

Safe Routes to School Toolkit



Safe Routes to School Toolkit

Produced by Active Transportation Alliance



ACTIVE TRANSPORTATION
ALLIANCE

Acknowledgements

About Active Transportation Alliance

The mission of Active Transportation Alliance is to make bicycling, walking, and public transit so safe, convenient, and fun that we will achieve a significant shift from environmentally harmful, sedentary travel to clean, active travel. We advocate for transportation that encourages and promotes safety, physical activity, health, recreation, social interaction, equity, environmental stewardship, and resource conservation.

We are both Chicagoland's voice for better biking, walking, and transit and a premier consultancy. Our staff includes planning, policy, and education experts who developed many of the best practice programs and policies included in this toolkit.

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About Illinois Safe Routes to School

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Getting Started

Getting Started

Introduction

Safe Routes to School is an international movement focused on making streets safer for children to walk and bike to school. Safe Routes to School uses the “5 E’s” – education, encouragement, enforcement, engineering and evaluation – to provide strategies that address both the physical and social barriers to walking and biking to school. In the United States, Safe Routes to School was born out of a concern for the decline in the rates of students who walk or bike to school.

The hallmark initiative of the Safe Routes to School movement is International Walk to School Day. Celebrated by over 40 countries and thousands of schools in the United States, International Walk to School Day can help raise awareness about the benefits of walking and biking to school. International Walk to School Day can also make the barriers and challenges to walking and biking to school more evident and lead parents, school administrators and community leaders to want to make a change.

The purpose of the Safe Routes to School Toolkit is to help new Safe Routes to School initiatives get started. The Toolkit includes nationally recognized strategies grouped by each "E" for implementing Safe Routes to School. The toolkit also includes resources that can help strengthen your Safe Routes to School program.

The goal of this guide is to help schools make every day a Walk (and Roll) to School Day.

Using this guide

“Drivers don’t stop for pedestrians in crosswalks.”

“We don’t have crossing guards.”

“Parents are double parking in the school zone.”

Starting a Safe Routes to School program can be overwhelming and sometimes frustrating. School administrators, police officers, and municipal engineers hear complaints like these nearly every day during the school year, but many feel powerless when it comes to solving the problems. In fact, for many of these situations, no one strategy will provide a fix.

Many champions of Safe Routes to School know what the problems are, but are unsure about where to get started or how to develop solutions.

The Safe Routes to School Toolkit is divided into 6 chapters. The Getting Started Chapter includes charts and tools to help you assemble a team of players identify barriers to walking and biking to school and create solutions. To get started, review the chart on page 10. For each problem, the chart includes possible education, encouragement, enforcement, engineering and evaluation solutions that can help make walking and biking to school in your community the safer and more convenient. Descriptions of each of the solutions are included in each section following the chart.



Getting Started (continued)

Tips for getting started

The National Center for Safe Routes to School offers the following advice² for getting started on a Safe Routes to School program:

1. Assemble your team.
2. Hold a kick-off meeting and identify goals and a vision.
3. Assess existing conditions.
4. Identify solutions.
5. Make a plan.
6. Evaluate, adjust and keep on moving.

The Safe Routes to School Toolkit includes resources to help you assemble your team, set a visioning, identify issues, and identify solutions. Use the charts on pages 7, 8, 9 and 10 to get started.

For additional tips and tricks, visit the National Center for Safe Routes to School at <http://guide.saferoutesinfo.org/>.



Police officers and community members work together to identify hazardous conditions in Des Plaines, IL.

ASSEMBLE YOUR TEAM



Use this sheet to indicate names and contact information of potential members of your Safe Routes to School team.

	Name	Telephone	Email
Primary Contact			

Recommended Staff Participants

Please indicate whether you have staff resources in these areas to help lead this planning effort. Not all schools in the district need to be represented on the steering committee.

Contact	Name	Telephone	Email
Superintendent's Office			
Mayor's Office			
Engineering Department			
Public Works			
Principal(s)			
PTA Representative(s)			
Police Officer			

Additional Participants

Please indicate additional staff that could provide valuable insight to the planning process.

Contact	Name	Telephone	Email
County Engineer			
State Engineer			
Chamber of Commerce			
Crossing Guard(s)			
Teacher(s)			
Bike Advocates			
Hospitals			
Other			

IDENTIFY GOALS & VISION



Ask each team member to indicate preferences by marking a box next to each goal area. Encourage team members to order preferences by distributing your responses throughout high-med-low priority area

		PRIORITIES	High	Hi-Med	Med	Med-Lo	Low
ENGINEERING	Install or replace sidewalks						
	Install or replace bike lanes						
	Build off-street walking/biking paths						
	Install street crossing improvements						
	Install new or improved lighting						
	Install new or improved school zone signage						
	Install new pavement markings or legends						
	Make existing walkways accessible to disabled students						
	Install bike parking new schools						
	Install traffic calming or speed reduction measures						
	Install traffic control devices						
	Design drop-off and pick-up procedures						
	Divert traffic away from school zone						
EDUCATION	Teach in class bicycle safety skills						
	Teach in class pedestrian safety skills						
	Organize a bike rodeo						
	Teach health, environmental and sustainable transportation skills to students						
	Educate parents/caregivers about safe driving						
	Train school and community audiences						
ENCOURAGEMENT	Host International Walk to School Day or other event						
	Initiate a biking/walking mileage club or other contest						
	Create a park and walk program						
	Promote Safe Routes to School in the community						
	Provide incentives to students for safe behaviors						
	Start a Neighborhood Watch Initiative						
ENFORCEMENT	Conduct a community safe driving awareness campaign						
	Create a crossing guard training program						
	Create a parent or student patrol program						
	Lower speed limits in school vicinity						
VISION	Increase enforcement in school zones						
	What is your vision for students in the community?						

ASSESS EXISTING CONDITIONS



Work with your Safe Routes to School team to identify and discuss existing conditions and common barriers to Safe Routes to School for each school in your district.

1. Do your schools have students who (check all that apply):

walk to school

ride their bike to school

ride a school bus

Due to distance?

Due to road hazards?

Special needs/disability?

are driven to school by an adult

use public transportation to get to school

2. Is there anything we need to know about the dynamics of the school population (i.e. is this an grade center, magnet school, neighborhood school)?

3. Where do most students live with respect to each school's property?

4. Does your school district have any school transportation policies? Do your individual schools? Are students permitted to ride their bikes to school? Are there certain roads they aren't permitted to cross?

5. What is the span of time in which children arrive at school? Depart? Is there a specific departure procedure?

6. Does your school district use crossing guards or student patrols? If so, at what locations?

7. Are any school personnel directly involved in managing auto-driven student drop-off and pick-up at any of your schools (this does not include lining up, breakfast, etc.)?

8. Are any of your schools slated to undergo any construction or renovation projects that may impact travel patterns around the school?

9. What are your concerns regarding student safety with respect to traffic, including:

- Parent/resident complaints
- Traffic crashes (particularly pedestrian or bicycle)?
- Specific problem locations that serve as barriers to walking or biking (i.e. problem intersections, difficult crossings, missing sidewalks, etc.)?

10. Have there been any efforts to increase or improve safety for walking and bicycling to school in the past (i.e. ped/bike safety lessons, bike rodeos, encouragement programs or events)?

Getting Started (continued)

Use this chart to help you identify solutions to common barriers to starting a successful Safe Routes to School program.

Solutions	Education				Encouragement						Enforcement					Engineering										Evaluation															
	Student Bike and Pedestrian Safety Education	Personal Safety Education	Safe Driving Education for Parents	Safe Driving Education for Neighbors	Special Events	Walking School Bus/Bike Train	Student Competitions	Checklists/Route Maps	Middle School and Afterschool Programs	Park and Walk/On-Campus Events	Parent Patrol/Driveway Monitors	Student Patrol	Neighborhood Watch Groups	Portable Speed Limit Signs	Adult School Crossing Guards	Targeted Enforcement Campaign	High Visibility Crosswalks	Road Diet	Raised Crosswalk	Stop Sign or Traffic Signal	Pedestrian Countdown Signal	Install Bike Racks	Curb Extensions	HAWK Signal or Pedestrian Beacon	Center Median	Daylight Intersections	Leading Pedestrian Interval	Lighting	Must Stop for Pedestrians Signs	Sidewalk Buffers	Student Travel Tally	Survey Parents	Crash Data	Student Health Data	Student Absences	Student Behavior Problems	Data on Number of Tickets Issued	Environmental Data			
Bike theft	•		•																		•																				
Bullying, stranger danger, gang activity, or other personal safety concerns		•		•		•		•	•			•			•																										
Cars parked illegally				•																										•											
Unsafe conditions at pick-up and drop-off			•		•	•	•		•	•					•	•		•																							
Convenience			•			•			•																																
Distance								•	•																																
Distracted driving			•	•	•										•														•												
Drivers don't stop for pedestrians in the crosswalk	•		•	•		•				•					•			•					•	•		•	•														
Speeding on local roads	•		•	•		•							•		•			•					•						•												
High-speed and/or high-volume road or intersection	•		•	•		•											•	•			•					•			•	•											
No clear route to school	•					•	•	•	•																			•													
Lack of funding for programs																													•	•	•	•	•	•	•	•	•	•	•	•	•
Lack of support from city																													•	•	•	•	•	•	•	•	•	•	•	•	
No place to bike on streets or sidewalks																		•																							
Need to increase driver awareness in school zones			•		•	•									•																										
No data to support program																													•	•	•	•	•	•	•	•	•	•	•	•	
No documentation of successes																													•	•	•	•	•	•	•	•	•	•	•	•	
No time in classrooms									•	•																															
Dangerous or high-volume pedestrian intersection	•			•		•			•						•		•		•		•		•	•	•	•	•	•													
Perceptions vs. reality of safety		•			•	•	•		•			•			•																										
Poor pedestrian visibility	•														•		•		•		•		•	•	•	•	•	•													
Students with disabilities	•		•		•	•	•	•	•						•									•	•	•	•	•													
Unsafe student ped/bike behavior	•									•																															
Unsignalized crosswalk	•		•	•		•									•								•	•				•													
Weather					•	•	•		•																																
Wide intersection																				•			•		•		•														

Education

Education

School walking and biking routes are only safe if all users of the roadway, including bicyclists, pedestrians, school bus drivers and drivers follow laws and behave in safe and predictable ways. Unfortunately rules of the road are not always followed, which creates unsafe situations for the most vulnerable users of the roadway – students travelling on bike or on foot. Education programs provide an opportunity to foster lifelong habits of safe walking and bicycling, but are only effective if drivers around school zones are also practicing safe behaviors.

Education is a critical first step in any Safe Routes to School initiative that should be sustained throughout. Children, parents, and neighbors alike need educational messages in order to create a safe environment for children walking and biking.

Solution: Student Bike and Pedestrian Safety Education

Any education effort aimed at providing children with the tools to walk and bike to school must teach them safety skills. The core of pedestrian safety for children is learning how to cross the street safely. Specific scenarios should be addressed with children including:

1. Crossing mid-block, often from between two parked cars.
2. How to choose appropriate places to walk, especially where sidewalks do not exist.

Bicycle safety training can create better riders as well as better future drivers who are more aware of cyclists on the road. Bicycle safety education may require assistance from local experts such as a police officer or bicycle club. Teaching bicycle safety should include two parts:

1. Pre-ride preparation: helmet use, bike check and visibility.
2. Safe Riding Skills: Rules of the road and safe riding on sidewalks.

It is important for children to have supervised time to practice these skills, either in school with staff or outside instructors, or with parents or afterschool program specialists.

Sample guidelines³ produced by Active Transportation Alliance for bicycle and pedestrian safety are included on the following page. For additional resources, visit www.activetrans.org/education.



A Forest Park police officer explains bike rodeo course to children. Photo courtesy of the Forest Park Police Department.



With a properly fitted helmet, the student is ready to ride the bike rodeo course.



Bicycle & Pedestrian Safety Guidelines

Bicycle Safety

Always wear a helmet that fits well:

- Eyes– one should be able to see the very edge of the helmet by looking up with ones eyes only.
- Ears– the straps should be even and form a “Y” underneath each earlobe.
- Mouth– One should be able to fit one finger between the buckle of the chin strap and the chin. If one opens his/her mouth, one should be able to feel the helmet pulling down on top.

Make sure the bike you are riding is the right size for you: rider can reach the ground and have at least a half inch of stand over height.

Before riding, remember your ABCs (air in the tires, brakes working and chain working properly). Make sure lights and reflectors are working as well.

Ride with your hands on the handlebars. If you need to carry something, use a backpack or attach a basket to your bike.

Be aware of the road itself – be on the look out for sticks, potholes or trash on the road.

Ride on the right side of the road, in the same direction as the traffic. If there is a sidewalk and your community allows riding on it, which is the safest place for children to ride.

Obey traffic lights and signs. If riding on the sidewalk, walk your bicycle across the street when crossing.

Watch for cars both in the street and coming out of driveways, alleys and parking lots.

Cross the street at corners and look left, right, then left again to be sure it is safe to cross.

Pedestrian Safety

Walk on a sidewalk whenever possible. If there is no sidewalk, walk on the left side of the road, facing oncoming traffic.

Before crossing a street, stop and look left, right and then left again to make sure it is safe to cross. Also look over your shoulder for cars behind that are turning toward the crosswalk.

Walk, don't run, across the street.

Cross at corners, using crosswalks and traffic lights whenever possible.

- This hand signal instructs people not to walk.



- This hand signal informs people that it is safe to walk, but walkers still need to look left, right, left before crossing.



It is recommended that children under 10 not cross a street alone. Children under 10 should have a walking buddy that is older.

Education (continued)

Solution: Personal safety education

Personal security can include issues such as bullying, personal violent crime, exposure to gang activities or abduction, and is often not unique to the trip to school, so it is important for schools to assess the personal safety concerns that impact their students and to provide personal security education that is relevant to their community. A local law enforcement officer can provide factual information to help parents understand true risks and assist the SRTS program in focusing efforts.

National safety programs recommend teaching children street-smart skills in addition to pedestrian safety, including walking with friends, identifying safe places along their route to school, and reporting unsafe behavior. Parent or caregiver support and involvement in student personal security is important. SRTS programs can provide parents with information on how to discuss and teach about personal security issues, such as bullying, with their children.

Solution: Pick-up and drop-off procedures

Driver behavior dramatically impacts safety around schools for children walking or biking. Not surprisingly many of the drivers around a school during peak times are parents. To that end it is important to educate and reinforce safe driving practices with parents.

Key messages include:

1. Watching for and yielding to pedestrians and bicyclists.
2. Driving slowly (max 20 mph).
3. Avoiding distracted driving.

Educate Parents about proper Pick-up and Drop-off Procedures: Information about drop-off and pick-up procedures should be distributed at the beginning of the school year. Providing maps or written instructions to parents helps reinforce that the school or school district is serious about drop-off and pick-up. If these procedures are not laid out, well communicated and executed in an orderly fashion it can create unsafe conditions for students who walk or bike.

Educate about active modes of transportation for parents: Parents should also be offered education about alternatives to using their cars for transportation. Parents may discover that with a few alterations to their schedules and habits, driving a car for some trips around the school may be unnecessary.

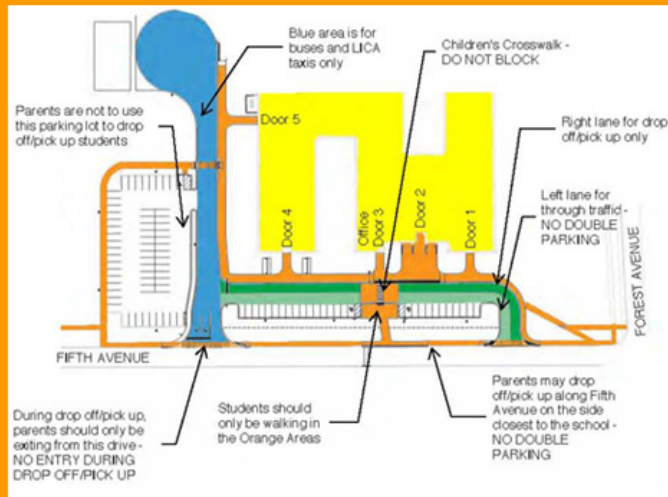
Strategies for educating parents typically include printed materials that are sent home with children or signs posted around and near the school. Parents may also be contacted using the schools website and email. Teaching children about the “rules” for parents and letting them be a mouthpiece will reinforce good behavior with parents as well. Law enforcement and active Parent Teacher Organization parents can also play a role by being present at pick up and drop off areas to deliver messages.



Chicago's Safe Passages program trains neighbors to supervise corners each morning during school arrival time. Photo source: Claretian Associates.



Distracted driving is one of many safety issues students encounter when travelling to school. Parents should be informed about laws that impact school zone safety at the beginning of the school year. Photo source: textually.org



EFFECTIVE MONDAY, JANUARY 3, 2011

Arrival/Dismissal Procedures Clarification

Children's Crosswalk, Safety, Parking, Entry and exit, Busses and LICA taxis, Drop off, and Pick up.

Educating parents about drop-off and pick-up procedures can help alleviate safety concerns. One elementary school in Des Plaines created this diagram to help instruct parents on drop-off and pick-up. Image source: www.d62.org.

Arrival and Dismissal

All students in first through fifth grades begin their school day at 9:00 a.m. and end their day at 3:30 p.m. (Monday dismissal is at 3:15 p.m.). The morning kindergarten session is from 9:00 a.m. until 11:30 a.m. and the afternoon session begins at 1:00 p.m. and ends at 3:30 p.m. (Monday dismissal is at 3:15 p.m.).

Kindergarten students enter and exit through the kindergarten door to the west of the school. Parents should park on Prairie Avenue behind Central School and walk students to and from this door. The Central School parking lot does not have enough parking spots to accommodate kindergarten drop off and pick up, and therefore should not be used for this purpose.

First, second, and third grade students exit and enter through the doors to the east of the school near the blacktop. The circular drive should be used as a through lane only. No parking is allowed in this area.

Fourth and fifth grade students exit and enter Central School at the north end. The fourth and fifth grade students should be dropped off and picked up on Prairie Avenue.

Please understand that supervision is not available until 8:45 a.m. each morning, therefore, students are not allowed on school property prior to that time.

Safe Walking Routes

We encourage children to walk to school in order to improve traffic safety around our school, to promote physical activity, and to improve air quality. Please support the safety of Central School students by instructing your child to travel to and from school by the safest route, taking advantage of corners where adult crossing guards are stationed. Crossing guards are stationed at the intersections of:

- Lee Street and Thacker
- Center and Thacker
- Cora and Thacker
- Cora and Algonquin
- Cora and Ashland
- Graceland and Prairie
- Lee Street and Prairie

Please instruct your child to follow these safe routes and to obey the instructions of the crossing guards.

Bicycles/In-Line Skates/Scooters

The children's safety is our utmost concern. We do not encourage children under fourth grade to ride to school alone.

The school assumes no responsibility for bicycles or scooters. Riders should travel using the safest routes and should walk their bicycles or scooters across busy streets where adult crossing guards are available. All bicycles and scooters must be walked on the playground. Any students not following these rules will be asked to leave his or her bicycle or scooter at home.

All bicycles are to be locked and parked in the bicycle racks. It is also recommended that bicycles be registered with the Des Plaines Police Department.

Students may not wear skates on school property. If they skate to school, their skates must be removed and shoes put on before arriving on school property.

For the safety of all of our students, bicycles and scooters must be walked on school property.

School Organization

Central School offers programs and services to students in grades kindergarten through five. The school is organized into grade level and/or department teams to meet the needs of students in an effective manner. The teams at Central School are organized as follows:

- K - 1
- 2
- 3
- 4 - 5

Students attend classes in language arts, mathematics, science, social studies, and physical education. In addition, students also receive instruction in one or more of the fine arts.

Another elementary school in Des Plaines, IL includes information on arrival and dismissal processes for students using all forms of transportation in their student handbook. Parents receive this information at the beginning of each school year.

Education (continued)

Solution: Safe driving education for neighbors

Neighbors living in the vicinity of the school also need to be educated on how to create a safe environment around the school for children walking and biking.

Key topics for neighbors to be educated on include:

1. Watch for, and yield to pedestrians and cyclists.
2. Drive slower.
3. Keep sidewalks clear.
4. Prune plants to remove obstacles from sidewalks and clear up sightlines.

Communicate with neighbors through neighborhood meetings, flyers and websites. Get them involved in the SRTS planning process early by inviting them to meetings and soliciting their input. Provide neighbors with volunteer opportunities to help build support amongst community members to increase safety within the neighborhood. Reaching out early and often will increase the chances that the neighborhood takes ownership of creating a safer neighborhood for bikers and walkers.



Yard signs with educational messages can be used to inform drivers about safe driving behavior.

Encouragement

2

Encouragement

Encouragement programs give students the opportunity to practice the safe bicycling and walking skills they've learned and begin on the path to incorporating these practices into their daily lives. Encouragement programs have several added benefits, including reducing traffic congestion on days of special events, increasing awareness of Safe Routes to School.

Solution: Special events

A special event is generally a single day celebration that encourages more walking and biking through community participation and educational activities. Events like this should include kids that cannot walk or bike to school by integrating components that are executed on campus. Special education teachers should be consulted to ensure participation by students with special needs.

Walk to school events offer great photo opportunities and a purpose for the story. Use this chance to solicit media attention. For more resources and info on how to organize a Safe Routes to School contact the Active Transportation Alliance or visit www.walktoschool.org.

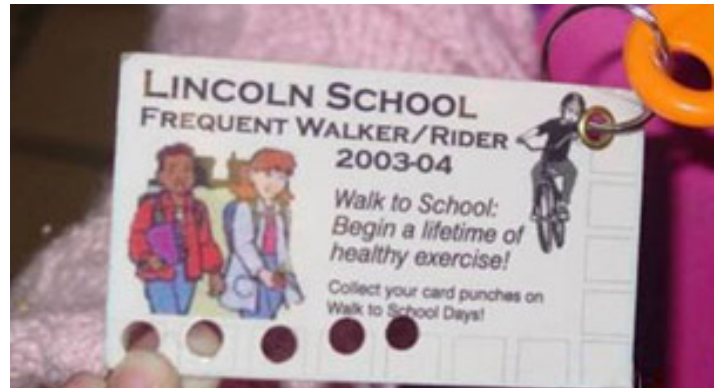
One-time events do not change behavior and should be followed up with additional strategies to reinforce the messages and behaviors of safe walking and cycling. For the best results, try to schedule follow up events throughout the year. Possibilities include designating one day a month or week, as a walk and bike to school day, like "Walking Wednesdays".

Student competitions

Kids thrive on friendly competition. Mileage clubs encourage students to track miles walked or biked and earn prizes when they reach certain mileage goals.

Contests encourage children to try new behavior for rewards by having classes or schools compete against each other. To include kids that can't walk or bike to school, allow kids to accrue miles on the weekend or during school recess.

Local businesses and law enforcement agencies can play a role by engaging in programs that reward safe walking and bicycling behavior in children. Officers can stop children who are seen riding safely (wearing helmet, stopping for stop signs etc.) or walking safely (Waiting for the walk signal, looking both ways etc.) and issue them a "good ticket" redeemable for treats with participating merchants.



Frequent walker card used in Elmhurst, IL helps teachers track miles walked and biked by students. Students who fill their card earn rewards.



Classrooms in Larkspur, CA compete each month for the honor of holding the golden shoe by tracking walking and biking trips to school. The golden shoe is simply a spray painted shoe mounted on a piece of wood. Photo credit: Marin County Bike Coalition.



Prizes or incentives can be distributed to children who practice safe behaviors. Photo credit: Des Plaines School District 62.

Solution: Walking School Buses/Bike Trains

A walking school bus or bike train is a fun and safe way for children to walk or bike to school in a group. They consist of adult volunteers accompanying children on foot or bike along specific routes to school. The concept addresses parent's concerns about personal security while providing a chance for families to socialize.

Walking school bus or bike trains can be informal or formal, but should have a pre-established meeting place and time. Walking school buses and bike trains can run every day, or on certain days of the week or month. The school, parents, or a community organization can initiate them.

Sample Walking School Bus Rules

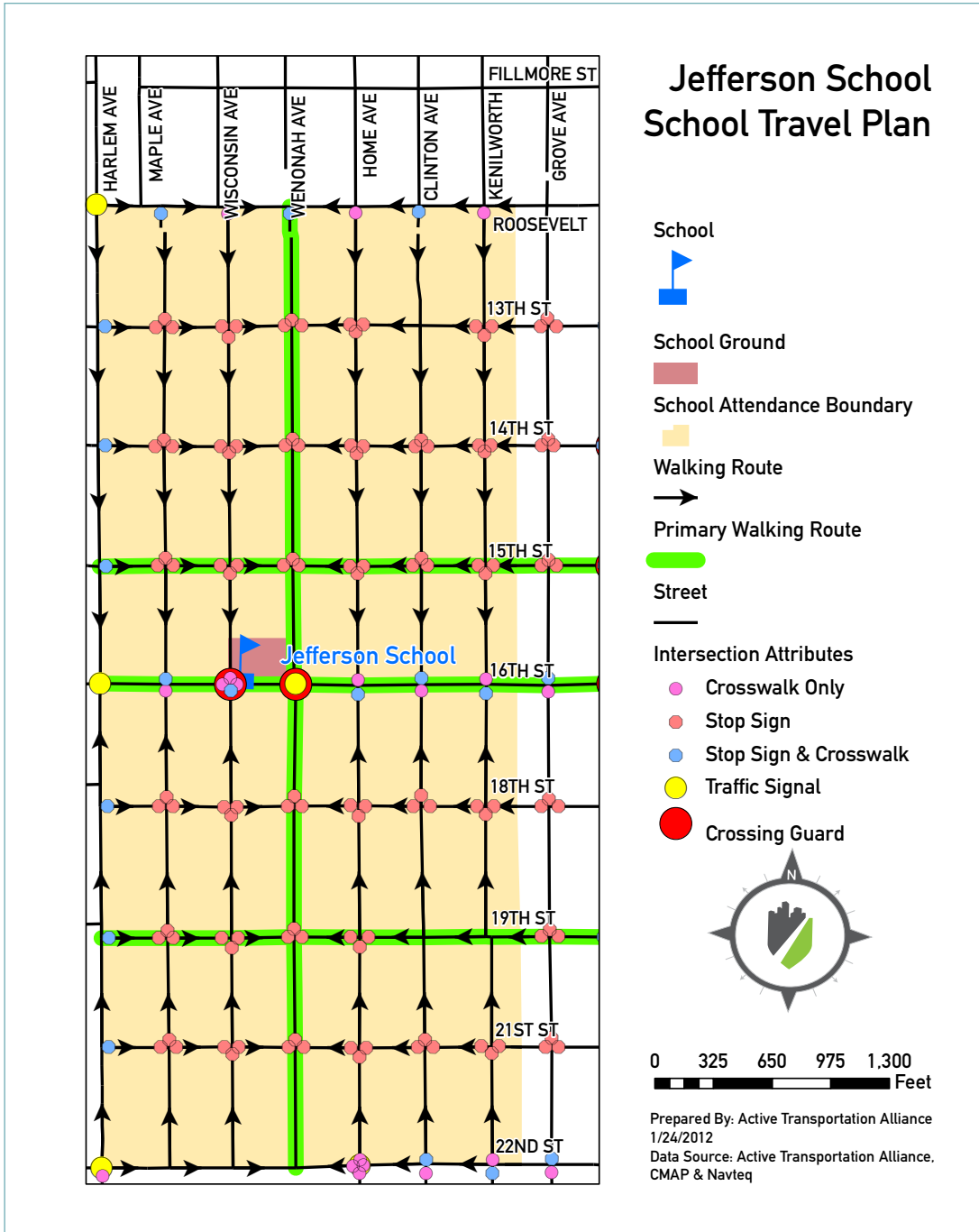
- 1. Same route, every day.**
Always follow the same route. Shortcuts such as crossing streets mid-block, cutting through parks or crossing intersections diagonally can be hazardous and will disrupt the pick-up/drop-off schedule.
- 2. Stay with the bus.**
Children should not run ahead or lag behind the bus.
- 3. Bus drivers are in charge.**
Everyone's safety depends on listening to and obeying the adult supervising the route.
- 4. Have a back-up plan.**
If a child misses the bus, parents and caregivers should have an alternative way to get their child to or home from school.
- 5. Respect your neighbors' property.**
Children are not to go into other peoples' houses or walk through yards.
- 6. Someone must be home when children arrive.**
If a child arrives home and no one is there to greet them, an emergency plan should be in place and in writing.

Encouragement (continued)

Solution: Walkability checklists and route maps

Some communities use a “walkability checklist” to identify potential safe routes to school. Checklists are designed for use by parents, school officials and other community members to identify what’s good and what needs improvement on a walk route. The checklists can be summarized and results shared with decision makers and media to help leverage for improvements. It is important to note that more complete audits should be used to identify specific improvements. Checklists are available at www.saferoutesinfo.org. You can refer to the engineering section of this toolkit to see possible solutions.

Once preferred walking and biking routes have been identified maps that show walking routes can be created and distributed to families as a way to encourage walking and bicycling. SRTS teams should try to get the maps distributed regularly and posted on the school website.



Example of a school walking route map.

Encouragement (continued)

Solution: Park and walk programs

For those families who may live too far away to walk or may have safety barriers, there are ways to include them in your SRTS program including park and walk sites and on-campus options. Such options may also provide more opportunities to include children with disabilities in your program.

Park and walk sites are another option for addressing family's that are too far away to walk or bike. By providing an off-site location for parents to park and walk to school with their children, traffic congestion around the school is reduced and parents and children are encouraged to engage in physical activity together.

Another option for students who live too far from school to walk are on campus programs like "Sports Days" or regular supervised walks to provide opportunities to focus on physical activity and safe walking practices.



Students walk on a track in Trumansburg, NY. Photo courtesy of www.iwalk.org.

Solution: Afterschool and middle school programs

Middle school and high school aged children can present particular challenges for lessons surrounding issues of safety. Messages should be tailored to appeal to these ages. Here are some suggestions.

- Emphasize themes that matter to that age group- such as fitness, independence or environmental issues.
- Encourage Students to take ownership. Engage the students as advocates and activists by encouraging them to think about the problems of safety, physical activity, or obesity issues. Form a student committee, get them to come up with contests or program ideas, or ask them to help with the local elementary school's program.
- Integrate walking into the culture of the school. Look for field trip destinations within walking distance and walk to them.
- Afterschool Programs that teach more in depth skills like bicycle mechanics, route planning, using your bike in conjunction with transit, etc. and which allow students to explore their community as a group in a safe way are often highly appealing to middle school and high school aged children. Contact the Active Transportation Alliance for more info on how to establish these types of programs.



Middle school students in Chicago, IL learn bike mechanics through Chicago Department of Transportation's Jr. Ambassador program. Photo source: Chicago Department of Transportation.

Enforcement

3

Enforcement

School zones are overwrought with unsafe and illegal driver behaviors such as speeding, near misses in intersections and driveways, double-parking, and cell phone use by drivers. These behaviors make most parents question whether it is truly safe for their children to bike or walk to school. Compounded by parents' concerns about bullying, "stranger danger," and other personal safety issues, it's no surprise that fewer students are biking and walking to school. Enforcement activities can help to increase both traffic safety and personal safety around schools.

While policing is a major piece of the enforcement puzzle, a successful Safe Routes to School program will encourage all members of the community to play a positive role in enforcement including: students, parents, teachers, school administrators, crossing guards, law enforcement officers, and the community. The desired outcomes of Safe Routes to School initiatives are to change behavior of students, parents and motorists, and to create a community where streets feel safe to travel on, regardless of the mode of transportation used. Enforcement alone will not change behaviors. Thus, the use of enforcement without the use of the other E's (education, encouragement and engineering) will have a limited and temporary impact.

Solution: Crossing guards

Well-trained adult crossing guards at key locations may result in more parents allowing their children to walk to school. More children walking to school, in turn, can reduce the traffic congestion and make more parents comfortable allowing their children to walk.

The guards can be adult volunteers, school staff, police or paid personnel. Regardless of their status, all crossing guards should be trained on an annual basis. Some jurisdictions have established crossing guard warrants/criteria. The Florida Department of Transportation and City of Phoenix, Arizona both have excellent school crossing guard training guidelines.



Crossing guards can help to ease parents concerns about crossing intersections.

Solution: Student and parent patrol program

Student patrols can help ensure that younger students safely enter and exit buses each morning and afternoon. They may also be used to provide extra support to staff supervisors or to remind students to exercise safe behaviors. Parent patrols can assist schools in ensuring that student pedestrians and bicyclists and parent drivers follow proper arrival and dismissal procedures, as well as assisting walking and biking students in exiting school grounds safely and monitoring school driveways. Free trainings and materials are available through AAA.

Solution: Use speed feedback trailers

Police departments can purchase portable speed feedback trailers to track and monitor speeding on streets in the school zone. Speed feedback trailers should be positioned in strategic locations for one week at a time to remind drivers to slow down.



Portable speed feedback trailer in Berwyn, IL.

Enforcement (continued)

Solution: Neighborhood Watch initiative

Neighborhood Watch programs can help create a safer environment for student pedestrians and bicyclists. Police departments can partner with local neighborhood watch programs to discuss their role in creating Safe Routes to School. Neighbors can volunteer as corner captains during morning and afternoon commutes to school to monitor key locations or intersections where public safety or severe traffic is of particular concern, known as “Safe Passages” in the City of Chicago. Neighborhood Watch programs serve as extra eyes on the street, often providing parents with extra piece of mind.

Solution: Neighborhood speed watch

Neighborhood Speed Watches take the neighborhood watch program one step further by focusing on enforcing traffic laws and educating drivers in the community. Neighborhood Speed Watch Programs use radar equipment borrowed from the local police or purchase on their own to track speeding in trouble spots. This is not a ticketing program, but will allow neighborhoods to report problem areas to the local law enforcement agency.

Neighborhood Speed Watch Programs encourage citizens to take an active role in changing driver behavior on their neighborhood streets. This educational process will lead residents and motorists who frequently travel on the road to work together to pay more attention to their speeds in neighborhoods. Neighborhood Speed Watches are essentially the same as a radar trailer, but with volunteers. Sometimes left-over police radars are available for little or no cost.

Solution: Targeted enforcement efforts

No police department can aggressively enforce all laws in all locations at all times. Police departments can use existing crash data to identify the most dangerous locations and target enforcement at those sites. Stings focused on reckless behavior by motorists have proven particularly successful in other communities. Communities should target its law enforcement efforts in these locations. Efforts should begin with a warning or education campaign to ensure that driver behavior change occurs. Communities should review these efforts on an annual basis to ensure appropriate allocation of enforcement resources.



Top and bottom images: Moveable message boards in Forest Park, IL remind drivers to put down cell phones in school zones.

Engineering

4

Engineering

Engineering, for the purposes of this section, refers to physical changes to the built environment – especially sidewalks, crosswalks, and roadways, but also traffic control devices or signage. Although roads are meticulously engineered, they are often orientated towards moving cars as efficiently as possible regardless of context – such as high pedestrian volume or a nearby school zone. Roadway design can control the road in ways that is not immediately noticeable but nonetheless detrimental; a road with wider-than-normal lanes, for example, causes a noticeable increase in driver speed regardless of the posted speed limit, while narrower-than-normal lanes cause decreases in vehicle speed.

The goal of engineering in terms of Safe Routes to School is to implement design measures that will help foster a safe environment for not only pedestrians and cyclists but drivers as well. These can range from minor changes to how a crosswalk is configured to a major reconstruction of a road in order to reduce lane widths. Regardless of the complexity of engineering solutions, the goal remains the same: improving pedestrian safety and allowing for more transportation options for students and their parents.

The solutions included in this section are arranged by treatment type, including low-cost, easy to implement intersection improvements, traffic calming improvements that require reconstruction of the intersection and cost more to install, sidewalk improvements and on-street improvements and traffic control devices.



Students in Blue Island, IL participate in the annual bike parade. Photo courtesy of Jane Blew Healy.

Engineering - Intersection Improvements

Solution: High-visibility crosswalk

Traditional crosswalks or standard crosswalks consist of two white lines, running perpendicular to the roadway and placed at corners so pedestrians may cross. This type of crossing is much less effective than highly-visible or ladder striped crosswalks. Studies have shown that high-visibility crosswalks encourage pedestrians to cross at safe locations and result in more drivers yielding to pedestrians.⁴



Example of a high-visibility crosswalk.

Solution: Daylight intersection

Daylighting an intersection refers to increasing pedestrian visibility by assuring that drivers are able to see the entire crosswalk. Typically on-street parking runs up to the crosswalk, but this means that pedestrians can be hidden from driver view behind parked cars. Daylighting fixes this by limiting parking behind the stop bar, effectively removing one parking space from the road.⁵ An intersection is daylighted by painting the curb yellow and installing signage.



Example of a No Parking to Curb sign.

Solution: Must stop for pedestrians signs

“Must stop for pedestrian” signs attempt to correct the problem of drivers not properly stopping for crosswalks. These signs point downward towards the stop bar in front of the crosswalk or place a sign in the roadway itself between traffic lanes.



“Must stop for pedestrians” signs are placed near stop bars.

Solution: Curb extension

Curb extensions are used in order to extend a sidewalk further out in to the road way in order to reduce the crossing distance as well as giving drivers greater pedestrian visibility. Most often extensions will “bulb-out” into the parking lane once was so as to not remove a lane of traffic. When used effectively, curb extensions have been shown to increase drivers stopping for pedestrians by over 40 percent.⁶



Curb extensions increase pedestrian visibility and reduce crossing distance.

Solution: Pedestrian refuge island/center median

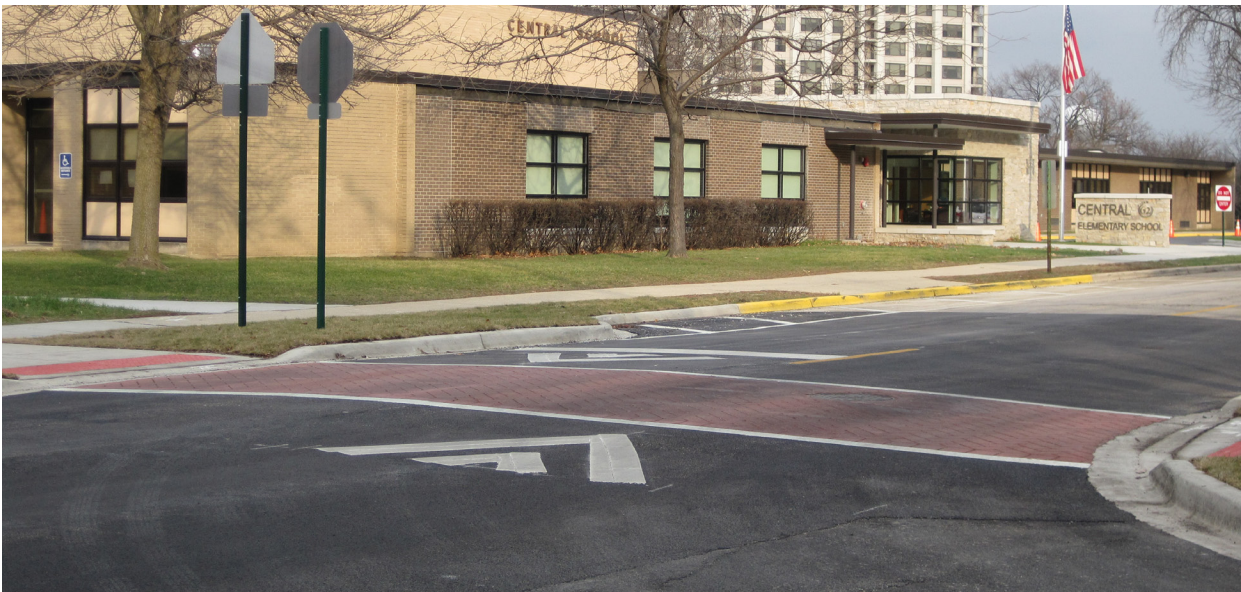
Pedestrian refuges are raised sections in the middle of roads where pedestrians are protected from crossing traffic. These are typically used in two scenarios: where a road is wide enough that slower pedestrians cannot be reasonably expected to cross the entire road in a light cycle; or specific mid-block crossings along roads that do not have traffic signals or stop signs. These have been demonstrated to be particularly effective and can reduce pedestrian crashes by nearly 40 percent.⁷



Pedestrian refuge island. Photo courtesy of North Carolina Department of Transportation.

Solution: Raised crosswalk

Raised crosswalks are similar to speed bumps in that they are a raised surface on the roadbed, but differ in placement. Where speed bumps are placed in locations where driver speed is likely to be highest, raised crosswalks are placed where pedestrians are likeliest to cross. In effect they extend the sidewalks through the roadway and increase pedestrian safety and visibility. When used, these can raise driver yield rates by as much as 45 percent.⁸



Raised crosswalks help to calm traffic at intersections with high traffic and high pedestrian volumes.

Engineering - Sidewalk and Roadway Improvements

Solution: Buffered sidewalks

Sidewalks without buffers not only have a decreased perception of safety, but also practical disadvantages including putting pedestrians in to vehicle's "splash zone" as well as removing sidewalk space when snow is plowed off of roads.



Sidewalk buffers increase pedestrians perceptions of safety.

Solution: Lighting

Proper lighting is essential for the safety of an intersection; having more lighting makes pedestrians more visible to cars. Lighting also helps to increase perceptions of personal safety for students walking home during the evening hours. Effective lighting has been demonstrated to reduce pedestrian crashes by 50 percent.



Pedestrian scale lighting helps increase visibility of students walking home during evening hours.

Solution: Road diet

The concept of road diets is fairly straightforward, but can take a variety of results; briefly, it involves removing right of way space from car lanes for other purposes including sidewalks, bicycle lanes, left turn lanes, landscaping, or other amenities. Reduced lane width has been shown to have a direct correlation between decreased driver speed, a reduction in accidents, and improved pedestrian safety.⁹ Road diets often result in no vehicle capacity issues.



Road diet before and after. Photo credit: Dan Burden.

Solution: Stop sign or traffic signal

Stop signs and traffic signals are among the most effective regulator of driver behavior. When used in conjunction with pedestrian amenities, they can greatly improve pedestrian safety by giving them a clearly defined location to cross. Before installing a new stop sign or traffic signal, it is necessary to conduct a traffic study to determine if the sign or signal is warranted.

Solution: Leading pedestrian interval

Pedestrian intervals are designed to give pedestrians an exclusive window of three to five seconds with which to cross an intersection. This generally means that when a traffic light has changed for vehicle movement a pedestrian is already well within the crosswalk, giving them greater visibility. This is particularly relevant to school children since they are more likely to be blocked by parked cars. Studies have demonstrated that pedestrian intervals can reduce pedestrian crashes by more than 25 percent when used at high volume intersections.¹⁰

Solution: Countdown pedestrian signal

Countdown pedestrian signals are used at intersections where traffic signals already exist; instead of providing a simple symbol indicating that a pedestrian has the right of way, a countdown indicating when the light will turn is given. This method can greatly reduce the rate of pedestrians stuck in the crosswalk when the light turns red by up to 30 percent.¹¹



Countdown pedestrian signal.

Solution: HAWK Signal

HAWK signals – also known as pedestrian hybrid beacons or high-intensity activated crosswalk – are a relatively new engineering solution. HAWK signals are generally used at intersections with an unusually high volume of traffic where a traditional traffic light would impact congestion too much. In these situations, HAWK signals allow pedestrians to hit a button and activate the stop light in order to stop traffic only when necessary.



Example of a HAWK signal. Photo courtesy of the North Carolina Department of Transportation.

Evaluation

5

Evaluation

Data collection is an important component to all Safe Routes to School initiatives. Data collection provides valuable baseline information and helps programs track their progress over time. Data can also help Safe Routes to School teams build support for their programs and initiatives. For example, school boards may be interested in hearing about the impact of the program on student health, village boards may be interested in hearing about the impact of the initiative on public safety. Consistently collecting data over time can also help Safe Routes to School programs raise grant money to support new initiatives.

Solution: Collect student travel tally data

Student travel tally data enables you to track the change in walking, biking, and vehicle trips over time. Travel tally data can also help Safe Routes to School programs track the success of a special event. The National Center for Safe Routes to School offers free data analysis to Safe Routes to School programs that use their travel tally form. To download the form, visit www.saferoutesinfo.org.

Solution: Survey parents

Surveying parents can help new Safe Routes to School programs figure out parents safety concerns related to walking and biking trips to school. When distributed consistently over time, parent surveys can also help Safe Routes to School programs track effectiveness of a program. Like student travel tallies, the National Center for Safe Routes to School offers free data analysis of Safe Routes to School programs that use their survey form. To download the form, visit www.saferoutesinfo.org.

Solution: Collect crash data

The presence of bicycle, pedestrian, and vehicle crashes are often an indication of a traffic safety problem. Each state collects data on crashes that are reported to police. Data includes information about the location of the crash, reason for the crash, and who was involved (bicyclists, pedestrians, vehicles, etc.) Analyzing crash data can help new Safe Routes to School programs find “hot spots” that may need improvements. Once improvements are made, crash data should continue to be tracked to ensure the effectiveness of the solution. The Illinois Department of Transportation maintains crash data for Illinois communities. Data can be downloaded at <https://safetydatamart.transportation.illinois.gov/Default.aspx>.

Solution: Collect data on number of citations issued

The focus of enforcement campaigns is on changing behavior. Safe Routes to School initiatives that are using targeted enforcement solutions, should track the number of tickets issued for a violation prior to, during, and after an enforcement campaign. Citations can also be tracked to help determine the success of public safety campaigns, like yard sign campaigns.

Solution: Collect data on student health, the environment, absences, test scores, and behavioral problems

Safe Routes to School programs are sometimes viewed as non-essential activities for school staff. Encouraging students to use active forms of transportation may result in other positive results. Studies have shown that Safe Routes to School initiatives have resulted in improved student health, better air quality, fewer absences from school, improved student test scores, and improved student behavior. Tracking and documenting changes in any or all of these categories can help sell your Safe Routes to School initiative to critics.

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