



Envision 273 Comprehensive Multimodal Corridor Plan

Draft Report

FEBRUARY 19, 2025

DRAFT



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Executive Summary

This Executive Summary provides an overview of the *Envision 273: A Comprehensive Multimodal Corridor Plan* (the Plan) and highlights the resulting pending **Prioritized Solutions**. While this Executive Summary was prepared to convey an overall summary of the Plan, the Plan and associated appendices should be referenced for additional detail on methodology and findings.

The Shasta Regional Transportation Agency (SRTA) and the California Department of Transportation District 2 (Caltrans) initiated the preparation of the Plan. The Plan evaluates the entire 16.2-mile length of the State Route (SR) 273 corridor (the Corridor), from Interstate 5 (I-5) in the City of Redding to the north to I-5 in the City of Anderson to the south. The objective of the Plan is to develop Prioritized Solutions consisting of comprehensive multimodal improvements that address the Corridor needs.

The Prioritized Solutions will serve to guide future SR 273 planning, programming, and engineering decisions over the short, medium, and long-term planning horizons. As such, requisite technical information consistent with State and Federal grant program guidelines was key to the development of the Plan.

Report Organization

The Plan presents the planning guidance and approach (Chapter 2), corridor context (Chapter 3), and corridor performance (Chapter 4), leading to the corridor strategies and projects (Chapter 6). The corridor projects were further evaluated in the corridor analysis (Chapter 7), leading to the prioritized solutions (Chapter 8) and implementation (Chapter 9).

Stakeholders and the public (Chapter 6) were engaged throughout the Plan process. Stakeholders included jurisdictional agencies, including the City of Redding, the City of Anderson, the County of Shasta, and Redding Rancheria.

Corridor Planning Guidance and Approach

Consistent with the *2020 Caltrans Corridor Planning Process Guide* and the *2018 California Transportation Commission (CTC) Comprehensive Multimodal Corridor Plan Guidelines*, corridor planning is a multimodal transportation planning approach that recognizes that transportation needs are based on the complex geographic, demographic, economic, and social characteristics of communities. These locations are tied together by a complex system of streets, roads, highways, trails, paths, rail lines, bus corridors, and other elements that affect the convenience, safety, and accessibility of transportation choices.

Consistent with the *2020 Caltrans Smart Mobility Framework*, a smart mobility framework should be incorporated into Caltrans plans and projects. As originally defined in *Caltrans Smart Mobility 2010*, “Smart Mobility moves people and freight while enhancing California’s economic, environmental, and human resources by emphasizing convenient and safe multimodal travel, speed suitability, accessibility, management of the circulation network, and efficient use of land.” Some components of the Smart Mobility Framework, such as complete streets, are now being implemented. However, the Smart Mobility Framework is broader than just complete streets and active transportation. The Smart Mobility Framework provides guidance on strategies, performance measures, and analysis methods for implementing smart mobility, organized around five themes: network management, multimodal choices, speed suitability, accessibility and connectivity, and equity. The Smart Mobility Framework helped to establish the performance measures used in the Plan.

The overall approach to the development of the Plan included the following main categories: **1.) Understand the Corridor as a System** and **2.) Understand the Corridor Segments as “Places.”** As a system, the corridor moves people and goods to destinations located on and off the corridor. The

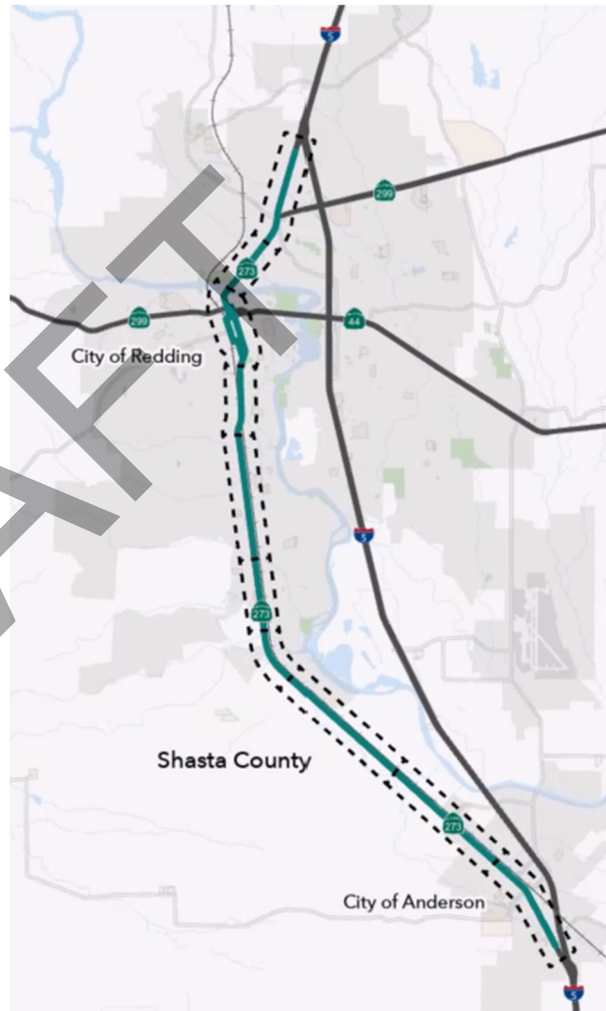
system includes the roadway, transit, and intermittent bicycle and pedestrian facilities. In addition to understanding the system, the specific contexts of the communities (the “places”) that border the corridor guide the planning approach and solutions. Over its 16.2-mile extent, the corridor serves a variety of functions depending on the adjacent land uses it serves and the purposes of travel along its segments. Therefore, a “place-based” planning approach was used to guide segment-specific recommendations for the corridor. The Plan identified 10 segments along the corridor to emphasize the changing characteristics of the roadway, as well as the adjacent land uses.

Corridor Context and History

SR 273 is a 16.2-mile corridor that extends through and connects the Shasta Region’s two largest incorporated cities (the Cities of Redding and Anderson), as well as numerous smaller outlying communities. SR 273 is a divided highway with periodic frontage roads through most of its extent, and transitions to one-way couplets through Downtown Redding. It also includes interchanges with SRs 299 and 44, as well as space constraints associated with the Union Pacific Railroad (UPRR) freight rail line, which flanks SR 273 for roughly 9.5 miles in the project area. The corridor is maintained and operated by Caltrans and is a terminal-access Surface Transportation Assistance Act (STAA) truck route on all but a small section through Downtown Redding.

Parts of the route now known as SR 273 have served travelers since before California was a state. The State’s role in planning and maintenance of the corridor dates back to the California Division of Highways era of the 1910s. When first integrated into the state highway system, the corridor was almost entirely rural, connecting small, compact communities. As auto-oriented development boomed regionally during the construction of Shasta Dam and the post war years of the 20th century, growth sprung up along the highway, leading to a “stringtown effect.” A significant portion of the corridor is now located within the urbanized City of Redding limits, yet, the misalignment between land use and the corridor’s infrastructure causes numerous challenges.

SR 273 crosses the Sacramento River, Clear Creek, and a number of smaller waterways. The corridor’s proximity to residential neighborhoods, employment centers, and notable civic/regional destinations means that it services all mobility modes including private vehicles, commercial/freight trucks, transit, and active transportation. Some notable destinations include Caldwell Park, Turtle Bay Exploration Park, Shasta Regional Medical Center, Mercy Medical Center, Redding City Hall, Redding Rancheria, and Anderson City Hall.



Corridor Performance

The performance measures selected to assess performance included the following:

- Operations & Reliability
 - Travel Time Reliability
 - Vehicular Congestion
 - Person Throughput
 - Person Hours Delay
 - Intersection Level of Service
 - Transit Performance
- Mobility & Connectivity
 - Transit Stop Quality
 - Bicycle Origin-Destination Connectivity
 - Bicycle Level of Traffic Stress
 - Sidewalk Coverage
 - Mode Share
- Safety
 - Total Collisions
 - Total Fatal Collisions
 - Total Severe Collisions
 - Total Bicycle or Pedestrian Collisions
 - Collision Rate
- Sustainability & Resiliency
 - Vehicle Miles Traveled
 - Air Quality & Emissions
 - Emergency Evacuation
- Equity
 - Disadvantaged Communities (DACs)

For existing performance, overall, the 10 segments performed poor for nearly all of the performance measures listed above and all 10 segments included DACs.

Stakeholder and Public Outreach

A robust stakeholder and public outreach process was conducted to engage the community and identify community concerns and priorities throughout the development of the Plan.

Elements of the outreach process included:

- A Project Advisory Committee (PAC) and an Executive Advisory Committee (EAC)
- Online engagement, including a project website with an online survey, ideas wall, and mapping tool
- In person engagement
- A public visioning event
- Public open houses

- A safety campaign

The PAC and EAC participated in a site visit at the beginning and met regularly throughout the Plan process.

Online engagement included a project website with an online survey, ideas wall for participants to discuss with other users, and a mapping tool to allow for location specific comments.

In person engagement consisted of a three-day public visioning event that included corridor audits, presentations, and discussions. Additionally, in-person workshops were held in the Cities of Redding and Anderson. Workshops 1 to 4 introduced the plan and collected feedback from the attendees on challenges, barriers, and needs related to the corridor.

[Pending: Workshops 5 and 6 in March.]

Corridor Strategies and Projects

Based on the existing performance results, corridor strategies and projects were identified to carry forward into the corridor analysis.

Corridor strategies included consideration of the following:

- Freeway/highway/arterial projects to reduce speeds where appropriate, implement safety features, and promote complete streets, including and specifically in Downtown Redding, with little to no negative impact on vehicular throughput or travel times;
- Freight projects to improve existing arterial railroad grade crossings, in addition to the SR 273 crossings (roadway, bicycle, and pedestrian). Additionally, freight rail overcrossings and undercrossings, which would benefit multiple stakeholder agencies; and,
- Complete street projects to provide, at a minimum, a multiuse path to safely accommodate both pedestrians and bicyclists.

Based on corridor strategies, corridor projects were developed. First, existing planned and programmed projects from state, regional, and local agencies were assessed. The corridor projects include a modified list of the planned and programmed projects, as well as proposed projects. Proposed projects were developed in consultation with stakeholder agencies, including through the development of planning-level feasibility studies.

Proposed projects include four areas plans, with potential future design and construction. Also, multiuse paths (Class I) in rural areas of the corridor and separated bikeways (Class IV) in urban areas of the corridor. Also, a number of safety projects (e.g., crossings, lighting, variable speed warning signs, beacons, markers and striping, signals, roundabout), a roundabout study, and transit-supporting infrastructure.

Corridor Analysis

Pending public review of draft report.

Prioritized Solutions

Pending public review of draft report.

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1 INTRODUCTION

The *Envision 273: A Comprehensive Multimodal Corridor Plan* (Plan) is a collaborative, multi-year corridor planning effort for State Route (SR) 273.

Background

The Shasta Regional Transportation Agency (SRTA), Caltrans District 2 (Caltrans), and other regional agency partners identified the need for a comprehensive evaluation of the SR 273 corridor (the Corridor) to identify a common vision for future improvements that align with current and future land uses and the needs of all users of the corridor, including local residents, businesses, and travelers.

In 2021, SRTA and Caltrans applied for two different funding sources and both agencies received funds. SRTA was awarded a \$500,000 Strategic Partnerships grant (part of the Caltrans Sustainable Transportation Planning grants program) and Caltrans received \$500,000 in funds through the State Planning and Research (SP&R)¹—Special Studies funds, representing a total investment of \$1 million in funds to help improve the Shasta Region. The initial \$500,000 in SP&R funds was for a special study of the southern portion of the corridor, specifically on Multimodal Stewardship, Safety, and Equity.

To minimize overhead costs and ensure coordination and consistency, the two sources were combined by a Joint Powers Agreement to administer the combined funds and to clarify the roles of each agency throughout the effort. It was determined that the combined funds would be used to develop a Comprehensive Multimodal Corridor Plan (CMCP) that is consistent with the intent and essence of the original Caltrans special study request, as well as capturing the needs/vision and intentions of SRTA, local and regional agency partners, and external stakeholders.

For this Plan, the corridor team consisted of SRTA, Caltrans, and GHD.

Corridor Planning

Consistent with the *2020 Caltrans Corridor Planning Process Guide*, Corridor Planning is a multimodal transportation planning approach that recognizes that transportation needs are based on the complex geographic, demographic, economic, and social characteristics of communities. These locations are tied together by a complex system of streets, roads, highways, trails, paths, rail lines, bus corridors, and other elements that affect the convenience, safety, and accessibility of transportation choices. A corridor can be defined as a linear geographic area with one or more modes of transportation that facilitates the movement of people and goods, supports the economy, and connects communities. Origins and destinations, land use, place types, and existing and future development that surround the transportation infrastructure influences how the corridor and its limits are defined.

Key elements of a CMCP should include the following:

- Clear demonstration of state, regional, and local collaboration
- Short-, medium-, and long-term planning horizon
- Specific corridor objectives
- Multimodal considerations for and approaches to address transportation system issues
- Identification and evaluation of performance measures for recommended projects and strategies

¹ SP&R funds are not grant funds, but part of resources that help fund special studies for Caltrans.

Ideally, corridor planning culminates in a clear vision for identified improvements, while recognizing both the positive and negative impacts of changes over time.

Corridor Vision

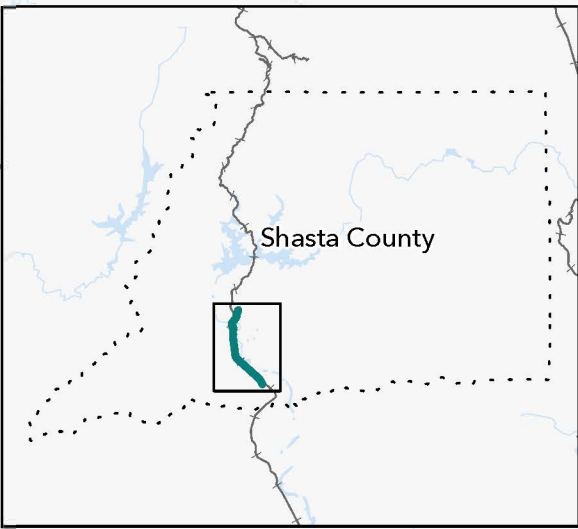
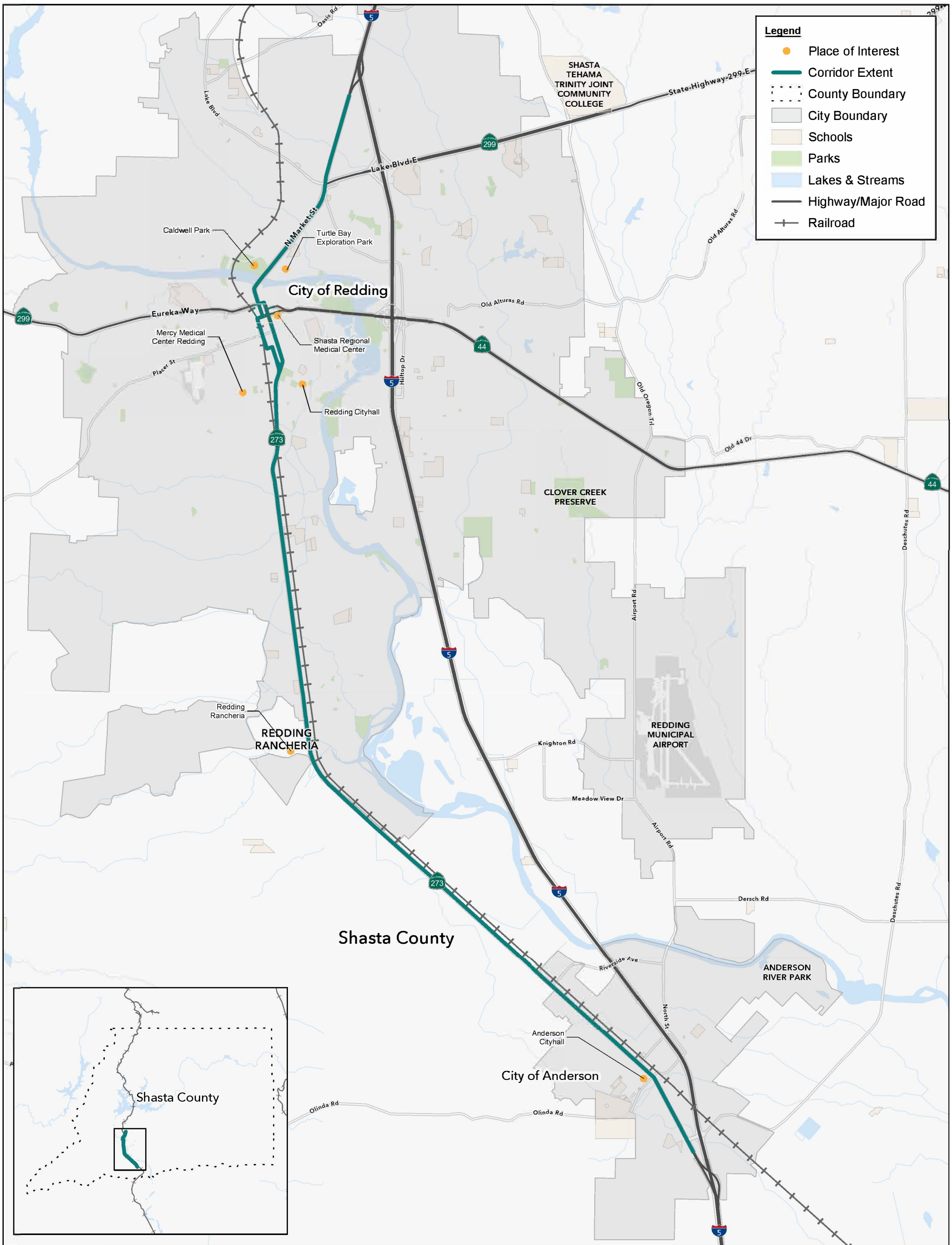
The vision for the SR 273 corridor aims to achieve a safe, efficient, and reliable transportation system for the movement of people and goods. This vision seeks to maximize the accessibility, resiliency, and connectedness of this corridor for all users. Whether we drive, ride, walk, or roll, Envision 273 benefits current and future generations with a state-of-the-art transportation network while increasing the quality of life for all.

This vision will be realized by strategically implementing maintenance and improvement projects in alignment with community members and regional partners' needs and local, regional, state, and federal goals. These projects will collectively benefit the region by improving safety, economic vitality, quality of life, accessibility, equity, and public health for all.

Plan Goals

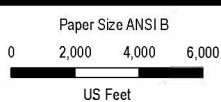
Plan goals include:

- Develop a vision for SR 273 for the next 100 years,
- Reduce barriers to mobility,
- Enhance safety, accessibility, and connectivity for all users,
- Achieve better compatibility between land use and corridor design,
- Improve environmental sustainability and resiliency, and
- Position the region to successfully compete for federal and state grant funds.

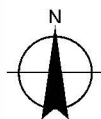


Envision 273: SR 273 Multimodal Corridor Plan

PROJECT VICINITY MAP



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



Project No. 12560002
 Revision No. -
 Date

FIGURE 1

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2 GUIDANCE AND APPROACH

This chapter highlights the relevant transportation planning studies specific to the corridor study area, as well as the planning frameworks and design guidelines that will inform the corridor analysis of the corridor projects.

Planning Context & Approach

The relevant transportation planning studies and design guidelines are briefly summarized below.

Regional & Local Transportation Plans

Caltrans District 2 Active Transportation Plan (2022)

The Caltrans District 2 Active Transportation (CAT) Plan and accompanying Story Map identifies active transportation needs in the district. Highway segment projects and freeway crossing projects are scored with weights and measures related to goals in the Toward an Active California plan, then sorted by priority tier based on urgency.

SRTA GoShasta Regional Active Transportation Plan (2018, Updated 2019)

This plan was developed by Shasta Regional Transportation Agency (SRTA) to inform the development of active transportation programs and infrastructure for walking, bicycling, and connecting to transit in the Shasta Region. The plan framework includes three themes:

1. Increase active transportation modes.
2. Increase safety and comfort of active transportation users.
3. Invest in healthy, vibrant, sustainable, and people-centered communities.

The plan also prioritizes the development of a Regional Trunk Line System to provide high quality facilities for users of all ages and abilities to travel between communities and activity centers. A Regional Trunk Line System is a system of interconnected Class I and IV paths that are physically separated from vehicles and connect main corridors to destination and activity centers. The north-south trunk line between the Cities of Anderson and Redding is shown to generally fall along the alignment of SR 273.

SRTA Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS) for the Shasta Region (2022)

The regional transportation plan (RTP) is a 20-year investment plan outlining how the region (e.g. cities, counties, Caltrans, and SRTA) intends to provide a transportation system that efficiently moves people and freight (goods) for all transportation modes. The RTP includes short- and long-term goals and strategies to help guide the process.

As part of the RTP, SRTA must develop a Sustainable Communities Strategy (SCS) - which is required under California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375) that addresses how the RTP will meet the region's greenhouse gas (GHG) emissions reduction targets.

GoShasta Trunk Lines Map

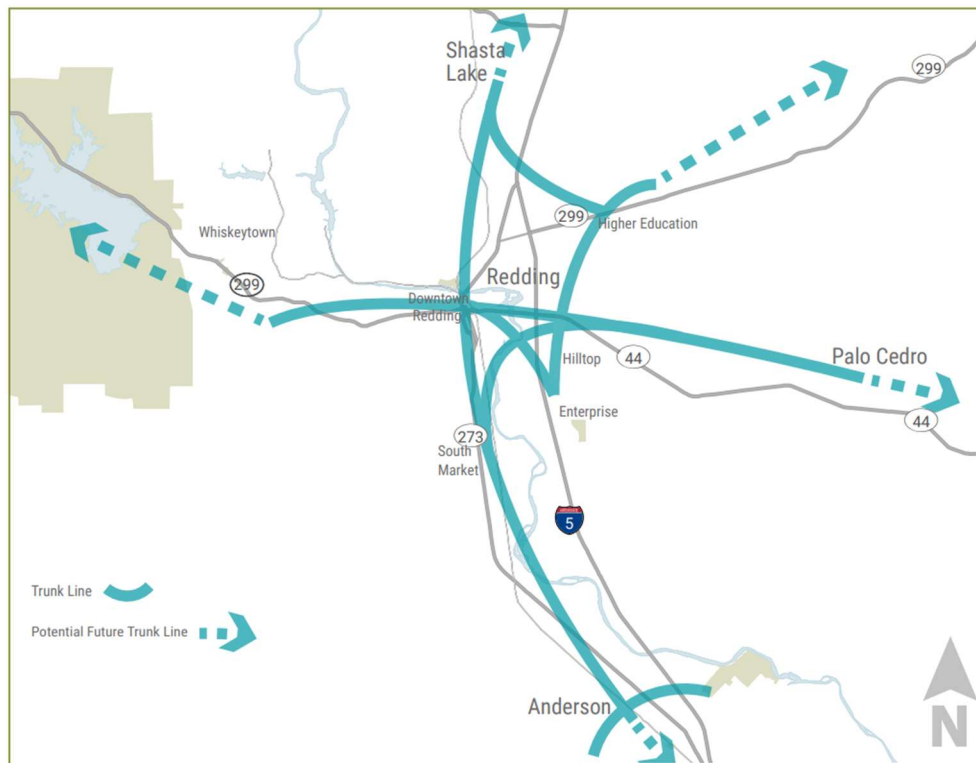


Image Source: GoShasta Regional ATP, 2018

City of Redding Active Transportation Plan (2018)

The current 2018 City of Redding Active Transportation Plan aims to promote greater connectivity within and to/from the City of Redding and was developed by the City of Redding in conjunction with the *GoShasta Regional Active Transportation Plan*. The vision of the plan is:

The City of Redding is a community where people of all ages and abilities can walk and bike conveniently, safely, and enjoyably, incorporating walking and bicycling into their daily lives. The City of Redding is also a destination for visitors seeking to enjoy our outdoor amenities on foot or by bike.

The goals of the plan are listed below:

1. Develop a highly connected and comfortable active transportation network.
2. Increase the number of walking and bicycling trips.
3. Increase safety and mobility for pedestrians and bicyclists.
4. Promote an active transportation culture that benefits the community.

City of Anderson General Plan 2000-2027

The current 2000-2027 City of Anderson General Plan identifies SR 273 as an expressway, defined by the plan as: a divided multi-lane major arterial street for through traffic with partial control of access and with grade separations at major intersections. The right-of-way requirements for an expressway are identified as between 110 and 120 feet. The plan also identifies SR 273 as a primary source of noise pollution for the City of Anderson, in addition to I-5.

City of Redding General Plan 2023-2045

The current 2023-2045 City of Redding General Plan highlights are relevant to the corridor:

- The plan states the following related to city streets and bicycle facilities in Redding: “Bicycle facilities on arterial streets should consist of buffered bicycle lanes or separated bikeway facilities whenever feasible.” Also, “protected bikeways should be provided where feasible on principal arterials.”
- The plan identifies SR 273 as a critical link for fire, flood, earthquake, and other emergency evacuation routes.
- The plan states the following related to the corridor, specifically those portions of SR 273 referred to as North and South Market Street through Redding.

North Market Street: The North Market Street focus area includes SR 273 between Quartz Hill Road and Benton Drive. The following recommendations are provided within the plan:

- North Market Street provides access to scenic and recreational attributes and should be improved to have the aspect of a parkway with median landscape, sidewalks, and some bulb-out landscape features.
- Recommendation for a pedestrian trail along Sulphur Creek upstream of Market Street and pedestrian crossing of North Market Street.
- Allow development of new and expansion of existing automobile-oriented uses only on the west side of North Market Street.

South Market Street: South Market Street is generally the area north of the UPRR freight rail overpass and south of Downtown Redding. The following recommendations are provided within the plan:

- “South Market Street is characterized by the railroad and the industrial development along the corridor. The underutilized and vacant industrial parcels abutting the single-family neighborhood provide an opportunity for redevelopment potential for residential and accompanying services” (page 56).
- Recommendation for a protected or buffered bike lane along SR 273 for commuting and to connect to Downtown Redding. Incorporate lighting, street crossings, and other traffic calming features.
- Recommendation to improve aesthetics of the roadway with median landscape, sidewalks, and some bulb-out landscape features.
- Acknowledges the challenges to provide these features given the number of smaller parcels, access driveways, intersecting streets, among others.

Planning Framework Guidelines

The relevant planning framework and design guidelines referenced in this report apply to multimodal corridor plans that aim to address safety issues and multimodal infrastructure deficiencies while improving corridor performance for all travel modes, including walking, biking, private vehicle, freight/truck, transit, and rail, with specific emphasis and prioritization on improving conditions for disadvantaged communities (DACs).

Caltrans Corridor Planning Process Guide, 2020

This guide establishes a comprehensive planning approach through desired protocols and procedures to identify and implement multimodal transportation needs. A key component of this guide is the emphasis on conducting a baseline performance assessment of the corridor to highlight the relationship between

identified issues and their causes. Improvement strategies are also evaluated to determine the potential benefits to the corridor, in terms of corridor performance.

Caltrans Smart Mobility Framework Guide, 2020

This plan provides a performance-based analysis performed to develop and evaluate alternative corridor improvement concepts. The Smart Mobility Framework is premised on six key objectives: Location Efficiency; Reliable Mobility; Health and Safety; Environmental Stewardship; Social Equity; and Robust Economy. These six objectives are informed through the application of seventeen candidate performance measures.

The fundamental premise of the Smart Mobility Framework is to ensure that planning or programming decisions for transportation improvements are performance based, transparent, and address sustainable outcomes and objectives. The performance metrics selected for the Plan are consistent with Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and forecast corridor conditions.

Caltrans Director's Policy on Complete Streets (DP-37), 2021

This policy requires any project funded or overseen by Caltrans to:

provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved.

DP 37 intends to prioritize underserved communities, streamline procedures and implementation, and encourage active transportation.

Main Street, California: A Guide for People-Centered State Highway Main Streets

This guide identifies five principles to balance the needs of state highway main streets while supporting multimodal travel and community well-being. *Main Street* particularly applies to the three state highways that weave throughout Downtown Redding.

Principle 1: Champion People-Centered Main Streets

Principle 2: Improve Safety and Public Health

Principle 3: Elevate Equity and Livability

Principle 4: Advance Sustainability and Climate Action

Principle 5: Strengthen Partnerships and Engagement

Caltrans Traffic Calming Guide: A Compendium of Strategies

This guide provides traffic calming strategies in six categories: Signings and Markings, Physical Intersection Modifications, Roadway Narrowing, Vertical Roadway Elements, Physical Roadway Segment Modifications, and Others. This CMCP's recommended projects and solutions draw upon these strategies.

California Action Plan for Transportation Infrastructure (CAPTI), 2021

The CAPTI is a framework that recommends how the state should spend funds on projects that address climate change while supporting safety, public health, and equity goals. An Interim Caltrans System Investment Strategy (CSIS) was released to implement CAPTI by identifying and prioritizing projects for competitive programs, ensuring alignment with the 10 CAPTI Guiding Principles. The Guiding Principles focus on bolstering multimodal facilities and improving safety, investing in zero-emission vehicle and

freight infrastructure, prioritizing social and racial equity, and incorporating climate and conservation into planning efforts.

Caltrans Toward an Active California: State Bicycle + Pedestrian Plan, 2017

This statewide plan was developed by Caltrans to support active transportation by providing policy direction and outlining objectives, strategies, and actions. The goals of this plan are:

- Improve Multimodal Mobility and Accessibility for All People
- Preserve the Multimodal Transportation System
- Support a Vibrant Economy
- Improve Public Safety and Security
- Foster Livable Communities and Promote Social Equity
- Practice Environmental Stewardship.

Multimodal Design Guidelines

The *Caltrans Corridor Planning Process Guide* includes the following objective: Preserve the character of local communities, create opportunities for neighborhood enhancement, and improve multimodal accessibility including complete streets. Caltrans requires that planning projects include “complete street” features that provide safe and accessible options for people of all ages and abilities, and for all modes (including walking, biking, rolling, and taking transit). Examples of Complete Street design elements include:

- Continuous and connected sidewalks and bike lanes
- Comfortable and convenient transit facilities
- Frequent and safe pedestrian crossings
- Accessibility improvements, per the Americans with Disabilities Act (ADA)

Additional Complete Street design elements that aim to vehicular speeds, reducing pedestrian crossing distances across roadways, and provide wider sidewalks and public spaces along the roadway include:

- Curb extensions (or bulb-outs)
- Median island with pedestrian refuge
- Reduced travel lanes (“Road Diet”)

Complete Streets Design Guidelines

- Caltrans Complete Streets Elements Toolbox & Complete Streets Project Planning Guide
- Federal Highway Administration (FHWA) Separated Bike Lane Planning and Design Guide
- National Association of City Transportation Officials (NACTO) Urban Street Design Guide, Transit Street Design Guide, Urban Bikeway Design Guide, and Urban Street Stormwater Guide.
- Caltrans Design Information Bulletin (DIB) 89 Class IV (Separated Bike Lane) Bikeway Guidance, 2022
- Caltrans DIB-94 Complete Streets: Contextual Design Guidance, 2024
- Caltrans Highway Design Manual, Chapter 1000

Support Programs

- **Healthy Shasta:** The goal of Healthy Shasta is to increase walking and bicycling among students and adults by working with partners. Examples of efforts include providing printed and online walking and bicycle maps, expanding and linking people to walking groups, encouraging employees to walk and bike, and teaching bicycle safety skills.
- **Safe Routes to School (SRTS):** SRTS is run by the Shasta County Health and Human Services Agency to serve multiple school districts in improving safety and encouraging more students to walk and bike to school.
- **Shasta Living Streets:** A local nonprofit organization that provides services (such as bike valet) and events (such as Family Bicycling Day) to advance the development of better bikeways and trails, walkable cities, and vibrant public places in Shasta County.
- **The City of Redding Active Transportation Advisory Group:** The group is composed of bicycle advocates, pedestrian advocates, funding partners, schools, businesses, social service agencies, and other members of the public.
- **Other groups include** the Shasta Wheelman and Shasta Bike Month and Challenge.

Corridor Planning Approach

The following summarizes the overall approach to the development of the Plan, which includes the following main categories:

1. **Understand the Corridor as a System**
2. **Understand the Corridor Segments as “Places”**

Understand the Corridor as a System

The corridor connects the Cities of Redding and Anderson and serves numerous outlying rural communities, including lands of the Redding Rancheria and Northern Wintun, through feeder streets and roads. As a system, the corridor moves people and goods to destinations located on and off the corridor. The corridor system infrastructure includes the roadway, transit, and intermittent bicycle and pedestrian facilities. Understanding the corridor as a system requires evaluation of corridor multimodal travel safety, efficiency, connectivity, and reliability to identify areas where operations and access can be improved.

Since SR 273 is a Caltrans facility, the *Caltrans Corridor Planning Process Guide* (February 2020) will guide the corridor planning process. As such, a primary goal for this Plan is to identify the issues and opportunities for optimizing system operations and supporting a safe and reliable system. Based on the identification of these issues and opportunities, improvement recommendations will be developed to address quality of life, access to destinations, environmental factors including GHGs, and transportation system performance. Corridor goals, objectives, and performance measures will guide the analysis of current corridor operations related to mobility, reliability, safety, and sustainability.

Understand the Corridor Segments as “Places”

In addition to understanding the existing and planned transportation systems within the study area, improvement recommendations should also aim to reflect the specific contexts of the communities (the “places”) that border the corridor while developing comprehensive, corridor-wide mobility networks that provide connections between these places. The *Caltrans Corridor Planning Process Guide* states that corridor planning is “a multimodal transportation planning approach that recognizes that transportation needs are based on the complex geographic, demographic, economic, and social characteristics of

communities”. Over its 16.2-mile extent, the corridor serves a variety of functions depending on the adjacent land uses it serves and the purposes of travel along its segments. Therefore, a “place-based” planning approach will serve as a guideline for segment-specific recommendations for the corridor.

Caltrans has developed place-based planning and design guidance for transportation improvements on state highways, documented in *Smart Mobility Framework Guide* (February 2020) and the DIB-94 (January 2024). Place type assessments for corridor planning highlight the variations in community goals, land use, and destinations that determine the appropriate application of design standards for specific street segments, such as the type and width of multimodal facilities (i.e., crosswalks, sidewalks, bicycle lanes, shared use paths, landscape, transit lanes/stops, and vehicle lanes, etc.). Place type assessments do not negate the need to prioritize safe and accessible bicycle and pedestrian travel along the corridor between places, and transitional corridors can play an important role in providing connections to critical destinations.

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3 CORRIDOR CONTEXT

SR 273 is a 16.2-mile corridor that extends through and connects the Shasta Region's two largest incorporated cities (Redding and Anderson), as well as numerous smaller outlying communities to the county seat of Redding. The corridor runs north-south parallel and to the west of Interstate 5 (I-5) for most of its extent.

SR 273 is a divided highway with periodic frontage roads through most of its extent, and transitions to one-way couplets through Downtown Redding. The one-way couplets include portions of Market and California Streets in the southbound direction and Pine Street in the northbound direction. The project area presents a number of challenges, constraints, and opportunities, including a crossing of the Sacramento River, the largest river in California; Clear Creek (a major tributary); and a number of smaller waterways. It also includes interchanges with SRs 299 and 44, as well as a space constraints associated with the Union Pacific Railroad (UPRR) freight rail line, which flanks SR 273 for roughly 9.5 miles in the project area.

As a part of the state highway system, the corridor is maintained and operated by Caltrans and is a terminal-access STAA truck route on all but a small section through Downtown Redding. Existing traffic volumes reach upwards of 20,000 daily vehicle trips in some segments. SR 273 is the Caltrans designated bicycle and pedestrian route, whereas bicycling and walking is prohibited on the I-5 portion that runs parallel to SR 273.

The corridor's proximity to residential neighborhoods, employment centers, and notable civic/regional destinations means that it services all mobility modes including private vehicles, commercial/freight trucks, transit, and active transportation. Some notable destinations include Caldwell Park, Turtle Bay Exploration Park, Shasta Regional Medical Center, Mercy Medical Center, Redding City Hall, Redding Rancheria, and Anderson City Hall.

Historical Context

Parts of the route now known as SR 273 have served travelers since before California was even a state. The State's role in planning and maintenance of the corridor dates back to the California Division of Highways era of the 1910s, when the route was first known as the Pacific Highway and was the primary north-south corridor on the west coast. It later became known as Highway 99 and continued to operate as such until the regional completion of I-5 in the 1960s, at which time it was re-designated as SR 273.

When first integrated into the state highway system, the corridor was almost entirely rural, connecting small, compact communities. As auto-oriented development boomed regionally during the construction of Shasta Dam and the post war years of the 20th century, growth sprung up along the highway, much of it catering to auto-oriented uses such as motels, service stations, and auto repair. This "ribbon growth" or "stringtown effect" was identified as a planning concern by local officials as early as 1947, but nevertheless, a significant portion of the once rural and unincorporated corridor is now located within the urbanized city limits of Redding. Today, this misalignment between land-use and the corridor's infrastructure causes numerous challenges.

Corridor Study Area

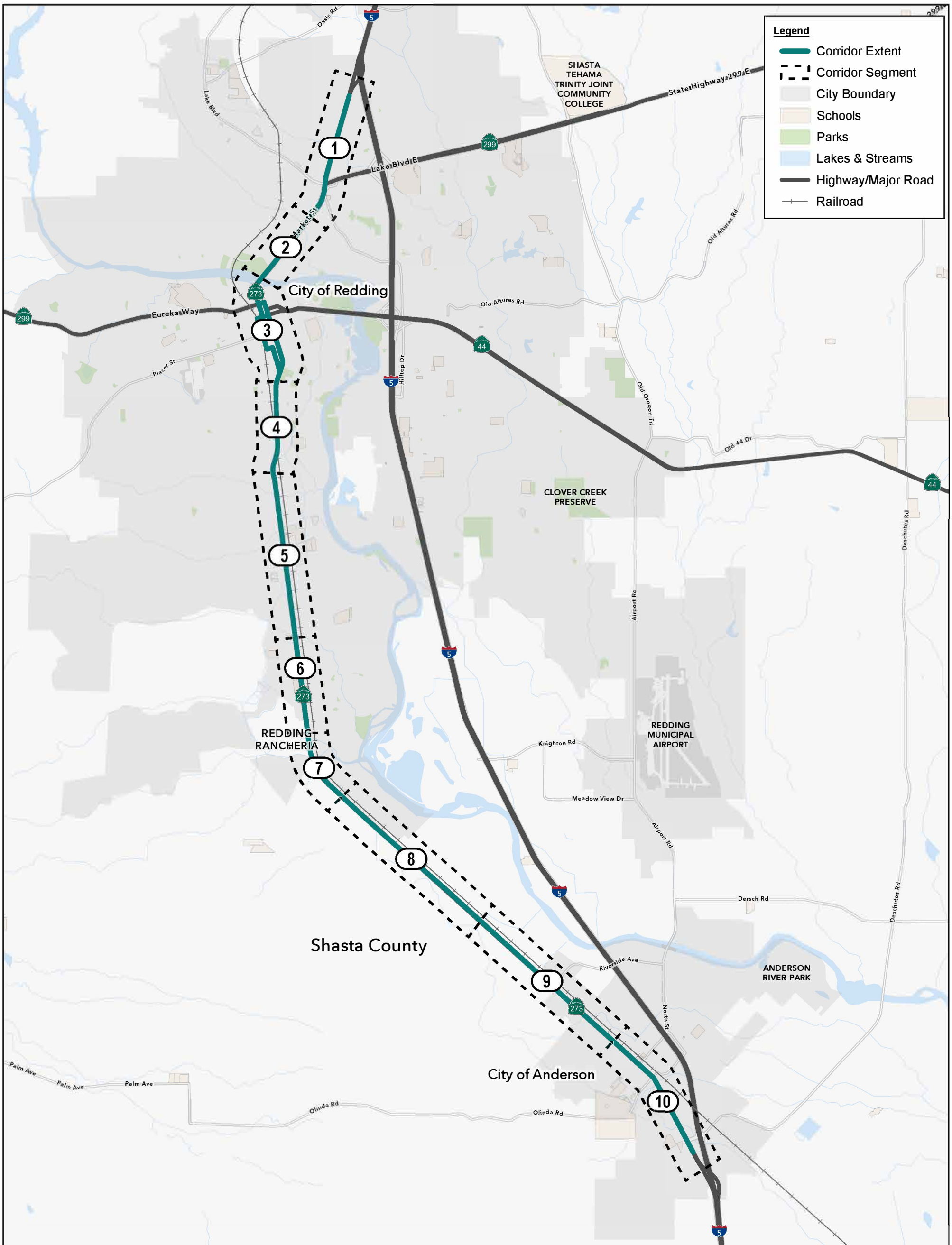
The SR 273 roadway cross-section varies in paved roadway width, number of lanes per direction, posted vehicle speed, and fronting land use types. The corridor adjoins a mix of developed, undeveloped, and underdeveloped properties. The Plan has identified ten (10) distinct segments along the corridor to emphasize the changing characteristics of the roadway as well as the adjacent land uses.

The segments extents are generally situated between major intersections on SR 273, suggesting potential for variations in mobility patterns as people access the highway from side streets. The existing multimodal infrastructure, mobility trends, and surrounding land uses of the ten segments are described in greater detail in later sections of the Plan. The corridor segments along SR 273 include the following:

1. I-5 Ramps to south of Lake Blvd
2. South of Lake Blvd to Sacramento River
3. Sacramento River to south of Cypress Ave
 - a. Southbound Couplet on California and Market Streets
 - b. Northbound Couplet on Pine Street
4. South of Cypress Ave to north of Buenaventura Blvd
5. North of Buenaventura Blvd to south of South Bonnyview Rd
6. South of South Bonnyview Rd to south of Girvan Rd
7. South of Girvan Rd to north of Happy Valley Rd
8. North of Happy Valley Rd to south of Latona Rd
9. South of Latona Rd to north of Briggs St
10. North of Briggs St to I-5 Ramps

Table 1 **Corridor Study Segments**

| Area | Segment | Approximate Extent | Length (miles) |
|---------------------------|----------------|---|--|
| North of the River | 1 | I-5 Ramps to south of Lake Blvd | 1.8 |
| | 2 | South of Lake Blvd to Sacramento River | 1 |
| Downtown Redding | 3 | Sacramento River to south of Cypress Ave: <i>Southbound Couplet on California and Market Sts</i> <i>Northbound Couplet on Pine St</i> | 1.4 (2.5 centerline miles, including couplets) |
| | | 4 | South of Cypress Ave to north of Buenaventura Blvd |
| South of Downtown Redding | 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 2 |
| South Redding | 6 | South of S Bonnyview Rd to south of Girvan Rd | 1.2 |
| Redding Rancheria | 7 | South of Girvan Rd to north of Happy Valley Rd | 0.9 |
| County Stretch | 8 | North of Happy Valley Rd to south of Latona Rd | 2.3 |
| | 9 | South of Latona Rd to north of Briggs St | 2.2 |
| Anderson | 10 | North of Briggs St to I-5 Ramps | 2.2 |

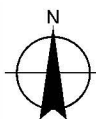


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CORRIDOR STUDY SEGMENT LOCATIONS



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 2

Corridor Study Intersections

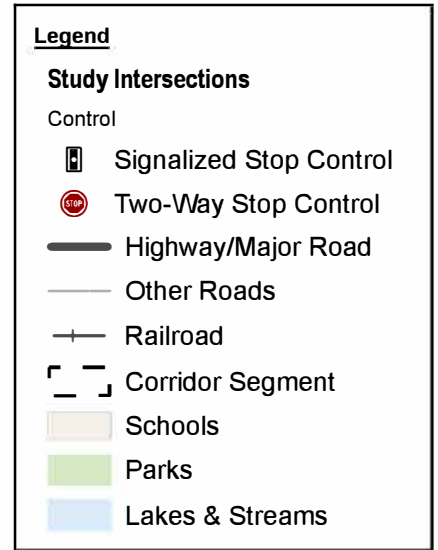
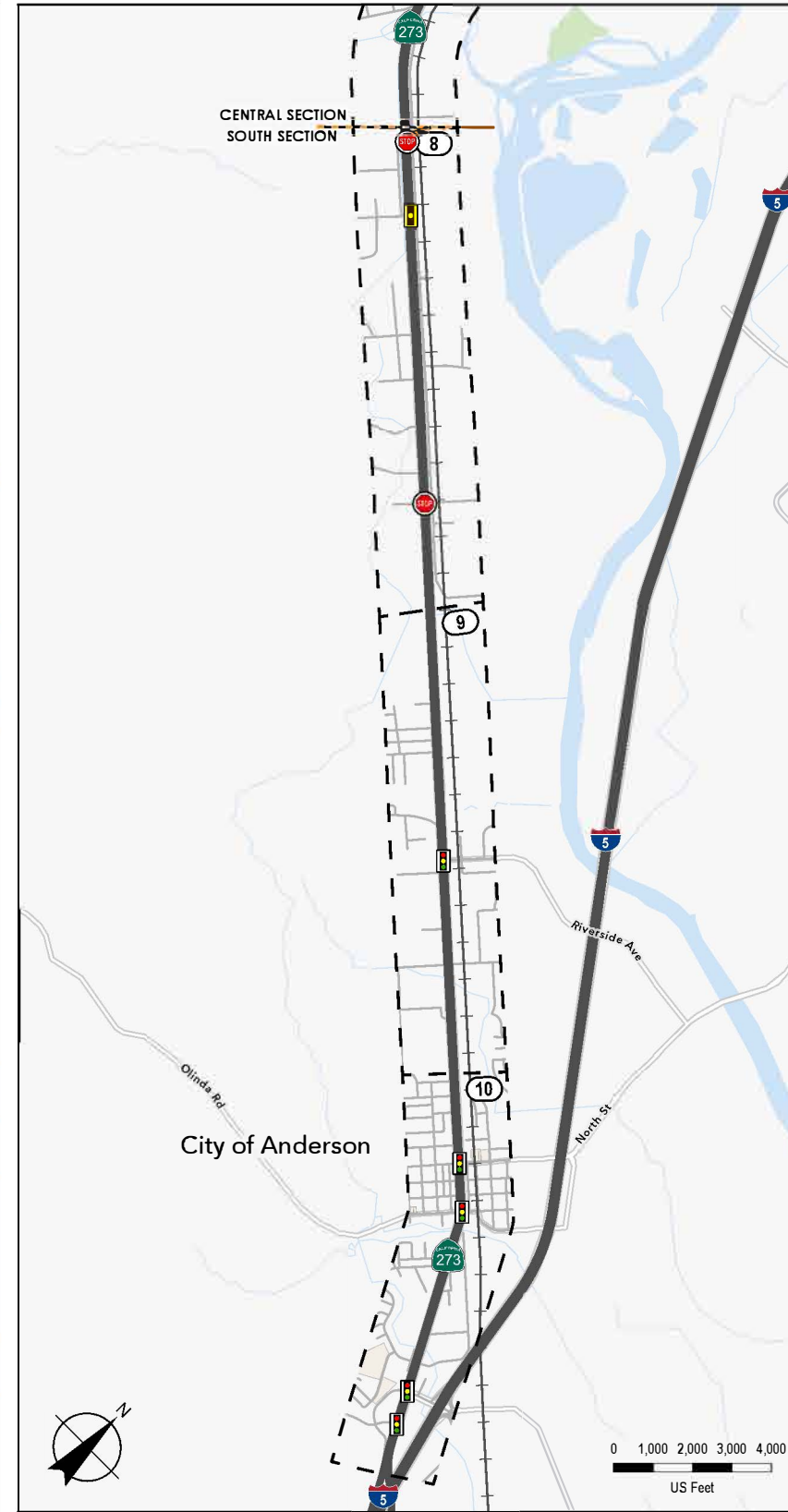
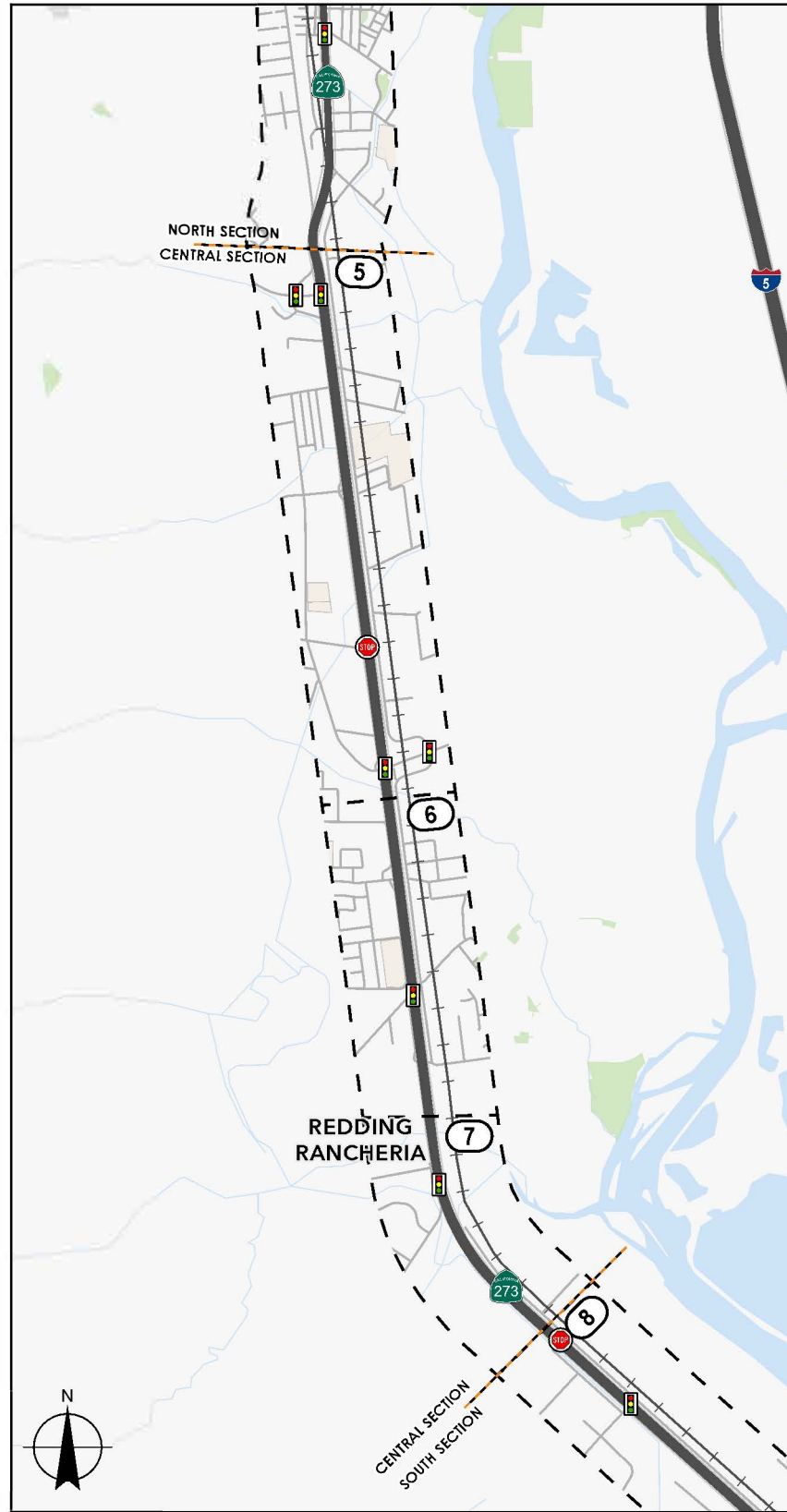
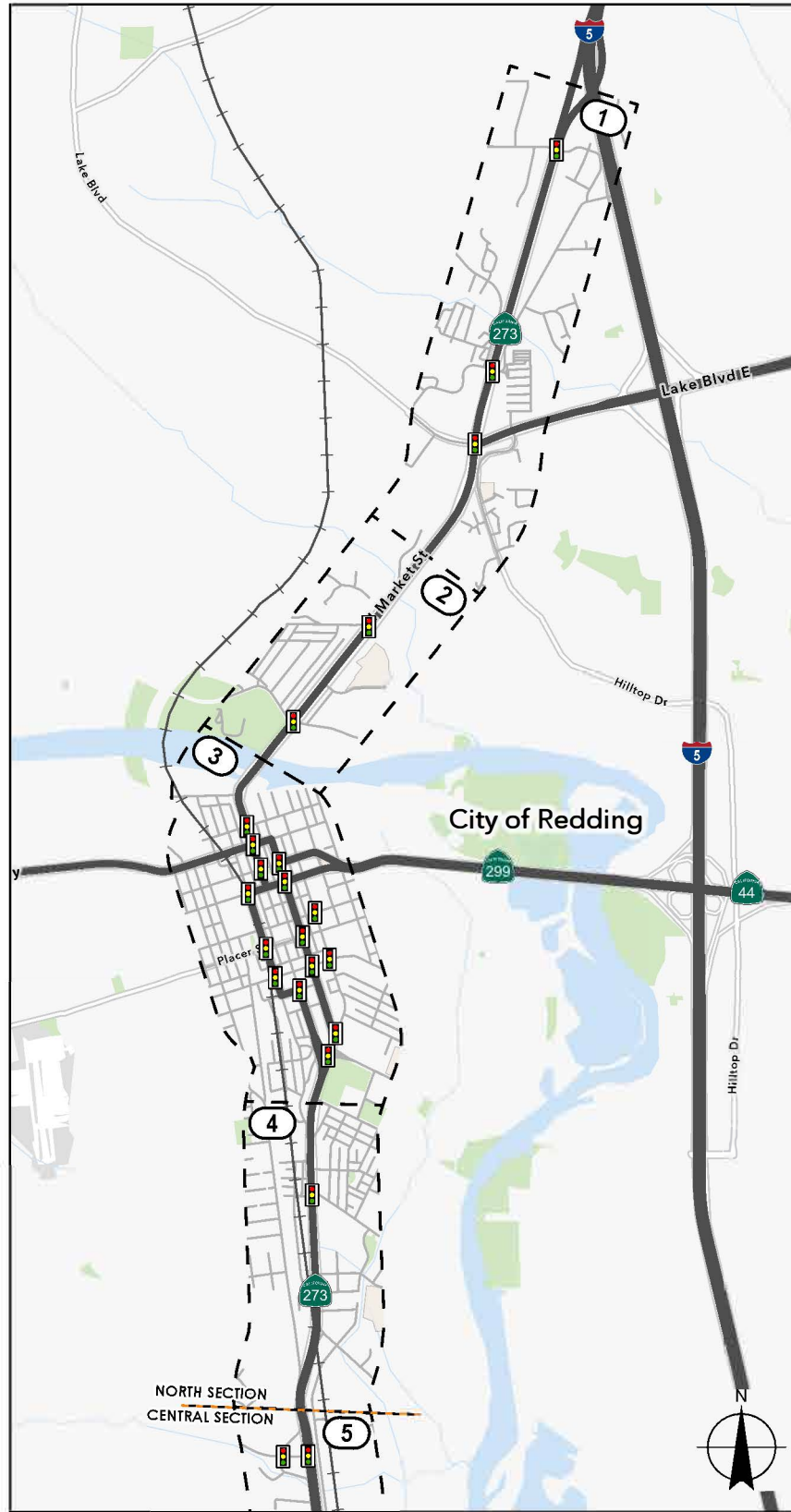
The following major intersections are listed below:

| # | Location |
|----|--|
| 1 | SR 273 / N. Market Street / Caterpillar Road |
| 2 | SR 273 / N. Market Street / Northpoint Drive / Twin View Boulevard |
| 3 | SR 273 / N. Market Street / Lake Boulevard |
| 4 | SR 273 / N. Market Street / Benton Drive |
| 5 | SR 273 / S. Market Street / Quartz Hill Road / Traveled Way |
| 6 | SR 273 / S. Market Street / Trinity Street |
| 7 | SR 273 / S. Market Street / SR 299 / Eureka Way |
| 8 | SR 273 / S. Market Street / Shasta Street |
| 9 | SR 273 NB / Pine Street / SR 44 WB / Shasta Street |
| 10 | SR 273 SB / California Street / Tehama Street |
| 11 | SR 273 NB / Pine Street / SR 44 EB / Tehama Street |
| 12 | SR 273 SB / California Street / Placer Street |
| 13 | SR 273 NB / Pine Street / Placer Street |
| 14 | SR 273 SB / California Street / South Street |
| 15 | SR 273 NB / Pine Street / South Street |
| 16 | SR 273 SB / S. Market Street / Gold Street |
| 17 | SR 273 NB / Pine Street / East Street |
| 18 | SR 273 / S. Market Street / Cypress Avenue |
| 19 | SR 273 / S. Market Street / Grange Street |
| 20 | SR 273 / S. Market Street / Buenaventura Boulevard |
| 21 | SR 273 / S. Market Street / Branstetter Lane |
| 22 | SR 273 / S. Market Street / Cedars Road / S. Bonnyview Road |
| 23 | SR 273 / S. Market Street / Clear Creek Road |
| 24 | SR 273 / S. Market Street / Canyon Road / Redding Rancheria Road |
| 25 | SR 273 / S. Market Street / Whitehouse Drive (North) / Eastside Road |
| 26 | SR 273 / S. Market Street / Whitehouse Drive (South) |
| 27 | SR 273 / Amen Street / Latona Road |
| 28 | SR 273 / Ox Yoke Road |
| 29 | SR 273 / North Street |
| 30 | SR 273 / South Street |
| 31 | SR 273 / Deschutes Road |
| 32 | SR 273 / Pleasant Hills Drive |

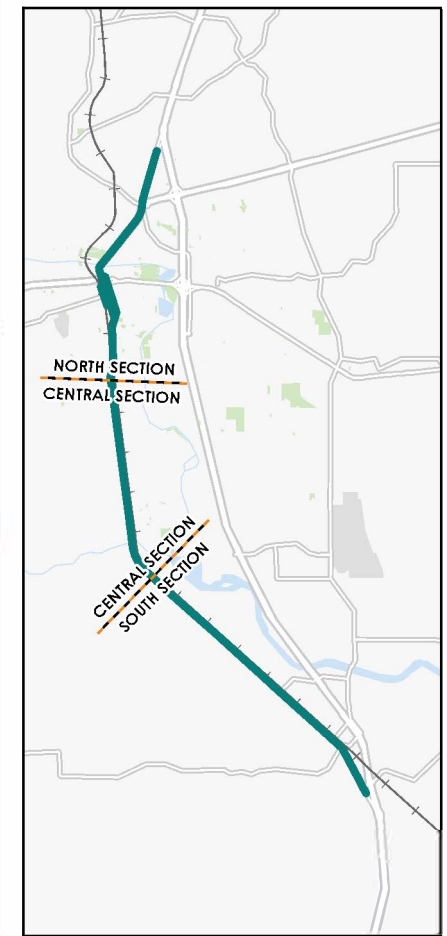
NORTH SECTION

CENTRAL SECTION

SOUTH SECTION

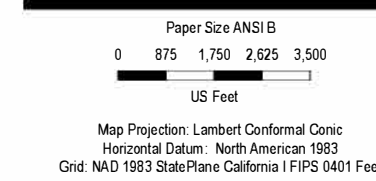


LOCATOR MAP



Envision 273: SR 273 Multimodal Corridor Plan

INTERSECTION TRAFFIC CONTROLS



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FIGURE 3

City of Redding GIS, California State Parks, Esri, Trimble, Garmin, SafeGraph, GeoTechniques, Inc., METANASA, USGS, Bureau of Land Management, EPA, NPS, USBA, USFWS, California State Parks, Esri, Trimble, Garmin, SafeGraph, GeoTechniques, Inc., METANASA, USGS, Bureau of Land Management, EPA, NPS, USBA, USFWS, City of Redding GIS, California State Parks, Esri, Trimble, Garmin, SafeGraph, METANASA, USGS, Bureau of Land Management, EPA, NPS, USBA, USFWS, Created by: ppp

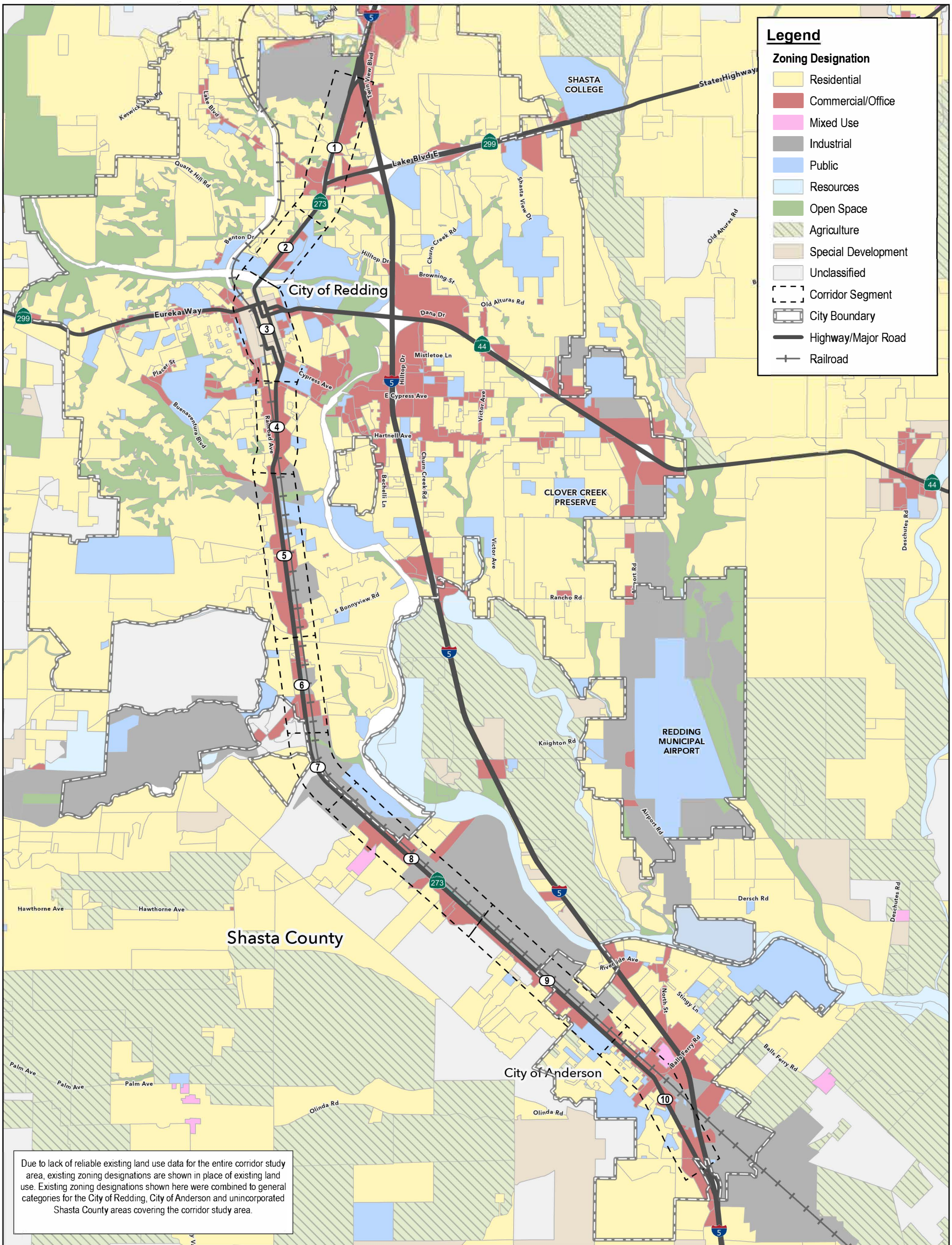
Land Use & Place Types

The corridor connects the Cities of Redding and Anderson and serves numerous outlying rural communities in Shasta County. The corridor is bordered by commercial and industrial land uses, either directly fronting the roadway or accessed via frontage roads. Generally, the commercial and industrial land uses are concentrated within one-tenth of a mile from the corridor centerline.

Residential communities are distributed on either side of the corridor, with higher density populations within the Cities of Anderson and Redding. Downtown Redding is considered a special development area and includes primarily mixed use residential, commercial and office buildings.

The City of Redding's open space land is concentrated near the along the Sacramento River, Clear Creek, and west of the corridor through the vicinity of Gore Ranch, Branstetter Lane, Powerline Road, and Sulphur Creek Hill. Parks and recreational lands are concentrated along the Sacramento River. Agricultural land is concentrated in the county. While not immediately adjacent to segments along the corridor, some land is being used for agriculture in areas near the corridor.

Figure 4 shows the existing zoning destinations and Figure 5 shows the future land use designations (General Plan Land Use) within the corridor study area, including portions of the City of Anderson, City of Redding, and unincorporated Shasta County. (Note: Due to the lack of reliable existing land use data for the entire corridor study area, existing zoning designations are shown in place of existing land use. Existing zoning designations were combined to general categories for the area's jurisdictions.)

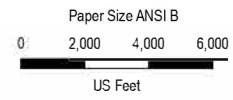


Due to lack of reliable existing land use data for the entire corridor study area, existing zoning designations are shown in place of existing land use. Existing zoning designations shown here were combined to general categories for the City of Redding, City of Anderson and unincorporated Shasta County areas covering the corridor study area.



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EXISTING ZONING DESIGNATIONS



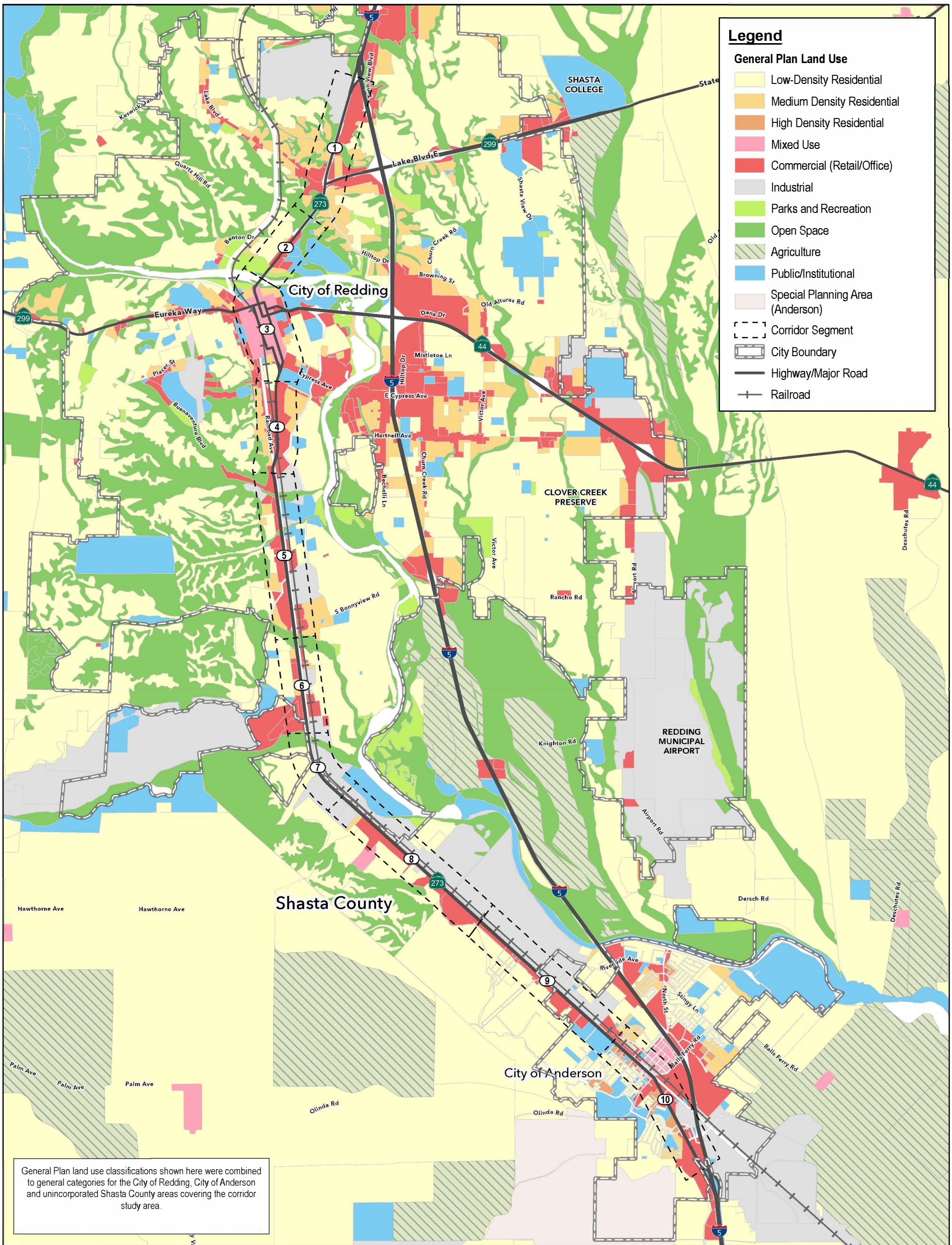
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Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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Date

FIGURE 4

City of Redding, Shasta County, City of Anderson, Shasta County, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METANASA, USGS, Bureau of Land Management, EPA, NPS, US Forest Service, and other data sources. Data source: Human Geography Label - OSerifs City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METANASA, USGS, Bureau of Land Management, EPA, NPS, US Forest Service, and other data sources. City of Redding, Shasta County, City of Anderson, Highways TIGER, City boundaries: Shasta County. Created by: jason

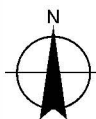


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GENERAL PLAN LAND USE



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 5

Place Type Designations

As described in Chapter 1 (Introduction), the Plan should also aim to reflect the specific contexts of the communities (the “places”) that border the corridor while developing comprehensive, corridor-wide mobility networks that provide connections between these places. Place type categories applied within this plan are based on those provided in the *Caltrans Smart Mobility Framework Guide* (February 2020), the Caltrans DIB-94 (January 2024), and the Caltrans Highway Design Manual (July 2020) Place types are distinguished based on a variety of factors including land use and transportation activities occurring within a given area. Subcategories are provided to address variations in place type categories. The categories and subcategories provided within each place type categories differ slightly between the two Caltrans planning documents.

To apply a place-based approach to the Plan, the categories were refined to represent the specific variations in land use and transportation activities that occur along the corridor. As a result, the following categories and subcategories applicable to the corridor include:

- Urban Areas
 - Urban Center
 - Urban Community
- Suburban Areas
 - Suburban Neighborhood
 - Suburban Community
 - Suburban Corridor
- Rural Areas
 - Rural Community
 - Undeveloped Corridor (Rural)
- Transitional Area
 - Transitional Corridor

Each of these categories and/or subcategories are consistent with those provided in the two Caltrans documents mentioned above, except for the subcategory of “Rural Community.” This subcategory was added to represent those areas along the corridor in rural areas between the Cities of Anderson and Redding that do not meet the classification of Rural Main Street or Rural Town, but also do not meet the classification for less developed areas, such as transitional or undeveloped corridors. Recognizing that these areas are considered communities within the local context, the “Rural Community” category therefore represents a version of the Rural Main Street classification with less-intensive community design elements.

The Plan place type categories and their corresponding subcategories and descriptions, per the *Caltrans Smart Mobility Framework Guide* and the Caltrans DIB-94 documents, are provided in Table 2. The SR 273 corridor place types are presented in Table 3. These place types are not anticipated to significantly change in the future.

Table 2 Place Type Categories & Definitions

| PLAN Category | SMART MOBILITY FRAMEWORK | | DIB-94 | |
|-------------------|---------------------------------------|--|-----------------------|---|
| | Category/Subcategory | Description | Category/Subcategory | Description |
| URBAN AREA | Central Cities | High density, mixed-use places with well-connected grid street networks, high levels of transit service, and pedestrian supportive environments. | Urban Area | Major population centers in the State. Growth is expected to continue. Biking, transit, walking, and rolling are important modes of transportation. High density locations with a full range of land uses. |
| | | | Center city | Downtowns of our largest metro areas. High-density, dense street network, mixed-use development, high bike, ped, and transit mode share, lower vehicle speeds, Main Streets. |
| | Urban Communities | Moderately dense places, mostly residential but with mixed-use centers. Housing is varied in density and type. Transit is available to connect neighborhoods to multiple destinations. Fine-grained network of streets with good connectivity for pedestrians and bicyclists. | Urban Community | Adjacent to or near Center Cities. Design supports walking, biking, and transit sure. Low to mid-rise buildings, buildings close to the street, moderately dense development, walkable block pattern, parking options, narrow lanes, on-street parking, Main Streets. |
| SUBURBAN AREA | Suburban Communities | Primarily lower density residential with a high proportion of detached housing. Some interspersed retail and services, but little mixing of housing with commercial uses. Street networks often have poor connectivity. Low levels of transit service, large amounts of surface parking, and inconsistent pedestrian networks. | Suburban Area | Dispersed, low-density pattern of development with both residential and commercial zones. Extensive single-family neighborhoods, pockets of multi-family housing, parks and schools, and strategically located single-story commercial centers. Large arterial roadways with wide lanes, shoulders and turn pockets, synchronized signal timing, and wide intersections. Could include suburban "Main Streets" with higher density. |
| RURAL AREA | Rural Areas | Very low density places with widely-spaced towns separated by farms, vineyards, orchards, or grazing lands. Includes rural towns that provide a mix of housing, services, and public institutions in compact form that serve surrounding rural areas. May include tourist and recreation destinations which can significantly affect land uses, character, and mobility needs. Very limited modal choices. | Rural Area | Low-density area outside the built-up urban and suburban communities and can include agricultural areas, natural areas, and the small towns that support the inhabitants of these regions. SOV use is high, but zero- or low-vehicle ownership households may exist here as well. |
| | | | Rural Main Street | The highway is typically the only main street or one of several within the town. Part of a small commercial grid around the main arterial or highway and have lower speeds. In some cases, frontage roads separate regional and local traffic. |
| | | | Transitional Corridor | Clusters with industrial and commercial uses, as well as residential areas as they lead from an undeveloped rural area into a rural city or town center. |
| TRANSITIONAL AREA | | | Undeveloped Corridor | Low building density and large tracts of agricultural or other undeveloped or natural land. |
| NOT APPLICABLE | Protected Lands and Special Use Areas | Lands protected from development by virtue of ownership, long-term regulation, or resource constraints. Also includes large tracts of single use lands that are outside of, or poorly integrated with, their surroundings. | n/a | |

Source: Caltrans Smart Mobility Framework Guide

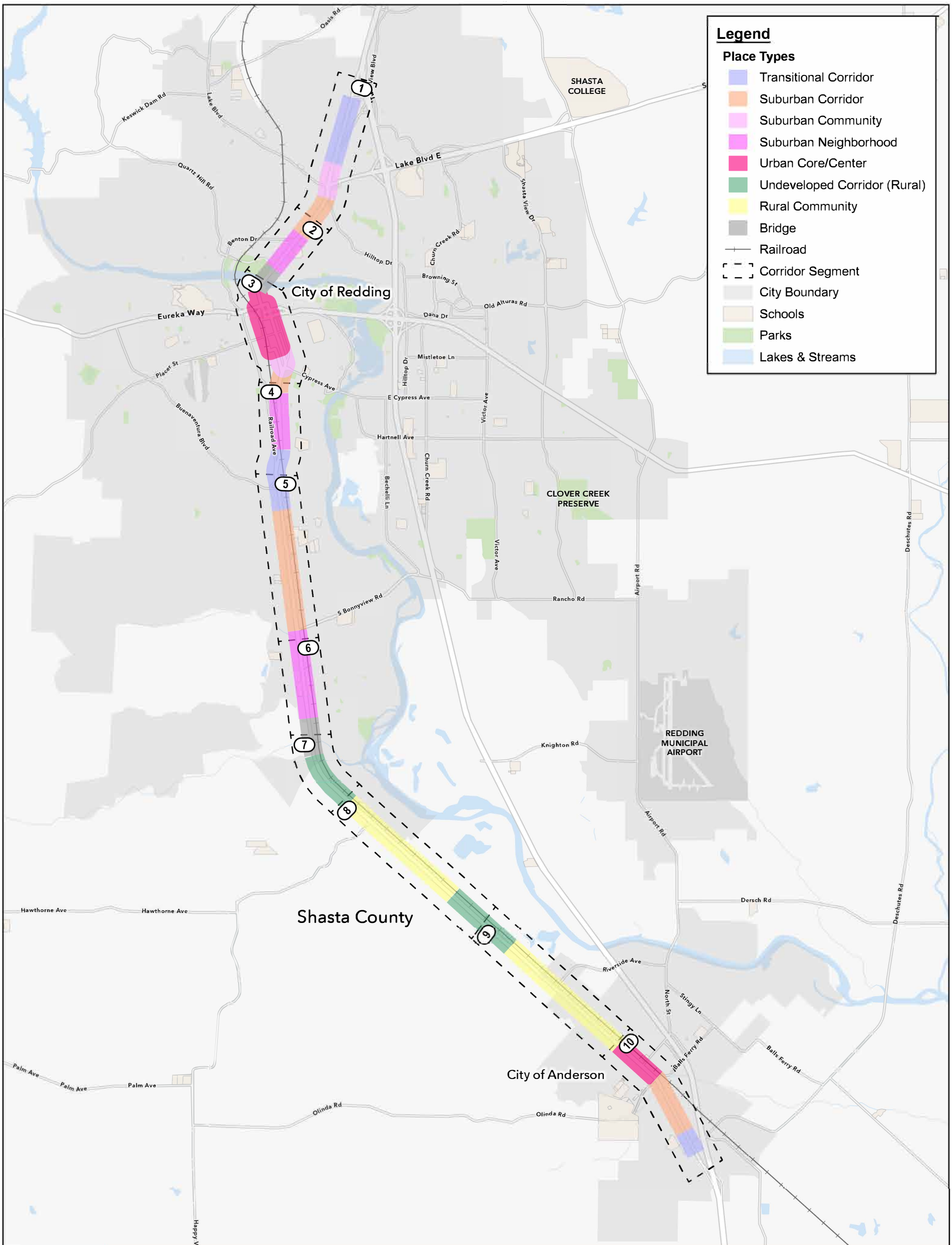
Source: Caltrans DIB-94

Table 3 SR 273 Corridor Place Types

| Place Type ID | Extent 1 | Extent 2 | Primary Frontage - West | Primary Frontage - East | Place Type Category (Specific to Envision 273) | Smart Mobility Framework Place Type Designation | DIB-94 Place Type Designation | Activity Type |
|---------------|--------------------------|--------------------------|--|--|--|---|---|---|
| 1 | Caterpillar Rd | Twin View Blvd | Industrial & Residential | Commercial | Transitional Corridor | Suburban Communities | Transitional Corridor (Industrial Use) | Minimal place-based activities, many barriers to pedestrian and bicycle mobility |
| 2 | Twin View Blvd | s/o Lake Blvd (SR 299) | Multi-family/Commercial | Multi-family/Commercial | Suburban Community | Suburban Communities | Suburban Area | Core commercial area, proximity to regional amenities |
| 3 | s/o Lake Blvd (SR 299) | Sulphur Creek Rd | Undeveloped residential (Single family & Multi-family) | Public/Undeveloped Multi-family | Suburban Corridor | Suburban Communities | Transitional Corridor (Residential Connection) | Corridor connecting residential communities |
| 4 | Sulphur Creek Rd | Quartz Hill Rd | Commercial, with access to public and developed Single family | Commercial, with access to public | Suburban Neighborhood | Suburban Communities | Suburban Area | Defining area: Potential for place-based activities, frontage opportunities, proximity to regional amenities |
| - | Quartz Hill Road | Riverside Dr | - | - | Transitional Corridor (Bridge) | Transitional Corridor (Bridge) | Transitional Corridor (Bridge) | - |
| 5 | Riverside Dr | Gold Street | Mixed Use (Specific Plan) | Mixed Use (Specific Plan) | Urban Center | Urban Communities | Urban Community | Defining area: High potential for place-based activities, frontage opportunities, proximity to regional amenities |
| 6 | Gold Street | Cypress Ave | Single family | Commercial / Public | Suburban Community | Urban Communities | Urban Area: Urban Community | Supporting connections to downtown Redding; less place-type destinations |
| 7 | Cypress Ave | California St/Angelo Ave | Back of residential properties | Park | Suburban Corridor | Urban Communities | Suburban Area (Transitional between Urban and Suburban) | Residential Connection (near points of interests [POIs]); Less emphasis on place and more on connection to POIs, such as the park |
| 8 | California St/Angelo Ave | Wyndham Ln | Commercial, with access to residential communities between commercial and railroad | Commercial, with access to residential communities | Suburban Neighborhood | Urban Communities | Suburban Area | Defining area: Potential for place-based activities, frontage opportunities, proximity to regional amenities |
| 9 | Wyndham Ln | Breslauer Way | Commercial, with access to residential communities | Industrial | Transitional Corridor | Transitional Corridor | Transitional Corridor (Industrial Use) | Critical connection to DT Redding; Minimal place-based activities, many barriers to pedestrian mobility |
| 10 | Breslauer Way | N Bonnyview Rd | Commercial (smaller scale), with access to residential communities | Commercial / Public (Industry) | Suburban Corridor | Suburban Communities | Suburban Area | Critical connection to Bonnyview area neighborhoods; However, minimal neighborhood retail options and high industrial use make this less of a destination for non-motorized travelers |

| Place Type ID | Extent 1 | Extent 2 | Primary Frontage - West | Primary Frontage - East | Place Type Category (Specific to Envision 273) | Smart Mobility Framework Place Type Designation | DIB-94 Place Type Designation | Activity Type |
|---------------|---------------------|---------------------|---|---|--|---|--|---|
| 11 | N Bonnyview Rd | Bonnyview Rd | Commercial, with access to Single family and Multi-family | Commercial, with access to Single family | Suburban Corridor | Rural Areas | Suburban Area | Critical connection to Bonnyview area neighborhoods; However, minimal neighborhood retail options and high industrial use make this less of a destination for non-motorized travelers |
| 12 | Bonnyview Rd | Girvan Rd | Neighborhood commercial / Multi-family (undeveloped) | Commercial, with access to Single family and undeveloped Multi-family | Suburban Neighborhood | Suburban Communities | Suburban Area | Defining area: Potential for place-based activities, frontage opportunities, proximity to regional amenities |
| - | Girvan Rd | Canyon Rd | - | - | Transitional Corridor (Bridge) | Transitional Corridor (Bridge) | Transitional Corridor (Bridge) | - |
| 13 | Canyon Rd | n/o Happy Valley Rd | Rancheria and Single family | Industrial | Undeveloped Corridor (Rural) | Rural Areas | Undeveloped Corridor (Rural Connection) | Rural corridor connecting to the Rancheria |
| 14 | n/o Happy Valley Rd | Latona Rd | Single family and small-scale commercial | Single family, industrial, and small-scale commercial | Rural Community | Rural Areas | Rural Area: Transitional Corridor | Rural community with limited destinations |
| 15 | Latona Rd | Rona Ln | Undeveloped | Undeveloped | Undeveloped Corridor (Rural) | Rural Areas | Undeveloped Corridor (Rural Connection) | Rural corridor |
| 16 | Rona Ln | Briggs St | Single family and small-scale commercial | Industrial | Rural Community | Rural Areas | Rural Area: Transitional Corridor | Rural community with limited destinations |
| 17 | Briggs St | South St | Single family and small-scale commercial | Mixed Use | Urban Community | Urban Communities | Rural Main Street | Defining area: Potential for place-based activities, frontage opportunities, proximity to regional amenities |
| 18 | South St | Pinon Ave | Multi-family, and commercial | Commercial | Suburban Corridor | Suburban Communities | Transitional Corridor (Residential Connection) | Critical residential connection to Anderson; Minimal place-based activities, many barriers to pedestrian mobility |
| 19 | Pinon Ave | Pleasant Hills Dr | Single family and commercial core | Commercial Core | Transitional Corridor | Transitional Corridor | Transitional Corridor (Residential Connection) | Minimal place-based activities, many barriers to pedestrian mobility |

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Legend

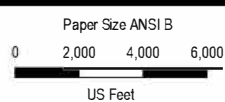
Place Types

- Transitional Corridor
- Suburban Corridor
- Suburban Community
- Suburban Neighborhood
- Urban Core/Center
- Undeveloped Corridor (Rural)
- Rural Community
- Bridge
- Railroad
- Corridor Segment
- City Boundary
- Schools
- Parks
- Lakes & Streams



Envision 273: SR 273 Multimodal Corridor Plan

PLACE TYPE DESIGNATIONS



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 6

Community Profile

The Cities of Redding and Anderson are located in the southwestern portion of Shasta County in Northern California. Based on the 2021 ACS 1 or 5-Year Estimates, the population in Shasta County is approximately 182,000, with 93,250 in Redding and 11,200 in Anderson. California Department of Finance populations projections expect the countywide population to drop about 17 percent over the next 50 years. Census data related to age, race, employment status, and commute modes of travel are similar for both the County and the Cities of Redding and Anderson. Data reported for Shasta County includes populations within the Cities of Redding and Anderson.

Demographics: Age & Race

Table 4 presents the census data for population by age and race. Within each jurisdiction, approximately ¼ of the population (22 to 26 percent) is under the age of 18 years, while approximately ¼ of the population (19 to 25 percent) is over the age of 62 years. The City of Anderson has a slightly younger population, proportionally, than both the City of Redding and Shasta County.

Within each jurisdiction, the majority (approximately 75 percent) of the population is White (non-Hispanic or Latino), followed by Hispanic or Latino (11 to 14 percent), American Indian or Alaska Native (2 to 5 percent), Asian (2 to 3 percent), and Black or African American (1 to 2 percent).

Table 4 Age & Race Summary by Jurisdiction

| | Shasta County | % of Total | Redding | % of Total | Anderson | % of Total |
|--|----------------------|-------------------|----------------|-------------------|-----------------|-------------------|
| Total Population | 182,139 | - | 93,251 | - | 11,208 | - |
| < 18 | 39,640 | 22% | 20,872 | 22% | 2,894 | 26% |
| > 62 | 45,751 | 25% | 20,783 | 22% | 2,084 | 19% |
| Race | | | | | | |
| White | 137,216 | 75% | 70,080 | 75% | 8,330 | 74% |
| Hispanic or Latino | 20,697 | 11% | 10,981 | 12% | 1,598 | 14% |
| Black or African American | 2,191 | 1% | 1,427 | 2% | 90 | 1% |
| American Indian and Alaska Native | 2,779 | 2% | 1,500 | 2% | 540 | 5% |
| Asian | 5,963 | 3% | 4,458 | 5% | 237 | 2% |
| Other | 13,293 | 7% | 4,805 | 5% | 413 | 4% |

Economic Conditions

Table 5 presents the census data for economic characteristics, including employment status, median household income, and household vehicle ownership.

Employment Status

Shasta County and the Cities of Redding and Anderson have higher unemployment rates compared to the state of California, which has a 2022 unemployment rate of 3.4 percent. Within the current labor force, the unemployment rate for each jurisdiction is:

- Shasta County: 8.7 percent

- City of Redding: 6.2 percent
- City of Anderson: 6.5 percent

Median Household Income

Shasta County and the Cities of Redding and Anderson have lower median household income compared to the state of California, which has a 2022 median household income of \$91,551. The median household income for each jurisdiction is:

- Shasta County: \$61,125
- City of Redding: \$58,702
- City of Anderson: \$40,954

Household Vehicle Ownership

Most households within Shasta County own at least 1 vehicle, with approximately 40 percent owning more than 2 vehicles. Within Shasta County, approximately 2 percent of households do not have access to a private vehicle. The City of Redding has a slightly lower proportion of households without access to a private vehicle (1.4 percent), and the City of Anderson has a slightly higher proportion of households without access to a private vehicle (2.1 percent).

Table 5 Economic Characteristics by Jurisdiction

| | Shasta County | City of Redding | City of Anderson |
|---|---------------|-----------------|------------------|
| Employment | | | |
| Labor Force | 81,156 | 44,320 | 4,654 |
| Employed | 74,074 | 41,580 | 4,353 |
| Unemployed | 7,082 | 2,740 | 301 |
| Unemployment Rate | 8.7% | 6.2% | 6.5% |
| Median Household Income (US dollars) | \$61,125 | \$58,702 | \$40,954 |
| Vehicles Available | | | |
| No vehicle available | 2% | 1% | 2% |
| 1 vehicle | 16% | 19% | 18% |
| 2 vehicles | 41% | 44% | 39% |
| 3+ vehicles | 41% | 36% | 39% |

Commuting Characteristics

Commuting Modes & Duration

Most commute trips are made by private vehicles (over 80 percent), with over 90 percent of those trips made by single individuals, rather than carpooling. The average occupancy rate for private vehicle commute trips is 1.05 for Shasta County.

The proportion of individuals who work from home and, therefore, do not commute to work is approximately 10 and 11 percent for the Cities of Anderson and Redding, respectively. Approximately 13 percent of individuals work from home within Shasta County.

For non-vehicular commute trips, the commute trips by mode fall within the following approximate ranges for Shasta County, City of Redding, and City of Anderson:

- Walked: 2 to 4- percent
- Biked: ~1 percent
- Public Transportation: < 1 percent
- Other (Taxi, motorcycle, etc.): ~2 percent

The mean travel time to work is 18.1 minutes for Shasta County resident, 16.1 minutes for City of Redding residents, and 18.8 minutes for City of Anderson residents.

Disadvantaged Communities

For the purposes of this Plan, DACs will be determined using the criteria presented in the DAC analysis within the SRTA 2022 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), as well as the U.S. Department of Transportation (USDOT) RAISE Areas of Persistent Poverty.

The SRTA RTP/SCS defines ‘disadvantaged communities’ as areas that, according to statistical data, have a markedly higher share of individuals challenged by the cumulative impact of:

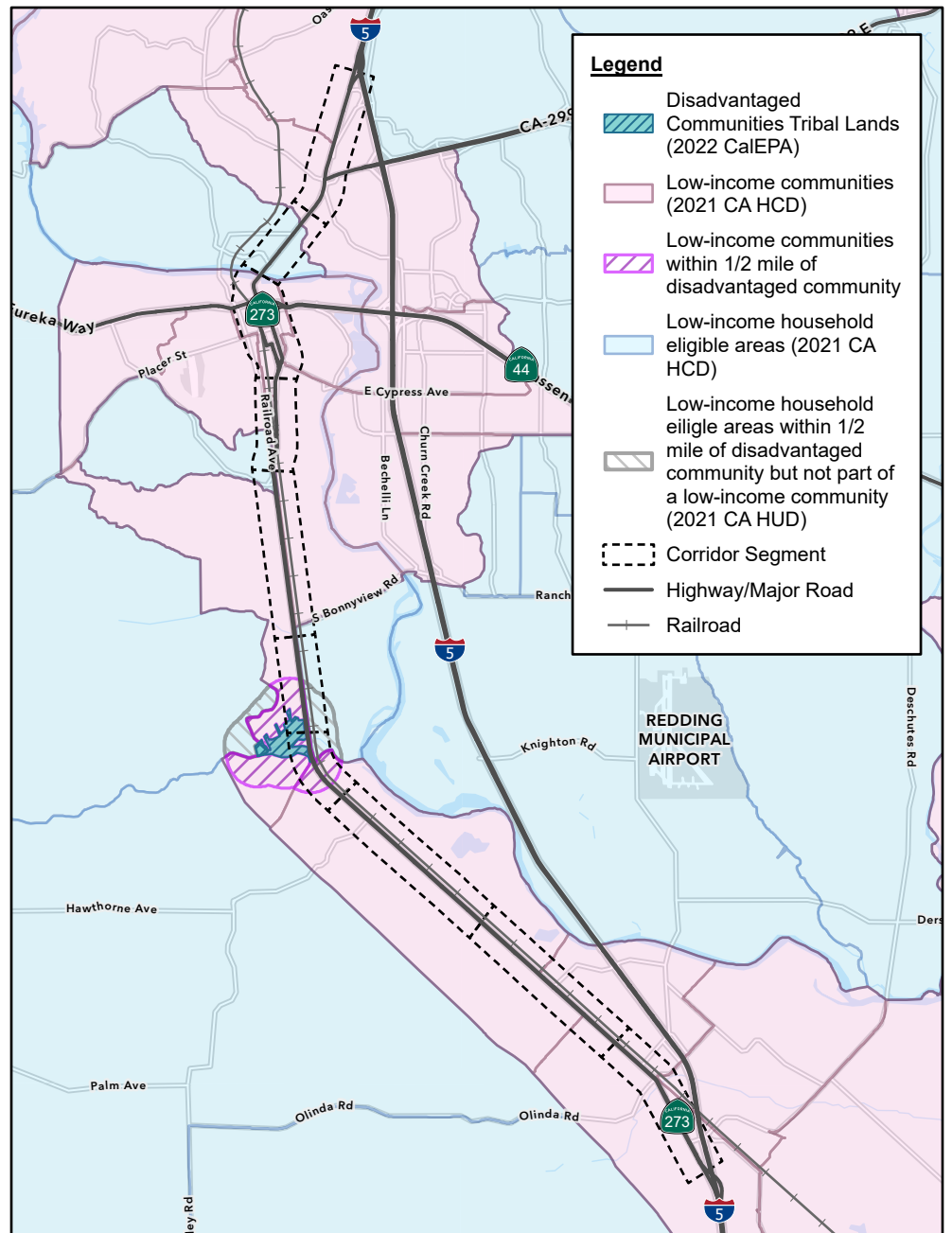
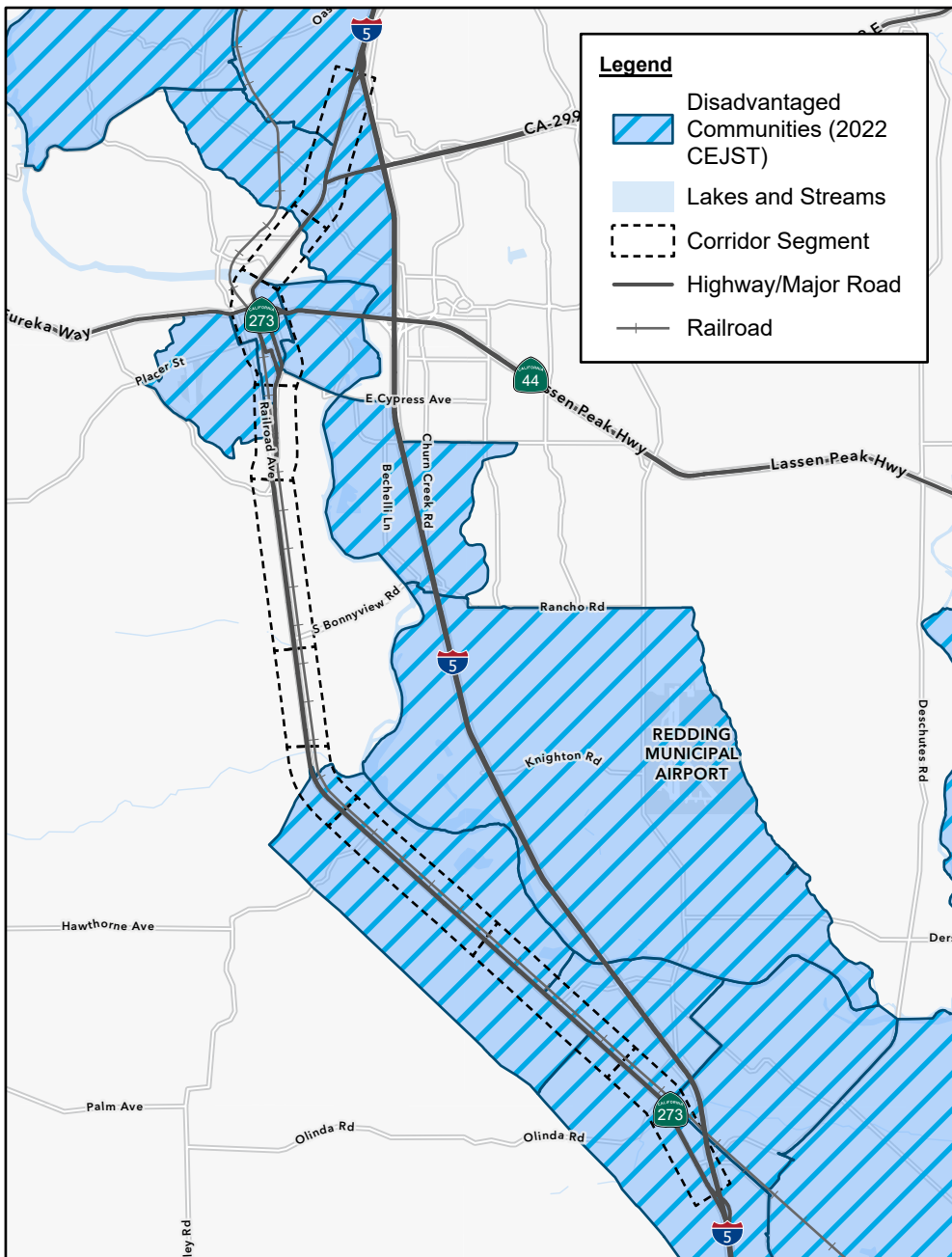
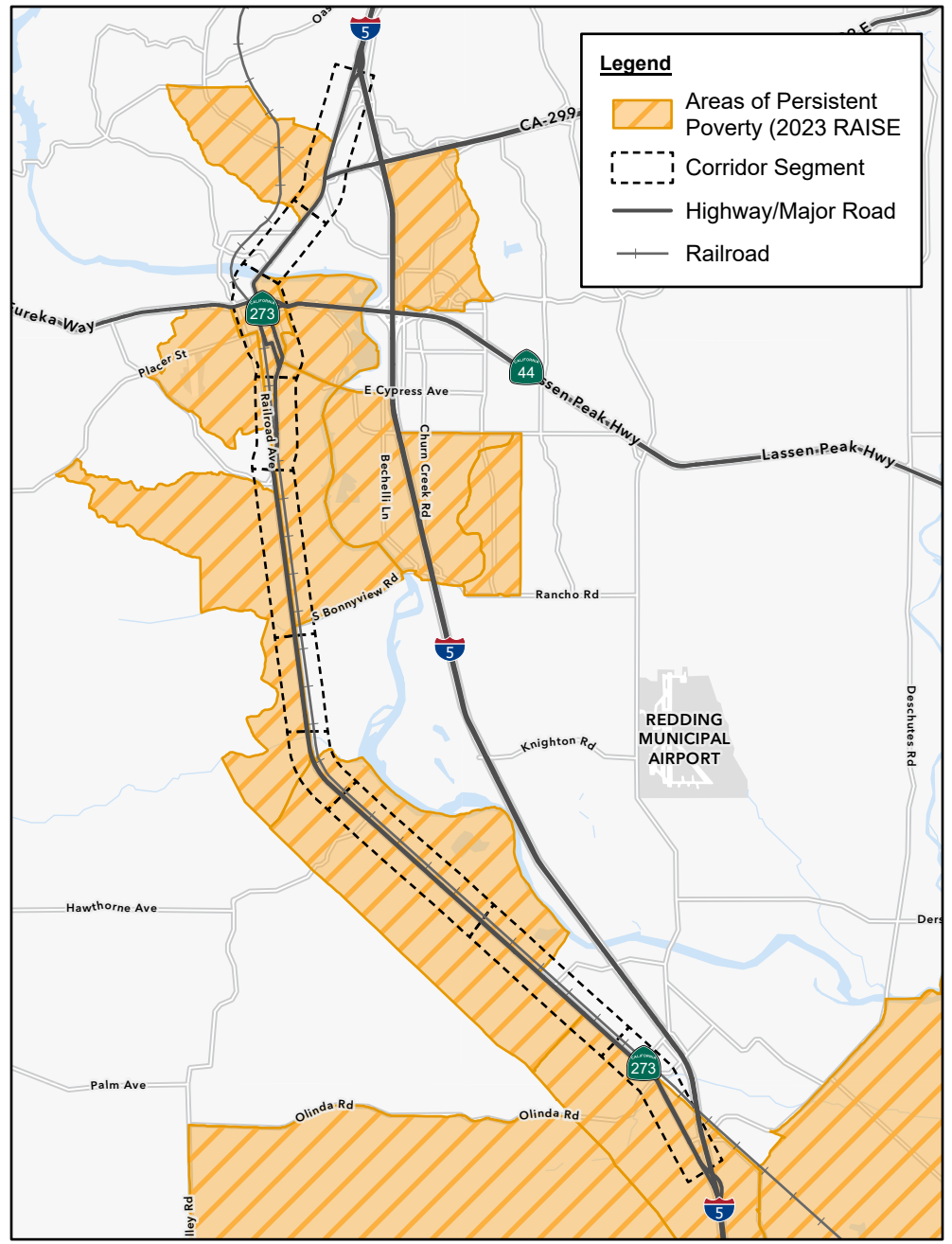
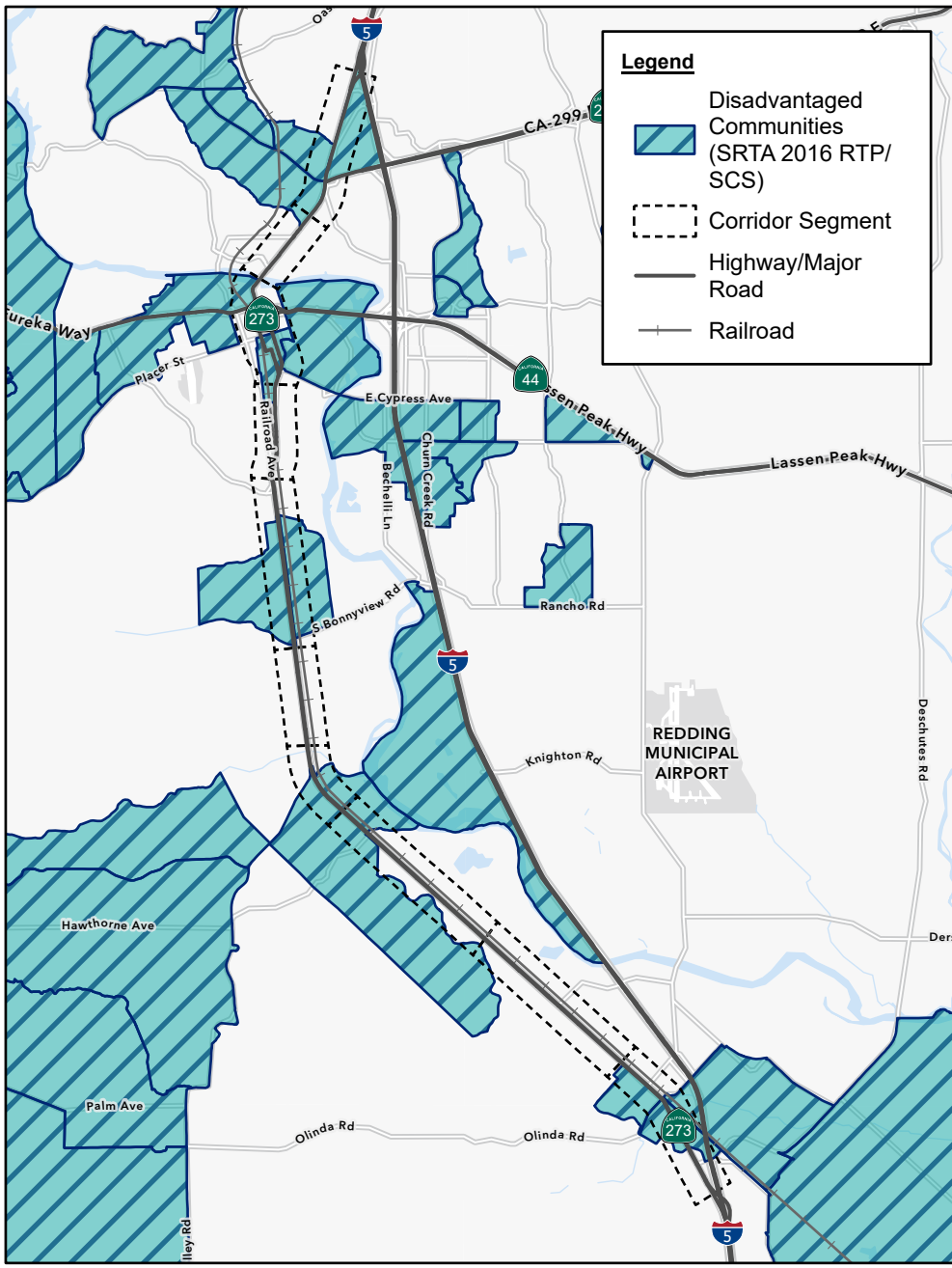
- Poverty and unemployment
- Lack of mobility options, including access to automobile, active transportation, and public transportation
- Housing and transportation cost burden
- Single parent households
- Young and elderly
- Educational attainment
- Linguistic isolation
- Minority status

Additionally, supplemental DAC status information is provided based on SB 535 CalEPA Criteria.

Figure 7 presents the study areas DACs based on the following four criteria:

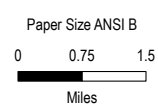
- SRTA RTP/SCS Criteria
- USDOT RAISE Areas of Persistent Poverty Criteria
- SB 535 CalEPA Criteria

As shown, the project area includes the Shasta Region’s most disadvantaged census tracts.



Envision 273: SR 273 Multimodal Corridor Plan

STUDY AREA DISADVANTAGED COMMUNITIES



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 7

Corridor Destinations

The corridor is a primary transportation route to residential neighborhoods, employment centers, and notable civic/regional destinations. The downtown areas of the Cities of Redding and Anderson are well developed with various commercial and industrial uses along SR 273. Residential communities are primarily concentrated within one mile from SR 273, making the corridor a primary route for daily personal travel.

Points of Interest

Northern Segments (1 - 4)

The northern portion of the corridor, between I-5 to Buenaventura Boulevard, includes study Segments 1 through 4. Adjacent land uses include suburban communities and industrial centers to the north, commercial and office uses in Downtown Redding, and residential neighborhoods just north and south of the downtown area.

The northern segments include the following major points of interest:

- **Medical Centers:** Mercy Medical & Shasta Regional
- **Schools:** Turtle Bay School, North State Independence High School, Sequoia Middle School, Cypress Elementary, and Juniper School.
- **Civic Destinations:** Redding City Hall, Redding Civic Auditorium, and Redding Library.
- **Parks/Recreation:** Sacramento River, Turtle Bay Exploration Park, Caldwell Park, South City Park, and McConnell Arboretum & Botanical Gardens
- **Entertainment:** Cascade Theater
- **Transportation Centers:** Shasta Bike Depot, the Amtrak station, and Downtown Transit Center
- **Bridges:** North Market Street Bridge, Diestelhorst Bridge, and Sundial Bridge (Bicycle & Pedestrian Only), all over Sacramento River

Middle Segments (5 - 7)

The middle portion of the corridor, between Buenaventura Boulevard and Happy Valley Road, includes study Segments 5 through 7. Adjacent land uses include primarily industrial or commercial land uses along SR 273 frontage roads with connections to suburban communities. The Redding Rancheria is located in Segment 7 just south of Clear Creek.

The middle segments include the following major points of interest:

- **Schools:** Live Oak School, Bonnyview Elementary School, and Sycamore Elementary School
- **Commercial Centers:** Near Buenaventura Boulevard, South Bonnyview Road, and Westwood Avenue
- **Parks:** Meadow Creek Park
- **Redding Rancheria (Win River Resort & Casino)**
- **Bridge:** South Market Street Bridge over Clear Creek

Southern Segments (8 – 10)

The southern portion of the corridor, between Happy Valley Road and I-5 in the City of Anderson, includes study Segments 8 through 10. Adjacent land uses include primarily industrial or commercial land uses along SR 273 frontage roads with connections to rural communities. The City of Anderson is located within Segment 10.

The southern segments include the following major points of interest:

- **Schools:** Tree of Life International Charter School, Anderson Middle School, Anderson High School, and Anderson Heights Elementary.
- **Civic Destinations:** Anderson City Hall
- **Parks:** Volante Park
- **Other Regional Destinations:** Shasta District Fairgrounds

Employment Destinations

The City of Redding is the location of approximately 44,400 jobs (Census, 2020, LEHD). Redding is the county seat of Shasta County. Downtown Redding is located at the intersection of SR 273, SR 44, and SR 299 and is generally considered to be the blocks between Trinity Street to the north, East Street to the east, Cypress Avenue to the south, and Court Street to the west. SR 273 separates into couplets along California Street and Pine Street within the Downtown Area and provides access to the Downtown Core District. The health care and social assistance, retail trade, accommodation and food services, and public administration industries account for the majority of jobs in Redding (Census, OnTheMap, 2022). The top major employers in the City of Redding include District 2 Caltrans, US Forest Service, Mercy Medical Center Hospital, Blue Shield of California, Redding Lumber Transport Inc., among others (California Employment Development Department, 2025).

The City of Anderson is the location of approximately 3,500 jobs (Census, 2020, LEHD). The healthcare, retail, accommodation and food, and construction industries account for the majority of jobs in the City of Anderson (Census, OnTheMap, 2022).

Population & Employment Density

Examining the geographic distribution of population and employment density across the study area helps to assess land use intensity and identify the areas with a greater number of residents and employment opportunities in close proximity to one another. Denser land use environments are associated with shorter vehicle trips and greater likelihood of community members using active transportation or micro-transit. Further, improvement recommendations should be context-specific to the nature of the corridor's diverse built environment, so understanding the variation in land use density across the corridor study area is an important factor to consider in ensuring recommendations work for the communities it serves. Using Census block-level population and employment data², population and employment densities were assessed in terms of the number of persons and jobs per acre of land area, respectively, which is presented in Figure 8.

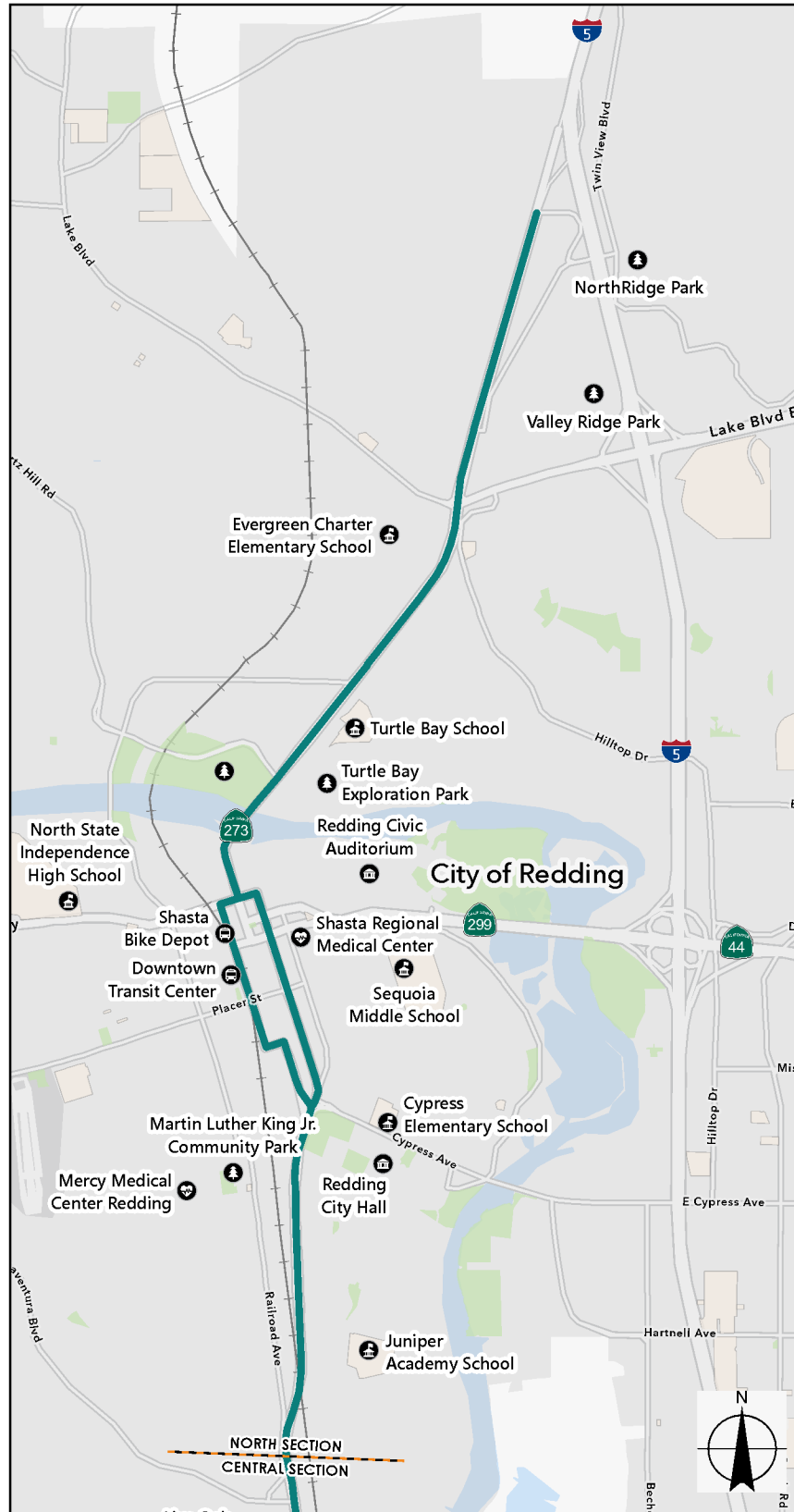
As shown in Figure 8, the highest densities of jobs are concentrated in and near the Downtown Redding area, predominantly in Segment 3, while lower and medium densities of jobs are scattered throughout the rest of the corridor study area. North of the Sacramento River, job densities are much lower, with most of Segments 1 and 2 featuring less than 5 jobs per acre. The few Census blocks in this area with medium

² Population data was sourced from the 2020 Decennial Census and employment data from the U.S. Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) 2020 dataset.

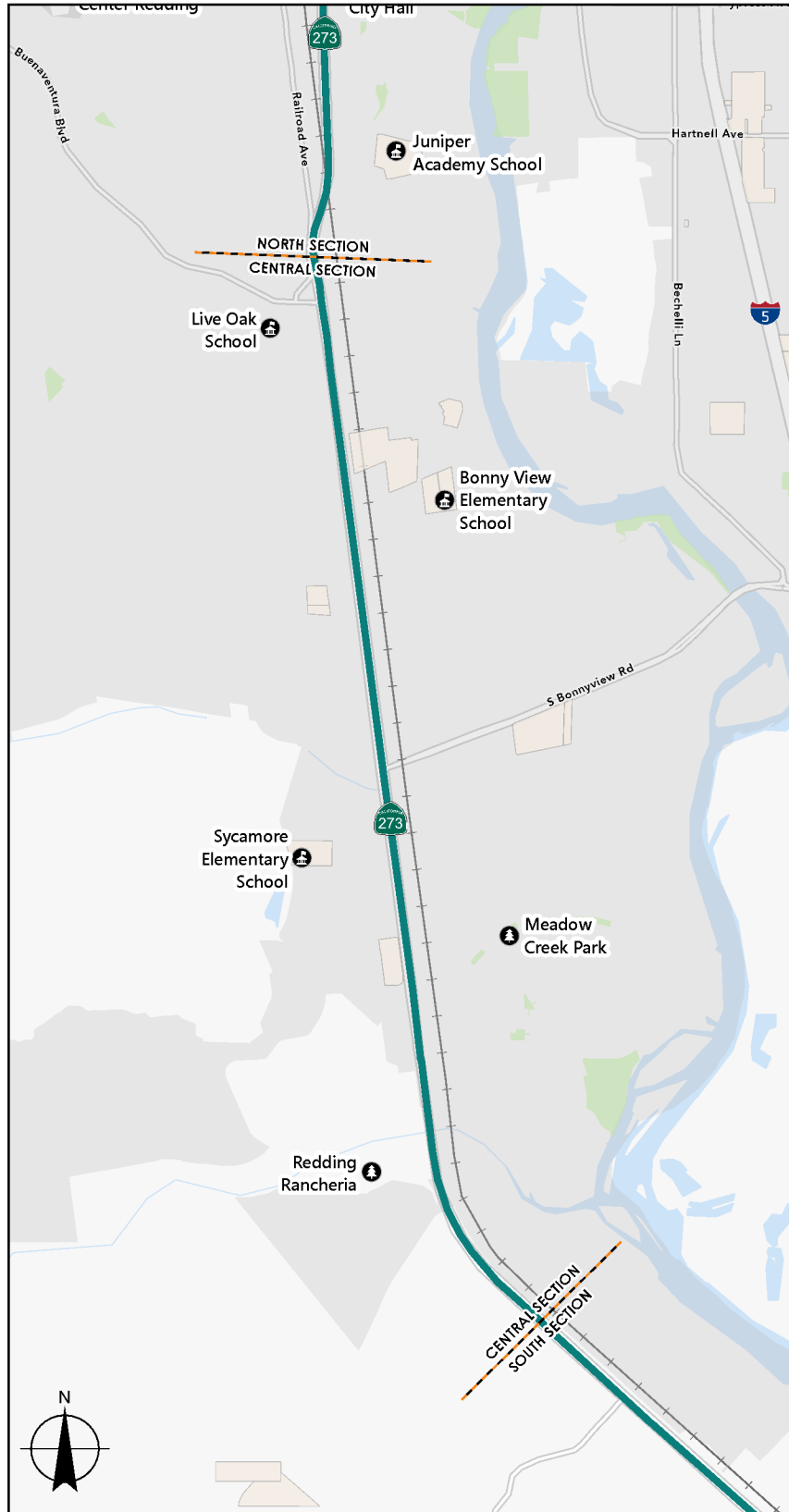
employment densities are associated with the low-density commercial uses adjacent to the southbound side of the corridor, near Lake Boulevard and Benton Drive.

There are only a few Census blocks within the study area with higher population density, which are also in or near Redding 's Downtown area. The north end of the corridor, within Segments 1 and 2, features low to medium population density, with less than 20 residents per acre in all blocks, and less than 10 residents per acre in most blocks. Between Segment 5 and Segment 9, which encompasses South Redding, the Redding Rancheria, and unincorporated County areas, population density is mostly low. However, there are some areas of medium density in Segment 6 and several small Census blocks with moderate to high population density within study Segment 8. Segment 10, which covers the City of Anderson's core, also features some areas of medium to moderate population density.

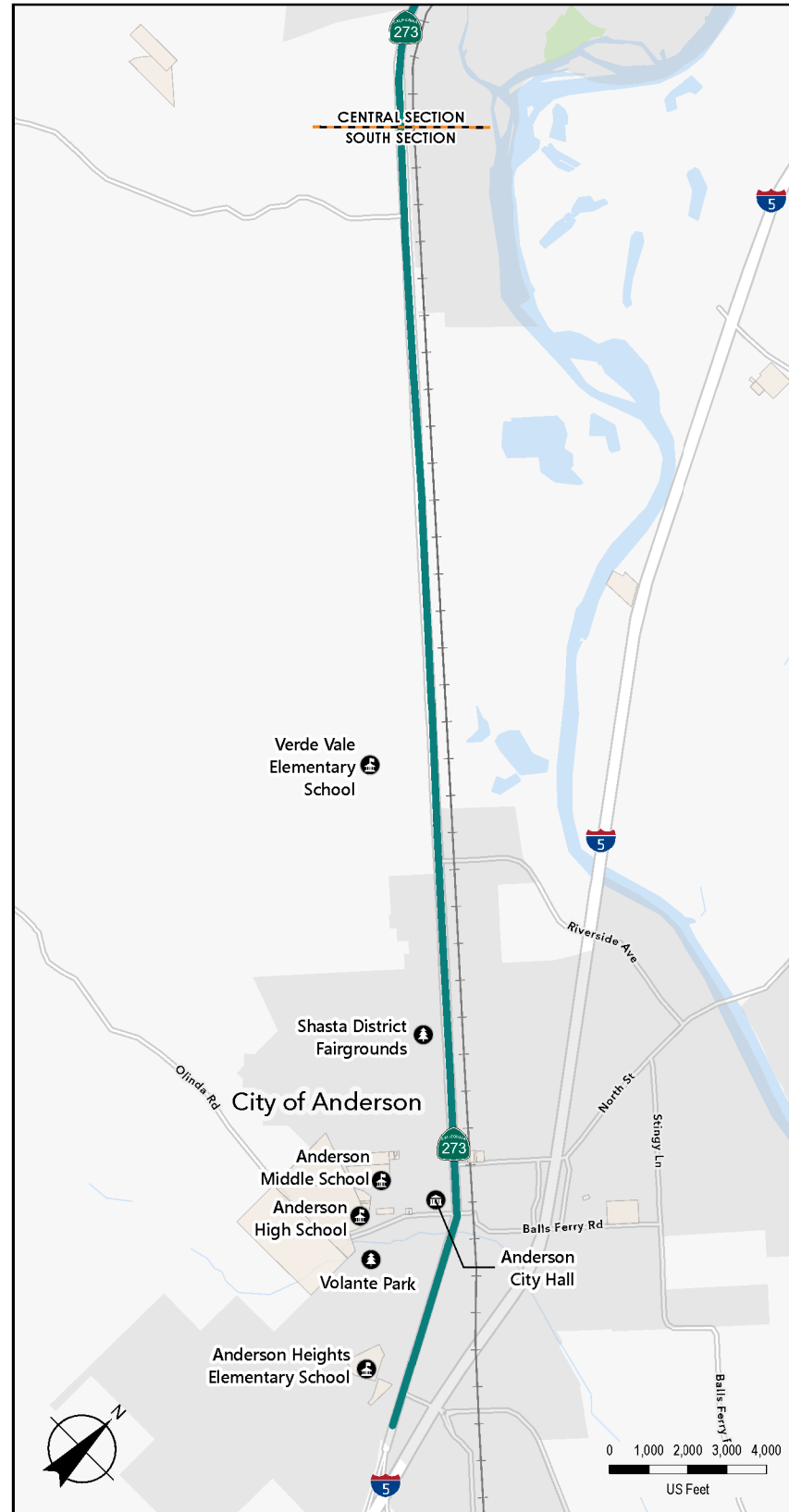
NORTH SECTION



CENTRAL SECTION



SOUTH SECTION



Legend

Places Of Interest

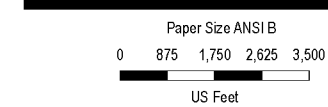
- Civic; Municipal
- Educational
- Medical
- Parks/Recreation
- Transportation

- Corridor Extent
- Railroad
- City Boundary
- Schools
- Parks
- Lakes & Streams

LOCATOR MAP



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PLACES OF INTEREST AND LANDMARKS



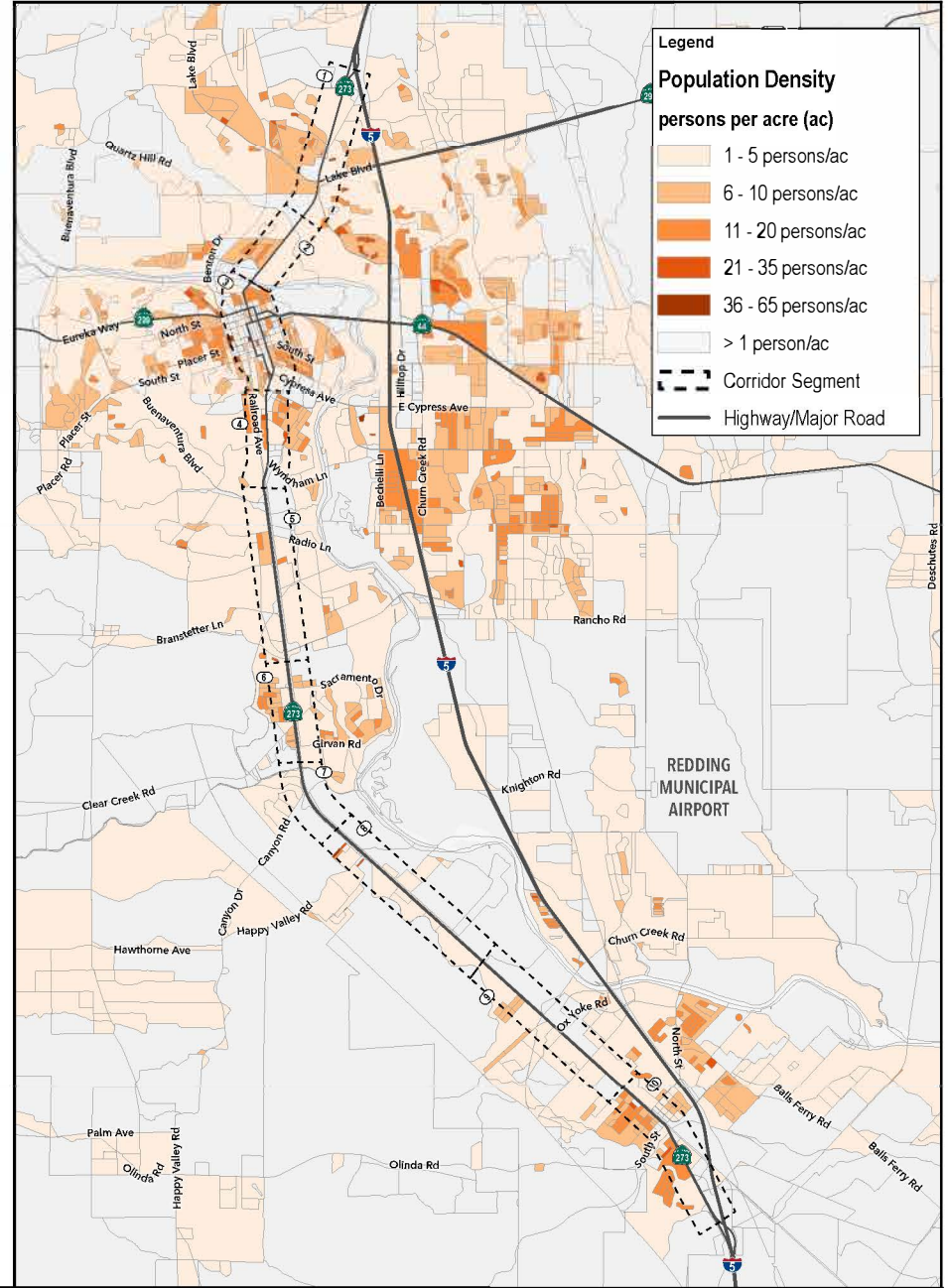
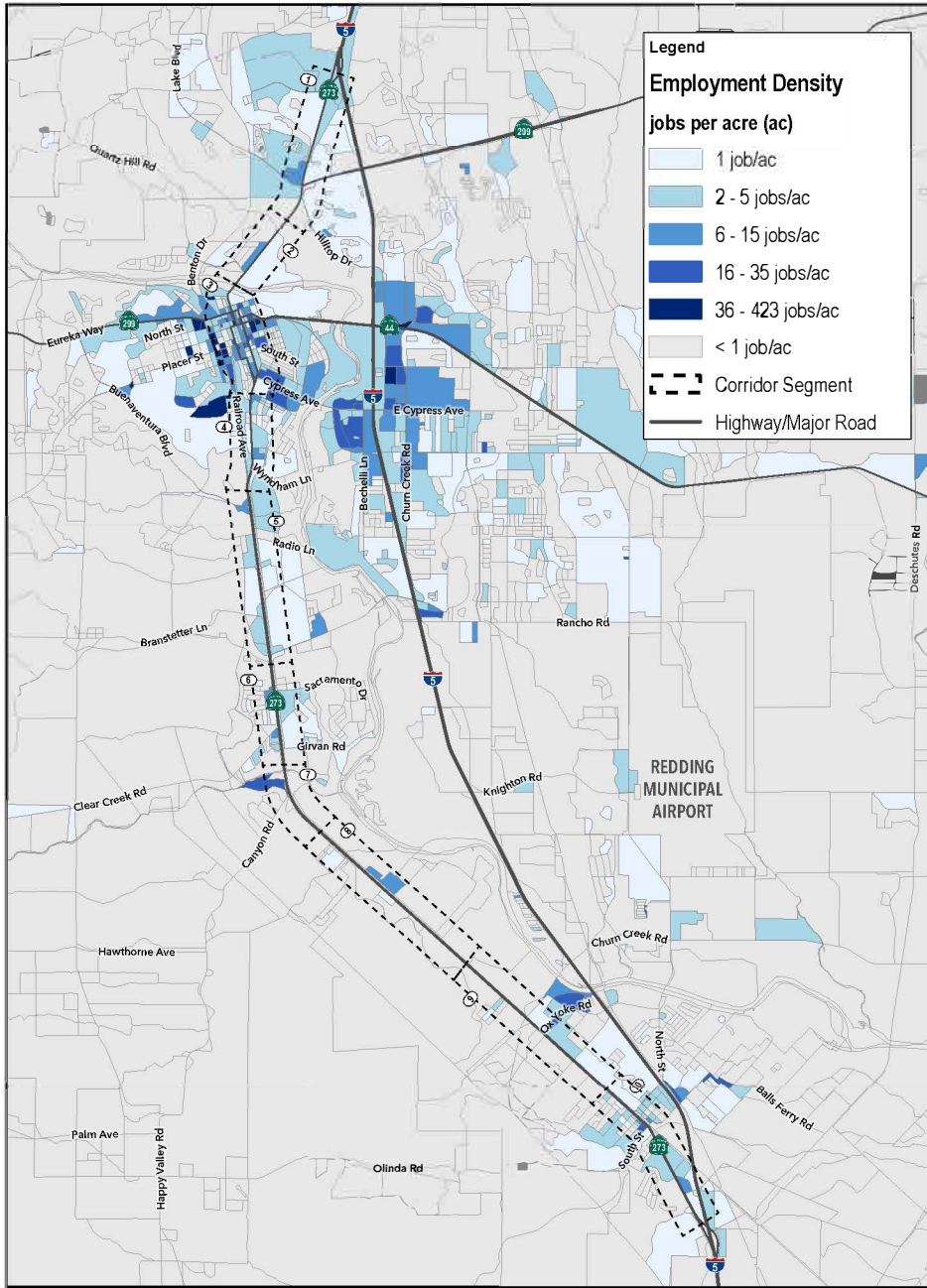
Map Projection: Lambert Conformal Conic
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 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 8

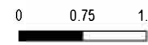
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Envision 273: SR 273 Multimodal Corridor Plan

EMPLOYMENT & POPULATION DENSITY

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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 9

Corridor Conditions

Roadway Infrastructure

SR 273 is a state highway classified as a principal arterial through the local jurisdictions of the Cities of Redding and Anderson. The speed limit ranges from 30 miles per hour (mph) through Downtown Redding to 60 mph through rural Shasta County. The Caltrans-owned right-of-way along the SR 273 corridor ranges from 100 to 255 feet.

Through most of the corridor south of Downtown Redding, the roadway typically has two vehicle lanes per direction, with a center median (dirt, landscaped, or concrete). Adjacent frontage roads, Westside Road and Eastside Road, and the UPRR freight rail line run parallel to the corridor from Downtown Anderson to just north of Buenaventura Boulevard, where the UPRR freight rail line crosses SR 273 via an overpass, known locally as the “mousehole.”

Approaching Downtown Redding from the north and south, the corridor becomes more developed with locally serving retail. As such, the roadway cross-section changes to include more sidewalk infrastructure, minimal landscaping, and unprotected bike lanes. This segment also includes center turn lanes or left-turn lanes.

Through Downtown Redding, SR 273 splits into one-way couplets, including California Street in the southbound direction and Pine Street in the northbound direction.

Daily vehicle volumes in 2020 range from just under 10,000 average daily traffic (ADT) volumes at the southern and northern ends of the corridor, reaching up to 17,800 just north of Downtown Redding (Segment 2) and 18,600 ADT near South Bonnyview Road (Segment 6).

The following table summarizes the variations in roadway cross-section, speeds and speed limits, and vehicle volumes, per segment.

Corridor Circulation

As described in the preceding section, the corridor cross-section typically includes four vehicle lanes, with two lanes per direction, a center median (dirt, landscaped, or concrete). South of Downtown Redding, the corridor is bordered by frontage roads (Westside Road and Eastside Road), to the west and east, respectively. South of the “mousehole,” the UPRR freight rail line runs parallel to and between the corridor and Eastside Road. Variations in the typical four-lane corridor cross-section include the following locations:

- Bridges crossing the Sacramento River, Clear Creek, the Anderson-Cottonwood Irrigation District canal, and smaller waterways.
- The presence of right and/or left turn lanes approaching intersections.
- The brief northbound three-lane section between Quartz Hill Road and Benton Drive.
- California Street (Couplet portion of SR 273 through Downtown Redding): South of Tehama Street, the road is a two-lane, southbound only cross-section until Cypress Avenue, where it transitions to S. Market Street (SR 273) with both north and south travel.
- Pine Street (Couplet portion of SR 273 through Downtown Redding): This portion of SR 273 includes three northbound vehicle lanes from Cypress Avenue to Eureka Way (SR 299), where it transitions to S. Market Street (SR 273) with both north and south travel.
- Section under the UPRR freight rail overcrossing where a quick build multiuse path replaces the outside southbound vehicle lane, resulting in one southbound lane and two northbound lanes.

Downtown Redding Couplets

The only portion of the corridor without bi-directional travel is along the southbound and northbound couplets through Downtown Redding. As described above, southbound SR 273 is located on California Street and northbound SR 273 is located on Pine Street. The circulation and roadway conditions are illustrated on the following image.

Figure 10 Downtown Redding Circulation



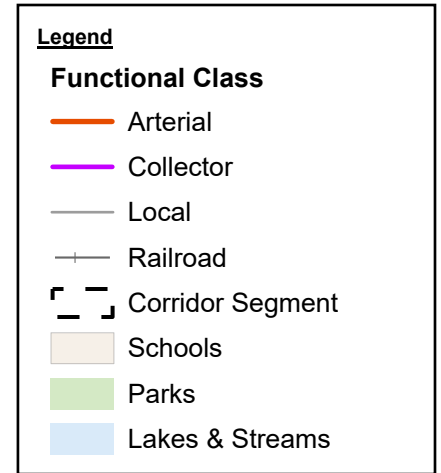
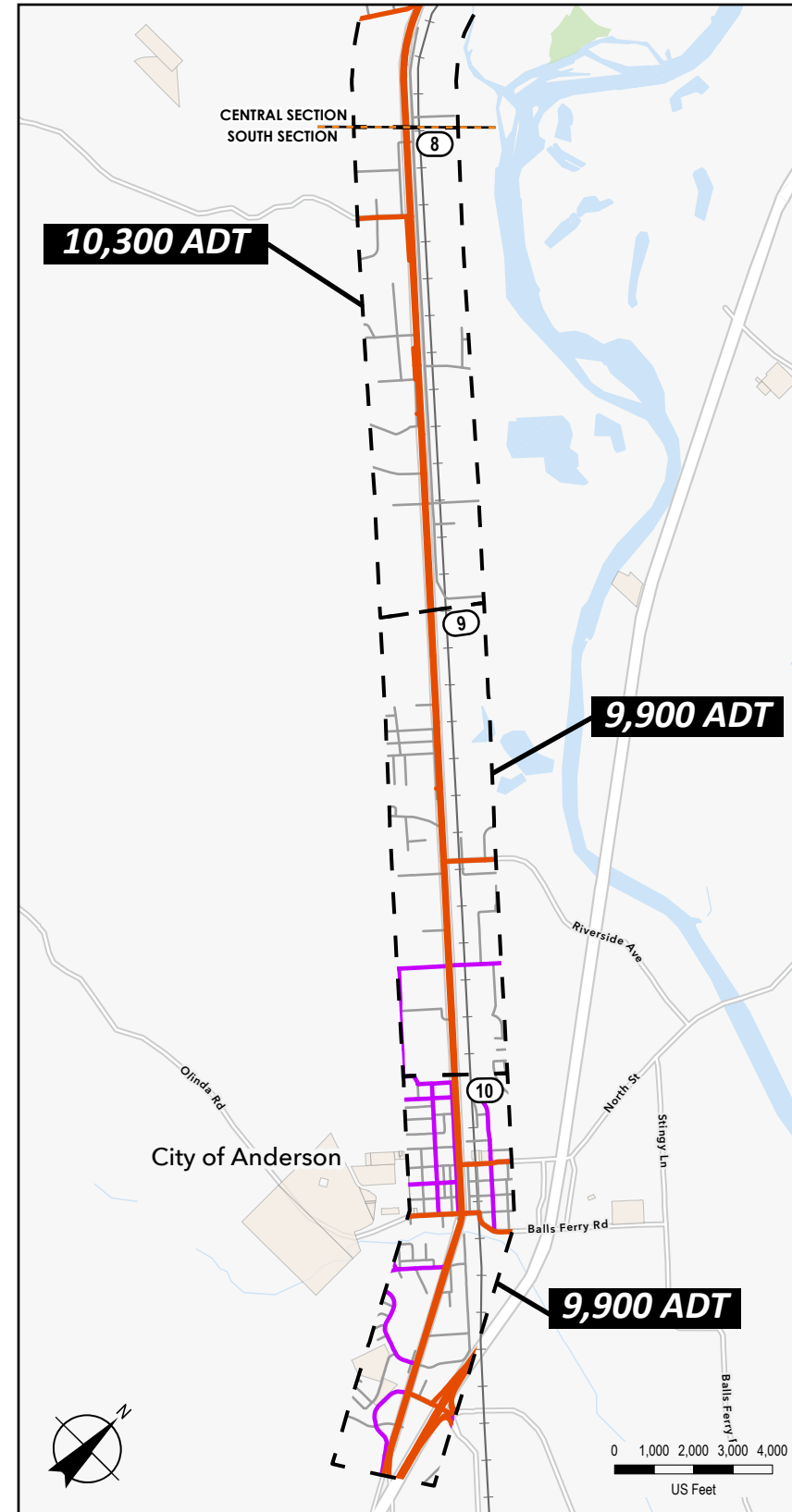
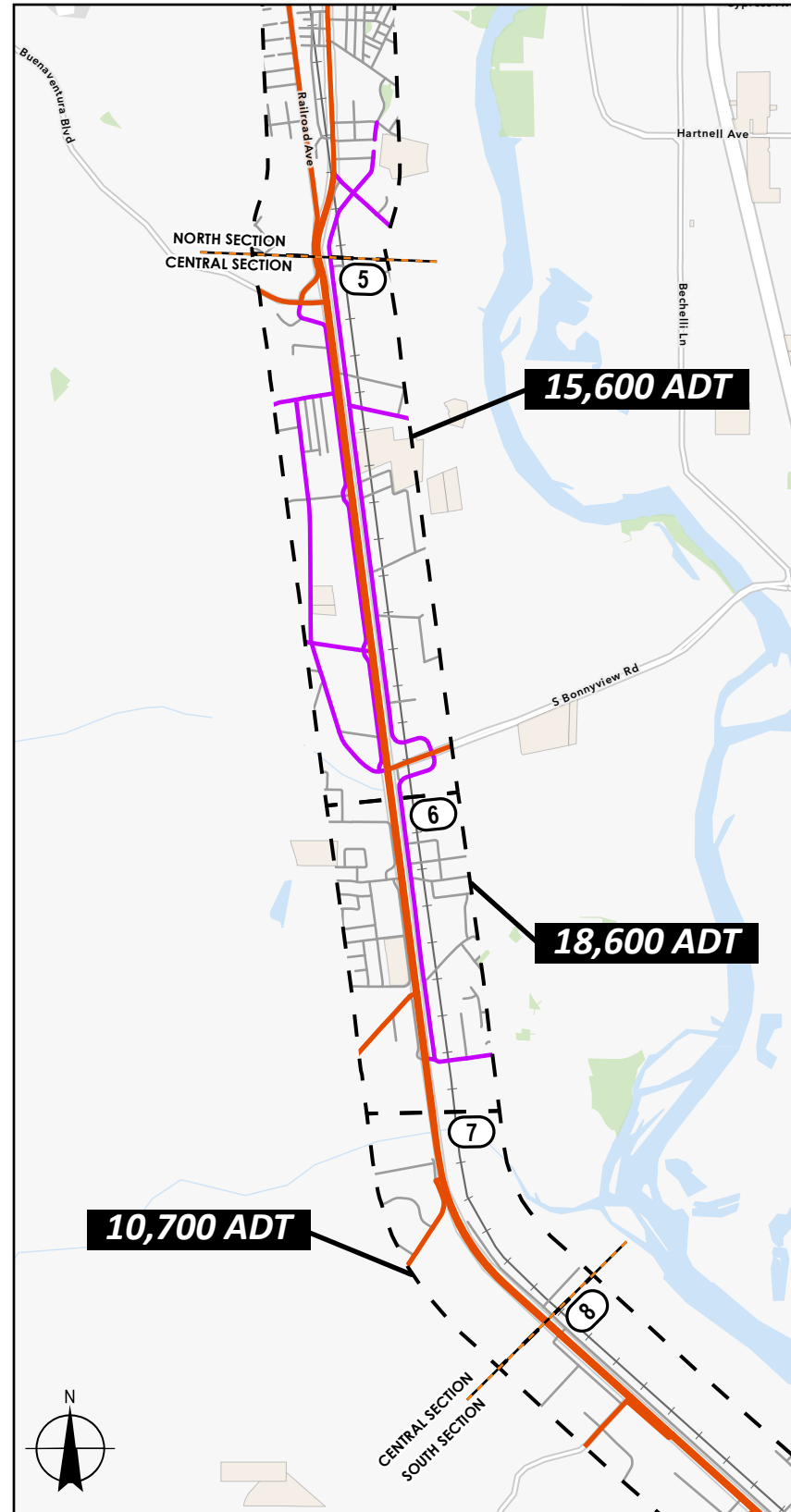
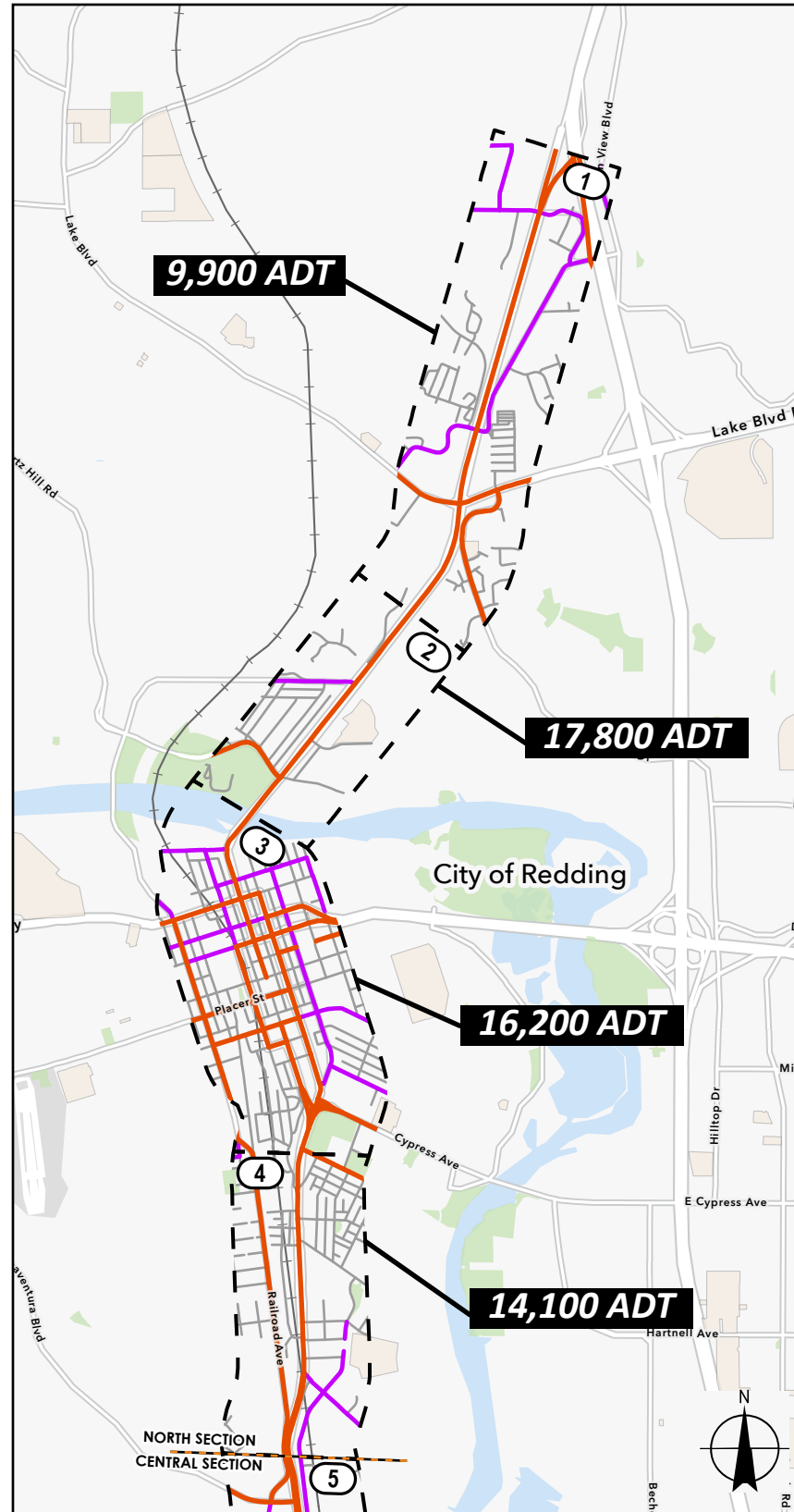
Table 6 Roadway Conditions Summary by Segment

| | Segment 1 | Segment 2 | Segment 3 | Segment 4 | Segment 5 | Segment 6 | Segment 7 | Segment 8 | Segment 9 | Segment 10 |
|--|--------------------------------------|---|---|---|--|---|--------------------------------------|--------------------------------------|--|---|
| | I-5 Ramps to south of Lake Blvd | South of Lake Blvd to Sacramento River | Sacramento River to south of Cypress Ave | South of Cypress Ave to north of Buena Ventura Blvd | North of Buena Ventura Blvd to south of S Bonnyview Rd | South of S Bonnyview Rd to south of Girvan Rd | South of Girvan Rd to Metz Rd | Metz Rd to south of Latona Rd | South of Latona Rd to north of Briggs St | North of Briggs St to I-5 Ramps |
| Length (mile) | 1.8 | 1.0 | 1.4 (2.5 total centerline) | 1.2 | 2.0 | 1.2 | 0.9 | 2.3 | 2.2 | 2.2 |
| Classification | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial | Other Principal Arterial |
| Posted Speed Limit (mph) | 55 | 45 | 30 | 40 | 55 | 55 | 55 | 60 | 55 | 45 |
| Lanes (per direction) | 2 | 2 to 3 | 2 to 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Center Turn Lane | No; dirt median with left turn lanes | No; landscaped median and left turn lanes | No; some left turn lanes at intersections | Yes, and landscaped median | No; dirt median with left turn lanes | No; dirt median with left turn lanes | No; left turn lanes at intersections | No; dirt median with left turn lanes | No; dirt median with left turn lanes | No; landscaped median and left turn lanes |
| Right-of-Way (ROW) (feet) | 200 to 255 | 150 | Varies | 100 to 120 | 120 | 120 | 170 | 170 | 120 | 110 |
| Roadway Daily Volume (Caltrans Traffic Survey 2020) | 9,900 | 17,800 | 16,200 | 14,100 | 15,600 | 18,600 | 10,700 | 10,300 | 9,900 | 9,200 |
| Heavy Vehicle Percentage (Caltrans Traffic Survey 2020) | 2.3% | 2.2% | 2.6% | 3.1% | 3.1% | 3.3% | 3.2% | 3.7% | 4.1% | 4.8% |

NORTH SECTION

CENTRAL SECTION

SOUTH SECTION

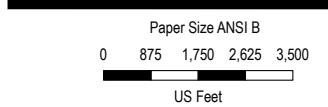


LOCATOR MAP



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ROADWAY FUNCTIONAL CLASS AND VEHICLE VOLUMES



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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 Date

FIGURE 11

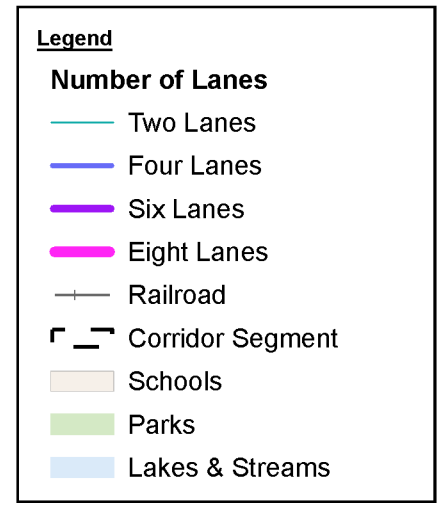
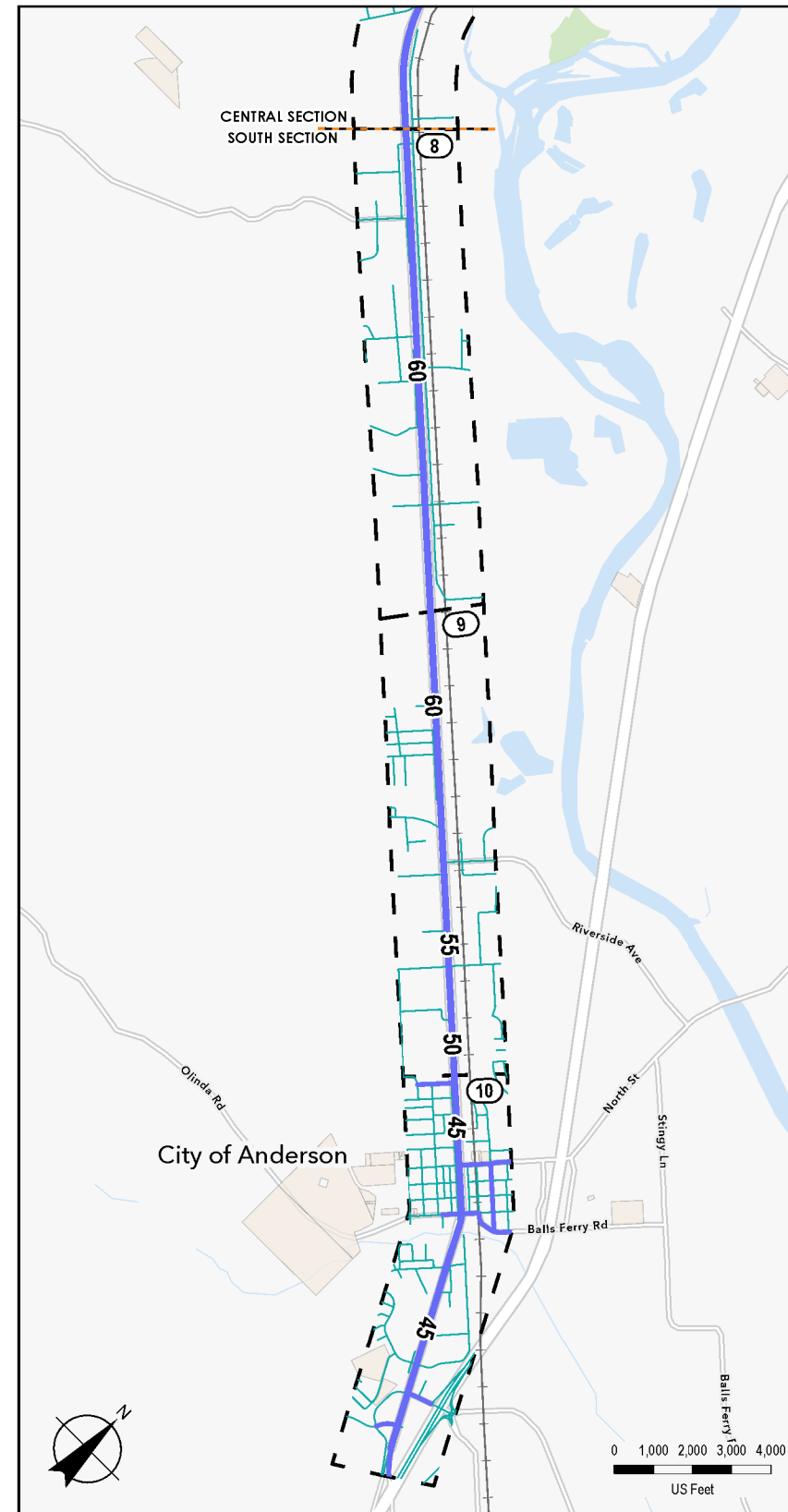
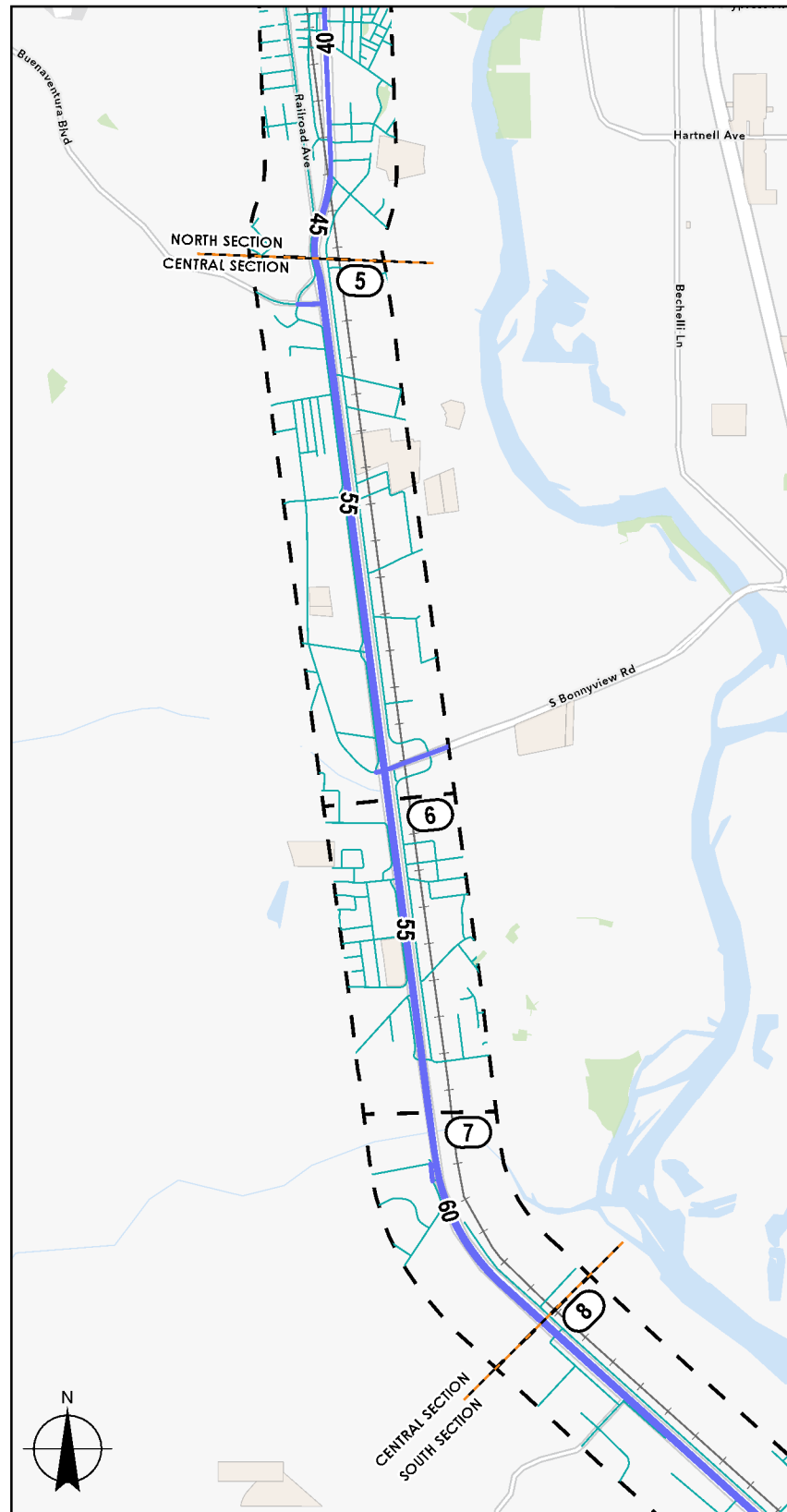
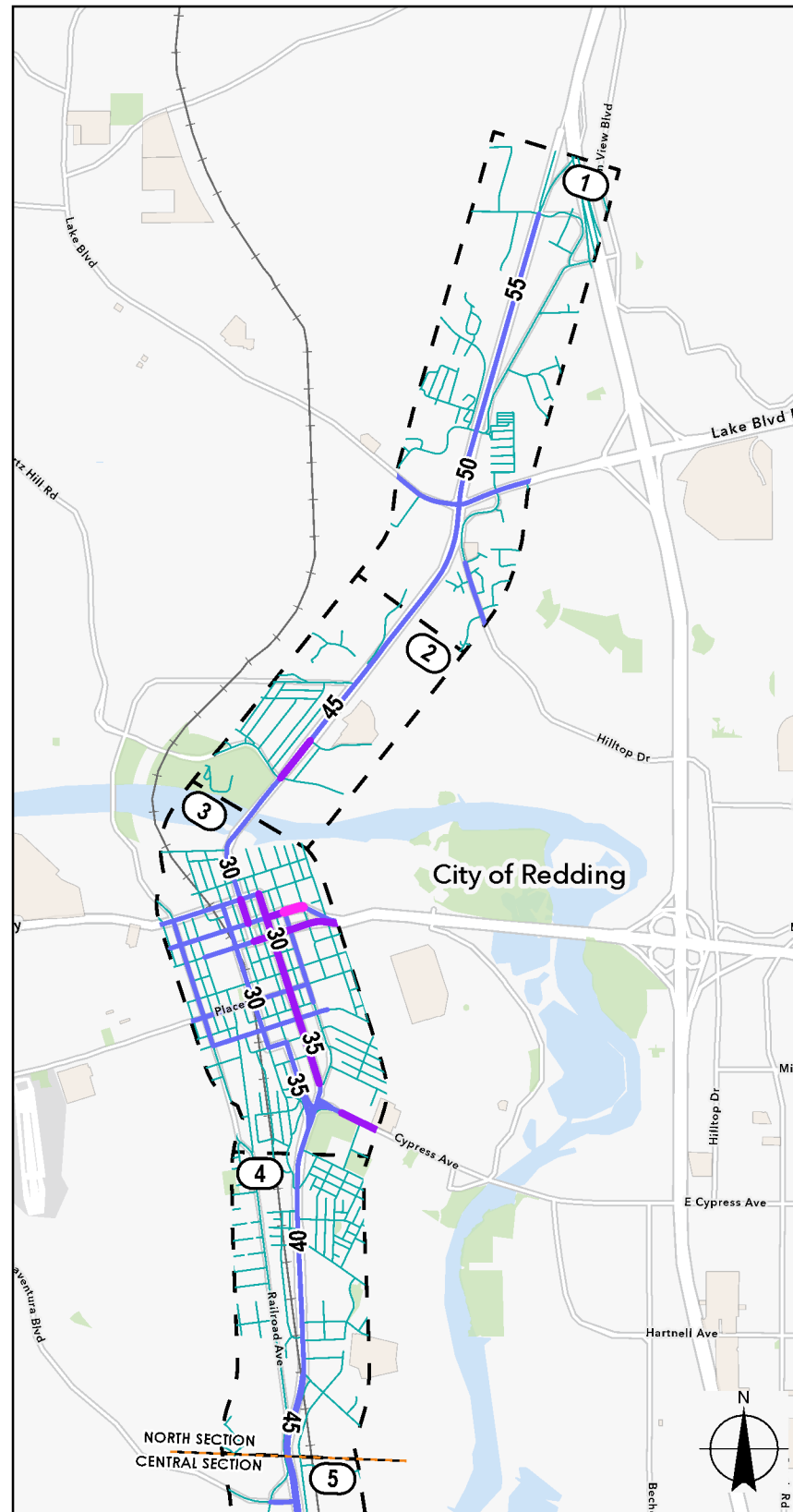
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Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA. Created by: ppell

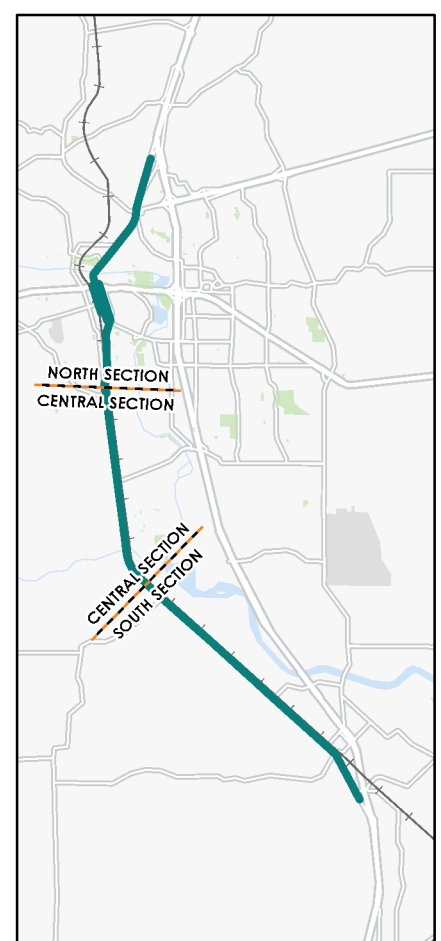
NORTH SECTION

CENTRAL SECTION

SOUTH SECTION

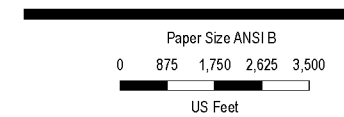


LOCATOR MAP



Envision 273: SR 273 Multimodal Corridor Plan

VEHICLE TRAVEL LANES AND SPEEDS



Map Projection: Lambert Conformal Conic
 Horizontal Datum: North American 1983
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 12

City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, METANASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METANASA, USGS, Bureau of Land Management, EPA, NPS, USDA, City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METANASA, USGS, Bureau of Land Management, EPA, NPS, USDA. Created by: ppeel
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Multimodal Infrastructure

This section provides a summary of existing multimodal infrastructure, including bicycle and pedestrian facilities, as well as identifies barriers and discusses results for the Bicycle Level of Traffic Stress and connectivity assessment conducted for the corridor.

Pedestrian Facilities

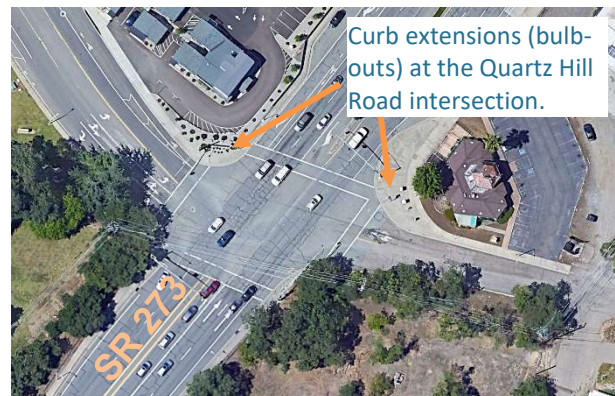
Pedestrian facilities throughout the corridor include a discontinuous network of sidewalk, crosswalks, and multiuse trail connections. This network includes gaps, narrow sections, and vegetation overgrowth and undergrowth in many locations. Most locations with sidewalk vary in width between four and six feet. However, there are some locations that also feature a landscaped area with sidewalk that are as wide as 15 feet.

(Note: The Caltrans Downtown Redding Capital Preventative Maintenance (CAPM) Project will construct improvements in Segments 1 to 4 in 2028, including pedestrian improvements to address issues noted below.)

Northern Segments

Segments 1 and 2

Segment 1 north of Lake Boulevard lacks the kinds of basic amenities that would make it pedestrian friendly. Sidewalks are missing on both sides of the street, from Caterpillar Road to Lake Boulevard and the roadway includes only one crosswalk at the intersection of N. Market Street (SR 273) and Northpoint Drive and one crosswalk at the intersection of N. Market Street (SR 273) and Lake Boulevard (SR 299). Sidewalk begins on the west side of the street south of Lake Boulevard and continues to Benton Drive, within Segment 2. Sidewalk begins on the east side at Benton Drive, and both facilities continue south toward Downtown Redding. There is a programmed Caltrans SHOPP Project in progress that will install crosswalks at all legs of the intersection of Lake Boulevard and SR 273.



Northbound SR 273 within Segment 1 (left), and SR 273 at Quartz Hill Road within Segment 2 (right).
Image sources: GHD (left) and Google, 2023 (right).

Downtown Redding (Segment 3) and Segment 4

The segments within Downtown Redding are noticeably more pedestrian-oriented, with very few gaps in sidewalk, lower vehicle speeds, more lighting, landscaped areas, and higher-density land use and transit connections.

Within Segment 3, sidewalk infrastructure is continuous. However, although there are crosswalks and pedestrian signal heads at most or all intersections, pedestrian crossings are not well identified or protected. There is one pedestrian signal on Southbound California Street (SR 273) at Butte Street, providing

connectivity to the recently improved downtown area on Market Street, as shown in the following image. A pedestrian signal is actuated by pedestrians and requires vehicles to stop, just like a traffic signal, and are accompanied by pedestrian warning signs. Contrastingly, the pedestrian warning signs on Northbound Pine Street (SR 273) at Eureka Way (SR 299) are not highly visible.



Pedestrian Signal on Southbound California Street (SR 273) at Butte Street (left), and pedestrian warning signs on Northbound Pine Street (SR 273) at Eureka Way (SR 299) (right), within Segment 3. Image sources: Google, 2023.



Southbound California Street (SR 273) (left) and Northbound Pine Street (SR 273) (right), within Segment 3. Image sources: Google, 2023.

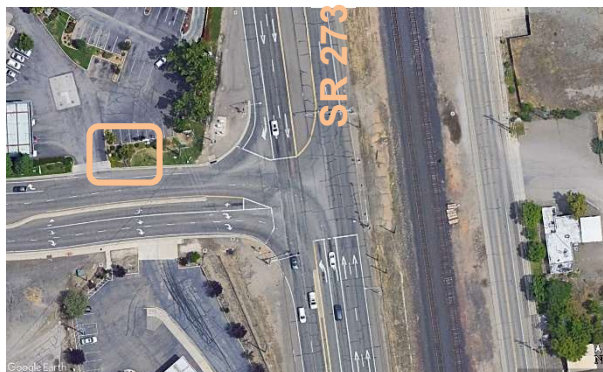
South of Cypress Avenue, gaps in the sidewalk network are intermittent on both sides of S. Market Street (SR 273), however the west side contains many more lengthy gaps. Sidewalk infrastructure is continuous from approximately California Street/Angelo Avenue to Wyndham Lane. Crosswalks crossing the corridor within the section between Lincoln Street and Buenaventura Boulevard are few and far between, with a crosswalk every 1,000 to 1,750 feet, approximately.

The images below show the intersection of S. Market Street (SR 273) at California Street/Angelo Avenue. The crosswalk at the eastbound approach is over 130-feet-long and includes a recently constructed pedestrian waiting area.



Pedestrian crossing and waiting area at west approach of California Street at S. Market Street (SR 273). Image sources: Google, 2023.

The images below show the westbound approach of SR 273 at Buenaventura Boulevard, which is restricted to pedestrians. No bicycle or pedestrian infrastructure exists at the intersection.



Pedestrian restriction sign at west approach of Buenaventura Boulevard at SR 273. Left image source: S. Market Street (SR 273), Redding Summary and Recommendations Report, 2021. Right image source: Google, 2023.

Middle & Southern Segments

The Middle Segments lacks continuous sidewalk and crosswalks, with those only found at the signalized intersections along with ADA accessible curb ramps and occasional transit stops. These intersections include:

- South Bonnyview Road
- Westwood Avenue
- Clear Creek Road
- Redding Rancheria Road
- Happy Valley Road

Multiuse Paths

The Middle and Southern Segments feature the following multiuse paths along the west side of the corridor:

- From Cedars Road to Jewell Lane (1,000 ft)
- From Westside Road to Win-River Casino (2,085 ft)
- From Bruce Drive to Marx Way (1,750 ft)
- From Marx Way to Anderson Creek Way (358 ft)
- From Ponderosa Street to the intersection of Pleasant Hills Drive and Rhonda Road (1,847 ft)

The lack of pedestrian facilities found in the Middle Segments continue in the Southern Segments, except at signalized intersections. Like the segments through Downtown Redding, the segments within the City of Anderson are noticeably more pedestrian-oriented, with very few gaps in sidewalk. The pedestrian network is mostly built out to match the street grid network. Crossings of SR 273 are at signalized intersections.

Bicycle Facilities

The corridor features existing Class II bike lanes and Class III bike routes. Existing bike lane widths generally vary between four and six feet through the corridor but narrow in a few locations where roadway width/right-of-way is constrained.

Northern Segments

Class II Bike Lanes (Segments 1 and 2)

In the Northern Segments, there are existing Class II bike lanes along N. Market Street (SR 273) in Redding from Lake Boulevard to Quartz Hill Road.

Between Lake Boulevard and Quartz Hill Road, the bike lanes on SR 273, as shown below, are not buffered or protected. In addition, the speed limits through these sections of the corridor are between 45 and 50 miles per hour.



Class II Bike Lanes on Southbound SR 273 within Segment 1 (left), and Class II Bike Lanes on Northbound SR 273 at Benton Drive within Segment 2 (right). Image sources: Google, 2023.

There are also Class II facilities adjacent to the corridor to the east along Twin View Boulevard, beginning at Mountain View Drive and ending at Valley Ridge Drive. Additionally, there are Class II facilities along Lake Boulevard, connecting to the corridor from the west. A Class III bike route on Benton Drive, beginning at River Park Drive, also connects to the SR 273 corridor at N. Market Street.

Class II Bike Lanes & Bike Depot through Downtown Redding (Segment 3)

In Downtown Redding, Class II bike lanes exist on the SR 273 corridor study area along Pine Street (SR 273) from S. Market Street (SR 273) to Eureka Way (SR 299), on California Street (SR 273) from Tehama Street to Gold Street (SR 273), on Gold Street (SR 273) from California Street (SR 273) to S. Market Street (SR 273), and on S. Market Street (SR 273) from Gold Street (SR 273) to just south of Cypress Avenue. In May of 2023, Shasta Living Streets launched the Redding Bike Depot, which includes a station for the city's new electric bike-share system and secure indoor bike parking.



Class II Bike Lanes on Southbound California Street (SR 273) (left), and Class II Bike Lanes at curve on Southbound S. Market Street (SR 273) (right), within Segment 3. Image sources: Google, 2023.



Bike Share at Bike Depot on California Street, just south of Shasta Street. Image source: Google, 2023.

Also adjacent to the corridor in the downtown area, Class II bicycle facilities exist along East Street from Placer Street to Locust Street, Court Street from South Street to Schley Avenue, Parkview Avenue from S. Market Street (SR 273) to Cypress Avenue, Angelo Avenue from S. Market Street (SR 273) to Parkview Avenue, and Cypress Avenue from S. Market Street (SR 273) to Hartnell Avenue.

Class IV Bikeways

There is a newly constructed Class IV Bikeway that connects Downtown Redding to the Turtle Bay area. Complete with bollards and green paint, this mile-long bikeway is called the BCT Bikeway, for Butte-Continental-Trinity streets that it runs along. The BCT Bikeway features a bicycle traffic signal at S. Market Street (SR 273) and Trinity Street and completes a 4-mile loop from Sundial Bridge to Diestelhorst Bridge.



BCT Bikeway at Butte and Continental. Image source: Google, 2024.

Additionally, a Class IV bi-directional bikeway follows Center Street and Division Street in downtown until California Street, providing a connection to SR 273.

Bike Facility Gap (Segment 4)

There are no bicycle facilities on SR 273 through Segment 4. The recently implemented quick build multiuse path (Class I) with plastic delineators replaces the outer vehicle lane on Southbound SR 273 at the southern end of Segment 4, just south of Wyndham Lane. This quick build multiuse path is part of the Caltrans Downtown Redding CAPM Project, which, if determined feasible, will require installing a concrete barrier and striping. The quick build multiuse path passes through the “mousehole” under the UPRR freight rail overcrossing and terminates at the intersection with Buenaventura Boulevard.



Start of quick build multiuse path on Southbound SR 273. Image source: Google, 2023.



Southbound view of the “mousehole” at the UPRR freight rail overcrossing on SR 273. Image Source: S. Market Street (SR 273), Redding Summary and Recommendations Report, 2021.

South of Downtown Redding and paralleling the SR 273 corridor to the west, Railroad Avenue between Schley Avenue and Buenaventura Boulevard provides a mix of Class III bike route with varying shoulder widths and Class II bike lanes. Buenaventura Boulevard includes Class II facilities that begin northwest of

the corridor study area and end at Railroad Avenue, nearly reaching S. Market Street (SR 273). To the east of the corridor, Polk Street/Eastside Road provide Class II facilities for most of the segment beginning at Ellis Street and extending to Radio Lane and into the Middle Segments.

Middle & Southern Segments

There is about 1,100 ft of Class II bicycle lane in Segment 6 north and south of the Girvan Road intersection. Outside of that facility, SR 273 through Segments 5, 6, 7, and the majority of Segment 8 is designated a Class III bicycle route. The speed limit through these segments is 55 or 60 mph, resulting in high stress bicycling conditions. Image to the right shows a 60 mph speed limit sign for Northbound SR 273 in Segment 9 (Image source: Google, 2023).



The Middle Segments include existing Class II bike lanes on South Bonnyview Road, beginning at Westside Road, crossing the SR 273 corridor, and continuing east beyond the corridor study area. Additionally, Class II facilities are included on Eastside Road for the brief segment that jogs east before intersecting South Bonnyview Road.

Parallel to the SR 273 corridor, Eastside Road south of Radio Lane is identified as a Class III bike route, as is Howard Drive between Westside Road and Cedars Road, Westside Road between Buenaventura Boulevard and Cedars Road, Branstetter Lane between Branstetter Circle and Westside Road, Cedars Road between Howard Drive and Westside Road, and Clear Creek Road west of S. Market Street (SR 273). Furthermore, south of South Bonnyview Road, S. Market Street (SR 273) is identified as a Class III bike route, continuing into the Southern Segments. S. Market Street (SR 273) also contains short Class II bike lanes with green conflict marking at the approach to the Westside Road/Girvan Road intersection, connecting with wider shoulders in both the northbound and southbound directions past the intersection.

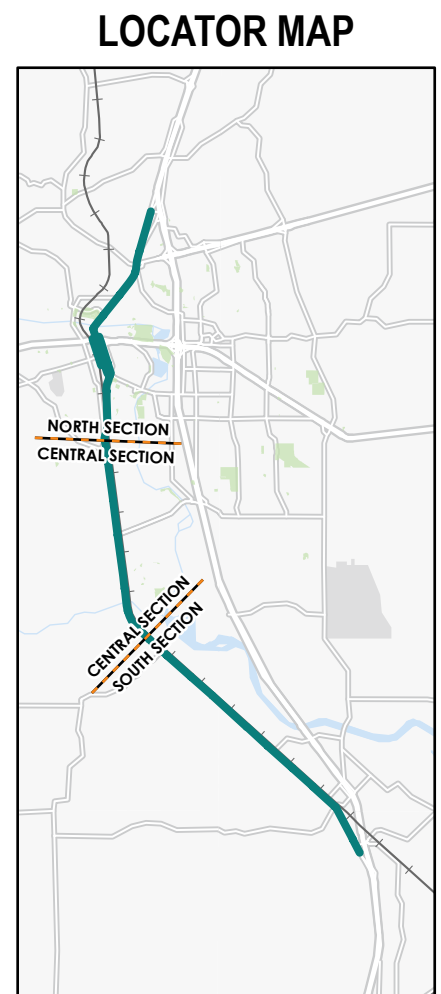
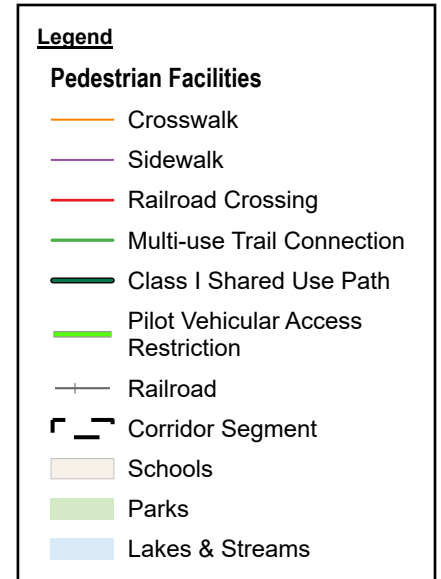
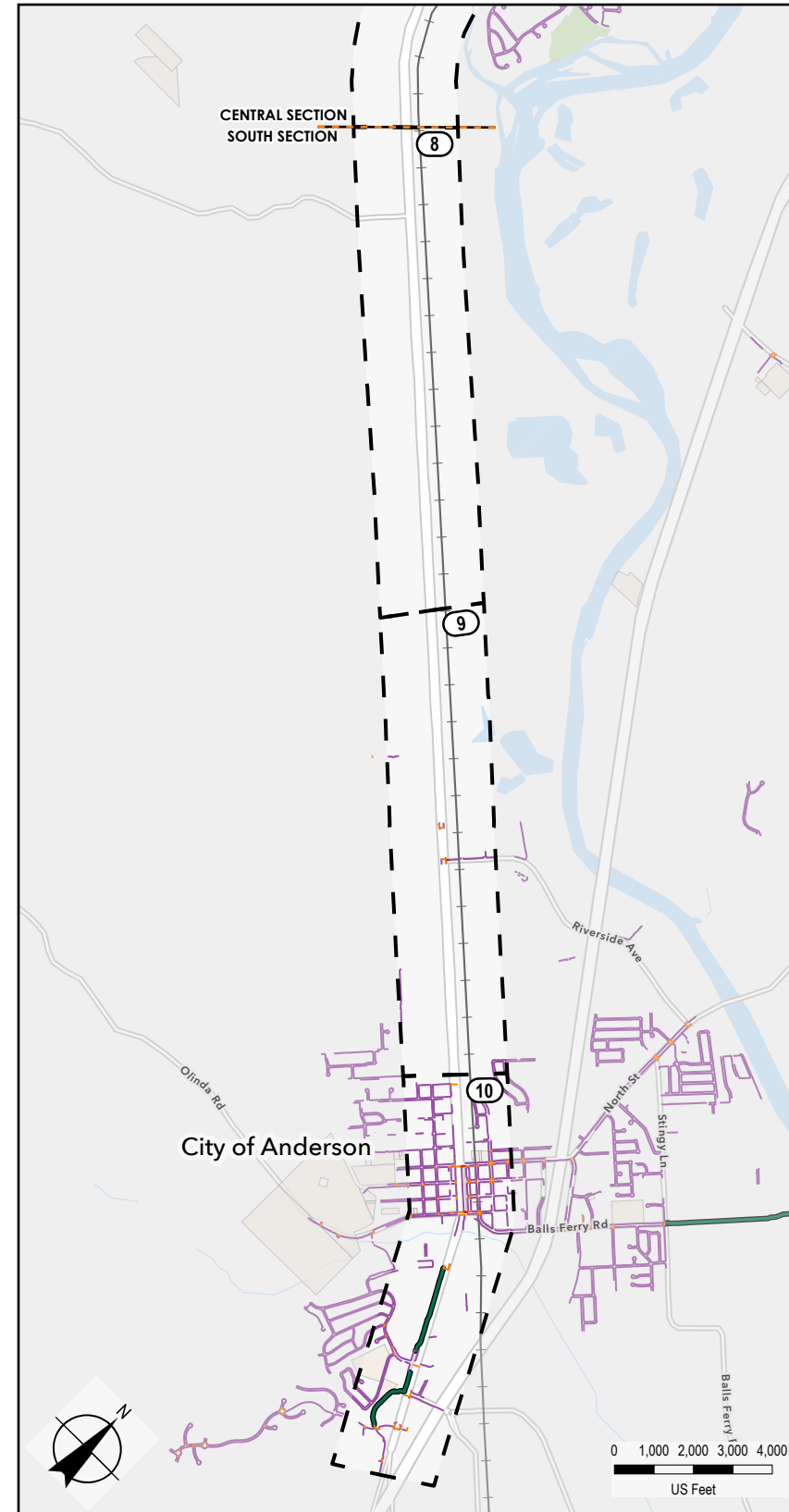
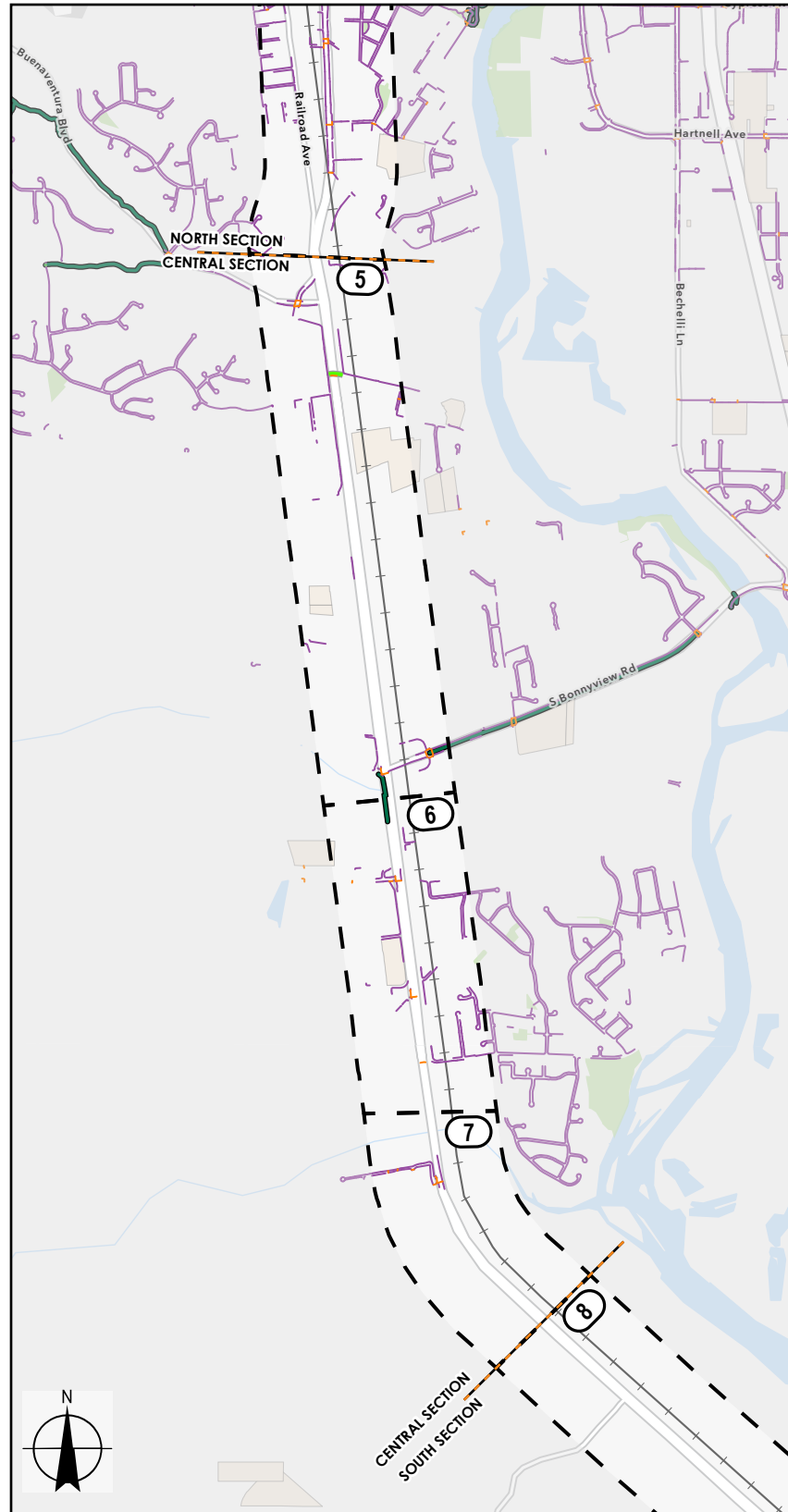
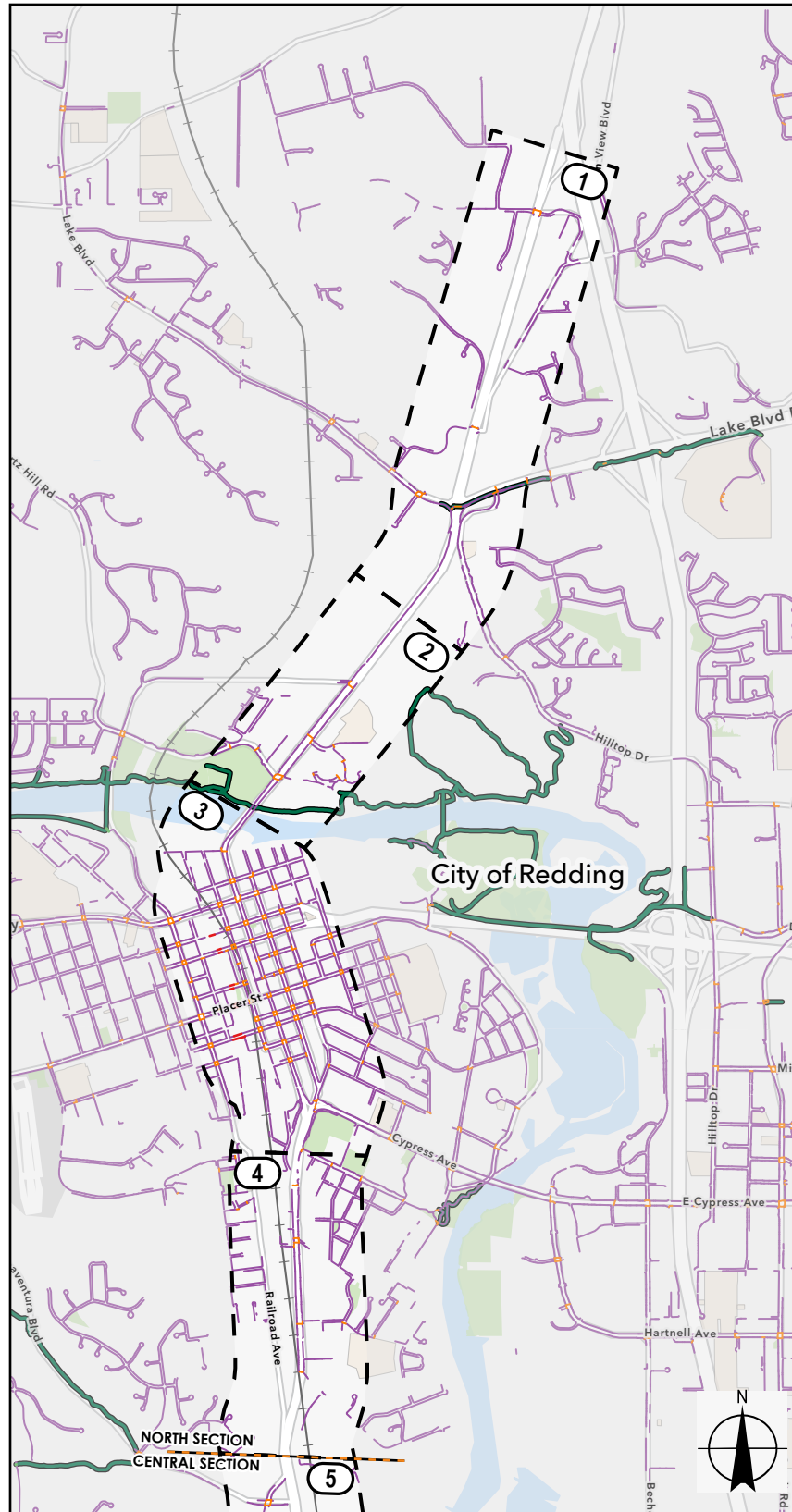
The Class III bike route continues south on the SR 273 corridor ending at Redding Rancheria Road. The Southern Segments also feature Class III bike routes on Silver Street between Briggs Street and South Street between Emily Road and SR 273, both in the City of Anderson. Existing class II bike lanes can be found on Olinda Road west of Emily Road, North Street between SR 273 and Silver Street, Balls Ferry Road between Ventura Street and Freeman Street, and SR 273 between South Street and Bruce Street. Class II facilities on Pinon Avenue connect to class II facilities on the short Ponderosa Street, providing a connection to the Old 99 Trail Class I shared use path that begins at the intersection of Pleasant Hills Drive and Rhonda Road. A short segment of Class II bike lanes on Pleasant Hill Drive also connects the SR 273 corridor with this shared use path.

Bicycle facilities at most of the key intersections along the corridor lack buffers, barriers or conflict markings, or are dropped all together at the intersection approach. Coupled with cracking pavement or fading paint in some locations, existing bicycle facilities along the corridor provide a high-stress experience for bicyclists, particularly children and other vulnerable road users.

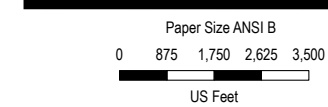
NORTH SECTION

CENTRAL SECTION

SOUTH SECTION



Envision 273: SR 273 Multimodal Corridor Plan PEDESTRIAN FACILITIES



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



Project No. 12560002
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Date September 2023

FIGURE 13

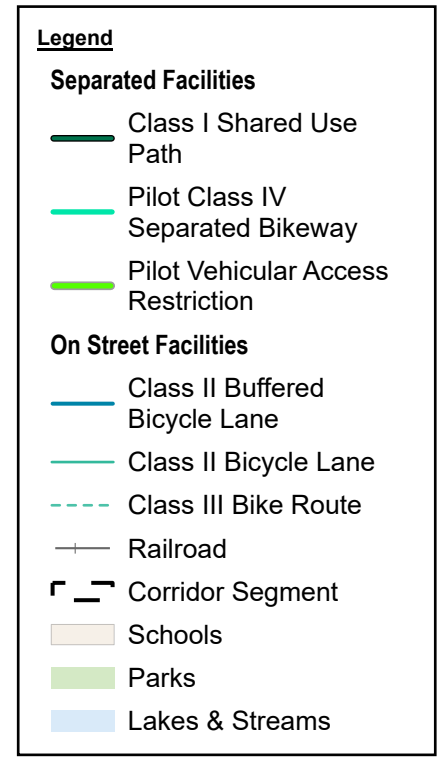
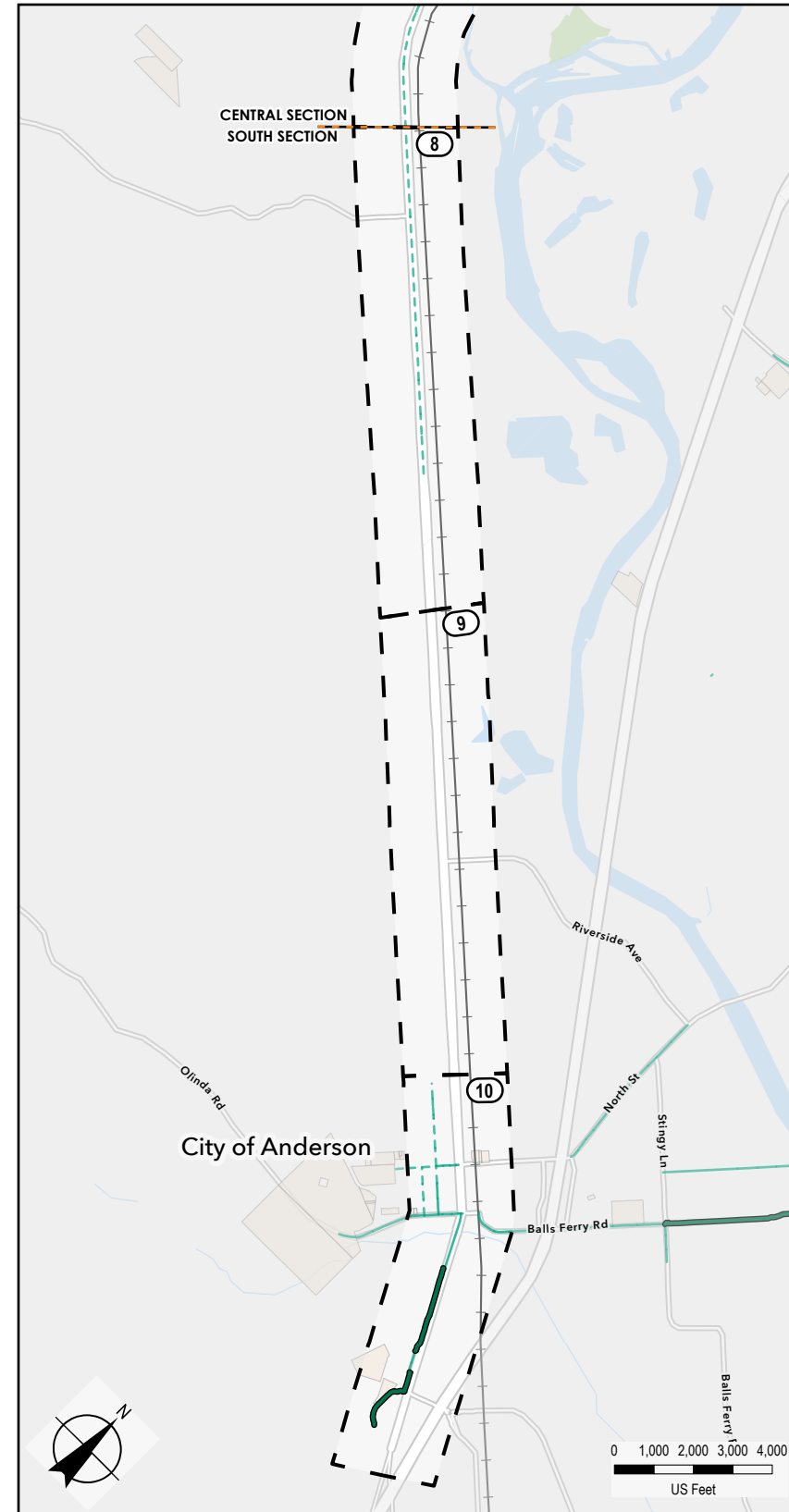
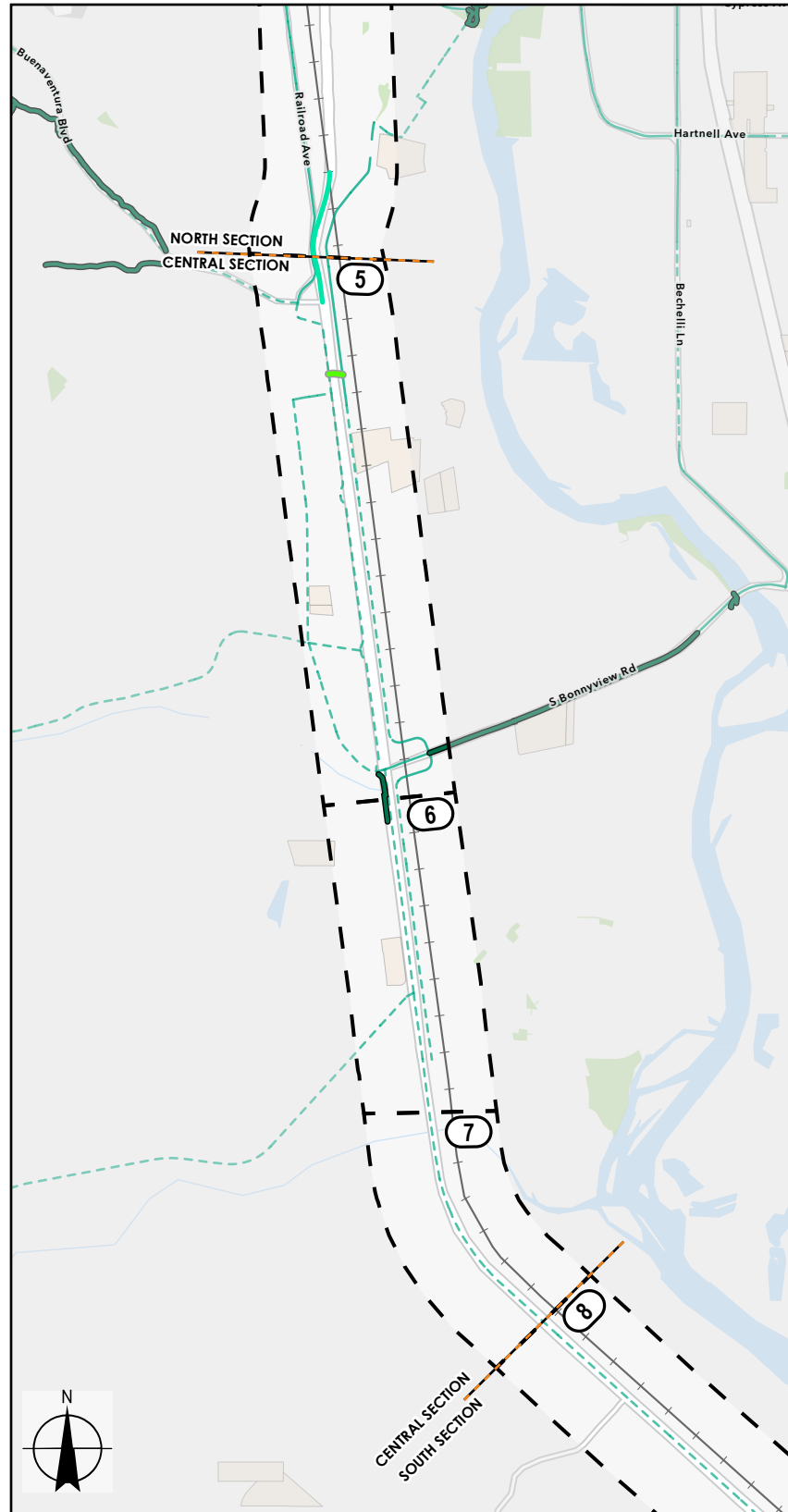
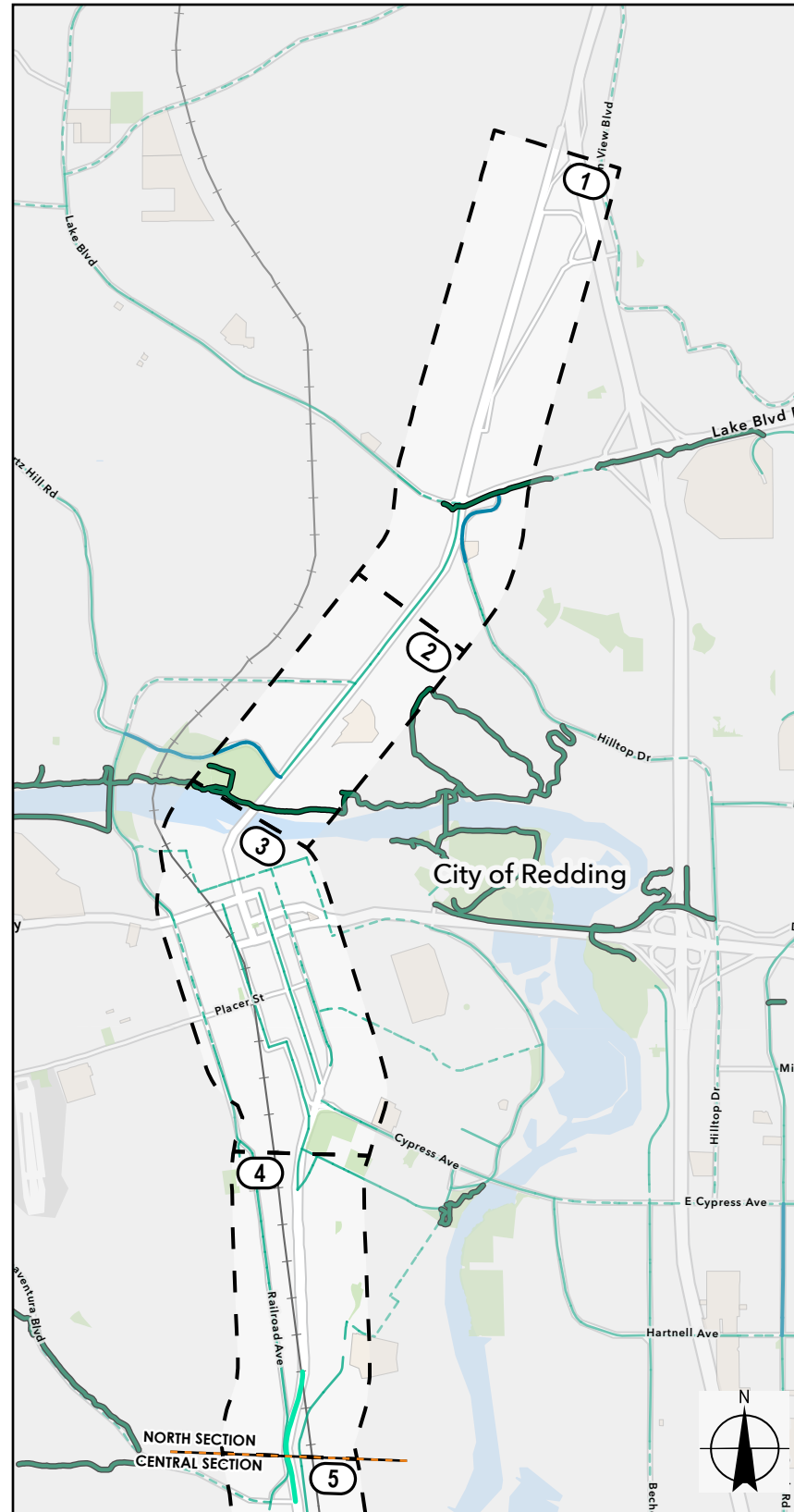
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Print date: 26 Sep 2023 - 15:26

Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA. Created by: pweil

NORTH SECTION

CENTRAL SECTION

SOUTH SECTION



Envision 273: SR 273 Multimodal Corridor Plan BICYCLE FACILITIES

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0 875 1,750 2,625 3,500
US Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
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GHD **Caltrans** **SHASTA REGIONAL TRANSPORTATION AGENCY**

Project No. 12560002
Revision No. -
Date September 2023

FIGURE 14

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Print date: 26 Sep 2023 - 15:21

Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Created by: ppell

Transit Service

Passenger Rail

Passenger rail service is provided by Amtrak's Coast Starlight route at Redding Amtrak station in Downtown Redding on Yuba Street. The Coast Starlight connects Los Angeles, California to Seattle, Washington via Redding and other nearby intermediate stops in the communities of Dunsmuir and Chico.

The Coast Starlight has infrequent service through Redding and arrives and departs in the middle of the night, with both northbound and southbound departure times between approximately 2:30 and 3:00 AM.

Image Source: www.srta.ca.gov



Public Transit

Transit service is provided by the Redding Area Bus Authority (RABA), which is administered by the City of Redding. RABA transports approximately 300,000 passenger trips a year on a fleet of 40 buses and vans. Transit service within the study area includes local and regional bus services, which are described below.



Image Source: www.cityofredding.org

Bus

RABA provides fixed route bus service in Redding, Shasta Lake, Anderson, and surrounding unincorporated areas of Shasta County, Monday - Saturday. Bus routes servicing the corridor neighborhoods include Routes 1, 2W Clockwise, 2W Counter Clockwise, 2E, 3, 4, 5, 6N, 6S, 7, 9N, 9S, 11, 12, 14, 17, Anderson Commuter, Crosstown Express, School Express Morning, and School Express Afternoon.

Paratransit

RABA provides demand response service (ADA paratransit service) for persons with disabilities who are functionally unable to use fixed route bus service, Monday – Saturday.

Beach Bus

RABA provides bus service to Whiskeytown National Recreation Area generally between Memorial Day and Labor Day, excluding holidays.

Burney Express

Burney Express is a commuter bus service that provides three trips in each direction during the weekdays between Redding and Burney.

Sunday Transit

RABA Runabout provides door-to-door transportation on Sundays when RABA buses and Demand Response doesn't run in the Cities of Redding, Anderson, and Shasta Lake, and surrounding unincorporated areas of Shasta County.

Transit Amenities

Transit amenities include benches and shelters at bus stops. In addition, the quality of the transit stop is based on the accessibility and safety at the stop itself as well as the connectivity to the stop. Most of the transit stops along the SR 273 corridor do not have adequate amenities, and most of the stops located in the County do not have any connecting sidewalk infrastructure. The following photos show the variety of transit stop conditions along the corridor. All photos are sourced from Google (2023).

Transit Stops with No Amenities or Connecting Sidewalk Infrastructure



Southbound SR 273 within Segment 8 (left), and Northbound SR 273 within Segment 10 (right)

Transit Stops with Sidewalk Connectivity / No Amenities



Southbound SR 273 within Segment 7 (left), and Westside Road (Frontage Road to SR 273) within Segment 5 (right)

Transit Stops with Bench



Southbound SR 273 within Segment 4

Transit Stops with Bench and Shelter



Southbound SR 273 within Segment 6 (left), and Northbound SR 273 within Segment 7 (right)

Freight

The Northern California Region (e.g., Shasta County, Caltrans District 2) supports national, state, and regional economies and the quality of life of the people living there. The dense forests that cover Northern California are national, state, and regional assets that draw tourists to the region, provide the timber needed for construction, and add dollars to the economies. Freight trucks make up 7% of the roadway mode split on the corridor. The UPRR freight rail line also moves goods and runs parallel to the entire length of the study corridor. SR 273 is listed as “Other National Highway System Route,” while SR 299

and SR 44 are listed as Non-Interstate Strategic Highway Network (STRAHNET) Routes on the US Department of Transportation Federal Highway Administration maps.

Transportation System Management and Operations Assets, Agreements, and Partnerships

This section describes existing operational assets, partnerships, relationships, and programs that affect system management and operations and collectively referred to as Transportation System Management and Operations (TSMO).

Caltrans, in coordination with local agencies, as appropriate, has implemented and plans to implement ITS components (e.g., signal synchronization). Other existing intelligent transportation system (ITS) components include cameras and City of Redding red light enforcement.

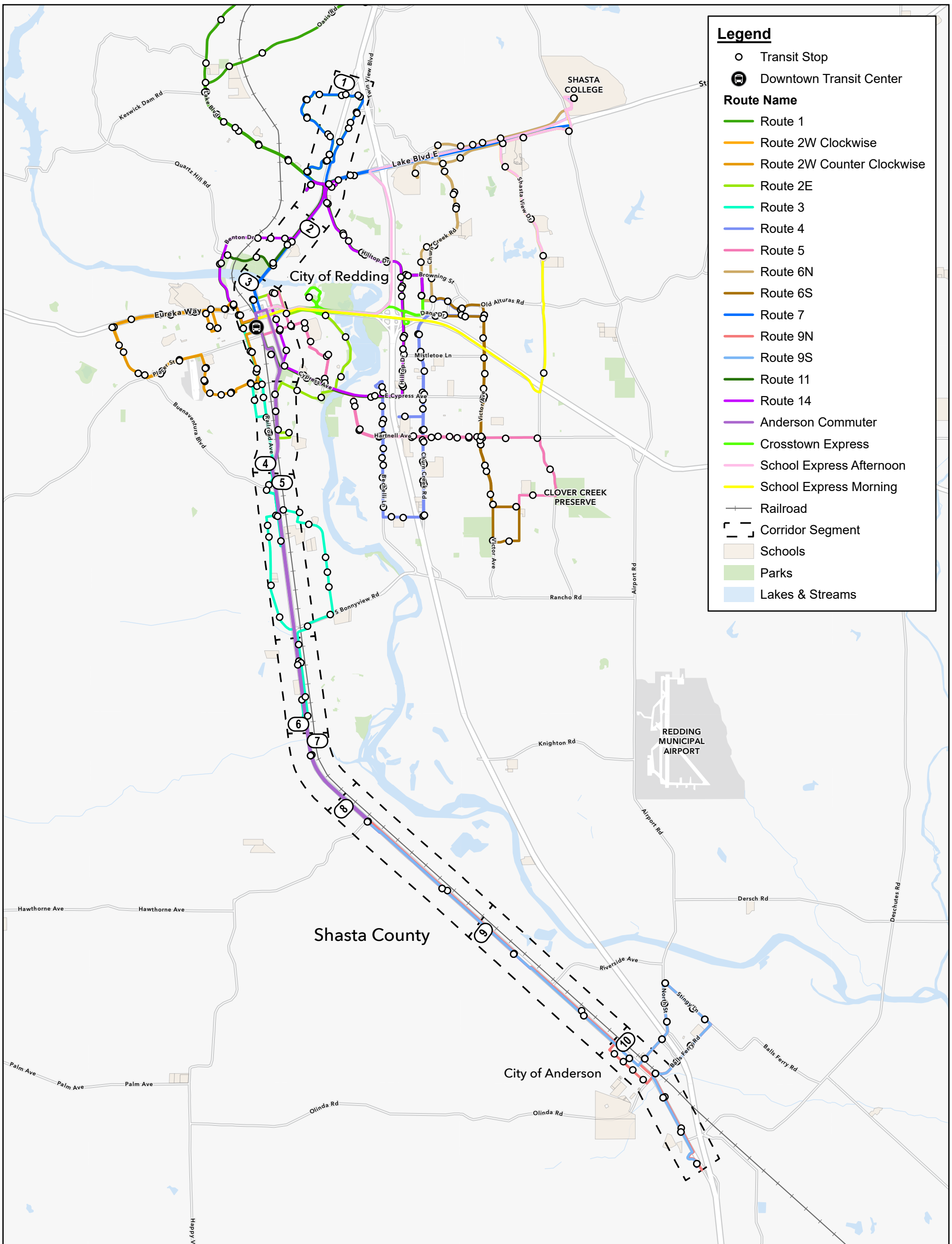
Demand Management Programs and Partnerships

This section describes major programs and partnerships within the corridor that serve to reduce travel demand by promoting a range of trip reduction strategies that reduce trips or shift trips to different times, locations, routes, or modes. Such programs may be regional in nature or tied to major employers but can have an important influence on travel demand within a corridor.

In April 2024, RABA, in partnership with Enterprise Mobility, launched RABA Vanpool, a vanpool program available to people who live inside or outside of Shasta County and wish to access jobs in the area. The vanpool program matches interested riders with similar work shifts in similar areas who are interested in riding together. RABA provides a van to eligible commuters on a month-to-month lease, and commuters decide their routes, pick-up times, and drop-off locations.

Environmental Scan

[In Progress]



Legend

- Transit Stop
- 🚏 Downtown Transit Center

Route Name

- Route 1
- Route 2W Clockwise
- Route 2W Counter Clockwise
- Route 2E
- Route 3
- Route 4
- Route 5
- Route 6N
- Route 6S
- Route 7
- Route 9N
- Route 9S
- Route 11
- Route 14
- Anderson Commuter
- Crosstown Express
- School Express Afternoon
- School Express Morning

- Railroad
- - - Corridor Segment
- 🏫 Schools
- 🌳 Parks
- 🌊 Lakes & Streams



Envision 273: SR 273 Multimodal Corridor Plan

TRANSIT ROUTES AND STOPS



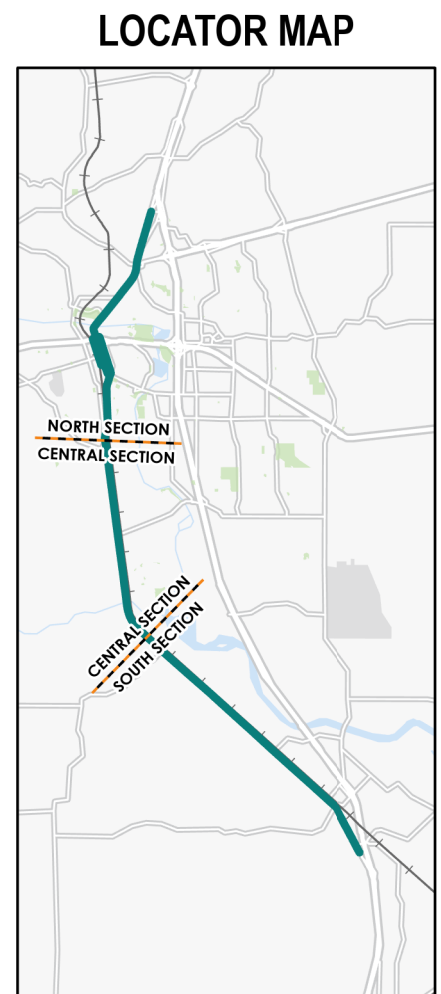
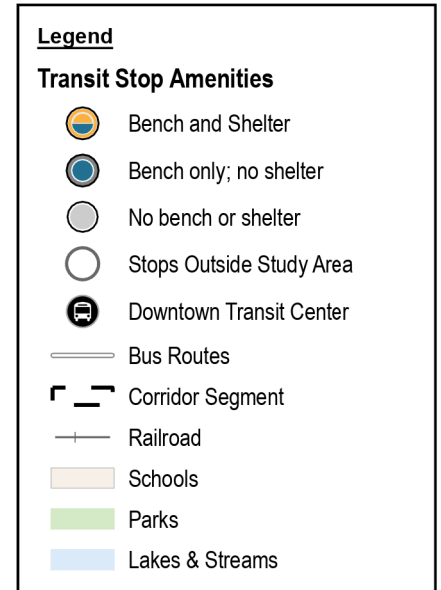
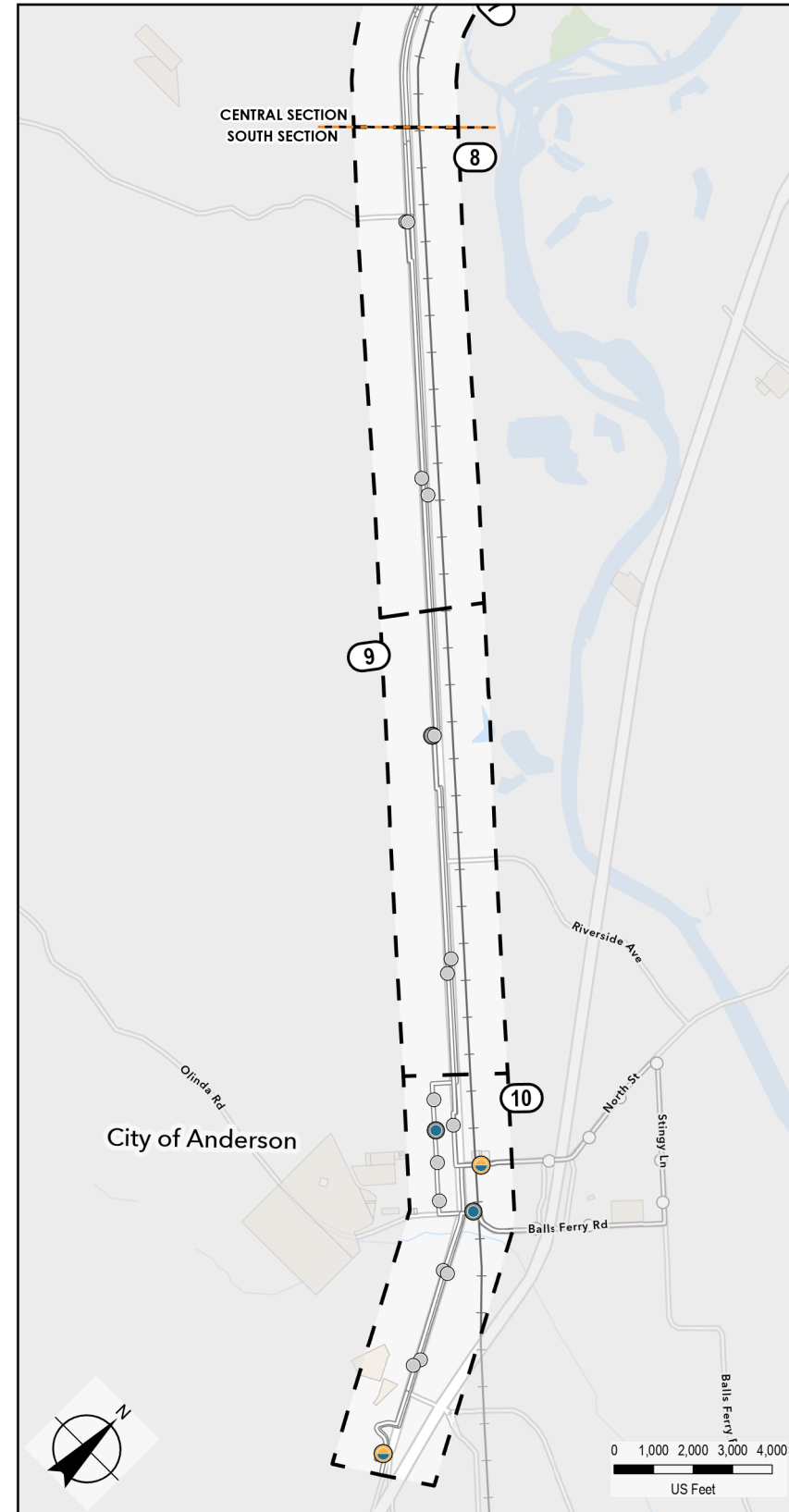
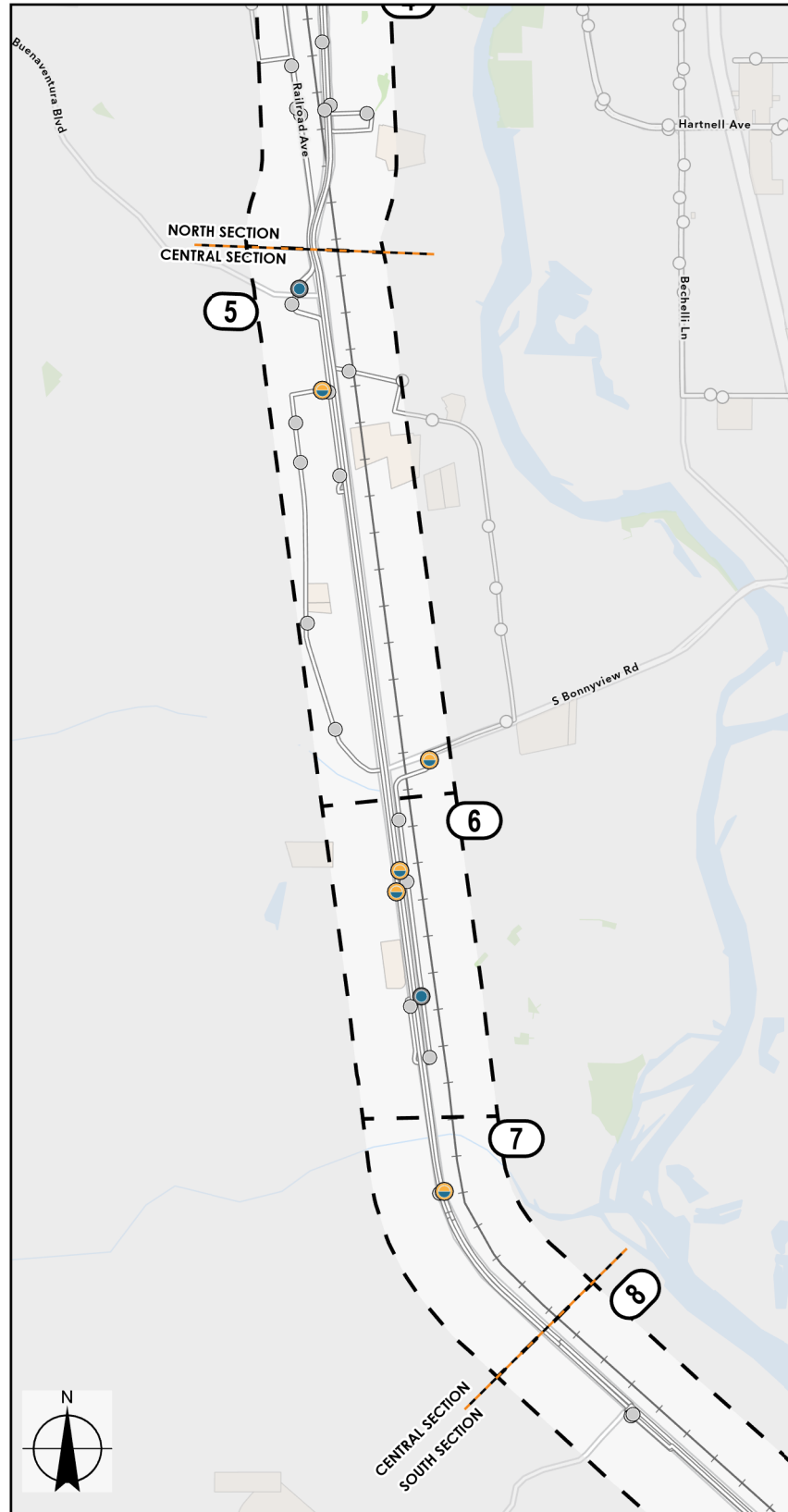
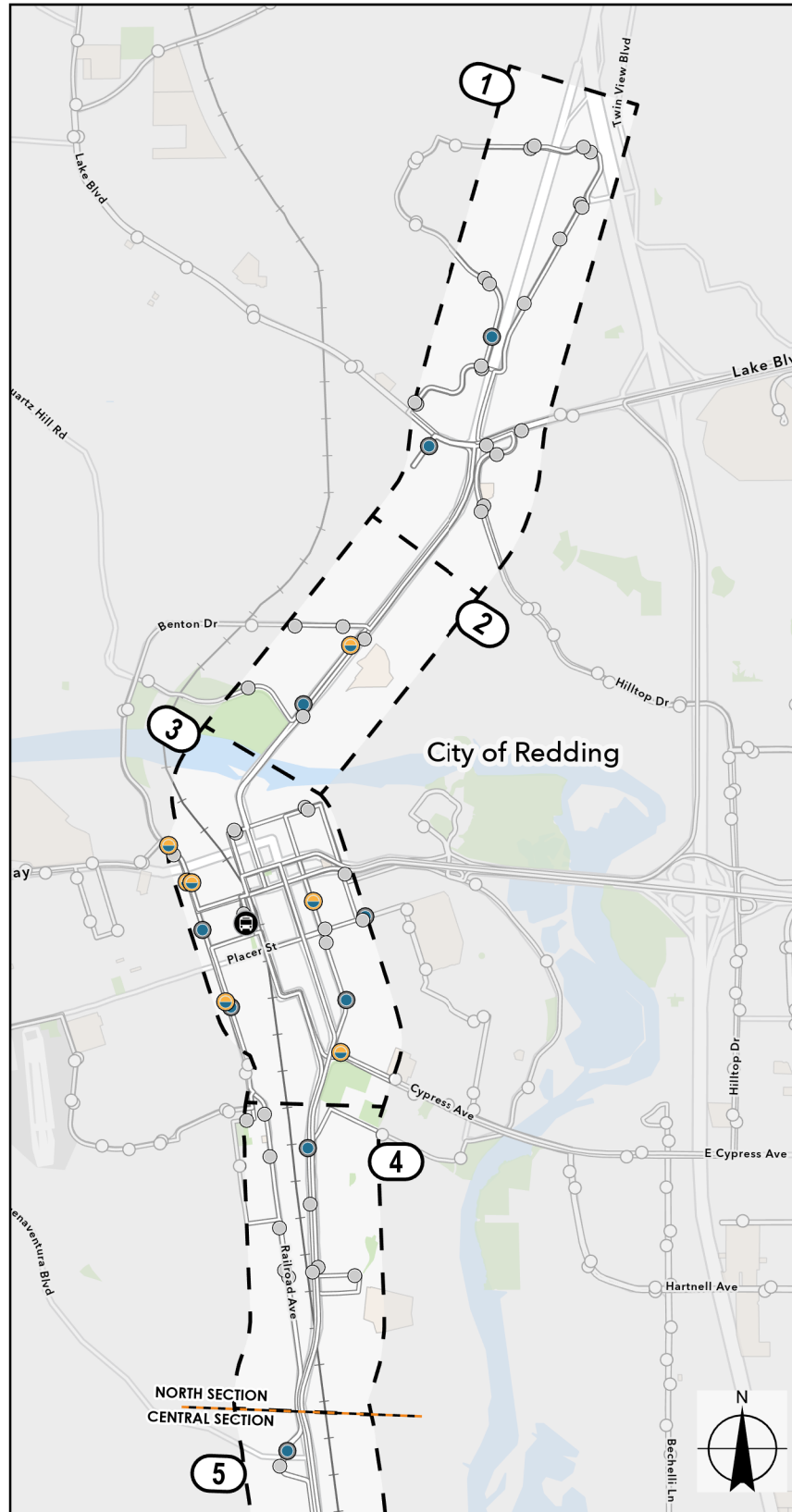
Project No. 12560002
 Revision No. -
 Date September 2023

FIGURE 15

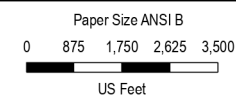
NORTH SECTION

CENTRAL SECTION

SOUTH SECTION



Envision 273: SR 273 Multimodal Corridor Plan TRANSIT STOP AMENITIES



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Print date: 29 Sep 2023 - 13:36



Project No. 12560002
Revision No. -
Date September 2023

FIGURE 16

Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USARABA Routes & Stops, City of Redding, SchoolParcels, Shasta County, Created by: ppef

Table 7 *Multimodal Infrastructure Summary*

| | Segment 1 | Segment 2 | Segment 3 | Segment 4 | Segment 5 | Segment 6 | Segment 7 | Segment 8 | Segment 9 | Segment 10 |
|--|---|--|---|--|---|---|-------------------------------|-------------------------------|--|---------------------------------|
| | I-5 Ramps to south of Lake Blvd | South of Lake Blvd to Sacramento River | Sacramento River to south of Cypress Ave | South of Cypress Ave to north of Buenaventura Blvd | North of Buenaventura Blvd to south of S Bonnyview Rd | South of S Bonnyview Rd to south of Girvan Rd | South of Girvan Rd to Metz Rd | Metz Rd to south of Latona Rd | South of Latona Rd to north of Briggs St | North of Briggs St to I-5 Ramps |
| Sidewalk width directly adjacent to SR 273 | 5 | 5 to 12 | 5 to 12 | 6 | None | None | None | None | None | None |
| Sidewalk Connectivity | Minimal | Good | High | Good | None | None | None | None | Fair | Minimal |
| Bike Facilities (Type) | Class II, south of Lake Boulevard | Class II | Class II | Class II | Class I and Class II | Class I and Class III | Class I and Class III | Class III | Class III | Class I and Class III |
| Transit Stops | Not directly on SR 273; located on adjacent streets | Yes, and on adjacent streets | Not directly on SR 273; located on adjacent streets | Yes, and on adjacent streets | Not directly on SR 273; located on adjacent streets | Yes, and on adjacent streets | Yes | Yes, and on adjacent streets | Yes, and on adjacent streets | Yes, and on adjacent streets |
| Transit Stop Conditions | Poor | Fair | Fair | Fair | Poor | Fair | Fair | Poor | Poor | Fair |
| Presence of amenities (shelter or bench) at transit stop? | Typically no bench/shelter | Typically no bench/shelter | Typically no bench/shelter | Some with bench | Typically no bench/shelter | Some with bench/shelter | Some with bench/shelter | No bench/shelter | Some with bench | Some with bench/shelter |

Corridor Safety

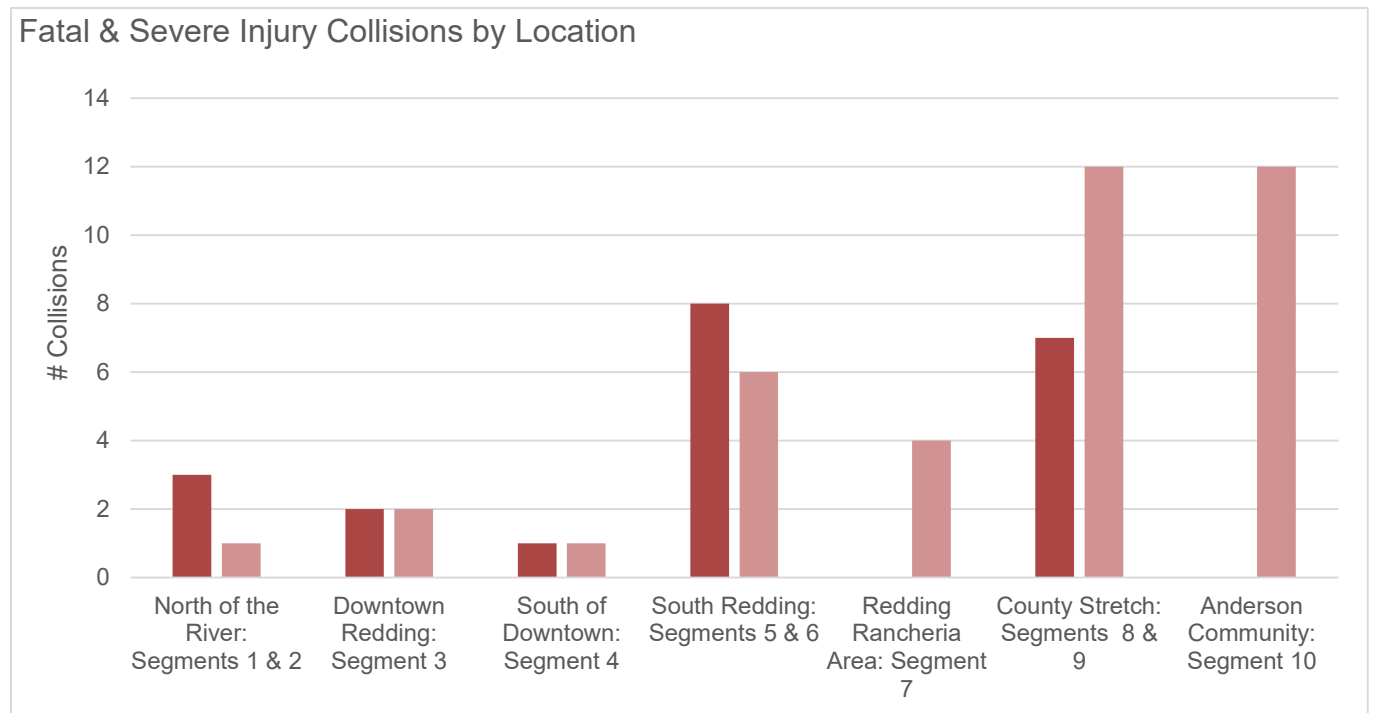
Collision analysis for the Plan was conducted based on historical collision data within the project limits for the most recent and complete 5 years (January 1, 2018 to December 31, 2022). This data was collected from the California Highway Patrol’s Statewide Integrated Traffic Records System (SWITRS). During this period, a total of 512 collisions were reported within the project study area. The limits for collision analysis on this project include SR 273 from its northernly terminus at I-5 in the City of Redding to its southernly terminus at I-5 in the City of Anderson. All collisions were classified by location, severity, collision type, primary collision factor violation category, and pedestrian and bicycle collisions. The comprehensive collision summary is provided below.

Overview

Over the five-year period, approximately 44 percent of all collisions did not result in any injury (collisions identified as property damage only). Of the injury collisions, there were 21 fatalities (4 percent of all collisions) and 38 severe injuries (8 percent of all collisions). Table 8 summarizes the five-year collision history for the corridor between 2018 and 2022. Figure 17 presents a heat map of total collisions and the locations of fatal or severe injury collisions for the study area.

Fatal & Severe Injury Collisions

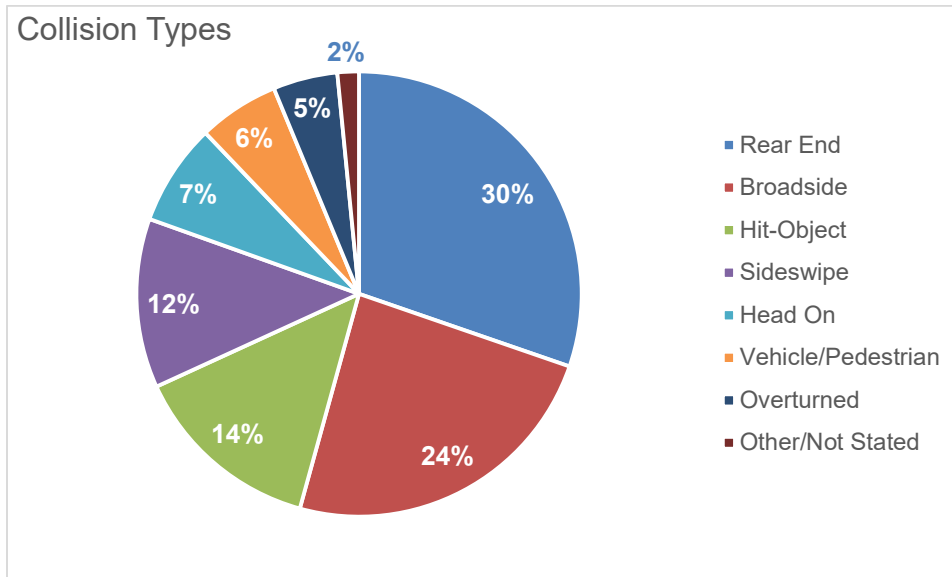
The highest number of fatal collisions occurred between Downtown Redding and the City of Anderson, where the speed limits are higher, and the total roadway cross-section is wider, than other locations along the corridor. Severe injury collisions are concentrated in the southern portions of the corridor study area.



Note: Pink = Severe Injury Collisions; Red = Fatal Collisions.

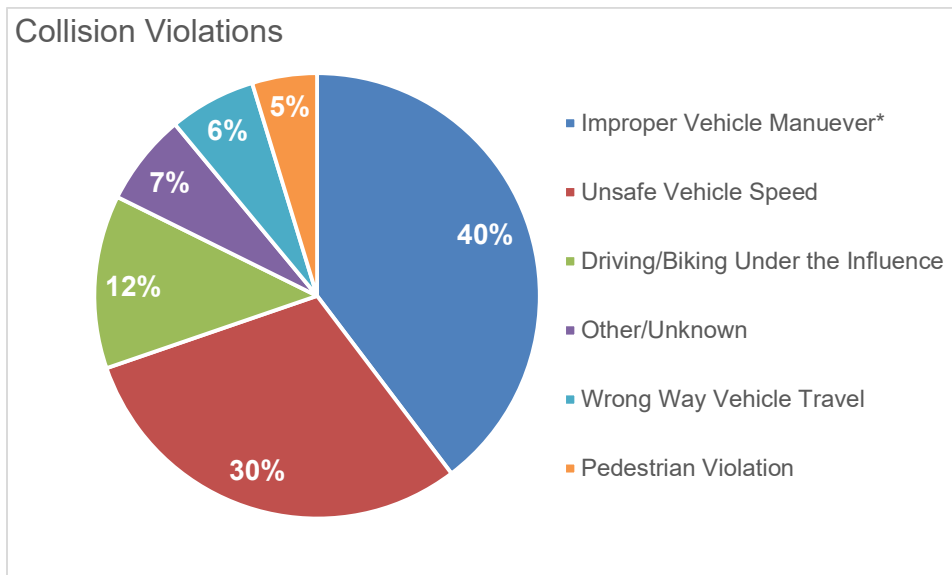
Collision Types

Rear ends and broadside collisions were the most common collision types, representing over half of the collisions reported.



Collision Violations

The top violation categories of the reported collisions were unsafe speed and improper vehicle maneuvers (*including improper turning, passing, and starting/backing, among others).



Ongoing Trends – 2023 Fatalities

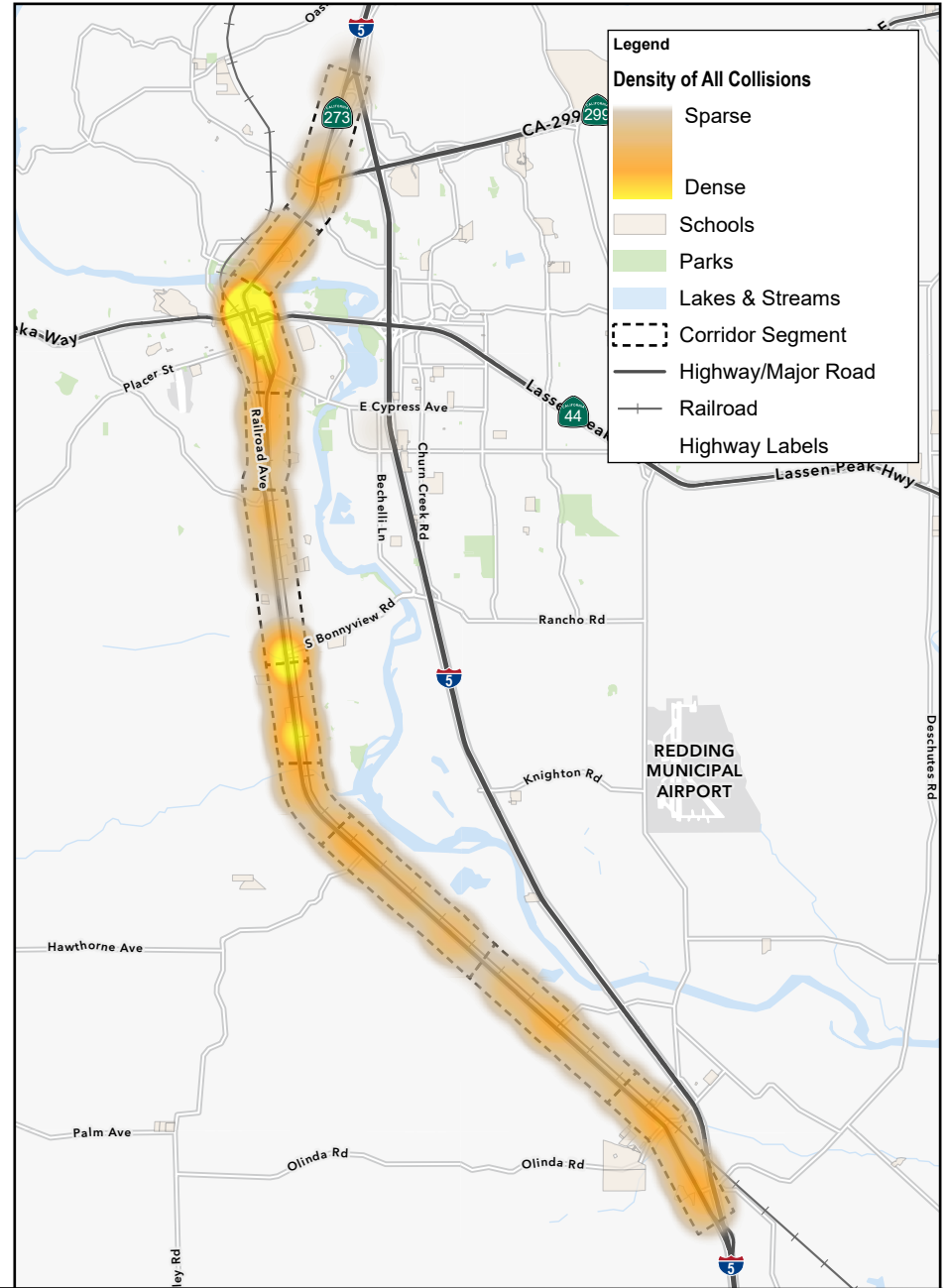
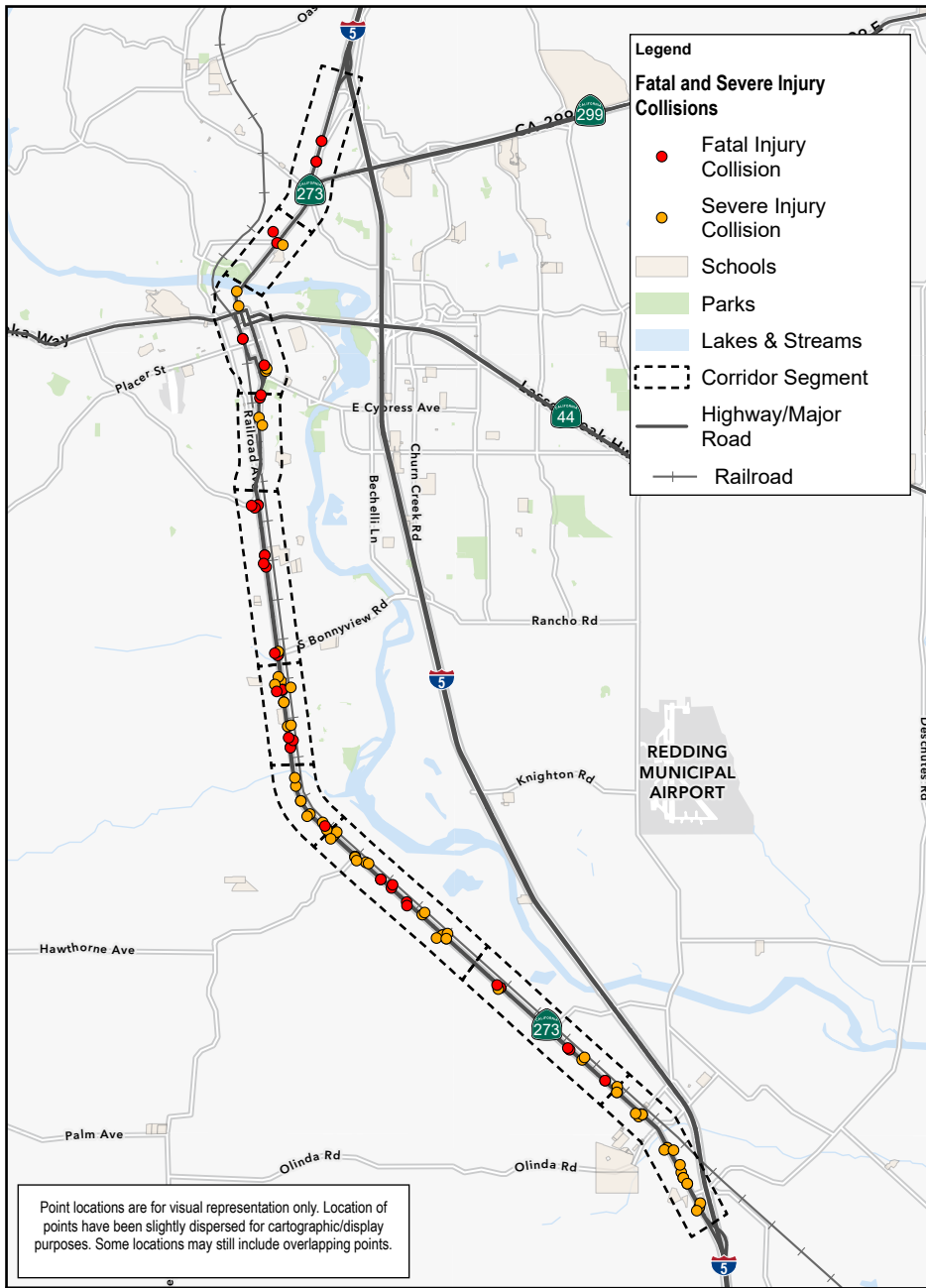
The decrease in total collisions in 2022 shown in the collision data summary table could be attributed to a variety of factors. However, this data does not suggest that safety is not a primary concern along the corridor, as severe and fatal collisions continue to occur along the corridor. Just within the month of September 2023, two pedestrian fatalities occurred on SR 273.

One of these fatal collisions occurred on a Thursday around 8:20 PM, when a driver traveling southbound on SR 273 hit a pedestrian just north of the intersection with Redding Rancheria Road. There is no crosswalk at the southbound approach to this intersection. The second fatal collision occurred just the following morning (Friday) around 6:16 AM, when a driver traveling northbound on SR 273 hit a pedestrian just south of the intersection with Girvan Road. There is a crosswalk at the northbound approach to this intersection.

Table 8 5-Year Collision Summary by Segment

| ID | Segment Extent (Approximate) | By Severity | | | | | By Type | | | | | | | Violation | | | | | | By Year | | | | | |
|----|---|-------------|---------------|------------------------|----------------------------|----------------------|---------|-----------|----------|-----------|------------|--------------------|-------|--------------|----------------------|-----------|------------|-------------------------|---------|---------|------|------|------|------|------|
| | | Fatal | Severe Injury | Injury (Other Visible) | Injury (Complaint of Pain) | Property Damage Only | Head-On | Sideswipe | Rear End | Broadside | Hit Object | Vehicle/Pedestrian | Other | Unsafe Speed | Vehicle Driver Error | Wrong Way | Pedestrian | Traffic Signal and Sign | DUI/BUI | Other | 2018 | 2019 | 2020 | 2021 | 2022 |
| 1 | I-5 Ramps to south of Lake Blvd | 2 | | 7 | 10 | 10 | 3 | 1 | 9 | 12 | 3 | | | 10 | 7 | 2 | 1 | 6 | 2 | 1 | 10 | 5 | 2 | 9 | 3 |
| 2 | South of Lake Blvd to Sacramento River | 1 | 1 | 7 | 12 | 12 | 1 | 4 | 13 | 2 | 9 | 1 | 1 | 15 | 6 | 6 | 1 | 2 | 2 | 1 | 5 | 8 | 8 | 10 | 2 |
| 3 | Sacramento River to south of Cypress Ave | 2 | 2 | 26 | 22 | 48 | 10 | 16 | 24 | 26 | 12 | 4 | | 29 | 28 | 8 | 6 | 14 | 9 | 6 | 18 | 20 | 22 | 30 | 10 |
| 4 | South of Cypress Ave to north of Buenaventura Blvd | 1 | 1 | 6 | 10 | 12 | 2 | 4 | 6 | 10 | 4 | 1 | | 5 | 7 | 3 | 2 | 6 | 5 | 2 | 5 | 7 | 5 | 8 | 5 |
| 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 5 | 1 | 18 | 10 | 25 | 4 | 11 | 20 | 10 | 7 | 2 | 1 | 20 | 9 | 4 | 3 | 7 | 11 | 5 | 11 | 13 | 18 | 10 | 7 |
| 6 | South of S Bonnyview Rd to south of Girvan Rd | 3 | 5 | 13 | 11 | 23 | 4 | 4 | 32 | 9 | 2 | 2 | | 28 | 9 | 2 | 2 | 8 | 5 | 1 | 11 | 15 | 12 | 12 | 5 |
| 7 | South of Girvan Rd to Metz Rd | | 4 | 6 | 6 | 8 | 2 | 2 | 7 | 5 | 2 | 3 | | 4 | 7 | | 3 | | 4 | 6 | 3 | 4 | 4 | 11 | 2 |
| 8 | Metz Rd to south of Latona Rd | 4 | 10 | 11 | 10 | 26 | 2 | 7 | 9 | 20 | 9 | 8 | 2 | 13 | 27 | 2 | 3 | 2 | 9 | 5 | 5 | 15 | 15 | 12 | 14 |
| 9 | South of Latona Rd to north of Briggs St | 3 | 2 | 7 | 12 | 23 | 3 | 6 | 14 | 6 | 12 | 3 | 1 | 13 | 20 | | 1 | 4 | 5 | 4 | 6 | 10 | 8 | 15 | 8 |
| 10 | North of Briggs St to I-5 Ramps | | 12 | 12 | 11 | 36 | 7 | 6 | 21 | 23 | 10 | | 2 | 16 | 22 | 5 | 2 | 9 | 11 | 6 | 9 | 8 | 18 | 19 | 17 |

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Envision 273: SR 273 Multimodal Corridor Plan

STUDY AREA COLLISION OVERVIEW (ALL CRASHES, 2018 TO 2022)

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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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Date September 2023

FIGURE 17

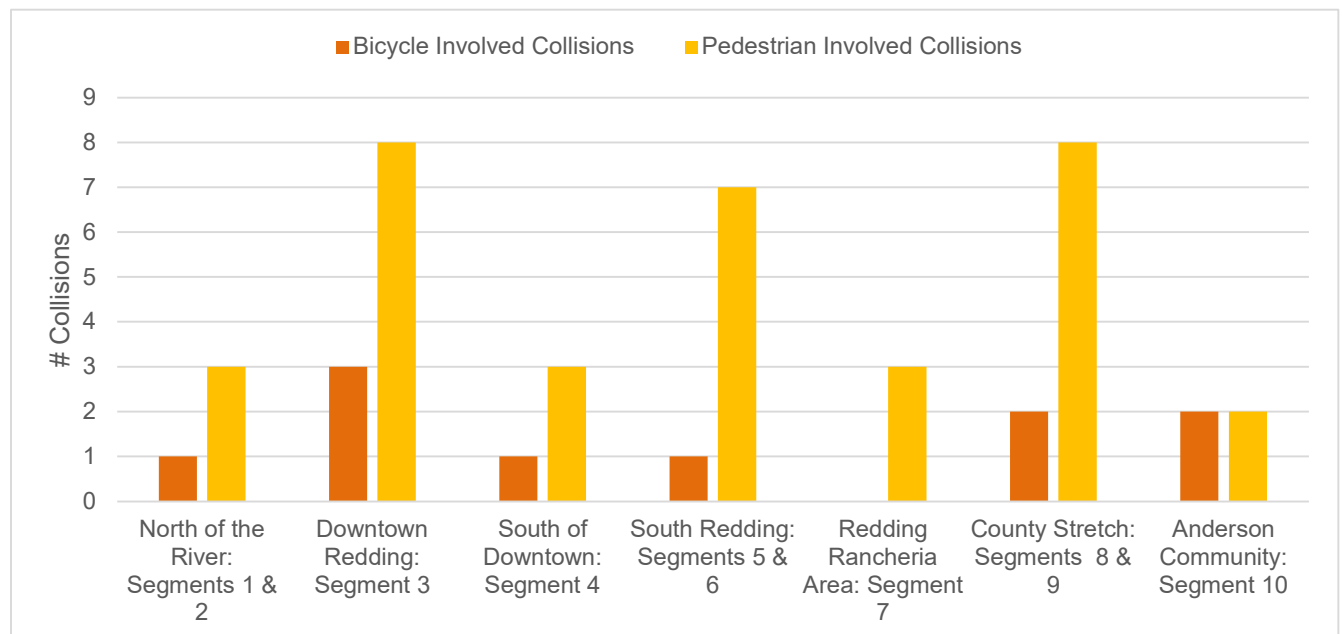
Bicycle & Pedestrian Collisions

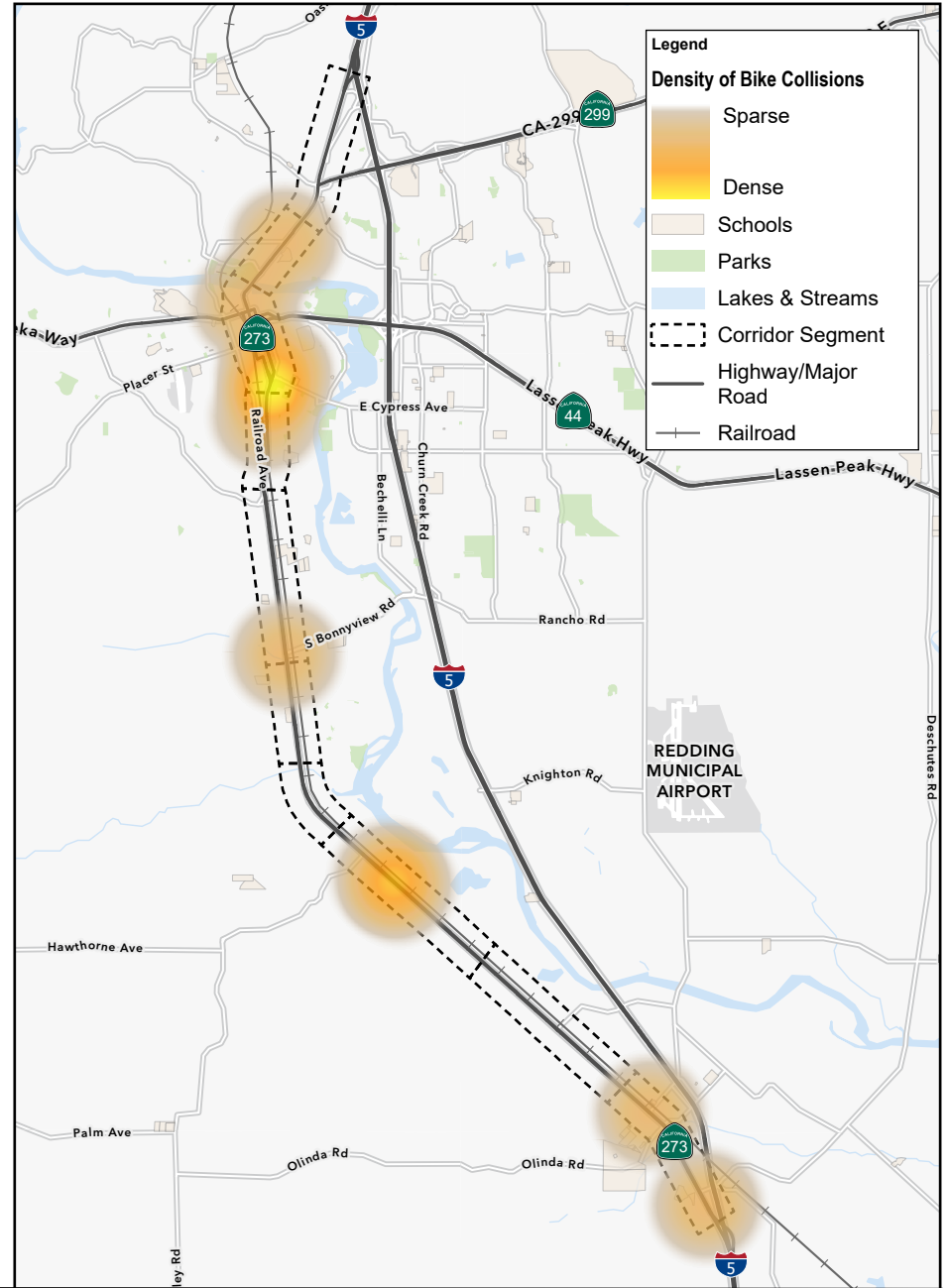
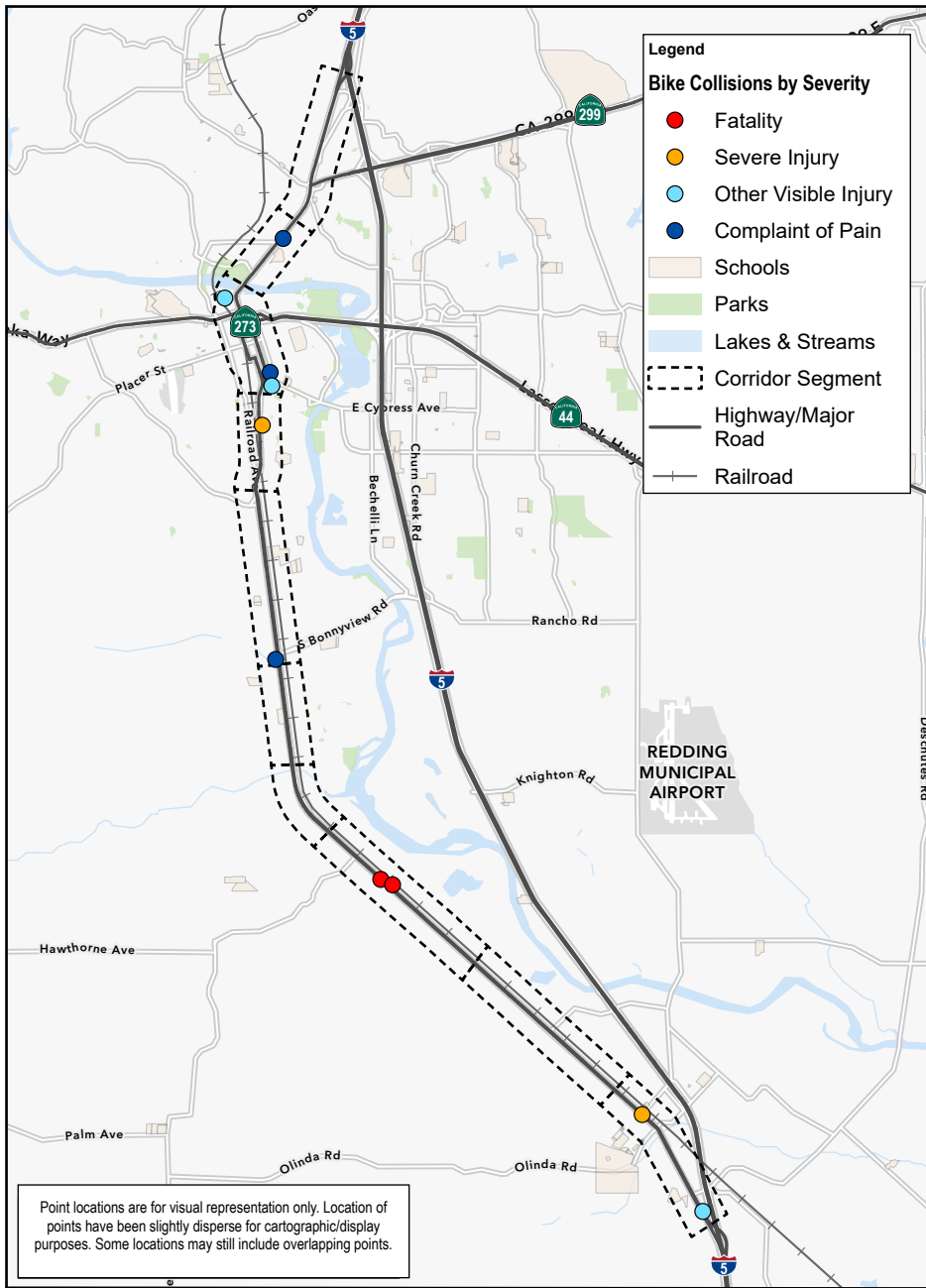
Within the five-year analysis period, there were 10 collisions that involved a bicyclist and 34 collisions that involved a pedestrian. Of those, two resulted in bicyclist fatalities and 12 resulted in pedestrian fatalities. Both bicycle and pedestrian collision hotspots are in Downtown Redding. Table 9 presents a summary of bicycle and pedestrian collisions per segment. Figure 18 and Figure 19 present the collision locations and hot spots of bicycle and pedestrian collisions, respectively.

As shown, bicycle crashes are concentrated in the southern portion of Downtown Redding near Cypress Avenue, while pedestrian crashes are concentrated in the central and northern portions of Downtown Redding. However, the two bicyclist fatalities were located within Segment 8, both occurring at or near Thomas Road, and the highest number of pedestrian fatalities (four) occurred within Segment 5. *Note: Additional bicycle or pedestrian fatalities occurring after 2022 are not included in this analysis. However, as described above in “Ongoing Trends – 2023 Events”, these types of collisions continue to occur.*

Table 9 Bicycle & Pedestrian Collisions by Segment

| ID | Segment Extent (Approximate) | Bicycle Involved | Bicyclists Fatalities | Pedestrian Involved | Pedestrian Fatalities |
|----|---|------------------|-----------------------|---------------------|-----------------------|
| 1 | I-5 Ramps to south of Lake Blvd | | | 1 | 1 |
| 2 | South of Lake Blvd to Sacramento River | 1 | | 2 | |
| 3 | Sacramento River to south of Cypress Ave | 3 | | 8 | 1 |
| 4 | South of Cypress Ave to north of Buenaventura Blvd | 1 | | 3 | 1 |
| 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 1 | | 5 | 4 |
| 6 | South of S Bonnyview Rd to south of Girvan Rd | | | 2 | 1 |
| 7 | South of Girvan Rd to Metz Rd | | | 3 | |
| 8 | Metz Rd to south of Latona Rd | 2 | 2 | 5 | 2 |
| 9 | South of Latona Rd to north of Briggs St | | | 3 | 2 |
| 10 | North of Briggs St to I-5 Ramps | 2 | | 2 | |

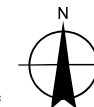
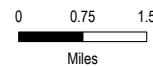




Envision 273: SR 273 Multimodal Corridor Plan

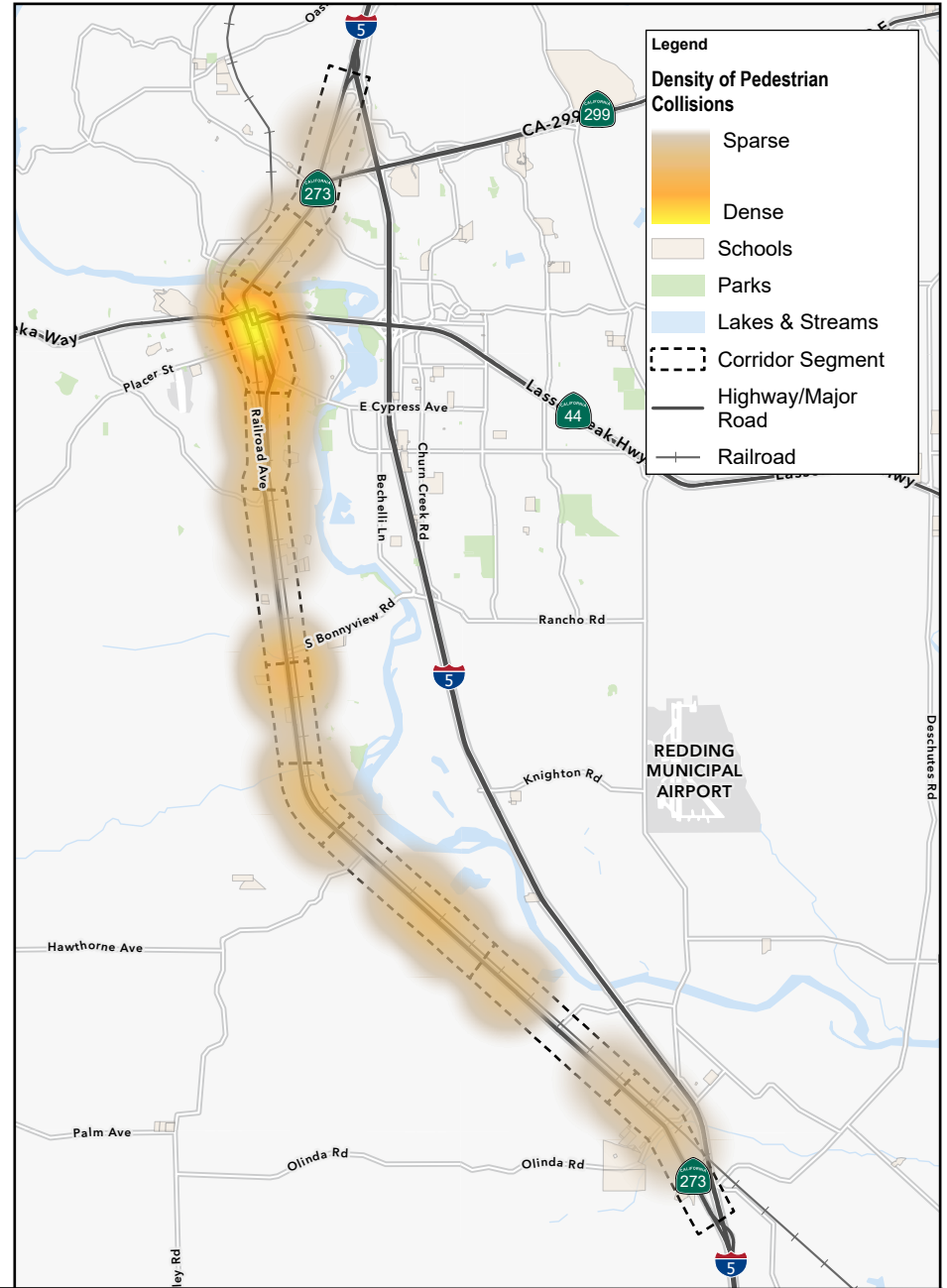
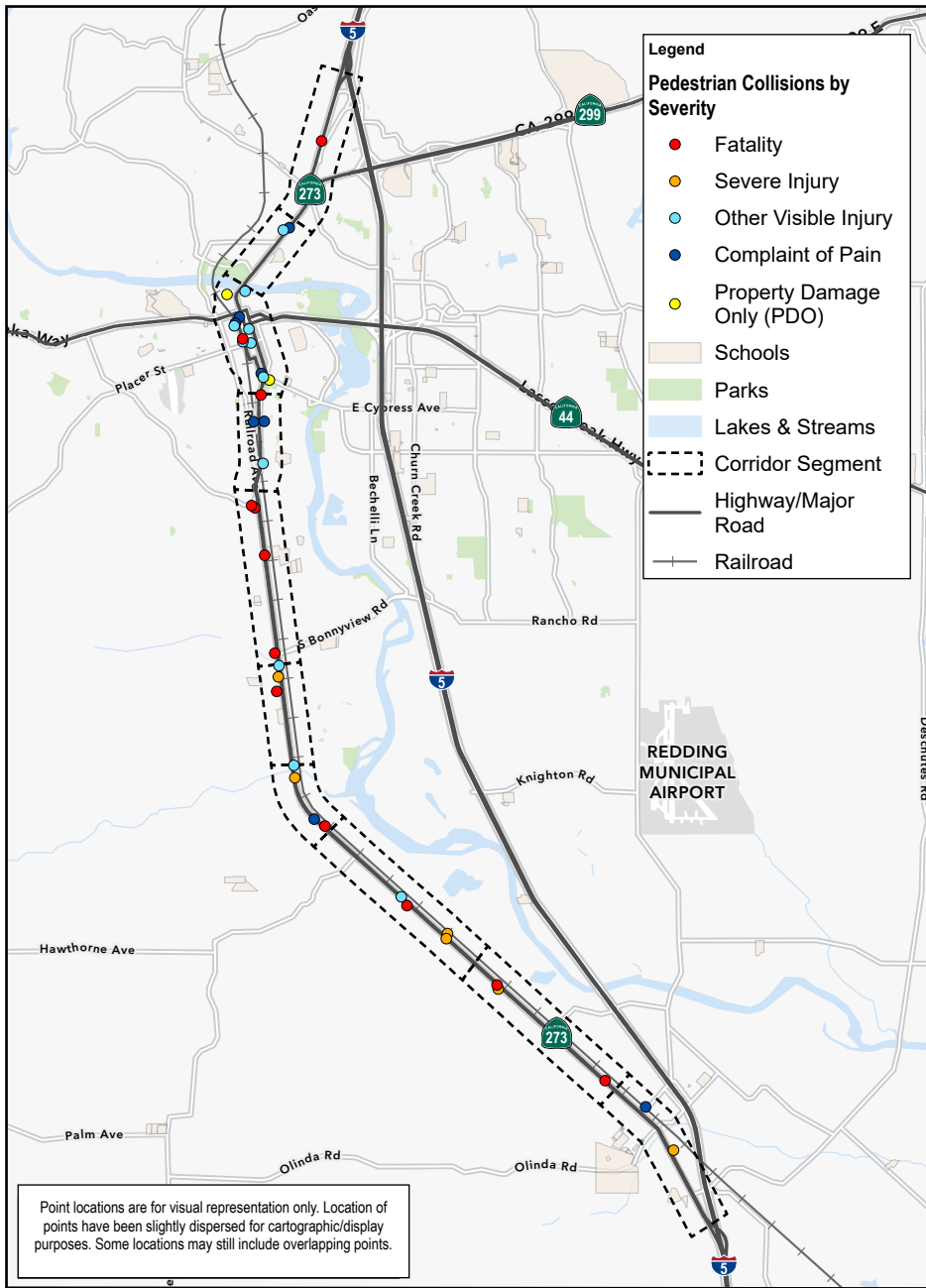
STUDY AREA COLLISION OVERVIEW (BIKE CRASHES, 2018 TO 2022)

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 Date September 2023

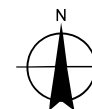
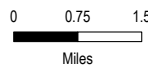
FIGURE 18



Envision 273: SR 273 Multimodal Corridor Plan

STUDY AREA COLLISION OVERVIEW (PEDESTRIAN CRASHES, 2018 TO 2022)

Paper Size ANSI A



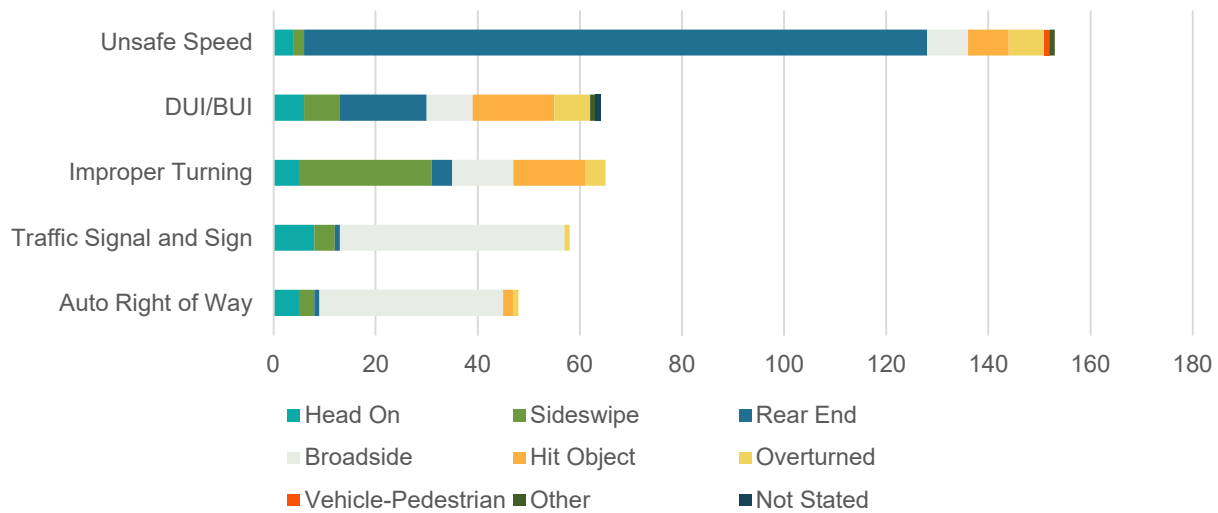
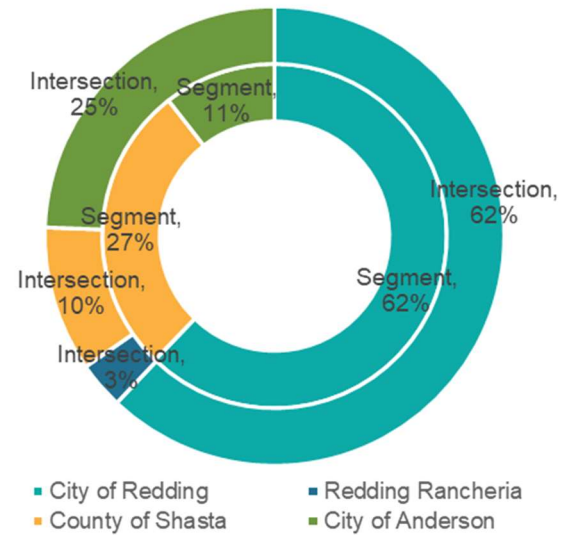
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 Date September 2023

FIGURE 19

Collisions at Intersections

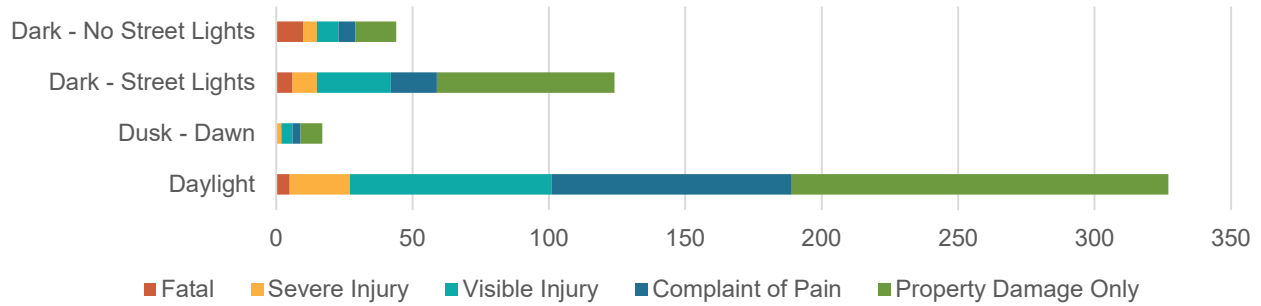
Of the 512 collisions on SR 273 between 2018 and 2022, around 65 percent were at intersections. For this analysis, an intersection collision was identified as any collision within 50 feet of an intersection or a multi-vehicle, rear-end collision within 150 feet of an intersection. The graphic to the right shows the collisions by location along the SR 273 corridor. As displayed, most of the collisions along the corridor occurred in the City of Redding.

The graphic below shows the breakdown of collision types by violation categories for collisions that occurred at an intersection along the corridor.



Non-Daylight Collisions

Within the five-year analysis period, most collisions occurred during daylight hours. However, more fatal collisions occurred during non-daylight hours (i.e., during dusk, dawn, or dark conditions). Of 21 total fatalities, six occurred during dark conditions where streetlights were recorded to be present, and 10 occurred during dark conditions where streetlights were not recorded to be present. The following graphic shows the breakdown of collision severities by lighting conditions.



The following tables summarize collision severity and location (by segment) of collisions that occurred during non-daylight conditions. As shown, most non-daylight collisions occurred within the segments south of South Bonnyview Road towards the southern portion of the City of Redding and through the County segments north of the City of Anderson.

Table 10 Collision Severity by Lighting Conditions

| | Fatal | Severe Injury | Visible Injury | Complaint of Pain | Property Damage Only |
|-------------------------|-------|---------------|----------------|-------------------|----------------------|
| Daylight | 24% | 58% | 65% | 77% | 61% |
| Dusk or Dawn | 0% | 5% | 4% | 3% | 4% |
| Dark - Street Lights | 29% | 24% | 24% | 15% | 29% |
| Dark - No Street Lights | 48% | 13% | 7% | 5% | 7% |

Table 11 Non-Daylight Collisions by Segment

| ID | Segment Extent (Approximate) | % Occurred during Non-Daylight Conditions | Total Collisions (2018-2022) |
|----|---|---|------------------------------|
| 1 | I-5 Ramps to south of Lake Blvd | 31% | 29 |
| 2 | South of Lake Blvd to Sacramento River | 21% | 33 |
| 3 | Sacramento River to south of Cypress Ave | 30% | 100 |
| 4 | South of Cypress Ave to north of Buenaventura Blvd | 33% | 30 |
| 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 34% | 59 |
| 6 | South of S Bonnyview Rd to south of Girvan Rd | 47% | 55 |
| 7 | South of Girvan Rd to Metz Rd | 46% | 24 |
| 8 | Metz Rd to south of Latona Rd | 43% | 61 |
| 9 | South of Latona Rd to north of Briggs St | 30% | 47 |
| 10 | North of Briggs St to I-5 Ramps | 44% | 71 |

Mobility Trends

This chapter highlights existing mobility trends for all travel modes within the corridor study area. Mobility trend data for vehicle, bicycle, pedestrian, and freight travel modes are based on Replica estimates for typical weekday (Thursday) conditions during Fall 2022. Replica is a “big data” platform that provides traffic volume estimates based on a variety of sources, including mobile location data. Mobility trend data for these travel modes are presented and summarized based on the overall distribution of trips, rather than actual volumes of trips, within the study area.

Mobility trend data for transit trips is based on ridership survey data for select dates during March and April 2023, provided by RABA. The ridership summary data includes an average of weekday ridership (onboard and offboard) for the routes provided.

Mode Split & Auto Ownership

Mode share is the percentage of travelers or of trips made using available forms of transportation (walking, bicycling, public transportation, private automobile, or freight truck). Mode share for the percentage of travelers is estimated based on Replica estimates for typical weekday (Thursday) conditions during Fall 2022 for each study segment.

Replica Fall 2022 weekday data was reviewed using two approaches. The first approach examines trips that occurred on SR 273 using a sample set of locations distributed along the corridor. The second approach considers trips that occur within the study segment boundaries and represents trips made to destinations outside SR 273. The later approach includes some trips that may not have occurred directly on SR 273, as the study segment boundaries extend for 0.5-mile on either side of the corridor centerline.

Both approaches are useful in understanding how individuals travel within the study area. While this Plan does not directly make recommendations for improvements beyond SR 273 right-of-way (ROW), the increase in non-auto trips within study segments compared to the highway suggests the presence of locally serving destinations within the vicinity of the corridor that may currently be inaccessible to additional travellers due to the presence of SR 273. In addition, Replica data shows a high level of non-auto trips using SR 273 frontage roads, including Westside Road and Eastside Road.

The results of the modal split assessment are summarized in the following table. As shown, automobile trips (including both single-occupancy and multiple occupant trips) far outweigh non-auto trips, with approximately 11-times more trips made by a car than by bicycle or foot. However, when evaluating trips occurring within study segment boundaries, the proportion of trips made by foot increase by four-times.

Table 12 Study Area Mode Split (Excluding Transit Trips)

| Mode | % Calculated Using | |
|---------------|-----------------------------------|--------------------------------|
| | SR 273 Network Links ¹ | Corridor Segments ² |
| Auto | 88% | 80% |
| Freight Truck | 7% | 7% |
| Bike | 2% | 3% |
| Walk | 2% | 8% |
| Other | 0% | 2% |

¹ Includes trips for a sample set of network links on SR 273, only

² Includes trips on all network links within study segments

The results of the household private vehicle availability assessment are summarized below. As shown, approximately 7 percent of trips made within the corridor study area were made by individuals without

household access to a private automobile. Of those trips with origins or destinations within study segments, the majority of trips were made by walking and biking.

Table 13 Private Auto Availability

| Private Vehicle Availability | % Calculated Using | | Average |
|------------------------------|-----------------------------------|--------------------------------|---------|
| | SR 273 Network Links ¹ | Corridor Segments ² | |
| No vehicles | 4% | 10% | 7% |
| One vehicle | 21% | 20% | 20% |
| Two vehicles | 37% | 36% | 37% |
| Three+ vehicles | 36% | 32% | 34% |
| No data | 2% | 2% | 2% |

¹ Includes trips for a sample set of network links on SR 273, only

² Includes trips on all network links within study segments

Table 14 Mode Split for Non-Auto Owners

| Mode | Share | | |
|----------------|--------|-------------|--------------|
| | Origin | Destination | Pass-Through |
| Walking | 37% | 37% | 8% |
| Biking | 30% | 31% | 51% |
| Other | 17% | 17% | - |
| Auto passenger | 14% | 13% | 34% |
| Taxi/TNC | 2% | 2% | 7% |

Trip Purposes

Trip purposes were calculated for all trips made to destinations within the study segments. These values include both trips made to destinations directly on SR 273 as well as on parallel streets within the segment boundaries (i.e., not directly located on SR 273), as the study segments include a 1/2 -mile buffer on either side of the corridor. Trip purposes, as defined by Replica, include:

- Home includes all trips to a person's own home.
- Work includes all trips that ended at a person's workplace (for example, return trips from lunch), not just commute trips.
- Lifestyle trips include the following categories:
 - Eat includes all trips to restaurants.
 - Social includes all trips to visit someone else's home.
 - Shop includes all trips to gas stations, grocery stores, post offices, pharmacies and drug stops, retail shops, among others.
- Commercial includes all trips by medium and heavy trucks for deliveries and other commercial purposes.
- Recreation includes trips to recreational destinations.
- Other trips include trips made to schools, for errands, lodging, among others.

As shown in the following table, most trip purposes for trip destinations within the study segments are for lifestyle purposes (to shop, eat, or run errands), which reflects the presence of retail located along the

corridor. Work trips are the second highest across most segments, with most work destinations occurring in Segment 3 (Downtown Redding), Segment 7 (near Redding Rancheria), and Segment 9 (north of Downtown Anderson). Home trips are also relatively high, accounting for portions of the segments that include residential locations.

Table 15 Trips by Purpose to Destinations within Study Segments

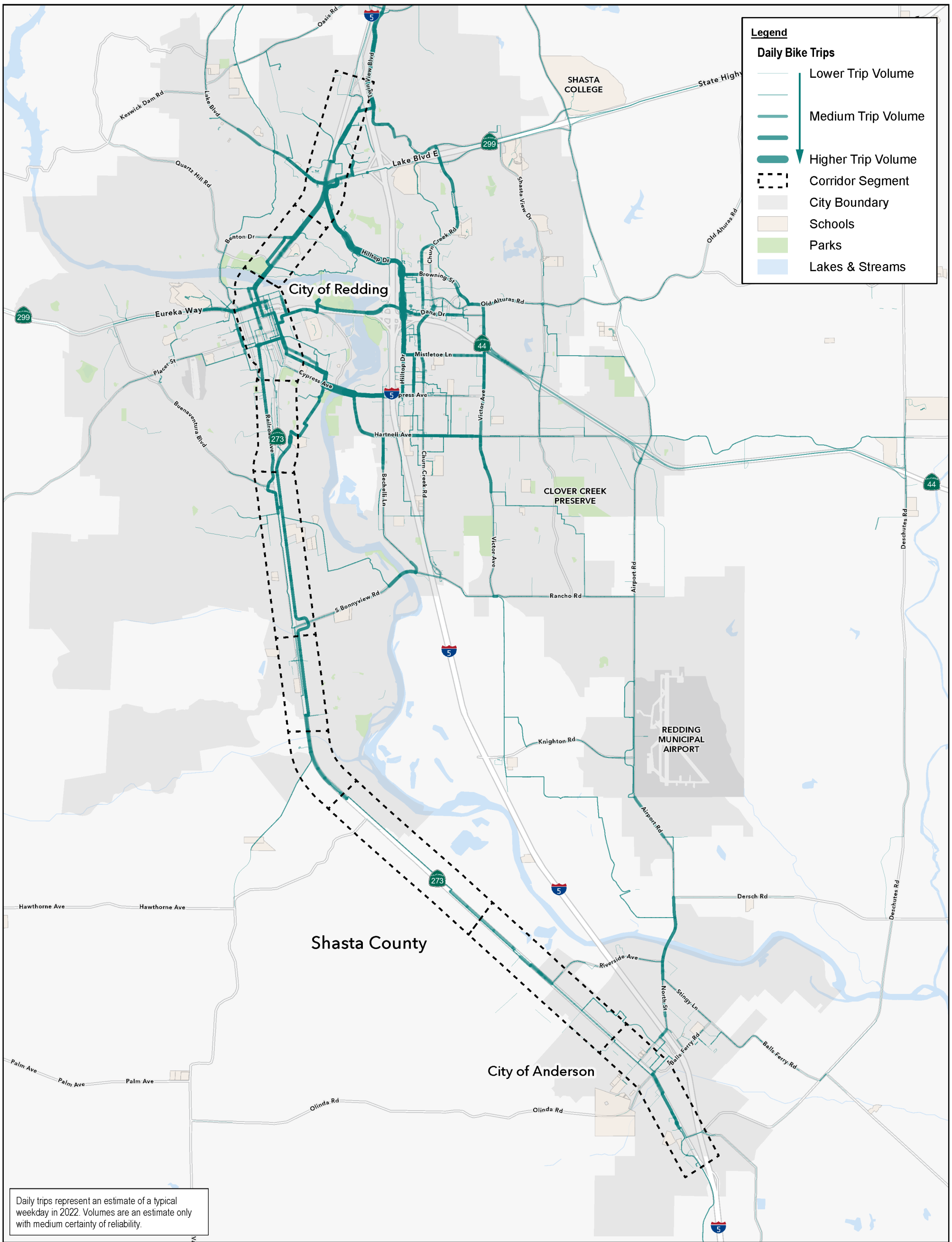
| Segment Destination | Home | Work | Lifestyle* | Commercial | Recreation | Other |
|---------------------|-------|-------|------------|------------|------------|-------|
| 1 | 11.7% | 9.4% | 16.9% | 20.5% | 8.8% | 11.6% |
| 2 | 6.4% | 1.8% | 3.0% | 3.0% | 3.9% | 17.0% |
| 3 | 20.7% | 46.5% | 31.8% | 17.5% | 37.8% | 14.6% |
| 4 | 15.6% | 9.7% | 8.0% | 7.7% | 7.0% | 9.1% |
| 5 | 8.2% | 5.8% | 7.9% | 9.7% | 4.3% | 14.8% |
| 6 | 8.7% | 4.2% | 5.2% | 7.6% | 4.5% | 9.1% |
| 7 | 0.6% | 2.0% | 1.1% | 1.2% | 13.9% | -3.6% |
| 8 | 3.0% | 2.1% | 1.0% | 4.9% | 1.1% | 4.8% |
| 9 | 5.7% | 5.5% | 1.5% | 15.8% | 2.0% | 5.1% |
| 10 | 19.4% | 13.0% | 23.6% | 12.1% | 16.7% | 17.6% |

*Lifestyle includes trips made for shopping, eating, or errand purposes.

Summary

Mobility trends are summarized below and illustrated in the following figures. Trip distributions are based on estimates and are intended to provide an illustration of the distribution of trips by mode, rather than specific information related to trip volumes.

- **Vehicle Mobility Trends:** Vehicle trips are dispersed throughout the study area based on the location and density of residential, retail, and work destinations. Volumes are the highest near Downtown Redding, which provides connections to I- 5 via SR 44.
- **Bicycle Mobility Trends:** Bicycle trips are concentrated in Downtown Redding where there is a higher presence of bicycle infrastructure and connections to the trail network and recreational paths. However, bicycle trips occur within each segment along the corridor, regardless of the existence of bicycle infrastructure.
- **Pedestrian Mobility Trends:** Pedestrian trips are concentrated near Downtown Redding and Anderson. South of Downtown Redding and in the County, minimal amounts of trips are made by walking. However, there is a slight increase in trip proportions within Segment 6 between South Bonnyview Road and Girvan Road.
- **Transit Mobility Trends:** Transit trips, based on boarding and alighting 2023 data provided by RABA. Most transit trips start and end in the City of Redding, with the highest concentration occurring within Downtown Redding.
- **Freight Mobility Trends:** Freight truck trips occur on major roadways classified as truck routes, including SR 273, I-5, SR 44, SR 299, as well as major arterials.



Legend

Daily Bike Trips

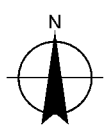
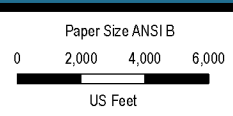
- Lower Trip Volume
- Medium Trip Volume
- Higher Trip Volume
- Corridor Segment
- City Boundary
- Schools
- Parks
- Lakes & Streams

Daily trips represent an estimate of a typical weekday in 2022. Volumes are an estimate only with medium certainty of reliability.



Envision 273: SR 273 Multimodal Corridor Plan

BICYCLE MOBILITY TRENDS



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

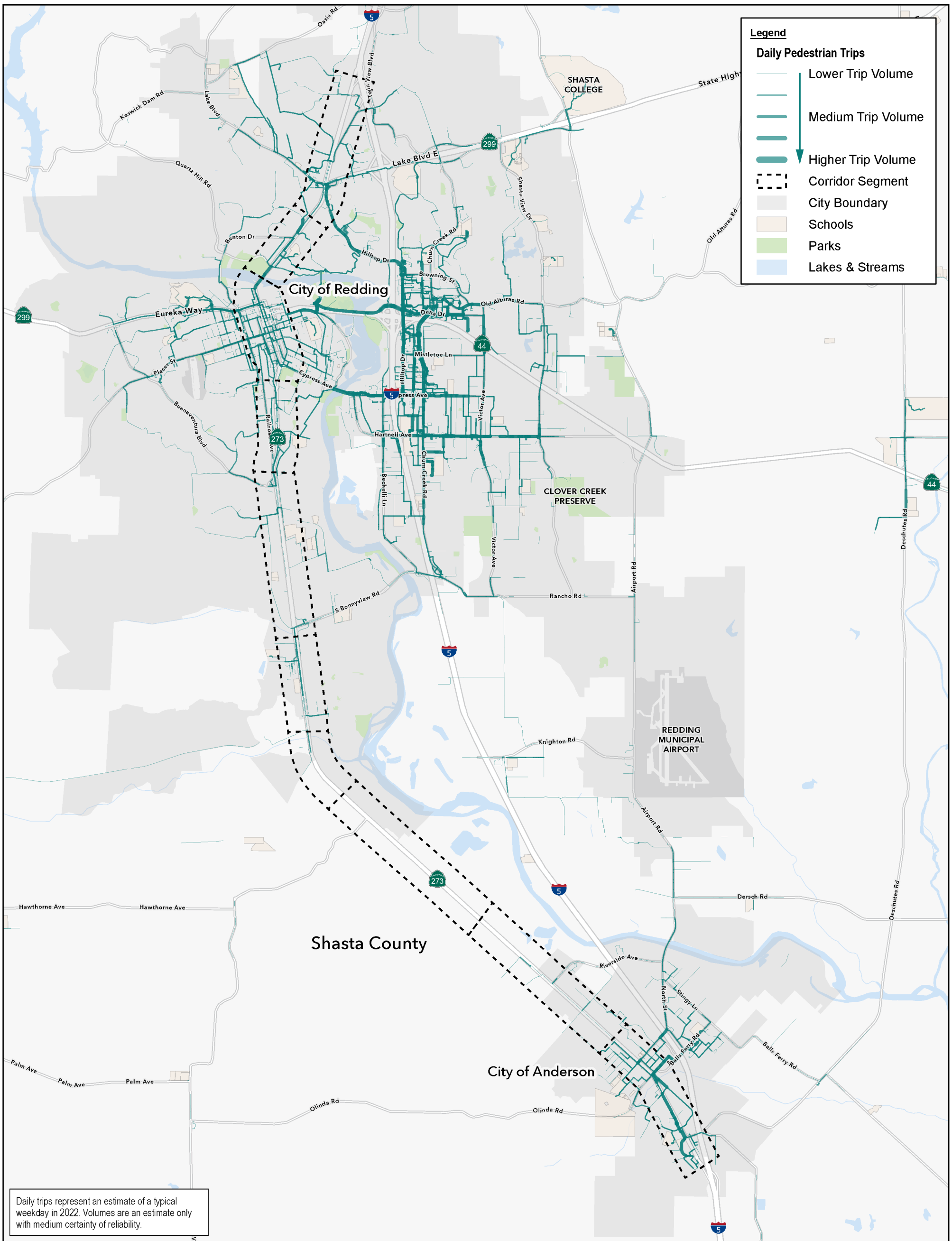


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FIGURE 21

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Print date: 26 Sep 2023 - 16:00

Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METANASA, USGS, Bureau of Land Management, EPA, NPS, USDA
Created by: ppej



Legend

Daily Pedestrian Trips

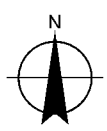
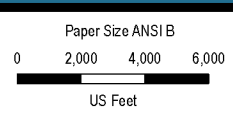
- Lower Trip Volume
- Medium Trip Volume
- Higher Trip Volume
- Corridor Segment
- City Boundary
- Schools
- Parks
- Lakes & Streams

Daily trips represent an estimate of a typical weekday in 2022. Volumes are an estimate only with medium certainty of reliability.



Envision 273: SR 273 Multimodal Corridor Plan

PEDESTRIAN MOBILITY TRENDS



Map Projection: Lambert Conformal Conic
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 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

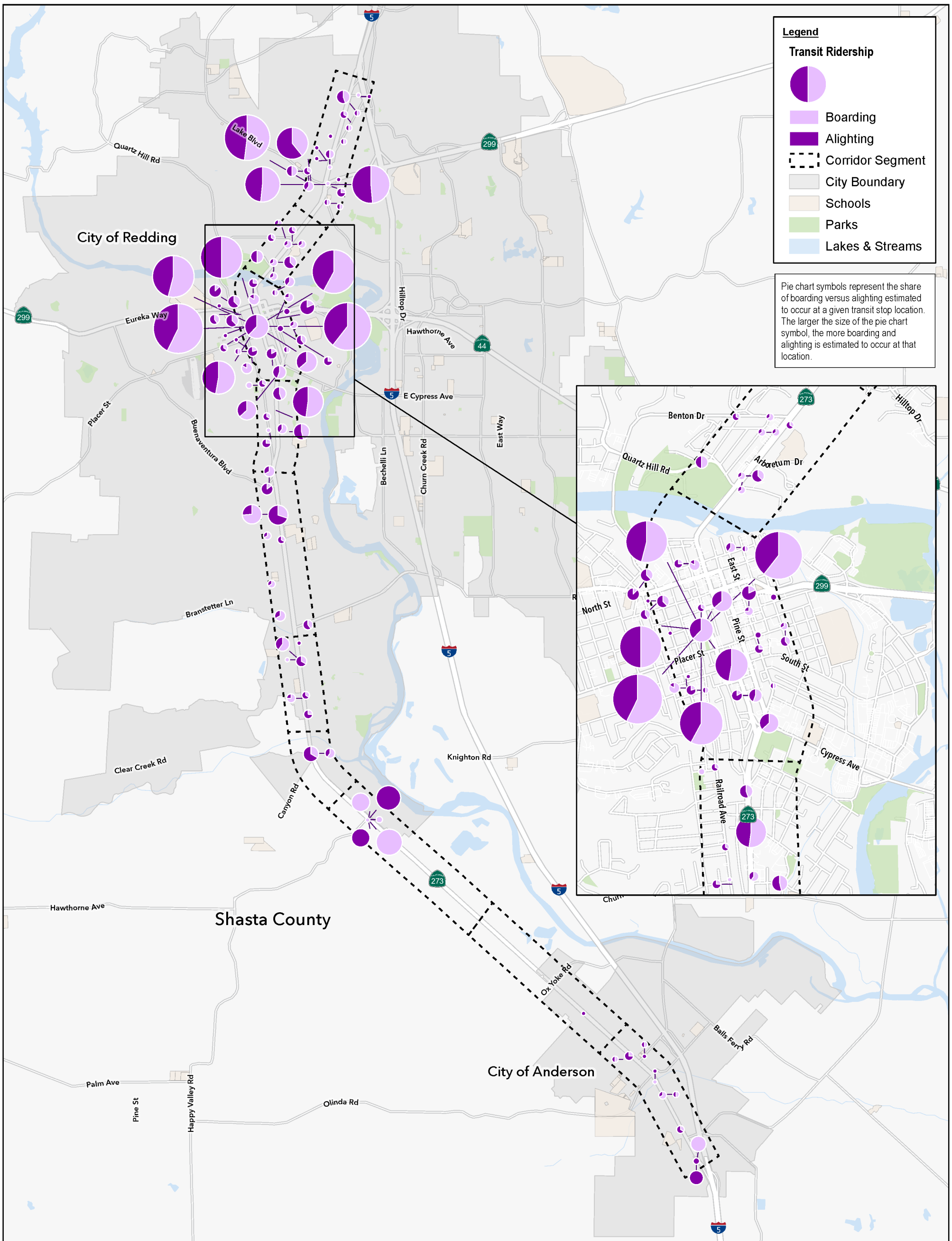


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FIGURE 22

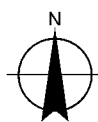
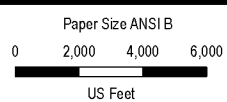
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 Print date: 26 Sep 2023 - 16:01

Data source: City of Redding GIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METANASA, USGS, Bureau of Land Management, EPA, NPS, USDA
 Created by: jpeell



Envision 273: SR 273 Multimodal Corridor Plan

TRANSIT BOARDING & ALIGHTING

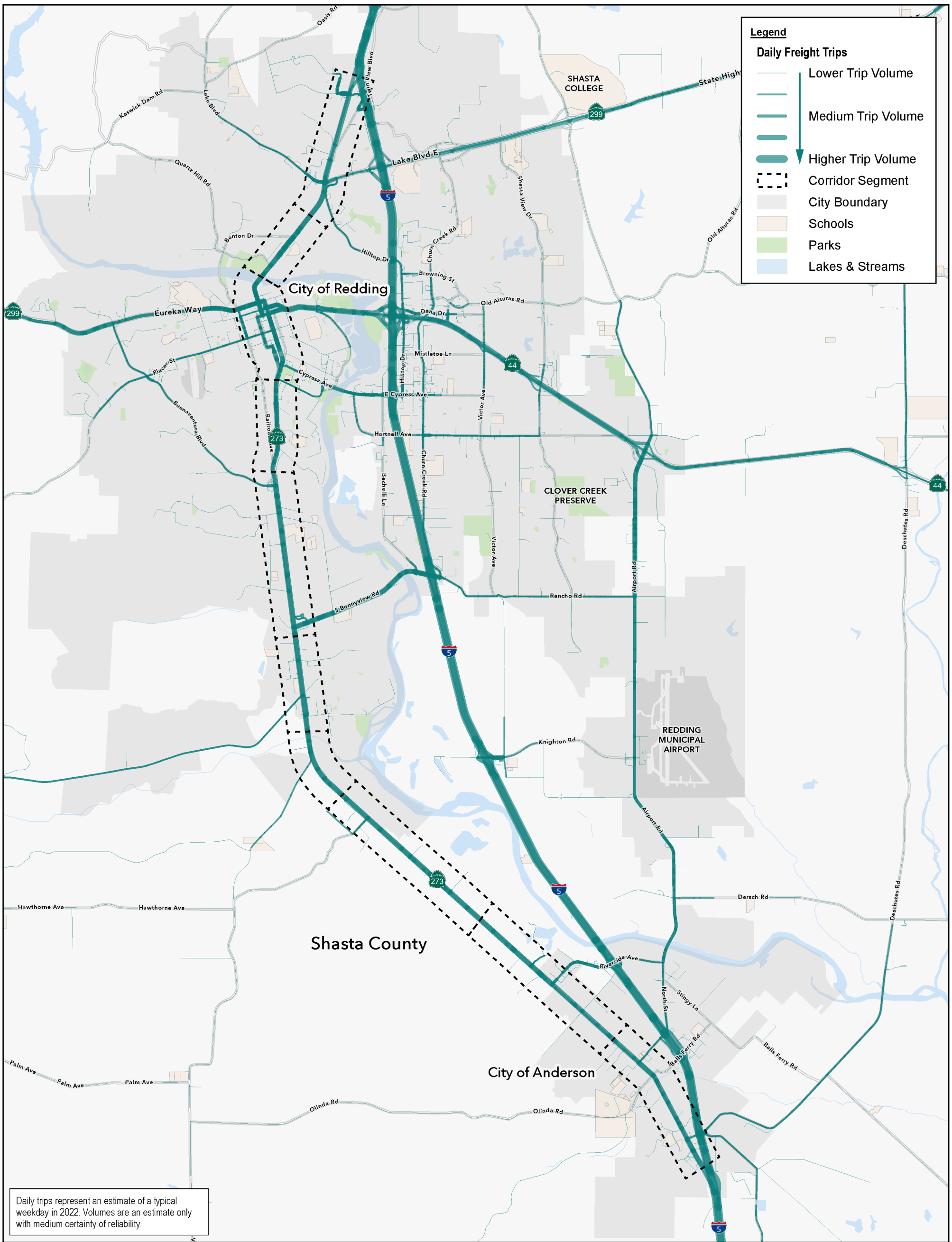


Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 23

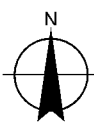
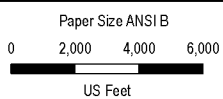


Daily trips represent an estimate of a typical weekday in 2022. Volumes are an estimate only with medium certainty of reliability.



Envision 273: SR 273 Multimodal Corridor Plan

FREIGHT VEHICLE MOBILITY TRENDS



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



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FIGURE 24

4 CORRIDOR PERFORMANCE

This chapter provides a corridor performance assessment. The assessment establishes a baseline against which improvement recommendations may be measured, ensuring the resulting improvement recommendations are balanced, sustainable, and multimodal.

Performance Measure Framework

To determine the performance measures to assess corridor performance, coordination with the following guiding documents regarding goals, objectives, and measures was considered. These documents include guidelines for performance assessments within multimodal corridor plans that aim to address safety issues and multimodal infrastructure deficiencies while improving corridor performance for all travel modes, including walking, biking, private vehicle, freight truck, transit, and rail, with specific emphasis and prioritization on improving conditions for disadvantaged communities (DACs).

Caltrans Corridor Planning Process Guide, 2020

This guide establishes a comprehensive planning approach through desired protocols and procedures to identify and implement multimodal transportation needs. A key component of this guide is the emphasis on conducting a baseline performance assessment of the corridor to highlight the relationship between identified issues and their causes. Improvement strategies are also evaluated to determine the potential benefits to the corridor, in terms of corridor performance.

The key components of successful multimodal corridor plans include:

- **Corridor Performance Assessment:** Including assessment of the roadway network for private vehicles and freight trucks related to vehicle miles traveled (VMT), traffic bottlenecks, travel time reliability, safety, and pavement conditions, for example.
- **Transit and Rail Network Assessment:** Assess the type and frequency of transit services within the corridor, as well as availability and accessibility of transit modes.
- **Complete Streets/Active Transportation Assessment:** Assess active transportation mobility regarding demand (mode split), accessibility, safety, and comfort.

Goals and objectives within this guide include:

- Improve travel safety: Reduce accident rate for collisions, injuries, and fatalities.
- Improve mobility/system efficiency: Reduce recurrent congestion and hours of peak hour excessive delay.
- Improve mobility/system reliability: Reduce non-recurrent congestion, improve travel time reliability, and reduce non-recurrent person hours delay.
- Reduce greenhouse gas emissions and pollutant emissions in support of State goals and standards.
- Improve Multimodal Access:
 - Reduce Single Occupancy Vehicle travel demand in peak period / Increase alternative mode share.
 - Improved access to multimodal choices system connectivity, or gap closure.
 - Improved transit service frequency and decrease average wait time for transit service.
- Support Economic Opportunity: Improve freight travel time reliability and increase access to jobs.

Caltrans Smart Mobility Framework Guide, 2020

The fundamental premise of the Smart Mobility Framework is to ensure that planning or programming decisions for transportation improvements are performance based, transparent, and address sustainable outcomes and objectives. The performance metrics selected for the Plan are consistent with Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and forecast corridor conditions.

The Smart Mobility Framework is premised on five themes:

- Network Management
- Multimodal Choices
- Speed Suitability
- Accessibility and Connectivity
- Equity

In addition to the five themes, place types are discussed as a method of implementing smart mobility by identifying planning and project development priorities. The place types below are based on various characteristics, including location, land use, population density, and others.

- Central Cities
- Urban Communities
- Suburban Communities
- Rural Areas
- Protected Lands and Special Use Areas

SRTA Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS) for the Shasta Region (2022)

SRTA has developed regionally specific performance measures that are tied to specific goals and strategies as part of the RTP/SCS, which include:

- Increase travel mode share for carpooling, biking, walking, and public transit;
- Increase (in miles) the non-motorized transportation network;
- Reduce average travel time (in minutes);
- Reduce number of miles of roadways at level of service (LOS) D, E, and F;
- Increase number of jobs and housing within ½ mile of transit stops;
- Reduce vehicle air pollutants (NOx, PM-2.5/PM-10, Ozone) and greenhouse gas (GHG) emissions;
- Reduce vehicle miles traveled (VMT);
- Increase the number (in acres) of agricultural and environmentally-sensitive lands saved from development.

Performance Measures Selected

The performance measures selected are organized within the following categories, as summarized below:

1. Operations & Reliability
2. Mobility & Connectivity

3. Safety
4. Sustainability & Resiliency
5. Equity

Table 16 SR 273 Performance Measures

| Performance Measure | Description |
|---|---|
| Operations & Reliability | |
| Travel Time Reliability | Day-to-day variability of travel times between representative origins and destinations by mode, aggregated over corridor or region. |
| Vehicular Congestion | Identification of "bottlenecks" along the corridor. |
| Person Throughput | Quantification of total person throughput (all person trips for all travel modes) on the corridor. |
| Person Hours Delay | Quantification of total person hours of delay on the corridor. |
| Intersection Level of Service | Intersection peak hour LOS. |
| Transit Performance | Summary of route-based performance based on transit frequency, reliability, and ridership for stops along the corridor. |
| Mobility & Connectivity | |
| Transit Stop Quality | Presence of amenities at transit stops, including sidewalk, bench, or shelter. |
| Bicycle Origin-Destination Connectivity | Quantify connectivity between nodes (specified POIs) that can be travelled to within the entire or low-stress bicycle network. |
| Bicycle Level of Traffic Stress | Assessment of comfort level for bicycle facilities within the study area. |
| Sidewalk Coverage | Identify gaps in the pedestrian network. |
| Mode Share | Percentage of trips within the corridor occurring by transit, bicycle, or pedestrian travel modes. |
| Safety | |
| Total Collisions | Identification of collision hotspots along the corridor and a comparison between corridor segments for all collisions, fatal collisions, severe injury collisions, and bicycle or pedestrian collisions. |
| Total Fatal Collisions | |
| Total Severe Collisions | |
| Total Bicycle or Pedestrian Collisions | |
| Collision Rate | Collision rate and severity by travel mode and facility, compared to statewide averages for each user group and facility type. |
| Sustainability & Resiliency | |
| Vehicle Miles Traveled | Quantification of total VMT for all vehicle trips in the corridor. |
| Air Quality & Emissions | Estimates of GHG emissions based on metrics related to VMT, mode split, and vehicular congestion. |
| Emergency Evacuation | Projects that facilitate emergency evacuations during extreme weather events. Also, projects that update infrastructure to withstand extreme weather events (e.g., wildfires and flooding). |
| Equity | |
| | Projects that improve equitable outcomes and intersectional impacts over time, facilitate solutions that embody community values and concerns, and address the needs of underrepresented and underserved populations. |

Performance Measure Methodology

Operations & Reliability

Travel Time Reliability

TTR is defined as the variation in travel time for the same trip from day to day (“same trip” implies a trip made with the same purpose, from the same origin, to the same destination, at the same time of the day, using the same mode, and by the same route). If variability is large, the travel time is considered to be unreliable, because it is difficult to generate consistent and accurate estimates for it. If there is little or no variation in the travel time for the same trip, the travel time is considered to be reliable.

The National Performance Management Research Data Set (NPMRDS) speed data was used for baseline travel time reliability analysis. The following performance metrics for passenger vehicles were generated:

- Buffer time: the additional time a motorist needs to budget to ensure they arrive at their destination at the expected time 95 percent of the time.
- Buffer time index (BTI): normalized buffer time for distance and is expressed as a ratio.

Vehicular Congestion

The National Performance Management Measure for traffic congestion was used to determine the performance of roadway segment operating conditions within the corridor: Uncongested ($\geq 60\%$ of free-flow) vs. Congested ($< 60\%$ of free-flow). Under the federal definition, a roadway is considered congested if peak period travel speeds fall below 60% of free flow speeds. This includes delays experienced at intersections. The analysis is based on NPMRDS speed data collected over a one-year period and reflects the AM/PM peak hours.

Intersection Level of Service

Intersection operations are based on existing traffic data collected at the study intersections (Appendix A).

Intersection operations were quantified using Synchro software through the determination of Level of Service (LOS) at key intersections (Appendix B). LOS is a qualitative metric that describes the experience of motorists. Intersections and approaches are assigned scores from “A” through “F” with A being free-flowing traffic with little to no congestion and F being highly congested. LOS criteria are established to determine whether a given roadway facility provides the desired quality of service. The methodologies used to determine LOS (i.e. delay, speed, density) were based on the Highway Capacity Manual (HCM) 6th Edition.

Transit Performance

For transit performance, the General Transit Feed Specification (GTFS) data was used. GTFS data consists of static and real-time formats. GTFS static data defines a common format for transit schedules with associated geographic data; while GTFS real-time data provides real-time information, such as vehicle positions, service alerts, and trip updates.

GTFS static data, available on Redding Area Bus Authority’s (RABA) website³, along with scheduled and observed arrival time for the duration of January 1st 2023 to June 26th 2023 provided by RABA in excel format for the following routes: 1, 2E, 2W, 3, 4, 5, 6N, 6S, 7, 9, 11, 14, School Express, Anderson

³ <https://www.cityofredding.org/departments/redding-area-bus-authority/contact-raba>

Commuter, Crosstown Express, were used in python language, including the pandas library and SQL queries, to calculate schedule adherence and frequency of the transit routes at each stop.

It should be noted that schedule adherence was assumed to have been met if the transit arrived within 5 minutes of scheduled time using an average for the months between January and May. Frequency was calculated for both AM (6:00 AM – 9:00 AM) and PM (3:00 PM – 6:00 PM) peak periods.

Ridership survey data for select dates during March and April 2023 were also provided by RABA. The ridership summary data includes an average of weekday ridership (onboard and offboard) for the routes provided.

Mobility & Connectivity

Transit Stop Quality

Transit stop quality was evaluated based on the presence of amenities at the transit stop, including sidewalk, bench, or shelter. This data was based on available geographic information system (GIS) data via City of Redding or Shasta County and confirmed using Google Earth.

Bicycle Origin-Destination Connectivity

The bicycle origin-destination connectivity analysis was conducted by identifying key points of interest (referred to here as key nodes), as well as disadvantaged areas along the corridor study area. Key nodes include both residential and non-residential key nodes, as well as the identification of those nodes that are located within DACs as defined within this Plan. An overview of the bicycle origin-destination connectivity methodology is provided below.

Connectivity Analysis

The residential and non-residential POIs drove a “percent connected” analysis using the results of the bicycle Level of Traffic Stress (LTS) analysis. The components comprising the connectivity assessment are described in further detail below.

Full Network

The “full network” comprises the complete bicycling network, regardless of the LTS score assigned to the bicycle network link. This serves as the baseline against which to compare the connectivity of the low stress network, and calculate the percent connected of the low-stress bicycling network.

Low-Stress Network

The low-stress network includes bicycle network links that were assigned LTS scores of 1-2, which is a LTS that most of the population (estimated to be approximately 60% of the population) is willing and able to tolerate while biking. Network links with LTS scores of 3-4 are considered high-stress and included as part of the “full network.”

Percent Connected

The percent connected analysis assesses the low-stress connectivity of the bicycling network utilizing the shortest path connections between key nodes via the full bicycling network and the connections of the low stress bicycling network. To calculate the percent connected, the number of connections accessible via the low-stress network is divided by the number of connections via the full bicycling network.

To estimate the effect of bicycle trip length on connectivity, the shortest path bicycle trip distance between key node locations was calculated at a maximum bicycle trip distance of 1.5 miles. Based on the shortest path matrix, the amount of undue detour required to connect an origin destination pair via the low stress

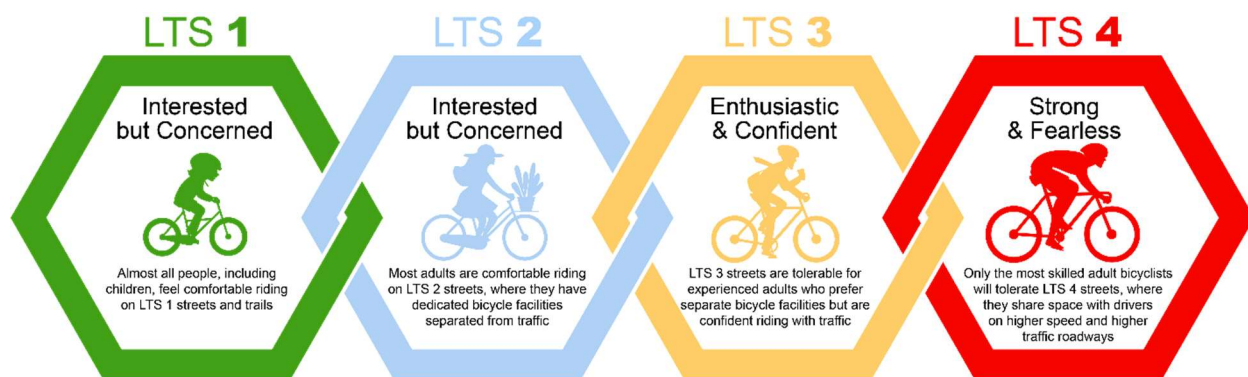
network was calculated. If the detour travel distance for any given pair is greater than 25 percent, it is considered “undue” and considered disconnected.

Bicycle Level of Traffic Stress

An overview of the bicycle LTS methodology is provided below.

Bicycle LTS is calculated for roadway segments and intersections using the methods documented in the paper, *Low Stress Bicycling and Network Connectivity*, Mineta Transportation Institute, Report 11-19, May 2012. Bicycle LTS quantifies the stress level of a given roadway segment by considering a variety of criteria, including street width (number of lanes), speed limit or prevailing speed, presence and width of bike lanes, and the presence and width of parking lanes. Bicycle LTS is a suitability rating system of the safety, comfort, and convenience of transportation facilities from the perspective of the user. Moreover, the methodology allows planning practitioners to assess gaps in connectivity that may discourage active users from traversing roadways.

Bicycle LTS scores roadway facilities into one of four classifications or ratings for measuring the effects of traffic-based stress on bicycle riders, with 1 being the lowest stress or most comfortable, and 4 being the highest stress or least comfortable. Generally, LTS score of 1 indicates the facility provides a traffic stress tolerable by most children and less experienced riders, such as multiuse paths that are separated from motorized traffic. An LTS score of 4 indicates a stress level tolerable by only the most experienced cyclists who are comfortable with high-volume and high-speed, mixed traffic environments. LTS 3 and 4 represent high stress conditions for bicyclists and reflect the need for visibility and safety improvements. The figure below presents the four scoring classifications, subsequent tables show the criteria associated with determining the LTS score.



Sidewalk Coverage

Sidewalk coverage is based on the proportion of the corridor with sidewalk infrastructure. This data was based on available Geographic Information System (GIS) data via City of Redding or Shasta County and confirmed using Google Earth.

Mode Share

Mode share is the percentage of travelers or of trips made using available forms of transportation (walking, bicycling, public transportation, private automobile, or freight truck). Mode share for the percentage of travelers is estimated based on Replica estimates for typical weekday (Thursday) conditions during Fall 2022 for each study segment.

Replica Fall 2022 weekday data was reviewed using two approaches. The first approach examines trips that occurred on SR 273 using a sample set of network links distributed along the corridor. The second considers trips that occur within the study segment boundaries and represents trips made to destinations on either SR 273, which includes some trips that may not have occurred directly on SR 273.

Both approaches are useful in understanding how individuals travel within the study area. While this Plan does not directly make recommendations for improvements beyond SR 273 right-of-way (ROW), the increase in non-auto trips within study segments compared to the highway suggests the presence of locally serving destinations within the vicinity of the corridor that may currently be inaccessible to additional travellers due to the presence of SR 273. In addition, Replica data shows a high level of non-auto trips using SR 273 frontage roads, including Westside Road and Eastside Road.

Safety

A collision analysis was conducted based on historical collision data within the project limits. The limits for collision analysis on this project include SR 273 from its northernly terminus at I-5 in the City of Redding to its southernly terminus at I-5 in the City of Anderson.

Historical data for the most recent and complete 5 years (January 1, 2018 to December 31, 2022) was collected from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS).

Additionally, collision rates were calculated for segments where annual average daily traffic volumes (AADT) were provided by Caltrans (2020 AADT, Caltrans). These collision rates were compared against California's average collision rate for similar highway facilities (per million entering vehicles).

Sustainability & Resiliency

Vehicle Miles Traveled

For VMT, please refer to the Future Performance Forecast section of this Chapter.

Air Quality & Emissions

For Air Quality and Emissions, please refer to the Future Performance Forecast section of this Chapter.

Emergency Evacuation

State highways connect communities to each other and to major population centers. As such, it is common for a single state highway to serve as a community's primary freight truck route, main street, and emergency evacuation route. Projects that support timely emergency evacuations during extreme weather events should be pursued.

Additionally, projects that update infrastructure to withstand extreme weather events (e.g., wildfires and flooding) should be pursued, as many existing assets were not designed to handle such extreme conditions.

Equity

Impacts of construction and benefit of use should be shared across the community regardless of ethnicity, economic situation, or physical ability because improvements developed with public funds are for everyone. Projects that could potentially impact minority or low-income communities, or that will provide benefits that favor wealthier communities, need to be offset by mitigating activities, or another less impactful solution should be pursued. The methodology and approach to evaluating the Plan's impact from an equity perspective is described in the following section: Equity Framework.

Equity Framework

The following provides an overview of the approach for the equity needs assessment and project prioritization.

Equity Approach

The Plan approach to understanding corridor performance from an equity perspective includes the following steps:

1. Describing the social equity context,
2. Understanding community values, and
3. Conducting equity-based performance assessments.

Social Equity Context

The social equity context is based on classifications of census areas as disadvantaged, including DACs. DACs can be determined in a variety of ways. Existing data sets and standardized indicators can provide a basis for initial social equity screening. Applying US Federal definitions for disadvantaged, historically overburdened, and environmental justice communities, geographic locations may be screened for relevant vulnerability and susceptibility factors including income, race and ethnicity, age, environmental exposures, current and historical economic marginalization, climate vulnerability, historical pollution, and federally-defined environmental justice indices. These factors, as outlined in various US Executive Orders, are represented through US Census data, including American Community Survey (ACS) data, the Center for Disease Control/Agency for Toxic Substances and Disease Registry Environmental Justice Index Indicators Social, Environmental and Health Burden Modules, and public tools, such as the US EPA's Environmental Justice Screening and Mapping Tool. These tools provide a compendium of potential indicators for areas of environmental, social, and health-related areas of concern and potential inequity. Additional indicators are selected in accordance with the type of infrastructure and the activities being conducted and services being provided. Relevant draft indicators are selected, analyzed for statistical relevance, and geospatially depicted to provide a visualization of geographic clustering of potentially vulnerable communities to support an understanding of underserved, underrepresented, and overburdened populations in specific geographies.

For the purposes of this Plan, DACs will be determined using the criteria presented in the DAC analysis within the SRTA 2018 RTP/SCS, as well as the USDOT RAISE Areas of Persistent Poverty.

The SRTA RTP/SCS defines 'disadvantaged communities' as areas that, according to statistical data, have a markedly higher share of individuals challenged by the cumulative impact of:

- Poverty and unemployment
- Lack of mobility options, including access to automobile, active transportation, and public transportation
- Housing and transportation cost burden
- Single parent households
- Young and elderly
- Educational attainment
- Linguistic isolation
- Minority status

Community Values

Community values will be identified during the stakeholder and public outreach process. For more information, please see Chapter 5 .

Equity-Based Performance Assessments

Baseline Performance Assessment

The baseline performance assessment determined the DAC status of each corridor segment. Determining the DAC status helps to identify potential gaps and inequalities in access and quality along with adverse impacts, barriers to equity, and actions required to overcome barriers.

Project Performance Assessment

Following the development of project-specific improvement recommendations for the corridor, an equity-based project performance assessment was conducted to help screen and prioritize projects. The goal of this assessment is to improve equitable outcomes and intersectional impacts over time, facilitate solutions that embody community values and concerns, and address the needs of underrepresented and underserved populations.

Indicators identified to evaluate project-specific impacts are consistent with the Center for Transportation Equity, Decisions & Dollars (CTEDD) Transportation Equity Scorecard⁴ to screen and prioritize projects within the Plan that advance equity and safety based on the following six categories:

- Access to Opportunity
- Health and Environment
- Safety and Emergency Evacuation
- Affordability
- Mobility
- Burdens

Project Scores

Projects will be evaluated and allocated scores from zero to two based on the potential for the project to serve DACs, as follows:

- Score of zero (0) = Project does not serve DACs
- Score of one (+1) = Project serves low to moderate concentrations of DACs
- Score of two (+2) = Project serves high concentrations of DACs

If a project is anticipated to adversely impact DACs, a score of negative ten (-10) will be allocated within the “burdens” category. In addition, the projects may be allocated additional points if it is anticipated to significantly improve safe and affordable travel options within DACs. Project scores will be summed and used to compare relative benefits between other projects included within the plan.

The equity scorecard is provided in the following table.

⁴ *Transportation Equity Toolkit: Transportation Equity Needs Assessment & Project Prioritization*, CTEDD, 2021.

Table 17 Equity Scorecard Categories & Points

| Category | Factor | Criteria | Points | DAC Impact* |
|--|---------------------------------------|---|--------------|---------------------|
| ACCESS TO OPPORTUNITY | Employment | Project improves access to employment opportunities. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Education | Project improves access to educational opportunities (e.g., higher education, job training, schools, daycare, after school programs). | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Community Services and Shopping | Project improves access to community services and shopping areas. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| HEALTH AND ENVIRONMENT | Health Care | Project improves access to health care services. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Healthy Food | Project connects to grocery stores or markets that provide healthy and fresh food at affordable prices. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Environment | Project increases livability (e.g., community cohesion, streetscaping, green infrastructure, etc.) through design and/or mitigation measures. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| SAFETY & EMERGENCY EVACUATION | Safety | Project improves safety for pedestrians and bicyclists at high-crash locations. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | | Project improves safety at other (non-high crash) locations. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Emergency Evacuation | Project improves emergency evacuation (e.g., transit coordination, connections to shelters, etc.). | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| AFFORDABILITY | Housing | Project improves access to and from affordable housing. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Transportation | Project increases availability of affordable transportation options. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Housing and Transportation Costs | Project decreases the share of household income consumed by transportation and housing. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| MOBILITY | Active Transportation* | Project includes construction or improvement of sidewalks, trails, bike lanes, or other active transportation options. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Transit Access and Service | Project improves transit service and/or access, including first and last mile access. | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| | Americans with Disabilities Act (ADA) | Project improves accessibility for persons with disabilities (e.g., transit stops, ADA curb ramps, audio-visual signals, driveway grade, etc.). | 0, +1, or +2 | (0, +1, or +2)*(+2) |
| BURDENS | Adverse Impacts | Project has adverse impacts (e.g., cumulative or disproportionate impacts, creates a barrier, increases noise or emissions, increases displacement/gentrification etc.) | -10 or 0 | (-10, 0)*(+2) |
| * also advances health and environment | | Total | 30 | 60 |

Existing Performance Results

Performance measure results are presented below. Some performance measures are applicable to the entire corridor (i.e., person throughput), while others are best evaluated at the corridor segment level.

Operations & Reliability

The Operations & Reliability performance measure results are summarized below and in Table 24, as applicable.

Travel Time Reliability and Vehicular Congestion

Table 18 presents the Travel Time Reliability and Buffer Time Index results for both passenger vehicles and heavy vehicles for the AM and PM peak hours for the corridor.

For passenger cars in the AM peak hour, all segments in both the northbound and southbound directions indicate majority uncongested conditions based on the Travel Time Index. Despite this, the Buffer Time Index indicates that during near-worst case travel time conditions (i.e., in the case of a collision or inclement weather) almost all segments are unreliable as drivers will need to budget upwards of 2.5 times more travel time to arrive to their destination on time. The PM Peak Hour shows similar Travel Time and Buffer Time Indices as the AM Peak Hour with the exception of northbound travel from Placer Street to South of Tehama Street and southbound travel from Eureka Way (SR 299) to Market Street (SR 273) and Tehama Street. These two segments indicate congested conditions during an average travel day.

The Travel Time Index and Buffer Time Index for the truck traffic indicates similar trends as the passenger cars in both peak hours and both directions of travel. All segments in both the AM and PM peak hours indicate uncongested conditions during an average travel day. Additionally, the majority of the segments experience unreliable buffer time indices.

The slight differences in Travel Time and Buffer Time between passenger cars and heavy vehicles can likely be attributed to the average speed each vehicle type typically travels at. Because trucks tend to travel at lower speeds, when the roadways are congested, there is not as significant of a difference in free flow speeds for trucks in comparison to passenger cars. This results in slightly more reliable conditions for trucks over passenger cars despite both experiencing the same roadway conditions as trucks already budget more travel time in average conditions.

Table 18 Travel Time Reliability and Buffer Time Index Results

Peak Hour Results for Passenger Cars

| From | To | Length (mi) | Free Flow Speed (mph) | AM Peak Hour | | | | | | | | PM Peak Hour | | | | | | | |
|----------------------------|---------------------------------|-------------|-----------------------|---------------------|---------------------------|--------------------------------|-----------------|------------------------|-------------------|--------------------------------|---------------------|---------------------------|--------------------------------|-----------------|------------------------|-------------------|--------------------------------|--|--|
| | | | | Average Speed (mph) | Average Travel Time (sec) | Travel Time Index ¹ | 5th Speed (mph) | 95th Travel Time (sec) | Buffer Time (sec) | Buffer Time Index ² | Average Speed (mph) | Average Travel Time (sec) | Travel Time Index ¹ | 5th Speed (mph) | 95th Travel Time (sec) | Buffer Time (sec) | Buffer Time Index ² | | |
| Northbound | | | | | | | | | | | | | | | | | | | |
| I-5 (Anderson) | South of Pleasant Hills Dr | 0.72 | 57.50 | 57.08 | 45.32 | 0.99 | 43.00 | 60.16 | 14.84 | 0.33 | 57.50 | 44.99 | 1.00 | 46.00 | 56.24 | 11.25 | 0.25 | | |
| South of Pleasant Hills Dr | South St / Balls Ferry Rd | 1.18 | 47.84 | 34.49 | 123.59 | 0.72 | 10.00 | 426.30 | 302.72 | 2.45 | 33.01 | 129.15 | 0.69 | 7.00 | 609.00 | 479.85 | 3.72 | | |
| South St / Balls Ferry Rd | Ox Yoke Rd | 1.69 | 44.06 | 32.55 | 186.99 | 0.74 | 15.00 | 405.75 | 218.75 | 1.17 | 32.26 | 188.65 | 0.73 | 15.00 | 405.75 | 217.10 | 1.15 | | |
| Ox Yoke Rd | Happy Valley Rd | 3.10 | 56.27 | 52.70 | 211.55 | 0.94 | 32.00 | 348.39 | 136.84 | 0.65 | 54.25 | 205.51 | 0.96 | 33.00 | 337.83 | 132.32 | 0.64 | | |
| Happy Valley Rd | S Bonnyview Rd | 2.68 | 47.68 | 34.00 | 283.36 | 0.71 | 17.00 | 566.72 | 283.36 | 1.00 | 35.47 | 271.58 | 0.74 | 16.00 | 602.14 | 330.56 | 1.22 | | |
| S Bonnyview Rd | Buenaventura Blvd | 1.79 | 47.90 | 32.42 | 198.45 | 0.68 | 15.00 | 428.98 | 230.53 | 1.16 | 34.76 | 185.10 | 0.73 | 14.00 | 459.62 | 274.51 | 1.48 | | |
| Buenaventura Blvd | Cypress Ave | 1.48 | 33.08 | 29.84 | 178.98 | 0.90 | 16.00 | 333.77 | 154.79 | 0.86 | 28.16 | 189.64 | 0.85 | 14.00 | 381.45 | 191.80 | 1.01 | | |
| Cypress Ave | East St | 0.07 | 26.41 | 19.39 | 12.28 | 0.73 | 5.00 | 47.62 | 35.34 | 2.88 | 18.08 | 13.16 | 0.68 | 5.00 | 47.62 | 34.45 | 2.62 | | |
| East St | Placer St | 0.44 | 30.70 | 22.62 | 69.59 | 0.74 | 8.75 | 179.92 | 110.33 | 1.59 | 19.55 | 80.55 | 0.64 | 6.00 | 262.39 | 181.84 | 2.26 | | |
| Placer St | South of Tehama St | 0.20 | 29.56 | 19.78 | 36.13 | 0.67 | 6.00 | 119.13 | 83.00 | 2.30 | 16.16 | 44.24 | 0.55 | 5.00 | 142.95 | 98.71 | 2.23 | | |
| South of Tehama St | Tehama St | 0.07 | 26.69 | 25.71 | 10.27 | 0.96 | 6.00 | 44.00 | 33.73 | 3.28 | 25.63 | 10.30 | 0.96 | 8.00 | 33.00 | 22.70 | 2.20 | | |
| Tehama St | Shasta St | 0.02 | 27.69 | 24.51 | 2.46 | 0.89 | 7.00 | 8.61 | 6.15 | 2.50 | 20.23 | 2.98 | 0.73 | 5.00 | 12.05 | 9.07 | 3.05 | | |
| Shasta St | SR 299 / Eureka Way & Market St | 0.17 | 21.92 | 13.61 | 44.36 | 0.62 | 6.00 | 100.64 | 56.28 | 1.27 | 14.48 | 41.69 | 0.66 | 5.00 | 120.77 | 79.07 | 1.90 | | |
| SR 299 / Eureka Way | Lake Blvd | 1.80 | 39.95 | 34.26 | 189.46 | 0.86 | 14.00 | 463.57 | 274.11 | 1.45 | 33.19 | 195.56 | 0.83 | 11.00 | 590.00 | 394.43 | 2.02 | | |
| Lake Blvd | Caterpillar Rd | 1.14 | 48.01 | 36.26 | 113.59 | 0.76 | 18.00 | 228.79 | 115.20 | 1.01 | 36.24 | 113.63 | 0.75 | 15.00 | 274.54 | 160.92 | 1.42 | | |
| Caterpillar Rd | I-5 (Redding) | 0.64 | 60.93 | 54.70 | 42.14 | 0.90 | 42.00 | 54.89 | 12.75 | 0.30 | 54.58 | 42.24 | 0.90 | 40.00 | 57.64 | 15.40 | 0.36 | | |
| Southbound | | | | | | | | | | | | | | | | | | | |
| I-5 (Redding) | South of I-5 (Redding) | 0.24 | 60.91 | 53.51 | 16.42 | 0.88 | 41.00 | 21.44 | 5.01 | 0.31 | 56.05 | 15.68 | 0.92 | 42.00 | 20.93 | 5.24 | 0.33 | | |
| South of I-5 (Redding) | Lake Blvd | 1.47 | 44.26 | 34.18 | 155.10 | 0.77 | 16.00 | 331.36 | 176.26 | 1.14 | 32.98 | 160.75 | 0.75 | 14.00 | 378.70 | 217.95 | 1.36 | | |
| Lake Blvd | South of Lake Blvd | 0.11 | 42.11 | 29.73 | 13.40 | 0.71 | 15.00 | 26.57 | 13.17 | 0.98 | 28.12 | 14.17 | 0.67 | 9.90 | 40.26 | 26.08 | 1.84 | | |
| South of Lake Blvd | SR 299 / Eureka Way | 1.69 | 38.92 | 27.93 | 217.19 | 0.72 | 13.00 | 466.67 | 249.48 | 1.15 | 29.56 | 205.26 | 0.76 | 12.00 | 505.56 | 300.30 | 1.46 | | |
| SR 299 / Eureka Way | Market St & Tehama St | 0.24 | 16.87 | 10.90 | 78.91 | 0.65 | 4.00 | 214.96 | 136.06 | 1.72 | 9.91 | 86.76 | 0.59 | 4.00 | 214.96 | 128.21 | 1.48 | | |
| Market St & Tehama St | Placer St | 0.29 | 17.71 | 17.71 | 59.01 | 1.00 | 6.00 | 174.20 | 115.19 | 1.95 | 14.28 | 73.18 | 0.81 | 5.00 | 209.04 | 135.86 | 1.86 | | |
| Placer St | North of Hill St | 0.40 | 31.50 | 21.41 | 67.71 | 0.68 | 6.00 | 241.61 | 173.90 | 2.57 | 21.51 | 67.40 | 0.68 | 5.00 | 289.94 | 222.54 | 3.30 | | |
| North of Hill Street | Cypress Ave | 0.16 | 33.50 | 30.69 | 18.34 | 0.92 | 14.00 | 40.22 | 21.87 | 1.19 | 27.25 | 20.66 | 0.81 | 12.00 | 46.92 | 26.26 | 1.27 | | |
| Cypress Ave | Buenaventura Blvd | 1.47 | 33.68 | 30.18 | 175.56 | 0.90 | 15.00 | 353.18 | 177.63 | 1.01 | 30.80 | 172.00 | 0.91 | 16.00 | 331.11 | 159.11 | 0.93 | | |
| Buenaventura Blvd | S Bonnyview Rd | 1.79 | 48.25 | 38.05 | 169.40 | 0.79 | 14.00 | 460.42 | 291.02 | 1.72 | 37.26 | 172.99 | 0.77 | 17.00 | 379.17 | 206.18 | 1.19 | | |
| S Bonnyview Rd | Happy Valley Rd | 2.68 | 47.33 | 32.73 | 294.64 | 0.69 | 18.00 | 535.69 | 241.04 | 0.82 | 30.80 | 313.09 | 0.65 | 18.00 | 535.69 | 222.60 | 0.71 | | |
| Happy Valley Rd | Ox Yoke Rd | 3.10 | 54.90 | 52.17 | 213.75 | 0.95 | 27.00 | 413.01 | 199.26 | 0.93 | 53.01 | 210.34 | 0.97 | 30.00 | 371.71 | 161.36 | 0.77 | | |
| Ox Yoke Rd | South St / Balls Ferry Rd | 1.69 | 47.32 | 32.80 | 185.56 | 0.69 | 11.00 | 553.24 | 367.68 | 1.98 | 32.41 | 187.78 | 0.68 | 13.00 | 468.13 | 280.35 | 1.49 | | |
| South of Pleasant Hills Dr | I-5 (Anderson) | 0.51 | 55.24 | 51.68 | 35.58 | 0.94 | 35.00 | 52.53 | 16.95 | 0.48 | 51.34 | 35.81 | 0.93 | 36.00 | 51.07 | 15.26 | 0.43 | | |
| South St / Balls Ferry Rd | South of Pleasant Hills Dr | 1.18 | 42.19 | 36.43 | 116.75 | 0.86 | 18.00 | 236.29 | 119.54 | 1.02 | 33.91 | 125.43 | 0.80 | 14.00 | 303.80 | 178.37 | 1.42 | | |

¹ Congestion is evaluated using Travel Time Index (ratio of the average speed (s_{avg}) and the free flow speed (s_{ff})). Uncongested is shown in green (s_{avg}/s_{ff} > 0.6) and congestion is shown in red (s_{avg}/s_{ff} < 0.6).

² Reliable Buffer Time Index (BTI) is shown in green (BTI < 0.25), moderately reliable BTI is shown in yellow (0.25 < BTI < 0.50), and unreliable BTI is shown in red (BTI > 0.50).

Peak Hour Results for Trucks

| From | To | Length (mi) | Free Flow Speed (mph) | AM Peak Hour | | | | | | | PM Peak Hour | | | | | | |
|----------------------------|---------------------------------|-------------|-----------------------|---------------------|---------------------------|--------------------------------|-----------------|------------------------|-------------------|--------------------------------|---------------------|---------------------------|--------------------------------|-----------------|------------------------|-------------------|--------------------------------|
| | | | | Average Speed (mph) | Average Travel Time (sec) | Travel Time Index ¹ | 5th Speed (mph) | 95th Travel Time (sec) | Buffer Time (sec) | Buffer Time Index ² | Average Speed (mph) | Average Travel Time (sec) | Travel Time Index ¹ | 5th Speed (mph) | 95th Travel Time (sec) | Buffer Time (sec) | Buffer Time Index ² |
| Northbound | | | | | | | | | | | | | | | | | |
| I-5 (Anderson) | South of Pleasant Hills Dr | 0.72 | 55.08 | 47.81 | 54.11 | 0.87 | 37.65 | 68.71 | 14.61 | 0.27 | 49.56 | 52.20 | 0.90 | 33.00 | 78.40 | 26.20 | 0.50 |
| South of Pleasant Hills Dr | South St / Balls Ferry Rd | 1.18 | 41.22 | 29.53 | 144.37 | 0.72 | 10.00 | 426.30 | 281.94 | 1.95 | 25.57 | 166.71 | 0.62 | 10.00 | 426.30 | 259.59 | 1.56 |
| South St / Balls Ferry Rd | Ox Yoke Rd | 1.69 | 46.65 | 35.31 | 172.34 | 0.76 | 13.00 | 468.17 | 295.83 | 1.72 | 38.44 | 158.31 | 0.82 | 16.40 | 371.11 | 212.80 | 1.34 |
| Ox Yoke Rd | Happy Valley Rd | 3.10 | 55.64 | 54.02 | 206.36 | 0.97 | 41.00 | 271.91 | 65.55 | 0.32 | 54.68 | 203.88 | 0.98 | 38.50 | 289.57 | 85.68 | 0.42 |
| Happy Valley Rd | S Bonnyview Rd | 2.68 | 44.91 | 38.98 | 247.14 | 0.87 | 18.00 | 535.24 | 288.10 | 1.17 | 40.52 | 237.74 | 0.90 | 19.00 | 507.07 | 269.33 | 1.13 |
| S Bonnyview Rd | Buenaventura Blvd | 1.79 | 46.01 | 39.75 | 161.88 | 0.86 | 17.00 | 378.51 | 216.63 | 1.34 | 43.18 | 149.03 | 0.94 | 16.00 | 402.16 | 253.13 | 1.70 |
| Buenaventura Blvd | Cypress Ave | 1.48 | 35.84 | 27.28 | 195.76 | 0.76 | 14.30 | 373.44 | 177.68 | 0.91 | 27.92 | 191.29 | 0.78 | 13.00 | 410.79 | 219.50 | 1.15 |
| Cypress Ave | East St | 0.07 | 29.41 | 21.74 | 10.95 | 0.74 | 10.00 | 23.81 | 12.86 | 1.17 | 21.62 | 11.01 | 0.73 | 9.00 | 26.45 | 15.44 | 1.40 |
| East St | Placer St | 0.44 | 25.53 | 21.25 | 74.09 | 0.83 | 11.00 | 143.12 | 69.03 | 0.93 | 17.73 | 88.78 | 0.69 | 7.00 | 224.90 | 136.13 | 1.53 |
| Placer St | South of Tehama St | 0.20 | 23.26 | 23.26 | 30.73 | 1.00 | 11.00 | 64.98 | 34.25 | 1.11 | 16.64 | 42.96 | 0.72 | 6.00 | 119.13 | 76.16 | 1.77 |
| South of Tehama St | Tehama St | 0.07 | 27.00 | 24.07 | 10.97 | 0.89 | 11.00 | 24.00 | 13.03 | 1.19 | 27.00 | 9.78 | 1.00 | 6.60 | 40.00 | 30.22 | 3.09 |
| Tehama St | Shasta St | 0.02 | 25.50 | 24.00 | 2.51 | 0.94 | 10.50 | 5.74 | 3.23 | 1.29 | 25.50 | 2.36 | 1.00 | 7.55 | 7.98 | 5.62 | 2.38 |
| Shasta St | SR 299 / Eureka Way & Market St | 0.17 | 18.19 | 15.29 | 39.50 | 0.84 | 6.00 | 100.64 | 61.14 | 1.55 | 15.44 | 39.11 | 0.85 | 5.00 | 120.77 | 81.65 | 2.09 |
| SR 299 / Eureka Way | Lake Blvd | 1.80 | 35.47 | 31.93 | 203.25 | 0.90 | 12.00 | 540.83 | 337.57 | 1.66 | 35.27 | 184.02 | 0.99 | 12.00 | 540.83 | 356.80 | 1.94 |
| Lake Blvd | Caterpillar Rd | 1.14 | 45.95 | 34.48 | 119.42 | 0.75 | 15.00 | 274.54 | 155.12 | 1.30 | 32.31 | 127.45 | 0.70 | 12.00 | 343.18 | 215.73 | 1.69 |
| Caterpillar Rd | I-5 (Redding) | 0.64 | 58.16 | 58.16 | 39.64 | 1.00 | 37.00 | 62.31 | 22.67 | 0.57 | 53.60 | 43.01 | 0.92 | 40.75 | 56.57 | 13.56 | 0.32 |
| Southbound | | | | | | | | | | | | | | | | | |
| I-5 (Redding) | South of I-5 (Redding) | 0.24 | 58.98 | 57.87 | 15.19 | 0.98 | 48.00 | 18.31 | 3.12 | 0.21 | 58.93 | 14.92 | 1.00 | 42.30 | 20.78 | 5.86 | 0.39 |
| South of I-5 (Redding) | Lake Blvd | 1.47 | 44.32 | 29.77 | 178.11 | 0.67 | 11.00 | 481.98 | 303.87 | 1.71 | 35.32 | 150.12 | 0.80 | 10.00 | 530.17 | 380.05 | 2.53 |
| Lake Blvd | South of Lake Blvd | 0.11 | 40.62 | 30.43 | 13.10 | 0.75 | 10.30 | 38.70 | 25.60 | 1.95 | 28.14 | 14.16 | 0.69 | 12.00 | 33.21 | 19.05 | 1.35 |
| South of Lake Blvd | SR 299 / Eureka Way | 1.69 | 29.66 | 27.04 | 224.36 | 0.91 | 10.35 | 586.16 | 361.80 | 1.61 | 27.89 | 217.50 | 0.94 | 11.00 | 551.52 | 334.02 | 1.54 |
| SR 299 / Eureka Way | Market St & Tehama St | 0.24 | 17.90 | 12.29 | 69.96 | 0.69 | 4.00 | 214.96 | 145.00 | 2.07 | 14.07 | 61.11 | 0.79 | 4.00 | 214.96 | 153.86 | 2.52 |
| Market St & Tehama St | Placer St | 0.29 | 14.20 | 13.57 | 77.01 | 0.96 | 4.00 | 261.30 | 184.29 | 2.39 | 14.20 | 73.61 | 1.00 | 6.60 | 158.36 | 84.76 | 1.15 |
| Placer St | North of Hill St | 0.40 | 26.41 | 21.00 | 69.03 | 0.80 | 9.00 | 161.08 | 92.04 | 1.33 | 24.00 | 60.40 | 0.91 | 8.00 | 181.21 | 120.81 | 2.00 |
| North of Hill Street | Cypress Ave | 0.16 | 36.11 | 26.30 | 21.41 | 0.73 | 16.00 | 35.19 | 13.78 | 0.64 | 22.20 | 25.36 | 0.61 | 15.00 | 37.54 | 12.17 | 0.48 |
| Cypress Ave | Buenaventura Blvd | 1.47 | 35.97 | 33.38 | 158.73 | 0.93 | 16.00 | 331.11 | 172.38 | 1.09 | 33.15 | 159.82 | 0.92 | 19.00 | 278.83 | 119.01 | 0.74 |
| Buenaventura Blvd | S Bonnyview Rd | 1.79 | 42.78 | 40.24 | 160.18 | 0.94 | 12.00 | 537.15 | 376.97 | 2.35 | 39.39 | 163.64 | 0.92 | 14.00 | 460.42 | 296.78 | 1.81 |
| S Bonnyview Rd | Happy Valley Rd | 2.68 | 45.37 | 38.64 | 249.56 | 0.85 | 21.00 | 459.16 | 209.60 | 0.84 | 36.79 | 262.09 | 0.81 | 20.00 | 482.12 | 220.03 | 0.84 |
| Happy Valley Rd | Ox Yoke Rd | 3.10 | 54.31 | 52.23 | 213.51 | 0.96 | 32.00 | 348.47 | 134.96 | 0.63 | 51.35 | 217.14 | 0.95 | 37.00 | 301.38 | 84.24 | 0.39 |
| Ox Yoke Rd | South St / Balls Ferry Rd | 1.69 | 48.15 | 33.65 | 180.87 | 0.70 | 14.00 | 434.69 | 253.82 | 1.40 | 31.38 | 193.97 | 0.65 | 13.00 | 468.13 | 274.16 | 1.41 |
| South of Pleasant Hills Dr | I-5 (Anderson) | 0.51 | 56.20 | 48.13 | 38.20 | 0.86 | 31.00 | 59.31 | 21.10 | 0.55 | 54.21 | 33.91 | 0.96 | 30.00 | 61.28 | 27.37 | 0.81 |
| South St / Balls Ferry Rd | South of Pleasant Hills Dr | 1.18 | 44.76 | 31.92 | 133.26 | 0.71 | 14.90 | 285.45 | 152.19 | 1.14 | 25.44 | 167.20 | 0.57 | 11.00 | 386.65 | 219.45 | 1.31 |

¹ Congestion is evaluated using Travel Time Index (ratio of the average speed (s_{avg}) and the free flow speed (s_f)). Uncongested is shown in green ($s_{avg}/s_f > 0.6$) and congestion is shown in red ($s_{avg}/s_f < 0.6$).

² Reliable Buffer Time Index (BTI) is shown in green (BTI < 0.25), moderately reliable BTI is shown in yellow (0.25 < BTI < 0.50), and unreliable BTI is shown in red (BTI > 0.50).

Person Throughput/Person Hours of Delay

The person throughput and person hours of delay were separate based on the segmentation discussed previously in this report. The 2020 Caltrans ADT was adjusted by a vehicle occupancy rate of 1.75 to determine the person throughput and the Daily Vehicle Hours of Delay (DPHD). The rate is based on the Caltrans Occupancy rate for the Redding area. The delay used to determine the DPHD was based on the northbound and southbound delays at the intersections along each segment. Table 19 below presents the person throughput and DPHD for each segment for existing conditions.

Table 19 Existing Conditions DPHD

| ID | Segment Extent (Approximate) | Person Throughput | DPHD |
|----|---|-------------------|--------|
| 1 | I-5 Ramps to south of Lake Blvd | 17,325 | 192.95 |
| 2 | South of Lake Blvd to Sacramento River | 31,150 | 128.39 |
| 3 | Sacramento River to south of Cypress Ave | 28,350 | 630.73 |
| 4 | South of Cypress Ave to north of Buenaventura Blvd | 24,675 | 22.37 |
| 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 27,300 | 163.78 |
| 6 | South of S Bonnyview Rd to south of Girvan Rd | 32,550 | 42.91 |
| 7 | South of Girvan Rd to Metz Rd | 18,725 | 41.06 |
| 8 | Metz Rd to south of Latona Rd | 18,025 | 22.95 |
| 9 | South of Latona Rd to north of Briggs St | 17,325 | 39.44 |
| 10 | North of Briggs St to I-5 Ramps | 16,100 | 175.06 |

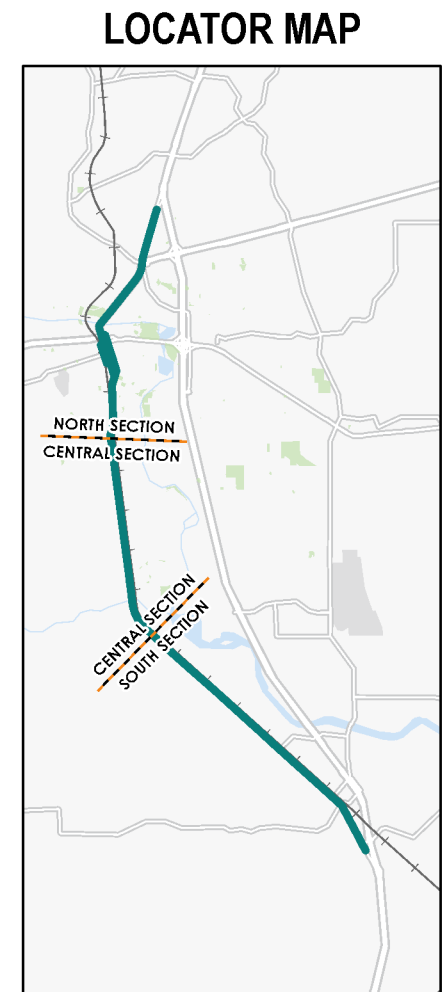
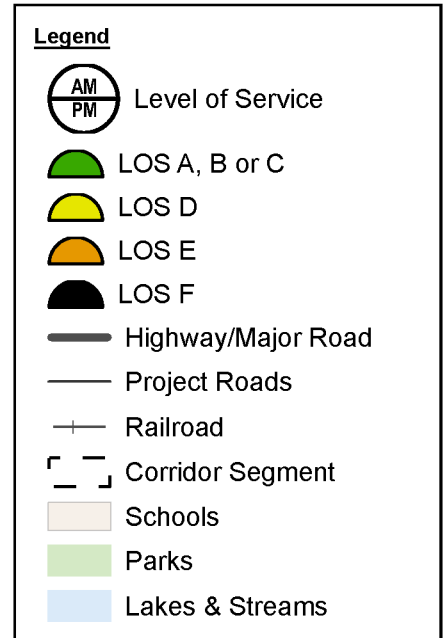
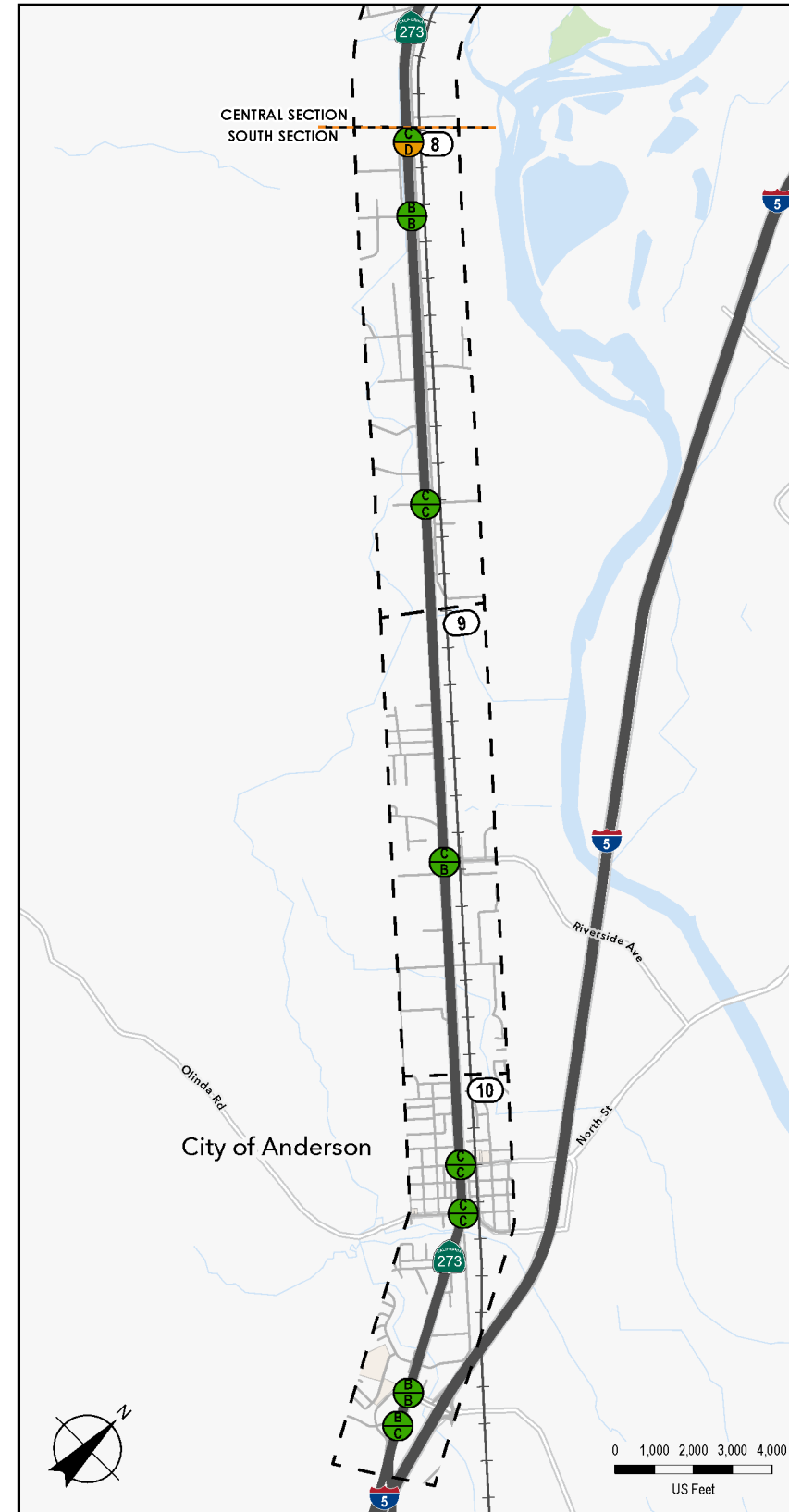
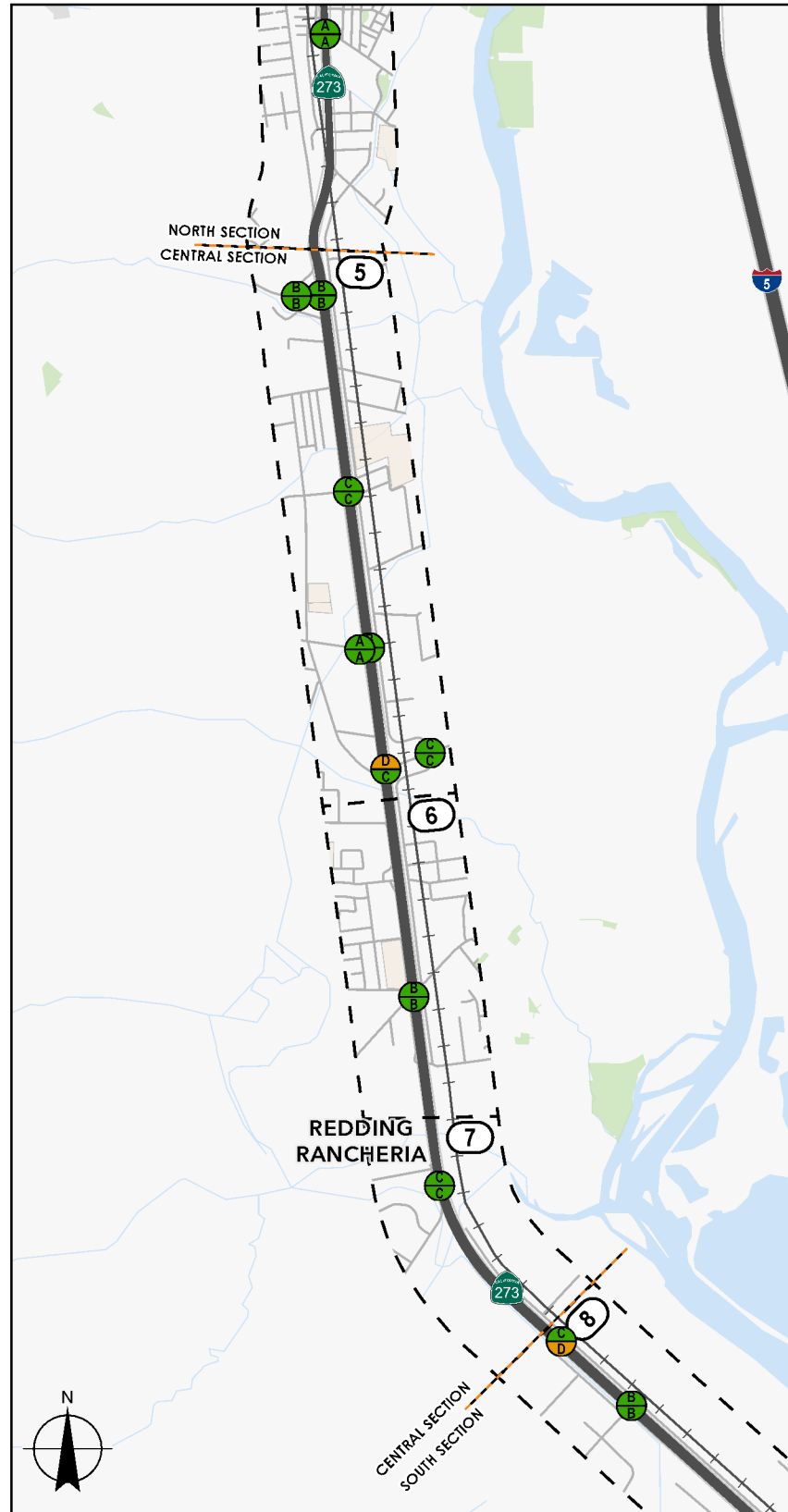
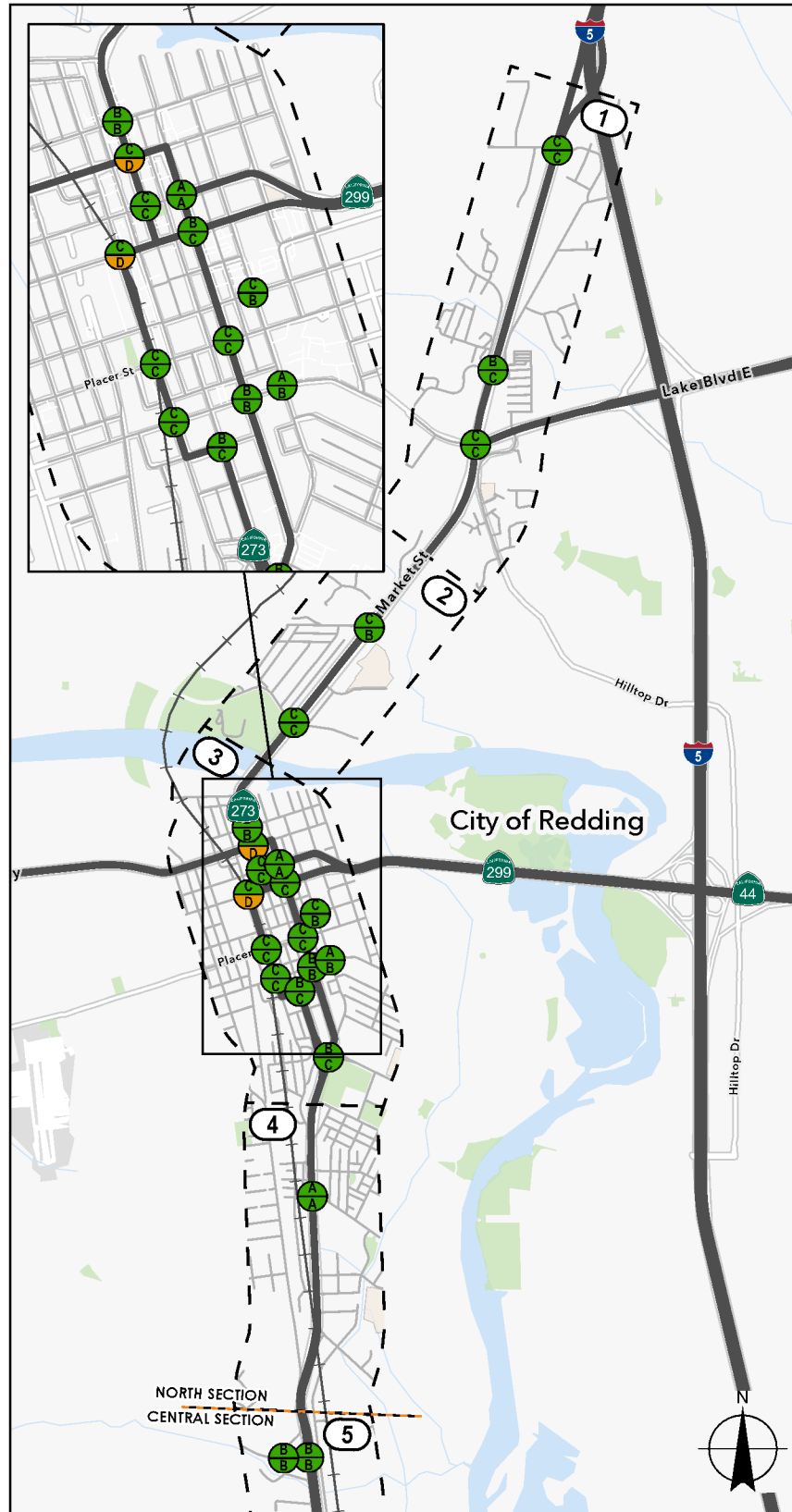
Intersection Level of Service

The LOS results for the AM and PM peak periods for the study intersections along the corridor are presented in Figure 25. The target LOS thresholds applicable to each intersection, as well as associated delay is reported in Table 20. As shown, most of the study intersections along the corridor operate at LOS A, B, or C in both the AM and PM peak periods, indicating acceptable vehicular traffic conditions. While a few intersections are operating at LOS D in the AM or PM peak period, none of the study intersections were found to operate below the identified thresholds for acceptable conditions.

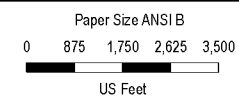
NORTH SECTION

CENTRAL SECTION

SOUTH SECTION



Envision 273: SR 273 Multimodal Corridor Plan INTERSECTION LEVEL OF SERVICE



Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



Project No. 12560002
Revision No. -
Date February 2024

FIGURE 25

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Print date: 23 Feb 2024 - 11:48

Data source: City of Redding GIS, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS, City of Redding GIS, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, City of Redding GIS, California State Parks, Esri, TomTom, Garmin, SafeGraph, METINASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS. Created by ppeel

Table 20 Intersection LOS Results

| Study Intersection ID | Intersection Location | Local Jurisdiction / LOS Threshold | Traffic Control | AM Peak Hour | | PM Peak Hour | |
|-----------------------|---|------------------------------------|------------------|--------------|-----|--------------|-----|
| | | | | Delay | LOS | Delay | LOS |
| 1 | Market St (SR 273) & Caterpillar Rd | City of Redding / D | Signal | 27 | C | 26 | C |
| 2 | Market St (SR 273) & Northpoint Dr/Twin View Blvd | City of Redding / D | Signal | 18 | B | 24 | C |
| 3 | Market St (SR 273) & Lake Blvd (SR 299) | City of Redding / D | Signal | 29 | C | 30 | C |
| 4 | Market St (SR 273) & Benton Dr | City of Redding / D | Signal | 21 | C | 19 | B |
| 8 | Market St (SR 273) & Quartz Hill Rd/Travelled Wy | City of Redding / D | Signal | 27 | C | 25 | C |
| 11 | Market St (SR 273) & Trinity St | City of Redding / D | Signal | 18 | B | 17 | B |
| 14 | Market St (SR 273) & Eureka Wy (SR 299) | City of Redding / D | Signal | 30 | C | 36 | D |
| 17 | Market St (SR 273) & Shasta St | City of Redding / D | Signal | 22 | C | 22 | C |
| 18 | Pine St (SR 273) & Shasta St (SR 44) | City of Redding / D | Signal | 7 | A | 10 | A |
| 20 | California St (SR 273) & Tehama St | City of Redding / D | Signal | 28 | C | 36 | D |
| 22 | Pine St (SR 273) & Tehama St (SR 44) | City of Redding / D | Signal | 16 | B | 25 | C |
| 27 | Yuba St & East St | City of Redding / D | Side-Street Stop | 15 | C | 14 | B |
| 28 | California St (SR 273) & Placer St | City of Redding / D | Signal | 27 | C | 28 | C |
| 29 | Pine St (SR 273) & Placer St | City of Redding / D | Signal | 23 | C | 21 | C |
| 34 | California St (SR 273) & South St | City of Redding / D | Signal | 25 | C | 27 | C |
| 35 | Pine St (SR 273) & South St | City of Redding / D | Signal | 16 | B | 20 | B |
| 36 | East St & South St | City of Redding / D | All-Way Stop | 10 | A | 11 | B |
| 38 | Gold St (SR 273) & Market St (SR 273) | City of Redding / D | Signal | 17 | B | 22 | C |
| 45 | East St & Market St (SR 273)/Cypress Ave | City of Redding / D | Signal | 17 | B | 21 | C |
| 51 | Market St (SR 273) & Grange St | City of Redding / D | Signal | 9 | A | 8 | A |
| 54 | Westside Rd/Railroad Ave & Buenaventura Blvd | City of Redding / D | Signal | 18 | B | 19 | B |
| 55 | SR 273 & Buenaventura Blvd | City of Redding / D | Signal | 16 | B | 14 | B |
| 57 | SR 273 & Kenyon Dr | City of Redding / D | Side-Street Stop | 24 | C | 24 | C |
| 58 | SR 273 & Branstetter Ln | City of Redding / D | Side-Street Stop | 11 | B | 13 | B |
| 59 | SR 273 & Cedars Rd/Bonnyview Rd | City of Redding / D | Signal | 36 | D | 33 | C |

| Study Intersection ID | Intersection Location | Local Jurisdiction / LOS Threshold | Traffic Control | AM Peak Hour | | PM Peak Hour | |
|-----------------------|--|------------------------------------|------------------|--------------|-----|--------------|-----|
| | | | | Delay | LOS | Delay | LOS |
| 60 | Eastside Rd & Bonnyview Rd | City of Redding / D | Signal | 32 | C | 28 | C |
| 62 | SR 273 & Clear Creek Rd | City of Redding / D | Signal | 11 | B | 12 | B |
| 64 | SR 273 & Canyon Rd / Redding Rancheria | City of Redding / D | Signal | 21 | C | 21 | C |
| 65 | SR 273 & Whitehouse Dr | City of Redding / D | Side-Street Stop | 20 | C | 26 | D |
| 66 | SR 273 & Happy Valley Rd | Shasta County / C | Signal | 12 | B | 11 | B |
| 67 | SR 273 & Amen St/Latona Rd | Shasta County / C | Side-Street Stop | 20 | C | 18 | C |
| 69 | SR 273 & Ox Yoke Rd | City of Anderson / D | Signal | 24 | C | 18 | B |
| 72 | SR 273 & North St | City of Anderson / D | Signal | 29 | C | 24 | C |
| 73 | SR 273 & South St | City of Anderson / D | Signal | 30 | C | 26 | C |
| 76 | SR 273 & Factory Outlets Dr | City of Anderson / D | Signal | 13 | B | 15 | B |
| 77 | SR 273 & Pleasant Hills Dr | City of Anderson / D | Signal | 18 | B | 23 | C |
| 78 | Branstetter Ln & Westside Rd | City of Redding / D | Side-Street Stop | 10 | A | 10 | A |

Note: LOS results based on 2000 *Highway Capacity Manual*

Transit Performance

Transit performance was evaluated for the transit routes that provide service along the corridor. Performance was based on schedule adherence and frequency of the transit routes at each stop. The table below presents the average schedule adherence for each route within the study area. As shown, most routes have a schedule adherence of greater than 80 percent. The routes with lower schedule adherence include Route 1, Route 2E, Route 3, Route 4, Route 5, and Route 11.

Table 21 Transit Route Schedule Adherence

| Route | Average Schedule Adherence |
|-----------|----------------------------|
| Route 1 | 68% |
| Route 2W | 82% |
| Route 2E | 74% |
| Route 3 | 62% |
| Route 4 | 73% |
| Route 5 | 68% |
| Route 6N | 85% |
| Route 6S | 80% |
| Route 7 | 89% |
| Route 9 | 87% |
| Route 11 | 76% |
| Route 14 | 80% |
| Route AC | 94% |
| Route CTE | 89% |
| Route SE | 93% |

Note: Service is considered "on-time" for stop arrivals within 5 minutes of scheduled time.

Appendix C includes maps that show transit route performance based on peak hour on-time arrival percentages, representing schedule adherence. Generally, the segments with the highest average schedule adherence are south of the City of Redding (Segments 8 – 10). Schedule adherence is poor within Segment 5, with several stops for Route 3 at or below 25 percent schedule adherence. Generally, schedule adherence within the remaining segments is fair.

Mobility & Connectivity

The Mobility & Connectivity performance measure results are summarized below and presented by segment in Table 24.

Transit Stop Quality

Most transit stops located directly on SR 273 lack benches or shelters. The segments with the most transit amenities for stop locations within the segment boundaries are Segment 2, Segment 3 (Downtown Redding), Segment 6, and Segment 10 (City of Anderson).

Bicycle Level of Traffic Stress (BLTS)

Most of the corridor is high stress (LTS 4). Low stress (LTS 1 or 2) routes found in pockets along the corridor, often separated by barriers like SR 273 and the UPRR freight rail tracks. Low stress connections within the study area are supplemented by the Class I shared use paths concentrated near the Sacramento River in Downtown Redding, along South Bonnyview Road between Segments 5 and 6, and within the City of Anderson. Where low stress connectivity is achieved along the corridor, it can often require out of direction travel when the shortest path involves high stress routes of crossings. These results are shown in Appendix C.

Bicycle Origin-Destination (O-D) Connectivity

Analysis of bicycle O-D connectivity was prepared for both total residential origins and residential origins within DACs. The results highlight the differences in safe and comfortable connectivity between residential origins with differing levels of affordability and demographic characteristics. These results are shown in Appendix C. The analysis finds that DACs are not disproportionately affected by poor LTS connectivity. However, this finding does not account for the fact that DACs are disproportionately dependent on transit and non-motorized travel for essential trips.

Sidewalk Coverage

Pedestrian facilities throughout the corridor include a discontinuous network of sidewalk, crosswalks, and multiuse trail connections. This network includes gaps, narrow sections, and vegetation overgrowth in many locations. Most locations with sidewalk vary in width between four and six feet. However, there are some locations that also feature a landscaped area with sidewalk that are as wide as 15 feet. Sidewalk gaps are most prevalent between Downtown Redding and the City of Anderson, within Segments 5 to 9.

Mode Share

The results of the modal split assessment are summarized in the following table. As shown, automobile trips (including both single-occupancy and multiple occupant trips) far outweigh non-auto trips, with approximately 11-times more trips made by a car than by bicycle or foot.

Table 22 Study Area Mode Split (Excluding Transit Trips)

| Mode | % Calculated Using | |
|---------------|-----------------------------------|--------------------------------|
| | SR 273 Network Links ¹ | Corridor Segments ² |
| Auto | 88% | 80% |
| Freight Truck | 7% | 7% |
| Bike | 2% | 3% |
| Walk | 2% | 8% |
| Other | 0% | 2% |

¹ Includes trips for a sample set of network links on SR 273, only

² Includes trips on all network links within study segments

Safety

Collision data was presented in Chapter 3 (Corridor Context). Additionally, collision rates were calculated for segments using the Federal Highway Administration (FHWA) collision rate⁵ for both total and fatal + injury collisions. The. These collision rates were compared against California's average collision rate for similar highway facilities (per million entering vehicles). Collision rates for Segments 2 and Segments 4 – 10 exceed the statewide average collision rate. Table 23 presents the results of this assessment. Table 24 provides a summary of the safety performance measure assessment.

Sustainability & Resiliency

This performance measure is assessed in terms of future performance and opportunities (e.g., projects that facilitate and support emergency evacuations).

⁵ https://safety.fhwa.dot.gov/local_rural/training/fhwasa1109/app_c.cfm

For more information, please refer to the Future Performance Forecast section of this Chapter and Chapters 7 to 9 .

Equity

The corridor study segments are partially or fully within DACs based on the four criteria categories. The disadvantaged community status of each segment is presented in Table 24.

Table 23 Collision Rates by Segment

| ID | Segment Extent (Approximate) | Approx. Length (mi) | Highway Type (Typical) | Area Type (Typical) | Total Collisions (2018-2022) | Total FSI Collisions (2018-2022) | AADT (Caltrans 2020) | Collision Rate (Per Million Entering Vehicles) | CA Average Collision Rate (Per Million Entering Vehicles) | Higher than state avg? |
|----|---|---------------------|------------------------|---------------------|------------------------------|----------------------------------|----------------------|--|---|------------------------|
| 1 | I-5 Ramps to south of Lake Blvd | 1.8 | Divided 4 Lanes | Suburban | 29 | 2 | 9,900 | 0.89 | 0.94 | |
| 2 | South of Lake Blvd to Sacramento River | 1.0 | Divided 4 Lanes | Suburban | 33 | 2 | 17,800 | 1.02 | 0.94 | Yes |
| 3 | Sacramento River to south of Cypress Ave | 2.5* | Conventional 3 Lanes | Urban | 100 | 4 | 16,200 | 1.35 | 1.61 | |
| 4 | South of Cypress Ave to north of Buenaventura Blvd | 1.2 | Divided 4 Lanes | Suburban | 30 | 2 | 14,100 | 0.97 | 0.94 | Yes |
| 5 | North of Buenaventura Blvd to south of S Bonnyview Rd | 2.0 | Divided 4 Lanes | Suburban | 59 | 6 | 15,600 | 1.04 | 0.94 | Yes |
| 6 | South of S Bonnyview Rd to south of Girvan Rd | 1.2 | Divided 4 Lanes | Suburban | 55 | 8 | 18,600 | 1.35 | 0.94 | Yes |
| 7 | South of Girvan Rd to Metz Rd | 0.9 | Divided 4 Lanes | Suburban | 24 | 4 | 10,700 | 1.37 | 0.94 | Yes |
| 8 | Metz Rd to south of Latona Rd | 2.3 | Divided 4 Lanes | Rural | 61 | 14 | 10,300 | 1.41 | 0.18 | Yes |
| 9 | South of Latona Rd to north of Briggs St | 2.2 | Divided 4 Lanes | Suburban | 47 | 5 | 9,900 | 1.18 | 0.94 | Yes |
| 10 | North of Briggs St to I-5 Ramps | 2.2 | Divided 4 Lanes | Suburban | 71 | 12 | 9,200 | 1.92 | 0.94 | Yes |

*Includes both southbound and northbound couplets.

Note: FSI = Fatal or Severe Injury

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Table 24 Performance Measure Results by Segment

| SEGMENT PERFORMANCE | Segment 1 | Segment 2 | Segment 3 | Segment 4 | Segment 5 | Segment 6 | Segment 7 | Segment 8 | Segment 9 | Segment 10 |
|--|--|---|--|--|---|---|-------------------------------|-------------------------------|--|---------------------------------|
| | I-5 Ramps to south of Lake Blvd | South of Lake Blvd to Sacramento River | Sacramento River to south of Cypress Ave | South of Cypress Ave to north of Buenaventura Blvd | North of Buenaventura Blvd to south of S Bonnyview Rd | South of S Bonnyview Rd to south of Girvan Rd | South of Girvan Rd to Metz Rd | Metz Rd to south of Latona Rd | South of Latona Rd to north of Briggs St | North of Briggs St to I-5 Ramps |
| MOBILITY & CONNECTIVITY | | | | | | | | | | |
| Transit Stop Quality | Poor | Fair | Fair | Fair | Poor | Fair | Fair | Poor | Poor | Fair |
| Presence of Amenities (Shelter or Bench) at Transit Stop? | Typically no bench/shelter | Typically no bench/shelter | Typically no bench/shelter | Some with bench | Typically no bench/shelter | Some with bench/shelter | Some with bench/shelter | No bench/shelter | Some with bench | Some with bench/shelter |
| Sidewalk Connection to Transit Stop? (On SR 273, only) | No stops on SR 273 | Yes, sidewalk at SR 273 stops | Yes, sidewalk at SR 273 stops | Some sidewalk at SR 273 stops | No stops on SR 273 | Yes, sidewalk at SR 273 stops | Some sidewalk at SR 273 stops | No stops on SR 273 | Some sidewalk at SR 273 stops | Some sidewalk at SR 273 stops |
| Sidewalk Coverage | Minimal; Connectivity near developed area | Minimal; Connectivity near developed area | High | Partially connected | Minimal to None | Minimal to None | Minimal to None | None | None | Medium to High |
| Bicycle Level of Traffic Stress | High Stress | High Stress | High Stress | High Stress | High Stress | High Stress | High Stress | High Stress | High Stress | High Stress |
| Bicycle Connectivity via Low Stress Network to Destination Types: | Results shown as # Destinations ¹ (% Connected ²) | | | | | | | | | |
| Employment Destinations | 3 (0%) | 0 (0%) | 8 (8%) | 1 (0%) | 1 (0%) | 0 (0%) | 1 (6%) | 0 (0%) | 2 (0%) | 3 (27%) |
| Education Destinations | 1 (1%) | 1 (18%) | 9 (14%) | 2 (14%) | 6 (4%) | 3 (46%) | 0 (0%) | 0 (0%) | 1 (12%) | 7 (13%) |
| Community Services and Shopping Destinations | 10 (5%) | 3 (3%) | 71 (13%) | 6 (5%) | 9 (1%) | 4 (17%) | 1 (3%) | 2 (0%) | 1 (36%) | 10 (7%) |
| Health Care Destinations | 1 (0%) | 0 (0%) | 27 (12%) | 4 (4%) | 1 (0%) | 0 (NA) | 0 (NA) | 0 (NA) | 0 (31%) | 2 (7%) |
| Food Access | 1 (0%) | 0 (0%) | 4 (0%) | 1 (0%) | 0 (7%) | 2 (26%) | 0 (0%) | 0 (0%) | 0 (NA) | 3 (0%) |
| Transit Service Destinations (includes Bike Share locations) | 41 (9%) | 10 (0%) | 93 (13%) | 20 (3%) | 17 (0%) | 9 (0%) | 3 (0%) | 9 (0%) | 6 (6%) | 27 (0%) |
| Civic Service Destinations | 1 (1%) | 0 (0%) | 16 (15%) | 2 (5%) | 0 (0%) | 0 (0%) | 1 (0%) | 0 (0%) | 0 (14%) | 11 (5%) |
| Parks/Open Space & Recreation Destinations | 5 (18%) | 4 (34%) | 4 (3%) | 3 (28%) | 0 (0%) | 2 (74%) | 0 (0%) | 0 (NA) | 0 (0%) | 1 (0%) |
| OPERATIONS & RELIABILITY | | | | | | | | | | |
| Travel Time Reliability | Results provided in Table 18 | | | | | | | | | |
| Intersection Level of Service | Results provided in Table 20 | | | | | | | | | |
| Transit Route Schedule Adherence | Results provided in Table 21 | | | | | | | | | |
| <p>1. The # of destinations reported here are the # of destinations only within the segment. However, low stress connectivity is assessed for connections within and outside of the segment, so long as the location is reachable within a 1.5-mile biking distance.</p> <p>2. Value of "NA" for the percent connected indicates that there are no connections for that node type in the full stress network within a 1.5-mile biking distance from the residential origins in that segment to compare low-stress connections against.</p> | | | | | | | | | | |

| SEGMENT PERFORMANCE | Segment 1 | Segment 2 | Segment 3 | Segment 4 | Segment 5 | Segment 6 | Segment 7 | Segment 8 | Segment 9 | Segment 10 |
|---|-------------------------------------|--|--|---|--|---|-------------------------------------|-------------------------------------|--|-------------------------------------|
| | I-5 Ramps to south of Lake Blvd | South of Lake Blvd to Sacramento River | Sacramento River to south of Cypress Ave | South of Cypress Ave to north of Buena Ventura Blvd | North of Buena Ventura Blvd to south of S Bonnyview Rd | South of S Bonnyview Rd to south of Girvan Rd | South of Girvan Rd to Metz Rd | Metz Rd to south of Latona Rd | South of Latona Rd to north of Briggs St | North of Briggs St to I-5 Ramps |
| SAFETY | | | | | | | | | | |
| Total Crashes | 29 | 33 | 100 | 30 | 59 | 55 | 24 | 61 | 47 | 71 |
| Total Fatal Crashes | 2 | 1 | 2 | 1 | 5 | 3 | | 4 | 3 | |
| Total Severe Crashes | | 1 | 2 | 1 | 1 | 5 | 4 | 10 | 2 | 12 |
| Total Crashes Involving a Pedestrian | 1 | 2 | 8 | 3 | 5 | 2 | 3 | 5 | 3 | 2 |
| Total Pedestrian Fatalities | 1 | | 1 | 1 | 4 | 1 | | 2 | 2 | |
| Total Crashes Involving a Bicyclist | | 1 | 3 | 1 | 1 | | | 2 | | 2 |
| Total Bicyclists Fatalities | | | | | | | | 2 | | |
| % at Night (Non-Daylight Crashes) | 31% | 21% | 30% | 33% | 34% | 47% | 46% | 43% | 30% | 44% |
| Primary Crash Types | Broadside | Rear End | Broadside & Rear End | Broadside | Rear End | Rear End | Rear End & Broadside | Broadside | Rear End & Hit Object | Broadside & Rear End |
| Primary Crash Cause | Unsafe Speed & Vehicle Driver Error | Unsafe Speed | Unsafe Speed & Vehicle Driver Error | Vehicle Driver Error & Unsafe Speed | Unsafe Speed | Unsafe Speed | Vehicle Driver Error & Unsafe Speed | Vehicle Driver Error & Unsafe Speed | Vehicle Driver Error & Unsafe Speed | Vehicle Driver Error & Unsafe Speed |
| Crash Rate (Bold = Exceeds Statewide average) | 0.89 | 1.02 | 1.35 | 0.97 | 1.04 | 1.35 | 1.37 | 1.41 | 1.18 | 1.92 |
| Statewide Crash Rate | 0.94 | 0.94 | 1.61 | 0.94 | 0.94 | 0.94 | 0.94 | 0.18 | 0.94 | 0.94 |
| EQUITY (DAC STATUS) | | | | | | | | | | |
| SRTA RTP/SCS Criteria | Majority | Partially | Majority | Partially | Majority | No | Majority | Majority | No | Majority |
| USDOT RAISE Areas of Persistent Poverty Criteria | Partially | Partially | Majority | Majority | Majority | Majority | Majority | Fully | Majority | Majority |
| SB 535 CalEPA Criteria | No | No | No | No | No | Partially | Partially | No | No | No |

Existing Performance System Profiles

System profiles were developed for each study segment to help visualize the results of the corridor performance assessment. These profiles are provided in the Appendix C. Based on the results of the performance assessment, segments were given an overall assessment result based on the following metrics and criteria. Mobility & Connectivity, Operations & Reliability, and Safety results reflect either poor, fair, or good performance. Equity results reflect high, moderate, or low DAC status, depending on how many DAC criteria were met.



MOBILITY & CONNECTIVITY

- Transit Stop Conditions
- Sidewalk Coverage
- Bicycle Level of Traffic Stress (LTS)
- Bicycle Connectivity via Low Stress Network to Destination Types



OPERATIONS & RELIABILITY

- Transit Stop Reliability
- Travel Time Reliability (TTR)
- Intersection Level of Service (LOS)



SAFETY

- Total Crashes
- Total Fatal Crashes
- Total Severe Crashes
- Total Crashes/Fatalities Involving a Pedestrian
- Total Crashes/Fatalities Involving a Bicyclist
- % Occurred at Night (Non-Daylight Crashes)
- Crash Rate compared to Statewide Average Crash Rate



EQUITY (DAC Status)

- SRTA RTP/SCS Criteria
- USDOT RAISE Areas of Persistent Poverty Criteria
- SB 535 CalEPA Criteria

The overall assessment results are presented in Table 25. As shown, each segment performs poorly based on the above metrics and criteria. Although some segments have more prevalent multimodal infrastructure and amenities, the low stress (safer and more comfortable) travel routes are limited to pockets along the corridor, often separated by barriers like SR 273 and the UPRR freight rail line. The overall lack of connectivity to destinations along the corridor highlights the need to prioritize low-stress travel options. In addition, the results of the safety assessment reveal that, even for segments with lower crash rates compared to statewide averages, the number and severity of crashes along the corridor results in unsafe travel conditions for all modes, including vehicular travel. Lastly, each segment is either partially or fully within a DAC based on one or all the above DAC status criteria. Therefore, poor corridor performance creates a significant burden for DACs.

Table 25 Segment Overall Performance Assessment Results

| | Segment 1 | Segment 2 | Segment 3 | Segment 4 | Segment 5 | Segment 6 | Segment 7 | Segment 8 | Segment 9 | Segment 10 |
|-------------------------------------|---------------------------------|--|--|---|--|---|-------------------------------|-------------------------------|--|---------------------------------|
| | I-5 Ramps to south of Lake Blvd | South of Lake Blvd to Sacramento River | Sacramento River to south of Cypress Ave | South of Cypress Ave to north of Buena Ventura Blvd | North of Buena Ventura Blvd to south of S Bonnyview Rd | South of S Bonnyview Rd to south of Girvan Rd | South of Girvan Rd to Metz Rd | Metz Rd to south of Latona Rd | South of Latona Rd to north of Briggs St | North of Briggs St to I-5 Ramps |
| Mobility & Connectivity | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor |
| Operations & Reliability | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor |
| Safety | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor | Poor |
| Equity (DAC Status) | High DAC | High DAC | High DAC | High DAC | High DAC | Moderate DAC | High DAC | High DAC | High DAC | High DAC |

Future Performance Forecasts

For this study, the SRTA Shasta County Activity-based Travel Model (ShastaSIM 2.0) was used. With the consensus of SRTA staff, GHD adjusted the ShastaSIM 2.0 IX-XI trip growth assumptions to match the corresponding model population and employment growth assumptions.

Vehicle Miles Traveled

For the study corridor, VMT was generated using the adjusted version of ShastaSIM 2.0, as described above, for the base (2020) and future (2040) years.

For baseline conditions, 2020 daily VMT is 530,544 vehicle miles and 2040 daily VMT is 578,823 vehicles miles.

Air Quality & Emission

For the study corridor, on-road mobile sources of climate change pollutants and greenhouse gases, including methane and carbon dioxide, were estimated using the California Air Resources Board (CARB) Emission FACtor (EMFAC) emissions model. EMFAC inputs include VMT, percentage of trucks on the roadway, and trip speeds.

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5 STAKEHOLDER AND PUBLIC OUTREACH

A robust stakeholder and public outreach process was conducted to engage the community and identify community concerns and priorities.

Elements of the outreach process included:

- A Project Advisory Committee (PAC) and a Stakeholder Working Group
- Online engagement, including a project website and an online survey, ideas wall, and mapping tool
- In person engagement
- A public visioning event
- Public open houses
- A safety campaign

The public outreach summary is provided in Appendix D.

Project Advisory Committee and Stakeholder Working Group

A PAC was created to advise plan development. Members included SRTA, Caltrans, and local agency staff, as well as a local community-based organization (CBO) Shasta Living Streets. The PAC met throughout the plan development process to kick off the project and discuss feasibility studies, scenarios, preliminary recommendations, and the draft plan.

The Stakeholder Working Group was established to engage with a wider variety of community perspectives, including local CBOs, community groups, non-profits, and select residents

Site Visit

A site visit was conducted. The site visit raised 134 comments, 48 of which included suggested improvements. Common themes during the site visit included:

- Pedestrians and bicycle safety and accessibility
- Improvements to pedestrian crossings
- Congestion near schools
- Traffic flow for vehicles and trucks
- Vehicle speeds



Online Engagement

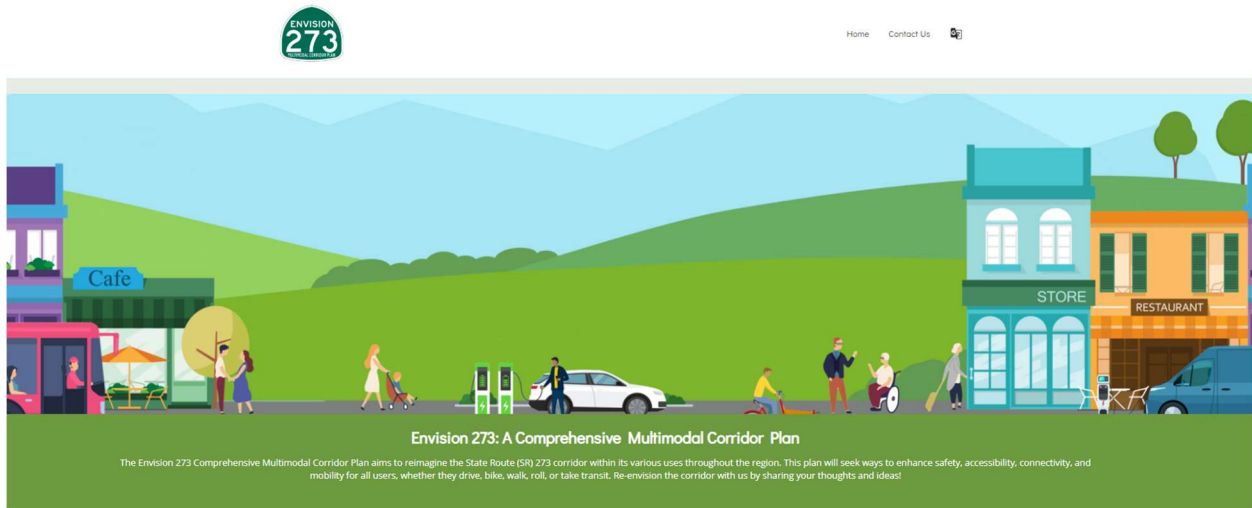
Project Website

A project website was developed for community members to learn about the project and provide feedback regarding existing conditions and potential improvements. The website included project background,

upcoming events, a project timeline, project documents, and examples of complete streets strategies. Visitors to the website were able to engage with three tools:


- A survey for collecting travel behaviour and feedback on potential improvements
- An ideas wall for participants to discuss with other users
- A mapping tool for providing location specific comments

The website received 4,330 comments from 2,205 stakeholders.




Get Involved

Thank you for your interest in this plan. Your input is very important throughout the planning process. Find ways to get involved with the project by clicking one of the links below.




Survey
Please fill out the following survey to help us better understand your needs along State Route 273.

[Take the Survey](#)



Interactive Project Map
Add your location-specific ideas and comments on the project map.

[View Project Map](#)



Ideas Wall
Share, discuss, and add images of your ideas for the future of SR 273.

[Add Your Idea](#)

Upcoming Public Events

In-person outreach events will include 4 Community Workshops. The round of two workshops were held in May 2023 in Redding and Anderson. SRTA staff will be tabling various community events in the coming weeks and months—dates for these events will be posted on this website as they are scheduled. Tentative dates for workshops soliciting feedback on the draft plan are posted below. Details will be posted as they become available.

| | |
|-----------------|---|
| OCTOBER 2024 | <p>Redding Open House</p> <p>Date: TBD Time: TBD Venue: TBD</p> |
| OCTOBER 2024 | <p>Anderson Open House</p> <p>Date: TBD Time: TBD Venue: TBD</p> |

Project Timeline

- v

Project Initiation

The project was initiated in February of 2023.
- +

Current Phase

Data Collection & Existing Conditions

Data collection and development of the existing conditions report will establish a baseline for analyzing improvement options for SR 273.
- +

Current Phase

Public Engagement

In-person outreach efforts will include Community Workshops. Dates for these events will be posted on this website as they are scheduled. The public is also encouraged to provide ongoing feedback online. As proposed improvements are developed, the Draft document will be made available for public review and comment.
- v

Recommendations Development & Analysis

Improvement options will be developed based on an extensive evaluation of existing transportation conditions and public feedback. These improvement options will then be analyzed and compared to establish the preferred set of solutions for the Plan.
- v

Plan Development

A Draft Plan will be developed and brought back to the public for review and comment opportunities.

Survey

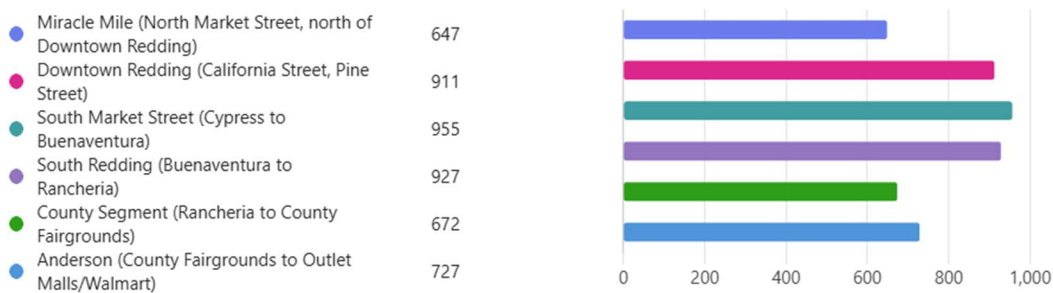
A public input survey was created to collect information about travel behaviour along the SR 273 and priorities for the corridor plan.

Travel Information

When asked what portions of SR 273 community members utilized regularly, respondents most often answered South Market Street (Cypress Avenue to Buenaventura Boulevard), followed by South Redding (Buenaventura Boulevard to Redding Rancheria Road) and Downtown Redding (California Street and Pine Street).

2. What portions of SR 273 do you use regularly. *Select all that apply.*

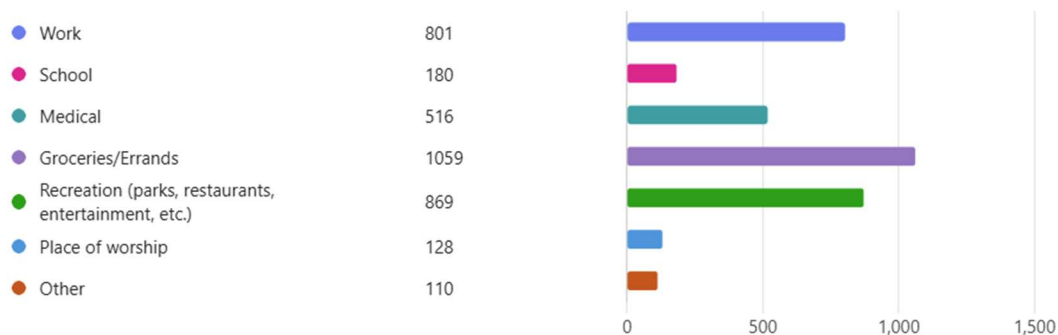
[More details](#)



Community members most often run errands along SR 273, followed by traveling to recreation facilities or commuting to work.

3. What types of trips do you typically utilize SR 273 for? *Select all that apply.*

[More details](#)



Improvement Priorities

Community members overwhelmingly supported improved crossing locations along SR 273. Almost half of responses came from drivers who felt that enhanced crossings would improve their safety. When asked to prioritize changes along SR 273, the highest proportion of respondents ranked modifying intersections to reduce crash risks as their top choice.

More than a quarter of survey respondents said they would support improved transit service on SR 273 if it would take cars off the road, and 9% said they would use transit if it were more convenient. Thirty-eight percent of respondents had no opinion on improving transit service and 18% opposed.

7. Would you support improved bus (transit) service on SR 273? (more frequent and reliable)

[More details](#)



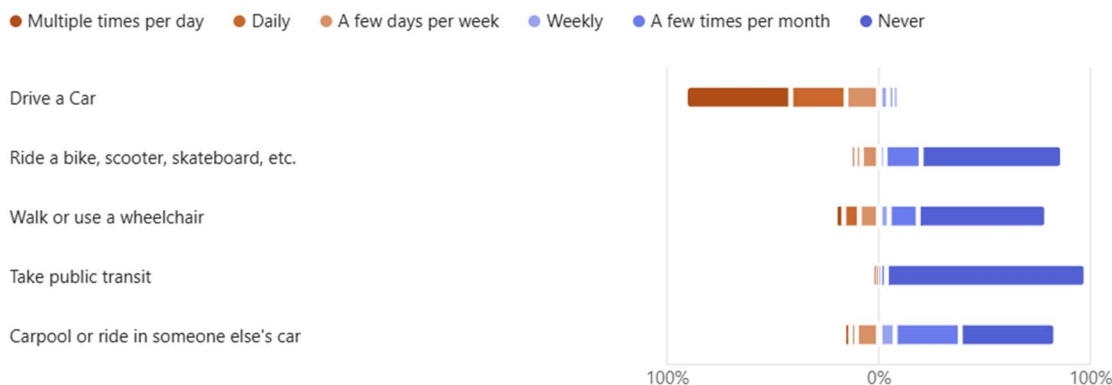
Safety

Community members were asked, on the segments of SR 273 they travelled most, how often they used different modes of transportation, how safe they felt using each mode, and what factors influenced their perceived safety.

A majority of community members drove a car daily or multiple times a day. About 20% of respondents reported walking or using a wheelchair on SR 273 at least a few days per week, while 13% said they rode a bike, scooter, skateboard or other non-motorized mode of transportation.

9. On this segment, how often do you _____? *Select all that apply.*

[More details](#)



Almost half of survey respondents felt moderately safe while driving along SR 273 (47%), followed by somewhat safe (25%) and very safe (22%). Drivers felt that unsafe or speeding drivers impacted their safety most, followed by lack of lighting and poor road surface.

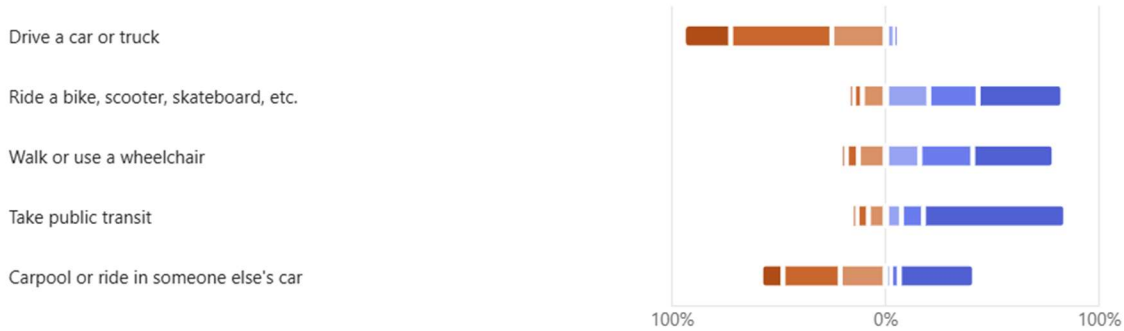
Most respondents said they did not feel safe walking, using a wheelchair, riding a bike or using other non-motorized modes of transportation, said they would not use those modes of transportation along the corridor, or felt they modes were not applicable to them. Community members felt that a lack of sidewalks impacted their safety when walking the most, followed by unsafe or speeding drivers and a lack of crossing opportunities. Respondents said that a lack of bicycle lanes impacted their safety when bicycling along the corridor more, followed by unsafe or speeding drivers.

While very few respondents reported taking public transit, community members felt that a lack of lighting, followed by unsafe drivers and lacking of crossing locations impacted their safety when taking transit most.

10. On this segment, how safe do you feel when you _____? *Select all that apply.*

[More details](#)

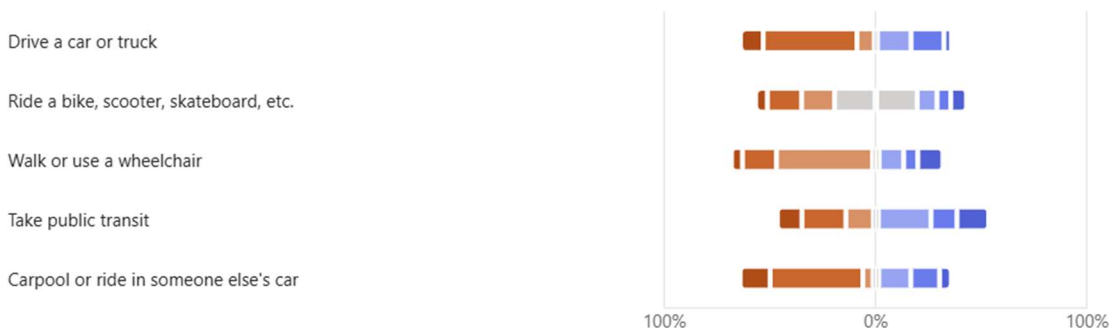
- Very safe
- Moderately safe
- Somewhat safe
- Not safe
- I would not do this along the corridor
- Not applicable



11. If you answered, 'Somewhat unsafe' or 'Not safe,' on the prior question, what makes you feel unsafe? *Select the main reason you feel unsafe.*

[More details](#)

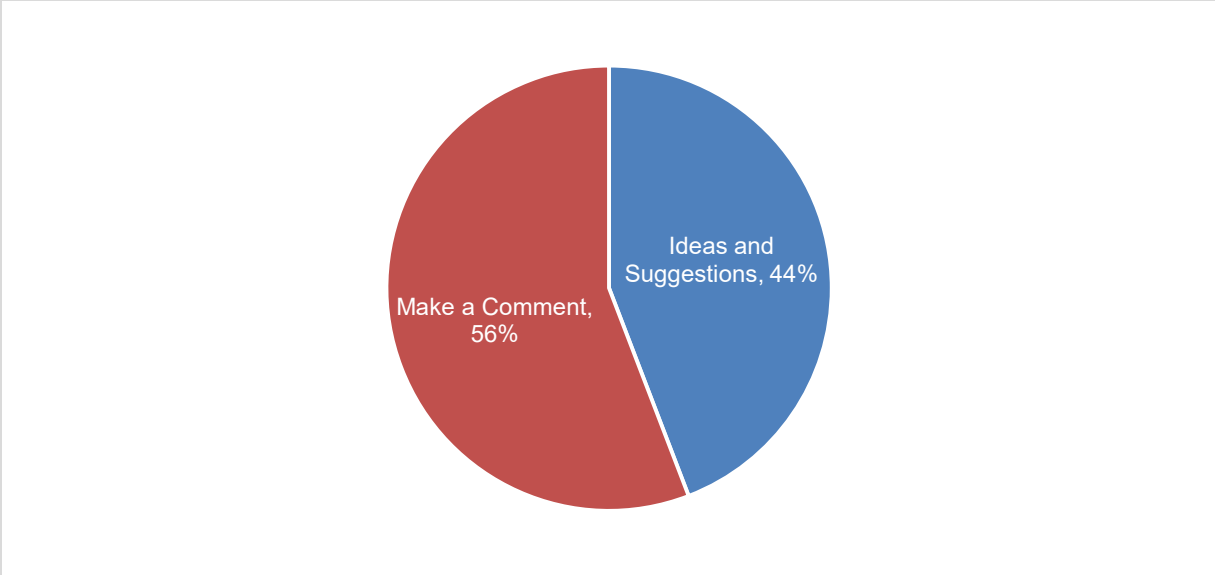
- Too much traffic
- Unsafe / speeding drivers
- No sidewalks (or unsafe sidewalks)
- No bike lanes (or unsafe bike lanes)
- Not enough lighting
- Poor road surface
- No way to cross the street (or cross safely)



Ideas Wall

An ideas board was hosted on the website to facilitate discussion among stakeholders. Users were able to add images of improvements they'd like to see, up vote and down vote comments, and start discussions. The ideas was received 43 comments from 28 stakeholders.

Ideas wall users were presented with three prompts: "make a comment", "ideas and suggestions", and "something I like". Users chose to make a comment or provided ideas or suggestions and did not make any "something I like" comments.



Five comments received 10 or more upvotes from stakeholders. Popular comments included installing a “starpath” and bicycle facilities along SR 273, congestion, interest in roundabouts, and beautification of the corridor.

Table 26 Top Voted Ideas Wall Comments

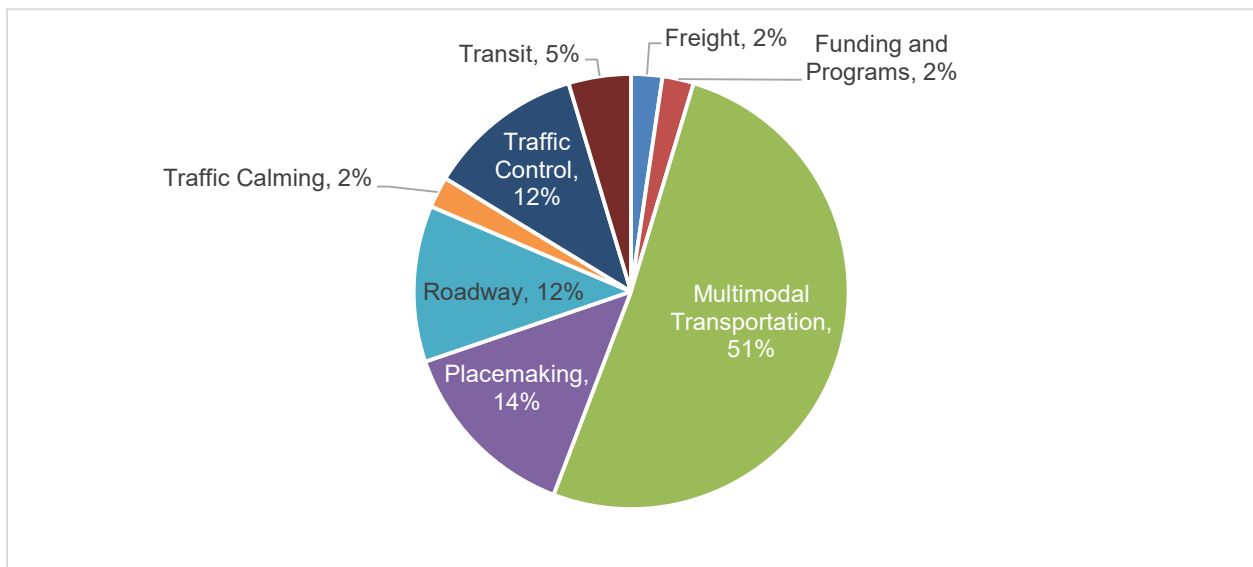
| Comment | Up Votes | Down Votes |
|--|----------|------------|
| Maybe starpaths along 273 would encourage more people to use them! A Starpath is a spray-on coating that can be used on any solid surface and works by absorbing UV rays during the day and then expelling them at night. A lot of cities are doing this now and it’s cost effective! (There are more pictures online but it can be painted straightforward as shown or more artistically) | 18 | 1 |
| More landscaping, trees/shade, and general beautification of the corridor is desperately needed. Consider using reclaimed water from Clear Creek Wastewater Treatment Plant along 273 to provide greenery even during drought years. This reclaimed water system could potentially be utilized by nearby developments as well. | 13 | 2 |
| Would like to see signal lights replaced with roundabouts in many locations. This would slow down the corridor and prevent fatalities that have happened at many intersections (difficult to come to a stop at a red light when you are going 65 mph). More lighting along the corridor is needed. Beautify the corridor. | 13 | 4 |
| A bike lane the entire length of the corridor would be a plus to the City. I believe this was suggested a while back and the suggestion said there would be a protective barrier of some kind to protect bikers from traffic. | 11 | 1 |
| I regularly commute from China Gulch to Redding via 273. Traffic management on 273 is marginal. The speed limit is 55 mph to 60 mph. However, traffic along 273 is often in perpetual stop and go mode being stopped by lights for one or two cars on the side streets. How is that environmentally friendly? Can some traffic light synchronization be planned like downtown Redding has? | 10 | 1 |

Ideas wall comments were categorized into eight primary themes, described below. Many comments included multiple themes, of which the most prominent was chosen.

- **Multimodal Transportation:** bicyclists, pedestrians, or ADA accessibility

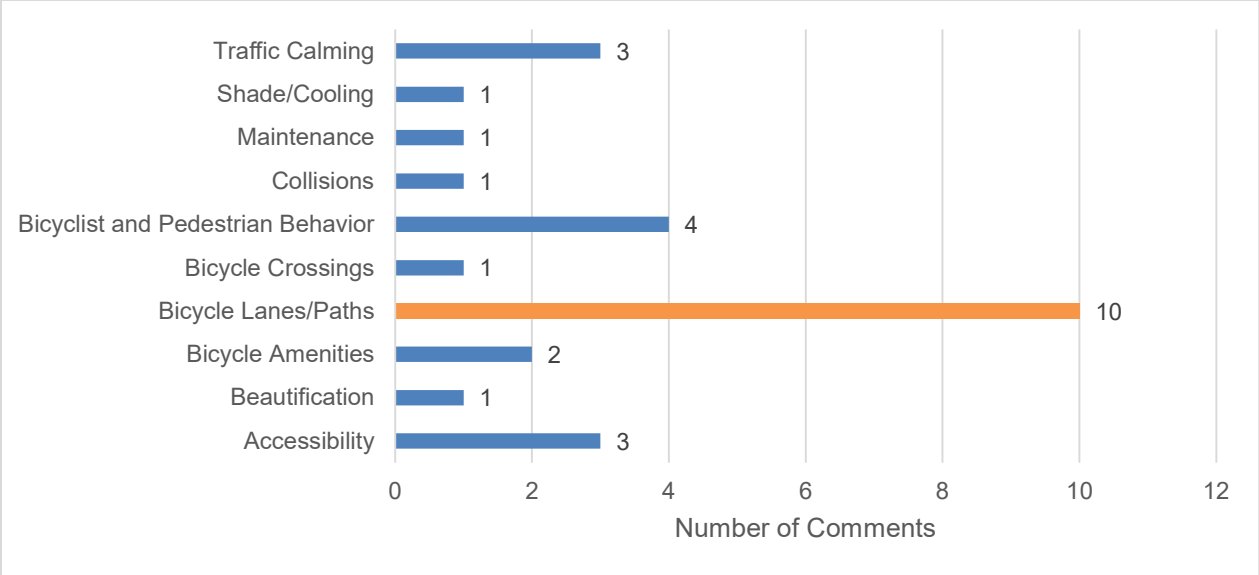
- **Freight Rail:** rail crossings
- **Funding and Programs:** concerns about funding, concerns about homelessness, and funding opportunities
- **Placemaking:** landscaping, greenspace and shade trees, environmental considerations, lighting, and beautification
- **Roadway:** road blockages and access, driver safety concerns and collisions, lane configuration, and congestion
- **Traffic Calming:** speeding concerns and speed reduction
- **Traffic Control:** traffic lights and timing, roundabouts, turn lanes, and signage
- **Transit:** transit stops, including access and relocation

More than half of the 43 ideas wall comments primarily addressed multimodal transportation along SR 273.



Multimodal Transportation

Of the 22 multimodal transportation comments, bicycle lanes and paths were mentioned most often. Community members expressed support for multiuse paths and protected bikeways along the corridor and felt existing conditions are unsafe for non-motorized users. Community members also discussed pedestrian and bicycle behaviour, noting that pedestrians cross the road at unmarked locations, increasing collision risk. One commenter questioned why bicycle lanes were needed because there are so few people cycling in along the corridor, but other community members felt that safe bicycle facilities would encourage more people to ride.



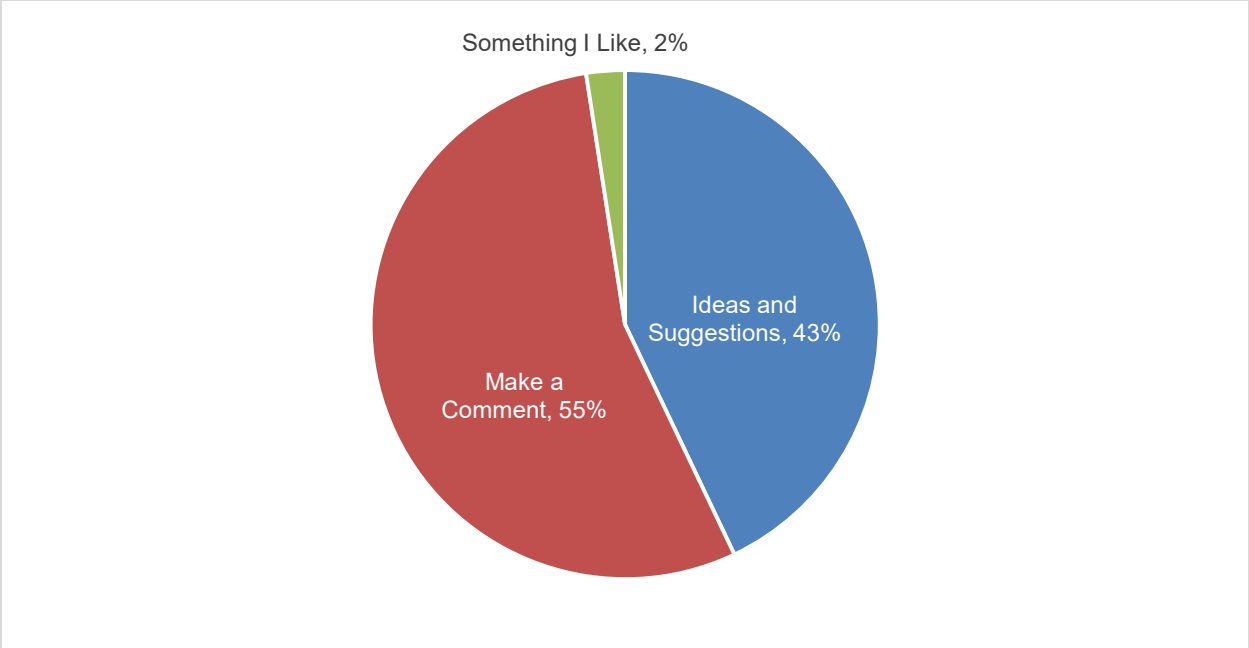
Additional Themes

Other common themes included incorporating placemaking techniques along the corridor, such as landscaping, lighting, benches, and shade to improve the experience of walking and bicycling along SR 273. Community members also raised concerns about congestion, safety, and improving vehicle access to neighborhoods along the corridor.

Mapping Tool

An interactive mapping tool was hosted on the website to gather location specific comments along the project area. The tool was open for comment beginning in spring of 2023 and was closed in fall of 2024. Users were able to add images of improvements they’d like to see, up vote and down vote comments, and start discussions. The map received 163 comments from 89 stakeholders.

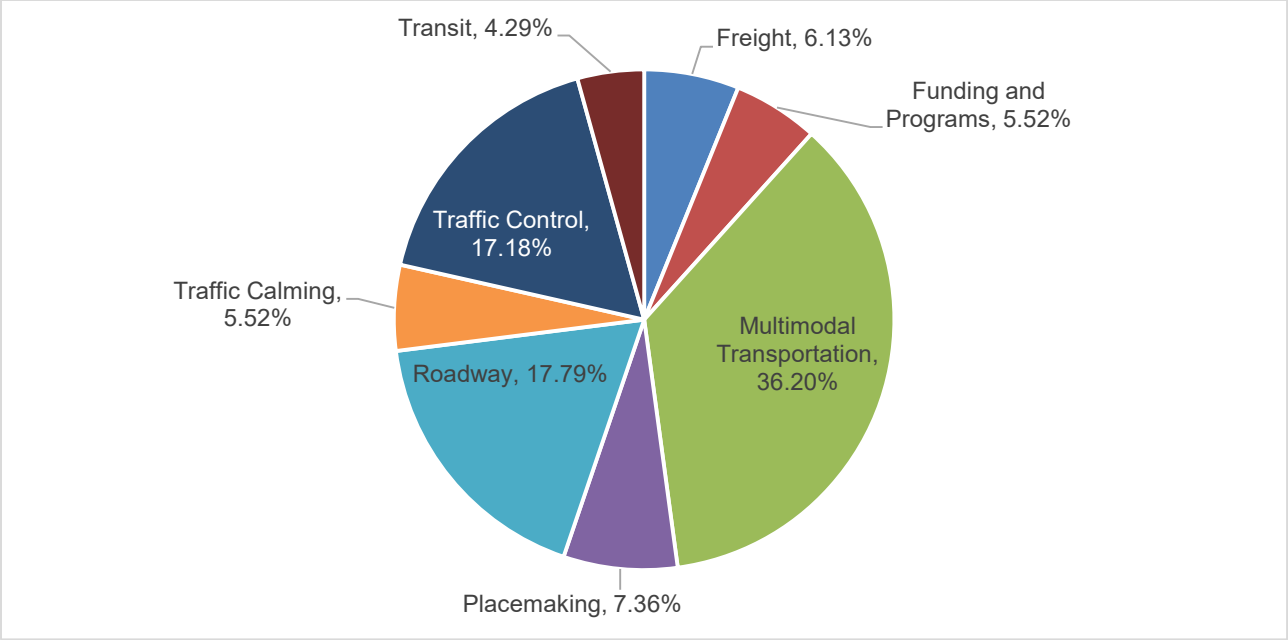
Interactive map users were presented with three prompts: “make a comment”, “ideas and suggestions”, and “something I like”. Most users chose to make a comment or provided ideas or suggestions.



Interactive map comments were categorized into eight broad themes, described below. Many comments included multiple themes, of which the most prominent was chosen.

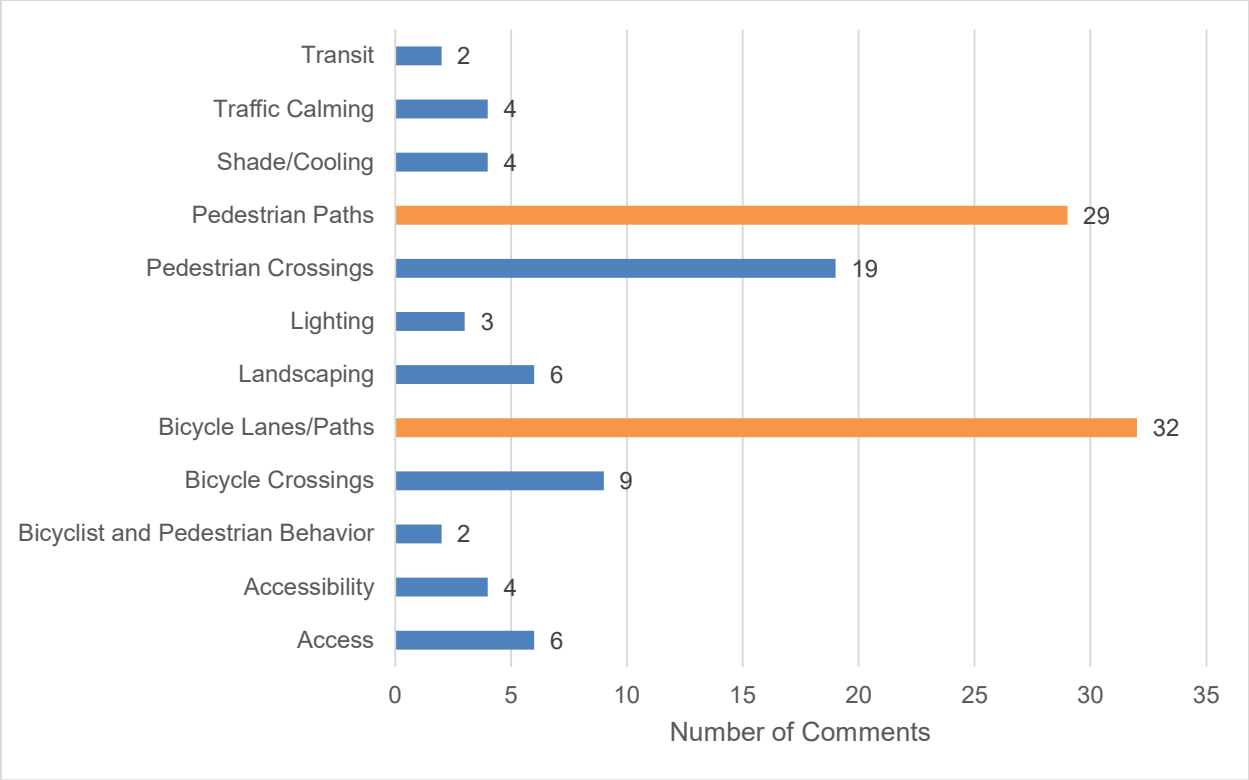
- **Multimodal Transportation:** bicyclists, pedestrians, or ADA accessibility
- **Freight Rail:** rail crossings
- **Funding and Programs:** concerns about funding, concerns about homelessness, and funding opportunities
- **Placemaking:** landscaping, greenspace and shade trees, environmental considerations, lighting, and beautification
- **Roadway:** road blockages and access, driver safety concerns and collisions, lane configuration, and congestion
- **Traffic Calming:** speeding concerns and speed reduction
- **Traffic Control:** traffic lights and timing, roundabouts, turn lanes, and signage
- **Transit:** transit stops, including access and relocation

The largest share of comments were categorized under multimodal transportation (36%), followed by traffic control (18%) and roadways (18%).



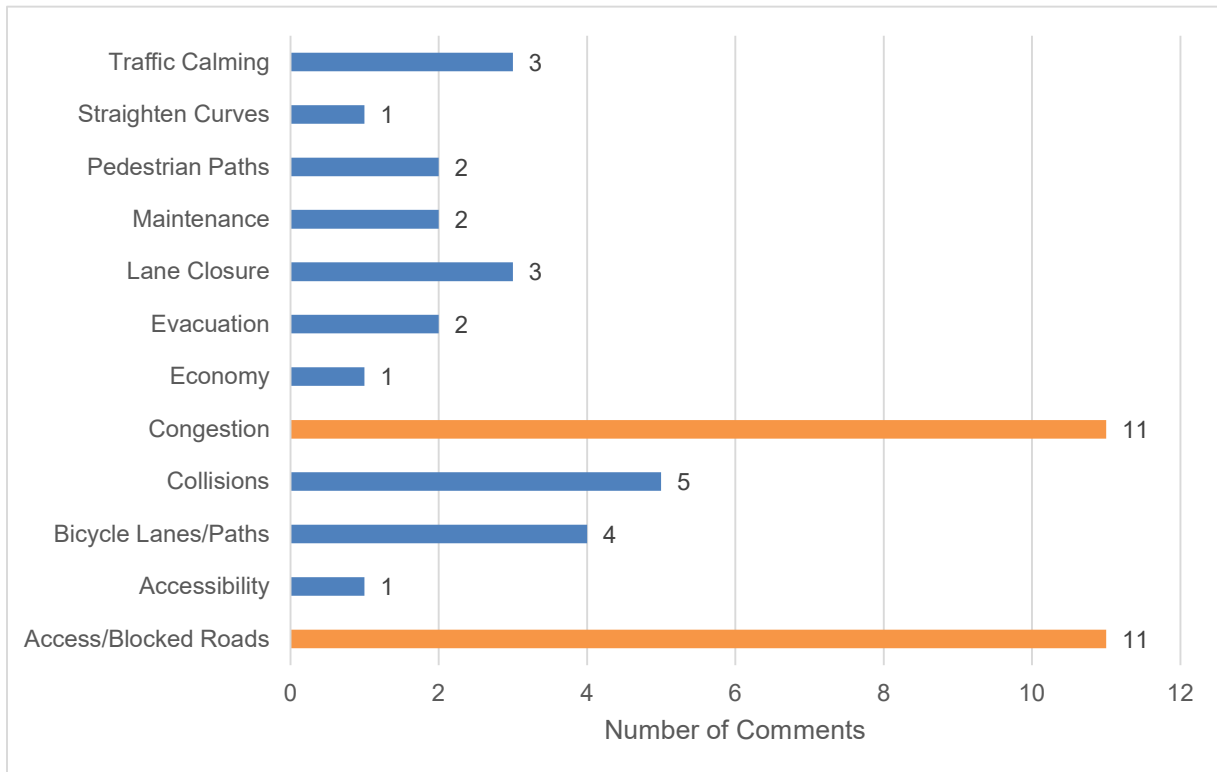
Multimodal Transportation

Of the 58 multimodal transportation comments, most included support for new or improved bicycle and pedestrian paths along the corridor, including sidewalks, protected bicycle lanes, and multiuse pathways. Community members also identified bicycle and pedestrian crossing improvement locations, citing overcrossings, improve crosswalks, and bicycle detection at traffic lights.



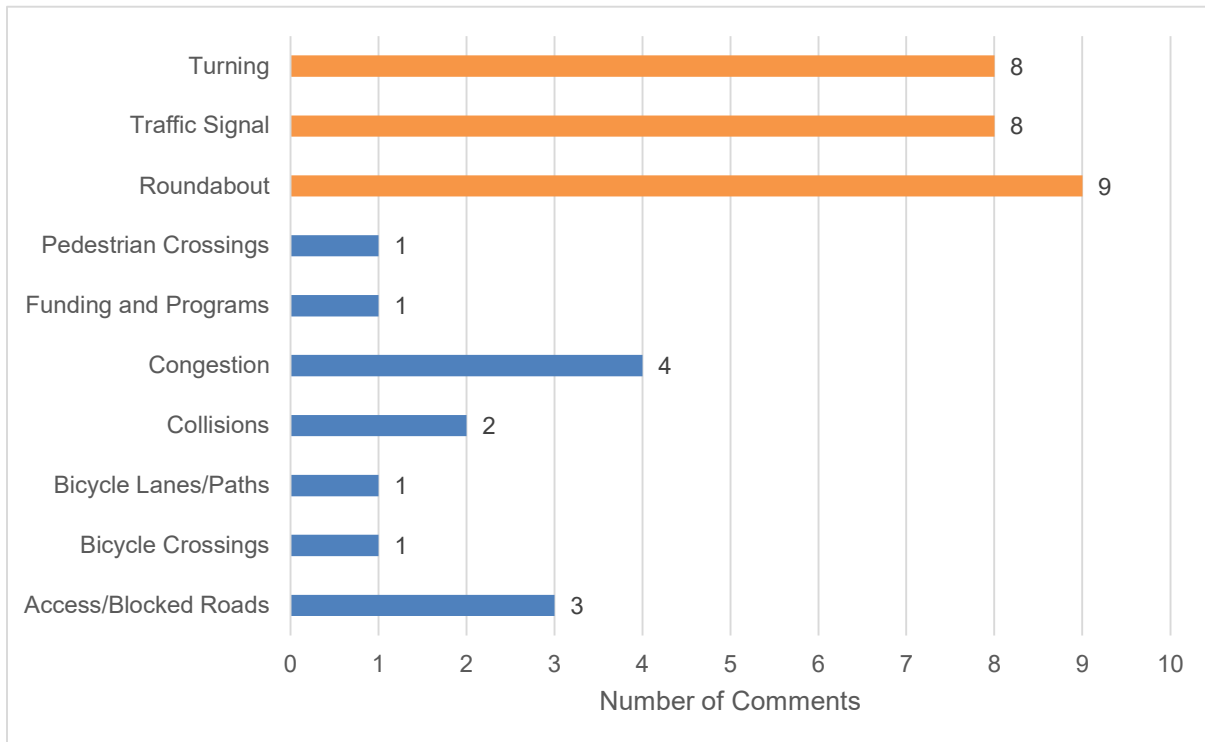
Roadways

Of the 29 comments relating to roadways, congestion, improving vehicle access, and blocked roads were most often mentioned. Community members discussed opening certain intersections blocked to vehicle traffic and discussed additional routes to improve connectivity. Congestion was discussed throughout the corridor, and people were concerned about how the current road closure and bikeway addition impacts traffic. Some community members felt that existing bikeway solutions did not encourage bicyclists, negatively impacted safety and congestion, and felt that pedestrians and bicyclists continued to travel on the side of the road and cross the street at unmarked locations even with new multimodal infrastructure.



Traffic Control

Of the 28 comments regarding traffic control, roundabouts, traffic signals, and turning were mentioned most. Community members had mixed responses about roundabouts; some stated the multimodal safety benefits and support for roundabouts along the corridor, while others felt roundabouts were unsafe, not a the right solution for SR 273, or avoid them all together. Community members noted several locations where they wanted additional turn lanes and to remove no right on red rules. Respondents also mentioned improving traffic timing to reduce congestion.



Eight comments received 10 or more upvotes from stakeholders. The comments included improving pedestrian and bicycle access across SR 273 and the UPRR freight rail line, interest in multiuse pathways, reversing the one-way couplets in downtown Redding, safety concerns about the mousehole undercrossing, improving access at Branstetter Lane, and improving landscaping along the corridor.

Table 27 Top Voted Interactive Map Comments

| Comment | Up Votes | Down Votes |
|---|----------|------------|
| Put a pedestrian Bridge here over the railroad track and 273 for safe passage to shopping for the neighborhood. | 15 | 2 |
| This undercrossing is extremely dangerous and improvement should be considered. Get railroad on board early to widen span so that a separate ped/bike lane can be accommodated. | 13 | 1 |
| Reopen the left turn from Branstetter Lane on to SR 273 northbound lane. The northbound auto traffic is now using Westside Rd from Branstetter to Kenyon to get on SR 273 | 12 | 1 |
| Widen bridge to add Class I, multiuse paths on both sides of bridge. Connect these with Sacramento River Trail. | 11 | 0 |
| It would be spectacular to use some of this right of way for a protected (separate from the highway) path for use by cyclists, scooters, pedestrians, etc. What a lovely way to connect the downtown areas of Anderson and Redding to each other and to the areas in between. Emphasis, however, on separate and protected from the highway. We will always need the light industrial infrastructure in this area, and walking/cycling/wheelchairing near the heavy trucks is terrifying. Lets find a way to share! | 11 | 1 |
| Need to decrease the number of one-way streets and reduce the number of lanes. Pine Street is 3 lanes, 40 feet wide, and if all the lights are green it is essentially a speedway. The same can be said for numerous other stroads in the area. The bike lane on Pine is completely unsafe as a result. Can we make this two-way and devote more area to physically separated active transportation infrastructure please? | 10 | 1 |
| Have there been any studies to see how many pedestrians and bicyclists are using the newly designated lane that was assigned to them? A traffic camera installed under the railroad bridge can easily help with that. Another camera near Wyndham could be used to count how many cars ran over the white plastic posts that separate the two lanes. | 10 | 0 |
| The aesthetics of landscaping and water feature are nice here. Retain these and plant more trees along the Hwy 273 corridor. | 10 | 0 |

In Person Engagement

The following section describes in person engagement efforts conducted throughout the planning process. It includes materials developed, outreach events, and feedback from in-person events and online outreach tools.

Materials

Materials for community engagement events aimed to educate the public about the project and gain feedback. Materials developed included:

- **Informational boards** which included history of the corridor and information about the project
- **Fact Sheets** which included information about the project, which were printed in English and Spanish
- A **Prioritization Activity** where participants could choose their top three priorities for corridor improvements. The prioritization activity also included maps of the corridor to gather location-based comments, concerns, and ideas for potential improvements.
- An **Origin and Destination Map Activity** where people identified where they began their trips and where they ended them along the corridor.
- A **Corridor Use Exercise** board where people could identify which modes of transportation they use along the corridor and what types of places they are travelling to.

Envision 273: SR 273 Multimodal Corridor Plan

Project Timeline

- 2023 Winter: Data Collection and Basing Conditions Study
- 2023 Spring: Public Engagement Kick-Off
- 2023 Summer: Project Goals and Recommendations
- 2023 Fall: Public Visioning Event and Feasibility Studies
- 2024 Winter: Plan Development Continued Feasibility Studies
- 2024 Spring: Public Engagement Events
- 2024 Summer: Public Engagement Continued, Project Prioritization
- 2024 Fall: Draft Plan and Plan Revisions
- 2025 Winter: Final Plan Adoption

Project Purpose

Envision 273 is a collaborative, multi-year planning effort to develop recommendations or infrastructure improvements that support safety and mobility for everyone. Beginning with an understanding of local challenges, and needs, the State Route (SR) 273 Corridor connects the cities of Redding and Anderson, and serves numerous outlying rural communities through feeder streets and roads. Despite significant changes in land use and population along the corridor over the decades, the transportation facility remains largely unchanged since it was renumbered from SR 99 following completion of Interstate 5.

Improvement recommendations for SR 273 will be developed in collaboration with the community to create a plan that works for residents, businesses, and visitors. Goals of the Plan include:

- Develop a vision for SR 273 for the next 100 Years
- Reduce barriers to mobility
- Enhance safety, accessibility, and connectivity for all users
- Achieve better compatibility between land use and corridor design
- Increase environmental sustainability and resiliency
- Realize the region's successfuly compete for federal and state grant funds

Why Complete Streets?

Complete Streets improvements aim to accommodate mobility options for people of all ages and abilities and for all modes of travel, including driving, walking, biking, and taking transit.

Examples of Complete Street Design Elements include:

- Continuous and connected sidewalks and bike lanes
- Comfortable and convenient transit facilities
- Frequent and safe pedestrian crossings
- Accessibility improvements per the Americans with Disabilities Act (ADA)
- Curb extensions (bush outs)
- Median lanes with pedestrian refuge
- Roadway Re-Configuration

SRFA and Camara recognize the need to improve safety and accessibility along our roadways by incorporating Complete Street elements into the planning and design of roadway improvements.

Envision 273: SR 273 Multimodal Corridor Plan

Historic Timeline

- 1922: Work begins on the original railroad undercrossing
- 1923: Redding to Anderson paved
- 1933: Original railroad undercrossing ("subway") opens
- 1933: North Market Street Bridge opens
- 1940: Railroad undercrossing widened to current width
- 1940: Contract awarded to turn section from Hill Street to railroad undercrossing into a "partially divided highway"
- 1943: Contract awarded for divided highway from railroad undercrossing to "1/2 mile south of Clear Creek"
- 1949: Contract awarded for divided highway from Anderson to Clear Creek, including relocating west side buildings in Anderson and frontage road
- 1958: Additional islands in the section from Hill Street to railroad undercrossing added
- 1966: Highway 99 signs come down, Redding to Anderson portion of I-5 opens
- 1966: Redesignated SR 273
- 1977: Major work on Cypress / Market / Pine area
- 2000: Pavement reconstruction - median work on North Market Street
- 2002: Landscaping in median installed

History of the State Route 273 Corridor

The route now known as State Route (SR) 273 is one of the oldest travel corridors in the Shasta Region. Parts of the corridor were in use during the California Gold Rush, connecting the booming town of Shasta to Red Bluff and points south, and the settlers likely adopted and adapted pre-existing indigenous trails for much of its route. Once the town of Redding was established, much of the alignment was still in use today was established and it was simply called "the Redding-Anderson road". It has been part of the California Highway system for more than 100 years, now, first known as the Pacific Highway, then Highway 99, and now State Route 273.

LEGEND

- 2-Year Collision Date (years: 2018-2020)
- Pedestrian Collision
- Bicycle Collision
- Transit Collision
- Severe Injury Collision
- Bus Stop
- Railroad
- SR 273
- City Boundary

Share YOUR Input!
Place a dot on what you would like to see prioritized in this area.

KEY

SAFETY FOR PEOPLE
All modes, at situations, or facilities

REDUCED TRAVEL TIMES
Less delay, can get to destination quicker

IMPROVED ACCESS
Easier crossings, easier to get on/off the highway, more intersections

IMPROVED MULTIMODAL FACILITIES
More transit, facilities for walking, biking, rolling

QUALITY OF LIFE
Greenery, shade, roadside aesthetics

LEARN MORE Envision273.org

ENVISION 273
MULTIMODAL CORRIDOR PLAN

Envision 273: SR 273 Multimodal Corridor Plan

Project No. 12560002
Revision No. 04
Date: 04/02/2023

SEGMENT 1 OF 7

HOW DO YOU USE STATE ROUTE 273?



Which of these options best describes why you use SR 273?

| | | | | | |
|--|-------------------------------------|-----------------------------------|-------------------------------------|---|---|
| <p>I or my kids go to school close to SR 273</p> | <p>I live on or close to SR 273</p> | <p>I own a business on SR 273</p> | <p>I work on or close to SR 273</p> | <p>I use SR 273 to get to recreational activities</p> | <p>I visit SR 273 (for church, dining, errands, etc.)</p> |
|--|-------------------------------------|-----------------------------------|-------------------------------------|---|---|

How do you typically travel to and/or on SR 273? You may choose more than one.

| | | | | | |
|-----------------------------------|----------------------|------------------------------------|-----------------------|---|------------------------------|
| <p>I walk or use a wheelchair</p> | <p>I ride a bike</p> | <p>I drive a car or motorcycle</p> | <p>I take the bus</p> | <p>I ride in someone else's car (carpool)</p> | <p>Other (tell us more!)</p> |
|-----------------------------------|----------------------|------------------------------------|-----------------------|---|------------------------------|

What is your typical route along SR 273?
Place a dot on the origin and destination of your typical route.

ORIGIN
Use this marker for the location where you start your trip.

DESTINATION
Use this marker for the location where you end your trip.

ENVISION 273
MULTIMODAL CORRIDOR PLAN

LEARN MORE Envision273.org

LEARN MORE Envision273.org

Public Visioning Event

In an attempt to encourage planners and the public to “think big” about the SR 273 corridor, SRTA, Caltrans, and GHD developed a multi-day “visioning event” to encourage unconstrained thinking about what the corridor could look like in the future and to share best practices successfully implemented in other communities that could be leveraged in the Shasta Region.

GHD recruited Dan Burden and Michael Williams of Blue Zones to facilitate this brainstorming session and a multi-day program consisting of corridor audits and visioning events. Publicity for this event was performed through a City of Redding podcast interview with Dan Burden, boosted Facebook events, an email blast, posts to the SRTA website, and stories on local media. Following the event, a summary of the findings and recommendations was prepared by Blue Zones (see Appendix D).

Day 1

On August 27, 2024, SRTA staff took the consultant team (GHD and Blue Zones) on a windshield corridor audit in both daylight and night-time conditions along the entire length of the corridor to familiarize them with corridor challenges. The team stopped at key locations to observe and photograph particular challenges and spoke with a few corridor travelers about how they use the corridor.



Day 2

On August 28, 2024, two walking audits (or “corridor tours”) were performed. The first walk audit examined the South City Park “micro-corridor,” starting at the S. Market Street (SR 273)/Cypress Avenue intersection, including Pine Street (SR 273) and East Street, and traveling south to the S. Market Street (SR 273)/Angelo Avenue intersection, including Parkview Avenue and California Streets. Approximately 25 people were in attendance.

The second walk audit examined the Downtown Anderson area, starting at Anderson City Hall and examining the corridor between North and South Streets, with particular focus on the North and South Street crossings of SR 273. Approximately 15 people were in attendance.

A visioning event was held that evening at the Veterans of Foreign Wars Hall in the City of Anderson. Dan Burden provided a presentation on the challenges he observed on the corridor and shared possible solutions that have worked in other communities. Following the presentation, attendees examined maps of the corridor and discussed which possible solutions could be applied to SR 273. Approximately 15 people were in attendance.

Day 3

On August 29, 2024, two additional walking audits were performed. The first walk audit examined the “Miracle Mile” area, starting at the N. Market Street (SR 273)/Quartz Hill Road intersection, traveling north along the eastern side of the corridor to N. Market Street (SR 273)/Arboretum Drive, and then traveling south along the western side of the corridor back to the starting point. Approximately 20 people were in attendance.

The second walk audit examined the northern portion of Downtown Redding where the various state highways (SRs 44, 273, and 299) interchange, traveling from California Street and Eureka Way (SR 299)

across Market Street (SR 273) to Pine Street (SR 273), crossing its intersection with SR 44 (Shasta and Tehama Streets) and then traveling Tehama Street to Market Street and back to the starting point. Approximately 15 people were in attendance.

Another visioning event was held at Viva Downtown (1435 Butte Street) in Downtown Redding. Once again, Dan Burden provided a presentation on the challenges he observed on the corridor and shared possible solutions that have worked in other communities. Following the presentation, attendees examined maps of the corridor and discussed which possible solutions could be applied to SR 273. Approximately 20 people were in attendance.

Summary

BlueZones prepared a vision event summary, including recommendations for the corridor (see Appendix D). Among the key findings was an observation that “there is no engineering or capacity basis for having so many lanes on SR 273” and that “according to the FHWA, ‘typically, a road diet is implemented on a roadway with a current and future average daily traffic of 25,000 or less.’” Key recommendations include traffic calming, intersection improvements, and greening with a focus on shade trees.

Public Open Houses

Workshops 1 to 4: Project Inception

Initial workshops were held in May 2023; two were held in the Cities of Redding and Anderson each. The purpose of Workshops 1 to 4 was to introduce the project and collect feedback from the attendees on challenges, barriers, and needs related to SR 273.

Redding

Workshop 1 was held in front of the Shasta College Downtown Redding Campus building on May 3rd, 2023, from 11:30 am – 1:30 pm. The workshop was a lunchtime “pop-up” and gathered feedback from about 30 people passing through the area.

Workshop 2 was on the same day at the same location (inside the building) from 5:30 – 7:30 pm. Thirteen participants attended.



Anderson

Workshop 3 was held on May 4th, 2023, from 11:30 am – 1:30 pm at the Anderson City Hall Community Center, where 9 people attended.

Workshop 4 was held on the same day from 5:30 – 7:30 pm at the same location and did not attract any participants.



Origin-Destination Activity

Participants at the Redding workshops originated their trips primarily in or south of downtown Redding, through some began traveling from near Girvan Road. Participants reported traveling to destinations in downtown Redding, south and east of downtown, near Girvan Road, the Costco at Bonnyview Road and to Anderson.

Participants at the Anderson workshop reported starting their trips in Anderson near North Street and South Street and travelled along SR 273 to Bonnyview Road and Cypress Avenue.

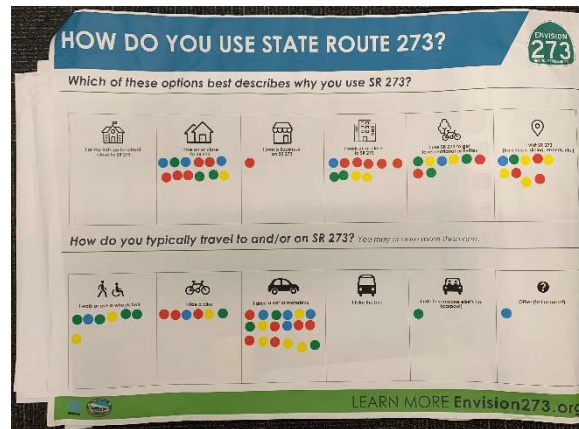
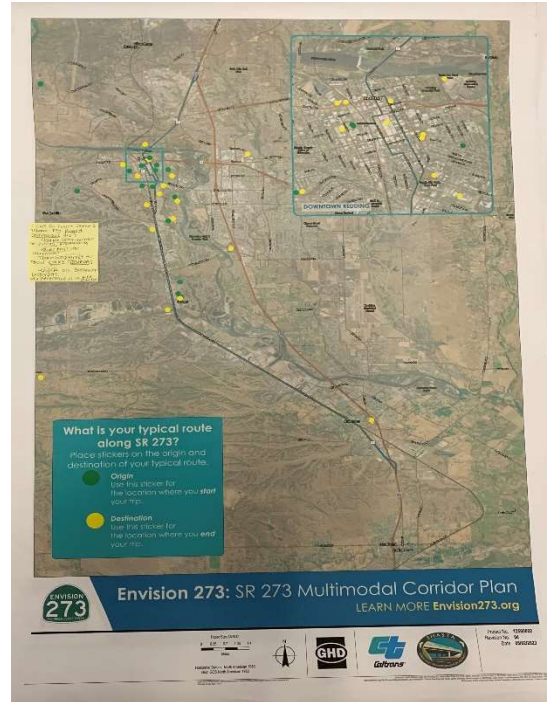
Corridor Use

Most Redding responses indicated users lived on or close to SR 273, but many also worked on or close to SR 273, used SR 273 to get to recreational activities, visited SR 273 for various activities (church, dining, errands, etc.), and one resident owned a business on SR 273.

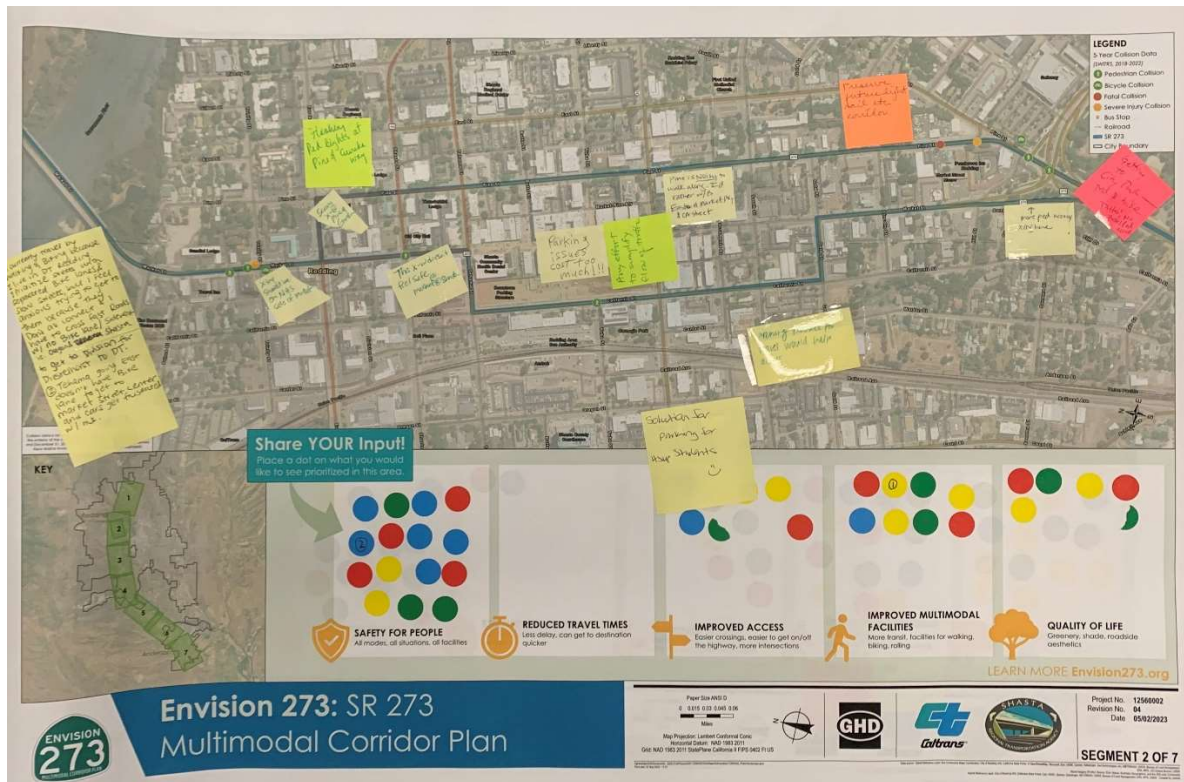
Anderson residents reported working on or close to SR 273 and visiting the route for various activities (church, dining, errands, etc.). One respondent reported walking or using a wheelchair, one rode their bicycle, one drove or used a motorbike, and one carpooled.

Prioritization

Participants at the Redding workshops highlighted safety as their top priority, followed by improved multimodal facilities, and quality of life. Similarly, Anderson residents prioritized safety, followed by improved multimodal facilities and quality of life.



Summary of Comments



Feedback from the initial workshops centred around the following themes:

- **Pedestrian and bicycle connectivity**, particularly along Tehama Street to Market Street, between Railroad Avenue and Eastside Road near the mousehole, between downtown Redding and City Hall, and to the Anderson Salmon Runner Bus Station and local parks.
- **Safety and comfort for pedestrians and bicyclists**, including unsafe crossings and high vehicle speeds. Attendees mentioned specific locations where they felt unsafe, listed below:

Roadways

- Market Street (SR 273)
- Pine Street (SR 273)
- Cypress Avenue
- Railroad Avenue
- Eastside Road

Intersections

- Pine Street (SR 273) and Cypress Avenue
- Pine Street (SR 273) and Eureka Way (SR 299)
- Quartz Hill and N. Market Street
- Eastside Road and Wyndam Lane
- Buenaventura Boulevard and Eastside Road
- SR 273 and S. Bonnyview Avenue
- **Multimodal improvements**, including separated bike lanes, raised crossings, improved freight rail line crossings, lighting and wayfinding, camera sensitive bicycle crossings, landscaped medians, placemaking, RRFBs, HAWKs, and more.
- **Traffic flow and congestion**. Participants mentioned improvements, including widening roadways and installing a roundabout at Pine Street (SR 273) and Cypress Avenue and S. Market Street (SR 273) and Canyon Road.

Workshops 5 and 6: Release of Draft Network Recommendations

[In Progress]

Safety Campaign

A road safety campaign was developed to educate and inform the public on safe driving behaviours, with an emphasis on traveling safely with and around commercial truck and freight vehicles. Two fact sheets were created, one for commercial truck drivers and one for all types of roadway users, as well as a series of social media graphics aimed at bicyclists, commercial truck drivers, and pedestrians.



Community Values

Throughout the community engagement process, two primary values emerged concerning 1) interest in pedestrian and bicycle improvements and 2) driver concerns about congestion, access, and safety.

Many community members showed support for protected and separated bicycle and pedestrian facilities along the SR 273 corridor, as well as improved crossing locations. Both drivers and pedestrians and bicyclists voiced concerns about the safety of non-motorized users; pedestrians and bicyclists felt that existing conditions posed barriers to safe active travel within and between the Cities of Redding and Anderson, and drivers felt that unsafe pedestrian and bicyclist behavior (crossing at unmarked locations, walking alongside the road) increase collision risk and impact safety along the corridor.

Community members also had concerns about proposed multimodal and safety improvements. Drivers raised concerns about recent lane closures to create room for bicycle facilities, and felt that it increased congestion, decreased safety, and that the benefit to bicyclists was minimal, favoring overcrossings for non-motorized users. Some community members felt that homelessness along the corridor should be addressed prior to constructing a trail. People who supported constructing a trail requested placemaking strategies, such as lighting and shade that would improve the experience for users.

Intersection safety was another priority for community members. Online and in-person feedback reflected interest in improving intersections along the corridor, intersections with freight rail tracks, and improvements for pedestrians and bicyclists. Community members had mixed feelings about roundabouts; while some felt roundabouts would enhance safety and relieve congestion, others voiced

concerns about comfort of use and impacts on evacuation. However, most stakeholders wished to improve safety and relieve congestion in some way or another.

Although priorities differed between drivers and non-motorized users, there was general interest in investigating corridor solutions that work for everyone.

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6 STRATEGIES AND PROJECTS

Based on the existing performance results and the future performance forecasts, the corridor team identified corridor strategies and projects to carry forward into the corridor analysis. The corridor strategies and projects are intended to address the multimodal corridor objectives and/or corridor performance measures.

Corridor Strategies

Corridor strategies are general kinds of improvements that could be implemented. Corridor strategies include freeway/highway/arterial, transit, freight, complete streets, and climate change/resiliency projects. For example, if the corridor team identifies a freeway/highway/arterial improvement as having the potential to address corridor objectives, that improvement needs to be refined into a project for the corridor analysis and evaluation.

Based on the existing performance results, corridor strategies were developed, as described below.

Freeway/Highway/Arterial Strategies and Projects

Needs

As shown in Table 6, the mean posted speed limit is 55 mph and the primary crash cause is “Unsafe Speed.” This could indicate the need for traffic calming measures to reduce speeds, such as roundabouts, road diets, and reduced lane widths.

As shown in Table 24, “Total Crashes % at Night (Non-Daylight Crashes)” is highest in the rural areas of the corridor (i.e., Segments 6 to 10). More fatal collisions involving a pedestrian and/or a bicyclist occurred during non-daylight hours, including 10 of 21 fatalities in dark conditions where streetlights were not recorded to be present. This could indicate the need for lighting, markers and striping, bicycle and pedestrian facilities, and crossings.

Downtown Redding

Within the corridor, Downtown Redding is unique in that it contains the primary urban core, with recently constructed high-density, mixed-use development. As shown in Figure 26, Downtown Redding is bisected by multiple highways—SR 273 in the north-south direction, which supports mostly intraregional trips, and both SR 44 and SR 299 in the east-west direction, which support (but are not limited to) interregional trips (e.g., freight trucks). Downtown Redding also contains the SR 273 One-way Couplet and other one-way highway portions (see Figure 27), which integrate with local arterials and the downtown street grid.

Downtown Redding needs streets that will help the people and the community thrive, including promoting non-vehicular modes of travel, including walking, bicycling, transit. The City of Redding vision is to “create a revitalized Downtown Redding that is attractive, safe, and economically vibrant” with a mix of “pedestrian- and bicycle-oriented shops, housing, workplaces, parks, and civic facilities, inviting to residents and visitors alike” (City of Redding Downtown Specific Plan Update, 2018).

Figure 26 Highways in Downtown Redding

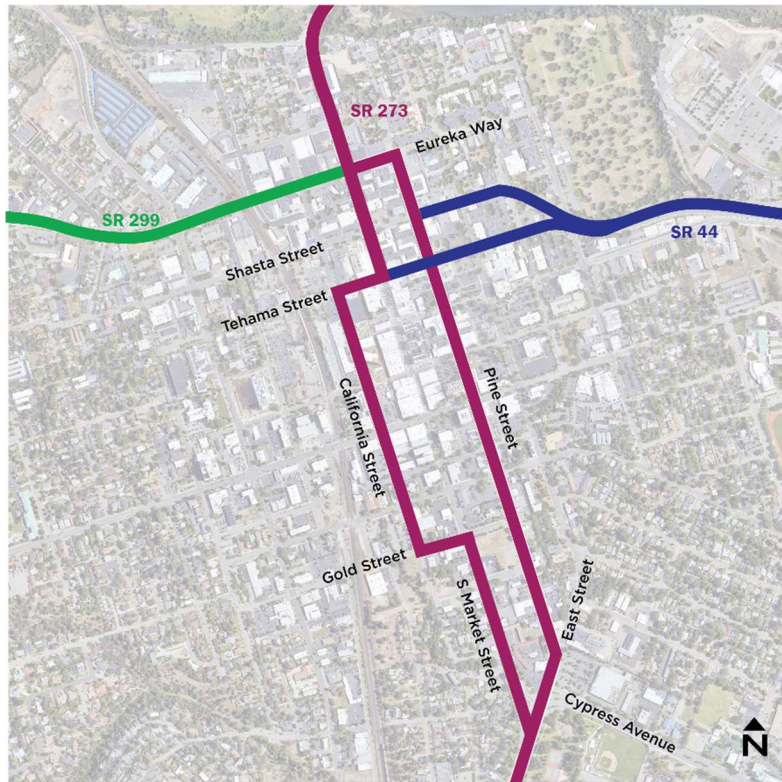
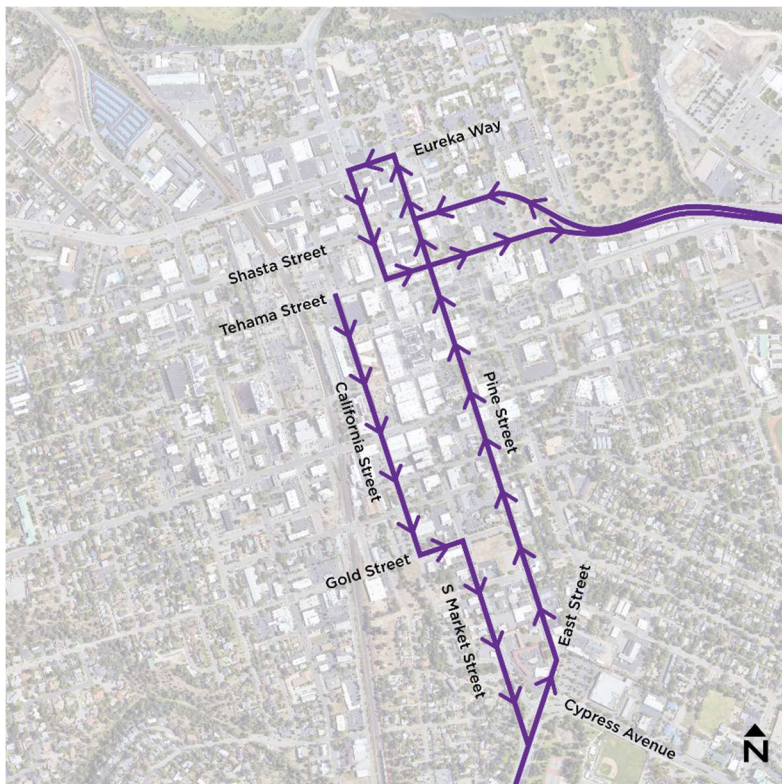


Figure 27 One-way Highway Portions in Downtown Redding



Opportunities

Caltrans Main Street, California encourages “people-centered” highway main streets and includes an understanding that supporting multimodal transportation is essential. The guide discusses the design of main streets, including balanced roadways and intersections, design for bicyclists, and design for the pedestrian realm. Additionally, *Caltrans DIB-94* provides contextual design guidance for complete streets, including roadway cross section development to accommodate all modes of travel.

The City of Redding also acknowledges the value of complete streets, including in Downtown Redding and on the state highway system. Although the majority of study area intersections in Downtown Redding are LOS C or better (see Table 20), LOS D is permitted. The City of Redding LOS D threshold is as follows:

“LOS ‘D’ – ‘tolerable delays’—The Downtown area where vitality, activity, and pedestrian, bicycle, and transit use are primary goals. Streets within the state highway system and interchanges and river-crossing street corridors whose capacity is affected by adjacent intersections.”
(City of Redding 2045 General Plan, 2024)

Freeway/Highway/Arterial projects that reduce speeds, implement safety features, and promote complete streets, including and specifically in Downtown Redding, with little to no negative impact on vehicular throughput or travel times, would address multiple corridor objectives.

Freight Strategies and Projects

Needs

As noted in Chapter 3 , the UPRR freight rail line runs parallel to the corridor for approximately 9.5 miles (or 59 percent of the total corridor length of 16.2 miles), from just north of Buenaventura Boulevard in the City of Redding to South Street in the City of Anderson.

The UPRR freight rail line crosses SR 273 at one location: north of Buenaventura Boulevard in Redding. This UPRR freight rail crossing is a bridge overcrossing, with freight rail above and SR 273 below. Under the bridge, SR 273 (or the “mousehole”) is limited to two southbound lanes and two northbound lanes with no room for additional facilities. As noted in Chapter 3 , a recent quick build multiuse path (Class I) with plastic delineators, part of the Caltrans Downtown Redding CAPM Project, has been implemented to test shared space for bicyclists and pedestrians, replacing one southbound lane.

In addition to the bridge overcrossing pinch point, there are other pinch points along SR 273 associated with both the UPRR freight rail line and local (city and county) arterials. For the same corridor length (approximately 9.5 miles), highway, arterial, and freight rail networks run parallel to each other, with arterial railroad grade crossings.

Opportunities

Freight projects that coordinate multiple purposes and stakeholder agencies would benefit the corridor generally and significantly, as well as address corridor safety specifically.

The existing arterial railroad grade crossings, in addition to the SR 273 crossings (roadway, bicycle, and pedestrian), could be improved in coordination with each other, providing safe solutions for all modes of transportation. Additional freight rail overcrossings and undercrossings, to the long-term benefit of multiple stakeholder agencies, also could be assessed.

Complete Streets Strategies and Projects

Needs

As noted in Chapter 4 and summarized in Table 24, sidewalk coverage is minimal in most corridor segments, excluding developed areas of the Cities of Redding and Anderson (Segments 3 and 10, respectively). Sidewalk gaps are most prevalent between the developed areas, with Segments 8 and 9 having no sidewalks. Additionally, as described above, the “mousehole” (excluding the current quick build project) has no sidewalks and no bicycle facilities.

As noted in Chapter 4, the corridor features bike lanes (Class II) and bike routes (Class III), with a bicycle facility gap (no bicycle facilities) for a large portion of the corridor (from Buenaventura Boulevard in the City of Redding to South Street in the City of Anderson). This non-contiguous bicycle facility network, as well as high speeds, results in a high stress bicycle LTS. While some intersections contain conflict markings, nearly all intersections lack bicycle buffers, barriers, and/or conflict markings.

Additionally, in a number of corridor segments, SR 273 bicycle and pedestrian crossings only occur at signalized intersections.

Opportunities

Caltrans DIB-94 recommends a multiuse path (Class I) or a separated bikeway (Class IV) where roadways are both at/over 7,000 ADT and at/over 40 mph. Such conditions exist in the corridor (see Table 6).

Caltrans DIB-94 also notes that, in urban areas, Class I may not be feasible due to constrained space. Additionally, separated bicycle and pedestrian facilities (e.g., Class IV) are generally more desirable in urban settings because of higher volumes of users.

At a minimum, a multiuse path, to accommodate both pedestrians and bicyclists, should be considered along the corridor.

Corridor Projects

Based on the corridor strategies, corridor projects were developed, as described below.

Planned and Programmed Projects

A list of previously planned and programmed projects, as documented in publicly available plans and reports, was created to help identify corridor projects. As detailed in Appendix F, the previously planned and programmed projects include freeway/highway/arterial, transit, freight, complete streets, and climate change/resiliency projects. Although Caltrans Downtown Redding CAPM is one singular project, for purposes of this plan, individual projects are listed to identify purpose and need (consistent with the plan multimodal corridor objectives and/or corridor performance measures).

Key Plans and Projects

The 2023 Caltrans California Freight Mobility Plan identifies transportation facilities that are critical to the state’s economy and environment. These transportation facilities include freight trucking routes and freight rail. Project types include capacity increasing, system preservation, and operations and management. The goals of the plan revolve around economic vitality, environmental stewardship, and social equity.

The Caltrans Downtown Redding CAPM identifies improvements on SR 273, SR 44, and SR 299. The purpose of the Downtown Redding CAPM is to reduce distressed lane-miles, improve ride quality, minimize future maintenance and capital efforts and costs, reduce worker exposure, extend the useful pavement life for a minimum of 10 years, and improve safety and facility reliability for all modes for travel and goods movement. The Downtown Redding CAPM will restore the pavement, culvert, and other elements to a good condition and will improve accessibility and ease of travel for bicycles and pedestrians.

The 2022 Caltrans District 2 Active Transportation (CAT) Plan identifies active transportation needs in the district. The study corridor is identified as a Tier 1 priority highway segment. The location-based needs Story Map shows both bicycle and pedestrian needs along the entire length of the corridor, including highway crossings.

The 2020 Caltrans District 2 Adaptation Priorities Report identifies and prioritizes transportation assets vulnerable to climate change impacts. The prioritization methodology considers exposure metrics and consequences metrics, each assigned a weight based on needs and impact of threats. The report ranks bridges, culverts, and roadways assets in the district. The goal of the report is to guide adaptation efforts to enhance resiliency and ensure safety and functionality of transportation infrastructure. Nine bridges on the SR 273 corridor are identified and ranked, including two marked as Priority 1.

The 2024 RABA Short Range Transit Plan (SRTP) is a 5- to 10-year operations plan that guides the development of fixed and demand response transit services with available resources while meeting user needs. During development of this plan, RABA implemented various aspects of the 2024 RABA SRTP, including route elimination and replacement, as detailed in Appendix F.

Corridor Projects Identified for Corridor Analysis

The corridor projects include a modified list of the planned and programmed projects (Appendix G), as well as proposed projects (Table 28). Proposed projects were developed in consultation with stakeholder agencies, including through the development of planning-level feasibility studies.

As shown in Table 28, the proposed projects include scope details that describe the specific physical or operational changes needed to affect the desired result, where costs can be estimated, timeline projected, and major limitations anticipated. Typically, this is far less detail than would be necessary for a Caltrans Project Initiation Document (PID). A rough scope is needed for project evaluation.

Corridor Integration Options

Certain corridor projects may need to be integrated or otherwise work together for benefits to be realized. As such, Chapter 7 will consider system solutions rather than stand-alone activities, where possible.

For sustainability and resiliency, corridor projects that can be quantified for VMT and pollutant and greenhouse gas reductions, such as lane widening or road diets, should be grouped.

For mobility and connectivity (e.g., bicycle LTS and bicycle origin-destination connectivity), corridor projects extend beyond SR 273.

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Table 28 Proposed Projects

| Project # | Name | Location | Scope | Purpose and Need |
|-----------|---|--|--|---|
| 184 | Conversion to Two-Way Traffic (Planning): SR 273 | SR 273 (at Downtown Redding) | For a portion of the SR 273 one-way couplet in Downtown Redding (s/o Tehama St), convert from one-way traffic to two-way traffic. SB conversion: California St (Tehama St to Gold St); Gold St (California St to Market St); Market St (Gold St to Cypress Ave). NB conversion: Pine St (Cypress Ave to Tehama St). Planning could include: public and stakeholder outreach, operations and maintenance (e.g., Caltrans relinquishments), geometric modifications (e.g., road diets), signals, roundabouts, parking lanes, separated bike lanes, pedestrian crossings. | Operations & Reliability; Mobility & Connectivity |
| 185 | Conversion to Two-Way Traffic (Design and Construction): SR 273 | SR 273 (at Downtown Redding) | Following planning (#184), design and construction. | Operations & Reliability; Mobility & Connectivity |
| 186 | Gateway Corridor (Planning): SR 273 | SR 273 (Benton Dr to Quartz Hill Rd) | For SR 273 north of Downtown Redding, create a transition zone or gateway. Planning could include: public and stakeholder outreach, geometric modifications (e.g., road diets), signals, roundabouts, parking lanes, separated bike lanes (Class IV), pedestrian crossings. | Operations & Reliability; Mobility & Connectivity; Safety |
| 187 | Gateway Corridor (Design and Construction): SR 273 | SR 273 (Benton Dr to Quartz Hill Rd) | Following planning (#186), design and construction. | Operations & Reliability; Mobility & Connectivity; Safety |
| 188 | Gateway Corridor (Planning): SR 273 | SR 273 (Cypress Ave to Buenaventura Blvd) | For SR 273 south of Downtown Redding, create a transition zone or gateway. Planning could include: public and stakeholder outreach, geometric modifications (e.g., road diets, reduce left-turn conflicts), signals, roundabouts, parking lanes, separated bike lanes (Class IV), multiuse paths (Class I), pedestrian crossings. | Operations & Reliability; Mobility & Connectivity; Safety |
| 189 | Gateway Corridor (Design and Construction): SR 273 | SR 273 (Cypress Ave to Buenaventura Blvd) | Following planning (#188), design and construction. | Operations & Reliability; Mobility & Connectivity; Safety |
| 190 | Freight Rail (Planning) | UPRR Corridor (from City of Redding to City of Anderson) | Along the UPRR Corridor from the City of Redding to the City of Anderson, including portions of the UPRR Corridor adjacent to SR 273, complete a grade crossing closure study. The study should evaluate and exhaust all options (e.g., grade separation projects) before requesting new at-grade crossing projects and consider applicable ratios (e.g., 3 closures for 1 new crossing). | Operations & Reliability; Safety |
| 191 | Freight Rail (Design and Construction) | UPRR Corridor (from City of Redding to City of Anderson) | Following planning (#190) and UPRR coordination/approval, design and construction. | Operations & Reliability; Safety |
| 192 | Multiuse Path (Class I): SR 273 | SR 273 (Caterpillar Rd to Northpoint Dr) | Class I | Mobility & Connectivity; Safety |
| 193 | Multiuse Path (Class I): SR 273 | SR 273 (Lake Blvd to Benton Dr) | Class I | Mobility & Connectivity; Safety |
| 194 | Class IV Bikeway: SR 273 | SR 273 (at Downtown Redding) | Class IV on NB and SB SR 273 couplets. Along SB SR 273, for consistency with existing planned projects, consider bi-directional Class IV. | Mobility & Connectivity; Safety |
| 195 | Multiuse Path (Class I): SR 273 | SR 273 (Buenaventura Blvd to S. Bonnyview Rd) | Class I | Mobility & Connectivity; Safety |
| 196 | Multiuse Path (Class I): SR 273 | SR 273 (S. Bonnyview Rd to Girvan Rd) | Class I | Mobility & Connectivity; Safety |
| 197 | Multiuse Path (Class I): SR 273 | SR 273 (Girvan Rd to Happy Valley Rd) | Class I | Mobility & Connectivity; Safety |
| 198 | Multiuse Path (Class I): SR 273 | SR 273 (Happy Valley Rd to Latona Rd) | Class I | Mobility & Connectivity; Safety |
| 199 | Multiuse Path (Class I): SR 273 | SR 273 (Latona Rd to Briggs St) | Class I | Mobility & Connectivity; Safety |
| 200 | Multiuse Path (Class I): SR 273 | SR 273 (Briggs St to Pleasant Hills Dr) | Class I | Mobility & Connectivity; Safety |
| 201 | Pedestrian Fencing: SR 273 | SR 273 (Multiple Locations) | Install pedestrian median fencing. Multiple locations along SR 273 (Buenaventura Blvd to Pleasant Hills Dr). | Safety |

| Project # | Name | Location | Scope | Purpose and Need |
|-----------|---|--|---|----------------------------------|
| 202 | Pedestrian Crossings: SR 273 | SR 273 (Multiple Locations) | Install pedestrian crossings at signalized intersections. Multiple locations along SR 273 (Caterpillar Rd to Lake Blvd). | Mobility & Connectivity; Safety |
| 203 | Pedestrian Crossings: SR 273 | SR 273 (Multiple Locations) | Install pedestrian crossings at signalized intersections. Multiple locations along SR 273 (Buenaventura Blvd to S. Bonnyview Rd). | Mobility & Connectivity |
| 204 | Pedestrian Crossings: SR 273 | SR 273 (at Latona Rd) | Install/upgrade pedestrian crossings at uncontrolled locations (with enhanced safety features). | Mobility & Connectivity; Safety |
| 205 | Lead Pedestrian Interval: SR 273 | SR 273 (Multiple Locations) | Install lead pedestrian interval at signalized intersections. Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Mobility & Connectivity; Safety |
| 206 | Lighting: SR 273 | SR 273 (Caterpillar Rd to Quartz Hill Rd) | Add roadway lighting | Safety |
| 207 | Lighting: SR 273 | SR 273 (Buenaventura Blvd to South St) | Add lighting | Safety |
| 208 | Lighting: SR 273 | SR 273 (Multiple Locations) | Add lighting (at signalized and non-signalized intersections). Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Safety |
| 209 | Variable Speed Warning Signs: SR 273 | SR 273 (at Quartz Hill Rd) | Install variable speed warning signs upon approach to Downtown Redding. | Operations & Reliability; Safety |
| 210 | Variable Speed Warning Signs: SR 273 | SR 273 (at Parkview Ave) | Install variable speed warning signs upon approach to Downtown Redding. | Operations & Reliability; Safety |
| 211 | Variable Speed Warning Signs: SR 273 | SR 273 (Multiple Locations) | Install variable speed warning signs. Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Operations & Reliability; Safety |
| 212 | Flashing Beacons: SR 273 | SR 273 (Between Lake Blvd and Benton Dr) | Install flashing beacons as advanced warning (signalized intersection). | Operations & Reliability; Safety |
| 213 | Flashing Beacons: SR 273 | SR 273 (Multiple Locations) | Install flashing beacons as advanced warning (signalized intersections). Multiple locations along SR 273 (Buenaventura Blvd to Pleasant Hills Dr). | Operations & Reliability; Safety |
| 214 | Lane Widths: SR 273 | SR 273 (Multiple Locations) | Reduce lane width to 11 feet. Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Mobility & Connectivity; Safety |
| 215 | Rumble Strips: SR 273 | SR 273 (Multiple Locations) | Install centerline and edgeline rumble strips/stripes. Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Safety |
| 216 | Markers and Striping: SR 273 | SR 273 (at Happy Valley Rd) | Install raised pavement markers and striping (through intersection) (signalized intersection) | Safety |
| 217 | Markers and Delineators: SR 273 | SR 273 (Latona Rd to Briggs St) | Install delineators, reflectors, and object markers along SR 273 | Safety |
| 218 | Pavement Markers: SR 273 | SR 273 (Latona Rd to Briggs St) | Upgrade intersection pavement markings (non-signalized intersections) | Safety |
| 219 | Directional Median Openings: SR 273 | SR 273 (Happy Valley Rd to Latona Rd) | Create directional median openings to allow (and restrict) left-turns and u-turns (non-signalized intersections). Multiple locations along SR 273 (Happy Valley Rd to Latona Rd). | Operations & Reliability; Safety |
| 220 | Directional Median Openings: SR 273 | SR 273 (Briggs St to Pleasant Hills Dr) | Create directional median openings to allow (and restrict) left-turns and u-turns (non-signalized intersections). Multiple locations along SR 273 (Briggs St to Pleasant Hills Dr). | Operations & Reliability; Safety |
| 221 | SR 273 (at Sulphur Creek) | SR 273 (at Sulphur Creek Rd) | Install/upgrade larger or addition stop signs, improve sight distance to intersection, upgrade intersection pavement markings (non-signalized intersection). | Safety |
| 222 | Traffic Signal: SR 273 | SR 273 (Multiple Locations) | Install signals. Multiple locations along SR 273 (Buenaventura Blvd to Pleasant Hills Dr). | Operations & Reliability; Safety |
| 223 | Signal Timing: SR 273 | SR 273 (Caterpillar Rd to Pleasant Hills Dr) | Improve signal timing along SR 273 (Caterpillar Rd to Pleasant Hills Dr) | Operations & Reliability; Safety |
| 224 | Roundabout: SR 273 | SR 273 (Pine St/East St) | Convert intersection to roundabout (e.g., to address crash fatality and improve operations) | Operations & Reliability; Safety |
| 225 | Roundabouts (Planning and Design): SR 273 | SR 273 (Multiple Locations) | Install roundabouts at multiple locations along SR 273 (Buenaventura Blvd to Pleasant Hills Dr) | Operations & Reliability; Safety |
| 226 | Transit Stops: SR 273 | SR 273 (Multiple Locations) | Install transit-supporting infrastructure (e.g., shelters/benches at bus stops and sidewalks to bus stops). Multiple locations along SR 273 (Caterpillar Rd to Pleasant Hills Dr). | Mobility & Connectivity |

7 IMPROVEMENT STRATEGY ANALYSIS

8 PRIORITIZED SOLUTIONS

9 IMPLEMENTATION