

## WHAT IS SAFE ROUTES TO SCHOOL?

Safe Routes to School (SR2S) refers to a variety of multi-disciplinary programs aimed at promoting walking and bicycling to school, and improving traffic safety around school areas through education, incentives, law enforcement, and engineering measures.

Safe Routes to School programs typically involve partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies

Safe Routes to School improvements are often discussed in terms of the Four E's: Education, Encouragement, Enforcement and Engineering.

Engineering — Signing, striping, and infrastructure improvements are implemented along school commute routes.

Education — Students are taught bicycle, pedestrian and traffic safety skills, and educational campaigns aimed at drivers are developed.

Encouragement — Events and contests such as walk-to-school days are used to encourage more walking, bicycling, or carpooling through fun and incentives.

Enforcement — Various techniques are used by law enforcement to ensure that traffic laws are obeyed, such as traffic stings targeted at pedestrian safety and speed feedback trailers.

## THE SCHOOL SITE AUDIT

A school site audit, sometimes called a walking audit or walkabout, is an assessment of the pedestrian and bicycling conditions around the school area. Typically school site audits are conducted by the local school group or task force on foot, by walking the routes that the students use to get to school. .

The goal of a site audit is to document conditions that may discourage walking and bicycling to school, and to identify solutions to improve those conditions. The audit should involve identification of the built environment around a school, the

drop-off and pick-up operations, as well as behaviors of students, parents, and motorists that could contribute to unsafe conditions for bicyclists or pedestrians.



A School Site Audit checklist form has been provided at the end of this handout that asks for detailed information related to: 1) Student Drop-Off and Pick-Up Areas; 2) Bus Loading Zones; 3) Sidewalks and Bicycle Routes; 4) Intersections Near the School Property; 5) Sight Distance; and 6) Traffic Signs, Speed Controls and Pavement Markings.

## ENGINEERING TOOLS: IMPROVEMENTS TO THE PHYSICAL ENVIRONMENT

Engineering tools focus on the design of transportation facilities that provide safe and functional accommodation for bicyclists, pedestrians, and motorists. Engineering measures can help to improve pedestrian and bicyclist safety and access, reduce traffic volumes, and decrease vehicle speeds.



Although some engineering solutions are higher-cost infrastructure improvements, many engineering tools can be implemented without large expenditures, such as posting signs, modifying signal timings, or painting crosswalks or bike lanes.

Some engineering tools include:

- School area signage and pavement markings
- Traffic signals, high-visibility crosswalks, pedestrian count-down signals
- Pathways, bike lanes, sidewalks
- Traffic calming improvements such as bulbouts or speed humps
- Lighting

### **OPERATIONAL TOOLS: IMPROVING DROP-OFF / PICK-UP AND THE SCHOOL COMMUTE**

Operational tools focus on methods to ensure that vehicle traffic, busing and transit, and walking and bicycling to school is conducted in the safest and most efficient way possible. Many of the identified operational tools focus on vehicle pick-up and drop-off activities, ensuring adherence to established procedures, developing specific systems to move vehicles through the loading zone, and use of monitors to expedite the process. Operational tools can often be very low cost and easy to implement, although they may involve a greater outlay of staff resources, and new operational methods may take some time to gain acceptance.

Some operational tools include:

- Adult Crossing Guards
- School Safety Patrol
- Drop-Off/Pick-Up Instruction Flyer- sent to parents at the beginning of the school year.
- Modified parent drop-off/pick-up operations, such as valet drop-off, platooning drop-off
- Walking school bus or bike train
- Park and walk areas



### **EDUCATION AND ENCOURAGEMENT TOOLS: TEACHING SAFETY AND PROMOTING AWARENESS**

Education and Encouragement tools focus on teaching traffic, pedestrian and bicycle safety to parents and students, increasing public awareness of Safe Routes to School goals and benefits, and promoting changes in behavior to increase walking and bicycling.

Educational activities teach children age-appropriate skills related to bicycling and walking, familiarizing students with the positive benefits of bicycling and walking, and foster greater attention by the community in general to the need to operate motor vehicles more safely, especially in school zones.

Encouragement activities include a variety of special events and contests, outreach campaigns, presentations to school and community groups, and surveys of current practices and attitudes related to the school commute. A major objective

of educational and encouragement tools is to increase the understanding by parents, school personnel, students, and the community of the health and safety concerns that can be addressed by successful SR2S programs.

Some educational and encouragement programs include:

- Suggested Route to School Maps
- Walk and Bike to School Days
- Classroom lessons and activities
- Contests
- Safety education
- Banners and signs



### ENFORCEMENT TOOLS: ENSURING COMPLIANCE WITH TRAFFIC LAWS

Enforcement tools are aimed at ensuring compliance with traffic and parking laws in school zones. Through a variety of active and passive methods, enforcement activities help to reduce the threats to the health and safety of children associated with activities such as speeding, failing to yield to pedestrians, illegal turns, illegal parking, and other violations. Enforcement strategies, in conjunction with education efforts, are intended to clearly demonstrate what is expected of motor vehicle operators and to make them accountable for the consequences of their actions

Some enforcement strategies include:

- Targeted enforcement in school areas
- Crosswalk Stings, in which local law enforcement targets motorists who fail to yield to pedestrians in a school crosswalk

- School Parking Lot “Citations”- warnings issued to educate parents about the safety hazards of improper parking
- Neighborhood speed watch
- Speed feedback signs



### RESOURCES: LINKS TO OTHER SR2S TOOLKITS AND GUIDEBOOKS

There are many excellent resources for Safe Routes to Schools Programs available online.

#### National Center for Safe Routes to School

The National Center for Safe Routes to School assists communities in enabling and encouraging children to safely walk and bike to school. The Center strives to equip Safe Routes to School programs with the knowledge and technical information to implement safe and successful strategies. The website includes links to an academy of National SR2S Instructors who lead trainings and provide assistance to local jurisdictions wishing to develop a SR2S program.

Web site:  
[www.saferoutesinfo.org](http://www.saferoutesinfo.org)

### **KidsWalk-to-School: A Guide to Promote Walking to School**

This guide by the Centers for Disease Control and Prevention is a tool to help you develop a walk-to-school program that is appropriate for your neighborhood. It includes a checklist and step-by-step guidelines for creating a KidsWalk-to-School program such as a “walking school bus.” Sample letters, surveys, forms, and an extensive list of resources are included.

Web site:

[www.cdc.gov/nccdphp/dnpa/kidswalk.htm](http://www.cdc.gov/nccdphp/dnpa/kidswalk.htm)

### **Pedestrian Safety Toolkit**

This toolkit includes resource materials that states and communities can use to implement their pedestrian safety programs and achieve their goals. It contains a compilation of federal agency pedestrian safety videos; an interactive CD-ROM of pedestrian resources with subject-to-subject cross referencing; a user manual that explains how to create effective pedestrian safety programs; a resource manual that references NHTSA, Federal Highway Administration and Federal Railroad Administration materials; and sample materials and information that cover the basics for all who want to do pedestrian safety and advocacy.

Web site: [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)

### **Safe Routes To Schools Toolkit**

This toolkit, developed by the Marin County Safe Routes To Schools project in California — in partnership with NHTSA and the California Department of Health Services — is designed to be used in initiating and implementing a Safe Routes To Schools program. It includes examples of classroom activities, ideas for promotions, information on safe streets, resources, and forms to assist you along the way.

Web site:

[www.nhtsa.dot.gov/people/injury/pedbimot/ped/saferouteshtml](http://www.nhtsa.dot.gov/people/injury/pedbimot/ped/saferouteshtml)

### **Safe Ways To School Toolkit**

This toolkit details systematically how to create a Safe Ways To School program for your community. It provides an overview of the implementation process, and includes sample tools such as a student travel survey, parent survey, neighborhood site assessment, and implementation ideas. It also contains a video and sample materials, including handouts for students, parents, and schools.

Web site:

<http://www.dcp.ufl.edu/centers/trafficsafetyed/safeways.htm>

### **Way to Go! Manual and Resource Kit**

The “Way to Go! Manual and Resource Kit” can help parents, teachers, and student groups design and implement school-based, traffic-reduction programs in their communities. It includes ideas, strategies, information, and educational and curriculum resources. Other manuals available include: “Bike Smarts: A Handbook;” “RoadSenseKids: Passport to Safety (Teaching Guide for K-3);” and “Walking/Wheeling Challenge Map.”

Web site: [www.waytogo.icbc.bc.ca](http://www.waytogo.icbc.bc.ca)

### **National Strategies for Advancing Child Pedestrian Safety and National Strategies for Advancing Bicycle Safety**

“National Strategies for Advancing Child Pedestrian Safety” details six strategies and action steps readily implemented by anyone interested in reducing pedestrian injuries among children, all while encouraging them to become more active and explore their environment on foot. “National Strategies for Advancing Bicycle Safety” is designed to be a roadmap for policy makers, safety specialists, educators, and the bicycling community to follow as they promote national, state and local efforts to increase safe bicycling. It includes goals, strategies, short- and long-term actions that can reduce injuries associated with bicycle riding.

Web site:

[http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/bicycle\\_safety/](http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/bicycle_safety/)

## **SCHOOL SITE AUDIT CHECKLIST FORM**

The following pages provide a School Site Audit Checklist form that should be used as the basis for the walking/bicycling audits conducted by local school task forces. This form was modified from the Florida Safe Ways to School Toolkit, which is listed as a resource in the previous section.

**SCHOOL SITE AUDIT CHECKLIST**

SCHOOL NAME: \_\_\_\_\_

SCHOOL DISTRICT: \_\_\_\_\_

**INSTRUCTIONS**

The following site audit should be conducted to help determine walking and bicycling conditions on/adjacent to school property. This audit will help the school to discover potential areas for design improvements and increased safety. Members of the School SR2S Task Force, the School Principal, and a traffic engineer from the local jurisdiction should observe conditions during the drop-off and pick-up periods, and fill out the following audit form in order to see how students get to and from school. Audits should be conducted during periods of good weather if possible. Please take a map of school neighborhood with you on the audit for orientation and note taking. Aerial photo maps can be helpful for identifying specific detailed locations, and can be downloaded from internet sources such as Google Earth (<http://earth.google.com>). Please take digital photos of any identified problem areas to accompany your notes.

Audit Date: \_\_\_\_\_ Day: \_\_\_\_\_ Time: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

**ADDITIONAL NOTES ABOUT AUDIT CONDITIONS:**

*This Checklist Form was modified from the Florida Safe Ways to School Toolkit*

**1. Student Drop-Off and Pick-Up Areas**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Is an on-site parent drop-off/pick-up area provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. If the drop-off/pick-up area is on-site, is this loading area separated from the rest of the school parking lot?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. If pick-up/drop-off occurs on-street, is a marked loading zone provided along the curb?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Do drop-off/pick-up areas, either on-site or on-street, provide sufficient space for vehicles to line up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Is a school staff person or other monitor present and visible during the drop-off/pick-up period to assist with loading/unloading?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Does morning drop-off traffic move in an orderly fashion without congestion and backup?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Does the afternoon pick-up line form in an orderly fashion, with vehicles waiting in designated areas, not double-parking, not blocking nearby residential driveways, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Are drop-off/pick-up areas situated so that students exiting or entering cars have a designated pathway to/from school buildings (e.g. do not walk between parked vehicles)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Does drop-off/pick up occur along a raised curb, so that pedestrians unload onto a sidewalk or walkway separate from vehicle traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Are there accessible curb ramps for wheelchair access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Are there posted vehicular signs (e.g. "No Parking", "Bus Only", etc)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Is the area adequately lighted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Is there excessive idling of vehicles and buses while they wait to pick up children?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Please describe additional problems within the student drop-off area in the space provided below. Remember to take photos.			

**2. Bus Loading Zones**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Are bus driveways physically separated from pedestrian and bicycling routes by raised curbs or bollards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are bus driveways physically separated from parent pick-up/drop-off areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Are measures taken for safety of students needing to cross in front or behind the bus?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Is traffic in the bus loading zone one-way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Does the bus zone meet the minimum width of 24' for drop-off/pull-out lanes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Is there a continuous curb and sidewalk adjacent to the drop-off/ loading area leading into the school site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Is the bus loading/unloading zone lighted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Please describe additional problem areas regarding the bus loading zone in the space provided below. Remember to take photos.			

**3. Sidewalks and Bicycle Routes**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Are current pedestrian and bicycle routes separated from motor vehicles by the use of sidewalks or separated pathways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are the bicycle routes designated by signage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Are marked bicycle lanes present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Is the bicycle lane network continuous and without gaps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Are children wearing bicycle helmets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Are sidewalks and bicycle paths regularly maintained (free of debris, cracks and holes)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Are the sidewalks continuous and without gaps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Are there accessible ramps for wheelchair access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Do the ramps have tactile warning strips or textured concrete?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Are the sidewalks lighted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Are the sidewalks used regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Please describe additional problem areas regarding the school's sidewalk system and existing bicycle routes in the space provided below. Remember to take photos.			

**4. Adjacent Intersections (intersections near school property)**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Are there high volumes of automobile traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are there high volumes of pedestrian traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Are there painted crosswalks for all crossing directions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Are there curb ramps located at all adjacent intersections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Is there appropriate vehicle signage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Is there traffic control, such as a stoplight or stop signs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Are there pedestrian walk signals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. For midblock crossing locations, are there adequate gaps in traffic to allow pedestrians to cross?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Are pedestrians crossing in marked crosswalks, or are they using unmarked locations or jaywalking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Please describe additional problem areas regarding these intersections in the space provided below. Please identify specific intersections, and any problems associated with each. Remember to take photos.			

**5. Sight Distance (clear views between motorists and pedestrians)**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Are desirable sight distances (visibility is free of obstructions) provided at all intersections within the walking zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Do cars park or wait blocking the vision of other motorists, bicyclists and pedestrians?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have the placement of fences, walls, dumpsters and the location of parking areas for service vehicles been carefully considered in view of sight distance requirements on the school site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Are there any barriers present that block the viewing of pedestrians and bicyclists (i.e. dumpsters, utility boxes, parking areas, ground mounted signage, building walls)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Is landscaping and vegetation trimmed clear of sidewalks and pathways, and not obstructing sight distance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Please describe additional problem areas that have sight distance obstructions in the space provided below. Remember to take photos.			

**6. Traffic Signs, Speed Control, Signals and Pavement Markings**

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
a. Are there School Zone signs, School Crossing signs, School Speed Limit signs, flashing beacons, and No Parking or No Standing signs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are any high visibility (fluorescent yellow-green) signs used in the school zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Is there an effective school targeted program of traffic enforcement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Are there any school pavement markings located on roadways adjacent to or in the vicinity of the school grounds (e.g. "SLOW SCHOOL XING")?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Are there currently traffic/speed control measures used in the area, such as speed humps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Please describe additional information regarding adjacent traffic signs, speed control, signals and pavement markings in the space provided below. Remember to take photos.			

**7. Other Barriers to Walking and Bicycling**

Please use the space below to describe any additional problems or issues not identified in the checklist above. These may include policy barriers as well as infrastructure barriers. Be as specific as possible when describing a particular issue or location.