

## Safe Paths of Travel: Projects, Results and Continuing Efforts

*“Walking is a gateway mode for all transportation.”*

*– American Public Transportation Association*

Pedestrian travel is a vital part of the vibrant economic and social life of any area, and pedestrian amenities – such as wide sidewalks, crosswalks, curb cuts, landscaping and benches – are beneficial additions which make communities safe, friendly and livable. Deficiencies in the pedestrian network have a disproportionate impact on seniors and people with disabilities, individuals for whom use of pedestrian facilities and transit is their lifeline to independence. The federal and state governments have adopted policy language that recognizes the importance of pedestrian infrastructure stating that an integral step in encouraging people to walk and ride bicycles is that of retrofitting and building ‘complete streets.’ Complete streets are streets that “are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.”<sup>1</sup>

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<sup>1</sup> US Department of Transportation, California Department of Transportation and the California Assembly

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## **1 Local Conditions**

### **1.1 Importance of the Pedestrian Network**

The public tends to focus on congestion as the primary transportation problem. This approach does not generally address the transportation needs of people who don't drive, primarily seniors and people with disabilities, and leaves these populations in a disadvantaged position to advocate for improvements and funding for projects other than increases in road capacity.

Seniors and people with disabilities are unable to exercise the fullest range of mobility options available if they can't use pedestrian facilities due to issues such as: gaps in the network, absence of curb cuts, rough or uneven pavement, and barriers in the sidewalk network (street lights, newsstands, etc.).

Most local jurisdictions do not have the staff time and resources to evaluate the pedestrian network at the level of detail that is possible by individuals using the system, and require assistance with identifying and prioritizing improvements.

Not all decision makers and members of the public are aware of the difficulties endured by seniors and people with disabilities attempting to navigate deficient pedestrian facilities.

The local Santa Cruz Metropolitan Transit District provides the fixed route bus service as well as the Americans with Disabilities Act–mandated paratransit service. The latter is costly for the transit district and, at \$4 per ride (\$8 per round trip), can cause extreme financial hardships for seniors and people with disabilities, the majority of whom are on limited and fixed incomes.

### **1.2 Populations Served**

According to the Senior Economic Security Index (SESI), 1 in 3 senior households have no money left after meeting essential expenses. The Economic Security Standard Index for elders shows that the annual gap between basic costs and incomes is especially high in Santa Cruz County, ranging from \$13,000 per year for those living on Social Security to over \$15,000 per year for disabled individuals on Social Security Insurance.<sup>2</sup>

Nearly one-third of Santa Cruz County residents do not drive a personal vehicle due to their age, ability or income. A large portion of these individuals are seniors and people with disabilities. The California Department of Finance currently projects a 14% increase in the rate of growth for ages 65 and under, while those 65 and older are expected to grow by 143% through 2030.

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<sup>2</sup> Elder Economic Security Standard Index 2007 for Santa Cruz County

Seniors now make up about 10% of the population and are expected to constitute about 21% of the population in 2030.<sup>3</sup> While there is demographic information about the number of people with disabilities in the county, unfortunately there is no way of correlating that data with the need for specialized mobility or transportation.

In 2007, about 30% of the county's population was of Hispanic or Latino origin. That percentage is projected to increase to 42% in 2020, 48% in 2030, 55% in 2040 and 61% in 2050.<sup>4</sup> Inroads with these communities today will continue to reap benefits for years to come.

### **1.3 Mapping Safety Concerns**

An analysis of collisions involving pedestrians in Santa Cruz County for the years 2005 – 2009 was conducted using the Statewide Integrated Traffic Record System (SWITRS) data and the results mapped using Geographic Information System (GIS). In addition layers were added to show concentrations of people with disabilities and seniors. These maps are helpful to indicate where pedestrian improvements are needed.

The maps are included in [Appendix A](#).

### **1.4 Pedestrian Safety Work Group**

A Pedestrian Safety Work Group comprised of volunteers and agency staff was formed representing various community interests including:

- Vision impaired – This representative is a business owner, is blind and uses a guide dog, and is active in the sight impaired community.
- Senior and disabled bus riders– The representative is the Accessible Services Coordinator for the Santa Cruz Metropolitan Transit District and is responsible for mobility management training to help people figure out how to use the bus. He also uses a wheelchair, relies on public transit, serves on the Commission for Disabilities and is chair of the Elderly & Disabled Transportation Advisory Committee.
- Developmentally Disabled Individuals – The representative is the director of Hope Services Santa Cruz County, an agency dedicated to assisting developmentally disabled adults become independent and fully participating members of the community.
- Individuals Unable to use Fixed Route Transit – This representative is the Paratransit Superintendent for ParaCruz, the Americans with Disabilities Act-mandated complementary paratransit service.
- Seniors – The representative is the chair of the Seniors Commission.

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<sup>3</sup> California Department of Finance

<sup>4</sup> Department of Finance

- Advocate for Persons with Disabilities – This member was a former representative from the Commission on Disabilities.

### **1.5 Coordination with Local Jurisdictions and Agencies**

Santa Cruz County is comprised of 5 jurisdictions; four cities and one county which governs the unincorporated area. The Pedestrian Safety Work Group surveyed the jurisdictions and met with each of five jurisdictions individually on two occasions and once as a group. The purpose of these contacts was to get a better understanding of the way each Public Works Department addresses the pedestrian network by asking the following:

- Does the jurisdiction regularly inventory the condition of their pedestrian network?
- Do they provide any information about the status of the pedestrian network?
- Is there an administrative process to ensure prompt resolution of complaints?
- Does the jurisdiction promote a community value of property owners maintaining sidewalks?
- Does the jurisdiction inform residents about their program for ensuring maintenance?
- Is there a highly visible process for reporting sidewalk issues?
- Are there information and support resources for property owners seeking to address unsafe sidewalk conditions?

In addition, the Work Group contacted other agencies such as the Transit District and the University of California, Santa Cruz to get a better understanding of their practices.

The results of the discussions formed an understanding of “baseline conditions” of the local pedestrian infrastructure. Future assessments would provide an indication of whether the pedestrian network is improving and possibly whether the actions of the Work Group are having an effect.

The report – titled Improving the Safety and Accessibility of Sidewalks in Santa Cruz County: A Study of Jurisdiction and Property Owner Responsibilities and Practices – includes the results of the local jurisdiction assessment. This is attached in **Appendix B**.

One of the main issues that the Pedestrian Safety Work Group discovered through this process was that there was no single set of common sidewalk maintenance standards used by all jurisdictions to define a sidewalk hazard. The Work Group identified what each jurisdiction was using to determine an unacceptable uplift, crack, surface, and clearance space.

The Work Group also consulted the Access Board Draft Guidelines (ADAGG) and the Access Board's draft Public Rights of Way Accessibility Guidelines (PROWAG). There are minor differences between all of them making it difficult to communicate a single set of common maintenance standards to the public. The Work Group met with the jurisdictions and successfully negotiated a common set of agreed upon standards by all jurisdictions. This is attached in **Appendix C**.

## **2 Needs Assessment**

### **2.1 Priority Origins and Destinations for Seniors and People with Disabilities**

Early on the Pedestrian Safety Work Group realized the need to identify where concentrations of seniors and people with disabilities are coming from and going to. The Work Group reviewed the scheduling data from both the Americans with Disabilities Act mandated ParaCruz and the safety net transportation program Lift Line, the two largest specialized transportation service providers in the county. This data – along with expertise from the members of the Work Group, representing transit users, developmentally disabled adults, Para Cruz and visually impaired individuals – formed the basis of the list of priority origins and destinations.

The Work Group provided input about the pedestrian facilities near the stops and connecting to the nearest transit stops. Where needed, RTC staff performed an assessment of the sidewalk and pedestrian facilities.

A summary of this assessment is included in [Appendix D.](#)

### **2.2 Access to Transit**

As noted previously, an analysis was included of the “path to transit” between the priority origins and destinations and the nearest transit stops in each direction. Barriers to fixed route transit result in higher use of paratransit which is more costly, less frequent and more restrictive for the user. Safe paths to transit via sidewalks and other pedestrian facilities will result in higher usage of fixed route transit and greater independence for the user as well as lower costs for the transit district which are required to provide complementary, yet costly, paratransit for those unable to use the fixed route bus system. Because improvements to the pedestrian network result in universal access improvements that benefit all members of the community, these low cost improvements are a win-win for communities.

### **2.3 Condition of Facilities**

The Work Group identified a number of different problems associated with pedestrian facilities ranging from structural deficiencies in the existing network, to a lack of walkways or crossing devices, to human hazards such as cars blocking the sidewalk. A list was developed of all the potential types of problems. This list was incorporated into the Hazard Report (see next section).





Figure 1: Sunshine Villa 7



Figure 2: SC Dental 3



Figure 3: Pharmacy 4



Figure 4: Pharmacy 2



Figure 5: Pharmacy 3



Figure 6: Oak 2



Figure 7: Louden Nelson 3



Figure 8: Gault



Figure 9: Gault 9



Figure 10: Driftwood 3



Figure 11: Sidewalk Deficiencies  
Ends



Figure 12: Mission St Near Jr  
High

## **2.4 Reporting Hazardous Pedestrian Corridors**

The primary method for community reporting of problematic sidewalk and pedestrian issues is through the RTC's Pedestrian Access Report. Community members use the forms to report conditions needing repair and the RTC acts as a clearing house to get the reports to the right jurisdiction or entity. Fortuitously, the RTC was in the process of updating their website while the Pedestrian Safety Work Group was in the thick of their inventory and analysis process. As such, the Pedestrian Safety Work Group was able to work with bicycle advocates to consolidate the Bicycle Hazard report with the Pedestrian Access Report into one Hazard Report on the website. Through this process the Work Group offered extensive suggestions for revisions to the Hazard Report form. It went from a print and fax back format to an interactive format including an area to load photos and pinpoint issues on a Google map.

RTC staff now tracks the hazard reports and has found that in the first month the easy-to-use interactive format generated over 5 times the number of hazard reports. Although report levels are expected to level off as outreach efforts decline, this dramatic burst of activity indicates that the new, straightforward online form is attractive and useful.

A copy of the Hazard Report form is included in Appendix E.

## **2.5 Coordination with Other Local Efforts**

The Pedestrian Safety Work Group conferred with a number of groups working on similar efforts, yet with different emphases.

### **2.5.1 Community Traffic Safety Coalition (CTSC)**

According to the CTSC website "The Community Traffic Safety Coalition's mission is to reduce traffic-related injuries, while promoting the use of alternative modes of transportation. The primary focus is on bicycle and pedestrian safety issues. The Coalition educates all road users in safety practices to decrease the risk and severity of collisions, and advocates for improved conditions to make all methods of transportation safer. Members include community organizations, government agencies, businesses and individuals representing law enforcement, transportation, public works, DMV, education, health and injury prevention, parents, bicycling advocacy, retailers, and manufacturers."

The Pedestrian Safety Work Group has met with the CTSC to share collision data, to collaborate on outreach, to improve the Pedestrian Hazard Report and to discuss partnering on the development of countywide pedestrian facility maps.

### **2.5.2 South County Bicycle and Pedestrian Work Group (SCBPWG)**

The Pedestrian Safety Work Group has worked together with the SCBPWG on pedestrian safety in the south region of the county. This part of the county has higher rates of pedestrian accidents and fatalities, combined with lower incomes and higher obesity rates than other parts of the county.

Notably, the Work Group was a partner in hosting a Pedestrian Safety Workshop in collaboration with California Walks and other community groups. This workshop was well attended (given extreme weather conditions), and was conducted in Spanish with English translation services. The Work Group ensured that attendees received sensitivity training about the challenges faced by seniors and people living with disabilities on the pedestrian network through the use of manual wheelchairs, crutches, walkers and other mobility devices.

### **2.5.3 Jovenes Sanos**

The Pedestrian Safety Work Group joined forces with Jovenes Sanos, a youth group focused on better nutrition, more exercise and better health. One of the emphasis areas for Jovenes Sanos is improving the pedestrian network, particularly in the City of Watsonville. As noted previously, this area of the county has higher pedestrian accident and fatality rates. Together the Pedestrian Safety Work Group, Jovenes Sanos and the South County Bicycle and Pedestrian Safety Work Group have been an impressive show of force for prioritizing pedestrian improvements in the region.



### 3 Best Practices

The design of the pedestrian environment is important to all users, but is especially important to those users with disabilities who have limited travel choices and rely most on the pedestrian network. The goal should be to make the pedestrian network accessible to the largest possible number of pedestrian users while upholding federal ADA requirements and local design standards. The following recommendations stem from sources such as the Metropolitan Transportation Commission (MTC) [\*Safety Toolbox\*](#)<sup>5</sup> and the Federal Highway Administration [\*Guide for Accessible Sidewalks and Street Crossings\*](#)<sup>6</sup>, and have been modified to address local pedestrian network conditions and needs. **Table 1** summarizes the list of best pedestrian practices.

#### 3.1 Sidewalks

##### 3.1.1 Grade and Slope

Sidewalk grade ideally should not exceed 5 percent, although a maximum of 8.3 percent is allowable. The maximum cross slope permitted by the ADA is 2 percent and efforts should be made to stay within these standards. Deviations from these standards affect wheelchair users in their ability to retain control of their device and/or lose balance.

##### 3.1.2 Surface

Sidewalk surfaces should be stable, firm, and slip-resistant. A broom finish used on concrete can provide a more slip-resistant surface when wet. Decorative textured surfaces, such as brick and cobblestone, have a tendency to change in level over time, making it a tripping hazard especially for pedestrians with vision and mobility impairments. Rough surfaces are very difficult to navigate for persons using non-motorized mobility devices or white canes or, which must glide across them. Smooth walkways with brick trim and colored concrete are an alternative solution, as long as they include detectable warnings.

##### 3.1.3 Protruding Objects

Avoid placing objects such as utility fixtures, poles, or objects mounted to the sides of buildings in the pedestrian corridor, as they disrupt the travel path for pedestrians with vision and mobility impairments. Vertically protruding objects,

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<sup>5</sup> Metropolitan Transportation Commission Safety Toolbox, <http://www.mtc.ca.gov/planning/bicyclespedestrians/safety/physical-alphabetical.htm>

<sup>6</sup> Federal Highway Administration, Accessible Sidewalks and Street Crossings, [http://www.dot.state.fl.us/projectmanagementoffice/ADA/AccessibleSidewalks-Guide\\_012610.pdf](http://www.dot.state.fl.us/projectmanagementoffice/ADA/AccessibleSidewalks-Guide_012610.pdf)

such as low hanging tree branches, create obstacles for visually impaired pedestrians and should be avoided at all costs.

#### **3.1.4 Driveway Crossings**

When driveways cross sidewalks, it is necessary to maintain a sidewalk level across the driveway of no more than 2 percent side slope. It is important to minimize large signs and bushes at driveways to improve the visibility between motorists and pedestrians. The sidewalk material should be maintained across the driveway as well.

#### **3.1.5 Curb Ramps**

Curb ramps are necessary for access between the sidewalk and the street for people who use wheelchairs. Diagonal curb ramps, however, are not recommended because pedestrians with vision impairments can unintentionally travel into the intersection because it is not aligned with the crossing direction. Wheelchair users are also automatically directed into the intersection. All curb ramps must have detectable warnings at the bottom of each ramp to warn pedestrians of the transition from sidewalks to street.

#### **3.1.6 Detectable Warnings**

Raised truncated domes are used to inform visually impaired pedestrians of the hazards in the area immediately ahead. Alignment of domes should be parallel to the primary direction of travel so wheelchair users can navigate easily across the textured surface. The surface of the truncated domes should have a visual contrast with the adjacent sidewalk.

### **3.2 Crosswalks**

#### **3.2.1 Raised Crosswalks**

Raised crosswalks improve the safety of pedestrians using the crosswalk by slowing down surrounding vehicle traffic. Truncated domes are necessary at the sidewalk/street boundary so that visually impaired pedestrians can identify the edge of the street.

#### **3.2.2 In-Pavement Lights**

In-pavement lights are useful at crosswalks to alert motorists to the presence of a pedestrian crossing or preparing to cross the street. The amber lights are fixed in the pavement on both sides of the crosswalk and positioned to face oncoming traffic. When the pedestrian activates the system, either by using a push-button or through detection from an automated device, the lights begin to flash at a constant rate, warning the motorist that a pedestrian is in the vicinity of the crosswalk ahead.

### **3.2.3 Pedestrian Push Button (PPB)**

Accessible push-button systems include vibratory and/or audible signals and range in complexity. The simplest system includes a tactile (raised) button. More complex systems include one or more of the following: an arrow to indicate the direction of the crossing associated with the button, other tactile messages about the street crossing, locator tones to aid pedestrians in finding the push button, and audible signals to indicate when the signal has changed.

### **3.2.4 Double-sided Pedestrian Crossing Signs**

Double-sided pedestrian crossing signs are recommended at uncontrolled crosswalks – they are a low cost approach to improve pedestrian safety. Standard pedestrian crossing signs are installed on both sides of the approaching roadway at the crosswalk. This intersection signing is in addition to the nearside pedestrian warning signs posted at and in advance of the crosswalk.

## **3.3 Signalized Crossings**

### **3.3.1 Accessible Pedestrian Signal (APS)**

Accessible pedestrian signals (APSPs) supplement pedestrian signal indications with audible and/or vibrotactile information. Available treatments include directly audible or transmitted tones, speech messages, talking signs, and vibrating surfaces. They are intended to make real-time pedestrian signal information accessible to pedestrians who are hearing or visually-impaired. Directly audible or transmitted speech messages can identify the location of the intersection and the specific crosswalk controlled by that push button. A vibrating arrow at the push button can also be used to supplement the audible signals. These are especially useful in areas with high vehicle and pedestrian traffic.

### **3.3.2 Countdown Signal**

The device consists of a standard pedestrian signal with standard shapes and color, with an added display that shows the countdown of the remaining crossing time. The countdown timer starts either at the beginning of the pedestrian phase or at the onset of the flashing “don’t walk” message. Additional time should be given for pedestrians with vision and mobility impairments, as it takes longer for them to cross the street.

### **3.3.3 Mid-Block Crossings**

Mid-block crossings are generally discouraged since non-intersection pedestrian crossings are generally unexpected by motorists and unprotected by a signal. They should be used in conjunction with in-pavement lighting.









## **3.4 Islands**

### **3.4.1 Islands**






Pedestrian refuge islands are particularly suitable for wide two-way streets with four or more lanes of moving traffic traveling at higher speeds. They are particularly useful to persons with mobility disabilities, very old or very young pedestrians who walk at slower speeds, and persons who are in wheelchairs. Wheelchair users need adequate width and level areas for waiting on the refuge.



**Table 1: Best Pedestrian Practices Summary**

Best Practice	Accessibility Standards (ADA, ADAAG, PROAG)	Recommended Best Practice	Pedestrian User Type	Estimated Cost <sup>7</sup>
Sidewalk Width, Grade & Slope	Maximum grade of 8.3%, cross-slope not to exceed 2%	Sidewalks at least 60" wide to allow pedestrians to travel comfortably side-to-side; Grade not to exceed 5%;	 	<b>Varies</b>
Sidewalk Surface	Firm, stable, and slip-resistant	Broom finish used on concrete provides the most slip-resistance surface when wet; textured materials are appropriate as borders and edges of walkways and street crossings	<b>ALL</b>	<b>Varies</b>
Protruding Objects	Post-mounted items are permitted to overhang a support by 12 inches (305 mm)	Limit wall-mounted elements at or above 27 inches (685 mm) to a 4-inch (100-mm) projection into any travel route; facilitate travel by pedestrians who have vision impairments by grouping sidewalk fixtures together		<b>Varies</b>
Driveway Crossings	Maximum cross-slope of sidewalk that crosses a driveway is 2% and must be at least 3.5' wide across driveway	Minimize large signs and bushes at driveways to improve visibility between motorists and pedestrians		<b>Varies</b>
Curb Ramps	Ramps must have slope less than 1:12, must be at least 36 inches wide and must contain detectable warning device with raised dome surface and contrasting color	Diagonal curb ramps are discouraged; dual curb ramps provide greater benefit to disabled pedestrians	 	<b>\$800 - \$1,500</b> (per curb ramp)
Detectable Warnings	Raised truncated domes with diameter of 23 mm, height of 5 mm and center to center spacing of 59 mm and contrast visually with adjoining surfaces	Aligned parallel to primary direction of travel;	 	<b>\$200 - \$2,000</b> (per ramp or curb; cost depends on materials used and width)

<sup>7</sup> Estimated costs derived from MTC Safety Toolkit

Best Practice	Accessibility Standards (ADA, ADAAG, PROAG)	Recommended Best Practice	Pedestrian User Type	Estimated Cost <sup>7</sup>
Raised Crosswalks	Raised 150 mm above roadway pavement to elevation that matches adjacent sidewalk	Traffic calming measure; slows down vehicular traffic; tactile treatments needed at sidewalk/street boundary	ALL	<b>\$2,000 - \$20,000</b> (per crosswalk; cost depends on street width, drainage improvements, and materials used)
In-Pavement Lights	N/A	Traffic calming measure; provides additional security at non-signalized crossings	ALL	<b>\$20,000 - \$50,000</b> (per location)
Pedestrian Push Button (PPB)	Minimum 2" dimension with height of 42"	Provide raised arrow to indicate the direction of the crossing associated with the button; require no more than 5 pounds of force to activate; located within close proximity of curb ramp and crosswalk	  	<b>\$400 - \$1,000</b> (per push button)
Double-Sided Pedestrian Crossing Signs	Same requirements as standard pedestrian crossing signage	Install at uncontrolled crosswalks to provide extra safety measures from motorists	ALL	<b>\$400</b> (per approach)
Accessible Pedestrian Signals (APS)	Used in combination with pedestrian signal timing	Tones that alternate from one side of the crossing to the other enable blind pedestrians to cross more directly and quickly. They are also less likely to mask traffic sounds.		<b>\$400 - \$600</b> (per signal indication)
Countdown Signals	A maximum walking speed of 3.5 feet per second for pedestrian clearance time shall be used at all signalized intersections	Longer signal countdown, especially in areas with high concentrations of elderly/disabled persons		<b>\$300 - \$800</b> (per timer)
Mid-Block Crossings	N/A	Generally discouraged unless used in conjunction with APS or in-pavement lighting	ALL	<b>\$50,000 - \$75,000</b>
Islands	Raised traffic islands cut through level with street or ramps at each curb with 48" long level landing between them	Provide adequate width for wheelchair users and detectable warnings underfoot for pedestrians with vision impairments	ALL	<b>\$6,000 - \$40,000</b> (depending on design and dimensions)

Key:

 - Limited Sight  - Limited Mobility  - Limited Hearing **ALL** – All types of pedestrians

## **4 Funding Strategies**

One of the most difficult issues, in this current economy, is figuring out how to pay for both the maintenance of the existing pedestrian network, and for improvements and expansion of the system to encourage more walkable communities. The Work Group, cognizant of funding limitations, set out to seek creative, attractive solutions.

### **4.1 Private Property Owners**

According to the California Streets and Highway Codes Section 5610, owners of property adjacent to an existing sidewalk are responsible for the maintenance of that sidewalk.

*Owners of lots or portions of lots fronting on any portion of a public street shall maintain the sidewalk in such a condition that it will not endanger persons or property, and will not interfere with the public use of the sidewalk.*

Because such a high percentage of the sidewalk network is adjacent to private property, this is a cost efficient way to share repair costs by a wider segment of the population. It appears that many property owners in local jurisdictions are unaware of their responsibility for maintaining sidewalks adjacent to their properties or of their liability in the event of injury resulting from unsafe conditions.

### **4.2 Grant Funds**

#### **4.2.1 Federal**

One of the main sources of funding available under this category is the New Freedom, Jobs Access Reverse Commute grants. The Work Group applied for and received a federal New Freedom grant to improve one of the high priority pedestrian facility deficiencies. Jurisdictions must be in a position to authorize this work as well as designate matching funds. Federal TEA-21 funding is currently under discussion and may be changed in the next year. Transportation Enhancement Act (TEA) funding has historically been used for pedestrian projects, but may be deleted with revisions to the federal transportation bill.

#### **4.2.2 State**

Caltrans has a number of planning grants which could be available for pedestrian improvements. In addition to the Environmental Justice grant, there are also Livable Communities, Complete Streets and other land use grants available to improve the sidewalk network.

#### **4.2.3 Local**

One-quarter of every cent of sales tax collected through the Transportation Development Act is channeled back to the regional transportation planning agencies. The Santa Cruz County Regional Transportation Commission provides a portion to local jurisdictions for bicycle and pedestrian projects. The Elderly & Disabled Transportation Advisory Committee reviews claims for these funds to ensure consistency with the region's pedestrian needs.

## 5 Outreach

The Pedestrian Safety Work Group conducted an extensive outreach program. Each of the five Work Group members participated in presentations, meetings with other groups, the radio and television public service announcements, guest editorial articles, and television interviews.

The outreach campaign focused on four messages:

- I. Community Value of Good Pedestrian Network and Walkable Communities
  - a. Everyone is a pedestrian
  - b. Community value of safe and accessible sidewalks
  - c. Everyone benefits from good sidewalks: seniors, people with disabilities, families, children, pets, etc.
  - d. Walkability a key component of a healthy community
  - e. Walking is a low-cost, environmentally-friendly way to get around
  - f. Good sidewalks increase attractiveness and property value of your home
  - g. Good neighborhoods, including sidewalks, are our collective responsibility
  - h. Experiencing your community via the sidewalk network is enriching
  - i. Local weather conditions create an ideal walking environment
- II. Attributes of Good Sidewalks
  - a. No matter where you are, you have a right to expect the sidewalk to be in good condition
  - b. Goal is to minimize “tip and trip” hazards on sidewalks
  - c. Common sidewalk design and maintenance standards exist throughout the county
  - d. Elements of good sidewalks include:
    - i. Smooth surfaces: no gaps or uplifts of ½ inch or more
    - ii. Clear path/walkways (4’ wide x height clearance of 7’)
      1. Control overgrown trees, shrubs and roots
      2. Remove barriers from pathways (cars, recreation vehicles, realtor signs, trash cans, etc)
    - iii. Minimal slopes that prevent tipping hazards
    - iv. Non-slip surfaces
    - v. Controlled Tree Roots
      1. Plant trees using root barriers
      2. Most Local jurisdictions have sidewalk friendly tree recommendations
- III. Maintenance Responsibilities

- a. Per California Streets and Highway codes, property owners are responsible for sidewalk maintenance, and could be liable if not properly maintained
- b. Maintenance standards exist for safe and accessible sidewalks
- c. Fix sidewalks to avoid unnecessary legal hassles and costs
- d. Sometimes help is available for: grinding, tree selection, shared contractors and zero interest loans. Consult with your local jurisdiction or insurance agent.

#### IV. Report Sidewalk Conditions

- a. Report sidewalk problems, ideas, and suggestions directly to your local jurisdiction or to the RTC
- b. Report sidewalks that need maintenance, lack of sidewalks, access barriers/hazards, and street crossing issues (cross walks, signals, curb ramps, etc.)
- c. Refer to standards (2<sup>nd</sup> message) for tip and trip hazards (uplifts, gaps, surface, clearance)
- d. Contact your local jurisdiction Public Works Department if you're unsure about problems with sidewalks adjacent to your property
- e. Use the Pedestrian Access Report or new Hazard Report on RTC website
- f. Renters are encouraged to contact their landlord or use hazard reports about issues with sidewalks in front of their residence
- g. Get involved in pedestrian advocacy groups (Mission Pedestrian, E&D TAC, CTSC to help identify unmet needs and work toward solutions
- h. Highlight good examples countywide of businesses/property owners as an expression of community values

A list of outreach conducted by the Work Group is included in **Appendix F**.

## 6 Results

Through this grant, the Pedestrian Safety Work Group was able to produce the following results:

- Established a baseline understanding of pedestrian practices in, and good working relationships with, all 5 jurisdictions in the area
- Established an agreed-upon set of common sidewalk maintenance standards for all 5 jurisdictions
- Spurred improvements in pedestrian programs for local jurisdictions (for example, the City of Santa Cruz now tracks complaints and follow up such as permits)
- Improved the Pedestrian (and Bicycle) Hazard Report Form
- Increased awareness among city council and board of supervisor members about the needs of older pedestrians and pedestrians with disabilities
- Increased public awareness of the state law outlining property owner sidewalk maintenance responsibilities
- Produced a report on Safety and Accessibility of Sidewalks which garnered state-wide interest at first ever Pedestrians Count! workshop sponsored by California Walks
- Documented and analyzed pedestrian facilities surrounding priority origins and destinations including access to transit
- Created maps of pedestrian accident data including origin locations for senior and people with disabilities and priority destinations
- Created coalitions with other groups working to improve the pedestrian network on behalf of all in the community

Table 2 summarizes the scope of work and status of deliverables.

Table 2: Grant Deliverables & Results

Task	Deliverable	Documentation	Status
<b>1 Project Startup</b>	Signed contract between RTC and Caltrans Conduct kick-off meeting	Copy of signed contract Meeting notes	
<b>2 Ongoing Community &amp; Stakeholder Meetings</b>	Conduct meetings Provide updates to related groups Consult with TAC Develop evaluation criteria	Meeting notes and/or summary of outcomes Meeting notes Meeting notes Project prioritization procedure	
<b>3 Develop Plan Components</b>	Research origins and destinations (O&D) and nearest bus stops Research prime pedestrian corridors Assess condition of pedestrian facilities Research best pedestrian practices Develop funding strategy Present draft plans at meetings	List of priority O&D with bus stops  Included in O&D areas List of needed pedestrian improvements Pedestrian tool kit Copy of draft funding strategy Meeting notes and recommendations	
<b>4 Final Plan Preparation &amp; Hearings</b>	Preparation of final plan for hearing Presentation of plans to the RTC	Copy of final plan Meeting minutes	
<b>5 Administration</b>	Monitoring of project and contract management Act as fiscal manager Report milestones to Caltrans	Provide complete quarterly reports to district project manager Copies of invoices Regular reports, as required	



## 7 Next Steps

The Pedestrian Safety Work Group identified a number of endeavors they would like to pursue.

- *Create and Distribute Pedestrian/Driver Responsibility Brochure* – Outline the expectations that pedestrians have of drivers and vice versa, include information about the needs and behaviors of seniors and people with disabilities.
- *Time of Sale Pedestrian Improvement Ordinance* – Work with local jurisdictions and the Realtor Association to craft an ordinance to be developed by all jurisdictions requiring that improvements are made to the sidewalk adjacent to a property at the time of sale. Studies show that 10% of homes are sold each year, potentially equating to sidewalk improvements for all properties every 10 years.
- *Conduct Follow-Up Assessments of Pedestrian Facilities in Local Jurisdictions* – Use the initial assessment included in this grant as a baseline, and conduct regular follow up assessments to evaluate progress of improving the pedestrian network as a whole.
- *Expand Web Resources* – Based on questions, comments and repeated misinformation expand pedestrian information pages on the RTC website such as the Frequently Asked Questions (FAQs). Refer inquiries to the web resources when possible.
- *Continue Outreach Campaign* – Build on the momentum of the existing campaign to help the community foster an understanding of the value of a good sidewalk network, the specific components of a good sidewalk, who is responsible for sidewalk maintenance and how to report unsafe sidewalk conditions. Publicize the affect of improvements to resident's quality of life (Street Smarts, Praiseworthy columns in local paper). Studies show that people need to hear a message three times before they take action and continued messaging will help awaken community members to the need to improve their own facilities.
- *Continue Hazard Report Outreach* – Regularly publicize and follow up on pedestrian hazards reported via the RTC's interactive online Hazard Report. Identify regularly occurring problems which may relate to the defined origins and destinations as a higher priority focus for improvements.
- *Conduct a Focused Awareness Campaign About Maintenance Responsibilities* - Concentrate on properties surrounding and adjacent to priority origins and destinations.

- *Continue to Pursue Funding Opportunities* – Work with local jurisdictions, transit districts and other groups to secure grant and other funds to make identified improvements.
- *Continue to Partner with Other Groups* – Without duplicating efforts, continue to join forces with other advocacy groups to create a larger voice in the pursuit of pedestrian improvements.
- *Continue to Work with the Elderly & Disabled Transportation Advisory Committee* – Harness the advisory group to help local jurisdictions address special pedestrian issues.

While RTC staff can assist with some of these activities under the scope of the agency's work plan, project commitments and funding constraints will limit staff time. Staff is planning on applying for another Caltrans or New Freedom grant to continue the excellent successes of the Pedestrian Safety Work Group.