order to meet the City's housing needs.
Principle 4-P.17 Limit negative impacts to residential neighborhoods from incompatible uses	**Consistent.** As shown in Figure 3-8, *Regulating Plan*, areas within the TVSP area located adjacent to single-family residential neighborhoods would be in the Village Corridor or Neighborhood General districts. These districts would provide for less intensive uses, with lower heights, that would be compatible with the surrounding single-family residential uses.
Principle 4-P.18 Provide lands to accommodate a wide range of office uses to meet the needs of small- and medium-sized businesses and larger corporations in sectors such as professional services, medical services, and technology in appropriate locations convenient to transportation corridors.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors in order to provide a variety of office spaces in locations convenient to transportation corridors.
Principle 4-P.22 Provide lands to accommodate neighborhood-scaled commercial centers in residential areas to serve the everyday needs of nearby residents.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors. The mixed-use development promoted by the TVSP would provide for easily accessible neighborhood commercial uses.
Action 4-A.7 Promote a range of residential densities to encourage a mix of housing types in varying price ranges and rental rates	**Consistent.** As outlined in Section 3.0, one of the primary objectives of the TVSP is to provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs.
Action 4-A.8 Promote the development of a greater variety of housing types, including single-family homes on small lots, accessory dwelling units, townhomes, lofts, live-work spaces, and senior and student housing to meet the needs of future demographics and changing family sizes.	
Action 4-A.11 Ensure that opportunities exist for the development of housing types that are affordable to all segments of the Redlands community and are distributed equitably throughout the community.	
Action 4-A.12 Support new residential development in Downtown, the Transit Villages, and other focused infill sites accessible to transit and in central parts of the community.	**Consistent.** The proposed TVSP would promote infill residential development on areas within the TVSP area that are easily accessible to the new Arrow Line stations.
Action 4-A.14 Discourage changes in residential areas that would disturb the character of or clearly have a destabilizing effect on the neighborhood	**Consistent.** Implementing projects would adhere to the design guidelines set forth in Chapter 4 of the TVSP, which would ensure that new development in consistent in scale and visual character with existing development in residential neighborhoods.
Action 4-A.16 Improve vehicular accessibility, traffic flow, and parking availability as well as pedestrian access and amenities within office, commercial, and industrial areas.	**Consistent.** As shown on Figures 3-9 through 3-11, the TVSP would include street improvements, along with pedestrian and bicycle infrastructure improvements in order to promote accessibility and multiple modes of transportation within the TVSP area.
Action 4-A.17 Rely on strong landscape treatments, setbacks, sign controls, and, where feasible, underground utilities and street improvements to prevent visual chaos where businesses are competing for attention.	**Consistent.** Implementing projects would adhere to the design guidelines set forth in Chapter 4 of the TVSP, which would ensure that new development provides adequate landscape treatment, setbacks, and sign controls. Additionally, as new development occurs within the TVSP area, undergrounding of dry utilities would be required for electrical transmission lines less than 66 kilovolts (kV).

Action 4-A.18 Focus the development of office space in transit-accessible locations.	**Consistent.** The proposed TVSP would promote development of up to 238,000 SF of office space on parcels within the TVSP area that are easily accessible to the new Arrow Line stations.
Action 4-A.20 Establish new neighborhood commercial centers to serve the needs of community members in areas planned to accommodate new growth, such as Downtown and the Transit Village areas.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors. The mixed-use development promoted by the TVSP would provide for easily accessible neighborhood commercial uses.
Action 4-A.21 Revitalize neighborhood shopping centers in neighborhoods where existing centers have reached the end of their economic life.	**Consistent.** The proposed TVSP would encourage redevelopment of blighted neighborhood shopping centers such as the Redlands Mall.
Action 4-A.22 Ensure that neighborhood shopping centers are designed in a manner compatible with adjacent residential areas.	**Consistent.** Implementing commercial retail projects would be required to be consistent with the design standards set forth in Chapter 4 of the TVSP, which would ensure that they are designed in a manner compatible with surrounding development.
Action 4-A.23 Ensure that neighborhood shopping centers conform to regulations limiting the size, location, and general character of signage and facades so as not to disrupt the residential or historical character of the neighborhood.	
Action 4-A.24 Preserve and encourage neighborhood stores that enable shoppers to walk or bike for everyday needs, provide access to healthy foods, and promote a sense of community, such as Olive Market.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors. The mixed-use development promoted by the TVSP would provide for easily accessible neighborhood commercial uses.
Action 4-A.31 Designate areas for the development of research and development, high tech, and professional businesses in the Planning Area.	**Consistent.** The TVSP would promote development of up to 238,000 SF of office space that would provide space for research, technology development, and professional businesses throughout the TVSP area.
Action 4-A.41 Seek to acquire land to be dedicated as open space and preserve it from development.	**Consistent.** As shown on Figure 3-8, the TVSP would include provisions for new open space and parkland within the TVSP area.
Action 4-A.44 Work with the University to create needed hotel/conference facilities in Redlands.	**Consistent.** As described in Section 3.0, the TVSP would promote development of up to 220 hotel rooms in the TVSP area.
Principle 4-P.26 Support the University of Redlands in the development of its campus and the surrounding area in a manner that enriches both the University and Redlands communities.	**Consistent.** The TVSP would promote mixed-use development within the University Village area in order to promote development of multi-family units, commercial space, office space, and hotel rooms near the University Arrow Line station.
Principle 4-P.39 Promote infill and mixed-use development along Redlands Boulevard to create a cohesive commercial corridor connecting the Transit Villages and providing a retail and service destination for community members.	**Consistent.** The TVSP would promote infill, mixed-use development along Redlands Boulevard that would connect the New York Street Village with the Downtown Village and would provide a variety of retail commercial and restaurant uses. Implementing developments along Redlands Boulevard would be required to be consistent with the design guidelines set forth in Chapter 4 of the TVSP in order to ensure new development would be consistent with the characteristics of each village.
Principle 4-A.87 Promote clusters of mixed-use development along Redlands Boulevard near the Mixed Use Cores of the proposed Transit Villages, providing opportunities for commercial, office, and residential development consistent with the needs and characteristics specific to each Transit Village	
Action 4-A.88 Promote infill development along Redlands Boulevard where it is classified as a Boulevard	

to create a continuous corridor of mixed-use and commercial activity.	
Action 4-A.89 Complete and enhance the sidewalk system along both East and West Redlands Boulevard. Make pedestrian enhancements to facilitate the safe crossing of the street.	**Consistent.** As discussed in Section 3.0, pedestrian improvements within the TVSP include enhancement of the sidewalk system along Redlands Boulevard in order to increase pedestrian connectivity and safety.
Action 4-A.90 Extend and enhance the center median of Redlands Boulevard with landscaping, public art, and lighting to improve the aesthetics and enhance its function as a major east-west boulevard.	**Consistent.** As discussed in Section 3.0, multiple improvements would occur along Redlands Boulevard in order to enhance its function as a multi-modal street.
Principle 4-P.40 Encourage the revitalization of the commercial corridors on Colton Avenue at Orange Street by providing opportunities for a variety of commercial uses and providing guidelines for site design to create a more welcoming visual environment.	**Consistent.** The TVSP would designate the area along Orange Street and Colton Avenue as Corridor 1 and Neighborhood 2 which allows for residential and commercial uses. Chapter 4 of the TVSP provides development standards that would ensure new development provides a welcoming visual environment with quality architecture and landscaping. The development guidelines set forth in the TVSP would provide for regulations that would guide implementing developments and enhance the street frontages along Orange Street and Colton Avenue.
Action 4-A.91 Develop an area plan for the Colton Avenue and Orange Street corridors that will improve the public spaces, enhance the quality of architecture and landscape architecture, attract a mix of family-friendly retail and professional businesses to serve the neighborhoods, and improve the overall attractiveness of the areas.	
Action 4-A.92 Support the continued presence and new development of small businesses serving the community along the commercial corridors of Colton Avenue and Orange Street.	
Action 4-A.93 Seek to improve the mix of office, professional, and service related businesses along Colton Avenue and Orange Street that will serve the neighborhood.	
Action 4-A.95 Promote infill development to create a continuous corridor of mixed-use and commercial activity.	
Action 4-A.96 Encourage site designs that create an active street frontage and screen parking from the Colton Avenue and Orange Street frontages	
Action 4-A.97 Encourage the development of bicycle, pedestrian, and transit access that reduces the need for on-site parking. Improve the pedestrian experience within these corridors through street trees and landscaping.	**Consistent.** As discussed in Section 3.0, *Project Description,* the TVSP would include various street, bicycle network, and pedestrian improvements that would promote alternative transportation and reduce the need for onsite parking within the TVSP area. The TVSP would promote development of mixed-uses within infill sites that would provide for walkable environments and access to public transportation.
Principle 4-P.41 Foster a connected, accessible, and active community by creating attractively designed pedestrian- and transit-oriented villages with a mix of uses in a compact area	
Principle 4-P.42 Provide for new jobs, housing, and entertainment opportunities in compact, walkable environments.	
Principle 4-P.43 Ensure that each Transit Village has a unique character and identity that reflects its existing assets and unique characteristics, and provides appropriate services at that location	**Consistent.** The proposed TVSP would largely maintain the existing character of each Transit Village, while providing design guidelines and infrastructure improvements that would enhance future developments within each Village and ensure they are compatible with existing developments.
Principle 4-P.44 Provide choices for travel options, including walking, biking, vehicular, and transit.	**Consistent.** As discussed in Section 3.0, *Project Description,* the TVSP would include various street, bicycle network, and pedestrian improvements that would promote alternative transportation and reduce the need for onsite parking within the TVSP area. The TVSP would promote
Principle 4-P.45 Accommodate all appropriate modes of transportation in Transit Villages, and promote seamless transitions between modes.	

Principle 4-P.46 Improve connectivity between Transit Villages and existing neighborhoods.	development of mixed-uses within infill sites that would provide for walkable and bikeable environments and access to public transportation.
Principle 4-P.47 Provide for appropriate transitions between Transit Villages and surrounding neighborhoods	**Consistent.** Implementing projects would be required to be consistent with the design standards set forth in Chapter 4 of the TVSP, which would ensure that they are designed in a manner compatible with surrounding development.
Principle 4-P.48 Provide development and infill opportunities as alternatives to building at the edges of the city	**Consistent.** The TVSP would provide for development of infill, mixed-use projects within the TVSP area, away from the edges of the City.
Principle 4-P.49 Allow residential and mixed-use projects in the Mixed Use Core at densities up to the High Density Residential standard.	**Consistent.** The TVSP would continue to allow for a higher levels of density and density bonuses in areas closer to transit, upon the provision of public benefits.
Principle 4-P.50 Allow for density bonuses in the Transit Village Overlay Zone contingent on the provision of public benefits. Density bonuses shall be a minimum of 25 percent within a quarter-mile of each transit station, and 10 percent in areas located between a quarter-mile and a half-mile radius of each transit station. Public benefits may include but are not limited to amenities such as a public park, plaza, or playground; enhanced streetscaping; public art; or participation in a voluntary transfer of development rights program.	
Principle 4-P.51 Complete a Transit Village Plan that will define: village character, design guidelines for architecture and site development, permitted and conditional uses, building setbacks and heights, yards, interfaces with the public streets and sidewalks, security measures, and transitions to existing neighborhoods.	**Consistent.** The TVSP provides guidelines for village character, design, permitted and conditional uses, building setbacks and heights, among other provisions.
Action 4-A.98 Create greater opportunity to intensify and consolidate land uses on adjacent parcels and connect existing assets through infill development.	**Consistent.** The TVSP would promote infill, mixed-use development on underutilized or vacant parcels within the TVSP area.
Action 4-A.99 Promote mixed uses to serve a range of users, including local workers and visitors to nearby tourist destinations.	**Consistent.** The TVSP would provide for a variety of mixed-uses that would serve residents, local workers, and visitors to the city.
Action 4-A.100 Provide streetscape improvements along the major corridors of California Street and Redlands Boulevard to enhance comfort and safety for all modes of travel.	**Consistent.** As discussed in Section 3.0, pedestrian improvements within the TVSP include enhancement of the sidewalk system along Redlands Boulevard in order to increase pedestrian and bicycle connectivity and safety.
Action 4-A.103 Preserve citrus groves for visual effect and to distinguish the station area from others	**Consistent.** The TVSP includes provisions for preservation of existing citrus groves.
Action 4-A.105 Create an active and compact transit-oriented core with a mix of residential and commercial/office uses. Allow for the reuse of commercial sites as office centers.	**Consistent.** The TVSP would provide for development of infill, mixed-use projects within the TVSP area, which would promote multi-modal transportation and the reuse of existing, blighted commercial sites.
Action 4-A.106 Add new streets to create a finer grained (shorter blocks), pedestrian scaled road network, connecting residential areas to parks and the Mixed Use Core.	**Consistent.** As discussed in Section 3.0, the TVSP includes provisions for the addition of new streets in certain areas in order to provide pedestrian-scaled blocks.
Action 4-A.107 Provide streetscape improvements along the major corridors of Alabama Street and Redlands Boulevard to enhance comfort and safety for all modes of travel and strengthen north-south connections between major destinations and east-west routes.	**Consistent.** As discussed in Section 3.0, pedestrian improvements within the TVSP include enhancement of the sidewalk system along Redlands Boulevard in order to increase pedestrian and bicycle connectivity and safety and promote multi-modal transportation.
Action 4-A.108 Establish boulevards along Redlands Boulevard and Colton Avenue with pedestrian-oriented streetscape improvements and ground-floor active uses.	**Consistent.** As discussed in Section 3.0, pedestrian improvements within the TVSP include enhancement of the sidewalk system along Redlands Boulevard and Colton

	Avenue in order to increase pedestrian and bicycle connectivity and safety and promote multi-modal transportation.
Action 4-A.109 Ensure that adequate parkland is available to serve new residents and employees in the area.	**Consistent.** As shown on Draft EIR Figure 3-12, the TVSP would include provisions for new open space and parkland within the TVSP area in order to ensure there is adequate parkland to serve new residents and employees within the TVSP area.
Action 4-A.110 Implement bicycle route improvements that provide strong east-west connections to other Transit Villages and the city's wider bicycle network. Routes would include the Orange Blossom Trail and potentially a trail along Redlands Boulevard in this location.	**Consistent.** As shown on Draft EIR Figure 3-11, the TVSP would include provisions for various bicycle infrastructure improvements.
Action 4-A.112 Create an active and compact transit-oriented core with office uses that provide opportunities for jobs and innovation, as well as commercial and residential uses to serve the needs of the area's workers.	**Consistent.** The TVSP would promote infill, mixed-use transit-oriented development and include multiple pedestrian and bicycle network improvements that would allow for an active and compact core near Arrow Line stations. This mixed-use development would allow for office, commercial, and residential uses within the vicinity of public transit.
Action 4-A.113 Provide streetscape improvements along the major corridors of Colton Avenue, Texas Street, and Redlands Boulevard to enhance comfort and safety for all modes of travel and increase accessibility to and from surrounding areas	**Consistent.** As discussed in Section 3.0, pedestrian improvements within the TVSP include enhancement of the sidewalk system along Redlands Boulevard, Texas Street, and Colton Avenue in order to increase pedestrian and bicycle connectivity and safety and promote multi-modal transportation.
Action 4-A.114 Establish boulevards along Redlands Boulevard and Colton Avenue with pedestrian-oriented streetscape improvements and ground-floor active uses	
Action 4-A.115 Provide pedestrian routes between offices, neighborhoods, and Downtown	**Consistent.** As shown on Draft EIR Figure 3-10, the TVSP would include various pedestrian network improvements that would provide connections between office, neighborhoods, and the Downtown Village.
Action 4-A.116 Implement bicycle route improvements that provide strong east-west connections to other Transit Villages as well as north-south connections to improve access to existing neighborhoods to the north. Routes would include the Orange Blossom Trail, the Lugonia Trail on New York Street, and a route along Texas Street	**Consistent.** As shown on Draft EIR Figure 3-11, the TVSP would include provisions for various bicycle infrastructure improvements.
Action 4-A.117 Implement intersection improvements, including pedestrian improvements, at the I-10 undercrossings at New York and Texas Street to increase comfort and safety for all modes of travel	**Consistent.** As shown on Draft EIR Figure 3-10, the TVSP would include provisions for various pedestrian infrastructure improvements, including intersection improvements.
Action 4-A.118 Ensure safe railway crossings at Tennessee Street, Texas Street, and New York Street for bicyclists and pedestrians	**Consistent.** As shown on Draft EIR Figures 3-10 and 3-11, the TVSP would include provisions for various pedestrian and bicycle infrastructure improvements, including provisions for railway crossings.
Action 4-A.119 Maintain single-family residential neighborhoods designated as low- and low medium-density residential in the General Plan within the TVOZ. Transition higher density housing when adjacent to these neighborhoods.	**Consistent.** As discussed in Section 3.0, the Village Neighborhood 1 and Village Neighborhood 2 districts would provide for smaller form residential uses and would provide a transition from higher density housing to existing residential neighborhoods.
Action 4-A.120 Complete and implement an update of the Downtown Specific Plan to create a cohesive town center with amenities and pedestrian-oriented streets.	**Consistent.** The TVSP would replace the Downtown Specific Plan and would provide for an increase of amenities and pedestrian accessibility in the Downtown area.
Action 4-A.121 Encourage a centrally-located mix of uses to promote activity and economic vitality.	**Consistent.** The TVSP would encourage mixed-use, infill development within the TVSP area that would be centrally-located to Arrow Line station and promote activity and economic vitality.

Action 4-A.122 Maintain a distinctive character that builds on Downtown's many historic features and its citrus heritage	**Consistent.** Implementing mixed-use projects would be required to be consistent with the design standards set forth in Chapter 4 of the TVSP, which would ensure that they are designed in a manner compatible with surrounding development, including historic buildings.
Action 4-A.123 Promote the reuse of citrus packing houses, historic warehouses, and other historic commercial buildings to create a destination for residents and tourist	**Consistent.** The TVSP promotes the reuse of existing, vacant buildings with mixed-use development. Chapter 4 of the TVSP includes provisions for development and reuse of historic buildings and requires that implementing developments adhere to the recommendations of the Secretary of the Interior's *Standards for Rehabilitation and Illustrated Guidelines for Rehabilitation of Historic Structures and/or the Redlands Historic Architectural Design Guidelines*.
Action 4-A.124 Ensure accessibility within the Transit Village to arts and cultural venues and programming.	**Consistent.** The TVSP includes street, bicycle infrastructure, and pedestrian infrastructure improvements that would enhance multi-modal connections to cultural venues such as the Redlands Bowl and the Smiley Library.
Action 4-A.129 Improve the I-10 undercrossing at Eureka Street, Orange Street, and 6th Street to increase comfort and safety for all modes of travel and enhance north-south circulation.	**Consistent.** As shown on Draft EIR Figure 3-10, the TVSP would include provisions for multiple pedestrian infrastructure improvements, including improved I-10 undercrossings.
Action 4-A.131 Provide more multi-family housing for university students, staff, and other members of the community in the Mixed Use Core and adjacent residential areas.	**Consistent.** Buildout of the TVSP would include the development of up to 2,400 multi-family dwelling units within the TVSP area, which would provide an increase of housing in the city.
Action 4-A.132 Create opportunities for ground-floor commercial uses, such as restaurants and cafes, retail, and professional services to serve university students, staff, and neighborhood residents in the Mixed Use Core.	**Consistent.** The proposed TVSP would promote mixed-use development throughout the TVSP area, with commercial uses, such as commercial retail or restaurant uses, focused on the first floor and multi-family residential uses or office space on higher floors. The mixed-use development promoted by the TVSP would provide for easily accessible neighborhood commercial uses.
Action 4-A.133 Promote pedestrian circulation between the station, homes, schools, and parks, with primary routes along multi-purpose trails (the Orange Blossom and Mill Creek Zanja trails), Citrus Avenue, and University Street	**Consistent.** As shown on Draft EIR Figure 3-10, the TVSP would include provisions for multiple pedestrian infrastructure improvements in order to enhance pedestrian connectivity in the TVSP area.
Action 4-A.134 Implement bicycle route improvements that enhance circulation between the station, homes, schools, and parks and provide connections to Downtown. Routes would include the Orange Blossom Trail, the Mill Creek Zanja Trail, and routes on Citrus Avenue, University Street, and Colton Avenue	**Consistent.** As shown on Draft EIR Figure 3-11, the TVSP would include provisions for multiple bicycle infrastructure improvements in order to enhance bicycle connectivity in the TVSP area.
Action 4-A.135 Improve the I-10 undercrossing at Sylvan Boulevard to allow safe trail connections along the Mill Creek Zanja **Action 4-A.136** Improve the I-10 undercrossings at University Street and Citrus Avenue to allow safe and comfortable access for vehicles, pedestrians, and cyclists	**Consistent.** As shown on Draft EIR Figure 3-10, the TVSP would include provisions for multiple pedestrian infrastructure improvements, including improved I-10 undercrossings.
Action 4-A.137 Establish a boulevard along University Street from I-10 to Colton Avenue.	**Consistent.** As shown on Draft EIR Figure 3-9, the TVSP would include provisions for multiple street improvements, including transforming University Street into a gateway and multi-modal street.
Principle 4-P.56 Ensure that public facilities and services are provided in a timely manner to adequately serve new and existing development.	**Consistent.** As discussed in Section 5.12, *Public Services,* buildout of the TVSP would not result in significant impacts related to public services from the increased residential or employee population in the TVSP area. Implementing projects would be required to pay all development impact

	fees in order to ensure that the City can continue to provide adequate public services.
Principle 4-P.58 Coordinate with the Redlands Unified School District to ensure that facilities and services are provided at a high quality and consistent with the population's needs.	**Consistent.** As discussed in Section 5.12, *Public Services,* buildout of the TVSP would not result in significant impacts related to school services from the increased residential or employee population in the TVSP area. Implementing projects would be required to pay all school fees in order to ensure that the Redlands Unified School District can continue to provide adequate school facilities for students.
Action 4-A.148 Coordinate future development with the City's Capital Improvement Program to ensure adequate funding and planning for needed public services and facilities.	**Consistent.** As discussed in Section 5.12, *Public Services,* buildout of the TVSP would not result in significant impacts related to public services from the increased residential or employee population in the TVSP area. Implementing projects would be required to pay all development impact fees in order to ensure that the City can continue to provide adequate public services.
Action 4-A.157 Include the Police and Fire departments in the review of new developments to provide feedback on building and site design safety	**Consistent.** As discussed in Section 5.12, *Public Services,* implementing projects pursuant to the TVSP would be required to undergo review by the Redlands Police and Fire Departments in order to ensure they provide adequate safety features.
Principle 5-P.1 Maintain a cohesive circulation system through a "layered network" approach promoting complete streets and mobility for all modes while emphasizing specific transportation modes for specific corridors and geographic areas	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area.
Principle 5-P.4 Support transportation infrastructure improvements such as safer street crossings and attractive streetscapes to encourage bicyclists, walkers, and users of mobility device	
Principle 5-P.6 Support public health by promoting active living and supporting safe walking and biking throughout the city	
Principle 5-P.10 Require developers to construct or pay their fair share toward improvements for all travel modes consistent with the layered network.	**Consistent.** Implementing development projects would be required to construct or pay their fair share toward street, pedestrian infrastructure, and bicycle infrastructure improvements upon review of project designs by the City.
Principle 5-P.13 Ensure streets are designed to accommodate bicyclists per the Bicycle Master Plan.	**Consistent.** As shown on Draft EIR Figure 3-11, the TVSP would include provisions for bicycle infrastructure improvements, per the City's Bicycle Master Plan, in order to enhance multi-modal transportation and connectivity in the TVSP area.
Principle 5-P.14 Design streets to accommodate various modes according to roadway classification and reduce conflicts and safety risks between modes per Figure 5-4.	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area. These improvements would reduce conflicts between various forms of transportation and promote motorist, pedestrian, and bicyclist safety.
Principle 5-P.15 Incorporate green infrastructure into the design of new roadways and retrofit existing roadways where appropriate	**Consistent.** Chapter 4 of the TVSP includes design guidelines for street improvements, such as guidelines for provision of street trees.
Principle 5-P.16 Strengthen active transportation circulation routes within Downtown and the Transit Villages, and to/ from adjacent neighborhoods.	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area.

Action 5-A.1 Maintain and update design standards for each functional roadway classification per Figure 5-4. These standards are for a typical midblock application. Additional turn lanes may be needed at some intersection approaches. Different standards may govern in specific plan areas and variations are permitted given site conditions and right-of-way availability.	**Consistent.** Chapter 4 of the TVSP contains design standards for various roadway classifications and roadway improvements.
Action 5-A.2 Integrate complete streets and a layered networks approach into all City streets, traffic standards, plans, and details.	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area.
Action 5-A.3 Ensure new street design and potential retrofit opportunities for existing streets minimize traffic volumes and/or speed as appropriate within residential neighborhoods without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices. This could be accomplished through: • Management and implementation of complete street strategies, including retrofitting existing streets to foster biking and walking as appropriate; • Short block lengths, reduced street widths, and/or traffic calming measures; and • Providing pedestrians and bicyclists with options where motorized transportation is prohibited	
Action 5-A.5 As part of street redesigns, plan for the needs of different modes – such as shade for pedestrians, lighting at pedestrian scale, mode-appropriate signage, transit amenities, etc	
Action 5-A.6 Add bike and pedestrian facilities on roads with excess capacity where such facilities do not exist, using supporting transportation plans as guidance. Excess capacity includes street right-of-ways or pavement widths beyond the standards, or excess capacity in roadways based on actual vehicular travel versus design capacity.	
Action 5-A.7 Add new streets to create a finergrained, pedestrian-scaled road network where the roadway network is characterized by particularly long blocks, connecting residential areas to parks and Transit Village cores. Ensure the street systems in Transit Villages support development of connected and accessible communities.	
Action 5-A.14 Close the gaps in the sidewalk network where streets are built out but sidewalks are not complete.	
Action 5-A.15 Maintain access for emergency vehicles and services by providing two means of ingress/egress into new communities, limitations on the length of cul-de-sacs, proper roadway widths and road grades, adequate turning radius, and other requirements per the California Fire Code.	**Consistent.** Implementing projects would undergo development plan review, including review of emergency access points, in order to ensure that proposed roadways or driveways meet the requirements of the California Fire Code.
Principle 5-P.17 Provide a safe, direct, and healthful pedestrian environment through means such as providing separate pedestrian-ways in parking lots, avoiding excessive driveway widths, and providing planting strips between sidewalks and streets where feasible.	**Consistent.** As shown on Figures 3-9 and 3-10, the TVSP would include provisions for multiple street and pedestrian infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area. In addition, Chapter 4 of the TVSP provides design guidelines for pedestrian infrastructure improvements that would serve to enhance the pedestrian network within the TVSP area. The pedestrian network would provide connections
Principle 5-P.18 Encourage creative walking paths pursuant to City planning codes, local, State, and federal laws.	

Principle 5-P.19 Enhance street lighting for pedestrians where current lighting is inadequate.	between the three Transit Villages and neighborhoods outside of the TVSP area.
Principle 5-A.20 Provide pedestrian routes between offices, neighborhoods, Downtown, and Transit Villages. Plan for direct connections from the interiors of residential tracts to neighboring parks, schools, retail, and other services using sidewalks, trails, and paseos.	
Principle 5-A.22 Include amenities such as shade trees, transit shelters and other transit amenities, benches, trash and recycling receptacles, bollards, public art, and directional signage that can enhance the pedestrian experience.	
Principle 5-P.20 Establish and maintain a comprehensive network of on- and off-roadway bike routes to encourage the use of bikes for both commuter and recreational trips.	**Consistent.** As shown on Draft EIR Figures 3-9 and 3-11, the TVSP would include provisions for multiple street and bicycle infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area. In addition, Chapter 4 of the TVSP provides design guidelines for bicycle infrastructure improvements that would serve to enhance the bicycle network within the TVSP area. The bicycle network would provide connections between the three Transit Villages, Arrow Line station, and neighborhoods outside of the TVSP area.
Principle 5-P.21 Develop bike routes that provide access to rail stations, Downtown, schools, parks, the University, employment, and shopping destinations.	
Action 5-A.25 Implement bicycle and trail improvements that provide strong east-west connections between Transit Villages and in the city's wider bicycle network. Routes would include the Orange Blossom Trail, the Mission Creek Zanja Trail, routes on Colton Avenue and Citrus Avenue, Santa Ana River Trail, and the San Timoteo Canyon Trail.	
Action 5-A.26 Implement bicycle and trail improvements that provide strong north-south connections, especially with major east west trails, including routes on Mountain View Avenue, California Street, Nevada Street, Alabama Street, Texas Street, New York Street, Orange Street, Church Street, Dearborn Street, and Wabash Avenue.	
Action 5-A.44 Establish new boulevards Downtown and in the Transit Villages that include planted center medians, accommodations for transit, wider sidewalks, and amenities for pedestrians	**Consistent.** As shown on Draft EIR Figures 3-9 and 3-10, the TVSP would include provisions for multiple street and pedestrian infrastructure improvements in order to enhance multi-modal transportation and connectivity in the TVSP area. In addition, Chapter 4 of the TVSP provides design guidelines for pedestrian infrastructure improvements that would serve to enhance the pedestrian network within the TVSP area. The pedestrian network would provide connections between the three Transit Villages, Arrow Line stations, bus routes, and neighborhoods outside of the TVSP area.
Action 5-A.67 Encourage convenient and safe pedestrian linkages to and from transit service to provide better first-mile and last-mile connectivity	
Action 5-A.68 Provide for direct pedestrian paths and access from new developments to the nearest public transportation stop.	
Action 5-A.73 Provide adequate parking availability Downtown for residents, commuters, visitors, and shoppers throughout the day.	**Consistent.** Chapter 4 of the TVSP includes parking design standards and parking requirements that include provisions for parking structures and shared parking, which would ensure that there is an adequate parking supply within the TVSP area.
Action 5-A.74 Design parking to meet applicable urban design goals from area plans and minimize negative impacts on pedestrians, bicyclists, and transit users.	
Action 5-A.77 Encourage developers to meet their minimum parking requirements via shared parking between uses, payment of in-lieu fees, joint parking districts, or off-site parking within a reasonable walking time of 10 minutes or less	
Principle 6-P.10 Landscape public areas using native vegetation where practical.	**Consistent.** Chapter 4 of the TVSP includes design guidelines for landscaping, which encourage the use of

	native and drought-tolerant vegetation by implementing developments.
Action 6-A.35 Promote the use of Low Impact Development strategies, BMPs, pervious paving materials, and on-site infiltration for treating and reducing stormwater runoff before it reaches the municipal stormwater system.	**Consistent.** As discussed in Section 5.8, *Hydrology and Water Quality,* implementing developments would be required to prepare a Water Quality Management Plan that includes post-development BMPs and a Stormwater Pollution Prevention Plan that includes construction BMPs in order to ensure that implementing projects would not result in any water quality issues.
Action 6-A.36 Require measures during construction and post construction to limit land disturbance activities such as clearing and grading and cut-and-fill; avoid steep slopes, unstable areas, and erosive soils; and minimize disturbance of natural vegetation and other physical or biological features important to preventing erosion or sedimentation	
Action 6-A.39 Require that new development provides landscaping and revegetation of graded or disturbed areas with drought-tolerant native or non-invasive plants.	**Consistent.** Chapter 4 of the TVSP includes design guidelines for landscaping, which encourage the use of native and drought-tolerant vegetation by implementing developments.
Action 7-P.1 Promote active lifestyles and community health by furthering access to trails, parks, public open space, and other recreational opportunities.	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and access to trails, parks, and public open space in the TVSP area.
Principle 7-P.10 Equitably share the cost of parkland creation and maintenance between existing and new residents, businesses, and property owners	**Consistent.** As discussed in Section 5.13, *Recreation,* buildout of the TVSP would not result in significant impacts related to recreational facilities from the increased residential or employee population in the TVSP area. Implementing projects would be required to pay all development impact fees in order to ensure that the City can continue to provide adequate recreational facilities.
Action 7-A.3 Provide 5 acres of park area for each 1,000 Planning Area residents, and additional parkland for specialized, and low-use park acreage.	**Consistent.** As discussed in Section 5.13, *Recreation,* buildout of the TVSP would not result in significant impacts related to recreational facilities from the increased residential or employee population in the TVSP area. Implementing projects would be required to pay all development impact fees in order to ensure that the City can continue to provide adequate recreational facilities. Additionally, as discussed in Section 3.0, buildout of the TVSP would result in the increase of parkland in the TVSP area by 280,000 SF.
Principle 7-P.16 Ensure that all Redlands residents have access to a variety of transportation and physical activity options that enhance health and that work for diverse lifestyles, incomes, and abilities	**Consistent.** As shown on Draft EIR Figures 3-9, 3-10, and 3-11, the TVSP would include provisions for multiple street, pedestrian infrastructure, and bicycle infrastructure improvements in order to enhance multi-modal transportation and access to trails, parks, and public open space in the TVSP area.
Principle 7-P.17 Achieve more walkable, livable neighborhoods by expanding the multimodal transportation system and creating a safe, pedestrian-oriented environment	
Action 7-A.35 Implement street design features that facilitate walking and biking in both new and established areas. Require a mini - mum standard of these features for all new developments.	
Action 7-A.39 Install appropriate facilities along streets and at roadway intersections to improve and insure pedestrian safety.	
Action 7-A.89 Require adherence to applicable buildings codes and standards in accordance with Fire	**Consistent.** Implementing projects pursuant to the TVSP would undergo development review pursuant to the TVSP

Hazard Overlay Districts, California Fire Code, and the California Building Code.	in order to ensure that the development would adhere to all applicable building codes and standards. Proposed development plans would be reviewed by the City's Fire Department in order to ensure that new development minimizes potential fire hazards through building design.
Action 7-A.93 Require that new development minimizes risks to life and property from fire hazard through: • Assessing site-specific characteristics such as topography, slope, vegetation type, wind patterns etc.; • Siting and designing development to avoid hazardous locations; • Incorporating fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to environmentally sensitive habitat to the maximum feasible extent; • Using appropriate building materials and design features to ensure the minimum amount of required fuel modification; and • Using fire-retardant, native plant species in landscaping.	
Action 7-A.95 Coordinate with the Redlands Fire Department and other fire prevention agencies to review all applications for new development. The Fire Department's review should ensure compliance with fire safety regulations and assess potential impacts to existing fire protection services and the need for additional and expanded services	
Principle 7-P.41 Ensure that new development is compatible with the noise environment by continuing to use potential noise exposure as a criterion in land use planning	**Consistent.** As discussed in Section 5.10, *Noise*, new development would be required to be compatible with the existing noise environment through implementation of Mitigation Measures NOI-5 and NOI-6. Implementing developments within areas where projected noise levels are higher would be required to submit an acoustical analysis demonstrating that the project would meet the applicable noise standards.
Action 7-A.136 Require a noise analysis be conducted for all development proposals located where projected noise exposure would be other than "clearly" or "normally compatible" as specified in Table 7-10.	
Action 7-A.137 For all projects that have noise exposure levels that exceed the standards in Table 7-10, require site planning and architecture to incorporate noise-attenuating features. With mitigation, development should meet the allowable outdoor and indoor noise exposure standards in Table 7-11. When a building's openings to the exterior are required to be closed to meet the interior noise standard, mechanical ventilation shall be provided	
Action 7-A.138 Continue to maintain performance standards in the Municipal code to ensure that noise generated by proposed projects is compatible with surrounding land uses	**Consistent.** As discussed in Section 5.10, *Noise*, new development would be required to be compatible with the existing noise environment through implementation of Mitigation Measure NOI-7. Implementing non-residential developments would be required to prepare a noise analysis in order to ensure that the proposed project would not result in impacts to sensitive receptors.
Action 9.0w Limit hours for all construction or demolition work where site-related noise is audible beyond the site boundary	**Consistent.** As discussed in Section 5.10, *Noise*, new development would be constructed pursuant to the Redlands Municipal Code, which limits hours of construction.
Principle 7-P.49 Protect sensitive receptors from exposure to hazardous concentrations of air pollutants.	**Consistent.** As discussed in Section 5.2, *Air Quality*, Mitigation Measure AQ-10 is included, which requires development projects to provide modeling of the regional and the localized emissions (NO_x, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development; and requires grading activity

	to be limited to ensure that there would be no impacts to sensitive receptors.
Action 8-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects.	**Consistent.** Implementing projects pursuant to the TVSP would be required to implement Mitigation Measure AQ-7, which requires projects be designed to achieve 5 percent (%) efficiency beyond the incumbent California Building Code Title 24 requirements.
Action 8-A.10 Integrate trees and shade into the built environment to mitigate issues such as stormwater runoff and the urban heat island effect.	**Consistent.** Chapter 4 of the TVSP includes provisions for landscaping, such as street trees, to be included by implementing projects.
Action 8-A.37 Promote design in new development that incorporates space for recycling containers and other waste diversion facilities	**Consistent.** Implementing projects pursuant to the TVSP would be required to provide for recycling, in line with City Municipal Code standards.
Action 8-A.39 Continue implementation and enforcement of the California Building and Energy codes to promote energy efficient building design and construction.	**Consistent.** Implementing projects pursuant to the TVSP would be required to implement Mitigation Measure AQ-7, which requires projects be designed to achieve 5 percent (%) efficiency beyond the incumbent California Building Code Title 24 requirements.
Action 8-A.40 Promote the Leadership in Energy and Environmental Design (LEED) certification program for the design, operation, and construction of high-performance green buildings	

City of Redlands Municipal Code

Upon adoption of the proposed Specific Plan, the development regulations and design criteria within the Specific Plan would apply to the project area and would establish the applicable zoning regulations and development standards. The Specific Plan would become the main land use implementation tool for the project area. In the event of any conflict between the requirements of the zoning code and the standards contained within the adopted Specific Plan, the requirements of the Specific Plan shall govern, and when the provisions of a Specific Plan are silent on a specific matter, the regulations set forth in the City's Municipal Code shall apply. As such, the proposed Specific Plan would not result in conflicts with the City of Redlands zoning code, and impacts would be less than significant.

5.9.7 CUMULATIVE IMPACTS

The geographic context for this cumulative analysis includes the City of Redlands in relation to the City's General Plan. Cumulative development would result in intensity increases to existing land use patterns through implementation of mixed-use, infill and redevelopment. Cumulative development would also be subject to site-specific environmental and planning reviews that would address consistency with adopted General Plan goals, objectives, and policies, as well as with the City's Zoning Code. As part of environmental review, projects would be required to provide mitigation for any inconsistencies with the General Plan and environmental policies that would result in adverse physical environmental effects. The cumulative projects as a whole, would result in a more intensely developed built environment than currently exists, and would be required to be consistent with local General Plan policies.

While cumulative projects could include General Plan amendments and/or zone changes, modifications to existing land uses that require such amendments do not necessarily represent an inherent negative effect on the environment, particularly if the proposed changes involve changes in types and intensity of uses, rather than eliminating application of policies that were specifically adopted for the purpose of avoiding or mitigating environmental effects. Determining whether any future project might include such amendments and determining the cumulative effects of any such amendments would be speculative since it cannot be known what applications that are not currently filed might request. Thus, it is expected that the land uses of

cumulative projects would be consistent with policies that avoid an environmental effect; therefore, cumulatively considerable impacts from cumulative projects related to policy consistency would not occur.

5.9.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- City of Redlands Municipal Code

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.9.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impact LU-2 would be less than significant:

5.9.10 MITIGATION MEASURES

No mitigation measures are required.

5.9.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Existing regulatory programs would reduce potential impacts associated with land use and planning to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to land use and planning would occur.

REFERENCES

City of Redlands (City Zoning 2021), Zoning Map, https://www.cityofredlands.org/sites/main/files/file-attachments/zoning.pdf?1633557844 (accessed December 6, 2021)

City of Redlands (GP2035 EIR), General Plan 2035 Environmental Impact Report, https://www.cityofredlands.org/post/planning-division-general-plan (accessed December 3, 2021)

City of Redlands (GP2035), General Plan 2035, https://www.cityofredlands.org/post/planning-division-general-plan (accessed December 3, 2021)

City of Redlands, Draft Transit Villages Specific Plan, http://redlandstransitvillages.org

5.10 Noise

5.10.1 INTRODUCTION

This Draft EIR section evaluates the potential noise and vibration impacts that would result from implementation of the proposed TVSP. It discusses the existing noise environment within and around the TVSP area as well as the regulatory framework for regulation of noise. This section analyzes the effect of the proposed Project on the existing ambient noise environment during demolition, construction, and operational activities; and evaluates the proposed Project's noise effects for consistency with relevant local agency noise policies and regulations. This section includes data from the following:

- *City of Redlands 2035 General Plan*, 2017
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (GP EIR), 2017
- *City of Redlands Municipal Code*
- *Transit Villages District and Specific Plan Noise Impact and Vibration Analysis*, Urban Crossroads, 2022, Appendix G.

Noise and Vibration Terminology

Various noise descriptors are utilized in this EIR analysis, and are summarized as follows:

dB: Decibel, the standard unit of measurement for sound pressure level.

dBA: A-weighted decibel, an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

Leq: The equivalent sound level, which is used to describe noise over a specified period of time, typically 1 hour, in terms of a single numerical value. The Leq of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The Leq may also be referred to as the average sound level.

Lmax: The instantaneous maximum noise level experienced during a given period of time.

Lmin: The instantaneous minimum noise level experienced during a given period of time.

Lx: The sound level that is equaled or exceeded "x" percent of a specified time period. The "x" thus represents the percentage of time a noise level is exceeded. For instance, L50 and L90 represents the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.

Ldn: Also termed the "day-night" average noise level (DNL), Ldn is a measure of the average of A-weighted sound levels occurring during a 24-hour period, accounting for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: The Community Noise Equivalent Level, which, similar to the Ldn, is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dBA to measured noise levels between the hours of 7:00 p.m. to 10:00 p.m. and after an addition of 10 dBA to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

The "ambient noise level" is the background noise level associated with a given environment at a specified time and is usually a composite of sound from many sources from many directions.

Effects of Noise

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance)
- Interference effects (e.g., communication, sleep, and learning interference)
- Physiological effects (e.g., startle response)
- Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects refer to interruption of daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be by those hearing it. With regard to increases in A-weighted noise levels, the following relationships generally occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3-dBA change in noise levels is considered to be a barely perceivable difference.
- A change in noise levels of 5 dBA is considered to be a readily perceivable difference.
- A change in noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

Noise Attenuation

Stationary point sources of noise, including mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 dBA per doubling of distance from the source over hard surfaces to 7.5 dBA per doubling of distance from the source over hard surfaces, depending on the topography of the area and environmental conditions (e.g., atmospheric conditions, noise barriers [either vegetative or manufactured]). Thus, a noise measured at 90 dBA 50 feet from the source would attenuate to about 84 dBA at 100 feet, 78 dBA at 200 feet, 72 dBA at 400 feet, and so forth. Widely distributed noise, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling of distance from the source.

Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles)

attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.

Fundamentals of Vibration

Vibration is energy transmitted in waves through the ground or man-made structures. These energy waves generally dissipate with distance from the vibration source. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. VdB serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

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.

5.10.2 REGULATORY SETTING

5.10.2.1 Federal Regulations

Federal Highway Administration

Proposed federal or federal-aid highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes, requires an assessment of noise and consideration of noise abatement per 23 CFR Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." The Federal Highway Administration (FHWA) has adopted noise abatement criteria (NAC) for sensitive receivers such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA Leq. Caltrans has further defined approaching the NAC to be 1 dBA below the NAC for noise-sensitive receivers identified as Category B activity areas (e.g., 66 dBA Leq is considered approaching the NAC).

US Environmental Protection Agency

In addition to FHWA standards, the United States Environmental Protection Agency (EPA) has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an Leq of 55 dBA and interior levels at or below 45 dBA. While these levels are relevant for planning and design and useful for informational purposes, they are not land

use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA also set 55 dBA Ldn as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA Ldn, have settled on the 65 dBA Ldn level as their standard. At 65 dBA Ldn, activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Such limitations would apply to the operation of construction equipment and could also apply to any proposed industrial land uses. Noise exposure of this type is dependent on work conditions and is addressed through a facility's Health and Safety Plan, as required under OSHA, and is therefore not addressed further in this analysis.

US Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set a goal of 65 dBA Ldn as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dBA.

5.10.2.2 State Regulations

Title 24, California Building Code

State regulations related to noise include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior sources, the noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room and, where such units are proposed in areas subject to noise levels greater than DNL 60 dBA require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. If the interior noise level depends upon windows being closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

The mandatory measures for non-residential buildings states that new construction shall provide an interior noise level that does not exceed an hourly equivalent level of 50 dBA Leq in occupied areas during any hour of operation. Title 24 standards are included in the City's Municipal Code in Chapter 15 and are enforced through the City's development permitting process.

5.10.1.3 Local Regulations

City of Redlands 2035 General Plan

The General Plan Healthy Community Element contains the following policies related to noise that are applicable to the Project:

Principle 7-P.40 Protect public health and welfare by eliminating existing noise problems where feasible and by preventing significant degradation of the future acoustic environment.

Principle 7-P.41 Ensure that new development is compatible with the noise environment by continuing to use potential noise exposure as a criterion in land use planning.

Action 7-A.135 Use the noise and land use compatibility matrix (Table 7-10) and Future Noise Contours map (Figure 7-9) as criteria to determine the acceptability of a given land use, including the improvement/construction of streets, railroads, freeways, and highways. Do not permit new noise-sensitive uses—including schools, hospitals, places of worship, and homes—where noise levels are "normally unacceptable" or higher, if alternative locations are available for the uses in the city.

Action 7-A.136 Require a noise analysis be conducted for all development proposals located where projected noise exposure would be other than "clearly" or "normally compatible" as specified in Table 7-10.

Action 7-A.137 For all projects that have noise exposure levels that exceed the standards in Table 7-10, require site planning and architecture to incorporate noise-attenuating features. With mitigation, development should meet the allowable outdoor and indoor noise exposure standards in Table 7-11. When a building's openings to the exterior are required to be closed to meet the interior noise standard, mechanical ventilation shall be provided.

Action 7-A.138 Continue to maintain performance standards in the Municipal code to ensure that noise generated by proposed projects is compatible with surrounding land uses.

Action 7-A.141 Require all future developments within the city that fall within the required noise screening distances, as specified in the Federal Transit Authority (FTA) Noise and Vibration Manual, of the Union Pacific railroad in San Timoteo Canyon to conduct a detailed noise analysis.

Table 7-10 (included as Table 5.10-1) of the General Plan Healthy Community Element identifies the specific criteria to evaluate proposed developments based on exterior and interior noise level limits for land uses and requires a noise analysis to determine needed mitigation measures if necessary. The Healthy Community Element identifies schools, hospitals, places of worship, and homes as a noise-sensitive land use.

Also, as shown on Table 5.10-2, the City of Redlands General Plan has an exterior (outdoor) noise standard of 60 dBA CNEL related to private yards of single-family residences as measured at the property line; multifamily private patios or balconies which is served by a means of exit from inside; mobile home parks; hospital patios; park picnic areas; school playgrounds; hotel and recreational areas. In addition, the General Plan includes an interior noise level limit of 45 dBA CNEL for residential land uses.

Measure U. The City of Redlands General Plan incorporates the implementing noise polices from Measure U. Measure U was certified by The City of Redlands in 1997 to address impacts from growth. The measure includes Project applicable provisions related to potential noise impacts and mitigation, as listed below.

Measure U 9.0e Use the criteria specified in GP Table 9.1 [Table 7-10] to assess the compatibility of proposed land uses with the projected noise environment and apply the noise standards in GP Table 9.2 [Table 7-11], which prescribe interior and exterior noise standards in relation to specific land uses. Do not approve projects that would not comply with the standards in GP Table 9.2 [Table 7-1]. These tables are the primary tools which allow the City to ensure noise-integrated planning for compatibility between land uses and outdoor noise.

Measure U 9.0f Require a noise impact evaluation based on noise measurements at the site for all projects in Noise Referral Zones (B, C, or D) as shown on GP Table 9.1 [Table 7-10] and on GP Figure 9.1 [Figure 7-9] or as determined from tables in the Appendix, as part of the project review process. Should measurements indicate that unacceptable noise levels will be created or experienced, require mitigation measures based on a detailed technical study prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California with a minimum of three years' experience in acoustics).

Measure U 9.0h Minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures.

Measure U 9.0i Require construction of barriers to mitigate sound emissions where necessary or where feasible and encourage use of walls and berms to protect residential or other noise sensitive land uses that are adjacent to major roads, commercial, or industrial areas.

Measure U 9.0j Require the inclusion of noise mitigation measures in the design of new roadway projects.

Measure U 9.0s Require mitigation to ensure that indoor noise levels for residential living spaces not exceed 45 dB LDN/CNEL due to the combined effect of all exterior noise sources.

Measure U 9.0t Require proposed commercial projects near existing residential land use to demonstrate compliance with the Community Noise Ordinance prior to approval of the project.

Measure U 9.0u Require all new residential projects or replacement dwellings to be constructed near existing sources of non-transportation noise (including but not limited to commercial facilities or public parks with sports activities) to demonstrate via an acoustical study conducted by a Registered Engineer that the indoor noise levels will be consistent with the limits contained in the Community Noise Ordinance.

Measure U 9.0v Consider the following impacts as possibly "significant":

- An increase in exposure of four or more dB if the resulting noise level would exceed that described as clearly compatible for the affected land use, as established in GP Table 9.1 [Table 7-10] and GP Table 9.2 [Table 7-11];
- Any increase of six dB or more, due to the potential for adverse community response.

Measure U 9.0w Limit hours for all construction or demolition work where site-related noise is audible beyond the site boundary.

Measure U 9.0y Minimize impacts of loud trucks by requiring that maximum noise levels due to single events be controlled to 50 dB in bedrooms and 55 dB in other habitable spaces.

Table 5.10-1: City of Redlands General Plan Noise/Land Use Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)							
Categories	**Uses**	<	60	65	70	75	80	85	>
RESIDENTIAL	Single Family, Duplex Multiple Family	A	C	C	C		D	D	D
RESIDENTIAL	Mobile Homes	A	C	C	C		D	D	D
COMMERCIAL Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B		C	C	D
COMMERCIAL Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A		B	B	C
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Office Building, Research & Dev., Professional Offices, City Office Building	A	A	A	B		B	C	D
COMMERCIAL Recreation INSTITUTIONAL Civic Center	Amphitheater, Concert Hall, Auditorium, Meeting Hall	B	B	C	C		D	D	D
COMMERCIAL Recreation	Childrens Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	A		B	B	B
COMMERCIAL General, Special INDUSTRIAL, INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A		B	B	B
INSTITUTIONAL General	Hospital, Church, Library, Schools Classroom	A	A	B	C		C	D	D
OPEN SPACE	Parks	A	A	A	B		C	D	D
OPEN SPACE	Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	A		B	C	C
AGRICULTURE	Agriculture	A	A	A	A		A	A	A

Zone A CLEARLY COMPATIBLE	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
ZONE B NORMALLY COMPATIBLE	New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
ZONE C NORMALLY INCOMPATIBLE	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.
ZONE D CLEARLY INCOMPATIBLE	New construction or development should generally not be undertaken.

Source: City of Redlands General Plan Noise Element, Chapter 7 Healthy Community, Section 7.5 Noise, Table 7-10.

Table 5.10-2: City of Redlands General Plan Interior and Exterior Noise Standards

Land Use Categories	Community Noise Equivalent Level (CNEL) Energy Average CNEL	
Uses	**Interior[1]**	**Exterior[2]**
RESIDENTIAL		
Single Family, Duplex, Multiple Family	45[3]	60
Mobile Home	---	60[4]
COMMERCIAL, INDUSTRIAL, INSTITUTIONAL		
Hotel, Motel, Transient Lodging	45	65[5]
Commercial Retail, Bank Restaurant	55	---
Office Building, Research & Development, Professional Offices, City Office Building	50	---
Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	---
Gymnasium (Multipurpose)	50	---
Sports Club	55	---
Manufacturing, Warehousing, Wholesale, Utilities	60	---
Movie Theaters	45	---
INSTITUTIONAL		
Hospital, Schools classrooms	45	60
OPEN SPACE		
Parks	---	60

Notes:
* CNEL (Community Noise Equivalent Level) - The average equivalent A-weighted sound level during a 24 hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7 pm to 10 pm and ten decibels to sound levels at night after 10 pm and before 7 am.
1. Indoor environment excluding bathrooms, toilets, closets, corridors.
2. Outdoor environment limited to private yard of single family as measured at the property line; multifamily private patio or balcony which is served by a means of exit from inside; mobile home park; hospital patio; park picnic area; school playground; hotel and recreational area.
3. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.
4. Exterior noise level should be such that interior level will not exceed 45 CNEL.
5. Except those areas affected by aircraft noise.
See also Policy 9.0s

Source: Mestre Greve Associates.

Source: City of Redlands General Plan Noise Element, Chapter 7 Healthy Community, Section 7.5 Noise, Table 7-11.

City of Redlands Municipal Code

The City of Redlands Municipal Code Chapter 8.06 establishes noise standards by land use. For the noise-sensitive residential uses, Municipal Code Section 8.06.070[A] identifies the base exterior noise level standard of 60 dBA Leq during the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA Leq during the nighttime (10:00 p.m. to 7:00 a.m.) hours. As shown on Table 5.10-3, higher noise levels are allowed for shorter periods of time.

Table 5.10-3: City of Redlands Operational Noise Standards

Land Use	Time Period	Exterior Noise Level Standards (dBA)				
		L_{50} (30 mins)	L_{25} (15 mins)	L_8 (5 mins)	L_2 (1 min)	L_{max} (0 min)
Residential	Daytime	60	65	70	75	80
	Nighttime	50	55	60	65	70
Commercial	Daytime	65	70	75	80	85
	Nighttime	60	65	70	75	80
Industrial	Anytime	75	80	85	90	95

Source: City of Redlands Municipal Code, Section 8.06.070 [A]-Table 1. Section 8.06.070[C] states that if the measured ambient level exceeds the allowable noise exposure standard within any of the first four noise limit categories above, the allowable noise exposure standard shall be adjusted in five dB increments in each category as appropriate to encompass or reflect said ambient noise level. The percent noise level is the level exceeded "n" percent of the time during the measurement period. L50 is the noise level exceeded 50% of the time. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

In addition, Municipal Code Section 8.06.080 identifies the maximum permissible interior noise levels. For noise-sensitive residential uses, Municipal Code Section 8.06.080[B] identifies the interior noise level standard of 45 dBA. For commercial uses, Municipal Code Section 8.06.080[B] identifies the interior noise level standard of 50 dBA.

In addition, Municipal Code Section 8.06.070[B] provides noise standards based on the volume of noise and the period of time of the noise, as listed below:

1. The exterior noise standard of the applicable land use category for a cumulative period of 30 minutes in any hour (L_{50}); or
2. The exterior noise standard of the applicable land use category, plus 5 dBA, for a cumulative period of more than 15 minutes in any hour (L_{25}); or
3. The exterior noise standard of the applicable land use category, plus 10 dBA, for a cumulative period of more than 5 minutes in any hour (L_8); or
4. The exterior noise standard of the applicable land use category, plus 15 dBA, for a cumulative period of more than 1 minute in any hour (L_2).
5. The exterior noise standard for the applicable land use category, plus 20 dBA, or the maximum measured ambient noise level, for any period of time (L_{max}).

In addition, Section 8.06.070[C] states *that if the measured ambient level exceeds the allowable noise exposure standard within any of the first four noise limit categories above, the allowable noise exposure standard shall be adjusted in five dB increments in each category as appropriate to encompass or reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.* In effect, when the ambient noise levels exceed the base exterior noise level limits, the noise level standard shall be adjusted as appropriate to encompass or reflect the ambient noise level.

Municipal Code Section 8.06.090(F) states that construction activity is considered exempt from the noise level standards between the hours of 7:00 a.m. to 6:00 p.m. Monday to Saturdays; with no activity allowed on Sundays or holidays.

Municipal Code, Section 8.06.020, defines the vibration perception threshold as 0.01 inches per second (in/sec) RMS.

5.10.3 ENVIRONMENTAL SETTING

Sensitive Receptors

Noise sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: residences, schools, hospitals, and recreation areas. Sensitive receptors are located throughout the TVSP area.

Existing Noise Levels

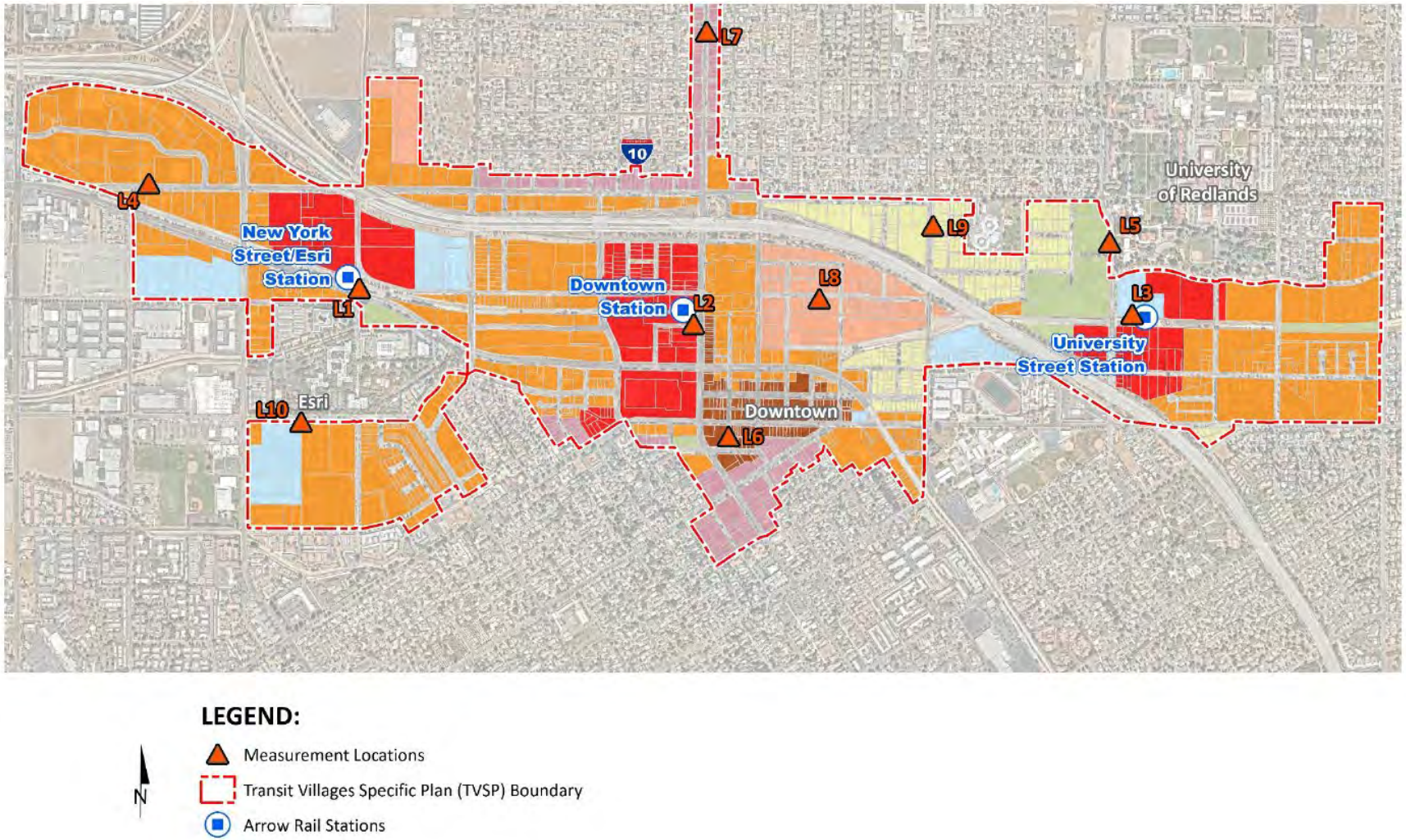
To assess the existing noise levels, 24-hour noise level measurements were taken at 10 locations near sensitive receivers in the vicinity of the TVSP area as shown in Figure 5.10-1. The field survey noted that noise within the TVSP area is generally characterized by vehicle traffic on area roadways and operation of the rail line and transit stations. A description of these locations and the existing noise levels are provided in Table 5.10-4. As shown, ambient noise levels range from 62.9 to 73.4 CNEL throughout the TVSP area.

Table 5.10-4: Existing Ambient Noise Measurement Results

Location	TVSP Land Use		Description	Energy Average Noise Level (dBA L_{eq})		CNEL
				Daytime	Nighttime	
L1	Village General	(VG)	Located southwest of the New York Street/ESRI Station north of Redlands Boulevard.	69.6	63.6	72.0
L2	Village Center	(VC)	Located near Historic Redlands Train Station at 383-389 Orange Street.	69.9	63.1	71.7
L3	Special District 1	(SD1)	Located west of the University Street Station north Park Avenue near Frederick Loewe Theatre.	57.1	57.6	64.4
L4	Village General	(VG)	Located north of Colton Avenue in the Tri City Shopping Center south of the CVS Pharmacy.	66.4	62.0	69.7
L5	Civic Space	(CS)	Located northwest of the University Street Station near Sylvan Park at 601 North University Street.	64.6	64.0	70.7
L6	Downtown	(DT)	Located north of East Vine Street and south of East Citrus Avenue.	57.6	56.0	62.9
L7	Village Corridor	(COR)	Located near the single-family residence at 1154 Orange Street.	70.2	65.5	73.4
L8	Neighborhood General 2	(NG2)	Located near the single-family residence at 410 East Stuart Street.	63.1	59.3	66.9
L9	Neighborhood General 1	(NG1)	Located near the single-family residence at 801 Stillman Avenue.	65.1	59.2	67.5
L10	Special District 1	(SD1)	Located south of the ESRI campus near the Redlands Adventist Academy at 130 Tennessee Street.	64.4	55.3	65.0

Source: Noise Study, 2022. Appendix G.

Figure 5.10-1: Noise Measurement Locations



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The noise measurements identified that ambient noise levels range from 62.9 to 73.4 CNEL throughout the TVSP area. Table 5.10-5 summarizes the existing ambient noise level conditions in relation to the General Plan Noise/Land Use Compatibility Matrix listed in Table 5.10-1.

Table 5.10-5: Existing Noise and Land Use Compatibility

Location	TVSP Land Use		CNEL	General Plan Land Use Category	General Plan Noise/Land Use Compatibility
L1	Village General	(VG)	72.0	Commercial	Zone A - Clearly Compatible
L2	Village Center	(VC)	71.7	Commercial	Zone A - Clearly Compatible
L3	Special District 1	(SD1)	64.4	Commercial	Zone A - Clearly Compatible
L4	Village General	(VG)	69.7	Commercial	Zone A - Clearly Compatible
L5	Civic Space	(CS)	70.7	Open Space	Zone B - Normally Compatible
L6	Downtown	(DT)	62.9	Commercial	Zone A - Clearly Compatible
L7	Village Corridor	(COR)	73.4	Residential	Zone C - Normally Incompatible
				Commercial	Zone A - Clearly Compatible
L8	Neighborhood General 2	(NG2)	66.9	Residential	Zone C - Normally Incompatible
				Commercial	Zone A - Clearly Compatible
L9	Neighborhood General 1	(NG1)	67.5	Residential	Zone C - Normally Incompatible
				Commercial	Zone A - Clearly Compatible
L10	Special District 1	(SD1)	65.0	Public/Institutional	Zone A - Clearly Compatible

Source: Noise Study, 2022. Appendix G.

Table 5.10-5 shows that within the existing ambient noise environment, the TVSP commercial land uses are considered clearly compatible with the Noise/Land Use Compatibility Matrix. Clearly compatible land use is considered satisfactory with normal conventional construction without any special noise insulation requirements.

The existing noise level measurements also show that the future residential land uses located within the Village Corridor, Neighborhood General 1 and Neighborhood General 2 would be considered normally incompatible and new construction or development requires a detailed analysis of noise reduction features to reduce ambient noise upon the new residential development. Commercial uses located within the Village Corridor, Neighborhood General 1, and Neighborhood General 2 would be considered Clearly Compatible.

San Bernardino International Airport

The San Bernardino International Airport is located approximately 2.4 miles northwest of the TVSP area, which is within the Airport Influence Area. The latest aircraft noise contour boundaries for the airport were published as part of the Eastgate Air Cargo Facility Final Environmental Assessment and are included as Figure 5.10-2, which shows the 2024 CNEL contours with approximately 87,500 annual aircraft operations.

As shown on Figure 5.10-2 the TVSP area is located outside of the airport's 60 dBA CNEL noise level contours in 2024 and is considered normally acceptable by the General Plan Community Noise and Land Use Compatibility guidelines (Table 5.10-1).

5.10.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

NOI-1 Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

NOI-2 Generate excessive groundborne vibration or groundborne noise levels;

NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

The Initial Study established that the proposed Project would result in less than significant impacts related to Threshold NOI-3. No further assessment of these impacts is required in this Draft EIR.

Construction Noise and Vibration

- If Project related construction activities:
    - Occur between the hours of 6:00 p.m. and 7:00 a.m. of the next day, on Sundays or federal holidays (Municipal Code Section 8.06.090(F)); or
    - Create noise levels which exceed the 80 dBA Leq acceptable noise level threshold at the nearby sensitive receiver locations (FTA, 2006);
- If Project-related construction activities generate vibration levels which exceed the Municipal Code, Section 8.06.020, vibration threshold of 0.1 in/sec RMS at receiver locations.

Operational Noise

- If Project related operational increase in ambient noise levels:
    - An increase in exposure of four or more dB if the resulting noise level would exceed that described as clearly compatible for the affected land use, as established in GP Table 9.1 [Table 7-10] and GP Table 9.2 [Table 7-11];
    - Any increase of six dB or more, due to the potential for adverse community response (Measure U Policy 9.0v).

5.10.5 METHODOLOGY

Construction Noise

To identify the temporary construction noise contribution to the existing ambient noise environment, the construction noise levels anticipated from usage of construction equipment needed to implement the TVSP were analyzed through comparison of construction noise levels to the thresholds listed previously to assess the level of significance associated with temporary construction noise level impacts.

Operational Noise

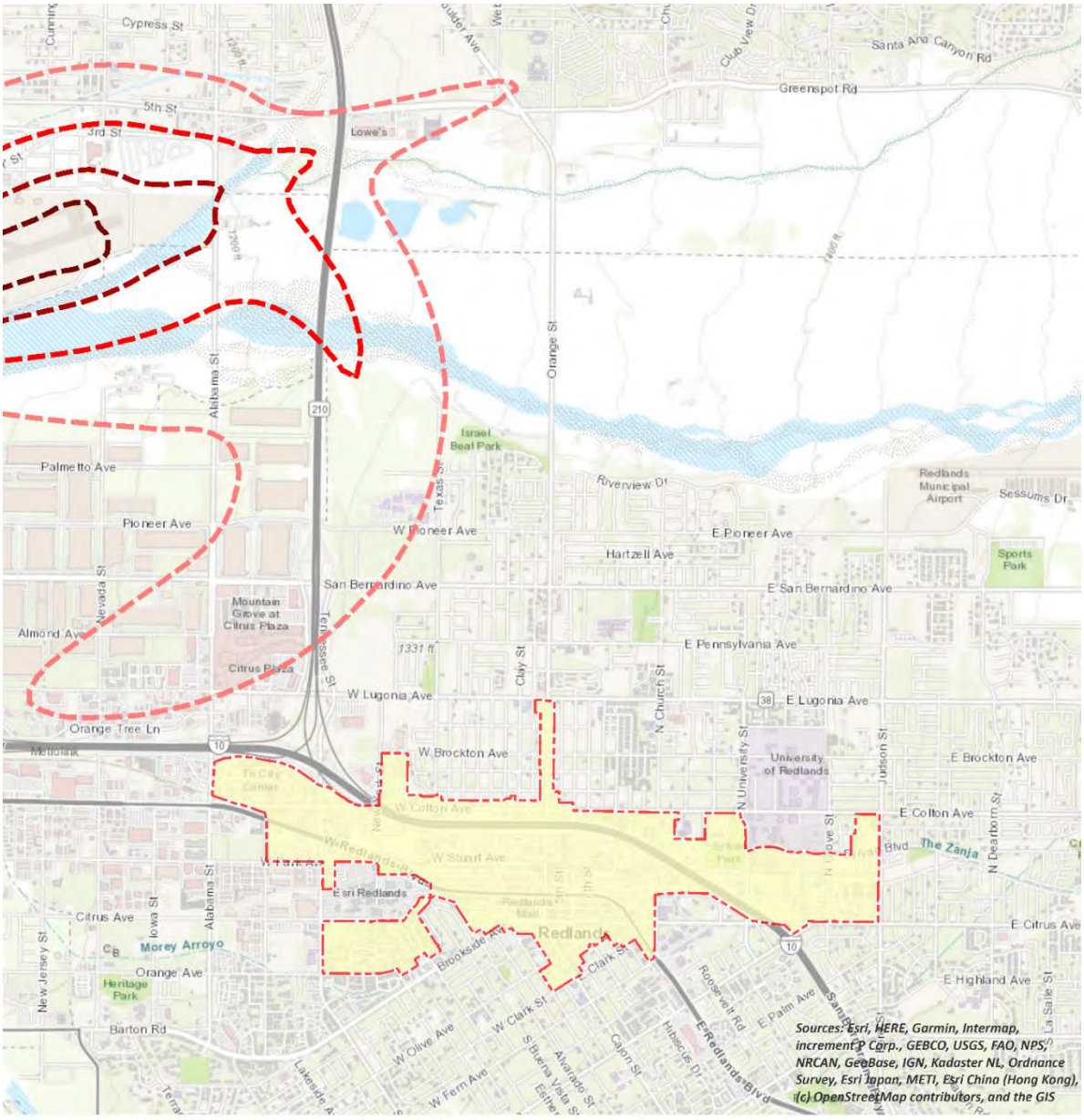
The primary source of noise associated with the operation of the TVSP would be from vehicular trips and new stationary sources (such as heating, ventilation, and air conditioning units) associated with the new site-specific development that would occur by the TVSP. The increase in noise levels generated by these activities have been quantitatively estimated and compared to the applicable noise standards listed previously.

Vibration

Aside from noise levels, groundborne vibration would also be generated during construction of the Project by various construction-related activities and equipment; and could be generated by truck traffic traveling to and from the TVSP area. The potential ground-borne vibration levels resulting from construction activities occurring from the TVSP were estimated by data published by the Federal Transit Administration (FTA). Thus, the groundborne vibration levels generated by these sources have also been quantitatively estimated and compared to the applicable thresholds of significance listed previously.

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Figure 5.10-2: San Bernardino International Airport Noise Contours



Source: Figure 4-6 of the Eastgate Air Cargo Facility Final Environmental Assessment published by the SBIAA on July 2, 2019.

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5.10.6 ENVIRONMENTAL IMPACTS

IMPACT NOI-1: THE PROJECT WOULD NOT GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES.

Construction

Less than Significant with Mitigation Incorporated. The timing of development and various construction activities pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. Thus, construction activities associated with buildout of the proposed TVSP would likely occur sporadically over an 18-year period or longer and include different project specific construction activities. Table 5.10-6 lists construction equipment that would be used during construction of TVSP development projects.

Table 5.10-6: Construction Equipment Assumptions

Construction Activity	Equipment
Demolition	Concrete/Industrial Saws
	Excavators
	Rubber Tired Dozers
Site Preparation	Crawler Tractors
	Rubber Tired Dozers
Grading	Crawler Tractors
	Excavators
	Graders
	Rubber Tired Dozers
	Scrapers
Building Construction	Cranes
	Forklifts
	Generator Sets
	Tractors/Loaders/Backhoes
	Welders
Paving	Pavers
	Paving Equipment
	Rollers
Architectural Coating	Air Compressors

Source: EIR Section 5.2, Air Quality, Table 5.2-6 and (Appendix G)

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach noise levels ranging from approximately 68 dBA to more than 80 dBA when measured at 50 feet. Hard site conditions are used in the construction noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source (i.e., construction equipment). 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 be further reduced to 68 dBA at 200 feet from the source to the receiver.

Section 8.06.090(F) of the City's Municipal Code allows construction noise to exceed the City noise standards provided that construction activities occur between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and not on Sundays and Federal holidays. However, the City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby residents. Therefore, in order to determine if construction activities

would create a significant substantial temporary noise increase, the FTA construction noise criteria threshold detailed above has been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at a sensitive receiver, such as a residence.

Because the TVSP includes development of residential uses and existing residential units are located throughout the TVSP area, construction of new developments pursuant to the TVSP that are infill and redevelopment projects could occur adjacent to sensitive receptors, and temporary intermittent construction noise impacts could occur. Therefore, Mitigation Measures NOI-1 through NOI-4 have been included to provide construction measures to reduce potential impacts to a less than significant level.

Operation

Ambient Traffic Noise Impacts to Proposed Sensitive Receptors

Less than Significant with Mitigation Incorporated. The proposed TVSP would consist of infill and redevelopment of new mixed uses, including residential, within the Project area. The primary source of noise impacts to the new development within the TVSP would be from the Arrow commuter rail line, and traffic-related noise from the I-10 Freeway, and key arterial roadways such as New York Street, Eureka Street, Orange Street, Church Street, Grove Street, Judson Street, Colton Avenue, Park Avenue, Redlands Boulevard, State Street, and Citrus Avenue.

New noise sensitive land uses adjacent to the Arrow commuter rail line, the I-10 Freeway and these key arterial roadways would experience future unmitigated exterior noise levels greater than 65 dBA CNEL, which represents normally incompatible for residential uses based on the General Plan Noise/Land Use Compatibility Matrix (Table 5.10-1). Therefore, based on the proximity of future noise sensitive land uses, traffic-related noise impacts at future residential uses within the TVSP would be potentially significant and require noise mitigation to reduce potential impacts to less than significant level. Mitigation Measure NOI-5 requires that prior to the issuance of a building permit for new residential dwelling units within the TVSP, the Project plans and specifications shall demonstrate compliance with the General Plan 60 dBA CNEL exterior noise level standard, such as through an acoustical analysis.

Interior Noise Impacts to Proposed Sensitive Receptors

Less than Significant with Mitigation Incorporated. The proposed TVSP would consist of infill and redevelopment of lands within the Project area that would provide new residential units that could be within mixed-use buildings adjacent to an arterial roadway or the Arrow commuter rail line.

Typical building construction provides a noise reduction of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." The use of central air conditioning provides noise reduction benefits by permitting windows to kept closed. Typical noise reducing construction methods include: 1) weather-stripped solid core exterior doors; 2) upgraded dual glazed windows; 3) mechanical ventilation/air conditioning; and 4) exterior wall/roof assembles free of cut outs or openings. Each of these methods are included in State Title 24 construction standards that are verified as implemented by the City during the construction permitting process.

Because the exterior noise levels from future noise sensitive land uses adjacent to the arrow commuter rail line, the I-10 Freeway and key arterial roadways exceed 60 dBA CNEL, detailed interior noise analysis based on site-specific architectural floor plans and elevations would be required for future developments that include residential uses to satisfy the City of Redlands General Plan Noise Element, Table 7-11 (Table 5.10-2), 45 dBA CNEL interior noise level standard for residential dwelling units. Therefore, Mitigation Measure NOI-6 is included to require new development projects to demonstrate compliance with the 45 dBA CNEL interior noise level standard, such as through provision of an acoustical analysis, to ensure that impacts would be less than significant.

Non-Residential Noise Generation

Implementation of the proposed TVSP would include a combination of noise sources related to the proposed residential, commercial, recreation, and other uses included in the TVSP. Buildout of the TVSP would result in noise sources that would include air conditioning units, loading dock activities, parking lots, trash enclosures, and outdoor activities in park and recreation areas. These Project-related noise sources are consistent with existing noise sources observed in the TVSP area. However, new operation of non-residential uses developed pursuant to the TVSP could result in nuisance noise source activity that could increase the ambient noise levels at sensitive receptors. Therefore, Mitigation Measure NOI-7 is included to ensure future project compliance with Municipal Code Section 8.06.090(F), through conduct of a noise impact analysis, which would ensure that operational noise impacts would be less than significant.

IMPACT NOI-2: THE PROJECT WOULD NOT GENERATE EXCESSIVE GROUND-BORNE VIBRATION OR GROUNDBORNE NOISE LEVELS.

Construction

Less than Significant with Mitigation Incorporated. Construction activities for the infill and redevelopment projects that would occur pursuant to the TVSP are anticipated to include demolition, site preparation, grading, building construction, paving, and application of architectural coatings. Vibration impacts from these construction activities would typically be created from the operation of heavy off-road equipment. Because the TVSP includes development of residential uses and existing residential units are located throughout the TVSP area, construction of new developments pursuant to the TVSP that are infill and redevelopment projects could occur adjacent to sensitive receptors.

As described previously Section 8.06.090(F) of the City's Municipal Code limits construction to occur between 7:00 a.m. and 6:00 p.m., Monday through Saturday, which also limits the time that construction vibration could occur. Also, Section 8.06.020 identifies the vibration threshold as 0.01 in/sec RMS.

Ground vibration levels associated with various types of construction equipment are summarized in Table 5.10-7. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: PPVequip = PPVref x (25/D).

Table 5.10-7: 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: Noise, 2022. Appendix G

The primary source of vibration during infill and redevelopment construction would be from the operation of a bulldozer. As shown in Table 5.10-7, a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. To describe the RMS vibration level and demonstrate compliance with the Municipal Code perceptible vibration threshold of 0.01 in/sec RMS, PPV velocities are converted to RMS vibration levels based on the Caltrans *Transportation and Construction Vibration Guidance Manual* conversion factor of 0.71.

Table 5.10-8 lists that anticipated construction related vibration levels at distances ranging from 25 to 150 feet from construction activity. As shown, construction vibration levels would range from 0.004 to 0.063 in/sec RMS that would exceed the perceptible vibration threshold of 0.01 in/sec RMS at distances of less than 100 feet. Therefore, Mitigation Measures NOI-8 and NOI-9 are included to reduce potential

vibration impacts to below the vibration threshold of 0.01 in/sec RMS, which would reduce impacts to a less than significant level.

Table 5.10-8: Construction Equipment Vibration Levels

Distance to Const. Activity (Feet)	Receiver Levels (in/sec) PPV					Velocity Levels (in/sec) RMS	Threshold (in/sec) RMS	Threshold Exceeded?
	Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration			
25'	0.0030	0.0350	0.0760	0.0890	0.0890	0.063	0.01	Yes
50'	0.0011	0.0124	0.0269	0.0315	0.0315	0.022	0.01	Yes
100'	0.0004	0.0044	0.0095	0.0111	0.0111	0.008	0.01	No
125'	0.0003	0.0031	0.0068	0.0080	0.0080	0.006	0.01	No
150'	0.0002	0.0024	0.0052	0.0061	0.0061	0.004	0.01	No

Source: Noise, 2022. Appendix G

Operation

Less than Significant. The proposed Project would consist of infill and redevelopment within the TVSP with new residential, commercial, and mixed-use projects. The on-going operation of these types of land uses do not include the operation of any vibration sources other than typical onsite vehicle and truck operations. Therefore, impacts related to operational vibration would be less than significant.

5.10.7 CUMULATIVE IMPACTS

Cumulative noise assessment considers development of the proposed Project in combination with ambient growth and other development projects within the vicinity of the TVSP area. As noise is a localized phenomenon, and drastically reduces in magnitude as distance from the source increases, only projects and ambient growth in the nearby area could combine with the activities of the TVSP to result in cumulative noise impacts.

Buildout of the TVSP in combination with the related projects would result in an increase in construction-related and traffic-related noise. However, Municipal Code Section 8.06.090(F) requires construction activities to not occur within the hours of 6:00 p.m. and 7:00 a.m. on weekdays or anytime on Sundays and federal holidays. Also, construction noise and vibration are localized in nature and decreases substantially with distance. Consequently, in order to achieve a substantial cumulative increase in construction noise and vibration levels, more than one source emitting high levels of construction noise would need to be in close proximity to TVSP construction activity. As the timing of development and various construction activities pursuant to the TVSP would be dependent upon market conditions and development applications for new projects. Construction activities associated with buildout of the proposed TVSP would likely occur sporadically over an 18-year period or longer. Thus, its currently unknown if construction projects would occur adjacent to one another. However, implementation of the construction and vibration mitigation measures provided herein would reduce the potential of noise and vibration levels from different construction projects combining to become cumulatively considerable to a less than significant level. Therefore, with implementation of mitigation, cumulative noise and vibration impacts associated with construction activities would be less than significant.

Development anticipated by the TVSP in combination with other nearby projects would result in an increase in ambient noise. However, all development projects would be subject to the operational noise standards established by the General Plan and Municipal Code, which would ensure that noise from new uses in the TVSP area would stay below City standards and therefore not combine with other development projects to be cumulatively significant. Thus, operational noise from new land uses in the proposed Specific Plan area would result in less than significant cumulative noise impacts.

Also, as described above, the TVSP area is located outside of the 60 dBA CNEL noise contour boundaries of the San Bernardino International Airport, and developments within the proposed TVSP area would not result in exposure of people residing or working in the area to excessive noise levels from operation of an airport and would not result in an impact that could cumulatively combine. Hence, cumulative impacts related to airport noise would not occur.

5.10.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- California Code of Regulations, Title 24 included in the City's Municipal Code in Chapter 18.
- City's Municipal Code Section 8.06.090(F), all construction activities shall be limited to the daytime hours of between 7:00 a.m. to 6:00 p.m. Monday to Saturdays; with no activity allowed on Sundays or holidays
- City's Municipal Code Section 8.06.020, defines the vibration perception threshold as 0.01 inches per second (in/sec) RMS.

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.10.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, the following impacts would be **potentially significant**:

Impact NOI-1: Buildout of the proposed TVSP could generate of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance.

Impact NOI-2: Buildout of the proposed TVSP could generate excessive groundborne vibration or groundborne noise levels.

5.10.10 MITIGATION MEASURES

Mitigation Measure NOI-1: Construction Equipment: Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall require that construction contractors equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards, and all stationary construction equipment shall be placed so that emitted noise is directed away from the noise-sensitive use nearest the construction activity.

Mitigation Measure NOI-2: Construction Staging: Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall require that the construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receiver nearest to the construction activity.

Mitigation Measure NOI-3: Construction Noise Levels: Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP, the project plans and specifications shall demonstrate that all construction activity within the TVSP will satisfy the exterior construction noise level of 80 dBA L_{eq} at a sensitive receiver (e.g., residential).

Mitigation Measure NOI-4: Construction Noise Barriers: Prior to the issuance of a demolition, grading, or construction permit for new development within the TVSP that could exceed the exterior construction noise level of 80 dBA L_{eq} at a sensitive receiver (e.g. residential), the project plans and specifications shall detail the installation of temporary construction noise barriers for occupied noise-sensitive uses for the duration of construction activities that could exceed the TVSP construction noise level thresholds. The noise control barrier(s) must provide a solid face from top to bottom and shall:

- Provide a minimum transmission loss of 20 dBA and be constructed with an acoustical blanket (e.g., vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts;
- 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; and
- Be removed and the site appropriately restored upon the conclusion of the construction activity.

Mitigation Measure NOI-5: Residential Exterior Noise: Prior to the issuance of a building permit for new residential dwelling units within the TVSP, the Project plans and specifications shall demonstrate compliance with the 60 dBA CNEL exterior noise level standard as defined by Table 7-11 of the City of Redlands General Plan Healthy Community Element through preparation of an acoustical analysis. The outdoor environment is limited to private yard of single family as measured at the property line; multifamily private patio or balcony which is served by a means of exit from inside; mobile home park; hospital patio; park picnic area; school playground; hotel and recreational area as intended by the General Plan Healthy Community Element.

Mitigation Measure NOI-6: Residential Interior Noise: Prior to the issuance of a building permit for new residential dwelling units within the TVSP, the Project plans and specifications shall demonstrate compliance with the 45 dBA CNEL interior noise level standard as defined by Table 7-11 of the General Plan Healthy Community Element and by Title 24, Part 2, of the California Building Code through preparation of an acoustical analysis.

Mitigation Measure NOI-7: Non-Residential Developments: Prior to the issuance of a building permit for a non-residential development within the TVSP that has the potential to impact noise sensitive residential land uses, the project plans and specifications shall demonstrate compliance with Municipal Code Section 8.06.090(F).

Mitigation Measure NOI-8: Construction Vibration: Prior to approval of a demolition permit, grading plans, and/or issuance of building permits for construction activities within 100 feet of existing residential structures or occupied noise-sensitive uses that require the use of large bulldozers, large loaded trucks, jackhammers, pile drivers, and/or caisson drills, the City of Redlands Building and Safety Division shall ensure that construction plans and specifications state that the use of such vibratory equipment shall be prohibited within 100 feet of existing residential structures or occupied noise-sensitive uses. Instead, small rubber-tired bulldozers shall be used within this area during demolition and/or grading operations to reduce vibration effects. If the use of large bulldozers, loaded trucks, jackhammers, pile drivers, and/or caisson drills is necessary within 100 feet of existing residential structures or occupied noise-sensitive uses,

the project Applicant/Developer shall demonstrate compliance with Municipal Code, Section 8.06.020 vibration perception threshold as 0.01 inches per second (in/sec) RMS.

Mitigation Measure NOI-9: Construction Vibration Near Fragile Historic: Any site-specific development project within 25 feet of an extremely fragile historic building shall engage a qualified structural engineer to conduct a pre-construction assessment of the structural integrity of the nearby historic structure(s) and submit evidence to the City of Redlands Building and Safety Division detailing that the operation of vibration-generating equipment associated with the new development would not result in structural damage to the adjacent historic building(s). If recommended by the pre-construction assessment, groundborne vibration monitoring of nearby historic structures shall be required.

5.10.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impact NOI-1: After implementation of Mitigation Measures NOI-1 through NOI-7, buildout of the TVSP would not result in a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. Thus, impacts would be less than significant.

Impact NOI-2: After implementation of Mitigation Measures NOI-8 and NOI-9, buildout of the TVSP would not result in excessive groundborne vibration or groundborne noise levels. Thus, impacts would be less than significant.

Therefore, no significant unavoidable adverse impacts related to noise or vibration would occur.

REFERENCES

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City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands 2035 General Plan, 2017. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Urban Crossroads. "Transit Villages District and Specific Plan Noise Impact and Vibration Analysis" 2022. Appendix G.

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5.11 Population and Housing

5.11.1 INTRODUCTION

This section examines the existing population, housing, and employment conditions in the City of Redlands and assesses the Project's impacts related to direct and indirect growth and potential displacement of people and housing. The demographic data and analysis in this section is based, in part, on the following documents and resources:

- *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy,* SCAG, September 2020
- *Local Profiles Report 2019, Profile of the City of Redlands,* SCAG, May 2019
- *Population Estimates for Cities, Counties, and the State,* California Department of Finance (DOF), May 2021
- *City of Redlands 2035 General Plan, 2017*
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report (GP EIR), 2017*

Although evaluation of population, housing, and employment typically involves economic and social, rather than physical environmental issues, population, housing, and employment growth are often precursors to physical environmental impacts. According to Section 15382 of the CEQA Guidelines, "[a]n economic or social change by itself shall not be considered a significant impact on the environment." Socioeconomic characteristics should be considered in an EIR only to the extent that they create adverse impacts on the physical environment.

5.11.2 REGULATORY SETTING

5.11.2.1 State Regulations

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the California Department of Housing and Community Development Department (HCD) estimates the relative share of California's projected population growth that would occur in each county based on Department of Finance (DOF) population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, HCD provides the RHNA to the council. Such is the case for the City of Redlands, which is a member of SCAG. The council, in this case Southern California Association of Governments (SCAG), then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. HCD oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

Southern California Association of Governments

SCAG is a council of governments representing Orange, Imperial, Los Angeles, Riverside, San Bernardino, and Ventura counties. It is the federally recognized metropolitan planning organization (MPO) for this region,

which encompasses over 38,000 square miles. SCAG actions in Orange County are partially the result of input from the Orange County Council of Governments (OCCOG), which offers recommendations regarding SCAG's initiatives.

Regional Housing Needs Allocation

The Regional Housing Needs Assessment (RHNA) is mandated by state housing law as part of the periodic process of updating housing elements of local general plans. State law requires that housing elements identify RHNA targets set by HCD to encourage each jurisdiction in the state to provide its fair share of very low, low, moderate, and upper income housing. The RHNA is intended to provide a long-term outline for housing within the context of local and regional trends and housing production goals.

SCAG determines total housing need for each community in southern California based on three general factors: 1) the number of housing units needed to accommodate future population and employment growth; 2) the number of additional units needed to allow for housing vacancies; and 3) the number of very low, low, moderate, and above-moderate income households needed. All cities are required to ensure that sufficient sites are planned and zoned for housing, such that area would be available to accommodate the projected housing needs, and to implement proactive programs that facilitate and encourage the production of housing commensurate with its housing needs.

For the 2021–2029 planning period, SCAG determined that the City of Redlands RHNA allocation for very low-income housing units is 967; as shown in Table 5.11-1, 45 percent are allocated to extremely low through low income housing.

Table 5.11-1: City of Redlands SCAG Regional Housing Needs Allocation, 2021-2029

Category	Percent of County Median	2021 Household Income	2021-2029 Housing Need
Extremely Low-Income	Less than 30%	Less than $26,500	483 (14%)
Very Low-Income	30-50%	$26,500 - $39,500	484 (14%)
Low-Income	50-80%	$39,500 - $63,200	615 (17%)
Moderate Income	80-120%	$63,200 - $93,000	652 (19%)
Above Moderate Income	Over 120%	More than $93,000	1,282 (36%)
Total	**--**		**3,516**

Source: City of Redlands 2021-2029 Housing Element

5.11.2.2 Regional/Local Regulations

City of Redlands General Plan Housing Element

The Housing Element include the following policies related to population and housing and the Project:

Policy 1.1 Provide adequate capacity to meet the Sites Inventory for Regional Housing Needs Assessment (RHNA).

Policy 1.2 Increase capacity and access to opportunities and services through the adoption of the Transit Villages Specific Plan.

Policy 1.3 Provide housing capacity near public services.

Policy 1.4 Realize capacity potential through minimum densities.

Policy 1.5 Maintain an up-to-date residential sites inventory and provide to interested developers with information on available development incentives.

Policy 1.6 Support the assembly of small vacant or underutilized parcels to enhance the feasibility of infill development.

Policy 1.7 Ensure that residential development sites have appropriate and adequate services and facilities, including water, wastewater, and neighborhood infrastructure.

Policy 1.8 Incentivize the development of Accessory Dwelling Units as a means of providing a diversity in housing types in all areas within the City.

Policy 1.9 Incentivize efficient buildings and conservation.

City of Redlands General Plan Transit Villages Element

The Transit Villages Element provides for new jobs, housing, and entertainment opportunities in compact, walkable environments; support multiple modes of transit, car travel, walking, and bicycling; and provide new development and infill opportunities include the following policies related to population and housing and the Project:

Policy 4-P.42 Provide for new jobs, housing, and entertainment opportunities in compact, walkable environments.

Policy 4-P.49 Allow residential and mixed-use projects in the Mixed Use Core at densities up to the High Density Residential standard.

5.11.3 ENVIRONMENTAL SETTING

The TVSP area includes approximately 947 acres of urban land that is divided into three planning areas (transit villages). The City of Redlands General Plan 2035 (GP2035) designates the TVSP area with a mix of land uses including: Medium Density Residential (up to 15 dwelling units per acre), High Density Residential (up to 27 dwelling units per acre), Office, Commercial, Commercial/Industrial, Industrial, Public/Institutional, and Parks.

Most of the New York Street/Esri Transit Village area consists of non-residential land use designations except for the multi-family residential area in the southern portion of the village. The Downtown Transit Village area is also primarily non-residential, with multi-family allowed along the eastern edge. Land use designations in the University Street Transit Village are primarily medium and high density residential, except the institutional designations associated with the University of Redlands campus to the north of the station site. There are a number of vacant parcels located within the TVSP area, mostly concentrated along and near the railroad right-of-way.

Population

The California Department of Finance (DOF) estimates that the City of Redlands population is 71,154, representing approximately 3.3 percent of the County's total population. SCAG estimates that the City will have a population increase of 13.6 percent between 2021 and 2045, and the County will have population growth rate of over 29 percent over the same period. Table 5.11-2 provides population figures for the City of Redlands and the County in 2021, and SCAG projections for year 2045.

Table 5.11-2: Population Estimates and Projections, 2021–2045

	2021[1]	2045[2] Projection	2021-2045 Change
City of Redlands	71,154	80,800	13.6%
San Bernardino County	2,175,909	2,815,000	29.4%

[1] California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.
[2] SCAG 2045 Growth Forecasts.

Housing and Households

The DOF estimates that there were 27,214 housing units in Redlands in 2021, which is 3.7 percent of the County total. The City's housing stock is 64 percent single-family residential and is estimated to be 93.4 percent occupied. The DOF estimated persons per household is 2.71.

Table 5.11-3: City of Redlands Existing Housing Stock, 2021

Residence Type	Number	Percentage
Single-Family Detached	17,451	64.1%
Single-Family Attached	1,202	4.4%
Two to Four Units	3,144	11.6%
Five Plus	4,331	15.9%
Mobile Homes	1,086	4.0%
Total	**27,214**	**100%**
Occupied	25,405	93.4%
Vacancy	1,809	6.6%

California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.

According to SCAG's 2020-2045 RTP/SCS, the City of Redlands is projected to add approximately 5,395 households by 2045 (Table 5.11-4). This averages approximately 225 new households annually through 2045.

Table 5.11-4: SCAG Household Projections, 2021–2045

	2021[1] Households	2045[2] Households	2021-2045 Increase
City of Redlands	25,405	30,800	21.2%
San Bernardino County	649,259	875,000	34.8%

[1] California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021.
[2] SCAG 2045 Growth Forecasts.

Employment

According to SCAG's 2020-2045 RTP/SCS, the number of jobs within the City is projected to increase from 42,600 jobs in 2016 to 56,300 jobs in 2045 (Table 5.11-5). This represents an increase of over 32 percent, and an average of 472 jobs annually through the year 2045.

Table 5.11-5: SCAG Projected Employment Trends, 2016-2045

	2016	2045	2016 – 2045 Increase
City of Redlands	42,600	56,300	13,700 (32.2%)
San Bernardino County	791,000	1,064,000	273,000 (34.5%)

Source: SCAG 2045 Growth Forecasts.

In addition, the 2020 Census estimates that 63 percent of the City's residents that are over 16 years of age are in the labor force and have an average 26.9-minute commute. This is similar to San Bernardino County as a whole, where 60.3 percent of residents over 16 years old are in the labor force and the average commute time was 31.6 minutes.

Jobs – Housing Balance

The jobs-housing ratio is a general measure of the "balance" between the number of jobs and number of housing units within a geographic area, without regard to economic constraints or individual preferences. The ratio expresses quantitatively the relationship between the number of people working and number of dwelling units housing the people living in a given area. Additionally, a well-balanced ratio of jobs and housing reduces commuting trips because more employment opportunities are closer to residential areas. Such a reduction in vehicle trips lowers air pollutant emissions (including lower greenhouse gas emissions) and causes less congestion on area roadways and intersections. A major focus of SCAG's regional planning efforts has been to improve this balance. SCAG defines the jobs-housing balance as follows:

> Jobs and housing are in balance when an area has enough employment opportunities for most of the people who live there and enough housing opportunities for most of the people who work there. The region as a whole is, by definition, balanced…. Job-rich subregions have ratios greater than the regional average; housing-rich subregions have ratios lower than the regional average. Ideally, job-housing balance would… assure not only a numerical match of jobs and housing but also an economic match in type of jobs and housing.

SCAG considers an area balanced when the jobs-housing ratio is 1.36; communities with more than 1.36 jobs per dwelling unit are considered jobs-rich; those with fewer than 1.36 are "housing rich," meaning that more housing is provided than employment opportunities in the area (SCAG 2004).

As described above and shown in Table 5.11-6, the City currently has approximately 25,405 households and approximately 34,900 jobs (2022 State of California Employment Development Department Labor Force data), which results in a jobs-to-housing ratio of 1.37 jobs per household. SCAG projects a jobs-to-housing ratio of 1.83 in 2045, which indicates that employees would be commuting into the City for employment, and that additional housing would improve the jobs to housing balance within the City. The City is projected to have a higher percentage of jobs to households in comparison to the County, which is projected to have a jobs to housing ratio of 1.22 in 2045. Table 5.11-6 provides the existing and projected jobs-to-housing ratios for the City and the County.

Table 5.11-6: Existing and Projected Jobs - Housing Balance in the City and County

	Year	Employment	Households	Jobs-Housing Ratio
City of Redlands	2022[1]	34,900	25,405	1.37
	2045	56,300	30,800	1.83
San Bernardino County	2022[1]	940,800	649,245	1.45
	2045	1,064,000	875,000	1.22

Sources:[1]Employment Development Department, 2022.
SCAG 2020

5.11.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

POP-1 Induce substantial unplanned 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); or

POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The Initial Study established that the proposed Project would not result in impacts related to Threshold POP-2; and no further assessment of this impact is required in this EIR.

5.11.5 METHODOLOGY

State CEQA Guidelines Section 15064(e) states that a social or economic change generally is not considered a significant effect on the environment unless the changes can be directly linked to a physical adverse change. Additionally, CEQA Guidelines Appendix G indicates that a project could have a significant effect if it would induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure). Therefore, population impacts are considered potentially significant if growth associated with a project would exceed projections for the area and if such an exceedance would have the potential to create a significant adverse physical change to the environment.

The methodology used to determine population, housing, and employment impacts includes data collection of population and housing trends, which was obtained from DOF, the General Plan, and SCAG. The determination of impacts is based on an analysis of the number of residents and employees anticipated at buildout of the proposed Project. The scale of population at buildout is then compared with growth forecasts for the project area. Growth is considered in the context of local and regional plans that include population projections for the City and the County. The SCAG population projections are used to prepare the Regional Transportation Plan /Sustainable Communities Strategy (RTP/SCS) which sets forth land use strategies that help the region achieve state greenhouse gas emission reduction goals and assist the South Coast Air Quality Management District prepare its Air Quality Management Plan (AQMP)If projected growth within the Project area from implementation of the Project would exceed SCAG growth projections, resulting in the project being in conflict with the RTP/SCS and the AQMP, growth would be considered "substantial," and a significant impact may result.

5.11.6 ENVIRONMENTAL IMPACTS

As detailed in Section 3.0, *Project Description*, the proposed Project would provide a form-based code that would allow development of up to 2,400 residential units; 613,000 square feet of retail commercial, hotel, and office space; and 280,000 square feet of open space and parks within the TVSP area. However, the timing of development and operation of the development pursuant to the TVSP would be dependent upon market conditions and development applications for new projects.

IMPACT POP-1: THE PROJECT WOULD NOT INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH IN AN AREA, EITHER DIRECTLY (FOR EXAMPLE, BY PROPOSING NEW HOMES AND BUSINESSES) OR INDIRECTLY (FOR EXAMPLE THROUGH THE EXTENSION OF ROADS OR OTHER INFRASTRUCTURE).

Less Than Significant Impact. The TVSP provides for infill development, redevelopment, and development of a number of vacant parcels located within the Project area. The maximum development that would occur from buildout of the TVSP is 2,400 residential units and 613,000 square feet of retail commercial, hotel,

and office space. This amount of new development could currently be constructed in the Project area under the current GP2035 land use designations and zoning designations. Buildout pursuant to the TVSP would be within the buildout provided for within the GP2035. However, the proposed TVSP would provide a form-based code to achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options (and reduce vehicle trips and vehicle miles traveled), and provide more public open space and amenities that provides aesthetic and community benefits. Therefore, the Project would not induce population growth, it would just provide for the form and function of future development.

Table 5.11-7 shows that based on the General Plan buildout estimates (General Plan Revised Draft EIR Tables ES-1 and ES-2) of 2.65 persons per household and one employee for every 500 square feet of non-residential space, buildout of the proposed TVSP would accommodate 6,360 residents and 1,226 employees.

Table 5.11-7: TVSP Proposed Buildout Population & Employee Increase

	Units at Buildout	Quantifier	Total
Residential	2,400 units	2.65 persons per household	6,360 residents
Retail Commercial	265,000 SF	1 employee for every 500 SF	530 employees
Office	238,000 SF	1 employee for every 500 SF	476 employees
Hotel	110,000 SF	1 employee for every 500 SF	220 employees
Total			**6,360 residents** **1,226 employees**

Residential Development. Table 5.11-7 lists that buildout of the proposed TVSP would result in a population increase of 6,360 residents, which is a citywide increase of 8.9 percent over the 2021 estimated population of 71,154. As listed previously in Table 5.11-2, SCAG forecasts that the City's population will increase by 13.6 percent (9,646 residents) between 2021 and 2045. The additional 6,360 residents that would be accommodated by buildout of the proposed TVSP would not exceed the amount of growth anticipated to occur within the City. Also, as shown in Table 5.11-4, SCAG household growth projections estimate that by 2045 the number of households within the City will grow by 21.2 percent (5,395 households), and that growth within the County will be higher at 34.8 percent. Assuming that the maximum number of residential units in the proposed TVSP are developed and occupied (no vacancy), the 2,400 additional households in the TVSP area would consist of a 9.4 percent increase of households citywide, which is within the SCAG anticipated growth of both the City and the County. Therefore, the Project would not induce unplanned population growth.

The residential development pursuant to the TVSP would consist mostly of infill, mixed-use, and redevelopment projects that are market and need dependent. Development that would occur under the proposed TVSP would help the City accommodate and balance the land use of anticipated growth as opposed to substantially increasing growth. The residential development that would occur under the proposed Project would help to meet housing demands from projected employment growth in the City while maintaining a healthy vacancy rate. As further described below, implementation of the proposed TVSP would assist to balance the need for additional housing related to employment growth and to improve the future jobs-to-housing balance. Overall, impacts related to residential growth would be less than significant.

Non-Residential Development. Implementation of the TVSP would result in long-term employment opportunities that would be generated from approximately 265,000 square feet of new retail commercial, approximately 238,000 square feet of new office uses, and approximately 110,000 square feet of new hotel uses. Because the future tenants are unknown, the number of jobs generated from operation cannot be precisely determined. However, based on the General Plan estimate of one employee for every 500 square

feet of non-residential uses, the Project is estimated to result in approximately 1,226 job opportunities. As described in Table 5.11-5, SCAG projects an increase of 13,700 jobs in the City by 2045. The jobs provided through the TVSP would accommodate 8.9 percent of the anticipated growth. Therefore, the Project would not induce unplanned business or employment growth.

Also, Table 5.11-6 shows that the number of new jobs is anticipated to outpace the number of new households by 2045. The residential units generated from the proposed Project would provide for a balanced ratio of jobs and housing and provide for housing near transit and in a walkable environment. Thus, the housing that would be accommodated by the proposed TVSP would result in a beneficial impact related to the balance of jobs and housing; and impacts related to the jobs-housing balance from implementation of the proposed TVSP would be less than significant.

Construction. Construction of projects that would occur as a result of the proposed TVSP would include a need for construction labor. Due to the employment patterns of construction workers in Southern California, and the large market for construction labor in San Bernardino County, construction workers are not likely to relocate their households as a consequence of the job opportunities presented by construction projects in the TVSP area. The construction industry differs from most other industry sectors in several important ways that are relevant to potential impacts on housing:

- There is no regular place of work. Construction workers commute to job sites that change many times in the course of a year. These often-lengthy daily commutes are made possible by the off-peak starting and ending times of the typical construction work day.
- Many construction workers are specialized (e.g., crane operators, steel workers, masons), and move from job site to job site as dictated by the demand for their skills.
- The work requirements of most construction projects are also specialized and workers are employed on a job site only as long as their skills are needed to complete a particular phase of the construction process.

It is reasonable to assume that construction workers for developments that would occur pursuant to the proposed TVSP would be drawn from the existing labor force in the surrounding area, and, because a typical construction worker would be employed at several different construction sites during any given year, would not relocate their households' places of residence as a consequence of working at a particular construction site in the City of Redlands. Therefore, construction related employment that would be generated from implementation of the proposed TVSP would not induce substantial unplanned and impacts would be less than significant.

Infrastructure. The Project provides a framework for development of a walkable, mixed-use environment around the three new Arrow stations. A key component of this framework is a network of complete, multi-modal streets that provide for pedestrians, bicyclists, transit patrons, and motorists that includes various roadway improvements, pedestrian improvements, and bicycle route improvements. These circulation improvements do not provide accessibility in new areas that would result in additional growth; these improvements would enhance the existing circulation system to provide for multi-model transportation. The Project includes water system infrastructure improvements to potable and non-potable water mains due to age and size to provide reliable fire suppression and adding non-potable water mains to serve the New York Street/Esri and Downtown station areas. Similarly, sewer system improvements would include replacement of existing lines. The utility improvements included in the Project, do not provide for development in new areas that would result in additional growth. The utility improvements are needed due to aged infrastructure and to provide for the anticipated growth within the urban and developed area of the City on undeveloped and underdeveloped parcels that are within walking distance of transit and employment

opportunities. Therefore, the proposed infrastructure included in the TVSP would not induce unplanned population growth either directly or indirectly that could cause substantial adverse physical changes in the environment, and impacts would be less than significant.

5.11.7 CUMULATIVE IMPACTS

Impacts from cumulative population growth are considered in the context of their consistency with local and regional planning efforts. As discussed, SCAG's 2020-2045 RTP/SCS sets forth land use strategies that help the region achieve state greenhouse gas emission reduction goals and assist the South Coast Air Quality Management District prepare its Air Quality Management Plan (AQMP) The Project would not exceed the SCAG population, housing, and employment growth projections for the City. Based on the growth projections analyzed in SCAG's 2020-2045 RTP/SCS, full buildout of the Project, including buildout of up to 2,400 additional dwelling units and 613,000 square feet of retail commercial, hotel, and office space would represent approximately 8.9 percent of projected employment growth and 9.2 percent of projected housing growth in the City through 2045.The project is within the growth projections used to prepare RTP/SCS) and AQMP), Thus, impacts related to cumulative growth would be less than significant and not cumulatively considerable.

5.11.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS OR POLICIES

Existing Regulations

None.

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.11.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact POP-1 would be less than significant.

5.11.10 MITIGATION MEASURES

No mitigation measures are required.

5.11.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to population and housing would occur.

REFERENCES

California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark (DOF 2021). Accessed: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

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5.12 Public Services

5.12.1 INTRODUCTION

This section of the Draft EIR addresses impacts of the Project to public services, including fire protection and emergency services, police protection, school services, park services, and other public services, such as library and health services. This section addresses whether there are physical environmental effects of new or expanded public facilities that are necessary to maintain acceptable service levels. This section analyzes whether any physical changes resulting from a potential increase in service demands from Project implementation could result in significant adverse physical environmental effects. Thus, an increase in staffing associated with public services, an increase in calls for services, would not, by itself, be considered a physical change in the environment. However, physical changes in the environment resulting from the construction of new facilities or an expansion of existing facilities to accommodate the increased staff or equipment needs resulting from the Project could constitute a significant impact. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017; and
- *City of Redlands Municipal Code.*

5.12.2 REGULATORY SETTING

5.12.2.1 Federal Regulations

There are no Federal regulations pertaining to public services that would be applicable to the Project.

5.12.2.2 State Regulations

California Building Code

The California Building Code (CBC) includes fire safety requirements, including the installation of sprinklers in all commercial and residential buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

California Code of Regulations (CCR) Title 24, Part 9 (2016 California Fire Code) contains regulations relating to construction and maintenance of buildings, the use of premises, and the management of wildland-urban interface areas, among other issues. The California Fire Code is updated every three years by the California Building Standards Commission and was last updated in 2016 (adopted January 1, 2017).

The Fire Code sets forth regulations regarding building standards, fire protection and notification systems, fire protection devices such as fire extinguishers and smoke alarms, high-rise building standards, and fire suppression training. It contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code also include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-

safety requirements for new and existing buildings and the surrounding premises. Development under the Project would be subject to applicable regulations of the California Fire Code.

Mitigation Fee Act (California Government Code Sections 66000 et seq.)

Enacted as Assembly Bill (AB) 1600, the Mitigation Fee Act requires a local agency, such as the City of Redlands to establish, increase, or impose an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development Project on which it is to be levied. This Act became enforceable on January 1, 1989 (California Legislative Information, 2019).

Quimby Act

The Quimby Act (California Government Code, Section 66477) was established by the California legislature in 1965 to develop new or rehabilitate existing neighborhood or community park or recreation facilities. This legislation was enacted in response to the need to provide parks and recreation facilities for California's growing communities. The Quimby Act gives the legislative body of a city or county the authority, by ordinance, to require the dedication of land or payment of in-lieu fees, or a combination of both, for park and recreational purposes as a condition of approval of a tract map or parcel map.

5.12.2.3 Local Regulations

Fire Protection and Emergency Services

City of Redlands General Plan

The Livable Community Element, Connected City Element, and Healthy Community Element of the General Plan set forth the following actions and principles for fire protection and emergency services:

Principle 4-P.30. Require that new development adheres to safety standards to protect against property damage, injury, or loss of life from fire or geological hazards.

Principle 5-P.7. Minimize emergency vehicle response time and improve emergency access.

Action 5-A.3. Ensure new street design and potential retrofit opportunities for existing streets minimize traffic volumes and/or speed as appropriate within residential neighborhoods without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices. This could be accomplished through:

- Management and implementation of complete street strategies, including retrofitting existing streets to foster biking and walking as appropriate;
- Short block lengths, reduced street widths, and/or traffic calming measures; and
- Providing pedestrians and bicyclists with options where motorized transportation is prohibited.

Action 5-A.15. Maintain access for emergency vehicles and services by providing two means of ingress/egress into new communities, limitations on the length of cul-de-sacs, proper roadway widths and road grades, adequate turning radius, and other requirements per the California Fire Code.

Policy 7-P.12. Create and maintain a system of trails serving both recreational and emergency access needs.

Action 7-A.96. Ensure that all-weather access is provided for all new development, with adequate clearance for emergency vehicles, designed in accordance with the California Fire Code, and ensure that all roads, streets, and major public buildings are identified in a manner that is clearly visible to fire protection and other emergency vehicles.

City of Redlands Fire Fees

The Project is required to comply with the provisions of the City of Redlands Fire Department Fees (Resolution No. 8045), which requires a fee payment for any developments requiring permitting that the City applies to the funding of fire protection facilities.

Police Services

City of Redlands General Plan

The Livable Community Element of the General Plan sets forth the following actions and principles for police services:

Principle 4-P.60. Locate police and fire resources where they can best serve the community.

Principle 4-P.61. Support community partnership and community-based policing strategies to enhance the relationship between the Redlands Police Department and neighborhoods throughout the city.

Action 4-A.153. Ensure that the Police and Fire departments have modern facilities and equipment needed to perform their duties.

Action 4-A.154. Support and expand neighborhood watch organizations and citizen volunteer patrols to assist the police in deterring crime.

Action 4-A.155. Continue to enact mutual aid agreements with neighboring police and fire jurisdictions as well as state agencies.

Action 4-A.156. Encourage the use of police substations throughout the city to increase the police presence in the neighborhoods.

Action 4-A.157. Include the Police and Fire departments in the review of new developments to provide feedback on building and site design safety.

Park Services

City of Redlands General Plan

The Healthy Community Element of the General Plan sets forth the following actions and principles promoting park and recreation facilities and programs:

Principle 7-P.1. Promote active lifestyles and community health by furthering access to trails, parks, public open space, and other recreational opportunities.

5.12.3 ENVIRONMENTAL SETTING

Redlands Fire Department

The Redlands Fire Department (City Fire) would serve the TVSP area. City Fire provides fire suppression, emergency medical services (paramedic and non-paramedic), ambulance services, hazardous materials (HAZMAT) response, arson investigation, technical rescue, winter rescue operations, hazard abatement, and terrorism and weapons of mass destruction. The Fire Department provides services including fire prevention and suppression, emergency medical services, technical rescue, and hazardous materials response.

According to the Redlands General Plan EIR, the Redlands Fire Department recognizes two response time standards. The two standards include the National Fire Protection Association (NFPA), which recommends that the first arriving unit arrive within four minutes 90 percent of the time, and a more lenient goal of seven minutes 90 percent of the time, as recommended by the 2008 High-Level Fire Department Review for the Redlands Fire. According to the City of Redlands, the current 90 percent response time is nine minutes, which is over twice the NFPA standard and two minutes slower than the more lenient guideline.

The Fire Department consists of approximately 52 total sworn personnel, (including 44 firefighter/paramedics and 16 firefighter/EMTs) and covers an area of 37 square miles. In 2021, RFD received 11,836 calls for service and had 72,933 residents (California Department of Finance), which results in 0.16 calls per resident. The calls for service increased by an average by 6.65 percent in the three years between October 2016 and September 2019. Additionally, approximately 45 percent of the calls for service occur simultaneously. A majority of the increased calls were for emergency medical services (Citygate), which is consistent with the City's Fire Department Assessment and Deployment Study (2020) that details that 63 percent of service calls in 2018/2019 were for emergency medical services. The RFD currently has a goal response time of 7 minutes, 90 percent of the time (Citygate, 2020). The TVSP area would be served by four fire stations as shown in Table 5.12-1 below. The City currently has plans to acquires sites for and to construct two new fire stations (Stations 265 and 266) in different parts of the City and relocate Station 264 based on the annual increase in calls for service and location of service need.

Table 5.12-1: Fire Stations

Fire Station	Location
Station 261	525 East Citrus Avenue
Station 264	1270 West Park Avenue
Station 262	1690 Garden Street
Station 263	10 West Pennsylvania Avenue

Source: City of Redlands Fire Department 2022

Redlands Police Department

Public safety services in the City, including the TVSP area, are provided by the Redlands Police Department (RPD). RPD's main police station is located at 1270 West Park Avenue within the boundaries of the New York Street/Esri Transit Village. There are four other divisions located citywide. The Police Department personnel is made up of approximately 100 volunteers, 80 sworn officers and 58 full and part-time civilians, resulting in a service level of 1.12 officers per 1,000 residents. In 2020, the Department had an average response time of 9.08 minutes for Priority one police service calls and a service ratio of 1.1 officers per 1,000 residents. Although there are no industry standards for response time to emergency calls, according to the Redlands Police Department, a response time of 4.5 minutes is desirable in a city of this size. Table 5.12-2 below shows the location and staffing descriptions of the stations within the City.

Table 5.12-2: Police Stations

Location	Staffing Description
1270 W. Park Avenue	Patrol, Custody, Dispatch Records
30 Cajon Street	Administration, Investigations, MET, Traffic/Special Events, Crime Analysis, Community Policing, Property/Evidence
1150 Brookside Avenue	Records Processing
111 W. Lugonia Avenue	Community Policing Officer
504 Kansas Street	Animal Control Office

Source: RPD, 2022

Park Services

Existing parks within the City include four pocket parks (1.8 acres), eight neighborhood parks (76.8 acres), six community parks (143.2 acres), and three other parks (202.4 acres) for a total of approximately 424.2 acres (GP2035 EIR, Table 3.13-1). At the estimated 2019 population of 71,513 residents, the ratio of existing parkland acres per 1,000 residents is 5.9, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents consistent with state law (Quimby Act). able 5.12-3, *Existing Parks within the Project Area*, shows the existing parks within the TVSP area as well as additional park information.

Table 5.12-3: Existing Parks within the TVSP Area

Park Type	Park Name	Location (in Redlands)	Park Size	Park Details
Pocket Park	Ed Hales Park	101 E. State St.	0.7 acre	Picnic facilities in the downtown central business district
Neighborhood Park	Smiley Park (Portion)	126 E. Eureka St.	9.2 acres (Only a portion located within TVSP area)	Located at the Redlands Civic Center, this park is home to A. K. Smiley Public Library, the Lincoln Memorial Shrine, and the Redlands Bowl
	Jennie Davis Park	923 W. Redlands Blvd.	5.2 acres	Playground facilities and location of the annual Veteran's Day Parade and Celebration
Community Park	Sylvan Park	University St. between Colton Ave. and Park Ave.	23.3 acres	Open grassy areas, rose garden, picnic areas, a playground, a stage/bandstand area, a skate park, a baseball/softball field, horseshoe pits, bag toss, lawn bowling, and trails.
Other Park	Terrace Park	Between N. Sixth St. and Church St. on Colton Ave.	2.4 acres	Linear park featuring landscaped tree-lined walkway with benches and drinking fountain

Source: City of Redlands, Facilities & Community Services Department, https://www.cityofredlands.org/parks, accessed March 2022.

Other Public Services

Other governmental services include the City's library system. The A. K. Smiley Public Library, established in 1894, is a 34,000-square-foot facility located at 125 West Vine Street. In addition to its diverse collection of resource materials, the library system offers services and programs for all ages, including an adult literacy program. It also houses a museum, and the Lincoln Memorial Shrine. At the time the GP2035 was drafted, the library was in need of additional storage space for the museums, and plans were underway for an

adjunct building at 700 Brookside Avenue (formerly the Redlands Daily Facts building) for the Redlands Historical Museum (GP2035 EIR, p. 3.13-13).

5.12.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:

PS-1 – Fire protection
PS-2 – Police protection
PS 3 – Schools
PS 4 – Parks
PS 5 – Other public facilities

The Initial Study established that the proposed Project would not result in impacts related to Threshold PS-3; and no further assessment of this impact is required in this Draft EIR.

5.12.5 METHODOLOGY

The evaluation of impacts to public services is based on whether the existing public service can meet the demands of the Project, based on established thresholds, including maintaining acceptable service ratios, staffing levels, adequate equipment, response times, and other performance objectives that results in the need for new or the expansion of existing government services and facilities, including fire and police stations, schools, parks, libraries, community recreation centers, public health facilities, and animal shelters, that would result in significant adverse physical effects on the environment.

5.12.6 ENVIRONMENTAL IMPACTS

IMPACT PS-1: THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION OR EXPANSION OF FIRE FACILITIES.

Less than Significant Impact. Full buildout of the TVSP area pursuant to the TVSP would increase the demand for fire protection and emergency medical services. The threshold is whether the Project would result in inadequate staffing levels or require additional equipment, response times, and/or increase the demand for services that would then require the construction or expansion of fire station facilities that would have an adverse physical effect on the environment.

Development within the TVSP area would be installed with fire extinguishers, wet and dry sprinkler systems, pre-action sprinkler systems, fire alarm systems, fire pumps, backflow devices, and clean agent waterless fire suppression systems pursuant to the California Fire Code adopted as Chapter 15.20 of the Redlands Municipal Code, CBC, and other existing regulations regarding fire safety. Site access would be reviewed by City planning and the Redlands Fire Department to ensure that the proposed improvements would have adequate access for large fire trucks and vehicles. Future development within the TVSP would be required to meet fire and life safety standards, including smoke and carbon monoxide detectors, fire alarms, and residential fire sprinklers, among other building requirements. Their development plans would also be reviewed by City planning and fire departments to ensure state and county codes and requirements are implemented.

The General Plan EIR stated that the fire services have stated the needs for expansion in order to accommodate continued increase in population. However, development impact fees included as PPP PS-1

would serve to ensure the maintenance of existing facilities and the timely provision of new facilities as needed. The fees collected would ensure the level of fire protection services are maintained and can be applied to the purchase of equipment, maintenance of existing facilities, and the construction of additional facilities, if needed in the future. Furthermore, future developments pursuant to the TVSP would be required to meet fire and life safety standards, including smoke and carbon monoxide detectors, fire alarms, and residential fire sprinklers, among other building requirements. Their development plans would also be reviewed by City planning and fire departments to ensure state and City codes and requirements are implemented.

Whether the City chooses to construct new fire stations in the future is too speculative to be considered as a Project-related impact. Any potential improvements would be subject to City policies that are designed to protect environmental resources as well as environmental review under CEQA, separate from this Project. Therefore, with the payment of development fees included as PPP PS-1, Project impacts to fire services would be less than significant.

IMPACT PS-2 THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION OR EXPANSION OF NEW OR PHYSICALLY ALTERED POLICE FACILITIES.

Less than Significant Impact. The service ratio for the City of Redlands is 1.1 officers per 1,000 residents. Based on the new resident population of 6,360, the City would need to hire approximately 7 new officers to maintain the service ratio in the City. The increased residential population and increased commercial uses from buildout of the TVPS could increase the frequency of emergency and non-emergency calls to the Redlands Police Department, as compared to existing conditions. Buildout of the TVSP is not expected to increase demand for police protection to the extent that new facilities would be required. However, payment of development impact fees included as PPP PS-1 would serve to ensure the maintenance of existing facilities. In addition, property tax revenue generated by development of the Project would provide funding for police services and would help to offset the Project's increase in the demand for services. Therefore, impacts to police protection facilities would be less than significant.

IMPACT PS-4 THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION OR EXPANSION OF NEW OR PHYSICALLY ALTERED PARK FACILITIES.

Less than Significant Impact. As discussed in Section 5.13, *Population and Housing,* full buildout of the TVSP would result in the generation of up to 6,360 residents. Without the development of new parks, this population increase would place additional physical demands on existing parks and recreational facilities, which could result in deterioration of existing facilities. The City of Redlands has a ratio of 5.9 acres of parkland per 1,000 residents which exceeds the state law requirement of 5.0 acres per 1,000 residents. As such, buildout of the TVSP would result in a demand for 31.8 acres of parkland. According to the City's General Plan Parks and Recreational Open Space Element (Section 7.2), there are several different kinds of parks in Redlands, including community parks, neighborhood parks, and pocket parks. As discussed in Table 5.12-3, there are 4 existing parks totaling 40.8 acres within the TVSP area. The TVSP area at full buildout would provide an additional 280,000 SF (6.4 acres) of open space and park area which would bring the City's total parkland acreage to 430.6 acres (not including any additional parkland that may be added in the future by the City outside the Project area).

Furthermore, the City's mechanism for addressing parkland needs are its development impact fees as set forth in RMC Chapter 3.32 included as PPP PS-2. The funds would be used to maintain and operate the existing park facilities and construct additional facilities, as deemed warranted by the City. Development impact fees are charged by local governments to defray all or a portion of the cost of public facilities

related to development projects. Any potential new facilities would be subject to the City's policies designed to protect environmental resources and environmental review under CEQA, which would be separate from this Project. Based on the TVSP's provisions for additional parkland and the existing parkland within the TVSP area and the incremental population increase resulting from buildout of the TVSP, the Project would not result in overuse of existing parks and facilities that would result in substantial deterioration of existing facilities. Additional City policies requiring maintenance and funding of existing and future recreational facilities would ensure that parks within the TVSP are in good physical condition. The development of future recreational facilities would be subject to existing building and construction regulations that would ensure that construction activities have a minimal effect on the surrounding environment. These, along with Redlands General Plan policies established to protect environmental resources, air quality, and water quality, would ensure that future park construction within the TVSP would have a less than significant impact.

IMPACT PS-5 THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION OR EXPANSION OF NEW OR PHYSICALLY ALTERED PUBLIC FACILITIES.

Less than Significant Impact. Other public facilities and services provided by the City include library services and City administrative services. As with all developments, the Project would contribute to the incremental demand for expanded government services and facilities, including libraries, community recreation centers, public health facilities, and/or animal shelters. The policies set forth by the Redlands General Plan ensure that within the city these public services are improved and expanded to meet demand as development occurs within the TVSP area. Future development of new public facilities would require project-level environmental review and site-specific mitigation measures as appropriate, ensuring that adverse environmental effects are avoided or mitigated. Additionally, the Project would generate new tax revenues that would contribute to and supplement existing revenue sources for the maintenance and enhancement of these facilities. Therefore, Project implementation would not adversely affect public facilities or require the construction of new or modified public facilities that are not already addressed in this document. Impacts would be less than significant.

5.12.7 CUMULATIVE IMPACTS

The Project would not significantly increase the need for public services in Redlands, cities surrounding Redlands, or the region. As discussed above, the Project applicant would pay the required City Development Impact Fees and Park Fees included as PPP PS-1 and PPP PS-2. Additionally, as discussed above, the Project would not impact acceptable service ratios, staffing levels, adequate equipment, response times, and other performance objectives or if the result in the need for new or the expansion of existing government services and facilities. Related projects in the region would be required to demonstrate their level of impact on public services and also pay their proportionate development fees. Therefore, the past, present, and future projects would not result in a cumulative impact related to the provision of public services.

5.12.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Regulations

None.

Standard Conditions

None.

Plans, Programs, or Policies

PPP PS-1: Development Impact Fees. As a standard requirement for implementing projects within the TVSP area, and prior to issuance of any building permits for the implementing project, the project applicants/developers shall pay all applicable City of Redlands Development Impact Fees (DIF) pursuant to the Redlands Municipal Code and/or adopted fee schedules.

PPP PS-2: Park Fees. As a Condition of Approval for implementing projects within the TVSP area, the project applicants/developers shall pay applicable park related fees pursuant to Redlands Municipal Code Chapter 3.32.

5.12.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements Impacts PS-1, PS-2, PS-4, and PS-5 would be less than significant.

5.12.10 MITIGATION MEASURES

No mitigation measures are required.

5.12.11 LEVELS OF SIGNIFICANCE AFTER MITIGATION

Compliance with regulatory programs would reduce potential impacts related to public services to less than significant. Therefore, no significant unavoidable adverse impacts would occur.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands General Plan EIR. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_deir_compiled_lo_071917_0.pdf?1554321669

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1977

Citygate Associates, LLC. Fire Department Assessment and Deployment Study. 25 June 2020. https://destinyhosted.com/redladocs/2020/CC/20200901_218/2879_Vol_1_-_Final_Redlands_FD_Assessment_and_Deployment_Study_Technical_Report_%2806-25-20%29.pdf

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5.13 Recreation

5.13.1 INTRODUCTION

This section describes the recreational conditions in the TVSP area and potential impacts from Project implementation. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035, December 2017*
- *City of Redlands Municipal Code*

5.13.2 REGULATORY SETTING

5.13.2.1 Federal Regulations

There are no federal regulations related to recreation that are applicable to the Project.

5.13.2.2 State Regulations

There are no federal regulations related to recreation that are applicable to the Project.

5.13.2.3 Local Regulations

City of Redlands General Plan

The City of Redlands Active Lifestyle Element contains the following policies related to recreation that is applicable to the Project:

Policy 7-P.1 Promote active lifestyles and community health by furthering access to trails, parks, public open space, and other recreational opportunities.

Policy 7-P.11 Maximize the availability of recreational facilities and activities throughout the city

Policy 7-P.12 Create and maintain a system of trails serving both recreational and emergency access needs.

Action 7-A.3 Provide 5 acres of park area for each 1,000 Planning Area residents, and additional parkland for specialized, and low-use park acreage

Action 7-A.21 Require that the recreational needs of children and adults, including seniors and dependent adults, be addressed in development plans.

Action 7-A.29 Review new development proposals for compliance with the Trails Plan and provide for right-of-way dedication and improvement/development of trails.

City of Redlands Municipal Code

Chapter 3.32 Open Space and Park Fees: It is the purpose and intent of this chapter to implement the Redlands general plan to ensure that open space lands and active and passive parks are made available to the public concurrent with the need for such lands and parks caused by new development within the city. The fees established pursuant to this chapter shall be imposed as a condition of approval of new residential, commercial, office, and industrial development to pay for the costs incurred by the city for acquiring, developing, improving and expanding open space areas, scenic drives, parks, playgrounds and recreational facilities to meet the increased needs for those facilities resulting from the effects of new development.

5.13.3 Environmental Setting

Regional Parks

The San Bernardino County Regional Parks Department manages and maintains nine Regional Parks throughout San Bernardino County totaling approximately 9,200 acres. Each park offers diverse outdoor recreation opportunities in settings that range from metro, mountain, and desert scenery. Regional County recreational facilities near the TVSP area include the Santa Ana River Trail and Parkway which is approximately 6.9 miles from the Project site and the Yucaipa regional park which is approximately 10 miles from the Project site.

Local Parks

Existing parks within the City include four pocket parks (1.8 acres), eight neighborhood parks (76.8 acres), six community parks (143.2 acres), and three other parks (202.4 acres) for a total of approximately 424.2 acres (GP2035 EIR, Table 3.13-1). At the estimated 2019 population of 71,513 residents, the ratio of existing parkland acres per 1,000 residents is 5.9, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents consistent with state law (Quimby Act). There are several parks within the TVSP area that provide open space and recreational opportunities to surrounding residents, workers, and visitors. Table 5.13-1, *Existing Parks within the Project Area*, shows the existing parks within the TVSP area as well as additional park information.

Table 5.13-1: Existing Parks within the TVSP Area

Park Type	Park Name	Location (in Redlands)	Park Size	Park Details
Pocket Park	Ed Hales Park	101 E. State St.	0.7 acre	Picnic facilities in the downtown central business district
Neighborhood Park	Smiley Park (Portion)	126 E. Eureka St.	9.2 acres (Only a portion located within TVSP area)	Located at the Redlands Civic Center, this park is home to A. K. Smiley Public Library, the Lincoln Memorial Shrine, and the Redlands Bowl
	Jennie Davis Park	923 W. Redlands Blvd.	5.2 acres	Playground facilities and location of the annual Veteran's Day Parade and Celebration
Community Park	Sylvan Park	University St. between Colton Ave. and Park Ave.	23.3 acres	Open grassy areas, rose garden, picnic areas, a playground, a stage/bandstand area, a skate park, a baseball/softball field, horseshoe pits, bag toss, lawn bowling, and trails.
Other Park	Terrace Park	Between N. Sixth St. and Church St. on Colton Ave.	2.4 acres	Linear park featuring landscaped tree-lined walkway with benches and drinking fountain

Source: City of Redlands, Facilities & Community Services Department

Recreational Facilities

Recreational facilities in Redlands include the Redlands Community Center, the Community Senior Center, the Joslyn Senior Center, neighborhood community gardens, and the Carriage House. Large open spaces, including the San Timoteo Canyon, Live Oak Canyon, and the Crafton Hills also provide recreational space. The City of Redlands currently has joint use agreements with the Redlands Unified School District and the Grove School allowing public access to school recreational facilities. The agreement with the school district allows the City and the District to use facilities, parks, sports fields and classrooms as needed for community activities, such as the community gardens, adult and youth sports, and after school programs.

Trails

The City of Redlands provides public trails for walking, jogging, bicycling, and equestrian use. Some trails are located within City parks and open space, while others act as linkages between the parks or to other regional trails. The Orange Blossom Trail runs the entire length of the TVSP area and the Sylvan Park Trail, the Church Street to Panorama Trail, and the Terrace Trail are located within the University Village.

5.13.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the State CEQA Guidelines indicates that a project could have a significant effect if the project would:

REC-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

REC-2 Include recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.13.5 METHODOLOGY

This analysis is based on a review of public information about San Bernardino County and City of Redlands parks and recreational facilities. The analysis considers the increase in use of parks and recreation facilities that would result from the increased development intensity from the proposed project, along with the ability of existing park and recreation facilities to accommodate the increased use. The analysis considers whether an increase in use would result in the substantial physical deterioration of existing recreational facilities, such as accelerated wear on sports facilities and fields, or in the need for new or expanded facilities.

5.13.6 ENVIRONMENTAL IMPACTS

IMPACT REC-1 THE PROJECT WOULD NOT INCREASE THE USE OF EXISTING NEIGHBORHOOD AND REGIONAL PARKS OR OTHER RECREATIONAL FACILITIES SUCH THAT SUBSTANTIAL PHYSICAL DETERIORATION OF THE FACILITY WOULD OCCUR OR BE ACCELERATED.

Less than Significant Impact. As discussed previously in Table 5.13-1, there are 40.8 acres of existing parks within the TVSP area and 424.2 acres of parks within the City of Redlands. In addition, the Project area at full buildout would provide an additional 280,000 SF (6.4 acres) of open space and park area which would bring the City's total parkland acreage to 430.6 acres. (not including any additional parkland that may be added in the future by the City outside the Project area).

In addition to parks, the City operates numerous recreational community centers and facilities, and has a joint use agreement with RUSD allowing public access to school recreational facilities. Other recreational opportunities include open spaces such as San Timoteo Canyon, Live Oak Canyon, Crafton Hills, and approximately 27.58 acres of recreational trails. At the estimated 2019 population of 71,513 residents, the ratio of existing parkland acres per 1,000 residents is 5.9, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents.

Without the development of new parks and recreational facilities, future increases would place additional physical demands on existing parks and facilities. The GP2035 provides for new parkland, recreational facilities, and trails to serve the City's population as it grows. The City's mechanism for addressing parkland and recreational facility needs are its development impact fees as set forth in RMC Chapter 3.32.

Development impact fees are charged by local governments to defray all or a portion of the cost of public facilities related to development projects. The development impact fee program is set forth in Government Code Sections 66000-66025. In the City, development impact fees are collected at the time a building permit is issued for the purpose of further alleviating the impacts caused by new development on the City's infrastructure. Fees are used to finance the acquisition, construction, and improvement of public facilities needed because of new development. A separate funding structure has been established to account for the impact of new development on each of the following types of public facilities: open space, parks and recreational facilities, public facilities (including public safety, library and general government facilities), transportation, water, solid waste, and sewer.

Individual development projects under the Project would be subject to the payment of these development impact fees to the City, which includes fees specific to TOD, as currently set forth in City Resolution No. 7951. As noted, the addition of approximately 6,360 residents would place additional physical demands on existing parks and facilities.

The addition of 6,360 new residents as a result of the Project would increase the use of recreational facilities and would require approximately 31.8 acres of new parkland based on the parkland/recreational space standard of 5.0 acres per 1000 residents. Here, the proposed Project would provide 6.4 acres of parkland at full buildout which would result in a total of 430.6 acres of parkland and 77,873 residents. The Project would therefore result in a ratio of parkland acres per 1000 residents of 5.5 acres per 1,000 residents, which exceeds the GP2035's parkland/recreational space standard of 5.0 acres per 1,000 residents. Thus, the Project would not significantly increase the use of existing parks or recreational facilities such that substantial physical deterioration would occur or be accelerated. Impacts would be less than significant.

IMPACT REC-2 THE PROJECT WOULD NOT INCLUDE RECREATIONAL FACILITIES OR REQUIRES THE CONSTRUCTION OR EXPANSION OF RECREATIONAL FACILITIES WHICH MIGHT HAVE AN ADVERSE PHYSICAL EFFECT ON THE ENVIRONMENT.

Less than Significant Impact. The recreational trail and open space network, which is conceptually planned as part of the TVSP, would provide a contiguous green space connecting the TVSP villages. The proposed Zanja Greenway is located along a historic existing irrigation feature that traverses the TVSP area from Sylvan Boulevard in the University Transit Village southwest past the New York Street/Esri Transit Village. The TVSP would install riparian landscaping along the Zanja Greenway, which also runs parallel to the Orange Blossom Trail. The TVSP also includes an open space plaza at State Street/Third Street, a midtown greenbelt in the Downtown Transit Village, a central park in the University Transit Village, and a neighborhood park in the New York Street/Esri Transit Village. The precise timing of open space or other public improvements are not known with certainty, as improvements would likely depend on the timing of future developments, buildout of private development projects, future availability and amounts of public grant funding or other public funds, and other factors. The development of future parkland and recreational facilities would be subject to existing building and construction regulations that would ensure that future construction activities have a minimal effect on the surrounding environment. Furthermore, individual recreational projects within the TVSP would be subject to the mitigation measures included throughout this EIR and the Redlands General Plan policies established to protect cultural resources, paleontological resources, air quality, and water quality. Adherence to existing regulations and mitigation measures included in this EIR would ensure that the Project would not result in construction or expansion of recreational facilities which might have an adverse impact on the environment, and impacts would be less than significant.

5.13.7 CUMULATIVE IMPACTS

The geographic area in which cumulative impacts to recreation could occur is the nearby locations within portions of City of Redlands and San Bernardino County that the residents from the project would recreate a majority of the time. Recreational needs of the future residents within the proposed project and other cumulative development within the City of Redlands would add to local and regional demand for parks and recreational facilities. However, each project within the City is required to comply with the City's open space and park fees as contained in the Chapter 3.32.040 of the City's Municipal Code included as PPP PS-1. As individual developments within the TVSP would pay open space and park fees, the proposed Project would not contribute to a cumulatively considerable impact related to recreation. Furthermore, individual recreational facility and park projects would be required to undergo CEQA review, which would ensure that no significant impacts would occur from development of future parkland or recreational facilities. Cumulative impacts related to recreation would be less than significant.

5.13.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Regulations

None.

Standard Conditions

None.

Plans, Programs, or Policies

PPP PS-1: Park Fees. As a Condition of Approval for implementing projects within the TVSP area, the project applicants/developers shall pay applicable park related fees pursuant to Redlands Municipal Code Chapter 3.32.

5.13.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts REC-1 and REC-2 would be significant.

5.13.10 MITIGATION MEASURES

No mitigation measures are required.

5.13.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts associated with recreation are less than significant.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Municipal Code. Accessed:
https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1977

5.14 Transportation

5.14.1 INTRODUCTION

This section addresses potential transportation impacts that may result from implementation of the Specific Plan. The following discussion addresses the existing transportation conditions in the Project area, identifies applicable regulations, evaluates the Project's consistency with applicable goals and policies, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the Project. The analysis in this section is based on the following resources:

- *City of Redlands General Plan 2035*, December 2017
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report,* Dyett & Bhatia, July 2017
- *City of Redlands Municipal Code*
- *City of Redlands CEQA Assessment VMT Analysis Guidelines,*
- *Vehicle Miles Traveled (VMT) Screening Analysis*, EPD Solutions, 17 January 2022. Included as Appendix I.

Transportation Terminology

- **Traffic Analysis Zone (TAZ).** Traffic Analysis Zone (TAZ) refers to the geographic unit used for traffic analysis within transportation planning models, such as the San Bernardino County Transportation Authority's VMT Screening Tool model. A TAZ is a special area delineated by state and/or local transportation officials for tabulating traffic-related data especially journey-to-work and place-of-work statistics. A TAZ usually consists of one or more census blocks, block groups, or census tracts.
- **Transit Priority Area (TPA).** As defined by SB 743, a Transit Priority Area (TPA) is an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in the applicable regional transportation plan.
- **Low VMT Area.** Low VMT areas are defined as TAZs with a total daily VMT/Service Population (employment plus population) that is 15% less than the baseline level for the County.

5.14.2 REGULATORY SETTING

5.14.2.1 State Regulations

Senate Bill 743 (Steinberg, 2013)

On September 27, 2013, Senate Bill (SB) 743 was signed into state law. The California legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32).

SB 743 requires the California Governor's Office of Planning and Research to amend the State CEQA Guidelines to provide an alternative to LOS as the metric for evaluating transportation impacts under CEQA. Particularly within areas served by transit, SB 743 requires the alternative criteria to promote the reduction of greenhouse gas emissions, development of multimodal transportation networks, and diversity of land uses. The alternative metric for transportation impacts detailed in the State CEQA Guidelines is VMT. Jurisdictions had until July 1, 2020, to adopt and begin implementing VMT thresholds for traffic analysis.

5.14.2.2 Regional Regulations

Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the designated metropolitan planning organization for six Southern California counties (Ventura, Los Angeles, San Bernardino, Riverside, Orange, and Imperial). As the designated metropolitan planning organization, SCAG is mandated by the federal and state governments to prepare plans for regional transportation and air quality conformity. The most recent plan adopted by SCAG is the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal, which was adopted in September 2020. The RTP/SCS integrates transportation planning with economic development and sustainability planning and aims to comply with state GHG emissions reduction goals, such as SB 375. With respect to transportation infrastructure, SCAG anticipates, in the RTP/SCS, that the six-county region will have to accommodate 22.5 million residents by 2045 while also meeting the GHG emissions reduction targets set by the California Air Resources Board. SCAG is empowered by state law to assess regional housing needs and provide a specific allocation of housing needs for all economic segments of the community for each of the region's counties and cities. In addition, SCAG has taken on the role of planning for regional growth management.

5.14.2.3 Local Regulations

City of Redlands General Plan 2035

The General Plan Healthy Community Element contains the following policies related to transportation that are applicable to the Project:

Principle 5-P.1 Maintain a cohesive circulation system through a "layered network" approach promoting complete streets and mobility for all modes while emphasizing specific transportation modes for specific corridors and geographic areas.

Principle 5-P.2 Use the layered network approach to identify, schedule, and implement roadway improvements as development occurs in the future, and as a standard against which to evaluate future development and roadway improvement plans.

Principle 5-P.4 Support transportation infrastructure improvements such as safer street crossings and attractive streetscapes to encourage bicyclists, walkers, and users of mobility devices.

Principle 5-P.5 Manage the city's transportation system to minimize traffic congestion, improve flow, and improve air quality.

Principle 5-P.7 Minimize emergency vehicle response time and improve emergency access.

Principle 5-P.8 Ensure the safety of the transportation network by preventing excessive speeding of vehicular traffic and promoting safe sharing of the network by all transportation modes.

Principle 5-P.10 Require developers to construct or pay their fair share toward improvements for all travel modes consistent with the layered network.

Principle 5-P.11 Implement standards for pavement design and roadway and intersection striping so streets are accessible by all users and all modes, and safety is improved.

Principle 5-P.13 Ensure streets are designed to accommodate bicyclists per the Bicycle Master Plan.

Principle 5-P.14 Design streets to accommodate various modes according to roadway classification and reduce conflicts and safety risks between modes per Figure 5-4.

Principle 5-P.16 Strengthen active transportation circulation routes within Downtown and the Transit Villages, and to/ from adjacent neighborhoods.

Action 5-A.1 Maintain and update design standards for each functional roadway classification per Figure 5-4. These standards are for a typical midblock application. Additional turn lanes may be needed at some intersection approaches. Different standards may govern in specific plan areas and variations are permitted given site conditions and right-of-way availability.

Action 5-A.3 Ensure new street design and potential retrofit opportunities for existing streets minimize traffic volumes and/or speed as appropriate within residential neighborhoods without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices. This could be accomplished through:

- Management and implementation of complete street strategies, including retrofitting existing streets to foster biking and walking as appropriate;
- Short block lengths, reduced street widths, and/or traffic calming measures; and
- Providing pedestrians and bicyclists with options where motorized transportation is prohibited.

Action 5-A.6 Add bike and pedestrian facilities on roads with excess capacity where such facilities do not exist, using supporting transportation plans as guidance. Excess capacity includes street right-of-ways or pavement widths beyond the standards, or excess capacity in roadways based on actual vehicular travel versus design capacity.

Action 5-A.7 Add new streets to create a finer grained, pedestrian-scaled road network where the roadway network is characterized by particularly long blocks, connecting residential areas to parks and Transit Village cores. Ensure the street systems in Transit Villages support development of connected and accessible communities.

Action 5-A.15 Maintain access for emergency vehicles and services by providing two means of ingress/egress into new communities, limitations on the length of cul-de-sacs, proper roadway widths and road grades, adequate turning radius, and other requirements per the California Fire Code.

Action 5-A.20 Provide pedestrian routes between offices, neighborhoods, Downtown, and Transit Villages. Plan for direct connections from the interiors of residential tracts to neighboring parks, schools, retail, and other services using sidewalks, trails, and paseos.

Principle 5-P.21 Develop bike routes that provide access to rail stations, Downtown, schools, parks, the University, employment, and shopping destinations.

Action 5-A.25 Implement bicycle and trail improvements that provide strong east-west connections between Transit Villages and in the city's wider bicycle network. Routes would include the Orange Blossom Trail, the Mission Creek Zanja Trail routes on Colton

Avenue and Citrus Avenue, Santa Ana River Trail, and the San Timoteo Canyon Trail.

Action 5-A.26 Implement bicycle and trail improvements that provide strong north-south connections, especially with major east-west trails, including routes on Mountain View Avenue, California Street, Nevada Street, Alabama Street, Texas Street, New York Street, Orange Street, Church Street, Dearborn Street, and Wabash Avenue.

Action 5-A.27 Implement safety improvements in mid-block areas that allow for bicycles to safely cross heavily traveled roads. Improvements can include stop signs for cyclists, warning beacons, and illuminated signs initiated by pedestrians and cyclists.

Action 5-A.61 Support investments in passenger rail by providing effective on-site circulation and multi-modal connections to transit stations.

Action 5-A.68 Provide for direct pedestrian paths and access from new developments to the nearest public transportation stop.

Action 5-A.70 Locate Downtown public parking to encourage a park once approach. Provide pedestrian directional signage to direct persons from peripheral parking to downtown destinations.

Action 5-A.75 Consider techniques to reduce the amount of area in the Transit Villages occupied by parking, especially for developments located within easy walking distance of the Passenger Rail stations.

5.14.3 ENVIRONMENTAL SETTING

Table 5.14-1, *Existing Major Roadway Characteristics within TVSP Area*, shows the roadway characteristics that are observed within the TVSP area.

Table 5.14-1: Existing Major Roadway Characteristics within TVSP Area

Roadway	Classification	Number of Lanes	Bike Lane?
Redlands Boulevard (E/W)	Boulevard (between Alabama Street and E Citrus Avenue), Major Arterial elsewhere	4-Lane Divided w/Concrete median, except between Center Street and 1st Street	No
Orange Street (N/S)	Boulevard (between Redlands Boulevard and Union Avenue), Minor Arterial elsewhere	4-Lane Divided w/Painted median	No
Cajon Street (N/S)	Minor Arterial	2-Lane Divided w/Painted median	Class II
Colton Avenue (E/W)	Boulevard (between Redlands Boulevard and 6th Street)	2-Lane Divided w/Painted median	Class III between Orange Street and Church Street
Brookside Avenue (E/W)	Major Arterial	2-Lane Divided w/Concrete median	Class II
Citrus Avenue (E/W)	Major Arterial west of Orange Street, Minor Arterial East of Orange Street	4-Lane Divided w/Concrete median between Eureka Street and Orange Street, 2-Lane Divided w/Painted median elsewhere	Class III west of Redlands Boulevard, Class II east of Redlands Boulevard

Roadway	Classification	Number of Lanes	Bike Lane?
University Street (N/S)	Boulevard between I-10 and Colton Avenue, Minor Arterial south of I-10 and between Colton Avenue and Lugonia Avenue, Collector north of Lugonia Avenue	4-Lane Divided w/Painted median	None
Tennessee Street (N/S)	Minor Arterial	4-Lane Divided w/Painted median	Class III south of State Street
Olive Avenue (E/W)	Collector	2-Lane Divided w/Painted median	Class II

Existing Transit Service

The TVSP area is served by bus service via Omnitrans, which serves the San Bernardino Valley. Omnitrans Route 8 connects San Bernardino and Yucaipa via Loma Linda, Redlands, and Mentone, including the TVSP area, with buses running every 60 minutes Monday through Sunday, and has stops along Redlands Boulevard and Lugonia Avenue. Omnitrans Route 15 serves the cities of Fontana and Redlands (including the TVSP area) via San Bernardino and Rialto, with buses running every 60 minutes Monday through Sunday, and has stops along Orange Street, Redlands Boulevard, and Eureka Street. Omnitrans Route 19 provides service between Fontana, the San Bernardino Transit Center, and Yucaipa. Route 19 has stops at the Redlands Mall and has buses running every 60 minutes, Monday through Sunday.

Furthermore, the San Bernardino County Transportation Authority's newly built Arrow line connects the City of Redlands to the City of San Bernardino and provides further direct rail trips once a day to the City of Los Angeles. The Arrow line has three stops located at the center of each proposed Transit Village:

- New York/Esri Station: located north of the intersection of Redlands Boulevard and New York Street across from the Esri campus
- Downtown Station: located at the historic Redlands Santa Fe Depo, between Eureka Street and Orange Street
- University Station: located at the University of Redlands at the south end of campus near North University Street

Starting in 2022, during morning and afternoon peak commute hours, trains operate every 30 minutes. During non-commute or off-peak hours, trains operate every 60 minutes. Weekday and weekend service is planned to start at 5 a.m. and run until 10 p.m. In addition to standard passenger rail service, the Metrolink Express train will be extended to serve the Redlands – Downtown Station with limited stop service to and from Los Angeles during peak commute hours.

Existing Bicycle and Pedestrian Facilities

As shown on Table 5.14-1, above, in the TVSP area, Brookside Avenue, Citrus Avenue, Cajon Street, Olive Street, and Colton Avenue, contain bicycle lanes. Furthermore, a Class I bicycle lane currently exists west of Center Street and east of Grove Street within the TVSP area.

Generally, throughout the TVSP area, sidewalks are provided on both sides of the street. University Street currently lacks sidewalks on some segments near the I-10 and Redlands Boulevard currently lacks sidewalks on some segments. Additionally, a multi-use trail, the Orange Blossom Trail, transverses the TVSP area east

of Center Street and west of Grove Street. Other multi-use trails exist on Church Street and a portion of Colton Avenue between 6th Street and Church Street.

5.14.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

- TR-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- TR-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- TR-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- TR-4 Result in inadequate emergency access.

The Initial Study established that the proposed Project would result in less than significant impacts related to Thresholds TR-3 and TR-4. No further assessment of these impacts is required in this Draft EIR.

Vehicle Miles Traveled Significance Criteria

State CEQA Guidelines Section 15064.3(b)(1) provides that for land use projects:

> VMT traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

The City of Redlands' VMT Guidelines provides VMT screening thresholds to identify projects that would be considered to have a less than significant impact on VMT and therefore could be screened out from further analysis. If a project meets one of the following criteria, then the VMT impact of the project would be considered less than significant and no further analysis of VMT would be required:

1. The project is in a Transit Priority Area (TPA).
2. The project is in a low VMT area.
3. The project is one of the following land uses:
    - Local serving K-12 school
    - Local park
    - Daycare center
    - Local-serving gas station
    - Local-serving bank
    - Local-serving hotel (e.g., non-destination hotel)
    - Student housing project on or adjacent to a college campus
    - Local-serving assembly use (place of worship, community organization)
    - Community institution (public library, fire station, local government)
    - Local-serving community college that is consistent with the assumptions noted in the RTP/SCS
    - Affordable or supportive housing
    - Assisted living facility
    - Senior housing (as defined by the Federal Department of Housing and Urban Development)
4. The project generates less than 3,000 MT CO2e per year. This includes:
    - Single family residential – 167 dwelling units (DU) or fewer
    - Multifamily residential (low-rise) – 232 DU or fewer
    - Multifamily residential (mid-rise) – 299 DU or fewer

- Office – 59,100 square feet (SF) or less
- Local-serving retail – 112.400 SF or less (no stores larger than 50,000 SF)
- Warehousing – 463,600 SF or less
- Light industrial – 74,600 SF or less

5.14.5 METHODOLOGY

On September 27, 2013, Senate Bill (SB) 743 was signed into state law. The California legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32).

SB 743 requires the California Governor's Office of Planning and Research to amend the State CEQA Guidelines to provide an alternative to LOS as the metric for evaluating transportation impacts under CEQA. Particularly within areas served by transit, SB 743 requires the alternative criteria to promote the reduction of greenhouse gas emissions, development of multimodal transportation networks, and diversity of land uses. The alternative metric for transportation impacts detailed in the State CEQA Guidelines is VMT. Jurisdictions had until July 1, 2020, to adopt and begin implementing VMT thresholds for traffic analysis. As outlined in State CEQA Guidelines Section 15064.3, except as provided for roadway capacity transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, in order to comply with CEQA Guidelines Section 15064.3, impacts associated with automobile delay are not analyzed in this Draft EIR.

Vehicle Miles Traveled Analysis Methodology

The applicability of each City of Redlands VMT Guidelines screening criterion was analyzed in relation to the proposed TVSP's land uses, location, and proximity to transit. If the Project meets one of the screening criteria set forth in the City of Redlands VMT Guidelines, it can be presumed that the Project would result in a less than significant impact.

5.14.6 ENVIRONMENTAL IMPACTS

IMPACT TR-1: THE PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE, OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES.

Less than Significant Impact.

Roadway, Transit, Bicycle, and Pedestrian Facilities

Roadway Network: As described in 5.14-1, the TVSP area includes a variety of roadway types. As shown on Figure 3-9, *Future Street Network Improvements,* the TVSP identifies multiple potential circulation network improvements such as transforming New York Street, Orange Street, and University Street into gateway streets; introducing new streets to promote walkability and to reestablish Redlands' traditional street and block pattern; changing State Street between Orange Street and 7th Street into a two-way street; introducing a traffic signal at the intersection of Orange Street and Shoppers Lane; and upgrading crosswalks along University Street, among others. Implementation of these recommended roadway improvements would improve the circulation network within the TVSP area. Therefore, the proposed Project would not conflict with a plan, ordinance, or policy addressing roadway circulation, and impacts would be less than significant.

Transit Facilities: As described previously, the TVSP area is served by Omnitrans Routes 8 and 15 and the newly constructed Arrow line. These existing transit services would continue to serve their ridership in the area and would serve residents, employees, and visitors within the TVSP area. The TVSP includes recommendations for transit facility upgrades such as rerouting of certain bus routes through the Downtown Village to provide more effective bus stops and providing bus routes through the University Village. While the TVSP provides certain recommendations for improving existing transit throughout the TVSP area, the proposed Project would not alter or conflict with existing transit stops and schedules, and impacts related to transit services would not occur.

Bicycle Facilities: As detailed previously, Brookside Avenue, Olive Avenue, and Cajon Street have Class II bike lanes. Citrus Avenue, Tennessee Street, and Colton Avenue have Class III bike lanes. Both the Redlands General Plan 2035 and TVSP identify New York Street and Church Street for Class III bike lanes and Tennessee Street, Redlands Boulevard, Colton Avenue, New York Street, Texas Street, Eureka Street, Citrus Avenue, Orange Street, Sixth Street, University Street, State Street, and Grove Street for Class II bike lanes, as shown on Figure 3-11, *Future Bicycle Network Improvements*. Furthermore, both the Redlands General Plan 2035 and TVSP identify extending the Orange Blossom Trail, a multi-use/Class I bike trail, westward from Grove Street to 9th Street through the TVSP area. Connection to the existing Class I portion of the Orange Blossom Trail in the New York Street Village, west of Texas Street, would be provided by a proposed Class II bike lane along Redlands Boulevard. Implementation of the Specific Plan would not alter or conflict with existing or planned bike lanes or bicycle transportation. Thus, impacts related to bicycle facilities would not occur.

Pedestrian Facilities: As detailed previously, sidewalks currently exist on streets throughout the majority of the TVSP area. However, the TVSP identifies multiple issues with existing pedestrian facilities throughout the TVSP area such as mega blocks, inadequate underpasses and intersections, and missing and deficient sidewalks. To enhance pedestrian facilities within the TVSP area, the TVSP provides recommendations for pedestrian-scaled blocks through the development of new streets that form blocks less than 500 feet by 500 feet; intersection improvements such as bulb-outs and pedestrian priority signal intervals; improvements for mid-block intersection crossings using pedestrian activated caution lights; and new signals at the intersection of Shoppers Lane and Orange Street; improved I-10 underpasses; a pedestrian crossing for the railroad tracks at the Downtown Village; and new sidewalks along University Street and Redlands Street. These proposed pedestrian facility improvements are shown in Figure 3-10, *Future Pedestrian Network Improvements*.

Implementation of the Specific Plan would include roadway improvements within the TVSP area that would provide for new sidewalks where none exist currently or provide for sidewalk improvements, thereby improving pedestrian facilities and the sidewalk network. Therefore, the proposed Specific Plan would also not conflict with pedestrian facilities, but instead would provide additional facilities. Overall, impacts related to transit, bicycle, and pedestrian facilities would be less than significant.

IMPACT TR-2: THE PROJECT WOULD CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B) REGARDING VEHICLE MILES TRAVELED.

As described previously, State CEQA Guidelines Section 15064.3(b) focus on determining the significance of VMT-related transportation impacts. The proposed Project was analyzed in comparison to the City of Redlands VMT Guidelines. As discussed in the City of Redlands VMT Guidelines, if a project meets the screening criteria set forth in the guidelines, then it would be considered to have a less than significant impact on VMT. The applicability of each screening criteria, included in Section 5.14.4, in comparison to each TAZ within the proposed Project is discussed below.

TAZs 53835601, 53827301, 53835602, 53834101, 53834102, 53835302, 53835303, 53835304, 53835702, 53834701, 53835701, 53834702, 53834303, 53835204, 53835501, 53834202, 53834302, 53834501, 53835203, 53835502, 53834201, 53834301, 53839202, 53839301, 53839201, 53840205, 53839101, 53834401, 53834502, 53837201, 53835202, and 53837101

Less than Significant Impact.

Screening Criteria 1 – TPA: According to the City's guidelines, projects within one-half mile of an existing or planned major transit stop or an existing stop along a high-quality transit corridor are within a transit priority area (TPA). Traffic Analysis Zones (TAZs) within the TVSP area and within a TPA may be presumed to have a less than significant VMT impact so long as developments have a floor area ratio of 0.75 or more, provide less parking than required by the City of Redlands, are consistent with the applicable Sustainable Communities Strategy, and do not replace affordable units with a smaller number of moderate- or high-income residential units. As shown in Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, a large portion of the TVSP area, and its respective TAZs, is located within a TPA. As shown in Table 5.14-2, 29 of the TAZs within the TVSP area are fully within a TPA, five are partially within a TPA, and three are not within a TPA. Implementing projects that are within the TVSP area and in TPAs, as shown on Figure 5.14-1, would be presumed to have a less than significant on VMT so long as they have a FAR of greater than 0.75 and provide less parking than required by the City of Redlands Municipal Code. However, at this time, specific development within this TAZ is unknown. Therefore, implementing projects consistent with the TVSP and consistent with the Screening 1 Criteria within TPAs would be presumed to have a less than significant impact on VMT. As TAZs 53835601, 53827301, 53835602, 53834101, 53834102, 53835302, 53835303, 53835304, 53835702, 53834701, 53835701, 53834702, 53834303, 53835204, 53835501, 53834202, 53834302, 53834501, 53835203, 53835502, 53834201, 53834301, 53839202, 53839301, 53839201, 53840205, and 53839101 are located fully within a TPA, implementing projects pursuant to the TVSP within these TAZs would result in less than significant impacts related to VMT. Additionally, portions of TAZs 53834401, 53834502, 53837201, 53835202, and 53837101 are located within a TPA. Implementing projects within a TPA within those TAZs would result in a less than significant impact related to VMT.

Screening Criteria 2 – Low VMT Area: Low VMT areas are defined as TAZs with a total daily VMT/Service Population (employment plus population) that is 15% less than the baseline level for the County. TAZs within the TVSP area and in a low VMT area according to the San Bernardino Transportation Analysis Model (SBTAM) may be presumed to have a less than significant VMT impact. As shown in Table 5.14-2, all TAZs that are not located within, or are partially within, a TPA are in a low VMT area and would satisfy the low VMT area screening criteria, except for TAZ 53827101 and TAZ 53834601. TAZs 53834401, 53835301, 53835302, 53837201, 53835201, 53835202, 53837101, 53835203, and 53839101 are located within Low VMT areas. Therefore, implementing projects pursuant to the TVSP within these TAZs would have a less than significant impact on VMT.

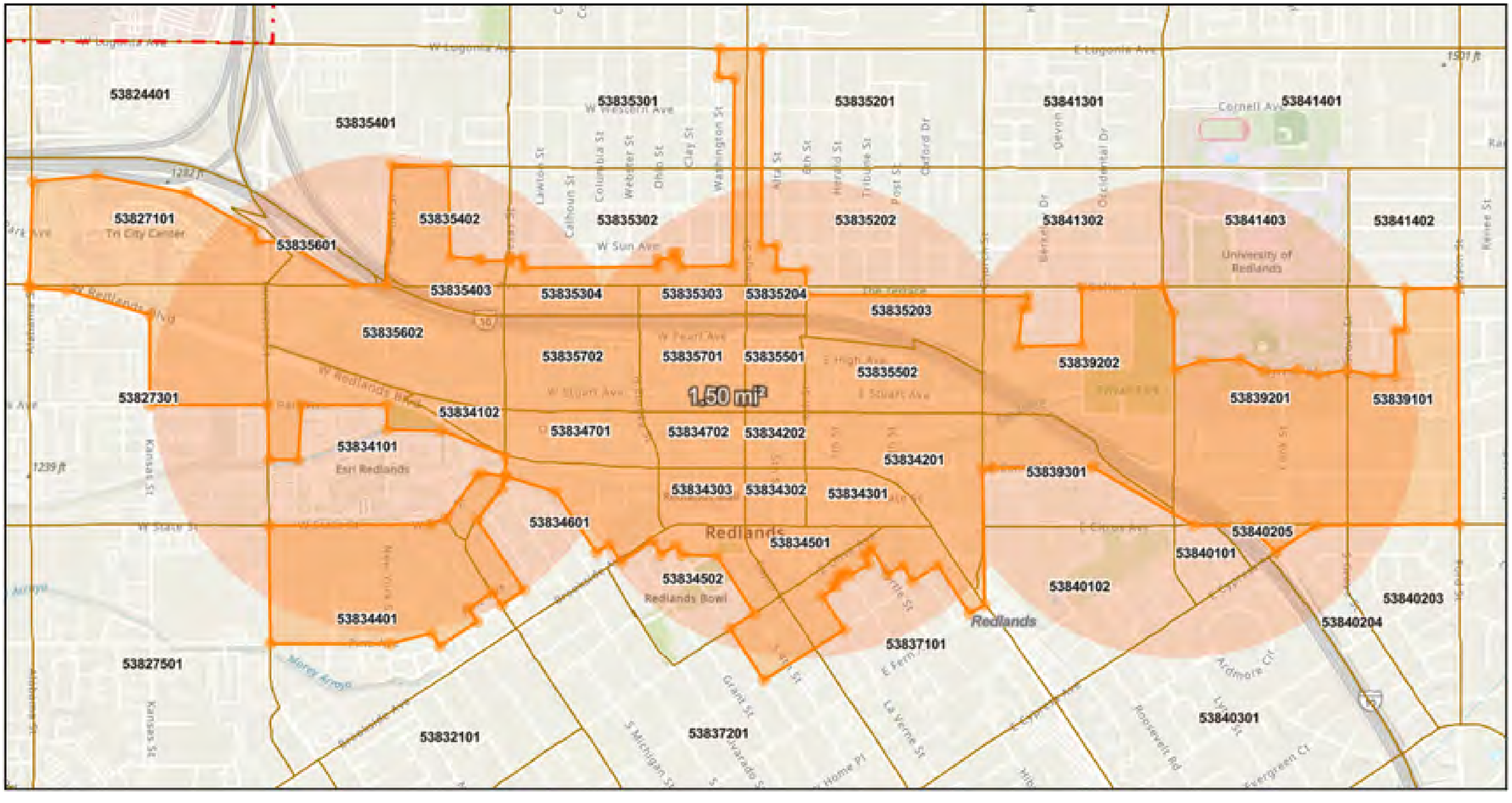
Screening Criteria 3 – Land Use Type: If any implementing projects within the TVSP area consist of a local serving K-12 school, local park, daycare center, local-serving gas station, local-serving bank, local-serving hotel, student housing project on or adjacent to a college campus, local-serving assembly use, community institution, local-serving community college, affordable housing, assisted living facility, or senior housing, the implementing projects would screen out of further VMT analysis. Implementing projects within the aforementioned TAZs could potentially consist of the type of developments that would screen out via Screening Criteria 3; however, specific implementing developments are unknown at this time.

Screening Criteria 4 – Land Use Quantity: If an implementing project does not screen out of conducting a VMT analysis pursuant to City of Redlands' screening criterion 1-3, if the project generates less than 3,000 MT CO2e, such as a project that proposes 167 single-family dwelling units or fewer, 232 low-rise multi-family dwelling units or fewer, 299 mid-rise multi-family dwelling units or fewer, 59,100 SF or less of office space, 112,400 SF or less (with no stores larger than 50,000 SF) of local-serving retail uses, 463,600 SF or less of warehousing uses, and 74,600 SF or less of light industrial uses, the project would screen out of further

VMT analysis. Implementing projects that generate less than 3,000 MT CO2e per year would be presumed to have a less than significant impact on VMT pursuant to Screening Criteria 4. Implementing projects within the aforementioned TAZs could potentially consist of the type of developments that would screen out via Screening Criteria 4; however, specific implementing developments are unknown at this time.

Overall, TAZs 53835601, 53827301, 53835602, 53834101, 53834102, 53835302, 53835303, 53835304, 53835702, 53834701, 53835701, 53834702, 53834303, 53835204, 53835501, 53834202, 53834302, 53834501, 53835203, 53835502, 53834201, 53834301, 53839202, 53839301, 53839201, 53840205, 53839101, 53834401, 53834502, 53837201, 53835202, and 53837101 would all screen out of further VMT analysis based on the City's Screening Criteria 1 or 2 and implementing projects within these TAZs pursuant to the TVSP would result in a less than significant VMT impact.

Transit Priority Areas & Specific Plan TAZs



Transit Priority Area

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Table 5.14-2: Specific Plan Traffic Analysis Zones

TAZ #	TPA?	TAZ VMT	Jurisdiction VMT	Threshold	Low VMT Area?	Screened
53827101	No	94.8	32.1	28.3	No	No
53835601	Yes	119.8	32.1	28.3	No	Yes
53827301	Yes	61.7	32.1	28.3	No	Yes
53835602	Yes	61.5	32.1	28.3	No	Yes
53834101	Yes	34.2	32.1	28.3	No	Yes
53834401	Yes/No	20.3	32.1	28.3	Yes	Yes
53834601	Yes/No	37.4	32.1	28.3	No	Yes
53834102	Yes	173.8	32.1	28.3	No	Yes
53835301	No	21.6	32.1	28.3	Yes	Yes
53835302	Yes	22.3	32.1	28.3	Yes	Yes
53835303	Yes	72.9	32.1	28.3	No	Yes
53835304	Yes	79.3	32.1	28.3	No	Yes
53835702	Yes	51.5	32.1	28.3	No	Yes
53834701	Yes	89.4	32.1	28.3	No	Yes
53835701	Yes	67.2	32.1	28.3	No	Yes
53834702	Yes	98.0	32.1	28.3	No	Yes
53834303	Yes	103.1	32.1	28.3	No	Yes
53834502	Yes/No	39.0	32.1	28.3	No	Yes
53837201	Yes/No	24.5	32.1	28.3	Yes	Yes
53835201	No	17.6	32.1	28.3	Yes	Yes
53835202	Yes/No	18.3	32.1	28.3	Yes	Yes
53835204	Yes	177.5	32.1	28.3	No	Yes
53835501	Yes	71.1	32.1	28.3	No	Yes
53834202	Yes	53.2	32.1	28.3	No	Yes
53834302	Yes	63.3	32.1	28.3	No	Yes
53834501	Yes	46.5	32.1	28.3	No	Yes
53837101	Yes/No	24.7	32.1	28.3	Yes	Yes
53835203	Yes	22.0	32.1	28.3	Yes	Yes
53835502	Yes	44.7	32.1	28.3	No	Yes
53834201	Yes	49.4	32.1	28.3	No	Yes
53834301	Yes	50.4	32.1	28.3	No	Yes
53839202	Yes	33.2	32.1	28.3	No	Yes
53839301	Yes	33.6	32.1	28.3	No	Yes
53839201	Yes	39.4	32.1	28.3	No	Yes
53840205	Yes	232.2	32.1	28.3	No	Yes
53839101	Yes	20.8	32.1	28.3	Yes	Yes

Note: In TAZ's noted as "Yes/No" unless highlighted, the TAZ is not completely within a TPA, however the portion of the project within the TAZ is completely within the TPA.

Source: EPD Solutions, 2022 (Appendix I)

TAZ 53834601

Less than Significant Impact. TAZ 53834601 is located in the southwest portion of the TVSP within the Downtown Village. Most of the implementing projects within this TAZ would fall within a TPA. However, there are five parcels that are not within the TPA (the addresses of the non-screened parcels are 15, 21, 23, 25 and 29 Kendall Street). These parcels are currently fully developed with single-family residences, and, when combined would total 1.06 acres in size.

Screening Criteria 1 – TPA: As shown in Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, a portion of TAZ 53834601 is located within a TPA. Implementing projects within TAZ 53834601 that are within the TPA, as shown on Draft EIR Figure 5.14-1 would screen out of a VMT analysis and can be presumed to have a less than significant impact on VMT. However, areas outside of the TPA within TAZ 53834601 would not be screened out of a VMT analysis based on Screening Criteria 1.

Screening Criteria 2 – Low VMT Area: As shown in Table 5.14-2, all TAZs that are not located within, or are partially within, a TPA are in a low VMT area and would satisfy the low VMT area screening criteria, except for TAZ 53827101 and TAZ 53834601. TAZ 53834601 is not located within a low VMT area. Therefore, 53834601 would not be screened out of a VMT analysis pursuant to Screening Criteria 2.

Screening Criteria 3 – Land Use Type: If any implementing projects within the TVSP area consist of a local serving K-12 school, local park, daycare center, local-serving gas station, local-serving bank, local-serving hotel, student housing project on or adjacent to a college campus, local-serving assembly use, community institution, local-serving community college, affordable housing, assisted living facility, or senior housing, the implementing projects would screen out of further VMT analysis. Based on the residential nature of the TAZ located outside of the TPA, implementing projects within these portions of the TAZ 53834601are unlikely to consist of the type of developments that would screen out via Screening Criteria 3. As such, TAZ 53834601 would not be screened out of a VMT analysis pursuant to Screening Criteria 3.

Screening Criteria 4 – Land Use Quantity: If an implementing project does not screen out of conducting a VMT analysis pursuant to City of Redlands' screening criterion 1-3, if the project generates less than 3,000 MT CO2e, such as a project that proposes 167 single-family dwelling units or fewer, 232 low-rise multi-family dwelling units or fewer, 299 mid-rise multi-family dwelling units or fewer, 59,100 SF or less of office space, 112,400 SF or less (with no stores larger than 50,000 SF) of local-serving retail uses, 463,600 SF or less of warehousing uses, and 74,600 SF or less of light industrial uses, the project would screen out of further VMT analysis. Implementing projects that generate less than 3,000 MT CO2e per year would be presumed to have a less than significant impact on VMT pursuant to Screening Criteria 4.

In order for projects within TAZ 53834601 to be presumed to have a less than significant VMT impact, developments located within TAZ 53834601 must adhere to the land use quantities presented in Screening Criteria 4 – Land Use Quantities. As discussed above, the parcels that do not screen out within TAZ 53834601 are currently fully developed with single-family residences and are not expected to be redeveloped with a denser use. Furthermore, based on the small size of the portion of TAZ 53834601 that does not screen out via Screening Criteria 1, it can definitively be assumed that based on the design and development guidelines within these parcels, implementing development pursuant to the TVSP would not result in more than 167 single-family dwelling units, 232 low-rise multi-family dwelling units, 299 mid-rise multi-family dwelling units, 59,100 SF of office space, 112,400 SF (with no stores larger than 50,000 SF) of local-serving retail uses, 463,600 SF of warehousing uses, and 74,600 SF of light industrial uses. As such, it can be reasonably presumed that any future development pursuant to the TVSP within the portion of TAZ 53834601 located outside of a TPA would meet the criteria set forth in Screening Criteria 4. Therefore, implementing projects pursuant to the TVSP within TAZ 53834601 would result in less than significant VMT impacts via Screening Criteria 1 or Screening Criteria 4.

TAZ 53827101

Significant and Unavoidable Impact. As shown in Figure 5.14-1, TAZ 53827101 is located toward the western portion of the TVSP area by the Tri City Center. As shown in Figure 3-17, *Vacant and Non-Conforming Parcels,* two parcels within TAZ 53827101 are vacant and the rest are considered non-conforming. As such, it can be reasonably presumed that these parcels will be developed or redeveloped pursuant to the TVSP prior to buildout. However, at this time, specific development within this TAZ is unknown.

Screening Criteria 1 – TPA: As shown in Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, a portion of TAZ 53827101 is located within a TPA. Implementing projects within TAZ 53827101 that are within the TPA, as shown on Draft EIR Figure 5.14-1 would screen out of a VMT analysis and can be presumed to have a less than significant impact on VMT. However, areas outside of the TPA within TAZ 53827101 would not be screened out of a VMT analysis based on Screening Criteria 1.

Screening Criteria 2 – Low VMT Area: As shown in Table 5.14-2, all TAZs that are not located within, or are partially within, a TPA are in a low VMT area and would satisfy the low VMT area screening criteria, except for TAZ 53827101 and TAZ 53834601. TAZ 53827101 is not located within a Low VMT area. Therefore, TAZ 53827101 would not be screened out of a VMT analysis pursuant to Screening Criteria 2.

Screening Criteria 3 – Land Use Type: If any implementing projects within the TVSP area consist of a local serving K-12 school, local park, daycare center, local-serving gas station, local-serving bank, local-serving hotel, student housing project on or adjacent to a college campus, local-serving assembly use, community institution, local-serving community college, affordable housing, assisted living facility, or senior housing, the implementing projects would screen out of further VMT analysis. Implementing projects within TAZ 53827101 are unlikely to consist of the type of developments that would screen out via Screening Criteria 3. As such, TAZ 53827101 would not be screened out of a VMT analysis pursuant to Screening Criteria 3.

Screening Criteria 4 – Land Use Quantity: If a implementing project does not screen out of conducting a VMT analysis pursuant to City of Redlands' screening criterion 1-3, if the project generates less than 3,000 MT CO2e, such as a project that proposes 167 single-family dwelling units of fewer, 232 low-rise multi-family dwelling units or fewer, 299 mid-rise multi-family dwelling units or fewer, 59,100 SF or less of office space, 112,400 SF or less (with no stores larger than 50,000 SF) of local-serving retail uses, 463,600 SF or less of warehousing uses, and 74,600 SF or less of light industrial uses, the project would screen out of further VMT analysis. Implementing projects that generate less than 3,000 MT CO2e per year would be presumed to have a less than significant impact on VMT pursuant to Screening Criteria 4.

As discussed above, parcels outside of a TPA within TAZ 53827101 do not meet Screening Criteria 1, 2, or 3. In order for projects within TAZ 53827101 to be presumed to have a less than significant VMT impact, developments located within TAZ 53827101 must adhere to the land use types presented in Screening Criteria 3 – Land Use Types or land use quantities presented in Screening Criteria 4 – Land Use Quantities. The parcels that are not located within a TPA in TAZ 53827101 are currently developed with commercial uses associated with the Tri City Center and total approximately 40 acres. Therefore, there is potential that a large development, above the land use quantities presented in Screening Criteria 4 could be developed within the area located outside of the TPA and could potentially result in a VMT impact.

However, Mitigation Measure TR-1 is included to require implementing projects within a TPA and within TAZ 53827101 to conduct a VMT Screening Analysis or VMT Analysis prior to approval of any site plans. While it is likely that implementing projects would meet the criteria set forth in Screening Criteria 4, it is also possible that an implementing project would include development beyond the land uses provided for in Screening Criteria 4 and would result in more than 3,000 MT CO2e of GHG emissions per year. Additionally, anticipated VMT reductions from inclusion of Transportation Demand Management (TDM) measures for implementing projects that result in a VMT impact, are not large enough to guarantee that significant impacts from implementing projects could be fully mitigated. As such, despite inclusion of Mitigation Measure TR-1, impacts related to VMT would be significant and unavoidable.

5.14.7 CUMULATIVE IMPACTS

Roadway, Transit, Bicycle, and Pedestrian Networks

The TVSP provides a comprehensive framework that would improve the street, transit, bicycle, and pedestrian networks throughout the TVSP area through buildout in 2040. This would include implementing roadway and circulation improvements, new bicycle and pedestrian facilities, and improving access to public transit. Overall, recommendations included in the TVSP would serve to improve the existing circulation networks with the TVSP area, and the City of Redlands as a whole, and cumulative impacts would be less than significant.

Vehicle Miles Traveled

The cumulative traffic study area for the proposed Project includes the City of Redlands. As discussed in the City of Redlands CEQA Assessment VMT Analysis Guidelines, projects that are consistent with the Redlands General Plan 2035 would not have a cumulative impact on VMT as General Plan buildout has been found to be consistent with the City's threshold of VMT per capita that is 15 percent below baseline conditions. As substantiated within Section 5.9, *Land Use and Planning,* of this Draft EIR, the proposed Project would be consistent with the General Plan and the TVSP would serve as an implementing tool for City of Redlands General Plan 2035. Therefore, implementing projects would be consistent with the Redlands General Plan and would not result in cumulatively considerable VMT impacts. As such, the proposed Project would not result in cumulative impacts related to VMT.

5.14.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- SCAG 2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.14.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impact TR-1 would be **less than significant**.

Regarding Impact TR-2, implementing projects within TAZs 53835601, 53827301, 53835602, 53834101, 53834102, 53835302, 53835303, 53835304, 53835702, 53834701, 53835701, 53834702, 53834303, 53835204, 53835501, 53834202, 53834302, 53834501, 53835203, 53835502, 53834201, 53834301, 53839202, 53839301, 53839201, 53840205, 53839101, 53834401, 53834502, 53837201, 53835202, and 53837101 would result in a less than significant VMT impact. Additionally, implementing projects within TAZ 53834601 would result in a **less than significant** VMT impact.

Without mitigation, implementing projects within TAZ 53827101 would be **potentially significant**.

5.14.10 MITIGATION MEASURES

Mitigation Measure TR-1: VMT Screening. Prior to approval of any site plan, any applicant for an implementing project within a TPA or TAZ 53827101 shall prepare a VMT Screening Analysis pursuant to the City of Redlands CEQA Assessment VMT Analysis Guidelines and provide this Analysis to the City of Redlands Planning Division and Engineering Division. The VMT Screening Analysis shall demonstrate that the implementing project meets the screening criteria set forth in in the City of Redlands CEQA Assessment VMT Analysis Guidelines.

If the implementing project does not meet the screening criteria set forth in Screening Criteria 1, 2, 3, or 4, the implementing project applicant shall prepare a VMT analysis pursuant to the City of Redlands CEQA Assessment VMT Analysis Guidelines, and, if necessary, provide mitigation in order to reduce VMT generated by the implementing project such as:

- Modifying the project's build environment characteristics to reduce VMT generated by the project
- Implementing Transportation Demand Management (TDM) measures to reduce VMT generated by the project
- Participating in an available VMT fee program and/or VMT mitigation exchange or banking program, if any exist, to reduce VMT from the project or other land uses to achieve acceptable levels
- Implementing pedestrian and sidewalk improvements consistent with the TVSP (i.e., wider than typical 5-foot-wide sidewalks for high-pedestrian traffic areas)
- Constructing bicycle network improvements along the project's frontage consistent with the TVSP

5.14.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impact TR-2: Implementing projects within TAZ 53827101 have the potential to result in significant VMT impacts after implementation of Mitigation Measure TR-1. Implementing projects within the TAZ that do not meet Screening Criterion 1, 2, 3, or 4 could result in VMT levels where potential VMT reductions associated with TDM measures would not be large enough to guarantee that significant impacts could be fully mitigated.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/05_connected_city_low.pdf?1591207392

City of Redlands CEQA Assessment VMT Analysis Guidelines. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_vmt_analysis_guidelines.pdf

EPD Solutions, Inc. Vehicle Miles Traveled (VMT) Screening Analysis. January 17, 2022. Appendix I.

Transit Villages Specific Plan. Accessed: https://redlandstransitvillages.org/wp-content/uploads/2020/05/Ch.-5-Transportation-and-Circulation.pdf

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5.15 Tribal Cultural Resources

5.15.1 INTRODUCTION

This section addresses potential impacts to tribal cultural resources (TCR) associated with implementation of the Project. The analysis in this section is based, in part, on the following documents and resources:

- *City of Redlands General Plan 2035,* December 5, 2017;
- *City of Redlands General Plan Update and Climate Action Plan Environmental Impact Report* (General Plan EIR), Dyett & Bhatia, July 2017;
- *City of Redlands Municipal Code;*
- *Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments*, Material Culture Consulting, February 2022 (Appendix C)

Additionally, part of this analysis is based upon Project-specific coordination and consultation with California Native American tribes that are traditionally and culturally affiliated with the TVSP region.

5.15.2 REGULATORY SETTING

5.15.2.1 Federal Regulations

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) of 1979 regulates the protection of archaeological resources and sites on federal and Native American lands. The ARPA regulates authorized archaeological investigations on federal lands; increased penalties for looting and vandalism of archaeological resources; required that the locations and natures of archaeological resources be kept confidential in most cases. In 1988, amendments to the ARPA included a requirement for public awareness programs regarding archaeological resources (NPS 2018).

Native American Graves Protection and Repatriation Act (NAGPRA)

NAGPRA is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

5.15.2.2 State Regulations

California Senate Bill 18

Senate Bill 18 (SB 18) (California Government Code Section 65352.3) sets forth requirements for local governments to consult with California Native American tribes identified by the California Native American Heritage Commission (NAHC) to aid in the protection of tribal cultural resources. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning to protect, or mitigate impacts on, tribal cultural resources. The Tribal Consultation Guidelines: Supplement to General Plan Guidelines (OPR, 2005), identifies the following contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or

amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

Because the proposed Project includes a General Plan Amendment, it is subject to the statutory requirements of SB 18 Tribal Consultation Guidelines.

California Assembly Bill 52

Assembly Bill 52 (AB 52) established a requirement under CEQA to consider "tribal cultural values, as well as scientific and archaeological values when determining impacts and mitigation." Public Resources Code (PRC) Section 21074(a) defines "tribal cultural resources" (TCRs) as "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are either "[i]ncluded or determined to be eligible for inclusion in the California Register of Historical Resources" or "in a local register of historical resources." Additionally, defined cultural landscapes, historical resources, and archaeological resources may be considered tribal cultural resources. PRC Section 21074(b), (c). The lead agency may also in its discretion treat a resource as a TCR if it is supported with substantial evidence.

Projects for which a notice of preparation for a Draft EIR was filed on or after July 1, 2015 are required to have lead agencies offer California Native American tribes traditionally and culturally affiliated with the project area consultation on CEQA documents prior to submitting an EIR in order to protect TCRs. PRC Section 21080.3.1(b) defines "consultation" as "the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement." Consultation must "be conducted in a way that is mutually respectful of each party's sovereignty [and] recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance." The consultation process is outlined as follows:

1. California Native American tribes traditionally and culturally affiliated with the project area submit written requests to participate in consultations.
2. Lead agencies are required to provide formal notice to the California Native American tribes that requested to participate within 14 days of the lead agency's determination that an application package is complete or decision to undertake a project.
3. California Native American tribes have 30 days from receipt of notification to request consultation on a project.
4. Lead agencies initiate consultations within 30 days of receiving a California Native American tribe's request for consultation on a project.
5. Consultations are complete when the lead agencies and California Native tribes participating have agreed on measures to mitigate or avoid a significant impact on a TCR, or after a reasonable effort in good faith has been made and a party concludes that a mutual agreement cannot be reached (PRC Sections 21082.3(a), (b)(1)-(2); 21080.3.1(b)(1)).

AB 52 requires that the CEQA document disclose significant impacts on TCRs and discuss feasible alternatives or mitigation to avoid or lessen an impact.

California Health and Safety Code, Section 7050.5

This code requires that if human remains are discovered on a project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Public Resources Code, Sections 5097.9 to 5097.991

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify the powers and duties of the NAHC. These sections also require notification to descendants of discoveries of Native American human remains and provide for treatment and disposition of human remains and associated grave goods.

5.15.2.3 Local Regulations

City of Redlands General Plan 2035

The General Plan 2035 Distinctive City Element contains the following policies and actions related to historical and archaeological resources that are applicable to the proposed Project:

Action 2-A.74 Proactively coordinate with the area's native tribes in the review and protection of any tribal cultural resources discovered at development sites.

5.15.3 ENVIRONMENTAL SETTING

Native American Tribes

The TVSP area is within a region where the traditional use territories of the Serrano, Cahuilla, and Gabrielino meet. These three cultural groups spoke languages belonging to the Takic branch of the Shoshonean family, a part of the larger Uto-Aztecan language stock.

Serrano

The Serrano people once occupied the Mountain, North Desert, and East Desert Regions of present-day San Bernardino County. Mainly due to the inland territory that the Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was minimal. As early as 1790, some Serrano people were drawn into mission life. After a failed attack of the Mission San Gabriel in 1811, some Serrano people relocated to Morongo with the Cahuilla tribe. Others followed the Serrano leader Santos Manuel toward the San Bernardino County valley floors and eventually settled to become the San Manuel Band of Mission Indians Reservation.

Cahuilla

The eastern portion of the Valley Region, the southeastern part of the Mountain Region, and the southern portion of the East Desert Region of San Bernardino County were once home to the Cahuilla people. It is thought that the Cahuilla migrated to southern California approximately 2,000 to 3,000 years ago with related sociolinguistic groups, most likely from the southern Sierra Nevada Mountain ranges. The Cahuilla settled in a territory that extended from the present-day city of Riverside to the central portion of the Salton Sea in the Colorado Desert, and from the San Jacinto Valley to the San Bernardino Mountains.

Gabrielino

The Gabrielino historically occupied the southwestern portion of San Bernardino County, including the Valley Region. The name Gabrielino denotes the people who were under the control of the Spanish from Mission San Gabriel, which included people from the Gabrielino proper as well as other social groups. Many contemporary Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term Tongva. Historic-era Tongva settlements in the San Bernardino Valley were primarily located at the base of the foothills and along perennial watercourses.

Tribal Cultural Resources

A search of the NAHC Sacred Lands File yielded positive results within the TVSP area. As discussed in Section 5.3, *Cultural Resources*, two prehistoric archaeological resource sites are located within the TVSP area, which are listed in Table 5.3-1, *Recorded Prehistoric Cultural Resources*. Furthermore, the Mill Creek Zanja transverses the proposed TVSP area. The historic feature was designated a California Historical Landmark No. 43 in 1932 and placed on the National Register of Historic Places in 1977. The Mill Creek Zanja was built in 1819 to convey water from Mentone to the Assistencia de Mission San Gabriel. Today, it carries drainage water and storm runoff. It is the oldest continuously operating irrigation canal in California, and the oldest civil engineering project in Southern California. It runs through University Street and New York Street.

Through a study for the Passenger Rail Project by ICF International in 2014, a segment of the Mill Creek Zanja was found ineligible for the NR. The portion of the Mill Creek Zanja that is located west of Division Street to the southwest and terminates west of the concrete channel at Ninth Street. This portion is no longer eligible for listing in the NR due to its loss of historic integrity (ICF International 2014). The segment mentioned above does not resemble the Mill Creek Zanja segment to the east which was described in the 1976 Nomination Form and appears it was excluded from the 1976 nomination because of its lack of resemblance (ICF International 2014). In August 2014, SHPO concurred with the determination of National Register eligibility and Section 106 finding of effect regarding the evaluated segment of the Mill Creek Zanja (MCC 2022). Based on AB 52 and SB 18 consultation, the Soboba Band of Luiseño Indians described that there is a potential of encountering historic and prehistoric resources near the Zanja.

5.15.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

TCR-1: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or

TCR-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 Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

5.15.5 METHODOLOGY

The analysis within this Draft EIR section is based on the Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments that was prepared by Material Culture Consulting, January 2022, and information compiled through Native American Consultation. The City requested a sacred lands record search from the Native American Heritage Commission (NAHC). The NAHC responded on July 3, 2018 that there are known sacred lands within a half mile of the TVSP boundaries.

In compliance with SB 18 and AB 52, on January 9, 2020, the City sent letters to Native American groups or individuals that may have knowledge regarding tribal cultural places in the TVSP area.

- Agua Caliente Band of Cahuilla Indians
- Big Pine Paiute Tribe of Owens Valley
- Cabazon Band of Mission Indians
- Chemehuevi Indian Tribe
- Colorado River Indian Tribes of the Colorado River Indian Reservation
- Fort Mojave Indian Tribe
- Kern Valley Indian Community
- Gabrieleno Band of Mission Indians – Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino/Tongva Nation
- Morongo Band of Mission Indians
- Pechanga Band of Luiseño Indians
- Ramona Band of Cahuilla Tribe
- San Manuel Band of Mission Indians
- Serrano Nation of Mission Indians
- Soboba Band of Luiseno Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

Responses were received from two tribes, the San Manuel Band of Mission Indians and the Soboba Band of Luiseño Indians. A SB 18 consultation was requested by the San Manuel Band of Mission Indians on February 13, 2020 and started via email on May 6, 2020 and August 30, 2021. The San Manuel Band of Mission Indians considers the TVSP area sensitive for tribal cultural resources due to the presence of the Mill Creek Zanja. A SB 18 consultation was requested by the Soboba Band of Luiseño Indians on April 8, 2020 and started via email on May 6, 2020 and August 30, 2021. The Soboba Band of Luiseño Indians consulted with City on September 9, 2021 and considers the area sensitive for cultural resources as several sites are located nearby. Furthermore, due to the presence of portions of the Mill Creek Zanja within the TVSP area, the Soboba Band of Luiseño Indians described that there is a potential of encountering historic and prehistoric resources near the Zanja. As such, the consulting tribes requested inclusion of mitigation due to the potential of the Project to unearth previously undocumented tribal cultural resources during construction.

5.15.6 ENVIRONMENTAL IMPACTS

IMPACT TCR-1: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE THAT IS LISTED OR ELIGIBLE FOR LISTING IN THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES, OR IN A LOCAL REGISTER OF HISTORICAL RESOURCES AS DEFINED IN PUBLIC RESOURCES CODE SECTION 5020.1(K).

Less than Significant with Mitigation Incorporated. The Mill Creek Zanja, which is considered a tribal cultural resource by multiple area tribes, is listed on the California Register of Historical Resources and the National Register of Historic Places (MCC 2022).

SB 18 and AB 52 require meaningful consultation between lead agencies and California Native American tribes regarding potential impacts on TCRs. As described above, TCRs are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources (PRC Section 21074). As outlined above, the NAHC's Sacred Lands File search was positive for sacred lands within 0.5-mile of the TVSP area, and the City sent letters to Native American Tribes notifying them of the proposed project in accordance with SB 18 and AB 52. In response, San Manuel Band of Mission Indians and the Soboba Band of Luiseño Indians, California Native American tribes, requested consultation and the City of Redlands met with representatives of the San Manuel Band of Mission Indians and the Soboba Band of Luiseño Indians. The Mill Creek Zanja was identified as a tribal cultural resource during the consultation. Due to the presence of portions of the Mill Creek Zanja within the TVSP area, the Soboba Band of Luiseño Indians described that there is a potential of encountering historic and prehistoric resources near the Zanja.

Implementation of the proposed TVSP would not directly result in physical construction that could impact tribal cultural resources. However, development and redevelopment projects pursuant to the TVSP could involve grading and excavation to greater depths than previously undertaken that could disturb unknown buried TCRs. Thus, Mitigation Measures CUL-2 through CUL-9 and TCR-1 through TCR-4 are required for implementing projects and would reduce the potential for tribal cultural resources to be impacted during earthmoving activities and provides for preservation of any identified resources.

With implementation of Mitigation Measures CUL-2 through CUL-9 and TCR-1 through TCR-4, impacts related to a substantial adverse change in the significance of a tribal cultural resource would be less than significant.

IMPACT TCR-2: THE PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF 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 THE PUBLIC RESOURCES CODE SECTION 5024.1, THAT CONSIDERS THE SIGNIFCANCE OF THE RESOURCES TO A CALIFORNIA NATIVE AMERICAN TRIBE.

Less than Significant with Mitigation Incorporated. As described in Section 5.3, *Cultural Resources*, the Specific Plan is located in an urbanized area; however, future site-specific development projects pursuant to the Specific Plan could involve grading and excavation to greater depths than previously undertaken that could disturb buried archaeological resources, including tribal cultural resources. Thus, Mitigation Measures CUL-2 through CUL-9 are included to reduce the potential for archaeological resources, which include tribal cultural resources, to be impacted during earthmoving activities and provides for preservation of any identified resources. Furthermore, as a result of SB 18 and AB 52 tribal consultation, Mitigation Measures TCR-1 through TCR-4 are included to require tribal monitoring for sites that are sensitive for tribal cultural resources and provisions for inadvertent discoveries of tribal cultural resources. With implementation of Mitigation Measures CUL-2 through CUL-9 and TCR-1 through TCR-4, impacts related to a substantial adverse change in the significance of a tribal cultural resource would be less than significant.

5.15.7 CUMULATIVE IMPACTS

The cumulative study area for tribal cultural resources includes the Southern California region, which contains the same general tribal historic setting of the Gabrieleño, Cahuilla, and Serrano, as detailed previously in Section 5.15.3, *Environmental Setting*. Other projects in the vicinity of the TVSP area would involve ground disturbances that could reveal buried TCRs.

As described above, there is a possibility that ground-disturbing activities in native soils may uncover or disturb unknown tribal cultural resources. However, the Project has included Mitigation Measure CUL-1 and TCR-1 through TCR-4 that would reduce the potential impact to unknown resources, and cumulative development would be required to undergo environmental review, which would establish requirements for avoidance or mitigation of impacts potential resources. Thus, the cumulative effects of development on tribal cultural resources from implementation of the proposed Specific Plan in combination with other projects would be less than significant.

5.15.8 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- California Government Code Sections 5097.9-5097.99
- California Health and Safety Code Section 7050.5
- California Public Resources Code Sections 21073 et seq. (AB 52)

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.15.9 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impacts TCR-1 and TCR-2 would be **potentially significant**.

5.15.10 MITIGATION MEASURES

Mitigation Measure CUL-2 through CUL-9, listed previously.

Mitigation Measure TCR-1: Archaeological Resources Management Plan (ARMP). If resources are discovered within a given Project Area, for any ground disturbing activities within 300 feet of the Mill Creek Zanja, or if there is a high potential for encountering resources, an Archaeological Resources Management Plan (ARMP) and tribal monitoring shall be required. In this case, the ARMP should include the following, at a minimum:

- At least 90 days prior to issuance of grading permits, the project permittee/owner shall retain a qualified archaeological monitor to prepare the ARMP and to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Qualified archaeological monitor(s) will have a minimum of a bachelor's degree, verifiable training and one year of monitoring

experience in Southern California on similar projects. Prior to grading, the project permittee/owner shall provide to the City Development Services Department verification that a qualified monitor and a Native American monitor from the consulting tribe(s) have been retained. Archaeological monitors will report to the project Archaeologist for the project and may work in collaboration with Native American monitors from consulting tribes. The project Archaeologist shall meet the U.S. Secretary of the Interior Standards.

- Any newly discovered archaeological resource deposits shall be subject to a formal significance evaluation.
- The project Archaeologist will work in coordination with consulting tribes, the permittee/owner, and the City on the ARMP to address the details, timing, and responsibility of all archaeological activities that will occur on the project site. Details in the plan shall include, at a minimum:

  a. Project grading and development scheduling;

  b. The development of a schedule in coordination with the permittee/owner, consulting Native American tribes, and the Project Archaeologist during grading, excavation and ground-disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; and,

  c. The protocols and stipulations that the permittee/owner, City, tribes, and Project Archaeologist will follow in the event of inadvertent archaeological resource discoveries, including any newly discovered archaeological resource deposits that shall be subject to an archaeological resources evaluation.

- A final report documenting the monitoring activity and disposition of any recovered archaeological resources shall be submitted to the City of Redlands, South Central Coast Information Center (SCCIC), and consulting tribes within 60 days of completion of monitoring.

Mitigation Measure TCR-2: Inadvertent Discovery of Tribal Cultural Resources. In the event that Native American tribal cultural resources are inadvertently discovered during the course of grading for any project being developed under the Transit Villages Specific Plan, the following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the Project archaeologist. The removal of any artifacts from the Project Site will need to be thoroughly inventoried with tribal monitor oversight of the process. Construction staff should also be provided with cultural sensitivity training, including identification of possible in situ tribal cultural resources.

2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Redlands with evidence of same:

a. Accommodate the process for onsite reburial of the discovered items with the interested Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.

b. A curation agreement with an appropriate qualified repository within San Bernardino County or Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The

collections and associated records shall be transferred, including title, to an appropriate curation facility within San Bernardino County or Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the Project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum (or similar appropriate qualified repository able and willing to accept the tribal cultural resources) by default.

d. At the completion of grading, excavation and ground disturbing activities on the site a Phase IV Monitoring Report shall be submitted to the City of Redlands documenting monitoring activities conducted by the Project Archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grading meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City of Redlands, CHRIS, and consulting tribe(s).

Mitigation Measure TCR-3: Treatment and Disposition of Tribal Cultural Resources. In the event that tribal cultural resources, including historic and pre-contact materials, are discovered during the course of ground disturbance for any project being developed under the Transit Villages Specific Plan, the following procedures shall be implemented:

1. All work in the immediate vicinity of the find (within a 50-foot buffer) shall cease and the find shall be assessed by an archaeologist meeting the Secretary of the Interior's standards. Work on the other portions of the project, outside of the buffered area, may continue during this assessment period.

2. Notification and information regarding the nature of the find shall be made to the representatives of all consulting tribe(s).

3. Temporary Curation and Storage: During construction, any cultural resources discovered shall be temporarily curated in a secure onsite location, as determined appropriate with consideration of input from consulting tribe(s). The removal of any cultural resources from the project site shall be thoroughly inventoried and overseen by the Native American Tribal Monitor(s).

4. Treatment and Final Disposition: The Applicant shall relinquish ownership of all cultural resources, including sacred items, burial goods, archaeological artifacts, and non-human remains discovered during construction of the proposed project. The Applicant shall relinquish the cultural resources through one or more of the following methods and provide the City of Redlands with evidence of same:

a. Accommodate the onsite reburial of the discovered cultural resources in consultation with the consulting Native American tribe(s) or band(s). The reburial area shall be protected from any future impacts. All reburials are subject to a reburial agreement that shall be developed between the landowner and the consulting tribes outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts (vis-a-vis project plans, conservation/preservation easements, etc.). Reburial shall not occur until all cataloguing and recordation have been completed.

b. In the event that reburial is infeasible, and/or if more than one Native American tribe or band is involved with the proposed project and cannot come to a consensus as to the disposition of cultural resources within one hundred and twenty (120) days from the initial recovery of the items, the cultural resources shall be curated. The landowner shall relinquish all ownership and rights to this material and confer with the consulting tribes to identify an American Association of Museums (AAM)-accredited

facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility.

c. Within 60 days following the completion of ground-disturbing activities, a Monitoring Compliance Report shall be submitted to the City of Redlands. The Monitoring Report shall document monitoring activities conducted by the Project Archaeologist and Native Tribal Monitor(s) including: any impact to cultural resources discovered on the project site; how each mitigation measure was fulfilled; the type of cultural resources recovered and the disposition of such resources; evidence of completion of pre-grading cultural sensitivity training required for the construction staff; and daily/weekly monitoring notes from the archaeologist in a confidential appendix. The Monitoring Compliance Report shall be submitted to the City of Redlands, the South Central Coastal Information Center, and the consulting tribe(s).

Mitigation Measure TCR-4: Discovery of Human Remains. In the event that human remains are encountered on any project site of any project being developed under the Transit Villages Specific Plan, the construction contractors, Project Archaeologist, and designated Native American Tribal Monitor (if any) shall immediately stop all work within 100 feet of the discovery. The Applicant shall immediately notify the San Bernardino County Coroner, the City of Redlands Police Department, and the City of Redlands Development Services Department. The County Coroner shall be permitted to examine the remains consistent with the requirements of California Code of Regulations (CCR) §15064.5(e). State Health & Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) §5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

The specific location of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the Project Archaeologist in conjunction with the various stakeholders and a report of findings will be filed with the South Central Coastal Information Center and/or NAHC.

According to the California Health & Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). In the event that the project proponent and the MLD are in disagreement regarding the disposition of the remains, State law will apply and the mediation and decision process will occur with the NAHC (see Public Resources Code Sections 5097.98(e) and 5097.94(k)).

5.15.11 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The mitigation measures and existing regulatory programs described previously would reduce potential impacts associated with tribal cultural resources for Impacts TCR-1 and TCR-2 to a level that is less than significant. Therefore, no significant unavoidable adverse impacts related to tribal cultural resources would occur.

REFERENCES

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands Historic Architectural Design Guidelines. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/attachment_b-exhibit_to_resolution_historic_design_guidelines.pdf?1612492494

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

Material Cultural Consulting. Redlands Transit Villages Specific Plan Project Cultural and Paleontological Assessments (MCC 2022). January 2022. Appendix C.

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5.16 Utilities and Service Systems

5.16.1 INTRODUCTION

This section of the Draft EIR evaluates the potential effects on utilities and service systems from implementation of the TVSP, identifying anticipated demand and existing and planned utility availability. This includes water supply and infrastructure, wastewater, drainage, and solid waste. Electric power, natural gas, telecommunications, and renewable energy resources are described in Section 5.4, *Energy Resources*. Water supply and infrastructure capacity information in this section is from:

- *City of Redlands General Plan 2035,* City of Redlands, December 2017
- *City of Redlands Drainage Master Plan,* RBF Consulting, May 15, 2014
- *Redlands Transit Village Water Supply Assessment, Fuscoe Engineering, Inc., January 26, 2022* (Appendix F)
- *Upper Santa Ana River Watershed Integrated Regional Water Management Plan, Upper Santa Ana Water Resources Association, January 2015*

Because CEQA focuses on physical environmental effects, this section analyzes whether increases in demand for water, wastewater, and solid waste utilities would result from implementation of the TVSP that would result in significant adverse physical environmental effects. For example, an increase in wastewater generation, by itself, would not be considered a physical change in the environment; however, physical changes in the environment resulting from the construction of new facilities or an expansion of existing wastewater facilities could constitute a significant impact under CEQA.

5.16.2 WATER

5.16.2.1 WATER REGULATORY SETTING

5.16.2.1.1 State Water Regulatory Setting

California Urban Water Management Planning Act

Section 10610 of the California Water Code established the California Urban Water Management Planning Act (CUWMPA), requires urban water suppliers to initiate planning strategies to ensure an appropriate level of reliability in its water service. CUWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that annually provides more than 3,000 acre-feet of water service, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The CUWMPA describes the contents of UWMP's as well as methods for urban water suppliers to adopt and implement the plans.

Senate Bill 610

Senate Bill (SB) 610 requires public urban water suppliers with 3,000 or more service connections to identify existing and planned sources of water for planned developments of a certain size. It further requires the public water system to prepare a specified water supply assessment (WSA) for projects that meet the following criteria:

a) A proposed residential development of more than 500 dwelling units;

b) A proposed shopping center employing more than 1,000 persons or having more than 500,000 square feet of floor space;

c) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;

d) A hotel or motel, or both, with more than 500 rooms;

e) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor area; and

f) A mixed-use project that includes one or more of the projects above.

The components of a WSA include existing water demand, future water demand by the project, and must ensure that water is available for the project during normal years, a single dry year, and multiple dry years during a 20-year future projection period. The WSA must also describe whether the project's water demand is accounted for in the water supplier's UWMP. Supplies of water for future water supply must be documented in the WSA.

CalGreen Building Code

California Code of Regulations Title 24, Part 11, establishes the California Green Building Code or CALGreen. The CALGreen Code is updated every three years. It was recently updated in 2019 and is effective January 1, 2020. CALGreen sets forth water efficiency standards (i.e., maximum flow rates) for all new plumbing and irrigation fittings and fixtures

5.16.2.1.2 Local Water Regulatory Setting

City of Redlands General Plan

The following goals and policies from the City of Redlands General Plan 2035, adopted December 2017, are relevant to the proposed Project:

Policy 6-P.20 Pursue creative, innovative, and environmentally sound methods to capture and use stormwater and urban runoff for beneficial purposes.

Policy 6-P.21 Work with regional organizations to manage groundwater resources of the Bunker Hill Basin.

Policy 6-A.38 Encourage development that reflects an integrated approach to building design, civil engineering, and landscape architecture that maximizes rainwater harvesting and stormwater retention for landscape irrigation.

Policy 6-A.39 Require that new development provides landscaping and re-vegetation of graded or disturbed areas with drought-tolerant native or non-invasive plants.

City of Redlands Water Efficient Landscape Requirements

Chapter 15.54 of the Redlands Municipal Code establishes the City's Water Efficient Landscape Requirements to promote the benefits provided by landscapes while recognizing the need to use water as efficiently as possible. The chapter requires applicable landscaping projects to submit a landscape documentation package that contains project information, hydrozone information table, water budget calculations, soil management report, and landscape, irrigation, and grading design plans. The chapter establishes requirements for irrigation scheduling, maintenance, and audits to ensure efficient use of water. The requirements also include provisions for non-potable water irrigation systems and encourage stormwater best management practices to increase on-site retention and infiltration.

5.16.2.2 WATER ENVIRONMENTAL SETTING

The TVSP area is located within the water service area of the City of Redlands Municipal Utilities and Engineering Department (MUED), which provides retail water service to the majority of the City of Redlands, a portion of the City of Loma Linda, and unincorporated areas of the Donut Hole (an area in unincorporated San Bernardino County surrounded by Redlands), Mentone, and most of Crafton.

WVWD participates in the Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan. This Urban Water Management Plan (UWMP) is a tool that provides a summary of anticipated supplies and demands for the years 2020 to 2045 within the Valley Region of San Bernardino County, including various incorporated cities such as the City of Redlands.

Water Supply and Demand- MUED

The MUED utilizes four primary sources for drinking water supply: groundwater, surface water, imported water, and recycled water. The MUED's water supply is a combination of groundwater from the Bunker Hill Subbasin; groundwater from the Yucaipa Subbasin; surface water from the Santa Ana River; surface water from Mill Creek; imported water from the State Water Project (SWP) Water; and recycled water. As shown on Table 5.16-1, in 2020 the MUED obtained the majority of its water supply from the Bunker Hill Subbasin.

Table 5.16-1: MUED Water Supply 2020

Water Supply	Source	Water Quality	Volume (acre-feet)	Percentage
Groundwater	Bunker Hill	Drinking Water	12,088	43%
Groundwater	Bunker Hill	Non-Potable	1,531	5.4%
Groundwater	Yucaipa	Non-Potable	297	1.1%
Surface Water	Santa Ana River	Drinking Water	5,796	20.6%
Surface Water	Mill Creek	Drinking Water	6,045	21.5%
Purchased or Imported Water	SWP-Direct Deliveries	Drinking Water	535	1.9%
Recycled	Recycled Water-Direct	Recycled Water	1,806	6.5%
Total			**28,098**	**100%**

Source: 2020 UWMP.

As shown in Table 5.16-2, the 2020 UWMP estimates that water supplies in the future are anticipated to be obtained through a similar mix of surface water, groundwater, and purchased or imported water. The 2020 UWMP anticipates that the MUED's water supply will increase from 31,039 AF in 2025 to 35,544 AF in 2045 (increase of 4,505 AFY) to meet MUED's anticipated growth in water demands.

Table 5.16-2: MUED Projected Water Supply (AF)

Water Supply	Source	2025	2030	2035	2040	2045	2045 Percentage
Groundwater	Bunker Hill	12,973	13,922	14,861	15,677	16,484	46.4%
Groundwater	Bunker Hill	3,766	4,015	4,275	4,513	4,760	13.4%
Groundwater	Yucaipa	1,000	1,000	1,000	1,000	1,000	2.8%
Surface Water	Santa Ana River	5,000	5,000	5,000	5,000	5,000	14.1%
Surface Water	Mill Creek	5,500	5,500	5,500	5,500	5,500	15.5%
Purchased or Imported Water	SWP-Direct Deliveries	700	700	700	700	700	1.9%
Recycled	Recycled Water-Direct	2,100	2,100	2,100	2,100	2,100	5.9%
	Total	**31,039**	**32,238**	**33,436**	**34,490**	**35,544**	**100%**

Source: 2020 UWMP.

The 2045 projections anticipate that 62.6 percent of supply would be from the groundwater sources, 29.6 percent from surface water, 1.9 percent from imported/purchased sources, and 5.9 percent from recycled water. The UWMP also describes that there has been a historical trend associated with drier years and an increase in water use among agencies. Conservation efforts have proven to be effective in decreasing water use in dry years. Additionally, according to the UWMP, MUED has adequate supplies to serve 100 percent of its customers during normal, dry year, and multiple dry year demand through 2045 with projected population increases and accompanying increases in water demand (UWMP 2020).

Groundwater: Redlands MUED extracts groundwater from the Bunker Hill Subbasin (also known as San Bernardino Basin or SBB) and Yucaipa Subbasin. Extractions from both basins include potable and non-potable water. In 2020, Redlands MUED extracted 13,619 AF of groundwater from the Bunker Hill Subbasin and 297 AF from the Yucaipa Subbasin. The City of Redlands uses 15 wells that pump directly into the system or into reservoirs (UWMP 2020).

Purchased or Imported Water: Imported water from the SWP is available for the MUED to purchase from Valley District when needed. The MUED has purchased supplemental SWP water only in years when surface water flows have not been able to meet demands and on occasion when surface water supplies are turbid and require blending or for other operational purposes. The MUED contributes to regional efforts to recharge the Bunker Hill groundwater basin with SWP water and local surface water in wet years when available so that storage is available for use in dry years when other supplies may be limited (UWMP 2020).

Surface Water: The MUED receives water from the Mill Creek watershed and the Santa Ana River watershed. Water from the Mill Creek watershed is treated at Henry Tate Surface Water Treatment Plant. Water from the Santa Ana River watershed is treated at the Horace P. Hinckley Surface Water Treatment Plant. The MUED has ownership in a variety of private and mutual water companies to supply water to the City's Tate and Hinckley Surface Water Treatment Plants (UWMP 2020).

Recycled Water: The City's Wastewater Treatment Plant has the capability of treating 7.2 million gallons per day (mgd) of wastewater to a Title 22 Recycled Water level. The City's recycled water customers include Southern California Edison, a landfill, and recycled/non-potable water customers in the 1350 pressure zone. Southern California Edison uses recycled water for its Mountain View Power Plant and recycled water customers use recycled water for irrigation.

Water Infrastructure

The City's water treatment plants include the Henry Tate Water Treatment Plant and the Horace Hinckley Surface Water Treatment Plant. The Henry Tate Water Treatment Plant is a conventional water treatment plant built in 1967. The design capacity of the Tate plant is 20 million gallons per day (mgd). The City added enhancements to the Tate WTP to provide more water supply reliability by allowing State Water Project water to be mixed with Mill Creek water for treatment. The Horace Hinckley Surface Water Treatment Plant started operation in 1987 and has a permitted capacity of 14.5 mgd. The 10-year average flow (up to and including 2016) is 6,363 AF at the Henry Tate Plant, and 6,697 AF at the Horace Hinckley Plant. The TVSP area contains a network of water lines from 1 to 36-inches in diameter, which operate within capacity for existing development within the TVSP area. The City of Redlands maintains approximately 400 miles of pipeline with over 21,500 metered connections that serve potable water (MUED 2022).

Water Demand in TVSP Area

Within the TVSP area, there are currently 2,318 multi-family dwelling units, approximately 6.5 million square feet of commercial (or non-residential) uses, and 5.7 million square feet of landscaped areas. Currently, residential uses comprise approximately 40 percent of the water demand in the TVSP area, commercial/non-residential uses comprise approximately 27 percent of the water demand, and landscaping irrigation

comprises approximately 33 percent of the water demand. The TVSP area currently has an annual water usage of approximately 1,357 AF (WSA 2022).

5.16.2.3 WATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

UT-1 Require or result in the relocation or construction of new water facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or

UT-2 Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

5.16.2.4 WATER SERVICE METHODOLOGY

The evaluation of water supply quantifies the amount of water that would be required to support operation of the proposed Project and compares the demand to the Redlands MUED's available water supply to identify if sufficient water supplies available to serve the Project and reasonably foreseeable development during normal, dry, and multiple dry years. Additionally, the existing water supply infrastructure that serves the TVSP area was identified and evaluated to ensure design capacity would be adequate to supply the TVSP area upon buildout of the TVSP, or to identify if expansions would be required to serve the proposed development.

5.16.2.5 WATER ENVIRONMENTAL IMPACTS

IMPACT UT-1: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant with Mitigation Incorporated. The Specific Plan would redevelop the 947-acre TVSP area with residential, commercial, office, and hotel uses, which is currently served by the MUED's water infrastructure. As discussed above, the Specific Plan contains multiple water pipelines ranging in size from 1-inch to 36-inches in diameter. These water pipelines currently provide water supplies to the Specific Plan and surrounding adjacent areas.

However, the Specific Plan's projected water demand increase of 639 AFY, as calculated in Impact UT-2, would require upgrades to some of the existing water mains in the TVSP area due to insufficient transmission capacity for the water demands or required fire flow at buildout of the TVSP. To accommodate the increase in capacity, buildout of the TVSP would include construction of the following potable water main upgrades, as shown on Figure 3-13, *Existing and Proposed Domestic Water Distribution*:

- Upgrading the existing water main in Colton Avenue to a 12-inch main between Texas Street and Orange Street
- Upgrading the existing water main in Stuart Avenue to a 12-inch main west of Texas Street
- Upgrading the existing water main in Eureka Street to a 12-inch water main between Oriental Avenue and Redlands Boulevard
- Upgrading the existing water main in Redlands Boulevard to a 12-inch water main between Orange Street and Sixth Street
- Upgrading the existing water main on Ninth Street to an 8-inch water main between E. Central Avenue and State Street

- Upgrading the existing water main on Church Street to a 12-inch water main between Colton Avenue and Citrus Avenue
- Upgrading the existing water main on University Street to a 12-inch water main between Colton Avenue and E. Central Avenue
- Upgrading the existing water main on E. Central Avenue to a 12-inch water main between University Street and Judson Street

These improvements are consistent with MUED's 1981 Water Master Plan and would be evaluated on a project-by-project basis as development occurs pursuant to the TVSP. Additionally, buildout of the TVSP would include the installation of new 12-inch non-potable waterlines in New York between Colton Avenue and State Street that would connect to future non-potable pipelines, ultimately connecting to the existing non-potable pipeline in Lugonia Avenue. The Project proposes to install a new 8-inch non-potable waterline in Orange Street and Redlands Boulevard that would connect to a proposed non-potable pipeline in State Street, ultimately connecting to the proposed non-potable pipeline in New York Street, and the Project would include a new 8-inch non-potable line in University Street and Colton Avenue that would connect to the existing non-potable line in Colton Avenue. The Project also proposes the construction of various other new non-potable waterlines as shown in Figure 3-14, *Existing and Proposed Non-Potable Water Distribution.*

The new onsite water systems would convey potable and non-potable water supplies to the proposed residential, commercial, office, and hotel uses, and landscaping through plumbing/landscaping fixtures that are compliant with the CalGreen Plumbing Code for efficient use of water.

Implementation of development projects pursuant to the TVSP would increase the intensity of land uses within the TVSP area, and future site-specific development projects would install onsite water infrastructure and new connections to the water system that could include improvements to aged water pipelines and other connecting infrastructure. Such improvements would be required to be sized to accommodate the water demand of such new development.

Under the City's development review procedures for site-specific development projects, the City determines water system design requirements and the needs for any improvements to existing infrastructure that would be required by the TVSP and Water Master Plans. Needed improvements would be referenced directly in the design plans for the proposed development to assure adequate capacity. The water design specifications for each site-specific development project would be required to comply with City standards (per the California Building Code) regarding requirements for design and operation of water distribution facilities.

The construction of any needed water system improvements as part of future site-specific development projects under the proposed Specific Plan would generally occur from project sites to existing connection points in roadway rights-of-way and would be required to comply with all Redlands Municipal Code standards and Draft EIR Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4.. These requirements would ensure that construction related impacts remain less than significant. As a result, potential impacts related to build out of the proposed TVSP would not result in construction of new or expanded wastewater facilities that could result in a significant environmental effect, and impacts would be less than significant.

IMPACT UT-2: THE PROJECT WOULD HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS.

Less than Significant with Mitigation Incorporated. The Project would redevelop the 947-acre TVSP area with an additional 2,400 residential dwelling units, 265,000 SF of commercial retail uses, 238,000 SF of

office uses, 220 hotel rooms, and approximately 280,000 SF of open space. The Water Supply Assessment (WSA) prepared for the Specific Plan estimated the Proposed Project's water demands using the developed acreage attributed to each use type (including landscape irrigation and parking area requirements). The total developed area was prorated based on the building square footage for each use type. Water demands were then estimated for the Project using land use-based water demand factors from the City of Redlands' "Water and Sewer Demands Spreadsheet". The land use demand factors are applied to gross estimated acreage for each land use.

As shown in Table 5.16-3, the proposed Specific Plan would result in a total demand of 1,996 AFY by the year 2040, which would be a 639 AFY increase in comparison to the current TVSP area water demands from existing development within the TVSP area.

Table 5.16-3: Water Demands from Buildout of the TVSP

Land Use Type	DU/Acreage	Unit Water Demand Factor	Annual Water Usage (AFY)
Residential Multi-Family	2,400 DU	210 gpd/DU	564.55
Retail Commercial	6.08 acres	2,178 gpd/acre	14.83
Office	5.46 acres	2,178 gpd/acre	13.32
Hotel	220 DU	100 gpd/DU	24.64
Open Space & Parks	6.43 acres	3,050 gpd/acre	21.97
Additional Project Water Demand			**639**
Existing Site Water Demand			**1,357**
Total Water Demand			**1,996 AFY**

Source: WSA, Appendix F.

The MUED's 2020 UWMP assumed that the MUED's total water supply would increase from 28,098 AF in 2020 to 35,544 AF in 2045, which constitutes an increase of 7,446 AF. Additionally, as shown in Table 5.16-4, the projected MUED normal year water demand would increase from 26,866 AF in 2020 to 30,908 AF in 2045.

Table 5.16-4: Projected MUED Water Demand

	2020	2025	2030	2035	2040	2045
Potable and Raw Water	25,892	25,818	26,860	27,902	28,818	29,735
Recycled Water	994	1,173	1,173	1,173	1,173	1,173
Total Water Demand	26,866	26,991	28,033	29,075	29,991	30,908

Source: 2020 UWMP

The UWMP assessed the projected water demand and supply in the service area and concluded that MUED has an adequate water supply to meet all demands within its service area to 2045. As shown in Table 5.16-4, the Project's additional demands of 639 AFY is less than the assumed increase in demands in the UWMP; therefore, the Project's relatively small increase in water demand would not cause demand to exceed the 2045 projected demands for the MUED. Additionally, implementing projects in the TVSP area would be required to implement Mitigation Measure AQ-8, which requires projects to incorporate a Water Conservation Strategy and demonstrate a minimum 30% reduction in outdoor water usage when compared to baseline water demand.

Based on the above, it is anticipated that existing and future water entitlements from groundwater, surface water, purchased or imported water sources, recycled water, and implementation of Mitigation Measure AQ-8, would be sufficient to meet the Project's demand at buildout, in addition to forecast demand for

MUED's entire service area. Thus, impacts related to the need for new or expanded water supplies and entitlements would be less than significant.

5.16.2.6 WATER CUMULATIVE IMPACTS

Cumulative water supply impacts are considered on a water purveyor basis and are associated with the capacity of the infrastructure system and the adequacy of the water purveyor's infrastructure and primary sources of water that include groundwater, surface water, purchased or imported water, and recycled water.

As described previously, during buildout of the Specific Plan, water lines would be installed as needed to serve implementing projects. The continued regular assessment, maintenance, and upgrades of the water system by the Redlands MUED pursuant to the City's Water Master Plans would reduce the potential of development projects to result in a cumulatively substantial increase in water such that new or expanded facilities would be required.

As discussed above, the Specific Plan would result in an increase in water demand of 639 AFY. It is anticipated that existing and future water entitlements from groundwater, surface water, purchased or imported water sources, and recycled water, plus water conservation methods included in Mitigation Measure AQ-8, would be sufficient to meet the Specific Plan's demand at buildout, in addition to forecast demand for MUED's entire service area. As a result, the Project would not result in a cumulatively considerable increase in water supply demands that would require new or expanded entitlements, and cumulative impacts would be less than significant.

5.16.2.7 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

The following standard regulations would reduce potential impacts related to water supplies:

- California Code of Regulations Title 24, Part 11; the California Green Building Code
- Chapter 15.54 of the Redlands Municipal Code

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.16.2.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Without mitigation, Impacts UT-1 and UT-2 would be potentially significant.

5.16.2.9 WATER MITIGATION MEASURES

Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4.

5.16.2.10 WATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation, no significant unavoidable adverse impacts related to water supplies or water infrastructure would occur.

5.16.3 WASTEWATER

5.16.3.1 WASTEWATER REGULATORY SETTING

5.16.3.1.1 Local Wastewater Regulatory Setting

City of Redlands General Plan

The following goals and policies from the City of Redlands General Plan 2035, adopted December 2017, are relevant to the proposed Project:

Principle 4-P.56 Ensure that public facilities and services are provided in a timely manner to adequately serve new and existing development.

Action 4-A.145 Coordinate future development with the City's Capital Improvement Program to ensure adequate funding and planning for needed public services and facilities.

Action 4-A.146 Encourage the development of programs that enable concurrent provision of necessary public services and facilities prior to the approval of development projects that would require those services.

Action 4-A.148 Ensure that all utilities and public facilities are designed and constructed to preserve and enhance the perceived natural and historic character of the area, particularly on hillsides and in the canyon areas.

5.16.3.2 WASTEWATER ENVIRONMENTAL SETTING

Sewer service in the TVSP area is provided by the City of Redlands. The City's Wastewater Treatment Plant is located on the south side of the Santa Ana River Wash at Nevada Street. The City's Wastewater Treatment Plant has a secondary treatment capacity of 9.5 mgd and a tertiary treatment capacity of 7.2 mgd. As of 2021, average flow to the City's Wastewater Treatment Plant was approximately 5.8 mgd (MUED 2021).

In 2020, 6,620 AF of wastewater was treated at the City's Wastewater Treatment Plant. In 2020, 3,813 AF were treated to a secondary level and released to spreading basins east of the City's Wastewater Treatment Plant for percolation into the Bunker Hill groundwater basin, while 1,806 AF were treated to a tertiary level and distributed as recycled water (UWMP 2020).

The wastewater system has one lift station that serves the western-most portion of the city south of Interstate 10 (I-10). The collections system in the City of Redlands consists of approximately 250 miles of pipelines. Within the TVSP area, wastewater pipelines range from 6-inches to 48-inches in diameter.

5.16.3.3 WASTEWATER THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

UT-3 Require or result in the construction of new wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects; or

UT-4 Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.16.3.4 WASTEWATER SERVICE METHODOLOGY

The evaluation of wastewater infrastructure quantifies the amount of wastewater that would be generated from buildout of the TVSP and compares the demand to the existing and planned sewer infrastructure and wastewater treatment plants. The evaluation identifies if expansions would be required to serve full buildout of the TVSP, and if those expansions have the potential to result in an environmental impact.

5.16.3.5 WASTEWATER ENVIRONMENTAL IMPACTS

IMPACT UT-3: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW WASTEWATER FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant with Mitigation Incorporated. As described previously, the TVSP area contains a network of sewer lines that range from 6-inches to 48-inches in diameter and operate well within capacity. As shown on Table 5.16-5, in the Impact UT-4 discussion below, buildout pursuant to the TVSP would result in an increase of wastewater flows within the TVSP area. To accommodate the increase in wastewater flows, buildout of the TVSP would include construction of the following wastewater upgrades, as shown on 3-15, *Existing Sewer System and Proposed Upgrades:*

- Replacing the 8-inch sewer in University Street from Park Avenue to the I-10 Freeway with a new 12-inch sewer (or adding an additional 8-inch sewer line)
- Replacing the 15-inch sewer in Citrus Avenue from Central Avenue to Church Street with a new 18-inch sewer (or adding an additional 8-inch sewer line)
- Adding a new 12-inch sewer line in State Street from Eureka Street to First Street, then north on First Street to Redland Boulevard, then west on Redlands Boulevard to Texas Street.

These improvements would be evaluated on an as needed, project-by-project basis as development occurs pursuant to the TVSP. Implementation of development projects pursuant to the TVSP would increase the intensity of land uses within the TVSP area, and future site-specific development projects would install onsite sewer infrastructure and new connections to the sewer system that could include improvements to aged sewer pipelines and other connecting infrastructure. Such improvements would be required to be sized to accommodate the wastewater generation of such new development.

Under the City's development review procedures for site-specific development projects, the City determines sewer system design requirements and the needs for any improvements to existing infrastructure that would be required by the City's construction permit and referenced directly in the design plans for the proposed development to assure adequate capacity. The sewer design specifications for each site-specific development project would be required to comply with City standards (per the California Building Code) regarding requirements for design and operation of sewer collection facilities.

The construction of any needed wastewater system improvements as part of future site-specific development projects under the proposed Specific Plan would generally occur from project sites to existing connection points in roadway rights-of-way and would be required to comply with all Redlands Municipal Code standards and Draft EIR Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4. These requirements would ensure that construction related impacts remain less than significant. As a result, potential impacts related to build out of the proposed Specific Plan would not result in construction of new or expanded wastewater facilities that could result in a significant environmental effect, and impacts would be less than significant.

IMPACT UT-4: THE PROJECT WOULD NOT RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER THAT WOULD SERVE THE PROJECT THAT IT HAS INADEQUATE CAPACITY TO SERVE THE PROJECTS PROJECTED DEMAND IN ADDITION TO THE PROVIDERS EXISTING COMMITMENTS.

Less than Significant Impact. Buildout of the proposed Specific Plan would result in an increase of 2,400 residential units, 265,000 SF of commercial retail, 238,000 SF of office uses, and 220 hotel rooms. Wastewater demand associated with the buildout of the TVSP would be typical of residential and commercial wastewater usage in the City of Redlands. As shown in Table 5.16-5, *TVSP Estimated Wastewater Generation*, the proposed Project would generate a demand for approximately 551,134 gallons per day (gpd).

Table 5.16-5: TVSP Estimated Wastewater Generation

Land Use Type	DU/Acreage	Wastewater Generation Rate (gpd/unit)	Total Wastewater Generation (gpd)
Residential Multi-Family	2,400 DU	210 gpd/du	504,000
Retail Commercial	6.08 acres	2,178 gpd/acre	13,242
Office	5.46 acres	2,178 gpd/acre	11,892
Hotel	220 rooms	100 gpd/room	22,000
Total Project Wastewater Generation:			**551,134 gpd**

The operational buildout of the proposed TVSP would generate approximately 551,134 gallons per day (0.55 mgd) of wastewater that would be conveyed to the City's Wastewater Treatment Plant for disposal. The treatment plant currently treats approximately 5.8 mgd and has the capacity to treat 9.5 mgd. Thus, the addition of 551,134 gallons per day (0.55 mgd) from buildout of the TVSP would be accommodated by the existing facilities and would not result in a capacity constraint related to serving the proposed Specific Plan in addition to the existing commitments. Thus, impacts related to wastewater treatment plant capacity would be less than significant.

5.16.3.6 WASTEWATER CUMULATIVE IMPACTS

Cumulative wastewater infrastructure impacts are considered on a systemwide basis and are associated with the overall capacity of existing and planned infrastructure. The cumulative system evaluated includes the sewer system and the conveyance system through wastewater disposal at the City of Redlands Wastewater Treatment Plant.

As described previously, during buildout of the Specific Plan, sewer lines would be installed as needed to serve implementing projects. The continued regular assessment, maintenance, and upgrades of the sewer system by the City MUED would reduce the potential of development projects to result in a cumulatively substantial increase in wastewater such that new or expanded facilities would be required. Thus, increases in wastewater in the sewer system would result in a less than significant cumulative impact.

Additionally, the City of Redlands Wastewater Treatment Plant have an average flow of 5.8 mgd and a treatment capacity of 9.5 mgd (MUED 2021). Due to this volume of excess capacity that is designed by MUED to accommodate future regional growth, the increase in wastewater flow from cumulative projects would not significantly impact the Wastewater Treatment Plant facilities. As a result, impacts related to cumulative projects wastewater treatment and conveyance capacity would be less than significant.

5.16.3.7 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- California Code of Regulations Title 24, Part 11; the California Green Building Code

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.16.3.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact UT-3 would be potentially significant.

Impact UT-4 would be less than significant.

5.16.3.9 WASTEWATER MITIGATION MEASURES

Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4.

5.16.3.10 WASTEWATER LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation, no significant unavoidable adverse impacts related to wastewater infrastructure would occur.

5.16.4 STORM WATER DRAINAGE

5.16.4.1 STORMWATER REGULATORY SETTING

5.16.4.1.1 Local Stormwater Regulatory Setting

City of Redlands General Plan

The following goals and policies from the City of Redlands General Plan 2035, adopted December 2017, are relevant to the proposed Project:

Policy 6-P.19 Promote the protection of waterways in Redlands from pollution and degradation as a result of urban activities.

Policy 6-P.20 Pursue creative, innovative, and environmentally sound methods to capture and use stormwater and urban runoff for beneficial purposes.

Policy 6-A.35 Promote the use of Low Impact Development strategies, BMPs, pervious paving materials, and on-site infiltration for treating and reducing stormwater runoff before it reaches the municipal stormwater system.

Policy 6-A.38 Encourage development that reflects an integrated approach to building design, civil engineering, and landscape architecture that maximizes rainwater harvesting and stormwater retention for landscape irrigation.

Policy 6-A.40 Maximize the amount of pervious surfaces in public spaces to permit the percolation of urban runoff.

Policy 6-A.43 Ensure that post-development peak stormwater runoff discharge rates do not exceed the estimated pre-development rate. Dry weather runoff from new development must not exceed the pre-development baseline flow rate to receiving waterbodies.

City of Redlands Municipal Code Requirements

The City's Municipal Code, Section 13.54, Storm Drains, provides regulation of discharges into the Redlands storm drain system. This is achieved by elimination of all nonpermitted discharges to Redlands separate storm sewers; control discharges to the Redlands separate storm sewers through prohibition of spills, dumping, or disposal of materials other than stormwater; and reduction of pollutants in stormwater discharges to the maximum extent practicable. City dischargers are required to comply with the applicable NPDES permit and follow the City's standard BMP practices.

Additionally, the City's Pretreatment and Regulation of Wastes Ordinance, codified under Section 13.52 of the City Municipal Code, further protects water quality in the City through uniform requirements for all users of the City's publicly owned treatment works. The ordinance enables the City to comply with all applicable state and federal laws, including the clean water act (33 USC section 1251 et seq.) and the general pretreatment regulations (40 CFR part 403).

5.16.4.2 STORM WATER DRAINAGE ENVIRONMENTAL SETTING

The City of Redlands' stormwater drainage system serves an area of approximately 37 square miles. The Downtown stormwater drainage system is composed of reinforced concrete pipe (RCP) and corrugated metal pipe (CMP) with diameters ranging from 8 inches to 96 inches, box culverts, covered rubble rock and concrete channels, and concrete and natural drains. Stormwater runoff from the City's drainage systems flows by gravity into the Mission Channel, Morrey Arroyo Creek, and San Timoteo Canyon, and discharges to the Santa Ana River.

Drainage throughout the TVSP area is generally from east to west to one of two main existing major stormwater drainage facilities. The existing stormwater drainage system within the TVSP area lacks capacity, as evidenced by flooding within the Downtown area during storm events. The main cause of flooding within the TVSP area is the lack of capacity in the Zanja, the Redlands Boulevard Storm Drain, and the Oriental Storm Drain. With a stormwater capacity of approximately 2,400 cubic feet per second (cfs), the Redlands Boulevard Storm Drain can receive approximately 4,200 cfs from the Zanja and the Carrot Storm Drain and 4,000 cfs from the Reservoir Canyon and Oriental Storm Drains. These tributaries result in a confluence of stormwater within the Redlands Boulevard Storm Drain near the intersection of Redlands Boulevard and Ninth Street, which can lead to flooding. In 2014, the City adopted the 2014 Master Plan of Drainage.

5.16.4.3 STORM WATER DRAINAGE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

UT-5 Require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.16.4.4 STORM WATER DRAINAGE METHODOLOGY

The evaluation of stormwater drainage infrastructure quantifies the amount of impervious surfaces and stormwater runoff that would be generated from buildout of the TVSP and identifies if runoff from buildout of the TVSP would be accommodated by the existing stormwater drainage infrastructure. The evaluation

identifies if expansions would be required to serve the proposed development, and if those expansions have the potential to result in an environmental impact.

5.16.4.5 DRAINAGE ENVIRONMENTAL IMPACTS

IMPACT UT-5: THE PROJECT WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW DRAINAGE FACILITIES, OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Less than Significant with Mitigation Incorporated. As shown on Figure 3-3, the majority of the TVSP area is fully developed. However, there are multiple vacant parcels within the TVSP area. As such, buildout pursuant to the TVSP could result in a greater amount of impermeable surfaces within the TVSP area. The TVSP Infrastructure Plan includes improvements to divert flows away from undersized segments of the existing drainage system, such as the undersized Zanja channel through the University Transit Village, and the undersized Mission Creek channel through the New York Street/Esri Transit Village, among other flood-related strategies, in line with the strategies set forth by the 2014 Redlands Master Plan of Drainage. While the TVSP does not include specific drainage system improvements, the TVSP includes multiple recommendations related to drainage improvements within the TVSP area including:

- Preparing and processing a Letter of Map Revision based on hydrologic modeling included as Appendix A to the TVSP in order to remove approximately 155 properties from being subject to the City's Floodplain Regulations
- Implement the 2014 Master Plan of Drainage (MPD) Alternative 1 for the Downtown Village
- Explore opportunities to implement a diversion drainage system that intercepts Zanja channel flows near or east of North Grove Street, where it would be conveyed parallel to the Zanja and be discharged into the Zanja upstream of the I-10 underpass
- Increase the size of the Zanja at the Kansas Street, New York Street, and Tennessee Street crossings to increase flow capacity.

Development under the TVSP would allow for redevelopment of the TVSP area that could result in the generation of increased stormwater volumes in areas that are currently largely pervious. Increased flows could in turn create a need for new infrastructure in order to accommodate infiltration of stormwater or to convey stormwater to detention basins to prevent flooding, particularly where there are already stormwater capacity problems, such as the Downtown Village. Development under the TVSP would largely focus on infill development, allowing future projects to take advantage of the existing stormwater drainage infrastructure. In most cases, parcels that may be developed or redeveloped within the TVSP area are already disturbed or developed with impervious surfaces, and future development would be unlikely to significantly increase runoff.

Stormwater drainage improvements would be evaluated on a project-by-project basis as development occurs pursuant to the TVSP and the 2014 Master Plan of Drainage. Implementation of development projects pursuant to the TVSP would increase the intensity of land uses within the TVSP area, and future site-specific development projects would install onsite stormwater drainage infrastructure and new connections to the existing stormwater drainage system. Such improvements would be required to be sized to accommodate the stormwater generation of such new development.

Under the City's development review procedures for site-specific development projects, the City determines stormwater system design requirements and the needs for any improvements to existing infrastructure that would be required by the City's construction permit and referenced directly in the design plans for the

proposed development to assure adequate capacity. The stormwater system design specifications for each site-specific development project would be required to comply with City standards and implementing projects would be required to prepare a Water Quality Management Plan (WQMP).

The construction of any needed drainage system improvements as part of future site-specific development projects under the proposed Specific Plan would generally occur from project sites to existing connection points in roadway rights-of-way. Additional, large-scale stormwater drainage improvements pursuant to the 2014 Redlands Master Plan of Drainage and implementing project site-specific stormwater drainage improvements would be required to comply with all Redlands Municipal Code standards and Draft EIR Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4. Additionally, policies within the TVSP seek to minimize the volume of stormwater entering the drainage system, reduce the need for system expansions, and limit potential impacts from system expansion on the environment. Policies within the TVSP require that new development provide landscaping, maximize pervious surfaces, promote onsite stormwater management solutions such as low-impact development utilizing best management practices, promote stormwater capture and reuse onsite, and ensure that post-development peak stormwater runoff discharge rates do not exceed the estimated pre-development rate. As a result, potential impacts related to build out of the proposed Specific Plan would not result in construction of new or expanded stormwater drainage facilities that could result in a significant environmental effect, and impacts would be less than significant.

5.16.4.6 STORM WATER DRAINAGE CUMULATIVE IMPACTS

The geographic scope for cumulative impacts related to stormwater drainage includes the geographic area served by the existing stormwater infrastructure for the TVSP area, from capture of runoff through final discharge points. Pursuant to state and regional regulations that require development projects to maintain pre-project hydrology, no net increase of offsite stormwater flows would occur from implementing projects. Regional Water Quality Control Board (RWQCB) Permit conditions and the Redlands Municipal Code Municipal Code require a hydrology/drainage study to demonstrate that all runoff would be appropriately conveyed and not leave the project sites at rates exceeding pre-project conditions, prior to receipt of necessary permits. As a result, increases of runoff from cumulative projects that could cumulatively combine to impact stormwater drainage capacity would not occur, and cumulative impacts related to drainage infrastructure would be less than significant.

5.16.4.7 EXISTING REGULATIONS, STANDARD CONDITIONS, AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

None.

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.16.4.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact UT-5 would be potentially significant.

5.16.4.9 STORM WATER DRAINAGE MITIGATION MEASURES

Mitigation Measures AQ-1 through AQ-10, CUL-1 through CUL-9, GEO-1, NOI-1 through NOI-4, NOI-8 through NOI-9, and TCR-1 through TCR-4

5.16.4.10 STORM WATER DRAINAGE LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation, no significant unavoidable adverse impacts related to drainage would occur.

5.16.5 SOLID WASTE

5.16.5.1 SOLID WASTE REGULATORY SETTING

5.16.5.1.1 SOLID WASTE STATE REGULATORY SETTING

California Assembly Bill 341

On October 6, 2011, Governor Brown signed AB 341 establishing a state policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal.

California Green Building Standards

Section 5.408.1 Construction waste diversion. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.

Section 5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

5.16.5.1.2 SOLID WASTE LOCAL REGULATORY SETTING

City of Redlands Recycling Ordinance

Chapter 13.66 of the Redlands Municipal Code establishes requirements for recycling by specified development activities to facilitate the City's compliance with State recycling mandates, remove architectural barriers to recycling, and ensure the recycling of construction and demolition debris. The ordinance applies to applicants for the demolition of any structure; construction, additions, or improvements to any building other than a single-family residential building; and reroofing activities. Applicants are required, as a condition of approval, to submit for review and approval a completed Site and Building Recycling Plan to the City. The ordinance also specifies requirements for Construction and Demolition Recycling Plans.

5.16.5.2 SOLID WASTE ENVIRONMENTAL SETTING

Solid waste collection services are provided within the TVSP area by the City of Redlands. The City's Quality of Life Department provides residential waste collection, green waste collection for yard waste, and curbside recycling. Hazardous and electronic waste is managed by the Redlands Fire Department, which operates a household hazardous and electronic waste disposal site on a weekly basis.

Solid waste from the TVSP area is primarily disposed of at the California Street Landfill operated by the City of Redlands Quality of Life Department and the San Timoteo Sanitary Landfill operated by the County,

both within the city limits. The California Street Landfill is located at 2151 Nevada Street and encompasses 115 acres and is permitted to operate through 2042. The California Street Landfill design capacity is 11.4 million cubic yards, and its maximum permitted throughput is 829 tons per day. It has a remaining capacity of 5,168,182 cubic yards. In 2020, the California Street Landfill received an average throughput of 146 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the California Street Landfill has an approximate extra capacity of 683 tons per day.

The San Timoteo Sanitary Landfill is located on San Timoteo Canyon Road and is 366 acres in size and is permitted to operate through 2039. It has a permitted capacity of 23,685,785 cubic yards and a maximum permitted daily throughput of 2,000 tons. It has a remaining capacity of 12,360,396 cubic yards. In 2020, the San Timoteo Sanitary Landfill received an average throughput of 772 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the San Timoteo Sanitary Landfill has an approximately extra capacity of 1,228 tons per day.

5.16.5.3 SOLID WASTE THRESHOLDS OF SIGNIFICANCE

Appendix G of State CEQA Guidelines indicates that a project could have a significant effect if it were to:

UT-6 Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

UT-7 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The Initial Study established that the proposed Project would result in less than significant impacts related to Threshold UT-7; and no further assessment of these impacts is required in this Draft EIR.

5.16.5.4 SOLID WASTE METHODOLOGY

The analysis for this section addresses potential impacts on solid waste generation and infrastructure due to projected growth arising from the proposed Project. Solid waste generation from operation of the maximum projected buildout of the TVSP area was estimated using solid waste generation factors derived for multi-family residential, commercial, and office uses from CalRecycle. Solid waste volumes were then compared with recent estimates of remaining disposal capacity of the landfill serving the City.

5.16.5.5 SOLID WASTE ENVIRONMENTAL IMPACTS

IMPACT UT-6: THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE, OR OTHERWISE IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS

Less than Significant Impact.

Construction

Construction for implementing projects within the TVSP area would require demolition of various buildings located through the TVSP area. The majority of waste generated during demolition and construction activities by implementing projects would be building materials (e.g., concrete, dirt, and waste generated by construction workers). Nonhazardous waste from construction activities would be recycled to the extent feasible. As stated in the City's Municipal Code Section 13.66.040, *Construction and Demolition Recycling Requirements*, no demolition permit or building permit shall be issued for any development activity subject to this chapter unless the construction and demolition recycling plan has been approved by the municipal utilities director. Thus, implementing projects pursuant to the TVSP would be required to meet the City's waste

diversion requirements as they pertain to project construction. Furthermore, construction waste is anticipated to be minimal compared to waste generated from peak operations at full buildout of the TVSP area as construction waste would only be generated during occasional construction activities for future implementing projects and operational waste would be generated continuously.

Operation

As described previously in Section 3 of this document, full buildout pursuant to the TVSP would include development and operation of an additional 2,400 residential dwelling units, 265,000 SF of commercial retail, 238,000 SF of office space, and 220 hotel rooms. As shown on Table 5.16-6, it is anticipated that operations at full buildout of the TVSP would generate a total of approximately 3.49 tons of solid waste per day (94 tons per year) during operation with adherence to AB 341, which requires a diversion of 75% of waste from landfills.

Table 5.16-6: Solid Waste Generation during Project Operation

Land Use	Quantity	Generation Rate[1]	Solid Waste Demand (Tons)
Residential Units	2,400 units	10 lbs/unit/day	12 tons/day
Commercial Retail[1]	265,000 SF	0.006 lb/SF/day	0.795 tons/day
Office	238,000 SF	0.006 lb/SF/day	0.714 tons/day
Hotel	220 rooms	4 lbs/room/day	0.44 tons/day
Total Solid Waste			**13.949 tons/day**
Daily Landfill Disposal with AB 341 (75% Reduction)			**3.49 tons/day**
Annual Landfill Disposal with AB 341 (75% Reduction)			**1,274 tons per year**
Weekly Landfill Disposal with AB 341 (75% Reduction)			**24.5 tons per week**

[1] CalRecycle Generation Rates

As the California Street Landfill has the capacity to process an additional 683 tons of solid waste per day and the San Timoteo Sanitary Landfill has the capacity to process an additional 1,228 tons per day, the solid waste generated by the Project would be within the capacity of the landfill. The solid waste generated by full buildout of the TVSP would represent approximately 0.5 percent of the excess capacity of the California Street Landfill and 0.3 percent of the excess capacity of the excess capacity at the San Timoteo Sanitary Landfill each day. Furthermore, the California Street Landfill is permitted to operate through buildout of the TVSP. Thus, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and the Project would not impair the attainment of solid waste reduction goals. Impacts related to landfill capacity would be less than significant.

5.16.5.6 SOLID WASTE CUMULATIVE IMPACTS

The geographic scope of cumulative analysis for landfill capacity is the service area for the California Street Landfill and San Timoteo Sanitary Landfill, which serve the TVSP Area. Both landfills serve the Valley portion of San Bernardino County. The projections of future landfill capacity based on the entire projected waste stream going to these landfills is used for cumulative impact analysis. As described previously, the California Street Landfill design capacity is 11.4 million cubic yards, and its maximum permitted throughput is 829 tons per day. It has a remaining capacity of 5,168,182 cubic yards. In 2020, the California Street Landfill received an average throughput of 146 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the California Street Landfill has an approximate extra capacity of 683 tons per day. The San Timoteo Sanitary Landfill is located on San Timoteo Canyon Road and is 366 acres in size and is permitted to operate through 2039. It has a permitted capacity of 23,685,785 cubic yards and a maximum permitted daily throughput of 2,000 tons. It has a remaining capacity of 12,360,396 cubic yards. In 2020, the San Timoteo Sanitary Landfill received an average throughput of 772 tons per day (CalRecycle, 2022). Based on the average throughput received per day, the San Timoteo Sanitary Landfill has an approximately

extra capacity of 1,228 tons per day. The 3.49 tons per day from operation of the TVSP area at full buildout would be approximately 0.5 percent of the excess capacity of the California Street Landfill and 0.3 percent of the excess capacity of the excess capacity at the San Timoteo Sanitary Landfill each day. Furthermore, combined, the landfills have a total remaining capacity of 17,528,587 cubic yards. Therefore, the landfills would have sufficient capacity to serve the Project and the increase is solid waste from full buildout of the TVSP area would be less than cumulatively considerable and less than significant.

5.16.5.7 EXISTING REGULATIONS, STANDARD CONDITIONS AND PLANS, PROGRAMS, OR POLICIES

Existing Regulations

- Assembly Bill 341 (Chapter 476, Statutes of 2011)
- California Green Building Standards Code

Standard Conditions

None.

Plans, Programs, or Policies

None.

5.16.5.8 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts UT-6 and UT-7 would be less than significant.

5.16.5.9 SOLID WASTE MITIGATION MEASURES

No mitigation measures are required.

5.16.5.10 SOLID WASTE LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unavoidable adverse impacts related to solid waste would occur.

REFERENCES

2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/part_2_chapter_4_redlands_2020_uwmp.pdf?1622145365

City of Redlands General Plan 2035. Accessed: https://www.cityofredlands.org/post/planning-division-general-plan

City of Redlands General Plan 2035 Draft EIR. Accessed: https://www.cityofredlands.org/sites/main/files/file-attachments/redlands_deir_compiled_lo_071917_0.pdf?1554321669

City of Redlands Municipal Code. Accessed: https://codelibrary.amlegal.com/codes/redlandsca/latest/redlands_ca/0-0-0-1

City of Redlands Utilities. Accessed: https://www.cityofredlands.org/utilities-0

Fuscoe Engineering. Redlands Transit Village Water Supply Assessment (WSA 2022). January 26, 2022. (Appendix F)

Jurisdictional Disposal and Alternative Daily Cover Tons by Facility. CalRecycle. https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility

Landfill Tonnage Reports. CalRecycle. https://www2.calrecycle.ca.gov/LandfillTipFees/

San Bernardino Countywide Plan. http://countywideplan.com/

5.17 Mandatory Findings of Significance

5.17.1 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe "any significant impacts, including those which can be mitigated but not reduced to a level of insignificance." Potential environmental effects of the proposed Project and mitigation measures are discussed in detail throughout in Chapter 5 of this Draft EIR. As summarized below and detailed in Section 5.2, *Air Quality*, and Section 5.14, *Transportation*, impacts in the following areas would remain significant and unavoidable, even with the incorporation of standard conditions; plans, programs, policies; and feasible mitigation measures.

Air Quality

As detailed in Section 5.2, *Air Quality*, due to the uncertainty of the timing and methods of construction activities related to TVSP development projects, a significant impact could occur related to construction emissions of VOC and NOx, with implementation of South Coast Air Quality Management District (SCAQMD) Rules and mitigation measures. In addition, operation of the proposed TVSP at buildout would result in exceedance of the applicable SCAQMD thresholds for VOC, NOx, and CO after implementation of mitigation. The large majority of operational-source CO and NOx emissions (by weight) would be generated by project vehicles, and the VOC emissions would be generated by consumer products that neither future project applicants nor the City have the ability to reduce emissions of. Therefore, emissions generated from implementation of the proposed TVSP would be significant and unavoidable. Also, because the emissions would exceed thresholds, the Project would result in a conflict with implementation of the AQMP and impacts related to the AQMP would also be significant and unavoidable.

In addition, per SCAQMD's methodology, if an individual project would result in air emissions of criteria pollutants that exceeds the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants. Due to the Project exceedance of CO, VOC, and NOx thresholds, impacts would be cumulatively considerable and significant and unavoidable.

Transportation

As detailed in Section 5.14, *Transportation*, all TAZs within the TVSP area satisfy screening criteria 1, 2, 3, or 4 and are less than significant, except for TAZ 53827101 on the western boundary of the TVSP area. In order for projects within TAZ 53827101 to have a less than significant VMT impact, developments must adhere to the land use types in Screening Criteria 3 or land use quantities in Screening Criteria 4 – Land Use Quantities. Specific development within this TAZ is currently unknown. As such, Mitigation Measure TR-1 is included to require implementing projects within TAZ 53827101 to conduct a VMT Screening Analysis or VMT Analysis prior to approval of any site plans. While it is likely that implementing projects would meet the screening criteria, it is also possible that an implementing project would include development beyond the land uses provided for in Screening Criteria 4 and would result in more than 3,000 MT CO2e of GHG emissions per year. Therefore, individual implementing projects within TAZ 53827101 would potentially need to conduct their own CEQA analysis. Additionally, anticipated VMT reductions from inclusion of Transportation Demand Management (TDM) measures for implementing projects that result in a VMT impact, are not large enough to guarantee that significant impacts from implementing projects could be fully mitigated. As such, despite inclusion of Mitigation Measure TR-1, impacts related to VMT within TAZ 53827101 are considered be significant and unavoidable.

5.17.2 GROWTH INDUCEMENT

This section analyzes the growth inducement potential of the proposed Project and the associated secondary effects of growth the Project might permit. As required by CEQA Guidelines Section 15126.2(d), an EIR must:

> "Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a recycled water plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

Thus, based on CEQA, a project could have a direct effect on population growth, for example, if it would involve construction of substantial new housing. A project could also have indirect growth-inducement potential if it would:

- Establish substantial new permanent employment opportunities (e.g., commercial, industrial, governmental, or other employment-generating enterprises) or otherwise stimulate economic activity such that it would result in the need for additional housing, businesses, and services to support increased economic activities;
- Remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or would add substantial capacity that could accommodate additional unplanned growth;
- Remove obstacles to growth through changes in existing regulations pertaining to land development;
- Result in the need to expand one or more public service facilities to maintain desired levels of service; or
- Involve some other action that could encourage and facilitate other activities that could significantly affect the environment.

As CEQA Guidelines Section 15126.2(d) states that growth-inducing effects are not to be construed as necessarily beneficial, detrimental or of little significance to the environment; the following information is provided as additional information on ways in which the proposed Project could contribute to significant changes in the environment beyond the direct consequences of developing the land use concepts examined in the preceding sections of this Draft EIR.

Establish substantial new permanent employment opportunities or otherwise stimulate economic activity such that it would result in the need for additional housing, businesses, and services to support increased economic activities

The proposed TVSP would result in development of up to 613,000 square feet of retail commercial, hotel, and office space by 2045. SCAG estimates that employment in the City will increase from 42,600 jobs in 2016 to 56,300 in 2045, which is an increase of 13,700 jobs or a 32.2 percent increase (SCAG 2020 growth forecast). The employment anticipated by the proposed TVSP would generate approximately 1,226 new employees (see Section 5.11, *Population and Housing*), which represents 8.9 percent of the estimated

job growth by 2045. The 1,226 jobs expected in the TVSP area are included in SCAG projections because the employment land in the TVSP area is included in the General Plan and is not changing with implementation of the TVSP. Thus, the employment that would occur within the TVSP area would be less than significant.

The new Project would accommodate the forecasted employment in an environmentally sustainable manner by providing for housing to maintain the jobs to housing balance, that would reduce vehicle miles traveled. Also, as listed below, the City of Redlands has had recent unemployment rates ranging between 3.0 and 7.5 percent (EDD, 2021).

- December 2021: 3.6 percent unemployment rate
- 2020 Annual Average: 7.5 percent unemployment rate
- 2019 Annual Average: 3.0 percent unemployment rate
- 2018 Annual Average: 3.3 percent unemployment rate
- 2017 Annual Average: 3.8 percent unemployment rate
- 2016 Annual Average: 4.5 percent unemployment rate

The jobs would provide new employment opportunities for people living in Redlands and the surrounding cities. Most of the new commercial and office jobs that would be created by the proposed TVSP would be positions that are anticipated to be filled by people who would already be living within Redlands and surrounding communities and would not induce an unanticipated influx of new labor into the region. As described in Section 5.11, *Population and Housing*, buildout of the TVSP would result in maintenance and future improvement of the projected jobs-household ratio, which is a benefit of the proposed TVSP because a more balanced jobs-to-housing ratio could improve the environment by reducing vehicle miles traveled and emissions from motor vehicles. Overall, the proposed TVSP would accommodate forecasted employment growth consistent with SCAG's regional forecasts. Thus, impacts related to increased growth through the provision of employment opportunities would be less than significant.

Remove Obstacles to Growth, e.g., Through the Construction Or Extension of Major Infrastructure Facilities that do not Presently Exist in the Project Area or Would Add Substantial Capacity that Could Accommodate Additional Unplanned Growth.

The elimination of a physical obstacle to growth is considered to be a growth inducing impact. A physical obstacle to growth typically involves the lack of public service infrastructure. The proposed Project would induce growth if it would provide public services or infrastructure with excess capacity to serve lands that would otherwise not be developable.

The TVSP area is a developed urban area that is connected to the City's existing infrastructure system. Water, sewer, drainage, and roadways provide service to all of the areas within the TVSP. As described in Section 5.16, *Utilities and Service Systems*, development projects pursuant to the TVSP would include installation of onsite infrastructure and new connections to the existing infrastructure systems, which include improvements to existing aged infrastructure such as increasing the size of water and sewer lines. However, these improvements are sized to accommodate the TVSP buildout and not provide excess capacity. As described above, the TVSP area is urban and developed and the projects implemented by the TVSP would consist of infill and redevelopment of existing uses or development of vacant parcels that are in between developed parcels in the urban area. The TVSP related infrastructure and utility improvements do not involve extension of utilities into undeveloped areas. Therefore, the infrastructure improvements implemented by the Project would not result in unplanned growth.

The TVSP would also implement circulation improvements to street, pedestrian, and bicycle facilities, which would enhance local circulation and the use of transit. The circulation improvements provided by the TVSP would not extend circulation into a new area or provide excess circulation capacity that could induce growth. The improvements proposed by the TVSP would enhance circulation to provide for multi-modal transportation and implement use of transit. As a result, the circulation improvements would result in less than significant growth inducing impacts.

Remove Obstacles to Growth Through Changes in Existing Regulations Pertaining to Land Development

A project could directly induce growth if it would remove barriers to population growth such as change to a jurisdictions general plan and zoning code, which allows new development to occur in underutilized areas. The proposed TVSP includes amending the GP2035 to establish a new Transit Village District (TVD) land use designation to provide for infill development of new residential and commercial uses within 0.5 mile of each of the three new Arrow stations. The proposed TVSP provides detailed standards for building placement, height, massing, articulation, frontage, landscape, and parking based through a form-based code. The form-based code incorporates a gradual transitioning of the height and mass of buildings from larger to smaller to avoid incompatible buildings heights next to each other. The amount of square-footage and dwelling units listed at buildout of the proposed TVSP could be constructed at the present time under the current GP2035 land use designations and current zoning designations within the TVSP area. The difference is that with implementation of the Project, the new development would achieve preferred building forms and design, promote compact and walkable urban form in the vicinity of the train stations, introduce a greater variety of transportation options (and reduce vehicle trips and vehicle miles traveled), and provide more public open space and amenities that provides aesthetic and community benefits. Therefore, the proposed TVSP related changes to land use and zoning designations would not result in removing an obstacle to growth.

Also, SCAG household growth projections estimate that between 2021 and 2045 the number of households within the City will grow by 21.2 percent (5,395 households). Assuming that the maximum number of residential units in the proposed TVSP are developed and occupied (no vacancy), the 2,400 additional households in the TVSP area would consist of a 9.4 percent increase of households citywide, which is within the SCAG anticipated growth of both the City and the County. Likewise, as described previously, the employment anticipated by the TVSP would generate approximately 1,226 new employees (see Section 5.11, *Population and Housing*), which represents 8.9 percent of the estimated job growth by 2045. These jobs are included in SCAG projections because the employment land in the TVSP area is included in the General Plan and is not changing with implementation of the TVSP. Therefore, impacts related to growth from changes in existing regulations pertaining to land development would not occur.

Result in the Need to Expand One or More Public Service Facilities to Maintain Desired Levels of Service

The proposed Project is expected to incrementally increase the demand for fire protection and emergency response, police protection, and school services. However, as detailed in Section 5.12, *Public Services*, the proposed Project would not require development of additional facilities or expansion of existing facilities to maintain existing levels of service. Based on service ratios and buildout projections, the proposed Project would not create a demand for services beyond the capacity of existing facilities. Therefore, an indirect growth inducing impact as a result of expanded or new public facilities that could support other development in addition to the proposed Project would not occur. The proposed Project would not result in significant growth inducing consequences that would require the need to expand public services to maintain desired levels of service.

Involve Some Other Action that Could Encourage and Facilitate Other Activities that Could Significantly Affect the Environment

The proposed Project does not propose changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, or fire codes). The development implemented pursuant to the TVSP would comply with all applicable City plans, policies, and ordinances. In addition, mitigation measures have been identified within this Draft EIR to ensure that the Project minimizes environmental impacts. The Project would not involve any precedent-setting action that could encourage and facilitate other activities that significantly affect the environment.

Environmental Impacts of Induced Growth

All physical environmental effects from construction of development of the proposed TVSP have been analyzed in all technical sections of this Draft EIR and Initial Study prepared for this Project. For example, activities such as excavation, grading, and construction as required for the buildout of the TVSP have been evaluated herein. Also, all operational aspects of the TVSP have been analyzed in this Draft EIR and through implementation of existing regulations, including the General Plan and zoning ordinance, would not create an environmental impact of induced growth.

5.17.3 SIGNIFICANT IRREVERSIBLE EFFECTS

State CEQA Guidelines require the EIR to consider whether "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely…. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified." (CEQA Guidelines Section 15126.2(c)). "Nonrenewable resource" refers to the physical features of the natural environment, such as land, waterways, mineral resources, etc. These irreversible environmental changes may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed irretrievable commitments of nonrenewable resources is not justified (e.g., the project involves the wasteful use of energy).

Energy Resources

While not implementing development under the TVSP would not involve the wasteful use of energy, new development under the TVSP would result in an increase of energy use. Residential, commercial, office, and mixed-use developments would use electricity, natural gas, and petroleum products for lighting, heating, and power. Additionally, vehicles traveling within and to and from the TVSP area would utilize both oil and gas. Use of these types of energy for development within the TVSP would result in an increase of use of nonrenewable energy resources, which represents an irreversible environmental change.

Construction Impacts

Construction of implementing development projects under the TVSP would result in the consumption of building materials, including lumber, sand, and gravel for construction. Depletion of non-renewable resources that supply building materials would represent an irreversible environmental change.

5.17.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15126.2(a) states that "[a]n EIR shall identify and focus on the significant effects on the environment". However, CEQA Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. The following environmental issue areas would not be potentially impacted by the proposed Project, as detailed below.

Agricultural Resources

The Project area is urbanized and largely developed. There is no designated Prime Farmland, Unique Farmland, or Farmland of Local Importance within the Project area (GP2035 EIR, Figure 3.2-1). Therefore, implementation of the Project would not convert existing designated farmland and no related impact would occur. Also, none of the parcels within the Project area are zoned for agricultural use, nor is there any land under a Williamson Act contract within the Project area (City Zoning 2020), and GP2035 EIR, Figure 3.2-1).

None of the parcels within the Project are currently zoned as forest land, timberland, or Timberland Production, and the Project would not result in the conversion of farmland to non-agricultural or forest land to non-forest land, either directly or indirectly. As such, the Project would not involve other changes in the existing environment that could result in conversion of farmland to non-agricultural use or forest land to non-forest land.

Biological Resources

The Project area is urbanized and developed. Implementation of the Project would implement infill development within an already highly disturbed urban environment and would not result in any direct impacts to special status species, nor involve or result in any existing habitat modifications that could indirectly result in a substantial adverse effect on any special status species. Therefore, the Project would not result in impacts on species identified as candidate, sensitive, or special status.

The Project area is located in an area that contains a considerable amount of impervious surfaces (i.e., asphalt, cemented streets, parking lots, buildings, etc.) and non-native ornamental trees, shrubs, and ground cover; therefore, riparian habitat is not present nor another sensitive natural community present in the Project area. The Project would involve infill and redevelopment within an already highly disturbed urban environment and would not involve any changes or alterations to any riparian habitat or other sensitive natural community. Likewise, the Project area does not contain protected wetlands (USFWS 2020). The Project area is a highly disturbed urban environment. Implementation of the TVSP would not have a substantial adverse effect on wetlands as defined by Section 404 of the Clean Water Act.

No wildlife corridors, native wildlife nursery sites, or bodies of water in which fish are present are located within the Project area or in the surrounding area. However, mature trees are scattered throughout the area. Although the trees are mainly ornamental and nonnative, they may provide suitable habitat, including nesting habitat, for migratory birds. The Migratory Bird Treaty Act of 1918 (MBTA) implements the United States' commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The U.S. Fish and Wildlife Service (USFWS) administers permits to take migratory birds in accordance with the MBTA. The City requires that all projects comply with the MBTA by either avoiding grading activities during the nesting season (February 15 to August 15) or conducting a site survey for nesting birds prior to commencing grading activities. Projects implemented under the Project would be required to comply with the provisions of the MBTA. Adherence to the MBTA regulations would ensure that if construction occurs during the breeding season, appropriate measures would be taken to avoid impacts

to any nesting birds if found. With adherence to the MBTA requirements, less than significant impacts would occur and no further analysis is required in the EIR.

Implementation of the Project is not anticipated to conflict with the provisions of these existing tree policies and guidelines. Future development, revitalization, and/or redevelopment activities that would be permitted under the Project would be required to be reviewed by the City for consistency with the exiting tree policies and guidelines. Additionally, the Project outlines standards and guidelines to ensure the proper management (e.g., planting, health, maintenance) of trees occurs. Therefore, implementation of the Project would not conflict with any local policies or ordinances protecting biological resources. Impacts would be less than significant. Furthermore, the Project would not conflict with the provisions of an adopted habitat conservation plan or natural community conservation plan.

Mineral Resources

The Project area consists of the City's urban core, residential neighborhoods, civic uses, and parks. The Project area has not historically included mineral extraction, nor does the Project area currently support mineral extraction or have identified mineral resources. Thus, implementation of the Project would not result in the loss of availability of a known mineral resource of value to the region and state or delineated on the general plan, specific plan or other land use plan, and no impact would occur.

Wildfire

The Project area is an urbanized environment with moderate fire threat level and does not include, nor is it around, wildlands or areas of high fire hazard terrain or vegetation. Implementation of the Project would not exacerbate wildfire risks nor expose occupants to risk of pollutant concentrations from a wildfire or uncontrolled spread of a wildfire. The Project area is also not located in or near a state responsibility area, and the Project would not impair the implementation of an adopted emergency response plan or emergency evacuation plan. The project would not require installation of infrastructure that could exacerbate fire risks and would not expose people to downstream flooding related to post fire slope instability. Therefore, implementation of the Project would not result in any impacts related to wildfire.

REFERENCES

California Department of Fish and Wildlife (CDFW 2019), https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline

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Southern California Association of Governments (SCAG). Website: https://scag.ca.gov/sites/main/files/file-attachments/dpeir_connectsocal_3_14_populationhousing.pdf?1606003672

United States Fish and Wildlife Service (USFWS 2020), https://www.fws.gov/wetlands/Data/Mapper.html

6.0 Alternatives

This section addresses alternatives to the proposed Project and describes the rationale for including them in the Draft EIR. The section also discusses the environmental impacts associated with each alternative and compares the relative impacts of each alternative to those of the proposed Project. In addition, this section describes the extent to which each alternative meets the Project objectives.

6.1 INTRODUCTION

The identification and analysis of alternatives to a project is a fundamental part of the environmental review process pursuant to CEQA. Public Resources Code (PRC) Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is . . . to identify alternatives to the project."

Pursuant to *CEQA Guidelines* Section 15126.6(a), an EIR must describe a reasonable range of alternatives to the proposed Project or to the Project's location that would feasibly avoid or lessen its significant environmental impacts while attaining most of the proposed Project's objectives. *CEQA Guidelines* Section 15126.6(b) emphasizes that the selection of project alternatives be based primarily on the ability to reduce impacts relative to the proposed project. In addition, *CEQA Guidelines* Section 15126.6(e)(2) requires the identification and evaluation of an "Environmentally Superior Alternative."

Pursuant to *CEQA Guidelines* Section 15126.6(d), discussion of each alternative presented in this Draft EIR Section is intended "to allow meaningful evaluation, analysis, and comparison with the proposed project." As permitted by CEQA, the significant effects of each alternative are discussed in less detail than those of the proposed Project, but in enough detail to provide perspective and allow for a reasoned choice among alternatives to the proposed Project.

In addition, the "range of alternatives" to be evaluated is governed by the "rule of reason" and feasibility, which requires the Draft EIR to set forth only those alternatives that are feasible and necessary to permit an informed and reasoned choice by the lead agency and to foster meaningful public participation (*CEQA Guidelines* Section 15126.6(f)). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors and other considerations (*CEQA Guidelines* Sections 15091(a)(3), 15364).

Based on the CEQA requirements described above, the alternatives addressed in this Draft EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative could avoid or substantially lessen any of the identified significant environmental effects of the proposed Project;
- The extent to which the alternative could accomplish the objectives of the proposed Project;
- The potential feasibility of the alternative;
- The appropriateness of the alternative in contributing to a "reasonable range" of alternatives that would allow an informed comparison of relative advantages and disadvantages of the proposed Project and potential alternatives to it; and

- The requirement of the *CEQA Guidelines* to consider a "no project" alternative; and to identify an "environmentally superior" alternative in addition to the no project alternative (*CEQA Guidelines* Section 15126.6(e)).

Neither the CEQA statute, the *CEQA Guidelines*, nor recent court cases specify a specific number of alternatives to be evaluated in an EIR. Rather, "the range of alternatives required in an EIR is governed by the rule of reason that sets forth only those alternatives necessary to permit a reasoned choice" (*CEQA Guidelines* 15126(f)).

6.2 ENVIRONMENTAL IMPACTS

CEQA requires the alternatives selected for comparison in an EIR to avoid or substantially lessen one or more significant effects of the project being evaluated. In order to identify alternatives that would avoid or substantially lessen any of the identified significant environmental effects of implementation of the proposed Project, the significant impacts must be considered, although it is recognized that alternatives aimed at reducing the significant and unavoidable impacts would also avoid or reduce impacts that were found to be less than significant or reduced to below a level of significance with implementation of mitigation measures. The analysis in Chapter 5 of this EIR determined that buildout of the proposed Specific Plan would result in the following significant and unavoidable impacts.

Air Quality

- As detailed in Section 5.2, *Air Quality*, due to the uncertainty of the timing and methods of construction activities related to Specific Plan development projects, a significant impact could occur related to construction emissions of ROGs and NOx, even with implementation of South Coast Air Quality Management District (SCAQMD) Rules and mitigation measures. In addition, operation of the proposed Specific Plan would result in exceedance of the applicable SCAQMD thresholds for ROGs, NOx, and CO even after implementation of mitigation. Therefore, emissions generated from implementation of the proposed Specific Plan would be significant and unavoidable. Also, because the emissions would exceed thresholds, the Project would result in a conflict with implementation of the AQMP and impacts related to the AQMP would also be significant and unavoidable.

- ***Cumulative Air Quality Impacts:*** As described in Section 5.2, *Air Quality*, per SCAQMD's methodology, if an individual project results in air emissions of criteria pollutants (including ROG, CO, NOx, SOx, PM_{10}, and $PM_{2.5}$) that exceed the SCAQMD's thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the region is in non-attainment under an applicable federal or state ambient air quality standard.

  As described previously, emissions from construction of projects pursuant to the proposed Specific Plan would exceed SCAQMD's threshold for ROGs and NOx after implementation of SCAQMD Rules and mitigation measures. In addition, emissions from buildout of the proposed Specific Plan would exceed the applicable SCAQMD thresholds for ROGs, NOx, and CO even with implementation of mitigation. Therefore, operational-source emissions from implementation of the proposed Specific Plan would be cumulatively considerable, and cumulative air quality impacts would be significant and unavoidable.

Transportation and Circulation

- As detailed in Section 5.9, *Transportation and Circulation*, all TAZs within the Specific Plan Area are within a TPA or a low-VMT area or would meet Criteria 3 or 4 based on limited buildout area, except for TAZ 53827101. As such, implementing development pursuant to the TVSP in all TAZs except 53827101 would be less than significant. In order for implementing projects within a TPA to be presumed to have a less than significant VMT impact, developments must meet the criteria set forth in the City of Redlands VMT Guidelines Screening Criteria. In order for projects within TAZ 53827101 to be presumed to have a less than significant VMT impact, developments located within TAZ 53827101 must adhere to the land use types presented in Screening Criteria 3 – Land Use Types or land use quantities presented in Screening Criteria 4 – Land Use Quantities. As shown in Figure 3-17, *Vacant and Non-Conforming Parcels,* two parcels within TAZ 53827101 are vacant and the rest are considered non-conforming. As such, it can be reasonably presumed that these parcels will be developed or redeveloped pursuant to the TVSP prior to buildout. However, at this time, specific development within the TVSP area is unknown. As such, Mitigation Measure TR-1 is included to require implementing projects within a TPA or TAZ 53827101 to conduct a VMT Screening Analysis or VMT Analysis prior to approval of any site plans. While it is likely that implementing projects would meet the criteria set forth in Screening Criteria 1, 2, 3, or 4, it is also possible that an implementing project would not meet the criteria set forth in Screening Criteria 1 or include development beyond the land uses provided for in Screening Criteria 4 and would result in more than 3,000 MT CO2e of GHG emissions per year. Additionally, anticipated VMT reductions from inclusion of Transportation Demand Management (TDM) measures for implementing projects that result in a VMT impact, are not large enough to guarantee that significant impacts from implementing projects could be fully mitigated. As such, despite inclusion of Mitigation Measure TR-1, impacts related to VMT within TAZ 53827101would be significant and unavoidable.

6.3 PROJECT OBJECTIVES

The following objectives have been identified in order to aid decision makers in their review of the proposed Project and its associated environmental impacts.

1. A vision for the future of the three station areas that recognizes the importance of Redlands' unique history and tradition while embracing opportunities for continued reinvestment, growth, and beneficial change.

2. Application of the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area.

3. New form-based zoning standards for the Plan Area that will replace current zoning regulations. These new standards are calibrated to deliver new development that is consistent with Redlands' physical character, history, and culture, as well as the community's vision for its future growth.

4. An implementation strategy for transforming the Plan Area's streets, infrastructure, parks, and other public spaces in line with the City of Redland's unique culture and history.

5. Transform streets and create neighborhood connectivity through pedestrian-oriented improvements.

6. Provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs.

7. Provide for transit-oriented development around the three new Arrow Line stations in line with the City's General Plan.

6.4 ALTERNATIVES CONSIDERED BUT REJECTED

Pursuant to *CEQA Guidelines* Section 15126.6(c), an EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are infeasible and need not be considered further. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (*CEQA Guidelines* Section 15126.6(f), (f)(3)). This section identifies alternatives considered by the lead agency but rejected as infeasible and provides a brief explanation of the reasons for their exclusion. Alternatives may be eliminated from detailed consideration in the Draft EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid any significant environmental effects.

- **Alternate Site Alternative:** An alternate site for the proposed Project was eliminated from further consideration. The primary purpose of the proposed TVSP is to guide redevelopment of areas surrounding the three new Arrow Line stations by introducing additional residential and mixed use, and proposing circulation improvements for vehicles, pedestrians, bicyclists, and transit users. Since all of the Project objectives are related to the areas surrounding the three Arrow Line Stations in the New York Street Village, Downtown Village, and University Village, none of these objectives could be met in another location in the city. Therefore, the Alternative Site Alternative was rejected from further consideration.
- **No Project/No Build Alternative.** No development within the TVSP area was eliminated from further consideration as an alternative. Under the No Project/No Build Alternative, the current uses within the TVSP area would remain the same, and vacant or underutilized parcels would remain as such. The No Build Alternative would not allow developments to be constructed that are consistent with the existing General Plan land use designations and zoning. Since all of the Project objectives are related to redevelopment of the areas surrounding the three new Arrow Line Stations, none of these objectives could be met through no development within the TVSP area. Therefore, the No Project/No Build Alternative was rejected from further consideration.

6.5 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Three alternatives to the proposed Project have been identified for further analysis as representing a reasonable range of alternatives that attain most of the objectives of the Project, may avoid or substantially lessen any of the significant effects of the proposed Project, and are feasible from a development perspective. These alternatives have been developed based on the criteria identified in Section 6.1, and are described below:

Alternative 1: No Project/Buildout of the Existing Zoning. Under this alternative, the proposed Specific Plan would not be developed. In accordance with the CEQA Guidelines, the No Project/ Buildout of Existing Zoning Alternative will be the continuation of the existing plan, policy or operation into the future when the project is the revision of an existing land use or regulatory plan, policy or ongoing operation. Section 15126.6(e)(3)(A) of the CEQA Guidelines states that, "typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan."

This alternative evaluates the environmental effects of buildout of the Specific Plan area according to the existing General Plan and zoning designations. Because the Specific Plan area is an urban area that is generally built out, most new development would occur as adaptive reuse of existing buildings, development on existing vacant sites, and infill or redevelopment of existing uses at the intensity allowed by the existing zoning. The majority of development under this alternative would similarly occur on vacant and non-conforming parcels as shown on Figure 3-17, *Vacant and Non-Conforming Parcels*. The addition of residential uses and mixed residential uses within the TVSP area would not occur, as proposed by the project. However, as described in Chapter 3.0, Project Description, the amount of square-footage and dwelling units listed in Table 3-1 could be constructed at the present time under the current General Plan land use designations and current zoning designations within the Project area. Because the land use and zoning designations of the non-residential parcels would not change as a result of the proposed Specific Plan, the No Project/ Buildout of Existing Zoning Alternative assumes development of 2,400 dwelling units, 220 hotel rooms, 265,000 SF of retail commercial, 238,000 SF of office space, and 280,000 SF of open space and parks as allowed by existing General Plan and Zoning. However, development would occur in line with the existing zoning and General Plan land use designations in the area, and an increase in density in areas immediately surrounding the new Arrow Line Stations in the proposed Village Center district would not occur. In addition, areas within the proposed TVSP area would remain largely commercial within the New York Street Village and Downtown Village, and an increase in multi-family development in these areas would not be realized.

The Alternative 1: No Project/Buildout of Existing Zoning Alternative evaluation provides a comparison between the environmental impacts of the proposed Specific Plan in contrast to the result from not approving, or denying, the proposed Specific Plan. Thus, this alternative is intended to meet the requirements of CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

Alternative 2: Reduced Specific Plan Area Alternative. Under this alternative, the parcels located within Traffic Analysis Zone (TAZ) 53827101 outside of the Transit Priority Area (TPA), which include parcels north of Colton Avenue on the northwestern tip of the TVSP area, as demonstrated by Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, would not be included in the TVSP area. Under this alternative, implementing developments in TPAs would meet the criteria under the City's Screening Criteria. Under this alternative, a 25 percent reduction in the number of proposed dwelling units, commercial retail, and office space would be developed in the New York Street Village. Based on the reduction in land included in the TVSP area within the New York Street Village, only 150 dwelling units, 26,250 SF of retail commercial, and 131,250 SF of office uses would be developed in the New York Street Village. Under this alternative a total of 2,350 dwelling units, 256,250 SF of retail commercial, and 194,250 SF of office uses could be developed under buildout of the TVSP. This alternative includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP, with exception to those only applicable to areas outside of TPAs within TAZ 53827101.

Alternative 3: Reduced Intensity Alternative. Under this alternative, a 60 percent reduction in the number of dwelling units, retail commercial uses, and office uses would be developed throughout all of the proposed Transit Villages. The proposed TVSP would allow for development of up to 960 dwelling units, 88 hotel rooms, 106,000 SF of retail commercial, and 95,200 SF of office uses through the year 2040. Overall, 60 percent less development would occur within each Transit Village. Under this alternative, redevelopment would still be concentrated on vacant and non-conforming parcels within the TVSP area, as shown on Figure 3-17, *Vacant and Non-Conforming Parcels*. This alternative includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP.

6.6 ALTERNATIVE 1: NO PROJECT/NO BUILDOUT OF THE EXISTING ZONING

Section 15126.6(e) of the *CEQA Guidelines* requires analysis of the No Project Alternative. The no project alternative analysis must discuss the existing conditions at the time the Notice of Preparation/Initial Study was published and considers conditions that would be reasonably expected to occur in the foreseeable future if the project were not approved. The No Project Alternative applies to the following scenarios:

(1) When the project is a revision of an existing land use or regulatory plan, policy, or ongoing operation, the "no project" alternative is the continuation of the existing plan, policy, or operation into the future; or

(2) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed.

Therefore, under Alternative 1: No Project/Buildout of Existing Zoning Alternative, the proposed TVSP would not be implemented, and the TVSP area would be developed pursuant to the existing land use and zoning regulations. Limited new development would occur on vacant parcels and redevelopment of sites would occur pursuant to the existing zoning. However, as discussed in Section 3, *Project Description,* the same amount of square-footage and dwelling units listed in Table 3-1 as proposed by TVSP could be constructed at the present time under the current General Plan land use designations and current zoning designations within the Project area. Because the land use and zoning designations of the non-residential parcels would not change as a result of the proposed Specific Plan, the No Project/ Buildout of Existing Zoning Alternative assumes development of 2,400 dwelling units, 220 hotel rooms, 265,000 SF of retail commercial, 238,000 SF of office space, and 280,000 SF of open space and parks as allowed by existing General Plan and Zoning. However, development would occur in line with the existing zoning and General Plan land use designations in the area, and an increase in density in areas immediately surrounding the new Arrow Line Stations in the proposed Village Center district would not occur. In addition, areas within the proposed TVSP area would remain largely commercial within the New York Street Village and Downtown Village, and an increase in multi-family development in these areas would not be realized. Accordingly, Alternative 1: No Project/Buildout of Existing Zoning Alternative provides a comparison between the environmental impacts of the proposed Specific Plan and the result of not approving, or denying, the proposed Specific Plan.

6.6.1 ENVIRONMENTAL IMPACTS

Aesthetics

Under the No Project/Buildout of Existing Zoning Alternative, infill development on remaining vacant parcels, redevelopment per the existing zoning on non-conforming parcels, and adaptive reuse of existing buildings would occur within the TVSP area to add residential and commercial uses. Development under this alternative would occur in the absence of unifying design guidelines, architectural guidelines, streetscape improvements, open space improvements, and other aesthetic enhancements proposed in the TVSP that are intended to create distinctive areas that are compatible with the history and culture of Redlands while enhancing connectivity for alternative transportation. Although visual impacts would be less than significant under this alternative, as development would occur consistent with the existing zoning and compatible with the surrounding developments, the overall visual quality of the TVSP area would not be improved when compared to the proposed Project, which would result in an overall improvement in aesthetics and enhancement of character within the area. Furthermore, the No Project/Buildout of Existing Zoning Alternative would not promote compact and walkable urban form in the vicinity of the train stations, introduce a greater

variety of transportation options (and reduce vehicle trips and vehicle miles traveled), or provide more public open space and amenities that provides aesthetic and community benefits.

Development under this alternative would result in the same amount of new sources of light and glare from infill development. However, both this alternative and the proposed Project would result in similar impacts with implementation of the City's existing lighting regulations and the City's design review process. Overall, the aesthetic impacts from this alternative would be similar to those associated with the proposed Project, and result in less than significant impacts.

Air Quality

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. However, an increase in density, as allowed by the proposed Village Center District within the TVSP, for parcels immediately surrounding the new Arrow Line Stations would not occur. The alternative would not result in changes to zoning or the General Plan land uses. Therefore, it would be consistent with the Air Quality Management Plan (AQMP) under the AQMP Consistency Criterion No. 1.

However, as the No Project/Buildout of Existing Zoning Alternative would result in the same development as the proposed Project, air quality pollutant emissions from both construction and operations of the alternative would exceed criteria pollutant thresholds set by the South Coast Air Quality Management District (SCAQMD). Therefore, buildout pursuant to the existing zoning would continue to result in a significant and unavoidable impact after implementation of mitigation. Thus, impacts under the No Project/Buildout of Existing Zoning Alternative would be the same as the proposed Project.

Cultural Resources

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential to adversely affect any historic or undiscovered archeological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to the same intensity. This alternative would have a similar impact on historic structures within the TVSP area. However, like the proposed Project, similar mitigation to the Project's mitigation measures and compliance with applicable City of Redlands Municipal Code provisions, including Redlands Historic Architectural Design Guidelines, would be required to reduce potential impacts to a less than significant level. Therefore, impacts to cultural resources from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Energy

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. This would result in the same demand for energy in comparison to the proposed Project, which was determined to be less than significant. Implementing projects under this alternative would be compliant with Title 24 requirements. Therefore, impacts to energy from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Geology and Soils

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential to adversely affect any undiscovered paleontological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to the same intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measure would be required to reduce potential impacts to a less than significant level. Therefore, impacts to paleontological resources from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Greenhouse Gas Emissions

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. Therefore, this alternative would generate the same amount of construction and operational greenhouse gas emissions when compared to the proposed Project. Therefore, buildout pursuant to the existing zoning would continue to result in less than significant impacts. Thus, impacts under the No Project/Buildout of Existing Zoning Alternative would be the same as the proposed Project.

Hazards and Hazardous Materials

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in redevelopment of vacant and underutilized parcels within the TVSP area, including parcels that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation. If future redevelopment under this alternative is proposed on listed sites, potential contamination at these sites, if not already remediated, would be addressed through the City's development review requirements and in compliance with applicable state and federal regulations. Compliance with these policies, regulations, and programs would reduce the impact to less than significant. Therefore, impacts related to hazards and hazardous materials from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Hydrology and Water Quality

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential to adversely affect hydrology and water quality as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to the same intensity. However, like the proposed Project, implementation of existing regulatory requirements would reduce potential impacts to a less than significant level. Therefore, impacts to hydrology and water quality from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Land Use and Planning

The No Project/Buildout of Existing Zoning Alternative would continue the existing land uses and zoning designations within the area. The proposed TVSP has been prepared to provide a cohesive plan that specifically addressees: development standards, building design, parking, architectural treatment, landscaping, open space, and infrastructure and circulation improvements. This alternative would not provide

a cohesive plan for optimal functioning of a transit-oriented environment that is accessible to residents, workers, and visitors via alternative forms of transportation.

With the absence of the TVSP to guide development of the area, development would be considered on a project-by-project basis, which would not provide for a cohesive future land use plan that would maximize land use and circulation opportunities. This alternative would not implement the pedestrian and bicycle circulation patterns identified in the Specific Plan to improve access and reduce local vehicular trips. In addition, this alternative would not implement SCAG policies that encourage greater densities in areas with transit and mixed-use opportunities and less dependence on the automobile. The No Project/Buildout of Existing Zoning Alternative would not implement SCAG policies in a cohesive manner, such as would be done by the proposed TVSP

However, the land uses that would occur by the No Project/Buildout of Existing Zoning Alternative would be consistent with the City's General Plan and zoning ordinance. Hence, like the proposed TVSP, the No Project/Buildout of Existing Zoning Alternative would result in a less than significant impact and would be similar to those associated with the proposed Project.

Noise

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential to result in increases of ambient noise levels from construction and operation and increases in construction vibration as implementing projects of the alternative would occur in the same geographical area to the same intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measures would be required to reduce potential impacts to a less than significant level. Therefore, impacts related to noise from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Population and Housing

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in an increase of 6,360 residents and 1,226 employees. The increase in population that would be generated by this alternative would be consistent with SCAG forecasts and would not induce substantial population growth in the Project area. The No Project/Buildout of Existing Zoning Alternative and the proposed TVSP would result in similar impacts related to population and housing. Hence, like the proposed TVSP, the No Project/Buildout of Existing Zoning Alternative would result in a less than significant impact and would be similar to those associated with the proposed Project.

Public Services

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in the same residential and employee population increases as the proposed Project. Thus, demand for public services, including fire protection, police protection, school services, and library services would be the same as the proposed Project. Hence, like the proposed TVSP, the No Project/Buildout of Existing Zoning Alternative would result in a less than significant impact and would be similar to those associated with the proposed Project.

Recreation

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in the same residential and employee population increases as the proposed Project. Thus, demand for recreational facilities would be the same as the proposed Project. However, unlike the proposed TVSP, this alternative would not include enhancement of the city's open space network to provide a contiguous green space connecting the TVSP villages. Hence, like the proposed TVSP, the No Project/Buildout of Existing Zoning Alternative would result in a less than significant impact and would be similar to those associated with the proposed Project.

Transportation

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential to result in vehicle miles traveled at levels above existing City thresholds, as implementing projects of the alternative would occur in the same geographical area to the same intensity. Therefore, buildout pursuant to the existing zoning would continue to result in a significant and unavoidable impact after implementation of mitigation. Furthermore, the No Project/Buildout of Existing Zoning Alternative would not promote compact and walkable urban form in the vicinity of the train stations, nor would it introduce a greater variety of transportation options (and reduce overall vehicle trips and vehicle miles traveled). Thus, impacts under the No Project/Buildout of Existing Zoning Alternative would be slightly worse than the proposed Project.

Tribal Cultural Resources

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in a similar potential adverse effect on any undiscovered tribal cultural resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to the same intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measures and compliance with AB 52 and SB 18 would be required to reduce potential impacts to a less than significant level. Therefore, impacts to tribal cultural resources from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

Utilities and Service Systems

Under the No Project/Buildout of Existing Zoning Alternative, the same level of development would occur within the TVSP area based on market conditions and the existing zoning. As such, the No Project/Buildout of Existing Zoning Alternative would result in the same residential and employee population increases as the proposed Project. Thus, demand for regional water supplies, wastewater treatment, and solid waste disposal would be the same as the proposed Project. Therefore, impacts to utilities and service systems from the No Project/Buildout of the Existing Zoning Alternative would be similar to those associated with the proposed Project.

6.6.2 CONCLUSION

Ability to Reduce Impacts

The No Project/Buildout of Existing Zoning Alternative would not eliminate the significant and unavoidable impacts related to air quality and vehicle miles traveled that would occur from implementation of the

proposed TVSP, as buildout under this alternative would be consistent with that allowed under the TVSP. In fact, the No Project/Buildout of Existing Zoning Alternative would have more severe impacts related to vehicle miles traveled. In addition, this alternative would require the same mitigation to ensure less than significant impacts related to historical resources, cultural resources, paleontological resources, and noise.

Ability to Achieve Project Objectives

The analysis of the No Project/Buildout of Existing Zoning Alternative compares the impacts of the proposed Specific Plan to the impacts that would occur if the existing General Plan and zoning continue to be implemented. Regarding the ability to achieve Project objectives, the No Project/Buildout of Existing Zoning Alternative would not achieve most of the Project objectives, including Objectives 1, 3, 4, 5, 6, and 7, as it would not provide for new mixed-use, transit-oriented development within the vicinity of the new Arrow stations and would not provide a new form-based code. Development of the Specific Plan area under this alternative would partially achieve Objective 2, (Application of the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area) if the Transit Village Overlay Zone within the City's General Plan is realized through another means in order to revitalize the TVSP area pursuant to the General Plan.

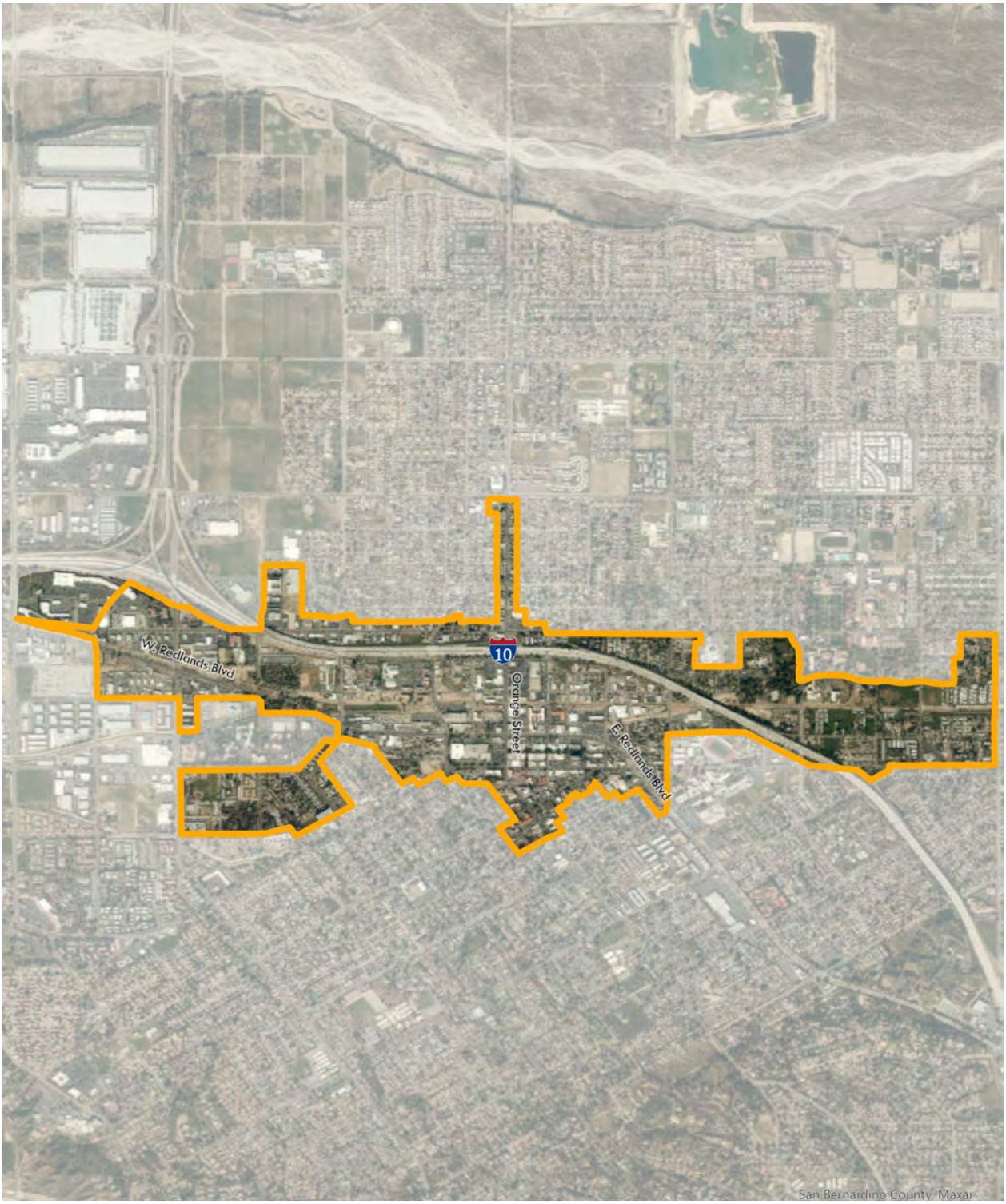
6.7 ALTERNATIVE 2: REDUCED SPECIFIC PLAN AREA ALTERNATIVE

Under this alternative, the parcels located within TAZ 53827101 outside of the Transit Priority Area (TPA), which include parcels north of Colton Avenue on the northwestern tip of the TVSP area, as demonstrated by Figure 5.14-1, *Transit Priority Areas & Specific Plan TAZs*, would not be included in the TVSP area. Under this alternative, implementing developments pursuant to the TVSP would either occur in TPAs and would meet the criteria under Screening Criteria 1 or would occur in Low VMT areas and would meet the criteria under Screening Criteria 2. Therefore, VMT impacts under Alternative 2 would be less than significant. Under this alternative, a 25 percent reduction in the number of proposed dwelling units, commercial retail, and office space would be developed in the New York Street Village. Based on the reduction in land included in the TVSP area within the New York Street Village, only 150 dwelling units, 26,250 SF of retail commercial, and 131,250 SF of office uses would be developed in the New York Street Village. Under this alternative a total of 2,350 dwelling units, 256,250 SF of retail commercial, and 194,250 SF of office uses could be developed under buildout of the TVSP, which would represent an approximately 2 percent smaller residential, 3 percent smaller retail commercial, and 18 percent smaller office buildout when compared to the proposed Project. The area that would be developed pursuant to the TVSP under the Reduced Specific Plan Area Alternative is shown in Figure 6-1, *Alternative Two Area*.

This alternative includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP, with exception to those only applicable to areas outside of TPAs within TAZ 53827101.

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Alternative Two Area



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6.7.1 ENVIRONMENTAL IMPACTS

Aesthetics

Under the Reduced Specific Plan Area Alternative, the same type of mixed-use development would occur within the TVSP area; however, existing parcels outside of the TPA in TAZ 53827101 and TAZ 53834601 would not be redeveloped. These parcels currently make up the Tri City Shopping Center and other various commercial uses that are currently largely vacant or underutilized. The overall visual character and quality of the TVSP area would be the same as the proposed condition under development with the exception of the excluded parcels in TAZ 53827101. While slightly fewer new sources of light and glare would occur from this alternative due to the decreased buildout in the New York Street Village, overall impacts related to light and glare would be consistent with those under the proposed Project.

Implementation of the Reduced Specific Plan Area Alternative would result in the same less than significant impacts related to aesthetics as the proposed Specific Plan. The Reduced Specific Plan Area Alternative would implement the same type of visual improvements that would be introduced throughout the TVSP area by the proposed Project (e.g., new and improved open space, providing a consistent design theme within the villages, and increased streetscaping). Thus, improvements to the existing views, character, and quality of the TVSP area would also occur under the Reduced Specific Plan Area Alternative, with the exception of parcels excluded at the northwestern tip of the TVSP area. Overall, the aesthetic impacts from this alternative would be less than significant, and would be similar to those associated with the proposed Project.

Air Quality

The Reduced Specific Plan Area Alternative would develop approximately 2 percent fewer dwelling units, 3 percent less square footage of commercial retail, and 18 percent less square footage of office space than the proposed Project. Therefore, a slightly reduced overall volume of construction activities and the related emissions would occur. However, the volume of ROG and NOx emissions from construction activities would remain significant and unavoidable. As described in Section 5.2, *Air Quality,* construction of simultaneous implementing projects under the TVSP could result in worst-case emissions of up to 590.61 lbs/day of VOC, which is above the threshold of 75 lbs/day, and 385.10 lbs/day of NOx, which is above the threshold of 100 lbs/day. Under the Reduced Specific Plan Area Alternative, it is possible that a combination of developments could occur, such that daily construction emissions would still exceed this threshold. Thus, construction air quality impacts would remain significant and unavoidable.

In addition, the slightly reduced amount of development by this alternative would result in less stationary source emissions from equipment and less traffic associated air emissions than the proposed TVSP. Therefore, overall air quality impacts would be reduced in comparison to the proposed TVSP. However, the volume of VOC, NOx, and CO emissions from operational vehicular emissions generated by the Reduced Specific Plan Area Alternative would remain significant and unavoidable due to the volume of vehicular trips that would occur from operation of the alternative. As described in Section 5.2, *Air Quality*, operations from implementing projects under the TVSP would generate up to 117.49 lbs/day of VOC emissions, which is substantially above the threshold of 55 lbs/day; 79.95 lbs/day of NOx, which is above the threshold of 55 lbs/day; and 615.20 lbs/day of CO, which is above the threshold of 550 lbs/day during peak summer operations. Under the Reduced Specific Plan Area Alternative, the daily VOC, NOx, and CO emissions related to residential, commercial, and office operations would be slightly less, but would still exceed the SCAQMD thresholds. Therefore, although less emissions would occur, significant and unavoidable impacts would still occur from the Reduced Specific Plan Area Alternative. Thus, impacts under this alternative would be the same as the proposed TVSP.

Cultural Resources

Under the Reduced Specific Plan Area Alternative, a slightly reduced level of development would occur within a reduced TVSP area based on market conditions. As such, the Reduced Specific Plan Area Alternative would result in a generally similar potential to adversely affect any historic or undiscovered archeological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to a slightly lesser intensity. This alternative would have a similar impact on historic structures within the TVSP area. However, like the proposed Project, similar mitigation to the Project's mitigation measures and compliance with applicable City of Redlands Municipal Code provisions, including Redlands Historic Architectural Design Guidelines, would be required to reduce potential impacts to a less than significant level. Therefore, impacts to cultural resources from the Reduced Specific Plan Area Alternative would be similar to those associated with the proposed Project.

Energy

Under the Reduced Specific Plan Area Alternative, a slightly reduced level of development would occur within the reduced TVSP area based on market conditions. This would result in a slight decrease in the demand for energy in comparison to the proposed Project, which was determined to be less than significant. Implementing projects under this alternative would be compliant with Title 24 requirements. Therefore, impacts to energy from the Reduced Specific Plan Area Alternative would be slightly less than those associated with the proposed Project, but still less than significant.

Geology and Soils

Under the Reduced Specific Plan Area Alternative, a slightly decreased level of development would occur within the reduced TVSP area based on market conditions. As such, the Reduced Specific Plan Area Alternative would generally result in a similar potential to adversely affect any undiscovered paleontological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to a slightly lesser intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measure would be required to reduce potential impacts to a less than significant level. Therefore, impacts to paleontological resources from the Reduced Specific Plan Area Alternative would be similar to those associated with the proposed Project.

Greenhouse Gas Emissions

The Reduced Specific Plan Area Alternative would develop approximately 2 percent (50) fewer dwelling units, 3 percent (8,750 SF) less retail commercial, and 18 percent (43,750 SF) less office space than the proposed TVSP. Therefore, a slightly reduced volume of construction activities and related production of GHG emissions would occur. In addition, the slightly reduced amount of development by this alternative would result in less stationary source emissions from equipment onsite, and less traffic-associated GHG emissions than the proposed TVSP. Therefore, the overall volume of GHG emissions would be reduced in comparison to the proposed Specific Plan. However, the development and operation of 2,350 dwelling units, 256,250 SF of retail commercial, and 194,250 SF of office uses would result in significant GHG emissions and would require implementation of the same mitigation measures that are required for the proposed TVSP. Therefore, although fewer GHG emissions would occur, impacts would still be less than significant. Thus, impacts under this alternative would be the same as the proposed Specific Plan.

Hazards and Hazardous Materials

Under the Reduced Specific Plan Area Alternative, a slightly reduced level of development would occur within the reduced TVSP area based on market conditions. As such, the Reduced Specific Plan Area Alternative would result in redevelopment of vacant and underutilized parcels within the TVSP area, including parcels that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation. If future redevelopment under this alternative is proposed on listed sites, potential contamination at these sites, if not already remediated, would be addressed through the City's development review requirements and in compliance with applicable state and federal regulations. Compliance with these policies, regulations, and programs would reduce the impact to less than significant. Therefore, impacts related to hazards and hazardous materials from the Reduced Specific Plan Area Alternative would be similar to those associated with the proposed Project.

Hydrology and Water Quality

Under the Reduced Specific Plan Area Alternative, a slightly reduced level of development would occur within the reduced TVSP area based on market conditions. As such, the Reduced Specific Plan Area Alternative would result in a similar potential to adversely affect hydrology and water quality as the proposed Project, as implementing projects of the alternative would occur in the same general geographical area to a slightly smaller intensity. However, like the proposed Project, implementation of existing regulatory requirements would reduce potential impacts to a less than significant level. Therefore, impacts to hydrology and water quality from the Reduced Specific Plan Area Alternative would be similar to those associated with the proposed Project.

Land Use and Planning

Like the proposed Project, the Reduced Specific Plan Area Alternative would involve General Plan and Zoning designation changes for the reduced TVSP area and would have the same type of consistency with the SCAG RTP/SCS policies and the City's General Plan policies. Hence, like the proposed Specific Plan, the Reduced Specific Plan Area Alternative would result in a less than significant impact related to land use and would be similar to those associated with the proposed Project.

Noise

Construction and operation noise impacts would be slightly reduced under the Reduced Specific Plan Area Alternative because this alternative would decrease the maximum development within the New York Street Transit Village by 25 percent. Construction of this alternative would generate the same type and volume of construction noise as the proposed Specific Plan, and impacts would continue to be potentially located next to sensitive receptors. Therefore, mitigation measures would be required to reduce construction noise and construction noise impacts would be similar to the proposed Project under the Reduced Specific Plan Area Alternative.

Operational noise would be reduced under this alternative as traffic-generated and stationary noise sources would decrease in relation to the reduction in dwelling units, commercial space, and office space in the New York Street Transit Village. Additionally, the Reduced Specific Plan Area Alternative would result in fewer residents in the New York Street Village that could be exposed to noise from surrounding development and roadways. Overall, operational noise impacts from the Reduced Specific Plan Area Alternative would be less than impacts associated with the proposed Project but would likely require the same mitigation.

Population and Housing

Under the Reduced Specific Plan Area Alternative, a 25 percent reduction in the number of proposed dwelling units, commercial retail, and office space would be developed in the New York Street Village. Under this alternative a total of 2,350 dwelling units, 256,250 SF of retail commercial, and 194,250 SF of office uses could be developed under buildout of the TVSP. This would reduce the number of residents at buildout from 6,360 to 6,228 and reduce the number of employment opportunities from 1,226 to 1,122. The increase in population that would be generated by this alternative would be consistent with SCAG forecasts and would not induce substantial population growth in the Project area. The Reduced Specific Plan Area Alternative and the proposed Specific Plan would result in similar less than significant impacts related to population and housing.

Public Services

The Reduced Specific Plan Area Alternative would result in a slight decrease of development within the TVSP over a slightly reduced area. As such, the Reduced Specific Plan Area Alternative would result in 132 fewer residents and 104 fewer employees at full buildout of the TVSP. Thus, demand for public services, including fire protection, police protection, school services, and library services would be slightly reduced compared to the proposed Project. However, like the proposed TVSP, the Reduced Specific Plan Area Alternative would result in a less than significant impact and would be similar to those associated with the proposed Project.

Recreation

Under the Reduced Specific Plan Area Alternative only 150 dwelling units, 26,250 SF of retail commercial, and 131,250 SF of office uses would be developed in the New York Street Village. The Reduced Specific Plan Area Alternative would result in the same square footage of open space as originally proposed in the TVSP. Since fewer residential dwelling units would be built, impacts on existing recreational facilities would be decreased under the Reduced Specific Plan Area Alternative in comparison to the proposed Project .

Transportation

Under the Reduced Specific Plan Area Alternative, parcels located within TAZ 53827101 and TAZ 53834601 outside of the TPA would be removed from the TVSP area. As discussed in Section 5.14, *Transportation,* all TAZs within the Specific Plan Area satisfy screening criteria 1 or 2, except for TAZ 53827101. As such, under the Reduced Specific Plan Area Alternative, all of the TAZs within the reduced area would satisfy the City's screening criteria, as the TAZs would either be within a TPA (Criteria 1) or within a Low VMT area (Criteria 2) and would or would not be able to support dense development (Criteria 4), and VMT impacts from implementation of the Reduced Specific Plan Area Alternative would be less than significant. Because the proposed development in the TAZs would be screened from further VMT analysis and assumed to have less than significant impacts, the mitigation included for the proposed Project would not be required. As such, impacts would be decreased in comparison to the proposed project under the Reduced Specific Plan Area Alternative, and impacts would be less than significant.

Tribal Cultural Resources

Under the Reduced Specific Plan Area Alternative, a slightly reduced level of development would occur within a reduced TVSP area based on market conditions. As such, the Reduced Specific Plan Area Alternative would result in a generally similar potential to adversely affect any tribal cultural resources as the proposed

Project, as implementing projects of the alternative would occur in the same geographical area to a slightly lesser intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measures would be required to reduce potential impacts to a less than significant level. Therefore, impacts to tribal cultural resources from the Reduced Specific Plan Area Alternative would be similar to those associated with the proposed Project.

Utilities and Service Systems

Under the Reduced Specific Plan Area Alternative only 150 dwelling units, 26,250 SF of retail commercial, and 131,250 SF of office uses would be developed in the New York Street Village. Thus, the demand for regional water supplies, wastewater treatment, and solid waste generation from dwelling units and commercial/office space would be less than the proposed Specific Plan. Therefore, impacts to utilities and service system would be slightly less under this alternative than the less than significant impacts that would occur from implementation of the proposed Specific Plan.

6.7.2 CONCLUSION

Ability to Reduce Impacts

The Reduced Specific Plan Area Alternative would not eliminate the significant and unavoidable impacts related to air quality that would occur from implementation of the proposed TVSP, as buildout under this alternative would be only slightly reduced in comparison to that allowed under the TVSP. In addition, this alternative would require the same mitigation to ensure less than significant impacts related to historical resources, cultural resources, paleontological resources, and noise. However, this alternative would eliminate the Project's significant and unavoidable impact related to vehicle miles traveled.

Overall, although the volume of impacts would be less under the Reduced Specific Plan Area Alternative and the significant and unavoidable vehicle miles traveled impact would not occur in comparison to the proposed Specific Plan, the Reduced Specific Plan Area Alternative would not eliminate all of the significant and unavoidable impacts that would result from buildout of the proposed Specific Plan.

Ability to Achieve Project Objectives

Implementation of the Reduced Specific Plan Area Alternative would achieve Objectives 1, 3, 4, 5, and 6, but at a much lesser extent than would be achieved by the proposed Specific Plan, as the alternative would provide for transit-oriented development and a form-code but would provide this to a smaller acreage. The Reduced Specific Plan Area Alternative would not meet Objectives 2 and 7, to apply the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area and to create transit oriented development around the three stations, as the portion of the TVSP area that would be excluded from the development area is currently underutilized. Additionally, the 25 percent reduction in development in the New York Street Village, compared to the proposed Specific Plan, would not fully achieve the vision of the Specific Plan pursuant to Objective 1.

6.8 ALTERNATIVE 3: REDUCED INTENSITY ALTERNATIVE

Under this alternative, a 60 percent reduction in the number of dwelling units, retail commercial uses, and office uses would be developed throughout all of the proposed Transit Villages. The proposed TVSP would allow for development of up to 960 dwelling units, 88 hotel rooms, 106,000 SF of retail commercial, and 95,200 SF of office uses through the year 2040. Overall, 60 percent less development would occur within each Transit Village, which would result in 60 percent less overall development than what is proposed under the TVSP. Under this alternative, redevelopment would still be concentrated on vacant and non-conforming parcels within the TVSP area, as shown on Figure 3-17, *Vacant and Non-Conforming Parcels*. This alternative

includes all of the circulation and streetscape improvements, open space improvements, and infrastructure improvements that are proposed under the TVSP.

6.8.1 ENVIRONMENTAL IMPACTS

Aesthetics

The Reduced Intensity Alternative would provide for the same type of land uses, and would provide design guidelines, such that the visual character of new development within the planning area would be the same, as what would occur from implementation of the proposed Specific Plan Project. However, because 60 percent fewer dwelling units and hotel rooms, and 60 percent less commercial and office square footage would be developed by this alternative, in comparison to the proposed Specific Plan, the visual density would be less. It is anticipated that building heights would be lower and massing of non-residential structures would be less than the proposed Specific Plan because 60 percent fewer mixed-use buildings would exist upon buildout. In addition, 60 percent fewer residences and less commercial and office square footage would generate sources of new light and glare from this alternative.

However, implementation of the Reduced Intensity Alternative would result in similar less than significant impacts related to aesthetics as the proposed Specific Plan. The Reduced Intensity Alternative would implement the same type of visual improvements that would be introduced throughout the Specific Plan area by the proposed Project (e.g., new and improved landscaping, providing a consistent design theme within the villages, and streetscaping). Thus, improvements to the existing views, character, and quality of the Specific Plan area would also occur under the Reduced Intensity Alternative. Overall, the aesthetic impacts from this alternative would be less than significant, and would be similar to those associated with the proposed Project.

Air Quality

The Reduced Intensity Alternative would develop 60 percent fewer dwelling units and hotel rooms and 60 percent less commercial and office square footage than the proposed Project. Therefore, forty percent of the volume of construction activities and the related emissions from mixed-use development analyzed under the proposed Project would occur. However, the volume of VOC and NOx emissions from construction activities would remain significant and unavoidable. As described in Section 5.2, *Air Quality*, the construction of the proposed Project could generate up to 590.61 lbs/day of VOC emissions, which is above the threshold of 75 lbs/day; and up to 385.10 lbs/day of NOx emissions, which is above the SCAQMD threshold of 100 lbs/day. Under the Reduced Intensity Alternative, it is possible that a combination of developments could occur, such that daily construction emissions would still exceed this threshold, as a reduction in development by 60 percent would only reduce construction emissions by 60 percent. This 60 percent reduction in emissions would continue to result in VOC emissions and NOx emissions above SCAQMD thresholds. Thus, construction air quality impacts would remain significant and unavoidable.

In addition, the reduced number of dwelling units and commercial square footage that would be developed by this alternative would result in forty percent of the stationary source emissions from residential equipment and less residential traffic associated with air emissions analyzed under the proposed Specific Plan. Therefore, air quality impacts would be less than the proposed Specific Plan. As described in Section 5.2, *Air Quality*, operation of the proposed project would generate up to 117.59 lbs/day of VOC emissions, which is substantially above the 55 lb/day SCAQMD threshold; 82.78 lbs/day of NOx emissions, which is above the SCAQMD threshold of 55 lbs/day; and the Project would generate approximately 615.20 lbs/day of CO, which is above the SCAQMD threshold of 550 lbs/day. Under the Reduced Intensity Alternative, the daily VOC, NOx, and CO emissions related to various operations would be sixty percent

less. As such, emissions of VOC, NOx, and CO would not meet the respective thresholds. Thus, operational air quality emissions would result in less than significant impacts and would eliminate the need for mitigation.

Cultural Resources

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. As such, the Reduced Intensity Alternative would result in a generally similar potential to adversely affect any historic or undiscovered archeological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to a lesser intensity. This alternative would have a similar impact on historic structures within the TVSP area. However, like the proposed Project, similar mitigation to the Project's mitigation measures and compliance with applicable City of Redlands Municipal Code provisions, including Redlands Historic Architectural Design Guidelines, would be required to reduce potential impacts to a less than significant level. Therefore, impacts to cultural resources from the Reduced Intensity Alternative would be similar to those associated with the proposed Project.

Energy

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. This would result in an approximately 60 percent decrease in the demand for energy in comparison to the proposed Project, which was determined to be less than significant. Implementing projects under this alternative would be compliant with Title 24 requirements. Therefore, impacts to energy from the Reduced Intensity Alternative would be less than those associated with the proposed Project, and remain less than significant.

Geology and Soils

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. As such, the Reduced Intensity Alternative would generally result in a similar potential to adversely affect any undiscovered paleontological resources as the proposed Project, as implementing projects of the alternative would occur in the same geographical area to a slightly lesser intensity. However, like the proposed Project, similar mitigation to the Project's mitigation measure would be required to reduce potential impacts to a less than significant level. Therefore, impacts to paleontological resources from the Reduced Intensity Alternative would be similar to those associated with the proposed Project.

Greenhouse Gas Emissions

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. Therefore, a reduced volume of construction activities and related production of GHG emissions would occur. In addition, the reduced amount of development by this alternative would result in less stationary source emissions from residential equipment, and less residential traffic-associated GHG emissions than the proposed Specific Plan. Therefore, the overall volume of GHG emissions would be reduced in comparison to the proposed Specific Plan. Therefore, although less GHG emissions would occur, the Reduced Intensity Alternative would continue to result in less than significant GHG impacts. Thus, impacts under this alternative would be similar to the proposed Specific Plan.

Hazards and Hazardous Materials

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. As such, the Reduced Intensity Alternative would result in redevelopment of vacant and underutilized parcels within the TVSP area, including parcels that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation. If future redevelopment under this alternative is proposed on listed sites, potential contamination at these sites, if not already remediated, would be addressed through the City's development review requirements and in compliance with applicable state and federal regulations. Compliance with these policies, regulations, and programs would reduce the impact to less than significant. Therefore, impacts related to hazards and hazardous materials from the Reduced Intensity Alternative would be similar to those associated with the proposed Project.

Hydrology and Water Quality

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. As such, the Reduced Intensity Alternative would result in a similar potential to adversely affect hydrology and water quality as the proposed Project, as implementing projects of the alternative would occur in the same general geographical area, albeit to a lesser intensity. However, like the proposed Project, implementation of existing regulatory requirements would reduce potential impacts to a less than significant level. Therefore, impacts to hydrology and water quality from the Reduced Intensity Alternative would be similar to those associated with the proposed Project.

Land Use and Planning

Like the proposed Project, the Reduced Intensity Alternative would involve General Plan and Zoning designation changes for the reduced TVSP area and would have the same type of consistency with the SCAG RTP/SCS policies and the City's General Plan policies. Hence, like the proposed Specific Plan, the Reduced Intensity Alternative would result in a less than significant impact related to land use and would be similar to those associated with the proposed Project.

Noise

Construction and operation noise impacts would be slightly reduced under the Reduced Intensity Alternative because this alternative would decrease the maximum development within each transit village by 60 percent. Construction of this alternative would generate the same type of construction noise as the proposed Specific Plan to a lesser volume, and impacts would continue to be potentially located next to sensitive receptors. Therefore, mitigation measures would be required to reduce construction noise and construction noise impacts would be similar to the proposed Project under the Reduced Intensity Alternative.

Operational noise would be reduced under this alternative as traffic-generated and stationary noise sources would decrease in relation to the reduction in dwelling units, commercial space, and office space in each transit village. Additionally, the Reduced Intensity Alternative would result in fewer residents in the Specific Plan Area that could be exposed to noise from surrounding development and roadways. Overall, operational noise impacts from the Reduced Intensity Alternative would be less than impacts associated with the proposed Project but would likely require the same mitigation.

Population and Housing

Under the Reduced Intensity Alternative, a 60 percent reduction in the number of proposed dwelling units, commercial retail, and office space would be developed throughout the TVSP. Under this alternative a total of 960 dwelling units, 88 hotel rooms, 106,000 SF of retail commercial, and 95,200 SF of office uses of office uses could be developed under buildout of the TVSP. This would reduce the number of residents at buildout from 6,360 to 2,544 and reduce the number of employment opportunities from 1,226 to 491. The increase in population that would be generated by this alternative would be consistent with SCAG forecasts and would not induce substantial population growth in the Project area. The Reduced Intensity Alternative and the proposed Specific Plan would result in similar impacts related to population and housing, which is considered less than significant.

Public Services

The Reduced Intensity Alternative would result in a 60 percent decrease in development throughout the Specific Plan Area. As such, the Reduced Intensity Alternative would result in 3,816 fewer residents and 735 fewer employees at full buildout of the TVSP. Thus, demand for public services, including fire protection, police protection, school services, and library services would be reduced compared to the proposed Project. However, like the proposed TVSP, the Reduced Intensity Alternative would result in a less than significant impact..

Recreation

Under this alternative, potential impacts on recreation facilities would be decreased by approximately 60 percent since there would be only 960 dwelling units, 88 hotel rooms, 106,000 SF of retail commercial, and 95,200 SF of office uses. The Reduced Intensity Alternative would result in the same square footage of open space as originally proposed in the TVSP. Since fewer residential dwelling units would be built, impacts on existing recreational facilities would be decreased in comparison to the proposed project under the Reduced Intensity Alternative, but impacts would still remain less than significant.

Tribal Cultural Resources

The Reduced Intensity Alternative would result in a similar potential to adversely affect any tribal cultural resources as the proposed Specific Plan, despite the reduction in development. However, like the proposed Specific Plan, cultural and tribal cultural resource mitigation measures would reduce potential impacts to less than significant. Therefore, impacts that could occur by the Reduced Intensity Alternative would be similar to those associated with the proposed Project.

Transportation

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. As discussed in Section 5.14, *Transportation,* all TAZs within the Specific Plan Area satisfy the City's screening criteria, except for TAZ 53827101. In order for projects within TAZ 53827101 to be presumed to have a less than significant VMT impact, developments located within TAZ 53827101 must adhere to the land use types presented in Screening Criteria 3 – Land Use Types or land use quantities presented in Screening Criteria 4 – Land Use Quantities. Development within the portions of TAZ 5384601 that do not screen out of a VMT analysis based on Criteria 1 or 2 would likely screen out of a VMT analysis based on Criteria 3 or 4 due to the single-family nature of development within these parcels.

However, as 60 percent less development would occur in each transit village, the maximum development allowed in the New York Street Village would be 80 dwelling units, 14,000 SF of commercial retail, and 70,000 SF of office space. Based on the reduced buildout potential of the New York Street Village, there is the potential for an implementing project in TAZ 53827101 to occur that would surpass the land use quantities presented in Screening Criteria 4. As such, VMT impacts under the Reduced Intensity Alternative would still be significant and unavoidable.

Utilities and Service Systems

Under the Reduced Intensity Alternative, 60 percent less development would occur within the same TVSP area based on market conditions. Thus, the demand for regional water supplies, wastewater treatment, and solid waste generation from dwelling units and commercial/office space would be less than the proposed Specific Plan. Therefore, impacts to utilities and service system would be slightly less under this alternative than the less than significant impacts that would occur from implementation of the proposed Specific Plan.

6.8.2 CONCLUSION

Ability to Reduce Impacts
Although the Reduced Intensity Alternative would result in a 60% reduction in development intensity, it would not eliminate the significant and unavoidable impacts related to construction air quality and vehicle miles traveled that would occur from implementation of the proposed TVSP. In addition, this alternative would require the same mitigation to ensure less than significant impacts related to historical resources, cultural resources, paleontological resources, and noise. However, this alternative would eliminate the Project's significant and unavoidable impact related to operational air quality emissions.

Overall, although the volume of impacts would be reduced by the Reduced Intensity Alternative and the significant and unavoidable operational air quality impact would not occur in comparison to the proposed Specific Plan, the Reduced Intensity Alternative would not eliminate all of the significant and unavoidable impacts that would result from buildout of the proposed Specific Plan.

Ability to Achieve Project Objectives
As shown in Table 6-2, the Reduced Intensity Alternative would meet Project Objectives 1, 4, and 5 as it would implement new street improvements and allow for transit-oriented development. The Reduced Intensity Alternative would partially meet Objectives 3 and 7 as it would limit the potential for sustainable mixed-use development around the Arrow Stations by limiting the potential buildout. This alternative would not meet Objective 6 to provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs or revitalize the TVSP area to the same degree. Additionally, the alternative would not meet Objective 2, as only 40 percent of the allowed growth under the TVSP, which was foreseen by the City's General Plan, would occur.

6.9 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" when significant environmental impacts result from a proposed Project. The Environmentally Superior Alternative for the proposed Project would be the Reduced Intensity Alternative. The Reduced Intensity Alternative would avoid the significant impacts related to operational air quality emissions and would avoid mitigation measures associated with operational air quality emissions. Additionally, the Reduced Intensity Alternative would reduce potential construction air quality emissions. However, the Reduced Intensity Alternative would still be required to implement the mitigation measures that are identified in Chapter 5.0 of this EIR that are related to: construction air quality, cultural resources, geology and soils, noise, and tribal cultural resources.

Moreover, this alternative would not meet all of the Project objectives, and the objectives it does meet would not be to the same degree as the proposed Project.

CEQA does not require the Lead Agency (the City of Redlands) to choose the environmentally superior alternative. Instead, CEQA requires the City to consider environmentally superior alternatives, weigh those considerations against the environmental impacts of the proposed Project, and make findings that the benefits of those considerations outweigh the harm. Table 6-1 provides, in summary format, a comparison between the level of impacts for each alternative and the proposed Project. In addition, Table 6-2 provides a comparison of the ability of each of the alternatives to meet the objectives of the proposed Project.

Table 6-1: Impact Comparison of the Proposed Project and Alternatives

	Proposed Project	Alternative 1: No Project/Buildout of Existing Land Use and Zoning	Alternative 2: Reduced Specific Plan Area	Alternative 3: Reduced Intensity Alternative
Aesthetics	Less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation
Air Quality	Significant and Unavoidable	Same as proposed Project, significant and unavoidable	Same as proposed Project, significant and unavoidable	Less than the proposed Project, significant and unavoidable for construction; less than significant for operations
Cultural Resources	Less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation
Energy	Less than significant	Same as proposed Project, less than significant	Less than proposed Project, less than significant	Less than proposed Project, less than significant
Geology and Soils	Less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project, less than significant with mitigation
Greenhouse Gas Emissions	Less than significant	Same as proposed Project, less than significant	Less than proposed Project, less than significant	Less than proposed Project, less than significant
Hazards and Hazardous Materials	Less than significant	Same as proposed Project, less than significant	Same as proposed Project; less than significant	Same as proposed Project; less than significant
Hydrology and Water Quality	Less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant
Land Use and Planning	Less than significant	Same as proposed Project, less than significant	Same as proposed Project; less than significant	Same as proposed Project; less than significant
Noise	Less than significant	Same as proposed Project, less than significant with mitigation	Less than proposed Project, less than significant with mitigation	Less than proposed Project, less than significant with mitigation

	Proposed Project	Alternative 1: No Project/Buildout of Existing Land Use and Zoning	Alternative 2: Reduced Specific Plan Area	Alternative 3: Reduced Intensity Alternative
Population and Housing	Less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant
Public Services	Less than significant	Same as proposed Project, less than significant	Same as proposed Project, less than significant	Less than proposed Project, less than significant
Recreation	Less than significant	Same as proposed Project, less than significant	Less than proposed Project, less than significant	Less than proposed Project, less than significant
Transportation	Significant and Unavoidable	Greater than proposed Project, significant and unavoidable	Less than the proposed Project, less than significant	Same as proposed Project, significant and unavoidable
Tribal Cultural Resources	Less than significant with mitigation	Same as proposed Project, less than significant with mitigation	Same as proposed Project; less than significant with mitigation	Same as proposed Project; less than significant with mitigation
Utilities and Service Systems	Less than significant	Same as proposed Project, less than significant	Less than proposed Project, less than significant	Less than proposed Project, less than significant
Reduce Impacts of the Project?		No	Yes	Yes
Areas of Reduced Impacts Compared to the Project		0	6	7

Table 6-2: Comparison of the Proposed Project and Alternatives Ability to Meet Objectives

	Proposed Project	Alternative 1: No Project/Buildout of Existing Land Use and Zoning	Alternative 2: Reduced Specific Plan Area	Alternative 3: Reduced Intensity Alternative
1. A vision for the future of the three station areas that recognizes the importance of Redlands' unique history and tradition while embracing opportunities for continued reinvestment, growth, and beneficial change.	Yes	No	Partially	Yes
2. Application of the General Plan's goals, policies, and actions to achieve the revitalization of the Plan Area.	Yes	Partially	No	No
3. New form-based zoning standards for the Plan Area that will replace current zoning regulations. These new standards are calibrated to deliver new development that is consistent with Redlands' physical character, history, and culture, as well as the community's vision for its future growth.	Yes	No	Partially	Partially
4. An implementation strategy for transforming the Plan Area's streets, infrastructure, parks, and other public spaces in line with the City of Redland's unique culture and history.	Yes	No	Partially	Yes
5. Transform streets and create neighborhood connectivity through pedestrian-oriented improvements.	Yes	No	Partially	Yes

	Proposed Project	Alternative 1: No Project/Buildout of Existing Land Use and Zoning	Alternative 2: Reduced Specific Plan Area	Alternative 3: Reduced Intensity Alternative
6. Provide a variety of housing options to accommodate and attract a range of household types in order to meet the City's housing needs.	Yes	No	Partially	No
7. Provide for transit-oriented development around the three new Arrow Line stations in line with the City's General Plan.	Yes	No	No	Partially

7.0 EIR Preparers and Persons Contacted

7.1 EIR Preparers

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7.2 Persons Contacted

City of Redlands Fire Department
City of Redlands Police Department

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