

# Safe Routes to School Briefing Sheets

## Walking and Bicycling Audits



### INTRODUCTION

Walking and bicycling audits are field visits to identify barriers or challenges to students using these modes to travel between home and school. Also known as assessments, audits generally include a tour of the school area,<sup>1</sup> where participants identify issues related to walking and biking, followed by a debriefing and brainstorming session to rank high-priority concerns and identify potential solutions. Participants systematically document information about the social, built, and natural environments that affect students walking or bicycling to and from school. This process fosters communication between local traffic officials and school stakeholders by bringing both groups together in the field.



Figure 1. Walking Audit Team. Source: David Parisi

Walking and bicycling audits provide community stakeholders with the information they need to analyze the design and condition of the transportation network. They provide specific facility and operational information to transportation planners and an engineer, which, allows experts to develop optimal walking and bicycling routes to school, target areas where changes are needed, and identify physical and policy solutions to improve the walking and bicycling environment.

### IDENTIFYING KEY STAKEHOLDERS AND SETTING UP THE AUDIT

The most important element of a successful walk audit is strong participation from school stakeholders and from local engineering and enforcement officials. Stakeholders can include parents, children, school staff, school district officials, public works or traffic department staff, local engineers or planners, and law enforcement officials. The audit leaders can either invite a targeted list of key stakeholders or invite the general public via a flier or press release. School task forces and staff can promote the audit as part of regular communications among parents, teachers, and students. If a school already has a Safe Routes to School (SRTS) Task Force or Safety Committee, these groups are logical participants in the audit, as well as conduits to recruit additional participants.

Generally, personnel with experience in pedestrian and bicycle issues lead the audit, while participants gather information and share their experiences. Audits should preferably be scheduled during both the morning arrival and afternoon release periods to evaluate activities and conditions during times of peak demand.

### PREPARING FOR THE AUDIT

In advance of the audit, background information can be collected via interviews and parent surveys. The school's SRTS Task Force and other key personnel should be interviewed to determine where students live, what key routes students take, and what policies the school has on walking, bicycling, busing, and student loading. Parent surveys may indicate how often students walk or bike to and from school and specific areas of concern. Surveys can determine how far most students live from school, which can help identify targeted strategies for encouraging alternatives to driving. Provide a map for audit participants to note specific locations of their comments and to identify problem areas on which to focus the audit. The map can simply be printed from an online source. At a minimum, the map should include an aerial with streets named and the school site indicated. It should show a half-mile radius around the school, and should be plotted at a large scale or individual maps should be provided to participants. Geographic information system-based data may be available or can be readily accessed, and can include presence of major streets, rivers, crash information, and motor vehicle volumes to help identify barriers. Maps can indicate the specific catchment area, or the distance from school that the average student or

family can reasonably be expected to walk or bike. If the district can provide school attendance boundaries, this information should be indicated on the map. The audit is a good opportunity to evaluate the walking and overall attendance boundaries.

Materials to bring to the audit include:

- Large-scale aerial map of the school area
- Smaller maps for each audit team
- List of previously identified issues
- Sign-in sheet for follow-up
- Checklists of information to gather
- Clipboards and pens
- Camera
- Water and other refreshments
- Reflective vests
- Interpreters as needed

## CONDUCTING THE AUDIT

Participants should gather at the designated time, and the audit leader can provide materials and discuss the agenda. If there are multiple locations to cover and/or a large number of participants, the group can be divided into separate teams for the observation segment of the walk audit. A bicycling audit should be conducted on bicycles, and participants should pause to note conditions and user behaviors.

When conducting an audit, participants need to consider the perspectives children have when walking and bicycling to and from school. Keep in mind that younger children have difficulty seeing and evaluating traffic conditions because of their height; processing information because of their limited peripheral vision and visual acuity; correctly perceiving the direction and sound of traffic; and understanding the use of traffic control devices and crosswalks.

Within the school zone, participants should inventory facilities and behavior of students and parents. Many audit forms and templates are available online.<sup>2</sup>

The following information should be collected:

- School area traffic controls and sidewalks—presence and condition of all sidewalks and signs that serve the school, including signs indicating the school zone, speed limit, and drop-off/pick-up area;
- Drop-off/pick-up site—conditions of route for students getting dropped off/picked up;
- Route for students walking or bicycling to/from school—conflicts with driveways and/or traffic flow, presence of dedicated route up to the school entrance;
- Crossing guards—number and location, condition of crossing guard equipment (STOP paddles, safety vest, etc.), and level of training;
- Bicycle parking—presence, location, visibility, and use;
- School policy—separate dismissal time for students who walk or bike, policies for bus loading and parent drop-off/pick-up (designating separate entrances and loading zones, drop-off/pick-up queuing, timed arrivals or dismissal, student or teacher valets, etc.);
- School education and encouragement efforts—traffic safety, walking, and/or bicycling education; walking school buses; contests; events; etc.; and
- Visibility—adequate lighting, line of sight to pedestrian paths, presence of obstructions (light poles, signs, vegetation, parked buses or other vehicles, etc.).

As participants walk around identified locations of interest, they should observe the following information:

- Sidewalk conditions—presence and continuity of sidewalks, width, condition of the surface, buffer from the travel lane, obstacles such as utility poles, signs, or vegetation;
- Pathways—presence of formal or informal off-street paths or cut-throughs;
- Bikeways—bike lane characteristics (width, continuity, and presence of adjacent parking), bikeway signs and pavement markings, speed and volume of traffic, pavement condition, street crossing treatments or conflicts;
- Traffic patterns—streets where drivers tend to speed, intersections with a high rate of turning cars, conflicts between walking or bicycling routes and traffic patterns; and

- Visibility—whether pedestrian and driver sight distances are sufficient for pedestrians less than 5 ft. tall

At street crossings, interviews with crossing guards can identify ongoing or critical programs with circulation, including driver behavior, student behavior, or infrastructure issues. Information to collect at street crossings includes:

- Curb ramps—presence of curb ramps, presence of tactile strips at the base of the ramp, Americans with Disabilities Act compliance, number of curb ramps per corner, presence and condition of landing area (3-ft. flat section at the top of the ramp);
- Marked crosswalks—condition, type of pavement markings, presence of signs, visibility at the crosswalk, and whether the ramp is contained within the crosswalk markings;
- Traffic signals—pedestrian signals, push-button location and signing, countdown feature, audible pedestrian signal features, and sufficient crossing time. Verify that the push button works and is reachable by a person in a wheelchair; and
- Behavior—where the students cross the street, whether drivers tend to yield for students, whether speeding is a problem.

In addition, participants should gather information about potential personal safety issues, such as locations without street lights, locations where overgrown vegetation impedes visibility, areas with unleashed dogs or abandoned buildings, and areas of known (or suspected) crime.

## DEBRIEFING THE AUDIT WITH PARTICIPANTS

After the observation and peak travel activity period is over, participants gather to discuss the issues that were identified and to begin identifying preferred routes, potential safety/nonmotorized improvements, and policies for bus and student loading. Participants should arrive at a consensus on the nature of the problems and begin identifying top priority issues for students, particularly those who walk or bicycle. The audit leader then summarizes the key issues, and participants can discuss how to prioritize addressing the issues. To conclude the walk audit, the audit leader should identify the next steps for reviewing the walk audit and mapping project results.

If desired, the audit can focus on arriving at consensus on the traffic issues. The audit leader can conduct additional fieldwork based on participants' observations and work with engineers to identify solutions. Participants can reconvene at a later date to discuss potential solutions and prioritize improvements.

## COMPLETING THE AUDIT AND NEXT STEPS

After the audit, the leaders work with local authorities (city engineers and/or planners and school district staff who would be implementing the improvements) to identify potential short-term, low-cost solutions as well as longer term options. Solutions should include education, encouragement, and enforcement strategies in addition to engineering projects. Noninfrastructure examples include walking school buses, walking buddies, police or community enforcement, student loading policies, and student education on proper walking and bicycling behavior (see the National Center for Safe Routes to School *SRTS Guide* for a comprehensive source of strategies<sup>3</sup>). A list of action items or an action plan can be developed with timeframes and task leaders, which should be reported back to audit participants and other stakeholders.

Information from the audit can be used to develop a school route map. See the ITE Briefing Sheet—*School Route Maps* and the National Center for Safe Routes to School *Tips for Creating Walking and Bicycling Route Maps*<sup>4</sup> for additional guidance on developing these maps. Funding for infrastructure projects and encouragement, enforcement, and education may be available through your state SRTS program, managed by your state Department of Transportation or metropolitan planning organization (where the population is 200,000 or greater).

## REFERENCES

1. The school area is generally the area within a half-mile from the school, depending on the enrollment boundary and barriers to walking and bicycling.
2. <http://www.saferoutesinfo.org/program-tools/engineering-tip-sheets-assessing-walking-and-bicycling-routes-selection-tools>.
3. <http://guide.saferoutesinfo.org>
4. <http://saferoutesinfo.org/sites/default/files/walkbikeroutetipsheet.pdf>.