ESRI BUILDING "E" PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared By:

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DECEMBER 2018

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1.0 INTRODUCTION AND PURPOSE OF THE IS/MND

In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 et seq.) and its Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), this Initial Study has been prepared to evaluate the potential environmental effects associated with the construction and operation of the ESRI Campus Building Project (proposed Project). Pursuant to Section 15367 of the State CEQA Guidelines, the City of Redlands (City) is the lead agency for the Project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an Initial Study leading to a Mitigated Negative Declaration (IS/MND) can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant; and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

The Initial Study and a Notice of Intent (NOI) to adopt an MND will be distributed to responsible and trustee agencies, other affected agencies, and other parties for a 20-day public review period. Written comments regarding this MND should be addressed to:

Loralee Farris, Principal Planner
City of Redlands
Development Services Department, Planning Division
35 Cajon Street, Suite 20
PO Box 3005
Redlands, California 92373
(909) 798-7555
lfarris@cityofredlands.org

After the 20-day review period, consideration of comments raised during the public review period will be taken into account and addressed prior to adoption of the MND by the City.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Project Background, Location, and Setting

Project Location

The 3.58 net acre Project site is comprised of two parcels (APN's 017101154 and 01711145) located south of Park Avenue and west of New York Street in the City of Redlands, San Bernardino County, California; refer to Exhibit 2-1, *Regional Location*. Access to the site is currently provided via Park Avenue. The site is primarily bound by the Mission Flood Control Channel to the south, commercial uses to the east, a recently approved parking lot to the west, and industrial and commercial uses to the north; refer to Exhibit 2-2, *Project Vicinity.*

Project Setting

The Project site currently consists of an at-grade parking lot, and various vehicle storage uses. Table 2-1, *Surrounding Land Uses,* identifies the land uses around the Project site.

Table 2-1: Surrounding Land Uses

Location	General Plan Land Use Designation	Existing Land Use
Project Site	Office	Parking lot; vehicle storage uses
North	Commercial	Industrial uses
East	Office	Commercial uses
South	Parks/Golf Courses; and Office	Mission Flood Control Ditch; existing ESRI campus (Office)
West	Office	Parking lot

General Plan Land Use and Zoning Designations

The General Plan Land Use Designation for the Project site is an office. The zoning designation for the Project site is M-2 (General Industrial). The proposed Project is consistent with the General Plan Land Use Designation. However, the proposed Project includes a request to change the zoning designation from M-2 (General Industrial) to A-P (Administrative and Professional Office) District on 15 lots totaling 8.78 acres to be consistent with the existing General Plan land use designation as Office (Zone Change No. 460).

2.2 Project Characteristics

The proposed Project would allow for the development of a 110,479-square foot administrative office building three stories in height on 3.58-net acres refer to Exhibit 2-3, *Site Plan*. Along with the administrative building, two parking facilities are being proposed as part of the Project; a surface lot with 465 total spaces and an underground parking structure with a total of 54 parking spaces. Additionally, a new pedestrian bridge is being designed to connect the project site to the existing Esri campus to the south across the Mission Flood Control Channel. Further information can be found in Table 2-2, *Project Summary,* as it identifies the development specifications of the proposed Project.

Table 2-2: Project Summary

Project Element	Proposed Project:
Zoning Designation	Administrative & Professional Office (proposed)
General Plan Land Use	Office (existing)
Site Area	3.58 net acre site
Front and Side Street Setbacks	20' setback from W. Park Avenue, 10' setback from Existing Benjarong Restaurant parking lot 5' setback from Orange Blossom Trail

Project Element	Proposed Project:
Interior Setbacks	30'
Building Height	45'
Vehicle Parking	A total of 519 parking spaces split between a surface lot and basement parking structure. The surface lot will have 465 total spaces; 336 for standard parking, 12 for standard charging stations, 84 for compact parking, 14 for compact charging stations, 10 for future charging stations and 9 handicap spaces. The basement structure will have 54 total spaces; 45 standard parking spaces, 6 compact parking spaces, and 3 handicap parking spaces

Site Access

Vehicular access to the site would be provided by new driveways on West Park Avenue. Additionally, the site can be accessed from the south via two existing vehicular bridges that spans the Mission Flood Control Channel. The project also includes the development of a new pedestrian bridge east of the existing vehicle bridge that crosses the Mission Flood Control Channel. The pedestrian bridge would connect the proposed northerly office uses with the existing Esri office uses to the south of the Mission Flood Control Channel.

Parking

The Project proposes the creation of surface and underground parking lots that will allow for a total of 519 parking spaces. The surface lot will have 465 spaces, with the basement structure containing 54 spaces.

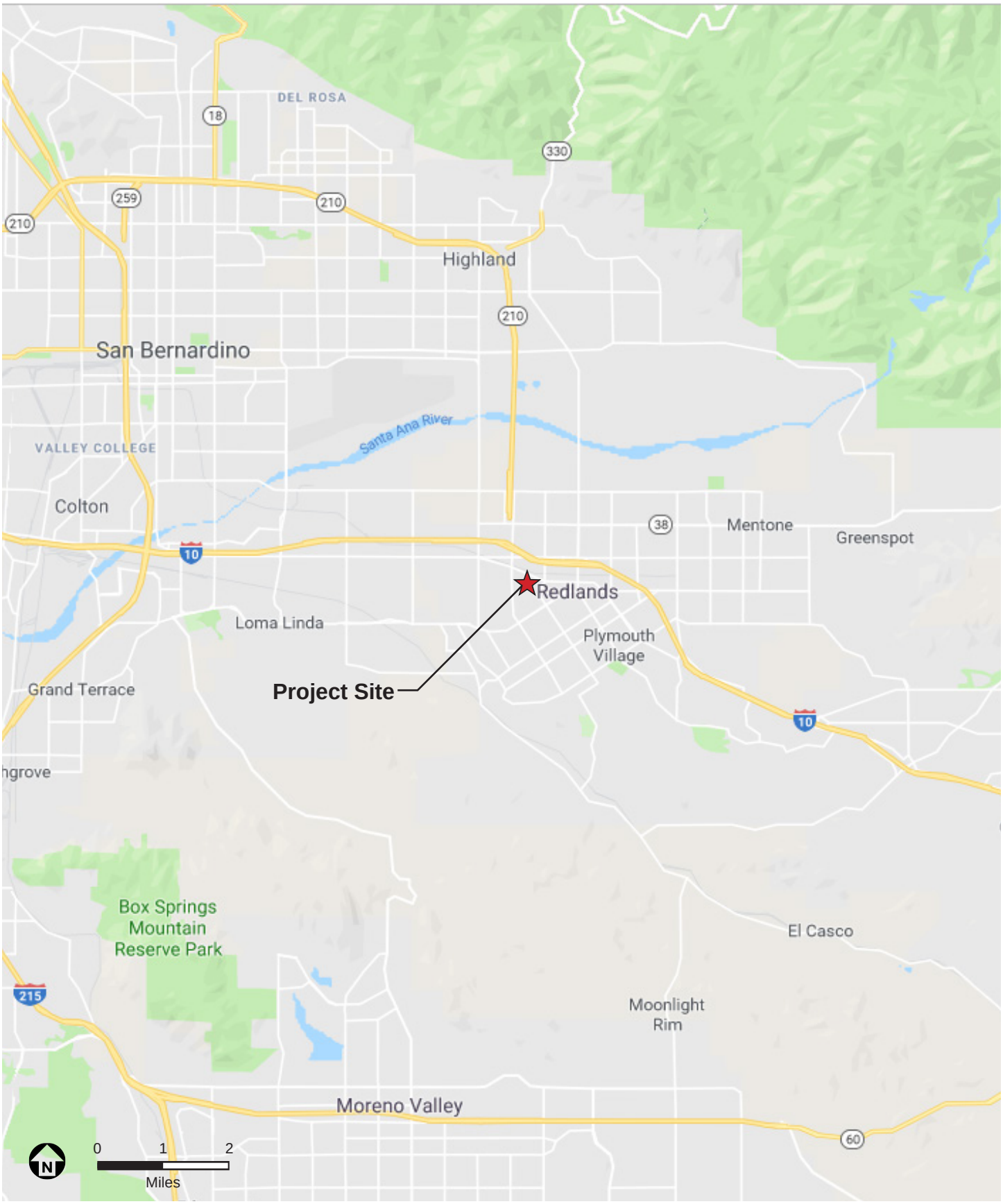
The surface parking lot will have 336 spaces allotted as standard parking. The remainder of the spaces will be reserved for various specialty vehicles. Standard charging vehicles will be given 12 spaces, with 10 spaces designed for future charging vehicles. Compact charging vehicle were given 14 spaces. Standard compact vehicles will have 12 spaces, and the remaining 9 spaces will be reserved for handicap parking.

The basement parking structure will reserve 45 spaces for standard vehicles. Of the remaining spaces, 6 will be for standard compact parking. The remaining three spaces will again be reserved for handicap parking. The basement parking structure will not be designed to have standard, compact, or future charging spaces for electric vehicles. Those spaces are only being implemented in the design for the surface parking lot.

Project Approvals

The City of Redlands is the Lead Agency as set forth in CEQA Section 21067 and is responsible for reviewing and approving the Mitigated Negative Declaration. Additional permits may be required upon review of construction documents. Other permits required for the Project may include

but are not limited to the following: issuance of encroachment permits for driveways, sidewalks, and utilities; security and parking area lighting; demolition permits; building permits; grading permits; tenant improvement permits; permits for new utility connections; and permit or other approval from the San Bernardino County Flood Control District for portions of the project that may affect the Mission Flood Control Channel.



Source: Google Maps

Kimley»Horn

City of REDLANDS

Initial Study/Mitigated Negative Declaration

Exhibit 2-1
Regional Vicinity Map

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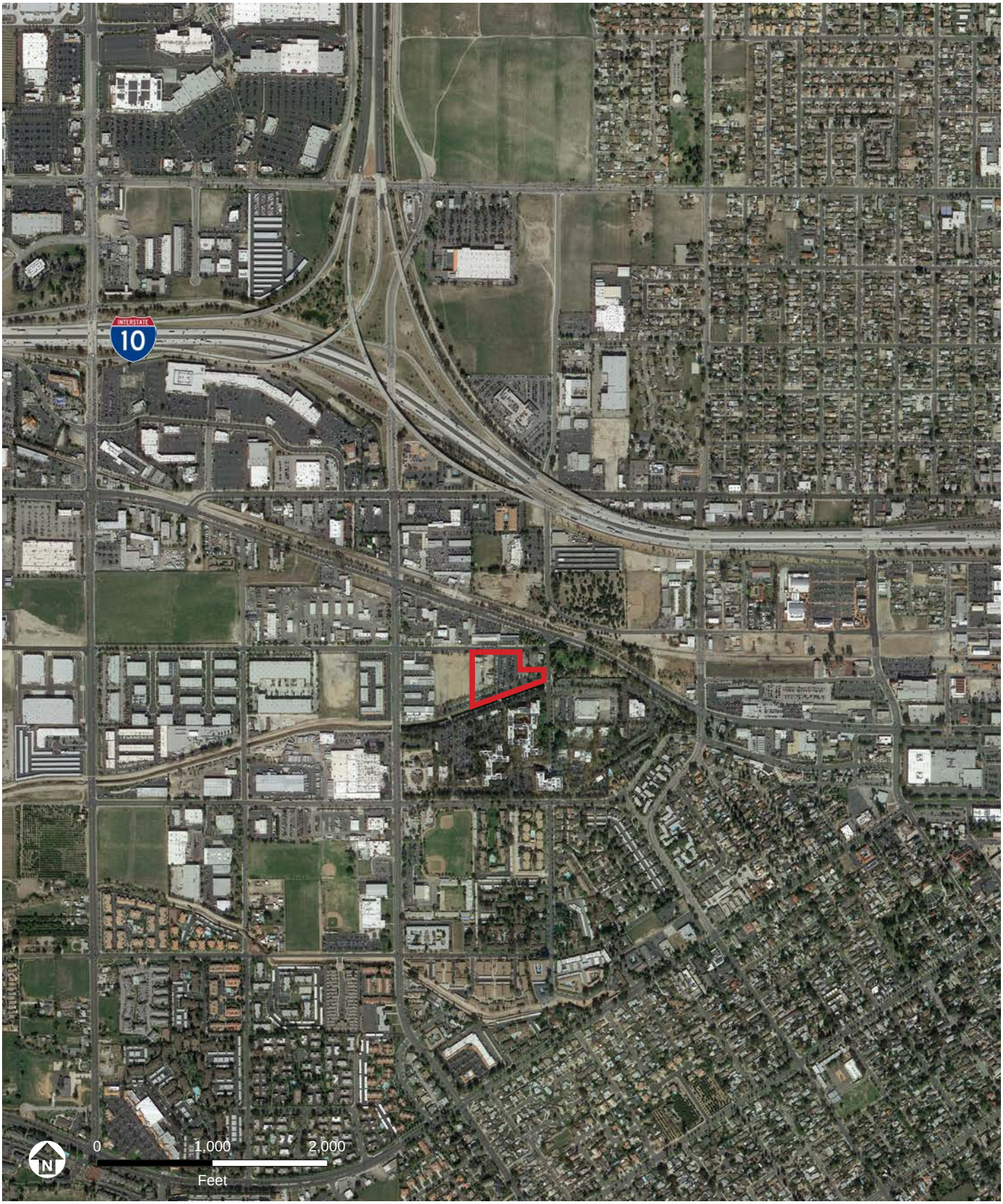

Source: Google Earth

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Initial Study/Mitigated Negative Declaration

Exhibit 2-2
Site Vicinity Map

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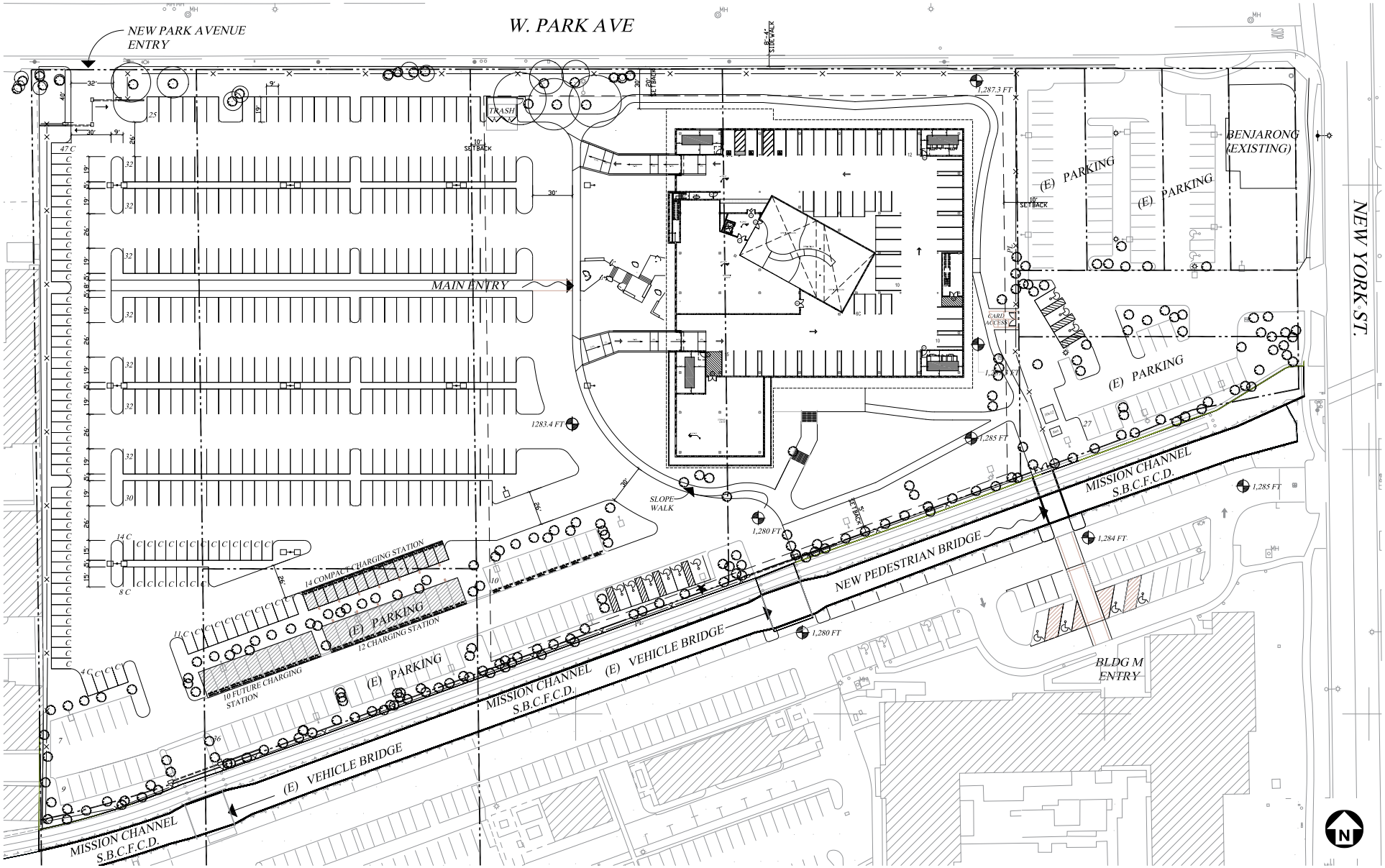

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AERIAL

MAIN ENTRANCE

CAMPUS ENTRANCE

VIEW FROM PARK AVE

Source: DLR Group

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3.0 ENVIRONMENTAL CHECKLIST FORM

1. Project Title

Esri Campus Building Project

2. Lead Agency Name and Address

City of Redlands
Development Services Department, Planning Division
35 Cajon Street
Redlands, CA 93273

3. Contact Person and Phone Number

Loralee Farris, Principal Planner
(909) 798-7555

4. Project Location

South side of West Park Avenue, approximately 300 feet west of New York Street, and on the north side of the Mission Flood Control Channel (APN's 0171-011-45-0000 and 0171-011-54-0000).

5. Project Applicant's/Sponsor's Name and Address

Property One, LLC
380 New York Street
Redlands, CA 92373

6. General Plan Designation

Office

7. Zoning Designation

Existing: General Industrial (M-2); Proposed: Administrative & Professional Office (A-P)

8. Other public agencies whose approval is required

National Pollutant Discharge Elimination System (NPDES) permit or approval from the Regional Water Quality Control Board, Santa Ana Region; Utility providers for utility connection points; and possibly San Bernardino County Flood Control District for portions of the project that may affect the Mission Flood Control Channel.

9. Project Summary

Development of a 110,479 square foot, three-story administrative office building at the Esri headquarters in the City of Redlands. Along with the office building, the Project includes designs for two parking facilities; one surface lot with 465 spaces, and a basement structure beneath the building with 54 spaces (for a total of 519 spaces). Each parking structure will have compact and handicap parking, while the surface lot will also have standard, compact, and future charging stations. Related site improvements will include grading, installation of public and private utilities, new landscape and trees,

lighting, walkways, and signage. A pedestrian crossing is also included in the Project's design. The proposed pedestrian crossing will cross over the Mission Flood Channel and be located easterly of the channel's existing vehicle bridges. This will provide a pedestrian footpath that connects the proposed administrative building with the existing Esri campus to the south of the flood control channel.

Environmental Factors Potentially Affected by the Project

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agricultural Resources		Air Quality
	Biological Resources		Cultural Resources		Greenhouse Gas Emissions
	Geology / Soils		Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
	Transportation / Traffic		Tribal Cultural Resources		Utilities / Service Systems
	Mandatory Findings of Significance				

Determination

On the basis of this initial evaluation, the following finding is made:

	The proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	Although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project Proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	The proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	The proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	Although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Joelle Farris
Signature

December 19, 2018
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analyses Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?			x	
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?				x
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			x	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			x	

Aesthetics

Threshold (a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Scenic vistas in the City consist of the scenic corridors and views to and from the open spaces, canyonlands, hillsides, groves, and the San Bernardino Mountains. Scenic views are also found in the urbanized part of the city, including along scenic and historic drives. The Project proposes the development of a three-story (45') office building. According to Chapter 18.64.080 of the City of Redlands Municipal Code, the Administrative and Professional Office District Zone does not have a maximum height limit. The Project site is located in a developed area that contains office and commercial buildings similar to that of the proposed Project. The Project site currently contains a parking lot, and does not contain any known scenic vistas on or adjacent to the Project site.

Additionally, similar size and scale office uses have been recently constructed within the immediate vicinity of the Project site. Therefore, the change in views of the Project site from the surrounding area would not cause a significant impact on a scenic vista. Impacts are less than significant and no mitigation is required.

Threshold (b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. According to the General Plan EIR, part of State Route 38 near Redlands is included on the Caltrans list of eligible scenic highways (California Department of Transportation, 2018). State Route 38 features views of forested mountainsides and distant views of the desert. However, this portion of State Route 38 is not visible from the Project site, nor has Caltrans formally designated it as a State Scenic Highway. Additionally, according to Caltrans, a portion

of Interstate 10 (between Interstate 210 and Orange Street) located approximately 1.2 miles east of the Project site, is considered an Eligible State Scenic Highway, but it is not officially designated. No potential scenic resources along Interstate 10 would be damaged by the proposed Project due to the substantial distance between the Project site and this portion of the freeway.

There are also no historically significant buildings, trees, and/or rock outcroppings on the site that could be affected by the proposed development. Therefore, no adverse impacts on scenic resources, including resources within a State scenic highway, would result from the proposed Project's implementation. No impacts would occur and no mitigation is required.

Threshold (c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Refer to Response 1(a), above. The visual characteristics of the Project site would change from a parking lot to an office building development. The Project also proposes a zoning designation change from M-2 (Industrial) to A-P (Administrative Professional) District which would make the Project consistent with zoning. Additionally, similar office uses have been physically established within the immediate vicinity of the Project site. Therefore, the change in visual character due to the proposed Project would not significantly impact the site or the surrounding area. Impacts are less than significant and no mitigation is required.

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

Less Than Significant Impact. Existing sources of light and glare include street lighting and lights from commercial, industrial, and office uses in the area. Poorly designed lighting can also affect the nighttime vision of drivers due to glare. The site is surrounded by industrial, office, and some commercial uses which are subject to an adverse effect from light or glare.

The Project would include the implementation of on-site safety and security lighting. Lighting levels would not exceed 1.0 candle/foot measured at ground level throughout the parking area as required per Municipal Code Section 18.92.220. New lighting would also be reviewed by the City to ensure conformance with the 2016 California Building Code, Title 24 (California Code of Regulations), as well as the 2016 California Green Building Standard Code (Part 11 of Title 24, California Code of Regulations) such that only the minimum amount of lighting is used and no light spillage occurs. For these reasons, lighting and glare impacts from the proposed Project would be less than significant and no mitigation is required.

Cumulative Impacts

The potential aesthetic impacts related to views, aesthetics, and light and glare are site-specific. As discussed above, project-related impacts would be less than significant. Additionally, the type and intensity of development associated with the proposed Project is similar to the development that already exists in the Project area. While the proposed Project plus

cumulative development would change the appearance of the site and surrounding area, all future development projects would be conditioned to follow applicable local planning and design guidelines. Therefore, aesthetic impacts are not expected to be cumulatively considerable and no adverse impacts would occur.

Source(s)

(Google Earth, City of Redlands General Plan, County of San Bernardino General Plan, Project Site Plan, California Department of Transportation, Architecture Plan, California Building Code)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dep. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				x
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				x
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				x
d) Result in the loss of forest land or conversion of forest land to non-forest use?				x
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				x

Agriculture and Forestry Resources

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

Threshold (b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

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

Threshold (d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Threshold (e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site is currently developed with a parking lot and existing vehicle storage and associated buildings. No Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance is mapped in the Project vicinity. According to Figure 3.2-1, *Farmland Classifications* of the General Plan EIR, the Project site is designated Urban and Built Up Land. Furthermore, the Project site is not the subject of a Williamson Act Contract. The Project site is currently zoned M-2 (Industrial) and does not conflict with existing zoning of timberland as forestry resources are not present on or adjacent to the Project site. No impacts related to the loss of farmland would occur and no mitigation is required.

Cumulative Impacts

The proposed Project would have no impact on agricultural and forestry resources. Therefore, the proposed Project would not contribute to a cumulatively considerable impact.

Source(s)

(California Department of Conservation, Google Earth, City of Redlands General Plan EIR, San Bernardino County Important Farmland Map)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			x	
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			x	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			x	
d) Expose sensitive receptors to substantial pollutant concentrations?			x	
e) Create objectionable odors affecting a substantial number of people?				x

Air Quality

An Air Quality Assessment was prepared for the proposed Project by Kimley-Horn and Associates in November 2018. This report is summarized below and are included as Appendix A, Air Quality and Greenhouse Gas, of this Initial Study.

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

Less Than Significant Impact. As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is located within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment. To reduce such emissions, the SCAQMD

drafted the 2016 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the EPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to the SCAQMD's AQMP.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1**: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2**: The proposed Project will not exceed the assumptions in the AQMP or increments based on the years of the Project build-out phase.

The violations to which Consistency Criterion No. 1 refers are CAAQS and NAAQS. As shown in Table 4.3-1, Table 4.3-2, and Table 4.3-3 below, the Project would not exceed the short-term construction standards or long-term operational standards and would therefore not violate any air quality standards. Thus, no impact is expected, and the Project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project site is currently designated as Office Land Use in the General Plan Land Use Map. The proposed Project is permitted within the land use zone with a conditional use permit (CUP) and does not require a zone change or General Plan amendment. Therefore, the Project would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP. Thus, no impact would occur, as the Project is also consistent with the second criterion.

Threshold (b) Would the project violate any air quality standard or contribute to an existing or projected air quality violation?

Construction Emissions

Less Than Significant Impact. Construction associated with the proposed Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include ozone-precursor pollutants (i.e., ROG and NO_x) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the proposed Project is estimated to last approximately 11 months. Construction-generated emissions associated the proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the proposed Project are summarized in Table 4.3-1: Construction-Related Emissions.

Table 4.3-1: Construction-Related Emissions (Maximum Pounds Per Day)

Construction Year	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
2018	4.68	86.84	26.37	0.19	12.36	20.85
2019	28.29	29.48	26.48	0.06	1.92	3.46
SCAQMD Threshold	75	100	550	150	55	150
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Notes: SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages are from the SCAQMD CEQA Handbook (Tables XI-A through XI-E). No mitigation was applied to construction equipment. Refer to Appendix A for Model Data Outputs.						
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.						

As shown in Table 4.3-1, all criteria pollutant emissions would remain below their respective thresholds. While impacts would be considered less than significant, the proposed Project would be subject to SCAQMD Rules 402, 403, and 1113, described in the Regulatory Framework subsection above, to further reduce specific construction-related emissions.

Operational Emissions

Less Than Significant Impact. Project-generated emissions would be associated with motor vehicle use and area sources, such as the use of landscape maintenance equipment and architectural coatings. Long-term operational emissions attributable to the proposed Project are summarized in Table 4.3-2: Long-Term Operational Emissions.

Table 4.3-2: Long-Term Operational Emissions (Maximum Pounds Per Day)

Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
Summer Emissions						
Area Source Emissions	2.56	0.0006	0.06	0	0.0002	0.0002
Energy Emissions	0.01	0.10	0.09	0.0006	0.0078	0.0078
Mobile Emissions	2.84	17.25	33.32	0.11	2.08	7.50
Total Emissions	5.41	17.35	33.47	0.11	2.09	7.50
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Emissions						
Area Source Emissions	2.56	0.0006	0.06	0	0.0002	0.0002
Energy Emissions	0.01	0.10	0.09	0.0006	0.0078	0.0078
Mobile Emissions	2.48	17.36	29.33	0.1	2.08	7.50
Total Emissions	5.06	17.46	29.48	0.10	2.09	7.51
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.						

Note that emissions rates differ from summer to winter because weather factors are dependent on the season and these factors affect pollutant mixing, dispersion, ozone formation, and other factors. As shown in Table 4.3-2**,** the Project emissions would not exceed SCAQMD thresholds for any criteria air pollutants. Therefore, regional operations emissions would result in a less than significant long-term regional air quality impact.

Area Source Emissions

Area source emissions would be generated due to on-site equipment, consumer products, architectural coating, and landscaping that were previously not present on the site. As shown in Table 4.3-2, unmitigated area source emissions from the proposed Project would not exceed SCAQMD thresholds for either the winter or summer seasons. Therefore, mitigation measures are not required to reduce criteria pollutants and no significant impacts are anticipated.

Energy Source Emissions

Energy source emissions would be generated due to electricity and natural gas usage associated with the proposed Project. Primary uses of electricity and natural gas by the Project would be for miscellaneous office equipment, space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As shown in Table 4.3-2, unmitigated energy source emissions from the proposed Project would not exceed SCAQMD thresholds for criteria pollutants. As such, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. As a result, impacts associated with operational air quality would be less than significant.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern. NO_X and ROG react with sunlight to form O_3, known as photochemical smog. Additionally, wind currents readily transport PM_{10} and $PM_{2.5}$. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions are based on the trip generation estimates from the Project Traffic Impact Analysis prepared by TJW Engineering (October 2018). Based on the Traffic Impact Analysis, the proposed Project would generate 1,076 daily trips including approximately 128 trips in the a.m. peak and 127 in the p.m. peak hours. As shown in Table 9, the anticipated mobile source emissions do not exceed SCAQMD thresholds for criteria pollutants. Therefore, air quality impacts associated with mobile source emissions from the Project would be less than significant.

Threshold (c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Cumulative Short-Term Emissions

Less Than Significant Impact. The Basin is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the Project construction-related emissions by themselves would not have the potential to exceed the SCAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout the Air Basin, which would include related projects. Compliance with SCAQMD rules and regulations would reduce the proposed Project construction-related impacts to a less than significant level. Therefore, Project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. Construction emissions associated with the proposed Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air

quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in Table 4.3-2, the proposed Project operational emissions would not exceed SCAQMD thresholds. As a result, operational emissions associated with the proposed Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

Threshold (d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Construction Significance Analysis

Less Than Significant Impact. The nearest sensitive receptors are single-family residential uses approximately 100 feet northwest of the Project site across Park Avenue. A park is located approximately 160 feet east of the Project site across New York Street. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, Table 4.3-3: Equipment-Specific Grading Rates, is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the East San Bernardino Valley area (SRA 35) since this area includes the Project site. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. Project construction is anticipated to disturb approximate of 2.5 acres in a single day.

Table 4.3-3: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	0	0	0	0
	Tractors/Loaders/Backhoes	3	0.5	8	1.5
				Total Acres Graded per Day	**2.5**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.					

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptors are single-family residential uses approximately 100 feet northwest of the Project boundary across Park Avenue. The portion of the Project site located the closest to the existing sensitive receptors is a vacant field that has been previously graded. The majority of construction activity would be occurring more than 390 feet from the single-family residential uses. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at 50 meters were utilized in this analysis to represent the distances from the construction zone. Table 4.3-4: Localized Significance of Construction Emissions, presents the results of localized emissions during construction.

Table 4.3-4: Localized Significance of Construction Emissions (Maximum Pounds Per Day)

Construction Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Demolition (2018)	38.32	22.30	2.33	1.93
Site Preparation (2018)	48.20	22.48	6.15	6.62
Grading (2018)	30.67	16.58	2.82	2.86
Building Construction (2019)	21.08	17.16	1.29	1.21
Paving (2019)	15.24	14.66	0.82	0.76
Architectural Coating (2019)	1.84	1.84	0.13	0.13
SCAQMD Localized Screening Threshold (adjusted for 2 acres at 50 meters)	200	1,687	21	7
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.				

Table 4.3-4 shows that the emissions of these pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities.

Localized Operational Significance Analysis

Less Than Significant Impact. For Project operations, the two-acre threshold was conservatively utilized, as the Project site is approximately 3.6 acres. The two-acre localized significance threshold is conservative as the thresholds increase with project size. LSTs for receptors located at 50 meters for SRA 35 were utilized in this analysis because operational emission sources will be farther from receptors than emissions sources during construction. The LST analysis only includes on-site sources. The emissions shown in Table 4.3-5: Localized Significance of Operational Emissions, include all on-site Project-related stationary sources.

Table 4.3-5: Localized Significance of Operational Emissions (Maximum Pounds Per Day)

Activity	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})
On-Site Emissions	>0.01	>0.1	>0.01	>0.01
SCAQMD Localized Screening Threshold (adjusted for 2 acres at 50 meters)	200	1,687	2	5
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.				

Table 4.3-5 shows that the maximum daily emissions of these pollutants during operations would not exceed SCAQMD's thresholds. Therefore, the Project would not result in significant concentrations of pollutants at nearby sensitive receptors and operational LST impacts would be less than significant.

Carbon Monoxide Hotspots

Less Than Significant Impact. An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the proposed Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The 2016 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The proposed Project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's *CO Hotspot Analysis*. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections resulting from 1,076 additional vehicle trips attributable to the Project[1]. Therefore, impacts would be less than significant.

Construction-Related Diesel Particulate Matter

Less Than Significant Impact. Construction would result in the generation of DPM emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are

[1] TJW Engineering, Inc, *Traffic Impact Analysis for the Proposed Esri Building E Project*, 2018.

associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The closest sensitive receptors are located approximately 100 feet from the Project Site across Park Avenue.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics and the Project would have a less than significant impact.

Threshold (e) Would the project create objectionable odors affecting a substantial number of people?

No Impact. The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. The proposed Project is an administrative office building and associated parking. Therefore, there would be no impacts from the proposed Project.

Cumulative Impacts

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with requirements of the FCAA and CCAA. As discussed above, the proposed Project would be consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants. Since the construction and operational emissions calculated for the proposed Project do not exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining both NAAQS and CAAQS, cumulative impacts would not be significant.

Source(s)

(Kimley-Horn and Associates: *Air Quality Assessment/Esri Building E Project/City of Redlands)*

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				x
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				x
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				x
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				x
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				x
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				x

Biological Resources

Threshold (a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Threshold (b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Threshold (c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project site is disturbed and developed land. The current land uses for the area are mostly commercial and office uses. Based on knowledge of the Project region, and existing and surrounding site conditions, no candidate, sensitive, or special-status plant or wildlife species, riparian habitat or other sensitive natural community, or wetlands are present on or adjacent to the Project site. Therefore, the Project would not have an adverse effect on any candidate, sensitive, or special-status plant or wildlife species, riparian habitat or other sensitive natural community, or wetlands and no mitigation is required.

Threshold (d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Project area has previously been disturbed and developed, and as such, does not currently serve as a wildlife corridor. The development and use of the proposed Project will not increase or further impede wildlife migration patterns and therefore will not have any impacts.

Threshold (e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. No protected trees or biological resources would be impacted by the Project, according to its design. The development and operation of the proposed facility and parking structures, along with the pedestrian path, will occur on previously developed land used for parking and commercial practices.

Threshold (f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. The development and use of the proposed administrative building, the two parking facilities, and the pedestrian bridge will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The Project and its components will occupy a space that has been previously developed

Threshold (b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project site is entirely disturbed and consists of parking lot and vehicle storage uses. Riparian habitat is not present and nor are sensitive natural communities listed in local or

regional plans, policies, or regulations or by the CDFW or U.S. Fish and Wildlife Service. No impacts associated with the proposed Project would occur; no mitigation is required.

Threshold (c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project site does not include federally protected wetlands and therefore the proposed Project would not impact any jurisdictional waters, including federally protected wetlands such as marshes, vernal pools, or coastal areas, since no channels or other features that carry water, including blue line features or drainages with ordinary high water marks (OHWM). No mitigation is required.

Threshold (d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. Due to the extensive disturbance of the Project site and its surrounding land uses and development, this site provides little opportunity for holding wildlife or serving as a travel route. The Project site is not located within a known wildlife corridor and therefore impacts to animal travel patterns or migration routes are not anticipated. No mitigation is required.

Threshold (e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Redlands Municipal Code 12.52, *Trees and Tree Protection Along Streets and in Public Places,* contains provisions to protect public trees. The City does not have local policies or ordinances pertaining to trees on private property. The project site does currently contain trees that would be removed upon implementation of the proposed Project. However, all trees proposed to be removed are located on private property and are not subject to Municipal Code 12.52. As such, no impact would occur.

Threshold (f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. As previously discussed, the project site is developed with a parking lot, vehicle storage, and associated buildings. The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, and/or State habitat conservation plan. Therefore, no mitigation is required and there would be no impacts.

Cumulative Impacts

The proposed Project would result in no significant impacts to biological resources. The chances of cumulative impacts occurring as a result of Project implementation plus

implementation of other projects in the region is not likely since all proposed projects would be subject to individual project-level environmental review. Since there would be no project-specific impacts and due to existing laws and regulations in place to protect biological resources, the potential incremental effects of the proposed Project would not be cumulatively considerable.

Source(s)

(City of Redlands General Plan, City of Redlands General Plan EIR, Google Earth)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?				x
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?				x
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				x
d) Disturb any human remains, including those interred outside of dedicated cemeteries?			x	

Cultural Resources

A Cultural Resources Evaluation Report has been prepared by BCR Consulting, LLC, on September 11, 2018, to address potential impacts to historic and archaeological resources associated with implementation of the proposed Project. The report is summarized below and is included as Appendix B, Cultural, of this Initial Study.

Threshold (a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?

No Impact. A Cultural Resources Assessment was completed for the proposed Project. An archaeological records search was conducted at the South Central Coastal Information Center (SCCIC) which consisted of a review of all recorded historic and prehistoric cultural resources. A review of known resources reported from projects completed near the Project site was also conducted. Additionally, a review of various Federal and State historical and cultural agencies was conducted. A reconnaissance-level pedestrian cultural resources survey, tribal scoping, and paleontological resources overview were also completed.

Data from the SCCIC revealed that 37 cultural resources studies have taken place resulting in the recording of 135 cultural resources (all historic-period) within a one-mile radius of the project site. None of the previous studies has assessed the Project site and no cultural resources have been previously recorded within its boundaries. Additionally, no historic resources were identified during the pedestrian survey. No impacts would occur.

Threshold (b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?

No Impact. As discussed above, BCR Consulting conducted an inspection of the Project site and found no archaeological resources of significance or otherwise within its boundary. Also, the

Project site has been previously disturbed and developed and therefore is not expected to receive further impacts of this kind from the proposed Project. No impacts would occur.

Threshold (c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. As discussed above, the Project site has been subject to disturbance. Given the condition of the site, there are no known paleontological resources on the Project site. Therefore, the Project would not directly or indirectly destroy known unique paleontological resources or site or unique geologic features. No significant impacts are anticipated and no mitigation is required.

Threshold (d) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. The Project site is not located within a known or suspected cemetery and there are no known human remains within the Project site. State law related to the discovery of human remains, specifically California Health and Safety Codes 7050.S-7055, provides guidance should human remains be discovered during construction. The likelihood of finding human remains is low and the resulting impact is considered less than significant and no mitigation is required.

Cumulative Impacts

The proposed Project would result in no impacts to historical, known archaeological or paleontological resources, or known human remains. The chances of cumulative impacts occurring as a result of Project implementation plus implementation of other projects in the region is not likely since all proposed projects would be subject to individual project-level environmental review. Since there would be no project-specific impacts and due to existing laws and regulations in place to protect cultural resources and prevent significant impact to paleontological resources, the potential incremental effects of the proposed Project would not be cumulatively considerable.

Source(s)

(BCR Cultural Resources Assessment)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			x	
ii) Strong seismic ground shaking?			x	
iii) Seismic-related ground failure, including liquefaction?			x	
iv) Landslides?				x
b) Result in substantial soil erosion or the loss of topsoil?			x	
c) 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?			x	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			x	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				x

Geology and Soils

Threshold (a) Would the project expose persons or structures to seismic hazards, including the risk of loss, injury, or death involving:

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

ii) Strong seismic ground shaking?

Less Than Significant Impact. According to General Plan EIR Figure 3.6-2, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, the possibility of significant fault rupture on the Project site is considered to be low.

The Project site is located in an area which is subject to strong ground motions due to earthquakes. Numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes.

The City of Redlands is bounded to the northeast by the San Andreas Fault Zone, and to the southwest by the San Jacinto Fault Zone. The closest fault zone to the Project site is the Crafton Hills Fault Zone, located approximately 2 miles southeast of the Project site. The Crafton Hills Fault Zone is a system of normal dip-slip faults. Though the Crafton Hills Fault Zone is an active fault (defined as one that has shown movement or surface displacement since the Holocene period), the California Geological Survey does not currently have a prediction of maximum potential magnitude for this fault system.[2]

Construction of the buildings would be required to conform to the seismic design parameters of the 2016 California Building Code (CBC). The CBC was adopted by all municipalities within Southern California on January 1, 2017. The California Building Code provides procedures for earthquake-resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The proposed development would be designed in accordance with the requirements of the then current edition of the California Building Code. Less than significant impacts would occur.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d50) grain size in the range of 0.075 to 0.2 mm.

[2] Redlands General Plan EIR, Page 3.6-3.

Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

According to General Plan EIR Figure 3.6-4, the project site is located in an area designated as having low liquefaction susceptibility. Therefore, less than significant impacts would occur.

iv) Landslides?

No Impact. Landslides can occur if areas of steep slopes consisting of unstable soils are disturbed by ground shaking and/or heavy rainfall. The Project site and the surrounding parcels and roadways are relatively flat. There are no visual indications of active landslides in or around the Project site. Additionally, according to General Plan EIR Figure 3.6-3, the Project site is not located in an area with landslide potential. Thus, no impacts would occur.

Threshold (b) Would the project result in substantial erosion or loss of topsoil?

Less Than Significant Impact. Grading and earthwork activities during construction would expose soils to potential short-term erosion by wind and water. During construction, the proposed Project would be required to comply with the erosion and siltation control measures. This would include measures such as sand-bagging to reduce site runoff or hold topsoil in place prior to final grading and construction. Additionally, the proposed Project is required to comply with the National Pollutant Discharge Elimination System (NPDES) permitting process. Construction impacts would be minimized through compliance with the Construction General Permit. The NPDES permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and monitoring plan, which must include erosion-control and sediment-control Best Management Practices (BMPs) that would meet or exceed measures required by the Construction General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. These requirements would ensure that potential Project impacts are less than significant.

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

Less Than Significant Impact. Refer to Response a-iii) for liquefaction potential, and a-iv), above for a discussion of landslide potential. Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. Therefore, any impacts would be less than significant, and no mitigation is required.

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

Less Than Significant Impact. The Project site is not within an area of known ground subsidence. No large-scale extraction of groundwater, gas, oil, or geothermal energy is

occurring or planned at the Project site or in the general site vicinity. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the project site. The near-surface soils generally consist of sands and silty sands with low clay content. Therefore, no design considerations related to expansive soils are considered necessary. Impacts would be less than significant and no mitigation is required.

Threshold (e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

No Impact. No septic tanks would be used as part of the proposed Project. The Project would connect to the existing sanitary sewer system for wastewater disposal. Thus, no impacts associated with the use of septic tanks would occur as part of the proposed Project's implementation and no mitigation is required.

Cumulative Impacts

The potential cumulative impact related to earth and geology is typically site-specific. The analysis herein determined that the proposed Project would not result in any significant impacts related to landform modification, grading, or the destruction of a geologically significant landform or feature with implementation of mitigation. Moreover, existing State and local laws and regulations are in place to protect people and property from substantial adverse geological and soils effects, including fault rupture, strong seismic ground shaking, seismic-induced ground failure (including liquefaction), and landslides. Existing laws and regulations also protect people and property from adverse effects related to soil erosion, expansive soils, loss of topsoil, development on an unstable geologic unit or soil type that could result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. These existing laws and regulations, along with mitigation required for the proposed Project, would render potentially adverse geological and soil effects less than significant.

Source(s)

(General Plan, General Plan EIR, California Building Code, Google Earth, USGS)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
7. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			x	
b) Conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			x	

Greenhouse Gas Emissions

A Greenhouse Gas Emissions Assessment was prepared for the proposed Project by Kimley-Horn and Associates in November 2018. This report is summarized below and are included as Appendix A of this document.

Background

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns and precipitation. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), as well as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These "greenhouse" gases allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping and therefore warms the Earth's atmosphere. Greenhouse gases (GHGs) are emitted by both natural processes and human activities. Concentrations of GHG have increased in the atmosphere since the industrial revolution. Human activities that generate GHG emissions include combustion of fossil fuels (CO_2 and N_2O); natural gas generated from landfills, fermentation of manure and cattle farming (CH_4); and industrial processes such as nylon and nitric acid production (N_2O).

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit of mass of gas relative to a reference gas." The reference gas for GWP is CO_2; therefore, CO_2 has a GWP factor of 1. The other main greenhouse gases that have been attributed to human activity include CH_4, which has a GWP factor of 21, and N_2O, which has a GWP factor of 310. When accounting for GHGs, all types of GHG emissions are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or million metric tons (MMT).

State regulatory requirements and standards include the following:

In June 2005, Governor Schwarzenegger issued Executive Order S-3-05, which set GHG emissions reduction targets for the State of California and laid out responsibilities among the State agencies for implementing the Executive Order and for reporting on progress toward the

targets. In 2006, the State adopted the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 declared that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. AB 32, codified as *California Health and Safety Code* Sections 38500 – 38599, established a State goal of reducing GHG emissions to 1990 levels by the year 2020, which would require a reduction of approximately 28 percent from "business as usual" or forecasted emission levels.

Senate Bill (SB) 97, a companion bill, directed the California Natural Resources Agency (Resources Agency) to certify and adopt guidelines for the mitigation of GHG or the effects of GHG emissions. SB 97 was the State Legislature's directive to the Resources Agency to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis.

Executive Order B-30-15 was enacted by Governor Brown on April 29, 2015. Executive Order B-30-15 establishes an interim GHG emission reduction goal for the State to reduce GHG emissions to 40 percent below 1990 levels by 2030. This Executive Order directs all State agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 to reduce GHG emissions to 80 percent below 1990 levels by the year 2050. The Executive Order directs the Air Resources Board to update its Scoping Plan to address the 2030 goal. It is anticipated that ARB will develop statewide inventory projection data for 2030 and commence efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the new interim goal for 2030.

Threshold (a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Short-Term Construction Greenhouse Gas Emissions

Less Than Significant Impact. The proposed Project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by construction equipment utilized to build the proposed Project is depicted in Table 4.7-1: Construction-Related Greenhouse Gas Emissions.

Table 4.7-1: Construction-Related Greenhouse Gas Emissions

Category	$MTCO_2e$
Total Construction Emissions	607
30- Year Amortized Construction	20
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.	

Table 4.7-1 shows that Project construction would result in the generation of approximately 607 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over the lifetime of the Project (assumed to be 30 years), then added to the operational emissions[3]. The amortized Project emissions would be approximately 20 $MTCO_2e$ per year.

Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance. The duration of construction activities associated with the proposed Project is estimated to last 11 months. The estimated soil to be exported is 20,000 cubic yards (CY). Soil export is expected due to the proposed construction of parking structures and minor grade adjustments across the site. The proposed Project would be required to comply with all SCAQMD standards for construction equipment during grading activities. Once construction is complete, the generation of these GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Less Than Significant Impact. Operational or long-term emissions occur over the life of the proposed Project. GHG emissions would result from direct emissions such as Project generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the Project site, the emissions associated with solid waste generated from the Project site, and any fugitive refrigerants from air conditioning or refrigerators. Total GHG emissions associated with proposed Project are summarized in Table 4.7-2: Project Greenhouse Gas Emissions. As shown in Table 4.7-2, the Project would generate approximately 1,948 $MTCO_2e$ annually GHG emissions from both construction and operations and the proposed Project would not exceed the SCAQMD GHG threshold of 3,000 $MTCO_2e$ per year. Therefore, Project-related GHG emissions would be less than significant and no mitigation measures are required.

Table 4.7-2: Project Greenhouse Gas Emissions

Emissions Source	$MTCO_2e$ per Year
Construction Amortized Over 30 Years	20
Area Source	>1
Energy	418
Mobile	1,307
Waste	52

[3] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

Table 4.7-2: Project Greenhouse Gas Emissions

Emissions Source	$MTCO_2e$ per Year
Water and Wastewater	151
Total	**1,948**
Threshold	3,000
Exceeds Threshold?	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.	

Threshold (b) Would the project conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The City of Redlands adopted a Climate Action Plan (CAP) on December 5, 2017 to identify opportunities for a cleaner city. The CAP was prepared concurrently with the latest General Plan update and provides analysis of the GHG emission to the year 2035. The CAP serves as a long-term vision for how Redlands can be more environmentally friendly and provides guidance for residents, City staff, and decision makers in the community on how to achieve future sustainability goals. The CAP has five main goals: Pedestrian Improvements and Increased Connectivity; Bikeway System Improvements; Traffic Calming; Parking Facilities and Policies; and Transportation Improvements. The CAP includes a list of additional optional measures to further reduce emissions that are more specific to photovoltaic systems, efficiency retrofits, efficient lighting standards, and Zero-Emission Vehicles to name a few.

The proposed Project would be required to comply with all building codes in effect at the time of construction which includes energy conservation measures mandated by Title 24 of the California Building Standards Code – Energy Efficiency Standards. Because Title 24 standards require energy conservation features in new construction (e.g., high- efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures), they indirectly regulate and reduce GHG emissions. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2016 standards improved upon the 2013 standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings. The 2016 standards went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and take effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy and nonresidential buildings will use about 30 percent less energy than buildings under the 2016 standards.

The Project proposes to incorporate several energy efficiency design features that would comply with Title 24 requirements as well as the California Green Building Code standards that are consistent with the Climate Action Plan's efficiency measures. The proposed Project is located on an infill site in the existing Esri Campus in the City of Redlands. The CAP policies are primarily municipal policies, and not project-specific. However, the proposed Project would improve pedestrian and bicycle connectivity to the site such as the development of a

pedestrian bridge east of the existing vehicle bridge that crosses the Mission Flood Control Channel. The pedestrian bridge would connect the northerly office uses with the existing Esri office uses to the south of the Mission Flood Control Channel. As noted above, the proposed Project related GHG emissions would not exceed the screening threshold. Further, the Project is consistent with the City's General Plan land use designation; therefore, the proposed Project is consistent with the planned use for the Project site and associated GHG emissions. The proposed Project would not impact the City's ability to enact the policies described in the CAP. Therefore, impacts related to consistency with the CAP would be less than significant.

Consistency with the CARB Scoping Plan

Less than Significant. The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, CARB adopted the *Climate Change Scoping Plan* (CCSP) in 2008, which outlines actions recommended to obtain that goal. The CCSP provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program. As shown in Table 4.7-3: Project Consistency with Applicable CARB Scoping Plan Measures, the proposed Project is consistent with most of the strategies, while others are not applicable to the proposed Project.

The 2017 CCSP Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the CCSP in 2013. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. As such, impacts related to consistency with the Scoping Plan would be less than significant.

Table 4.7-3: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Consistent.** The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.

Table 4.7-3: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Light-Duty Vehicle Greenhouse Gas Standards California Light-Duty Vehicle Greenhouse Gas Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	**Consistent**. This measure applies to all new vehicles starting with model year 2012. The proposed Project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the proposed Project would be required to comply with the Pavley emissions standards.
		2012 LEV III California GHG and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** The LEV III amendments provide reductions from new vehicles sold in California between 2017 and 2025. Passenger vehicles associated with the site would comply with LEV III standards.
	Low Carbon Fuel Standard	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The proposed Project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the proposed Project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related Greenhouse Gas Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	**Consistent**. The proposed Project would provide development in the region that is consistent with the growth projections in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).
	Goods Movement	Goods Movement Action Plan January 2007	**Not applicable**. The proposed Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicle	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	**Consistent**. This measure applies to medium and heavy-duty vehicles that operate in the state. The proposed Project would not conflict with implementation of this measure. Medium and heavy-duty vehicles associated with construction and operation of the proposed Project would be required to comply with the requirements of this regulation.
	High-Speed Rail	Funded under SB 862	**Not applicable**. This is a statewide measure that cannot be implemented by a project applicant or Lead Agency.
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	**Consistent.** The proposed Project would not conflict with implementation of this measure. The proposed Project would comply with the latest applicable energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	**Consistent**. The Project would obtain electricity from the electric utility, Southern California Edison (SCE). SCE obtained 28 percent of its power supply from renewable sources in 2016. Therefore, the utility would provide power when needed on site that is composed of a greater percentage of renewable sources.
	Million Solar Roofs Program	SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	

Table 4.7-3: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Million Solar Roofs Program	Tax Incentive Program	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The program provides incentives that are in place at the time of construction.
Water	Water	Title 24 Part 11 California Green Building Code Standards SBX 7-7—The Water Conservation Act of 2009 Model Water Efficient Landscape Ordinance	**Consistent.** The proposed Project would comply with the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The proposed Project would also comply with the City's Water Efficient Landscaping Requirements (Chapter 15.54 of the Redlands Municipal Code).
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The State is to increase the use of green building practices. The proposed Project would implement required green building strategies through existing regulation that requires the proposed Project to comply with various CalGreen requirements. The proposed Project includes sustainability design features that support the Green Building Strategy.
Industry	Industrial Emissions	2010 CARB Mandatory Reporting Regulation	**Not applicable.** The Mandatory Reporting Regulation requires facilities and entities with more than 10,000 $MTCO_2e$ of combustion and process emissions, all facilities belonging to certain industries, and all electric power entities to submit an annual GHG emissions data report directly to CARB. As shown above, total Project GHG emissions would not exceed 10,000 $MTCO_2e$. Therefore, this regulation would not apply.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards AB 341 Statewide 75 Percent Diversion Goal	**Consistent.** The proposed Project would not conflict with implementation of these measures. The proposed Project is required to achieve the recycling mandates via compliance with the CALGreen code. The City has consistently achieved its state recycling mandates.
Forests	Sustainable Forests	Cap and Trade Offset Projects	**Not applicable.** The proposed Project site is in an area designated for urban uses. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	CARB Refrigerant Management Program CCR 95380	**Not applicable**. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The proposed Project would not conflict with the refrigerant management regulations adopted by CARB.
Agriculture	Agriculture	Cap and Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable**. The proposed Project site is designated for urban development. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the proposed Project.

Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017 and CARB, *Climate Change Scoping Plan*, December 2008.

The Project is estimated to emit approximately 1,928 $MTCO_2e$ per year directly from on-site activities and indirectly from off-site motor vehicles, see Table 4.7-2. The GHG emissions caused by long-term operation of the proposed would be less than significant.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed Project would comply with all applicable measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050.

Cumulative Impacts

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As discussed above and shown in Table 4.7-3, the proposed Project would not conflict with the City's CAP or the CARB Scoping Plan. As a result, the Project would not conflict with any GHG reduction plans including the CARB Scoping Plan or the CAP. Therefore, the Project's cumulative contribution of GHG emissions would be less than significant and the Project's cumulative GHG impacts would also be less than cumulatively considerable.

Source

(Kimley-Horn and Associates: *Greenhouse Gas Emissions Assessment/Esri Building E Project/City of Redlands)*

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			x	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		x		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			x	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				x
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				x
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				x
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			x	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				x

Hazards and Hazardous Materials

Threshold (a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. During demolition and construction, small quantities of potentially hazardous substances such as gasoline, diesel fuel, lubricants for machines, and

other-petroleum-based products would be used on-site. Once operational, limited quantities of hazardous materials such as solvents, fertilizers, pesticides, and other materials used for regular building maintenance of buildings and landscaping would be utilized within the Project. However, quantities of these materials would not be significant enough to pose a significant hazard to the public or the environment. Compliance with the established regulatory framework (including, among others, Department of Transportation provisions regulating the transport of hazardous materials) would minimize risks to the maximum extent practicable. Therefore, impacts concerning the Project's potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant and no mitigation is required.

Threshold (b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Less Than Significant with Mitigation Incorporated. All Appropriate Inquiries Environmental Corporation performed a Phase I Environmental Site Assessment (ESA) Report of the Project site in conformance with the scope and limitations of the new American Society of Testing and Materials (ASTM) Practice E 1527-05. As specified in this standard, certain responsibilities lie with the "user" of the assessment. The "user" is defined as the party who intends to use the ASTM guidance to perform an assessment. The "user" is generally the purchaser, owner, lender, property manager, or potential tenant. Under the ASTM standard, it is the responsibility of the "user" to verify whether any environmental liens exist with regard to the Project site, and provide this information to the environmental professional preparing the assessment. Additionally, the "user" must make the professional aware of any specialized knowledge or experience that is material to Recognized Environmental Conditions (RECs) in connection with the Project site.

The scope of work conducted during the Phase 1 ESA consisted of visual reconnaissance of the Project site, interviews with key individuals, and review of reasonably ascertainable historical documents (i.e., aerial photographs, topographic maps, etc.). An environmental records search was performed, which identified sites within their respective ASTM E 1527-05 search radii of the Project site that may represent RECs. A regulatory records search of this nature is based on information published by State and Federal regulatory agencies, and is used to evaluate if the Project site or nearby off-site properties are listed as having a past or present record of actual or potential environmental impact. Based on the scope of work conducted during the Phase I ESA, the findings and conclusions of the assessment are as follows:

- The Project site was formerly used as a gasoline station with gasoline and diesel USTs from approximately the mid-1960s to the mid-1980s. Based on records reviewed with government agencies and representatives of the Project site, three USTs were removed from the Project site in 1986. These records indicated that no soil or groundwater samples were collected in the vicinity of the former USTs. The lack of soil sampling data collected in the vicinity of the former USTs represents a REC for the Project site.

- The location of one inactive underground hydraulic hoist was observed in the vehicle maintenance area of the Project site. Based on building records and interviews with representatives for the Project site, the Project site was originally developed in approximately the mid-1960s. The production of polychlorinated biphenyl (PCB), chemicals formerly used in hydraulic fluid, was banned in the United States by the United States Environmental Protection Agency (USEPA) in the late 1970s. Therefore, there is a potential that PCB contamination may have resulted from continued use of the underground hoist at the Project site; therefore, this was considered to be a REC for the Project site.
- No conclusion was made regarding asbestos-containing materials (ACMs) or lead-based paint since these issues are not part of the ASTM standard.

Asbestos Containing Materials: ACMs generally do not pose a health threat unless the asbestos fibers are disturbed and become airborne and inhaled. State of California Division of Occupational Safety and Health (DOSH) requires employers to implement specific work practices, which protect workers from airborne asbestos exposure, when materials are found to contain detectable concentrations of asbestos. Building materials, which contain even low levels of asbestos (trace amounts), can potentially generate concentrations of airborne asbestos fibers when disturbed. Therefore, it is recommended that control measures be instituted by those disturbing ACMs, which adequately address worker health and safety during planned demolition activities involving these materials. It is also recommended that ACMs be removed by a licensed abatement contractor prior to demolition, in accordance with all applicable laws, including Occupational Safety and Health Administration (OSHA) guidelines. Compliance with DOSH and OSHA requirements would protect construction workers and the environment from airborne asbestos exposure reducing potential impacts to less than significant.

Historically, certain concealed materials may be present within wall cavities (e.g., electrical wire wrapping, insulation materials, vapor barrier paper, gypsum board, joint compound, etc.) that contain asbestos, and some underground utility piping has been known to contain asbestos (e.g., Transite pipe). Because the proposed demolition could include removal of on-site portions of underground utilities (i.e., storm drains, sewer, domestic water laterals, etc.), evaluation of the asbestos content of these components must be performed prior to their removal. Suspect materials identified in these locations are assumed positive for asbestos until sampling and analysis indicates otherwise. To address asbestos in underground utility piping proposed for removal and suspect ACMs discovered during construction, Mitigation Measure (MM) HAZ-1 and HAZ-2 is recommended. Following compliance with MM HAZ-1, which requires that onsite underground utilities proposed for removal during demolition be evaluated to determine their asbestos content prior to their removal, and requires sampling, analysis, and/or assessment of ACMs discovered during construction, the Project would result in a less than significant impact.

Lead-Based Paint (LPB): Lead in paint generally does not pose a health threat unless it is disturbed or sufficiently deteriorated to produce dust, which may become airborne and inhaled or ingested. The condition of painted surfaces at the Project site needs to be assessed in

general accordance with United States, Housing and Urban Development (HUD) Guidelines Chapter 5. Paint in fair/poor condition presents the highest risk for lead exposure. Paint chip samples need to be collected and analyzed.

Overall, the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant with mitigation incorporated.

MM HAZ-1 In accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines, an asbestos evaluation shall be performed on onsite underground utilities proposed for removal that are known or suspected to have been constructed prior to 1980. If asbestos-containing materials (ACMs) are determined to be present, the materials shall be abated by a certified asbestos abatement contractor in accordance with SCAQMD regulations and notification requirements. Demolition and disposal of ACMs shall be completed in accordance with SCAQMD's Rule 1403 procedures.

MM HAZ-2: A Limited Phase II Environmental Site Assessment shall be conducted at the Project site prior to ground disturbance activities. The Limited Phase II Environmental Site Assessment should include a geophysical survey to identify the former location of the USTs and an associated subsurface structure. The Phase II ESA should also consist of a subsurface soil and groundwater screen for potential contamination, which may be associated with the sandblasting and coating activities that previously occurred on the Project site.

Threshold (c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact: Orangewood High School is located 0.23 miles northeast of the proposed Project site (515 Texas St, Redlands, CA 92374). However, the proposed uses are office, which would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. The Phase I Report conducted for the proposed Project site concluded that a few RECs were present. Refer to impact threshold 8b above for further analysis. Impacts would be less than significant with mitigation incorporated.

Threshold (d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment?

No Impact. Government Code §65962.5 refers to the Hazardous Waste and Substances Site List, commonly known as the Cortese List, maintained by the Department of Toxic Substances Control (DTSC). The Cortese list contains hazardous waste and substance sites including public drinking water wells with detectable levels of contamination, sites with known underground storage tanks (USTs) having a reportable release, solid waste disposal facilities from which there

is a known migration, hazardous substance sites selected for remedial action, historic Cortese sites, and sites with known toxic material identified through the abandoned site assessment program. According to the DTSC Envirostor Database, the Project site is not included on the Cortese List. Therefore, no impact would occur in this regard and no mitigation is required.

Threshold (e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed Project site is located approximately 3 miles southwest of the Redlands Municipal Airport and approximately 3.5 miles southeast from the San Bernardino International Airport. However, the Project is not located within an airport land use plan or within two miles of a public airport or public use airport. Therefore, no impact would result and no mitigation is required.

Threshold (f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips in the vicinity. The proposed Project site is located approximately 3 miles southwest of the Redlands Municipal Airport and approximately 3.5 miles southeast from the San Bernardino International Airport. However, the Project is not within two miles of any private airstrip. Therefore, no impact would result and no mitigation is required.

Threshold (g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed Project would not impair or physically interfere with an adopted emergency response or evacuation plan. The proposed Project is subject to City Fire and Police Department review and approval prior to the issuance of building permits. The proposed project is required to be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, which would provide for adequate emergency access and evacuation, if necessary.

Construction activities may have the potential to temporarily restrict vehicular traffic. Adherence to emergency access measures required by the City would ensure a less than significant impact would occur.

Threshold (h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The proposed Project is located in a heavily developed area, and would not expose people or structures to a risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. No impacts related to wildland fires would occur.

Cumulative Impacts

The incremental effects of the proposed Project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site specific. Therefore, the proposed Project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. The proposed Project would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

Source(s)

(Phase I ESA, Google Earth, California Government Code Section 65962.5, California Department of Forestry and Fire Protection, Department of Toxic Substance Control)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?			x	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			x	
c) Substantially alter the existing drainage pattern of the site or 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.			x	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.			x	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			x	
f) Otherwise substantially degrade water quality?			x	
g) Place housing within a 100-year flood-hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			x	
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?			x	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				x
j) Inundation by seiche, tsunami, or mudflow?				x

Hydrology and Water Quality

Threshold (a) Would the project violate any water quality standards or waste discharge requirements?

Threshold (f) Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. The project will not violate any water quality standards or waste discharge requirements, and will not otherwise substantially degrade water quality. The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB).

Construction of the proposed Project and offsite improvements would involve clearing, soil stockpiling, grading, paving, utility installation, building construction, and landscaping activities, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other solvents with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures.

The proposed Project would disturb more than one acre of land surface and would, therefore, be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) stormwater program. To minimize water quality impacts during construction, construction activities would be required to comply with a Stormwater Pollution Prevention Plan (SWPPP) consistent with the General Permit for Stormwater Discharge Associated with Construction Activity (Construction Activity General Permit). To obtain coverage, the Project Applicant is required to submit a Notice of Intent prior to construction activities and develop and implement a SWPPP and monitoring plan. The SWPPP identifies erosion-control and sediment-control Best Management Practices (BMPs) that would meet or exceed measures required by the Construction Activity General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. These requirements would ensure that potential Project impacts related to soil erosion, siltation, and sedimentation remain less than significant and avoid violation to any water quality standards or waste discharge requirements.

Operations Phase: The development of the Project site would result in an increase of impervious surface which would increase stormwater runoff, however, this runoff would be captured and conveyed to the storm drain system. The Project would be required to implement a Water Quality Management Plan (WQMP), pursuant to the requirements of the City's NPDES permit. The WQMP is a post-construction management program that ensures the on-going protection of the watershed basin by requiring structural and programmatic controls. The WQMP identifies structural controls (including a contained, onsite wastewater treatment plant)

and programmatic controls to minimize, prevent, and/or otherwise appropriately treat storm water runoff flows before they are discharged from the site. Mandatory compliance with the WQMP would ensure that the Project does not violate any water quality standards or waste discharge requirements during long-term operation. Therefore, water quality impacts associated with long-term operation of the Project would be less than significant and no mitigation measures would be required.

Threshold (b) Would the project substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The proposed Project would be served with potable water by the City of Redlands Municipal Utilities Department. The Department is party to the Upper Santa Ana River Watershed integrated Regional Water Management Plan, which indicates the Integrated Regional Water Management Region is highly dependent on local water supplies. In particular, precipitation stored as groundwater provides approximately 67 percent of supplies during average years and over 70 percent of supplies during drought years. According to the plan, the City has sufficient water supplies to meet current and future development consistent with the General Plan through the year 2035. As previously discussed, the project is consistent with the assumptions in the General Plan. Thus, the Project's demand for domestic water service would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Although the Project would result in additional impervious surfaces on-site, the Project would construct a water quality infiltration basin which would capture low flow storm water runoff from the site. Accordingly, the proposed Project would not significantly impact local groundwater recharge. Impacts would be less than significant and no mitigation is required.

Threshold (c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. The Project site is relatively flat, and is located directly adjacent to the existing Mission Flood Control Channel. The proposed Project would include the development of a storm drainage system consistent with City requirements to convey stormwater runoff to the mainline storm drain system. As part of the Project, a new pedestrian bridge would be constructed adjacent to the Mission Channel S.B.C.F.C.D. However, the construction of this bridge would not impact the existing drainage pattern. In addition, the proposed on-site detention/infiltration basin would limit the release of storm water from the site; therefore, minimizing the potential for flooding to occur on site or off site. Therefore, impacts would be less than significant.

Threshold (d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. The site does not include any streams or rivers, which could be altered by the proposed Project. In addition, the proposed on-site detention/infiltration basin would limit the release of storm water from the site; therefore, minimizing the potential for flooding to occur on site or off site. Therefore, impacts would be less than significant.

Threshold (e) Would the project create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. On-site stormwater runoff associated with the Project would be engineered to be conveyed through public street improvements and storm drains. Additionally, with required adherence to an SWPPP and WQMP as discussed above under Response a), the proposed Project would not be a substantial source of polluted runoff. Therefore, less than significant impacts would occur and mitigation is not required.

Threshold (g) Would the project place housing/structures within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Threshold (h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact. The Project does not propose housing. However, the Project site is bound by the Mission Flood Control Channel to the south. According to the City of Redlands FEMA flood zone mapping system, the Project site is located within a 100-year flood zone. The project will incorporate project design features to avoid any potentially significant effects, such as: the occupiable floors will be constructed above the 100-year floodplain; and the below-grade parking and storage areas will incorporate flood-control doors and devices to prevent water intrusion. These and similar project design features will be incorporated into the project to avoid any significant detrimental impacts, and therefore no additional mitigation measures are necessary. The City of Redlands requires a development permit for any development project proposed in areas of special flood hazards (Redlands Municipal Code Chapter 15.32), including specific construction standards, which is a standard requirement and will be reviewed prior to issuance of any building permits. Any impacts will be less than significant, and no mitigation measures are required.

Threshold (i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. According to Figure 3.9-2 of the General Plan EIR, the Project site is not located within a dam inundation area. The City's flood control system consists of ultimate and interim

channels, storm drains, levees, basins, and dams managed by the San Bernardino County Flood Control District. Recent flood control improvements, including the Seven Oaks Dam, Mill Creek levee renovation, and the San Timoteo Canyon channel and debris basins, have helped to reduce hazards to lives and property.

Additionally, the Project would construct drainage improvements to alleviate existing flood conditions at the site and reduce the risk of flood hazards. No reservoir dam structures are located within the vicinity of the project site. No associated flood hazard impacts would occur and no mitigation is required.

Threshold (j) Would the project result in inundation by seiche, tsunami or mudflow?

No Impact. The Project site is located approximately 50 miles inland from the Pacific Ocean. Given the distance from the coast, the potential for the Project site to be inundated by a large, catastrophic tsunami is extremely low. The project site is also not located near large bodies of water, thus making the likelihood of a seiche occurring minimal. No steep slopes are located in the Project vicinity; therefore, the risk of mudflow is insignificant. No associated impacts would occur and no mitigation is required.

Cumulative Impacts

The potential impacts related to hydrology and storm water runoff are typically site-specific. Furthermore, the analysis determined that the implementation of the proposed Project would not result in significant impacts. As a result, no cumulative impacts are anticipated. No mitigation is required.

Source(s)

FEMA's National Flood Hazard Layer, Google Earth, General Plan EIR.

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
10. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				x
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				x
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				x

Land Use and Planning

Threshold (a) Would the project physically divide an established community?

No Impact. An example of a project that has the potential to divide an established community includes the construction of a new freeway or highway through an established neighborhood. The proposed Project would be located on a site that currently contains a parking lot and vehicle storage. Additionally, the Project site is surrounded by similar office uses and would serve as an extension of the Esri campus uses. Additionally, the pedestrian bridge would create a connection to the Project site from surrounding uses. The proposed Project would be consistent with surrounding land uses and would not physically divide an established community. Therefore, no impacts would occur and no mitigation is required.

Threshold (b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed Project includes a change in zoning from M-2 (Industrial) to A-P (Administrative Professional) District. Should the change of zone be approved by the City, the project would be consistent with zoning. Additionally, the Project is consistent with surrounding land uses. Therefore, the Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No mitigation is required.

Threshold (c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Project site is not located within an existing habitat conservation plan or natural community plan. No impact relative to conservation plans would occur and no mitigation is required.

Cumulative Impacts

The analysis of potential impacts indicated that no impacts would result from the proposed Project's implementation. As a result, no cumulative impacts related to land use and planning would occur.

Source(s)

Google Earth, City of Redlands General Plan, Zoning District Map

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
11. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				x
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				x

Mineral Resources

Threshold (a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

Threshold (b) Would the project result in the loss of availability of a locally important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact: The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the area. Under SMARA, areas are categorized into MRZs as follows:

MRZ-1 Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.

MRZ-2a Areas where the available geologic information indicates that there are significant mineral deposits.

MRZ-2b Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.

MRZ-3a Areas where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined.

MRZ-3b Areas where the available geologic information indicates that mineral deposits are inferred to exist, however, the significance of the deposit is undetermined.

MRZ-4 Areas where there is not enough information available to determine the presence or absence of mineral deposits.

According to the General Plan, the proposed Project is within MRZ-2, meaning significant mineral deposits or likelihood of significant mineral deposits exist. The proposed Project is an

office building and would be consistent with the zoning designation once a change of zone is approved. Implementation of the proposed Project would not utilize mineral deposits or involve mining activities. Furthermore, the Project site is not located in an area identified as a locally important mineral resource recovery site, nor is it currently being utilized for mining. Therefore, the proposed Project would not result in the loss of availability of a known mineral resource. Impacts would be less than significant.

Cumulative Impacts

The analysis of potential impacts indicated that no significant impacts would result from the proposed Project. As a result, no cumulative impacts related to mineral resources would occur.

Source(s)

City of Redlands General Plan Figure 3.11-1, *Mineral Resources;* Surface Mining and Reclamation Act of 1975

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
12. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?			x	
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			x	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			x	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			x	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				x
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				x

Noise

An Acoustical Assessment was prepared for the proposed Project by Kimley-Horn and Associates in November 2018. This report is summarized below and are included as Appendix C, Noise, of this Initial Study.

Threshold (a) Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Threshold (c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Threshold (d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction

Less than Significant Impact. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods near the construction site. At the nearest, Project construction would occur at 160 feet from a park across New York Street and approximately 900 feet from the nearest existing multi-family residences. However, it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the sensitive receptors.

Construction activities would include site preparation, grading, building construction, paving, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment are listed in Table 4.12-1: Typical Construction Noise Levels.

As shown in Table 4.12-1, exterior noise levels could affect the nearest existing sensitive receptors in the vicinity. Sensitive uses in the Project site vicinity include park uses approximately 160 feet to the east of the Project site across New York Street. These sensitive uses may be exposed to elevated noise levels during Project construction. However, construction noise would be acoustically dispersed throughout the Project site and not concentrated in one area near surrounding sensitive uses. The Redlands Municipal Code does not establish quantitative construction noise standards. Instead, the City has established allowable hours of construction. Section 8.06.120(G) of the City's Municipal Code exempts noise associated with new construction activity, remodeling, rehabilitation, or grading of any property from the noise limitations of the municipal code, provided that construction activities take place between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, including Saturdays, with no activities taking place at any time on Sundays or federal holidays. All motorized equipment used in such activity shall be equipped with functioning mufflers.

Table 4.12-1: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 Feet from Source		Typical Noise Level (dBA) at 100 Feet from Source[1]	
	L_{max}	L_{eq}	L_{max}	L_{eq}
Air Compressor	80	76	74	70
Backhoe/Front End Loader	80	76	74	70
Compactor (Ground)	80	73	74	67
Concrete Mixer Truck	85	81	79	75
Concrete Mixer (Vibratory)	80	73	74	67
Concrete Pump Truck	82	75	76	69
Concrete Saw	90	83	84	77
Crane	85	77	79	71
Dozer/Grader/Excavator/Scraper	85	81	79	75
Drill Rig Truck	84	77	78	71
Generator	82	79	76	73
Gradall	85	81	79	75
Hydraulic Break Ram	90	80	84	74
Jackhammer	85	78	79	72
Mounted Impact Hammer	90	83	84	77
Pavement Scarifier/Roller	85	78	79	72
Paver	85	82	79	76
Pneumatic Tools	85	82	79	76
Pumps	77	74	71	68
Truck (Dump/Flat Bed)	84	80	78	74

Note:
1. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20Log(d_1/d_2)$
Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006.

Construction activities may also cause increased noise along access routes to and from the site due to movement of equipment and workers. Approximately 20,000 cubic yards of soil export is anticipated which would be transported along local roadways. Implementation of Mitigation Measure NOI-1 would further minimize impacts from construction noise as it requires construction equipment to be equipped with properly operating and maintained mufflers and other state required noise attenuation devices. Thus, upon implementation of Mitigation Measure NOI-1, a less than significant noise impact would result from construction activities.

Operations

Less than Significant Impact. Implementation of the proposed Project would create new sources of noise in the Project vicinity. The major noise sources associated with the Project that would potentially impact existing and future nearby residences include the following:

- Mechanical equipment (i.e., trash compactors, air conditioners, etc.);
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by); and
- Off-Site Traffic Noise

Mechanical Equipment: The Project is surrounded primarily by industrial and commercial uses. The nearest sensitive receptors to the Project site are the single-family residences across West Park Avenue and Jennie Davis Park across New York Street. Potential stationary noise sources related to long-term operations in the Project site would include mechanical equipment. Mechanical equipment (e.g., heating ventilation and air conditioning [HVAC] equipment) typically generates noise levels of approximately 50 to 60 dBA at 50 feet. The proposed building would be located more than 300 feet from the closest sensitive receptors. At 300 feet, distance attenuation would reduce HVAC noise levels to 44 dBA, which is below the City's 60 dBA standard. Roof-mounted HVAC equipment is anticipated to be installed closer to the middle of the building and the distance to sensitive receptors will likely be farther, which will reduce noise levels. Furthermore, equipment will likely be located behind a parapet for additional noise attenuation. Operation of mechanical equipment would not increase ambient noise levels beyond the acceptable compatible land use noise levels. Therefore, the proposed Project would result in a less than significant impact related to stationary noise levels.

Parking Noise: The proposed Project would accommodate the need for parking. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 60 to 63 dBA and may be an annoyance to adjacent noise-sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech. It should be noted that parking lot noises are instantaneous noise levels compared to noise standards in the hourly L_{eq} metric, which are averaged over the entire duration of a time period.

Parking lot noise would occur within the surface parking lot on-site. It is also noted that parking lot noise occurs at the adjacent properties under existing conditions. Parking lot noise would be consistent with the existing noise in the vicinity and would be partially masked by background noise from traffic along West Park Avenue and New York Street. Actual noise levels over time resulting from parking lot activities is anticipated to be far below the City's noise guidelines. Therefore, noise impacts from parking lots would be less than significant.

Off-Site Traffic Noise: Future development generated by the proposed Project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise near existing and proposed land uses. Based on the Traffic Impact Analysis, the proposed Project would result in approximately 1,076 daily vehicle trips. The Operational Year "2019 Without Project" and "2019 Plus Project" scenarios are compared in Table 4.12-2: Opening Year 2019 Traffic Noise Levels. As shown in Table 4.12-2, roadway noise levels would range from 54.9 dBA to 65.1 under "2019 Without Project" conditions and from 55.9 dBA to 65.2 dBA under "2019 Plus Project" conditions. The highest increase in noise levels would occur along Locust Avenue. As shown in

Table 9, Park Avenue is expected to experience an increase in ambient noise levels of 1 dBA. This level is below the perceptible noise level change of 3.0 dBA. None of the noise level increases near the Project site are perceptible and do not exceed acceptable noise levels, therefore, no significant impacts would occur.

Table 4.12-2: Opening Year 2019 Traffic Noise Levels

Roadway Segment	2019 Without Project		2019 Plus Project		Change	Significant Impacts
	ADT	dBA CNEL at 100 feet from Roadway Centerline	ADT	dBA CNEL at 100 feet from Roadway Centerline		
Tennessee Street, I-10 Ramps to Colton Avenue	20,060	65.1	20,425	65.2	0.1	No
Tennessee Street, Colton Avenue to Redlands Boulevard	16,110	64.1	16,480	64.2	0.1	No
Tennessee Street, Redlands Boulevard to Park Avenue	13,170	63.2	13,630	63.3	0.1	No
Tennessee Street, South of Park Avenue	13,260	63.2	13,370	63.3	0.1	No
New York Street, Redlands Boulevard to Park Avenue	6,200	58.6	6,840	59.0	0.4	No
New York Street, South of Park Avenue	5,090	57.7	5,090	57.7	0	No
Texas Street, Brockton Avenue to Colton Avenue	12,185	62.9	12,435	62.9	0	No
Texas Street, Colton Avenue to Stuart Street	11,070	62.4	11,385	62.6	0.2	No
Texas Street, Stuart Street to Redlands Boulevard	13,430	63.2	13,750	63.3	0.1	No
Redlands Boulevard, Tennessee Street to New York Street	13,635	63.5	13,665	63.5	0	No
Redlands Boulevard, New York Street to Texas Street	16,685	64.3	17,325	64.5	0.2	No
Park Avenue, East of Tennessee Street	9,710	60.5	9,770	60.5	0	No
Park Avenue, Tennessee Street to Project Driveway	2,860	55.2	3,460	56.0	0.8	No
Park Avenue, Project Driveway to New York Street	2,680	54.9	3,365	55.9	1.0	No
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level						
Source: Based on traffic data within the *Esri Building E Traffic Impact Study*, prepared by TJW Engineering, Inc, 2018. Refer to Appendix B for traffic noise modeling assumptions and results.						

Mitigation Measures:

NOI-1 Prior to Grading Permit issuance, the Project applicant shall demonstrate, to the satisfaction of the City of Redlands Director of Public Works or City Engineer that construction plans and specifications include the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property owners and occupants located within 150 feet of the Project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed Project. A sign, legible at a distance of 50 feet shall also be posted at the Project construction site. All notices and signs shall be reviewed and

approved by the City of Redlands Development Services Department, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.

- Prior to issuance of any Grading or Building Permit, the Contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Prior to issuance of any Grading or Building Permit, the Project Applicant shall demonstrate to the satisfaction of the City Engineer that construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities shall not take place outside of the allowable hours specified by the City's *Municipal Code Section 8.06.120(G)*, allowable construction hours are between 7:00 a.m. and 6:00 p.m. on weekdays, including Saturdays, with no activities taking place at any time on Sundays or federal holidays.

Threshold (b) Would the project result in the exposure of persons to or generation of, excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Once operational, the Project would not be a source of groundborne vibration. Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. Construction on the Project site would have the potential to result in varying degrees of

temporary groundborne vibration, depending on the specific construction equipment used and the operations involved.

Construction

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage.

Table 4.12-3: Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet for typical construction equipment. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in Table 4.12-3, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity.

Table 4.12-3: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 100 Feet (in/sec)[1]
Large Bulldozer	0.089	0.011
Caisson Drilling	0.089	0.011
Loaded Trucks	0.076	0.010
Rock Breaker	0.059	0.007
Jackhammer	0.035	0.004
Small Bulldozer/Tractors	0.003	0.000

Notes:
[1] Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV_{ref} = the reference vibration level in in/sec from Table 12-2 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, 2006.
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, 2006.

The nearest sensitive receptors are the residential uses approximately 100 feet to the northwest across West Park Avenue and the nearest structures are the existing Esri office buildings approximately 200 feet or more from the active construction zone. As shown in Table 4.12-3, at 25 and 100 feet, construction equipment vibration velocities would not exceed

0.089 in/sec PPV, which is below the FTA's 0.20 PPV threshold. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest residential structure. Therefore, vibration impacts associated with the proposed Project would be less than significant.

Threshold (e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Threshold (f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Redlands Municipal Airport is the nearest airport in the immediate area, located approximately 3.2 miles northeast from the Project site. There are no airports within two miles of the Project site. Therefore, there is no impact surrounding the proposed Project concerning airport noise, including from a private airstrip.

Cumulative Impacts

Cumulative noise impacts would occur primarily from increased traffic on local roadways due to buildout of the proposed Project and other projects in the vicinity. A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with Project" condition to "existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by projects in the cumulative Project list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- Combined Effect: The future with Project noise level would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.
- Incremental Effects: The future with Project causes a 1.0 dBA increase in noise levels over the future without Project noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. If both the combined and incremental effects criteria are exceeded, the applicable noise and land use compatibility standards must also be exceeded. Noise is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed Project and growth due to occur in the Project site's general vicinity would contribute to cumulative noise impacts. Table 4.12-4: Cumulative Noise Scenario, lists the

traffic noise effects along roadway segments in the Project vicinity for "Existing," "2019 Without Project," and "2019 Plus Project" conditions, including incremental and net cumulative impacts. The highest combined increase in noise levels would occur along Texas Street. As shown in Table 4.12-4, Park Avenue is expected to experience an increase in ambient noise levels of 1 dBA by the year 2019 with the addition of the Project. This level is below the perceptible noise level change of 3.0 dBA. The noise level increase near the Project site is not perceptible and does not exceed acceptable noise levels, no significant impacts would occur.

Table 4.12-4: Cumulative Noise Scenario

Roadway Segment	Existing	2019 Without Project	2019 Plus Project	Combined Effects	Incremental Effects	Cumulative Significant Impact?
	dBA@ 100ft from Road CL	dBA@ 100ft from Road CL	dBA@ 100ft from Road CL	Difference in dBA Existing and 2019 Plus Project	Difference in dBA 2019 Without Project and 2019 Plus Project	
Tennessee Street, I-10 Ramps to Colton Avenue	64.8	65.1	65.2	0.4	0.1	No
Tennessee Street, Colton Avenue to Redlands Boulevard	63.8	64.1	64.2	0.4	0.1	No
Tennessee Street, Redlands Boulevard to Park Avenue	63.0	63.2	63.3	0.3	0.1	No
Tennessee Street, South of Park Avenue	63.1	63.2	63.3	0.2	0.1	No
New York Street, Redlands Boulevard to Park Avenue	58.1	58.6	59.0	0.9	0.4	No
New York Street, South of Park Avenue	57.7	57.7	57.7	0	0	No
Texas Street, Brockton Avenue to Colton Avenue	61.8	62.9	62.9	1.1	0	No
Texas Street, Colton Avenue to Stuart Street	61.2	62.4	62.6	1.4	0.2	No
Texas Street, Stuart Street to Redlands Boulevard	62.1	63.2	63.3	1.2	0.1	No
Redlands Boulevard, Tennessee Street to New York Street	63.3	63.5	63.5	0.2	0	No
Redlands Boulevard, New York Street to Texas Street	64.1	64.3	64.5	0.4	0.2	No
Park Avenue, East of Tennessee Street	60.5	60.5	60.5	0	0	No
Park Avenue, Tennessee Street to Project Driveway	55.2	55.2	56.0	0.8	0.8	No
Park Avenue, Project Driveway to New York Street	54.9	54.9	55.9	1.0	1.0	No
Notes: ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level; CL = centerline						
Source: Based on traffic data within the *Esri Building E Traffic Impact Study*, prepared by TJW Engineering, Inc, 2018. See Appendix B for traffic noise modeling results.						

Source

(Kimley-Horn and Associates: *Acoustical Assessment/Esri Building E Project)*

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
13. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				x
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				x
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				x

Population and Housing

Threshold (a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact: The proposed Project includes the development of an office building and does not include residential development. According to Esri representatives, the proposed project would not provide office space for new employees. Rather, the office space would be utilized for existing employees who are currently placed in offices elsewhere on the Esri campus. Therefore, the project would not provide opportunities for new employment that has the potential to increase the population. Additionally, short-term, construction-related jobs would be generated during project construction. However, it is anticipated that these jobs would come primarily from the local labor pool. As such, the proposed project would not directly or indirectly induce substantial population growth. No impacts would occur.

Threshold (b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact: The Project site currently contains a surface parking lot and vehicle storage and does not contain housing. Therefore, no impacts would occur.

Threshold (c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact: The Project site currently contains a surface parking lot and vehicle storage and does not contain housing. Therefore, no impacts would occur.

Source(s)

Google Earth, City of Redlands General Plan, Zoning District Map

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical 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:				
a) Fire protection?			x	
b) Police protection?			x	
c) Schools?				x
d) Parks?				x
e) Other public facilities?				x

Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical 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:

Threshold (a) Fire Protection?

Less Than Significant Impact: Fire protection services within the City are provided by the Redlands Fire Department (RFD). The proposed Project site would be served by Fire Station 264, located at 1270 West Park Avenue, which is approximately 0.25 miles west of the project site. Station 264 staffs 5 personnel for each shift and is equipped with a brush engine and a medical engine.

The proposed Project would be designed and constructed within building code standards. In addition, to protect the health, safety, and general welfare of the City's populations, the City has established a fire/police protection facilities fee that is charged to all new development within the City's boundaries. Continuous fire access roadways and public hydrants would be provided throughout the Project site to allow adequate emergency service. The facility fees associated with the proposed Project would help the City provide fire services at the Project site and finance new fire stations and equipment. Therefore, impacts would be less than significant.

Threshold (b) Police Protection?

Less Than Significant Impact: The proposed Project site would be served by the Redlands Police Department. The proposed project would be served by the police station located at 1270 West Park Avenue, which is approximately 0.25 miles west of the project site. This station staffs patrol officers, custody services, dispatch services, and records services. According to the City of Redlands,

However, as stated above, the development fees would be partially allocated for police services and new police stations and equipment. Therefore, impacts would be less than significant.

Threshold (c) Schools?

No Impact: The Project site is located within the boundaries of Redlands Unified School District. However, as previously discussed, the Project would include the development of an office building, and does not propose residential uses that would generate students. Therefore, no impacts would occur.

Threshold (d) Parks?

No Impact: The proposed Project does not include residential development or increase demand on parks and recreational trail systems as it includes the development of office uses. The proposed Project would not directly or indirectly increase the population and therefore would not increase the demand on neighborhood and regional parks. No impacts would occur, and no mitigation is required.

Threshold (e) Other Public Facilities?

No Impact: The proposed office building would not cause an increase in population that would require additional or expanded public facilities. No impact would occur and no further environmental review is required.

Cumulative Impacts

The proposed Project would not increase the demand for public services, as it does not propose uses that would increase the population. Therefore, no cumulative impacts to public services would result from Project implementation.

Source(s)

General Plan, Google Earth, Redlands Unified School District Maps

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
15. RECREATION. Would the project:				
a) 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?				x
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				x

Recreation

Threshold (a) Would the project 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?

No Impact: The proposed Project does not include residential development or increase demand on parks and recreational trail systems as it includes the development of office uses. The proposed Project would not directly or indirectly increase the population and therefore would not increase the demand on neighborhood and regional parks. No impacts would occur, and no mitigation is required.

Threshold (b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed Project does not include the development of recreational facilities or uses that would require the construction or expansion of recreational facilities. No impacts would occur and no mitigation is required.

Cumulative Impacts

The Project would not result in an increased use of recreational facilities or require construction or expansion of existing recreational facilities. Therefore, no cumulative impacts on recreational facilities would result from Project implementation.

Source(s)

Google Earth, Site Plan

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
16. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		x		
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?		x		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				x
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				x
e) Result in inadequate emergency access?			x	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			x	

Transportation/Traffic

A Traffic Impact Study was conducted by TJW Engineering Inc. for the proposed Project in October 2018. It is included as Appendix E, Traffic, of this document. The project will also be required to adhere to Measure "U," and Guiding Policies 5.20a, 5.20b, and 5.20c of the City of Redlands General Plan, which requires standards for Traffic Service. These policies require that Level of Service (LOS) C or better be maintained as the standard at all intersections presently at LOS C or better, and that when intersections exist below the Level of Service (LOS) C standard, development projects shall ensure the LOS is not reduced by the addition of their project, without mitigation.

Threshold (a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit

and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Threshold (b) Would the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant with Mitigation. Based on the City's *Traffic Impact Study Guidelines*, the Project was evaluated in the morning and evening peak hours for the following conditions:

- Existing Conditions
- Opening Year Without Project
- Opening Year With Project

Intersection Analysis – HCM Methodology

Peak hour intersection operations at signalized and unsignalized intersections were evaluated using the methods prescribed in the Highway Capacity Manual (HCM) 6th edition, consistent with the requirements of the San Bernardino County traffic study guidelines.

Per the HCM Methodology, Level of Service (LOS) for signalized intersections is defined in terms of average vehicle delay, which provides an indication of driver discomfort, frustration, and fuel consumption. Specifically, LOS criteria are stated in terms of the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. Table 4.16-1, *Level of Significance Criteria for Signalized and Unsignalized Intersections***,** provides a description of the LOS in terms of average seconds of delay for signalized and unsignalized intersections.

Table 4.16-1: Level of Significance Criteria For Signalized and Unsignalized Intersections4

Level of Service	Signalized Intersection (Average delay per vehicle, in seconds)	Unsignalized Intersections (Average delay per vehicle, in seconds)
A	≤ 10.00	0 – 10.00
B	> 10.01 – 20.00	> 10.00 – 15.00
C	> 20.01 – 35.00	> 15.01 – 25.00
D	> 35.01 – 55.00	> 25.01 – 35.00
E	> 55.01 – 80.00	> 35.01 – 50.00
F	> 80.01	> 50.01

[4] Transportation Research Board, Highway Capacity Manual, HCM 6th Edition

Existing Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Existing Conditions are shown on Table 4.16-2, *Summary of Intersection Operation Existing Conditions.*

Table 4.16-2: Summary of Intersection Operation Existing Conditions

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Tennessee St/I-10 WB Ramps	Signal	15.0	B	13.8	B
2	Tennessee St/I-10 EB Ramps	Signal	36.6	D	40.1	D
3	Tennessee St/Colton Ave	Signal	20.0	B	34.0	C
4	Tennessee St/Redlands Blvd	Signal	30.4	C	**40.2**	**D**
5	Tennessee St/Park Ave	Signal	5.4	A	7.6	A
6	New York St/Redlands Blvd	Signal	26.4	C	30.1	**C**
7	New York St/ Park Ave	OWSC	12.6	B	17.6	C
8	Texas St/Brockton Ave	TWSC	**38.4**	**E**	**27.4**	**D**
9	Texas St/Colton Ave	Signal	9.9	A	17.0	B
10	Texas St/Stuart Ave	AWSC	14.3	B	16.3	C
11	Texas St/Redlands Ave	Signal	17.5	B	33.8	C

Notes:
- AWSC = All -Way Stop-Control, TWSC = Two-Way Stop-Control,
- Delay shown in seconds per vehicle.
- Bolded AM/PM Peak Hour values indicate unacceptable LOS
- For unsignalized intersections, Level of Service is expressed in average seconds of delay per peak hour vehicle, based on the methodology outlined in the 2010 Highway Capacity Manual.

Review of the traffic study indicates that the following intersections currently operate at an unacceptable Level of Service:

- Tennessee St/Redlands Blvd
- Texas St/Brockton Ave

The Tennessee Street/Redlands Boulevard intersection reached a 40.2-second delay per vehicle in the PM peak hour, giving it a D class LOS. As well, the Texas Street and Brockton Avenue reached a 38.4-second delay per vehicle in the AM peak hour and a 27.4-second delay in the PM peak hour. These led to the intersection receiving an E and D LOS respectively.

Project Trip Generation

Trip generation estimates for the Project are based on daily and peak hourly trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). The proposed Project is expected to generate 128 AM peak hour trips, 127 PM peak hour trips, and 1,076 daily trips. A summary of the projected trips is found in Table 4.16-3, *Summary of Project Trip Generation*, below.

Table 4.16-3: Summary of Project Trip Generation

Proposed Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
General Office Building (710)	110,479 TSF	9.74	1076	1.16	86.14	110	18	128	1.15	16.84	20	107	127

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition

Opening Year Base Condition

The Project Opening Year (the year the Project would be constructed and occupied) is anticipated to be Year 2019. Based on the assessment by TJW Engineering, an ambient growth rate of 1.1% per year to Opening Year 2018 was applied to existing traffic volumes to develop Opening Year Base forecasts.

Peak Hour Operating Conditions

The Cumulative Projects peak hour turning movement volumes were added to the Opening Year Base traffic volumes to create Opening Year Without Project Conditions. Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year Without Project condition. The results are shown on Table 4.16-4, *Summary of Intersection Operation Opening Year Without Project Conditions.*

Table 4.16-4: Summary of Intersection Operation Opening Year Without Project Conditions

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Tennessee St/I-10 WB Ramps	Signal	15.1	B	13.9	B
2	Tennessee St/I-10 EB Ramps	Signal	37.9	D	41.3	D
3	Tennessee St/Colton Ave	Signal	20.1	C	34.6	C
4	Tennessee St/Redlands Blvd	Signal	30.7	C	**40.8**	**D**
5	Tennessee St/Park Ave	Signal	5.4	A	7.6	A
6	New York St/Redlands Blvd	Signal	26.6	C	30.7	C
7	New York St/ Park Ave	OWSC	12.7	B	17.8	C
8	Texas St/Brockton Ave	TWSC	**40.2**	**E**	**27.8**	**D**
9	Texas St/Colton Ave	Signal	9.9	A	17.2	C
10	Texas St/Stuart Ave	AWSC	14.5	B	16.6	C
11	Texas St/Redlands Ave	Signal	17.6	B	34.7	B

Notes:
- Bold and shaded values indicate intersections operating at LOS D, E or F.
- For unsignalized intersections, Level of Service is expressed in average seconds of delay per peak hour vehicle, based on the methodology outlined in the 2010 Highway Capacity Manual.

Review of this table indicates that the following intersections would continue to operate at an unacceptable Level of Service:

- (4) Tennessee St/Redlands Blvd (LOS D PM Peak Hour)
- (8) Texas St/Brockton Ave (LOS E AM Peak Hour; LOS D PM Peak Hour)

Intersection Level of Service analysis was conducted for the morning and evening peak hours for the Opening Year with Project condition. The results of the intersection analysis, including the results at the site driveways are shown on Table 4.16-5, *Summary of Intersection Operation Opening Year with Project Conditions.*

Table 4.16-5: Summary of Intersection Operation Opening Year with Project Conditions

Int. #	Intersection	Traffic Control	Peak Hour	OYNP Conditions		OYWP Conditions			
				Delay	LOS	Delay	LOS	Change	Impact?
1	Tennessee St/I-10 WB Ramps	Signal	AM PM	15.1 13.9	B B	15.4 14.2	B B	0.3 0.3	No No
2	Tennessee St/I-10 EB Ramps	Signal	AM PM	37.9 41.3	D D	40.9 42.0	D D	3.0 0.7	No No
3	Tennessee St/Colton Ave	Signal	AM PM	20.1 34.6	C C	20.1 34.7	C C	0.0 0.1	No No
4	Tennessee St/Redlands Blvd	Signal	AM PM	30.7 **40.8**	C **D**	30.9 **42.3**	C **D**	0.2 2.0	No Yes
5	Tennessee St/Park Ave	Signal	AM PM	5.4 7.6	A A	5.7 8.2	A A	0.3 0.6	No No
6	New York St/Redlands Blvd	Signal	AM PM	26.6 30.7	C C	**38.6** 32.6	**D** C	12.0 1.9	Yes No
7	New York St/ Park Ave	OWSC	AM PM	12.7 17.8	B C	13.4 22.9	B C	0.7 5.1	No No
8	Texas St/Brockton Ave	TWSC	AM PM	**40.2** **27.8**	**E** **D**	**46.1** **29.7**	**E** **D**	5.9 1.9	Yes Yes
9	Texas St/Colton Ave	Signal	AM PM	9.9 17.2	A C	10.0 17.2	A B	0.1 0.0	No No
10	Texas St/Stuart Ave	AWSC	AM PM	14.5 16.6	B C	15.3 17.5	C C	0.8 0.9	No No
11	Texas St/Redlands Ave	Signal	AM PM	17.6 34.7	B C	17.8 **41.5**	B **D**	0.2 6.8	No Yes
12	Dwy 1/Park Avenue	OWSC	AM PM	-- --	-- --	9.9 10.7	A B	9.9 10.7	No No

Note: AWSC = All- Way Stop-Control, TWSC = Two-Way Stop Control, OWSC = One-Way Stop Control, Delay shown in seconds per vehicle.
1 = Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

Review of Table 4.16-5 indicates that, with the addition of Project traffic, the following intersections would continue to operate at an unacceptable Level of Service:

- (4) Tennessee St/Redlands Blvd (LOS D PM Peak Hour)

- (6) New York St/Redlands Blvd (LOS D AM Peak Hour)
- (8) Texas St/Brockton Ave (LOS E AM Peak Hour; LOS D PM Peak Hour)
- (11) Texas St/Redlands Blvd (LOS D PM Peak Hour)

Based on the thresholds of significance for project opening year with project conditions previously discussed in this document, the addition of project-generated trips is forecast to have a significant impact on the above intersections (without mitigation, which is discussed further below).

Signal Warrant Analysis

Because the proposed Project produces a significant impact at some of the unsignalized intersections, a Signal Warrant Analysis was conducted to determine whether or not a traffic signal is currently, or would be warranted. A summary of these results is provided in Table 4.16-6, *Summary of Signal Warrant Analysis.* Installing a traffic signal would decrease the delay for the intersection below the threshold of significance, as dictated by the City's Traffic Impact Study Guidelines. The analysis was also conducted for the Project's two proposed driveway entrances.

The Signal Warrant Analysis indicates that a traffic signal is not warranted for any of the three Project intersections based on both existing and future traffic volumes. Alternatively, a potential mitigation measure is to implement signage that restricts eastbound left turn movements from Chase Road during the morning and evening peak hours.

A summary of the intersection operations before and after implementation of this mitigation measure is provided in Table 4.16-7, *Summary of Intersection Operations with Proposed Improvements Opening Year with Project Conditions.* Implementing this restriction at the three intersections improves their LOS to non-impactful levels. Consequently, with the implementation of Mitigation Measure TT-1 and TT-2, impacts would be less than significant.

Table 4.16-6: Summary of Signal Warrant Analysis

Intersection #	Intersection	Peak Hours	Signal Warrants Met?		
			Existing Condition	Opening Year Without Project Conditions	Opening Year With Project Conditions
6	New York St/Park Ave	AM	No	No	No
		PM	No	No	No
8	Texas St/Brockton Ave	AM	No	No	No
		PM	No	No	No
10	Texas Street/Stuart Ave	AM	No	No	No
		PM	No	No	No

Table 4.16-7: Summary of Intersection Operations with Proposed Improvements Opening Year with Project Conditions

Int. #	Intersection	Control Type	Peak Hour	OYNP Conditions		OYWP Conditions		OYWP With Recommended Improvements		
				Delay	LOS	Delay	LOS	Delay	LOS	Impact?
4	Tennessee St/Redlands Blvd	Signal	AM	30.7	C	30.9	C	29.1	C	No
			PM	**40.8**	**D**	**42.3**	**D**	39.7	D	No
6	New York St/Redlands Blvd	Signal	AM	26.6	C	**38.6**	**D**	32.9	C	No
			PM	30.7	C	32.6	C	32.6	C	No
8	Texas St/Brockton Ave	TWSC	AM	**40.2**	**E**	**46.1**	**E**	27.0	D	No
			PM	**27.8**	**D**	**39.7**	**D**	25.2	D	No
11	Texas St/Redlands Blvd	Signal	AM	17.6	B	17.8	B	17.7	B	No
			PM	34.7	C	**41.5**	**D**	26.5	C	No

Notes:
- LOS = Level of Service
- Bold and shaded values indicate intersections operating at LOS D, E, or F per City standards.
- For unsignalized intersections, Level of Service is expressed in average seconds of delay per peak hour vehicle, based on the methodology outlined in the 2010 Highway Capacity Manual.

Mitigation Measures:

TRA – 1: Employ the following roadway improvements at the directly impacted study intersections for both Existing Plus Project (EP)/Project Opening Year With Project conditions to reduce peak hour delay and improve the intersections to an acceptable LOS:

- EP/Project Opening Year With Project Recommended Improvement: Tennessee St/Redlands Blvd – Re-stripe intersection to include a 10 foot wide (min.) dedicated right turn lane for the eastbound and westbound movements on Redlands Blvd.
- EP/Project Opening Year With Project Recommended Improvement: New York St/Redlands Blvd – Re-time existing signalized intersection for the AM peak hour
- EP/Project Opening Year With Project Recommended Improvement: Texas St/Brockton Ave – Re-stripe intersection to include a dedicated left turn lane for the westbound movement on Brockton Avenue.
- EP/Project Opening Year With Project Recommended Improvement: Texas St/Redlands Blvd – Re-time existing signalized intersection for PM peak hour.

TRA-2: Employ the following roadway improvements to the impacted intersections for Project Opening Year With Cumulative With Project conditions to reduce peak hour delay and improve intersection to an acceptable LOS:

- Project Opening Year With Cumulative With Project Recommended Improvement: Tennessee St/Colton Ave – Re-time existing signalized intersection for the PM peak hour.
- Project Opening Year With Cumulative With Project Recommended Improvement: Tennessee St/Redlands Blvd – Re-stripe intersection to include a 10 foot wide (min.) dedicated right turn lane for the eastbound and westbound movements on Redlands Blvd. Install a new right-turn overlap phase for the westbound right turn on Redlands Blvd.
- Project Opening Year With Cumulative With Project Recommended Improvement: New York St/Redlands Blvd – Re-time existing signalized intersection for the AM peak hour.
- Project Opening Year With Cumulative With Project Recommended Improvement: Texas St/Brockton Ave – Re-stripe intersection to include a dedicated left turn lane for the westbound movement on Brockton Avenue.
- Project Opening Year With Cumulative With Project Recommended Improvement: Texas St/Stuart Ave - Re-stripe intersection to include a 10 foot wide (min.) dedicated right turn lane for the northbound movement on Texas St. In order to accommodate, parking restrictions will need to be implemented.
- Project Opening Year With Cumulative With Project Recommended Improvement: Texas St/Redlands Blvd – Re-time existing signalized intersection for the PM peak hour.

Threshold (c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The closest airport to the Project is the Redlands Municipal Airport, which is approximately 4.8 miles from the proposed Project site. The Project is not within the Airport Influence Area of this airport, as illustrated in the San Bernardino County General Plan. Therefore, the proposed Project would not adversely impact air traffic patterns and no mitigation is required.

Threshold (d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed Project does not include the use of any incompatible vehicles or equipment on site, such as farm equipment. The Project would not provide any offsite roadway improvements that could substantially increase hazards due to a design feature. The Project site is primarily bound by the Mission Flood Control Channel to the south, commercial uses to the east, a recently approved parking lot to the west, and industrial and commercial uses to the north. The Project is compatible with the surrounding uses. With respect to the proposed

Project, roadways serving the Project site are generally straight and flat. The site driveways and Project improvements would be designed with a width of 26 feet to provide adequate sight distance for residents entering and exiting the site. Sight distance at Project access points would comply with applicable City of Redlands/California Department of Transportation sight distance standards. Therefore, no impact would occur in this regard and no mitigation is required.

Threshold (e) Would the project result in inadequate emergency access?

Less Than Significant Impact. The proposed Project would provide multiple access points off New York Street and West Park Avenue along with multiple vehicle bridges connected to the existing Esri campus. Constructed roadways and driveways are required to meet access standards for the Redlands Fire Department, Redlands Police Department, and City of Redlands Municipal Utilities & Engineering Department. Construction of the proposed Project is not expected to require road closures or otherwise adversely affect emergency access around the site perimeter. As a standard practice, if road closures (complete or partial) were necessary, the Police and Fire Departments would be notified of the construction schedule and any required detours would allow emergency vehicles to use alternate routes for emergency response. The impact on emergency access would be less than significant.

Threshold (f) Would the project conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. OmniTrans bus route 8 is the nearest transit service to the Project site, with a stop at the intersection of New York Street and State Street, about a 1/3 mile walking distance from the Project site. Additionally, bus route 8 can bring users to The Redlands Mall Transfer Center which connects to OmniTrans bus routes 15, 19, and 208 less than a mile from the Project. A Class I bicycle lane currently runs along the southern edge of the Project site. Class III bicycle routes are planned for Tennessee Street, New York Street, Texas Street, Colton Avenue, Redlands Blvd, and Stuart Avenue. The proposed Project would have a temporary impact during construction on the transit, bicycle, or pedestrian facilities. The Project area would continue to be served by the existing transit system. The Project would not conflict with adopted policies, plans, or programs regarding alternative modes of transportation. Project impacts would be less than significant in this regard and no mitigation is required.

Cumulative Impacts

The Traffic Impact Study addresses both the project-specific and the project's contribution to cumulative impacts. Mitigation has been provided to address the project's contribution to cumulatively significant impacts.

Source(s)

(San Bernardino County General Plan, City of Redlands General Plan, Traffic Impact Analysis for the Proposed ESRI Campus Building Project)

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
17. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) 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			x	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			x	

Tribal Cultural Resources

Threshold (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Threshold (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. Chapter 532 Statutes of 2014 (i.e., Assembly Bill [AB] 52) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources," which include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource."

In compliance with AB 52 (specifically PRC §21080.3.1), the City has provided formal notification to California Native American tribal governments that had previously requested that the City provide it with notice of such projects, on June 14, 2018. The notification provided information on the project location, scope of work, and instructions on obtaining technical reports related to the project.

On July 16, 2018, the San Manuel Band of Mission Indians sent an email to the City of Redlands expressing interest in the project and is henceforth referred to as the "Participating Tribe." The Participating Tribe confirmed their receipt of the AB 52 project notification and confirmed with the City that the project was located within an area identified in the Sacred Lands File and is associated with an important part of Serrano ancestral territory. The Participating Tribe indicated via email that the project location is currently built up and therefore, disturbed, and the San Manuel Band of Mission Indians did not have concerns with the project's implementation, as planned. Through the AB 52 consultation process, proposed site-specific measures were developed to mitigate potential impacts to tribal cultural resources and mitigation language provided by the Participated Tribe was incorporated to provide direction in the event of an inadvertent discovery. On October 1, 2018, the City of Redlands provided a written letter to the Participating Tribe to summarize and conclude consultation under AB 52. Therefore, Mitigation Measures TCR-1 through TCR-3 are proposed.

TCR-1: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

TCR-2: In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Participating Tribe will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input. The archaeologist shall complete an isolate record for the find and submit this document to the applicant and Lead Agency for dissemination to the San Manuel Band of Mission Indians.

TCR-3: If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop an cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to the Participating Tribe for review and comment.

a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a Tribal Participant(s) representing the Participating Tribe.
b. The Lead Agency and/or applicant shall, in good faith, confer with Participating Tribe on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

This measure shall be implemented to the satisfaction of the City Planning Division.

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
18. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			x	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			x	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			x	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			x	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project projected demand in addition to the provider's existing commitments?			x	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			x	
g) Comply with Federal, State, and local statutes and regulations related to solid waste?			x	

Utilities and Service Systems

Threshold (a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Threshold (e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact.

The City's wastewater treatment plant, Redlands Wastewater Treatment Facility, currently treats approximately 6 million gallons per day (MGD) and has the capability to treat 9 MGD to a

secondary level; of that, 7.2 MGD can be treated to a tertiary level. Treated wastewater distributed to customers is tertiary-treated, which is deemed recycled water. The Project is not anticipated to generate additional employees. It is anticipated that employees occupying other buildings on the ESRI campus would move to the new building, thus no increase in overall wastewater generation would occur. The proposed Project does not directly increase population within the City because it is not a residential project. The Project would be a negligible addition to the wastewater treatment capacity of the facility and impacts would be less than significant.

Threshold (b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. As discussed above, there are sufficient existing wastewater treatment facilities to service the Project. The Project would also be required to develop appropriately sized water and wastewater conveyance facilities to and from the Project site. Impacts relative to new water or wastewater treatment facilities are expected to be less than significant and no mitigation is required.

Threshold (c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Less Than Significant Impact. As described under Hydrology and Water Quality Section, the proposed Project's storm water facilities will be designed to limit the release of storm water to pre-development conditions. Impacts relative to storm water facilities are expected to be less than significant and no mitigation is required.

Threshold (d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The City and the Project site are provided water services by the City's Municipal Utilities Department; which uses water from the Upper Santa Ana River Watershed (USARW). According to the Integrated Regional Water Management Plan (IRWMP) for the USARW, the USARW is highly dependent on local water supplies, specifically precipitation stored as groundwater. This provides approximately 67% of supplies during average years and over 70% of supplies during drought years. The IRWMP determined that the water supplies within the USARW are adequate to meet the demands of the region through 2035. However, it should be noted that the IRWMP analysis relied on the 20% by 2020 reduction in water demand as a result of Senate Bill X7-7 and the conservation efforts of agencies within the region.

The Project is not anticipated to generate additional employees. It is anticipated that employees occupying other buildings on the ESRI campus would move to the new building, thus no increase in overall water demand would occur. The proposed Project does not directly

increase population within the City because it is not a residential project. Therefore, the proposed Project would have sufficient water supplies through the buildout year of the General Plan in 2035. Impacts would be less than significant.

Threshold (f) Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact.

The City's California Street Landfill is currently being planned and permitted to provide capacity to approximately the year 2031. The remaining capacity of the landfill is estimated to be about 5 million cubic yards/tons. Current average daily tonnage is estimated by the City to be about 300 tons per day, or about 109,500 tons per year. The proposed project would not create a significant increase in solid waste production. Impacts would be less than significant, and no mitigation is required.

Threshold (g) Would the project comply with Federal, State, and local statutes and regulations related to solid waste?

Less Than Significant Impact. Implementation of the proposed Project would be expected to generate additional waste during the temporary, short-term construction phase, as well as the operational phase, but it would not be expected to result in inadequate landfill capacity. The proposed Project, as with all other development in the City, would be required to adhere to City ordinances with respect to waste reduction and recycling. As a result, no impacts related to State and local statutes governing solid waste are anticipated and no mitigation is required.

Cumulative Impacts

The proposed Project would have a less than significant impact with respect to utilities/service systems. The Project would require water and wastewater infrastructure, as well as solid waste disposal for building facility operation. Development of public utility infrastructure is part of an extensive planning process involving utility providers and jurisdictions with discretionary review authority. The coordination process associated with the preparation of development and infrastructure plans is intended to ensure that adequate resources are available to serve both individual Projects and cumulative demand for resources and infrastructure as a result of cumulative growth and development in the area. Each individual Project is subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Coordination with the utility companies would allow for the provision of utility service to the proposed Project and other developments. The Project and other planned Projects are subject to connection and service fees to assist in facility expansion and service improvements triggered by an increase in demand. Because of the utility planning and coordination activities described above, no significant cumulative utility impacts are anticipated.

Source(s)

Upper Santa Ana River Watershed Integrated Regional Water Management Plan, City of Redlands General Plan

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
19. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)		X		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		x		

Mandatory Findings of Significance

Threshold (a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact with Mitigation. All impacts to the environment, including impacts to habitat for fish and wildlife species, fish and wildlife populations, plant and animal communities, rare and endangered plants and animals, and historical and pre-historical resources were evaluated as part of this IS/MND. Throughout this IS/MND, where impacts were determined to be potentially significant, mitigation measures have been imposed to reduce those impacts to less-than-significant levels. Accordingly, with incorporation of the mitigation measures imposed throughout this IS/MND, the Project would not substantially degrade the quality of the environment and impacts would be less than significant.

Threshold (b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact with Mitigation. As discussed throughout this IS/MND, implementation of the proposed Project has the potential to result in effects to the environment that are individually limited, but cumulatively considerable. In all instances where the proposed Project has the potential to contribute to a cumulatively considerable impact to the environment, mitigation measures have been imposed to reduce potential effects to less than significant levels. As such, with incorporation of the mitigation measures imposed throughout this IS/MND, the Project would not contribute to environmental effects that are individually limited, but cumulatively considerable, and impacts would be less than significant.

Threshold (c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact with Mitigation. The Project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this IS/MND. In instances where the Project has potential to result in direct or indirect adverse effects to human beings, mitigation measures have been applied to reduce the impact to below a level of significance. With required implementation of mitigation measures identified in this IS/MND, construction and operation of the proposed Project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

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