

Napa Countywide Pedestrian Plan



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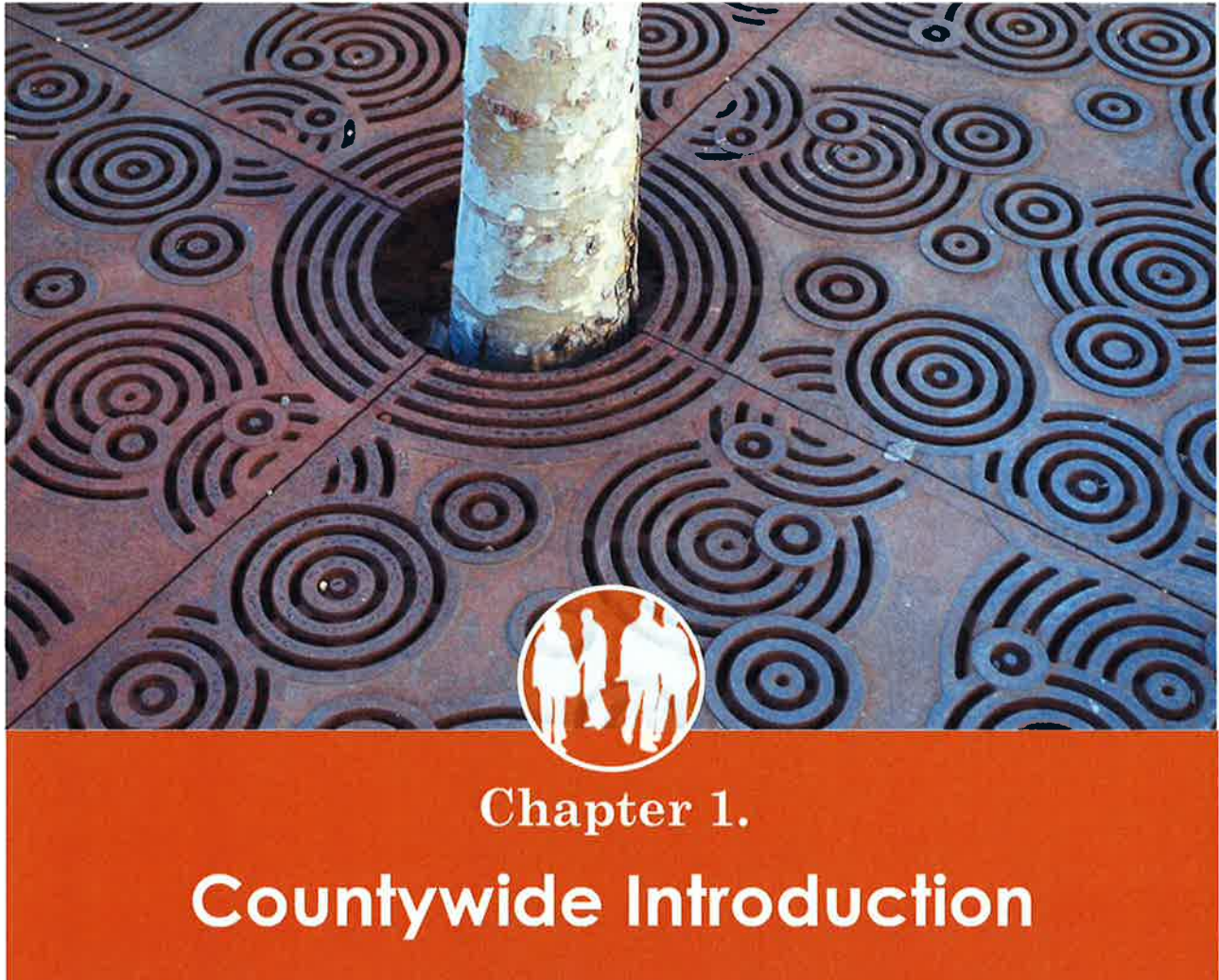
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CHAPTER 1

Countywide Introduction

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Chapter 1.

Countywide Introduction

The *Napa Countywide Pedestrian Plan* is intended to guide and inform pedestrian infrastructure, policies, programs, and development standards to make walking in Napa County safe, comfortable, convenient and enjoyable for all pedestrians. It strives to improve accessibility for the disabled but does not intend to replace existing ADA Transition Plans.

The *Napa Countywide Pedestrian Plan* is being developed to complement existing planning documents for all Napa County jurisdictions, and ultimately be combined with the *Countywide Bicycle Plan* (NVTA, January 2012) to create a *Countywide Active Transportation Plan* that will allow and position the County to effectively compete for project funding. This plan follows the 2015 Caltrans Active Transportation Program (ATP) Guidelines, which outline statewide requirements for what should be included in active transportation plans. The specific requirements from the 2015 ATP Guidelines are listed below in **Table 1** along with the relevant location in this plan.

TABLE 1: 2015 CALTRANS ACTIVE TRANSPORTATION PROGRAM GUIDELINES - REQUIRED PLAN COMPONENTS

Active Transportation Plan Requirement	Location in this Plan
The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan	Chapter 1, <i>Countywide Walking Trends</i>
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan	Chapter 1, <i>Countywide Walking Trends</i>
A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Chapters 2-7*, <i>Pedestrian Setting</i>
A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools and, if appropriate, a description of how the five E's (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of walking to school. Major transit hubs must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i> Chapter 8, <i>Support Programs</i>
A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations	Appendix D
A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i>
A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on collisions involving bicyclists and pedestrians.	Chapters 2-7*, <i>Pedestrian Setting</i>
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities	Chapters 2-7*, <i>Public and Stakeholder Input</i>
A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Chapter 8, <i>Plan Consistency</i>
A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Chapters 2-7*, <i>Priority Projects and Implementation Plan</i>
A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.	Chapters 2-7*, <i>Next Steps</i>
A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 8, <i>Performance Goals</i>
A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located	Chapters 2-7*, <i>Appendix E</i>

*Chapters 2-7 are individual jurisdiction plans; this information can be found in each jurisdiction plan under the noted section.

Plan Oversight, Guidance, and Public Involvement

Several groups were involved in guiding the development of the Plan. Those groups and their role in the planning process are listed below:

- Napa Valley Transportation Authority (NVTA) – lead agency
- NVTA Active Transportation Advisory Committee (ATAC) / NVTA Technical Advisory Committee (TAC) - provide guidance and recommendations at key milestones to discuss project progress and topics of countywide significance such as plan vision, prioritization criteria and overall consistency
- Individual Jurisdiction Focus Groups – steering committees consisting of local staff and stakeholders to discuss existing conditions and practices; identify key issues and opportunities; provide input on priority study areas; develop improvement project concepts for focus areas; determine prioritization and implementation planning for project lists; and propose key program and policy recommendations
- Public/Stakeholders – provide input on the locations of key issues and opportunities in each jurisdiction, the vision and goals of the plan, at workshops and via online mapping; participate as key stakeholders in walking audits and the review of improvement concepts for focus areas

Countywide Vision and Goals

The countywide vision and goals for this plan are intended to guide pedestrian planning in the region. Input was received from the Jurisdiction Focus Groups and the community during the public workshops and incorporated into the following vision and goals.

Vision Statement

To provide a pedestrian network that is well connected, safe, and enjoyable for Napa County residents and visitors of all levels of mobility. This plan aims to increase the number of pedestrian trips countywide and to set the groundwork for a shift in travel mode choice such that non-motorized options are widely available, accessible, and convenient. Through implementation of this plan and future updates, all Napa County residents, regardless of age or income level, should have easy walking access to their community and the services and amenities that it offers.

Goals and Policies

The following goals and policies support the overall vision for the plan:

Goal 1: Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions

Policy 1A: Protect the character and context of the County and its jurisdictions

Policy 1B: Prioritize safe routes to schools, safe routes to transit, and safe routes for seniors within the County

Policy 1C: Acknowledge the central role that the Vine Trail plays in active transportation infrastructure and prioritize connections between the trail and key destinations

Policy 1D: Work to reduce the rate of pedestrian collisions

Policy 1E: Connect key pedestrian desire lines via accessible sidewalks and marked crosswalks, focusing on downtown areas, transit stops, schools, senior housing and destinations, and tourist destinations and lodging

Goal 2: Encourage a multimodal transportation system

Policy 2A: Adhere to the current design standards in this plan as well as local design standards and other national and state manuals when designing new or retrofitted streets and communities

Policy 2B: Investigate the use of performance measures such as multi-modal level of service or built environment factors to facilitate complete streets implementation

Policy 2C: Prioritize infrastructure projects that will increase the walk mode share, while also taking advantage of all available funding opportunities to construct pedestrian infrastructure, including private development with an appropriate nexus

Policy 2D: Investigate creative parking measures such as shared parking, parking maximums, and strategic parking locations to encourage a “park once” environment in commercial districts

Policy 2E: Review new development proposals to ensure pedestrian access and circulation is maintained or improved, including during construction phases

Goal 3: Obtain funding for pedestrian projects

Policy 3A: Continue to allocate Capital Improvement Plan (CIP) funding to pedestrian projects

Policy 3B: Pursue grant funding related to pedestrian projects

Policy 3C: Identify new funding sources and partnership opportunities, such as those focusing on public health and sustainability

Goal 4: Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists

Policy 4A: Increase public awareness of pedestrian facilities, amenities, and safety

Policy 4B: Pursue recognition such as Walk-Friendly Community status

Policy 4C: Implement ongoing pedestrian safety enforcement programs and campaigns

Policy 4D: Partner with local health agencies to encourage more activity among youth through the built environment to target childhood obesity

Policy 4E: Collaborate with local businesses to enhance wayfinding and streetscape amenities



Calistoga: Washington Street

Countywide Walking Trends

Napa County is a scenic and historic Bay Area destination that thrives on year-round visitors and its grape vineyards. Located in the North Bay region with the majority of development along SR 29, Napa County is a predominantly rural community with regional access provided by the surrounding highway network. The County is bordered by Sonoma County to the west, Solano and Yolo Counties to the east, and Lake County to the north, as shown in Exhibit 1. The County includes the cities of American Canyon, Calistoga, Napa, and St. Helena; the Town of Yountville; and unincorporated areas.

With historic commercial districts and vital community assets such as open space and trails, the five incorporated jurisdictions accommodate pedestrians in a variety of ways. The various downtown areas offer corridors of shopping and dining destinations that are contributors to the pedestrian environment in the County, and many provide a system of sidewalks and plazas that make the downtown districts pleasant and interesting places to

walk. Residential neighborhoods in the County are typically pleasant places to walk, with some roadways having sidewalks and others having a more rural character.

The unincorporated areas of the County have a predominantly rural character and development is sporadic consisting mostly of residential areas, a few village centers and some institutional uses. Neighborhoods in the unincorporated County include Angwin, Berryessa Estates, Berryessa Highlands, Big Ranch Road, Coombsville, Deer Park, Lake Berryessa (Moskowite Corners, Pope Creek, and Spanish Flat), Silverado, and the South County Industrial Areas. These communities have limited pedestrian infrastructure; neighborhood streets typically do not have sidewalks, and few intersections currently have marked crosswalks.



Angwin: Howell Mountain Road



County Mode Split and Travel Patterns

A common term used in describing demand for bicycle and pedestrian facilities is “mode split”. Mode split refers to the form of transportation a person chooses to take, such as walking, bicycling, public transit, or driving. **Table 2** presents the California Household Travel Survey (CHTS, 2012) data on the percentage mode split for all person-trips in Napa County.

Mode	All Trips (2012) ¹
Auto	306,598 (88%)
Pedestrian	62,091 (9%)
Bicycle	1,234 (1%)
Transit	2,575 (1%)
Other ²	2,394 (1%)

1. Percent mode share for all person-trips in Napa County from the California Household Travel Survey (2012).

2. Includes motorcycle and air travel.

Source: Fehr & Peers, 2015.

Walking is a common mode of transportation within the County’s developed communities. The incorporated regions of Napa County have history dating back to the 1800s, and their compact downtown business districts reflect this historic character, creating an inviting pedestrian environment. Neighborhoods located close to the downtown areas allow residents to easily travel on foot between the commercial and residential districts in the county’s incorporated regions. The unincorporated regions within Napa County, comprising the majority of its land area, are of a rural density and character. These regions offer fewer opportunities for pedestrian travel between destinations.

The Countywide Transportation Plan (CTP), Vision 2040, has a goal of shifting travel from single-occupancy vehicles to transit, walking, and bicycling, increasing mode share of all three by 10% by 2035. This plan proposes comfortable and accessible pedestrian improvements to attract new walking trips and increase the walking mode share to meet the goals of the CTP.

Understanding the mode of travel people choose and trip purpose can help jurisdictions develop effective and targeted programs to better serve residents and employees.

Trips of a distance less than one-half mile are typically considered viable for conversion to a walk trip, as it takes about 10 minutes to walk this distance. In Napa County, most commute trips are farther than this threshold, suggesting that a focus on non-commute trips (trips to school, for shopping, or for recreation, as well as visitor trips within commercial areas and hotel zones) will be important to support mode shift goals. Based on the 2010-2012 California Household Travel Survey, 17% of daily trips in the County were one-half mile or less in distance.

Employees

Based on the California Household Travel Survey, about 70,300 workers are employed within Napa County. This total is comprised of 55,500 Napa County residents, and 14,800 workers who commute from outside Napa County. The average commute distance for residents of Napa County is 9.6 miles, and the typical commute distance for employees in Napa County is 10.4 miles. As shown in **Table 3**, the Napa County residents' commute mode share for walking is 4%, as compared to 9% walk mode share for all person trips.

TABLE 3: NAPA COUNTY RESIDENTS' JOURNEY TO WORK		
Mode	Employed Napa County Residents	
	Total Employees	Percent of Total
Drove Alone	49,355	76.0%
Carpool	7,591	11.7%
Public Transportation	630	1.0%
Walked	2,785	4.3%
Bicycle	551	0.8%
Taxicab, motorcycle, other	426	0.7%
Worked At Home	3,538	5.5%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Visitors

Visit Napa Valley conducted a year-long visitor profile study in 2012 to gather data on lodging guests, day-trip visitors, and visiting friends and relatives (VFRs) staying overnight in private homes. The research found that an estimated 2.9 million visitors came to Napa Valley in 2012 with the largest percentage (66%) being day-trip visitors. As shown in **Table 4**, about 21% of the visitors that responded to the 2012 survey reported traveling within the Napa Valley area on foot during their stay. This suggests pedestrian improvements focused on tourist destinations and safety education messages targeted for tourists are important considerations in the County.

TABLE 4: VISITOR TRANSPORTATION PRIMARY MODE USED WITHIN NAPA VALLEY

Mode	Percent of All Napa Valley Visitors
Personal automobile	58.9%
Rental car	37.7%
Walk	20.9%
Limousine	4.8%
Bicycle	4.3%
Taxi	4.3%
Hotel Shuttle or courtesy vehicle	2.0%
Bus line	1.0%

Source: Visit Napa Valley, 2012 Napa Valley Visitor Profile

Forecasted Pedestrian Demand

Based on the Metropolitan Transportation Commission (MTC) *Plan Bay Area*, the region plans to increase its bicycle, pedestrian, and transit mode shares by a total of 10% by 2040. This growth in alternative modes will be the result of bicycle, pedestrian, and transit infrastructure improvements and programs in the coming decades. NVTA forecasts that alternative mode shares will grow by this same percent by 2040, and that this growth will be equally split among the three modes, as a result of implementation of project and program recommendations in this plan, the Napa County Bicycle Plan, and planned transit improvements.

To capture work, tourism, recreational, and shopping trips within Napa County, this estimate solely evaluates trips with an origin and destination point within Napa County. Using a baseline of 2012 (from the 2010-2012 California Household Travel Survey), there are 54,885 daily walking trips in Napa County, 12.2% of all intra-county trips. This mode share is expected to increase to 15.5% in 2040 (Table 5).

TABLE 5: DAILY TRIPS WITH ORIGINS AND DESTINATIONS IN NAPA COUNTY

Year	2012		2040	
Population	136,644 ¹		163,609 ²	
Mode	Daily Trips ³	Mode Share	Daily Trips	Mode Share ⁴
Drive Alone	216,713	48.0%	229,464	42.5%
Drive Shared	168,114	37.2%	178,005	32.9%
Transit	2,953	0.7%	21,551	4.0%
Walk	54,885	12.2%	83,731	15.5%
Bike	3,323	0.7%	21,993	4.1%
Other	5,376	1.2%	5,693	1.1%
Total	451,365	100%	540,437	100%

1. Source: 2008-2012 American Community Survey

2. Source: Vision 2040, Moving Napa Forward (2015)

3. Source: California Household Travel Survey (2010-2012)

4. Assumes a 3.3% increase in walk, bicycle, and transit mode shares. Drive alone, drive shared, and other trips are decreased by a total of 10%, each reduced proportional to 2012 mode share.

The population of Napa County is expected to increase by 27,000 people from 2012 to 2040. Based on an increase in both population and mode share, daily pedestrian trips in the County are forecast to grow to 83,731, a 53% increase.

Collision Trends

Collision data was accessed from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). This data represents all reported pedestrian-vehicle collisions occurring in Napa County during the ten-year period from January 2003 to December 2012. Table 6 summarizes the collision data by year and severity of collision. Fourteen fatalities were reported during the ten-year period. Nearly all of the reported collisions (96 percent) resulted in some form of injury.

TABLE 6: NAPA COUNTY PEDESTRIAN-VEHICLE COLLISION SUMMARY (2003 – 2012)

Year	Pedestrian Injuries	Proportion of All County Injuries ¹	Pedestrian Fatalities	Proportion of All County Fatalities ¹	Total Pedestrian Collisions	Proportion of All County Collisions ²
2003	37	2.6%	1	3.6%	1,466	2.6%
2004	32	2.3%	2	8.0%	1,398	2.4%
2005	25	1.9%	2	8.3%	1,312	2.1%
2006	34	2.6%	1	6.7%	1,340	2.6%
2007	24	2.2%	1	6.7%	1,100	2.3%
2008	34	3.1%	2	11.1%	1,118	3.2%
2009	40	4.2%	2	14.3%	948	4.4%
2010	28	3.2%	2	16.7%	894	3.4%
2011	25	2.8%	1	12.5%	893	2.9%
2012	23	2.4%	0	0.0%	949	2.4%
Total	302	2.7%	14	8.4%	11,418	2.8%

Source: SWITRS, TIMS

1 "All county injuries" and "all county fatalities" describe pedestrian injury and fatal collisions, respectively, as a percentage of all reported injury and fatal traffic collisions, respectively and regardless of mode, in Napa County during the study period.

2. Traffic collision total does not include collisions that did not result in injuries (e.g. "property damage only" collisions).

Minor collisions that involve pedestrians, whether with vehicles or bicycles, are generally underreported ¹. Additionally, collisions that occur on off-street paths and trails are not included in the SWITRS data.

Demographics

Children and seniors are two of the most vulnerable populations in the context of pedestrian-involved collisions. As shown in Figure 1 and Figure 2 below, pedestrian-involved collisions including children are the most common within the County and in American Canyon. Yountville has the highest percentage of collisions involving seniors. Targeting safe routes to school and for seniors, respectively, may be of particular importance in these jurisdictions.

¹ Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, "San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records," *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113

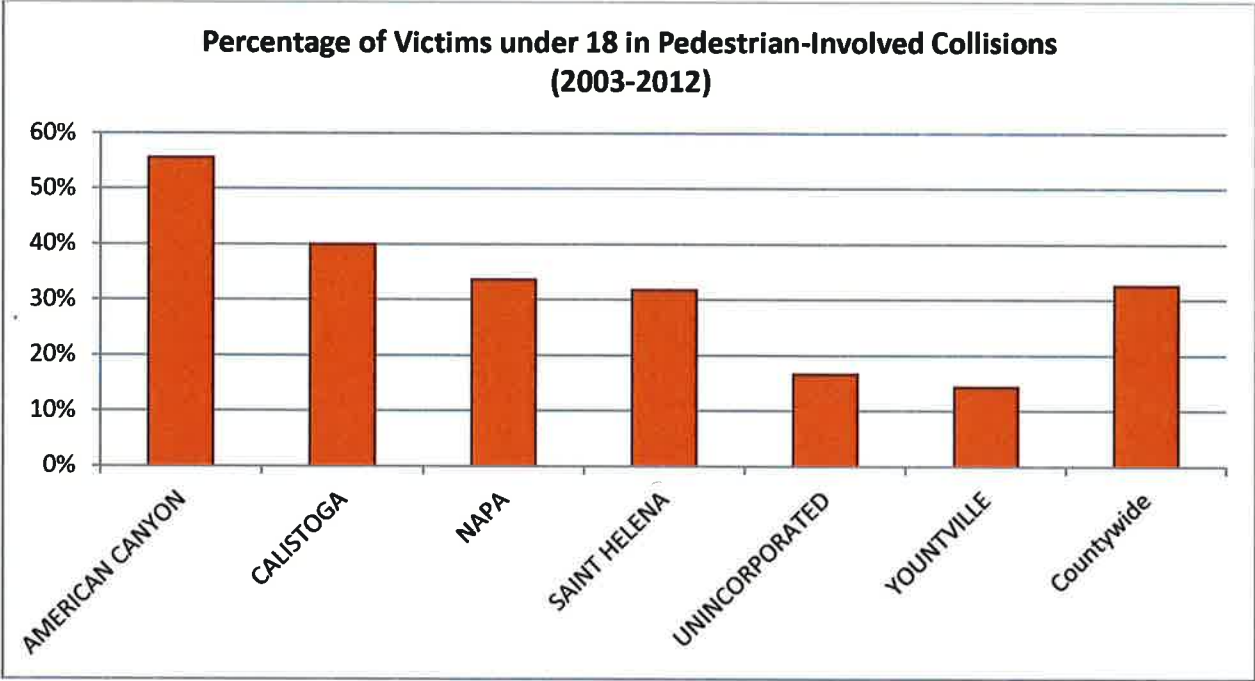


Figure 1 Countywide Child-Involved Pedestrian Collisions

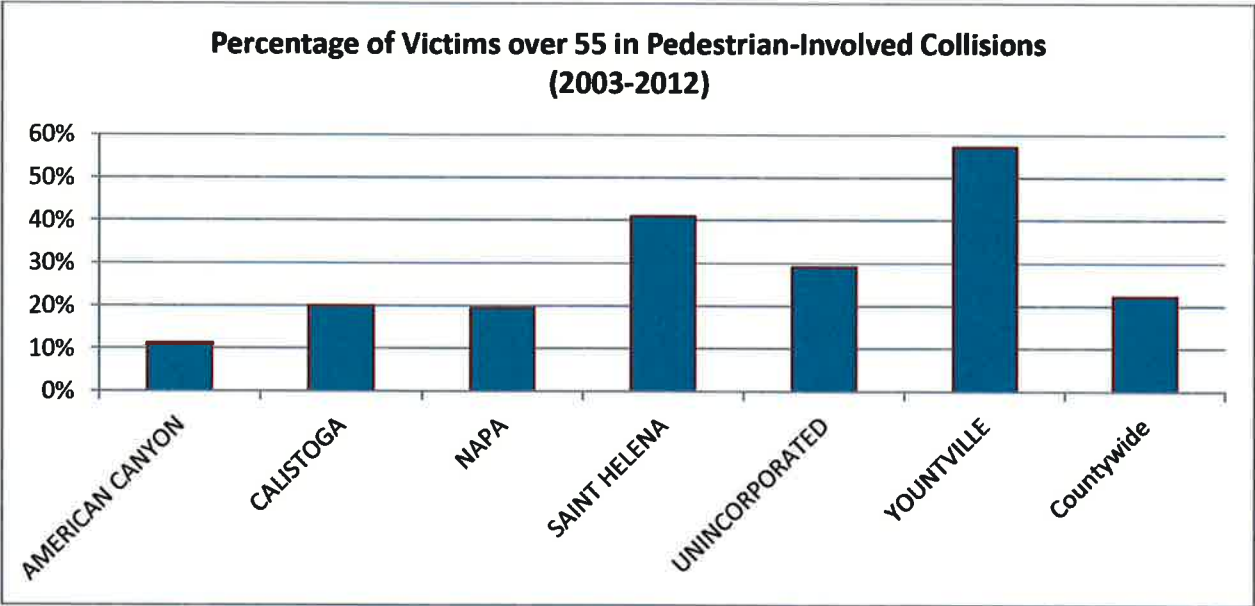


Figure 2 Countywide Senior-Involved Pedestrian Collisions

Daily and Seasonal Trends

Collisions in the County peak Thursday through Saturday, at the same time that tourism levels are high, as shown in Figure 3. Similarly, collisions are higher in the Fall, during Crush season. The holiday season and perhaps also rainier/darker days in December and January contribute to the trend, as shown in Figure 4.

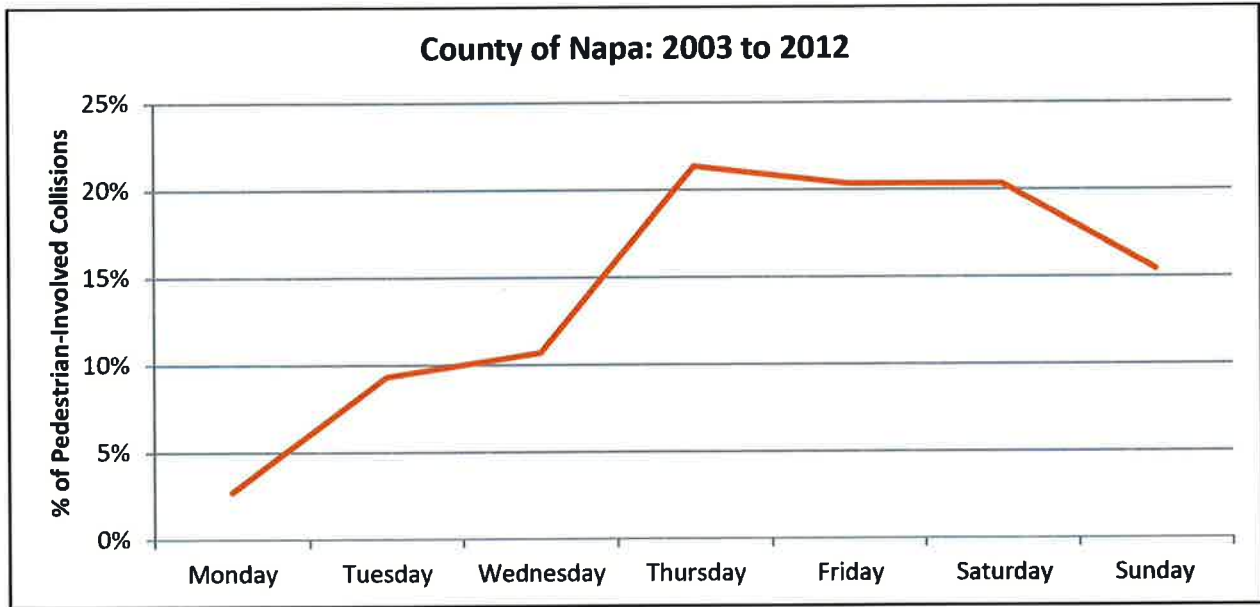


Figure 3 Daily Trends for Pedestrian-Involved Collisions

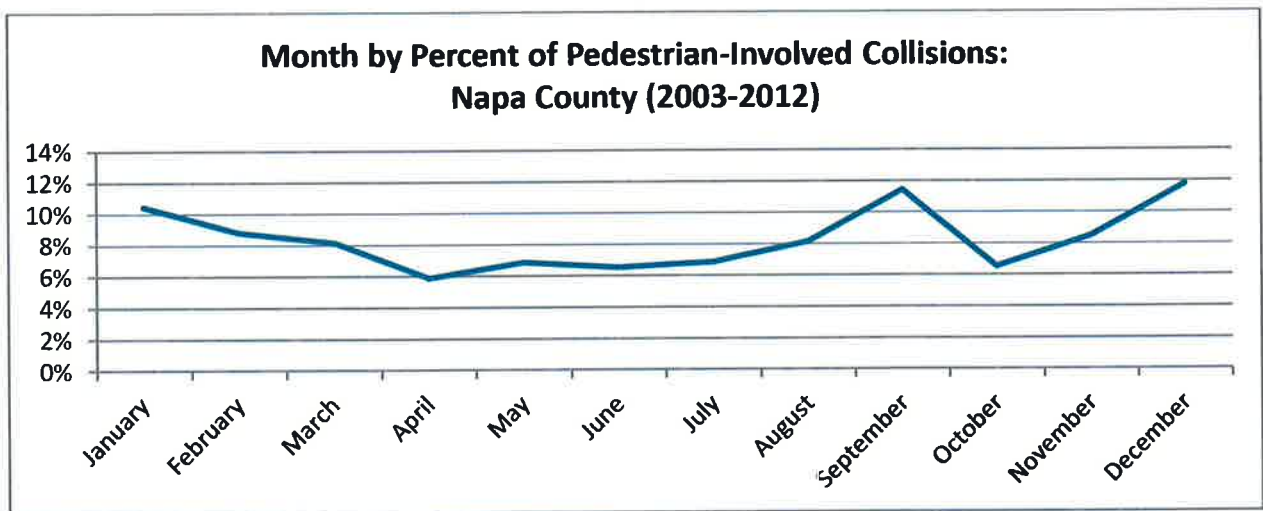


Figure 4 Seasonal Trends for Pedestrian-Involved Collisions

Primary Collision Factors

Table 7 shows the most common Primary Collision Factors (PCFs) for pedestrian-involved collisions in Napa County.

TABLE 7: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PRIMARY COLLISION FACTORS (2003-2012)			
Primary Collision Factor	Number of Collisions		
	Injury	Fatality	Total
Pedestrian Right of Way (Driver not yielding)	105	0	105
Pedestrian Violation	69	5	74
Other	68	3	71
Unknown	35	2	37
Unsafe Speed ¹	25	4	29

Source: SWITRS

1. Refers to unsafe speeds given roadway conditions. This could refer to traveling above the posted speed limit or traveling too fast given the weather conditions (but still at or below the posted speed limit).

As shown in Table 7, the most common Primary Collision Factor (PCF) was drivers not yielding the right-of-way to pedestrians followed by pedestrians crossing illegally (such as crossing against a signal or midblock between signals). Illegal crossings and unsafe vehicle speeds were the leading causes of pedestrian fatalities based on the collision reports over the ten-year period.

The Pedestrian Action variable in the SWITRS dataset describes what the pedestrian was doing immediately before the collision occurred. Table 8 shows the most common Pedestrian Actions for pedestrian-involved collisions in Napa County.

TABLE 8: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PEDESTRIAN ACTIONS (2003-2012)			
Primary Actions	Number of Collisions		
	Injury	Fatality	Total
Crossing in Crosswalk at Intersection	133	3	136
Crossing Not in Crosswalk	82	5	87
Walking In Road, Including Shoulder	58	5	63
Walking, Not in Road	14	1	15
Crossing in Crosswalk, Not at Intersection	10	0	10
Not Stated	4	0	4

Source: SWITRS

As shown in Table 8, the most common pedestrian actions were “Crossing in Crosswalk at Intersection” and “Crossing Not in Crosswalk”. This data emphasizes the importance of enhancing existing marked crosswalks and

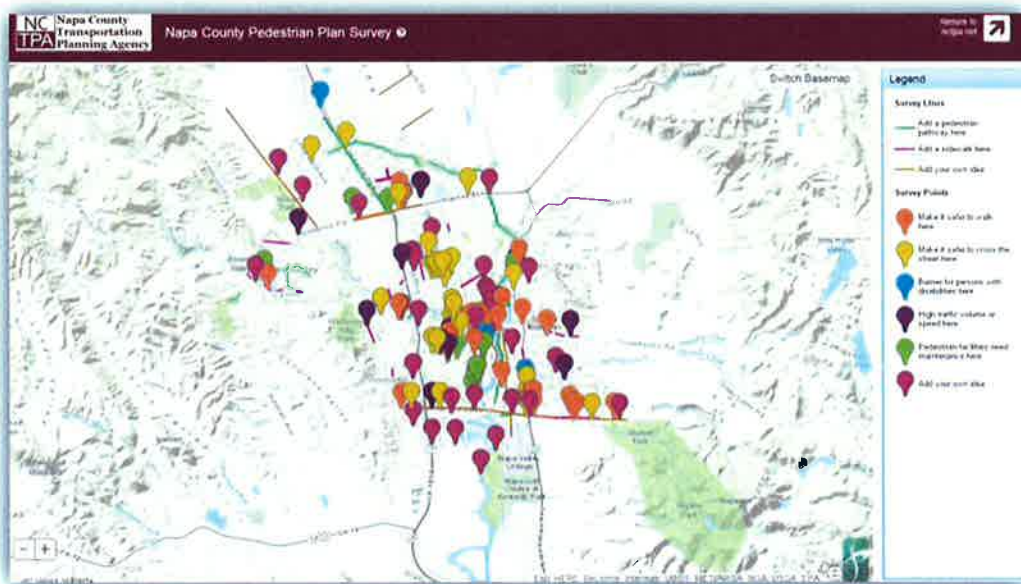
improving access and safety at key desire lines, or the shortest or most easily navigated path of travel between an origin and destination. Education and enforcement regarding pedestrian right-of-way may also be indicated.

Community Input

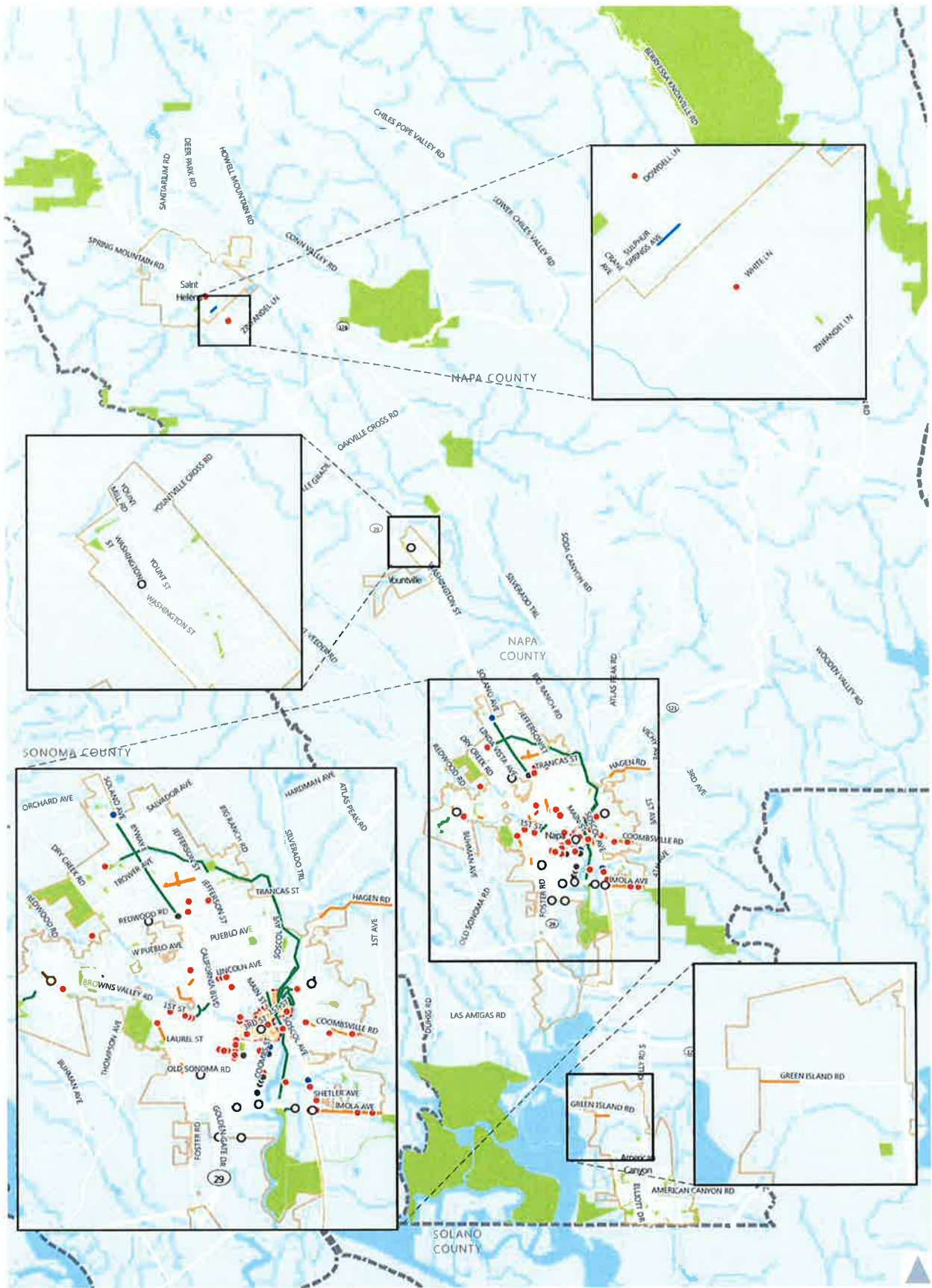
Ongoing public outreach and participation was an integral element in developing the Countywide Pedestrian Plan. Public workshops were held throughout the County in Winter 2015 and were open to all members of the public countywide. For information on format of the public workshops and specific input received in each jurisdiction, refer to Chapters 2 through 7. Napa County residents, employees, and visitors who wanted to provide input but were unable or did not wish to attend the public workshops had the option of submitting their comments online through an interactive mapping tool.

Users placed pins on the maps to highlight desired improvements using pre-set comments or creating their own comment. Preset comments included:

- Make it safer to walk here
- Make it safer to cross the street here
- Barrier for persons with disabilities here
- High traffic volume or speed here
- Pedestrian facilities need maintenance here
- Add a sidewalk here
- Add a pedestrian pathway here



Results from the 70 comments submitted countywide are shown below in Exhibit 2.



- Safety
- ADA
- Add a Pedestrian pathway
- Maintenance
- Other (Add Your Own Idea)
- Add a Sidewalk Here
- Other (Add Your Own Idea)



Individual Jurisdictions

The following chapters provide individual Pedestrian Plans by jurisdiction. Each chapter focuses on one geographic area within the County, moving from north to south. The location-based chapters are ordered as follows:

- Chapter 2: Calistoga
- Chapter 3: St. Helena
- Chapter 4: Yountville
- Chapter 5: Napa
- Chapter 6: American Canyon
- Chapter 7: Unincorporated

The chapters all contain the same format with information framed specifically for that jurisdiction. Content includes pedestrian setting, countywide public and stakeholder outreach, key opportunity areas within the jurisdiction, priority projects and implementation, and a discussion on funding needs and sources for the jurisdiction plan. These chapters are meant to act as standalone plans to be used in conjunction with key recommendations in the Countywide Implementation Chapter of the countywide plan (Chapter 8), which highlights key countywide support programs and performance goals.

CHAPTER 2

Calistoga Plan



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Chapter 2

Calistoga Plan

Calistoga is a rural small-town community with approximately 5,155 residents which, according to city staff, can double or triple on any weekend when accounting for visitors in town for the many local and regional tourism options. The city is located in northern Napa County, approximately 30 miles north of the City of Napa along SR 29. Projected land use patterns for the city are shown in Exhibit C-1 and a map of the downtown commercial district, including the locations of public buildings and tourist destinations, is shown in Exhibit C-2.

Existing Pedestrian Policies and Programs

To help guide the development of key programs and policies for this plan, Calistoga's existing approaches to facilitating and enhancing walking were reviewed with a benchmarking matrix that compares the existing programs, policies, and practices with national best practices. The benchmarking analysis categorizes each jurisdiction's programs, policies, and practices into three areas as follows:

- **Key Strengths** (areas where the jurisdiction is exceeding national best practices)
- **Enhancement Areas** (areas where the jurisdiction is meeting best practices)
- **Opportunity Areas** (areas where the jurisdiction should consider meeting best practices)

The City of Calistoga has made significant investments in creating a walkable community through the adoption of several pedestrian-oriented ordinances, collaboration with Safe Routes to School education programs as well as the recent collection of collision data and a pedestrian facility inventory. The city also adopted an Active Transportation Plan in 2014 which prioritizes facility improvements and includes pedestrian policies and programs. With this plan, the City of Calistoga will have a framework to strengthen areas of opportunity such as crosswalk design guidelines, pedestrian volumes and traffic calming programs. A summary of these benchmarking highlights is provided in **Table C-1**. The full benchmarking analysis for Calistoga, with associated recommendations, is presented in **Appendix C-A**.

TABLE C-1: CALISTOGA BENCHMARKING HIGHLIGHTS		
Plans, Policies, & Programs	Calistoga Current Practice	Best Practice Examples
Key Strengths		
<p>Newspaper Rack Ordinance Newspaper racks may obstruct walkways and reduce accessibility and pedestrian visibility when ordinances are not in place. A Newspaper Rack Ordinance improves the pedestrian realm by reducing clutter and organizing sidewalk zones and may detail size, location, and maintenance requirements.</p>	<p>Calistoga has a robust newspaper rack ordinance that addresses pedestrian safety and prohibits disruption of pedestrian flow. The policy also restricts the placement of newspaper racks anywhere that may obstruct a driver’s line of sight.</p>	
<p>Street Tree Ordinance Street trees enhance the pedestrian environment by providing shade and a buffer from vehicles. Street trees may also enhance property values, especially in residential neighborhoods. However, street trees, when improperly selected, planted, or maintained, may cause damage to adjacent public utilities.</p>	<p>Calistoga’s tree ordinance includes requirements for maintaining vertical pedestrian clearances and installing root barriers to avoid sidewalk damage. Calistoga has adopted the City of Santa Rosa’s approved street tree list.</p> <p>In lieu of funding for sidewalk replacement and substantial repair, the city also grinds areas of the sidewalk to remove trip hazards as part of their trip and fall assessments, including locations that are lifted by tree roots.</p>	

TABLE C-1: CALISTOGA BENCHMARKING HIGHLIGHTS

Plans, Policies, & Programs	Calistoga Current Practice	Best Practice Examples
<p>Safe Routes to Schools</p> <p>Safe Routes to School (SRTS) programs encourage children to safely walk or bicycle to school. The programs are important both for increasing physical activity (and reducing childhood obesity) and for reducing morning traffic associated with school drop-off, as much as 30% of morning peak hour traffic.</p> <p>Educational components of SRTS programs are especially important for school children where safe walking habits may be instilled as lifelong lessons. Funding for programs and/or projects is available at the state and federal levels.</p>	<p>The Napa County Office of Education (NCOE) currently has a three year grant to administer a Safe Routes to School (SRTS) Program across the County through 2016. Program leaders have a goal of reaching every interested school by the end of the grant term, and plan to work with Calistoga Elementary School and Calistoga Jr/Sr High School in 2016.</p> <p>The program includes events such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations for students in grades K-3. Brochures are handed out during this program as well as at community events and PTA/parent meetings. Parent presentations include a review of pedestrian laws and ordinances.</p> <p>In Calistoga, Safe Routes to School routes have been mapped in the ATP to identify potential locations for infrastructure improvements, and the city is currently working on applications for SRTS infrastructure funding. The city also includes schools in the development review process.</p>	<ul style="list-style-type: none"> • Reference the public involvement, analysis, and prioritization efforts of the countywide ATP and the Calistoga PSA when applying for grants to fund the top projects. • Determine feasibility of rolling out Walking School Bus program for Calistoga Elementary School. • Coordinate with NVTA to seek additional funding for SRTS infrastructure and non-infrastructure projects and programs.
<p>Collision Reporting</p> <p>Identifying and responding to collision patterns on a regular basis is an important reactive approach to pedestrian safety (which may be combined with proactive measures).</p>	<p>Collision data from the beginning of 2002 through the end of 2011 was mapped as part of Calistoga’s Active Transportation Plan (ATP) and reviewed for trends related to pedestrian safety. The ATP also includes a policy to reduce pedestrian and bicycle collisions by 50 percent by the year 2020, based on 2011 collision data, as well as to review collision data annually to identify and prioritize applicable projects and programs.</p>	<ul style="list-style-type: none"> • Comprehensive monitoring using Crossroads software would allow for more proactive pedestrian safety projects and best practices such as collision typing for countermeasure selection. GIS efforts may be funded through an Office of Traffic Safety grant. • Pedestrian volume data could be used to prioritize collision locations based on collision rates (collisions/daily pedestrian volume). This could lead to a proactive approach to identify treatments and program funding. Volunteers can collect pedestrian volumes and other data at collision locations.

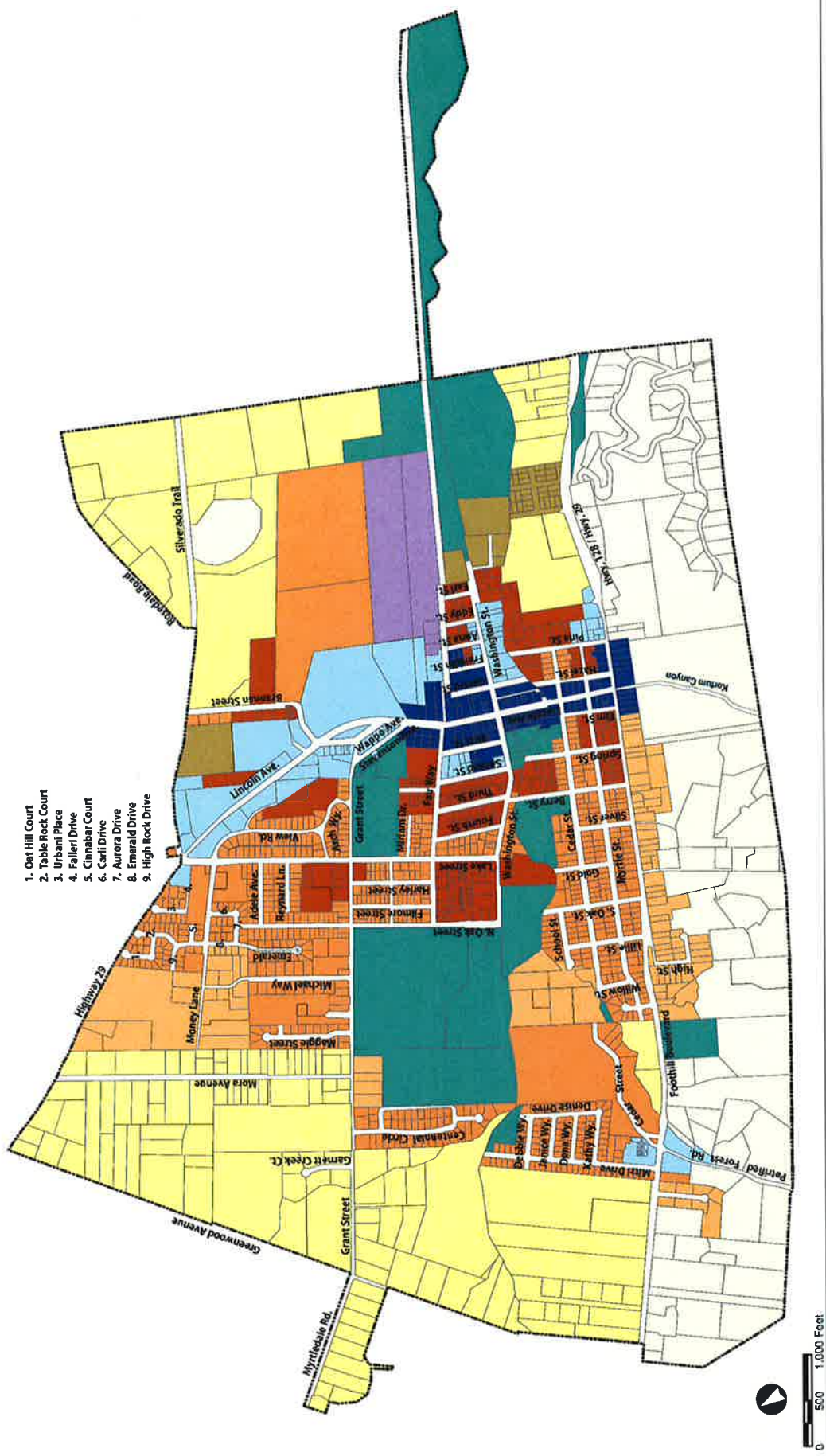
TABLE C-1: CALISTOGA BENCHMARKING HIGHLIGHTS

Plans, Policies, & Programs	Calistoga Current Practice	Best Practice Examples
<p>Inventory of Pedestrian Facilities A GIS-based sidewalk inventory enables project identification and prioritization, as well as project coordination with new development, roadway resurfacing, etc.</p>	<p>Calistoga has a Citywide inventory of existing and proposed sidewalks, existing and proposed pathways, and ADA-compliant curb ramps collected as part of the 2014 Active Transportation Plan (ATP) that is geo-referenced in GIS.</p> <p>The city offers design guidance to developers building fronting sidewalks as well as a 50/50 cost sharing program for those repurposing an existing use. For new developments, pedestrian connectivity is required and if needed, the developer is responsible for the full cost of sidewalk construction. Property owners are generally responsible for the maintenance of fronting sidewalks; however the city uses 50/50 cost sharing for maintenance and repair efforts at their discretion, especially for sidewalks downtown along Lincoln Avenue.</p>	<ul style="list-style-type: none"> • This plan has created a GIS-based inventory to expand the city’s existing inventory. Data collected includes crosswalks, existing and missing curb ramps, as well as additional features like sidewalk material and curb ramp direction. This facility inventory could be expanded to include proposed or planned pedestrian crossing improvements in the City. • Consider mapping public comments to ensure all necessary sidewalk repairs and other pedestrian improvements are included in the city’s Capital Improvement Program (CIP).
Key Opportunities		
<p>Crosswalk Design Guidelines A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.</p>	<p>The City of Calistoga has a pedestrian crossing policy in their Active Transportation Plan (ATP) to provide safety features at uncontrolled pedestrian crossings, especially within pedestrian districts and at intersections of arterials with Class I trails². The policy does not include criteria for appropriate enhancements.</p> <p>The City of Calistoga generally considers crosswalks at signals and high volume activity centers, especially near schools. The one existing signal is on Lincoln Avenue, a highway facility, and thus decisions regarding signalized crosswalk installation are made by Caltrans. Several uncontrolled crosswalks are installed on Lincoln Avenue at intersections with minor streets. The city does not install uncontrolled midblock crossings under current practice.</p>	<ul style="list-style-type: none"> • Consider adopting crosswalk guidelines as part of this plan that reflect best practices and recent research to include criteria for appropriate locations to install crosswalk enhancements such as flashing beacons, advanced yield markings, or in-roadway pedestrian signs. • Coordinate with Caltrans to include criteria in the crosswalk guidelines for identifying, installing, and enhancing crossings where strong desire lines exist, especially across Lincoln Avenue. • Using the proposed crosswalk guidelines, conduct audits of the adequacy of current crosswalks.

² City of Calistoga Active Transportation Plan, 2014

TABLE C-1: CALISTOGA BENCHMARKING HIGHLIGHTS

Plans, Policies, & Programs	Calistoga Current Practice	Best Practice Examples
<p>Pedestrian Volumes Pedestrian volume data is important for prioritizing projects, developing collision rates, and determining appropriate pedestrian infrastructure.</p>	<p>The City of Calistoga does not collect pedestrian volumes routinely.</p>	<ul style="list-style-type: none"> • Use collected volumes in this plan to monitor volume levels. • Consider installing automated counters such as Eco-counter at key locations. • Geo-code existing and future pedestrian volume data with GIS software along with other data such as pedestrian control devices and collisions to analyze data for trends or hotspots related to pedestrian safety.
<p>Traffic Calming Programs Traffic Calming Programs and policies set forth a systematic and consistent approach for addressing neighborhood requests and approvals, as well as standard treatments and criteria.</p>	<p>The City of Calistoga does not have a Traffic Calming Program; however, radar speed detection signs are in use near the high school and were funded through an insurance pool for safety improvements.</p> <p>The city municipal code prohibits the use of speed humps in Calistoga.</p>	<ul style="list-style-type: none"> • Consider adopting a Traffic Calming program for pedestrian concerns that arise from residents in Calistoga and to address current concerns from the Police Department such as speeding and cut-through traffic near the elementary and high schools.



1. Oat Hill Court
2. Table Rock Court
3. Urban Place
4. Falleri Drive
5. Cinnabar Court
6. Carli Drive
7. Aurora Drive
8. Emerald Drive
9. High Rock Drive

- Rural Residential
- Rural Residential - Hillside
- Public/Quasi-Public
- Low Density Residential (1 - 4 dwelling units per acre)
- Medium Density Residential (4 - 10 dwelling units per acre)
- High Density Residential (10 - 20 dwelling units per acre) and Office
- Downtown Commercial
- Community Commercial
- Airport Commercial
- Light Industrial

Source: City of Calistoga, 2015 Land Use



DOWNTOWN CALISTOGA

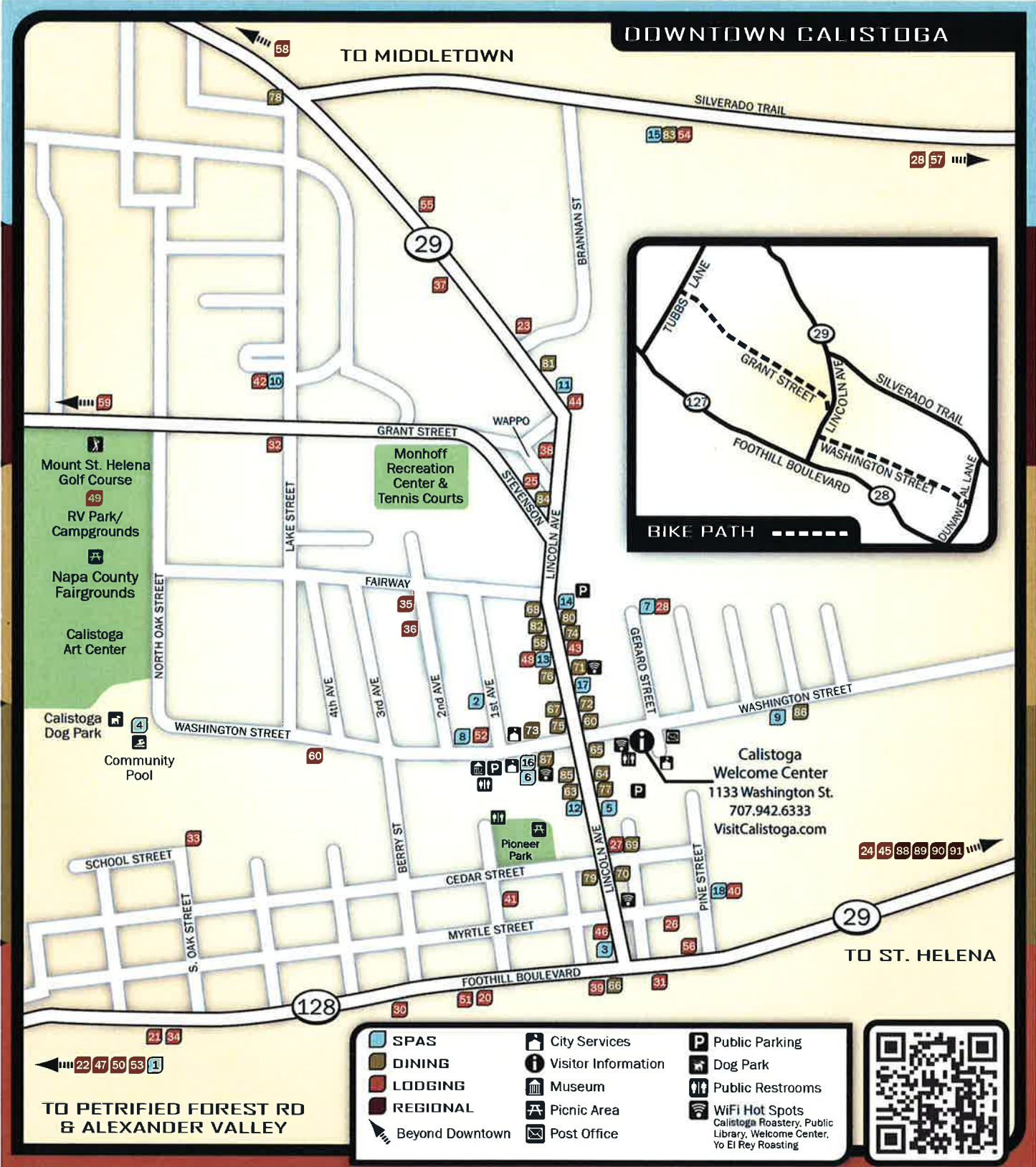


Exhibit C-2

Downtown Calistoga - Destination Map

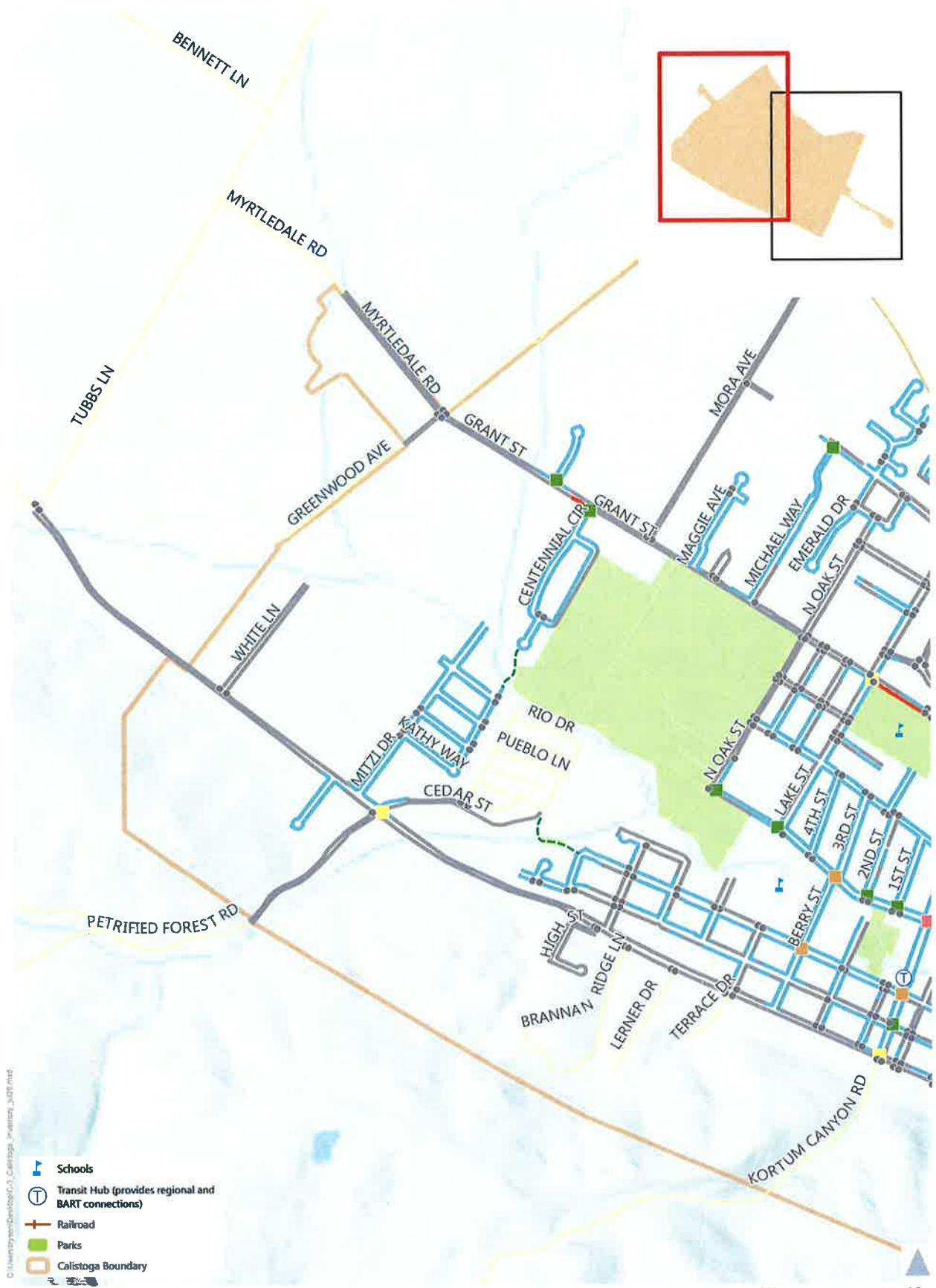
Existing Pedestrian Infrastructure

An inventory of existing sidewalks, marked crosswalks, curb ramps and trails was collected on key roadways throughout the city using a combination of aerial imagery and Google Street View imagery from the years 2011 – 2014 (imagery for a few small residential streets dated back to 2007).

A GIS database assembled for the inventory includes additional detail beyond what is illustrated in the inventory maps, including the style of crosswalk striping, the method of vehicle control at the crosswalk (i.e., traffic signal, flashing beacon, stop sign, or uncontrolled), whether the crosswalk was located in a school zone, and the curb ramp design (i.e., whether the ramp is directional or diagonal and if it has truncated domes). For more information and examples of these types of facilities, please see the Best Practices Toolkit, **Appendix D** of the Countywide Pedestrian Plan.

Calistoga Inventory

Inventory was collected on the entire roadway network in Calistoga, and supplements existing data from the city's 2014 *Active Transportation Plan (ATP)*. As shown in Exhibit C-3, the city has several sidewalk gaps along Grant Street, which connects Calistoga Junior-Senior High School to the surrounding neighborhoods, as well as along Cedar Street, which was identified by staff as an east-west pedestrian corridor. Washington Street was also identified as a primary east-west pedestrian corridor and *Exhibit C-3* shows the potential for several additional curb ramps along the roadway. The primary north-south pedestrian corridor in Calistoga is Lincoln Avenue, which runs through the center of the downtown. The city's *General Plan Circulation Element* highlights the need to install marked crossings at pedestrian nodes on Lincoln Avenue and *Exhibit C-3* shows several intersections that were identified by city staff, including Lincoln at Brannan Street and at Stevenson Street, that are lacking marked crosswalks at important desire lines. The majority of missing sidewalks in Calistoga are presented as "proposed sidewalks" in the city's *ATP* and missing curb ramps are shown as "planned."



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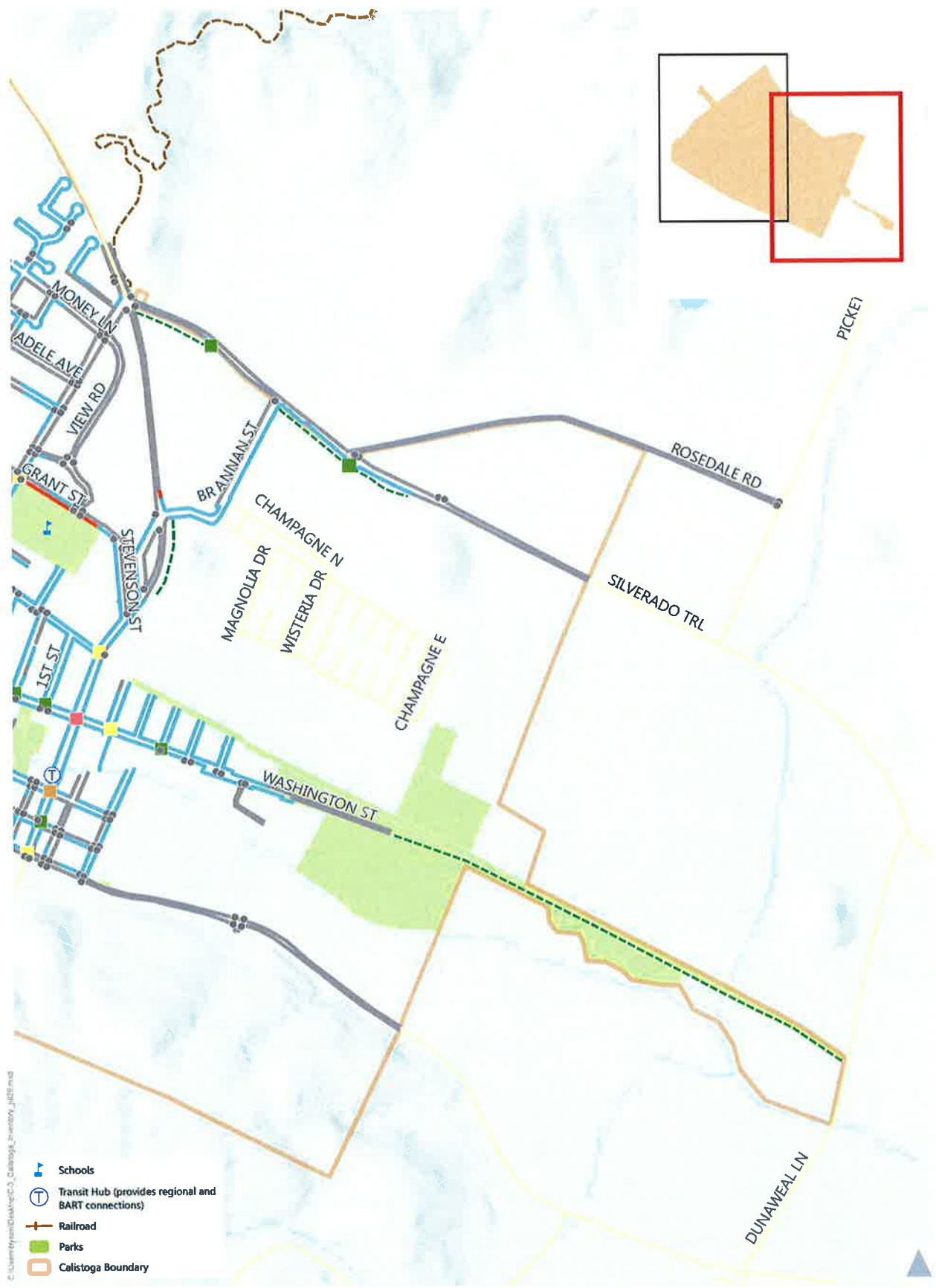
- Schools
- Transit Hub (provides regional and BART connections)
- Railroad
- Parks
- Calistoga Boundary

Pedestrian Inventory

- | | | | |
|------------------|-----------------------|-------------------|--------------------|
| Sidewalks | Trails | Crosswalks | Missing Curb Ramp |
| Asphalt | Paved Multi-Use Trail | 1 | Roads not Surveyed |
| Existing | Unpaved Trail | 2 | |
| Missing | | 3 | |
| | | 4 | |
| | | 5 | |

Exhibit C-3a
Pedestrian Facility Inventory
City of Calistoga





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- Schools
- Transit Hub (provides regional and BART connections)
- Railroad
- Parks
- Calistoga Boundary

Pedestrian Inventory

- | | | | |
|------------------|-----------------------|-------------------|--------------------|
| Sidewalks | Trails | Crosswalks | |
| Asphalt | Paved Multi-Use Trail | 1 | Missing Curb Ramp |
| Existing | Unpaved Trail | 2 | Roads not Surveyed |
| Missing | | 3 | |
| | | 4 | |
| | | 5 | |



Exhibit C-3b
Pedestrian Facility Inventory
City of Calistoga

Activity Levels

Pedestrian counts were conducted at eight locations throughout Calistoga in October and November 2015. These locations were selected based on locations of proposed pedestrian projects in this plan, potential localized safety concerns, expected high levels of walking, and proximity to key pedestrian destinations, including schools and downtown commercial areas. **Table C-2** provides a summary of the two-hour counts completed within the city. Count results varied significantly based on nearby neighborhood population density, as well as by the adjacent land use.

ID	Jurisdiction	Location	Morning	Evening	School	Weekend
			7-9AM	4-6PM	2-4PM	12-2PM
CA1	Calistoga	SR 29 and Cedar Street	80	256		
CA2	Calistoga	Petrified Forest Road and Foothill Boulevard	2	5		20
CA3	Calistoga	Brannan and Lincoln	47	20		
CA4	Calistoga	Berry and Cedar	214		173	
CA5	Calistoga	Grant and Stevenson	22	22	10	
CA6	Calistoga	Grant Street and N. Oak Street	13	12		11
CA7	Calistoga	Lake County Hwy / Silverado Trail N / Lake Street		3		6
CA8	Calistoga	Lake Street and Grant Street	60		66	

Three of these counts were conducted in close proximity to local schools; CA5 and CA8 were collected at intersections adjacent to Calistoga Junior-Senior High School and CA4 was collected near Calistoga Elementary School. Pedestrian volumes near the elementary school were observed to be about two and half times as high in the morning as near the high school, and just over twice the amount during the school dismissal period (2-4PM). The highest number of pedestrians was observed during the evening weekday period at SR 29 and Cedar Street, a key southern connection to downtown. The lowest number of pedestrians was observed during the weekday morning period near the southwest edge of town at Petrified Forest Road and Foothill Boulevard.

Going forward, NVTA intends to conduct annual counts throughout the County on an annual basis. Counts will primarily be conducted in locations evaluated in the baseline year (2015) to monitor travel trends and the impact of project implementation on pedestrian volumes, as well as justify funding for projects in this plan. With the collected counts, NVTA may compare travel patterns across different locations, measure changes in pedestrian use at a single location over time, and evaluate the extent to which pedestrian travel peaks throughout the course of the day or week. By collecting counts at different times of day, NVTA may evaluate if a given pedestrian facility is typically used for recreational or utilitarian purposes.

In the future, count locations may be added or omitted based on agency priorities, and could include pedestrian-involved collision locations to prioritize improvements in locations based on collision rates (collision/daily pedestrian volume).

Collision Analysis

Collision data was accessed from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). This data represents all reported pedestrian-vehicle collisions occurring during the ten-year period from January 2003 to December 2012.

Exhibit C-4 shows the locations of these pedestrian collisions in Calistoga.

Exhibit C-4 presents raw collision counts only. While this is illustrative of “hot spot” areas, another important consideration for identifying safety focus areas can be collisions per pedestrian (or the collision rate). Collision rates (not included in the current analysis because pedestrian volume data is not available citywide) can highlight locations where improvements can be added to ensure a focus on areas that may not have as many people walking (but have high collision rates) in addition to areas with high pedestrian volumes and a high number of collisions.

Hot Spots

The majority of reported collisions in Calistoga occurred along Lincoln Avenue, the main commercial corridor that runs through the city’s downtown, as shown in Exhibit C-4. Of particular interest is the Washington Street and Lincoln Avenue intersection, where three injury collisions were reported. No fatalities were reported in Calistoga over the last ten years.

Countywide Demographic and Seasonal Trends

For this plan, a review of collisions countywide included organizing the data by age for children and seniors, and comparing the results across each jurisdiction. Daily and seasonal trends for collision occurrences and primary collision factors were also reviewed countywide. A summary of these results can be found in the *Countywide Walking Trends* chapter of the countywide plan.

Pedestrian Actions

Perhaps one of the more telling sources of information in the SWITRS data is the Pedestrian Action variable, which describes what the pedestrian was doing immediately before the collision occurred. The pedestrian actions in **Table C-3** show that safety issues surrounding collisions in Calistoga are typically focused on pedestrian crossing locations.

TABLE C-3: CALISTOGA COLLISION SUMMARY PEDESTRIAN ACTIONS (2003-2012)

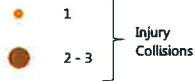
Primary Collision Factor	Number of Collisions		
	Injury	Fatality	Total
Crossing in Crosswalk at Intersection	6	0	6
Crossing Not in Crosswalk	2	0	2

Source: SWITRS



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Pedestrian-Involved Collisions 2003-2012



Pedestrian Collision Locations

Density	Intersection	Total Collisions
●	Cedar St. and Berry St.	1
●	Lincoln Ave. and Myrtle St.	1
●	Lincoln Ave. and Cedar St.	1
●	Washington St. and Anna St.	1
●	Washington St. and Lincoln Ave.	3
●	2nd St and Fair Way	1

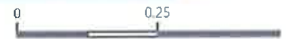


Exhibit C-4
Pedestrian-Involved Collisions
2003 - 2012 City of Calistoga

Public and Stakeholder Input

Countywide Outreach

Input on plan goals and objectives, current pedestrian issues, and desired locations for improvement was solicited through meetings with jurisdiction staff and key stakeholders, countywide public workshops, and an interactive mapping tool made available online. The goal was to develop a community-supported vision for pedestrian improvements. A summary of all input received during this process countywide is displayed in **Table C-4**. Connectivity and safety were the key themes across the countywide comments.

TABLE C-4: PUBLIC INPUT RECEIVED COUNTYWIDE

Comment	Comment Type	Percent of Total Comments
Add a sidewalk here	Connectivity	16%
Make it safer to cross the street here	Safety	15%
Make it safer to walk here	Safety	14%
Add a pedestrian pathway	Connectivity	13%
High traffic volume or speed here	Safety / Walkability	8.5%
Pedestrian facilities need maintenance here	Walkability	4.5%
Barrier for persons with disabilities here	Accessibility	2%
Other (Add your own idea)		27%

Source: Fehr & Peers, 2015

Examples of the comments that were categorized as “other” throughout the County are included in the Station One narrative below.

Public Workshops

Ongoing public outreach and participation was an integral element in developing the Countywide Pedestrian Plan. Public workshops were advertised on NVTA’s website, as well as via local media including the newspaper and radio. Invitations to the public workshops were also sent to local stakeholders, including senior centers, mobility impaired groups, advisory committees and local non-profit groups. The goal of the workshops was to identify public concerns and opportunity areas to inform focus areas, educate the stakeholders, and solicit feedback on the plan vision and goals.

Public workshops were held throughout the County in Winter 2015: in Napa on January 22 at NVTA; in Yountville on January 27; in St. Helena on January 28; and in American Canyon on February 4. Due to recent public workshops held in Calistoga through development of their Active Transportation Plan in 2014, a workshop was not held in this city. All workshops were open to all members of the public countywide. Photos of workshop posters are included in **Appendix A** of the countywide plan.

The format for each public workshop was the same and consisted of four stations:

- **Station One: Issues/Opportunities**

At Station One, participants voted on a list of common barriers to walking to indicate which issues were most relevant to the walking environment in their jurisdiction and countywide. Participants also wrote comments on large-scale aerial maps placed on tables or on the floor to highlight existing barriers to pedestrian travel and locations where improvements were needed. Suggested comments included “Make it safer to cross the street here” or “High traffic volume or speed here”.



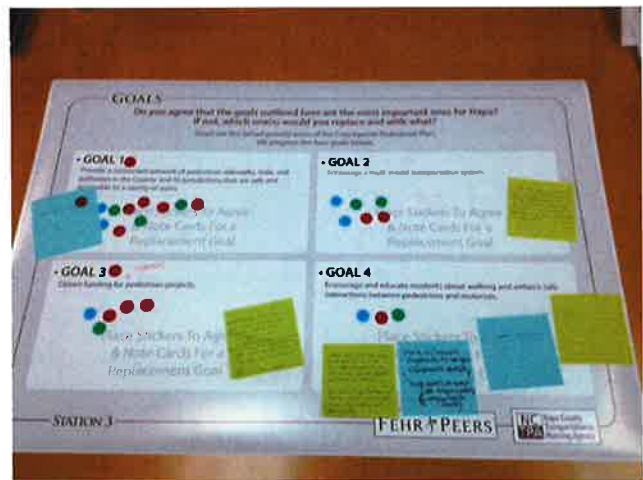
Comments were mapped in GIS after the workshops to visualize the areas of reported pedestrian needs and inform the decision for focus area locations. Comments were grouped into six categories, including a miscellaneous category “Add your own idea”. This category was used for comments that did not fall into any of the major themes shown in Table C-4. Examples of these miscellaneous comments included documentation of routes used by hotel guests in St. Helena, suggestions for aesthetic treatments to downtown crosswalks in Yountville, and suggestions for bike lanes. All comments were considered in the process to choose focus areas for the Plan, discussed under *Opportunity Areas* in this Plan, and when identifying candidate pedestrian improvements.

- **Station Two: Best Practices Toolbox**

Station Two was an informative station that displayed examples of best practices for pedestrian treatments frequently used in pedestrian planning efforts. Treatments included sidewalk buffers, intersection features, crosswalk enhancements, as well as signal and striping modifications.

- **Station Three: Goals Visioning**

At Station Three, participants had the opportunity to weigh in on draft goals for the plan and write their own vision statement. Conflicting desires related to transportation were also presented on either end of the scale and participants were asked to place stickers where they thought the balance should be struck. Tradeoffs included ease of walking compared to ease of driving and creating a comprehensive pedestrian network compared to improved transit service. This information is valuable to determine where the public would like resources to be focused.



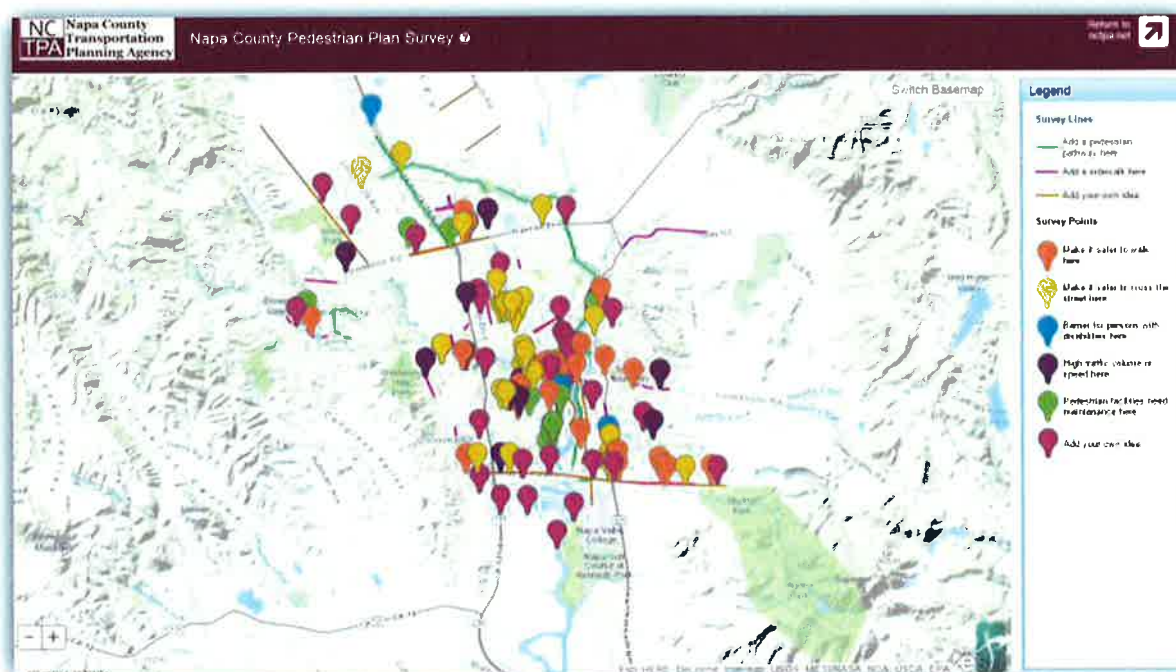
- **Station 4: Collision Maps**

Station Four was an informative station that displayed the collision maps shown in this plan.

Online Survey Mapping Tool

Napa County residents, employees, and visitors who wanted to provide input but were unable or did not wish to attend the public workshops had the option of submitting their comments online through an interactive mapping tool. Users placed pins on the maps to highlight desired improvements using pre-set comments or creating their own comment. Preset comments included:

- Make it safer to walk here
- Make it safer to cross the street here
- Barrier for persons with disabilities here
- High traffic volume or speed here
- Pedestrian facilities need maintenance here
- Add a sidewalk here
- Add a pedestrian pathway here



Results from the 70 comments submitted countywide are shown in *Exhibit 2* of the countywide plan. No comments were received in the City of Calistoga.

Calistoga-Specific Focus Groups

At the outset of the plan development process, meetings were held with key staff from Calistoga to initiate the planning process on December 9, 2014.

This meeting included a discussion of existing programs, policies and practices. Recommendations for improvements are provided in the benchmarking summary table in **Appendix C-A**.

Jurisdiction staff also provided input during the initial benchmarking meeting and at the public workshops on key areas where pedestrian improvements are planned and in some cases, where connections and safety improvements are desired. This input was used to inform potential opportunities for walking audit routes, as well as discussed along with the facility inventory maps under the *Existing Pedestrian Infrastructure* section of this plan.

Key goals for the pedestrian planning process were also discussed with Calistoga staff, including traffic calming and preserving the rural character, and are incorporated into key programmatic and policy recommendations in this plan.

Additional focus group meetings were held for the Calistoga walking audit on April 14, 2015, and to review the list of suggested pedestrian projects on August 19, 2015.

Opportunity Areas

Calistoga's small-town feel, historic charm, numerous tourist destinations, and natural beauty create an enjoyable landscape for pedestrians. The city is also seeing growth and transition, and has recognized this moment as a key opportunity to enhance pedestrian safety and connectivity in concert with the development opportunities. The city has taken many recent steps in planning for a safer, more walkable community, focusing on the downtown core and safe routes to school in a Pedestrian Safety Assessment (PSA), completed in 2015 by UC Berkeley's Technology Transfer Program (Tech Transfer). This plan expands on those efforts by developing a list of proposed pedestrian facilities within key focus areas of the city and referencing those that have been developed by other plans. Initial focus areas for the plan were developed using a data-driven GIS process that evaluates several factors related to the built environment and demographics that affect the propensity to walk. This process, called the "Ped INDEX", was adapted by work done by the US Environmental Protection Agency (EPA) has been used in several plans in the Bay Area to map the qualitative likelihood of demand for pedestrian activity.

Ped INDEX

The main factors used in the Ped INDEX are population density, land use mix, presence of schools or parks, intersection density, location of downtown commercial areas, and age. These factors resulted in a "heat map" which displays an estimate for relative pedestrian demand on the streets throughout the City of Calistoga. More

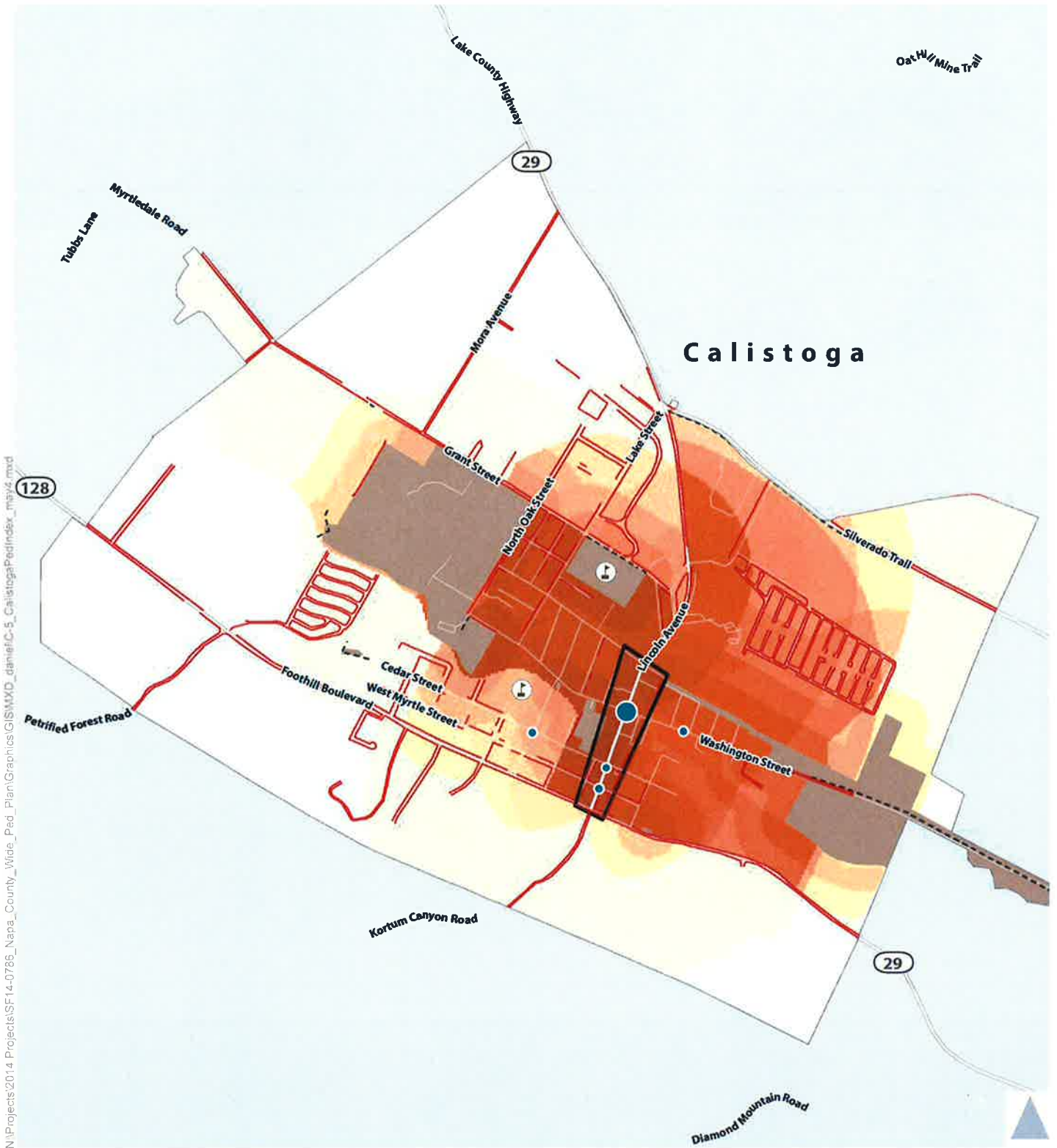
detail on the Ped INDEX methodology and results as well potential applications can be found in **Appendix B** of the countywide plan.

To balance high pedestrian demand areas with key areas of need in Calistoga, additional data layers were used to display pedestrian deficiencies. These include gaps in sidewalk and reported pedestrian-involved collisions. In general, places with high pedestrian demand and a high infrastructure need are shown as target areas that could be prioritized for pedestrian improvements. The resulting heat map with overlaid demand and deficiencies is shown in Exhibit C-5.

As illustrated on *Exhibit C-5*, Ped INDEX focus locations include the downtown core, Lake Street, Grant Street and North Oak Street. After discussion with city staff regarding candidate locations, the focus area that was chosen for study during walking audits for the Countywide Pedestrian Plan (approximately one mile) included:

- Cedar Street from Lincoln Avenue to Berry Street
- Berry Street from Cedar Street to Washington Street
- Washington Street from Berry Street to Lake Street
- Lake Street from Washington Street to Grant Street
- Grant Street from Lake Street to Stevenson Street
- Stevenson Street from Grant Street to Lincoln Avenue

Lincoln Avenue and Foothill Boulevard are also high pedestrian priority areas for the city, and these corridors were studied during walking audits for a separate Pedestrian Safety Assessment, completed in 2015 through the University of California at Berkeley's Technology Transfer Program. Projects suggested during these walking audits are referenced in this plan.



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Demand:

Pedestrian Index Score



Deficiencies:

Pedestrian Collisions (Injuries)



- Pedestrian Fatality
- Missing Sidewalks

Legend:

- Downtown
- Parks
- Trail/Path
- School

Exhibit C-5

Calistoga - Pedestrian Index Demand & Deficiencies



Priority Project and Implementation Plan

An important outcome of this plan is the designation of a priority project list and an implementation plan for these projects. The priority project list was assembled based on:

- Results of the Walking Audit conducted for the plan
- Projects recommended through related planning efforts, such as the Countywide Transportation Plan (CTP)
- Conversations with staff and stakeholders regarding other local priorities

Walking Audits

Walking audits for the Pedestrian Plan focus areas were conducted in April 2015 with key stakeholders to observe field conditions and brainstorm potential ideas for improvement. The following stakeholders attended walking audits in Calistoga:

- Erik Lundquist, Senior Planner City of Calistoga
- Mike Kirn, Public Works Director City of Calistoga
- Chris Canning, Mayor City of Calistoga
- Dieter Deiss, Member of Calistoga ATAC and NVTA ATAC
- Vicka Llamas, Principal Calistoga Elementary School
- Mitchell Celaya, Police Chief City of Calistoga
- Kaycee Wanless, Napa County Safe Routes to School

During the walking audits, visual surveys were conducted to observe physical characteristics and conditions of the pedestrian environment as well as the connectivity and continuity of the surrounding pedestrian network. A debrief was held afterwards with the group to discuss observations and determine suggestions for improvements.

Project List and Map

Suggested pedestrian projects developed during the Pedestrian Plan walking audits and similar, recent efforts are shown in Exhibit C-6. Descriptions of each project and additional program and policy recommendations are included below under Priority Projects.

Recommended Calistoga Pedestrian Improvements

- 1** C-1: Pedestrian Safety Improvements SR 29 & Cedar St (No.8 2015 CTP Constrained Project)
- 2** C-2: Pedestrian Safety Improvements SR 29 & Brannan St (No. 9 2015 CTP Constrained Project)
- 3** C-3: Washington Street Complete Streets (No. 10 2015 CTP Constrained Project)
- 4** C-4: PSA Recommendations South of Downtown
- 5** C-5: PSA Recommendations within Downtown Core
- 6** C-6: PSA Recommendations at Fair Way
- 7** C-7: PSA Recommendations North of Downtown
- 8** C-8: Calistoga Elementary School Improvements
- 9** C-9: Lake Street Traffic Calming
- 10** C-10: Lake Street Sidewalk Gap Closure
- 11** C-11: Grant Street SRTS Improvements
- 12** C-12: Grant Street and Wappo Avenue Pathway
- 13** C-13: Stevenson Street Safe Routes to School Improvements
- 14** C-14: Calistoga 2014 ATP Planned Sidewalk and Pathway Segments*

— Calistoga Walking Audit — PSA Walking Audit
■ School **PSA** = Pedestrian Safety Assessment

* This project includes citywide improvements and is not displayed on the map



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Priority Projects

Existing funding for pedestrian facilities is limited and cannot successfully cover more than a fraction of the recommendations in this plan. Available regional, state and federal funding sources and grant cycles are highly competitive among worthy projects and other jurisdictions. Using consistent prioritization criteria countywide, this plan includes a tiered list of projects for Calistoga reflecting:

- Local importance
- Safety enhancements
- Proximity to schools
- Proximity to transit
- Sidewalk gap and trail connections
- Cost

These criteria and the metrics used to define them are described in more detail in **Appendix C-C**. Each pedestrian improvement project is shown in one of two tiers based on the number of evaluation criteria it meets. Detailed results and project descriptions can be found in **Appendix C-C**. A summary of the improvements is shown in **Table C-5**.

Funded or Constructed Projects

The City of Calistoga is planning a bridge replacement project on Berry Street at the intersection of Washington Street, near Calistoga Elementary School. The project is funded, and will include a realignment of the intersection to straighten crosswalks and shorten crossing distances, to the extent feasible. This funded project was assigned to “Tier Zero” in Table C-5 and was not evaluated for prioritization.

TABLE C-5: CALISTOGA PEDESTRIAN IMPROVEMENTS

Project ID	Location	Description	Pedestrian Component	Estimated Cost
ON-GOING SYSTEM MAINTENANCE				
Sidewalk Gap Closure and Maintenance (No. 10 2015 CTP Program)	Citywide	Sidewalk maintenance, rehabilitation and expansion	Sidewalks Maintenance	\$\$\$
TIER ZERO (FUNDED OR CONSTRUCTED PROJECTS)				
T0-1 Berry Street Bridge Replacement	Berry Street at Washington Street	Intersection alignment and crosswalk enhancements	Crossing Treatments Traffic Calming	--
TIER ONE IMPROVEMENTS				
Suggested Modifications to CTP Project				
C-1² Pedestrian Safety Improvements SR 29 & Cedar Street (No. 8 2015 CTP Project)	SR 29 (Lincoln Avenue) at Cedar Street	Crosswalk enhancements ¹	Crossing Treatments ADA Ramps PSA Recommendations	\$129,600
		Rapid Rectangular Flashing Beacons (RRFBs) if roundabout at Lincoln/Foothill is not installed	Crossing Treatments	\$45,400
Suggested Modifications to CTP Project				
C-2 Pedestrian Safety Improvements SR 29 & Brannan Street (No. 9 2015 CTP Project)	SR 29 (Lincoln Avenue) at Brannan Street	Feasibility study for roundabout or RRFBs	Crossing treatments Traffic calming PSA recommendations	\$55,400
		Curb ramp location modifications	ADA ramps? Crossing treatments PSA recommendations	
		RRFB if roundabout is not installed	Crossing treatments	\$45,400

TABLE C-5: CALISTOGA PEDESTRIAN IMPROVEMENTS

Project ID	Location	Description	Pedestrian Component	Estimated Cost
C-3 Washington Street Complete Streets (No. 10 2015 CTP Project)	Washington Street: Lincoln Avenue to N. Oak Street	Complete Streets Enhancements ³	Complete Streets ³	
	Washington Street at Gerard Street	Suggested Modifications to CTP Project		
		Crosswalk enhancements ¹	Crossing treatments ADA ramps	\$\$\$
		Signal modifications and crosswalk enhancements ¹	Crossing treatments ADA ramps PSA recommendations Signal timing/operations	
C-4 PSA Recommendations South of Downtown	Washington Street at Lincoln Avenue			
	Foothill Boulevard: Pine Street to Elm Street	Sidewalks	Sidewalks	
	Lincoln Avenue at Foothill Boulevard	Roundabout feasibility study	Traffic Calming	\$\$
	Lincoln Avenue at Myrtle Street	Crosswalk enhancements ¹ and trail improvements	Crossing treatments ADA ramps Pathway	
C-8 PSA Recommendations South of Downtown	Berry Street at Cedar Street	Crosswalk enhancements ¹	Crossing Treatments ADA Ramps	\$
	Grant Street: Lake Street to Stevenson Street	Near Term: Traffic calming and safety enhancements	Traffic Calming	
C-11 Grant Street Safe Routes To School Improvements	Grant Street at Arch Way	Crosswalk enhancements ¹	Crossing Treatments	\$257,000
	Grant Street at Stevenson Street	Intersection alignment and crosswalk enhancements ¹	Crossing Treatments	
	Grant Street: Lake Street to Stevenson Street	Long Term: Sidewalk	Sidewalk	\$368,500
C-12 Grant Street and Wappo Avenue Pathway	Grant Street and Wappo Avenue; East of Stevenson Street	Pathway feasibility study	Pathway	\$35,000

TABLE C-5: CALISTOGA PEDESTRIAN IMPROVEMENTS

Project ID	Location	Description	Pedestrian Component	Estimated Cost
C-13² Stevenson Street Safe Routes to School Improvements	SR 29 (Lincoln Avenue) at Stevenson Street	Intersection alignment, crosswalk enhancements ¹ and traffic calming improvements	Crossing Treatments ADA Ramps PSA Recommendations Traffic Calming	\$74,600
		RRFB if roundabout at Lincoln/Brannan is not installed	Crossing Treatments	\$45,400
TIER TWO IMPROVEMENTS				
C-5 PSA Recommendations within Downtown Core	Lincoln Avenue: Fair Way to Cedar Street	Mid-block crosswalk enhancements ¹ and greenery or art for pedestrian paseo	PSA Recommendations Crossing Treatments Paseos Place making	\$\$
C-6 PSA Recommendations at Fair Way	Lincoln Avenue at Fair Way	Signal modifications, crosswalk enhancements ¹ , and vehicle circulation modifications	Crossing Treatments Signal timing/operations PSA Recommendations Transit	\$\$
C-7² PSA Recommendations North of Downtown	Lincoln Avenue at Wappo Avenue	Crosswalk enhancements ¹	Crossing Treatments ADA Ramps	\$\$
	Lincoln Avenue, Wappo Avenue to Brannan Street	Sidewalks and lighting	Sidewalks Lighting	
C-9 Lake Street Traffic Calming	Lake Street, Washington Street to Lake County Highway	Traffic calming study	Traffic Calming	\$\$
C-10 Lake Street Sidewalk Gap Closure	Lake Street: Washington Street to Lake County Highway	Sidewalks	Sidewalks	\$\$\$

TABLE C-5: CALISTOGA PEDESTRIAN IMPROVEMENTS

Project ID	Location	Description	Pedestrian Component	Estimated Cost
PREVIOUSLY PLANNED IMPROVEMENTS⁴				
C-14 Calistoga 2014 ATP Planned Sidewalk and Pathway Segments	Citywide	Sidewalks and pathways	Sidewalks	\$\$\$

1. An enhanced crosswalk includes additional safety treatments such as curb extensions, reduced curb radii, or pedestrian refuge islands. These enhancements are recommended to address safety concerns such as higher speed or volume roadways, wider roadways, and roadways where motorists are less likely to yield to pedestrians. Specific recommendations are included in Appendix C-C. For additional information on the application of these enhancements, refer to the Crosswalk Policy of this plan.
2. The downtown stretch of Lincoln Avenue serves as a frequent parade route for events in Calistoga. To accommodate these parades, the design of any infrastructure projects on Lincoln Avenue from Stevenson Street to Cedar Street should not preclude large vehicles driving down the center of the street. Any median refuges being considered between these limits, such as those recommended in Improvement C-1, C-7, and C-13 as crosswalk enhancements, will require a feasibility assessment.
3. Complete Streets enhancements are designed to accommodate all users, including pedestrian, bicyclists, transit riders, and motorists. For more information, refer to the Best Practices Toolkit, Appendix D of the Countywide Pedestrian Plan.
4. These projects are pedestrian projects that are referenced in other planning documents. These projects were not evaluated during the scope of this Plan; however, they may be pursued through separate and ongoing efforts.

PSA = Pedestrian Safety Assessment (PSA), completed for Calistoga in 2015 by UC Berkeley's Technology Transfer Program (Tech Transfer).

\$\$\$ - high cost (>\$1million); \$\$ - medium cost (\$100k-\$1million); \$ - low cost (<\$100k)

Source: Fehr & Peers, 2016

Preserving the rural character is of value to the community of Calistoga and is an important consideration in the design of pedestrian infrastructure. When feasible, physical improvements such as curb extensions and median refuges are preferred as crosswalk enhancements in lieu of flashing beacons. Rectangular rapid flashing beacons (RRFBs) should only be considered as a second phase, if additional traffic calming is desired, for Projects C-1, C-2, and C-13 to maintain this rural character.

Supporting Programs and Policies

Key program and policy recommendations that complement the engineering-related projects are shown below in Table C-6. Many of these recommendations draw from the benchmarking exercise completed at the onset of the plan development. The recommendations encompass education, encouragement, and enforcement activities.

TABLE C-6: CALISTOGA PROGRAM AND POLICY RECOMMENDATIONS

Program or Policy	Recommendations
Education and Encouragement	
Safe Routes to School (SRTS) Coordination	Coordinate with the Napa County Office of Education to continue SRTS programs in the city, and determine feasibility of implementing recommendations under the Safe Routes to School Support Program in the <i>Countywide Implementation</i> chapter of the countywide plan.
Safety and Enforcement	
Law Enforcement for Pedestrian Safety	Coordinate with NVTA to provide resources to officers in Calistoga on pedestrian safety principles / best practices and education outreach efforts to align with Countywide collision reduction goals. Consider designating traffic safety officers who conduct pedestrian related enforcement activities, such as monitoring school circulation activity during pick up and drop off periods. Determine feasibility of enforcement recommendations in <i>Countywide Implementation</i> chapter of the countywide plan.
NVTA Safety Campaign	Coordinate with NVTA on the media safety campaign that NVTA is pursuing, as an opportunity for education by distributing pedestrian safety pamphlets in-lieu of, or in addition to, citations.
Calistoga Elementary School Crossing Guard Training	Review crossing guard training and staffing to improve operations and reduce confusion.
Construction Coordination	Coordinate with stakeholders during traffic control plan development near key pedestrian nodes such as schools, parks and transit stops to ensure appropriate considerations for pedestrian circulation. Implement Policy 9.3 in the Calistoga ATP to require that construction projects minimize impacts to bicyclists and pedestrians through proper signage, equipment, and detours.
Maintenance	
Repair of Sidewalks, Crosswalks, and Curb Ramps	<ul style="list-style-type: none"> • Continue to regularly improve and repair uneven sidewalk, broken asphalt in crosswalks, and install new curb ramps as part of the citywide Sidewalk Maintenance Program above. Determine feasibility of following the recommended timetable for maintenance activities in the Calistoga 2014 citywide ATP (Table 16, pg. 69-70). This could include efforts as part of the ADA Transition Plan and/or the trip and fall monitoring program. • Assign a point of contact in the Public Works Department to compile, track, and respond to routine bicycle and pedestrian maintenance issues in a timely manner (Policy 9.2, Calistoga ATP) • Determine feasibility of adding a page to the city's website to allow residents and visitors to more easily report and track hazards in the public right-of-way and to ensure all necessary sidewalk repairs are included in the city's Capital Improvement Program (CIP). This could include the reporting of maintenance needs for pedestrian-related pavement markings and traffic control devices.
Overgrown Vegetation on Sidewalks and Planting Strips	Continue to ensure citywide that landscapes at maturity do not interfere with safe sight distances for bicycle, pedestrian, or vehicular traffic; do not conflict with overhead lights, traffic controls, traffic signage, utility lines or poles, or walkway lights; and, do not block bicycle or pedestrian ways. Require adjacent property owners to maintain landscaped areas with live and healthy plant materials, replacing plant materials when necessary to maintain full function and aesthetics; to water, weed, prune, fertilize and keep sidewalks and planting strips litter free. Determine feasibility of implementing these monitoring activities based on the recommended timetable in the Calistoga citywide 2014 ATP (Table 16, pg. 69-70).

TABLE C-6: CALISTOGA PROGRAM AND POLICY RECOMMENDATIONS

Program or Policy	Recommendations
Caltrans Coordination	Coordinate with Caltrans for sidewalk maintenance, crosswalk enhancements and curb ramp upgrades to directional along SR 29 (Lincoln Avenue)
Engineering and Design Standards	
Crosswalk Guidelines	Implement Crosswalk Guidelines, included in Appendix D of the Countywide Pedestrian Plan, to enable the city to respond to crosswalk requests in a manner that improves pedestrian accessibility and maintains public safety. Reference Guidelines when making decisions about where standard crosswalks (two, parallel white stripes) can be marked; where crosswalks with special treatments, such as high-visibility crosswalks, flashing beacons and other special features, should be employed; and where crosswalks will not be marked due to safety concerns resulting from volume, speed, or sight distance issues.
Place Making and Complete Streets	
Downtown Parking Plan	Develop parking plan to identify shared parking opportunities, consider parklets and mid-block crosswalks recommended in PSA report, and identify opportunities for bike parking to include bike corrals, which are an on-street bicycle parking facility that can accommodate up to 16 bicycles parked on racks in the same area as a single vehicle parking space.
Site Plan Review Checklist	Create checklist for development review to ensure site plans include considerations for pedestrian access, safety and sidewalk activation (including considerations for building frontage location, pocket parks, small plazas, or small retail/commercial kiosks and evaluation of pedestrian circulation in parking lots). Include items from MTC's Routine Accommodation Checklist for projects in the public right-of-way to ensure routine application of the Complete Streets policy. MTC's checklist can be found here: http://www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist.pdf

Next Steps

Funding Sources

Sidewalks are included in Calistoga’s Capital Improvement Program, with an annual funding level of approximately \$50,000.

Federal, state, regional, county and local organizations provide funding for pedestrian and bicycle projects and programs. The most recent federal surface transportation funding program, Fixing America’s Surface Transportation Act (FAST Act), was signed into law in December 2015. Details in this section are provided for funding programs that are used to fund scheduled projects through December 2020.

Fast Act funding is distributed to Federal and State surface transportation funds. Most of these resources are available to Calistoga through Caltrans, the Metropolitan Transportation Commission (MTC), and the Napa Valley Transportation Authority (NVTA).

Table C-7 summarizes the applicability of these various funding sources to projects, planning efforts, and programs proposed in this plan. Detailed descriptions of the grant funding sources are presented in **Appendix C** of the countywide plan. The most applicable funding sources for the improvements recommended by this plan are the Active Transportation Program, One Bay Area Grants, Highway Safety Improvement Program, and Transportation Development Act Article 3 funds.

TABLE C-7: REGIONAL FUNDING SOURCE APPLICABILITY MATRIX

Funding Source	Class I Multi-Use Path	Pedestrian Projects	Other Projects	Planning and Programs
Highway Safety Improvement Program (HSIP) Grants	◐	●	●	○
Caltrans Transportation Planning Grants	○	○	○	●
Local Transportation Fund (LTF)	●	●	●	○
California State Parks Recreational Trails Program (RTP)	●	○	○	○
Land and Water Conservation Fund (LWCP)	●	○	○	○
Active Transportation Program (ATP), including Safe Routes to School	●	●	●	●
Transportation Development Act-Article 3 (TDA-3)	●	●	●	◐
One Bay Area Grant (OBAG)	●	●	●	●
Bay Area Air Quality Management District (BAAQMD) Transportation Fund for Clean Air	◐	◐	◐	○

Note:

1. ● indicate that funds may be used for this category; ○ indicate that funds may not be used for this category, and ◐ indicate that funds may be used, though restrictions apply.

Source: Fehr & Peers, 2016.

Cost of the Pedestrian Network

Table C-8 presents unit costs for standard pedestrian treatments, estimated using an ATP Cost Estimating Tool developed for the Alameda County Transportation Commission. The tool is used to estimate costs for bicycle and pedestrian projects at the network planning scale during the development of active transportation plans and in a sketch-planning capacity for a bicycle and/or pedestrian project. The costs shown represent the total construction for a typical treatment of that type, including engineering, design, construction management, mobilization, traffic control and general contingency. Contingency for drainage and utility relocation was also included for relevant treatment types, such as curb extensions. These numbers do not include right-of-way costs or inflation.

TABLE C-8: GENERALIZED UNIT COSTS FOR IMPROVEMENTS

Facility Type	Cost ¹	Unit
Curb Extension/Bulbout	\$56,000	Each
Pedestrian Refuge Island	\$10,000	Each
Flashing Beacons (RRFBs)	\$45,000	Per Crosswalk
Pedestrian Hybrid Beacon (PHB)	\$144,000	Per Crosswalk
Customized Pedestrian Wayfinding Signs	\$2,000	Per Sign

1. Costs reflect capital costs plus contingency for engineering design, environmental, construction management, mobilization, traffic control, and contingency.

Source: Fehr & Peers, ATP Cost Estimating Tool, 2015.

Project-level cost estimates were prepared for the top 5 Tier One projects determined in the previous section of this plan, while the remaining projects were assigned a ranking in Table C-5 to indicate an estimated range of cost level. Prepared cost estimates, included in **Appendix C-D**, include unit costs for individual improvements within the project and adjustments to account for traffic control, construction management, and mobilization. Additional factors were also used for overall contingency, engineering design, and environmental. A summary of the estimates is shown in **Table C-9** below.

TABLE C-9: TIER ONE PROJECT SUMMARY COSTS	
Project	Total Cost ¹
C-1: Pedestrian Safety Improvements SR 29 & Cedar Street (No. 8 CTP Project)	\$175,000
C-2: Pedestrian Safety Improvements SR 29 & Brannan Street (No. 9 CTP Project)	\$100,800
C-11: Grant Street SRTS Improvements	-
Near Term	\$257,000
Long Term	\$625,500
C-12: Grant Street and Wappo Avenue Pathway Study	\$35,000
C-13: Stevenson Street Safe Routes to School Improvements	\$120,000

1. Costs reflect capital costs plus contingency for engineering design, environmental, construction management, mobilization, traffic control, and contingency.

Source: Fehr & Peers, ATP Cost Estimating Tool, 2016.

Countywide Performance Metrics and Evaluation

NVTA intends to monitor progress on the implementation of this plan over time. The *Countywide Implementation* chapter of the Countywide Pedestrian Plan summarizes key performance goals and associated metrics for this plan’s implementation.

Calistoga Appendix

C-A Benchmarking Table

C-B Existing Pedestrian Policies

C-C Detailed Project Lists and Prioritization

C-D Cost Estimates

C-E Plan Adoption Resolution

Appendix C-A: Benchmarking Table

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Coordination with Health Agencies</p> <p>Involving non-traditional partners such as public health agencies, pediatricians, etc., in the planning or design of pedestrian facilities may create opportunities to be more proactive with pedestrian safety, identify pedestrian safety challenges and education venues, and secure funding. Additionally, under-reporting of pedestrian-vehicle collisions could be a problem that may be partially mitigated by involving the medical community in pedestrian safety planning.¹</p>	<p>Key Strength</p>	<p>Live Healthy Napa County, a coalition of local community stakeholders for improving health in Napa County, recently completed the Napa County Community Health Improvement Plan (CHIP) in February 2014. The document proposes a plan to address health issues through new policies and health promotion strategies, including transportation policies that encourage walking and biking.</p> <p>Live Healthy Napa County completed the first ever Napa County Community Obesity Prevention Plan (Jan. 2015)², which addresses the need to increase a active transportation options countywide.</p> <p>In Calistoga, health agencies are not involved in pedestrian planning on a regular basis at the local level.</p>	<ul style="list-style-type: none"> Seek opportunities to meet goals in the CHIP related to active transportation, such as improving the built environment by ensuring all necessary sidewalk repairs are included in the city's Capital Improvement Program (CIP), and including additional pedestrian infrastructure projects in the program. Consider incorporating public comment from the recommended online comment form below under <i>Public Involvement</i>. Involve health agencies in the development review process, especially related to active transportation improvements. Ensure consistency with the CHIP by seeking partnership opportunities between health agencies and Safe Routes to School to expand the reach of education and promotion of walking.

¹ Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, "San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records," *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113

² [http://www.livehealthynapacounty.org/uploads/5/1/4/5/1449431/napa_community_obesity_prevention_plan_\(final\).pdf](http://www.livehealthynapacounty.org/uploads/5/1/4/5/1449431/napa_community_obesity_prevention_plan_(final).pdf)



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Complete Streets Policy Routine Accommodations or Complete Streets Policies accommodate all modes of travel and travelers of all ages and abilities.</p>	<p>Key Strength</p>	<p>The City of Calistoga has a Complete Streets Policy which follows the template provided by the Metropolitan Transportation Commission (MTC), and the policy is incorporated into the city's 2014 Circulation Element of the General Plan. According to the Circulation Element, Complete Streets practices must be integrated into public works projects and development projects as well as the retrofit or maintenance of existing streets.</p> <p>The policy requires development projects affecting the transportation system to be reviewed by the Active Transportation Committee (ATC) for consistency with other city planning documents and recommendations for Complete Streets elements. The Active Transportation Advisory Committee (ATAC) of the Napa Valley Transportation Authority (NVTA) will follow MTC's checklist procedure when reviewing projects from the Regional Transportation Plan (RTP).</p> <p>The city collects development impact fees for traffic impact mitigations, used to pay for transportation capital improvements not covered by other funding sources. Pedestrian and bicycle improvements are included in the cost estimates and the allocation of monies.</p>	<ul style="list-style-type: none"> • Develop a checklist for ATC project review to ensure routine application of the Complete Streets policy and include relevant items from MTC's Complete Streets Checklist. • Consider maintaining a GIS database of data collected as part of the policy evaluation, to include pedestrian volumes collected in this plan.
<p>Newspaper Rack Ordinance Newspaper racks may obstruct walkways and reduce accessibility and pedestrian visibility when ordinances are not in place. A Newspaper Rack Ordinance improves the pedestrian realm by reducing clutter and organizing sidewalk zones and may detail size, location, and maintenance requirements.</p>	<p>Key Strength</p>	<p>Calistoga has a robust newspaper rack ordinance that addresses pedestrian safety and prohibits disruption of pedestrian flow. The policy also restricts the placement of newspaper racks anywhere that may obstruct a driver's line of sight.</p>	

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Street Tree Ordinance</p> <p>Street trees enhance the pedestrian environment by providing shade and a buffer from vehicles. Street trees may also enhance property values, especially in residential neighborhoods. However, street trees, when improperly selected, planted, or maintained, may cause damage to adjacent public infrastructure and/or utilities.</p>	<p>Key Strength</p>	<p>Calistoga's tree ordinance includes requirements for maintaining vertical pedestrian clearances and installing root barriers to avoid sidewalk damage. Maintenance is the responsibility of the owner of the lot fronting the street where the tree is located. Calistoga has adopted the City of Santa Rosa's approved street tree list.</p> <p>In lieu of funding for sidewalk replacement and substantial repair, the city also grinds areas of the sidewalk to remove trip hazards as part of their trip and fall assessments, including locations that are lifted by tree roots.</p>	
<p>Bicycle Parking Ordinance</p> <p>Bicyclists become pedestrians after parking their bicycles. Safe and convenient bicycle parking is essential for encouraging bicycle travel (especially in-lieu of vehicle travel).</p>	<p>Key Strength</p>	<p>The City of Calistoga has a bicycle parking ordinance that includes requirements for residential and non-residential. Racks or lockers are required to be placed in a safe and convenient location, adequately separated from vehicles and pedestrians.</p>	
<p>Collision Reporting</p> <p>Identifying and responding to collision patterns on a regular basis is an important proactive approach to pedestrian safety (which may be combined with proactive measures).</p>	<p>Key Strength</p>	<p>Collision data from the beginning of 2002 through the end of 2011 was mapped as part of Calistoga's Active Transportation Plan (ATP) and reviewed for trends related to pedestrian safety. The ATP also includes a policy to reduce pedestrian and bicycle collisions by 50 percent by the year 2020, based on 2011 collision data, as well as to review collision data annually to identify and prioritize applicable projects and programs.</p>	<ul style="list-style-type: none"> Comprehensive monitoring using Crossroads software would allow for more proactive pedestrian safety projects and best practices such as collision typing for countermeasure selection. GIS efforts may be funded through an Office of Traffic Safety grant. Pedestrian volume data could be used to prioritize collision locations based on collision rates (collisions/daily pedestrian volume). This could lead to a proactive approach to identify treatments and program funding. Volunteers can collect pedestrian volumes and other data at collision locations.



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Safe Routes to Schools</p> <p>Safe Routes to School (SRTS) programs encourage children to safely walk or bicycle to school. The programs are important both for increasing physical activity (and reducing childhood obesity) and for reducing morning traffic associated with school drop-off.</p> <p>Funding for educational programs and/or infrastructure projects is available at the state and federal levels.</p>	<p>Key Strength</p>	<p>The Napa County Office of Education (NCOE) currently has a three year grant to administer a Safe Routes to School (SRTS) Program across the county through 2016. Program leaders have a goal of reaching every interested school by the end of the grant term, and plan to work with Calistoga Elementary School and Calistoga Jr/Sr High School in 2015.</p> <p>The program includes events such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations for students in grades K-3. Brochures are handed out during this program as well as at community events and PTA/parent meetings. Parent presentations include a review of pedestrian laws and ordinances.</p> <p>Although materials for these programs are available each year for schools across the county, reaching schools on a weekly or yearly basis has not been possible due to understaffing and scarcity of volunteers.</p> <p>In Calistoga, Safe Routes to School routes have been mapped in the ATP to identify potential locations for infrastructure improvements, and the city is currently working on applications for SRTS infrastructure funding. The city also includes schools in the development review process.</p>	<ul style="list-style-type: none"> • Reference the public involvement, a analysis, and prioritization efforts of the countywide ATP and the Calistoga PSA when applying for grants to fund the top projects. • Determine feasibility of rolling out Walking School Bus program for Calistoga Elementary School. • Coordinate with NVTA to seek additional funding for SRTS.

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Inventory of Pedestrian Facilities</p> <p>A GIS-based sidewalk inventory enables project identification and prioritization, as well as project coordination with new development, roadway resurfacing, etc.</p>	<p>Key Strength</p>	<p>Calistoga has a citywide inventory of existing and proposed sidewalks, existing and proposed pathways, and ADA-compliant curb ramps collected as part of the 2014 Active Transportation Plan (ATP) that is georeferenced in GIS.</p> <p>Sidewalks are included in the city's Capital Improvement Program and the annual funding level for sidewalk repairs or gap closures is approximately \$50,000.</p> <p>The city offers design guidance to developers building fronting sidewalks as well as a 50/50 cost sharing program for those repurposing an existing use. For new developments, pedestrian connectivity is required and if needed, the developer is responsible for the full cost of sidewalk construction. Property owners are generally responsible for the maintenance of fronting sidewalks; however the city uses 50/50 cost sharing for maintenance and repair efforts at their discretion, especially for sidewalks downtown along Lincoln Avenue.</p>	<ul style="list-style-type: none"> This plan has created a GIS-based inventory to expand the city's existing inventory. Data collected includes crosswalks, existing and missing curb ramps, as well as additional features like sidewalk material and curb ramp direction. This facility inventory could be expanded to include proposed or planned pedestrian crossing improvements in the city. Consider mapping public comments received going forward to ensure all necessary sidewalk repairs and other pedestrian improvements are included in the city's Capital Improvement Program (CIP).



CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>ADA Improvements Compliance with the Americans with Disability Act (ADA) guidelines is important not only to enhance community accessibility, but also to improve walking conditions for all pedestrians.</p>	<p>Key Strength</p>	<p>For guidance on ADA compliance for buildings, the city follows CALDAG standards, a user-friendly manual and checklist that combines the 2013 California Building Code regulations with federal 2010 ADA requirements. For public roadway facilities, Calistoga has adopted the City of Santa Rosa Street Design and Construction Standards, which include standards for sidewalk construction transitions, ADA-compliant curb ramps, and designs to maintain a level sidewalk across the back of driveways. Standards do not include a detail for directional curb ramps except for those at mid-block locations. Updated city standards for curb ramps require non-yellow truncated domes.</p> <p>According to the Active Transportation Plan (ATP), the city collaborates with Caltrans to create ADA-compliant facilities on state facilities.</p> <p>The city has a 2008 ADA Transition Plan which it uses to replace and retrofit non-compliant facilities in the public right-of-way. All new street and sidewalk construction projects must upgrade ramps in the area, and the city performs spot checks of new curb ramps.</p>	<ul style="list-style-type: none"> • Maintain the existing GIS database of ADA-compliant curb ramps to ensure new updates are recorded. Consider adding sidewalk deficiencies listed in the ADA Transition Plan to track progress on completed improvements. • Consider adopting a City Standard for directional curb ramps and implement the design where practical, particularly a round transit stop locations.

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Callistoga Current Practice	Best Practice Examples
<p>Law Enforcement Enforcement of pedestrian right-of-way laws and speed limits is an important complement to engineering treatments and education programs.</p>	<p>Key Strength</p>	<p>Callistoga shares data, expertise, and knowledge with the Sheriff's Office at the City of St. Helena. Officers are involved in school drop-off activity along with school crossing guards.</p> <p>The police department's educational outreach efforts are currently focused on bicycle safety, including distributing bicycle safety pocket cards and bike helmets. To date, law enforcement has not tracked pedestrian-involved collision trends to relate them to enforcement efforts. NVTA is interested in collaborating with CHP officers to implement pedestrian education outreach efforts to motorists countywide.</p> <p>In Callistoga, the Police Chief is involved in weekly project review.</p>	<ul style="list-style-type: none"> Identify training opportunities for officers in Callistoga on pedestrian safety enforcement principles and education outreach efforts. Implement sustained pedestrian safety enforcement efforts and involve the media. Coordinate with NVTA on the media safety campaign that NVTA is pursuing, as an opportunity for education. Consider tracking pedestrian-involved collisions aligned with enforcement efforts to analyze trends.



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>General Plan</p> <p>Planning principles contained in a city's General Plan can provide an important policy context for developing pedestrian-oriented, walkable areas. Transit-oriented development, higher densities, and mixed uses are important planning tools for pedestrian-oriented areas.</p> <p>A city's General Plan is also a key opportunity to establish the framework for pedestrian orientation. The Circulation Element of the Plan typically assigns roadway typologies, which can include a layered network approach with prioritized corridors for transit, pedestrian, bicycle, and a auto travel.</p>	<p>Key Strength</p>	<p>Density in Calistoga is concentrated in the Central Business District on Lincoln Avenue and a few mixed-use zones are located in this area as well.</p> <p>The General Plan highlights the need to install crossings at pedestrian nodes on Lincoln Avenue and Foothill Boulevard, as well as a number of locations where crosswalk enhancements should be pursued at pedestrian nodes on Lincoln Avenue. In lieu of LOS standards, the General Plan includes a policy to balance the needs of all users during traffic evaluations, especially on Lincoln Avenue. The plan also recommends assessing the feasibility of adjusting street standards to improve pedestrian conditions, such as reducing corner radii and narrowing streets.</p> <p>Although the demand for parking is increasing in downtown Calistoga, the General Plan discourages the use of additional large parking lots to preserve the pedestrian-friendly environment. The city currently uses in-lieu parking fees, charged to commercial developments that are unable to meet on-site parking requirements, to provide municipal parking and foster a "park once" environment.</p>	<ul style="list-style-type: none"> • Explore opportunities for shared parking downtown and increased advertising of the Calistoga Shuttle service to tourists online and at hotels, especially the on-demand and extended hours, to further encourage "Car-Free" tourism. • Continue to work collaboratively with the Calistoga Chamber of Commerce and NVTA to provide the on-demand Calistoga Shuttle with extended hours of operations.

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Pedestrian Master Plan</p> <p>This type of plan includes a large menu of policy, program, and practice suggestions, as well as site-specific (and prototypical) engineering treatment suggestions. A Pedestrian (or Active Transportation) Master Plan documents a jurisdiction's vision for improving walkability and pedestrian safety; establish policies, programs, and practices; and outline the prioritization and budgeting process for project implementation.</p>	<p>Key Strength</p>	<p>Calistoga completed an Active Transportation Plan in 2014 which includes a citywide inventory of sidewalks, pathways, and curb ramps as well as a review of pedestrian collisions. The plan prioritizes pedestrian facility improvements, develops pedestrian policies, recommends pedestrian programs and provides funding sources for pedestrian improvements. Currently the city's Senior Planner serves as the Bicycle/Pedestrian Coordinator and dedicates 20% of his time to pedestrian related work.</p>	<ul style="list-style-type: none"> Develop comprehensive, citywide crosswalk guidelines and toolbox as part of this plan Develop pedestrian safety and "eyes on the street" design guidelines to incorporate security considerations into urban design.
<p>Public Involvement</p> <p>Responding to public concerns through public feedback mechanisms represents a more proactive and inclusive approach to pedestrian safety compared to a conventional approach of reacting to pedestrian collisions. Advisory committees serve as important sounding boards for new policies, programs, and practices. A citizens' pedestrian advisory committee is also a key component of proactive public involvement for identifying pedestrian safety issues and opportunities.</p>	<p>Enhancement</p>	<p>The City of Calistoga Public Works Department has online forms for the public to submit complaints, inquires, or requests and the city generally is able to respond or resolve an issue within 24 hours of a report. The city has a five-member Active Transportation Advisory Committee that focuses on improving active modes of transportation within Calistoga. A representative from the city's ATAC also sits on the ATAC for NVTA to discuss countywide issues.</p>	<ul style="list-style-type: none"> Add a page to the city's website dedicated to receiving public input regarding transportation issues to include the existing comment forms and a subsection for pedestrian topics. This category or subcategory may allow residents to file comments or complaints for traffic control devices or conditions of concern. This could be used to ensure all necessary pedestrian improvements are included in the CIP and identify areas of high priority.



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Transportation Demand Management Transportation Demand Management (TDM) programs encourage multi-modal travel by incentivizing non-auto options. As new development occurs, TDM programs can be expanded, formalized, and strengthened.</p>	<p>Enhancement</p>	<p>Employers of 50 or more full-time workers in the Bay Area are required to provide commuter benefits to their employees through the Bay Area Commuter Benefits Program, to comply with California SB 1339. The Program includes benefit options like transit passes, employer-provided shuttles, and vanpool subsidies.</p> <p>Car-free tourism is currently being promoted on Visit Napa Valley's website in collaboration with the Napa Clean Air Coalition. NVTA partners with the Solano/Napa Commuter Information (SNCI) service, who promotes multiple alternative transportation commuter programs online.</p>	<ul style="list-style-type: none"> Implement education strategies that collaborate with local hotels to support the "Car Free" tourism program of the Napa Valley Destination Council and NVTA to provide wayfinding information to visitors so they can plan a trip without relying solely on a car.

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Design and Development Standards Design policies and development standards can improve the pedestrian walking experience, encourage walking, enhance economic vitality, and offer funding opportunities for pedestrian improvements.</p>	<p>Enhancement</p>	<p>The city's adopted street standards require tree planting to include root barriers and comply with a list of approved trees. Although the city has no adopted standards for bulb outs, standard cross-sections do include sidewalks and narrow lanes in some cases. Lanes as narrow as nine feet are the standard for neighborhood streets with low speeds and volumes.</p> <p>The city's Residential Guidelines promote pedestrian-friendly neighborhoods by encouraging visual interest, scale and character as well as shade trees, pedestrian-scale lighting and pedestrian connections to adjoining facilities.</p> <p>The city's General Plan includes a recommendation to assess the feasibility of adjusting street standards to improve pedestrian conditions such as reducing corner radii and narrowing streets.</p>	<ul style="list-style-type: none"> Incorporate elements of the design guidelines presented in this plan as part of the development review process and to existing infrastructure where feasible and appropriate.
<p>Pedestrian Safety Education Program Education is a critical element for a complete and balanced approach to improving pedestrian safety. Education campaigns may target pedestrians of all ages.</p>	<p>Enhancement</p>	<p>The city of Calistoga has advertised such events as Bike to Work Day on the local news, and the Napa County Bike Coalition offers educational seminars for riding smart as well as bicycle safety laws and guidance on their website. Policy 7.2 in the Calistoga ATP recommends developing and maintaining a safety campaign for drivers, cyclists, and pedestrians.</p> <p>In accordance with policies in the Napa Bike Plan and the General Plan, NVTA is planning to pursue grant funding in November 2015 through the California Office of Traffic Safety (OTS) for a media safety campaign for motorists. The campaign will use Pittsburgh's Drive With Care campaign for inspiration, which characterizes bicyclists and pedestrians as our firefighters, doctors, and neighbors and uses the slogan "someone you care about rides a bike".</p>	<ul style="list-style-type: none"> Coordinate with NVTA on pursuing a media safety campaign, and consider the following methods to distribute the campaign in Calistoga: <ul style="list-style-type: none"> Include advertisements on buses and bus shelters, through SRTS and in-school curriculum, public service announcements, and/or brochures distributed by law enforcement, among many other strategies. Pedestrian safety brochures could be distributed to the public at the library or made available at hotels independent of the media campaign to promote walking around town and to community events.



CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Sidewalk or Street Furniture Ordinance Street furniture encourages walking by accommodating pedestrians with benches to rest along the route or wait for transit; trash receptacles to maintain a clean environment; street trees for shade, etc. Uniform street furniture requirements also enhance the design of the pedestrian realm and may improve economic vitality.</p>	Enhancement	<p>Calistoga has no specific street furniture ordinance, but does allow sidewalk dining within the public right-of-way with a permit. The city's sidewalk dining ordinance requires that the location of the sidewalk dining not interfere with pedestrian safety, access, or flow.</p> <p>The city does not have authority over street furniture within Caltrans' right-of-way on Lincoln Avenue.</p>	<ul style="list-style-type: none"> Coordinate with Caltrans to establish policy/agreement for street furniture on Lincoln Avenue to eliminate the need for individual encroachment permits for street furniture requests.
<p>Walking Audit Program Walking audits provide an interactive opportunity to receive feedback from key stakeholders about the study area as well as discuss potential solutions and their feasibility.</p>	Enhancement	<p>Calistoga has not conducted comprehensive pedestrian walking audits before this plan and PSA, although walking audits are part of the city's trip and fall assessment to identify trip hazards and the need for sidewalk repairs citywide.</p>	<ul style="list-style-type: none"> Conduct regular comprehensive walking audits as part of a citywide safety program for pedestrians. This effort could complement the "trip and fall" program or health-oriented programs within the city, as well as distribution of the media campaign NVTAs is pursuing.
<p>Identifying Crossing Barriers Crossing barriers such as railroads, freeways, and major arterials may discourage or even prevent pedestrian access. Additionally, crossing barriers are often associated with vehicle-pedestrian collisions. Identifying barriers and developing alternative methods of crossing, or improving designated crossings, as well as preventing new barriers, is essential for improving walkability and pedestrian safety.</p>	Enhancement	<p>Existing crossing barriers in Calistoga include Lincoln Avenue, Foothill Boulevard, and Napa River crossings. The city's ATP includes a proposed Southern Crossing of the Napa River with "medium" priority.</p> <p>The city's General Plan highlights locations with high levels of pedestrian activity where designated crossings are needed across Lincoln Avenue and Foothill Boulevard.</p>	<ul style="list-style-type: none"> Identify and create a comprehensive inventory of pedestrian barriers, to include the recommendations in the General Plan and the city ATP, along with appropriate remedies or projects.

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Institutional Coordination</p> <p>Institutional issues for pedestrian planning/design may refer to a adopted or informal impediments. This may be policies, practices, funding issues or even stakeholders that make it challenging to improve walking in Calistoga.</p> <p>Institutional coordination associated with multiple agencies is necessary because of non-local control of right-of-way and differing policies regarding pedestrian accommodation.</p>	<p>Enhancement</p>	<p>Caltrans has jurisdiction over Lincoln Avenue and Foothill Boulevard in Calistoga. Lincoln Avenue is a major pedestrian attractor in Calistoga, with multiple hotels and restaurants lining the corridor, and has also been identified as a crossing barrier.</p> <p>The city has had some challenges collaborating with Caltrans recently on the location of pedestrian curb ramps; however, they did reach agreement on the Vine Trail alignment in the city and have constructed ADA-compliant curb ramps on state facilities.</p> <p>The city has also had difficulty with constructing pathways due political and public safety concerns regarding new pathways through private property.</p>	<ul style="list-style-type: none"> Proactively seek opportunities to collaborate with Caltrans to improve pedestrian safety and accessibility along and across Lincoln Avenue.
<p>Historical Preservation</p> <p>Historic walking routes, such as the famous Freedom Trail in Boston, encourage walking and enhance economic vitality.</p>	<p>Opportunity</p>	<p>Several historic sites exist in Calistoga, although not all are included in historic registries. Calistoga's Historic District was created to maintain the pedestrian oriented environment and historic character within the commercial core.</p> <p>The local history museum, The Sharpsteen Museum, offers walking tours by a appointment.</p>	<ul style="list-style-type: none"> In coordination with The Sharpsteen Museum and Chamber of Commerce consider developing a map to showcase natural or local sites of interest, including a walking route between the sites. Maps of the tour route and historic documentation materials could be made available online and wayfinding signs, maps, and plaques could also be provided throughout the city.
<p>Speed Limits and Speed Surveys</p> <p>Pedestrian fatality rates increase exponentially with vehicle speed. Thus, reducing vehicle speeds in pedestrian zones may be one of the most important strategies for enhancing pedestrian safety.</p>	<p>Opportunity</p>	<p>Minimal reviews of speed limits are completed by the city of Calistoga; however, speed surveys were completed in 2010 for all state facilities. Speed limits are not posted in neighborhoods and are de facto 25 miles per hour.</p> <p>The city currently has one reduced speed limit zone of 15 mph that was implemented in response to a bicycle fatality.</p> <p>Enforcement is used when high speeds are present in pedestrian zones.</p>	<ul style="list-style-type: none"> Proactively consider pedestrian volumes when setting speed limits, especially in school zones. Work with Caltrans to review speed limits in pedestrian zones on Lincoln Avenue and Foothill Boulevard. Consider traffic calming in pedestrian zones where speed surveys suggest traffic speeds are too high. Ensure design standards in pedestrian areas do not contribute to a routine need for traffic calming.



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Callistoga Current Practice	Best Practice Examples
<p>Pedestrian Volumes Pedestrian volume data is important for prioritizing projects, developing collision rates, and determining appropriate pedestrian infrastructure.</p>	<p>Opportunity</p>	<p>The City of Callistoga does not collect pedestrian volumes routinely.</p>	<ul style="list-style-type: none"> • Use collected volumes in this plan to monitor volume levels. • Routinely collect pedestrian and bicycle volumes by requiring them to be conducted in conjunction with all traffic studies and manual intersection turning movement counts. • Consider installing automated counters such as Eco-counter at key locations. • Geo-code existing and future pedestrian volume data with GIS software along with other data such as pedestrian control devices and collisions to analyze data for trends or hotspots related to pedestrian safety.
<p>Economic Vitality Improving pedestrian safety and walkability can enhance economic vitality. Similarly, enhancing economic vitality through innovative funding options such as Business Improvement Districts (BIDs), parking management, and facade improvement programs can lead to more active pedestrian areas and encourage walking.</p>	<p>Opportunity</p>	<p>Callistoga does not have a BID or a facade improvement program.</p>	<ul style="list-style-type: none"> • Consider establishing a Business Improvement District that can fund streetscape and pedestrian improvements. • Consider implementing a way-finding program to reinforce a “park-once” environment along Lincoln Avenue. • Prioritize development of a downtown parking plan to aid in implementing potential enhancements such as parklets and mid-block crosswalks

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS

Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Pedestrian-Oriented Traffic Warrants / Traffic Control Devices</p> <p>Providing all-way stop or signal control at an intersection may improve pedestrian safety by reducing speeds and controlling pedestrian-vehicle conflicts. The MUTCD defines warrants for installing signals and stop signs.</p> <p>The 2014 California <i>Manual of Uniform Traffic Control Devices</i> (MUTCD) requires the installation of countdown pedestrian signals for all crosswalks at new or modified signals where the pedestrian intervals is more than 7 seconds.</p> <p>Leading Pedestrian Intervals (LPIs) can reduce conflicts between turning vehicles and pedestrians by providing pedestrians with a “head start” signal timing before vehicles on the parallel street are allowed to proceed through an intersection.</p>	<p>Opportunity</p>	<p>The City of Calistoga uses MUTCD warrants for signals and stop signs.</p> <p>Calistoga currently has one traffic signal at Lincoln Avenue and Washington Street, operated by Caltrans, although no lead pedestrian intervals (LPIs) or pedestrian countdown timers are installed. Four new signals are proposed in the city’s General Plan. All four will be on Caltrans facilities.</p>	<ul style="list-style-type: none"> • Coordinate with Caltrans to install pedestrian countdown timers at signals along Lincoln Avenue and evaluate future need for LPIs in areas of high pedestrian activity. • Consider using city-specific, pedestrian-friendly stop sign warrants for locations where pedestrian safety is a concern. Best practices for stop-sign warrant application include: <ul style="list-style-type: none"> ○ Requiring a collision history of three instead of five years based on routine underreporting ○ Reducing traffic volume thresholds based on latent demand ○ Providing consideration for school children, pedestrians and traffic speeds • Expand the GIS-based inventory to include pedestrian-related markings and traffic signals with pedestrian facilities.



APPENDIX C-A: BENCHMARKING TABLE

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Crosswalk Design Guidelines A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.</p>	<p>Opportunity</p>	<p>Calistoga has a pedestrian crossing policy in their ATP to provide safety features at uncontrolled pedestrian crossings, especially within pedestrian districts and at Class I trail crossings of arterials³. The policy does not include criteria for appropriate enhancements. The City of Calistoga generally considers crosswalks at signals and high volume activity centers, especially near schools. The one existing signal is on Lincoln Avenue, a highway facility, and thus decisions regarding signalized crosswalk installation are made by Caltrans. Several uncontrolled crosswalks are installed on Lincoln Avenue at intersections with minor streets. The city does not install uncontrolled midblock crossings under current practice.</p>	<ul style="list-style-type: none"> Consider adopting crosswalk guidelines as part of this plan that reflect best practices and recent research to include criteria for appropriate locations to install crosswalk enhancements such as flashing beacons, advanced yield markings, or in-roadway pedestrian signs. Coordinate with Caltrans to include criteria in the crosswalk guidelines for identifying, installing, and enhancing crossings where strong desire lines exist, especially a crosswalk on Lincoln Avenue. Using the proposed crosswalk guidelines, conduct audits of the adequacy of current crosswalks.
<p>Traffic Calming Programs Traffic Calming Programs and policies set forth a systematic and consistent approach for addressing neighborhood requests and approvals, as well as standard treatments and criteria.</p>	<p>Opportunity</p>	<p>The City of Calistoga does not have a Traffic Calming Program; however, radar speed detection signs are in use near the high school and were funded through an insurance pool for safety improvements. The city municipal code prohibits the use of speed humps in Calistoga.</p>	<ul style="list-style-type: none"> Consider adopting a Traffic Calming program for pedestrian concerns that arise from residents in Calistoga and to address current concerns from the Police Department such as speeding and cut-through traffic near the elementary and high schools.

³ City of Calistoga Active Transportation Plan, 2014

CALISTOGA PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	Calistoga Current Practice	Best Practice Examples
<p>Coordination with Emergency Response and Transit Providers</p> <p>Emergency response vehicles require special roadway design considerations that sometimes conflict with bicycle and pedestrian treatments. For example, while pedestrians benefit from reduced speeds of smaller curbside, larger vehicles such as fire trucks and buses have more difficulty performing the turn within the smaller space. These conflicts require consensus building between the City and the respective departments.</p>	<p>Opportunity</p>	<p>The fire department represents emergency services and attends project review meetings to provide comments.</p> <p>Transit shelters were redesigned in 2009 and updated to meet ADA requirements. Transit providers are not currently involved in the pedestrian planning process, although the need for marked crosswalks at several bus stops has been identified.</p>	<ul style="list-style-type: none"> Seek opportunities for technical collaboration and funding with transit providers for pedestrian improvements. Consider pilot testing programs for transit and emergency response and a more active involvement in project review for small projects and not just development projects. In accordance with the General Plan and the ATP, explore ways to implement a Safe Routes to Transit Program that prioritizes bike and pedestrian access to transit connection points and transit centers.
<p>Open Space Requirements</p> <p>Residents typically rate open space as among a jurisdiction's key assets and needs. Open space may encourage walking, especially for recreational trips.</p>	<p>Opportunity</p>	<p>The city of Calistoga is near open space and has several cherished trails through town that take advantage of the Napa River, a vital community asset.</p>	<ul style="list-style-type: none"> Prioritize connections to surrounding open space and consider a zoning open space provisions for residential and non-residential land uses that accommodate pedestrian safety and accessibility.



Appendix C-B: Existing Pedestrian Policies

The City of Calistoga has adopted policies as part of its General Plan in support of walking. Most such policies appear in the Circulation Element of the General Plan. Additional supportive policies appear in the Land Use, Community Identity, and the Open Space and Conservation Elements of the General Plan as well as the 2015 Active Transportation Plan. These policies typically express support for making walking safer, more convenient and more pleasant.

Calistoga Active Transportation Plan¹

The Calistoga Active Transportation Plan is intended to “assess the needs of bicyclists and pedestrians in Calistoga and throughout Calistoga’s Planning Area² in order to identify a set of local improvements and implementation strategies that will encourage more people to walk and bicycle.” The Plan includes a citywide inventory of sidewalks, pathways, and curb ramps; prioritized proposed pedestrian facilities and cost estimates; proposed pedestrian programs; and a report of pedestrian collisions and trends. A number of pedestrian-related objectives and policies are established by the Plan, including:

- Objective 1. Comprehensive Bicycle and Pedestrian Network (16):
 - Policy 1.1 Provide a complete bicycle and pedestrian network among residential areas, downtown and major activity centers. (page 16)
 - Policy 1.2 Require new development to implement the planned bicycle and pedestrian network. (16)
 - Policy 1.3 Determine appropriate locations for bicycle and pedestrian access to and along the Napa River corridor. Access shall avoid properties developed with single-family residences and be respectful of single-family residence private property rights. All future improvements required of private land owners should have demonstrable public benefit and minimize impacts on privacy and security. Properties abutting the Napa River that are developed with a single-family residence shall not be required to participate in the costs of constructing pedestrian access facilities along the Napa River corridor. (16)
 - Policy 1.4 Build on Calistoga’s existing partnership with the Napa County Transportation and Planning Agency (NTCPA) to ensure that the City’s Active Transportation Plan is consistent with countywide transportation planning efforts. (16)

¹ According to Calistoga City Council Resolution No. 2014-089, the policies in the city’s Active Transportation Plan (2014) supercede policies in the Calistoga Bike Plan (2012).

² The Planning Area is mapped as Figure 1 of the Calistoga Active Transportation Plan. It contains the City limits, a portion of the upper Napa Valley, and the hillsides that surround Calistoga on three sides.



- Policy 1.5 Increase the city's walking and bicycling trips, in accordance with NVTa 2035 goals. As a major part of this effort, the City will continue to develop and maintain a safe and integrated bicycle and pedestrian system throughout Calistoga for people of all ages and abilities. (16)
- Objective 2. Best Practices, Design Standards (17):
 - 2.1 Utilize the California Highway Design Manual, the California Manual of Uniform Traffic Control Devices, the American Association of State Highway Transportation Officials Guide for the Development of Bicycle Facilities and Guide for the Planning, Design, and Operation of Pedestrian Facilities for the development of bicycle and pedestrian facilities. (17)
 - Policy 2.4 Provide safety features at uncontrolled pedestrian crossings, especially within pedestrian districts and at intersections of arterials with Class I trails. (17)
 - Policy 2.5 Sidewalks shall have the appropriate width for their use. Commercial districts require wider sidewalks designed as part of the public space and foreground for the buildings. (17)
- Objective 3. Multimodal Integration (17):
 - Policy 3.3 Pedestrian access between development and transit facilities shall be developed, which will encourage use of public transportation. (17)
- Objective 4. Comprehensive Support Facilities (17):
 - Policy 4.3 Install high-visibility crossing treatments, pedestrian-scale lighting, street furniture, drinking fountains, and other pedestrian amenities in pedestrian districts and on Class I trails. (17)
- Objective 5. Enhanced Safety and Security (17-18):
 - Policy 5.1 Reduce automobile collisions with pedestrians and bicyclists by 50 percent by the year 2020, using 2011 collision data as the baseline for analysis. (17)
 - Policy 5.2 Review collision data annually to identify problem areas involving bicyclists and pedestrians and to prioritize projects and program activities. (18)
 - Policy 5.3 Focus on improving safety at intersections using pedestrian signal cycles, pedestrian buttons, high-visibility crosswalk markings and education and cycle-triggered signal changes. (18)
 - Policy 5.4 Give high priority to safety improvements in the vicinity of schools, public transit and other high use pedestrian destinations. (18)
 - Policy 5.5 Improve pedestrian safety and security with pedestrian-level lighting, where appropriate. (18)
 - Policy 5.6 Continue to implement Safe Routes to School program improvements. (18)
 - Policy 5.7 Take care in the construction and maintenance of drainage ditches, manhole covers, sewer and drainage grates, and asphalt/concrete interfaces to minimize hazards to bicyclists and pedestrians. (18)
- Objective 6. Integration (18):

- Policy 6.2 The integrity of agricultural operations shall not be violated by bikes and pedestrian facilities. Where trails are required, they shall be sited to minimize the impacts to agricultural operations.
- Objective 7. Education and Promotion (18):
 - Policy 7.2 Develop and maintain a safety campaign for drivers, cyclists, and pedestrians. (18)
 - Policy 7.3 Increase the awareness of the benefits of walking and bicycling through an education campaign. (18)
 - Policy 7.4 Distribute bicycle and pedestrian safety, educational, and promotional materials through law enforcement activities, at scholastic orientations, through drivers training and citation diversion programs, and to new political representatives. (18)
 - Policy 7.5 Encourage events that introduce residents to walking and bicycling, such as walk/bike-to-work days, walk/bike-to-school days, senior walks, recreational walks and historic walks. (18)
- Objective 8. Planning (19):
 - Policy 8.1 The Active Transportation Advisory Committee (ATAC) shall be responsible for advising staff and decision makers on the ongoing planning and coordination of the bicycle and pedestrian transportation system.
 - Policy 8.2 Proactively seek new opportunities for acquisition of abandoned rights-of-way, natural waterways, utility rights-of-way...for the development of new multi-use pathways...(19)
- Objective 9. Maintenance (19):
 - Policy 9.2 Assign a point of contact in the Public Works Department to compile, track, and respond to routine bicycle and pedestrian maintenance issues in a timely manner. (19)
 - Policy 9.3 Require that road construction projects minimize their impacts on bicyclists and pedestrians to the greatest extent possible through the proper placement of construction signs and equipment, and by providing adequate detours. (19)
 - Policy 9.4 Require that routine maintenance of local roads consider bicycle and pedestrian safety and at a minimum includes the following activities:
 - Trim vegetation to provide a minimum horizontal clearance of 4 feet from the edge of pavement and a minimum vertical clearance of 8 feet.
 - Clear debris from road shoulder areas to provide space for walking (19).
 - Policy 9.5 Perform periodic sidewalk inspections to ensure adequate pedestrian clearance and to address maintenance issues that could present a tripping hazard. (19)
- Objective 10. Funding (19-20):
 - Policy 10.1 Work with federal, state, regional and local agencies and any other available public or private funding sources to secure funding for the bicycle and pedestrian system.



- Policy 10.2 Support multi-jurisdictional funding applications to implement the regional bicycle and pedestrian system.
- Policy 10.3 Promote the availability of adequate regional, state and federal funding sources for bicycle and pedestrian transportation projects.

Calistoga General Plan

Land Use Element (2012)

- Goal LU 1 Protect the small-town qualities of Calistoga, which include walkability, vineyards, orchards, natural habitats and open space.

Community Identify Element (2012)

- Policy P1.1-4 New developments should provide accessible public and semi-public areas and efficient and inviting pedestrian ... connections to existing Calistoga streets. (page C1-12)
- Policy P.1.1-7 New commercial development shall be designed to avoid characteristics common to typical auto-oriented shopping center or strip commercial development...(C1-12)
- Policy P.1.2-4 The amount of greenery, especially street trees, in the Downtown Commercial area shall be maintained and enhanced to help create a pleasant walking environment for pedestrians...(C1-13)
- Policy P.1.2-5 Pedestrian-scale lighting that encourages nighttime use of the Downtown Commercial area ... shall be used. (C1-13)
- Policy P.1.2-8 The development of pedestrian amenities within the downtown area shall be encouraged. (C1-13)
- Action A1.2-1 Prepare and adopt new design guidelines for commercial areas related to:
 - Building scale, bulk and façade treatment
 - Streetscapes
 - Design and location of parking
 - Lighting
 - Street furniture
 - Signage
 - Landscaping and trees
 - Other pedestrian amenities... (C1-14)

- Policy P.1.3-8 New neighborhoods shall promote human-scaled, comfortable and safe design, and incorporate pedestrian-oriented design features and connections to pedestrian/bikeways and site amenities. (C1-13)

Circulation Element (2014)

- Policy P1.2-3: Since Lincoln Avenue is Calistoga's main street and serves pedestrian and commercial purposes as much as it does motorized vehicles, it is inappropriate to establish any LOS standard for Lincoln Avenue between Foothill Boulevard and Wappo Avenue. Instead, the City shall evaluate traffic on Lincoln Avenue on an on-going basis, seeking to balance vehicular, parking, bicycle and pedestrian needs. This exclusion is not applicable to intersections on Lincoln. (page CIR-14)
- Policy P1.3-2: New development shall provide sidewalks as needed to close gaps in the city's active transportation network. These gap closures may include off-site locations if the closure improves pedestrian connectivity from the new development to schools or other activity centers. (CIR-15)
- Policy P1.4-3: Maintenance, planning, and design of projects affecting the transportation system shall be consistent with local bicycle, pedestrian, transit and other relevant plans, except where such consistency cannot be achieved without negative consequences. (CIR-15)
- Action A1.4-2: In the design of new streets and the maintenance and improvements to existing streets, street shade trees, planting strips, crosswalks, pedestrian signals, street furniture, bicycle parking, traffic calming measures and other features that promote safe and comfortable travel for all users shall be incorporated to the maximum feasible extent. (CIR-16)
- Objective CIR-3.2: Provide a pedestrian network that encourages walking for short trips and recreation. (CIR-18)
 - Policy P3.2-1. Walking shall be considered an essential and integral part of the city's circulation network.
 - Policy P3.2-2. Sidewalks shall be designed to enhance the safety, comfort, aesthetic appeal, and interest of the pedestrian environment.
 - Action A3.2-1. Implement the sidewalk improvement program contained in the Active Transportation Plan.
 - Action A3.2-2. Incorporate the expansion of the sidewalk network into the City's capital improvement planning, with priority given to collector streets.
 - Action A3.2-3. Seek funding from federal and state grant programs to implement sidewalk construction.
 - Action A3.2-4. Study the feasibility of amending street standards by reducing corner radii, narrowing streets or taking other measures that would slow local traffic and thus improve conditions for pedestrians.
 - Action A3.2-5. Implement a publicity program in cooperation with the Chamber of Commerce and the tourist industry to encourage visitors to park their cars once and spend their time in Calistoga on foot.



- Action A3.2-6. Conduct a feasibility study with Caltrans to determine the ability to improve pedestrian circulation along Foothill Boulevard.

Open Space and Conservation Element (2003)

- Policy P2.4-5 ... For the Napa River, a minimum setback of 30 feet from the top of the high bank shall be limited to ... and pedestrian/bicycle pathways (OSC-28)
- Policy P5.1-1 The City shall ensure that development safeguards scenic vistas and gateways and maintains the rural small-town character of the following roadways...Strategies to accomplish this include:
 - Retaining landscaped pedestrian/bicycle pathways... (OSC-32)
- Policy P7.1-3 The City shall promote decreased reliance on motor vehicle travel through ... to accommodate bicycle and pedestrian modes of travel. (OSC-35)

Appendix C-C: Detailed Project List and Prioritization

CALISTOGA PEDESTRIAN IMPROVEMENT LIST			
ID	Roadway	Limits or Intersection	Recommendations
TIER ZERO (FUNDED OR CONSTRUCTED PROJECTS)			
T0-1 Berry Street Bridge Replacement		Berry Street at Washington Street	<ul style="list-style-type: none"> Realigned intersection to extent possible due to right-of-way constraints Advanced stop bars on all legs
TIER ONE			
C-1 Pedestrian Safety Improvements SR 29 & Cedar Street (No. 8 2015 CTP Project)	SR 29 (Lincoln Avenue)	SR 29 (Lincoln Avenue) at Cedar Street	Suggested Modifications to CTP Project
			<ul style="list-style-type: none"> High visibility striping for north leg crosswalk Curb extensions on northeast and northwest corners with directional ramps Feasibility assessment for refuge island for north leg crosswalk
			<ul style="list-style-type: none"> Marked crosswalk on west leg with advanced stop bar and directional curb ramps Advanced stop bar on east leg Rectangular Rapid Flashing Beacons (RRFBs) with advanced yield lines if roundabout at Lincoln / Foothill is not installed
C-2 Pedestrian Safety Improvements SR 29 & Brannan Street (No. 9 2015 CTP Project)	SR 29 (Lincoln Avenue)	SR 29 (Lincoln Avenue) at Brannan Street	Suggested Modifications to CTP Project
			<ul style="list-style-type: none"> Feasibility study for roundabout as gateway installation Rectangular Rapid Flashing Beacon (RRFB) as potential alternative to roundabout Relocation of east leg marked crosswalk and curb ramps closer to intersection with advanced stop bar to address short term ADA/visibility considerations



APPENDIX C-C: DETAILED PROJECT LIST AND PRIORITIZATION

CALISTOGA PEDESTRIAN IMPROVEMENT LIST			
ID	Roadway	Limits or Intersection	Recommendations
		Lincoln Avenue to N. Oak Street	<ul style="list-style-type: none"> Countywide Transportation Plan description: Complete Streets Enhancements¹
		Suggested Considerations for CTP Project	
C-3 Washington Street Complete Streets (No. 10 2015 CTP Project)	Washington Street	Washington Street at Gerard Street	<ul style="list-style-type: none"> Curb extension on northeast corner with directional ramps High visibility marked crosswalk on east leg
		Washington Street at Lincoln Avenue	<ul style="list-style-type: none"> Curb extensions on southwest, northwest, and northeast corners with directional ramps Advanced limit lines on all legs Protected left turns or lead pedestrian intervals (LPIs), countdown pedestrian heads and automatic pedestrian recall phase
	Foothill Boulevard	Pine Street to Elm Street	<ul style="list-style-type: none"> Sidewalk gap closure
	Lincoln Avenue	Lincoln Avenue at Foothill Boulevard	<ul style="list-style-type: none"> Caltrans intersection traffic control evaluation (ICE) study to consider roundabout
C-4 PSA Recommendations South of Downtown	Lincoln Avenue	Lincoln Avenue at Myrtle Street	<ul style="list-style-type: none"> High visibility marked crosswalk on north and south legs with refuge islands and “yield to pedestrians” paddle signs Directional curb ramps on all corners Marked crosswalks with advanced stop bars on east and west legs Feasibility study for formal diagonal pathway through parcel at northwest corner of intersection
C-8 Calistoga Elementary School Improvements	Berry Street	Berry Street at Cedar Street	<ul style="list-style-type: none"> Curb extension on northwest corner with directional curb ramps
			Infrastructure Category
			Complete Streets ¹
			Crossing treatments ADA ramps
			Crossing treatments ADA ramps PSA recommendations
			Signal timing/operations PSA recommendations
			Sidewalks
			Traffic calming
			Crossing treatments ADA ramps Pathway
			Crossing treatments ADA ramps

CALISTOGA PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
C-11 Grant Street SRTS Improvements	Grant Street	Lake Street to Stevenson Street	<ul style="list-style-type: none"> • Restriped edge lines • Traffic calming study to consider chicanes along corridor • Reflective paint on existing berm corridor-wide <p>Long Term:</p> <ul style="list-style-type: none"> • Sidewalk along north side of street 	Traffic calming Sidewalks
		Grant Street at Arch Way	<ul style="list-style-type: none"> • Curb extensions on northwest and northeast corners to realign intersection and close slip lane 	Crossing treatments
		Grant Street at Stevenson Street	<ul style="list-style-type: none"> • Curb extensions on southwest and southeast corners to "square up" intersection • Marked crosswalks on all legs with advanced stop bars 	Crossing treatments
C-12 Grant Street and Wappo Avenue Pathway	Grant Street and Wappo Avenue	East of Stevenson Street	<ul style="list-style-type: none"> • Feasibility study for pathway 	Pathway
C-13 Stevenson Street Safe Routes to School Improvements	SR 29 (Lincoln Avenue)	SR 29 (Lincoln Avenue) at Stevenson Street	<ul style="list-style-type: none"> • Curb extension with directional curb ramps on southwest corner to "square up" intersection 	Crossing treatments ADA ramps PSA recommendations
			<ul style="list-style-type: none"> • High visibility crosswalk on south leg • Feasibility assessment for a median refuge on south leg • Marked crosswalk on west leg with advanced stop bar 	Crossing treatments PSA recommendations
			<ul style="list-style-type: none"> • Speed radar sign in advance of proposed uncontrolled crosswalk on southbound approach • RRFBs with advanced yield lines if roundabout at Lincoln / Brannan is not approved and installed 	Crossing treatments Traffic calming



APPENDIX C-C: DETAILED PROJECT LIST AND PRIORITIZATION

CALISTOGA PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
TIER TWO				
C-5 PSA Recommendations within Downtown Core	Lincoln Avenue	One block south of Washington Street	<ul style="list-style-type: none"> High visibility mid-block crosswalks at entrances to existing pedestrian paseos with pedestrian crossing warning signs and curb extensions Feasibility assessment for refuge islands at proposed crosswalks Beautification for pedestrian paseo adjacent to Bella Bakery to include greenery or art 	PSA Recommendations Crossing treatments Paseos
		One block north of Washington Street	<ul style="list-style-type: none"> High visibility mid-block crosswalk at Calistoga Roastery with pedestrian crossing warning signs Parklet at proposed crosswalk landing on east side of street Assess feasibility of refuge island at proposed crosswalk 	PSA Recommendations Crossing treatments Place making
C-6 PSA Recommendations at Fair Way	Lincoln Avenue	Lincoln Avenue at Fair Way	<ul style="list-style-type: none"> PSA recommendations for crossing treatments and circulation recommendations at existing market and at intersection 	Crossing treatments Signal timing/operations PSA recommendations Transit
C-7 PSA Recommendations North of Downtown	Lincoln Avenue	Lincoln Avenue at Wappo Avenue	<ul style="list-style-type: none"> Curb extension with directional curb ramp on southwest corner Marked crosswalk on west leg with advanced stop bar 	Crossing treatments ADA Ramps
		Wappo Avenue to Brannan Street	<ul style="list-style-type: none"> Sidewalk on west side of street Pedestrian scaled lighting on both sides of street 	Sidewalk Lighting
C-9 Lake Street Traffic Calming	Lake Street	Washington Street to Lake County Highway	<ul style="list-style-type: none"> Traffic calming study Class II bike lanes 	Traffic calming
C-10 Lake Street Sidewalk Gap Closure	Lake Street	Washington Street to Lake County Highway	<ul style="list-style-type: none"> Sidewalk gap closure in coordination with culvert resolutions 	Sidewalks

CALISTOGA PEDESTRIAN IMPROVEMENT LIST

ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
PREVIOUSLY PLANNED IMPROVEMENTS²				
C-14	Citywide	Citywide	<ul style="list-style-type: none"> Gap closures for sidewalks and pathways throughout Callistoga 	Sidewalks

Note: Tier One improvements are intended to be implemented within 5-7 years and Tier Two within 7-15 years.

- Complete Streets enhancements are designed to accommodate all users, including pedestrians, bicyclists, transit riders, and motorists. For more information, refer to the Best Practices Toolkit, Appendix D of the Countywide Plan.
- These projects are pedestrian projects that are referenced in other planning documents. These projects were not evaluated during the scope of this Plan; however, they may be pursued through separate and ongoing efforts.

Based on feedback from NCTPA TAC, improvements were evaluated based on the criteria below using a binary approach for ranking. Each improvement was ranked first based on the number of criteria it met, and second according to whether or not it had local support. Results are shown in the final table below.

PRIORITIZATION CRITERIA	
Criterion	Data Set / Metric
Local support	<ul style="list-style-type: none"> CTP Project Critical location identified by staff / public
Safety	<ul style="list-style-type: none"> Collision "Hot Spot" Location Highway Interchange Location Traffic Calming
Transit	<ul style="list-style-type: none"> Within ½ mile of a transit stop Within a ¼ mile of a transit stop
Connection	<ul style="list-style-type: none"> Sidewalk gap closure Trail connection
Schools	<ul style="list-style-type: none"> Within ½ mile of a school Within ¼ mile of a school
Cost	<ul style="list-style-type: none"> Low Cost Level (Signing and Striping)



APPENDIX C-C: DETAILED PROJECT LIST AND PRIORITIZATION

EVALUATION RESULTS										
Project	Local support	Safety	Transit		Connection	Schools		Low Cost	Number of Criteria Met	
			Half Mile	Quarter Mile		Half Mile	Quarter Mile			
TIER ONE										
C-11	✓	✓	✓	✓	✓	✓	✓	✓	7	
C-1	✓	✓	✓	✓		✓	✓	✓	6	
C-2	✓	✓	✓	✓		✓	✓	✓	6	
C-3	✓	✓	✓	✓		✓	✓	✓	6	
C-8	✓	✓	✓	✓		✓	✓	✓	6	
C-12	✓		✓	✓	✓	✓	✓	✓	6	
C-13	✓	✓	✓	✓		✓	✓	✓	6	
C-4		✓	✓	✓	✓	✓	✓	✓	6	
TIER TWO										
C-5	✓		✓	✓		✓	✓	✓	5	
C-7			✓	✓	✓	✓	✓	✓	5	
C-9		✓	✓			✓	✓	✓	4	
C-10			✓		✓	✓	✓	✓	4	
C-6			✓	✓		✓	✓	✓	3	

Appendix C-D: Cost Estimates

CALISTOGA TIER ONE PROJECT COST ESTIMATES			
Project ID	Project Name	Project Elements	Cost ¹
C-1	Pedestrian Safety Improvements SR 29 & Cedar Street (No. 8 2015 CTP Project) ²	High visibility crosswalk	\$6,200
		2 curb extensions	\$111,700 ³
		Feasibility assessment for refuge island	\$10,000 ⁴
		Standard crosswalk with one directional ramp	\$1,200
		Advanced stop bar	\$500
		RRFB (if roundabout at Lincoln/Foothill isn't installed)	\$45,400
		Total without RRFB: \$129,600	
		Total with RRFB: \$175,000	
C-2	Pedestrian Safety Improvements SR 29 & Brannan Street (No. 9 2015 CTP Project) ²	Feasibility assessment for roundabout	\$20,000 ⁵
		Relocate east leg marked crosswalk and curb ramps	\$35,400
		RRFB (if roundabout isn't installed at intersection)	\$45,400
		Total with RRFB: \$100,800	
C-11	Grant Street Safe Routes to School Improvements	Near Term	
		Restripe edge lines	\$9,500
		Corridor traffic calming study	\$15,000 ⁶
		Reflective paint on existing berm	\$5,500

¹ Cost includes contingencies for traffic control (5%), construction management (10%), mobilization (5%), contingency (20%), design (15%) and environmental (10%).

² Cost for this project includes suggested modifications to CTP project assumptions

³ Cost includes contingencies for drainage and utility contingency (40%)

⁴ Includes walking audit and conceptual layout of multiple alternatives

⁵ Includes conceptual geometric layout and operations for a 3-4 leg roundabout

⁶ Includes walking audits with community and conceptual layout



APPENDIX C-D: COST ESTIMATES

CALISTOGA TIER ONE PROJECT COST ESTIMATES			
Project ID	Project Name	Project Elements	Cost ¹
		2 curb extensions	\$111,700 ³
		2 curb extensions	\$111,700 ³
		3 standard crosswalks	\$3,600
		Long Term	
		Sidewalk	\$368,500 ³
			Total Near Term: \$257,000
			Total Long Term: \$625,500
C-12	Grant Street and Wappo Avenue Pathway Study	Feasibility assessment for a pathway	\$35,000
			Total: \$35,000
C-13	Stevenson Street Safe Routes to School Improvements	Curb extension	\$55,800 ³
		High visibility crosswalk	\$6,200
		Feasibility assessment for refuge island	\$10,000 ⁴
		Standard crosswalks	\$1,200
		Speed radar sign	\$1,400
		RRFBs (if roundabout at Lincoln/Brannan isn't installed)	\$45,400
			Total without RRFB: \$74,600
			Total with RRFB: \$120,000

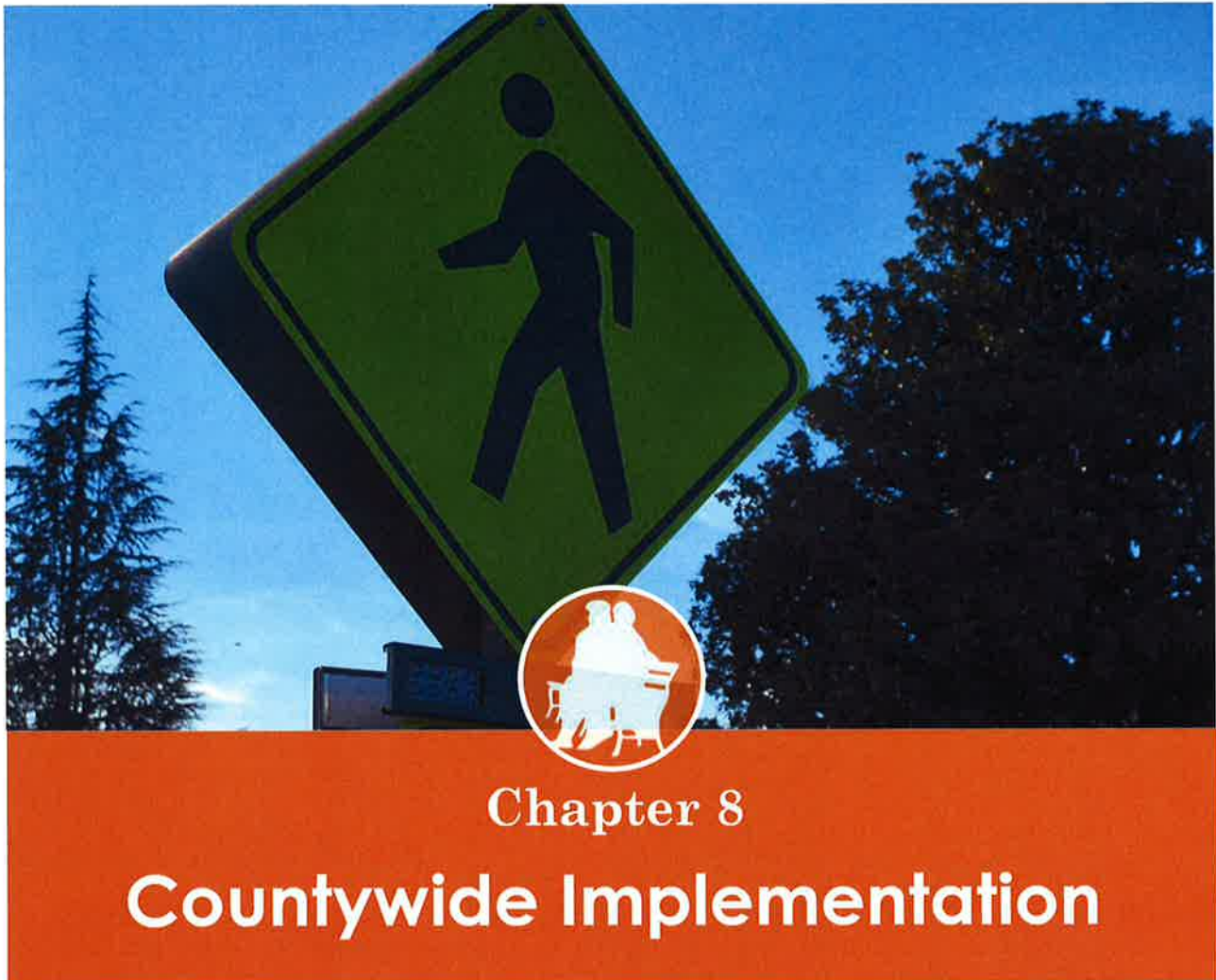
³ Cost includes contingencies for drainage and utility contingency (40%)

⁴ Includes walking audit and conceptual layout of multiple alternatives

Appendix C-E: Plan Adoption Resolution

Plan Adoption Resolution will be inserted after this cover sheet.





Chapter 8

Countywide Implementation

Support Programs

Effective policies and comfortable, safe pedestrian designs are the foundation of pedestrian networks. However, policies and design are enhanced by accompanying programs that inform and educate users, enforce policies, and maintain infrastructure and can be key factors in increasing pedestrian safety. Successful and targeted education, enforcement, and engineering treatments can reduce pedestrian countywide pedestrian collision rates up to 13.3%⁹. Below are program recommendations for NVTa to initiate, enhance, or continue through direct sponsorship or indirect support. These programs incorporate elements of design, enforcement, education, encouragement and evaluation. Implementation of these programs depends on funding, availability of staff, and coordination with other groups and organizations. Three types of programs are addressed in the following section:

⁹ C. V. Zegeer, S. Masten, L. Marchetti, Y. Fan, L. Sandt, A. Brown, J. Stutts, and L. Thomas, "Evaluation of Miami-Dade Pedestrian Safety Demonstration Project," *Transportation Research Record*, No. 2073, pp. 1-10.

Safe Routes to School (SRTS), a Countywide Count Evaluation Program, and Vision Zero. These programs are best managed at the county-level as they require coordination among multiple jurisdictions. NVTA will work closely with individual jurisdictions to ensure implementation matches the individual context of each community within Napa County.

Safe Routes To School (SRTS)

School zones are busy areas for pedestrians and bicyclists, with conflicts presented from navigating the many parents in cars dropping off or picking up students. However, children who walk or bike to school can experience improved physical health and can contribute to reducing traffic associated with school drop-off, as much as 25% of morning peak hour traffic¹⁰. The Napa County Office of Education (NCOE) currently has a four-year grant (though 2017) to administer programs to encourage children to safely walk or bicycle to school across the County as part of a SRTS Program. Program leaders have a goal of reaching every interested school by the end of the grant term, administering programs such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations. Educational components of SRTS programs are especially important for school children where safe walking habits may be instilled as lifelong lessons.

Successful SRTS programs lead to changes in the way students and parents choose to travel to and from school. These programs succeed by including each of the “Five E’s” of SRTS to ensure that their project is a well-rounded, comprehensive approach to getting more students walking and bicycling. The Five E’s include education, encouragement, engineering, enforcement, and evaluation.

Education and Encouragement

As a result of the existing three-year SRTS grant, Napa County has implemented after-school and in-class education and encouragement programs in Calistoga, Howell Mountain, and throughout the Napa Valley Unified School District. The program includes events such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations for students in grades K-3. Brochures in both English and Spanish are handed out during this program as well as at community events and PTA/parent meetings. Parent presentations include a review of pedestrian laws and ordinances. Although materials for these programs are available each year for schools across the County, reaching schools on a routine basis has not been possible due to understaffing and scarcity of volunteers.

Recommendations

- Coordinate with individual schools and Napa County Office of Education to distribute information to teachers, parents, and students about the following issues:
 - Recommended routes to walk or bike to school

¹⁰ Pedestrian and Bicycle Information Center (PBIC), Safe Routes to School Guide, Introduction to Safe Routes to School: the Health, Safety and Transportation Nexus, 2007.

- Benefits of walking or biking to school for parents and students
- Location and prescribed traffic patterns for pick up and drop off areas
- Potential fines for not obeying traffic laws in the school zone and pick up and drop off areas
- Alternative locations for “park and walk” or “walking school bus”
- Plan to roll out weekly Walk/Bike to School Day
- Ensure consistency with the Community Health Improvement Plan (CHIP) by seeking partnership opportunities between health agencies and SRTS to expand the reach of education and promotion of walking.

Engineering

For SRTS programs, engineering refers to creating operational and physical improvements to the infrastructure surrounding schools that reduce both the speeds and potential conflicts with motor vehicle traffic, and can establish safer and fully accessible crossings, walkways, and trails.

Recommendations

- Analyze the transportation and safety issues in each school area by coordinating a walk around the school site and along regularly traveled school routes with city and school staff, parents, and students. Also, identify areas for safe and secure long term bicycle parking. Determine solutions for existing concerns and potential funding sources for implementing improvements, including pursuit of grant funding.
- Coordinate with NVTa to seek additional funding for SRTS, especially for infrastructure projects recommended in the jurisdiction plans, Chapters 2-7.

Enforcement

SRTS enforcement involves partnering with local law enforcement to ensure that traffic laws are obeyed in the vicinity of schools and initiating community enforcement such as crossing guard programs and student safety patrols. Specific enforcement actions may be related to travel speeds, yielding to pedestrians in crosswalks, and proper walking and bicycling behaviors. The following recommendations would contribute to pedestrian safety and should be considered by local police departments for feasibility based on scale and available resources.

Recommendations

- Individual jurisdiction’s police departments should be a visible presence during school pick up and drop off periods, ticketing violators of traffic regulations in school zones, including speeding, illegal parking, not stopping for pedestrians in the cross walk, and U-turns.
- Tracking pedestrian-involved collisions aligned with enforcement efforts could help analyze trends and effectiveness of enforcement methods, where applicable.

Evaluation

To measure the success of a SRTS program, local agencies should monitor and document outcomes, attitudes, and trends through the collection of data before and after different interventions. In Napa County, weekly travel mode to school data was collected in Spring 2015 for students in K-6. In addition, parent surveys were conducted to determine mode and distance traveled to school. Staff surveys were completed to gauge safety and infrastructure needs at specific school sites.

Recommendations

- Use home distances from school from parent survey results to determine feasibility of rolling out Walking School Bus program where applicable. Track the number of children walking and biking to school and survey participating schools to track the success of implemented Walking School Bus programs.
- Refer to requested infrastructure needs from staff surveys during recommended site walks under *Engineering* above.
- This plan will establish an ongoing countywide count program for Napa County. While the program will encompass a range of different site types throughout the County, several will be located within a quarter-mile of primary and secondary schools. At these locations, counts will be completed during the typical morning (7-9 AM) and afternoon (4-6 PM) travel peaks, as well as during the afternoon dismissal period (2-4 PM). Consider monitoring pedestrian volumes near schools over time to document trends related to SRTS efforts. Reference these trends when applying for infrastructure funding.

Countywide Count Evaluation Program

Establishing a countywide count program allows Napa County to measure facility use over time, evaluate pedestrian volumes before and after project implementation, and monitor travel patterns and safety conditions. In addition, count data may be used to support NVTAs and jurisdictions' applications for competitive grant funding by demonstrating the pedestrian demand in the project area. This count program could lead to a proactive approach to identify treatments and program funding as well as ensure that improvements are focused not only on areas with high pedestrian volumes and a high number of collisions, but also on areas with high collision rates (collision/daily pedestrian volume) that may not have as many people walking. Additionally, pedestrian volumes could be referenced proactively when setting speed limits and to determine if a reduced speed zone may be appropriate or other traffic calming measures may be needed, especially near school zones.

Count Methodology

Baseline counts were conducted at 42 locations throughout Napa County in October and November 2015. Locations were chosen based on priority projects in the Countywide Transportation Plan (2015) and high-ranking projects from the walking audits of this plan. Observed pedestrian activity periods included the baseline morning (7-9 AM) and afternoon (4-6 PM) peaks, as well as school and weekend periods which were added based on adjacent land use and input from jurisdiction staff. Locations near schools received a count during the afternoon school dismissal (2-4 PM) and downtown locations were counted during the weekend midday peak (12-2 PM)

when recommended by jurisdiction staff. The implemented count schedule followed the methodology put forth in the MTC Handbook for Bicyclist and Pedestrian Counts (2003) and is consistent with researched best practices Statewide. The results of the counts are summarized in **Table 9** below.

TABLE 9: PEDESTRIAN COUNT PROGRAM VOLUMES						
ID	Jurisdiction	Location	Morning	Evening	School	Weekend
			7-9AM	4-6PM	2-4PM	12-2PM
AC1	American Canyon	SR 29 and American Canyon Rd.	32	90		
AC2	American Canyon	Melvin Road at Poco Way	3	6		
AC3	American Canyon	James Road at Donaldson Way	23	42		
AC4	American Canyon	Elliott Drive at Donaldson Way	97	55	196	
AC5	American Canyon	Elliott Drive at Crawford Way	25		33	
UNC1	Angwin	Brookside Drive at Howell Mountain	18	23	30	
UNC2	Angwin	White Cottage Road at College Avenue	14		11	
UNC3	Angwin	Howell Mountain and Clark	1	0		
CA1	Calistoga	SR 29 and Cedar Street	80	256		
CA2	Calistoga	Petrified Forest Road and Foothill Boulevard	2	5		20
CA3	Calistoga	Brannan and Lincoln	47	20		
CA4	Calistoga	Berry and Cedar	214		173	
CA5	Calistoga	Grant and Stevenson	22	22	10	
CA6	Calistoga	Grant Street and N. Oak Street	13	12		11
CA7	Calistoga	Lake County Hwy / Silverado Trail N / Lake Street		3		6
CA8	Calistoga	Lake Street and Grant Street	60		66	
NA1	City of Napa	Browns Valley Road and Westview Drive	26	17		
NA2	City of Napa	First Street and Freeway Drive	67	30		
NA3	City of Napa	Imola Ave and Parrish Road	17	112		
NA4	City of Napa	Jefferson and Old Sonoma Road	12	27		
NA5	City of Napa	Jefferson and Sierra Avenue	206	43	138	
NA6	City of Napa	Salvador Ave and Escuela Drive	34	26	29	
NA7	City of Napa	Redwood Rd. and Solano Avenue	189	106	194	
NA8	City of Napa	Silverado Trail at 3rd Street/Coombsville/ East	24	17	34	
NA9	City of Napa	Soscol and First Street	89	143		
NA10	City of Napa	Imola Avenue and Foster Rd	63	34	67	
NA11	City of Napa	Soscol at Kansas	44	49		
NA12	City of Napa	Soscol at Imola	23	117		
NA13	City of Napa	Undercrossing: SR 29 and Napa Creek	7	42	31	
SH1	St. Helena	Main St. and Pope Sreet	55	134		
SH2	St. Helena	Main Street at Adams Street	112	321		798
SH3	St. Helena	Hunt Avenue at Proposed Path (1)	23	37		

TABLE 9: PEDESTRIAN COUNT PROGRAM VOLUMES

ID	Jurisdiction	Location	Morning	Evening	School	Weekend
			7-9AM	4-6PM	2-4PM	12-2PM
SH4	St. Helena	Hunt Avenue at Proposed Path (2)	23	34		
SH5	St. Helena	Main and Grayson	8		16	
SH6	St. Helena	Main and El Bonita Avenue	5		8	7
SH7	St. Helena	Spring Mountain and Elmhurst	13		7	
SH8	St. Helena	Main and Pine	35	65		104
YT1	Yountville	Madison St. and Washington St.	100	73		
YT2	Yountville	Washington Street and Yount Street	149	245		797
YT3	Yountville	Yount Street and Mt Avenue	56	14	27	
YT4	Yountville	California Drive and Washington Street	96	59		
YT5	Yountville	Yount Street and Finnell	95	94	72	

The number of pedestrians observed during the morning hours of 7-9 AM ranged from 1 to 214. The highest volumes observed during this period were near schools, with over 200 pedestrians counted in Calistoga near Calistoga Elementary School and in the City of Napa near Vintage High School and Bel Aire Park Magnet School. The lowest volumes observed during this period were near the northeast corner of the unincorporated community of Angwin along Clark Way and near the southwest corner of the City of Calistoga at Petrified Forest Road and SR 128.

During the evening hours of 4-6 PM, pedestrian volumes observed throughout the County ranged from 0 to 321. The highest volumes were observed in downtown locations, with about 250 pedestrians observed in downtown Calistoga and in downtown Yountville, and 321 observed in downtown St. Helena. The lowest volumes observed during this period were in the unincorporated community of Angwin adjacent to Clark Way and in the City of Calistoga near the northeast city boundary at the intersection of Silverado Trail N and Lake Street.

Pedestrians observed throughout the County during the school dismissal period of 2-4 PM ranged from 7 to 196. The highest number of pedestrians during this period was about 200 in the City of American Canyon and the City of Napa, and the lowest were in St. Helena where less than 10 pedestrians were counted.

Weekend counts were collected in the afternoon from 12-2 PM and ranged from 6 to 798 pedestrians. The highest volumes were observed in downtown Yountville and St. Helena, where close to 800 pedestrians were counted. The lowest number of pedestrians were in Calistoga near Oat Hill Mine Trailhead and near the southern end of St. Helena at SR 29 and El Bonita Avenue.

Of all locations observed throughout the county, an average of 54 pedestrians was recorded during the AM period (7-9 AM) and an average of 68 were observed during the PM period (4-6 PM). During the midday school observations (2-4 PM), an average of 63 pedestrians were counted at each location evaluated. An average number of 249 pedestrians was counted during the weekend count period (12-2 PM). These values varied significantly

based on population density of a given neighborhood or jurisdiction, as well as by the adjacent land use. Individual jurisdiction plans provide additional details about the pedestrian counts completed within those locations.

Evaluation and Next Steps

Going forward, NVTA intends to conduct annual counts throughout the County on an annual basis. Counts will primarily be conducted in locations evaluated in the baseline year (2015) to monitor travel trends and the impact of project implementation on pedestrian volumes, as well as justify funding for priority projects in this plan. With the collected counts, NVTA may compare travel patterns across different locations, measure changes in pedestrian use at a single location over time, and evaluate the extent to which pedestrian travel peaks throughout the course of the day or week. By collecting counts at different times of day, NVTA may evaluate if a given pedestrian facility is typically used for recreational or utilitarian purposes.

NVTA should consider purchasing a mobile automated trail counter. With this counter, NVTA may collect data for extended periods of time at different locations, providing a more holistic understanding of pedestrian behavior at these sites.

In the future, count locations may be added or omitted based on agency priorities, and could include pedestrian-involved collision locations to prioritize improvements in locations based on collision rates (collision/daily pedestrian volume). Individual jurisdictions may choose to add additional count locations at midblock locations where marked crosswalks may be considered based on existing pedestrian demand. These could be midblock locations where pedestrians are observed crossing the street such as between a hotel and a winery, a residential zone and a shopping center, or shopping and public parking. Pedestrian volumes at these locations could help determine if a midblock crosswalk should be evaluated based on the Crosswalk Guidelines in this plan.

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. The initiative has gained momentum in major American cities including San Francisco, New York City, Chicago, Los Angeles, Seattle, Washington DC and San Jose. In the form of a plan and/or policy, it challenges the existing approach to traffic safety by acknowledging that traffic deaths and severe injuries are preventable and by taking a multidisciplinary approach to tackle this complex problem. Vision Zero often starts at the local level and engages law enforcement, engineering, education, and evaluation to help reach its goals. Implementation can include development of data-driven tools to identify high-injury networks and select priority locations for targeted engineering, education, and enforcement.

Recommendations

- Identify opportunities for funding for Vision Zero efforts, such as developing a Countywide database to inventory collision data and environmental factors, undertaking a comprehensive analysis to understand collision patterns, and facilitating an outreach process to identify community safety priorities and determine where to focus safety investments and improvements.

Performance Goals

Napa County intends to monitor progress on the implementation of this Pedestrian Plan over time. **Table 10** summarizes the County’s four performance goals and includes information on the associated metrics and policies to make progress toward meeting those goals.

This plan will be updated every 5-7 years, including an analysis of the increase in walking from the implementation of proposed facilities through the Countywide Count Evaluation Program, as well as an evaluation of the remaining project list. This update will ensure that proposed projects still meet the needs of the community.

TABLE 10: PERFORMANCE GOALS

Goal	Metric	Key Actions
<p>1. Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions</p>	<p>Establish a construction pace of one pedestrian capital improvement project per year per jurisdiction</p> <p>Coordinate with NVTa to seek additional funding for infrastructure projects that support safe routes to school</p> <p>Reduce annual pedestrian related collision rate by half by 2040</p>	<ul style="list-style-type: none"> • Continue to seek grant funding to implement the projects recommended in each jurisdiction plan • Coordinate with jurisdiction staff to inform schools and communities of relevant funding and grant opportunities • Reference the public involvement, analysis, and project evaluation efforts of this plan when applying for grants to fund projects • Address collision locations identified in this plan by installing the projects identified and implementing the planned education and enforcement programs in Chapter 8. • Use 2015 as the baseline year for evaluation with progress evaluations at five-year intervals.
<p>2. Encourage walking trips through enhancing key pedestrian connections to transit</p>	<p>Increase the number of walking trips to transit by 50% by 2040</p>	<ul style="list-style-type: none"> • Work with NVTa and VINE to monitor the percentage of riders walking to transit • Prioritize and implement improvements near the VINE stations and high use stops in support of this goal
<p>3. Take advantage of overlapping opportunities</p>	<p>Identify Complete Streets funding and project synergies with development and infrastructure projects</p>	<ul style="list-style-type: none"> • Review environmental documents and proposed development plans for consistency with this plan and for a proposed facility's ability to accommodate the needs of users of all ages and abilities • Consider pedestrian facilities in all road resurfacing and intersection improvements
<p>4. Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists</p>	<p>Administer SRTS programs to each interested school by the end of the grant cycle (2016) and secure grant to continue program</p> <p>Launch Safe Routes for Seniors and Safe Routes to Transit initiatives</p>	<ul style="list-style-type: none"> • Implement the SRTS Program recommendations in this plan • Distribute pedestrian safety brochures to the public to promote walking to community events • Pursue grant funding through the California Office of Traffic Safety for a media safety campaign for motorists and implement campaign countywide through advertisements on buses and bus shelters, through SRTS and in-school curriculum, public service announcements, and/or brochures distributed by law enforcement • Collaborate with senior centers and advocates to implement education, encouragement, and engineering projects to improve mobility for senior pedestrians • Collaborate with transit providers to prioritize and implement access improvements to transit stops

Plan Consistency

This plan will build on, and need to coordinate with, a number of related planning efforts occurring not only at the countywide level but also at the city, regional, state, and federal levels. This section provides an overview of the policy framework surrounding pedestrian planning in Napa County by summarizing the key plans and policies that will affect and be affected by implementation of this plan. Key planning efforts include various routine accommodation and “complete streets” policies at the federal, state and regional levels; recent state legislation related to global warming and emissions of greenhouse gases; the MTC Bay Area Regional Bicycle Plan; NVRTA’s Countywide Bicycle Plan; and local general plans.

This plan is consistent with plans and policies at federal, state, and local levels.

Federal Policies

The United States Department of Transportation (US DOT) can issue Policy Statements to help guide actions at lower levels of government

US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

In 2010, the United States Department of Transportation (US DOT) issued a policy directive in support of walking and bicycling, encouraging transportation agencies to go beyond minimum standards in fully integrating active transportation into projects. As part of the statement, the US DOT encouraged agencies to adopt similar policy statements in support of walking and bicycling considerations such as:

- Considering walking and bicycling as equals with other transportation modes
- Ensuring availability of transportation choices for people of all ages and abilities
- Going beyond minimum design standards
- Integrating bicycling and pedestrian accommodations on new, rehabilitated, and limited access bridges
- Collecting data on walking and bicycling trips
- Setting mode share for walking and bicycling and tracking them over time
- Removing snow from sidewalks and shared use paths
- Improving non-motorized facilities during maintenance projects

Americans with Disabilities Act

The Americans with Disabilities Act Title III is legislation enacted in 1990 that provides thorough civil liberties protections to individuals with disabilities with regards to employment, state and local government services, and access to public accommodations, transportation, and telecommunications. Title III of the Act requires places of

public accommodation to be accessible and usable to all people, including those with disabilities. While the letter of the law applies to “public accommodations,” the spirit of the law applies not only to public agencies but to all facilities serving the public, whether publicly or privately funded.

State Policies

State policies that relate to this plan include:

Complete Streets Act of 2008

California’s Complete Streets Act of 2008 (Assembly bill 1358) requires all cities and counties to modify the circulation element of their general plan to “plan for a balanced, multimodal transportation network that meets the needs of all users” when a substantive revision of the circulation element occurs. The law went into effect on January 1, 2011. The law also directs the Governor’s Office of Planning and Research to amend its guidelines for the development of circulation elements to aid cities and counties in meeting the requirements of the Complete Streets Act.

Senate Bill 375 / Assembly Bill 32

California Assembly Bill 32 requires greenhouse gas (GHG) emissions to be reduced by 28 percent by the year 2002 and by 50 percent by the year 2050 in response to climate change. Senate Bill 375 provides the implementation mechanisms for AB 32. It requires metropolitan planning organizations and regional planning agencies to plan for these reductions with the development of Sustainable Community Strategies, which will be a regional guide for housing, land uses, and transportation and will incorporate the Regional Transportation Plan (RTP). One key component of this is the reduction of automobile trips and vehicle miles traveled. Planning for increases in walking, bicycling, and transit use as viable alternatives are important components of these plans.

Caltrans Deputy Directive 64

In 2001, the California Department of Transportation (Caltrans) adopted Deputy Directive 64 (DD-64), “Accommodating Non-motorized Travel,” which contained a routine accommodation policy. The directive was updated in 2008 and in 2014 as “Complete Streets—Integrating the Transportation System.” The new policy reads in part:

“Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

Caltrans develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian and transit travel is facilitated by

creating “complete streets” beginning early in system planning and continuing through project delivery and maintenance and operations....”

The directive establishes Caltrans’ own responsibilities under this policy. Among the responsibilities that Caltrans assigns to various staff positions under the policy are:

- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Caltrans transportation plans and studies.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Research, develop, and implement multimodal performance measures.

Regional and County Policies and Connections

This plan is consistent with regional- and county-level plans. Pedestrian and bicycle networks were reviewed from local and regional agencies, including MTC, the Association of Bay Area Governments (ABAG), and NVRTA to promote a coordinated regional system. These plans are described briefly below.

Sonoma County Bicycle and Pedestrian Plan (2010)

Completed in 2010, the Sonoma County Bicycle and Pedestrian Plan provides a list of policies, projects, and programs for increasing bicycle and pedestrian mode share throughout Sonoma County. While no policies explicitly highlight connections to Napa County, several identified projects terminate at the Napa-Sonoma County border. Portions of the Sonoma County Bay Trail connect directly with the Napa County sections of the Bay Trail. For example, the Sonoma Plan proposes Bay Trail segments from Hudeman Slough (Project 206C) and from Dale Avenue (Project 206A) to the Napa County border.

Solano Countywide Pedestrian Transportation Plan (2012)

The Solano Countywide Pedestrian Transportation Plan, approved in 2012, explicitly discusses how the plan fits within the regional pedestrian context. The plan includes a goal to “develop a pedestrian connections network that connects to northern California’s alternative modes system”, with a specific objective to “plan and implement access to public transit connections to neighboring counties (i.e. Yolo County, Napa County, Sacramento County, etc.)”. Portions of the Bay Trail in Solano County extend along the Vallejo waterfront with plans to ultimately route the trail to Bay Trail segments in American Canyon in Napa County.

Bay Trail Gap Analysis Study (2005)

The Bay Trail Project is a nonprofit organization administered by ABAG that plans, promotes and advocates for the implementation of a continuous 500-mile bicycling and hiking path around San Francisco Bay. When complete, the Trail will pass through 47 cities, all nine Bay Area counties, and cross seven toll bridges. The Gap Analysis Study identifies portions of the Trail yet to be completed, and groups these into short-, medium-, and long-term projects. Much of the Bay Trail development in the past has been in San Francisco, San Mateo, Alameda, Contra Costa, and Marin Counties. Physical and environmental constraints in the North Bay have limited Bay Trail development in Sonoma and Napa Counties; however, projects such as the Sonoma Baylands, Sears Point Restoration, Napa Sonoma Marsh and Wetlands Edge Trail in American Canyon are representative of increasing progress toward Bay Trail implementation in the North Bay. This study includes several proposed Bay Trail projects within Napa County:

- 6.9 miles of the Bay Trail are included in the plan as short-term projects
- 22.4 miles of Bay Trail are included in the plan as medium-term projects
- 3.86 miles of Bay Trail are included in the plan as long-term projects

Napa Valley Vine Trail Project Plan (2013)

The Napa Valley Vine Trail Project Plan describes an initiative to build a walking and bicycling trail connecting the entire Napa Valley. This proposed 47-mile Napa Valley Vine Trail is seen as the key link in a Napa County-wide trail system, which also includes portions of the region-wide Bay Trail and Ridge Trail. The Trail project is a partnership between the NVTANVTA and the Napa Valley Vine Trail Coalition. Several recommended improvements in this plan align with existing or planned segments of the Vine Trail and include:

- Redwood Road at Solano Avenue Intersection Improvements in Napa (Improvement N-26)
- RLS Middle School Sidewalk and Hunt Avenue Improvements in St. Helena (Improvement SH-1)
- South St Helena / Unincorporated Connection in St. Helena (Improvement SH-11)
- Vine Trail Improvements in Yountville (Improvement Y-4)
- Madison Street Wayfinding in Yountville (Improvement Y-9)

Napa County Regional Park and Open Space District Master Plan (2009, 2012 update)

The first Master Plan for the Napa County Regional Park and Open Space District was adopted by the Board of Directors in 2009, with a plan update approved in 2012. Of the plan's guiding policies, two are of particular relevance to this planning effort:

- Promote non-motorized recreation facilities such as hiking trails, bicycle routes and other facilities that link the County's cities, town and communities to each other and to regional parks and other important destinations.

- Increase recreational trails open to the public by at least 100 miles, working in partnership with other governmental agencies and non-profit land conservation organizations.

MTC Policy on Routine Accommodation

MTC is the regional transportation planning agency for the Bay Area. In 2006, MTC adopted a policy on “Routine Accommodation.” The policy states that pedestrian and bicyclist consideration must be integrated into planning, design, and construction of transportation projects that use regional transportation funds. The policy requires sponsors of a project, such as a city or county agency, to complete a project checklist, often referred to as a Complete Street Checklist. The checklist is intended to be completed at the earliest stages of the projects so that considerations for bicyclist and pedestrian accommodation can be made at the inception of the project.

Plan Bay Area Regional Transportation Plan

The Association of Bay Area Governments (ABAG) is the comprehensive regional planning agency and Council of Governments for the nine counties and 101 cities of the San Francisco Bay region. Motivated by the California Sustainable Communities and Climate Protection Act of 2008, ABAG developed Plan Bay Area in July 2013, as regional transportation plan that guides the Bay Area in a long-range plan to significantly reduce greenhouse gases by 2040. The focus of this plan is to devote most (87%) of funding to operate and maintain the existing transportation network, with the remaining budget aimed at next-generation transit projects and other programs that support reducing GHG emissions.

Vision 2040: Moving Napa Forward

The Napa Countywide Transportation Plan – Vision 2040: Moving Napa Forward is a long-range transportation plan that includes a list of transportation investments for the next 25 years. The Napa Countywide Transportation Plan identifies goals and objectives that apply to all modes of transportation and identifies issues and challenges while setting the stage for a long range vision for the county. Several objectives highlighted in Moving Napa Forward align with the goals of this plan:

- Educate all roadway users so they may safely coexist.
- Work with Napa County jurisdictions to adopt complete streets policies to meet the MTC funding eligibility requirements.
- Prioritize projects that expand travel options for cyclists and pedestrians as well as those projects that improve operation and safety for vehicles, pedestrians, and cyclists
- Increase mode share for transit, walking, and bicycling to 10% by 2035

The plan also identifies key active transportation policies and concepts, discussing the role of complete streets, complete bicycle and pedestrian networks, and wayfinding and signage in encouraging active transportation within the county. Moving Napa Forward also includes a chapter focused on Transportation and Health, identifying a key priority action area as “[improving] wellness and healthy lifestyles”.

Local Plans

Evaluation and Next Steps

Napa County consists of six local jurisdictions: four cities, one town and the County government, which has responsibility for the unincorporated areas of the County. All six jurisdictions have adopted policies as part of their respective general plans in support of walking. A list of these policies can be found in Appendix B of each Jurisdiction Plan, *Existing Pedestrian Policies*.

