Healdsburg Bicycle & Pedestrian Master Plan

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Prepared by:

Sonoma County Transportation Authority

In partnership with:

City of Healdsburg

Adopted by Healdsburg City Council October 20, 2008

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1. Introduction

This *Healdsburg Bicycle & Pedestrian Master Plan* was developed as a component of the Sonoma County Transportation Authority (SCTA) *2008 Countywide Bicycle and Pedestrian Master Plan* to improve coordination in realizing the countywide bicyclist and pedestrian system. While part of the Countywide Master Plan, the *Healdsburg Bicycle & Pedestrian Master Plan* is also a stand-alone document to be used by the City of Healdsburg to guide implementation of local projects and programs and document city policy.

The Healdsburg Plan was developed over the course of a year through the coordinated efforts of the SCTA's Bicycle and Pedestrian Advisory Committee, City of Healdsburg staff, the Healdsburg Parks and Recreation Commission sitting as the Healdsburg Bicycle Advisory Committee and input from the public through a public workshop and public review period. The workshop was advertised through various local and regional print media, mailings and other outreach efforts.

The primary emphasis of this planning effort is to facilitate improvements that will ultimately provide a complete network for bicyclists and pedestrians.

The purposes of the *Healdsburg Bicycle & Pedestrian Master Plan* are to:

- Assess the needs of bicyclists and pedestrians in Healdsburg in order to identify a set of improvements and implementation strategies that will encourage more people to walk and bicycle;
- Identify a system of physical and programmatic improvements to support bicycling and walking;
- Qualify the City for various funding programs, including the State Bicycle Transportation Account; and
- Act as a resource and coordinating document for local actions and regional projects.

To achieve these, the *Healdsburg Bicycle & Pedestrian Master Plan* includes recommendations for physical improvements and programs that could be developed to enhance and expand existing facilities, close existing gaps, remove constraints, provide for greater local and regional connectivity and increase the potential for walking and bicycling as transportation modes.

2. Setting and Context

Land Use and Transportation History

The westward migration across the United States in the 1800s and California Gold Rush brought new settlers to the fertile valleys in the Healdsburg area. In 1857, entrepreneur Harmon Heald, from whom the town took its name, constructed a store and post office, and plotted a town complete with a Spanish-style plaza. Healdsburg was officially incorporated ten years later. The first major transportation influence on Healdsburg was the extension of the Northwestern Pacific Railroad through the city in 1872, which brought new residents, visitors and increased commerce.

The next major influence on transportation, and likewise land use, was the affordability of the automobile for many families and businesses. To serve the new vehicular mode, trails evolved into paved roads and non-motorized means of travel declined.

The predominant land use in the city is low-to-medium density housing. The heart of the city remains the historic plaza, bounded by Matheson, Center, and Plaza Streets and Healdsburg Avenue, and the downtown retains much of its walkability. The downtown commercial district includes shops and services that surround the plaza and line Healdsburg Avenue, which continues as a commercial corridor through town to the north. Healdsburg is surrounded by over 60 wineries, many of which have tasting rooms in the downtown.

Attractors and Generators of Cyclists and Pedestrians

Attractors and generators of cyclists and pedestrians in Healdsburg were identified by reviewing information from standard sources such as maps, plans, and the City's website as well as consultation with City staff. The locations of the attractors and generators were considered in determining the alignments of both the local and countywide bicyclist and pedestrian networks.

Bicycle and walking trips are primarily generated by residents of Healdsburg neighborhoods and by visitors to the community who may be overnight guests at local hotels and inns or come to Healdsburg specifically to dine, shop, taste wine or take cycling trips through the surrounding countryside. Primary destinations of residents and visitors include the downtown shopping district and plaza, recreational facilities, schools, Healdsburg District Hospital, medical offices, shopping centers, Healdsburg Senior Center, Healdsburg Museum, government facilities, and major employment centers such as Healdsburg Senior Living Community, Syar Industries, E&M Electric & Machinery, Healdsburg Lumber Company and General Dynamics.

- Local Schools

Major schools in Healdsburg include Healdsburg Elementary (two campuses), Healdsburg Junior High, Healdsburg High, Marce Becerra Academy Continuation High, The Healdsburg School and St. John the Baptist. The schools, the grades they serve and their addresses are listed in Table 1.

Table 1
Healdsburg Schools

School	Grades	Location
Healdsburg Elementary – HES Campus	K – 2	400 First Street
Healdsburg Elementary – Fitch Mountain Campus	3 – 5	520 Monte Vista Ave.
Healdsburg Junior High	6 – 8	315 Grant Street
Healdsburg High	9 – 12	1024 Prince Street
Marce Becerra Academy Continuation High	9 – 12	1024 Prince Street
The Healdsburg School	K – 8	33 Healdsburg Ave.
St. John the Baptist	K – 8	217 Fitch Street

- Local Parks and Recreation

A variety of parks and recreational facilities exist in Healdsburg. They include neighborhood and regional parks, open space areas and other community facilities. These facilities are accessible by foot and/or bicycle. Table 2 lists the parks and community facilities and their locations.

Table 2
Healdsburg Parks and Recreation Facilities

Facility	Location
Badger Park and Community Garden	750 Heron
Barbieri Brothers Park	325 Bridle Path
Byron Gibbs Park	N. end of Prentice
Carson Warner Memorial Skate Park	1100 Grove
Giorgi Park	600 University
Healdsburg Plaza	Matheson & Healdsburg
Healdsburg Ridge Open Space Preserve	Northeast of City
Healdsburg Swim Center	360 Monte Vista
Healdsburg Recreation Park	515 Piper
Healdsburg Senior Center	133 Matheson
Railroad Park	20 Front
Tayman Park Golf Course	940 S. Fitch Mountain
Tilly Grove	543-547 Tucker
Veterans Memorial Beach Park	13905 Healdsburg
Villa Chanticleer Park Complex	1248 N. Fitch Mountain
West Plaza Park	North & Matheson

Healdsburg Travel Characteristics

Demographic and commute statistics were reviewed to identify mode split and to evaluate travel time to work. The term 'mode split' refers to the form of transportation a person chooses: walking, bicycling, taking a bus, driving, etc. The commute analysis establishes base data on the existing number of bicyclist and pedestrian commuters, as well as an indication of the number of potential bicyclist and pedestrian commuters in the plan area. This information can then be used by staff and local officials to develop improvement plans and set priorities, with the objective of increasing the percentage of people who choose to walk or bicycle rather than drive a car or be driven.

The 2000 US Census indicated a population of 10,649 in Healdsburg; it is expected to grow to 13,600 by 2020 (Association of Bay Area Governments, Projections 2007). According to the 2000 US Census, there were 5,100 workers 16 years old or older residing in Healdsburg. Of these, 96 percent (4,889 persons) worked outside the home. Forty percent (1,974 workers) had travel times to work of 15 minutes or less, which is a higher rate than that of the state and nation, which were at 25 percent and 30 percent respectively. This data indicates that a substantial portion of the City's workers are employed within the community and close to home, which represents an opportunity to shift travel modes, at least part of the time. Travel time to work in Healdsburg in 2000 is shown in Table 3.

Table 3
Healdsburg Residents' Travel Time to Work

Total Employed Persons	5,100	
Worked at home	211	4%
Did not work at home	4,889	96%
Travel Time		
Less than 15 minutes	1,974	40%
15 to 29 minutes	1,584	32%
30 to 44 minutes	884	18%
45 to 59 minutes	165	3%
60 minutes or more	318	7%

Source: U.S. Census Bureau, Census 2000

As part of the decennial national census, the US Census Bureau distributes a longer questionnaire to one in eight American households. One of the "long form" questions is, "How did you usually get to work last week?" Respondents who typically use more than one method of transportation are instructed to mark the mode used for "most of the distance." The collective responses to this question form a set of data known as Journey-to-Work (JTW). Because of its large sample size—almost 500 households in the City of Healdsburg alone—JTW data is considered the most reliable source of transportation mode choice information available.

While JTW data provides a glimpse of how Healdsburg residents travel to and from work, the data source only provides a partial understanding of travel characteristics. This is particularly true in assessing walking and bicycling trips since it does not reflect multi-modal trips or non-work trips. Thus the JTW data misses school, shopping, and recreational trips, which may constitute much of the bicyclist and pedestrian travel by Healdsburg's senior and student populations and others. The instructions effectively

eliminate any record of the pedestrian portion of walk-to-transit and walk-to-carpool trips; the wording leaves the response, for commuters who do not use the same mode every day, up to the respondent; and the survey takes place in the month of March, which can be quite rainy in Sonoma County and a deterrent to walking and bicycling.

As shown in Table 4, JTW data indicates that while approximately 12.7 percent (647 persons) of Healdsburg working residents carpooled, near the statewide and national averages, the majority of workers (73 percent or 3,719 persons) drove to work alone in 2000. Approximately 1.2 percent (61 workers) commuted by bicycle, a rate that is 1.5 times that of the county and state average bicycle mode share of 0.8 percent, and three times the national average of 0.4 percent. Approximately 4.4 percent of workers, or 224 persons, walked to work, the second highest walk-to-work rate in Sonoma County. Healdsburg had the highest bicycle mode share in the county (but experiences a rate about the same as those in Sebastopol, Sonoma, and Rohnert Park), and the second-highest walk mode share in the county behind the City of Sonoma, which boasts a walk mode share of 7.3 percent.

In 2008, the City of Healdsburg had issued licenses for 370 at-home businesses, with a total of 577 employees.

Given Healdsburg's climate, topography, and high percentage of commuters with a travel time to work of 15 minutes or less, a significant opportunity exists to achieve greater bicyclist and pedestrian mode splits. Every motor vehicle trip or vehicle mile driven eliminated results in less air pollution, reduced green house gas emissions, and lessened traffic congestion.

Table 4
Demographic and Journey to Work Data

	Healdsburg		County	State
Population	10,649		458,614	33,871,648
Employed persons ≤16 years of age	5,100		224,947	14,525,322
Mode Split				
Drove Alone	3,719	72.9%	74.7%	71.8%
Carpooled	647	12.7%	12.6%	14.5%
Worked at Home	211	4.1%	5.0%	4.0%
Walked	224	4.4%	3.1%	2.9%
Public Transit	114	2.2%	2.4%	5.1%
Other	124	2.4%	1.0%	1.0%
Bicycled	61	1.2%	0.8%	0.8%
Motorcycle	0	0%	0.2%	0.2%

Source: U.S. Census Bureau, Census 2000

3. Relationship to Other Plans and Policies

Implementation of the *Healdsburg Bicycle & Pedestrian Master Plan* will require coordination, consistency and cooperation with the County and agencies with varied interests that share policy decisions within and immediately adjacent to Healdsburg and Sonoma County. There are myriad relevant federal, state, regional, county and local agencies that have developed plans, programs, directives, policies and regulations related to funding, planning, designing, operating, maintaining and using bicyclist and pedestrian facilities. These agencies and their plans, policies, etc., have been evaluated for coordination, consistency and conformance with this Plan. Brief summaries of local plans and policies are provided below. Summaries of regional, state, and federal plans, policies, and other relevant resources are provided in Appendix A.

Healdsburg General Plan

The Healdsburg General Plan is a long-range comprehensive planning document required by state law (most recently revised in 2004) to set policy and guide future growth, development and conservation of resources. Land uses and development are guided by the Healdsburg General Plan Land Use Diagram, shown in Figure 1.

The General Plan contains goals and policies meant to encourage pedestrian-oriented development, particularly in the downtown commercial area. For instance, one of the ways the plan calls for Healdsburg to maintain and expand its commercial base is by having the downtown continue to serve as the primary area for pedestrian-oriented retail and service commercial uses. The General Plan also calls for providing uniform street furniture (e.g., benches, light fixtures, drinking fountains, trash containers) in accordance with the Downtown Streetscape Plan to increase pedestrian comfort, and to enhance Healdsburg's small town character.

Beyond the downtown, the City also encourages the provision of pedestrian, bicyclist and transit features in new development. Furthermore, the General Plan contains a policy to review development standards to determine if additional requirements or incentives should be provided to promote inclusion of these features in development projects.

Healdsburg's policies that encourage walking also extend to recreational trips. The General Plan calls for the City to develop a Pedestrian/Hiking Master Plan and to provide a network of pedestrian/hiking trails and bicyclist routes connecting the area's major open space areas and destination points. A related goal calls for providing public access to the Russian River and Foss Creek at as many points as possible, consistent with the need for public safety, security of private property owners and acceptable City liability levels.

The following General Plan goals, policies and implementation programs are relevant to cycling and walking in Healdsburg.

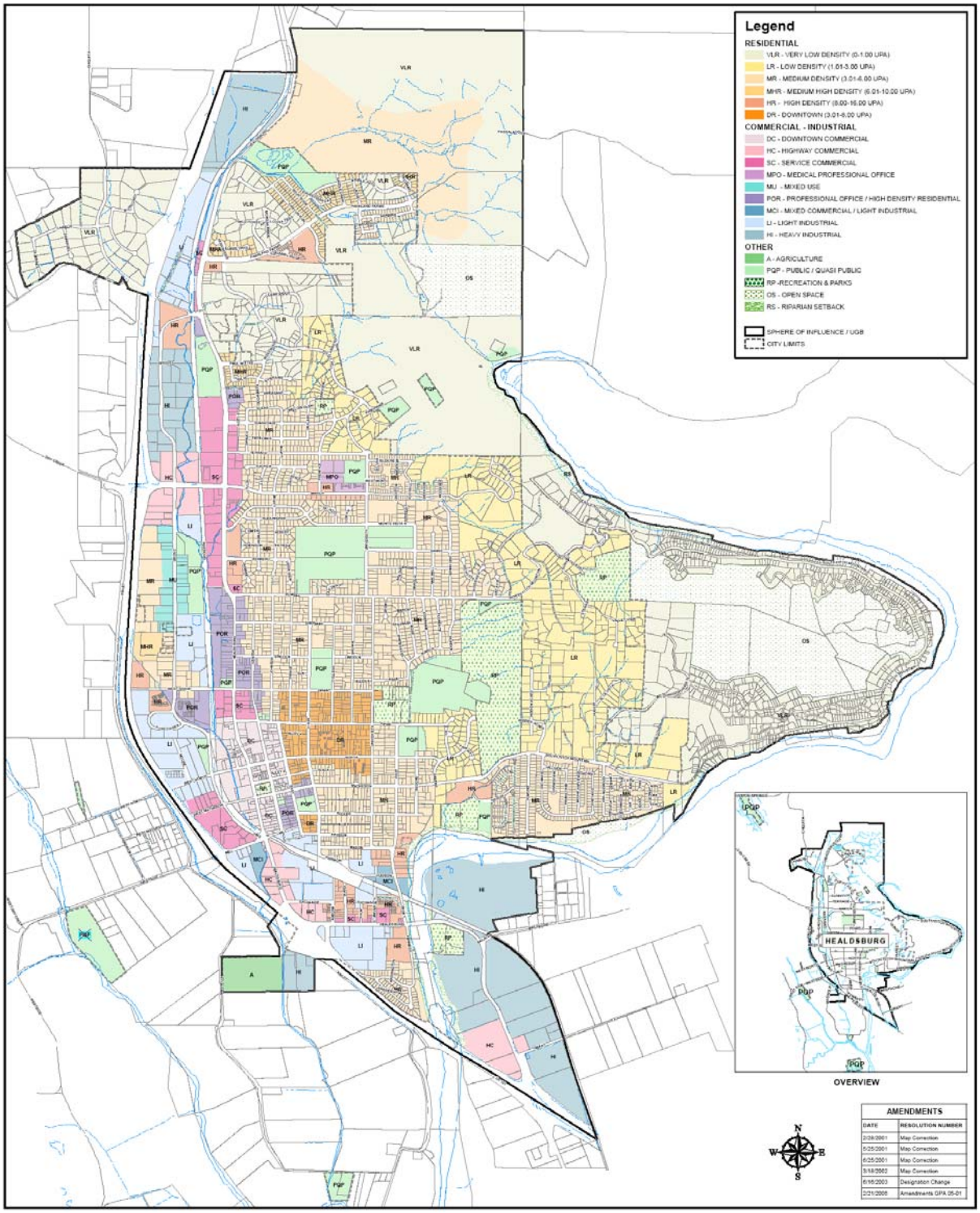

Figure 1 – Healdsburg General Plan Land Use Diagram

Relevant Healdsburg General Plan Goals, Policies and Implementation Programs

II. **Housing Element**

Goal F: Encourage energy conservation in new and existing housing.

Policy

6. Encourage the provision of pedestrian, bicycle and transit features in new development.

Implementation Program

5. Promote Bicycle, Pedestrian and Transit Features. Review the City's development standards to determine if additional requirements or incentives should be provided to promote the inclusion of bicycle, pedestrian and transit features in new development projects.

IV. **Transportation Element**

Goal D: Provide a safe and secure bicycle route system.

Policies

1. The City should establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city.
2. Wherever possible, bicycle facilities should be separate from roadways and walkways.
3. The City shall limit on-street bicycle routes to those streets where the available roadway width and traffic volumes permit safe coexistence of bicycle and motor vehicle traffic.
4. The City shall establish requirements for secure bicycle racks at commercial and employment sites.

Implementation Programs

7. The City shall prepare and adopt a Bicycle Route Master Plan and appropriate bicycle lane and street standards.
8. The City shall prepare and adopt requirements for secure bicycle racks at new commercial and employment sites.

VI. **Cultural and Recreational Resources Element**

Goal C: Provide a network of pedestrian/hiking trails and bicycle routes connecting the area's major open space areas and destination points.

Policies

1. The City shall develop a pedestrian/hiking system to link the City's parks and major open space areas. The pedestrian/hiking trail system shall provide access to the Russian River and Foss Creek at as many points as possible, consistent with the need for public safety and security of private property owners and the level of liability acceptable to the City.
2. The City shall develop a bicycle route system linking parks, scenic areas, schools, public facilities, and neighborhoods. The City's bicycle route system shall be coordinated with the County's bikeway system. Bicycle lanes shall be included in new street widenings where the street is designated in the adopted Bicycle Route Master Plan.

Implementation Programs

3. The City shall prepare and adopt a Pedestrian/Hiking Trail Master Plan and shall require any specific plans adopted to be coordinated with the plan.
4. The City shall prepare and adopt a Bicycle Route Master Plan and shall require any specific plans adopted to be coordinated with the plan.

VII. **Natural Resources Element**

Goal D: Protect and, insofar as possible, improve the air quality in the Healdsburg area.

Policy

1. The City shall encourage the use of transit systems and other alternatives to automobile use.

Foss Creek Pathway Plan

Beginning with a "vision statement," the Foss Creek Pathway Plan (2006) sets out the overall goals and policies for the Foss Creek Pathway project. The vision statement is a guiding image of what the project should achieve. The goals and policies reflect community priorities as well as the City's intent to create an attractive and safe pathway that does not interfere with railroad operations.

Vision Statement

Develop a safe, multi-use pathway through the City of Healdsburg that helps address the access and mobility needs of its pedestrians and bicyclists as well as the adjacent unincorporated County, in a manner that enhances community identity and livability.

Goal A Provide safe conditions for all pathway users

- Policy A.1 Maximize safety for all users through the pathway corridor, especially children and the disabled.
- Policy A.2 Accommodate the diverse capabilities of pathway users.
- Policy A.3 Minimize potential conflicts among pedestrians, bicyclists, motor vehicles and railroad operations.

Goal B Promote pedestrian and bicycle commute trips within the City

- Policy B.1 Design the pathway to maximize connections between residential, employment and commercial areas, and to transit and recreation facilities.
- Policy B.2 Promote the pathway as a transportation alternative for local work and recreation trips, as well as to special civic and other events.
- Policy B.3 Provide access to public parks and facilities through the pathway.
- Policy B.4 Enhance the experience of pathway users by providing landscaping, shade, benches, public art, drinking fountains, milepost markers and refuse receptacles.

Goal C Protect and enhance the resource value of Foss Creek

- Policy C.1 The pathway should be located adjacent to or near Foss Creek where possible.
- Policy C.2 Pathway improvements should minimize impacts to the riparian habitat of Foss Creek.

Policy C.3 Pathway plantings and future activities in the corridor should enhance the riparian habitat and vegetation of Foss Creek.

Policy C.4 Access to Foss Creek and its riparian habitat should be provided from the pathway where feasible to offer educational opportunities and allow creek clean-up and restoration.

Goal D Maintain compatibility with surrounding land uses

Policy D.1 The pathway should be compatible with adjoining land uses.

Policy D.2 Acquire property or easements over private property to build the pathway only when encroaching structures and/or riparian vegetation (or other environmentally-sensitive habitat areas) make it infeasible to build the pathway within the railroad right-of-way or on public land.

Goal E Avoid interference with railroad operations

Policy E.1 The location and use of the pathway within or adjacent to the railroad right-of-way shall not prevent railway maintenance activities.

Policy E.2 The location and use of the pathway shall accommodate railroad activities and shall not preclude future railroad operations in the right-of-way.

Parks and Open Space Master Plan

The Healdsburg Parks and Open Space Master Plan was adopted in August 2008. The Plan contains a trails plan that will provide access to the Healdsburg Ridge Open Space Preserve for hiking and mountain biking.

4. Existing Bicyclist and Pedestrian Network

Existing bicyclist and pedestrian resources are shown in Figure 2 and described below.

Bicycling Facilities

The California Streets and Highway Code Section 890.4 defines a "bikeway" as a facility that is provided primarily for bicycle travel. The three types of bikeways included in the code are described below

(1) The Class I Bikeway (Bike Path) provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.

Generally, bike paths should be used to serve corridors not served by streets and highways or where wide right of way exists, permitting such facilities to be constructed away from the influence of parallel streets. Bike paths should offer opportunities not provided by the road system. They can either provide a recreational opportunity, or in some instances, can serve as direct high-speed commute routes if cross flow by motor vehicles and pedestrian conflicts can be minimized. The most common applications are along rivers, ocean fronts, canals, utility right of way, abandoned railroad right of way, within college campuses, or within and between parks. There may also be situations where such facilities can be provided as part of planned developments. Another common application of Class I facilities is to close gaps to bicycle travel caused by construction of freeways or because of the existence of natural barriers (rivers, mountains, etc.). The minimum paved width for a two-way bike path is eight feet. A minimum two-foot wide graded area is provided on either side of the pavement.

(2) The Class II Bikeway (Bike Lane) provides a striped lane for one-way bike travel on a street or highway.

Bike lanes are established along streets in corridors where there is significant bicycle demand, and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bicyclists in the corridors. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists and to provide for more predictable movements by each. Bike lane pavement markings can increase bicyclists' confidence that motorists will not stray into their path of travel if they remain within the bike lane. Likewise, with more certainty as to where bicyclists will be, passing motorists are less apt to swerve toward opposing traffic in making certain they will not hit bicyclists.

But a more important reason for constructing bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. This can be accomplished by reducing the number of lanes, reducing lane width, or prohibiting parking on given streets in order to delineate bike lanes. In addition, other things can be done on bike lane streets to improve the situation for bicyclists that might not be possible on all streets (e.g., improvements to the surface, augmented sweeping programs, special signal facilities, etc.). If bicycle travel is to be controlled by delineation, special efforts should be made to assure that high levels of service are provided with these lanes. Generally, pavement markings alone will not measurably enhance bicycling. The design of a particular bike lane is dependent on such circumstances as whether it adjoins on-street vehicle parking and whether that parking is demarcated. In general, bike lanes are five feet in width.

(3) The Class III Bikeway (Bike Route) provides for shared use with pedestrian or motor vehicle traffic.

Class III bikeways are intended to provide continuity to the bikeway system. Bike routes are established along through routes not served by Class I or II bikeways, or to connect discontinuous segments of bikeway (normally bike lanes). Class III facilities are shared facilities, either with motor vehicles on the street, or with pedestrians on sidewalks, and in either case bicycle usage is secondary. Class III facilities are established by placing Bike Route signs along roadways. Since bicyclists are permitted on all highways (except prohibited freeways), bike routes should offer a higher degree of service than alternative streets. Routes should be signed only if some of the following apply:

(a) They provide for through and direct travel in bicycle-demand corridors.

(b) Connect discontinuous segments of bike lanes.

(c) An effort has been made to adjust traffic control devices (stop signs, signals) to give greater priority to bicyclists, as compared with alternative streets.

The width of a particular Class III bikeway is dependent on many factors, including the volume and character of vehicular traffic on the road, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions.

The existing bicycling network in Healdsburg consists of Class I pathways, Class II bike lanes and Class III bike routes. Two segments of the Class I Foss Creek Pathway have been installed between Mill Street and Norton Slough along the Northwestern Pacific Rail Line west of downtown in the past few years. Currently, the pathway generally serves as a recreational route for pedestrians in downtown, but planned extensions will provide a continuous north-south facility through town that will serve as the spine in the local and regional primary bikeway network. None of the bikeways are part of the San Francisco Bay Area Regional Route.

Existing Class II bike lanes extend north-south on Rosewood Drive, Grove Street and Healdsburg Avenue (a.k.a. Old Redwood Highway); and east-west on Parkland Farms Boulevard and short segments on Poppy Hill Drive. Class III bike routes are provided on Healdsburg Avenue, March Avenue, University Avenue, Lupine Road, Johnson Street, Powell Avenue, Piper Street, Front Street, First Street and others. A segment-by-segment breakdown of existing bikeways is listed in Table 5.

Walking Facilities

With its small town environment and predominantly flat topography, Healdsburg is generally a very pleasant place to walk. The City's older neighborhood streets are tree-lined and arranged in a grid system, which creates short, pedestrian-friendly blocks. While pedestrians can be found on sidewalks and pathways throughout the community, walking in Healdsburg is generally concentrated in seven pedestrian districts and corridors – places where walking is a predominant mode of travel.

- Tourists, workers and local residents alike enjoy walking in and around the Healdsburg Plaza, the center of the downtown pedestrian district, which is roughly defined by Grove, Center, North and Matheson Streets. A "pedestrian district" is one that experiences frequent pedestrian activity and street crossings. Residents of the neighborhoods that are located to the north and east of the downtown district are close enough to walk to destinations such as the plaza, library, post office, shops, restaurants, offices, services, parks, civic destinations, and the historic rail depot, which is being redeveloped into an inter-modal transit station.

Table 5
Existing Bikeways

Corridor/ Street	Begin Point (North or West)	End Point (South or East)	Class	Length (Miles)	Function	Use
Vine/Grove Street	Norton Slough	Mill Street	I	0.43	Local/Regional	Trans/Rec
Lupine Road	S. end of Lupine Ct.	Powell Avenue	I	0.12	Local	Trans
Grove Street	Healdsburg Avenue	Grove Street Curve	II	0.58	Local/Regional	Trans
Old Redwood Hwy.	Vets. Memorial Beach	City Limits	II	0.76	Regional	Trans/Rec
Poppy Hill Drive	Rosewood Drive	950 feet east of Rosewood Dr.	II	0.18	Local	Trans
Rosewood Drive	Parkland Farms Blvd.	Paul Wittke Drive	II	0.37	Local	Trans
Parkland Farms Blvd.	Healdsburg Avenue	City Limits	II	0.77	Local	Trans/Rec
First/Front Streets	Piper Street	Healdsburg Avenue	III	0.71	Local	Trans
Healdsburg Avenue	Parkland Farms Blvd.	March Avenue	III	0.82	Local/Regional	Trans/Rec
Johnson Street	Powell Avenue	Piper Street	III	0.45	Local	Trans
Lupine Road	Solar Way	S. end of Lupine Ct.	III	0.59	Local	Trans
March Avenue	Grove Street	University Avenue	III	0.65	Local	Trans
Piper Street	Johnson Street	First Street	III	0.43	Local	Trans
Powell Avenue	Johnson Street	University Street	III	0.32	Local	Trans
Rosewood Drive	Paul Wittke Drive	Solar Way	III	0.17	Local	Trans
Solar Way	Rosewood Drive	Lupine Road	III	0.08	Local	Trans
University Avenue	March Avenue	Powell Avenue	III	0.36	Local	Trans
Paul Wittke	Healdsburg Avenue	Rosewood Drive	III	0.15	Local	Trans
		Class I total		**0.55**		
		Class II total		**2.66**		
		Class III total		**4.73**		

sonoma county transportation authority

LEGEND

Bike Routes
- CLASS I, EXISTING
- CLASS I, PLANNED
- Highlighted Route on the Regional Network
- CLASS II, EXISTING
- CLASS II, PLANNED
- Highlighted Route on the Regional Network
- CLASS III, EXISTING
- CLASS III, PLANNED
- Highlighted Route on the Regional Network

Bicycle Amenities
- Bike Parking - Existing
- Bike Parking - Planned
- Showers/Lockers - Existing
- Showers/Lockers - Planned

Pedestrian Crossing Enhancements
- EXISTING
- PLANNED

Pedestrian Oriented Areas
- Pedestrian Districts
- Pedestrian Corridors

Multimodal Connections
- EXISTING
- PLANNED

Transportation Features
- Street or Road
- Highway
- Freeway
- Railroad

Geographic Elements
- City Sphere of Influence
- Incorporated City or City Limits
- Public Places/Parks
- City Halls
- Hospitals
- Waterway

Schools
- OTHER
- ELEMENTARY
- MIDDLE
- HIGH SCHOOL

NOTE: Proposed facilities outside of Healdsburg City limits are shown to illustrate connectivity with the countywide system. The City of Healdsburg has no jurisdiction over projects outside of City limits. Any proposed facilities shown outside of Healdsburg City limits have been proposed by other jurisdictions.

EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACITLITIES
SONOMA COUNTY, CALIFORNIA

CITY OF HEALDSBURG AND VICINITY

Meters: 0 125 250 500 750 1,000

Feet: 0 500 1,000 2,000 3,000 4,000

Location Index

Author: Sonoma County Transportation Authority
Date: April 20, 2006
Revised: July 16, 2008
Projection & Coordinate System: CA State Plane, Zone 11, NAD 83, US Survey Feet, Lambert Conformal Conic Projection.
Project Source: s:\SCTA\SCTA Modeling Program\PROJECTS\bikemaps\wtransupdates\healdsburg_update.mxd
Sources: SCTA Countywide Bicycle and Pedestrian Advisory Committee, Sonoma County GIS

This map is for illustrative purposes only, and though care has been taken to ensure that data is accurate, maps and represented data are provided without warranty of any kind.

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- The Powell Avenue pedestrian corridor extends from Sunnyside Drive to Johnson Street, and provides access to Healdsburg High School and Marce Becerra Academy on Prince Street, the community pool, and surrounding residential neighborhoods. Curb ramps have not yet been built along this corridor.
- Although it has significant sidewalk gaps, pedestrians use the University Avenue pedestrian corridor—between March Avenue and Piper Street—to walk to Giorgi Park/Recreation Park and four Healdsburg schools: Healdsburg Junior High School on Grant Street; Healdsburg and Fitch Mountain elementary schools on First Street and Monte Vista Avenue, and Marce Becerra Academy.
- The Matheson Street/S. Fitch Mountain Road pedestrian corridor is located between Center Street and Orangewood Drive in southeastern Healdsburg, and provides access to the downtown, the Healdsburg Senior Center and senior housing off Fitch Mountain Road. The City of Healdsburg recently filled sidewalk gaps, constructed curb ramps that comply with the Americans with Disabilities Act (ADA), and installed benches on this corridor between the senior center and residential areas to the east.
- The limits of the Fitch Street pedestrian corridor are Matheson and Powell Streets. This corridor provides access to the downtown, the proposed Healdsburg Intermodal Transit Center, Foss Creek Pathway and residential neighborhoods.
- The Front Street to Veteran's Memorial Beach park corridor connects the southerly limits of the Fitch Street and University Street corridors to a significant recreational facility. During its peak season, June through September, Memorial Beach attracts local residents and visitors in large volumes.
- The vision for the Foss Creek Pathway is to create a continuous paved pedestrian and bicyclist facility (Class I and II) between the city's northern and southern city limits.

Locations of sidewalk gaps and lack of curb ramps in Healdsburg are shown in Figure 3.

Disabled Access

The ADA provides rights and protections for individuals with disabilities. To comply in the realm of the pedestrian network, local governments must bring sidewalks, curb ramps and roadway crossings up to a set of specified standards when constructing new facilities or making alterations within existing public rights-of-way such as renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths and vehicular ways, and changes and rearrangement of structural parts and elements of a facility. Pavement patching and liquid-applied sealing, lane restriping, and short-term maintenance activities are not alterations.

In addition to providing disabled individuals with accessible sidewalk, curb ramp and crossing facilities, many ADA requirements help other populations as well. For instance, in addition to serving people who use wheelchairs or other mobility aids, curb ramps facilitate travel by those pushing strollers and inexperienced bicyclists who are not yet ready to ride in the street. Wide sidewalks, and a lack of obstructions create a more pleasant environment for all pedestrians. These improvements can also reduce demand for para-transit services (demand-responsive transit for people whose disabilities prevent them from using public transit) by allowing some people with disabilities to access public transit stops.

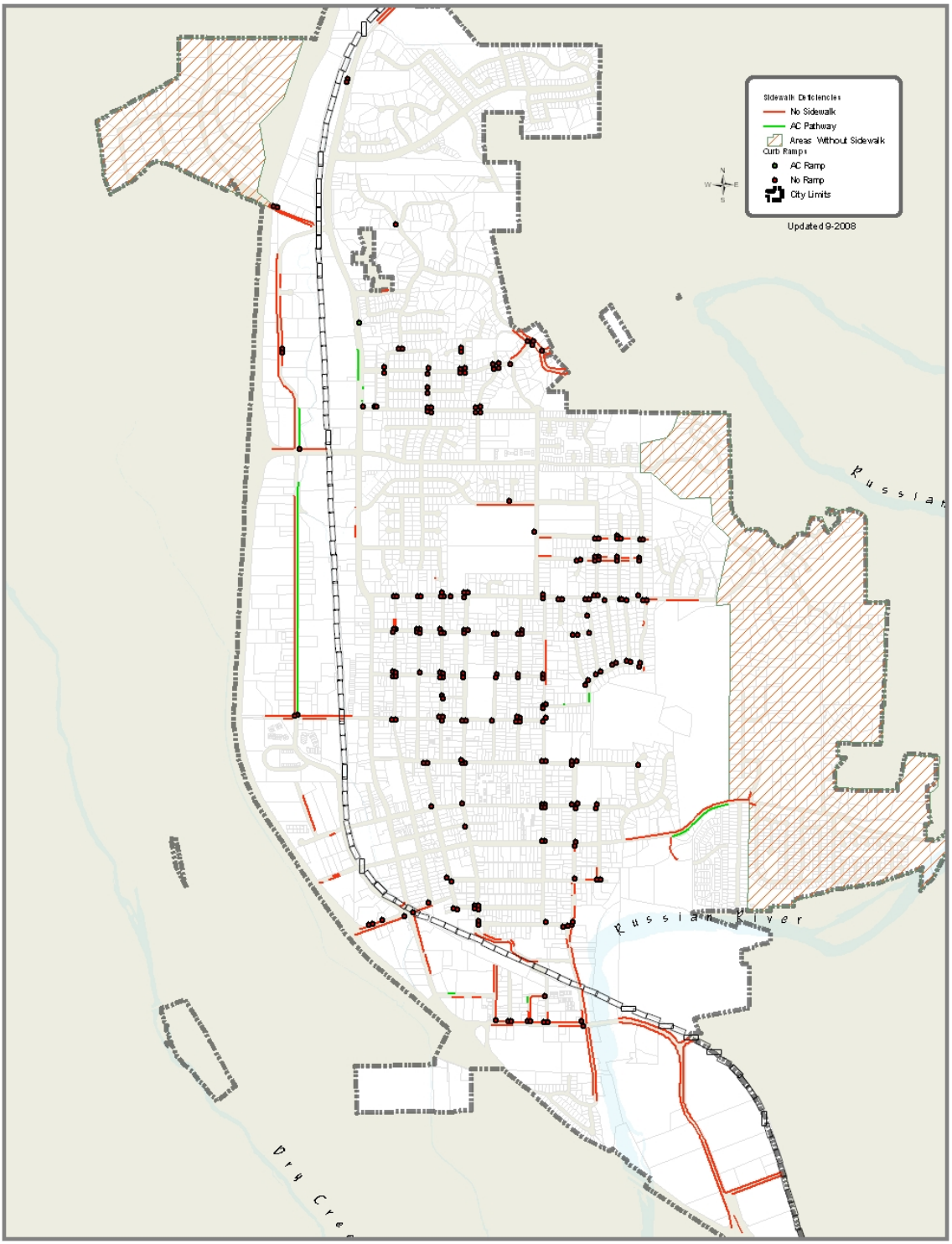

Figure 3 – Gaps in Pedestrian Network

The City has been installing curb ramps as part of normal street maintenance and special projects and requires their construction by development projects that involve street improvements.

Transit and Multi-Modal Access

Convenient multi-modal connections for bicyclists and pedestrians that are well-integrated into the transportation system are a vital component of the bicyclist and pedestrian network. Transit has the potential to extend trip ranges for bicyclists and pedestrians to nearby communities and destinations outside of Sonoma County. This is especially important for Healdsburg, and Sonoma County in general, considering existing barriers to bicyclist and pedestrian travel such as distances between communities, gaps in the existing bicyclist and pedestrian networks between urban areas, heat during summer months and rain during winter months. While these obstacles likely serve as deterrents to existing and potential trips by bike or by foot, convenient multi-modal access can help to address these issues and extend trip ranges.

Sonoma County Transit provides fixed route transit service in Healdsburg. Since most transit passengers in Sonoma County walk to their bus stop, pedestrian facilities leading to each stop—including completed sidewalk networks, curb cuts and safe intersection crossing—are important components of Healdsburg's pedestrian environment. Route 60 travels daily between the Santa Rosa Transit Mall and Cloverdale through Healdsburg on Healdsburg Avenue. Sonoma County Transit provides eight shelters at Healdsburg bus stops.

Front-loading bicycle racks, which typically accommodate three bicycles, are provided on all fixed route transit buses that operate in Sonoma County. Bicycle rack spaces are available on a first-come, first-served basis. When the front-loading racks are full, drivers may accommodate bicycles inside the vehicle at their discretion, however, in the event that it is the last scheduled bus of the day, bicycles are permitted inside the bus.

Cyclist Support Facilities and Bicycle Parking

End-of-trip support facilities include bicycle parking, areas to change clothes and shower, and facilities for storing clothes and equipment. Bicycle parking in Healdsburg is provided in the downtown near the bus stop and at local schools; some shopping centers, private businesses and parks; and most civic facilities (see Figure 4). There are no known existing shower or locker facilities designated for bicyclists.

Safety and Security

Safety is a major concern of both current and potential bicyclists and pedestrians. For those who walk or bicycle, it is typically an on-going concern or even a distraction. For those who avoid walking and/or bicycle riding, concern about safety is one of the most compelling reasons not to do so. In discussing bicyclist safety, it is important to separate perceived dangers from actual safety hazards.

Riding a bicycle on the street is commonly perceived as unsafe because of the exposure of a lightweight, two-wheeled vehicle to heavier and faster moving motor vehicles including autos, trucks and buses. Actual accident statistics, however, show that bicyclists face only a marginally-higher degree of sustaining an injury than a motorist, based on numbers of users and miles traveled. Death rates are essentially the same for bicyclists as motorists.

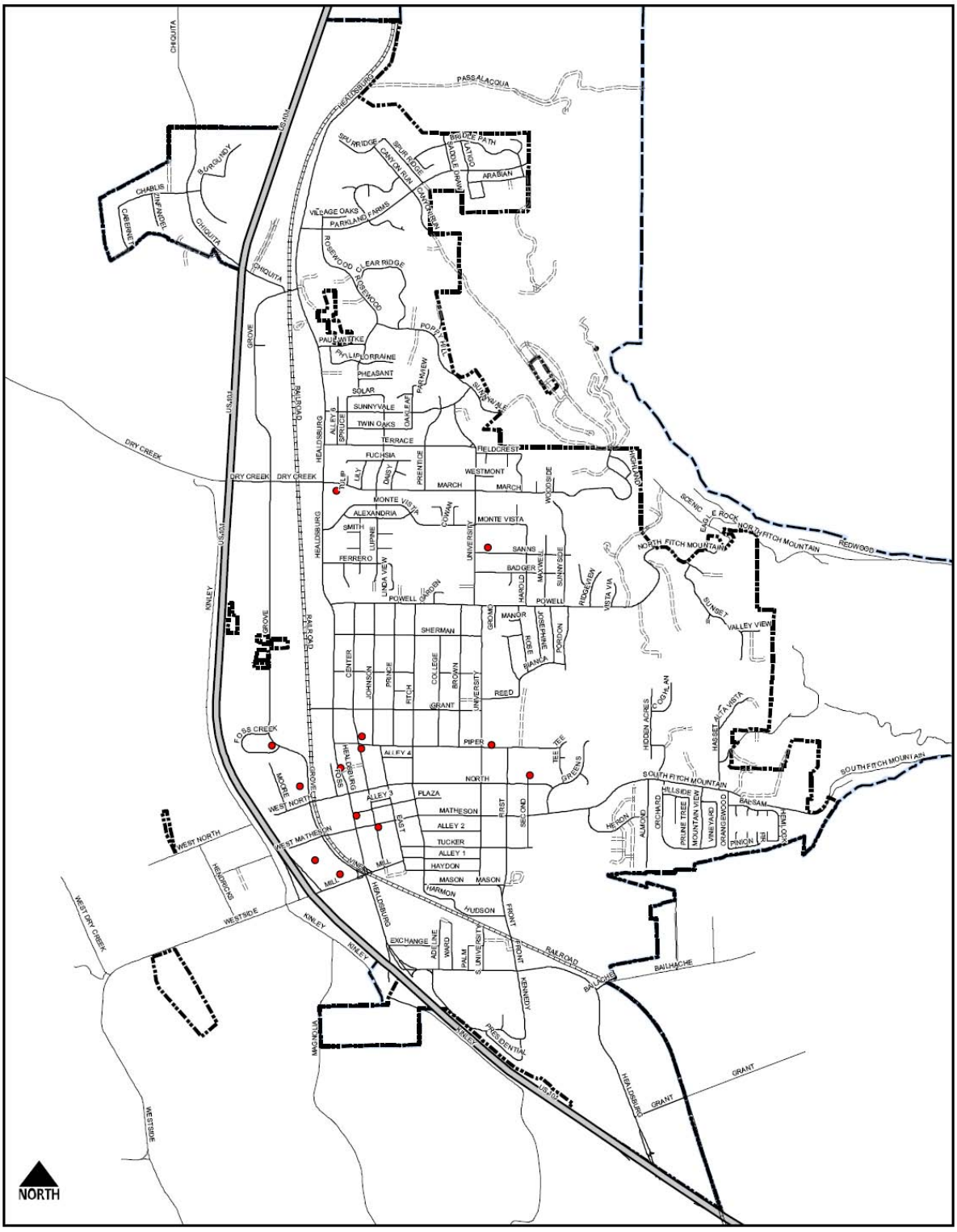

Figure 4 – Existing Bicycle Rack Locations

The Healdsburg Police Department enforces the California Vehicle Code and traffic laws in Healdsburg, including bicyclist and pedestrian violations. Currently there are no routine safety and/or education programs for bicyclists or pedestrians in Healdsburg. However, the Rotary Club of Healdsburg and Spoke Folk Cyclery recently held their first annual bicycle rodeo at the Fitch Mountain Elementary School campus. Children were given helmets and received instruction on how to properly fit and wear them, as well as how to use hand signals and bicycle safety and laws. Safety inspections were also conducted of the children's bicycles. Children then participated in riding through a skills course to learn bike control, maneuver bikes around obstacles, pass between two close objects and use hand signals. Additionally, bicycle rodeos, youth and adult safety courses, and other education programs are available on a 'by request basis' through the Sonoma County Bicycle Coalition, Sonoma County Department of Health Services Safe Kids Program, and others.

Collisions between bicycles and vehicles are much less likely to happen than bicycle-with-bicycle, bicycle-with-pedestrian or collisions caused by roadway facilities. Additionally, the majority of reported bicycle crashes show the bicyclist to be at fault; generally, this involves younger bicyclists riding on the wrong side of the road or being hit broadside by a vehicle at an intersection or driveway.

A comprehensive review of California Highway Patrol collision data for 2002-2006, as published in their State Wide Integrated Traffic Records System (SWITRS), was performed to help understand the nature and factors involved in bicyclist and pedestrian collisions. Although these records only include reported collisions and may not reflect all conflicts that occur, a better understanding of these factors may help planners and engineers address some of the physical environments that contribute to these incidents.

The following types of data were reviewed with an emphasis on the reported conditions to better understand the factors that may have contributed to the collisions:

- Collisions: Analysis of the major causes of each collision, the locations of collisions and the seasonal variation of collisions.
- Conditions: Environmental conditions at or near the collision site at the time of each crash were examined. This included an analysis of weather conditions, lighting conditions, and types of traffic control devices present.
- Demographics: A determination, by gender and age, of collision rates for bicyclists and pedestrians.
- Locations: An analysis of a citywide map of bicyclist and pedestrian collisions and other spatial analyses of different collision types.

There were 824 reported collisions in Healdsburg in the five-year study period, from January 1, 2002 to December 31, 2006. Of the 27 crashes involving bicyclists, no fatalities were recorded, though 23 injuries were sustained. Approximately half of bicyclist crashes were caused by a cyclist's violation. Most collisions were broadsides. Over 60 percent occurred at intersections, although no intersection experienced more than one bicycle collision during the review period. Nearly all collisions occurred during daylight hours and clear weather conditions. By day of week, the greatest number of collisions involving cyclists or motorists occurred on Fridays.

Over the five-year study period, there was a steady decline in overall collisions in Healdsburg, with bike collisions decreasing by 50% during this time frame. However, with only 27 reported crashes involving bicyclists, the data should not be construed to represent a trend.

During the review period, Healdsburg experienced 14 collisions involving pedestrians. Three pedestrian collisions were reported in 2003, five collisions were reported in 2004 and 2005, and one collision was reported in 2006. No pedestrian fatalities were recorded during the review period. No patterns emerged for collisions based upon day of the week or month of the year. Four of the 14 incidents involved a vehicle making a left or right turn. Collision charts are included in Appendix D.

According to a review of the California Office of Traffic Safety Collision Rankings for 2004 – 2006, Healdsburg's bicyclist collision rates rank in upper range of the average number of collisions per year by population for their population group, which includes 105 cities in California with a population of 10,001 to 25,000 persons. Healdsburg's pedestrian collision rates rank in the mid-range of the average number of collisions per year by population.

Past Bicyclist and Pedestrian Expenditures

Healdsburg has invested an average of approximately $114,000 per year on bicyclist and pedestrian improvements over the past eight years. Details of these expenditures are summarized in Table 6.

Table 6
Recent Bicyclist and Pedestrian Expenditures

Project Name	Description	Cost[1]	Year
Bike Route Signing Project	Install "Bike Route" signage over City's adopted Class 3 bikeway (Front St. to Parkland Farms Blvd.)	$ 9,300	2000
Healdsburg Avenue Overlay and Bike Lanes	Construction of Class 2 bike lanes along both sides of road; installation of pedestrian ramps at existing bridge and bus stop	$220,032	2003
Foss Creek Pathway Phase 1 (Mill St. to North St.)	Design and construction	$364,525	2006
Foss Creek Pathway Phase 2 (North St. to Norton Slough)	Design and construction	$248,170	2007
Foss Creek Trail Engineering Evaluation	Evaluation of remaining portions of Foss Creek Trail (Norton Slough to north City Limits)	$70,000	2007

[1] Does not include cost of staff and other City resources

5. Local Opportunities and Constraints

This section provides a summary of opportunities and constraints for the City's bicyclist and pedestrian networks.

Opportunities

- The city's network of grid streets in the center of town will continue to provide convenient access to many destinations.
- Low volume streets will continue to provide comfort for most bicyclists.
- The City of Healdsburg will continue to actively seek federal, state, regional and other funding for bicyclist and pedestrian projects.
- Multi-modal access will be provided at the Healdsburg Intermodal Transit Center.
- When completed, the Foss Creek Pathway will provide continuous north-south bicyclist and pedestrian access through Healdsburg and provide connection opportunities to east-west routes.
- Improved inter-county connections will result from the Countywide Bicycle and Pedestrian Plan.
- Planned vehicular and trail crossing improvements at the 5-way intersection of Mill Street, Vine Street, Healdsburg Avenue, and the NWP Rail Line will improve access and safety for bicyclists and pedestrians, as well as provide direct connectivity between the Healdsburg Intermodal Transit Center and the Foss Creek Pathway to the north.
- The installation of warning and way-finding signs for pedestrians and bicyclists is planned.
- New pedestrian and bicyclist facilities will be provided as a component of future development and street capital improvements.
- Safety in the downtown pedestrian district will be further enhanced with pedestrian-activated warning lights at the non-signalized intersections of Healdsburg Avenue at Mitchell Lane and Plaza Street.
- The Healdsburg City Council has identified replacement of the Healdsburg Avenue Bridge as the project to be used for environmental and planning purposes. Bridge replacement would include standard travel lanes with Class II bike lanes, future signalization at Front and Kennedy Streets with protected pedestrian crosswalks, ADA-compliant curb ramps, a 6-foot wide sidewalk on the north side of the bridge and a 12-foot sidewalk-bikeway on the south side for access to and from Veterans Memorial Beach park area. Should the bridge rehabilitation alternative be chosen instead, the existing 5-foot wide sidewalks would be resurfaced; bicyclists would continue to use the existing travel lanes.
- Sidewalks are being widened and curb ramps are being upgraded over time by the City and developers.

Constraints

- Right-of-way for Class II bike lanes through downtown is limited.

- Existing street geometrics in some locations cannot accommodate bicycle lanes without the loss of on-street parking.
- Bicyclist and pedestrian access on the Healdsburg Avenue Bridge over the Russian River is constrained by its current width.
- Few bicycle parking and long-term bicycle storage facilities are provided at destinations throughout town.
- Sidewalk gaps and obstructions and non-ADA compliant curbs exist.
- Physical barriers to cyclists and pedestrians exist, such as the Russian River and the freeway.
- Limited funding is available for bicyclist and pedestrian projects.

6. Vision, Goal, Objectives and Policies

This section defines the vision for the bicycling and walking system[1] in Healdsburg, and outlines the principal goal, objectives and policies that will serve as guidelines in the continuing development of the system[1]. They express the intent of the City to enhance non-motorized mobility and improve safety, access, traffic congestion, air quality and the quality of life of Healdsburg residents, workers and visitors.

Vision

The vision for a comprehensive bicyclist and pedestrian system in Healdsburg is that bicycling and walking are:

- Important to residents' quality of life
- Safe and convenient for all user groups
- A viable means of reaching desired destinations
- Routinely accommodated
- Able to connect easily to transit
- Fostered by education and enforcement
- Advanced by actions of government, schools and the private sector
- Promoted as tourism and recreation attractions
- Integral parts of an inter-connected transportation system
- Options that reduce vehicle miles traveled and greenhouse gas emissions
- Recognized for their contribution to community spirit by fostering a friendlier and more cohesive community
- Key amenities for a healthy populace
- Helpful in protecting the public by providing activity on the street.

Principal Goal

To develop and maintain a comprehensive citywide bicyclist and pedestrian system that includes projects, programs and policies working together to provide safe and efficient opportunities for bicyclists and pedestrians to access neighborhoods, school, work, shopping, services, recreation and public transportation.

Objectives and Policies

Objective 1: The Citywide Bicyclist and Pedestrian System

Establish and maintain a comprehensive citywide bicyclist and pedestrian system.

[1] The "system" is defined as the whole of all of the components – physical and programmatic.

Policies

1.1 Develop a bicyclist and pedestrian network that provides connections to and among neighborhoods, commercial centers, schools, transit facilities, recreation, employment and other destinations according to the recommendations in this Plan.

1.2 Work to close existing facility gaps in the bicyclist and pedestrian network.

1.3 Consider the needs of all types of bicyclists and pedestrians (e.g., commuters, recreationalists, children) in planning and developing a bicyclist and pedestrian network that is safe and convenient.

1.4 Establish the completion of the Foss Creek Pathway as a high priority of the City of Healdsburg.

1.5 Proactively seek opportunities for a multi-use pathway along the Russian River.

1.6 Incorporate pedestrian and bicyclist facilities in the reconstruction or replacement of the Healdsburg Avenue Bridge over the Russian River.

1.7 Require new development to provide safe, continuous and convenient pedestrian and bicyclist access within and through Healdsburg, and connect to existing facilities.

1.8 Encourage schools to develop Safe Routes to School maps in order to fund and make improvements to these corridors.

1.9 Conduct regular cyclist and pedestrian counts in order to attain a better understanding of existing usage and travel patterns, and to be able to project demand.

Objective 2: Design

Utilize accepted design standards and "best practices" for the development of bicyclist and pedestrian facilities.

Policies

2.1 Utilize 1) Chapter 1000 "Bikeways Planning and Design" from the *California Highway Design Manual* (Caltrans), 2) the *Manual of Uniform Traffic Control Devices* (Federal Highway Administration), 3) the *Guide for the Development of Bicycle Facilities* (American Association of State Highway Transportation Officials – AASHTO) and 4) *Guide for the Planning, Design, and Operation of Pedestrian Facilities* (AASHTO), as amended, in the development of bicyclist and pedestrian facilities.

2.2 Where feasible, ensure that new and rehabilitated signalized intersections include bicycle detection and are properly marked and operational for use by bicyclists.

2.3 Use striping, signs, shared lane markings and other enhancements to heighten motorists' awareness of bicyclists.

2.4 Install signage, markers and/or stencils to provide way finding for bicyclists and pedestrians.

2.5 Enhance the pedestrian experience in the downtown pedestrian district and on Class I paths with amenities such as safety lighting, street furniture, art and drinking fountains.

Objective 3: Multi-Modal Integration

Develop and enhance opportunities for bicyclists and pedestrians to easily access public transit.

Policies

3.1 Develop and implement a safe-routes-to-transit program that places a high priority on pedestrian and bicyclist access to transit stops and centers.

3.2 Encourage regional transit providers to provide and maintain convenient and secure bike parking facilities, all-weather shelters, and other amenities at major transit stops and transportation centers.

3.3 Encourage regional transit providers to accommodate bicyclists on transit vehicles and plan for the need for additional bicycle storage capacity to ensure capacity keeps up with demand.

Objective 4: Comprehensive Support Facilities for Bicycling

Promote the development of comprehensive support facilities for bicycling.

Policies

4.1 Require adequate bicycle parking as part of newly-developed and substantially remodeled public, commercial and industrial projects for employees, customers and other users where feasible.

4.2 Require large employers to provide secure indoor and/or covered outdoor bicycle parking and shower and locker facilities for workers who bicycle to work.

4.3 Encourage hotels and motels to provide secure indoor and/or covered outdoor bicycle parking for their guests.

4.4 Provide adequate bicycle parking at transit facilities.

4.5 Provide adequate bicycle parking at all public facilities.

Objective 5: Education and Promotion

Promote bicyclist and pedestrian safety and the positive benefits of bicycling and walking through programs and public outreach materials.

Policies

5.1 Promote the distribution of bicyclist and pedestrian safety educational and promotional materials through law enforcement activities and the City's web site.

5.2 Encourage local schools to promote bicyclist and pedestrian safety educational and promotional materials through scholastic and drivers training programs.

5.3 Encourage events that introduce residents to walking and bicycling, such as bike-to-work, walk/bike-to-school days, senior walks and historic walks.

5.4 Disseminate information on the city bicyclist and pedestrian network on the City's web site.

Objective 6: Safety and Security

Provide citywide pedestrian and bikeways that are, and are perceived to be, safe and secure.

Policies

6.1 Improve the safety of intersection crossings using pedestrian activation devices, high-visibility crosswalk markings, ADA compliance improvements and education.

6.2 Provide enhanced safety features at uncontrolled pedestrian crossings, especially within the downtown pedestrian district and at intersections of arterials with Class I paths.

6.3 Work with railroad agencies to provide safe bicyclist and pedestrian access at appropriate railroad crossings.

6.4 Improve pedestrian and bicyclist access through the Healdsburg Avenue/Mill Street-Vine Street intersection.

6.5 Give high priority to safety improvements in the vicinity of schools, public transit stops and other high pedestrian traffic destinations.

6.6 Improve pedestrian safety and security with lighting, where appropriate.

6.7 Develop a pedestrian network improvement program to prioritize maintenance and take advantage of maintenance and upgrade opportunities, such as those provided by new development and utility trenching.

6.8 Improve pedestrian and bicyclist access on Healdsburg Avenue Bridge over the Russian River.

Objective 7: Planning and Analysis

Continue to plan for bicyclists and pedestrians.

Policies

7.1 Update the Bicycle & Pedestrian Master Plan as necessary to coordinate with California Bicycle Transportation Act and Regional Transportation Plan updates.

7.2 Incorporate policies in the Bicycle & Pedestrian Master Plan into master plan, redevelopment plan and General Plan documents and policies as appropriate.

Objective 8: Maintenance

Maintain and/or improve the quality, operation and integrity of bicyclist and pedestrian infrastructure.

Policies

8.1 Maintain in good condition pavement surfaces (including regular debris removal), markings and signage on Class II and Class III bikeways.

8.2 Continue to use the service request system to report, track and respond to routine bikeway and walkway maintenance issues in a timely manner.

8.3 Require that road construction projects minimize their impacts on bicyclists and pedestrians through the proper placement of construction signs and equipment and by providing adequate detours.

8.4 Require that routine road maintenance consider bicyclist and pedestrian safety and at a minimum includes the following activities:

- Trim vegetation to provide a minimum horizontal clearance of four feet from the edge of pavement and a minimum vertical clearance of eight feet, and to provide adequate visibility at corners.
- Clear debris from road shoulder areas to provide space for walking where there are no sidewalks.

8.5 Identify and mitigate unsafe sidewalk conditions through the City's hazardous sidewalk program and by conditioning the private redevelopment of property.

Objective 9: Funding

Maximize the use of funding for bicyclist and pedestrian projects and programs, with an emphasis on implementation of this Plan.

Policies

9.1 Work with federal, state, regional and any other available public or private funding sources to secure funding for the bicyclist and pedestrian system.

9.2 Promote the availability of adequate federal, state and regional funding sources for bicyclist and pedestrian transportation projects.

9.3 Incorporate the costs for bicyclist and pedestrian improvements into the City's annual Capital Improvements Program budget updates.

7. Implementation Plan

Planned Improvements

A bikeways network has been developed that will pass through the City and provide access to neighboring jurisdictions, as well as neighborhoods and destinations throughout Healdsburg. See Figure 2 for the locations of planned bikeways.

A segment-by-segment breakdown of the improvements that are needed to implement the Plan, including facility type, length, estimated cost, project priority and other criteria are listed in Table 7. While the projects in this Plan have received a preliminary feasibility evaluation; engineering and environmental studies will be required prior to implementation of certain projects to determine project-specific issues such as right-of-way impacts, traffic operations, parking impacts, and environmental issues.

Approximately 7 additional miles of bikeways are planned in Healdsburg, including additional segments of the Class I Foss Creek Pathway totaling 2.6 miles, 1.1 miles of Class II bike lanes on Healdsburg Avenue and Grove Street, and over 3.3 miles of Class III bike routes that will provide enhanced travel on many of the city's local collectors, including Matheson, Center, Fitch, Harmon, Hudson, Mill and Grove Streets, among others.

A number of additional projects, as described below, will improve cycling and walking conditions in Healdsburg. Other projects will be undertaken in the future to fulfill the objectives and policies of the Plan.

- Healdsburg Avenue Bridge

  The Healdsburg City Council has identified replacement of the Healdsburg Avenue Bridge as the project to be used for environmental and planning purposes. Bridge replacement would include standard travel lanes with Class II bike lanes, future signalization at Front and Kennedy Streets with protected pedestrian crosswalks, ADA-compliant curb ramps, a 6-foot wide sidewalk on the north side of the bridge and a 12-foot sidewalk-bikeway on the south side for access to and from Veterans Memorial Beach park area. Should the bridge rehabilitation alternative be chosen instead, the existing 5-foot wide sidewalks would be resurfaced; bicyclists would continue to use the existing travel lanes.

- Signing and pavement marking program

  A signing program of warning signs and destination-based "way-finding" signs is planned. Approximately 25 signs placed strategically at community gateways and route junctions and at regular intervals along the primary network would provide coverage for the entire community.

  "Share The Road" and "Bike-Xing" will be installed on major transportation corridors. "Sharrows," an arrow-like design painted on a roadway to mark a bicycle route, may also be installed in appropriate locations.

  The City will endeavor to make appropriate and feasible signage and pavement marking improvements on the section of Chiquita Road west of the freeway in order to improve pedestrian and cyclist safety.

- Community education

  Outreach programs will be used to remind motorists and bicyclists of their respective responsibilities when using the roadways.

- Safe Routes to School

  The City of Healdsburg has applied for and been awarded an $895,960 (2007 dollars) Safe Routes to Schools grant from the State to construct sidewalks on both sides of West Grant Street between Grove Street and the street's bridge over Foss Creek and on the south side of West Grant Street between the Norton Slough bridge Grove Street. The Foss Creek bridge will also be widened to provide sidewalks. Grant and West. Grant Streets are primary routes to schools; approximately 70 students use these routes on a regular basis. Parents, some pushing strollers, accompany their children to and from school, thereby increasing the daily school-related pedestrian counts by another 10 to 12. The new sidewalks will encourage more children and their parents to walk to school by increasing connectivity and by separating pedestrians from motor vehicles along the routes to school. These improvements will be constructed in 2009.

  The Healdsburg Unified School District Board has adopted a policy that excludes bus service for kindergarteners who live within one-half mile of their school; 1-6 grade students who live within one mile of their school; and 7-12 grade students who live within three miles of their school. It is estimated that 1,200 students walk or bicycle to school.

  The principals at Healdsburg Elementary and Junior High Schools will notify students and parents of the Safe Routes to School program and will see that each student receives proper instructions to comply with and understand the purpose of the plan. Together with the Healdsburg Community Services and Public Works Departments, the schools will institute a comprehensive traffic safety education program as part of an after-school program with the following objectives:

  - To develop safe bicycle riding habits and skills for all students.
  - To teach K-3rd graders how to cross streets safely.
  - To build awareness for parents regarding these safety issues and to avoid hazardous driving behaviors when picking up and dropping off their children at school.
  - To mobilize volunteers from the school neighborhood to participate in the education and awareness component.

  The program will also include:

  - High visibility school-based events for "Keeping Kids Safe Day" with a special emphasis on traffic safety.
  - Activities that teach pedestrian and bicyclist (and other wheeled devices) safety to children.

  The Police Department will be looking for drivers who fail to yield to pedestrians to ensure that drivers' awareness level of pedestrian traffic is enhanced. The City will also explore the development of public service announcements to increase drivers' awareness of overall safety with focus towards children walking to school.

- Five-way intersection improvements

  As a key part of efforts to create a "gateway" at the five-legged intersection of Healdsburg Avenue, Mill Street and Vine Street, the City is pursuing construction of a roundabout, in part to enhance the safety of cyclists and pedestrians. Directional signage will be included as part of these improvements.

- Foss Creek Pathway construction

  A federal earmark is slated to help fund construction of additional segments of the Foss Creek Pathway, two of which are complete. The City of Healdsburg has also applied for TDA Article 3 funding to construct pathway segment 3, for which the City has already received a $100,000 grant from the local air pollution control district. The City's non-profit partner for the Healdsburg Family Housing project has applied for funding from the State Infill Infrastructure Grant Program for construction of pathway segment 5. County Measure M funding is also committed to this project.

- Sidewalk gap closures and curb ramps

  The City has applied for and been awarded $180,000 in CDBG funding to 1) install approximately 2,100 lineal feet of sidewalk on the east side of Grove Street to provide a safe pedestrian path of travel from the Oak Grove Apartments to the activity center on Dry Creek Road, 2) install approximately 80 lineal feet of sidewalk on First Street to provide a safe pedestrian path of travel to the downtown and 3) install approximately 15 ADA-compliant ramps at various locations throughout the city. These improvements will be constructed in 2009. An inventory of missing sidewalk and curb ramps has been conducted citywide. These missing infrastructure components will be programmed for construction as funding allows.

- Healdsburg Elementary and Junior High Schools connecting pathway

  The City has applied for federal Safe Routes to School funding to construct approximately 1,200 lineal feet of Class I pathway from Grant Street to First Street and White Gates Avenue to provide effective pedestrian communication between Healdsburg Elementary School (Grades K-2) and Healdsburg Junior High School (Grades 6-8). The pathway would also provide connectivity to Rec Park, which is utilized by both schools for after school programs, sporting events and 4-H Club and Future Farmers of America livestock events. This project would provide a link to the state-awarded Safe Routes to Schools project.

- Downtown pedestrian crossing enhancements

  The City has applied for and been awarded $84,000 in federal Highway Safety Improvement Program funding to install pedestrian-activated, pavement-embedded warning lights at the non-signalized intersections of Healdsburg Avenue at Mitchell Lane and Plaza Street, which has seen a number of collisions involving pedestrians in the past. The City will provide funding for 20 percent of the project. These improvements are intended to protect downtown pedestrians by providing ample warning to drivers. These improvements will be constructed in 2009.

- Saggio Hills improvements

  The Saggio Hills project will extend sidewalks north on Healdsburg Avenue from Parkland Farms Boulevard to the new fire substation, construct a Class I multi-use path connecting the new community park and affordable housing site and construct Class II bicycle lanes on both sides of Healdsburg Avenue between Parkland Farms Boulevard and the northern city limits. The project will also construct public and private trails that will provide a bicycle and pedestrian circulation system separated from project roadways as well as a connection to the open space area east of the project.

- Bicycle parking

  The provision of secure bicycle parking in convenient locations is a key element in encouraging cycling. The parking must be easy to use and adequately lit. Cyclists should be able to lock the frame and at least one wheel of their bicycle to a stand that supports the whole bike. Bicycle parking will be installed throughout Healdsburg's downtown, as well as at City Hall, the Job Center, the Senior Center, the Police Department and the Chamber of Commerce. Bicycle parking will also be installed as part of the Giorgi Park rehabilitation project as well as at five other parks and the Healdsburg Swim Center. The City will monitor the use of this parking and make adjustments as needed. The City has also applied to the Northern Sonoma County Air Pollution Control District for a Vehicle Pollution Mitigation Program grant to pay for bicycle parking equipment at up to 40 businesses and employers, with the City contributing its installation. The City will amend the Healdsburg Zoning Ordinance in order to implement the Plan's policies regarding bicycle parking and the provision of showers and lockers for employees.

Sidewalk Inventories

Maintaining the City's database of sidewalk locations and their condition can be an effective tool to identify gaps in the pedestrian network, prioritize maintenance and take advantage of maintenance and upgrade opportunities, such as those provided by new development or utility trenching. The City will continue to maintain this database and provide in its Capital Improvements Program for the construction of needed sidewalks and the on-going retrofitting of sidewalks with curb ramps.

Cyclist and Pedestrian Counts

One of the challenges facing staff and local decision makers in the area of planning for cyclists and pedestrians is the lack of documentation on usage and demand for these facilities. Without accurate and consistent data, it is difficult to measure the positive benefits of investments, especially when compared to the other types of transportation such as the automobile. In order to supplement JTW data, to attain a better understanding of existing usage and travel patterns, and to be able to project demand, regular cyclist and pedestrian counts should be conducted. A methodology for collecting these counts and potential count locations are included in Appendix B. The basic criterion used to select count locations includes points along and intersections of primary streets in the network, population centers, walking and cycling attractors and generators, and community gateways.

Multi-Modal Access

Plans for the Healdsburg Depot Intermodal Transportation Center on Harmon Street, which among other improvements will provide bicycle parking, are being prepared by Sonoma County Transit and the project is expected to be constructed in 2009. The Center would be the Healdsburg stop for the SMART passenger train, which would serve passengers at 14 existing or planned multi-modal train stations between Cloverdale in Sonoma County and Larkspur in Marin County, where a connection can be made to San Francisco via the existing ferry service. SMART also proposes to provide a critical north-south transportation route for bicyclists and pedestrians, with approximately 70 miles of multi-use pathway located along or adjacent to the right-of-way between Healdsburg and Larkspur. The SMART Path project would provide a continuous route through Sonoma County comprised largely of Class I multi-use pathway along with short segments of Class II bike lanes or Class III bike routes, where right-of-way constraints occur, to connect seven of the County's nine cities, including Healdsburg. The City's Foss Creek Pathway is a component of the larger SMART Path.

8. Project Costs and Funding

Costs

Estimated project costs for the various improvement projects identified in this Plan are summarized in Table 7. The total cost of the improvements is estimated at approximately $11.5 million. It is important to note that construction costs associated with the Foss Creek Pathway account for approximately $10.3 million of the total cost of planned improvements.

Funding Sources

The number of grants available for non-motorized transportation projects has been growing in recent years. A summary of these programs is included in Appendix A and possible funding sources for specific Healdsburg projects are identified in Table 8.

Table 7
Bicyclist and Pedestrian Projects and Priorities

Project	Begin Point (north or west)	End Point (south or east)	Class	Length (Miles)	Function	Use	Cost	Priority	Notes
Pathway Segment 3	Healdsburg Railroad Depot	Front Street	I	.14	Local/ Regional	Trans/ Rec	$490,000	High	
Pathway Segment 4	Mill St./ Healdsburg Ave. intersection	Healdsburg Railroad Depot	I	.18	Local/ Regional	Trans/ Rec	$450,000	High	To be constructed in 2009.
Pathway Segment 5	W. Grant Street	Grove Street (Norton Slough)	I	.16	Local/ Regional	Trans/ Rec	$490,000	High	To be constructed in 2009 with 20 W. Grant affordable housing project.
Pathway Segment 6	Skate Park	W. Grant Street	I	.60	Local/ Regional	Trans/ Rec	$1,830,000	High	
Pathway Segment 7	Dry Creek Road	Skate Park	I	.22	Local/ Regional	Trans/ Rec	$1,010,000	High	
Pathway Segment 8	Grove St. & Healdsburg Ave.	Dry Creek Road	I	.59	Local/ Regional	Trans/ Rec	$1,680,000	High	
Pathway Segment 9	Healdsburg Ave. (Future fire sub-station)	Grove St. & Healdsburg Ave.	I	.71	Local/ Regional	Trans/ Rec	$3,270,000	Low	Feasibility of construction is questionable
Pathway Segment 9A	Healdsburg Ave./Parkland Farms Blvd. Intersection	Grove St./ Healdsburg Ave. Intersection	I	.19	Local/ Regional	Trans/ Rec	$570,000	Medium	Alternative if Segment 9 is infeasible
Pathway Segment 10	Northern city limits	Healdsburg Ave. (Future fire sub-station)	I	.24	Local/ Regional	Trans/ Rec	$570,000	Medium	
Giorgi Park Pathway	University St.	Piper St.	I	.27	Local	Trans/ Rec	$973,000	High	To be constructed in 2009. Federal SRTS funding applied for.

Table 7
Bicyclist and Pedestrian Projects and Priorities

Project	Begin Point (north or west)	End Point (south or east)	Class	Length (Miles)	Function	Use	Cost	Priority	Notes
Grove Street	1410 Grove Street (at S-curves)	Dry Creek Road	II	.14	Local	Trans	$10,191	Low	Implemented as part of development projects that require Grove Street improvements.
Healdsburg Avenue	North city limits	Parkland Farms Boulevard	II	.75	Local/ Regional	Trans/ Rec	$56,250	Medium	Portion from Foss Creek crossing to north city limits may be implemented as part of Saggio Hills development
Healdsburg Avenue Bridge over Russian River	East bridge approach at vicinity of access into Veterans Memorial Beach	West bridge approach at Front Street intersection	II	.09	Regional	Trans/ Rec	n/a	Low	Included in long-term bridge solution. Cost estimate irrelevant as a stand-alone project.
Center Street	Matheson Street	Mill Street	III	.14	Local	Trans	$2,077	Low	Bike route signage implemented as funding opportunities arise or as part of adjacent development projects.
Dry Creek Road	Highway 101	Grove Street	III	.13	Regional	Trans	$1,945	Low	
Mill Street	Highway 101	Center Street	III	.24	Local	Trans	$3,541	Low	
Poppy Hill Drive	Clear Ridge Drive	Sunnyvale Drive	III	.30	Local	Trans	$4,442	Low	
University Street	Sunnyvale Drive	March Avenue	III	.37	Local	Trans	$5,577	Low	
Fitch Street	Matheson Street	Mason Street	III	.22	Local	Trans	$3,282	Low	
Grove Street	Dry Creek Road	Foss Creek Pathway at Norton Slough	III	.97	Local	Trans	$11,832	Low	
Harmon/Hudson Sts.	Fitch Street	Front Street	III	.32	Local	Trans	$4,800	Low	
Sunnyvale Drive	Lupine Road	Poppy Hill Drive	III	.23	Local	Trans	$3,448	Low	
Matheson Street	Foss Creek Pathway	First Street	III	.58	Local	Trans	$8,654	Low	Portion from Center to First may be implemented as part of Matheson Street rehabilitation project in 2008.

Table 7
Bicyclist and Pedestrian Projects and Priorities

Project	Begin Point (north or west)	End Point (south or east)	Class	Length (Miles)	Function	Use	Cost	Priority	Notes
Warning and Way-finding Sign Program	Citywide				Local/ Regional	Trans/ Rec	$6,500	Medium	
Bicycle Parking Program	Citywide				Local/ Regional	Trans/ Rec	$5,000	Medium	
			Class I total	**3.30**		**Total**	**$11,533,500**[1]		
			Class II total	**0.98**					
			Class III total	**3.50**					

[1]2007 dollars

Table 8
Project Implementation and Funding Opportunities

Corridor/ Street	Class	Cost	Ranking	Project Partners	Potential Funding Source
Pathway Segment 3	I	$490,000	High	SMART	SMART, Measure M, RBPP, TDA, BTA, VPMP, Local Funds
Pathway Segment 4	I	$450,000	High	SMART, Sonoma County Transit	SMART, Measure M, RBPP, TDA, BTA, VPMP, Local Funds
Pathway Segment 5	I	$490,000	High	SMART, NCRA	
Pathway Segment 6	I	$1,830,000	High	SMART, NCRA	
Pathway Segment 7	I	$1,010,000	High	SMART, NCRA	
Pathway Segment 8	I	$1,680,000	High	SMART, NCRA	
Pathway Segment 9	I	$3,270,000	Low	SMART, NCRA	
Pathway Segment 9A	I	$570,000	Medium	SMART, NCRA	
Pathway Segment 10	I	$570,000	Medium	SMART, NCRA	
Giorgi Park Pathway	I	$973,000	High		Federal SRTS, Local Funds
Grove Street	II	$10,191	Low		TDA, BTA, VPMP, Local Funds
Healdsburg Avenue	II	$56,250	Medium		TDA, BTA, VPMP, Local Funds
Healdsburg Ave. Bridge	II	--	Low		HBP, Local Funds
Center Street	III	$2,077	Low		TDA, Local Funds
Dry Creek Road	III	$1,945	Low		
Mill Street	III	$3,541	Low		
Poppy Hill Drive	III	$4,442	Low		
University Street	III	$5,577	Low		
Fitch Street	III	$3,282	Low		
Grove Street	III	$11,832	Low		
Harmon/Hudson Streets	III	$4,800	Low		
Sunnyvale Drive	III	$3,448	Low		
Matheson Street	III	$8,654	Low		
Warning and Way-finding Sign Program		$6,500	Medium		RBPP, TDA, Local Funds
Bicycle Parking Program		$5,000	Medium		RBPP, TDA, VPMP, Local Funds

Abbreviations:

SMART	Sonoma Marin Area Rail Transit
RBPP	Regional Bicycle and Pedestrian Program
TDA	Transportation Development Act Article 3
NCRA	North Coast Railroad Authority
BTA	Bicycle Transportation Account
VPMP	Vehicle Pollution Mitigation Program
HBP	Highway Bridge Program

Appendix A – Funding Sources

Public Sector Funding

Funding for projects benefiting cyclists and pedestrians originate from a wide variety of sources, including federal and state fuel taxes, sales taxes, property taxes, transit fares, truck weight fees, vehicle registration fees, tolls, development fees, bonds, traffic fines, local general funds, and assessment districts, among others. As such, much funding is closely tied to larger local, state, and national economic trends. The availability of these funds can fluctuate with economic upturns and downturns.

In the northern San Francisco Bay Area, the flow of revenues for cyclist and pedestrian projects from source to implementing entity most often involves the California Department of Transportation (Caltrans) and the Metropolitan Transportation Commission (MTC). Funding is also possible from various sources that the Sonoma County Transportation Authority (SCTA) facilitates. While the SCTA does not own or operate facilities or services, the agency supports implementation of projects and programs sponsored by the entities with which it collaborates.

At the federal, state, regional and local levels, funds are divided among myriad programs. Each program is handled differently, depending on its size, eligible uses, and the agency responsible for making spending decisions. While some programs remain relatively consistent, the majority are dynamic, changing regularly with passage of legislation or as a result of administrative or programmatic adjustments. Moreover, many programs, especially at the regional level, are not funded from a single source; rather they are derived from a combination of funds.

While a portion of the funds available for improvements are programmed, the majority of them are available through competition at the state, regional, or local level. Thus while improvements to major roadways are likely to be financed through programmed transportation funds, the majority of the projects contained in this Plan are likely to be funded through competitive grants or some combination of the two sources.

Competition for these limited funds can be intense, especially at the state and regional levels where often hundreds of applicants compete for limited funds. Therefore, competitive programs typically require the submittal of extensive applications with clear documentation of the project need, costs, and benefits, along with maps, cost estimates, schedules, letters of support, and proposed work scopes. A local match of between 10 and 15 percent is typically required; however some programs require a dollar for dollar match. While the preparation of applications combined with securing local matching funds can be challenging, competitive source funding programs represent an outstanding opportunity to secure funds for local improvements.

In general, federal funds are used for capital projects, as well as for specific projects earmarked by Congress. State funds are used for new capital projects, too, but also cover maintenance costs, like street resurfacing and rehabilitation projects. State funds can sometimes be used as matching funds for larger federal projects, and a small portion is used to cover operational costs.

Sonoma County jurisdictions have access to locally-generated funding. The SCTA administers revenues derived from the 2004 voter-approved transportation sales tax, Measure M. The Measure M Strategic Plan programs these funds over five years for specific projects, including bicyclist and pedestrian improvements throughout the County. The five-year strategic plan is updated every two years.

Redevelopment agencies are another source of governmental funding. Many redevelopment districts have incorporated bicyclist and pedestrian facilities in their planning. Fees exacted from developers for project mitigation can potentially be used to accommodate pedestrians and bicyclists.

Government funding can fund both non-infrastructure and infrastructure projects. Examples of the former are the Safe Routes to School and Office of Traffic Safety grant programs; examples of the latter are roadway rehabilitation and construction of roadways, multi-use pathways, and bicycle lanes.

The primary implementer of infrastructure projects is the city Public Works Department. Project selection is typically based on planning processes involving public participation. Additionally, schools and school districts can be the implementers of on-site bicyclist and pedestrian infrastructure and amenities, such as sidewalks and bicycle racks; and for bicyclist and pedestrian education programs and incentives. Other governmental partners are law enforcement agencies. Such entities can sponsor enforcement programs that are aimed at improving motorist, bicyclist and pedestrian behaviors to bring about greater community safety and security.

Private Sector Development and Investment

Private sector development and investment play an important role in funding non-motorized infrastructure. Many of the city's newer residential, commercial and industrial developments have been required to include sidewalks, pathways, and bicycle facilities. Private development is expanding its focus on "smart growth" and balanced transportation options. This inherently builds in orientation to the cycling and pedestrian modes. Sometimes developers also fund such amenities as bicycle racks, bicycle storage, benches, lockers and shower facilities.

Additionally, in many locations, improvements such as closure of gaps in sidewalks or road widenings are made only after a private land use change is approved. Improvements or right-of-way dedications can be made conditions of approval, allowing upgrades for bicyclists and pedestrians.

Both the public and private sectors play important roles in providing employee programs that encourage walking and bicycling.

Community, Special Interest and Philanthropic Organizations Contributions

Other non-governmental sources of funding include the contributions of community-based organizations, such as the Sonoma County Bicycle Coalition, in carrying out programs that support bicycle usage. Examples include Bike to Work Day efforts, bicycle valet parking at events, and education programs. Special-interest groups have made contributions toward non-motorized improvements and programs if such are in alignment with group objectives. Sometimes the contribution is monetary, at other times in the form of volunteer efforts, such as path or trail upkeep programs.

Philanthropic entities, including non-profit, foundation, and corporate organizations and individuals, can fund programs, and, at times, facilities. Donations and grants have paid for community amenities such as pathways and trails; landscaping, fountains and other aesthetic improvements; and street furniture such as bicycle racks, lighting and seating benches. The later such "beautification" efforts create bicyclist- and pedestrian-friendly environments.

Funding Details

The following section presents a general description of funding programs that can be used to implement the infrastructure projects contained in this Plan.

Federal Funding Programs

Federal funding through the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and its successors will provide much of the funding available for projects in this Plan. SAFETEA-LU contains several major programs, which are highlighted below, that may be used to fund transportation and/or recreation improvements in this Plan. SAFETEA-LU funding is administered through the state (Caltrans or Resources Agency) and regional governments such as the Metropolitan Transportation Commission (MTC). Most, but not all, of the funding programs are transportation- versus recreation-oriented, with an emphasis on (a) reducing auto trips and (b) providing an intermodal connection. Funding criteria often includes project listing in a Regional Transportation Improvement Plan, completion and adoption of a bicyclist and/or pedestrian master plan, quantification of the costs and benefits of the system (such as saved vehicle trips and reduced air pollution), proof of public involvement and support, National Environmental Policy Act compliance, and commitment of some local resources. In most cases, SAFETEA-LU provides matching grants of 80 to 90 percent, but prefers to leverage other moneys at a lower rate.

Web link: http://www.fhwa.dot.gov/safetealu/index.htm

Highway Safety Improvement Program

This new stand-alone program reflects increased importance and emphasis on highway safety initiatives in SAFETEA-LU. Funds can be used for safety improvement projects on any public road or publicly-owned bicyclist or pedestrian pathway or trail. A safety improvement project corrects or improves a hazardous roadway condition, or proactively addresses highway safety problems that may include intersection improvements; installation of rumble strips and other warning devices; elimination of roadside obstacles; railway-highway grade crossing safety; pedestrian or bicyclist safety; traffic calming; improving highway signage and pavement marking; installing traffic control devices at high crash locations and priority control systems for emergency vehicles at signalized intersections, safety-conscious planning and improving crash data collection and analysis, etc. HSIP funds may also be used in California for public awareness, education, and enforcement activities.

Web link: http://www.dot.ca.gov/hq/LocalPrograms/ hsip.htm

Congestion Mitigation and Air Quality Improvement Program / Surface Transportation Program

The majority of SAFETEA-LU funding flows to the states, and in California these funds are administered by Caltrans. However, Caltrans assigns a significant portion of two of the programs, the Surface Transportation Program (STP) and the Congestion Mitigation & Air Quality Improvement Program (CMAQ) to MTC and other regional planning agencies to be used at their own discretion, subject to federal regulations. MTC develops and administers its own funding programs, including the Transportation for Livable Communities Program and the Regional Bicycle and Pedestrian Program, using STP and CMAQ funds to target Bay Area transportation needs.

Web link: http://www.mtc.ca.gov/ funding/ STPCMAQ/

Transportation Enhancements

Transportation enhancements (TE) are transportation-related activities that strengthen the cultural, aesthetic, and environmental aspects of the nation's transportation system. Similar to CMAQ and STP funds, MTC develops and administers its own funding programs using TE funds to target Bay Area transportation needs. TE funds help to make up regional funding programs such as the Transportation for Livable Communities Program and the Regional Bicycle and Pedestrian Program.

National Recreational Trails Program

The Recreational Trails Program (RTP) provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails (with restrictions for new trails on federal lands)
- Acquisition of easements or property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails

Web links: http://www.parks.ca.gov/?Page_id=24324 and http://www.fhwa.dot.gov/environment/rectrails/index.htm

State Funding Programs

State Transportation Improvement Program

The State Transportation Improvement Program (STIP) is funded through the State Highway Account and other sources for projects to increase the capacity of the transportation system. STIP projects may include projects on state highways, local roads, intercity rail, or public transit systems. Similar to the federal government, the amount of funds available for the STIP is dependent on the state budget. Therefore, funding levels may fluctuate from year to year. Regional Transportation Planning Agencies (RTPAs), such as MTC, are allocated 75 percent of STIP funding for regional transportation projects in their Regional Improvement Program (RIP). Caltrans is allocated 25 percent of STIP funding for interregional transportation projects in the Interregional Improvement Program (IIP).

Web link: http://www.mtc.ca.gov/funding/STIP/

Bicycle Transportation Account

The state Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. The BTA provides state funds for projects that improve safety and convenience for bicycle commuters. To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan (BTP) that addresses items a–k in Streets and Highways Code Section 891.2. Following adoption at the local level, a BTP must be submitted to the appropriate Regional Transportation Planning Agency (RTPA) for approval. Sonoma County's RTPA is the Metropolitan Transportation Commission (MTC). RTPA approval consists of verifying that the plan is in compliance with Section 891.2 and the Regional Transportation Plan. Following RTPA approval, the local agency submits the plan, adopting resolution, and RTPA letter of approval to the Caltrans Bicycle Facilities Unit for review to ensure the plan addresses the required elements. BTP adoption establishes eligibility for five consecutive BTA funding cycles.

Web link: http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm

Safe Routes to School

There are currently two Safe Routes to School funding programs in California. In 1999 the State legislature enacted a State Safe Routes to School (SR2S) program through a set-aside of federal transportation funds. The program has since been re-authorized three times and will run through 2013. In the meantime, the federal government created a Safe Routes to School (SRTS) with the passage of SAFETEA-LU. Both programs are meant to improve school commute routes through construction of bicycle and pedestrian safety and traffic calming projects. The State program provides funding for projects that address school commutes for students in grades K-12, the federal program provides funding for projects that address school commutes for students in grades K-8. Both programs require a local match. While both programs fund construction improvements, the federal program also includes a programmatic element that will fund activities related to education, enforcement, or encouragement.

Safe routes to schools programs are an essential component of successful efforts to make walking and bicycling to school safer, increase the number of children walking and bicycling to school, improve children's health and fitness, and educate students and parents about the health, transportation and environmental benefits of walking and bicycling. The programs typically use the "five Es" to accomplish these goals: Encouragement (e.g., prizes, special events like Walk to School Day), Education (e.g., fliers on the benefits of walking, maps of safe routes, classroom curriculum), Engineering (e.g., improvements to infrastructure such as roadways, intersections, sidewalks and bicycle facilities), Enforcement (making sure motorists, pedestrians and bicyclists understand and obey the rules of the road), and Evaluation (such as before/after surveys to see the effect of programs and physical improvements on mode choice for student commuters).

Web link: http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

Office of Traffic Safety

The California Office of Traffic Safety (OTS) has the mission to obtain and effectively administer traffic safety grant funds to reduce deaths, injuries and economic losses resulting from traffic related collisions in California. OTS distributes federal funding apportioned to California under the National Highway Safety Act and SAFETEA-LU. Grants are used to mitigate traffic safety program deficiencies, expand ongoing activity, or develop a new program. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. OTS grants address several traffic safety priority areas, including Pedestrian and Bicycle Safety. Eligible activities include programs to increase safety awareness and skills among pedestrians and bicyclists. Concepts may encompass activities such as safety programs, education, enforcement, traffic safety and bicycle rodeos, safety helmet distribution, and court diversion programs for safety helmet violators.

Web link: http://www.ots.ca.gov/Grants/Apply/Proposals_2009.asp

Environmental Enhancement and Mitigation Program

Environmental Enhancement and Mitigation Program (EEMP) funds are allocated to projects that offset environmental impacts of modified or new public transportation facilities including streets, mass transit guideways, park-n-ride facilities, transit stations, tree planting to equalize the effects of vehicular emissions, and the acquisition or development of roadside recreational facilities, such as trails. State gasoline tax monies fund the EEMP. The EEMP program represents an outstanding opportunity to fund improvements as mitigation to ongoing work in the US 101 corridor, as well as other highway facilities in Sonoma County. Web link: http://resources.ca.gov/eem/

California State Coastal Conservancy

The California State Coastal Conservancy manages several programs that provide grant funds for coastal trails, access, and habitat restoration projects. The funding cycle for these programs is open and on-going throughout the year. Funds are available to local government as well as non-profits. The Conservancy may be a funding source for bicycle facilities that improve access to our beaches, rivers, and creeks.

Web link: http://www.scc.ca.gov/Programs/guide.htm

Habitat Conservation Fund

The Habitat Conservation Fund (HCF) provides $2 million dollars annually in grants for the conservation of habitat including wildlife corridors and urban trails statewide. Eligible activities include property acquisition, design, and construction. The HCF is 50% dollar for dollar matching program. California Environmental Quality Act (CEQA) compliance is required. Urban projects should demonstrate how the project would increase the public's awareness and use of park, recreation, or wildlife areas.

Web link: http://www.parks.ca.gov/?page_id=21361

Caltrans Transportation Planning Grants

Caltrans Transportation Planning Grants are intended to promote strong and healthy communities, economic growth, and protection of our environment. These planning grants (Environmental Justice: Context-Sensitive Planning, Community-Based Transportation Planning, Partnership Planning, and Transit Planning) support closer placement of jobs and housing, efficient movement of goods, community involvement in planning, safe and convenient pedestrian and bicycle mobility and access, smart or strategic land use, and commute alternatives.

Web link: http://www.dot.ca.gov/hq/tpp/grants.html

Regional Funding Programs

Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) funds are a portion of the State Transportation Improvement Program. The Metropolitan Transportation Commission, acting as the Regional Transportation Planning Agency in the nine-county Bay Area, is responsible for allocating Sonoma County's share of the funding.

Web link: http://www.mtc.ca.gov/funding/STIP/

Transportation for Livable Communities

MTC's Transportation for Livable Communities (TLC) Program was created to support community-based transportation projects that revitalize downtown areas, commercial cores, neighborhoods and transit corridors by enhancing their amenities and ambiance and making them places where people want to live, work and visit. TLC provides funding for planning and capitol improvement projects that provide for a range of transportation choices, support connectivity between transportation investments and land uses, and are developed through an inclusive community planning effort.

Web link: http://www.mtc.ca.gov/planning/smart_growth/tlc_grants.htm

Regional Bicycle and Pedestrian Program

The Regional Bicycle and Pedestrian Program (RBPP) was created by the MTC in 2003 through a set-aside of federal funds to fund construction of the Regional Bicycle Network, regionally-significant pedestrian projects, and bicycle and pedestrian projects that serve schools and transit. MTC has committed $200 million in the Transportation 2030 Plan to support the regional program over a 25-year period ($8 million each year). The program is administered through County Congestion Management Agencies (SCTA in Sonoma County).

Web link: http://www.mtc.ca.gov/planning/bicyclespedestrians/ regional.htm#bikepedprog

TDA Article 3

Transportation Development Act (TDA) Article 3 funds are generated from State gasoline sales taxes and are returned to the source counties from which they originate to fund transportation projects. Article 3 funds provide a 2 percent set aside of the County TDA funds for bicycle and pedestrian projects. Eligible projects include right-of-way acquisition; planning, design and engineering; support programs; and construction of bicycle and pedestrian infrastructure, including retrofitting to meet ADA requirements, and related facilities. Each year SCTA approves a Program of Projects for Sonoma County, which is submitted to MTC for approval.

Web link: http://www.mtc.ca.gov/funding/STA-TDA/

Lifeline Transportation Program

The Lifeline Transportation Program (LTP) was established to fund projects that result in improved mobility for low-income residents of the nine San Francisco Bay Area counties. Lifeline funds may be used for either capital or operating purposes. Eligible capital projects include (but are not necessarily limited to) purchase of vehicles, provision of bus shelters, benches, lighting, sidewalk improvements or other enhancements to improve transportation access for residents of low-income communities. A local match of a minimum of 20% of the total program cost is required.

Web link: http://www.mtc.ca.gov/ planning/lifeline/

Safe Routes to Transit

Funded through Regional Measure 2, this competitive program is designed to promote bicycling and walking to transit stations by funding projects and plans that make important feeder trips easier, faster, and safer. The program is administered by the Transportation and Land Use Coalition, a Bay Area partnership of over 90 groups that develops and forwards a range of projects, programs, and campaigns supporting sustainability and equity in the land use, housing, and transportation arenas.

Web link: http://www.transcoalition.org/c/bikeped/bikeped_saferoutes.html#application

Air Quality Management District

The Northern Sonoma County Air Pollution Control District has vehicular pollution mitigation programs (VPMP) that can be applied to development of bicycle facilities or programs. Air district programs seek to improve air quality in partnership with local public, private and non-profit entities by supporting small-scale projects aimed at reducing emissions from motor vehicles. Larger grants from the District are available annually through the AB 2766 program. The District receives a portion of the annual vehicle registration fees from the Department of Motor Vehicles through legislation authorized under Assembly Bill 2766 (Sher, 1990). The AB 2766 program provides incentive funding for projects that reduce on-road and off-road motor vehicle pollutant emissions (mainly nitrous oxides) and to a lesser extent particulate matter. Funding preference is given to projects that result in reduction of

particulate matter from heavy duty diesel motor vehicles, rideshare and/or transit programs implemented by or under direct contract to local government entities, and the installation of physical devices or facilities that directly or indirectly reduce motor vehicle emissions. Funds are available through an open application process. Applicants are encouraged to contact district staff directly to discuss project concepts and to receive an application form.

Local Funding Programs

Measure M

In 2004, the citizens of Sonoma County passed the Traffic Relief Act for Sonoma County (Ballot Measure M) a 1/4 cent sales tax for transportation improvements, including bicyclist and pedestrian improvements. In doing so, the County became a county that can more effectively leverage state and federal transportation dollars by providing a local funding match. Measure M also provides a stable funding source for local transportation projects that is independent of the State's transportation budget. While Measure M will not fund all of the County's transportation needs, it is expected to provide a significant contribution of over $470 million dollars through the life of the measure, which expires in 2025.

Local jurisdictions and transit operators receive regular payments from Measure M for maintenance and operation of the existing transportation system. SCTA has direct authority over administration of the Measure M program. SCTA is responsible for developing and updating a strategic plan to guide allocation decisions and project delivery. In 2005 SCTA developed the initial strategic plan. The strategic plan is updated every two years. The 2007 Measure M Strategic Plan identifies 15 projects for funding in the bicyclist/pedestrian category.

Web link: http://www.sctainfo.org/measure_m_strategicplan.htm

Direct Local Jurisdiction Funding

Local jurisdictions can fund bicyclist and pedestrian projects using a variety of sources. A city's general funds are often earmarked for non-motorized transportation projects, especially sidewalk and ADA improvements. The City of Healdsburg 2007-2008 Five-Year Capital Improvement Program includes funding for 1) new sidewalks in developed areas where none have previously existed, 2) sidewalks for street extensions and 3) hazardous sidewalk replacement. Future road widening and construction projects are one means of providing bike lanes and sidewalks. To ensure that roadway construction projects provide these facilities where needed, appropriate, and feasible, it is important that an effective review process is in place so that new roads meet the standards and guidelines presented in this Plan.

Impact fees

Traffic impact fees are used by the City of Healdsburg to fund city-wide capital improvement projects that offset traffic related impacts produced by development projects. A developer may reduce the number of trips (and hence the impact fees paid by a project) by constructing off-site pedestrian and bikeway improvements, which will encourage residents to walk and bicycle rather than drive.

Special Taxing Districts

Special taxing districts, such as redevelopment districts, can be good instruments to finance new infrastructure – including shared use trails and sidewalks – within specified areas. New facilities are funded by assessments placed on those that are directly benefited by the improvements rather than the general public. In a tax increment financing (TIF) district, taxes are collected on property value increases above the base year assessed property value. This money can then be utilized for capital improvements

within the district. TIFs are especially beneficial in downtown redevelopment districts. These districts are established by a petition from landowners to a local government. The districts can operate independently from the local government and some are established for single purposes, such as roadway construction.

Volunteer programs

Volunteer programs may substantially reduce the cost of implementation. Use of groups such as the California Conservation Corp that offer low-cost assistance can reduce project costs. Local schools or community groups may use the bikeway or pedestrian project as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right–of-way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations "adopt" a bikeway and help construct and maintain the facility.

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Appendix B – Bicycle and Pedestrian Count Methodology and Locations

In 2003, the Metropolitan Transportation Commission (MTC) developed the *Bicyclist and Pedestrian Data Collection and Analysis Project.* The project resulted in the *Handbook for Bicyclists and Pedestrian Counts*, for the Metropolitan Transportation Commission (MTC). This methodology represents standard guidelines typically used when conducting counts of bicycle and pedestrian activity. Using the procedures outlined in this handbook would ensure consistent results among local agencies for the development of a database, as well as with larger efforts conducted by MTC throughout the region.

The bicycle count methodology has been developed to attain a consistent regional bicycle count and analysis procedure so that trends in usage can be documented. The counting strategy outlined provides an easy and inexpensive method of conducting bicycle and pedestrian counts on a regular basis. The level of detail to be extracted during routine counts is kept to a minimum to reduce ambiguity while still providing useful data. This is not unlike the typical traffic count that reveals little more than the time of day, and direction of travel. Collection of data regarding the motorist's age, trip purpose, length of trip, etc. is relatively rare.

Bicyclist and pedestrian counts can be conducted during three different times of the year: fall, spring and summer. In general, the winter months should be avoided due to poor weather conditions and extended holiday-related vacations. To capture bicycle and pedestrian activity near schools, counts in the fall should start after Labor Day and end before the end of daylight savings time (at the end of October), whereas counts in the spring should start after the beginning of daylight saving time (at the beginning of April) and end before Memorial Day. School districts and/or institutions within each jurisdiction should be contacted to verify when schools will be in session to avoid spring and winter breaks and special school events. Counts at locations that are not near schools can be accurately conducted during the summer months. Further, the summer months often have somewhat lower peak period volumes due to the reduction in work force trips due to vacations except near recreational attractors, such as wineries in Sonoma County, where summertime conditions may represent peak demand. It should be noted that the counting period should be as condensed as possible to ensure the most consistent conditions.

The counts should be conducted on Tuesdays, Wednesdays or Thursdays during non-holiday weeks. If counts must be conducted during holiday weeks, the actual holiday day should be avoided, and the Tuesday after Monday holidays and the Thursday before Friday holidays should also be avoided.

Suggested count locations are listed in Table B-1.

Table B-1
Potential Count Locations

Primary Street	Cross Street	Notes
Healdsburg Avenue	Park-and-Ride Lot (southern city limits)	Regional Network / Community Gateway
Dry Creek Road	Grove Street	Regional Network / Community Gateway
University Street	March Avenue	Local Bikeway
Powell Avenue	Johnson Street	Local Bikeway
Healdsburg Avenue	Mill Street / Vine Street	Downtown / Regional Network
Healdsburg Avenue	Front Street	Regional Network / Community Gateway
Foss Creek Path	Matheson Street	Downtown / Pathway
First Street	Matheson Street	Local Bikeway
Healdsburg Avenue	Grove Street	Local Bikeway
Center Street	Matheson Street	Downtown / Local Bikeway

Appendix C
Bicycle Transportation Plan Checklist[1]

Item	Location
a. The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.	Section 2: Local Commute Patterns
b. A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.	Figure 1 Section 2: Setting and Context
c. A map and description of existing and proposed bikeways.	Figure 2, Table 5 Section 4: Bicycle Facilities Scetion 7: Implementation Plan
d. A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.	Figures 2 and 4 Section 4: Cyclist Support Facilities and Bicycle Parking Section 7: Implementation Plan
e. A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Figure 2 Section 4: Transit and Multi-Modal Access
f. A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.	Figure 2 Section 4: Cyclist Support Facilities and Bicycle Parking
g. A description of bicycle safety and education 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 Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.	Section 4: Safety and Security
h. A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.	Section 1: Introduction
i. A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.	Section 1: Introduction Section 3: Relationship to Other Plans
j. A description of the projects proposed in the plan and a listing of their priorities for implementation.	Section 7: Implementation Plan Table 7
k. A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.	Section 4: Past Expenditures Section 8: Project Costs and Funding

[1]Required by Streets and Highways Code Section 891.2

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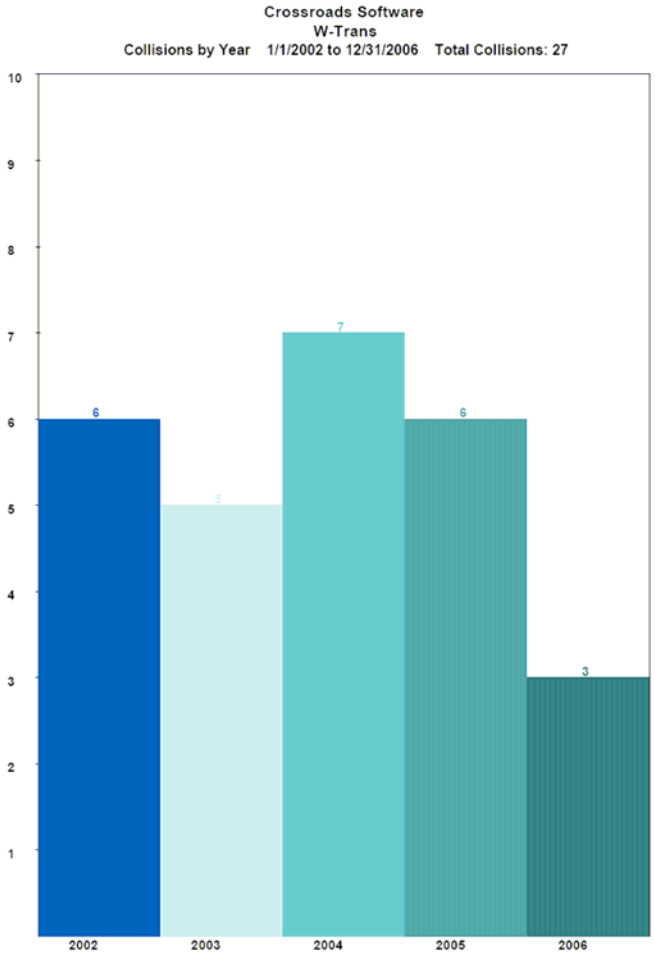
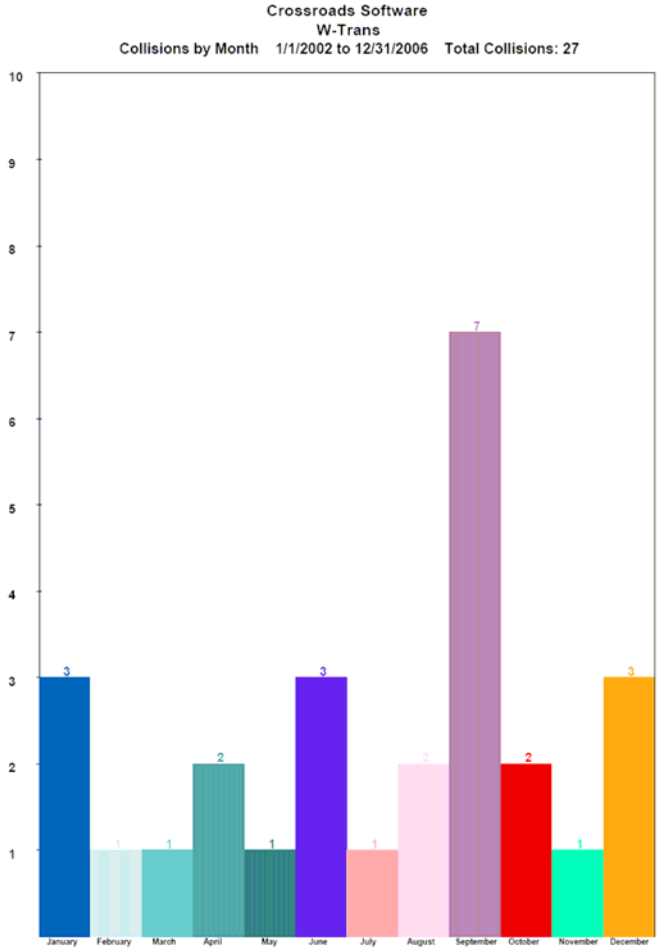
Appendix D – Healdsburg Collision Charts

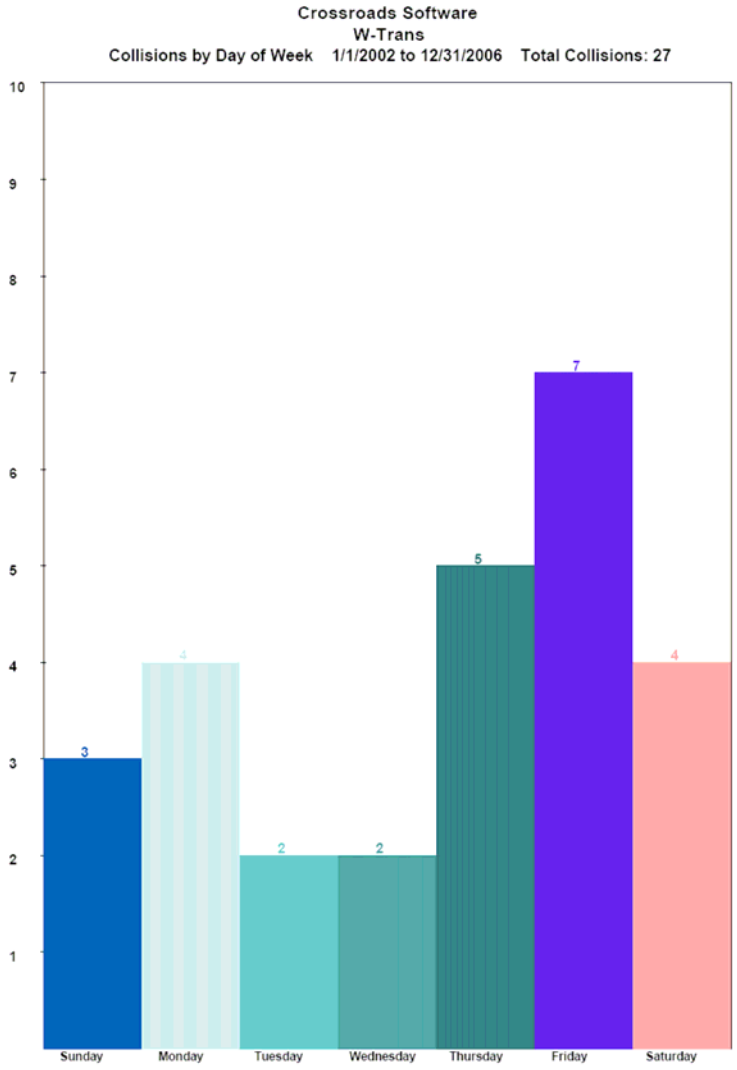
Bicycle Collisions by Year



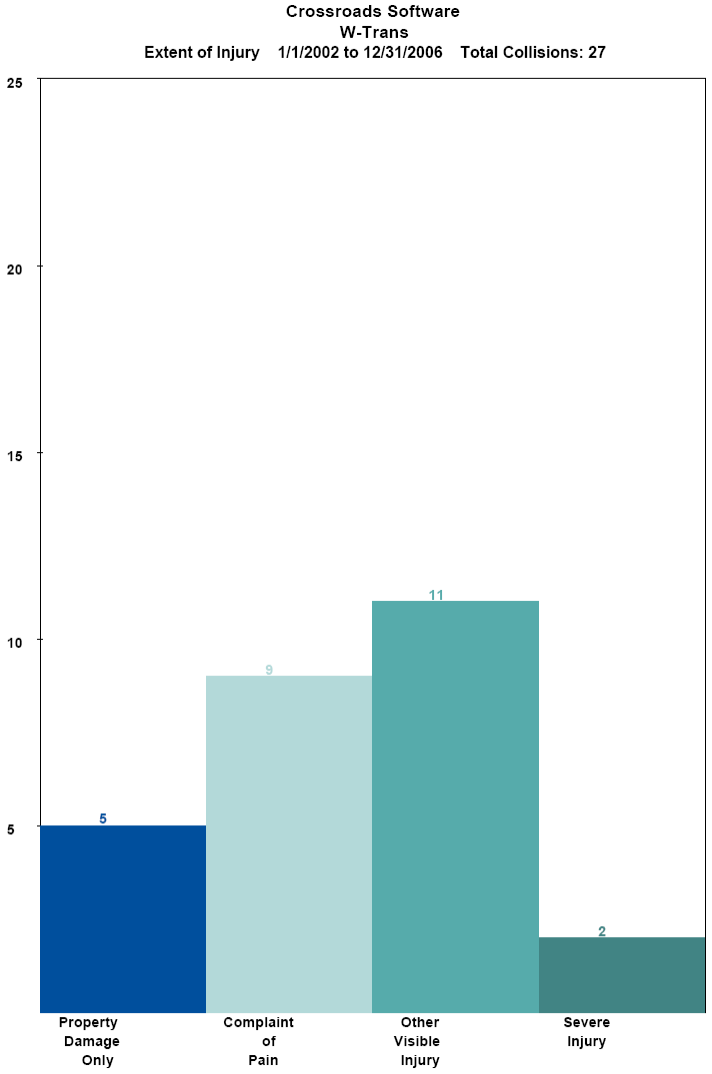
Bicycle Collisions by Month



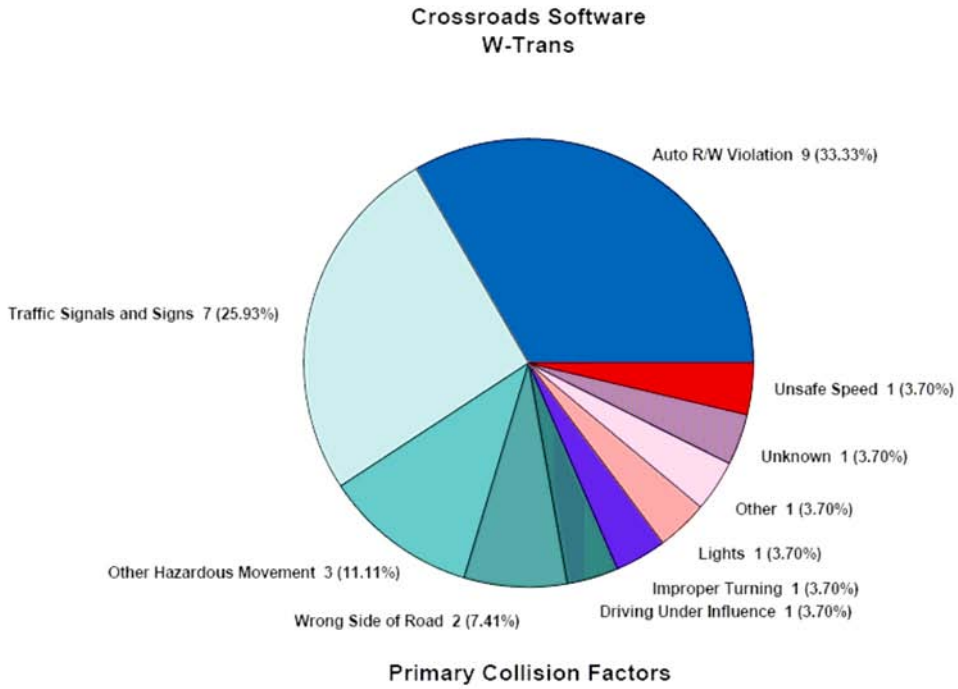
Bicycle Collisions by Day of Week

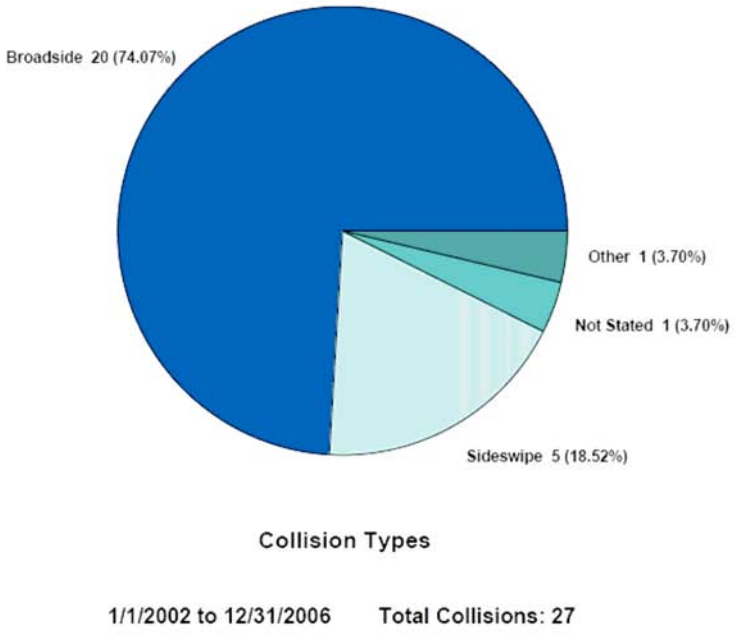


Bicycle Collisions by Degree of Injury



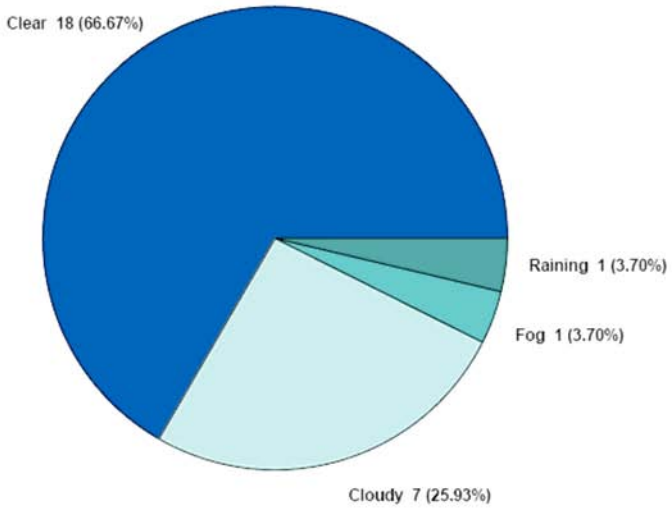
Bicycle Collisions by Primary Collision Factor and by Type



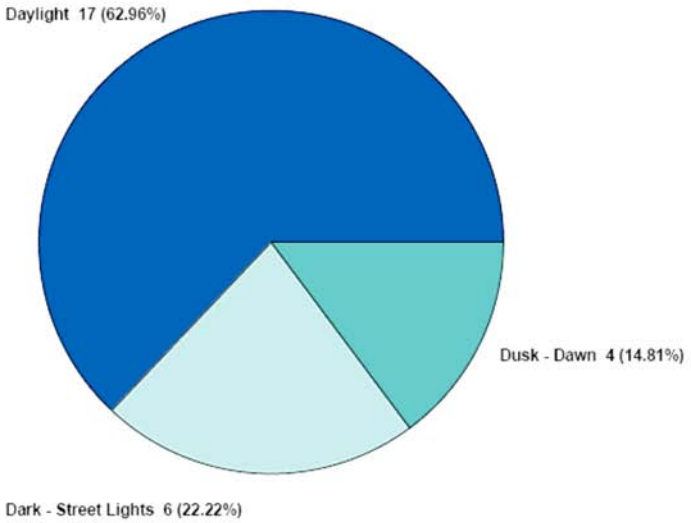


Bicycle Collisions by Weather and Lighting Conditions

Crossroads Software
W-Trans



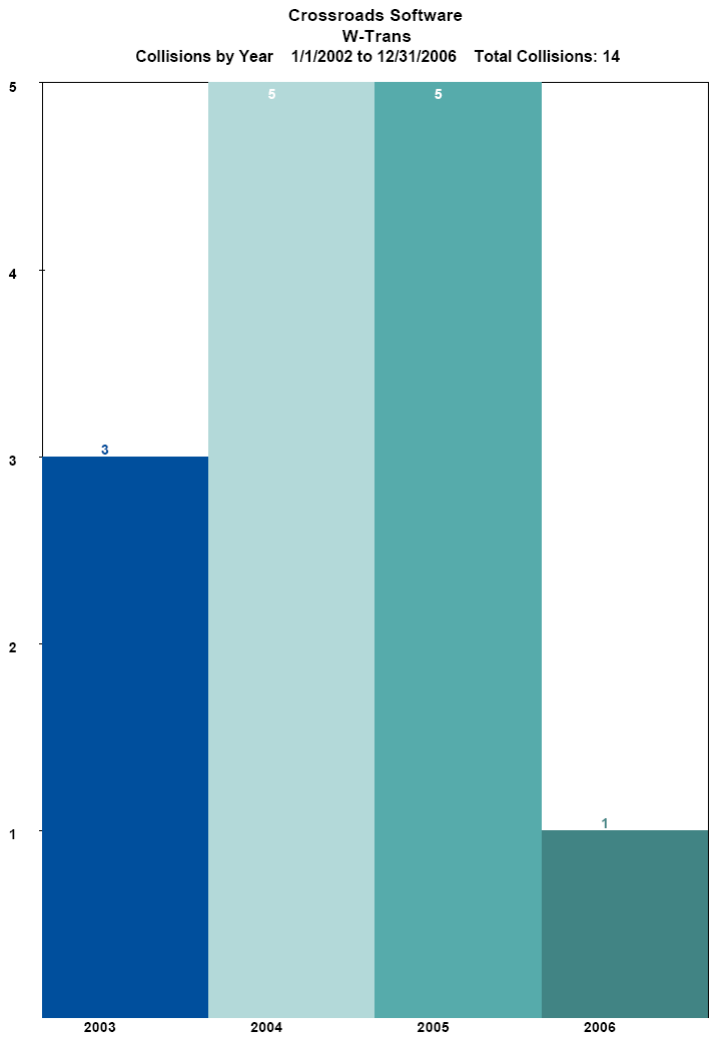
Weather



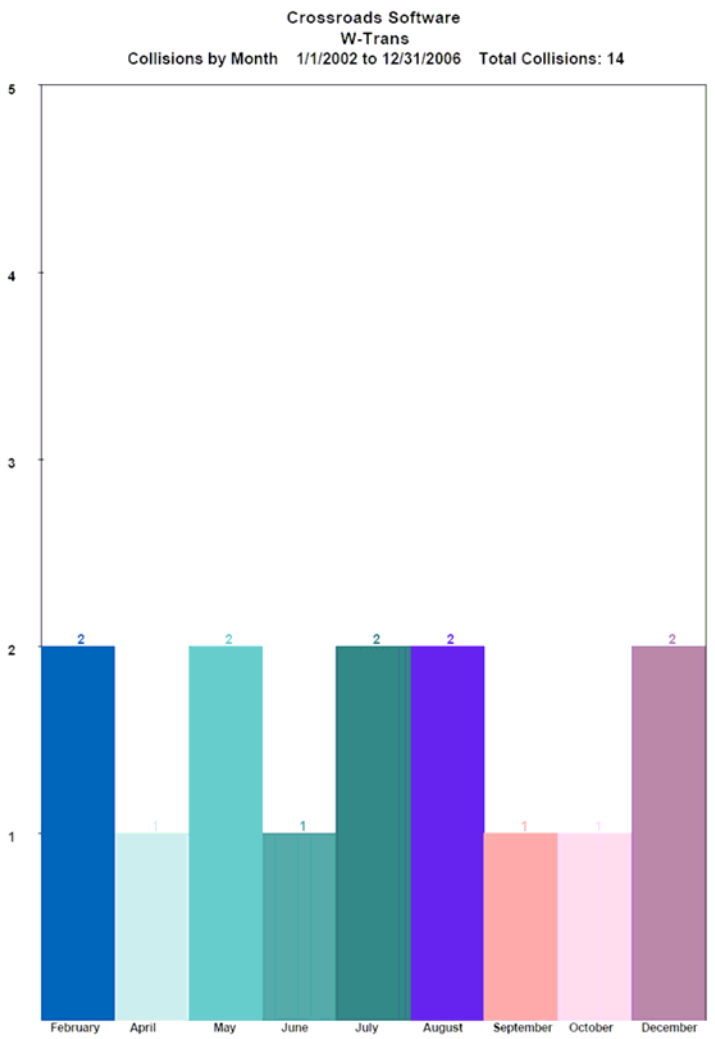
Lighting Conditions

1/1/2002 to 12/31/2006 Total Collisions: 27

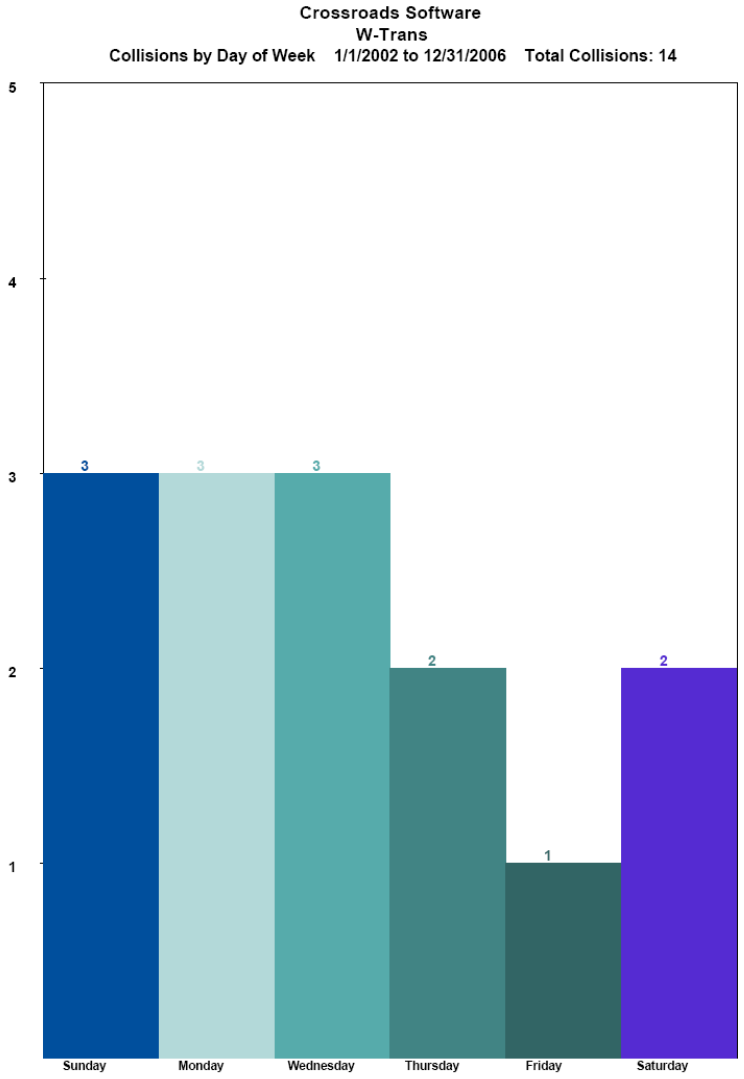
Pedestrian Collisions by Year



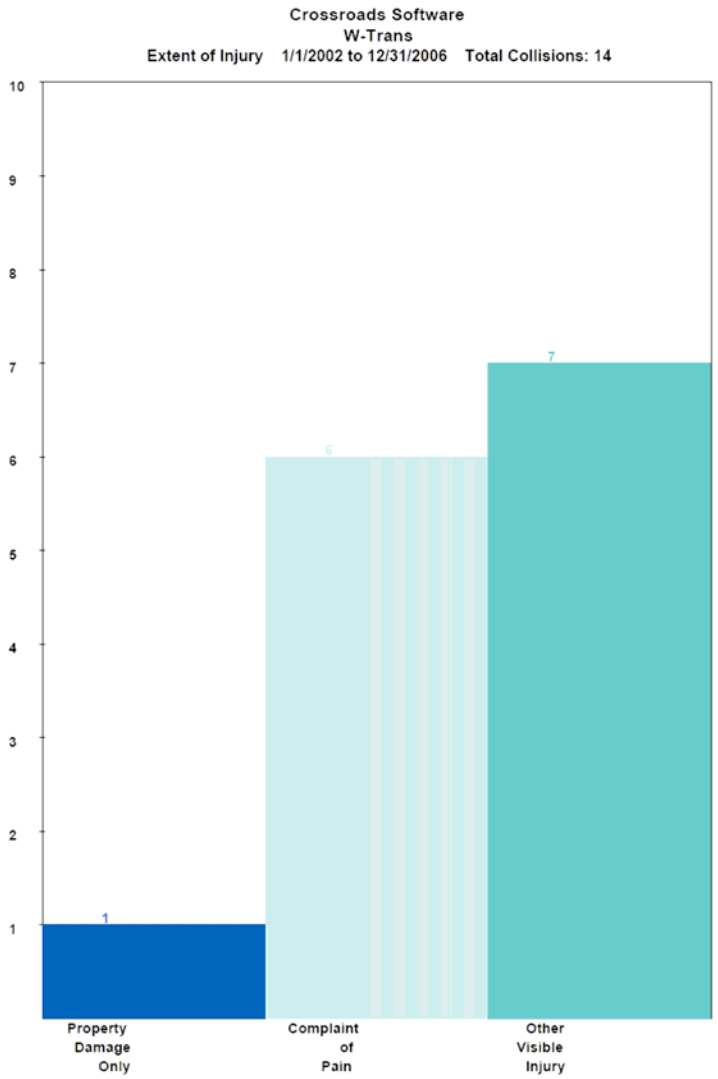
Pedestrian Collisions by Month



Pedestrian Collisions by Day of Week

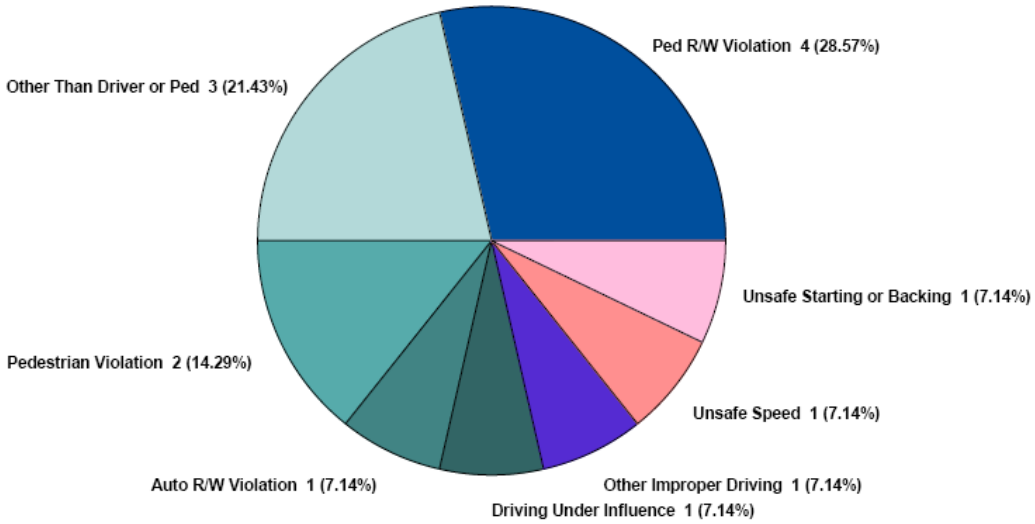


Pedestrian Collisions by Degree of Injury

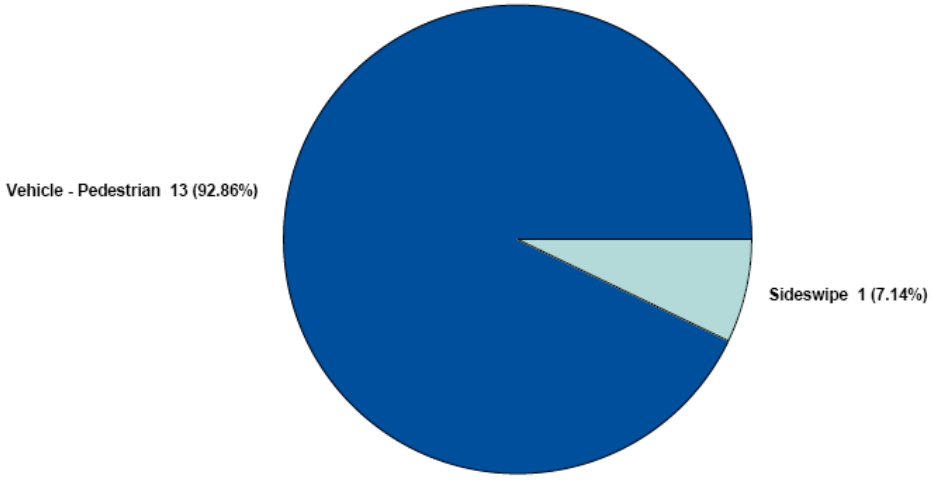


Pedestrian Collisions by Primary Collision Factor and by Type

Crossroads Software
W-Trans



Primary Collision Factors

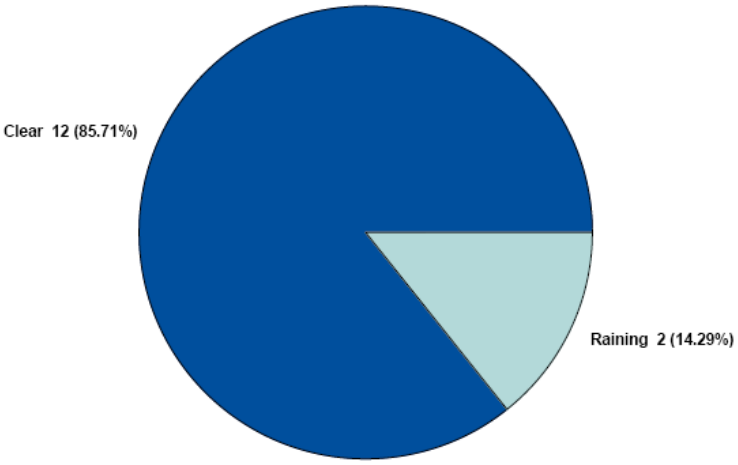


Collision Types

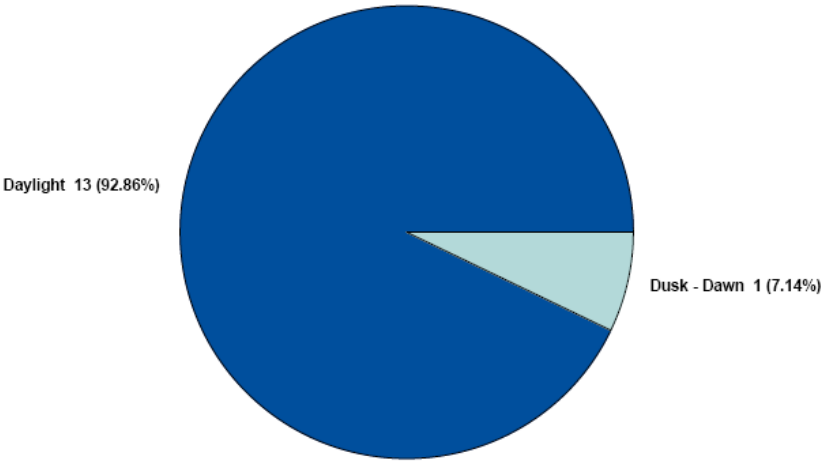
1/1/2002 to 12/31/2006 Total Collisions: 14

Pedestrian Collisions by Weather and Lighting Conditions

Crossroads Software
W-Trans



Weather



Lighting Conditions

1/1/2002 to 12/31/2006 Total Collisions: 14