

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 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 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/5/1/4/4/51449431/napa_county_community_obesity_prevention_plan_\(final\).pdf](http://www.livehealthynapacounty.org/uploads/5/1/4/4/51449431/napa_county_community_obesity_prevention_plan_(final).pdf)



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<p>Complete Streets Policy Routine Accommodations or Complete Streets Policies accommodate all modes of travel and travelers of all ages and abilities.</p>	Key Strength	<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 estimations 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>	Key Strength	<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>	

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<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>	Key Strength	<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>	Key Strength	<p>The City of Calistoga has a bicycle parking ordinance that includes requirements for residential and nonresidential. 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 reactive approach to pedestrian safety (which may be combined with proactive measures).</p>	Key Strength	<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.



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<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, 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.

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<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>	Key Strength	<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>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).



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<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>	Key Strength	<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 obstruction 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 around transit stop locations.

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<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>Calistoga 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 Calistoga, the Police Chief is involved in weekly project review.</p>	<ul style="list-style-type: none"> Identify training opportunities for officers in Calistoga 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.



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<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 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.

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<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>	Key Strength	<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.</p> <p>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.</p> <p>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>	Enhancement	<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 with 24 hours of a report.</p> <p>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.



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<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.

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<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>	Enhancement	<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>	Enhancement	<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.



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<p>Sidewalk or Street Furniture Ordinance</p> <p>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</p> <p>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</p> <p>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.

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<p>Institutional Coordination</p> <p>Institutional issues for pedestrian planning/design may refer to 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>	Enhancement	<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>	Opportunity	<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 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>	Opportunity	<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.



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<p>Pedestrian Volumes</p> <p>Pedestrian volume data is important for prioritizing projects, developing collision rates, and determining appropriate pedestrian infrastructure.</p>	Opportunity	The City of Calistoga does not collect pedestrian volumes routinely.	<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</p> <p>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>	Opportunity	Calistoga does not have a BID or a facade improvement program.	<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

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<p>Pedestrian-Oriented Traffic Warrants / Traffic Control Devices</p> <p>Providing all-ways 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 interval 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.



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<p>Crosswalk Design Guidelines</p> <p>A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.</p>	Opportunity	<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.</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 a cross Lincoln Avenue. Using the proposed crosswalk guidelines, conduct audits of the adequacy of current crosswalks.
<p>Traffic Calming Programs</p> <p>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>	Opportunity	<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.

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 curb radii, 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>	Opportunity	<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>	Opportunity	<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 adopting 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 NVTAs 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	Infrastructure Category
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 Suggested additions: <ul style="list-style-type: none"> Advanced stop bars on all legs 	Crossing treatments Traffic calming
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 	Crossing treatments ADA ramps PSA recommendations
			<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 	Crossing treatments ADA ramps PSA recommendations
			<ul style="list-style-type: none"> Rectangular Rapid Flashing Beacons (RRFBs) with advanced yield lines if roundabout at Lincoln / Foothill is not installed 	Crossing treatments
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 	Crossing treatments Traffic calming PSA recommendations
			<ul style="list-style-type: none"> Relocation of east leg marked crosswalk and curb ramps closer to intersection with advanced stop bar to address short term ADA/visibility considerations 	ADA ramps Crossing treatments PSA recommendations



CALISTOGA PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
C-3 Washington Street Complete Streets (No. 10 2015 CTP Project)	Washington Street	Lincoln Avenue to N. Oak Street	<ul style="list-style-type: none"> Countywide Transportation Plan description: Complete Streets Enhancements¹ 	Complete Streets ¹
		Suggested Considerations for CTP Project		
		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 	Crossing treatments ADA ramps
		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 	Crossing treatments ADA ramps PSA recommendations
<ul style="list-style-type: none"> Protected left turns or lead pedestrian intervals (LPIs), countdown pedestrian heads and automatic pedestrian recall phase 	Signal timing/operations PSA recommendations			
C-4 PSA Recommendations South of Downtown	Foothill Boulevard	Pine Street to Elm Street	<ul style="list-style-type: none"> Sidewalk gap closure 	Sidewalks
	Lincoln Avenue	Lincoln Avenue at Foothill Boulevard	<ul style="list-style-type: none"> Caltrans intersection traffic control evaluation (ICE) study to consider roundabout 	Traffic calming
	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 	Crossing treatments ADA ramps Pathway
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 	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 Long Term: <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 Calistoga 2014 ATP Planned Sidewalk and Pathway Segments	Citywide	Citywide	<ul style="list-style-type: none"> Gap closures for sidewalks and pathways throughout Calistoga 	Sidewalks

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

1. 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.
2. 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	Cost1
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 without RRFB: \$55,400
			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



CALISTOGA TIER ONE PROJECT COST ESTIMATES			
Project ID	Project Name	Project Elements	Cost1
		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.



