





A RESIDENT'S GUIDE FOR CREATING SAFE AND WALKABLE COMMUNITIES



Federal Highway Administration

NOTICE

This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in this document. This report does not constitute a standard, specification, or regulation.

The U.S. Government does not endorse products or manufacturers. Trademarks or manufacturers' names appear in this report only because they are considered essential to the objective of this document.

1. Report No. FHWA-SA-07-016	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle A Resident's Guide for Creating Safe a	5. Report Date February 2008	
	6. Performing Organization Code	
7. Author(s) Laura Sandt, Robert Schneider, Dan Na and RJ Eldridge.	8. Performing Organization Report No.	
9. Performing Organization Name and Address Vanasse Hangen Brustlin, Inc.	10. Work Unit No. (TRAIS)	
8300 Boone Blvd., Suite 700 Vienna, VA 22182		11. Contract or Grant No. DTFH61-05-00024
12. Sponsoring Agency Name and Address Federal Highway Administration Office of Safety		13. Type of Report and Period Covered Final Guide; 2006 to 2008
1200 New Jersey Ave., SE Washington, D.C. 20590		14. Sponsoring Agency Code

15. Supplementary Notes

The contract manager for this report was Tamara Redmon (FHWA Office of Safety). Toole Design Group, University of North Carolina's Highway Safety Research Center (UNC-HSRC), and PerformTech were subcontractors. Robert Schneider (Toole Design Group) was the Principal Investigator. John Fegan (FHWA), Gabe Rousseau (FHWA), Paula Bawer (NHTSA), and other FHWA and NHTSA staff reviewed the guide and provided valuable feedback. Michael Daul (UNC-HSRC) performed the document design and layout.

The project team gratefully acknowledges the input provided by the technical working group over the course of this project. These individuals include:

- · Tony Asion, El Pueblo Public Safety Program, Raleigh, North Carolina
- · Matthew Amster-Burton, Seattle Pedestrian Advisory Board, Seattle, Washington
- · Erin Breen, Las Vegas Safety Action, La Vegas, Nevada
- · Lois Chaplin, Cornell University, Ithaca, New York
- · Peter Flucke, WE BIKE, etc., Green Bay, Wisconsin
- · Nancy-Anne Potts, Fairfield Neighborhood Association, Durham, North Carolina
- · Dr. Sheila Sarkar, University of California at San Diego, La Jolla, California
- · Linda Woodbury, City of San Diego Disability Services, San Diego, California

Images were provided by Toole Design, UNC-HSRC, Michael Ronkin, Dan Burden, American Public Works Association, The Manual On Uniform Traffic Control Devices (MUTCD), Berkeley-Charleston-Dorchester Council of Governments, Kevin Kluzak, Portland Transport, Active Living By Design, Jeff Parenti, and Dan Nabors.

16. Abstract

This guide is intended to assist residents, parents, community association members, and others in getting involved in making communities safer for pedestrians. The guide includes facts, ideas, and resources to help residents learn about traffic problems that affect pedestrians and find ways to help address these problems and promote pedestrian safety. The guide includes information on identifying problems, taking action to address pedestrian concerns, finding solutions to improve pedestrian safety, and resources to get additional information.

17. Key Words:		18. Distribution Statement		
Pedestrian, safety, education, enforcement, engineering, community action, local partnerships, walkable		No restrictions. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161.		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of t Unclassified	his page)	21. No. of Pages 76	22. Price

ABOUT THIS GUIDE

People need walkable communities where sidewalks, trails, and street crossings are safe, accessible, and comfortable for people of all ability levels. Pedestrian-friendly communities have many benefits, including:

- Safer environments for walking and bicycling, which means you are less likely to be in a traffic collision or get injured.
- **Better access to more places,** providing more choices in how you can get to your destinations so you don't have to rely on having a car.
- More opportunities to be physically active, which can improve your health and overall quality of life.
- **Opportunities for everyone**, which includes a walking environment that accommodates people with disabilities.

It takes the commitment and involvement of many people to build and maintain places that are safe and friendly for walking. This guide is designed to be used by anyone looking for ways to improve the walkability of their neighborhood, whether they are just beginning to learn about pedestrian safety or are already part of an established community safety group. Residents can make a difference by raising awareness of pedestrian safety issues and pushing for change.

This guide provides examples from other communities working to improve pedestrian safety. It includes information, ideas, and resources to help residents learn about issues that affect walking conditions; find ways to address or prevent these problems; and promote pedestrian safety. The **Resource Sheets** at the end of the guide contain fact sheets, worksheets, and sample materials—these materials can be adapted to meet the needs of your community, or distributed to others working to improve pedestrian safety. The guide provides a thorough introduction to pedestrian safety and includes many references to other resources and materials for those interested in more in-depth information.

Keep in mind that pedestrian safety improvements often happen in stages. Even minor changes take time and may require effort from various individuals or agencies. This guide is a starting point and will help you be more efficient and effective, but patience and follow-through are crucial to your success.

DEFINITION:

A walkable community is one where it is easy and safe to walk to goods and services (i.e., grocery stores, post offices, health clinics, etc.). Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting streets that serve people with different ranges of mobility.



Walkable communities are safe and accessible for everyone.

Resource Sheet 1: Pedestrian Safety Improvement Activities provides a checklist of activities to guide you through your role as an active participant in efforts to improve pedestrian safety in your community. The guide is organized into five key sections to lead you through your efforts to improve pedestrian safety in your community. Depending on the needs of your community, you can start with any of the sections below.

HOW CAN I IDENTIFY PROBLEMS WITH WALKING CONDITIONS IN MY NEIGHBORHOOD?

This section will help you figure out where there are walkability issues in your community.

WHO CAN HELP ME MAKE MY NEIGHBORHOOD A SAFER PLACE TO WALK?

This section discusses the different groups and individuals that can help you improve walkability in your neighborhood.

HOW CAN THE SAFETY OF MY NEIGHBORHOOD BE IMPROVED?

This section describes different fixes for improving walking in your community.

I NEED MORE INFORMATION!

This section includes a glossary of commonly used terms, frequently asked questions, and references for other sources of information.

RESOURCE MATERIALS

This section includes detailed fact sheets, ways to take action, and sample materials that can be used to generate ideas and improve the walkability of your community.

TABLE OF CONTENTS

CHAPTER 1: How can I identify problems with walking conditions in my neighborhood?	1
Types of Pedestrian Problems	1
Poor walking accommodations	2
Unsafe driver behaviors or traffic characteristics	2
Unsafe pedestrian behaviors	3
Poor conditions at schools	3
Poor conditions at bus stops	3
Ways to Assess Pedestrian Problems	4
Use a walkability checklist	4
Talk with other community members	4
Find out what is already being done	4
Examine pedestrian collision and injury data	5
Use bus stop checklists	5
Linking Problems to Solutions	5
CHAPTER 2: Who can help me make my neighborhood a safer place to walk?	7
Step 1: Determine the Scale of the Issue	7
Step 2: Build Awareness and Community Support	7
Community Success Story 1: Community Involvement	
Community Success Story 2: Networking and Building Partnerships	9
Step 3: Identify the Department or Agency Responsible for Making Improvements	10
Step 4: Contact Agency Representatives and Present Your Case	11
Step 5: Build Support for Long-Term Change	11
Build support with local government staff	11
Community Success Story 3: Agencies and Community Create Action Plan	12
Community Success Story 4: Community Action and Fundraising	13
Build support with local residents and community groups	14
Build support with elected officials	15
Community Success Story 5: Comprehensive Pedestrian Safety Campaign	16
CHAPTER 3: How can the safety of my neighborhood be improved?	17
Engineering	18
Typical engineering improvements	
Maintenance of pedestrian accommodations	
Community Success Story 6: Solutions for Pedestrian Safety	
Improving access to transit stops (including school bus stops)	21

Community Success Story 7: Walking School Bus Program	21
Education	22
Enforcement	24
Pedestrian safety laws	24
Community Success Story 8: Pedestrian Safety Education	24
Strategies for local law enforcement	25
Strategies for community members	26
Community Success Story 9: Oakland Pedestrian Safety Project	27
Encouragement	27
Community Success Story 10: Get Active Orlando Encouragement Program	28
CHAPTER 4: I need more information!	29
Definition of Key Terms	29
Frequently Asked Questions	
Links and References	34
Links and References	34
RESOURCE MATERIALS	39
	39
RESOURCE MATERIALS	39
RESOURCE MATERIALS Resource Sheet 1: Pedestrian Safety Improvement Activities	39 41 .43
RESOURCE MATERIALS Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking	39 41 43 45
RESOURCE MATERIALS Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit	39 41 43 45 47
Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials	39 41 43 45 47 49
RESOURCE MATERIALS Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials Resource Sheet 5: Anticipating Concerns	39 41 43 45 47 49 51
Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials Resource Sheet 5: Anticipating Concerns Resource Sheet 6: Ten Things Your Pedestrian Group Can Do	39 41 43 45 47 49 51 53
Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials Resource Sheet 5: Anticipating Concerns Resource Sheet 6: Ten Things Your Pedestrian Group Can Do Resource Sheet 7: Engineering Solutions to Improve Pedestrian Safety	39 41 43 45 47 49 51 53 63
Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials Resource Sheet 5: Anticipating Concerns Resource Sheet 6: Ten Things Your Pedestrian Group Can Do Resource Sheet 7: Engineering Solutions to Improve Pedestrian Safety Resource Sheet 8: Safety Tips for Pedestrians and Drivers	39 41 43 45 47 49 51 53 63 65
Resource Sheet 1: Pedestrian Safety Improvement Activities Resource Sheet 2: Ten Reasons to Support Walking Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit Resource Sheet 4: Local Sources of Information and Materials Resource Sheet 5: Anticipating Concerns Resource Sheet 6: Ten Things Your Pedestrian Group Can Do Resource Sheet 7: Engineering Solutions to Improve Pedestrian Safety Resource Sheet 8: Safety Tips for Pedestrians and Drivers Resource Sheet 9: Strategies for Pedestrian Safety Education and Public Awareness	39 41 43 45 47 49 51 53 63 65 67

CHAPTER 1: HOW CAN I IDENTIFY PROBLEMS WITH WALKING CONDITIONS IN MY NEIGHBORHOOD?

You may be afraid to cross a street to walk to a nearby store, nervous for your children to ride their bikes in your neighborhood, or face obstacles when traveling using a wheelchair or stroller. If you have concerns but are unsure what the problems are, the information in this section can help you identify and describe them.

To be able to walk safely in their community, pedestrians need:

- A safe space to walk—This includes 1) a smooth, unobstructed walking surface at least wide enough for two wheelchairs to pass each other, 2) a sidewalk or path that is separated from traffic, and 3) safe street crossings with appropriate crosswalks, signs, and signals. In places with slow speeds or very little traffic, a paved shoulder or the roadway itself may be safe enough for walking. Regardless of where the walkway is, it must be safe for all pedestrians, including children and those with disabilities.
- The ability to see or detect traffic—Pedestrians should also be able to be seen by oncoming vehicles, both day and night.
- Access to sidewalks and crossings—This may include having well-designed curb ramps to ease changes in elevation/grade.
- Enough time to cross streets Pedestrians should have time to cross at intersections and crossings with or without pedestrian signals. If there are no signals at the crossing, there must be adequate gaps in traffic to safely cross.
- Signs and markings designating the pedestrian route This includes crosswalk markings, pedestrian way-finding signs, and pedestrian detour signs in construction areas. These signs should be understandable to those with limited English language skills.
- **Continuous facilities**—The pedestrian network should be free from gaps, obstructions, and abrupt changes in direction or width.

TYPES OF PEDESTRIAN PROBLEMS

Understanding and properly identifying issues that can cause pedestrian safety problems is an important part of finding a solution. If the problem is not accurately identified, the wrong solution may be applied and the problem could continue. Some typical problems that affect pedestrian safety include:

SECTION TOPICS:

- Types of Pedestrian Problems
- Ways to Assess Pedestrian Problems
- Linking Problems to Solutions

Resource Sheet 2: Ten
Reasons to Support Walking
describes why it is important
to improve pedestrian safety
and encourage walking in
your community.



Some communities lack sidewalks, curb ramps, and other pedestrian facilities, making it difficult for people to travel safely and easily on foot.

DEFINITION:

Pedestrian desire lines are preferred walking paths, and are often the shortest or most convenient path between two points. They can typically be found by the presence of worn paths (or "goat trails") through grass, and may indicate the need for a sidewalk.



For More Information:

See the Frequently Asked Questions in Chapter 4 to learn how high motor vehicle speeds put pedestrians at risk.

Poor walking accommodations

- 1. **No place to walk**—There are not enough sidewalks, paths, or trails. Existing sidewalks and trails do not connect to schools, transit stations, parks, churches, etc. Dirt paths or **desire lines** show that more sidewalks or paths are needed.
- 2. **Narrow sidewalks** Sidewalks are not wide enough for people to walk comfortably or pass each other.
- 3. **Poor walking surfaces** Sidewalk surfaces are uneven, broken, or covered with debris.
- 4. **Blocked pathways** Sidewalks and paths are blocked by barriers such as vehicles, trash cans, vegetation, snow, utility poles, mail boxes, benches, etc.
- 5. **No buffer**—There is not enough space between the sidewalk and the roadway, or this space lacks trees or landscaping to make pedestrians feel comfortable.
- 6. Difficult street crossings There are long crossing distances and wide intersections that allow cars to turn at higher speeds. There are intersections with no pedestrian signals, curb ramps, or median crossing islands.
- 7. **Poor connectivity**—There are many dead-end streets, few available roadway crossings, and indirect pedestrian paths.
- 8. **Insufficient pedestrian lighting**—There are not enough streetlights to help pedestrians and drivers see each other at night.
- 9. **Poor guidance**—There are not enough signs to help pedestrians find important destinations or know where to walk or cross safely in construction areas.
- 10. **Conflicts with bicyclists**—Bicyclists riding on the sidewalk (possibly because they do not feel safe in the street) may cause conflicts with people walking.

Unsafe driver behaviors or traffic characteristics

- 1. **Drivers do not yield to pedestrians**—Drivers do not stop or yield to pedestrians crossing the roadway.
- 2. **Speed**—Drivers drive too fast through neighborhoods, around schools, or near other places where people are walking.
- 3. **Too much cut-though traffic**—Drivers take short cuts through neighborhoods to avoid traffic on major streets.

- 4. **Drivers run red lights**—Red light or stop sign runners endanger pedestrians and bicyclists.
- 5. **Illegal passing**—Drivers pass other vehicles stopped at crosswalks for pedestrians or pass stopped school buses.
- 6. **Drunk or distracted drivers**—Drivers are more distracted than ever by cell phones, passengers, and other activities.

Unsafe pedestrian behaviors

- 1. **Pedestrians cross the road without looking**—Pedestrians do not look in all directions before crossing the street.
- 2. **Pedestrians dart into the road**—Pedestrians attempt to cross the street when traffic is approaching.
- 3. **Pedestrians cross the road at unsafe locations**—Pedestrians try to cross between cars at traffic lights and between intersections with traffic signals.
- 4. **Pedestrians do not obey traffic signals** Pedestrians cross against pedestrian signals.
- Distracted pedestrians As with drivers, pedestrians can be distracted by cell phones, iPods, etc.

Poor conditions at schools

The issues listed above apply to schools as well; just be sure that you also consider the limitations of children walking near and at the school (e.g., height and ability to see cars, mental development, and skills in judging traffic and making decisions). Additionally, you may want to consider the school pick-up and drop-off zones—these are places with a lot of potential conflict between children walking and buses and cars.

Poor conditions at bus stops

Many bus stops are located in places that are difficult to reach by foot. Some pedestrian concerns that might be found at bus stops include:

- 1. **Street crossings near the stop are dangerous**—Crossings may be inconvenient or there are no obvious places to cross.
- 2. **The sidewalk is blocked**—The bus shelter, seating, or other barriers block the sidewalk.



Driver not looking for and yielding to pedestrians at a driveway.

For More Information:

See the Frequently Asked Questions in Chapter 4 to learn about the safety needs of pedestrians of different ages and abilities.

For More Information:

To learn more about pedestrian safety around schools, visit http://www.saferoutesinfo.org/guide/dropoff_pickup/index.cfm.



Download a walkability checklist at http://www.walkinginfo.org/library/details.cfm?id=12.

Resource Sheet 3:
Identifying Pedestrian
Safety Concerns Using a
Walkability Audit lists additional resources you can use to evaluate pedestrian conditions around communities, schools, and transit stops.

- 3. **Seating/waiting area is too close to vehicle lanes**—There is not enough room for pedestrians to safely wait.
- 4. **There are no sidewalks** No sidewalks or curb ramps lead to the bus stop.
- 5. **People walking near the stop take risks**—These may include crossing the street in front of the bus or running across the street to catch a bus.
- 6. **There is insufficient lighting**—The bus stop and nearby street crossings are too dark.

WAYS TO ASSESS PEDESTRIAN PROBLEMS

You might begin by taking photographs, videotaping, or simply writing down the problems you observe—this can be useful when trying to describe your concerns to decision makers, local government staff, community members, and other interested people. Below are some other ways that you can assess and document pedestrian safety problems in your community:

Use a walkability checklist

Tour your neighborhood and assess its safety for pedestrians. Community members often partner with specialists to develop more pedestrian friendly environments. Residents, public works and planning staff, advocates, and elected officials can collaborate to identify the problems and develop a plan to address them.

Talk with other community members

This may be one of the best ways to help identify safety problems in your community and at the same time build a network of involved citizens who are willing to help you address your concerns. You can speak with neighborhood residents and community groups, your local pedestrian advisory board (PAB), local public health and injury prevention leaders, emergency services professionals, and law enforcement officers.

Find out what is already being done

Your town/city/county may already have a pedestrian plan or other transportation plan to address problems in your neighborhood. If not, they need to hear from you! Talk to your local planning, transportation, or public works department or pedestrian advocacy group to see if there is a list of pedestrian projects or resident concerns.

Examine pedestrian collision and injury data

These data are sometimes available through your state or local department of transportation (DOT) and can be a way to determine if an area has a history of pedestrian safety problems. You can request that the local transportation agency review collision data.

Use bus stop checklists to assess pedestrian safety concerns related to bus stops

A checklist was developed by Easter Seals Project ACTION as part of the *Toolkit for the Assessment of Bus Stop Accessibility and Safety*. More information can be found at http://projectaction.easterseals.com/site/PageServer?pagename=ESPA_BusStopToolkit or by calling 800-659-6428 (voice) or 202-347-7385 (telecommunications device for the deaf).

For More Information:

PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System (http://www.walkinginfo.org/pedsafe) describes many aspects of pedestrian crashes and how to prevent them.

Fatality Analysis Reporting System (FARS) is a database of statistics on injuries and deaths from vehicle accidents (http://www-fars.nhtsa.dot.gov).

Refer to the *Pedestrian Safety Guide for Transit Agencies* (http://safety.fhwa.dot.gov/ped_bike/ped/ped_transguide/) for details about how to address concerns related to transit stops.

LINKING PROBLEMS TO SOLUTIONS

Once you've identified and documented the pedestrian problems in your community, you can start to discuss potential solutions and next steps to take to address your concerns. The next few sections will help you identify who to contact and will give you ideas for potential pedestrian safety improvements.

Remember that the best solutions usually use a combination of approaches—engineering, education, enforcement, and other ways—to be effective and long lasting.



Community members can use checklists to assess the safety of their walking environment.

CHAPTER 2: WHO CAN HELP ME MAKE MY NEIGHBORHOOD A SAFER PLACE TO WALK?

Once you have identified and assessed a problem, it is time to take action. This section provides a step-by-step plan of action for addressing pedestrian problems in your community. The steps should be followed from beginning to end, but you may have already completed some of these in identifying the pedestrian safety issues you want to address.

STEP 1: DETERMINE THE SCALE OF THE ISSUE

The scale of the problem you have identified can help you determine which groups or individuals need to be involved. If it is a relatively simple problem (e.g., a missing stop sign), then you may be able to resolve the issue by alerting your department of transportation (DOT), engineering department, or other local agency. Larger issues that require more complicated and/or expensive solutions may require more community and political support.

STEP 2: BUILD AWARENESS AND COMMUNITY SUPPORT

Depending on the types of problems you've identified and how they affect other residents, you will likely want to talk with others in your community before taking steps to contact local agencies or other authorities. Find people with common concerns and build support for your projects. This can help you:

- Exchange ideas with other concerned residents and identify additional pedestrian safety issues. Discuss ways the community can help improve conditions for pedestrians.
- Build the support, energy, and power needed to address the problems.
- Make other residents aware of pedestrian safety issues and how they can help make the community more walkable.
- Learn from others who have undertaken similar projects and gain knowledge from past experience. Some of the skill sets you need to bring about improvements may already exist within your neighborhood or community.

Reach out to the broader community quickly and efficiently by networking with other established community groups. These could include:

SECTION TOPICS:

- Step 1: Determine the Scale of the Issue
- Step 2: Build Awareness and Community Support
- Step 3: Identify the Department or Agency Responsible for Making Improvements
- Step 4: Contact Agency Representatives and Present Your Case
- Step 5: Build Support for Long-Term Change



Community members can meet and talk about pedestrian issues with other residents to build support for change.

- Health/fitness or walking groups, bicycling groups, and advocates, such as the American Heart Association (http://www.americanheart.org), "Walking for Fitness" program at the Mayo Clinic (http://www.mayoclinic.com/health/walking/SM00101), Safe Kids national safety group (http://www.usa.safekids.org/wtw/), America Walks (http://www.americawalks.org/)—a national coalition of local walking advocacy groups with links to local organizations around the country—or the League of American Bicyclists (http://www.bikeleague.org/).
- **Service-oriented groups**, such as the Boys and Girls Club, senior centers, and YMCA, or providers of services for people with disabilities, including local chapters of the Center for Independent Living (http://www.cilberkeley.org).
- **Business and civic groups**, such as the chamber of commerce or civic organizations such as the Rotary Club, Lions Club, etc.

Community Success Story 1: Community Involvement During The Planning Process

Norfolk, Virginia

In the Five Points area of Norfolk, Virginia, the Civic League of Presidents (a community advocacy group) formed a partnership to improve a busy street as part of the city's "Commercial Corridors Program." A high school, middle school, elementary school, and community center are located along this corridor. The partnership undertook a planning study to look at the design of the street and revitalize the area for commercial development.



Rather than impose a plan on the residents, the group conducted in-depth community meetings and surveys to find out what the residents wanted their community to look like. In order to develop an identity for the area, more than 10 community meetings and focus groups were conducted throughout the process, including a "pancake dinner" to draw participants. Each meeting routinely drew between 40 and 50 residents.

Residents identified top priorities for the project. The community voted a "pilot star" to be the recurring community symbol for bus shelters, light poles, etc. Residents were most concerned

about having a safe outdoor space to exercise and teach their children to ride bikes, a continuous and accessible sidewalk system, and improved lighting. In response to these concerns, Norfolk is in the process of developing a local trail system that loops around the high school and community center, providing a safe and useful space for jogging, biking, and other recreation.

For more information, contact Kevin Kluzak at 757-664-4698 or kevin.kluzak@norfolk.gov.

• School, neighborhood, and cultural groups, such as parent/ teacher groups or safety committees, neighborhood and/or homeowner associations, local colleges and universities with community health programs, or cultural community organizations such as Latino or Native American organizations.

The *Links and References* section in Chapter 4 contains descriptions and contact information for many different organizations that may be able to help you address safety concerns in your community. You may want to research other groups and organizations to identify ones that share similar interests, and may provide resources and support for your efforts. Someone in your community may already have helpful knowledge and contacts. After you have figured out which groups to contact, try sending an email or a letter to provide background information and request an opportunity to make a presentation or join the group's meeting.

Community Success Story 2: Networking and Building Partnerships

Portland, Oregon

At the Oregon Department of Transportation (ODOT) in Portland, Oregon, a forward-thinking manager brought together a diverse coalition of community groups to form a Community and School Traffic Safety Partnership. Included in the partnership are members representing school boards, neighborhood associations, businesses, nonprofits, advocacy groups, insurance providers, enforcement agencies, and bike and pedestrian advocacy groups.



The coalition implements a wide variety of programs, such as an interactive 30-minute sidewalk pedestrian presentation. Another innovative program is the crosswalk enforcement action program, where ODOT partners with law enforcement officers to monitor intersections, enforce driver yielding, and provide informational pamphlets to drivers and pedestrians.

All of the partner organizations play an active role in improving pedestrian safety. For example, various senior centers work closely with representatives from ODOT to address problem areas and to develop localized pedestrian maps for use by members and residents. The maps show points of interest such as transit stops, benches, water fountains, curb cuts, etc., and designate a prioritized route to frequent destinations. Suggestions for revision are solicited from residents, a bilingual explanation of signals is included, and the maps are distributed at the senior center and to local Meals on Wheels partners.

For more information, contact Sharon White at 503-823-7100 or sharon.white@pdxtrans.org.

Resource Sheet 4: Local Sources of Information Worksheet will help you identify and organize sources of information within your community.

Possible Questions to Ask Public Agencies:

- Who is responsible for the road I'm concerned about?
- Are other authorities involved (for example, transit, utility, law enforcement, or emergency medical service providers)?
- Who are the responsible staff within the agency that can address my concern?
- Does the agency have a pedestrian coordinator?
- What is the agency's public involvement process (for example, is it during the project planning phase, through pedestrian/bicycle coordinators or advisory boards, at public meetings, through email/phone)?
- Does the agency have a pedestrian plan in place?
- Are there any policies related to pedestrian facilities and safety?

STEP 3: IDENTIFY THE DEPARTMENT OR AGENCY RESPONSIBLE FOR MAKING IMPROVEMENTS

It is important to figure out which department or agency is responsible for maintaining the roads in your community. In the U.S., some roads are controlled and maintained by the state (roads with state route numbers), while others are under the jurisdiction of counties, cities, or towns. Still others are privately owned and maintained. Your local planning or transportation department should be able to tell you who owns and maintains the road in question.

Decisions about roadway improvements and programs on public streets are made by the agencies that have jurisdiction over them. Below are descriptions of the typical roles of agencies to help you determine who may be responsible for addressing the pedestrian safety concerns you've identified on your roadways.

- Local transportation agencies Your local transportation agency (could be called public works, transportation, traffic, or street department or a public utility district [PUD]) is usually responsible for maintaining and operating local public streets and trails and developing plans for improvements.
- Regional transportation agencies/metropolitan planning agencies (MPOs) Regional transportation agencies and MPOs represent one or more communities in a geographical region. These groups are typically responsible for developing and implementing long-term transportation plans, programs, and projects for the region.
- State departments of transportation State departments of transportation (or highway departments) are often responsible for planning/designing, constructing, and monitoring improvements on state roadways (including sidewalks, crosswalks, and signals). Often these state roadways pass through local communities.
- Transit agencies Transit agencies are responsible for providing bus service to the local community. The agency plans bus routes, operates service, selects preferred locations for bus stops, and maintains the stops. The agency must work with the owner of the roadway (often a state or local agency or private entity) to install the bus stops and any associated amenities.

STEP 4: CONTACT AGENCY REPRESENTATIVES AND PRESENT YOUR CASE

Developing a relationship with transportation professionals will help ensure they understand the issues and have the information needed to make informed decisions. All public agencies in charge of roadway improvements have a public process that will allow you to participate in the decision-making at some level. Here are a few tips to ensure that your efforts are effective:

- Make contact in person or via phone, even if you send a letter or email.
- Be brief, rational, reasonable, and to the point. Offer to provide the documentation or evidence you have collected related to the problem.
- Ask for specific actions or state a specific problem—what is the concern, and how do you think it could be handled?
- Consider scheduling a brief walking tour to illustrate your points. Try to schedule your walk during a time when the problems are evident.
- Listen carefully to their concerns and issues and try to find common ground.
- Follow up. Be persistent.

STEP 5: BUILD SUPPORT FOR LONG-TERM CHANGE

Obtaining long-term commitments from key players to make a community safer for walking requires that pedestrian safety be a priority within the transportation planning and decision-making system. There are three parties that can influence community change: local government staff, residents or community groups, and elected officials. To have a good chance of improving safety, two or three of the parties need to support and work for change.

Build support with local government staff

You and other community members can help prioritize pedestrian safety in transportation planning by asking your transportation professionals and community leaders to:

- Establish a pedestrian advisory committee or board (PAC or PAB) if there isn't one already.
- Create a position for a dedicated pedestrian coordinator.
- Include pedestrians in the master transportation planning process.

If your neighborhood association wants to make pedestrian crossings safer on a roadway, you could work closely with local transportation planning and engineering staff to get approval for appropriate engineering, education, and enforcement treatments. You can then work with staff to help educate elected officials on the benefits of these types of improvements and show your support for them. Your neighborhood association could also convince elected officials of the need to improve the safety of pedestrian crossings on the roadway; elected officials would then ask staff to come up with specific solutions to make the crossing safer.



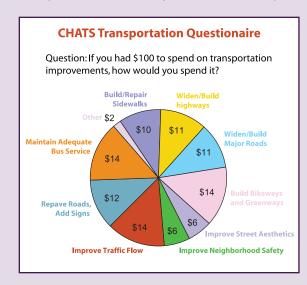
Residents can talk with elected officials and pedestrian advisory board members about safety concerns.

- Conduct periodic walking tours with town staff, community members, elected officials, etc.
- Collect data on pedestrian accommodations (e.g., sidewalk, crossing, or lighting inventories) and usage (e.g., pedestrian and bicyclist counts).
- Develop a pedestrian plan, complete with a vision, measurable goals and objectives (for pedestrian safety, access, etc.), strategies for meeting those goals, and dedicated funding and staff.
- Establish performance measures for safety, usage, pedestrian accommodations, and other programs—these act like a report card for how well the agency is meeting its goals and objectives.

Community Success Story 3: Agencies Work with Community Members to Create Action Plan

Charleston, South Carolina

In 2003, in response to community pressure to improve conditions for bicyclists and pedestrians, the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG)—the region's MPO—submitted a successful proposal for funding to the Robert Wood Johnson Foundation's Active Living by Design Program. The \$200,000 grant funded the creation of a regional bicycle and pedestrian action plan as well as a partnership to promote health and active living.



The partnership included a bicycle and pedestrian advocacy group, the South Carolina Department of Health and Environmental Control, the South Carolina Department of Transportation, the Medical University of South Carolina, and several health-care organizations. The action plan contained three main goals: 1) to implement a Safe Routes to School program, 2) to implement "complete streets" policies to make roads accessible for all users, and 3) to begin community intervention programs to improve bicycling and walking conditions. These goals were accomplished through an organized framework that outlined specific actions and performance measures for each of these goals.

The community was involved during the planning process. During the creation of the long-range transportation plan, the BCDCOG distributed a survey asking local residents how much they would spend on different transportation infrastructure elements if given just \$100. On average, respondents allocated \$24 for pedestrian and bicycle improvements, in contrast to the existing allocation of \$0.05 for every \$100 spent currently. The agency took steps towards narrowing this discrepancy by allocating \$30 million for pedestrian and bicycle improvements over the next 21 years.

For more information, visit the BCDCOG Web site at http://www.bcdcog.com/.

- Assess existing ordinances and policies related to pedestrians and ensure they support walking.
- Establish procedures for performing roadway maintenance, installing sidewalks, and identifying and addressing pedestrian problems.
- Train agency transportation planners and traffic engineers in pedestrian planning and design.
- Develop partnerships and improved communication between agencies responsible for pedestrian infrastructure, including roadway maintenance crews, traffic signal operators, roadway designers and planners, and transit planners and operators.
- Encourage projects and programs that can support and promote safe walking and safe walking environments.

Resource Sheet 5:
Anticipating Concerns will help you prepare for potential concerns expressed by local transportation agency staff members.

Community Success Story 4: Community Action and Fundraising

Portland, Oregon

A determined community member in Portland, Oregon, took the lead to support pedestrian safety after a local resident was killed crossing a street at night in the rain. As the new co-chair of the transportation committee for her all-volunteer neighborhood association, she had the idea to create bright fluorescent yellow umbrellas marked with pedestrian crossing symbols and transparent sections to look through. With this innovative design, pedestrians could stay dry in the rainy climate and act as their own moving pedestrian crossing sign at the same time.

She contacted the owner of a local umbrella company who was eager to work with her and agreed to put the new product in their catalog. To get funding for the project, she



submitted grants to two main sources: the City's Office of Neighborhood Involvement, and a local grant program set up to offset the inconvenience caused by a nearby waste transfer station.

In addition, she contacted the city council with specific requests: the installation of painted cross-walks at every intersection in the neighborhood, an in-street pedestrian crossing sign, and traffic calming. The Portland Department of Transportation (PDOT) granted the requests. The City also conducted active crosswalk enforcement to deter crosswalk violations.

PDOT continues to work with community members and neighborhood organizations to hold safety fairs, where the umbrellas are sold at a reduced cost. PDOT also purchased umbrellas to distribute to older pedestrians at senior centers and food distribution centers.

For more information, visit http://portlandtransport.com/archives/2007/02/proactive pedes.html.

Resource Sheet 6: Ten Things Your Pedestrian Group Can Do can help you organize and advocate for pedestrians.



Speak with other residents and organizations to share interests and build partnerships.

For More Information:

There are several examples of successful pedestrian coalitions that have brought together a wide range of people to improve conditions for walking:

- Feet First Seattle (http://www.feetfirst.info/aboutus)
- Walk Boston (http://www.walkboston.org/)
- Vermont Bicycle and Pedestrian Coalition (http://www.vtbikeped.org/)

Tips for starting or joining an advocacy organization can be found at http://www.walkinginfo.org and http://www.americawalks.org.

Build support with local residents and community groups

- Join or form a pedestrian coalition Joining or forming a coalition of groups with similar interests can strengthen your likelihood of success in working with city staff and elected officials to make pedestrian improvements. Partners in the coalition may include:
 - Law enforcement officials, including officers and members of the judiciary.
 - Health industry, including doctors, nurses, dieticians, and health educators.
 - People in transportation and development, including engineers, planners, and developers.
 - Parents, senior citizens, schools, parks, and recreation departments.
 - Area residents and neighborhood associations.
 - Local business leaders.
- **Look for state or national organizations**—These can provide you or your community with support. For national advocacy group contact materials, see the *Links and References* section in Chapter 4.
- Look for existing coalitions in your area Visit the *Links and References* section in Chapter 4 to find coalitions and alliances related to walking.
- Join or speak with your local pedestrian advisory board —Most medium to large communities will have a pedestrian advisory board

or committee (PAB or PAC). Members of community boards/committees can be:

- Partners for advocacy efforts.
- Liaisons to local planning and engineering officials.
- A good resource for finding out what is going on in your local community.

Many communities also have separate disability advisory boards, or sub-groups within the PAB concerned with issues related to young pedestrians, older pedestrians, and people with disabilities. You can usually find the contacts for your local PAB through your city, town, or county Web site or phone directory. If your area does not have a PAB, then you can work with your local elected officials to create a PAB through an official action or resolution.

Build support with elected officials

Elected leaders (such as city council members, county commissions, board of supervisors, or school board trustees) can be targets for advocating safer pedestrian facilities. You can:

- Write or call a member or the chairperson and discuss the issues one-on-one.
- **Request time** at the next meeting of elected officials to speak about pedestrian safety.
- **Prepare a brief presentation or handout** that includes images that demonstrate your key points. For example, if you are explaining to the school board that the school pick up and drop off area is chaotic, provide photos that support your assertion.
- **Invite officials on a walking tour** to experience the conditions that you are trying to improve. This is often a very effective method of getting elected officials to recognize pedestrian concerns and participate in the improvement process.

For More Information:

See an example pedestrian safety initiative by a public official in Montgomery County, Maryland: http://www.montgomerycountymd.gov/cittmpl.asp?url=/Content/PIO/news/pedestriansafety/index.asp.

For More Information:

The Federal Highway
Administration (FHWA)
guide, How to Develop a
Pedestrian Safety Action Plan
(http://www.walkinginfo.org/
library/details.cfm?id=229)
has information on the benefits and responsibilities of PABs
and guidance on how to create and run an effective PAB.

For More Information:

See the Frequently Asked Questions in Chapter 4 to learn more about how you can advocate for change and influence pedestrian safety decisions.



Invite officials on a walking tour to experience the conditions you seek to improve.

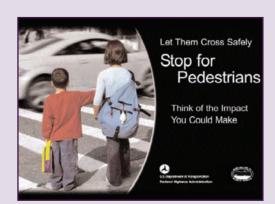
Community Success Story 5: Comprehensive Pedestrian Safety Campaign

Burlington, Vermont

The Burlington Department of Public Works is one partner in a long-term effort to institutionalize pedestrian safety in Burlington's community. In 2006, they launched an annual pedestrian safety campaign, based on materials in the Federal Highway Administration's *Pedestrian Safety Campaign Planner* (http://safety.fhwa.dot.gov/local_program/pedcampaign/index.htm). The campaign included engineering, education, and enforcement components.

For the engineering component, the town worked to:

- Develop a multi-modal transportation improvement plan.
- Plan, develop, and construct an inter-modal transit facility in downtown Burlington to improve pedestrian access to transit.
- Improve circulation and access around the waterfront for all modes, with particular emphasis on enhancing the safety and convenience of pedestrian travel.



• Facilitate the development of pedestrian improvements in key locations.

On the enforcement side, the Department worked with the mayor and police department to distribute educational materials to violators, with specific information targeted at motorists, cyclists, and pedestrians. Extra enforcement in the downtown area focused on bicycle- and pedestrian-related violations.

For the education component, public service announcements were broadcast over radio and television and displayed on safety slides at the downtown cinema. The Department of Public Works collaborated with the mayor, police department, and local advocacy organizations to develop press releases and hold press conferences highlighting safety initiatives, using the media to spread the message. Additionally, safety coupons were designed and distributed for discounts on reflective clothing and other safety products. For more information, visit: http://www.dpw.ci.burlington.vt.us/transportation/bikewalk/safety/.

CHAPTER 3: HOW CAN THE SAFETY OF MY NEIGHBORHOOD BE IMPROVED?

It is not always necessary for community members to come up with a solution to the problems they've identified; typically, local agency professionals will be aware of several possible options. However, the following information will help build your vocabulary and understanding of the type of solutions that may be available to help improve pedestrian conditions in your neighborhood. This information will also help you more effectively communicate and collaborate with agencies and other groups.

Pedestrian transportation improvements are often described in terms of the Four Es:

- 1. **Engineering**—Physical changes to infrastructure (i.e., streets, sidewalks, traffic signals, signs, etc.) that affect the operation and movement of traffic and pedestrians.
- 2. **Education**—Includes strategies that aim to educate pedestrians, drivers, or other groups in order to motivate a change in behavior.
- 3. **Enforcement** Community-based or law-agency-based measures to enforce laws and regulations related to pedestrians.
- Encouragement Efforts to promote walking and increase the level of walking in a community.

A combination of transportation improvements (e.g., making engineering changes as well as implementing education and enforcement campaigns) applied in the same area will likely be more successful at resolving pedestrian problems than only using one approach.

Not every solution described in this section will be appropriate for your particular situation; you should discuss these with your local transportation agency and other partners (pedestrian advocates, health professionals, law enforcement officials, elected officials, etc.) to determine which solution—or set of solutions—will best meet the needs of your community. Use these questions to guide your discussion:

- Can you change policies affecting the safety of pedestrians? How?
- What is the range of improvement options that might be considered in this situation? (Even if you've already developed a list of solutions, there might be others you haven't considered.)
- What is our community's policy or guideline about installing or implementing these measures?

SECTION TOPICS:

- Engineering
- Education
- Enforcement
- Encouragement



Well-designed streets and crossings can help make walking safe and enjoyable.

- Do we have an ongoing procedure for installing and maintaining this improvement?
- Are there alternatives that should be considered?
- How much of the budget is set aside for pedestrian programs and improvements in my community? Can it be increased?
- Is there a neighborhood advisory group that advises the department about traffic and pedestrian issues? If not, can you form one?
- Who else might share my concern?

Collaborating with neighbors, groups, agencies, and elected officials; sharing research and information; respecting other's perspectives; and seeking creative solutions can help you find reasonable solutions to pedestrian safety issues.

ENGINEERING

This section provides you with a list and definition of basic engineering solutions that may be used to improve pedestrian safety and accessibility in your community. These treatments range from constructing a sidewalk (to improve safety along the street), to adding median islands and installing pedestrian countdown signals (to improve safety while crossing the street). Any challenges related to design or implementation of each potential solution, in addition to the associated costs, should be considered. You should try to talk to people with transportation engineering expertise (for example, professionals with your local transportation department) so you can develop a better understanding of these approaches.

For More Information:

- The Federal Highway Administration (FHWA) guide *PEDSAFE*: *Pedestrian Safety Guide and Countermeasure Selection System* (http://www.walkinginfo.org/pedsafe) provides detailed descriptions of a range of treatments that may be used to improve pedestrian safety, in addition to cost information and other considerations.
- The Institute of Transportation Engineers' (ITE) Web site and CD-ROM contain a public information video, It's Your Street: Making Traffic Improvements in your Neighborhood (http://216.12.138.81/default.asp), illustrating how a community worked together to reclaim their neighborhood from speeding cars and commuter cut-throughs.
- Chapter 5 of the FHWA guide, How to Develop a Pedestrian Safety Action Plan (http://www.walkinginfo.org/library/details.cfm?id=229) describes improvements and provides information on costs.

Resource Sheet 7: Engineering Solutions to Improve Pedestrian Safety describes several potential engineering solutions and lists common concerns that your local agency or other residents may have.



Buffers can help separate pedestrians from motor vehicles and improve safety.

Photos and more information about each of the improvements listed below can be found in the resources sheets, and comprehensive lists of engineering solutions can be found online (see sidebar for more information).

Typical engineering improvements

- **Sidewalk**—A paved walkway that allows pedestrians to walk along the roadway without interference from traffic.
- **Buffer or planting strip**—A zone separating pedestrians on sidewalks from moving vehicles on the road.
- Marked crosswalk Areas on the street (delineated by paint, brick, etc.) indicating to pedestrians where they should cross the road.
- Curb ramp or curb cut—A ramp providing a smooth transition between sidewalk and street.
- Raised medians and crossing islands—The median is the area
 between opposing lanes of traffic. These provide pedestrians with
 a safe place to wait while crossing a street.
- **Curb extension**—An extension of the sidewalk into the street that reduces the distance pedestrians must cross.
- Traffic sign—An official device that gives a specific message, either by words or symbols, to the public. Examples are "stop," "yield," etc.
- Traffic signal—A visual signal to control the flow of traffic. Pedestrian signals let pedestrians know when they have priority and warn drivers to stop/yield for pedestrians.
- Traffic calming—Physical changes to a street to encourage drivers to drive slowly or to discourage cut-through traffic.
- Road diet Narrowing or eliminating travel lanes on a roadway to make more room for pedestrians and bicyclists.
- Overpasses/underpasses—A street crossing separating pedestrians from motor vehicle traffic (i.e., bridge or tunnel).
- **Street lighting**—This illuminates the roadway and intersections to help motorists see other motor vehicles and pedestrians crossing the roadway.
- **Temporary walkways**—These provide pedestrians with designated routes along a construction site when sidewalks and other pedestrian travel ways have been closed.

For More Information:

Most states have adopted a traffic calming guide, so look for one on your state department of transportation (DOT) Web site. Two resources about traffic calming for communities include:

- TransAlt's Streets for People (http://www.transalt.org/ resources/streets4people): a how-to manual for people to bring traffic calming to their neighborhood.
- ITE Traffic Calming for Communities Web site (http://www.ite.org/traffic/ index.html): a clearinghouse of traffic calming information.



Raised medians can make it safer and easier for pedestrians to cross wide streets.

For More Information:

The Americans with Disabilities Act (ADA) requires that states and local governments have a plan (often called a transition plan) for upgrading existing facilities that do not meet the minimum requirements detailed by the U.S. Access Board. For more information, contact the U.S. Access Board: (http://www.access-board.gov), 800-872-2253 (voice), or 800-993-2822 (telecommunications device for the deaf).

Maintenance of pedestrian accommodations

Pedestrian accommodations, such as sidewalks, bus stops, lighting, and signals, need to be maintained. Neighbors can assist with landscaping maintenance on private property near sidewalks, as well as with snow and debris removal. Some communities have partnered with local businesses to develop an "Adopt a Bus Shelter" program, where businesses assist with maintaining the bus stops and clearing snow along the nearby pedestrian paths. The local transportation agency may have (or could establish) a sidewalk maintenance and

Community Success Story 6: Planning and Engineering Solutions for Pedestrian Safety

Cambridge, Massachusetts

In 2000, Cambridge unveiled its pedestrian plan, an effort toward removing the city from the list of metropolitan areas not meeting the federal Clean Air Act requirements. Recognizing that the automobile is the greatest single source of air, water, and land pollution and that the majority of trips in Cambridge are short trips most easily replaced by walking, the City undertook a plan to improve the walking environment. In addition to many in-



novative education campaigns, the City performed roadway redesign, sidewalk improvements and repairs, signal improvements, traffic calming projects, and installed crosswalks, lighting, and street furniture in priority spots across town.

Additionally, Cambridge developed a questionnaire to elicit residents' opinions of traffic-calming projects after their completion. Responses were used to improve future projects. Sidewalk maintenance has improved in the city, largely due to greater enforcement of local ordinances. The City requires property owners, for instance, to keep sidewalks clear of snow and ice and to trim vegetation; such early prevention reduces repair costs in the long run.

For more information, visit http://www.ci.cambridge.ma.us/cdd/et/ped/index.html.

improvement program. The program could include a periodic inventory of sidewalk conditions and responsibility for maintenance. Contact your local agency to determine if such a program exists, or where residents can go to request maintenance of pedestrian infrastructure.

Improving access to transit stops (including school bus stops)

An important destination for many pedestrians is the transit stop. Transit stops need to be safe and accessible for people of all abilities. Common transit concerns are:

- There is no safe crossing to get to the bus stop.
- There is no curb ramp or wheelchair access to the bus stop.
- There is no sidewalk or path to easily get to the stop.

Community Success Story 7: Safe Route to School Walking School Bus Program

Sacramento, California

At Natomas Park Elementary School in Sacramento, California, parents organize the "walking school bus," which includes five routes based on where children live, and a schedule for each stop. In order to participate, parents register their children ahead of time.

Walk leaders include parents and employees from a local business. Each volunteer must have a background check prior to participation. Training for volunteers is provided by the parent leader and includes first aid, CPR, and pedestrian safety. While walking, volunteers wear safety vests and carry first aid kits.



To recognize the walkers' achievements, parent volunteers track the total number of miles walked during the school year and announce it at a year-end assembly.

About 50 children participate, and many more children are now seen walking to school. Organizers have recently expanded the activity to include remote sites where parents can drop off their children, and adult volunteers walk with the children the rest of the way to school.

Walking school buses are one of many ways in which parents and community members can participate in local Safe Routes to School Programs (SRTS). Most programs involve a variety of activities, including engineering improvements, education, enforcement, and encouragement. For other examples and models of SRTS activities, visit the National Center for Safe Routes to School Online Guide at http://www.saferoutesinfo.org/guide/case_studies/index.cfm.

Resource Sheet 8: Safety Tips for Pedestrians and Drivers provides a list of useful personal safety tips.



Example yard sign campaign.



Graphic from FHWA's Pedestrian Safety Campaign Planner. The location of a bus stop (e.g., if it comes before or after an intersection or is in the middle of the block) plays an important part in how safe and convenient it will be for bus riders to access. Transit agencies and school districts often choose bus stop locations based on where it is safe for the bus to stop, but they may not consider where pedestrians can walk safely and easily. To further complicate matters, road agencies—not transit agencies or school districts—usually have the responsibility of providing pedestrian accommodations near and at bus stops.

Many transit access problems can be addressed by the methods described in the previous section. In some cases, the transit agency or school district may need to review and modify their policies related to bus stop locations to ensure that pedestrian safety is adequately incorporated into the decision process. In either case, partnerships between community members, road agencies, and transit authorities or school districts are crucial in identifying concerns and working to improve conditions. If you have concerns about the bus stops in your community, contact your local road agency to find out who has jurisdiction over the roadway and pedestrian infrastructure in that area. You could also call the local transit agency or school district and encourage them to work more closely with the responsible road agency to make the needed improvements. School buses are often operated by school districts, individual schools, or contractors providing school bus service. Contact the school to find out who is providing service and who to call.

EDUCATION

Education and public awareness strategies can be used to:

- Provide information to help motivate a change in specific behavior.
- Teach safety skills that can reduce the risk of injury.
- Raise awareness about particular pedestrian issues.
- Encourage people to think about attitudes and behaviors and make informed choices.

Education and public awareness initiatives must be sustained, concentrated efforts that target a specific community problem. A short or one-time effort will probably not have lasting results. To be more effective, education efforts should be combined with engineering changes as well as law enforcement.

Education begins at home—start by learning how you can be a safer pedestrian and driver, and how you can better enable your children,

family, and friends to be safe on the road. To expand education and public awareness efforts to the broader community, here are some activities to improve pedestrian safety that you can join or start:

- Yard sign campaigns Slow down yard sign campaigns (such as Keep Kids Alive Drive 25®) allow residents with concerns about speeding in their community to help remind drivers to slow down and stop for pedestrians. Neighborhood leaders, safety advocates, and law enforcement officials work in partnership to identify problem areas, recruit residents to post yard signs, organize distribution of yard signs, garner media attention, and evaluate the effectiveness of the campaign.
- Pace car campaigns—Neighborhood pace car programs aim to make neighborhoods safer for pedestrians, bicyclists, and drivers. Resident pace car drivers agree to drive courteously, at or below the speed limit, and follow other traffic laws. Programs usually require interested residents to register as a pace car driver, sign a pledge to abide by the rules, and display a sticker on their vehicle.
- School-based education programs There are many people who can support your efforts to implement pedestrian safety training in schools. They can provide a history of what has been done, a description of current policies and practices, and help identify improvements to be made.

For More Information:

Visit the National Center for Safe Routes to School Web site (http://www.saferoutesinfo.org/) or call 866-610-SRTS for more information about educating children, parents, and teachers about pedestrian issues and starting a Safe Routes to School program in your area.

For developing education programs within your schools, consider contacting the superintendent of public instruction, the state or school PTA president, the school nurse, the governor's traffic safety representative, or the district superintendent. Other venues, such as parks and recreation programs, after-school programs, and churches may also provide opportunities for both pedestrian and bicycle safety education. Some questions to ask include:

- 1. Is pedestrian education a routine part of health and safety objectives for children in schools?
- 2. If not, what steps can be taken to ensure that schools implement school-based training on a continuing basis?

Resource Sheet 9: Strategies for Pedestrian Safety Education and Public Awareness describes what types of education activities may be taking place in your community and how you can get involved.



Sample educational brochures in English and Spanish for pedestrians.

For More Information:

- Visit http://www.walkinginfo.org or call 877-925-5245 for tips on implementing an education program.
- FHWA's Planning a Pedestrian Safety Campaign Web site (http://safety.fhwa.dot.gov/local_program/pedcampaign/index.htm) contains downloadable posters, brochures, public service announcements, press releases, and other materials for English and Spanish-speaking audiences.

ENFORCEMENT

Pedestrian safety laws

An important first step in enforcement is to find out your state's laws related to pedestrian safety and where they apply (e.g., city, county, or specific roadway).

Community Success Story 8: Pedestrian Safety Education

San Diego County, California

Developers of a child pedestrian safety training program in San Diego County targeted a bilingual, low-income school where the majority of the children walked to school. Studies have shown that first-generation low income school children are at a much higher risk of pedestrian injuries and fatalities.

The presentations were done bilingually, using still images and video footage from their own neighborhood to make the lessons more relevant and concrete. Students were asked to identify the unsafe behaviors depicted and to suggest safer alternatives. For example, they were shown an image (at right) of children in dark clothing walking across an intersection where a car had already begun to turn into and were asked questions such as: were the children very visible to the car, and should the children have walked into the street?



Other topics covered included stopping distances of vehicles in the rain, at different speeds and for large trucks; mid-block crossings; facing traffic while walking; running; turning vehicles and more. In a survey conducted two weeks later, it was found that the children were largely able to retain the information presented earlier. However, many students responded that they felt their parents, the Safety Patrol, or their siblings were responsible for their safety, and also that "cars will always stop for kids." Thus, it was determined that there was a greater need to emphasize to the children that they were the ones responsible for their own safety in future training materials.

For more information, contact Sheila Sarker at shsarkar@ucsd.edu.

All states have a Web site where they post their laws pertaining to pedestrians and bicyclists. The National Highway Traffic Safety Administration (NHTSA) produced a compilation of state pedestrian laws, available at http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/resourceguide/index.html. You can also contact your state's department of transportation or read your state's Motor Vehicle Code for a list of statewide pedestrian statutes.

There are federal laws that regulate what pedestrian accommodations must be provided and how accommodations are designed. The Americans with Disabilities Act mandates that disabled persons have full access to public infrastructure in the United States. This means that newly constructed public streets must have proper curb ramps, sidewalks, driveways, and tactile warning strips at street crossings.

For More Information:

Many state departments of transportation have a bureau or division of bicycle and pedestrian transportation Web site that lists all of the pedestrian-related laws for the state. For some examples, visit:

- North Carolina DOT Division of Bicycle and Pedestrian Transportation (http://www.ncdot.org/transit/bicycle/laws/laws_pedlaws.html).
- Florida DOT Pedestrian and Bicycle Safety Program (http://www.dot.state.fl.us/Safety/ped bike/laws/ped bike pedLaws.htm).
- Washington DOT Walking in Washington (http://www.wsdot.wa.gov/walk/Laws.htm).

Strategies for local law enforcement

There are a number of strategies that your local law enforcement agency can undertake to enforce laws that will improve pedestrian safety. You should discuss these with law enforcement professionals to see which are feasible in your community:

- Traffic complaint hotline An agency establishes a central hotline phone number or Web site to receive traffic complaints.
- **Pedestrian safety enforcement operations**—Also called pedestrian decoys, these are well-prepared and coordinated operations designed to warn motorists that the yield-to-pedestrian laws will be enforced at targeted locations.
- Photo enforcement In states where automated photo speed enforcement is permissible, it can be used to concentrate speed enforcement in specific areas with high volumes of pedestrian crossings, such as school zones.

Resource Sheet 10: Enforcement Contact Worksheet can be used to help guide your discussion when contacting your local law enforcement agency.

For More Information:

For technical assistance regarding the ADA, visit the ADA homepage at http://www.usdoj.gov/crt/ada/.



Law enforcement officers can help ensure that pedestrians, bicyclists, and motorists abide by traffic laws. Resource Sheet 11: Sample "Warning" Letter to Drivers is a sample letter for drivers that can be distributed by law enforcement officers as part of an education or enforcement campaign.



Progressive ticketing can be an effective way to alert road users to pedestrian-related laws and safety concerns.

SPEED LIMIT 2.5

Radar speed trailers can supplement motor officer enforcement of safe speeds.

- High visibility enforcement Local agencies can help to improve driver and pedestrian safety by publicizing enforcement efforts and conducting the enforcement where people will see it. Local news outlets often carry stories on these types of efforts. Highly publicized enforcement (of even low-level enforcement) targeted towards a specific behavior is likely to be most effective.
- Progressive ticketing Progressive ticketing is a method for introducing ticketing through a three-stage process, to first educate, then warn, then ticket offenders. Issuing warnings allows police to contact up to 20 times as many noncompliant motorists or pedestrians than the writing of citations does. In addition, the high frequency of stops ensures not only that many people directly make contact with law enforcement, but also that many others witness these stops and are prompted to obey the rules.
- Double fines in school zones and other special interest areas Strict enforcement of speed laws in school zones and other special interest districts or areas is one law enforcement tool that can improve safety for pedestrians as well as motorists. A zero tolerance policy for speeders in these zones and an increase in fines for drivers who violate the posted speed limit are potential approaches.

Strategies for community members

You and other community members can also help improve driver and pedestrian behaviors to improve safety in several ways.

- Neighborhood speed watch Radar speed units are loaned to residents who are trained by police to collect speed data and vehicle descriptions. The local agency follows up and sends the vehicle owners a letter asking for voluntary compliance. This measure can educate neighbors about the issue (e.g., speeders often live in the neighborhood) and help boost support for long-term solutions, such as traffic calming.
- Radar speed trailers and active speed monitors Radar speed trailers can be used and supplemented with motor officer enforcement to educate people and help boost support for longterm solutions.
- Adult school crossing guards Adult crossing guards can play a
 key role in promoting safe driver and pedestrian behavior at crosswalks near schools. Adult school crossing guards can be parent

Community Success Story 9: Enforcement Component of the Oakland Pedestrian Safety Project

Oakland, California

During the late 1990s, Oakland had the second highest rate of pedestrian fatalities among California cities. The Oakland Pedestrian Safety Project was formed to prevent pedestrian deaths and injuries. Along with several education initiatives, the City committed to greater enforcement efforts. Community members and city staff worked side by side with the police department to send the message that pedestrians have the right-of-way at intersections. Television coverage of the efforts helped spread this message to a larger audience. Today, aggressive pedestrian right-of-way enforcement occurs at a minimum of 20 locations annually, with an average of 30 citations issued per location to motorists violating the right-of-way of a pedestrian.

For more information, visit http://www.oaklandnet.com/government/opsp.html.

volunteers, school staff, or paid personnel. Annual classroom and field training, as well as special uniforms or equipment to increase visibility, are recommended (and in some locations required).

ENCOURAGEMENT

When it comes to walking, there is safety in numbers. More people walking makes it safer for all pedestrians because drivers are more likely to expect pedestrians. By encouraging more walking in your community, you can gather support to make additional pedestrian improvements as well as foster a safer and close-knit walking community.

Two ideas for promoting walking in your community:

- 1. **Get involved in Safe Routes to School Programs**—Get children, parents, school officials, and teachers to participate in Safe Routes to School programs and other school-based walking events.
- 2. **Start a Walk to Work or "Car Free" Day**—This can start with the people you live and work with or can include the broader community.



Safe Routes to School programs can help encourage children and others to walk more often.

Community Success Story 10: Get Active Orlando Encouragement Program

Orlando, Florida

The Get Active Orlando program—funded by Active Living By Design—aims to encourage and facilitate walking and biking in the downtown area. The program's vision is to establish downtown Orlando and its adjacent neighborhoods as an "Active Living District," with residents, employees, and visitors routinely making active choices in an environment that encourages safe physical activity. The program is supported by a broad coalition



of local agencies, health services, and advocacy groups which maintains a strong partnership with local neighborhood association leaders, sending a representative to every association meeting. Through this personal contact and regular newsletters of current events, residents voice concerns and have questions answered.

Funding efforts have led to \$25,000 of gas tax revenue reserved for installing bikeways around the city, and a state grant with matching local funds provides for trails, sidewalk improvements, bike parking, urban gardens, senior walking groups, and more. Community programs such as hip hop and golf classes have also been implemented in response to resident interest. Regular communication between all the partners maintains the strong, long-term partnership that drives the initiatives.

The Get Active Orlando partnership plans to develop and implement a campaign that focuses on the importance of daily active living and is developing a "Point of Choice" campaign that educates people on their options for active traveling. For more information, visit http://www.activeliving.org/node/291.

CHAPTER 4: I NEED MORE INFORMATION!

This section of the guide is designed to provide you with essential information on pedestrian issues as well as references for finding additional details. You will find definitions to commonly used terms and answers to frequent questions, as well as a summary of other useful sources for pedestrian safety information.

DEFINITION OF KEY TERMS

The following is some important, basic terminology that you may hear transportation professionals and pedestrian advocates use in relation to pedestrians and pedestrian accommodations:

Public right-of-way (ROW)

The strip of land on which infrastructure such as highways, railroads, or power lines are built. **The right-of-way includes the area where sidewalks are built and traffic signs are posted.** Obtaining the ROW to build a sidewalk is often a significant challenge.

Shared-use path or trail

A shared-use path (sometimes called multi-use or off-street paths or trails) can be used by pedestrians, bicyclists, inline skaters, and others. It typically is physically separated (usually on a separate right-of-way) from motor vehicle traffic by an open space or barrier.

Sidewalk easement

A sidewalk easement is a limited right to use another's land for the purpose of constructing, altering, relocating, extending, maintaining, or using a public sidewalk. Sidewalk easements are often established in contracts between town agencies and private property owners in a cooperative effort to provide space for pedestrians.

Unmarked crosswalk

An unmarked crosswalk is the portion of a roadway included within the extension or connection of imaginary boundary lines of sidewalks at intersections. It is legal to cross at unmarked crosswalks at intersections (unless a restriction is posted), but many drivers, pedestrians, and even law enforcement officers may not know this.

SECTION TOPICS:

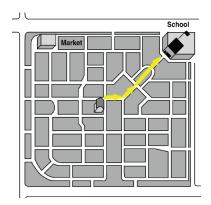
- Definition of Key Terms
- Frequently Asked Questions
- Links and References



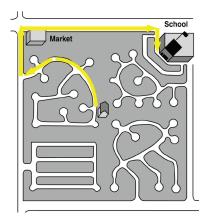




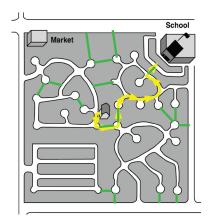




High connectivity for cars and pedestrians.



Low connectivity for cars and pedestrians.



Low connectivity for cars; high connectivity for pedestrians.

For More Information:

The ADAAG are available at http://www.access-board.gov/adaag/html/adaag.htm.

Street connectivity

Streets that are not well connected can limit people's abilities to travel in the most direct path, increase distances to destinations, require larger intersections to move vehicular traffic, increase a pedestrian's exposure to vehicles (which increases the risk of being hit), and can discourage walking.

When a town or developer proposes a new plan or development project, you can attend public hearings, ask questions about street design and connectivity, and provide inputs that can influence the developer or town officials to improve connectivity for pedestrians. Find out about new proposals by regularly monitoring your community's schedule for public hearings.

For existing communities with poor connectivity, you can request that the town build sidewalks/paths or purchase sidewalk easements between cul-de-sacs to better connect the pedestrian network (see image), or work with neighbors to allow and ultimately develop informal paths/trails.

Accessibility

The Americans with Disabilities Act (ADA) of 1990 requires that all facilities covered by the law be "accessible" to people with all abilities. "Accessible" designs are covered by the ADA Accessibility Guidelines (ADAAG). The term "accessible" is often used to describe environments that meet these standards.

FREQUENTLY ASKED QUESTIONS

There are a number of questions that frequently arise when discussing pedestrian transportation and safety issues. This section is intended to help you become more knowledgeable about these issues.

What are the functions of streets?

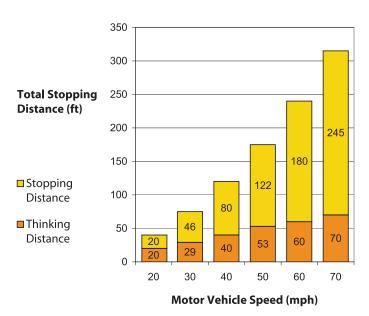
People have a right to safe streets that are able to serve multiple purposes, including:

- Connecting places within cities and providing access to destinations.
- Providing the surface and structure to support a variety of travel modes, including walking, bicycling, transit, driving, emergency services, etc.
- Providing **space for utilities** and other underground infrastructure.
- Creating a sense of place and **opportunities for community inter- action** by being a venue for parties, fairs, parades, and community celebrations, or by simply being a place where neighbors stop to chat.

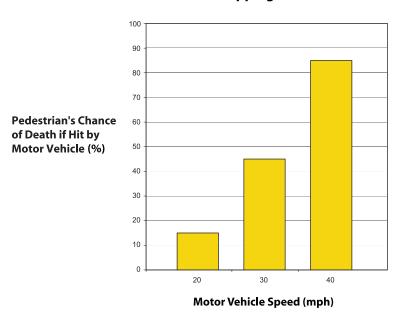
How does driver speed relate to pedestrian-motorist collisions?

Nationally, there are around 5,000 pedestrian fatalities and about 64,000 injuries every year. These fatalities occur in urban, suburban, and rural areas and affect people of all age, race/ethnicity, and physical ability. There are a number of contributing factors to each pedestrian collision, but one of the most important issues related to pedestrian injuries and deaths is driver speed. The faster a driver is traveling, the more difficult it is to stop, and the greater the chance of a pedestrian's death if he or she is hit by the vehicle (see images below).

Minimum Stopping Distance vs. Speed



Shortest Stopping Distances



Source:

Traffic Safety Facts: Pedestrians, National Highway
Traffic Safety Administration,
National Center for Statistics
and Analysis, Washington,
D.C., 2006.

Source:

Killing Speed and Saving Lives, United Kingdom Department of Transportation, London, 1987.



Meeting the needs of more vulnerable people, such as children and pedestrians with disabilities, can make the walking environment safer for everyone.

For More Information:

The Building Support section in Chapter 2 provides more detailed information on successfully influencing decisions to make roadways safer for pedestrians.

Do different people have different safety needs?

Yes, pedestrians have various levels of physical and mental abilities that affect their ability to walk safely in certain conditions. For example:

- **Children** may have more difficulty seeing (and being seen by) drivers of all types of vehicles, and often have trouble deciding when and where it is safe to cross the street. They also have trouble with peripheral vision and gauging speed.
- Older pedestrians may have reduced motor skills that limit their ability to walk at certain speeds or turn their heads, so they may need more time to cross a street. They also may have trouble getting oriented and understanding traffic signs, so they may need more information on how to get around safely.
- **Recent immigrants** (often with little understanding of English, traffic laws, or roadway culture) may not understand the traffic and pedestrian signals that indicate when to walk or have the experience as to how to safely interact with drivers.
- **People with disabilities** (e.g., people using wheelchairs, crutches, canes, or those with visual or mental impairments) may be more affected by surface irregularities in the pavement, changes in slope or elevation/grade, and width restrictions.

How can I influence decisions to make the roadways in my community safer for pedestrians?

You can influence your transportation providers and decision-makers by advocating for change. Advocating for change is no small task for one person to do alone; you will be more successful if you work with others and have a strong network of support. Advocates promote bicycling and walking in a wide variety of ways, including:

- **Influencing policy**—Speaking and working with local elected officials and transportation agencies can help you to inform others of policy needs and work to change or develop new policies.
- **Reviewing plans**—This takes some expertise. If no one in your organization is qualified, seek the help of a professional engineer, transportation planner, or local pedestrian advisory board (PAB) member.
- Holding events Events (such as community walks or bike rides, neighborhood walk audits, health days or fairs) bring attention to bicycling and walking. In many cases, the event also raises funds that can be used for advocacy efforts or education campaigns. You can partner with national organizations or create your own event.

- Educating others You can use campaigns and work with the media to convey pedestrian-related messages and information. This can be done to target a specific group or people (such as local elected leaders) or a broad audience (such as all drivers and pedestrians in a community). See the section on Education and Public Awareness in Chapter 3 for more details.
- Identifying problems and weaknesses Document issues in the pedestrian transportation environment and the development process. See the section on *Identifying Problems* in Chapter 2 for more information.

Who is my state highway traffic safety representative and what do they do?

The Governor's Highway Safety Association (GHSA) is an association of state-level highway traffic safety representatives that work to change the behavior of drivers and other road users (including pedestrians and bicyclists) to reduce motor vehicle-related deaths and injuries. You can find your state highway safety office online at http://www.naghsr.org/html/links/highwaysafetywebsites.html or call the GHSA at 202-789-0942.

Who is my state bicycle and pedestrian coordinator and what do they do?

Your state bicycle and pedestrian coordinator is a good person to contact for local information about pedestrian safety statistics and ongoing state and local pedestrian programs (or links to others with this information). Your representative should be able to answer questions related to pedestrian issues and direct you to appropriate contacts in your state or community. Find your state pedestrian and bicycle coordinator by visiting the American Association of State Highway and Transportation Officials (AASHTO) Web site (http://cms.transportation.org/?siteid=59&pageid=852) or by calling the Pedestrian and Bicycle Information Center assistance line at 877-925-5245. Some cities and counties also have a local pedestrian and bicycle coordinator. Find out by contacting your local department of transportation (DOT) or public works.

For More Information:

For other frequently asked questions, visit the Iowa State University Center for Transportation Research and Education Web site at http://www.ctre.iastate.edu/pubs/tsinfo/index.htm (or call 515-294-8103). The Center has a Traffic and Safety Informational Series that provides clear, concise, and consistent answers to 25 common traffic and safety questions.



Residents can influence roadway decisions by working with local agencies to review plans, identify concerns, and educate others on pedestrian needs.

LINKS AND REFERENCES

National pedestrian and bicycle clearinghouses

Pedestrian and Bicycle Information Center (PBIC)

The Pedestrian and Bicycle Information Center (initiated and funded by the U.S. Department of Transportation's Federal Highway Administration) hosts several Web sites (http://www.pedbikeinfo.org, http://www.bicyclinginfo.org, and http://www.pedbikeimages.org) that contain comprehensive information on walking and bicycling issues, and resources for community members and professionals to improve conditions for walking and biking.

http://www.pedbikeinfo.org or 877-925-5245

Active Living by Design (ALBD)

The Robert Wood Johnson Foundation's Active Living by Design (ALBD) program has become a model for establishing community partnerships for active living. The ALBD Resource Center (http://www.activelivingresources.org/index.php) provides technical assistance to create active communities.

http://www.activelivingbydesign.org/index.php?id=4 or 919-843-ALBD (2523)

National Center for Bicycling and Walking (NCBW)

The National Center for Bicycling and Walking provides bicycle and pedestrian advocates and professionals, transportation engineers and planners, public health specialists, and others with easy access to the information, training, tools, and experts they need to foster active living through community design.

http://www.bikewalk.org or 301-656-4220

National Center for Safe Routes to School (NCSRTS)

The National Center for Safe Routes to School aims to assist communities in developing successful Safe Routes programs and strategies. The Center offers information on how to start and sustain a Safe Routes to School program, case studies of successful programs, as well as many other resources.

http://www.saferoutesinfo.org or 866-610-SRTS

National transportation agencies

Federal Highway Administration (FHWA) Pedestrian and Bicycle Program

The Federal Highway Administration is charged with administering federal funds for transportation improvements, and providing technical assistance to localities implementing pedestrian and bicycle projects and programs. Three Offices in FHWA address pedestrian and bicyclist safety. The Office of Safety and the Office of Safety Research work together to develop tools and technologies to reduce the number of pedestrians and bicyclists killed and injured on our nation's roadways. The Pedestrian and Bicycle Program of FHWA's Office of Human and Natural Environment promotes bicycle and pedestrian transportation accessibility, use, and safety. The FHWA Pedestrian and Bicycle Program issues guidance and is responsible for overseeing that requirements in legislation are understood and met by the states and other implementing agencies.

http://safety.fhwa.dot.gov/ped_bike/ped/index.htm or 202-366-4077

http://www.tfhrc.gov/safety/pedbike/index.htm or 202-493-3319

http://www.fhwa.dot.gov/environment/bikeped/ or 202-366-8044

National Highway Traffic Safety Administration (NHTSA)

The National Highway Traffic Safety Administration's mission is to save lives, prevent injuries, and reduce economic costs due to road traffic crashes through education, research, safety standards, and enforcement activity. The agency collects and publishes state and national crash data, including data on pedestrian and bicycle crashes. NHTSA administers funding to support programs developed and implemented by state traffic safety offices. They also distribute to the general public free educational information and publications focused on many areas of traffic safety, including bicycling, walking, and driving. NHTSA usually communicates through the traffic safety offices rather than directly with neighborhood residents.

http://www.nhtsa.dot.gov or 888-327-4236

National coalitions and alliances

America Walks

America Walks is a national coalition of local advocacy groups dedicated to promoting walkable communities and helping communities form advocacy groups. America Walks provides a support network for local pedestrian advocacy groups. The group offers advice about how to get started and how to be effective with public officials and engineering and design professionals.

http://www.americawalks.org or 617-367-1170

Thunderhead Alliance

Thunderhead Alliance is a national coalition of state and local bicycle and pedestrian advocacy organizations. The group's mission is to create, strengthen and unite state and local bicycle and pedestrian advocacy organizations.

http://www.thunderheadalliance.org or 928-541-9841

Safe Communities

Safe Communities, a project of the National Highway Traffic Safety Administration, is a national organization dedicated to creating local community coalitions to prevent motor vehicle injuries, the leading cause of death for each age group from five through 27. As Safe Communities emphasizes, expanded partnerships with representatives of the business community, health community, and government agencies are an important step in creating community involvement to seek solutions. To find out if there is a Safe Communities Coalition in your community, contact your State Office of Traffic Safety.

http://www.nhtsa.gov/portal/site/nhtsa/menuitem.404f848a3e46fc67ba8e5f8dcba046a0 or 888-327-4236

Safe Kids

By working at a national level through grassroots community coalitions, Safe Kids, a campaign that aims to prevent the number one killer of children—unintentional injury—educates adults and children alike, provides safety devices to families in need, works to pass and strengthen laws to empower families and communities, and to protect children ages 14 and under.

http://www.usa.safekids.org or 202-662-0600

Keep Kids Alive Drive 25®

A nonprofit organization founded in the summer of 1998, the Keep Kids Alive Drive 25[®] is a safety campaign targeting observance of the residential speed limit. In most towns and cities throughout the US, the residential speed limit is 25 mph. Thus the slogan, Keep Kids Alive Drive 25[®]. The campaign goal is to unite neighborhoods and communities throughout the US with a consistent message about safe driving.

http://www.keepkidsalivedrive25.org or 402-334-1391

Partnership for a Walkable America (PWA)

The goals of the Partnership for a Walkable America are to improve the conditions for walking in America and to increase the number of Americans who walk regularly. Members include national governmental agencies and nonprofit organizations concerned about three main areas: health, safety, and the environment.

http://www.walkableamerica.org or 877-925-5245

Other safety organizations

National Safety Council (NSC)

The National Safety Council is a nonprofit, nongovernmental, international public service organization dedicated to protecting life and promoting health. NSC is a membership organization; members include more than 48,000 businesses, labor organizations, schools, public agencies, private groups, and individuals.

http://www.nsc.org or 630-285-1121

Governors Highway Safety Association (GHSA)

This nonprofit association represents the highway safety offices of states and territories. These offices work to change the behavior of drivers and other road users in order to reduce motor vehicle-related deaths and injuries, including those related to pedestrians and bicyclists. GHSA provides a collective voice for the states in working with Congress and federal agencies to address the nation's highway safety challenges.

http://www.ghsa.org or 202-789-0942

Pedestrian-related documents and research

Citizen's Quick Reference Guide to Transportation Decision-Making

This guide provides information on how transportation decisions are made at the local, state, and national levels.

http://www.fhwa.dot.gov/planning/citizen/

FHWA Hispanic Pedestrian and Bicycle Safety

This Web site includes links to research, materials to convey safety messages to Hispanics, and a marketing plan for communicating issues related to Hispanic pedestrian safety.

http://safety.fhwa.dot.gov/PED_BIKE/ped_bike_hsp.htm

PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System

PEDSAFE provides practitioners with a list of possible engineering, education, or enforcement treatments to improve pedestrian safety and/or mobility based on user input about a specific location.

http://www.walkinginfo.org/pedsafe/

BIKESAFE: Bicycle Countermeasure Selection System

BIKESAFE is intended to provide practitioners with the latest information available for improving the safety and mobility of those who bicycle.

http://www.bicyclinginfo.org/bikesafe/

How to Develop a Pedestrian Safety Action Plan

This is a comprehensive guide to provide a framework for state and local agencies to develop and implement a pedestrian safety action plan tailored to their specific problems and needs.

http://www.walkinginfo.org/library/details.cfm?id=229

RESOURCE MATERIALS

This section includes more detailed fact sheets, specific ways to take action, and sample materials that can be used to generate ideas and improve the walkability of your community.

RESOURCE MATERIALS TABLE OF CONTENTS

Resource Sheet 1: Pedestrian Safety Improvement Activities	41
Resource Sheet 2: Ten Reasons to Support Walking	43
Resource Sheet 3: Identifying Pedestrian Safety Concerns Using a Walkability Audit	45
Resource Sheet 4: Local Sources of Information and Materials	47
Resource Sheet 5: Anticipating Concerns	49
Resource Sheet 6: Ten Things Your Pedestrian Group Can Do	51
Resource Sheet 7: Engineering Solutions to Improve Pedestrian Safety	53
Resource Sheet 8: Safety Tips for Pedestrians and Drivers	63
Resource Sheet 9: Strategies for Pedestrian Safety Education and Public Awareness	65
Resource Sheet 10: Enforcement Contact Worksheet	67
Resource Sheet 11: Sample "Warning" Letter to Drivers	69

RESOURCE SHEET 1:

PEDESTRIAN SAFETY IMPROVEMENT ACTIVITIES

This checklist shows the processes and activities that can be followed to improve pedestrian safety in your community. Use this checklist to guide you through your role as an active participant in efforts to improve pedestrian safety.

Identify problems with walking conditions in your neighborhood
☐ Document common problems with photos, video, or written descriptions.
Communicate pedestrian safety problems to other residents and identify shared interests
☐ Speak one-on-one with the people in your neighborhood to identify shared interests and address pedestrian safety concerns.
☐ Collaborate with other established community groups.
Identify organizations responsible for making improvements
☐ Determine the agency/organization(s) most responsible for making improvements to address specific problems in your community.
☐ Identify staff contacts for pedestrian safety issues at these organizations.
☐ Anticipate agency concerns and prepare responses.
Contact agency representatives and present your case
☐ Contact the agency to express your concerns, provide evidence, and discuss how problems could be addressed.
☐ Follow up at a later date and record your progress.
Build support for change
☐ Join or speak with your local pedestrian advisory board (PAB).
☐ Join or form a pedestrian coalition.
☐ Contact local elected leaders.
Consider various engineering solutions
☐ Learn about engineering treatments and prepare questions related to problems in your community.
Talk with transportation staff about possible measures to improve pedestrian safety

Edi	ucate yourself and your community
	Participate in a pedestrian safety campaign.
	Distribute fliers with pedestrian safety tips to community residents.
	Develop education programs within your schools, parks and recreation programs, after-school programs, and churches.
	Get involved in Safe Routes to Schools program activities.
Co	nsider enforcement opportunities
	Understand your state laws that apply to pedestrian safety; create a summary and distribute it to community members.
	Contact your local law enforcement agencies, public health/injury prevention professionals, or traffic safety organizations to find out what is being done and what could be done in terms of enforcement.
	Start or participate in a community-based enforcement program.
End	courage more walking
	Start or participate in a Walk to Work or "Car Free" day or week event.
	Organize walking groups in your community.
	Walk whenever you can: to work, to run errands, to go to the park or to transit.

RESOURCE SHEET 2:

TEN REASONS TO SUPPORT WALKING

Why is it important to accommodate pedestrians and encourage walking in the community?

- 1. **We're all pedestrians**—Whether for recreation or practical purposes, most people make several trips a day on foot, even if it's only a block or so from a parked car to the entrance of a building.
- 2. **It will make the road safer**—Making streets safer for pedestrians, the most vulnerable road user, usually makes the roads safer for everyone, including bicyclists and drivers.
- 3. **Many cannot or choose not to drive**—Non-drivers include people who choose not to drive; children; adolescents; people with physical, visual, and mental disabilities; people with financial constraints; people who are temporarily disabled; and many older adults.
- 4. **It's cheaper to walk**—There are many costs associated with driving (e.g., cost of vehicle, gas, insurance, annual inspection and registration, maintenance, parking fees, traffic violation fees, etc.), but virtually none with walking. Additionally, walking can save money by improving health and reducing health care costs.
- 5. **It's good for business**—Providing pedestrian access to retailers and commercial centers provides economic benefits and can promote tourism and further economic development.
- 6. **Other modes depend on walking**—To get from places to their cars, bicycles, buses, or trains, people need to be able to walk.
- 7. **Walking is good for the environment**—Unlike driving, walking does not contribute to air, noise, or water pollution.
- 8. Walking can reduce the demand for existing and new roadways Many streets carry more traffic than they were designed to handle, resulting in gridlock, wasted time and energy, and pollution. Providing opportunities to walk can help get more people out of frustrating traffic congestion.
- 9. **Walking can improve people's health**—Regular walking can aid in weight loss; lower blood pressure; improve cholesterol, blood sugar, immune system function, and insulin dynamics; prevent boneloss; reduce the risk of coronary heart disease, stroke, and other chronic diseases; and improve mood and mental performance.
- 10. Walking improves the quality of our lives Walking provides intangible personal benefits (such as a sense of independence and freedom of choice), as well as social benefits (such as opportunities to interact with others and build community closeness and trust) that enrich the lives of children, families, and neighbors.

Source: Pedestrian and Bicycle Information Center, http://www.walkinginfo.org.

RESOURCE SHEET 3:

IDENTIFYING PEDESTRIAN SAFETY CONCERNS USING A WALKABILITY AUDIT

A walkability audit is an evaluation of the walking environment, used to identify concerns for pedestrians related to safety, access, comfort, and convenience.

Informal audits can be performed by any individual or community group. More formal audits (i.e., those that follow a standardized set of audit procedures) can also be conducted; these are usually performed by a multi-disciplinary team of trained professionals, including engineers, planners, transportation researchers, pedestrian and bicycle specialists, and others.

The audit tools listed below can help you identify and document concerns, and better advocate for change in your neighborhood.

EXAMPLE COMMUNITY AUDITS:

Pedestrian and Bicycle Information Center (PBIC) Walkability Checklist

- Evaluate a neighborhood's walkability and identify both immediate answers and long-term solutions to a neighborhood's problems.
- http://www.walkinginfo.org/pdf/walkingchecklist.pdf

Active Community Environments (ACES) Community Assessment

- Assess the health of a community and identify ways to increase opportunities for physical activity in the community.
- http://www.eatsmartmovemorenc.com/programs_tools/community/aces.html

Active Independent Aging Walkability Checklist

- Determine the "walkability" of an area for older pedestrians.
- ${\color{blue} \bullet \ http://www.falls-chutes.com/guide/english/resources/handouts/pdf/WalkabilityChecklist.pdf} \\$

Federal Highway Administration (FHWA) Pedestrian Road Safety Audit Guidelines and Prompt Lists

- Evaluate the safety of various aspects of the walking environment.
- http://www.walkinginfo.org/library/details.cfm?id=3955

Keystone Healthy Routes Neighborhood Assessment

- Assess the safety and walkability of neighborhoods—urban, suburban, or rural—and other locations
 within a community.
- http://panaonline.org/programs/khz/actionkits/hrak/phase3/

A Checklist for Accessible Sidewalks and Street Crossings

- Highlight Americans with Disabilities Act (ADA) provisions for new construction.
- http://www.access-board.gov/prowac/guide/PROWGuide.htm#apndxchklst

EXAMPLE SCHOOL AUDITS:

Florida School Site Assessment for Traffic Safety

- Examine the safety of biking and walking conditions at schools.
- http://www.dcp.ufl.edu/centers/trafficsafetyed/html_safe-ways.html

California Walk to School Day Walkability Checklist

- Identify barriers to walking to school and observe behaviors.
- http://www.cawalktoschool.com

Maryland Safe Routes to School Audit

- Perform a broad assessment of infrastructure, operations, and attitudes.
- http://drusilla.hsrc.unc.edu/cms/downloads/SR2S_Guidebook_1.pdf

EXAMPLE BUS STOP AUDITS:

Easter Seals Project ACTION Bus Stop Checklist

- Evaluate pedestrian access features and connections, assess passenger comfort amenities, evaluate safety and security features, and document information features.
- $\bullet \ \ http://projectaction.easterseals.com/site/PageServer?pagename=ESPA_BusStopToolkit$

Arlington Bus Stop Assessment

- Describe location, surroundings, landing area, connections, amenities, seating, safety, and information provided at bus stops.
- http://www.nctr.usf.edu/pdf/473-13.pdf

RESOURCE SHEET 4:

LOCAL SOURCES OF INFORMATION AND MATERIALS

Use this sheet to organize contact information for people and agencies in your community who are involved in pedestrian issues.

ocal or state pedestrian and bicycle coordinator	
Name/Contact info	
Resources	
ocal or state safe routes to school coordinator	
Name/Contact info	
Resources	
ocal or regional pedestrian advocacy group	
Name/Contact info	
Resources	
ocal or state safety organization (e.g., Safe Kids, Safe Communities, etc.)	
Name/Contact info	
Resources	
ocal or state patrol/police department	
Name/Contact info	
Resources	
ocal or state health department	
Name/Contact info	
Resources	
Public works or engineering department	
Name/Contact info	
Resources	

State department of transportation (DOT)
Name/Contact info
Resources
Regional National Highway Traffic Safety Administration (NHTSA) office
Name/Contact info
Resources
Local or state American Automobile Association (AAA)
Name/Contact info
Resources
Others

Adapted from Streets For People, Too!, Harborview Injury Prevention & Research Center, Seattle, Washington.

RESOURCE SHEET 5:

ANTICIPATING CONCERNS

Your local transportation department or agency may face a variety of challenges when it comes to pedestrian safety issues in your community. Anticipating these challenges and knowing how to respond may help you to build a better dialog and be more successful in advocating for change.

Potential concern 1: We don't have the money or budget to make pedestrian improvements.

One common concern of agencies is: "We don't have the money or budget to make pedestrian improvements." Having an idea of how a pedestrian improvement project can be funded can help you overcome this potential roadblock.

Generally, local governments have capital improvement plans (CIPs) that include the major roadway, sidewalk, and other infrastructure improvements the community plans to complete. Items included in the CIP tend to be fairly expensive and/or large scale and are planned years in advance.

Smaller, less expensive construction and improvement projects may not be placed in a CIP, but could be considered on an as-needed basis.

Listed below are common funding sources that can support pedestrian improvements:

- Federal transportation funds for surface transportation improvements.
- Federal non-transportation funds for projects such as trails or community based-projects.
- State transportation funds for pedestrian projects and programs.
- State non-transportation funds for limited pedestrian activities.
- Local funds such as local tax revenue, special bonds, or capital improvement budgets.
- Private sector funds from sources such as local nonprofit organizations, environmental land trust groups, local bicycling and outdoor recreation stores.
- Corporate and business community funds from sources such as insurance companies, banks, and chain stores.
- · Foundations.

An innovative approach to funding pedestrian safety improvements is to break a large project into small pieces or phases that can be "purchased" by the public. Civic organizations (such as Lions Club), youth groups (such as YMCA or Girl Scouts), health and safety organizations, or even church groups might be willing to partner with you to help raise community funds. Also, contact your local chamber of commerce to identify ways in which the corporate and business community might be able to participate in funding support. Be sure to publicize the participation of any group that supports you.

Also, state offices of traffic (or highway) safety, sometimes referred to as governors' offices of traffic safety can provide you with more information about funding opportunities for programs to improve traffic safety and education (see the *Frequently Asked Questions* section in Chapter 4).

Potential concern 2: There's not a problem there.

Many agencies identify and prioritize pedestrian safety concerns (and locations where improvements will be made) by analyzing the pedestrian-motorist collision (or crash) data. While crashes are one way to determine pedestrian problems, just because a collision has not recently occurred does not mean that there is not a problem. By providing evidence of your concern (e.g., photos, videos, witnesses) you will be more likely to convince officials to investigate the site and/or open up communication with the affected residents. In some cases, you may have to recognize that there are other more pressing concerns that need to be addressed before the agency can focus attention on your community's issue.

Potential concern 3: I'm worried about the effects of pedestrian improvements on other transportation modes.

Sometimes, pedestrian improvements (such as changes in signal timing to allow more time for pedestrians to cross roads) may increase the delay experienced by other road users, such as bicyclists, transit riders, and automobile drivers. Transportation agencies with a focus and priority on safety will usually tolerate increases in delay to other road users, so long as there is a clear safety benefit. But, there are many transportation agencies that still place a higher priority on driver efficiency. Effectively communicating pedestrian issues to agencies and agency officials regularly may encourage a more balanced approach to transportation engineering and planning, thus ensuring all modes, including pedestrians, are adequately considered in the process.

Potential concern 4: If we make this improvement here, we will have to do it everywhere.

Transportation agencies may fear making an improvement in one location if they think they would then be required to make it everywhere, which may incur excessive costs. One way to avoid this concern is to work with agencies to help them establish clear guidelines that describe when an improvement is appropriate, a method for prioritizing projects, and/or how such improvements might be funded.

RESOURCE SHEET 6:

TEN THINGS YOUR PEDESTRIAN GROUP CAN DO

- Each member should commit a certain percentage of your energies to pedestrian issues. Do not be
 overwhelmed. An hour a week, every week, could make a great difference, especially multiplied by
 each member of your group.
- 2. Organize educational seminars in your neighborhood for interest groups to discuss pedestrian issues. Ask other organizations to provide you with programs and guidance.
- Let your local planning and engineering staff and elected officials know that your organization exists
 and get on their mailing list for transportation-related matters, including meeting announcements and
 agendas.
- 4. Write letters to city, county, state and federal officials about your pedestrian concerns and offer suggestions for ways to address them. Or try writing to the editor of your local newspaper.
- 5. Write to a television or radio station and request programs about pedestrian issues. Prepare a two-minute statement about being a pedestrian and call it in to a local radio or television talk show.
- 6. Arrange or attend demonstrations for pedestrian rights. Get a large group of people together to walk, carry signs, or distribute materials with pedestrian slogans and information. At least a week before you demonstrate, send a press release to the local media describing the event. Invite television news teams to join you.
- 7. Attend government hearings to express opinions about pedestrian issues and legislation.
- 8. Become campaign workers for a ballot measure or bill that affects pedestrians. Campaign for a politician who actively supports pedestrian goals.
- Ask members to become experts on one aspect of being a pedestrian and become a resource for others.
 Offer your members as speakers to groups.
- 10. Walk whenever you can and get others to walk with you.

Adapted from an article by Nancy Christie, Board Member, Willamette Pedestrian Coalition, published in Walk Tall: A Citizen's Guide to Walkable Communities, Rodale Press, Pedestrian Federation of America, 1995.

RESOURCE SHEET 7:

ENGINEERING SOLUTIONS TO IMPROVE PEDESTRIAN SAFETY

The following provides a sample of engineering solutions that can be used to improve conditions for pedestrians walking along the street and for pedestrians crossing the street.

SIDEWALK: A PAVED WALKWAY THAT ALLOWS PEDESTRIANS TO WALK ALONG THE ROAD-WAY WITHOUT INTERFERENCE FROM TRAFFIC.

Purpose/Benefits

Provides safe places to walk, run, skate, and play.

Agency Considerations

- May be difficult or expensive to provide sidewalks because of topography, structures, limited right-of-way, etc.
- Some community groups may oppose the construction of sidewalks.



Sidewalk

Common Resident Questions and Answers

Q: Will sidewalks increase crime?

A: More pedestrian activity usually reduces street crime by providing more "eyes on the street."

Q: Will sidewalks decrease property values?

A: "Walkable" neighborhoods often have higher property values because homes in locations where residents can safely walk to schools and other nearby destinations are desirable.

Q: Do we have to cut down trees to create space for sidewalks?

A: Sidewalks can often be constructed without damaging trees by building around significant trees or narrowing/removing traffic lanes to provide space for sidewalks.

BUFFER OR PLANTING STRIP: A ZONE SEPARATING PEDESTRIANS ON SIDEWALKS FROM MOVING VEHICLES ON THE ROAD.

Purpose/Benefits

- · Makes walking along the roadway more comfortable.
- Provides space for utilities, trees, grass, benches, piled snow, or leaves.
- Bike lanes and on-street parking may also act as buffers.



Buffer

Agency Considerations

- May be difficult or expensive to provide buffer space because of topography, limited right-of-way space, the need to move existing curbs, etc.
- Maintenance for landscaped buffers may be costly.

Common Resident Questions and Answers

- Q: Will adding buffer space mean the sidewalk will be located closer to houses or businesses?
- A: Buffer space can be added by removing or narrowing roadway travel lanes in established neighborhoods, or by moving the sidewalk further from the roadway.

MARKED CROSSWALK: AREAS ON THE STREET (DELINEATED BY PAINT, BRICK, ETC.) INDICATING TO PEDESTRIANS WHERE THEY SHOULD CROSS THE ROAD.

Purpose/Benefits

• Warns motorists of the potential presence of pedestrians or/ bicyclists.

Agency Considerations

- High-visibility pavement markings may help drivers anticipate pedestrians better than textured pavement, but they can be used together.
- Marking a crosswalk alone may not create a safer crossing for pedestrians due to motor vehicle speeds, visibility, or number of travel lanes.



Wide marked crosswalk

Common Resident Questions and Answers

Q: Will adding a marked crosswalk to an intersection make it safer?

A: A marked crosswalk does not ensure a safe crossing. Signs, signals, lighting improvements, or traffic calming devices may also be needed, in combination with marked crosswalks, to improve pedestrian safety.

CURB RAMP OR CURB CUT: A RAMP PROVIDING A SMOOTH TRANSITION BETWEEN SIDEWALK AND STREET.

Purpose/Benefits

• Makes facilities more accessible to all pedestrians, including people using wheelchairs or other assistive devices, strollers, or bicycles.

Agency Considerations

• Agencies may want to follow a transition plan to bring facilities up to current Americans with Disabilities Act (ADA) standards.



Curb ramps

Common Resident Questions and Answers

Q: I see many types of curb ramps in my neighborhood. What type is the most effective?

A: The ADA Accessibility Guidelines describe required design elements for curb ramps such as landing space, specific width and slope, and tactile warning strips (bumps). Consult your local transportation or public works department for more information.

Q: Where are curb ramps required?

A: Curb ramps are required wherever there is a pedestrian crossing.

RAISED MEDIANS AND CROSSING ISLANDS: THESE PROVIDE PEDESTRIANS WITH A SAFE PLACE TO WAIT WHILE CROSSING A STREET.

Purpose/Benefits

• Simplifies street crossings by allowing pedestrians to cross one direction of traffic at a time.



Raised median

Agency Considerations

 May be difficult or expensive due to construction costs, limited rightof-way, etc.

- Landscaped medians may limit the ability of drivers to see pedestrians trying to cross.
- Maintenance concerns, especially in areas with snowfall.

Common Resident Questions and Answers

Q: Do raised medians make it more difficult for cars to use driveways or access buildings?

A: A raised median will not affect right turns in and out of driveways or side streets. Left turns would be redirected to a major crossing, which reduces potential conflicts and increases safety for drivers and pedestrians.

Q: What would warn motorists of a person wanting to cross?

A: Signs, pavement markings, and sometimes flashing beacons alert motorists of a pedestrian waiting to cross.

CURB EXTENSION: AN EXTENSION OF THE SIDEWALK INTO THE STREET THAT REDUCES THE DISTANCE PEDESTRIANS MUST CROSS.

Purpose/Benefits

- Improves ability of pedestrians and motorists to see each other.
- Helps slow turning vehicles at intersection corners.

Curb extension

Agency Considerations

- May reduce bike lane width.
- Can be designed with mountable curbs for emergency vehicle access.
- Appropriate for intersections or midblock crossings.

Common Resident Questions and Answers

- Q: Won't curb extensions eliminate on-street parking?
- A: Curb extensions do not typically affect on-street parking, as parking is not permitted at corners.
- Q: Why aren't these installed at every crossing?
- A: Curb extensions are most effective on streets with on-street parking. They are not an alternative for streets with high-speed traffic or without on-street parking because drivers would not expect sudden changes in the roadway width.

TRAFFIC SIGN: AN OFFICIAL DEVICE THAT GIVES A SPECIFIC MESSAGE, EITHER BY WORDS OR SYMBOLS, TO THE PUBLIC. EXAMPLES ARE "STOP," "YIELD," ETC.

Purpose/Benefits

The two types of signs affecting pedestrian safety are:

- Regulatory signs: direct motor vehicles and pedestrians; are typically white. Examples include: stop, no turn on red, etc.
- Warning signs: warn drivers to yield for pedestrians; are typically fluorescent yellow. Includes devices such as pedestrian warning signs, yield here to pedestrian signs, in-street pedestrian crossing signs, school advance warning signs, etc.

Agency Considerations

- · Local laws and ordinances must be followed.
- Right-turn-on-red restrictions can help pedestrians avoid conflicts with turning vehicles. Agencies must consider the impacts on vehicular traffic.
- An engineering study must often be conducted before installing signs. Posting too many signs can sometimes desensitize motorists to the signs.



Regulatory sign



Warning sign



In-street pedestrian crossing sign

Common Resident Questions and Answers

Q: Motorists don't obey signs in my neighborhood. How are placing these signs going to help?

A: In some cases, simply installing a sign is not enough to change driver behavior or improve pedestrian safety. Signs should be used in conjunction with enforcement and other improvements that physically change the roadway environment.

Q: I don't see why a sign in my neighborhood is needed. What should I do?

A: Talk to your local transportation agency or department of public works to find out if the sign is needed. Sometimes a sign may not have been moved as conditions change. Typical examples of this are school warning signs and bus stop warning signs. School zones and school bus stops are determined by the school district and may change without immediate knowledge of the local transportation agency.

TRAFFIC SIGNAL: A VISUAL SIGNAL TO CONTROL THE FLOW OF TRAFFIC. PEDESTRIAN SIGNALS LET PEDESTRIANS KNOW WHEN THEY HAVE PRIORITY AND WARN DRIVERS TO STOP/YIELD FOR PEDESTRIANS.

Purpose/Benefits

• Includes devices such as traffic signals, pedestrian signals, and count-down signals.

Pedestrian countdown signal

Agency Considerations

- Effect on traffic operations of changing signal timing.
- Amount of time pedestrians need to cross the street (and what types of pedestrians are crossing, such as children or older pedestrians).
- Necessity of push buttons and accessible location.

Common Resident Questions and Answers

Q: How can a traffic signal improve pedestrian safety?

A: Having more time to cross a street, giving pedestrians a head-start, or timing a signal so vehicles cannot turn while pedestrians are crossing the road can all improve pedestrian safety. Consult you local transportation or public works department to see if improvements at particular intersections are possible.

Q: Why do I have to press the push button: won't I get a walk signal anyway?

A: On some streets pedestrians may have to push the button to get a signal that gives them enough time to cross the street. Talk with your traffic engineer about the pros and cons of having a push button to activate the signal versus automatically including the walk signal.

TRAFFIC CALMING: PHYSICAL CHANGES TO A STREET TO ENCOURAGE DRIVERS TO DRIVE SLOWLY OR TO DISCOURAGE CUT-THROUGH TRAFFIC.

Purpose/Benefits

• Improves safety for pedestrians as well as drivers.

Agency Considerations

- Street type—usually applied only to minor streets.
- Potential effect on nearby streets—installing traffic-calming on one street may divert more traffic to other residential streets.
- Some traffic-calming devices may limit emergency vehicle access.



Q: Why can't we just install stop signs at every intersection to slow traffic?

- A: Residents often believe that stop signs are the best way to reduce traffic speeds. Using too many stop signs can breed disrespect for signs among drivers and lead to increased running of stop signs and higher speeds between stops. Certain conditions must be met before stop signs should be added as an effective solution for controlling traffic. For a summary of traffic studies conducted on this topic visit:
 - http://www.ci.troy.mi.us/TrafficEngineering/Multiway.htm.

Q: Won't installing speed humps slow down traffic?

- A: You may first think of a speed hump when thinking about slowing down traffic. Consideration must, however, be given to the impact on:
 - · Noise level
 - Emergency vehicle, school bus, and transit service access
 - · Bicycle access



Chicane



Speed hump



Traffic circle



Raised crosswalk

ROAD DIET: NARROWING OR ELIMINATING TRAVEL LANES ON A ROADWAY TO MAKE MORE ROOM FOR PEDESTRIANS AND BICYCLISTS.

Purpose/Benefits

- Reduces motor vehicle speed.
- Provides more space for pedestrian and bicycle facilities.

Agency Considerations

- The road must adequately accommodate traffic flow.
- Extra lanes can be converted to bike lanes, on-street parking, a raised median, or buffers.
- A road diet may divert traffic to a nearby street or neighborhood.

Common Resident Questions and Answers

Q: Won't this cause more traffic congestion?

A: A road diet can't be applied to every street. Road diets are most effective where streets have been "overbuilt" to meet existing traffic volume. When applied appropriately, traffic will remain relatively unchanged.



Street before road diet



Street after road diet

OVERPASSES/UNDERPASSES: A STREET CROSSING SEPARATING PEDESTRIANS FROM MOTOR VEHICLE TRAFFIC (I.E., BRIDGE OR TUNNEL).

Purpose/Benefits

• Provides a safer street crossing for pedestrians and bicyclists when an on-street crossing is not possible.

Agency Considerations

- Both overpasses and underpasses are typically very costly.
- Most effective in areas where topography enables more direct pedestrian paths.
- Crossing level area may have right-of-way issues because of ADA requirements for gradual ramps.
- Must consider security and lighting of separate pedestrian route.



Pedestrian overpass



Pedestrian underpass

Common Resident Questions and Answers

Q: Why aren't overpasses or underpasses always used for dangerous street crossings?

A: Overpasses and underpasses are not the right solution for every dangerous crossing. Sometimes it is better to make the pedestrian crossing safer at the roadway level. If overpasses/underpasses require pedestrians to walk out of their way, the crossing is often not used. To ensure pedestrians use an overpass or underpass, it must provide an easy and direct path to key destinations.

Q: Aren't underpasses unsafe?

A: Residents sometimes voice concerns about the security of an underpass. Design elements can be considered to make them more secure: 1) underpasses should be straight to eliminate hiding places and so pedestrians can see the "light at the end of the tunnel"; 2) they should be as short as possible and open so pedestrians don't feel trapped; 3) they should be well-lit.

STREET LIGHTING: THIS ILLUMINATES THE ROADWAY AND INTERSECTIONS TO HELP MOTORISTS SEE OTHER MOTOR VEHICLES AND PEDESTRIANS CROSSING THE ROADWAY.

Purpose/Benefits

• Makes streets more secure and inviting for pedestrians at night.

Agency Considerations

- Challenges and costs to install and maintain lighting. Potential rightof-way constraints or environmental factors.
- Lighting should be consistent and free of dark spots.



Overhead street lighting

Common Resident Questions and Answers

Q: Will lighting increase pedestrian activity?

A: Lighting may help pedestrians feel safer and more secure, which may mean more people will walk. More "eyes on the street" can help deter criminal activity.

Q: Will new lighting destroy the character of our neighborhood?

A: Some residents may be concerned about lighting and its impact on the nature of the neighborhood. There are many options for lighting design including height, direction, and luminosity that can be tailored to fit the community.

TEMPORARY WALKWAYS: THESE PROVIDE PEDESTRIANS WITH DESIGNATED ROUTES ALONG A CONSTRUCTION SITE WHEN SIDEWALKS AND OTHER PEDESTRIAN TRAVEL WAYS HAVE BEEN CLOSED.

Purpose/Benefits

• Provide appropriate signs and facilities (such as stable curb ramps or sheltered pathways) during construction to maintain pedestrian access.

Agency Considerations

- Agencies may favor a shorter construction schedule over providing more convenient paths to minimize costs and impacts on the community.
- Available (or lack of) right-of-way may affect location of alternate paths.
- Paths may change frequently because of construction activities.

Common Resident Questions and Answers

- Q: I have to walk through a construction zone every day and it changes almost as frequently. How can I anticipate my walking route?
- A: Construction firms are required to submit traffic control plans that specify how they will maintain pedestrian and motor vehicle access. These will be on file with your local transportation agency or department of public works.

Q: What do all these signs in construction zones mean?

A: Construction signs usually warn motorists, bicyclists, and pedestrians of changes in the street environment. All signs must be prominently displayed in advance of the hazard.



A stable, temporary curb ramp



Temporary signage to direct pedestrians to proper crossings

RESOURCE SHEET 8:

SAFETY TIPS FOR PEDESTRIANS AND DRIVERS

SAFETY TIPS FOR PEDESTRIANS:

Make yourself visible to drivers

- Wear retroreflective materials and bright/light colored clothing. Many people are unaware that they are virtually invisible to drivers at night. Clothing with retroreflective materials (such as vests for runners/bikers) can make you visible from up to 500 feet away.
- Carry a flashlight when walking at night. Don't wear headphones. Use extreme caution when crossing the street—assume that drivers cannot see you.



Look for cars before stepping out near parked vehicles.

• Stand clear of buses, hedges, parked cars, or other obstacles so drivers can see you.

Avoid dangerous behaviors

- Always walk on the sidewalk; if there is no sidewalk, walk facing traffic.
- Be aware of the dangers of drinking and walking—walking while impaired increases your chance of being struck.
- Watch for cars reversing in parking lots and near on-street parking spaces.



Look for cars at driveways and parking lots.

Look before you step

- Cross streets at marked crosswalks or intersections if possible.
- Obey traffic signals such as walk/don't walk signals.
- Don't rely solely on pedestrian signals; look left, right, behind you, and left again before crossing a street or stepping into traffic.
- Watch for turning vehicles; make sure the driver sees you and will stop.
- Look across all lanes you must cross and make sure each lane is clear before proceeding.



Look in all directions before crossing streets.

SAFETY TIPS FOR DRIVERS:

Watch for pedestrians at all times

- Scan the road and the sides of the road ahead for potential pedestrians.
- Before making a turn, look in all directions for pedestrians crossing.
- Don't drive distracted or after consuming alcohol or other drugs.
- For maximum visibility, keep your windshield clean and headlights on.

Yield to pedestrians at crossings

- Stop or yield to pedestrians at crosswalks, whether marked or unmarked.
- Stop or yield to pedestrians when making right or left turns at intersections.
- Do not block or park in crosswalks.

Drive the speed limit and avoid aggressive maneuvers

- Never pass/overtake a vehicle that is stopped for pedestrians.
- Obey speed limits and come to a complete stop at stop signs.
- Always be prepared to stop for pedestrians, especially in residential areas and near schools.



Look for pedestrians at all times and don't drive distracted.



Yield to pedestrians at crosswalks and intersections.



Be prepared to stop for pedestrians, especially in neighborhoods.

RESOURCE SHEET 9:

STRATEGIES FOR PEDESTRIAN SAFETY EDUCATION AND PUBLIC AWARENESS

There are major differences in the walking abilities, behavioral patterns, and learning capacities of different road users. Because of this, educational measures need to be tailored to specific audiences and to the behaviors they seek to modify. The following table provides a brief overview of audiences, key messages, and educational strategies that many professionals and community groups use to educate the public about pedestrian safety. Talk with your local injury prevention group, pedestrian/bicycle coordinator, public health agency, or school administrator to see what activities are taking place in your community and how you can be involved.

Audience	Important Messages	Potential Strategies
Child pedestrians	Pedestrian safety skills tailored to their level of development and personal safety (e.g., stranger danger)	 Hold a school assembly, health fair, or have classroom or physical education lessons. Get parents involved. Offer structured skills practice.
College age pedestrians	Reasons to walk or bike, tips for walking safely around campus and town	 Partner with campus offices, organizations, or student groups. Take advantage of campus life and university events to distribute information. Give incentives.
Alcohol consumers	Recognize that heavy drinking increases the risk of a crash, whether you are walking or driving.	 Initiate public awareness campaigns. Work with law enforcement officers, engineers, and public health professionals to address alcohol-related issues.
Adult and older pedestrians	Threats associated with each age group and ways to improve personal safety and law abidance	 Initiate campaigns to targeted settings/situations. Contact and work with established organizations, such as AARP or a senior center, which may already have a strong network with the pedestrian community.
Drivers	Safe driving practices near pedestrians	 Plug into local media — have driver safety awareness campaigns on TV and in newspapers, host a commute-time radio talk series on pedestrian safety issues, or develop an ad campaign to be displayed on billboards, in parking garages, or in other places most visible to drivers. Couple education with enforcement.

RESOURCE SHEET 10:

ENFORCEMENT CONTACT WORKSHEET

Law enforcement contacts:
City Chief of Police
Head of Traffic Section
Key Patrol Officer
When developing a relationship with your local law enforcement agency, here are a few questions to ask:
1. Who are the contacts in the department who are interested in pedestrian safety or are working on pedestrian issues?
2. What enforcement measures are currently in place to protect pedestrians? What are needed?
3. Is the departmental budget and number of traffic patrols adequate to allow for emphasis enforcement of pedestrian safety issues?
Summary of key pedestrian-related laws and related penalties:
Speeding
Jaywalking
Not yielding at crosswalks
Other
Police department policy and training process related to enforcement of pedestrian laws:
Ways that pedestrian concerns could be better addressed:

Adapted from Streets For People, Too!, Harborview Injury Prevention & Research Center, Seattle, Washington.

RESOURCE SHEET 11:

SAMPLE "WARNING" LETTER TO DRIVERS

Dear (driver):

You have received the enclosed written materials because your vehicle was seen traveling through the (insert name of community) neighborhood along (insert street location) on (insert date). The car was also observed failing to stop for pedestrians in a crosswalk [or speeding]. The purpose of this letter is to make you aware that (insert name of community), along with several other neighborhoods, is participating in a special program to help make streets safer for people who walk.

Extra traffic police have been assigned to (insert name of community) to ticket drivers who fail to stop for pedestrians or who speed through this community. The intent of this message is to help you avoid a hefty (insert dollar amount) fine as well as to reduce the number of tragic pedestrian injuries and deaths that occur in (insert name of community) each year. At best, about (insert percent of drivers who stop at crosswalks for pedestrians, usually 20 percent or less) of (insert community) drivers will stop for a pedestrian attempting to use a crosswalk. Please read the enclosed materials (insert information about the law) and familiarize yourself with the crosswalk law and your obligation as a driver. Pass the word along to your friends and family that (insert name of community) is not a good place to pass up pedestrians trying to cross the street. Thank you for your attention to this message and to people who are walking.

Drive safely!

(name of pedestrian safety coalition chair or law enforcement representative)

Remember...Drivers are walkers too!

Adapted from Streets For People, Too!, Harborview Injury Prevention & Research Center, Seattle, Washington.



