

Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project

Project No. CDP2024-0010/HMP2024-0009

Draft Initial Study/Mitigated Negative Declaration

Prepared for:



City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008

Prepared by:

HELIX Environmental Planning Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

October 2025

This page intentionally left blank

Table of Contents

<u>Section</u>	<u>Page</u>
INITIAL STUDY	1
Project Objectives	2
Consistency with Sustainable Mobility Plan, General Plan, and Other Adopted Land Use Plans ...	2
Project Characteristics	4
EVALUATION OF ENVIRONMENTAL IMPACTS:	9
I. AESTHETICS	11
II. AGRICULTURAL AND FORESTRY RESOURCES*	15
III. AIR QUALITY*	17
IV. BIOLOGICAL RESOURCES	20
V. CULTURAL RESOURCES	33
VI. ENERGY	35
VII. GEOLOGY AND SOILS	36
VIII. GREENHOUSE GAS EMISSIONS	40
IX. HAZARDS AND HAZARDOUS MATERIALS.....	44
X. HYDROLOGY AND WATER QUALITY	47
XI. LAND USE AND PLANNING.....	52
XII. MINERAL RESOURCES	63
XIII. NOISE	63
XIV. POPULATION AND HOUSING	68
XV. PUBLIC SERVICES.....	69
XVI. RECREATION.....	70
XVII. TRANSPORTATION	71
XVIII. TRIBAL CULTURAL RESOURCES	75
XIX. UTILITIES AND SERVICE SYSTEMS	79
XX. WILDFIRE.....	81
XXI. MANDATORY FINDINGS OF SIGNIFICANCE	83
LIST OF MITIGATION MEASURES	85
Biological Resources	85
Cultural Resources	87

Table of Contents (cont.)

<u>Section</u>	<u>Page</u>
Geology and Soils	87
Noise	88
Tribal Cultural Resources	89
EARLIER ANALYSES	91
EARLIER ANALYSIS USED AND SUPPORTING INFORMATION SOURCES	91

List of Appendices

A	Air Quality and Greenhouse Gas Emissions Analysis
B	Biological Technical Report
C	Cultural Resources Survey Report
D	Stormwater Quality Management Plan
E	Hydraulic Report
F	Construction Noise Analysis
G	Transportation Impact Analysis
H	Vehicle Miles Traveled Analysis
I	Mitigation Monitoring and Reporting Program

Table of Contents (cont.)

List of Figures

<u>No.</u>	<u>Title</u>	<u>Follows Page</u>
1	Regional Location.....	2
2	Project Location-Aerial.....	2
3	Project Location-USGS	2
4a-c	Site Plan	4
5	Typical Cross-Sections.....	4

List of Tables

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Project Consistency with Scenic Quality Goals and Policies	12
2	SDAB Attainment Designations.....	18
3	Maximum Daily Construction Emissions.....	19
4	Sensitive Vegetation Communities – Project Impacts and Mitigation	25
5	Project Consistency with GHG Emissions Reducing General Plan Policies	42
6	Demonstration of General Plan Consistency	54
7	Demonstration of Local Coastal Program Consistency.....	59
8	Construction Equipment Noise Levels	65
9	MMLOS Analysis Results	73

This page intentionally left blank

Initial Study

Initial Study

1. **PROJECT NAME:** Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project
2. **PROJECT NO:** CDP2024-0010/HMP2024-0009
3. **LEAD AGENCY:**
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008
4. **PROJECT APPLICANT:**
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008
5. **LEAD AGENCY CONTACT PERSON:** Scott Donnell, Senior Planner, 442-339-2618, scott.donnell@carlsbadca.gov.
6. **PROJECT LOCATION:** The City of Carlsbad (city) proposes to construct roadway, bikeway, and pedestrian improvements along an approximately one-mile segment of Avenida Encinas between Palomar Airport Road and a point just south of the Poinsettia Coaster Station Driveway in the western portion of the city. The project alignment is situated between Interstate 5 and the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor and entirely within the Coastal Zone (see Figures 1 through 3). Surrounding land uses include Palomar Airport Road to the north; North County Transit District railroad right-of-way (ROW) to the west; the Poinsettia Coaster Station to the south; and a gas station, business parks, car dealership, a water treatment plant, and undeveloped land to the east.
7. **GENERAL PLAN LAND USE DESIGNATION:** The project is located within the existing public ROW along Avenida Encinas or property owned by the city. Avenida Encinas has a General Plan land use designation of ROW. Adjacent city-owned properties (Assessor Parcel Numbers [APN] 211-030-06 and 214-010-95) are designated Public (P). Off-site grading and drainage improvements are also proposed on city-owned property controlled (e.g., fenced and/or occupied) by the Encina Wastewater Authority (APNs 214-031-09, 214-031-03, and 214-031-10) that is designated Planned Industrial/Office (PI/O).
8. **ZONING:** The project is located within the existing public ROW or property owned by the city. The public ROW has a corresponding zoning of ROW. Adjacent city-owned properties (APNs 211-030-06 and 214-010-95) are zoned Public Utility (P-U). Off-site grading and drainage improvements are also proposed on city-owned property controlled by the Encina Wastewater Authority (APNs 214-031-09, 214-031-03, and 214-031-10) that is zoned Planned Industrial/Office (P-M/O). The project is also located entirely within the Commercial Visitor Serving Overlay Zone and the Coastal Zone.
9. **PROJECT DESCRIPTION:** The city is proposing the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project (project) that would construct roadway, bikeway, and pedestrian improvements along an approximately one-mile segment of Avenida Encinas between Palomar Airport Road and a point just south of the Poinsettia Coaster Station Driveway to provide operational and safety enhancements for vehicles, bicycles, and pedestrians. The proposed bikeway is identified as proposed Trail Segment 10B, Coastal Rail Trail Reach 5, in Chapter 5, Trail Development Implementation, of the City of Carlsbad Trails Master Plan. This bikeway segment is part of the regional Coastal Rail Trail that is planned to connect all San Diego County coastal cities.

Other improvements would include roadway widening, new pavement, new sidewalks, curb ramps, center landscaped medians, landscaping, biofiltration swales, median passageways with flashing beacons, lighting, fencing, and retaining walls. The project would require a Major Coastal Development Permit and a Habitat Management Plan Permit.

All roadway improvements are proposed within the existing road ROW or property owned by the city and therefore no ROW acquisition is proposed. No private improvements are proposed to be removed as the existing Avenida Encinas roadway is built out to the west along the project frontage.

Project Objectives

Objectives of the proposed project include the following:

1. Provide bike lanes, sidewalks, crosswalks with safety enhancements, bus stop enhancements, lighting, and improve overall pedestrian, bicyclist, and motorist safety.
2. Provide connectivity between nearby existing and planned bikeway facilities and with the Poinsettia Coaster Station to enhance mobility, promote safe walking and bicycling facilities, and provide additional options for multi-modal travel within the city, along the coast, and elsewhere.
3. Protect adjacent habitat both within and outside the city's preserve system by installing biofiltration swales to capture and treat project runoff from developed areas.
4. Minimize improvements outside of the existing road ROW.

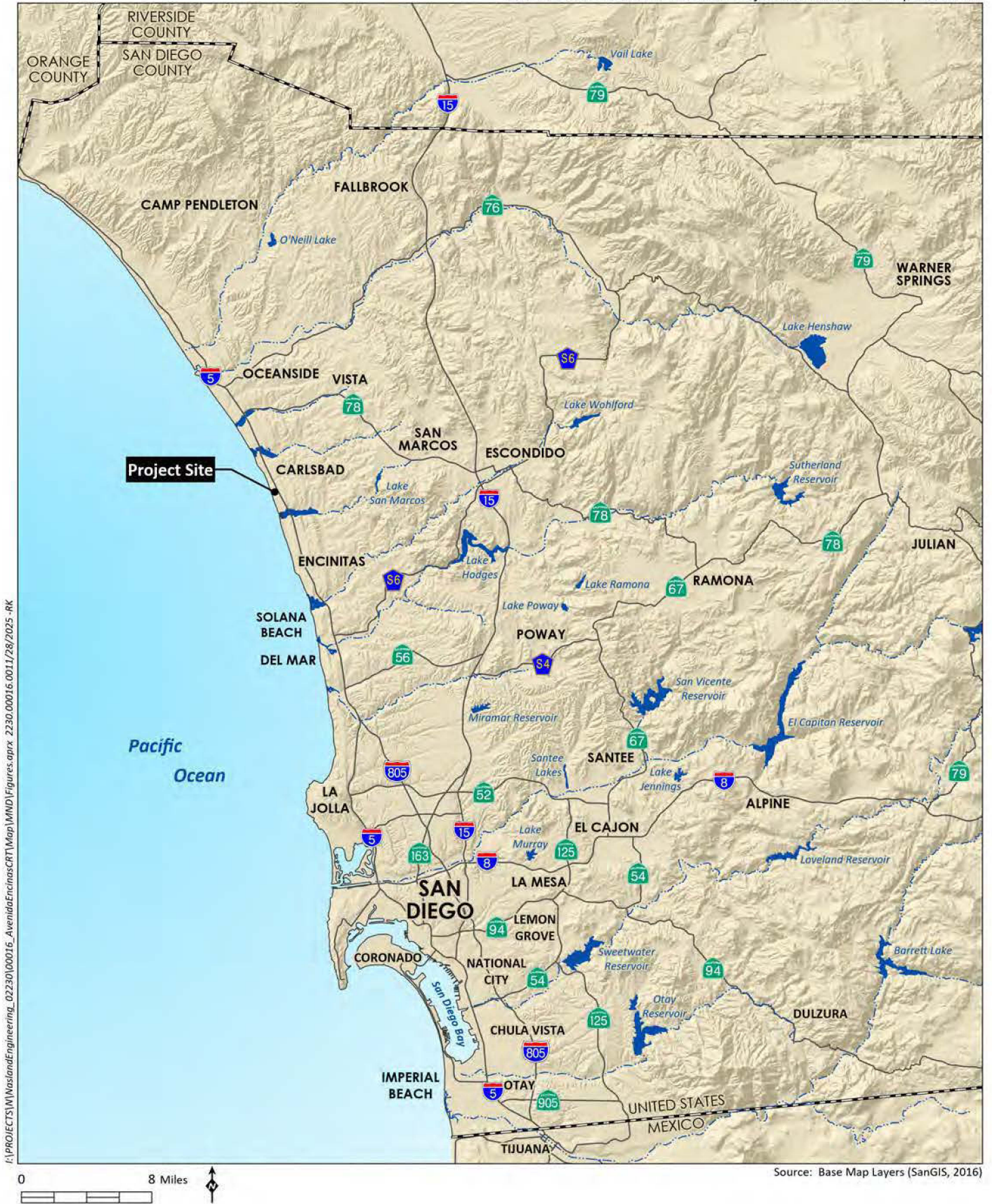
Consistency with Sustainable Mobility Plan, General Plan, and Other Adopted Land Use Plans

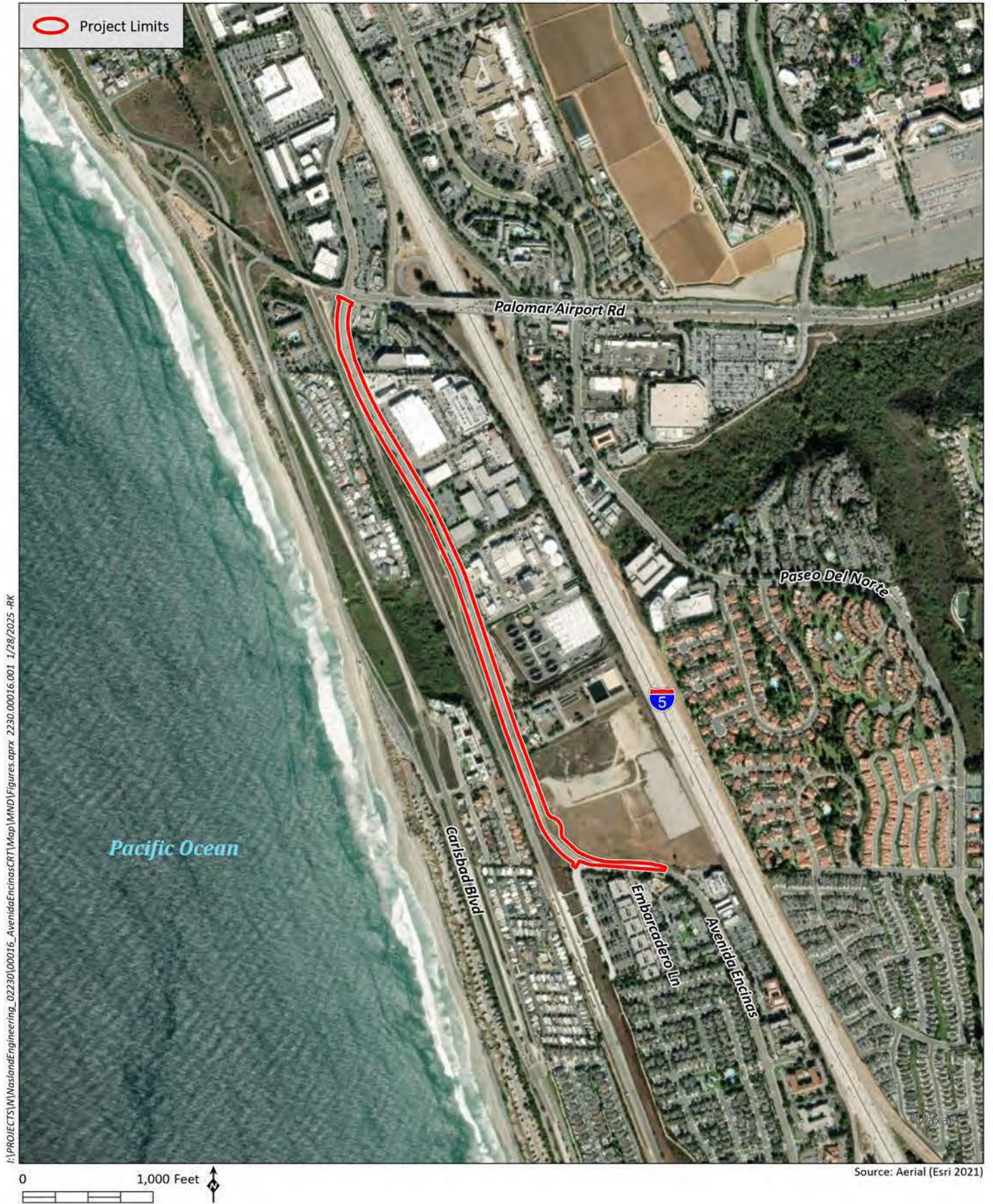
The Carlsbad Sustainable Mobility Plan (SMP; City of Carlsbad 2021) presents a comprehensive look at current active travel and transit conditions, as well as previous planning efforts, including the Trails Master Plan, Bicycle Master Plan, and Pedestrian Master Plan, to consolidate findings and recommendations into one master document. The SMP provides recommendations for reducing vehicle miles traveled and impacts of growth and development, as well as shifting how residents get around the city away from private automobiles toward modes that are more livable, cleaner and healthier.

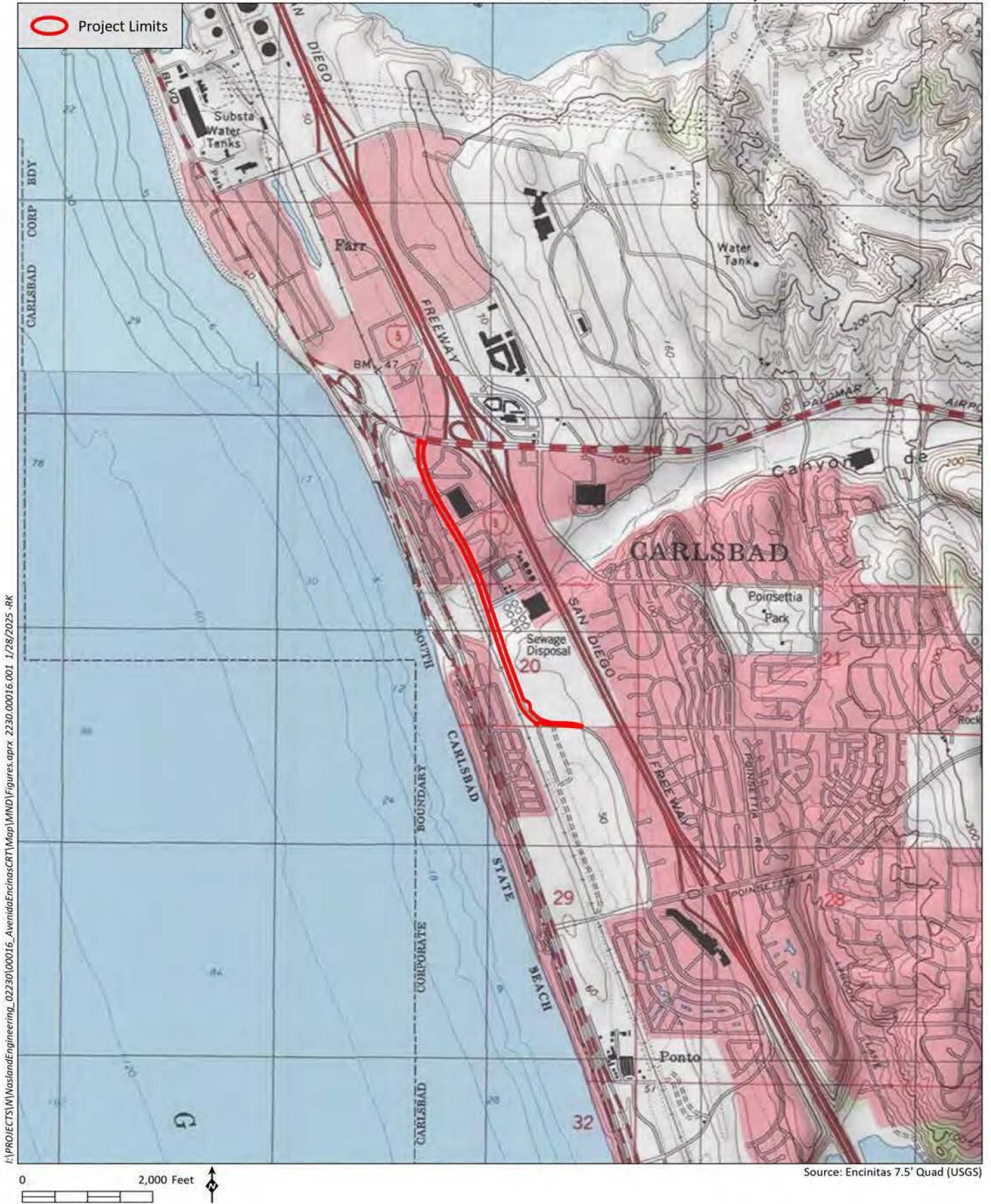
The project would contribute to the Carlsbad Community Vision in the General Plan (City of Carlsbad 2015a) of increasing transportation options and improving connectivity within the city and its core values and vision statements, including the following:

1. Access to recreation and active, healthy lifestyles - Promote active lifestyles and community health by furthering access to trails, parks, beaches, and other recreation opportunities.
2. Walking, biking, public transportation, and connectivity - Increase travel options through enhanced walking, bicycling and public transportation systems. Enhance mobility through increased connectivity and intelligent transportation management.

Enhancements would include a linkage between nearby existing and planned trails as identified in the Trails Master Plan and which is consistent with various adopted master plans. Specific project







I:\PROJECTS\Nasland\Engineering_02230\00016_AvenidaEncinasCRT\Map\MND\Figures.aprx 2230.00016.001 1/28/2025 -RK

components would include a Class II bike lane along both sides of Avenida Encinas, new sidewalks, curb ramps and crosswalks, roadway widening, new pavement, median passageways with safety enhancements and reconstructed bus stops (installation of new signage and expanded sidewalks near existing bus stops and slight relocation of some existing bus stops to accommodate the proposed improvements) to create a Complete Street per Senate Bill (SB) 127.

The proposed project has been designed to implement the following goals, policies, and objectives set forth in the city's General Plan, Trails Master Plan, Bicycle Master Plan, Pedestrian Master Plan, and Local Coastal Program. Further examples of consistency are provided in Section XI, *Land Use and Planning*:

- *General Plan Mobility Element, Pedestrian and Bicycle Movement Policy 3-P.25*: Implement the projects recommended in the pedestrian, trails, and bicycle master plans through the city's capital improvement program, private development conditions and other appropriate mechanisms (City of Carlsbad 2015a).
- *Trails Master Plan, Goal 1*: Complete trail segments that close gaps in the current trails system. It is important to not only connect a localized group of trails, but to connect different subareas in Carlsbad with each other, including the three lagoons, open space, canyons and hillsides.
- *Bicycle Master Plan, Policy 1.1.3*: Coordinate the location of bicycle routes with the Parks and Recreation Element and the Open Space and Conservation Element.
- *Bicycle Master Plan, Policy 1.1.4*: Extend bicycle routes to cultural, educational, and recreational facilities.
- *Pedestrian Master Plan, Overall Land Use Patterns Goal 1*: A city which provides an orderly balance of both public and private land uses within convenient and compatible locations throughout the community and ensures that all such uses, type, amount, design and arrangement serve to protect and enhance the environment, character and image of the city.
- *Local Coastal Program*: The project complies with public access, habitat protection, and water quality regulations of the Mello II segment of the city's Local Coastal Program.

In addition, the General Plan Mobility Element identifies Avenida Encinas as a "neighborhood connector street." The project would implement and contribute to the "neighborhood connector street" designation by conforming to the following "neighborhood connector street" attributes, as provided in the General Plan Mobility Element:

- Primary purpose is to connect people to different neighborhoods and land uses of the city;
- Designed to safely move all modes of travel while enhancing mobility for pedestrians and bicyclists;
- Vehicle speeds shall be managed to promote safe pedestrian and bicycle movement;
- Bicycle lanes should be provided;

- Pedestrians should be accommodated on sidewalks adjacent to the travel way (minimum 5-foot-wide sidewalk); and
- Mid-block pedestrian crossings and traffic calming devices should be considered, but only at locations with high pedestrian activity levels or major destinations/attractions.

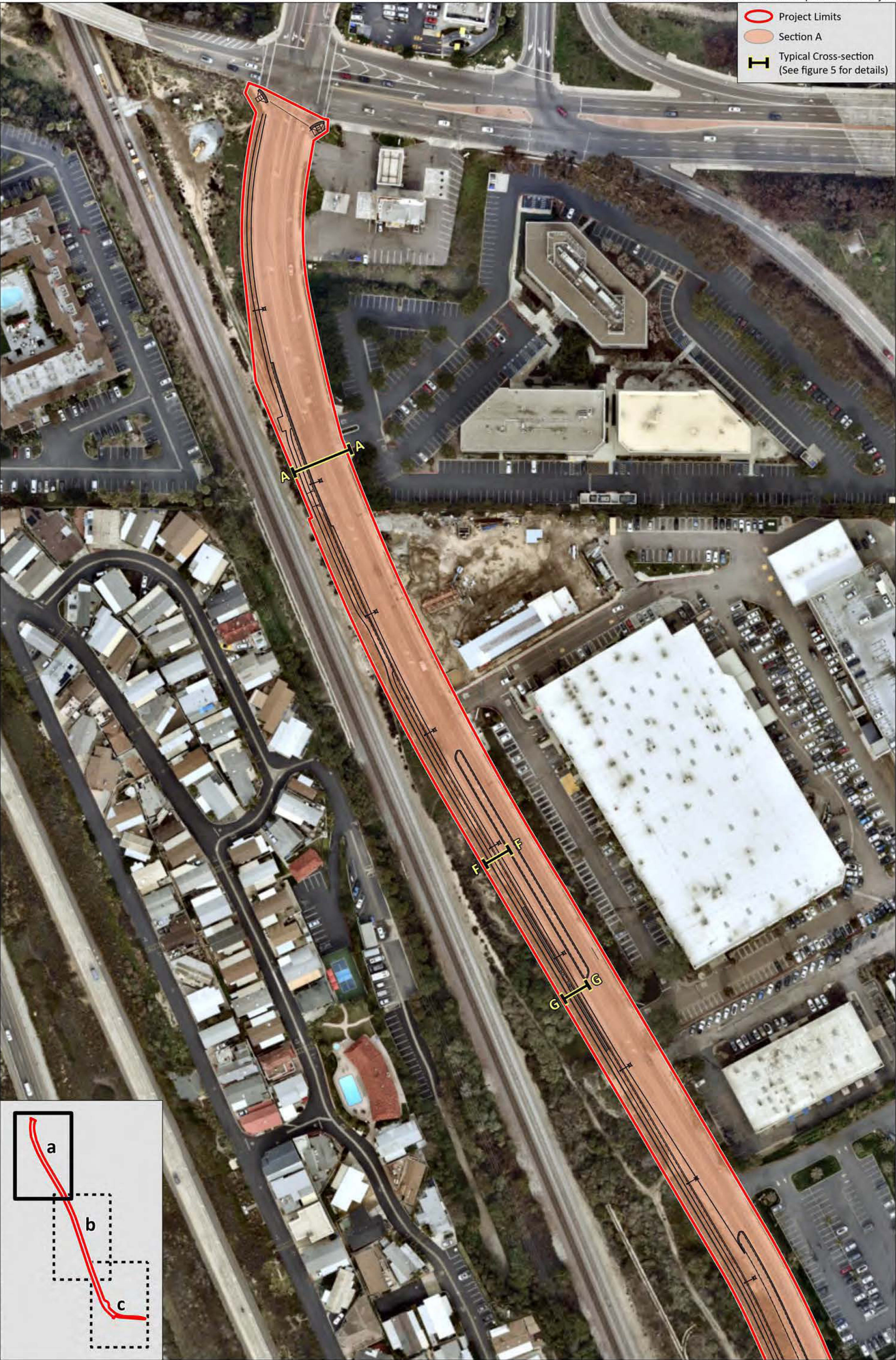
Project Characteristics

Proposed improvements would entail implementation of Reach 5 of the city's portion of the Coastal Rail Trail (CRT), a planned regional bicycle route that runs approximately 42 miles between Oceanside and Santa Fe Depot in Downtown San Diego. Various segments of the CRT have been constructed in Oceanside, Carlsbad, and Encinitas, including Reach 1 (along Carlsbad Boulevard from State Street to the northern city boundary over Buena Vista Lagoon) and Reach 2 (between Tamarack Avenue and Oak Avenue) in Carlsbad. In addition, in 2024, the city completed another portion of the CRT south of the project and along Avenida Encinas between Poinsettia Lane and Windrose Circle. This portion of the CRT proposed by the project, Reach 5 (from Palomar Airport Road to a point just south of the Poinsettia Coaster Station Driveway), would include a Class II bike lane along both sides of Avenida Encinas, consisting of a six-foot-wide striped bike lane within the roadway. Other improvements would include roadway widening, new pavement, new sidewalks, curb ramps, center landscaped medians, landscaping, biofiltration swales, lighting, fencing, and retaining walls. Proposed improvements are described below, and a site plan is shown in Figures 4a through 4c.

For the purposes of the project description, the proposed alignment is described in five sections that correspond to specific improvements and roadway conditions along Avenida Encinas. These sections are identified geographically from north to south as A through E (see Figures 4a through 4c).

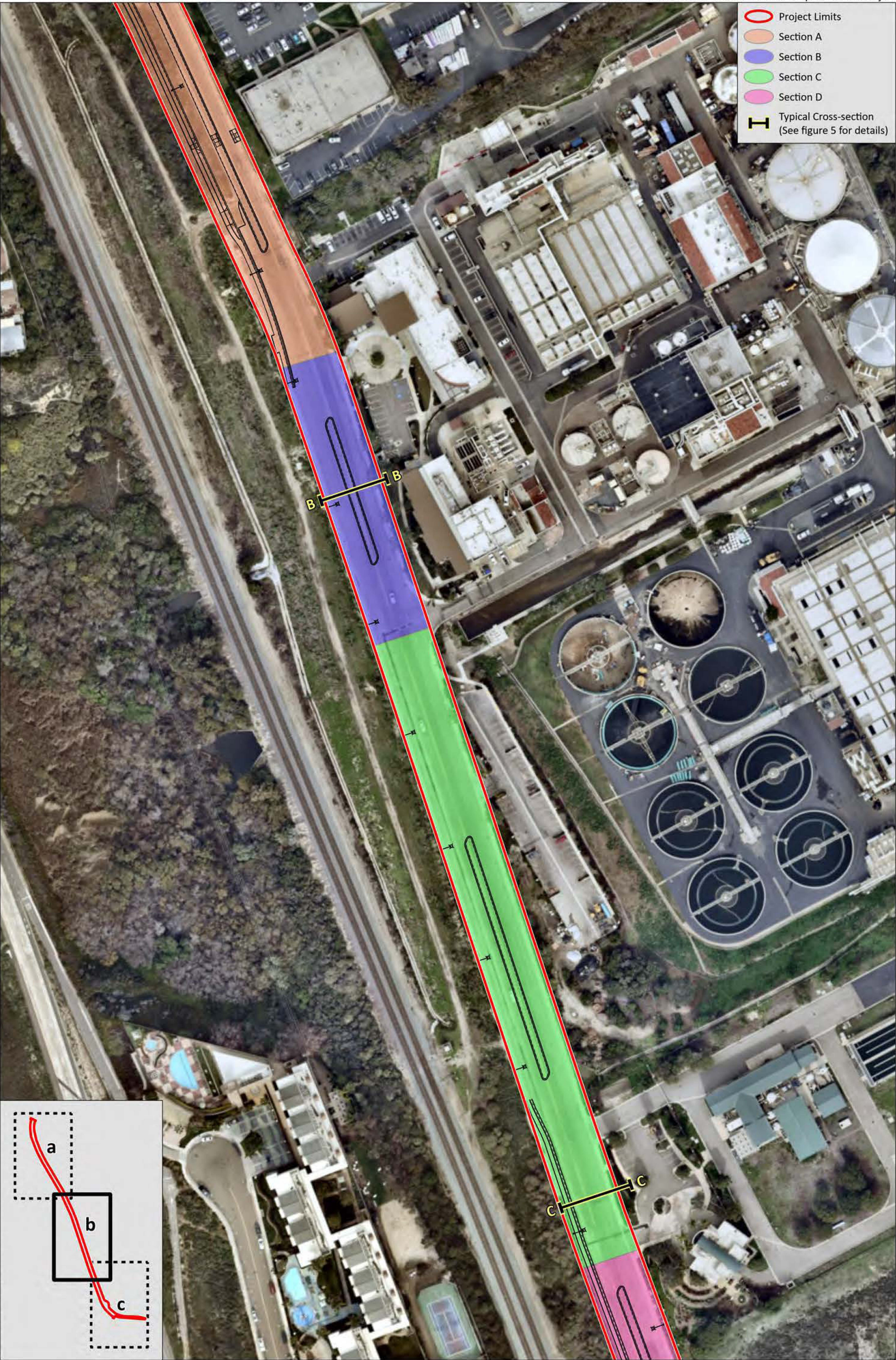
Section A

Section A extends approximately 2,400 feet from Palomar Airport Road to near the main gate of the Encina Water Pollution Control Facility. This section has an existing road ROW of 84 feet and would be improved to include a 20-foot-wide roadway in each direction with a 10-foot-wide travel lane, and a 7-foot-wide striped buffered bike lane within the roadway on both sides, a 10-foot-wide center lane with an intermittent raised landscaped median in the center of the road, and a new 6-foot-wide sidewalk with curb and gutter on the west side. To accommodate the proposed improvements, a portion of the roadway would be widened with new pavement on the west side. The existing sidewalk, curb and gutter, and curb cuts on the east side would remain. Other proposed improvements in this section would include installation of new curb ramps at the Avenida Encinas/Palomar Airport Road intersection, reconstructed and/or relocated bus stops, biofiltration best management practice (BMP) swales, a median passageway with a flashing beacon, an approximately 1,000-foot-long retaining wall on the west side, removal and undergrounding existing utility poles and overhead telecommunications lines, and installation of new pavement overlay. Figure 5 shows a typical cross-section of Section A and other cross-sections of the proposed alignment, including locations where retaining walls are proposed on the west side of Avenida Encinas.



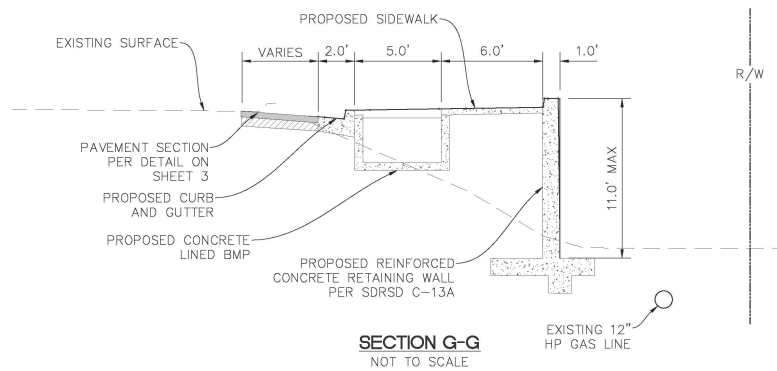
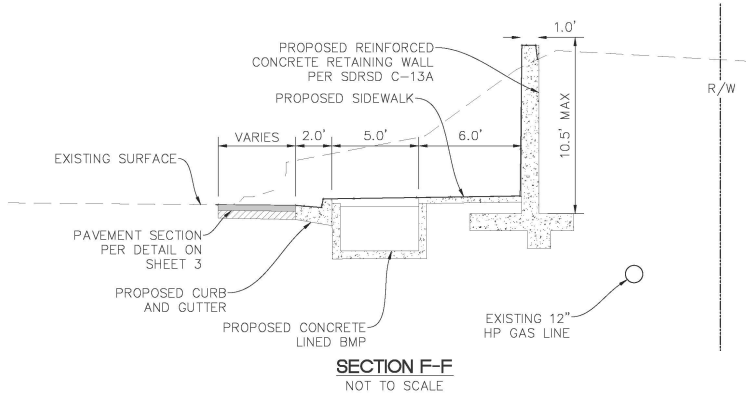
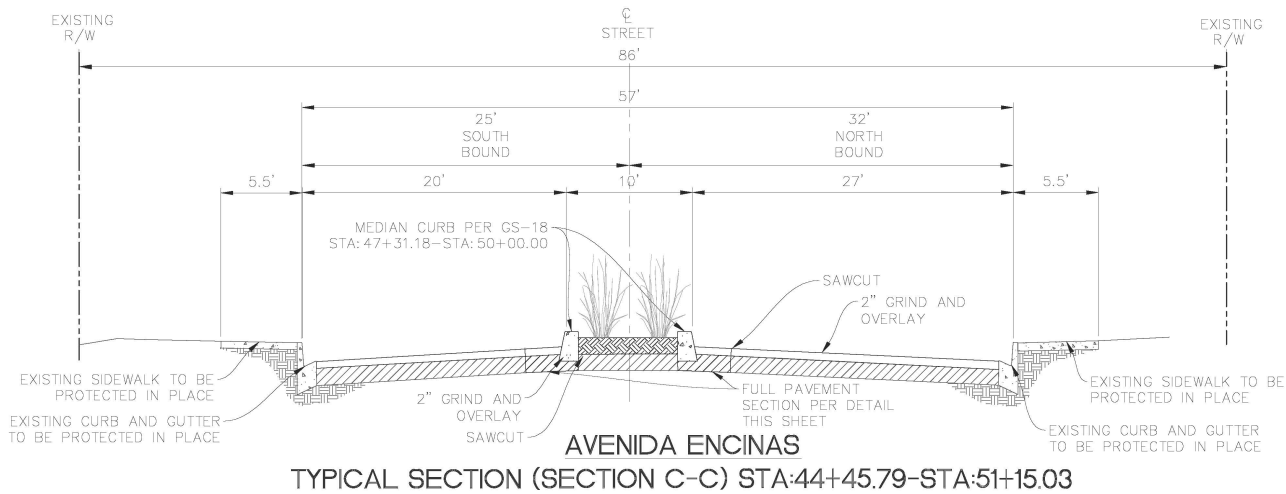
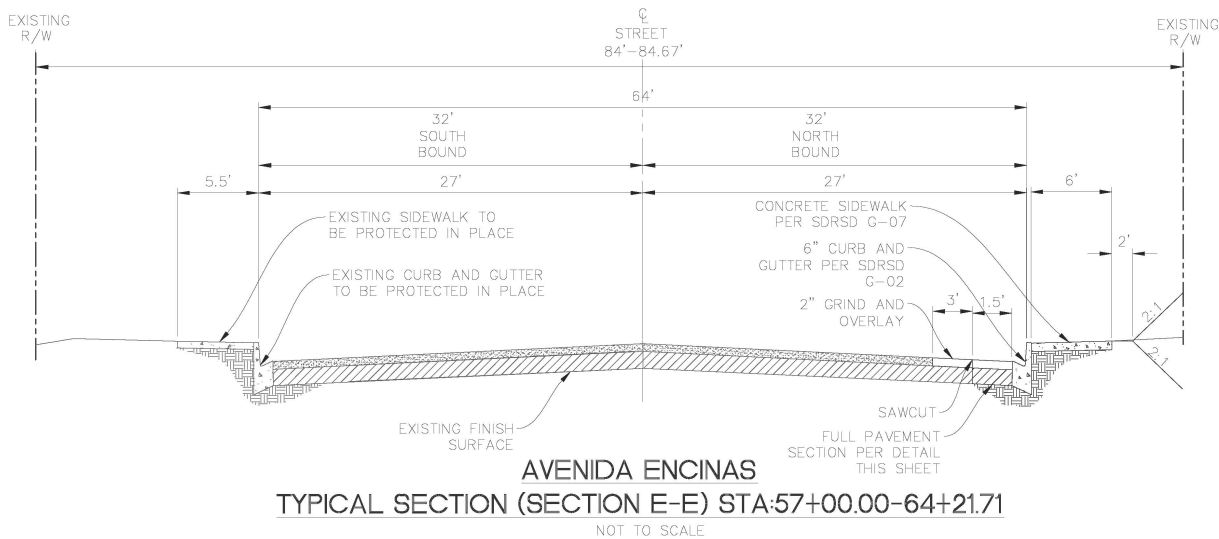
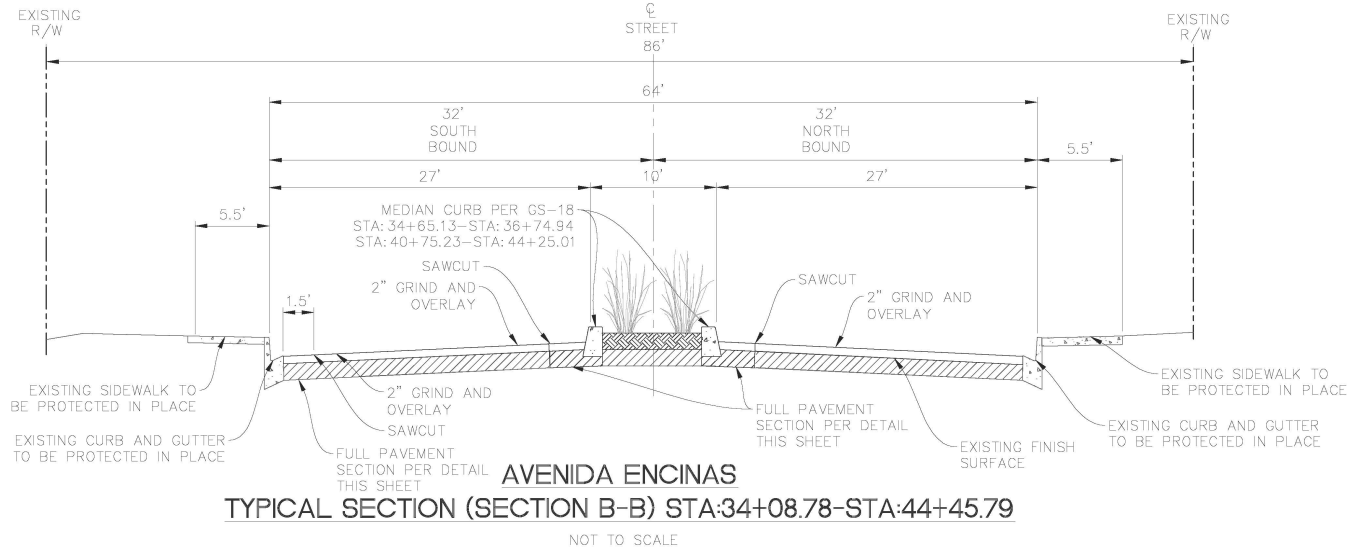
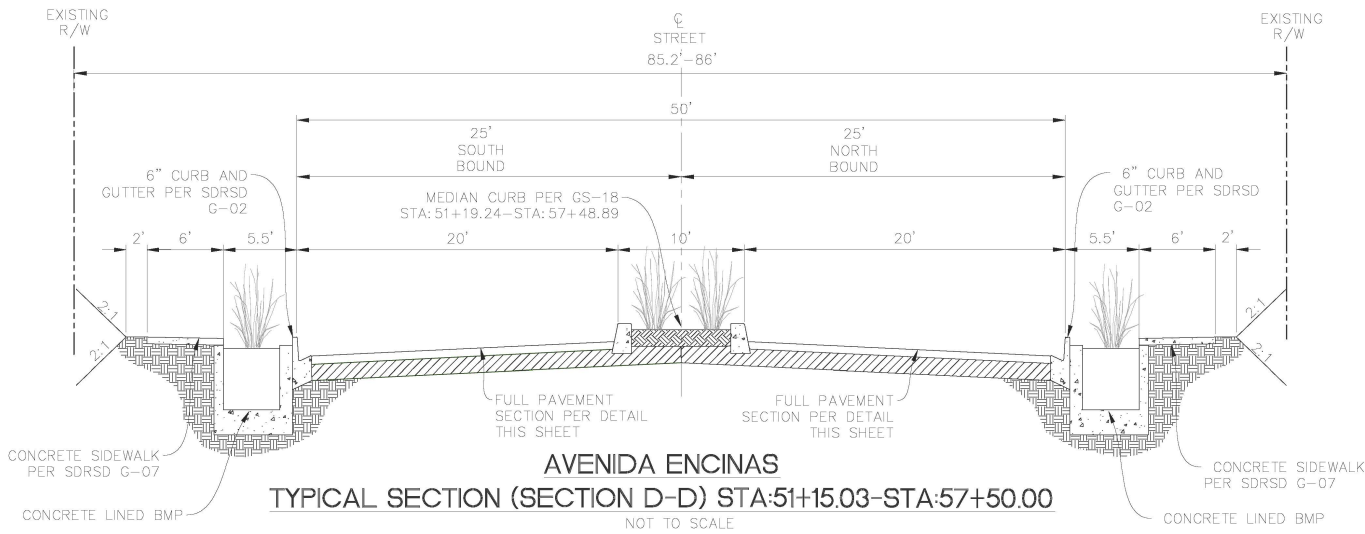
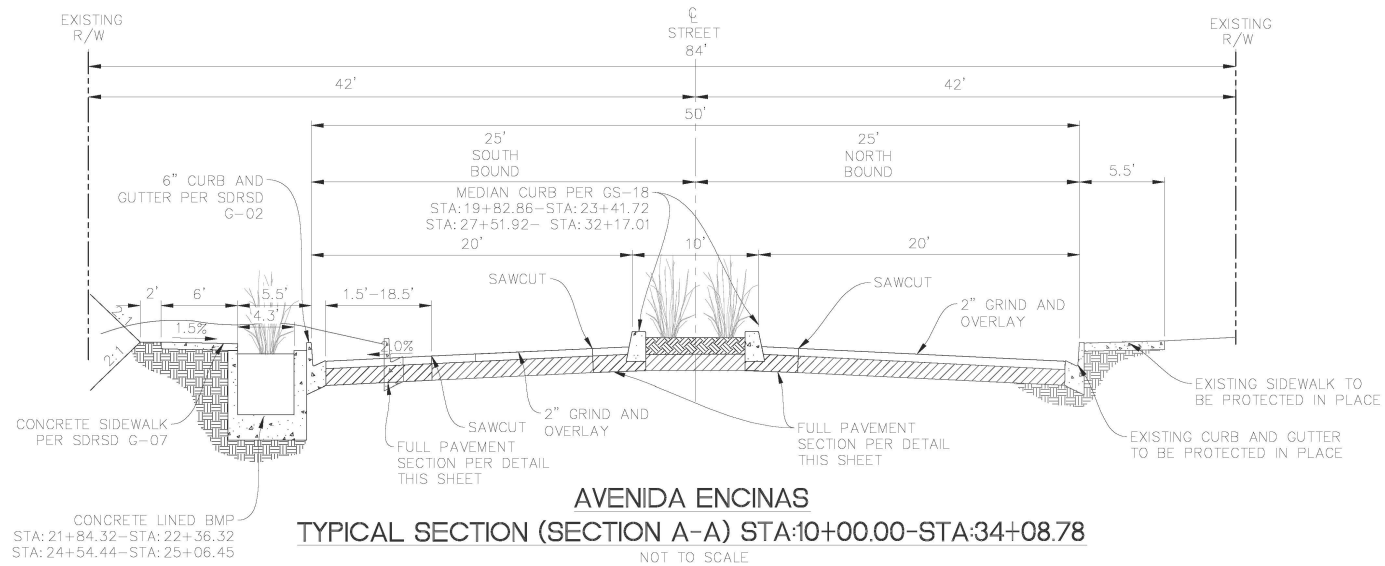
I:\PROJECTS\IN\Nasland\Engineering_02230\00016_AvenidaEncinasCRT\Map\MND\Figures.aprx 2230.00016.001 1/28/2025 -RK

Source: Aerial (SanGIS 2023)





I:\PROJECTS\IN\Nasland\Engineering_02230\00016_AvenidaEncinasCRT\Map\MMND\Figures.aprx 2230.00016.001 1/28/2025 -RK



Source: Nasland 2024

Section B

Section B extends approximately 300 feet from near the main gate to the service delivery entrance of the Encina Water Pollution Control Facility. This section consists of an 86-foot ROW and would be improved to include a 27-foot-wide roadway in each direction with a 10-foot-wide travel lane, and a 7-foot-wide striped buffered bike lane within the roadway on each side, and a 10-foot-wide center lane with an intermittent raised landscaped median in the center of the road. The existing sidewalks and curb and gutter on both sides of the roadway would remain. Other proposed improvements include a new pavement overlay and on-street parking on both sides of the roadway. Figure 5 shows a typical cross-section of Section B.

Section C

Section C extends approximately 1,000 feet from the Encina Water Pollution Control Facility service delivery entrance to the main driveway of the Carlsbad Water Recycling Facility. This section has an existing ROW width of 86 feet and would be improved to include a 27-foot-wide northbound roadway and a 20-foot-wide southbound roadway with a 10-foot-wide travel lane, and a 7-foot-wide striped buffered bike lane within the roadway on each side, a 10-foot-wide center lane with an intermittent raised landscaped median, and new sidewalk and curb and gutter on the west side of the road. Additional proposed improvements include a new pavement overlay and on-street parking on the east side of the roadway. Figure 5 shows a typical cross-section of Section C.

Section D

Section D extends approximately 1,100 feet from the Carlsbad Water Recycling Facility main driveway to the Poinsettia Station driveway. This section consists of an approximately 86-foot-wide ROW and would be improved to include a 20-foot-wide roadway in each direction with a 10-foot-wide travel lane, and a 7-foot-wide striped buffered bike lane within the roadway on each side, a 10-foot-wide center landscaped median, and new six-foot-wide sidewalks with curb and gutter on both sides. To accommodate the proposed improvements, a portion of the roadway would be widened with new pavement on the east side. Other proposed improvements in this section would include biofiltration BMP swales, new streetlights, a culvert extension and new headwall on the east side, removal and undergrounding of existing utility poles and overhead telecommunications lines, and installation of a median passageway with a flashing beacon, new pavement overlay, and new curb ramps. The proposed drainage improvements (i.e., culvert extension and headwall) and associated grading would occur outside of the road ROW on property owned by the city but controlled by the Encina Wastewater Authority on portions of APNs 214-031-09, 214-031-03, and 214-031-10). Improvements would require a right-of-entry permit from the Encina Wastewater Authority. Figure 5 shows a typical cross-section of Section D.

Section E

Section E extends approximately 650 feet from the Poinsettia Station driveway to just south of Embarcadero Lane (north entrance). This section has an existing ROW width of approximately 85 feet and would be improved to include one 27-foot-wide roadway in each direction, with a 10-foot-wide travel lane and one 7-foot-wide striped buffered bike lane within the roadway on each side, a 10-foot-wide center lane, and new 6-foot-wide sidewalk with curb and gutter on the east side of the roadway. . In addition, new streetlights are proposed on both sides of the roadway. Figure 5 shows a typical cross-section of Section E.

Construction

Construction of the proposed project would take approximately seven months. Construction is anticipated to consist of grubbing/land clearing, grading/excavation, drainage/utilities/sub-grade installation, and paving. Grading would require approximately 2,500 cubic yards (CY) of material export; drainage, utilities, and sub-grade would require approximately 1,500 CY of material import; and paving would require approximately 5,000 CY of material import.

- 10. ENVIRONMENTAL SETTING/SURROUNDING LAND USES:** The City of Carlsbad is a coastal community located in northwest San Diego County, 35 miles north of downtown San Diego. The project occurs within the Coastal Zone and Mello II Segment of the city's Local Coastal Program (LCP). Portions of the project are also within the appeal jurisdiction of the California Coastal Commission.

Surrounding land uses include Palomar Airport Road to the north; North County Transit District railroad ROW to the west; the Poinsettia Coaster Station to the south; and a gas station, business parks, car dealership, a wastewater treatment plant, and undeveloped land to the east.

The majority of the proposed project site is composed of developed land and disturbed habitat, with relatively small areas of wetland and native upland habitats.

- 11. OTHER REQUIRED AGENCY APPROVALS** (e.g., permits, financing approval or participation agreements): The following permits may be required for the project:

- Clean Water Act (CWA) Section 404 Permit from the U.S. Army Corps Engineers (USACE)
- CWA Section 401 Water Quality Certification and/or Waste Discharge Requirements from the Regional Water Quality Control Board (RWQCB)
- California Fish and Game (CFG) Code Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW)
- Right-of-entry permit from the Encina Wastewater Authority for offsite grading and drainage improvements.

12. CALIFORNIA NATIVE AMERICAN TRIBES CONSULTATION.

- a. Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to public resources code section 21080.3.1?

☒ **Yes**

☐ **No**

- b. If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

☒ **Yes**

☐ **No**

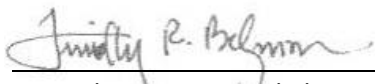
13. PREVIOUS ENVIRONMENTAL DOCUMENTATION: Development of the proposed project would be subject to the goals and policies identified in the General Plan, dated September 2015 (with the Land Use & Community Design and Public Safety Elements dated January 2024), and the Trails Master Plan, dated August 2019. In accordance with CEQA Guidelines Sections 15152 and 15168(c), the following analysis is tiered from the Trails Master Plan Programmatic Initial Study/Mitigated Negative Declaration (IS/MND; State Clearinghouse Number 2017041006), which is itself tiered from the General Plan & Climate Action Plan Final Environmental Impact Report (General Plan EIR; State Clearinghouse No. 2011011004). The CEQA concept of “tiering” refers to the analysis of general environmental matters in broad program-level EIRs or IS/MNDs, with subsequent focused environmental documents for individual projects that implement the program. This document incorporates by reference the discussions in the program-level General Plan Update EIR and the Trails Master Plan Programmatic IS/MND and concentrates on project-specific issues.

14. SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The summary of environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” or “Less Than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| ☐ Aesthetics | ☐ Greenhouse Gas Emissions | ☐ Public Services |
| ☐ Agriculture & Forestry Resources | ☐ Hazards/Hazardous Materials | ☐ Recreation |
| ☐ Air Quality | ☐ Hydrology/Water Quality | ☐ Transportation |
| ☒ Biological Resources | ☐ Land Use & Planning | ☒ Tribal Cultural Resources |
| ☒ Cultural Resources | ☐ Mineral Resources | ☐ Utilities/Service Systems |
| ☐ Energy | ☒ Noise | ☐ Wildfire |
| ☒ Geology/Soils | ☐ Population & Housing | ☒ Mandatory Findings of Significance |

15. PREPARATION: The Initial Study for the subject project was prepared by:



Tim Belzman, Principal Planner
HELIX Environmental Planning, Inc.

October 7, 2025

Date

16. DETERMINATION:

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact(s)” on the environment, but at least one potentially significant impact 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 herein. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

17. ENVIRONMENTAL DETERMINATION: The initial study for this project has been reviewed and the environmental determination, indicated above, is hereby approved.

Eric Lardy, City Planner

Date

18. APPLICANT CONCURRENCE WITH MITIGATION MEASURES: This is to certify that I have reviewed the mitigation measures in the Initial Study and concur with the addition of these measures to the project.

Brandon Miles

10/09/2025

Signature

Date

Brandon Miles

Print Name

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 will 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 may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “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 “Earlier Analyses,” as described in (5) below, 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 Analysis 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. 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 significant.
9. Tribal consultation, if requested as provided in Public Resources Code Section 21080.3.1, must begin prior to release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. Information provided through tribal consultation may inform the lead agency's assessment as to whether tribal cultural resources are present, and the significance of any potential impacts to such resources. Prior to beginning consultation, lead agencies may request information from the Native American Heritage Commission regarding its Sacred Lands File, per Public Resources Code sections 5097.9 and 5097.94, as well as the California Historical Resources Information System administered by the California Office of Historic Preservation.

I. AESTHETICS Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light and glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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

Less than Significant Impact. Scenic vistas within the city primarily consist of scenic corridors and views to and from the coastlines and the lagoons. A substantial adverse effect to scenic vistas could occur if development proposed by the project introduces physical features that obstruct an identified public scenic vista, impair scenic views from other properties, or involve a substantial change to the natural landscape. The Pacific Ocean is among the city’s principal visual features, along with the city’s three lagoons (Buena Vista, Agua Hedionda, and Batiquitos) and open space areas. Of these features, brief glimpses of the Pacific Ocean are visible from certain locales along the project alignment where intervening development and topography do not block westerly coastal views. Implementation of the project would involve the construction of bikeway and pedestrian improvements. The adjacent railroad corridor is also identified as a “special condition” scenic corridor in the city’s Scenic Corridor Guidelines (City of Carlsbad 1988), which is to be addressed separately from other designated scenic corridors. The project site is visible from the railroad corridor. The Scenic Corridor Guidelines provide guidelines for treatments adjacent to the railroad corridor with the goal of improving visual quality of the city from the perspective of train passengers. Improvements would include a Class II bike lane along both sides of Avenida Encinas, consisting of a six-foot-wide striped bike lane within the roadway. Other improvements would include roadway widening, new pavement, new sidewalks, curb ramps, landscaped medians, landscaping, biofiltration swales, lighting, median passageways with flashing beacons, fencing, and retaining walls. These improvements would generally involve minimal structural changes; no buildings or major vertical structures are proposed that would project into the skyline or impede scenic vistas from existing public trails, parks, or roadways. An approximately 1,000-foot-long retaining wall would be constructed on the west side of the roadway along the slope between the roadway and adjacent railroad corridor. Portions of the retaining wall would be visible from the roadway and/or adjacent railroad corridor in areas where the wall would extend above the ground surface. Landscaping, including screening trees, would be planted on the slope to largely obscure views of the retaining wall from the

adjacent railroad corridor. Thus, substantial adverse effects to scenic vistas and other scenic resources would be less than significant.

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. There are no officially designated state scenic highways in the vicinity of the project site (Caltrans 2024). I-5 is eligible for designation in the California Scenic Highway System; however, the city has not nominated the portion of I-5 that falls within the city for official designation as a scenic route. Moreover, development proposed pursuant to the project is not anticipated to substantially damage scenic resources such as trees, rock outcroppings, or historic buildings, since it would involve improvements within the existing road ROW or property owned by the city that would not affect existing scenic resources. No impact would occur.

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

Less than Significant Impact. The city does not have areas that are considered non-urbanized. Public Resources Code (PRC) 21071 defines the term “urbanized area” for the purpose of CEQA to mean an incorporated city that has a population of at least 100,000 persons or has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons. According to U.S. Department of Commerce Bureau of the Census (U.S. Census Bureau) data from 2023, the City of Carlsbad has a population of 113,495 (U.S. Census Bureau 2023). Thus, the project site is within an urbanized area as defined by PRC 21071 and is therefore evaluated relative to applicable zoning and other regulations governing scenic quality.

Applicable regulations governing scenic quality of the project site and area include goals and policies within the city’s General Plan, Local Coastal Program, and Scenic Corridor Guidelines. An analysis of the project’s consistency with applicable goals and policies is presented in Table 1, *Project Consistency with Scenic Quality Goals and Policies*, below.

Table 1
PROJECT CONSISTENCY WITH SCENIC QUALITY GOALS AND POLICIES

Goal/Policy	Consistency Analysis
Carlsbad General Plan	
<i>Land Use and Community Design Element Goal 2.G-16: Enhance Carlsbad’s character and image as a desirable residential, beach and open-space oriented community.</i>	Consistent. The proposed project would provide additional transportation and recreation facilities that would connect with existing facilities to enhance multi-modal mobility and coastal access. The proposed improvements would be consistent with planned improvements in adopted land use plans. In addition, the proposed project elements would be visually compatible with existing facilities in the project area, as they would occur along an existing roadway and would not introduce new features or uses that do not already exist in the project area.

Goal/Policy	Consistency Analysis
<i>Land Use and Community Design Element Goal 2.G-17:</i> Ensure that the scale and character of new development is appropriate to the setting and intended use. Promote development that is scaled and sited to respect the natural terrain, where hills, public realm, parks, open space, trees, and distant vistas, rather than buildings, dominate the overall landscape, while developing the Village, Barrio, and commercial and industrial areas as concentrated urban-scaled nodes.	Consistent. The proposed project would provide bikeway and roadway improvements along an existing segment of Avenida Encinas that would be visually compatible with the existing visual character of the area. Proposed improvements would include small-scale surface improvements that are common roadway elements and already exist in the area. No substantial grading, landform alteration, or encroachment into open space areas would be required.
<i>Open Space, Conservation, and Recreation Policy 4-P.1:</i> Maintain an integrated open space classification system that accommodates conservation, resource production, recreation, and aesthetic needs.	Consistent. The General Plan classifies four categories of open space, including Category 1 – Open Space for Preservation of Natural Resources, Category 2 – Open Space for Managed Production of Resources, Category 3 – Open Space for Outdoor Recreation, and Category 4 – Open Space for Aesthetic, Cultural, and Educational Purposes. No Category 4 Open Space areas occur on the project site or in the surrounding area. Thus, no areas designated for aesthetic preservation would be impacted.
<i>Open Space, Conservation, and Recreation Policy 4-P.2:</i> Designate for preservation as open space those areas that provide unique visual amenities within the urban form, such as agriculture, hillsides, ridges, valleys, canyons, beaches, lagoons, creeks, lakes and other unique resources that provide visual and physical relief to the cityscape by creating natural contrasts to the built-up, manmade scene.	Consistent. The project site and surrounding areas are not designated Category 4 Open Space for aesthetic preservation. The project site occurs along an existing roadway and does not contain notable or unique visual resources.
Local Coastal Program	
<i>Policy 7-13:</i> Visual access over more than 80% of the Carlsbad coastline is unobstructed because of public ownership. No future public improvements which would obstruct this visual access shall be permitted.	Consistent. Proposed improvements would generally involve low-profile, surface improvements along an existing roadway. No buildings or major vertical structures are proposed that would impede coastal views.
Scenic Corridor Guidelines	
<i>Railroad Corridor Property Treatment Adjacent to Corridor Right-of-Way:</i> A predominant tree theme should be encouraged on adjacent properties. The suggested tree is Pinus Torreyana.	Consistent. The project would include installation of trees and other landscaping treatments in a unified theme. Trees would be planted within center medians, within biofiltration swales, and along the west side of the roadway, adjacent to the railroad corridor.
<i>Railroad Corridor Property Treatment Adjacent to Corridor Right-of-Way:</i> Selective berming and landscaping can be encouraged to improve aesthetics and control noise.	Consistent. The project would include installation of trees and other landscaping treatments in a unified theme to improve visual quality within the project area and provide screening for project elements, particularly a retaining wall on the west side of the roadway. Trees would be planted within center medians, within biofiltration swales, and along the west side of the roadway, adjacent to the railroad corridor.

As discussed in Table 1, the project would be consistent with applicable regulations governing scenic quality of the site. Impacts would be less than significant.

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

Less than Significant Impact. There are two primary sources of light that generally can affect a developed area: light emanating from building interiors that passes through windows to the outside, and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting) that affect the natural ambient light level. The introduction of light can be a nuisance by affecting adjacent areas and diminishing the view of the clear night sky, depending on the location of the light source and its proximity to nearby light-sensitive areas.

The project site is in a developed area with a mix of commercial and industrial development as well as transportation uses. Existing light sources in the project area include streetlights and vehicle lights along surrounding roadways, as well as from interior and exterior building lighting emanating from the existing buildings and parking lots on the surrounding properties.

The proposed project would include the introduction of new lighting along a roadway with existing light sources. Proposed lighting would include new streetlights at select locations along Avenida Encinas. Streetlights would comply with applicable city lighting regulations, such as use of shielding and low-lumen lighting. The proposed lighting would be similar to the existing project area lighting and would not introduce new and unique sources of light that would be substantial in relation to the existing lighting characteristics of the project area. Therefore, although the project would introduce new sources of light, since the sources are of similar nature to the surrounding land uses and the project would adhere to the applicable regulations, the project would not create a new source of substantial light which would adversely affect views in the area. Light impacts would be less than significant.

Glare impacts can occur because of artificial light or sunlight reflecting off the surface of an object or structure. Glare can create discomfort or present safety concerns (i.e., if glare or a direct light source is directed into the eyes of motorists). Project elements would not include highly reflective surfaces or materials that would create adverse glare effects on the roadway or adjacent uses. Project lighting would consist of standard streetlights designed to direct lighting onto the roadway and not onto surrounding properties that would create a new source of glare. In general, surfaces and materials of project elements would consist of natural or dark colors and natural or textured surfaces that do not exhibit reflective properties. Therefore, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Glare impacts would be less than significant.

II. AGRICULTURAL AND FORESTRY RESOURCES* Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), or timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

* 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 (LESA) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. There are no lands present in Carlsbad that meet the state's definition of forest land (Public Resources Code section 12220(g)), timberland (Public Resources Code section 4526), or production (Government Code 51104(g)). Therefore, questions related to forestry resources will have no impact.

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?*

No Impact. The Farmland Mapping and Monitoring Program (FMMP) is a statewide program that designates farmland among several categories, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. The FMMP is maintained by the California Department of Conservation (DOC) and is the agency responsible for overseeing farmland classification throughout the state. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. Unique farmland is land, other than Prime Farmland, which has combined conditions to produce sustained high quality and high yields of specialty crops. Farmland of Statewide Importance may include tracts of land that have been designated for agriculture by State law. In some areas that are not identified as having national or statewide importance, land is Farmland of Local Importance. The project site does not include farmland and would continue to support transportation facilities. According to the FMMP online mapping database (DOC 2022), most of the project site is classified as Urban and Built-Up Land and does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. A portion of Avenida Encinas and adjacent property is classified as

Farmland of Local Importance. This land occurs on a vacant parcel on the east side of the roadway and across from the Poinsettia Coaster Station driveway that was previously used for agriculture. However, this property does not support active agricultural operations and is zoned Planned Industrial/Office and thus, agricultural uses are not designated or planned at this property. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

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

No Impact. The portion of the project occurring within the existing road ROW of Avenida Encinas does not have a zone assigned to it. Portions of the project that extend outside of the ROW and onto adjacent city-owned properties are not zoned for agricultural use. Additionally, the project site is not encumbered by a Williamson Act Contract and would not affect any properties zoned for agricultural use or affected by a Williamson Act Contract, as there are none within the project vicinity. Therefore, the project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur.

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))?*

No Impact. PRC Section 12220(g) defines “forest land” as land that can support 10 percent native cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. PRC Section 4526 defines “timberland” as other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Based on these definitions, no forest land or timberland occurs within or adjacent to the project site. Moreover, there is no land zoned as forest land or timberland that exists within the project site or within its vicinity. Therefore, the project would not conflict with existing zoning for or cause a rezoning of forest land, timberland, or timberland zoned as Timberland Production. No impact would occur.

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

No Impact. As stated in item II.c above, implementation of the project would not result in the loss or conversion of forest land to non-forest use because no forest land exists on the project site or in the surrounding area. Therefore, no impact would occur.

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. There are no agricultural operations or timberland production operations within the project site or vicinity. As stated in items II.a through II.d above, implementation of the project would not result in conversion of Prime Farmland, Unique Farmland, or Farmland of State Importance to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

III. AIR QUALITY* Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

* Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations in this section.

The discussion below is based on the Air Quality and Greenhouse Gas Emissions Analysis (HELIX 2025a) prepared for the proposed project, which is included as Appendix A to this IS/MND.

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

Less than Significant Impact. The project site is located within the San Diego Air Basin (SDAB), which is governed by the San Diego County Air Pollution Control District (SDAPCD) and California Air Resources Board (CARB). The SDAPCD develops and administers local regulations for stationary air pollutant sources within the SDAB and also develops plans and programs to meet attainment requirements for both federal and state ambient air quality standards (National Ambient Air Quality Standards [NAAQS] and California Ambient Air Quality Standards [CAAQS], respectively). The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the Ambient Air Quality Standards (AAQS) in the SDAB. The regional air quality plan for San Diego County is SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* (Attainment Plan). The Attainment Plan outlines the SDAPCD's plans, and control measures designed to attain the state air quality standards, including applicable portions of the California State Implementation Plan (SIP).

Assumptions for growth in the Attainment Plan and SIP are derived from local land use plans; therefore, projects that are consistent with their local General Plan would not typically conflict with the Attainment Plan. The project would not result in a change in land use or generate population growth and is therefore within the scope of development that was anticipated in the city's General Plan used to develop the Attainment Plan and SIP. In addition, the proposed project would improve and encourage multi-modal transit by providing bike lanes, sidewalks, crosswalks, reconstructed bus stops and connections to the Poinsettia Coastal Station thereby making bicycle, pedestrian, and transit travel more accessible. One of the benefits of increased trips from bicyclists and pedestrians is a potential reduction in the number of vehicle trips, and therefore a reduction in vehicle emissions. A reduction of vehicular emissions is consistent with the goals of the Attainment Plan. As such, the project would not conflict

with or obstruct implementation of the Attainment Plan or the SIP. Impacts would be less than significant.

b) 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?

Less than Significant Impact. An area is designated in attainment when it is in compliance with the NAAQS and/or CAAQS. These standards are set by the Environmental Protection Agency or the CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or public welfare. The criteria pollutants of primary concern that are considered in an air quality assessment include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), respirable particulate matter (particulate matter with an aerodynamic diameter of 10 microns or less [PM₁₀]), and fine particulate matter (particulate matter with an aerodynamic diameter of 2.5 microns or less [PM_{2.5}]), lead and toxic air contaminants. Volatile organic compounds (VOCs), also known as reactive organic gases (ROGs), and oxides of nitrogen (NO_x) are precursors to the formation of ground-level O₃. Table 2, *SDAB Attainment Designations*, shows the designations for criteria pollutants. As shown in Table 2, the SDAB is designated in attainment for all criteria pollutants under the NAAQS with the exception of O₃ (8-Hour) and PM₁₀, which is listed as unclassifiable. The SDAB is currently designated nonattainment for O₃ (8-Hour and 1-Hour), PM₁₀, and PM_{2.5} under the CAAQS. It is designated as attainment under CAAQS for CO, NO₂, SO₂, lead, and sulfates.

Table 2
SDAB ATTAINMENT DESIGNATIONS

Criteria Pollutant	Federal Designation (NAAQS)	State Designation (CAAQS)
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	¹	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM ₁₀	Unclassifiable ²	Nonattainment
PM _{2.5}	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

Source: SDAPCD 2024

¹ The federal 1-hour standard of 12 parts per hundred million (pphm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

² At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; PM₁₀ = respirable particulate matter with a diameter of 10 microns or less; PM_{2.5} = fine particulate matter with a diameter of 2.5 microns or less.

Construction Emissions

Project construction would result in emissions associated with grading and construction. However, grading and construction operations associated with the project would minimize emissions through

standard construction measures, storm water pollution prevention plan requirements, and BMPs that would reduce fugitive dust debris, emissions and other criteria pollutant emissions during grading and construction. Criteria pollutant emissions from project construction were estimated using the California Emissions Estimator Model (CalEEMod). The estimated maximum daily emissions associated with project construction are shown in Table 3, *Maximum Daily Construction Emissions*. Project construction emissions were compared to the SDAPCD's Air Quality Impact Analysis (AQIA) Trigger Levels as contained within SDAPCD Regulation II, Rule 20.2. As shown in Table 3, maximum daily construction emissions would be well below SDAPCD trigger levels.

Table 3
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Phase	Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grubbing/Land Clearing	0.53	5.36	5.53	0.01	0.81	0.33
Grading/Excavation	3.65	30.10	38.40	0.07	3.12	1.44
Drainage/Utilities/Sub-grade	1.91	16.43	21.17	0.04	1.58	0.72
Paving	0.91	8.50	12.99	0.02	0.68	0.38
Maximum Daily Emissions	3.65	30.10	38.40	0.07	3.12	1.44
SDAPCD Trigger Levels	137	250	550	250	100	67
Significant Impact?	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

ROG = reactive organic gas; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = oxides of sulfur; PM₁₀ = particulate matter with a diameter of 10 microns or less; PM_{2.5} = particulate matter with a diameter of 2.5 microns or less;
SDAPCD = San Diego Air Pollution Control District

Operational Emissions

The proposed bikeway and pedestrian improvements would encourage alternative forms of transportation such as walking and bicycling, as well as transit, which would potentially reduce the number of vehicle trips, and thus reduce vehicular air pollutant emissions that could contribute to an existing or project air quality violation. Operational emissions associated with the project are anticipated to be consistent with the Attainment Plan and SIP and would not exceed SDAPCD standards.

The proposed project would represent a contribution to a cumulatively considerable potential net increase in emissions throughout the SDAB. As described above, however, emissions associated with the proposed project would be minimal. Given the limited emissions potentially associated with the proposed project, air quality would be essentially the same whether or not the proposed project is implemented. According to the CEQA Guidelines Section 15064(h)(3), the proposed project's incremental contribution to the cumulative effect is not cumulatively considerable. Impacts would be less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Sensitive receptors include schools, hospitals, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes or other facilities that house individuals with health conditions that would be adversely impacted by changes in air quality. The closest sensitive receptors to project's construction activities would be the Solamar residential community located west of the railroad ROW on Oceanview Drive (approximately as close as 150 feet from the project alignment), Community Montessori Charter

School (6797 Embarcadero Lane) located approximately 60 feet from the project alignment at the southern project limit, and a Carlsbad Seapointe Resort (6400 Surfside Lane) located approximately 200 feet to west. During the seven-month construction period, diesel exhaust particulate matter would be generated by construction equipment and vehicles. Diesel exhaust particulate matter is known by the State of California to include carcinogenic compounds, and long-term exposure to diesel exhaust emissions has the potential to result in adverse health effects. The risks associated with exposure to carcinogenic substances are typically based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Associated Air Toxics "Hot Spots" Program Risk Assessment Guidelines as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Accordingly, given the lack of operational emissions associated with the proposed bikeway and pedestrian improvements, the temporary (seven-month) nature of project construction, and the fact that construction equipment would operate adjacent to a given receptor for no more than several days at a time, potential impacts related to exposure of existing sensitive receptors to substantial pollutant concentrations (including diesel exhaust) would be less than significant. Similarly, future potential sensitive receptors (users of the bikeway and pedestrian improvements) may be exposed to occasional diesel exhaust from passing vehicles; however, exposure to these pollutants would be intermittent and short-term. Impacts would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact: Project construction could generate odors associated with fuel combustion and asphalt paving. Such temporary odors may be detectable by a limited number of nearby sensitive receptors residents; however, these odors would dissipate into the atmosphere upon release and would only temporarily remain in proximity to the construction equipment and vehicles. Potential odors would be temporary and localized within the immediate project vicinity. Operation of the proposed bikeway and pedestrian improvements would not include sources of objectionable odors. Therefore, the proposed project would not result in other emissions such as those leading to odors that would adversely affect a substantial number of people. Impacts would be less than significant.

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☒	☐	☐

In accordance with mitigation measure BIO-1 from the Trails Master Plan Programmatic IS/MND, a Biological Technical Report (BTR) was prepared for the project (HELIX 2025b; Appendix B). The report details existing biological conditions within the project site and provides an analysis of potential impacts on sensitive biological resources with respect to local, state, and federal policy. The surveys included as part of the project-specific BTR were conducted in accordance with mitigation measure BIO-2 from the Trails Master Plan Programmatic IS/MND.

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 Wildlife or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation Incorporated. The BTR evaluated potential impacts to special-status plant and animal species in the vicinity of the project site. A summary of the status of sensitive species within the project site and vicinity, as well as potential impacts to these species, are presented below.

Direct Impacts

Special-Status Plant Species

Special-status plant species are those with recognition by the USFWS, CDFW, California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, or the local Carlsbad HMP. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occurs only in specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

Two special-status plant species, California adolphia (*Adolphia californica*) and California box-thorn (*Lycium californicum*), were observed during the biological surveys (general biological survey and rare plant survey) conducted for the biological study area, which encompasses the project site and an approximately 50-foot buffer. Approximately 70 California adolphia individuals were observed within Diegan coastal sage scrub in the northern portion of the study area west of Avenida Encinas and the railroad. Most individuals occur outside of the project limits within a dense cluster at the top of a berm between Avenida Encinas and the railroad. Approximately 75 California box-thorn individuals were observed in the northern portion of the study area west of Avenida Encinas, including 70 individuals within Diegan coastal sage scrub and 5 individuals within disturbed habitat. Most of the individuals occur outside of the project limits.

In addition to the two special-status plant species observed on site, 45 special-status plant species were determined to have the potential to occur on site due to the presence of suitable habitat (see Appendix C of the BTR for the list of species with the potential to occur); however, none of the 45 species has moderate or higher potential to occur on site. No plant species that are Covered or considered Narrow Endemic under the HMP are expected to occur on the project site.

A total of 18 individuals of California adolphia and 21 individuals of California box-thorn would be removed during project grading. The project's impacts to 18 California adolphia (CRPR 2.1) would not be considered significant due to the small numbers of individuals impacted, their location outside of an existing or proposed hardline conservation area, and the adequate conservation of this species by the city's HMP. Proposed project impacts to 21 California box-thorn (CRPR 4.2) also would not be considered significant. CRPR 4 species are considered relatively widespread species that do not typically require species-specific mitigation. The proposed impacts to California box-thorn would not substantially reduce their populations in the region and would not be considered significant. Therefore, the project would not result in significant impacts to special-status plant species, and no mitigation is required.

Special-Status Animal Species

Special-status animal species are those with recognition by the USFWS, CDFW, or the local Carlsbad HMP. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Additionally, avian nesting is protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code.

No special-status animal species were detected within the project site or study area during the biological surveys. However, 13 special-status animal species were determined to have the potential to occur on site due to the presence of suitable habitat (see Appendix D of the BTR for the list of species with the potential to occur). One species, coastal California gnatcatcher (*Polioptila californica californica*) has a moderate potential to occur on the site. No additional special-status animal species were determined to have a moderate or higher potential to occur due to lack of suitable habitat. No animal species that are considered Narrow Endemic under the HMP are expected to occur on site.

Direct impacts (through habitat modification) may occur to coastal California gnatcatcher (Federally Threatened, State of California Species of Special Concern and Carlsbad HMP Covered Species), which has the potential to use Diegan coastal sage scrub within and adjacent to the project alignment for breeding, foraging, and dispersal. Direct impacts to this species are considered significant, and mitigation measures BIO-1 and BIO-2 would be implemented to reduce impacts to less than-significant.

Indirect Impacts

Indirect impacts to special-status species in the short-term are as a result of construction edge effects or in the long-term during project operation. The project site is already subject to the long-term effects of being situated within and immediately adjacent to existing development, and project implementation would not cause additional long-term effects. The project would implement construction BMPs that address edge effects and would adhere to the city's HMP species requirements and city HMP adjacency standards. Because coastal California gnatcatcher has the potential to nest within habitat immediately adjacent to the project site, potential indirect impacts (i.e., excessive noise) to nesting could occur if project construction activities are conducted during the breeding season for this species. Mitigation measures BIO-1 and BIO-2 would be implemented to reduce impacts to less than significant.

Long-term indirect impacts to special-status species are not anticipated, as many of the effects are already occurring under the current, baseline condition and would not be expected to worsen in the post-construction condition. Examples include urban pollutant run-off (e.g., oils, pesticides, herbicides, chemical fertilizers, etc.), presence of exotic plants and animals, and human encroachment into the area, which could crush plants or deter nesting birds. Further, project compliance with the city HMP adjacency standards would avoid potential long-term indirect impacts to special-status species; therefore, no long-term indirect impacts are expected as a result of the project.

Mitigation: The following project-specific mitigation measures would be implemented and would satisfy the requirements of mitigation measure BIO-5 from the Trails Master Plan Programmatic IS/MND.

BIO-1 Gnatcatcher Nesting Season Avoidance. No clearing of occupied gnatcatcher habitat may occur between March 1 and August 15 per the conditions of coverage for this species.

BIO-2 Nesting Bird Avoidance. Potential direct impacts to nesting bird species protected under the MBTA and CFG Code shall be mitigated by restricting brushing, clearing/grubbing, and grading to outside of the breeding season of most bird species (general breeding season is January 15 to September 15). Grubbing, grading, or clearing during the breeding season could occur if it is determined, based on the results of a pre-construction survey (see below), that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately before impacting potential nesting habitat. The City of Carlsbad shall be notified of any sensitive bird species identified during the pre-construction surveys.

If project impacts to vegetation or grading are necessary within and/or adjacent to habitat during the bird breeding season (January 15 to September 15), a qualified biologist shall conduct pre-construction surveys to determine the presence or absence of nesting birds, including raptors and sensitive bird species. The survey shall begin not more than three days before the beginning of impacts or grading activities. If nests of listed birds, migratory birds, raptors, or other sensitive species are located, they will be fenced with a protective buffer of at least 500 feet from active nests of listed species, and 300 feet from other sensitive bird species. Nests of non-sensitive bird species will be flagged for avoidance, and an appropriate setback determined by the biologist. All construction activity will be prohibited within the identified setbacks until a qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged.

The USFWS shall be notified of any federally listed species observed nesting within 500 feet of proposed grading activities, and the CDFW shall be notified of any state listed or special-status species observed nesting within 500 feet of proposed grading activities.

If listed species are present and construction is to occur during the nesting season, construction noise will be measured regularly to maintain a threshold at or below 60 dBA hourly L_{EQ} within 500 feet of breeding habitat occupied by listed species. If noise levels supersede the threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat from project construction to below 60 dBA hourly L_{EQ} , and/or the activities shall be suspended until nesting is complete.

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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation Incorporated. Sensitive habitats are those that are considered sensitive by CDFW, are targeted for conservation under the State's Natural Community Conservation Plan (NCCP), are designated sensitive habitat group types under the Carlsbad HMP, are considered rare within the region, or support special-status plants or animals.

A total of five vegetation communities and land cover types were mapped within the project site, including southern willow scrub (HMP Habitat Group A), Diegan coastal sage scrub (including disturbed) (HMP Habitat Group C), non-native grassland (disturbed) (HMP Habitat Group E), disturbed habitat (HMP Habitat Group F), and developed land. Of these, southern willow scrub, Diegan coastal sage scrub, and non-native grassland are considered sensitive natural communities. Disturbed habitat and developed land are not sensitive natural communities.

The proposed project would directly impact 9.85 acres, of which 7.54 acres (76 percent) would occur within developed land. An additional 1.83 acres would occur within disturbed areas characterized by bare earth and/or a dominance of non-native vegetation. The remaining impacts of 0.47 acre would occur to the periphery of native and naturalized vegetation communities (southern willow scrub, Diegan coastal sage scrub, and non-native grassland) that overlap the road ROW area and occur immediately adjacent to the existing developments along Avenida Encinas. Table 4, *Sensitive Vegetation Communities – Project Impacts and Mitigation*, identifies impacts to the three sensitive vegetation communities that would occur from implementation of the proposed project. Project impacts to sensitive natural communities in Habitat Groups A, C, and E (refer to Table 4) would be considered significant. Due to these direct impacts, project-specific mitigation measures BIO-3, BIO-4, and BIO-5 would be implemented and would reduce impacts to less than significant.

Table 4
SENSITIVE VEGETATION COMMUNITIES – PROJECT IMPACTS AND MITIGATION

HMP Group	Vegetation Community	Total Impacts (ac)	Mitigation Ratio	Mitigation Acreage
A	Southern willow scrub	0.03	1:1 ²	0.03
C	Diegan coastal sage scrub, gnatcatcher occupied ¹	0.33	2:1 ³	0.66
E	Non-native grassland, disturbed	0.11	0.5:1	0.06
TOTAL		0.47	-	0.75

¹ Protocol surveys not conducted; gnatcatcher presumed present, thus habitat included as Group C.

² 1:1 is anticipated if mitigation is met through use of the city's unused credits purchased from the North County Habitat Bank, as the Bank has met success criteria, and the project site is located within the same watershed as the Bank.

³ Impacts to coastal sage scrub in the coastal zone are mitigated at 2:1, irrespective of whether the habitat is occupied by coastal California gnatcatcher.

Indirect impacts to vegetation communities are generally short-term and associated with edge effects of project construction. Common adverse edge effects during construction include fugitive dust, erosion, and sedimentation. The proposed project will implement current construction BMPs that address these common edge effects; therefore, indirect impacts to vegetation communities are not expected. Additionally, areas of temporary disturbance along the alignment would be revegetated with native habitat. The project would also adhere to the city's HMP Adjacency Standards, further ensuring that indirect impacts (including long-term impacts) to vegetation within the Hardline Preserve would not occur.

Mitigation: The following project-specific mitigation measures would be implemented and would satisfy the requirements of mitigation measures BIO-4 and BIO-6 from the Trails Master Plan Programmatic IS/MND.

BIO-3 Compensatory Mitigation and Revegetation of Temporary Impacts. Project mitigation for impacts to native habitat types shall be provided to achieve no net loss. Impacts to Group A riparian habitats (i.e., southern willow scrub) shall be mitigated at a minimum 1:1 ratio, Group C upland habitat (coastal sage scrub) at a 2:1 ratio, and Group E upland habitat (non-native grassland [disturbed]) at a 0.5:1 ratio.

Mitigation for permanent impacts to HMP Group A, C, and E habitat shall be provided at an off-site location approved by the City of Carlsbad. The project mitigation for Group A and C habitat shall include a minimum 1:1 creation or substantial restoration to ensure no-net loss of native habitat.

Southern Willow Scrub: Mitigation for impacts to 0.03 acre of Group A southern willow scrub is proposed to occur at a 1:1 ratio through the use of 0.03 acre of the City of Carlsbad's unused North County Habitat Bank mitigation credits.

Diegan Coastal Sage Scrub: Mitigation for impacts to 0.33 acre of Group C Diegan coastal sage scrub is proposed to occur at a 2:1 ratio through one or a combination of the following options:

- a) Use of 0.66 acre of SANDAG Sage Hill Mitigation Parcel mitigation credits; or

- b) Creation, restoration, and/or enhancement at The Crossings site identified as a “Proposed Future Mitigation Area,” and/or another offsite location to be determined by the City of Carlsbad, totaling 0.66 acre, with at least 0.33 acre (1:1) composed of creation or substantial restoration.

Non-native Grassland: Mitigation for impacts to 0.11 acre of Group D non-native grassland is proposed to occur at a 0.5:1 ratio through the use of 0.06 credit at the City of Carlsbad’s Lake Calavera Mitigation Parcel.

If mitigation credits are not used to mitigate for project impacts to Diegan coastal sage scrub, a Restoration Plan addressing compensatory mitigation for impacts to this habitat shall be prepared for review and approval by the city’s Planning Department and HMP Coordinator. The final restoration plan shall be submitted for review at least 30 days before initiating project impacts. Where the off-site mitigation would occur within lands that are not already preserved in perpetuity and subject to long-term management within an existing biological conservation easement, the City of Carlsbad shall record an Open Space Easement and a Conservation Easement or Restrictive Covenant over the off-site mitigation lands and provide long-term management. Before clearing or impacts to any habitat, the following items shall be approved by the city’s Planning Department and HMP Coordinator and considered final: Recordation of Conservation Easement, Restoration Plan, Preserve Management Plan, long-term management funding, and Management Agreement with qualified preserve manager, if not the City of Carlsbad.

BIO-4 Construction Fencing and Equipment Staging and Maintenance. To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, environmental fencing (including silt fencing where determined necessary by the SWPPP) would be installed at the edges of the impact limits before the initiation of grading. All construction staging shall occur within the approved limits of construction.

Throughout construction, employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint or within existing developed areas. Equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced project impact limits. These designated areas shall be located in previously developed and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering adjacent off-site habitats and shall be shown on the construction plans. Fueling of equipment shall take place within existing developed areas. Contractor equipment shall be checked for leaks before operation and repair, as necessary. “No-fueling zones” shall be designated on construction plans.

If work occurs beyond the fenced or demarcated limits of impact, work shall cease until the problem has been remedied to the satisfaction of City Planning. Impacts to jurisdictional areas or HMP Habitat Groups that occur beyond the approved work limits fence shall be mitigated in accordance with ratios specified in the Carlsbad HMP or as otherwise determined by City Planning and in coordination with the applicable resource agencies, as appropriate. Temporary construction fencing shall be removed upon project completion.

BIO-5 Biological Construction Monitoring. A qualified biologist will monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or wetlands, or biological open space. The biologist also will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources on-site and avoidance measures to remain in compliance with project approvals. The biologist also will monitor vegetation clearing, grubbing, and grading activities on a regular basis to help ensure compliance with project approvals.

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less than Significant with Mitigation Incorporated. Potentially jurisdictional aquatic resources within the study area were mapped as part of the general biological survey conducted on November 15, 2022, followed by a formal jurisdictional delineation within the project site on August 20, 2024. The project site supports one potential jurisdictional feature, consisting of a small, isolated stand (0.03 acre) of southern willow scrub immediately adjacent to Avenida Encinas. This small stand of willow was created by urban runoff from a culvert outlet. It is an isolated feature that does not meet the three-parameter USACE or RWQCB wetland criteria, it is not a stream, nor does it exhibit an ordinary high water mark. For these reasons, it was not considered a USACE-jurisdictional or RWQCB-jurisdictional aquatic resource. Further, this small, isolated stand of southern willow scrub is not located along a stream or lake and, therefore, is not a streambed or riparian resource under CDFW jurisdiction as CDFW does not regulate isolated riparian or wetland habitats under Sections 1600-1603 of the CFG Code. Although not considered to fall under USACE-, RWQCB-, or CDFW-jurisdiction, the southern willow scrub would still meet the one-parameter definition for CCC coastal wetland. The proposed project would impact this 0.03-acre potential jurisdictional feature. Impacts to CCC coastal wetlands would be considered significant. Implementation of mitigation measure BIO-3 identified above would reduce impacts to less than significant.

Additionally, as a regulatory requirement, the city would be required to submit the appropriate agency notifications and permit applications for impacts to jurisdictional resources and obtain necessary permits. Final permit requirements would be determined in consultation with the regulating agencies.

Implementation of construction BMPs and compliance with the city's HMP, including adjacency standards, would avoid indirect impacts to off-site jurisdictional resources. Further, features of the proposed project would reduce some of the currently ongoing adverse effects (urban pollutant run-off) to jurisdictional wetlands at the site by adding biofiltration swales. No indirect impacts to jurisdictional wetlands or waters are expected as a result of the project.

Mitigation: Project-specific mitigation measure BIO-3 would be implemented and would satisfy the requirements of mitigation measure BIO-4 from the Trails Master Plan Programmatic IS/MND.

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?*

Less than Significant Impact. Wildlife corridors are linear spaces of undeveloped native habitats that connect large natural open space and provide opportunities for wildlife movement in the region.

Wildlife corridors contribute to species' sustainability by providing access to adjacent habitat areas for dispersal, foraging, and mating. Linkages between wildlife corridors connect isolated blocks of habitat and allow the movement or dispersal of species over a large scale and the consequent mixing of genes between populations (i.e., gene pool diversity). Wildlife movement corridors and linkages are considered sensitive by the city, resource agencies, and conservation groups.

Important corridors and linkages have been identified on a local and regional scale throughout the Multiple Habitat Conservation Program (MHCP) and city's HMP. The planning objectives of most corridors and linkages in coastal areas include establishing and preserving connections between the northern and southern regional populations of the coastal California gnatcatcher, in addition to facilitating movement and connectivity of habitat for large mammals and riparian bird species. The city's HMP includes an assemblage of Local Facility Management Zones (LFMZs), HMP Cores and Linkages, Special Resource Areas (SRAs), and hardline conservation areas, with objectives to establish a network of habitat for the sustainability of wildlife (mostly for birds and mammals) movement functions in the city. Lands surrounding the project site to the north, east, and south are developed and constrained by existing transportation corridors and commercial, industrial, and residential development. Lands located west of the project site are partially developed and constrained by existing residences, hotel buildings, and the LOSSAN rail line. The project site occurs within the existing road ROW or property owned by the city and consists primarily of disturbed and developed lands. Although small areas of native and naturalized habitat are within and adjacent to the project, these areas are small, highly constrained, and fragmented by surrounding development. Although these habitats may provide marginal-quality foraging and breeding habitat for reptiles, birds, small mammals, and possibly larger urban-adapted mammals like coyote (*Canis latrans*), these lands do not function as a wildlife corridor or a linkage connecting isolated blocks of habitat.

The project site is not within or adjacent to a biological core area or linkage identified in the city's HMP. The southern end of the alignment is located immediately north of a narrow, linear ribbon of hardline preserve west of the Poinsettia Coaster Station, which is identified on Figure 4 of the HMP as SRA 2. This area, which overlaps with USFWS Critical Habitat for San Diego fairy shrimp and spreading navarretia, protects the Poinsettia Lane vernal pools and their watershed. As the project site is not identified or considered a regional wildlife corridor or habitat linkage and would adhere to the city's HMP adjacency standards to ensure that indirect impacts to the off-site Hardline Preserve west of the Poinsettia Coaster Station do not occur, impacts related to wildlife corridors would be less than significant.

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

No Impact. The City of Carlsbad Municipal Code Chapter 11.12.10 provides a comprehensive program for installing, maintaining, and preserving trees within the city. The program establishes policies, regulations, and specifications necessary to govern installation, maintenance, and preservation of trees to beautify the city, to purify the air, to provide shade and wind protection, and to preserve trees with historic or unusual value. The program aims to line city streets with trees and to conduct a consistent and adequate program for maintaining and preserving these trees, as well as to protect and preserve all desirable trees that are located on the city's ROW. The program also encourages planting of new trees on public and private property. The project would not conflict with the city's tree program in that it would install street trees within the proposed medians. The project also would not conflict with the city's Community Forest Management Plan, which focuses on the importance of trees in the urban environment and outlines how the city cares for its existing trees and plans to increase the overall forest

canopy in the city. The plan highlights the importance of trees to the community including improved air quality, habitat for wildlife, neighborhood beautification, and increased property value. The project would be consistent with these principles as the project would install trees within the proposed medians within the project alignment. Other local policies and ordinances protecting biological resources within the city are contained in the city's HMP. The project's consistency with the city's HMP is discussed below in item IV.f. The project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impact would occur.

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?*

Less than Significant with Mitigation Incorporated. The city's HMP, adopted in November 2004, establishes a regional conservation planning framework for biological resources and development projects occurring in the city. As a participant in the NCCP program and MHCP subregional planning effort, the city prepared and adopted the Carlsbad HMP, which sets forth a city-wide program to identify how, in cooperation with the USFWS, CDFW, and CCC, the city will preserve a diversity of habitats and implement policies for the protection of biological resources while allowing for development consistent with the city's General Plan and Growth Management Plan.

Although the proposed project is within the boundaries of the city-wide HMP, proposed improvements are within the city's existing road ROW or adjacent property owned by the city. Existing city road ROWs were not incorporated as native habitats in the city's habitat conservation estimates for the HMP and are intended to allow for planned roadway/mobility/infrastructure improvements on existing public roads. These areas were not intended to be included in the HMP requirements for the development of a "Property." Thus, Property development requirements imposed by the HMP are generally considered not applicable to city public road/infrastructure improvements within existing ROWs where no such deed/title that would legally identify a "Property" has been recorded by the County Assessor. Regardless of applicability, the project considered the HMP and HMP Zone Level recommendations and has attempted to adhere to the requirements to the maximum extent possible, as discussed below.

Consistency with HMP Preserve

The proposed project is situated within LFMZ 3 and LFMZ 22. The project has been designed to stay within the city road ROW (except for a drainage outlet and adjacent city-owned property) and out of HMP preserve areas. Therefore, the project would not affect the HMP preserve and would be consistent with the HMP preserve boundaries.

Consistency with HMP Species Requirements

No Narrow Endemic plant or animal species were identified during the field surveys or are expected to occur on-site. The HMP states that the primary mitigation for impacts to HMP Species under the Plan is the conservation and management of habitat for species in the preserve system. It also states that incidental take must be minimized and mitigated to the maximum extent practicable. Table 9 of the HMP provides specific minimization and mitigation measures for covered species. No sensitive animal species addressed in Table 9 of the HMP were observed on-site during biological surveys. One species addressed in Table 9 (coastal California gnatcatcher) was determined to have a moderate potential to occur on-site; project consistency with the HMP for this species is discussed below.

Conservation goals for the coastal California gnatcatcher include:

- Conserve approximately 2,000 acres of coastal sage scrub.
- Conserve mapped gnatcatcher locations within conserved habitat.
- Maintain regional linkages.

Impact avoidance/minimization measures for the coastal California gnatcatcher include:

- Manage preserve areas to minimize edge effects.
- Prepare and implement a fire management program for preserve areas.
- Where possible, enhance and restore sage scrub habitat within preserve areas.
- No clearing of occupied habitat may occur between March 1 and August 15 annually.

The proposed project is located outside of preserve areas and would not affect any linkages. The project would mitigate impacts to potential gnatcatcher habitat (Diegan coastal sage scrub) through habitat-based mitigation identified in mitigation measure BIO-3 above. Direct and indirect impacts from clearing/grubbing/grading impacts during the gnatcatcher breeding season would be restricted under mitigation measures BIO-1 and BIO-2 identified above. Therefore, the project is consistent with the HMP goals and impact minimization measures for the coastal California gnatcatcher.

Consistency with HMP Adjacency Standards

The project limits are entirely outside of any Hardline Preserve or other conservation area. The HMP adjacency standards apply to the southern end of the project alignment where it is near the northern end of a narrow, isolated reach of Hardline Preserve (SRA 2) that was established to protect vernal pool habitat and associated sensitive plant and animal species. The HMP contains adjacency standards related to fire management; erosion control; landscaping restrictions; fencing, signs, and lighting; and predator and exotic species control. The project would not include structures or uses that would pose as a fire risk to the adjacent preserve. The project would not result in substantial erosion as the project does not propose the construction of slopes and no erodible or unvegetated slopes occur on site, and because the project would comply with National Pollution Discharge Elimination System (NPDES) requirements and a Storm Water Pollution Prevention Plan (SWPPP). Invasive species would not be planted as part of the project's landscaping and no irrigation is proposed. Fencing and signage would be appropriately provided along the project alignment to preclude access, and lighting associated with the project would be the minimum amount necessary for safety and directed away from SRA 2. Therefore, the project would be consistent with the HMP Adjacency Standards.

Consistency with Zone Level Recommendations

The Carlsbad HMP includes conservation goals and standards arranged according to the LFMZ, which will apply to future development proposals in the standards areas. Regarding the proposed project, the site is located within LFMZ 3 and LFMZ 22. There are no zone-specific preserve management guidelines for LFMZ 3, and, therefore, no conflict with the proposed project exists. The proposed project is not located within a current or future proposed preserve area, and project implementation would not conflict with the management goals and guidelines for LFMZ 22 for the following reasons:

- The project would avoid impacts and minimize adverse edge effects to vernal pool habitat; no effect on water quality of the pools would occur.
- The project would not conflict with preserve management actions to stabilize sensitive species populations, as no changes in use are proposed by the project, and revegetation of temporarily impacted areas will not use invasive species.
- The project would implement a SWPPP to address runoff, erosion, and sedimentation during project construction for the protection of water quality against potential pollutants and will not change runoff into vernal pool watersheds.
- The project would have no effect on the Preserve Manager's ability to monitor the status of preserved populations in LFMZ 22 to ensure they remain viable.

Zone Level recommendations typically do not apply to existing city ROWs, which are specifically in-place for allowing roadway, mobility, and other planned infrastructure improvements to occur. Regardless of applicability, the project considered the HMP Zone Level recommendations, and no conflict would occur.

Consistency with Coastal Zone Standards

The entirety of the project is within the coastal zone, to which additional HMP standards apply. In addition, the CRT is a mobility project within the city's ROW and is a planned non-motorized transportation and community enhancement project that is identified in the city's LCP as part of the North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program (PWP/TREP) Overlay. While the LCP identifies CRT segments within the LOSSAN ROW, the benefits are described as enhanced public access opportunities and reduced energy consumption and vehicle miles traveled. The alignment of Reach 5, as proposed outside (but adjacent) to the LOSSAN ROW, would still result in these noted benefits. The coastal zone conservation standards and their applicability to the project are as follows:

Standard 7-1: Environmentally Sensitive Habitat Areas. Per the California Coastal Act (CCA), Environmentally Sensitive Habitat Areas (ESHAs) are identified and shall be protected against significant disruption. The nearest ESHA, as defined by the CCA, would be the vernal pool habitat within HMP Hardline Preserve SRA 2.

The project proposes relatively minor impacts to native habitats occurring within and adjacent to the road ROW along an existing road edge. Evidence of substantial disturbance (i.e., the proliferation of non-native and invasive plant species, informal trails, and/or mowing) is currently present within all of these roadside areas. Proposed project impacts to these roadside edges would not disrupt areas of ESHA. Indirect impacts to ESHA would be avoided through compliance with the HMP adjacency standards. Therefore, the project is consistent with this HMP coastal zone standard.

Standard 7-2: Coastal Sage Scrub. Properties containing coastal sage scrub located in the Coastal Zone shall conserve a minimum of 67 percent of the coastal sage scrub and 75 percent of the gnatcatchers on site.

Impacts to coastal sage scrub have been avoided and minimized to the extent feasible, and are confined to narrow strips of habitat immediately adjacent to the existing road. A total of 1.25 acres of coastal

sage scrub is present adjacent to the west side of Avenida Encinas along the project alignment. The project would impact 0.33 acre or 26 percent of the coastal sage scrub, which would result in conservation of 74 percent of the existing coastal sage scrub. Furthermore, the project proposes mitigation to achieve no net loss (BIO-3). No gnatcatchers were detected within the study area during the biological surveys; however, the coastal sage scrub has the potential to support gnatcatchers. The project would mitigate impacts to potential gnatcatcher habitat (Diegan coastal sage scrub) through habitat-based mitigation identified in mitigation measure BIO-3 above. Direct and indirect impacts from clearing/grubbing/ grading impacts during the gnatcatcher breeding season would be restricted under mitigation measures BIO-1 and BIO-2 identified above. Thus, the project is consistent with this coastal zone standard.

Standard 7-7: Wetland Mitigation Requirements. Per this standard, property development that impacts wetlands shall provide mitigation at a ratio of 3:1 for riparian impacts and 4:1 for saltwater or freshwater wetland or marsh impacts.

The project would impact 0.03 acre of riparian habitat and would mitigate to achieve no net loss (BIO-3). As discussed in items IV.b and IV.c, a 1:1 mitigation is proposed because the project is proposing to use mitigation bank credits, which would purchase habitat that is already mature, and success criteria has already been met. There would be no temporal loss of habitat.

Standard 7-8: No Net Loss of Habitat. Per this standard, the development of a property in the coastal zone of Carlsbad shall result in no net loss of the following vegetation types: coastal sage scrub, maritime succulent scrub, southern maritime chaparral, southern mixed chaparral, native grassland, and oak woodland.

The project would impact 0.33 acre of coastal sage scrub vegetation and proposes mitigation to achieve no net loss (BIO-3); thus, the project is consistent with this coastal zone standard.

Standard 7-9: Upland Habitat Mitigation Requirements. Habitat mitigation would occur in accordance with HMP Table 11 and would result in no net loss; thus, the project is consistent with this coastal zone standard.

Standard 7-11: Buffer and Fuel Modification Zones. Per this standard, the development of a Property shall provide buffers between all preserved habitat areas and proposed development, including 100-foot for wetlands and least Bell's vireo occupied riparian areas, 50-foot for unoccupied riparian areas, and 20-foot for all other native habitats.

As stated previously, the CRT is a mobility project within the city's ROW and is a planned project addressed within the city's LCP. HMP development requirements, such as habitat buffers, are not typically considered applicable to existing city ROWs, which are specifically intended for allowing roadway, mobility, and other planned infrastructure improvements to occur.

The proposed alignment is primarily adjacent to existing disturbed habitat or developed lands, and in the few locations where native habitat does occur, it is immediately adjacent to the existing roadway and does not have an existing buffer. As such, there are no existing habitat buffers within the project site that meet the HMP requirements. No portion of the alignment is within a hardline preservation area, standards area, or focus planning area under the HMP. The project proposes to retain a no-buffer condition; however, the project would improve the condition of temporarily disturbed areas in the ROW

by revegetating with native species. To further protect adjacent habitat, the project would install biofiltration swales to capture and treat project runoff from developed areas.

Standard 7-12: Grading and Landscape Requirements. The project would adhere to the city’s grading schedule and would have a project-specific SWPPP to address erosion and water quality during construction. Thus, the project would not conflict with this coastal zone standard.

Mitigation: Project -specific mitigation measures BIO-1 through BIO-3 would be implemented and would satisfy the requirements of mitigation measures BIO-4 and BIO-5 from the Trails Master Plan Programmatic IS/MND.

V. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

The discussion below is based on the Cultural Resources Survey Report (HELIX 2025c) prepared for the proposed project, which is included as Appendix C to this IS/MND.

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

No Impact. In accordance with mitigation measure CUL-1 from the Trails Master Plan Programmatic IS/MND, a records search of the project alignment and a half-mile radius was conducted at the South Coastal Information Center (SCIC), historic aerial photographs and maps were reviewed, and a pedestrian survey was performed at the project alignment to evaluate the presence of historic resources. The SCIC records search results indicated that a total of 22 cultural resources have been previously recorded within one half-mile of the project area; however, no cultural resources have been recorded within the project area itself. The nearest resource is the historic Burlington Northern Santa Fe Railroad (formerly the Atchison, Topeka, and Santa Fe Railway; P-37-024739), which is located adjacent to the southern half of the project alignment. This railroad was originally constructed in the 1880s, but no original elements remain within the section running from Palomar Airport Road in the north to Poinsettia Lane in the south. Due to its modernization and associated lack of integrity, this portion of P-37-024739 was previously recommended as ineligible for the National Register of Historic Places (McLean, 2010 as referenced in HELIX 2025c) or California Register of Historic Resources and therefore is not considered a historical resource under CEQA. Archival research did not identify any historic built environment resources within the project area and indicated that the alignment had been disturbed in the past by agricultural activities and the construction of Avenida Encinas. Furthermore, no historical

resources were identified during the pedestrian survey. As a result, the project would not cause a substantial adverse change in the significance of a historical resource. No impact would occur.

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

Less than Significant with Mitigation Incorporated. As noted above in item V.a, the records search conducted for the project identified 22 previously recorded cultural resources within a half-mile of the project site, but none within the project site. The sites recorded within the search radius consist of 15 prehistoric sites, three prehistoric isolates, one historic building, one historic structure, one multicomponent site, and one unknown resource. Additionally, the Native American Heritage Commission (NAHC) was contacted on July 12, 2023, to request a Sacred Lands File search and a list of tribal contacts. The results indicated that there are no tribal resources recorded within the project vicinity. Letters were sent to the tribal contacts provided on January 16, 2024. Two responses have been received from the Rincon Band of Luiseño Indians and the San Pasqual Band of Mission Indians expressing concerns and requesting to consult. The city formally consulted with the Rincon Band of Luiseno Indians pursuant to AB 52; see Section XVIII, *Tribal Cultural Resources*. While the city does not formally consult with the San Pasqual Band of Mission Indians under AB 52, the city notified the San Pasqual Band of the availability to comment on this Draft Initial Study/Mitigated Negative Declaration prior to its release for 30-day public review.

In accordance with mitigation measure CUL-2 from the Trails Master Plan Programmatic IS/MND, an intensive pedestrian survey of the project area was conducted by an archaeologist and a Luiseño Native American monitor on July 28, 2023. The survey did not result in the identification of any cultural material within the project area. Based on these results, no known archaeological resources would be affected by the project. However, the project site is located within alluvial soils where there is potential for buried cultural resources. It is possible that construction activities may uncover buried unknown archaeological resources. If subsurface archaeological resources are encountered during construction, such resources could potentially be damaged or destroyed, resulting in a substantial adverse change in the significance of an archaeological resource. As a result, implementation of the proposed project could result in a potentially significant impact to unknown archaeological resources. Implementation of mitigation measures CUL-1 and TCR-1 and TCR-2, which are consistent with the city's Tribal, Cultural, and Paleontological Guidelines (City of Carlsbad 2017), would reduce impacts to less than significant.

Mitigation: The following project-specific mitigation measure, along with TCR-1 and TCR-2 in Section XVIII, *Tribal Cultural Resources*, would be implemented and would satisfy the requirements of mitigation measures CUL-3 and CUL-4 from the Trails Master Plan Programmatic IS/MND.

CUL-1 Contractor Awareness Training. An archaeological sensitivity training program will be developed in consultation with the TCA Tribe retained to monitor and delivered by a qualified professional archaeologist prior to the beginning of ground-disturbing work for construction crews working within the project area. The cultural awareness and sensitivity training shall provide notification procedures if potential archaeological material is discovered, procedures for coordination between construction and monitoring personnel, and information about other situations that may arise if cultural resources, including human remains, are discovered during construction. This training and communication protocol shall be communicated to all new construction personnel prior to construction crews beginning ground-disturbing work on

the project, and on a poster that is placed in a visible location inside the construction job trailer.

c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

Less than Significant with Mitigation Incorporated. The records searches at the SCIC and NAHC conducted for the project did not indicate the presence of identified human remains on or within a half-mile radius of the project site. Most of the project site has been modified to accommodate the existing roadway and although no human remains have been recorded in the project area, the potential to encounter unknown human remains during the project's ground-disturbing activities exists based on the cultural sensitivity of the area. Implementation of mitigation measures CUL-1 and TCR-1 and TCR-2 identified above would reduce potential impacts to human remains to less than significant.

Mitigation: Project -specific mitigation measures CUL-1 and TCR-1 and TCR-2 would be implemented and would satisfy the requirements of mitigation measures CUL-3 and CUL-4 from the Trails Master Plan Programmatic IS/MND

VI. ENERGY	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Subsequent to adoption of the Trails Master Plan Programmatic IS/MND, the 2019 comprehensive update to CEQA added Energy as a resource category to CEQA Guidelines Appendix G, Initial Study Checklist. Thus, energy was not addressed in the Trails Master Plan Programmatic IS/MND but is addressed in this section due to changed regulations.

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

Less than Significant Impact. Energy used for construction would primarily consist of fuels in the form of diesel and gasoline for the operation of construction equipment, haul trucks, and construction worker vehicles. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. The petroleum consumed during project construction would be typical of similar construction projects and would not require the use of new petroleum resources beyond what are typically consumed in California. Based on these considerations, construction of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

The proposed project would include some new streetlights along Avenida Encinas and would therefore require additional energy usage during the operation of the project. However, energy use from these streetlights would be minimal and would comply with all state and local regulations regarding energy usage, including with the city's commitment to use energy-saving, high efficiency induction lamps. In addition, the bikeway and pedestrian improvements would encourage the use of alternative forms of transportation, including walking and bicycling, which could reduce reliance on automobiles and associated petroleum-based energy resources. Therefore, project operations would not use energy in a wasteful, inefficient, or unnecessary manner. Implementation of the project would not result in a substantial increase in demand of local or regional energy supplies compared to existing conditions. Impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The project would be built and operated in accordance with existing, applicable regulations. Construction equipment would be maintained to allow for continuous energy-efficient operations. The bikeway and pedestrian improvements would provide opportunities for alternative transportation, thus reducing reliance on automobiles and associated petroleum-based energy resources. The provision of alternative transportation methods would promote energy conservation and would support policies and goals set forth in the city's Climate Action Plan (CAP), the city's General Plan Sustainability Element, SANDAG's 2021 Regional Transportation Plan, and California's 2018 Integrated Energy Policy Report Update. Accordingly, the project would not conflict with State or local plans related to energy. No impact would occur.

VII. GEOLOGY AND SOILS Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? b) Result in substantial soil erosion or the loss of topsoil?				
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?				

VII. GEOLOGY AND SOILS	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
d) Be located on expansive soils, as defined in Section 1803.5.3 of the California Building Code (2016), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

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

Less than Significant Impact. As shown in Figure 3.5-2 of the City of Carlsbad General Plan EIR, no known active, potentially active, or inactive faults traverse the city or the proposed project alignment, nor is the proposed project alignment located within an Alquist-Priolo Earthquake Fault Zone. The Newport-Inglewood-Rose Canyon Fault, located approximately four miles offshore of the city's coastline, is the closest known active fault. While the potential for on-site rupture cannot be completely discounted (e.g., unmapped faults could conceivably underlie the project alignment), the likelihood for such an occurrence is considered low due to the absence of known faulting within or adjacent to the project alignment. Therefore, impacts related to fault rupture from implementation of the proposed project would be less than significant.

ii. *Strong seismic ground shaking?*

Less than Significant Impact. The project area is in seismically active Southern California and has the potential to be subjected to moderate to strong seismic ground shaking. Seismic shaking could be generated by events on any number of known active and potentially active faults in the region, including the Newport-Inglewood-Rose Canyon Fault (offshore), as well as the Coronado Bank, La Nacion, Elsinore, Agua Caliente, and San Jacinto fault zones. An earthquake along any of these known active or potentially active fault zones could result in severe ground shaking, and consequently cause injury and/or damage within the project alignment. However, construction of the proposed project would not include major structures, and development of infrastructure improvements would conform to applicable regulatory guidelines to accommodate seismic loading, pursuant to the California Building Code (CBC; California Code of Regulations, Title 24, Part 2). Based on the lack of major structures and the incorporation of applicable measures into project improvements, impacts associated with strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction is the phenomenon that occurs during severe ground shaking whereby soil reduces greatly in strength and temporarily behaves similarly to a fluid rather than a solid. Severe or extended liquefaction can result in substantial effects to surface and subsurface facilities through the loss of support and/or foundational integrity. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels.

Certain areas of Carlsbad have a higher risk of liquefaction due to the presence of hydrophytic soils that are often saturated or characteristic of wetlands (e.g., Agua Hedionda Lagoon and Buena Vista Lagoon). The project's northern end is located approximately one mile from Agua Hedionda Lagoon, which is an area that is subject to potential liquefaction. According to Figure 6-7 of the General Plan Public Safety Element, a portion of the project site is also located in an area susceptible to liquefaction due to the presence of tidal flats. However, the proposed project does not include structures requiring foundations within the soils subject to potential liquefaction. In addition, the roadway, bikeway, and pedestrian improvements would be constructed to resist lateral soil loads through design considerations such as removal or re-compaction of liquefiable soils, in-site ground densification, and ground modification and improvement. As such, the proposed project would not result in substantial adverse effects related to ground failure or liquefaction. Impacts would be less than significant.

iv. Landslides?

No Impact. The city's General Plan EIR analysis does not include any areas in the city identified as being susceptible to landslides and the overall risk of landslides is low due to the lack of steep slopes in the vicinity of the project alignment. Given the absence of active faults and the low risk of landslides, the potential for seismically induced landslides is minimal. No impacts related to landslides would occur.

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

Less than Significant Impact. Construction of the project could result in exposed soil during construction activities such as ground clearance and grading, which would result in temporary impacts to the local topography and soils; however, these activities are expected to be minor in scale as the proposed improvements would occur within the existing developed road ROW or areas adjacent to the road on property owned by the city that are predominately disturbed. Potential sedimentation and erosion impacts during construction would be minimized or avoided with the implementation of erosion and sedimentation control measures in compliance with NPDES permit requirements. Furthermore, the project would adhere to the city's Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and Jurisdictional Runoff Management Program (JRMP) to avoid increased urban runoff, pollutants, and soil erosion. Control measures during construction would include applicable BMPs (per the city's BMP Design Manual), such as covering stockpiled excavated materials to reduce potential off-site sediment transport, and regular inspection and maintenance of all sediment catchment facilities to ensure proper function and effectiveness. Upon completion of project construction, most of the project site would be paved and would not include exposed soils that could be subject to erosion. Some areas would include landscaping, such as within the roadway medians and slopes along the roadway, but these landscaped areas would be stabilized and would not be subject to substantial erosion. In addition, the proposed biofiltration swales would function to collect runoff from the project site, thus minimizing the amount of off-site runoff and potential erosion that could result

from such runoff. The proposed project would not result in long-term operational impacts associated with soil erosion or loss of topsoil as the site would be almost entirely paved and would not contain a substantial amount of exposed soil. Compliance with NPDES permit requirements as well as city standards for sedimentation and erosion control BMPs and other applicable city regulations, codes, and ordinances, would ensure that erosion impacts from implementation of the project would be less than significant.

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. As discussed in item VII.a.iv, the project alignment is not located within areas prone to landslides. As discussed in item VII.a.iii, the proposed project does not include structures requiring foundations within potentially unstable soils, and the bikeway and pedestrian improvements would be constructed to resist lateral soil loads through design considerations. Per Section 15.16.060 of the Carlsbad Municipal Code (CMC), grading permits are required for projects with more than 200 cubic yards of earth movement or that cut and fill on steep slopes. Because the project would involve 1,000 CY of cut and 5,500 CY of fill, it would be required to obtain a grading permit and comply with the city's Grading Ordinance (CMC Chapter 15.16), which requires a geotechnical investigation as part of the grading permit application process that would identify potential hazards and provide recommendations consistent with city standards. These actions would ensure that the project would not result in geologic instability. Thus, impacts related to soil stability would be less than significant.

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

Less than Significant Impact. Implementation of the proposed project could result in development on an expansive soil; however, the project would be required to comply with the city's Grading Ordinance (CMC Chapter 15.16), which requires a geotechnical investigation as part of the grading permit application process that would identify potential hazards and provide recommendations consistent with city standards. In addition, the project would incorporate standard engineering techniques in accordance with the CBC to avoid adverse effects of expansive soils. Thus, impacts related to expansive soils would be less than significant.

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 wastewater?*

No Impact. The project does not propose the use of septic tanks; therefore, no impact related to septic tanks or alternative wastewater disposal systems would occur.

f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant Impact with Mitigation Incorporated. Paleontological resources are the remains and/or traces of prehistoric plant and animal life, exclusive of human remains. The city's Tribal, Cultural and Paleontological Guidelines (City of Carlsbad 2017) show the project alignment within an area mapped as having high paleontological sensitivity. However, the project's ground-disturbing activities would be minor in scale as the alignment generally follows previously paved, disturbed, or graded areas

and, as such, it is anticipated the project would have low potential to destroy paleontological resources. In addition, previous disturbance and development in the project area further reduces the potential that intact paleontological resources are present within the proposed project site. However, it is possible that undiscovered fossils may be unearthed during construction. If fossils are present, they could be damaged during construction activities, resulting in a potentially significant impact. Implementation of mitigation measure GEO-1 would reduce potential impacts to unique paleontological resources to less than significant.

Mitigation: The following project-specific mitigation measure would be implemented and would satisfy the requirements of mitigation measure PALEO-1 from the Trails Master Plan Programmatic IS/MND.

GEO-1 Unanticipated Discovery of Paleontological Resources. If evidence of subsurface paleontological resources is found during construction, excavation and other ground-disturbing construction activity shall immediately cease at the location of the suspected paleontological exposure plus a 50-foot radius around the suspected find (no-work area) and the construction contractor shall contact the City of Carlsbad Planning Division. With direction from the City of Carlsbad Planning Division, a qualified paleontologist shall evaluate the find prior to resuming ground-disturbing construction activity in the no-work area of the find. If warranted, the paleontologist shall prepare and implement a Paleontological Resources Mitigation and Monitoring Program for the salvage and curation of identified resources for approval by the City of Carlsbad and implementation by the construction contractor. The paleontologist shall be responsible for salvaging, monitoring, recovering, and/or completing any subsequent work deemed necessary, such as submitting paleontological resources to the San Diego Natural History Museum, pursuant to Section 10.4.2 of the Carlsbad Tribal, Cultural, and Paleontological Guidelines.

VIII. GREENHOUSE GAS EMISSIONS		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purposes of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

The discussion below is based on the Air Quality and Greenhouse Gas Emissions Analysis (HELIX 2025a) prepared for the proposed project, which is included as Appendix A to this IS/MND.

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

Less Than Significant Impact. Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone, and certain hydro-fluorocarbons. These gases, known as

greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contribute to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative; direct impacts cannot be evaluated because the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO₂, CH₄, N₂O, ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO₂e) units for comparison. The CO₂e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure. The most common GHGs related to the project are those primarily related to energy usage: CO₂, CH₄, and N₂O.

In September 2015, the City of Carlsbad CAP was unanimously adopted by the City Council. This was followed by the City Council's unanimous adoption of CAP Amendment No. 1 in July 2020. On November 12, 2024, the City Council approved the Climate Action Plan Update, which outlines updated strategies to reduce GHG emissions and promote environmental sustainability. The CAP Update is designed to reduce the city's GHG emissions and streamline environmental review of future development projects in the city in accordance with CEQA.

The CAP includes goals, policies, and actions for the city to reduce GHG emissions and combat climate change and includes an inventory of citywide and local government GHG emissions; forecasts of future citywide and local government GHG emissions; a comprehensive, citywide strategy and actions to manage and reduce GHG emissions, with emission targets through 2045; and actions that demonstrate the city's commitment to achieve state GHG reduction targets by creating enforceable measures, and monitoring and reporting processes to ensure targets are met. The timeframe for the CAP extends from the date of adoption through 2045. The CAP was developed as a qualified plan as described in CEQA Guidelines Section 15183.5(b). The CAP established a screening threshold of 900 metric tons carbon dioxide equivalents (MT CO₂e) per year for new development projects to determine if a project would need to demonstrate consistency with the CAP through the Consistency Checklist and/or a self-developed GHG emissions reduction program (Self-Developed Program Approach). Projects that are projected to generate fewer than 900 MT CO₂e annually would not make a considerable contribution to the cumulative impact of climate change and, therefore, do not need to demonstrate consistency with the CAP.

Operation of the project would not generate GHG emissions. Rather, the project would allow for an increase in multi-modal transit by providing bicycle and pedestrian facilities, which could reduce vehicle trips and associated GHG emissions. Construction of the project would involve the use of off-road construction equipment, haul trucks, and worker vehicles, all of which would generate GHG emissions. Based on the relatively few pieces of heavy equipment anticipated to be required for construction and the temporary nature of construction activities, the project would not generate substantial GHG emissions. Emissions from project construction were estimated, using CalEEMod, to be 273 MT CO₂e for the entirety of the construction process, which would be approximately seven months. These emissions, amortized over a 30-year period per guidance provided by the Association of Environmental

Professionals (AEP) and the South Coast Air Quality Management District (SCAQMD), would yield approximately 9.1 MT CO₂e per year, which is well below the city’s screening threshold of 900 MT CO₂e per year. As a result, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant.

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

No Impact. As stated above in item VIII.a, the city adopted a CAP in 2015, revised the GHG targets in 2020 to be consistent with statewide GHG reductions goals established by AB 32 and SB 32, and adopted a CAP Update in 2024. The CAP outlines actions that the city will undertake to achieve its proportional share of state GHG emissions reductions. The CAP demonstrates that, with implementation of applicable General Plan goals and policies, coupled with state and federal actions, and execution of CAP measures and actions, the city will reduce GHG emissions in alignment with state goals established by AB 32 and SB 32, and maintain a trajectory to meet its proportional share of the 2050 state target identified in Executive Order S-3-05, which was issued by the Governor in 2005. More recently, AB 1279, signed in September 2022, established a statewide target of reducing GHG emissions by 85 percent below 1990 levels no later than 2045 and achieving net zero emissions through carbon dioxide removal. AB 1279 was a key reason for Carlsbad’s CAP Update in 2024, and the city intends to reach the 85 percent reduction target by 2045 established by the legislation.

As described in item VIII.a, the proposed project would be well below the city’s screening threshold of 900 MT CO₂e per year. Further, the project entails pedestrian and bicycle improvements which would be consistent with General Plan policies aimed at (among other things) reducing GHG emissions, as presented in Table 5, *Project Consistency with GHG Emissions Reducing General Plan Policies*, below.

Table 5
PROJECT CONSISTENCY WITH GHG EMISSIONS REDUCING GENERAL PLAN POLICIES

General Pan Policy	Project Consistency
<i>Sustainability Element</i>	
Policy 9-P.1: Enforce the Climate Action Plan as the city’s strategy to reduce greenhouse gas emissions.	Consistent. The project is subject to applicable requirements and strategies in the city’s CAP and as discussed above, the project would be consistent with the CAP.
<i>Mobility Element</i>	
Policy 3-P.8: Utilize transportation demand management strategies, non-automotive enhancements (bicycle, pedestrian, transit, train, trails, and connectivity), and traffic signal management techniques as long-term transportation solutions and traffic mitigation measures to carry out the Carlsbad Community Vision.	Consistent. The project entails bicycle and pedestrian improvements consistent with adopted land use plans and would provide improved access to transit facilities that would reduce reliance on motorized vehicles, which would reduce GHG emissions.
Policy 3-P.17: Consider innovative design and program solutions to improve the mobility, efficiency, connectivity, and safety of the transportation system. Innovative design solutions include, but are not limited to, traffic calming devices, roundabouts, traffic circles, curb extensions, separated bicycle infrastructure, pedestrian scramble intersections, high	Consistent. The project would implement pedestrian improvements and Reach 5 of the city’s portion of the CRT that would connect to existing CRT segments to improve connectivity and mobility within the city. The proposed improvements would reduce reliance on motorized vehicles, which would reduce GHG emissions.

General Pan Policy	Project Consistency
visibility pedestrian treatments and infrastructure, and traffic signal coordination. Innovative program solutions include, but are not limited to, webpages with travel demand and traffic signal management information, car and bike share programs, active transportation campaigns, and intergenerational programs around schools to enhance safe routes to schools. Other innovative solutions include bicycle friendly business districts, electric and solar power energy transportation systems, intelligent transportation systems, semi- or full autonomous vehicles, trams, and shuttles.	
Policy 3-P.25: Implement the projects recommended in the pedestrian, trails, and bicycle master plans through the city's capital improvement program, private development conditions and other appropriate mechanisms.	Consistent. The project would implement planned bicycle and pedestrian improvements that would reduce reliance on motorized vehicles, which would reduce GHG emissions.
Policy 3-P.26: Identify and implement necessary pedestrian improvements on pedestrian-prioritized street with special emphasis on providing safer access to schools, parks, community and recreation centers, shopping districts, and other appropriate facilities.	Consistent. The project would implement pedestrian improvements and Reach 5 of the city's portion of the CRT that would connect to existing CRT segments to improve connectivity and mobility within the city. The proposed improvements would reduce reliance on motorized vehicles, which would reduce GHG emissions.
Policy 3-P.28: Improve and enhance parking, connectivity, access, and utilization for pedestrians and bicycles to COASTER stations, utility corridors, and open spaces consistent with city planning documents.	Consistent. The project entails bicycle and pedestrian improvements consistent with adopted land use plans that would provide improved access to the Poinsettia Coaster Station. The proposed improvements would reduce reliance on motorized vehicles and provide opportunities for use of transit, which would reduce GHG emissions.

As such, the project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions. No impact would occur.

IX. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
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 environment?	☐	☐	☒	☐
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 or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

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. Operation of the new bikeway and pedestrian improvements would not involve the routine use, transport, and/or disposal of hazardous materials. Thus, no long-term operational impacts related to hazardous materials are anticipated. Limited transport, storage, use, and disposal of hazardous materials may occur during construction (e.g., the use of fuels, solvents, and lubricating fluids for the fueling and servicing of construction equipment). The County of San Diego Department of Environmental Health, Hazardous Materials Division is the designated Certified Unified Program Agency (CUPA) for San Diego County and is required to implement the unified hazardous waste and hazardous materials management and regulatory program for the County with the help of other local agencies such as the city. Construction would be short term, and the handling of hazardous materials would be regulated through implementation of CUPA programs, as well as conformance with other applicable federal, state, and local regulations. Thus, the impact would be less than significant.

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

Less than Significant Impact. Operation of the new bikeway and pedestrian improvements would not involve the routine use, transport, and/or disposal of hazardous materials and thus, would not release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. Construction of the bikeway and pedestrian improvements would not be expected to 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. The use of construction-related hazardous materials such as fuels, solvents, and lubricating fluids could potentially result in accidental discharges associated with storage, vehicle operation (e.g., refueling), or maintenance. The improvements would be subject to General Plan, Public Safety Element Policy 6-P.40, which requires regulations that require proper storage and disposal of hazardous materials to reduce the likelihood of leakage, explosions, or fire, and to properly contain potential spills from leaving the site. Construction would be short term, and the handling of hazardous materials would be regulated through implementation of CUPA programs, as well as conformance with other applicable federal, state, and local regulations. Thus, project construction and operation 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.

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. The closest school to the project site, Community Montessori Charter School (6797 Embarcadero Lane), is located approximately 60 feet from the project alignment at the southern project limit; however, the project consists of a bikeway, pedestrian, and roadway improvements which do not involve the routine use of hazardous materials that could adversely affect humans at nearby schools. No operational impacts are anticipated. Potential construction and/or maintenance-related impacts would be minimized or avoided through conformance with applicable federal, state, and local regulations, as described in items IX.a and IX.b, above. Impacts would be less than significant.

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 it create a significant hazard to the public or the environment?*

Less than Significant Impact. Government Code 65962.5 stipulates that specific agencies identify and update annually a list of sites that have been reported to have certain types of contamination. The State Water Resources Control Board (SWRCB) GeoTracker database and the Department of Toxic Substances Control (DTSC) EnviroStor database provide information on hazardous materials sites. GeoTracker provides access to regulatory data about sites that require cleanup action, including leaking underground storage tanks, Department of Defense sites, and Cleanup Program sites. EnviroStor identifies sites that have known contamination or sites where there may be reasons to investigate further. It also identifies facilities that are authorized to treat, store, dispose, or transfer hazardous waste.

A search of the SWRCB GeoTracker database (SWRCB 2024) and the DTSC EnviroStor database (DTSC 2024) was completed for the project site pursuant to Government Code Section 65962.5 to determine the presence of any listed hazardous materials sites within the project area. There are no listed hazardous cleanup sites within the project alignment, and no open cases are located within 1,000 feet of the project site. There are four listed Cleanup Program sites and four Leaking Underground Storage Tank Cleanup sites associated with businesses on the east side of Avenida Encinas, but all have a case-closed status and thus, would pose no hazardous risk for the proposed project. Based on the fact that there are no known listed hazardous sites or ongoing clean-up activities occurring within the project area that would pose a hazardous risk, the construction and operation of the proposed project would not create significant hazards to the public or environment. Impacts would be less than significant.

- 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 or excessive noise for people residing or working in the project site?***

Less than Significant Impact. The project alignment is located approximately two miles from the McClellan-Palomar Airport but is not within a designated airport safety zone or within the 60 Community Noise Equivalent Level (CNEL) noise contour (San Diego County Regional Airport Authority 2011). In addition, the project would not construct structures that would pose a risk to aircraft. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. Impacts would be less than significant.

- f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less than Significant Impact. The City of Carlsbad Fire Department's Emergency Preparedness Division supports the emergency organization by further defining the scope of the city's Emergency Management Program and large-scale incident response activities. Carlsbad is a participant in the Unified San Diego County Emergency Services Organization (USDCESO). The USDCESO Operational Area Emergency Plan contains evacuation routes resulting from a variety of emergencies. The long-term operation of the project would not include any features that would impair access to evacuation routes identified in the city, or otherwise conflict with an emergency response plan or emergency evacuation plan. Project construction would not involve activities that would physically impair or interfere with emergency response plans for the project area. During construction, there could be the potential for temporary lane closures. Temporary lane closures would be for a short period of time, and a Traffic Control Plan would be prepared prior to project construction by the construction contractor as a requirement of the right-of-way permit and subject to city approval to ensure that emergency access would be maintained. Potential impacts associated with conflicts to emergency response plans would be less than significant.

- g) *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

Less than Significant Impact. The project alignment along Avenida Encinas is not within or near any Local Responsibility Area Fire Hazard Severity Zone (CALFIRE 2025). The project site would be more susceptible to a structure fire due to the presence of buildings lining the east side of the project alignment. The project does not propose any habitable structures or other combustible components that would increase the potential for fires in the project area. In the instance of a fire in the vicinity of

the project alignment, the area would likely be evacuated, and use of the roadway would be discouraged and/or prohibited. The site's location along a roadway would allow for direct access and prompt emergency response to the site in the event of a fire. In addition, the City of Carlsbad Fire Department has signed automatic aid agreements with all surrounding communities when additional firefighting resources are needed. The city is also part of both the San Diego County and State of California Master Mutual Aid Agreements and maintains a separate agreement with the California Department of Forestry and Fire Protection. The project would not increase or exacerbate the existing risk of loss, injury, or death involving wildland or structure fires in the project area. Impacts would be less than significant.

X. HYDROLOGY AND WATER QUALITY Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with ground water recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:				
i. Result in substantial erosion or siltation on- or offsite;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The discussion below is based, in part, on the Stormwater Quality Management Plan (SWQMP; Nasland Engineering 2023) and Hydraulic Report (Nasland Engineering 2024) prepared for the proposed project. These reports are included as Appendices D and E to this IS/MND.

a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact. Development of the bikeway and pedestrian improvements, as well as the proposed roadway improvements, have the potential to result in water quality and waste discharge requirement violations. The project would be required by law to comply with all applicable federal, state, and local water quality regulations. Applicable regulations include, but are not limited to:

- Federal Clean Water Act
- Division 7 of the California Water Code (Porter-Cologne Water Quality Act)
- Specific basin plan objectives identified in the “Water Quality Control Plan for San Diego Basin” (WQCP)
- NPDES Municipal Separate Storm Sewer Systems Permit (MS4 Permit) issued by the San Diego RWQCB
- City of Carlsbad Engineering Standards, Volume 4, Construction Storm Water Pollution Prevention Plan (SWPPP) – BMPs during construction, and Volume 5, Best Management Practices – BMP after construction, the Carlsbad Water Quality Improvement Plan (WQIP) and the Carlsbad Watershed Management Area Analysis (WMAA), which is part of the WQIP.
- City of Carlsbad’s Master Drainage Plan, Grading Ordinance, Storm Water Ordinance, BMP Design Manual and JRMP.

The San Diego RWQCB is responsible for regulating storm water discharges and maintaining the quality of water resources within the County, including the project area. Construction activities, storm drain systems, and point-source discharges associated with the project would be required to obtain coverage under an NPDES permit, per Section 402 of the Clean Water Act. The project would be required to meet, at a minimum, standard storm water requirements to reduce the volume of runoff from impervious surfaces and increase the amount of natural filtration of pollutants from on-site storm water. Standard requirements include the following low impact development (LID) measures identified in General Plan EIR Section 3.8, Hydrology and Flooding/Water Quality:

- Drain a portion of impervious areas into pervious areas, if any.
- Design and construct pervious areas, if any, to effectively receive and infiltrate runoff from impervious areas, taking into account soil conditions, slope, and other pertinent factors.
- Construct a portion of paved areas with low traffic and appropriate soil conditions with permeable surfaces.

For a project that would disturb one or more acres of land, create greater than 5,000 square feet of impervious surfaces, or otherwise pose a threat to storm water quality, a SWPPP and SWQMP is required to be prepared pursuant to the requirements in the City of Carlsbad Engineering Standards and Grading and Drainage Ordinances. The SWPPP would include a program of BMPs to provide storm water runoff, erosion and sediment control and reduce potential impacts to water quality that may result from

construction activities. Typical construction BMPs include the following, as identified in General Plan EIR Section 3.8:

- **Minimizing disturbed areas.** Clearing of land is limited to that which will be actively under construction in the near term; new land disturbance during the rainy season is minimized; and disturbance to sensitive areas or areas that would not be affected by construction is minimized.
- **Stabilizing disturbed areas.** Temporary stabilization of disturbed soils is provided whenever active construction is not occurring on a portion of the site, and permanent stabilization is provided by finish grading and permanent landscaping.
- **Protecting slopes and channels.** Outside of the approved grading plan area, disturbance of natural channels is avoided; slopes and crossings are stabilized; and increases in runoff velocity caused by the project are managed to avoid erosion to slopes and channels.
- **Controlling the site perimeter.** Upstream runoff is diverted around or safely conveyed through the project and is kept free of excessive sediment and other constituents.
- **Controlling internal erosion.** Sediment-laden waters from disturbed, active areas within the site are detained.

Non-point source surface water from impervious surfaces associated with the project may contain contaminants or increased sediment loads that would have the potential to increase pollution within the local storm drain system; however, the project would include biofiltration swales at select locations between the roadway and the bikeway and pedestrian improvements that would connect to existing storm drains. The swales would function to reduce sediments and other pollutants in the runoff before the runoff is discharged off site to the storm drain system.

In addition to Clean Water Act NPDES requirements, states are required to identify and document polluted surface water bodies, with the resulting documentation referred to as the Clean Water Act Section 303(d) List of Water Quality Limited Segments. This list of water bodies identifies the associated pollutants and total maximum daily loads (TMDLs), along with projected TMDL implementation schedules/status. A TMDL establishes the maximum amount of an impairing substance or stressor that a water body can assimilate and still meet water quality standards and allocates that load among pollution contributors. The San Diego RWQCB is responsible for developing the 303(d) list in the San Diego region. Receiving waters for the project site, Encinas Creek and Pacifica Ocean (La Jolla to San Onofre) are not currently listed as impaired (based on the 2020 303[d] List) Implementation of the BMPs in the PCSMP would ensure that the proposed project would not create adverse water quality impacts to Chollas Creek and downstream receiving waters of the San Diego Bay.

Through implementation of the proposed biofiltration swales and compliance with the applicable federal, state, and local water quality regulations, impacts related to water quality standards and waste discharge requirements would be less than significant.

b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less than Significant Impact. The proposed project would not require the use of, or otherwise substantially interfere with, groundwater supplies or recharge. Groundwater consists of water within underground aquifers that is recharged from the land surface. The rate of groundwater recharge is affected by the permeability of the ground surface. Although project development would increase the amount of impervious surface in the project area by approximately 61,000 square feet, it would not be of an amount that would substantially reduce groundwater recharge. In addition, the Carlsbad Municipal Water District does not currently utilize local groundwater or surface water supplies, and the project site is not within an area that has a managed groundwater basin. Impacts would be less than significant.

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 or through the addition of impervious surfaces, in a manner which would:*

i. *Result in substantial erosion or siltation on- or off-site?*

Less than Significant Impact. Implementation of the project would not modify existing drainage patterns or involve the direct alteration of the course of a stream or river. The existing drainage pattern within the project site generally consists of sheet flow that is directed to curb and gutter on both sides of Avenida Encinas, gravity flows to curb inlets and a headwall, and discharges to the west into Encinas Creek and ultimately the Pacific Ocean. The proposed project would not alter the overall existing drainage patterns. Upon project implementation, runoff from the site would continue as sheet flow and directed into the curb and gutter system and would discharge into biofiltration systems for treatment or curb inlets that would convey runoff into storm drain pipes that discharge to the west into Encinas Creek and eventually the Pacific Ocean. Although the project would result in an increase in impervious surfaces of approximately 61,000 square feet, the new impervious surfaces would be located in areas that currently consist of disturbed land that is susceptible to erosion and siltation. The increase in impervious surfaces would reduce the area of exposed soils thus reducing the potential for on-site erosion and siltation at the project site. In addition, proposed drainage facilities have been designed to accommodate the 100-year storm event further limiting the potential for off-site erosion and siltation. Impacts would be less than significant.

ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less than Significant Impact. As discussed above in item X.c.i, implementation of the project would not modify existing drainage patterns or involve the direct alteration of the course of a stream or river. Although the project would result in an increase in impervious surfaces of approximately 61,000 square feet, additional surface runoff generated by the new impervious surfaces would be collected by the existing and proposed drainage facilities. The proposed drainage facilities have been designed to accommodate runoff associated with a 100-year storm event. As such, project runoff would not result in on- or off-site flooding. Therefore, impacts would be less than significant.

iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less than Significant Impact. As discussed above in item X.c.i, project implementation would not modify existing drainage patterns or involve the direct alteration of the course of a stream or river. The project would result in an increase in impervious surfaces of approximately 61,000 square feet, which would increase runoff volumes and rates; however, the additional surface runoff generated by the new impervious surfaces would be collected by the existing and proposed drainage facilities. The proposed drainage facilities have been designed to accommodate runoff associated with a 100-year storm event. As such, the project runoff would not exceed the capacity of stormwater drainage systems. In addition, biofiltration swales are proposed at select locations that would treat runoff before it enters the storm drain system. Therefore, the proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial sources of polluted runoff. Impacts would be less than significant.

iv. *Impede or redirect flood flows?*

No Impact. According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center (FEMA 2024) and the Figure 6-1 of the city's General Plan Public Safety Element (City of Carlsbad 2024), the project site is not mapped within a flood hazard area or special flood hazard area. The project would not place any new structures within floodplain areas that would impede or redirect flood flows. No impact would occur.

d) *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

Less than Significant Impact. As discussed in item X.c.iv, the project alignment is not mapped within a flood hazard area. Tsunamis are long wavelength ocean waves generated by sudden movements of the ocean bottom during events such as earthquakes, volcanic eruptions, or landslides. The County of San Diego maps zones of high risk for tsunami run-up. As shown in Figure 6-4 of the General Plan Safety Element, the only areas identified within the city as having risk for tsunami run-up are the immediate vicinity of the Buena Vista, Agua Hedionda, and Batiquitos lagoons. As the project site is located approximately 1.1 miles from the tsunami runup area associated with Agua Hedionda Lagoon, it is unlikely that the project alignment would be inundated by a tsunami. Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs. Potential effects from seiches include flooding damage and related hazards from spilling or sloshing water, as well as increased pressure on containment structures. The nearest enclosed body of water to the project alignment is Agua Hedionda Lagoon, approximately 1.1 miles to the north/northwest. Based on distance and topography, it is unlikely a seiche within Agua Hedionda Lagoon would inundate the project site. In addition, the project would not include sources of substantial amounts of pollutants. Therefore, even in the unlikely event that the project is inundated by a flood, tsunami, or seiche, the risk of release of pollutants would be low. Impacts would be less than significant.

e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

No Impact. The regulation, protection, and administration of water quality in Californian is carried out by the State Water Resources Control Board and nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs are responsible for the adoption and implementation of water quality control plans,

issuance of discharge permits, and perform other functions in relation to regulating the region's water quality. The Water Quality Control Plan for the San Diego Basin (Basin Plan; RWQCB 2021) identifies the portion of the project alignment from Palomar Airport Road to the city Water Recycling Center as within the Encinas hydrologic area of the Carlsbad hydrologic unit (904.40), and the portion of the project alignment from the city Water Recycling Facility to the southern project limits as within the Batiquitos hydrologic subarea of the San Marcos hydrologic area of the Carlsbad hydrologic unit (904.51). Beneficial uses designated in the Basin Plan for the surface waters within these hydrologic areas include non-contact water recreation, warm freshwater habitat, and wildlife habitat.

As identified in item X.a, downstream receiving waters are not listed as impaired on the Section 303(d) List. Runoff from the project site would be collected by the proposed drainage facilities, treated in accordance with the water quality regulations, and then discharged into the existing storm drain system that ultimately discharges into Encinas Creek and the Pacific Ocean. The proposed project would be required to comply with applicable storm water quality standards during construction and operation. Conformance with the Basin Plan water quality objectives would be demonstrated through compliance with applicable regulations and implementation of construction and post-construction BMPs. Thus, the project would be consistent with the Basin Plan. The California Sustainable Groundwater Management Act (SGMA) was passed in 2014, which provides authority for local agencies to manage groundwater and requires that most groundwater basins be under sustainable management within 20 years in a manner that would be maintained without causing undesirable results. The project site is not within an area that has a managed groundwater basin. Therefore, implementation of the proposed project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) *Would the project physically divide an established community?*

No Impact. Implementation of the proposed improvements would not physically divide an established community. The project would improve connectivity by providing new bicycle and pedestrian facilities along an existing roadway with improved connections to transit facilities in the project area. No new roads, structures, or other improvements would be developed that would separate neighborhoods or physically divide an established community. No impact would occur.

b) *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Less than Significant Impact. The proposed project has been designed to be consistent with the Carlsbad SMP, Trails Master Plan, General Plan, Scenic Corridor Guidelines, the California Coastal Act and the city's LCP, and the city's Municipal Code (Section 21.210, Habitat Preservation and Management Requirements).

Carlsbad Sustainable Mobility Plan

The Carlsbad SMP presents a comprehensive look at current active travel and transit conditions, as well as previous planning efforts to consolidate findings and recommendations into one master document. The SMP provides recommendations for reducing vehicle miles traveled and impacts of growth and development, as well as shifting how residents get around the city away from private automobiles toward modes that are more livable, cleaner and healthier. The SMP identifies the CRT as a trail facility that will provide an important north/south bikeway connection throughout the city along the eastern side of the NCTD rail line. SMP Figure 5-2 shows a proposed roadside trail along Avenida Encinas as part of the planned trail network, consistent with the proposed alignment of the project. Furthermore, the Action Plan in SMP Chapter 7 identifies recommendations along the Avenida Encinas corridor (SMP project number 8) that are consistent with the project, including bicycle and pedestrian facilities. Accordingly, the project would be consistent with the SMP.

Carlsbad Trails Master Plan

The Trails Master Plan (City of Carlsbad 2019) is the city's principal planning document for developing and maintaining the citywide trails system. The Trails Master Plan identifies important east/west and north/south connections around the city's major lagoons and the Pacific Coast. The project is identified as proposed Trail Segment 10B, Coastal Rail Trail Reach 5 (Palomar Airport Road to Poinsettia Coaster Station), in Chapter 5, Trail Development Implementation, of the Trails Master Plan. The CRT is described as a "much longer trail that will eventually connect all the San Diego County coastal cities" and is specifically noted that "not all segments of the trail lie alongside the railroad" and that "it is more desirable to locate this segment outside of the rail track right-of-way." The project would be consistent with the alignment identified in the Trails Master Plan.

The Trails Master Plan identifies Trail Segment 10B as a Type 4 Roadside or Connector trail. Trails Master Plan Chapter 6, Trail Standards and Design Guidelines, states that Type 4 trails are intended to provide a "trail like experience even if it is along a roadway" and are planned along highly traveled roadways. A Type 4 trail is typically stabilized decomposed granite with a width between 8 and 12 feet (within a 10- to 14-foot-wide easement) and separated from the vehicle traffic by at least a 5-foot buffer. The proposed project would provide sidewalks on both sides of the roadway and Class II bike lanes that would consist of a six-foot-wide striped facility along both sides of Avenida Encinas adjacent to the vehicular lanes. These proposed improvements would not be consistent with a Type 4 trail. However, the project is a segment of the CRT that is part of a larger effort to link the coastal cities of Northern San Diego County with the City of San Diego with the initial vision of a Class I path along existing rail lines. In Chapter 5, Planned Mobility Networks, the SMP states that the city has obtained some funding to construct the portion of city's CRT along Avenida Encinas from Cannon Road to Carlsbad Boulevard but due to the substantial cost of completing the long-term alignment, which includes crossing three

lagoons, an interim alignment has been identified, which includes Class II and III on-street facilities that may be implemented while additional funding is being sought for a long-term Class I facility.

The project would be consistent with the interim trail type described above and would provide pedestrian and bicycle facilities along a highly traveled roadway that would improve multi-modal connectivity within the project area, consistent with Goal 1 of the Trails Master Plan to create a connected and complete trails system as well as Goal 4 to integrate transportation related facilities as part of the trails system. Thus, the project would be consistent with the Trails Master Plan.

Carlsbad General Plan

The consistency with the General Plan is further demonstrated in Table 6, *Demonstration of General Plan Consistency*, which highlights many of the various goals, policies, and other provisions of the General Plan with which the project complies. The table is not meant to be exhaustive; instead, it provides a consistency analysis over a broad section of General Plan Elements, with a focus on those policies pertaining to environmental effects.

Table 6
DEMONSTRATION OF GENERAL PLAN CONSISTENCY

General Plan Goals & Policies	Consistency
<i>Land Use and Community Design Element</i>	
Policy 2-P.45e-f: Evaluate each discretionary application for development of property with regard to the following specific criteria: - Provision of public and/or private usable open space and/or pathways designated in the Open Space, Conservation, and Recreation Element. - Contributions to and extensions of existing systems of streets, foot or bicycle paths, trails and the greenbelts provided for in the Mobility, and Open Space, Conservation, and Recreation Elements of the General Plan (Note: Only criteria applicable to a trail project is listed.)	Consistent. The proposed project is a recreational roadside bikeway and pedestrian improvement that would provide public pathways and extend existing bicycle and pedestrian facilities along the planned CRT, consistent with the alignment identified on Figure 4-4 of the Open Space, Conservation, and Recreation Element.
<i>Mobility Element</i>	
Goal 3-G.1: Keep Carlsbad moving with livable streets that provide a safe, balanced, cost-effective, multi-modal transportation system (vehicles, pedestrians, bikes, transit), accommodating the mobility needs of all community members, including children, the elderly and the disabled.	Consistent. The proposed project would provide improvements to support pedestrian and bicycle transport for all community members. Proposed facilities would be designed in accordance with applicable city standards and to comply with Americans with Disabilities Act requirements.
Policy 3-P.8: Utilize transportation demand management strategies, non-automotive enhancements (bicycle, pedestrian, transit, train, trails, and connectivity), and traffic signal management techniques as long-term transportation solutions and traffic mitigation measures to carry out the Carlsbad Community Vision.	Consistent. The proposed project would provide non-automotive enhancements, including those for pedestrians and bicyclists and would improve access for transit users, including to the Poinsettia Coaster Station.

General Plan Goals & Policies	Consistency
Policy 3-P.16: Design new streets, and explore funding opportunities for existing streets, to minimize traffic volumes and/or speed, as appropriate, within residential neighborhoods without compromising connectivity for emergency first responders, bicycles, and pedestrians consistent with the city's Carlsbad Active Transportation Strategies. This should be accomplished through management and implementation of livable streets strategies and such programs like the Carlsbad Residential Traffic Management Plan.	Consistent. The project proposes to implement traffic calming measures, including raised landscaped medians and median passageways with flashing beacons, and provide enhanced pedestrian and bicycle facilities along a neighborhood connector street to improve multi-modal mobility, efficiency, connectivity, and safety.
Policy 3-P.17: Consider innovative design and program solutions to improve the mobility, efficiency, connectivity, and safety of the transportation system. Innovative design solutions include, but are not limited to, traffic calming devices, roundabouts, traffic circles, curb extensions, separated bicycle infrastructure, pedestrian scramble intersections, high visibility pedestrian treatments and infrastructure, and traffic signal coordination. Innovative program solutions include, but are not limited to, webpages with travel demand and traffic signal management information, car and bike share programs, active transportation campaigns, and intergenerational programs around schools to enhance safe routes to schools. Other innovative solutions include bicycle friendly business districts, electric and solar power energy transportation systems, intelligent transportation systems, semi- or full autonomous vehicles, trams, and shuttles.	Consistent. The project would implement pedestrian improvements and Reach 5 of the city's portion of the CRT that would connect to existing CRT segments to improve connectivity and mobility within the city. The project proposes raised landscaped medians and median passageways with flashing beacons.
Policy 3-P.25: Implement the projects recommended in the pedestrian, trails and bicycle master plans through the city's capital improvement program, private development conditions and other appropriate mechanisms.	Consistent. The proposed project would provide pedestrian and bicycle opportunities to support the pedestrian, trails, and bicycle master plans. The proposed improvements would enhance pedestrian and bicyclist safety and accessibility along the Avenida Encinas portion of the CRT, a planned regional north-south bicycle route.
<i>Open Space, Conservation, and Recreation Element</i>	
Goal 4-G.3: Protect environmentally sensitive lands, wildlife habitats, and rare, threatened or endangered plant and animal communities.	Consistent. As discussed in Section IV, <i>Biological Resources</i>, impacts to sensitive habitat and species would be fully mitigated with implementation of project-specific mitigation measures BIO-1 through BIO-5.
Goal 4-G.8: Coordinate the planning of park facilities and trails with other recreation-oriented land uses such as open space.	Consistent. The proposed project is a recreational and roadside bikeway and pedestrian improvement that would provide public recreational access along the CRT, a planned regional bicycle route that would provide a continuous north-south bicycle route with direct access to coastal resources and recreational facilities.

General Plan Goals & Policies	Consistency
Goal 4-G.11: Utilize greenways and trails to connect the city's open space network.	Consistent. The proposed bikeway and pedestrian improvements would provide connectivity along the Avenida Encinas CRT, a planned regional bicycle route that would provide a continuous north-south bicycle route with direct access to coastal resources and recreational facilities.
Goal 4-G.13: Protect air quality within the city and support efforts for enhanced regional air quality.	Consistent. The project would implement planned bicycle and pedestrian improvements that would reduce reliance on motorized vehicles, which would reduce mobile emissions of air pollutants.
Goal 4-G.14: Promote the protection of Carlsbad's creeks, lagoons, ocean and other natural water bodies from pollution.	Consistent. The project would include biofiltration swales as part of proposed drainage improvements to treat runoff and protect water quality of downstream receiving waters.
Policy 4-P.9: Maintain and implement the city's HMP, including the requirement that all development projects comply with the HMP and related documents. Require assessments of biological resources prior to approval of any development on sites with sensitive habitat, as depicted in Figure 4-3 in Chapter 4 of the General Plan.	Consistent. A Biological Technical Report (HELIX 2025b) was prepared for the project to assess biological resources within and adjacent to the project alignment. As discussed under item IV.f, the project would be consistent with the requirements of the HMP with implementation of project-specific mitigation measures BIO-1, BIO-2, and BIO-3.
Policy 4-P.41: Participate with other north county communities to establish an intercommunity open space linkage program and regional trail network	Consistent. The project would implement a planned segment of the regional CRT within the city that will ultimately connect with other segments in neighboring cities.
Policy 4-P.42: Locate multi-use trails and associated amenities and passive recreational features to minimize impacts to sensitive habitats and other sensitive surrounding land uses, such as residences.	Consistent. The project alignment is sited along an existing roadway and would occur predominately within existing developed and disturbed land. Impacts to sensitive habitat would be fully mitigated with implementation of project-specific mitigation measures BIO-1 through BIO-5.
Policy 4-P.56: Ensure that construction and grading projects minimize short-term impacts to air quality. a) Require grading projects to provide a storm water pollution prevention plan (SWPPP) in compliance with city requirements, which include standards for best management practices that control pollutants from dust generated by construction activities and those related to vehicle and equipment cleaning, fueling and maintenance; b) Require grading projects to undertake measures to minimize mononitrogen oxides (NOx) emissions from vehicle and equipment operations; and c) Monitor all construction to ensure that proper steps are implemented	Consistent. The project would be required to prepare and implement a SWPPP during construction to reduce and minimize air pollutant emissions during construction activities.

General Plan Goals & Policies	Consistency
Policy 4-P.59: Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground or source of potential pollution) to minimize the transport of urban runoff and pollutants offsite and into a municipal separate storm sewer system (MS4).	Consistent. The project would include biofiltration swales as part of proposed drainage improvements to treat runoff before it is discharged into the municipal storm water system and to protect water quality of downstream receiving waters.
<i>Arts, History, Culture, and Education Element</i>	
Policy 7-P.8: During construction of specific development projects, require monitoring of grading, ground-disturbing, and other major earthmoving activities in previously undisturbed areas or in areas with known archaeological or paleontological resources by a qualified professional, as well as a tribal monitor during activities in areas with cultural resources of interest to local Native American tribes. Both the qualified professional and tribal monitor shall observe grading, ground-disturbing, and other earth-moving activities.	Consistent. As discussed in item V.b (Cultural Resources) and Section XVIII, <i>Tribal Cultural Resources</i>, the project would implement project-specific mitigation measures CUL-1 and TCR-1 and TCR-2, which would involve contractor awareness training and cultural resources monitoring during the project's ground-disturbing activities.
Policy 7-P.9: Ensure that treatment of any cultural resources discovered during site grading complies with the City of Carlsbad Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated. The final disposition of artifacts not directly associated with Native American graves shall be negotiated during consultation with interested tribes; if the artifact is not accepted by Native American tribes, it shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring.	Consistent. As discussed in Section V, <i>Cultural Resources</i> and Section XVIII, <i>Tribal Cultural Resources</i>, no recorded or known cultural resources are present in the project limits. However, there is potential for unanticipated buried cultural resources to be present that could be uncovered during project construction. Project-specific mitigation measures CUL-1 and TCR-1 and TCR-2, provide protocols for the treatment of discovered resources consistent with this policy.
Policy 7-P.10: Require consultation with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information Systems [CHRIS], the Native American Heritage Commission [NAHC], and Native American groups and individuals) to minimize potential impacts to cultural resources that may occur as a result of a proposed project.	Consistent. As part of the Cultural Resources Survey and Assessment prepared for the project (HELIX 2025c), a records search of the CHRIS was conducted as the South Coast Information Center (SCIC), the NAHC was contacted for a Sacred Lands File (SLF) search, and Native American outreach was performed to minimize potential impacts to cultural resources that may occur as a result of the proposed project. In accordance with Assembly Bill (AB) 52, which establishes a formal consultation process with the Tribes within the CEQA process, on January 27, 2025, the city notified Native American Tribes (email and letters via certified mail) on the city's notification list for the purposes of AB 52 (San Luis Rey Band of Mission Indians, Rincon Band of Luiseño Indians, Mesa

General Plan Goals & Policies	Consistency
	Grande Band of Mission Indians, and Torres Martinez Desert Cahuilla Indians) of the project and provided the opportunity to consult with the city regarding the project. The Rincon and San Luis Rey Tribes requested consultation, and consultation occurred between March 2025 and July 2025. The consultations resulted in revisions to the cultural and tribal cultural resources mitigation measures. The revisions are reflected in the draft mitigation measures (CUL-1, TCR-1, and TCR-2). While no recorded cultural resources or tribal cultural resources are known to occur within the project limits, there is potential for unanticipated buried cultural resources to be uncovered during project construction. Implementation of project-specific mitigation measures CUL-1 and TCR-1 and TCR-2 would mitigate impacts to cultural and tribal cultural resources.
<i>Sustainability Element</i>	
Goal 9-G.2: Undertake initiatives to enhance sustainability by reducing the community’s GHG emissions and fostering green development patterns—including buildings, sites, and landscapes.	Consistent. The project would implement planned bicycle and pedestrian improvements that would reduce reliance on motorized vehicles, which would reduce regional GHG emissions.
Policy 9-P.1: Enforce the Climate Action Plan as the city’s strategy to reduce GHG emissions	Consistent. The project is subject to applicable requirements and strategies in the city’s CAP and as discussed above, the project would be consistent with the CAP.

Scenic Corridor Guidelines

The project alignment is adjacent to the LOSSAN rail corridor, which is identified as a “special condition” scenic corridor in the city’s Scenic Corridor Guidelines (City of Carlsbad 1988). The Scenic Corridor Guidelines provide guidelines for treatments adjacent to the railroad corridor with the goal of improving visual quality of the city from the perspective train passengers. As discussed in item I.b and Table 1, the project is consistent with applicable policies contained in the city’s Scenic Corridor Guidelines.

California Coastal Act/Carlsbad Local Coastal Program

The project alignment is entirely within the coastal zone. The California Coastal Act requires that coastal zone policies and provisions be implemented through preparation of an LCP. Through its approved LCP (City of Carlsbad 2019), the city acts as the local permitting authority for the issuance of Coastal Development Permits (CDPs) for projects located within its permit jurisdiction and the California Coastal Commission (CCC) has permitting authority within the areas of deferred certification. All projects in the city’s coastal zone would require review for consistency with the LCP and Coastal Act prior to issuance of a CDP. The project is located within the city’s permit jurisdiction. The city’s LCP splits the coastal zone

into six segments: Mello I, Mello II, Village-Barrio, Agua Hedionda Lagoon, West Batiquitos Lagoon/Sammis Properties Lagoon, and East Batiquitos Lagoon/Hunt Properties. The project site is within the Mello II segment. The project's consistency with the LCP is demonstrated in Table 7, *Demonstration of Local Coastal Program Consistency*, which lists relevant policies of the Mello II segment of the LCP pertaining to environmental effects.

Table 7
DEMONSTRATION OF LOCAL COASTAL PROGRAM CONSISTENCY

LCP Mello II Policies	Consistency
Policy 3-1.1 Habitat Management Plan: The document titled "Habitat Management Plan for Natural Communities in the City of Carlsbad, December 1999 with Two Addenda" (hereafter referred to as HMP) is incorporated herein by reference. The Second Addendum dated December 2002 contains additional conservation standards and habitat protection policies that apply within the Coastal Zone. The HMP has been developed so as to implement and be consistent with all other provisions of this LCP, as amended. Any changes to the HMP that affect development within the coastal zone (including, but not limited to, changes to mitigation requirements) shall be certified by the Coastal Commission as LCP amendments prior to becoming effective.	Consistent. A Biological Technical Report (HELIX 2025b) was prepared for the project to assess biological resources within and adjacent to the project alignment. As discussed under item IV.f, the project would be consistent with the requirements of the HMP with implementation of project-specific mitigation measures BIO-1, BIO-2, and BIO-3.
Policy 3-1.2 Environmentally Sensitive Habitat Areas (ESHA): Pursuant to Section 30240 of the California Coastal Act, environmentally sensitive habitat areas, as defined in Section 30107.5 of the Coastal Act, shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.	Consistent. The project proposes relatively minor impacts to native habitats occurring along and adjacent to an existing road edge. Evidence of substantial disturbance (i.e., the proliferation of non-native and invasive plant species, informal trails, and/or mowing) is currently present within all of these roadside areas. Project impacts to these roadside edges would not disrupt areas of ESHA. Indirect impacts to ESHA would be avoided through compliance with the HMP adjacency standards.
Policy 3-1-3 Coastal Sage Scrub: Coastal Sage Scrub is a resource of particular importance to the ecosystems of the Coastal Zone, due in part to the presence of the Coastal California gnatcatcher (Federal Threatened) and other species. Properties containing Coastal Sage Scrub shall conserve a minimum 67% of the Coastal Sage Scrub and 75% of the gnatcatchers onsite, Conservation of gnatcatchers shall be determined in consultation with the wildlife agencies.	Consistent. Impacts to coastal sage scrub have been avoided and minimized to the extent feasible (0.33 acre) and are confined to narrow strips of habitat immediately adjacent to the existing road.
Policy 3-1-9 No Net Loss of Habitat: There shall be no net loss of Coastal Sage Scrub, Maritime Succulent Scrub, Southern Maritime Chaparral, Southern Mixed Chaparral, Native Grassland, and Oak Woodland within the Coastal Zone of Carlsbad. Mitigation for impacts to any of these habitat types, when permitted, shall include a creation component that achieves the no net loss standard. Substantial restoration of highly degraded areas (where effective functions of the habitat type have been lost) may be substituted for creation subject to the consultation and concurrence of the U.S.	Consistent. The project would impact 0.33 acre of coastal sage scrub vegetation and proposes mitigation to achieve no net loss (project-specific mitigation measure BIO-3).

LCP Mello II Policies	Consistency
Fish and Wildlife Service and the California Department of Fish and Game (wildlife agencies). The Coastal Commission shall be notified and provided an opportunity to comment upon proposed substitutions of substantial restoration for the required creation component. Development shall be consistent with Policy 3-1.2 of this section, unless proposed impacts are specifically identified in the HMP; these impacts shall be located to minimize impacts to Coastal Sage Scrub and maximize protection of the Coastal California gnatcatcher and its habitat.	
Policy 3-1-10 Upland Habitat Mitigation Requirements: Where impacts to the habitats stated in 3-1.9 are allowed, mitigation shall be provided as follows (only applicable sections are listed): a) The no net loss standard shall be satisfied as stated in 3-1.9. Typically this will consist of creation of the habitat type being impacted (or substantial restoration where allowed) at a ratio of at least 1:1 as provided in the HMP. b) Onsite preservation is not eligible for mitigation credit in the coastal zone. Onsite or off-site open space preserve areas may be utilized to satisfy required mitigation for habitat impacts associated with development if the preserve areas are disturbed and suitable for restoration or enhancement, or they are devoid of habitat value and therefore suitable for the 1:1 mitigation component requiring creation or substantial restoration of new habitat. Substantial restoration is restoration that has the effect of qualitatively changing habitat type and may meet the creation requirement if it restores habitat type that was historically present, but has suffered habitat conversion or such extreme degradation that most of the present dominant species are not part of the original vegetation. Substantial restoration contrasts with enhancement activities, which include weeding or planting within vegetation that retains its historical character, and restoration of disturbed areas to increase the value of existing habitat which may meet other mitigation requirements pursuant to the HMP. c) Impacts to Coastal Sage Scrub shall be mitigated at an overall ratio of 2:1, with the creation component satisfying half of the total obligation. The remainder of the mitigation obligation shall be satisfied pursuant to the provisions of the HMP. f) Mitigation for impacts within the coastal zone should be provided within the coastal zone, if possible, particularly the 1:1 creation component, in order to have no net loss of habitat within the coastal zone. Mitigation measures on land outside the Coastal Zone may be acceptable if such mitigation would clearly result in higher levels of habitat protection and value and/or would provide significantly	Consistent. Mitigation for habitat would occur in accordance with HMP requirements and would result in no net loss.

LCP Mello II Policies	Consistency
greater mitigation ratios, and the mitigation area is part of the HMP. Land area inside and outside the coastal zone which serves as mitigation for habitat impacts in the coastal zone shall be permanently retired from development potential and secured as part of the HMP preserve management plan as a condition of development approval. g) Habitat mitigation requirements other than the creation or substantial restoration component may be partially or wholly fulfilled by acquisition of existing like habitat and/or retirement of development credits on existing like habitat with permanent preservation as part of the HMP preserve management plan.	
Policy 4-5 Soil Erosion Control Practices: Soil erosion control practices shall be used against “onsite” soil erosion. These include keeping soil covered with temporary or permanent vegetation or with mulch materials, special grading procedures, diversion structures to divert surface runoff from exposed soils, and grade stabilization structures to control surface water. All development must include mitigation measures for the control of urban runoff flow rates and velocities, urban pollutants, erosion and sedimentation in accordance with the requirements of the city’s Grading Ordinance, Storm Water Ordinance, Standard Urban Storm Water Mitigation Plan (SUSMP), City of Carlsbad Drainage Master Plan, and the additional requirements contained herein. The SUSMP, dated April 2003 and as amended, and the City of Carlsbad Drainage Master Plan are hereby incorporated into the LCP by reference. Development must also comply with the requirements of the Jurisdictional Urban Runoff Management Program (JURMP) and the San Diego County Hydrology Manual to the extent that these requirements are not inconsistent with any policies of the LCP.	Consistent. As discussed in detail under item X.a, the project would be required by law to comply with all federal, state, and local water quality regulations, including those regarding runoff, pollutants, erosion, and sedimentation.
Policy 4-6 Sedimentation Control Practices: Apply “sediment control” practices as a perimeter protection to prevent offsite drainage. Preventing sediment from leaving the site should be accomplished by such methods as diversion ditches, sediment traps, vegetative filters, and sediment basins. Preventing erosion is of course the most efficient way to control sediment runoff. All development must include mitigation measures for the control of urban runoff flow rates and velocities, urban pollutants, erosion and sedimentation in accordance with the requirements of the city’s Grading Ordinance, Storm Water Ordinance, Standard Urban Storm Water Mitigation Plan (SUSMP), City of Carlsbad Drainage Master Plan, and the following additional requirements. The SUSMP, dated April 2003 and as amended, and the City of Carlsbad Drainage Master Plan are hereby incorporated into the LCP by reference. Development must also comply with the requirements of the Jurisdictional Urban Runoff Management Program (JURMP) and the San Diego County Hydrology Manual to the extent that these requirements are not inconsistent with any policies of the LCP.	Consistent. As discussed in detail under item X.a, the project would be required by law to comply with all federal, state, and local water quality regulations, including those regarding runoff, pollutants, erosion, and sedimentation.

LCP Mello II Policies	Consistency
Policy 7-13 Visual Access: Visual access over more than 80% of the Carlsbad coastline is unobstructed because of public ownership. No future public improvements which would obstruct this visual access shall be permitted.	Consistent. Proposed improvements would generally involve low-profile, surface improvements along an existing roadway. No buildings or major vertical structures are proposed that would impede coastal views.
Policy 8-4 Archaeological and Paleontological Resources: The environmental impact review process will determine where development will adversely affect archaeological and paleontological resources. A site-specific review should also determine the most appropriate methods for mitigating these effects. Most importantly, the City of Carlsbad should require the implementation of these measures.	Consistent. A cultural resources survey was conducted for the project (HELIX 2025c) to evaluate potential impacts to archaeological resources. As discussed in Section V, <i>Cultural Resources</i>, and Section XVIII, <i>Tribal Cultural Resources</i>, no recorded or known cultural resources are present in the project limits. However, there is potential for unanticipated buried cultural resources to be present that could be uncovered during project construction. The project would implement project-specific mitigation measures CUL-1 and TCR-1, which would involve contractor awareness training and cultural resources monitoring during the project's ground-disturbing activities. With regard to paleontological resources, the city's Tribal, Cultural and Paleontological Guidelines (City of Carlsbad 2017) show the project alignment within an area mapped as having high paleontological sensitivity. However, the project's ground-disturbing activities would be minor in scale as the alignment generally follows previously paved, disturbed, or graded areas and as such, it is anticipated the project would have low potential to destroy paleontological resources. However, it is possible that undiscovered fossils may be unearthed during construction. The project would implement project-specific mitigation measure GEO-1 that includes protocols for unanticipated discovery of fossils.

Carlsbad Municipal Zoning Code Section 21.210, Habitat Preservation and Management Requirements

The project would also be consistent with The Carlsbad Municipal Code Section 21.210, Habitat Preservation and Management Requirements. This section discusses habitat preservation and management requirements that aim to implement the goals and objectives of the Land Use and Community Design and Open Space, Conservation, and Recreation Elements of the General Plan,

implement applicable habitat management plans (e.g., North County MHCP, NCCP, and the city's HMP), and preserve the diversity of natural habitats while protecting rare and unique biological resources within those habitats. The project would directly impact natural habitat and require a habitat management permit as Section 21.210 requires, as well as compensatory mitigation (mitigation measure BIO-3). Additionally, as discussed in item IV.f, the project would be consistent with the city's HMP.

Based on the above analysis, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

XII. MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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?*

No Impact. No mineral extraction operations are present in the city, nor does the city contain known mineral resources of economic value to the region and the residents of the State. No Impact would occur.

b) *Would the project 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?*

No Impact. There are no locally important mineral resources designated in the city's General Plan. No Impact would occur.

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

The discussion below is based on the construction noise analysis (HELIX 2025d), which is included as Appendix F to this IS/MND. All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ} , with a specified duration. The CNEL is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting.

a) *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant with Mitigation Incorporated. Project improvements would be subject to several local regulations pertaining to noise, including CMC Chapter 8.48, Noise, and General Plan Noise Regulations and Noise Exposure Standards. CMC Chapter 8.48 outlines regulations for limitation of hours for construction (i.e., the erection, demolition, alteration, or repair of any building or structure or the grading or excavation of land) that creates disturbing, excessive, or offensive noise. Construction can occur Monday through Friday from 7 a.m. to 6 p.m. and Saturday from 8 a.m. to 6 p.m.; no work shall be conducted on Sundays and on any federal holiday. CMC Chapter 8.48 also outlines exceptions that may be granted by the city for circumstances such as emergency repairs required to protect the health and safety of the community.

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, such as residential dwellings, schools, transient lodging (hotels), hospitals, and educational facilities. Industrial and commercial land uses are generally not considered sensitive to noise. NSLUs near the project site consist of a school (Community Montessori Charter School) and residential uses located across the LOSSAN railroad tracks, and include a hotel, mobile homes, and single-family residences. Nearby residences are as close as 150 feet from the edge of the Avenida Encinas ROW, and the Community Montessori Charter School is located approximately 60 feet from the centerline of the road ROW.

Construction Noise

Project construction noise was analyzed using the Roadway Construction Noise Model (RCNM), which incorporates estimates of sound levels from standard construction equipment based on manufacturers' specifications and measured reference noise levels. The magnitude of a construction noise impact would

depend on the type of construction activity, equipment, duration of each construction phase, distance between the noise source and receiver, and any intervening structures. Construction would generate elevated noise levels that may disrupt nearby residences and other NSLUs. Although the nearest residences are located approximately 150 feet west of the project site, the nearest NSLU, a school, is located approximately 60 feet south of the roadway centerline. Construction equipment would not all operate at the same time or location and would not be in constant use during a typical 8-hour operating day. Furthermore, due to the linear nature of the project, equipment is not anticipated to be stationary at a given location for long periods. Therefore, the average distances between the nearest off-site residences and construction would likely exceed 60 feet. As a conservative estimate however, 60 feet were used in this analysis.

Multiple construction equipment types would be in use throughout the day. For example, a dozer and an excavator may be working on the site simultaneously but would not be working in close proximity to one another at a given time due to the nature of their respective operations. An excavator and loader were analyzed together for construction noise impacts due to their likelihood of being used in conjunction with one another. Table 8, *Anticipated Construction Equipment*, presents a summary of the heavy equipment anticipated to be used for project construction, the typical operating time percentage, and the average noise level at a distance of 60 feet reported by the RCNM.

Table 8
CONSTRUCTION EQUIPMENT NOISE LEVELS

Construction Equipment	Percent Operating Time (%)	Distance to NSLU (feet)	Noise Level at 60 feet (dBA L _{EQ})
Grubbing and Land Clearing			
Backhoe	40	60	72.0
Excavator	40	60	75.1
Dozer	40	60	76.1
Grading and Excavation			
Excavator	40	60	75.1
Backhoe	40	60	72.0
Loader	40	60	73.5
Dozer	40	60	76.1
Scraper	40	60	78.0
Excavator/Loader	40	60	77.4
Utilities Installation			
Backhoe	40	60	72.0
Dozer	40	60	76.1
Grader	40	60	79.4
Loader	40	60	73.5
Excavator	40	60	75.1
Paving			
Loader	40	60	73.5
Pavers	50	60	72.6
Rollers	20	60	71.4

Source: HELIX 2025d

dBA = A-weighted decibels; L_{EQ} = time averaged sound level.

Based on these assumptions, the loudest noise would occur from the use of a grader during utilities installation, which would generate noise levels of up to 79.4 dBA L_{EQ} at nearby NSLUs. This represents a conservative estimate, because due to the linear nature of the project, a grader is not anticipated to be stationary in a single location near an NSLU.

As noted above, the city does not provide a numerical threshold for construction noise levels, but construction would be required to occur within the hours allowed by CMC Chapter 8.48. Existing ambient noise levels are described in the city's General Plan. Ambient noise levels may fluctuate throughout a given day or time of year, but Figure 5-2 of the General Plan Noise Element indicates that noise levels in the vicinity of the project are estimated to be between 60 and 65 dBA CNEL (City of Carlsbad 2015a). Therefore, noise levels from construction equipment may exceed 10 dBA above existing conditions if a grader or scraper is in use. Noise levels from construction would be reduced through the implementation of a construction management plan, as described in NOI-1 below.

Mitigation:

NOI-1 Construction Noise Management Plan. Noise levels from project-related construction activities shall not exceed 10 dBA above existing ambient noise levels, or 70 dBA, when measured at nearby noise-sensitive land uses or receptors. A Construction Management Plan that describes the measures and specifications included on the construction plans to ensure compliance with the noise limit shall be prepared and submitted to the City of Carlsbad Planning Division for approval prior to issuance of the grading permit. The following measures may be included to reduce construction noise generated by graders and scrapers:

- Construction equipment to be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- All internal combustion engines to be equipped with mufflers in good repair and are subject to the City Noise Control Ordinance, Carlsbad Municipal Code Chapter 8.48.
- Diesel equipment to be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) to be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment to be used instead of pneumatic or internal-combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) to be prohibited.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

- No project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7 to 8 feet above ground, a sound wall at least 10 feet in height above grade, to block the line-of-sight between project construction activities and residences along the northern, southern, and eastern property lines. These barriers would mitigate noise levels to within acceptable levels. To effectively reduce noise levels, the sound barrier should be constructed of a material with an STC rating of 22 or 23 with no gaps or perforations and remain in place until the conclusion of demolition, grading, and construction activities.
- General working hours are Monday through Friday, 7:00 am- 6:00 pm. Site mustering (i.e., gathering/assembly at the site) is not allowed prior to and after the allowable working hours.

Operational Noise

Operational noise resulting from implementation of the project would include noise that is typical of active transportation noise. Noise from people talking and dogs barking would contribute to ambient noise levels within the vicinity but the associated increase in noise would not be substantial. Noise sources in the project area are primarily dominated by transportation noise from the nearby I-5 freeway, roadways, and the adjacent railroad corridor. The project occurs along an existing roadway and is designed in accordance with applicable city standards and criteria for roadways, including the noise and land use compatibility matrix and Future Noise Contours Map contained in the General Plan Noise Element pursuant to General Plan Noise Element Policies 5-P-1 and 5-P-10. Project design incorporates features to encourage mobility by means other than vehicle, which can help minimize roadway noise consistent with Policy 5-P.10. Therefore, operational noise impacts from implementation of the project would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Ground-borne vibration consists of rapidly fluctuating motions or waves transmitted through the ground with an average motion of zero. Sources of ground-borne vibrations include natural phenomena and anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square velocity (RMS). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

Excessive ground-borne vibration would occur if construction-related ground-borne vibration exceeds the “strongly perceptible” vibration annoyance potential criteria for human receptors of 0.1 in/sec PPV or the damage potential criteria to relatively old residential structures 0.5 in/sec PPV for

continuous/frequent intermittent construction sources (such as impact pile drivers, vibratory pile drivers, and vibratory compaction equipment), as specific by Caltrans (Caltrans 2020).

Construction of the project would occur as close as approximately 60 feet from nearby NSLUs. A possible source of vibration during general project construction activities would be a vibratory roller, which may be used for compaction of soil beneath the roadway. A vibratory roller would create approximately 0.210 in/sec PPV at a distance of 25 feet (Caltrans 2020). A 0.210 in/sec PPV vibration level would equal 0.08 in/sec PPV at a distance of 60 feet¹. This would be lower than the “strongly perceptible” impact for humans of 0.1 in/sec PPV. Buildings located within this distance are newer structures that would not be susceptible to structural damage. Additionally, off-site exposure to such ground-borne vibration would be temporary. Temporary impacts associated with the roller (and other potential equipment) would be less than significant. Therefore, construction activities would not be expected to generate excessive ground-borne vibration. The proposed project does not include operational components that would generate substantial vibration. Impacts would be less than significant.

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

Less than Significant Impact. The project alignment is located approximately two miles west of the McClellan-Palomar Airport. The city’s General Plan Noise Element identifies that the maximum allowable outdoor noise level for parks and recreation uses is 65 CNEL. The project alignment is located outside of the 60 CNEL noise contour of the McClellan-Palomar Airport (San Diego Regional Airport Authority 2011). Therefore, the project would not expose people to excessive noise levels from an airport. Impacts would be less than significant.

XIV. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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

No Impact. The proposed project does not include the development of housing and implementation of the project would not directly induce population growth. The project would not provide substantial new

¹ Equipment PPV = Reference PPV * (25/D)ⁿ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

employment that would foster migration. Development of the project may make an area more desirable to an individual or group of individuals; however, it is not anticipated to result in substantial indirect population growth in an area. No impact would occur.

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

No Impact. The proposed improvements would occur within existing road ROW or property owned by the city and would not affect existing housing or displace residents. No impact would occur.

XV. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, a need for new or physically altered government 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:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less than Significant Impact. The project site is located in a developed area currently served by fire protection services, and project implementation would not require the construction of new or expanded fire facilities. The Carlsbad Fire Department provides fire and emergency services within the city, serving an approximately 39-square-mile area with seven fire stations. The closest fire station to the project site is Fire Station 4 (6885 Batiquitos Drive) approximately 0.8 mile to the southeast. The proposed improvements would not substantially increase the need for fire protection services above the current demand that would require addition staffing or construction of new facilities. During construction, there could be the potential for temporary reduction and/closure of existing travel lanes along Avenida Encinas, which could affect response times within the project area. Temporary closures would be for short periods of time and emergency access would be maintained. A Traffic Control Plan would be prepared prior to project construction by the construction contractor as a requirement of the right-of-way permit and subject to city approval to ensure that emergency access would be maintained. In

addition, the project would be subject to plan review by the city's Fire Prevention Division. Impacts on fire protection services would be less than significant.

b) Police protection?

Less than Significant Impact. The project site is located in a developed area currently served by police protection services, and project implementation would not require the construction of new or expanded police facilities. The Carlsbad Police Department provides police services within the city, headquartered at the Carlsbad Public Safety and Service Center (2650 Orion Way), approximately 3.5 miles to the northeast. The proposed improvements would not substantially increase the need for police protection services above the current demand that would require additional staffing or construction of new facilities. During construction, there could be the potential for temporary reduction and/closure of existing travel lanes along Avenida Encinas, which could affect response times within the project area. Temporary closures would be for short periods of time, and emergency access would be maintained at all times. Impacts on police services would be less than significant.

c) Schools?

No Impact. The project would not induce population growth as no homes or other growth inducing uses are proposed and would therefore not generate an increase in students at surrounding schools or result in the need for the construction of additional school facilities. No impact would occur.

d) Parks?

No Impact. The proposed project would not directly or indirectly induce substantial population growth in the project area and would not generate the need for new or expanded park services. While the project would improve bicycle and pedestrian connectivity through the area, there are no public parks in the project area where increased access to existing parks would occur. The project therefore would not substantially affect the performance of existing parks such that new or altered facilities would be required. No impact would occur.

e) Other public facilities?

No Impact. Implementation of the project would not increase population or otherwise affect demand for other public facilities, such as libraries, within the project area and no new facilities would be required that could result in adverse physical changes in the environment. No impact would occur.

XVI. RECREATION	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

XVI. RECREATION	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

- 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?***

Less than Significant Impact. Existing public parks and recreational facilities in the project area include Canon Park (approximately one mile to the northwest), Carlsbad State Beach and Ponto Beach to the west (approximately 0.25 mile to the west), and Agua Hedionda Lagoon (approximately 1.25 miles to the northeast). As described in item XIII.d, above, while the project would not induce substantial population growth, it would increase bicycle and pedestrian connectivity through the area, which may indirectly increase access to, and use of, these existing parks and recreational facilities in the project area. The increase in use of recreational facilities would not be such that substantial physical deterioration of existing neighborhood and regional parks or recreational facilities would occur or be accelerated. Impacts would be less than significant.

- 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 would include implementation of bicycle, pedestrian, and roadway improvements along a segment of Avenida Encinas. While the proposed bike lanes and sidewalk would function as Reach 5 of the CRT, which could serve recreational users, the project as a whole is a transportation facility and would not induce population growth such that construction or expansion of recreational facilities would be required. No impact would occur.

XVII. TRANSPORTATION	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐

The discussion below is based on the traffic impact analysis (STC Traffic 2022a) and the vehicle miles traveled (VMT) analysis (STC Traffic2022b) prepared for the project, which are included as Appendix G and Appendix H to this IS/MND.

a) *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

No Impact. The General Plan Mobility Element promotes a livable streets strategy for mobility within the city. The objective of this strategy is to create a ‘multi-modal’ street network that balances the mobility needs of pedestrians, bicyclists, transit users, and vehicles. For each street in the city, the General Plan Mobility Element identifies a livable street typology and the travel modes for which service levels should be maintained per the multi-modal level of service standard (MMLOS). MMLOS provides a qualitative “grade” assigned to specified travel modes, ranging from A to F. MMLOS A reflects a high service standard for a travel mode (e.g., outstanding characteristics and experience for that mode) and MMLOS F reflects a poor service standard for a travel mode (e.g., congestion for vehicles, no bicycle, pedestrian, or transit facilities, etc.). While Level of Service (LOS) is no longer a measure of transportation impacts for the purposes of CEQA, it is discussed here in the context of consistency with a program plan, ordinance, or policy addressing the circulation system (i.e., the General Plan Mobility Element).

Avenida Encinas is classified as a Neighborhood Connector Street, which according to the city’s Traffic Impact Analysis (TIA) guidelines is subject to a Pedestrian and Bicycle MMLOS standard but not subject to an Auto MMLOS standard. The pedestrian and bicycle facilities were evaluated based on the attributes identified in the MMLOS Tool for the following segments of Avenida Encinas within the project limits:

- Palomar Airport Road to 6200 Avenida Encinas
- 6200 Avenida Encinas to Embarcadero Lane

The TIA guidelines state that MMLOS D should be maintained for each mode of travel for which the MMLOS standard is applicable. Table 9, *MMLOS Analysis Results*, summarizes the results of the MMLOS analysis.

Table 9
MMLOS ANALYSIS RESULTS

Segment	Existing Conditions (MMLOS)		Existing + Project (MMLOS)	
	NB	SB	NB	SB
<i>Pedestrian MMLOS</i>				
Palomar Airport Road to 6200 Avenida Encinas	C	F	A	A
6200 Avenida Encinas to Embarcadero Lane	C	D	A	A
<i>Bicycle MMLOS</i>				
Palomar Airport Road to 6200 Avenida Encinas	C	C	A	A
6200 Avenida Encinas to Embarcadero Lane	F	F	A	A

Source: STC Traffic 2022a

NB = northbound; SB = southbound

As shown, the pedestrian MMLOS for the segment of Palomar Airport Road to 6200 Avenida Encinas in the southbound direction and the bicycle MMLOS for the segment of 6200 Avenida Encinas to Embarcadero Lane in the northbound and southbound directions are currently at an unacceptable MMLOS F. With the project however, the corresponding pedestrian and bicycle MMLOS improve to A for all segments in the northbound and southbound directions. Thus, the project would be consistent with MMLOS standards.

In addition, the proposed project improvements would contribute to and conform with the “neighborhood connector street” designation by connecting people to different neighborhoods and land uses throughout the city. The preferred attributes of a neighborhood connector street as defined in the General Plan Mobility Element include the following: designed to safely move all modes of travel while enhancing mobility for pedestrians and bicyclists; vehicle speeds should be managed to promote safe pedestrian and bicycle movement; bicycle lanes should be provided; bicycle boulevards should be considered; pedestrians should be accommodated on sidewalks adjacent to the travel way; and mid-block pedestrian crossings and traffic calming devices should be considered at locations with high pedestrian activity levels. The proposed median passageways with flashing beacons and raised landscape medians would improve pedestrian, bicyclist, and motorist safety. Pedestrian and bicyclist safety would be additionally emphasized through the implementation of six-foot-wide striped bike lanes and new sidewalks where there are currently gaps. In addition, the proposed bikeway and pedestrian improvements would provide a safe and effective mode of non-motorized travel within the coastal area of the city that would provide improved connections to activity centers, recreational facilities, and other coastal destinations. Furthermore, the project would be consistent with Mobility Element Policy 3-P.25 to implement the projects recommended in the pedestrian, trails and bicycle master plans through the city’s capital improvement program; as well as Policy 3-P.28 to improve and enhance parking, connectivity, access, and utilization for pedestrians and bicycles to COASTER stations, utility corridors, and open spaces consistent with city planning document. The proposed project therefore would be consistent with the city’s General Plan Mobility Element.

Lastly, the project would not permanently impact existing transit facilities or routes in the project area. There are several bus stops along Avenida Encinas, including within the project limits that are part of North County Transit District routes 444 and 445. The project would reconstruct these existing bus stops as required to accommodate the proposed improvements and access to the Poinsettia Coaster Station would not be affected.

Based on the above analysis, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system. No impact would occur.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less than Significant Impact. As of the implementation of Senate Bill (SB) 743 on July 1, 2020, VMT is the new performance measure used in CEQA transportation studies. The analysis of VMT for the project was based on the city's VMT Analysis Guidelines (City of Carlsbad 2023).

Section 4.1 of the VMT guidelines lists certain types of transportation projects that are presumed to have a less than significant impact on transportation, including the following which are consistent with the proposed project:

- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way.
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes.

Therefore, the project would have a less than significant VMT impact because it screens out based on project type.

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

No Impact. The project does not include any design features that would increase traffic hazards and implementation of the project would not introduce incompatible uses to the project area. Features associated with the project include a Class II bike lane along both sides of Avenida Encinas, new sidewalks, lighting, center landscaped medians, and median passageways with flashing beacons. These features would improve motorist, bicyclist, and pedestrian safety. In addition, the project's circulation improvements would be designed and constructed to city standards. Therefore, the project would not substantially increase hazards due to a geometric design feature or incompatible uses. No impact would occur.

d) *Would the project result in inadequate emergency access?*

Less than Significant Impact. During construction, there could be the potential for temporary lane closures and/or traffic detours which could affect emergency access within the project area. The project construction activities would be coordinated with the fire and police departments to ensure emergency requirements have been satisfied. As part of the proposed project, a Traffic Control Plan would be prepared prior to project construction by the construction contractor as a requirement of the right-of-way permit and subject to city approval to ensure adequate emergency access would be maintained at all times. Upon completion of construction, the proposed improvements would allow for enhanced vehicular movement and emergency access. Impacts would be less than significant.

XVIII. 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:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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	☐	☒	☐	☐
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

- a) ***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?***

Less than Significant with Mitigation Incorporated: A Tribal Cultural Resource (TCR) may be considered significant if included in a local or state register of historical resources; determined by the lead agency to be significant pursuant to criteria set forth in PRC §5024.1; is a geographically defined cultural landscape that meets one or more of these criteria; is a historical resource described in PRC §21084.1, a unique archaeological resources described in PRC §21083.2; or is a non-unique archaeological resource if it conforms with the above criteria.

In accordance with mitigation measures CUL-1 and CUL-2 from the Trails Master Plan Programmatic IS/MND, a site survey and a Native American contact program was conducted that included a review of the SLF maintained by the NAHC, as well as AB 52 outreach efforts. The NAHC responded indicating that the results of the SLF search were negative.

Pursuant to AB 52, Native American Tribes that have requested to be listed on the city's notification list for the purposes of AB 52 were emailed and sent letters via certified mail on January 27, 2025. As part of this process, the city provided notification to each of these listed tribes the opportunity to consult with the city regarding the proposed project. The following tribes were contacted:

- San Luis Rey Band of Mission Indians
- Rincon Band of Luiseño Indians
- Mesa Grande Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians

The Rincon Band of Luiseño Indians (“Rincon Band”) and San Luis Rey Band of Mission Indians (“San Luis Rey Band”) responded within 30 days and requested consultation.

Consultation with the Rincon Band. On May 22, 2025, the city mailed the draft Cultural Resources and Tribal Cultural Resources (CR/TCR) mitigation measures, a project location map, the cultural resources survey report, and the biological technical report. On May 23, 2025, the Rincon Band submitted a document with specific language revisions to the draft mitigation measures and requested further discussion.

Consultation was held with the Rincon Band on May 28, 2025. Because of the similarities in the draft CR/TCR mitigation measures between the project and another city proposal, El Camino Real Roadway Widening (Arenal Road to La Costa Avenue, CIP 6051), the projects were discussed together at the May 28, 2025, consultation, with a focus on the mitigation measures. During an earlier, April 30, 2025, consultation regarding only the El Camino Real Widening project, the Rincon Band requested a meeting with the Community Development Director and City Attorney’s Office to further discuss its mitigation measure concerns. At the May 28, 2025, consultation, it was agreed that the measures of both projects would be discussed with the Community Development Director and City Attorney’s office. The parties confirmed that scheduling of this meeting was in process.

On June 11, 2025, consultation was held with Rincon Band representatives, the City Attorney, the Community Development Director and Planning staff on both projects. The parties discussed the language in question and provided additional detail to support their positions, although consensus was not achieved at the meeting. After the meeting and with further consideration, the city agreed to certain CR/TCR mitigation measure language revisions

Final consultation between the Rincon Band and city was held June 25, 2025, when the Rincon Band and city staff reviewed a city-drafted letter with the city’s responses to the Rincon Band’s proposed revisions. In response to city staff questions, the tribal representative provided additional information regarding its rationale and intent for certain revisions. Based on that information, staff made additional changes, which are reflected in the draft mitigation measures.

The city believes it has acted in good faith and has agreed to language that is responsive, to the greatest extent feasible, to the Rincon Band’s comments while also remaining consistent with the city’s existing Tribal, Cultural and Paleontological Guidelines. In consideration of this and the collaborative process undertaken to arrive at this outcome, the city concluded AB 52 consultation pursuant to Public Resources Code Section 21080.3.2. A letter concluding consultation was mailed and emailed to the Rincon Band on July 24, 2025.

Consultation with the San Luis Rey Band. On March 25, 2025, consultation was held with the San Luis Rey Band. Consultation including a presentation and discussion of the project. On May 22, 2025, the city mailed the draft Cultural Resources and Tribal Cultural Resources (CR/TCR) mitigation measures, a project location map, the cultural resources survey report, and the biological technical report. The San Luis Rey Band did not request any changes to the draft mitigation measures as proposed.

On July 24, 2025, the city emailed and mailed a letter to the San Luis Rey Band notifying of revisions to the draft cultural resources and tribal cultural resources draft mitigation measures. These revisions reflect the changes staff made in response to consultation with the Rincon Band. On July 28, 2025, the San Luis Rey Band emailed the city indicating AB-52 consultation was concluded for the project.

While the pedestrian survey and map research revealed that the project area has been extensively modified to construct the roadway, bury utilities, and construct adjacent developments, with ground-disturbing activities there is a possibility that unmarked TCRs may be unearthed during construction. This impact would be considered potentially significant. With implementation of mitigation measures TCR-1 and TCR-2 detailed below and CUL-1 discussed in Section V, *Cultural Resources*, the proposed project would not cause a substantial adverse change in the significance of a TCR.

Mitigation: Project-specific mitigation measure CUL-1 identified in Section V, *Cultural Resources*, as well as project-specific mitigation measures TCR-1 and TCR-2 below would be implemented and would satisfy the requirements of mitigation measures CUL-2, CUL-3 and CUL-4 from the Trails Master Plan Programmatic IS/MND.

TCR-1 Tribal and Archeological Monitoring. Prior to the commencement of ground-disturbing activities, the applicant shall:

- a. Retain the services of a qualified archaeologist, defined as one either meeting the Secretary of the Interior's 1997 Professional Qualification Standards for Archeology or working under the supervision of a qualified archaeologist, who shall be on-site for ground-disturbing activities. In the event cultural material is encountered, the archaeologist is empowered to temporarily divert or halt grading to allow for coordination with the Luiseño Native American monitor, or other Traditionally and Culturally Affiliated Luiseño tribe ("TCA Tribe"), and to determine the significance of the discovery. The archaeologist shall follow all standard procedures for cultural materials that are not tribal cultural resources.
- b. A Luiseño Native American monitor shall be present during all ground disturbing activities. Ground disturbing activities may include, but are not be limited to, archaeological studies, geotechnical investigations, clearing, grubbing, trenching, excavation, preparation for utilities and other infrastructure, and grading activities.
- c. Any and all uncovered artifacts of Luiseño Native American cultural importance shall be returned to the San Luis Rey Band of Mission Indians, and/or the Most Likely Descendant for later reburial on project site, if applicable, and not be curated, unless ordered to do so by a federal agency or a court of competent jurisdiction.
- d. The Luiseño Native American monitor shall be present at the project's pre-construction meeting to discuss with grading and excavation contractors excavation schedules and safety issues, as well as to discuss with the archaeologist Principal Investigator (PI) concerning the proposed archaeologist techniques and/or strategies for the project.
- e. Luiseño Native American monitors and archaeological monitors shall have joint authority to temporarily divert and/or halt construction activities. If tribal cultural resources are discovered during construction, all earth-moving activity within and around the immediate discovery area must be diverted until the Luiseño Native American monitor and the archaeologist can assess the nature and significance of the find.

- f. If a significant tribal cultural resource(s) and/or unique archaeological resource(s) are discovered during ground-disturbing activities for this project, the San Luis Rey Band of Mission Indians and other TCA tribes shall be notified and consulted regarding the respectful and dignified treatment of those resources. Pursuant to California PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological and tribal cultural resources. If, however, the applicant is able to demonstrate that avoidance of a significant and/or unique cultural resource is infeasible and a data recovery plan, or other culturally appropriate mitigation measure, is authorized by the City of Carlsbad as the lead agency, the San Luis Rey Band of Mission Indians and other TCA tribes shall be consulted regarding the drafting and finalization of such recovery plan.
- g. If suspected Native American human remains are encountered, California Health and Safety Code Section 7050.5(b) states that no further disturbance shall occur until the San Diego County Medical Examiner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Suspected Native American remains shall be examined in the field and kept in a secure location at the site. A Luiseño Native American monitor shall be present during the examination of the remains. If the San Diego County Medical Examiner determines the remains to be Native American, the NAHC must be contacted by the Medical Examiner within 24 hours. The NAHC must then immediately notify the "Most Likely Descendant" about the discovery. The Most Likely Descendant shall then make recommendations within 48 hours and engage in consultation concerning treatment of remains as provided in Public Resources Code 5097.98.
- h. In the event that fill material is imported into the project area, the fill shall be clean of tribal cultural resources and documented as such. Commercial sources of fill material are already permitted as appropriate and will be culturally sterile. If fill material is to be utilized and/or exported from areas within the project site, then that fill material shall be analyzed and confirmed by an archeologist and Luiseño Native American monitor that such fill material does not contain tribal cultural resources.
- i. No testing, invasive or non-invasive, shall be permitted on any recovered tribal cultural resources without the written permission of the San Luis Rey Band of Mission Indians and other TCA tribes.
- j. Prior to completion of project construction, a monitoring report and/or evaluation report, if appropriate, which describes the results, analysis, and conclusions of the monitoring program shall be submitted by the archaeologist, along with the Luiseño Native American monitor's notes and comments, to the City of Carlsbad for approval and shall be submitted to the South Coastal Information Center. Said report shall be subject to confidentiality as an exception to the Public Records Act and will not be available for general public distribution.

TCR-2 Pre-Excavation Agreement. Prior to the commencement of any ground-disturbing activities, the applicant shall enter into a Pre-Excavation Agreement, otherwise known as a Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with a TCA affiliated consulting tribe. This agreement shall meet all standard requirements of the tribe for such agreements in accordance with applicable laws and regulations, including but not limited to the City of Carlsbad's 2017 Tribal, Cultural and Paleontological Resources Guidelines. This agreement will address provision of a Luiseño Native American monitor and will also contain provisions to address the proper treatment of any Tribal Cultural Resources and/or Luiseño Native American human remains inadvertently discovered during the course of the project. The agreement shall outline the roles and powers of the Luiseño Native American monitors and the archaeologist and shall include the provisions outlined in TCR-1.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant with Mitigation Incorporated: Refer to item XVIII.a above. Impacts would be less than significant with implementation of project-specific mitigation measures CUL-1, TCR-1 and TCR-2.

XIX. UTILITIES AND SERVICE SYSTEMS		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c)	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's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

- a) ***Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

Less than Significant Impact. The project occurs in a developed area that is served by existing utilities and utility infrastructure. The proposed project would include construction of new storm drain facilities, including biofiltration swales, curb inlets, and a storm drain pipeline and outfall that would connect to the existing storm drain system. Connections to other existing utilities such as electricity for project lighting and water for irrigation of project landscaping would also be required. Impacts associated with installation of these features are analyzed throughout this document as part of the project. The existing utility systems in the project area are adequate to accommodate the project and would not require or result in the relocation or construction of new or expanded utility facilities. Therefore, impacts would be less than significant.

- b) ***Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

Less than Significant Impact. Construction activities associated with the proposed project may require the use of water for dust control during grading activities. The amount of water used during construction would, however, be minimal. The impacts to the local water supply would be minimal due to the short-term nature of construction and limited use of water. Once construction is complete, the proposed project would install irrigation for landscaped areas. A drip irrigation system would be installed and would include efficient, low-volume equipment designed to provide enough water to support plant growth, but with minimum water loss due to potential runoff. Temporary irrigation would be established for revegetation of native areas and would be removed once plants have been established. Local water supply would be sufficient to meet temporary water requirements for implementation of the proposed project. Additionally, there would be minimal post-construction needs for irrigation of landscaped areas which would not limit water supply for foreseeable future development. Therefore, there are sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

- c) ***Would the project 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's projected demand in addition to the provider's existing commitments?***

No Impact. The project would not involve the provision of restrooms or other facilities that would generate wastewater. Therefore, implementation of the proposed project would not result in an increase in wastewater treatment requirements, and no impact would occur.

- d) ***Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Less than Significant Impact. Construction activities may generate solid waste that would be disposed of in a landfill. The contractor would be required to dispose of construction waste through appropriate coordination with landfills in accordance with existing laws and regulations governing the types of waste that are allowed to be disposed of in landfills. While some users of the CRT may have solid waste to dispose of while using the facility (e.g., food wrappers, beverage bottles, etc.), no significant quantity of

trash would be generated. Therefore, the project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

No Impact. Refer to item XIX.d above. Implementation of the project would comply with applicable federal, state, and local statutes and regulations related to solid waste disposal during construction and operation. No impact would occur.

XX. WILDFIRE	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Subsequent to adoption of the Trails Master Plan Programmatic IS/MND, the 2019 comprehensive update to CEQA added Wildfire as a resource category to CEQA Guidelines Appendix G, Environmental Checklist Form. Thus, wildfire was not addressed in the Trails Master Plan Programmatic IS/MND as a separate but is addressed in this section due to changed regulations.

According to the California Department of Forestry and Fire Protection (CALFIRE), the project alignment is not located within or near state responsibility areas (CALFIRE 2024). The project is also not within or near any Local Responsibility Area Fire Hazard Severity Zones (CALFIRE 2025).

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less than Significant Impact. As stated above, the project site is not within or near state responsibility areas or within or near a Local Responsibility Area Fire Hazard Severity Zone. As discussed in item IX.f, the long-term operation of the project would not include any features that would impair access to evacuation routes identified in the city, or otherwise conflict with an emergency response plan or

emergency evacuation plan. During construction, there could be the potential for temporary lane closures. Temporary lane closures would be for a short period of time and emergency access would be maintained. Furthermore, as discussed in item XVII.d, a Traffic Control Plan would be prepared prior to project construction by the construction contractor as a requirement of the right-of-way permit and subject to city approval to ensure that emergency access would be maintained. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

b) *Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

No Impact. As stated above, the project site is not within or near state responsibility areas or within a very high fire hazard severity zone. The project occurs in a developed area along a roadway characterized by generally level topography and is not near canyons or large open space areas. The project would not introduce permanent occupants. Users of the bikeway and pedestrian improvements would not be present for extended periods of time and would not be exposed to substantial pollutants from wildfires that may occur in other areas. Therefore, the project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

c) *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. As stated above, the project site is not within or near state responsibility areas or within a very high fire hazard severity zone. The proposed project would not require the installation or maintenance of infrastructure that could exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impact would occur.

d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. As stated above, the project site is not within or near state responsibility areas or within a very high fire hazard severity zone. As discussed in items VII.a.iv and X.a.ii, the project is not subject to landslides or flooding and thus, the risk of people and structures experiencing significant risks such as downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes is negligible. No impact would occur.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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?	☐	☒	☐	☐
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.)	☐	☐	☒	☐
c) Does the project have environmental effects, which will cause the substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

- a) ***Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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 with Mitigation Incorporated. With the incorporation of mitigation measures identified in this IS/MND, the proposed project would not have the potential to substantially degrade the quality of the environment, reduce the habitat of a sensitive plant or animal species, or eliminate important examples of California history or prehistory.

As discussed in Section IV, *Biological Resources*, the proposed project could potentially impact biological resources, including sensitive animal species, nesting birds, sensitive vegetation communities, and wetlands. Implementation of project-specific mitigation measures BIO-1 through BIO-5 would reduce potentially significant impacts to biological resources to less than significant levels.

As described in Section V, *Cultural Resources*, and Section XVIII, *Tribal Cultural Resources*, the project could potentially impact unknown buried archaeological resources/Tribal Cultural Resources during ground disturbing activities. In addition, as described in Section VII, *Geology and Soils*, ground-disturbing construction activities could potentially encounter paleontological resources. Such resources, if present, could provide material to address important research questions and may contain culturally sensitive material. Therefore, encountering unforeseen archaeological resources, Tribal Cultural Resources, and/or paleontological resources during ground-disturbing activities may result in potentially significant impacts. With implementation of project-specific mitigation measures CUL-1, TCR-1, TCR-2 and GEO-1, these impacts would be reduced to less than significant levels.

Mitigation: Project-specific mitigation measures BIO-1 through BIO-5, CUL-1, GEO-1, TCR-1, and TCR-2 would be implemented and would satisfy the requirements of mitigation measures BIO-4, BIO-5, BIO-6, CUL-2, CUL-3, CUL-4, and PALEO-1 from the Trails Master Plan Programmatic IS/MND.

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

Less than Significant Impact. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). Related projects considered to have the potential of creating cumulative impacts in association with the project consist of projects that are reasonably foreseeable and that would be constructed or operated during the life of the project. The project is located in a developed area that is largely built out. The proposed project implements and is consistent with the city’s Trails Master Plan and General Plan. Other trails proposed under the Trails Master Plan in the vicinity of the project, including trails 8A, 8B, 10A, and 12A, would also be consistent with the Trails Master Plan and General Plan. As stated in Chapter 5 of the recirculated portions of the General Plan EIR, air quality, transportation, noise, and GHG emissions impacts identified in the EIR are considered cumulatively significant in nature because the analysis is projected to the year 2035 and includes regional growth. Cumulative effects on land use character, water quality, biological resources, hazardous materials, and historical resources were all identified as being less than cumulatively considerable. Section 15152(f)(1) of the CEQA Guidelines states “Where a Lead Agency determines that a cumulative effect has been adequately addressed in the prior EIR, that effect is not treated as significant for purposes of a later EIR or negative declaration.” The proposed project is consistent with the city’s General Plan and does not conflict with existing land use designations; therefore, cumulative impacts would be less than significant.

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

Less than Significant with Mitigation Incorporated. The project does not propose environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Adherence to regulatory codes, ordinances, regulations, standards, and guidelines would ensure that construction and operation of the proposed project would not result in substantial adverse direct or indirect effects on humans. The project would not consist of any uses or activities that would negatively affect people in the vicinity. The air quality analysis summarized in Section III, *Air Quality*, concluded that the project would have less than significant impacts in relation to air pollutants and other air quality health concerns. The proposed project would cause an increase in ambient noise levels during construction. However, impacts would be temporary and in compliance with local ordinances and reduced with implementation of mitigation measure NOI-1. The increased noise levels would not cause substantial adverse impacts on human beings. Furthermore, as discussed in Section IX, *Hazards and Hazardous Materials*, the project would not involve acutely hazardous materials or expose people to such materials. Impacts would be less than significant.

LIST OF MITIGATION MEASURES

The following project-specific mitigation measures would be implemented and would be consistent with, and satisfy the requirements of, applicable mitigation measures from the Trails Master Plan Programmatic IS/MND, as noted in this document.

Biological Resources

BIO-1 Gnatcatcher Nesting Season Avoidance. No clearing of occupied gnatcatcher habitat may occur between March 1 and August 15 per the conditions of coverage for this species.

BIO-2 Nesting Bird Avoidance. Potential direct impacts to nesting bird species protected under the MBTA and CFG Code shall be mitigated by restricting brushing, clearing/grubbing, and grading to outside of the breeding season of most bird species (general breeding season is January 15 to September 15). Grubbing, grading, or clearing during the breeding season could occur if it is determined, based on the results of a pre-construction survey (see below), that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately before impacting potential nesting habitat. The City of Carlsbad shall be notified of any sensitive bird species identified during the pre-construction surveys.

If project impacts to vegetation or grading are necessary within and/or adjacent to habitat during the bird breeding season (January 15 to September 15), a qualified biologist shall conduct pre-construction surveys to determine the presence or absence of nesting birds, including raptors and sensitive bird species. The survey shall begin not more than three days before the beginning of impacts or grading activities. If nests of listed birds, migratory birds, raptors, or other sensitive species are located, they will be fenced with a protective buffer of at least 500 feet from active nests of listed species, and 300 feet from other sensitive bird species. Nests of non-sensitive bird species will be flagged for avoidance, and an appropriate setback determined by the biologist. All construction activity will be prohibited within the identified setbacks until a qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged.

The USFWS shall be notified of any federally listed species observed nesting within 500 feet of proposed grading activities, and the CDFW shall be notified of any state listed or special-status species observed nesting within 500 feet of proposed grading activities.

If listed species are present and construction is to occur during the nesting season, construction noise will be measured regularly to maintain a threshold at or below 60 dBA hourly L_{EQ} within 500 feet of breeding habitat occupied by listed species. If noise levels supersede the threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat from project construction to below 60 dBA hourly L_{EQ} , and/or the activities shall be suspended until nesting is complete.

BIO-3 Compensatory Mitigation and Revegetation of Temporary Impacts. Project mitigation for impacts to native habitat types shall be provided to achieve no net loss. Impacts to Group A riparian habitats (i.e., southern willow scrub) shall be mitigated at a minimum 1:1 ratio, Group C upland habitat (coastal sage scrub) at a 2:1 ratio, and Group E upland habitat (non-native grassland [disturbed]) at a 0.5:1 ratio.

Mitigation for permanent impacts to HMP Group A, C, and E habitat shall be provided at an off-site location approved by the City of Carlsbad. The project mitigation for Group A and C habitat shall include a minimum 1:1 creation or substantial restoration to ensure no-net loss of native habitat.

Southern Willow Scrub: Mitigation for impacts to 0.03 acre of Group A southern willow scrub is proposed to occur at a 1:1 ratio through the use of 0.03 acre of the City of Carlsbad's unused North County Habitat Bank mitigation credits.

Diegan Coastal Sage Scrub: Mitigation for impacts to 0.33 acre of Group C Diegan coastal sage scrub is proposed to occur at a 2:1 ratio through one of the following options:

- a) Use of 0.66 acre of SANDAG Sage Hill Mitigation Parcel credits; or
- b) Creation, restoration, and/or enhancement at The Crossings site identified as a "Proposed Future Mitigation Area", and/or another offsite location to be determined by the City of Carlsbad, totaling 0.66 acre, with at least 0.33 acre (1:1) composed of creation or substantial restoration.

Non-native Grassland: Mitigation for impacts to 0.11 acre of Group D non-native grassland is proposed to occur at a 0.5:1 ratio through the use of 0.06 credit at the City of Carlsbad's Lake Calavera Mitigation Parcel.

If mitigation credits are not used to mitigate for project impacts to Diegan coastal sage scrub, a Restoration Plan addressing compensatory mitigation for impacts to this habitat shall be prepared for review and approval by the City of Carlsbad's Planning Department and HMP Coordinator. The final restoration plan shall be submitted for review at least 30 days before initiating project impacts. Where the off-site mitigation would occur within lands that are not already preserved in perpetuity and subject to long-term management within an existing biological conservation easement, the City of Carlsbad shall record an Open Space Easement and a Conservation Easement or Restrictive Covenant over the off-site mitigation lands and provide long-term management. Before clearing or impacts to any habitat, the following items shall be approved by the City of Carlsbad's Planning Department and HMP Coordinator and considered final: Recordation of Conservation Easement, Restoration Plan, Preserve Management Plan, long-term management funding, and Management Agreement with qualified preserve manager, if not the City of Carlsbad.

BIO-4 Construction Fencing and Equipment Staging and Maintenance. To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, environmental fencing (including silt fencing where determined necessary by the SWPPP) would be installed at the edges of the impact limits before the initiation of grading. All construction staging shall occur within the approved limits of construction.

Throughout construction, employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint or within existing developed areas. Equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced project impact limits. These designated areas shall be located in previously developed and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering adjacent off-site habitats and shall be shown on the construction plans. Fueling of equipment shall take place within existing developed areas. Contractor equipment shall be checked for leaks before operation and repair, as necessary. "No-fueling zones" shall be designated on construction plans.

If work occurs beyond the fenced or demarcated limits of impact, work shall cease until the problem has been remedied to the satisfaction of City Planning. Impacts to jurisdictional areas or HMP Habitat Groups that occur beyond the approved work limits fence shall be mitigated in accordance with ratios specified in the Carlsbad HMP or as otherwise determined by City Planning and in coordination with the applicable resource agencies, as appropriate. Temporary construction fencing shall be removed upon project completion.

- BIO-5 Biological Construction Monitoring.** A qualified biologist will monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or wetlands, or biological open space. The biologist also will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources on-site and avoidance measures to remain in compliance with project approvals. The biologist also will monitor vegetation clearing, grubbing, and grading activities on a regular basis to help ensure compliance with project approvals.

Cultural Resources

- CUL-1 Contractor Awareness Training.** An archaeological sensitivity training program will be developed in consultation with the TCA tribe retained to monitor and delivered by a qualified professional archaeologist prior to the beginning of ground-disturbing work for construction crews working within the project area. The cultural awareness and sensitivity training shall provide notification procedures if potential archaeological material is discovered, procedures for coordination between construction and monitoring personnel, and information about other situations that may arise if cultural resources, including human remains, are discovered during construction. This training and communication protocol shall be communicated to all new construction personnel prior to construction crews beginning ground-disturbing work on the project, and on a poster that is placed in a visible location inside the construction job trailer.

Geology and Soils

- GEO-1 Unanticipated Discovery of Paleontological Resources.** If evidence of subsurface paleontological resources is found during construction, excavation and other ground-disturbing construction activity shall immediately cease at the location of the suspected paleontological exposure plus a 50-foot radius around the suspected find (no-work area) and the construction contractor shall contact the City of Carlsbad Planning Division. With direction from the City of Carlsbad Planning Division, a qualified paleontologist shall evaluate the find prior to resuming

ground-disturbing construction activity in the no-work area of the find. If warranted, the paleontologist shall prepare a Paleontological Resources Mitigation Program for the salvage and curation of identified resources for approval by the City of Carlsbad and implementation by the construction contractor.

Noise

NOI-1 Construction Noise Management Plan. Noise levels from project-related construction activities shall not exceed 10 dBA above existing ambient noise levels, or 70 dBA, when measured at nearby noise-sensitive land uses or receptors. A Construction Management Plan that describes the measures and specifications included on the construction plans to ensure compliance with the noise limit shall be prepared and submitted to the City of Carlsbad Planning Division for approval prior to issuance of the grading permit. The following measures may be included to reduce construction noise generated by graders and scrapers:

- Construction equipment to be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- All internal combustion engines to be equipped with mufflers in good repair and are subject to the City Noise Control Ordinance, Carlsbad Municipal Code Chapter 8.48.
- Diesel equipment to be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) to be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment to be used instead of pneumatic or internal-combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) to be prohibited.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7 to 8 feet above ground, a sound wall at least 10 feet in height above grade, to block the line-of-sight between project construction activities and residences along the northern, southern, and eastern property lines. These barriers would mitigate noise levels to within acceptable levels. To effectively reduce noise levels, the sound barrier should be constructed of a material with an STC rating of 22 or

23 with no gaps or perforations and remain in place until the conclusion of demolition, grading, and construction activities.

- General working hours are Monday through Friday, 7:00 a.m. - 6:00 p.m. Site mustering (i.e., gathering/assembly at the site) is not allowed prior to and after the allowable working hours.

Tribal Cultural Resources

TCR-1 Tribal Monitoring. Prior to the commencement of ground-disturbing activities, the applicant shall:

- a. Retain the services of a qualified archaeologist, defined as one either meeting the Secretary of the Interior's 1997 Professional Qualification Standards for Archeology or working under the supervision of a qualified archaeologist, who shall be on-site for ground-disturbing activities. In the event cultural material is encountered, the archaeologist is empowered to temporarily divert or halt grading to allow for coordination with the Luiseño Native American monitor, or other Traditionally and Culturally Affiliated Luiseño tribe ("TCA Tribe"), and to determine the significance of the discovery. The archaeologist shall follow all standard procedures for cultural materials that are not tribal cultural resources.
- b. A Luiseño Native American monitor shall be present during all ground disturbing activities. Ground disturbing activities may include, but are not limited to, archaeological studies, geotechnical investigations, clearing, grubbing, trenching, excavation, preparation for other infrastructure, and grading activities.
- c. Any and all uncovered artifacts of Luiseño Native American cultural importance shall be returned to the San Luis Rey Band of Mission Indians, and/or the Most Likely Descendant for later reburial on project site, if applicable, and not be curated, unless ordered to do so by a federal agency or a court of competent jurisdiction.
- d. The Luiseño Native American monitor shall be present at the project's pre-construction meeting to discuss with grading and excavation contractors excavation schedules and safety issues, as well as to discuss with the archaeologist Principal Investigator (PI) concerning the proposed archaeologist techniques and/or strategies for the project.
- e. Luiseño Native American monitors and archaeological monitors shall have joint authority to temporarily divert and/or halt construction activities. If tribal cultural resources are discovered during construction, all earth-moving activity within and around the immediate discovery area must be diverted until the Luiseño Native American monitor and the archaeologist can assess the nature and significance of the find.
- f. If a significant tribal cultural resource(s) and/or unique archaeological resource(s) are discovered during ground-disturbing activities for this project, the San Luis Rey Band of Mission Indians and other TCA tribes shall be notified and consulted regarding the respectful and dignified treatment of those resources. Pursuant to California PRC Section 21083.2(b), avoidance is the preferred method of preservation for

archaeological and tribal cultural resources. If, however, the applicant is able to demonstrate that avoidance of a significant and/or unique cultural resource is infeasible and a data recovery plan, or other culturally appropriate mitigation measure, is authorized by the City of Carlsbad as the lead agency, the San Luis Rey Band of Mission Indians and other TCA tribes shall be consulted regarding the drafting and finalization of such recovery plan.

- g. If suspected Native American human remains are encountered, California Health and Safety Code Section 7050.5(b) states that no further disturbance shall occur until the San Diego County Medical Examiner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Suspected Native American remains shall be examined in the field and kept in a secure location at the site. A Luiseño Native American monitor shall be present during the examination of the remains. If the San Diego County Medical Examiner determines the remains to be Native American, the NAHC must be contacted by the Medical Examiner within 24 hours. The NAHC must then immediately notify the "Most Likely Descendant" about the discovery. The Most Likely Descendant shall then make recommendations within 48 hours and engage in consultation concerning treatment of remains as provided in Public Resources Code 5097.98.
- h. In the event that fill material is imported into the project area, the fill shall be clean of tribal cultural resources and documented as such. Commercial sources of fill material are already permitted as appropriate and will be culturally sterile. If fill material is to be utilized and/or exported from areas within the project site, then that fill material shall be analyzed and confirmed by an archeologist and Luiseño Native American monitor that such fill material does not contain tribal cultural resources.
- i. No testing, invasive or non-invasive, shall be permitted on any recovered tribal cultural resources without the written permission of the San Luis Rey Band of Mission Indians and other TCA tribes.
- j. Prior to the completion of project construction, a monitoring report and/or evaluation report, if appropriate, which describes the results, analysis, and conclusions of the monitoring program shall be submitted by the archaeologist, along with the Luiseño Native American monitor's notes and comments, to the City of Carlsbad for approval and shall be submitted to the South Coastal Information Center. Said report shall be subject to confidentiality as an exception to the Public Records Act and will not be available for general public distribution.

TCR-2 Pre-Excavation Agreement. Prior to the commencement of any ground-disturbing activities, the applicant shall enter into a Pre-Excavation Agreement, otherwise known as a Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with a TCA affiliated consulting tribe. This agreement shall meet all standard requirements of the tribe for such agreements in accordance with applicable laws and regulations, including but not limited to the City of Carlsbad's 2017 Tribal, Cultural and Paleontological Resources Guidelines. This agreement will address provision of a Luiseño Native American monitor and will also contain provisions to address the proper treatment of any Tribal Cultural Resources and/or Luiseño Native American

human remains inadvertently discovered during the course of the project. The agreement shall outline the roles and powers of the Luiseño Native American monitors and the archaeologist and shall include the provisions outlined in TCR-1.

EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In such cases, a discussion should identify the following on attached sheets:

- a) Earlier analyses used. Identify earlier analyses 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 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.

EARLIER ANALYSIS USED AND SUPPORTING INFORMATION SOURCES

The following documents were used in the analysis of this project and are on file in the City of Carlsbad Planning Division located at 1635 Faraday Avenue, Carlsbad, California, 92008.

California Department of Conservation (DOC). 2022. Farmland Mapping and Monitoring Program. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CIFF/>.

California Department of Forestry and Fire Protection (CALFIRE). 2025. Map of CAL FIRE’s Fire Hazard Severity Zones in Local Responsibility Areas – Carlsbad. Available at: [Fire Hazard Severity Zone and Local PIO Viewer App](#).

2024. Fire Hazard Severity Zone Maps. Available at : <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008>.

California Department of Toxic Substances Control. 2024. EnviroStor. Available at: <https://www.envirostor.dtsc.ca.gov/public/map/>. Accessed May 20.

California Department of Transportation (Caltrans). 2024. List of Eligible and Officially Designated State Scenic Highways. Available at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.

2020. Transportation and Construction Vibration Guidance Manual. April. Available at: <https://dot.ca.gov/programs/environmental-analysis/noise-vibration/guidance-manuals>.

California Energy Commission. 2018. 2018 Integrated Energy Policy Report Update.

California State Water Resources Control Board. 2024. GeoTracker. Available at:
<https://geotracker.waterboards.ca.gov/>. Accessed May 20.

City of Carlsbad. 2024a. General Plan Land Use & Community Design and Public Safety Elements.
January.

2024b. Climate Action Plan Update. November. Available at:
<https://www.carlsbadca.gov/departments/environmental-sustainability/climate-action-plan>.

2023a. Municipal Code (CMC), Title 21, Zoning.

2023b. Vehicle Miles Traveled Analysis Guidelines. May 31. Available at:
<https://www.carlsbadca.gov/home/showpublisheddocument/312/638271826640914231>.

2021. Sustainable Mobility Plan.

2020. City of Carlsbad Guidance to Demonstrating Consistency with the Climate Action Plan,
Form P-31, July.

2019a. Local Coastal Program, October.

2019b. Trails Master Plan, August.

2018. Trails Master Plan Final IS/MND (SCH# 2017041006), June.

2017. Tribal, Cultural, and Paleontological Resources Guidelines. September.

2015a. Carlsbad General Plan, September.

2015b. Final Environmental Impact Report for the City of Carlsbad General Plan and Climate
Action Plan (SCH #2011011004), June.

2008. Pedestrian Master Plan, August.

2007. Bikeway Master Plan, December.

2004. Habitat Management Plan for Natural Communities in the City of Carlsbad (HMP),
November.

Federal Emergency Management Agency (FEMA). 2024. FEMA Flood Map Service Center. Available at:
<https://msc.fema.gov/portal/home>. Accessed May 22, 2024.

HELIX Environmental Planning, Inc. 2025a. Air Quality and Greenhouse Gas Analysis for the Avenida
Encinas Coastal Rail Trail Project and Pedestrian Improvement Project. September 16.

2025b. Avenida Encinas Coastal Rail Trail Project and Pedestrian Improvements Project
Biological Technical Report. October.

2025c. Avenida Encinas Coastal Rail Trail Project and Pedestrian Improvements Project Cultural
Resources Survey Report. October.

HELIX Environmental Planning, Inc (cont.)

2025d. Construction Noise Analysis for the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project. October.

Nasland Engineering. 2024. Hydraulic report for the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements (Segment 3).

2023. Stormwater Quality Management Act. December.

Regional Water Quality Control Board (RWQCB). 2020. 2020-2022 Integrated Report for Clean Water Act Section 303(d) Available at:

https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html.

1994. Water Quality Control Plan for the San Diego Basin (most recently updated September 1, 2021). Available at:

https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/

San Diego Air Pollution Control District. 2024. Attainment Status. Available from:

<https://www.sdapcd.org/content/sdapcd/planning/attainment-status.html>.

San Diego Association of Governments. 2021. 2021 Regional Transportation Plan. December.

San Diego Regional Airport Authority/San Diego County Airport Land Use Commission. 2011. McClellan-Palomar Airport Land Use Compatibility Plan. January.

STC Traffic. 2022a. Avenida Encinas Coastal Rail Trail Traffic Impact Analysis. May.

2022b. VMT Analysis – Technical Memorandum. May 20.

U.S. Census Bureau. 2023. Quick Facts: Carlsbad California. Available at:

<https://www.census.gov/quickfacts/fact/table/carlsbadcitycalifornia,sandiegocitycalifornia/PST045222>.

This page intentionally left blank