TROY ELEMENTARY SCHOOL

SAFE ROUTES TO SCHOOL ACTION PLAN

SafeRoutes

Troy Elementary School
It's About Kids!

SEPTEMBER 2016

TROY ELEMENTARY SCHOOL

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Acknowledgements

During the 2015/2016 school year, the Troy School Wellness Committee worked with Southwest Region Planning Commission (SWRPC) to develop a Safe Routes to School Action Plan for Troy Elementary School (TES). TES and SWRPC are grateful for the contributions provided by members of this committee, who are listed below.

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SCHOOL WELLNESS COMMITTEE MEMBERS:

- Barb Arguin, *Teacher & Committee Chair*
- Kevin Stone, *Principal*
- Amy Adams, *School Nurse*

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INTRODUCTION

The Troy Elementary School Safe Routes to School Action Plan was created to identify measures that will improve conditions for walking and biking to school. It includes an evaluation of existing travel conditions, strategies to improve education, encouragement, and enforcement activities, and recommendations for physical improvements, educational programs, and community efforts that will encourage walking and biking within a one-mile radius of the school.

There are far-reaching implications of an SRTS program. SRTS programs can improve safety for children and a community of pedestrians and bicyclists. They provide opportunities for children to become more physically active and to rely less on their cars. SRTS programs also benefit the environment and a community's quality of life by reducing traffic congestion and motor vehicle emissions. The goal of this Action Plan is to identify potential physical improvements and operational measures and programs for TES and the surrounding area. This action plan will be available for use by the school team as a framework to guide actionable next steps, both in the short-term and long-term.

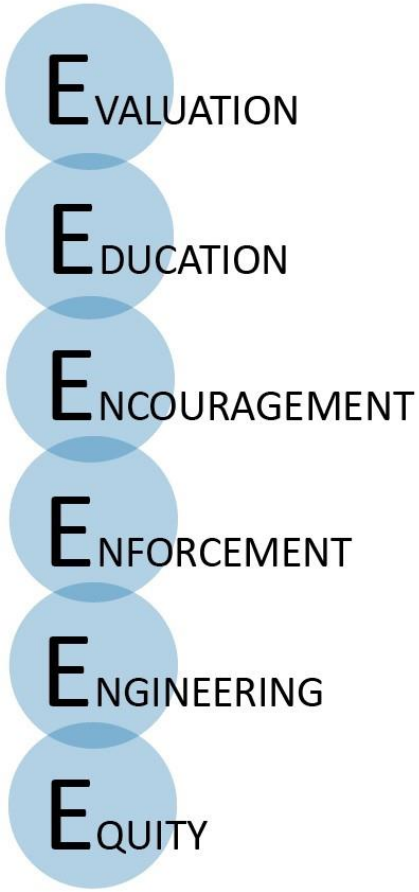
Figure 1 - The Six E's of Safe Routes to Schools

Project Overview

Safe Routes to School (SRTS) is a national program established in 2005[1] by the Federal Highway Administration (FHWA) that is focused on improving the health and wellbeing of children by creating safe opportunities to walk and bike to school. SRTS programs examine the conditions around schools and conduct activities to improve safety, accessibility, traffic, and air pollution near schools. Communities conducting these programs are encouraged to employ a combination of evaluation, education, encouragement, enforcement and engineering strategies to address the specific needs of their school(s).

[1] "Safe Routes to School." Federal Highway Administration. Accessed April 21, 2016. http://www.fhwa.dot.gov/environment/safe_routes_to_school/.

This comprehensive approach, called the five (5) E's, is centered on an understanding that the barriers to safe walking and bicycling are both behavioral and physical. In 2015, the Safe Routes to School National Partnership introduced a sixth (6) E, Equity. Although the focus of this Action Plan is evaluation, each of the six (6) E's (described below) is addressed in the Action Plan.



Evaluation involves monitoring and documenting outcomes, attitudes, and trends through the collection of data before and after program activities or projects. These activities help track which strategies would be most or least successful and which should be modified for better results.

Education programs include teaching pedestrian/bicyclist/traffic safety and creating awareness about the benefits and goals of SRTS. Education programs often incorporate health and environmental considerations associated with walking and bicycling.

Encouragement activities generate excitement and interest in walking and bicycling. Special events, mileage clubs, contests, and ongoing activities all provide ways for parents, caregivers, and children to discover or re-discover that walking and bicycling are doable and fun.

Enforcement programs are focused on deterring unsafe behaviors of pedestrians, bicylists, and motorists and encouraging all road users to obey traffic laws and share the road safely.

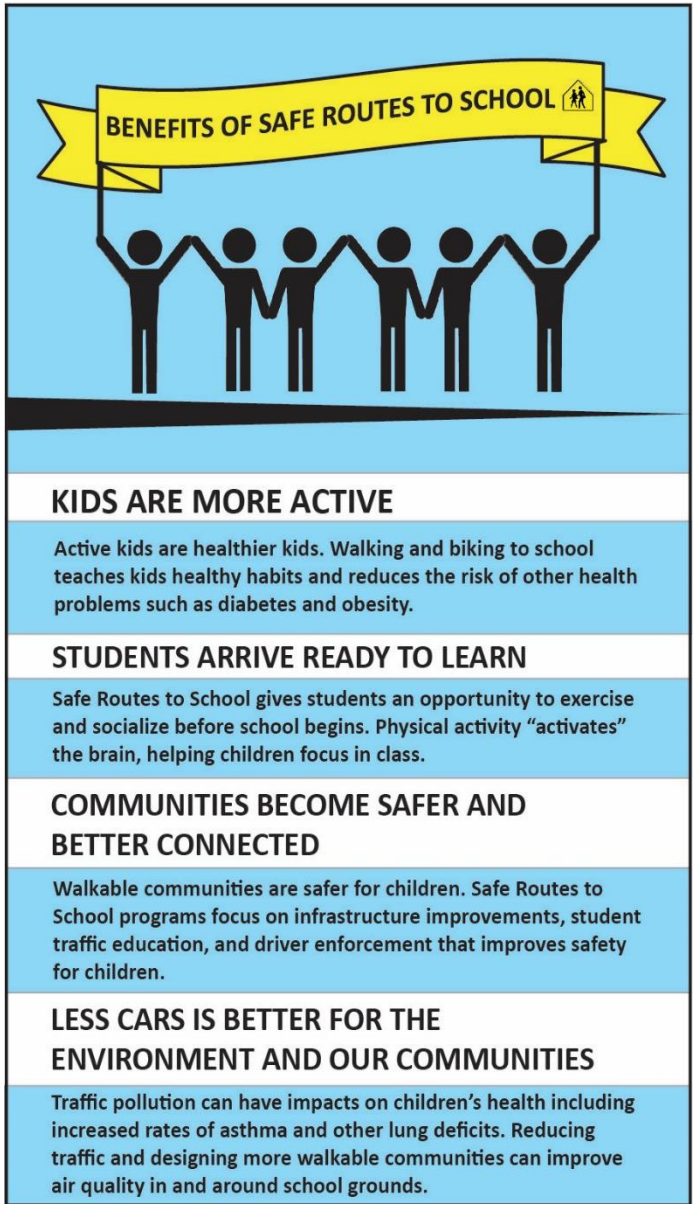
Engineering is a broad concept used to describe the design, construction, and maintenance of traffic control devices or physical measures. These strategies create safer environments for walking and bicycling through improvements to the infrastructure surrounding the schools.

Equity means working to support safe, active, and healthy opportunities for children and adults in low-income communities, communities of color, children with disabilities, and beyond. This involves incorporating equity concerns throughout the other E's to understand and address obstacles, create access, and ensure safe and equitable outcomes.

Benefits of Safe Routes to School

Safe Routes to School (SRTS) programs create a safer travel environment near schools and serve to reduce motor vehicle congestion at school drop-off and pick-up areas. One of the main goals of the SRTS program—along with increasing safety—is to increase the numbers of children who walk and bicycle to school. Students that choose to walk or bike to school are rewarded with the benefits of a more active lifestyle, as well as the responsibility and independence that comes from being in charge of the way they travel. SRTS can improve communities by making walking- and bicycling-safe ways to get to school and by encouraging more children to do so. SRTS programs offer additional benefits to neighborhoods by helping to reduce school-related traffic and providing infrastructure improvements that facilitate walking and bicycling for everyone. Identifying and improving routes for students to safely walk and bicycle to school can also help reduce traffic speeds in neighborhoods, reduce school-related traffic congestion on weekday mornings and afternoons, and decrease auto-related pollution around school environments.

Figure 2 - Benefits of SRTS.



Planning Process

In the fall of 2015, staff from Southwest Region Planning Commission (SWRPC) met with the TES wellness team to discuss the development of a SRTS Action Plan. Following these meetings, SWRPC staff began to assess walking and bicycling conditions around the schools and collect baseline data about current walking and bicycling trends among students.

In order to better understand the walking, bicycling and travel conditions of each study area, SWRPC staff:

- Conducted field studies to review the behaviors and travel patterns of students, buses, and motorists at the TES during student arrival and departure times;

- Distributed and analyzed parent surveys related to walking and biking behaviors;
- Distributed and analyzed student in-classroom travel tallies related to student arrival and departure travel modes;
- Conducted traffic volume and speed studies at three locations: School Street, Main Street (NH Route 12), and Mill Street; and,
- Performed an analysis of the pedestrian infrastructure conditions near TES.

Study Area

Troy Elementary School (TES) is located in the Town of Troy and is a part of the Monadnock Regional School District. It is located near the end of School Street, abutting the Cheshire Rail Trail and the south branch of the Ashuelot River, and is approximately a quarter of a mile north of Troy's Central Square. The school includes grades Pre-kindergarten through sixth and had 153 students enrolled as of October 1, 2015. Approximately 52% of the student population, or 84 students, lived within a one-mile radius of the school in 2015. Figure 3 (below) shows the relationship of the school with the surrounding neighborhoods.

Primary access to TES is through School Street from the Mill Street intersection. Students may also take the Cheshire Rail Trail to get to the west side of the school; however, the rail trail is rarely utilized by students to get to school. Figure 5 on the next page shows the approximate locations of students that live within a 1-mile, ½-mile, and ¼-mile walking distance of the school. Figure 6 on the following page shows the location of TES students within Troy.

Figure 3 - Aerial view of Troy Elementary School

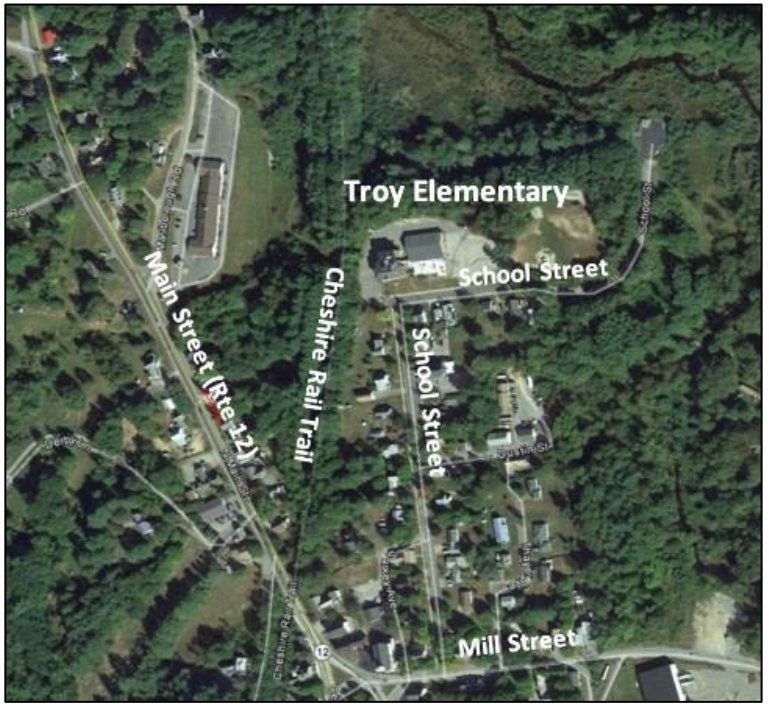


Figure 4 - October 1, 2015 Enrollment at Troy Elementary School

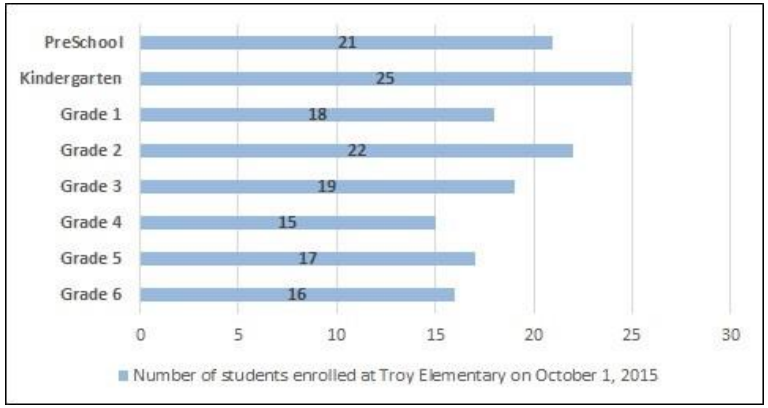


Figure 5 - Troy Elementary School Walking Distance

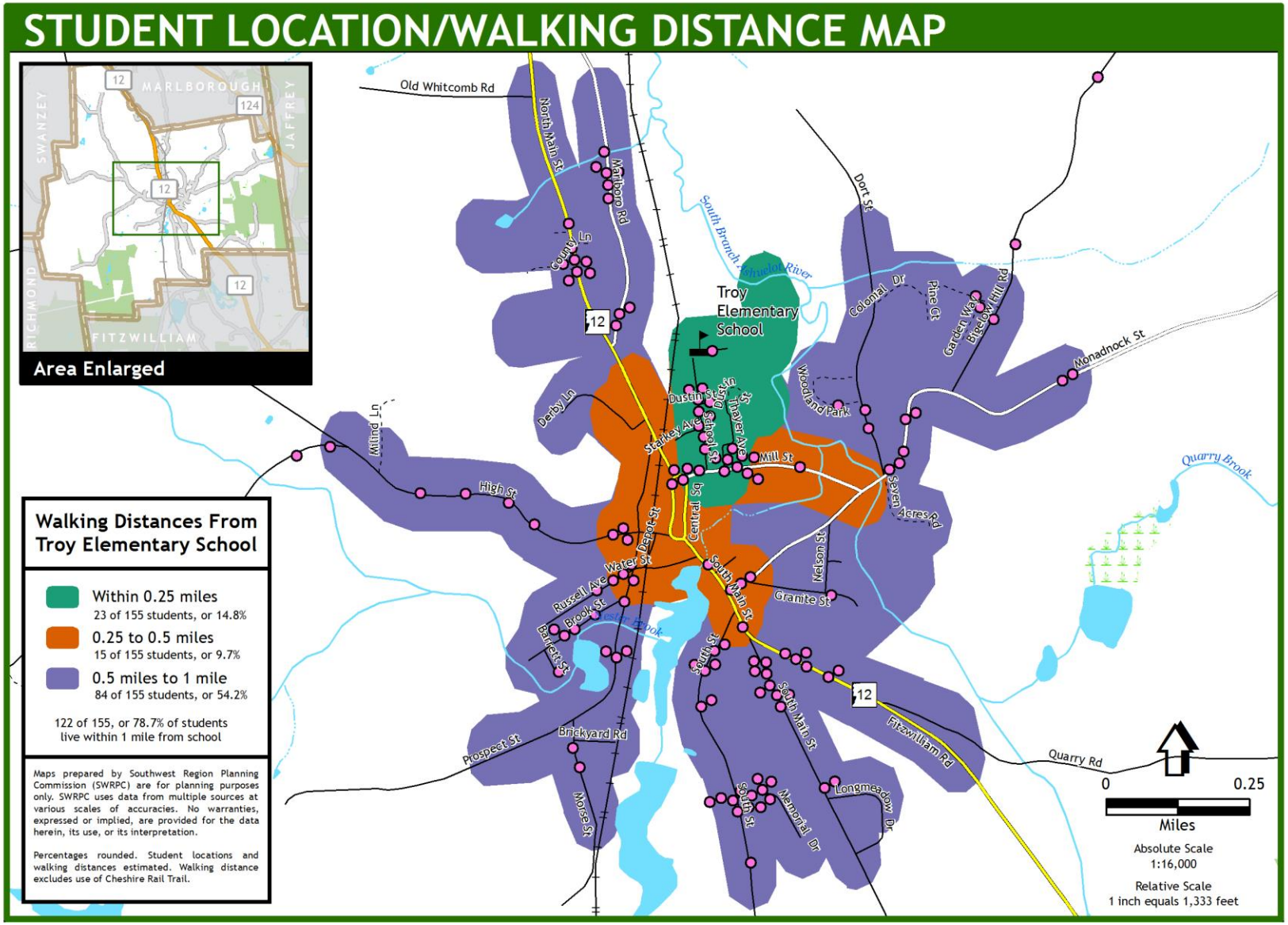
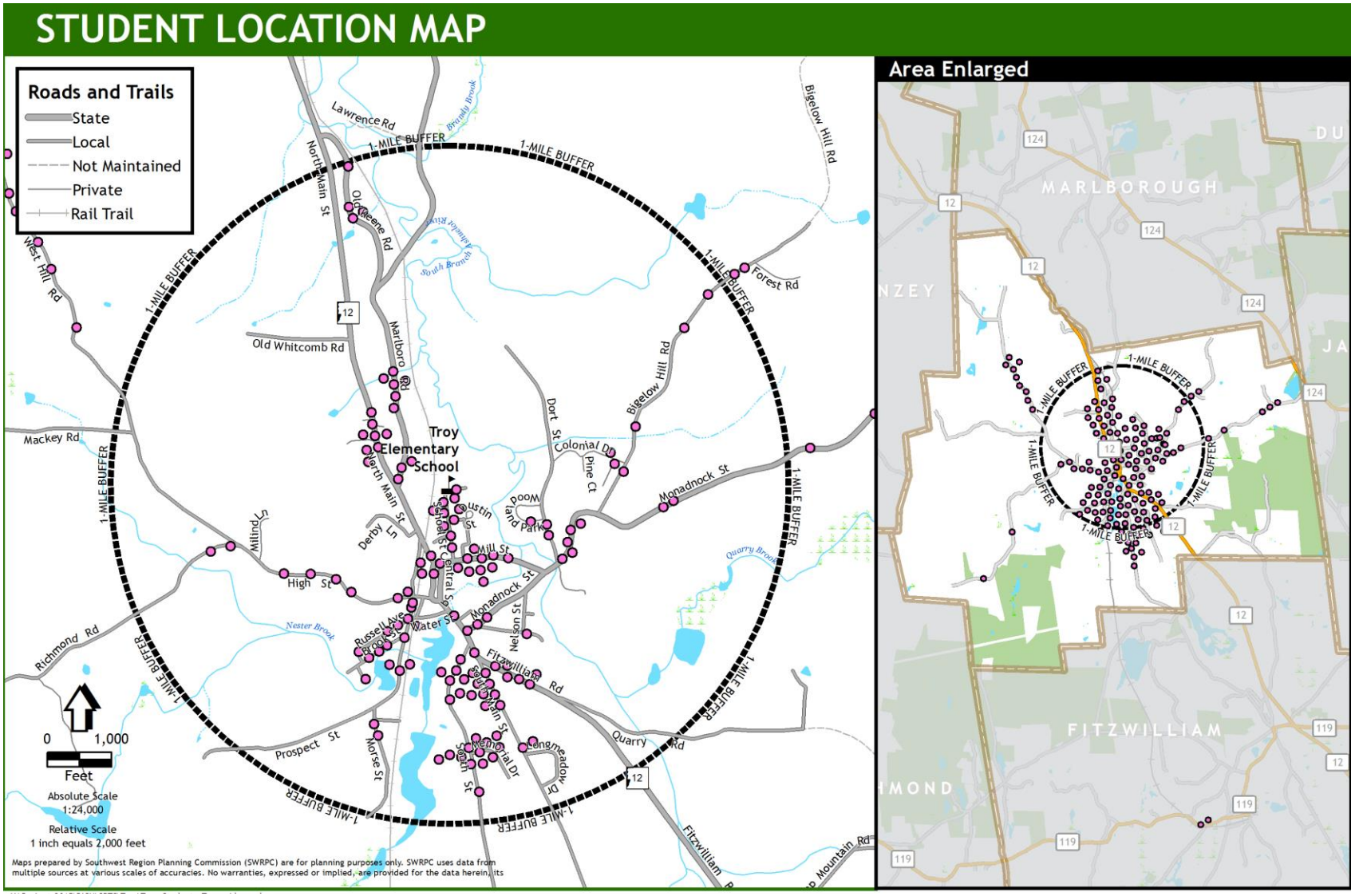


Figure 6 – Location of TES students within the Town of Troy.



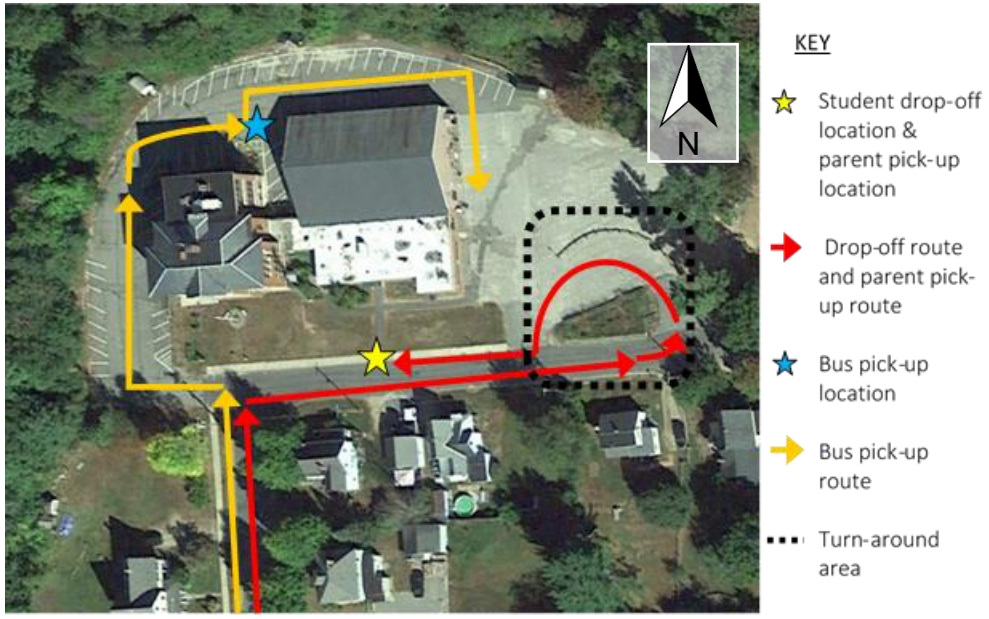
EVALUATION OF EXISTING TRAVEL CONDITIONS

To better understand existing travel conditions within the study area (see Figure 3), SWRPC staff conducted morning and afternoon field studies to review the behaviors and travel patterns of students, buses, and motorists at TES during drop-off and pick-up hours, collected and analyzed traffic speed and volume data on School Street, Mill Street, and New Hampshire Route 12, assessed sidewalk conditions near the school, and distributed and analyzed data from a take-home parent survey and an in-class student tally related to student travel modes. A review of these observations and analysis is included in the sections below.

School Arrivals and Departures

School begins at 8:30 a.m. and lets out at 3:15 p.m. Figure 7 shows the traffic patterns for student drop-off and pick-up. In the morning, parents and buses drop of students using the route shown in red. In the afternoon, buses use the route shown in yellow to pick up students in back of the school.

Figure 7 - TES student loading and unloading areas.



In the morning, parents start lining up to drop off their children at about 8:00 a.m., but they wait until 8:15 a.m. to let their children out of the car. A staff person was present to direct students from the drop-off location to the school entrance. Once the line started moving, the average wait time for parents to get through the line and drop off their child was roughly 3 minutes and 15 seconds. About a dozen parents were observed parking in the side parking lot or in the rear parking lot of the school and walking with their children to the school instead of using the drop-off route.

In two instances, parents drove against the flow of traffic to drop off their children on the east side of the school. These parents entered the exit driveway for the turn-around area to access the east side of the school, which created a conflict point with vehicles following the sanctioned drop-

off route shown in Figure 7. One parent was observed dropping off their child at the southwest corner of the school grounds and then backing up over the pedestrian crosswalk that connects the sidewalk on School Street to the sidewalk in front of the school.

In the afternoon, parents began lining up at 3:05 p.m. in front of the school. In general, parents turned off their vehicles while they waited for their children. Several parents got out of their cars and waited on the grass in front of the school. At 3:13 p.m., students were allowed to go to their parents. By about 3:17 p.m., all vehicles were cleared out.

Other Observations

- No excessive speeding was observed during the field review, however according to a local police officer and a resident living on School Street, speeding is a problem on this road.
- In general, wayfaring around the school could be improved. For example, the entrance and exit to the school as well as the vehicle turn-around area could be marked with “entrance” and “exit” signs.
- Pedestrian crosswalks could also be more clearly marked, especially the crosswalk in front of the school where the paint has mostly faded away. There are no wayfaring signs to direct people on bike or foot to the school.
- Shoulders are narrow or non-existent on Mill Street, and high traffic volumes make NH Rte. 12 unsafe for children bicycling, unless they use the sidewalk.
- The sidewalks on Mill Street and School Street, which range from 4 feet to 5 feet wide, are not sufficiently wide for bicyclists and pedestrians to safely share the sidewalk.
- Traffic noise and exhaust could be a deterrent for students walking along NH Rte. 12.

Figure 8 - Parents and a school van lining up in front of TES in the morning.

Figure 9 - Speed limit sign posted on school grounds.

Parent Survey

The parent survey collects information from parents about how their children arrive and depart from school and what concerns, issues, and barriers parents have about their child walking or biking to school. Survey results will help determine how to improve safety conditions and make walking and biking easier and more convenient for children and parents.

Among the TES population, 25 households responded to the Parent Survey, representing 45 children. Of the respondents, three (12%) have a child in kindergarten, two (8%) have a child in 2nd grade, 12 (48%) have a child in 3rd grade, four (16%) have a child in 4th grade, and four (16%) have a child in 6th grade. A large percent of respondents (42%) indicated that they were not comfortable with their child walking and biking to/from school at any age. Approximately 29% of respondents are comfortable with their child walking or biking to school starting in sixth grade and 21% indicated fifth grade. Three respondents (12% of sample) currently let their child walk or bike to/from school.

Primary Parent Concerns of Walking/Biking to School

Parents cited a number of issues that influenced their decision to allow or not allow their child to walk or bike to/from school. The top factors that influence parents is the speed of traffic along the route (influences 68% of respondents), followed by the amount of traffic along the route (52% of respondents) and the safety of intersections and crossings (52%). Other significant factors that influenced parent's decisions to allow their child to walk/bike to and from school included distance (44%) and sidewalk conditions (40%).

A sample of comments shared by parents on this survey is included on the next page. Many of their comments emphasize safety and infrastructure concerns.

Figure 10 - Grade at which parents who live within 2 miles of school are comfortable allowing their child to walk or bike to/from school.

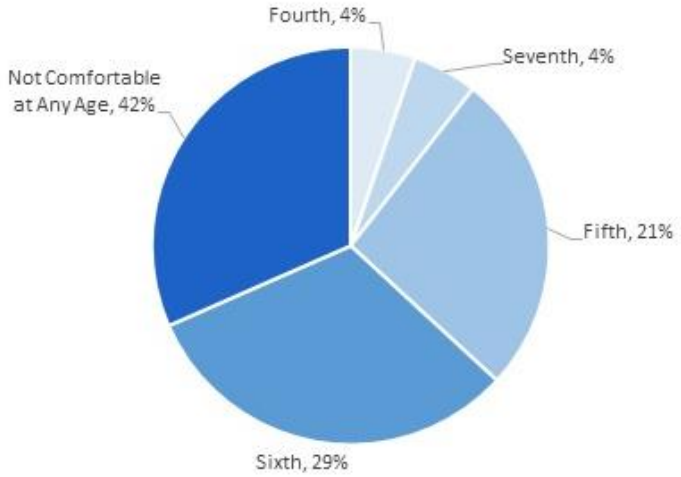


Figure 11 - Factors influencing parents decision to allow child to walk/bike to school.

Factor	% Respondents
Speed of traffic along route	68%
Amount of traffic along route	52%
Safety of Intersections and crossings	48%
Distance	44%
Sidewalks or Pathways	40%
Crossing Guards	24%
Violence or Crime	24%
Weather or Climate	24%
Convenience of Driving	20%
Time	20%
Child's Before/After School Activities	20%
Adults to walk /bike with	12%

Travel Modes

The Parent Survey was also used as a tool to better understand how many students living within a 2-mile radius of TES currently walk or bike to school. Tables 1 and 2 on the next page show how many students arrive or depart from school via school bus, carpool, family vehicle, biking, or walking as indicated on the Parent Survey. They also show the distance the students live from home by mode of travel.

The primary arrival mode, as indicated by parents, is family vehicle (60% of households) followed by school bus (28% of households). Of the students who arrive to school by family vehicle or school bus, about 77% live within a half hour's walk or less from school (under 1 mile). The primary departure mode in the afternoon is school bus (68% of households) followed by family vehicle (16% of households). Two respondents (8%) indicated that their child walks to school and three respondents (12%) indicated that their child walks home from school. None of the parents who answered the survey reported that their child usually bikes to and from school. Approximately 80% of respondents indicated that TES neither encouraged nor discouraged their child to walk or bike to/from school.

Sample of Parent Comments from Survey

"I am not comfortable walking and biking to/from school for my children due to safety reasons."

"We live on a long, windy hill and it isn't safe for them to ride or walk to school."

"Our road is very curvy and there are lots of hills. Not sure riding a bike will ever be an option."

"I would feel much better if we had crossing guards at crosswalks along Route 12. Or a way to let parents know they arrived at school safely."

"Sidewalks on Monadnock St and Mill St would allow walking to school to be an option."

"Crosswalk at church and library is in a horrible location. No one stops and if they do people try to go around the car that stopped to let them cross."

"The decision of when my child can walk to school is dependent upon his showing his ability to do this responsibly and show that is [he] can be trusted to do the right things."

Table 1 - Parent Survey responses to student morning mode of transportation.

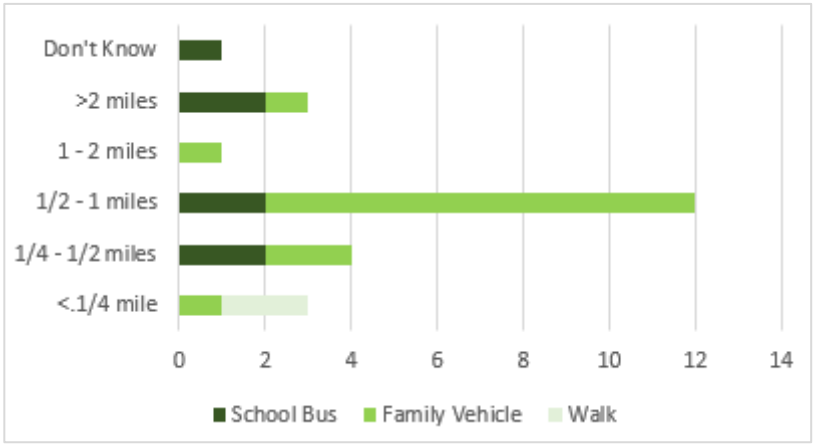
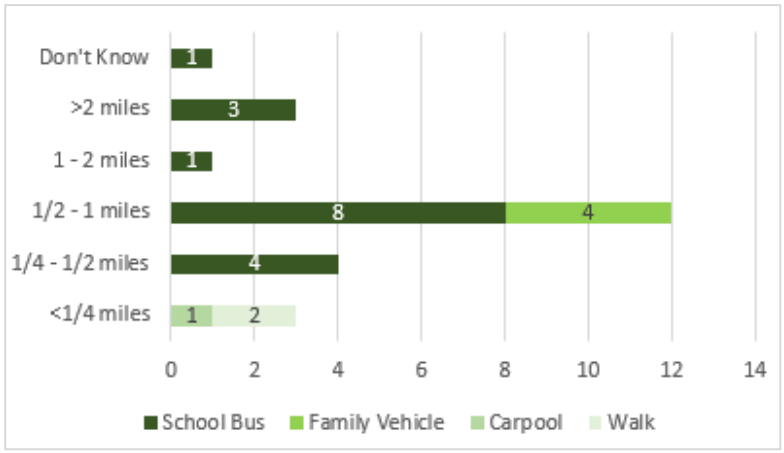


Table 2 - Parent Survey responses to student afternoon mode of transportation.



In-Classroom Survey

The in-classroom survey was administered in ten classrooms at TES in late March 2016. Teachers surveyed students each morning and afternoon for three consecutive days (Tuesday – Thursday) on their mode of arrival to and departure from the school. On average, 137 students shared their arrival modes and 136 shared their departure modes. Around seven students walked to school and 10 departed school on foot, which was roughly 7% of total departure respondents. Approximately 69 students rode the bus to school and 45 rode the bus back home, totaling 51% of morning survey respondents and 33% of afternoon survey respondents. The average number of students taking a family vehicle to school increased by 19, from 60 average respondents in the morning to 79 respondents in the afternoon. A statistically small number of respondents claimed to carpool, and even so, they did not do it on all three days that the survey was given.

Table 3 - Mode of travel to and from school based on in-classroom survey

Mode of Travel	Morning/Arrival		Afternoon/Departure	
	Average # of Students	% of Total Respondents	Average # of Students	% of Total Respondents
Walking	7	5%	10	7%
Biking	0	0%	0	0%
Family Vehicle	60	44%	79	59%
Bus	69	51%	45	33%
Carpool	0	0%	1	1%
Transit	0	0%	0	0%
Other	0	0%	0	0%

Pedestrian Infrastructure Conditions

Pedestrian infrastructure includes sidewalks, crosswalks, paved shoulders, off-road trails or paths, and amenities such as lighting and street furniture. The presence or lack of pedestrian infrastructure has a large impact on safety, both real and perceived. Studies have shown that for students living within 1 mile of school, implementation of effective pedestrian interventions can reduce the traffic dangers (real or perceived) that prevent children from walking to school.[2,3]

Statewide Asset Data Exchange System (SADES) Data

In order to better understand pedestrian infrastructure conditions near the school, SWRPC staff assessed the conditions of sidewalks and crosswalks in Troy using the NH Statewide Asset Data Exchange System, or SADES. SADES provides a common set of collection and training standards, ensuring that data collected throughout the state is comparable and assessed uniformly.

The sidewalk assessment includes data such as the width of the sidewalk, sidewalk condition (good, fair, or poor), curb condition (good, fair, or poor), and the presence of buffer strips, curb ramps and crosswalks. Figure 15 on the next page shows the extent of the sidewalk network in Troy and sidewalk structural conditions. "Good condition" indicates little or no distress or vertical displacements on the sidewalk, "fair condition" indicates the presence of narrow cracks and/or sidewalk displacements less than ½ inch, and "poor condition" indicates sidewalk cracks and/or large vertical displacements greater than ½ inch.

Figure 12 - A sidewalk in good structural condition on South Street in Troy.

Figures 13 & 14 – Sidewalks in fair condition on Mill Street (left) and the east side of Central Square (right).

[2] Beck, Laurie F. and Greenspan, Arlene I. "Why Don't More Children Walk to School?" Journal of Safety Research. 39.5 (2008): 449-52.

[3] Nasar, J.L. (2015). Creating places that promote physical activity: Perceiving is believing. [Research brief.] Active Living Research.

In general, the sidewalks in Troy are in good or fair condition, as shown in Figure 15 on the next page. However, the sidewalk network is limited and could be expanded to improve safety for students that live in residential areas that do not currently have sidewalks. In July of 2016, the Troy Board of Selectmen adopted a Complete Streets policy that applies to streets within the Village Center of Troy and surrounding residential areas, shown in Figure 16. These streets are prioritized by the Town for safety improvements, including pedestrian sidewalks.

Town of Troy Complete Streets

In July of 2016, the Town of Troy adopted a Complete Streets policy along with a set Complete Streets design guidelines. Complete Streets is a national program that encourages local municipalities across the country to build road networks that are safer, more livable and welcoming to everyone, including bicyclists and pedestrians. The Troy Complete Streets policy applies to streets within the Town Village Center and surrounding residential areas, as shown in Figure 16 on page 15 of this plan.

Figure 15 - Map of pedestrian infrastructure in Troy that shows location of sidewalks and crosswalks as well as sidewalk structural condition (good, fair, or poor).

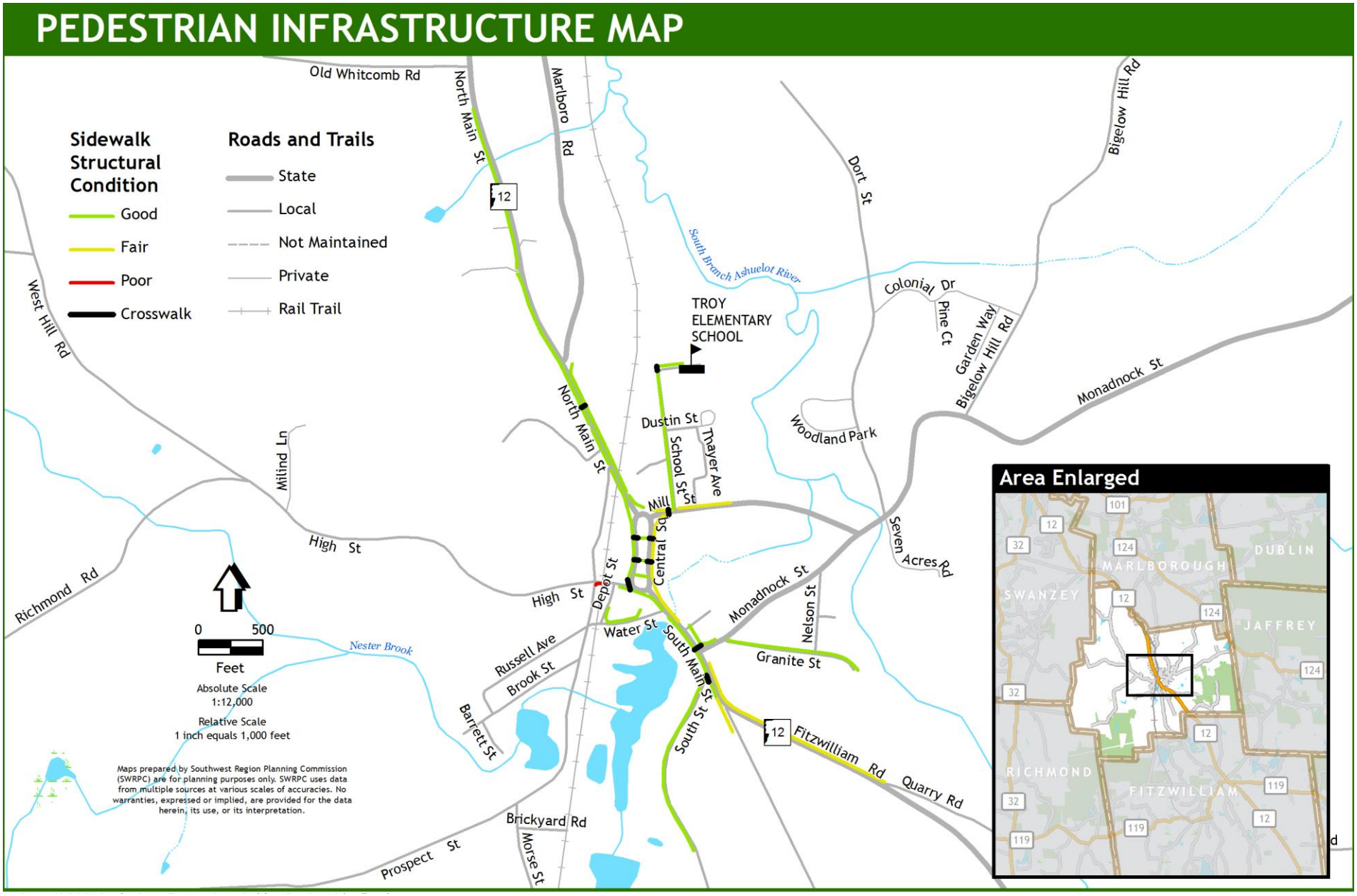
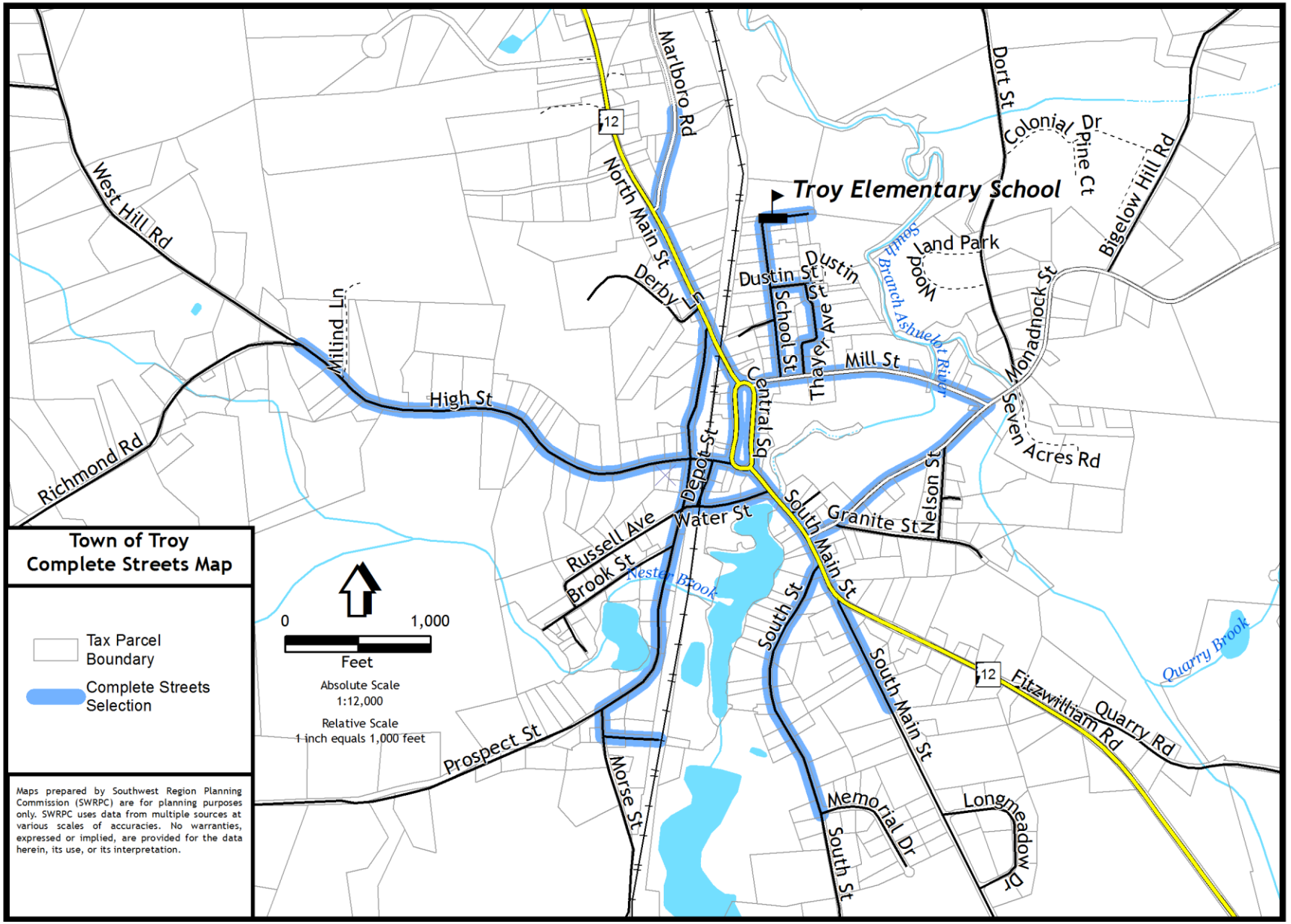


Figure 16 - Town of Troy Complete Streets Map. Taken from the Town of Troy Complete Streets Planning & Design Guidelines.



Traffic Conditions near Troy Elementary School

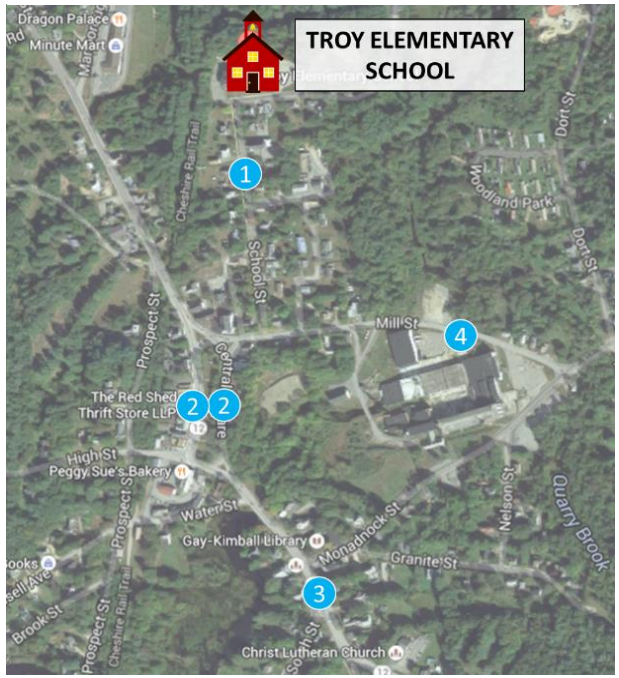
To better understand traffic conditions near the school, SWRPC staff conducted traffic volume and speed counts at four locations near the school, including School Street between Dustin Street and TES (Site 1), northbound and southbound traffic adjacent to the Troy Common (Site 2), N.H. Route 12 south of the crosswalk near the Gay-Kimball Library (Site 3), and Mill Street by Troy Mills (Site 4). Figure 16 shows the location of each of the traffic study sites. Table 4 below shows the maximum, average, and the 85th percentile speed (the speed in which no more than 15% of traffic is exceeding) detected at each traffic study site in miles per hour (mph) during school arrival and departure times. Figure 17 on the next page shows the 85th percentile speed for the morning and afternoon in comparison to the posted speed limit at each site, and Figure 18 shows the average hourly weekday traffic volumes during school arrival and departure times.

Speeding was detected at Site 1 on School Street, where the posted speed limit is 20 mph. Speeding appears to be slightly more prevalent at this site during the morning hours in comparison to the afternoon. Approximately 11% of drivers were driving more than 10 mph above the speed limit in the morning, whereas in the afternoon only about 6% of drivers exceeded the speed limit by more than 5 mph. The maximum speed detected at this site during school arrival and departure times, 41 mph, is over twice the posted speed limit. According to several studies, the risk of a pedestrian fatality is about 83-85% for vehicles going 40 mph. This risk drops to 37-45% for vehicles going 30 mph, and it is only 5% for vehicles travelling at 20 mph[4,5].

Table 3 - Traffic speed data for study sites near Troy Elementary School.

Traffic Counter Location	Morning (8:00-9:00 a.m.)			Afternoon (3:00-4:00 p.m.)		
	Maximum	Average	85%	Maximum	Average	85%
Site 1 (School St.)	41.0	24.1	28.6	39.6	23.9	28.2
Site 2 (Central Sq.)	48.3	27.1	32.4	58.7	29.4	34.4
Site 3 (NH. 12)	44.5	31.5	34.9	47.0	30.3	33.8
Site 4 (Mill St.)	46.4	35.7	40.4	53.0	35.7	40.6

Figure 17 - Traffic study sites near TES.



[4] *Killing Speed and Saving Lives*, UK Dept. of Transportation, London, England. See also Limpert, Rudolph. Motor Vehicle Accident Reconstruction and Cause Analysis. Fourth Edition. Charlottesville, VA. The Michie Company, 1994, p. 663.

[5] *Vehicle Speeds and the Incidence of Fatal Pedestrian Collisions, Australian* Federal Office of Road Safety, Report CR 146, October 1994, by McLean AJ, Anderson RW, Farmer MJB, Lee BH, Brooks CG.

The posted speed limit for Central Square (Site 2) is 30 mph. The majority of drivers stay within 5mph of the speed limit; only about 7.4% of drivers exceeded the speed limit by more than 5 mph in the morning and 13.1% of drivers exceeded the speed limit by more than 5 mph in the afternoon. The maximum speed detected at this location during school travel times was about 59 mph, almost twice the posted speed limit. The average hourly weekday traffic volumes at this site are 564 vehicles per hour for the morning (8:00-9:00 a.m.) and 717 vehicles per hour in the afternoon (3:00-4:00 p.m.).

Site 3, which is located just south of the crosswalk in front of the Gay-Kimball Library on NH Route 12, is very similar to Site 2 in terms of traffic speeds and volumes. The average hourly weekday traffic from 8:00-9:00 a.m. is 528 vehicles per hour, and from 3:00-4:00 p.m., it is 660 vehicles per hour. Slightly over 14% of drivers exceeded the posted speed limit of 30 mph by more than 5 mph in the morning, and 8.5% of drivers exceeded the speed limit by more than 5 mph in the afternoon. The maximum speed detected at this site was 47 mph.

The average speed at Site 4 on Mill Street was 35.7 mph for both the morning and afternoon arrival and departure times. Approximately 19% of drivers in the morning and 18% of drivers in the afternoon exceeded the posted speed limit of 30 mph by more than 10 mph. The maximum speed detected at this site during school arrival and departure times was 53 mph.

Figure 148 - Eighty five percentile speeds detected at traffic study sites near TES during morning (8-9 a.m.) and afternoon (3-4 p.m.) hours.

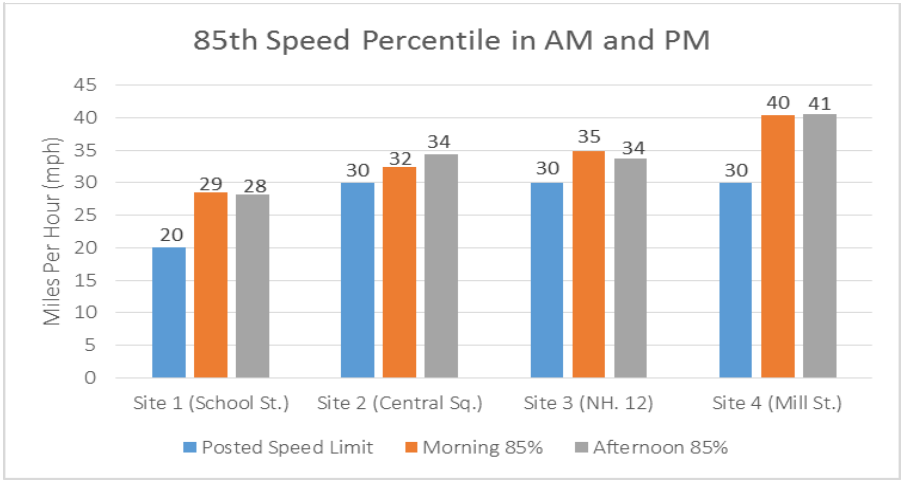
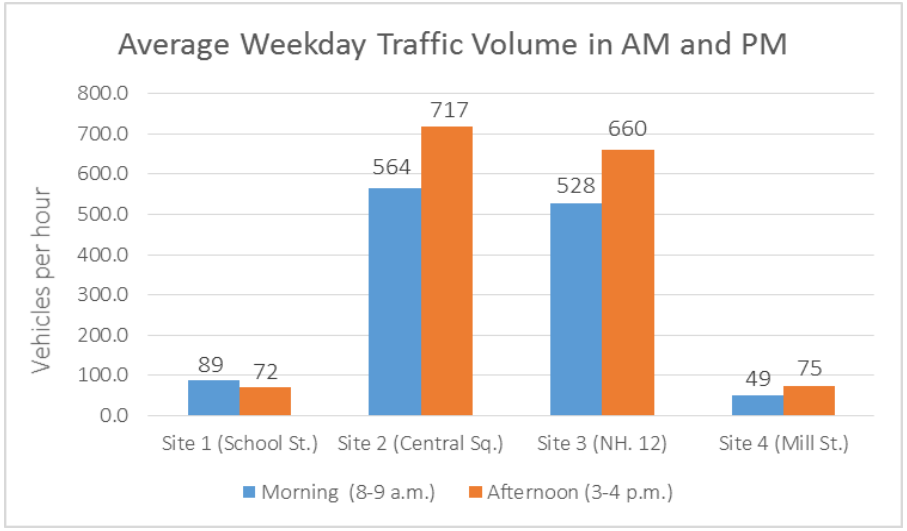


Figure 19 - Average weekday traffic volumes in vehicles per hour during morning (8-9 a.m.) and afternoon (3-4 p.m.) times at Troy Elementary School traffic study sites.



SAFE ROUTES TO SCHOOL STRATEGIES

Education

Education is essential for improving safe walking and biking conditions. TES should consider using this Action Plan as an opportunity to educate the school community about the benefits of walking and biking to school and on safe travel behavior for students and parents. Recommendations for enhancing education and awareness of the importance of and need for safe walking and bicycling routes to school are described below.

1. Schedule school-wide assemblies focused on pedestrian and/or bicycle safety.

All school assemblies provide a great opportunity to communicate key messages about walking and bicycling safety to the student body. Often, local law enforcement or local clubs such as Kiwanis, Lions, and Rotary clubs can provide this service at low or no cost to schools. Another organization called the Bike-Walk Alliance of New Hampshire offers bicycle education classes taught by certified instructors from the League of American Bicyclists. To learn more, visit http://www.bwanh.org/education-2/learn-kids/.

2. Lead small group "Walkability Audits" for children and parents.

A "Walkability Audit" is an assessment or evaluation of the walking and bicycling environment for a particular route. The general purpose of an audit is to identify concerns for pedestrians and bicyclists related to the safety, access, comfort, and convenience of the environment, and to identify potential alternatives or solutions (such as engineering treatments, policy changes, or education and enforcement measures). The National Safe Routes to School Partnership has created a walkability checklist that parents and students can use to evaluate their walk to school and identify areas that need improvement (see Appendix D for resources). Benefits of a Walkability Audit include:

- Alerts school and town officials to areas within the community that need attention;
- Gives children and parents a supervised, experiential-learning opportunity by teaching them pedestrian safety skills on actual sidewalks and crosswalks, and with real-life scenarios; and
- Raises awareness among parents and school staff about the safest walking and bicycling routes to school.

Figure 2015 - Community members conduct a walkability audit in Highland Park, Randolph County WV.

3. Provide developmentally appropriate on-the-bicycle education via 'bicycle rodeos.'

Bicycle rodeos are a relatively low-cost way to provide vital safety information and practice opportunities for young riders as well as family members who may be supporting their children's bicycling skill development and ongoing safety. Often, local police departments, fire departments, bicycle shops, bike advocacy groups, or volunteer/service organizations can help organize Bike rodeos.

Figure 21 - In 2012, the Bicycle Coalition of Maine organized a bike rodeo for local schools.

4. Start a "Troy School Bike Club" to teach students bicycling skills in a safe and supervised environment.

After School Bike Clubs teach students the skills necessary to become responsible cyclists and allow students to practice these skills in a safe and structured setting. Generally, bike clubs are led by at least one staff member or trained coach with help from parent volunteers. Troy School may want to require students to complete a bicycle safety training course (for example, a "bike rodeo") before they are allowed to go out on rides. Family members can benefit from learning proper helmet fitting techniques, easy bicycle checks, tips for riding safely with children to school, and specific local laws about where and/or how to ride (e.g. Sidewalk riding is allowed for children under age 10 in residential areas, etc.).

5. Share information on student bicycle and pedestrian safety via the school website, newsletter, and/or other information outlets.

TES should periodically remind parents and students about school rules for walking and bicycling and provide safety tips. For example, when the weather starts to get cold, the school could post information about the proper clothing to wear while walking or bicycling in cool weather.

6. Include information about how families can walk, bike, take the bus, or carpool to school on the TES website.

By posting information such as who is eligible to ride the bus, where parents can find information about bus routes and schedules, recommended walking/bicycling routes to school, etc., TES can help make it easier for parents to decide the best way for their child to get to and from school. In addition, the school may want to consider providing resources to help parents arrange carpools (see Strategy 4 under "Encouragement" for more information).

7. Give presentations about Safe Routes to School at PTA meetings and other meetings as appropriate.

The Troy SRTS task force should consider giving at least one presentation to the Parent Teacher Association each year about the Troy Safe Routes to School program. This presentation could include information such as an overview of the SRTS Action Plan, an overview of the benefits of Safe Routes to School, and/or an update on the Safe Routes to School activities that TES has undertaken or will undertake during

the year. The SRTS task force may also want to consider giving presentations to other groups that may have an interest in Safe Routes to Schools, such as the school board and the district wellness committee.

Encouragement

Encouragement activities help generate excitement and interest in walking and bicycling to school. Coordinating special events, contests, mileage clubs, and ongoing activities all provide ways for students to discover, or re-discover, the benefits of walking and bicycling to school. Encouragement activities can also reward students for walking and bicycling to school and help the school community celebrate accomplishments made towards its SRTS goals. Encouragement activities can be done with little funding and can remind students that walking or bicycling can be fun. Several recommended encouragement activities are listed below:

1. **Continue to organize Walk/Bike to School Day Events to Promote Walking and Bicycling to School.**

   Walk and Bike to School Day events create opportunities for children to interact and socialize with their peers and encourage families and children to try walking or bicycling to school. National Walk to School Day occurs the first week of October, and National Bike to School day occurs the first week of May, but many schools choose to hold walk/bike to school day events throughout the year. For example, some schools designate the first Wednesday of every month as "Walking Wednesday". For more information, guidance, and resources on how to plan a Walk to School Day event, see the Walk to School Day Guide, available at www.walkbiketoschool.org

2. **Organize a Walking School Bus or Bicycle Train with Parents and Community Members.**

   A walking school bus is a group of children walking to school with one or more adults. It can be informal (usually organized by parents or neighborhoods) or a formal school program. A variation on the walking school bus is a bicycle train where a group of children and adult leaders ride bicycles together to school. Since many parents are hesitant to allow their child to walk or bike to school alone, a walking school bus or bicycle train can alleviate that concern by ensuring there is adult supervision. Because Troy is a rural town,

Figure 22 - Tips for organizing a walk/bike to school day event.

- Designate an **event organizer**. This could be a parent, PE teacher, school principal, or local non-profit organization.
- Try to include all students, including those who live too far to walk, by designating a **remote drop-off location**. To ensure students of all abilities can be involved, seek input from your Special Education staff and confirm that Walk to School Day routes are accessible.
- Recruit **partners and volunteers**, such as the police department, parent volunteers, teachers, and school administrators.
- Promote the event ahead of time with **flyers, newsletters, PA announcements**, and **letters to parents.**
- Contact **local media** and invite **community leaders/local celebrities**, such as the mayor or a team mascot, to your event. Take pictures of the event, and celebrate!

the walking school bus should begin at a central location, which may increase the number of families who participate. Tips for organizing a Walking School Bus include:

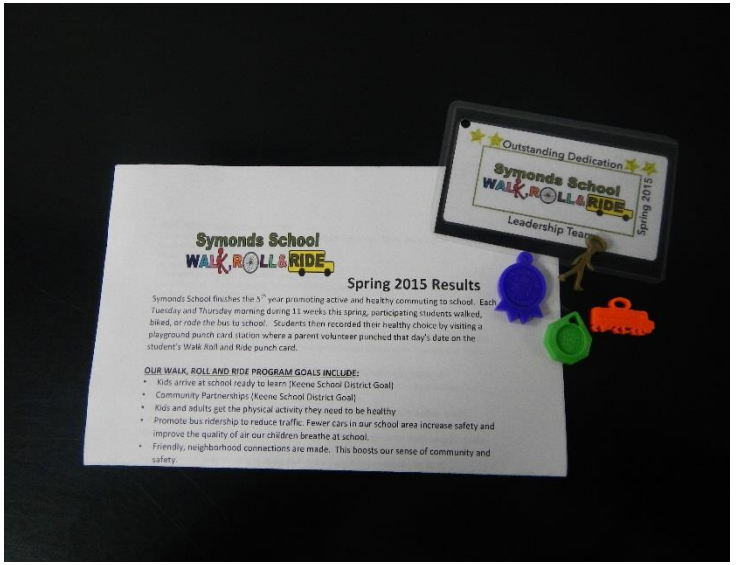
- Decide whether a formal or informal walking school bus program is more appropriate for TES. If it is a formal school program, designate a staff member or teacher to coordinate with volunteers and families.
- Recruit parent volunteers to help supervise children as they walk to school.
- Have a clearly defined meeting location and a safe walking route to school.
- Keep lines of communication open with parents in case the walking school bus is canceled for any reason, such as inclement weather or 2-hour delay.
- For coordinating bicycle trains, teach children how to ride safely on the road as a group. Normally, more adult supervision is needed for bicycle trains than for walking school buses. One adult for every three to six children is recommend.

3. Create a School-Wide Mileage Club or Contest to Offer Incentives to Students who Bike or Walk to School.

Mileage Clubs can provide quick reinforcement to students for walking and bicycling to school. Students track the number of times they walk or bike to school and are rewarded with recognition, prizes, or awards. Prizes can include stickers, wristbands, healthy treats, etc. Contests can be between individuals, classrooms, or between schools. Mileage Clubs are generally year-round programs, but schools can also choose to coordinate a "Mileage Contest" as an event. Tips for organizing a Mileage Club or Contest include:

Figure 23 - Salt Brook Elementary students and parents organized a walking school bus for Walk to School Day in in 2013.

Figure 24 - Symonds Elementary School tracks the number of trips students take using punch cards. At the end of the year, students who participate are recognized at an all-school assembly and receive prizes.



- Bring in a local expert, such as Beth Corwin from Symond's Elementary School, to share lessons learned from developing a successful "Walk, Roll, & Ride" program.
- Identify a program coordinator, such as a PE teacher or another staff member that is enthusiastic about the program.
- Decide where children can accrue mileage (on the way to school, at home, on the school campus).
- Create system for logging and tracking mileage or number of times walked/bicycled. Utilize free physical activity tracking tools provided by Safe Route's to School's "Fire up Your Feet" initiative to log and track mileage or number of times students walked/bicycled.
- Decide on incentives (recognition at school assembly, trophy or other type of award).
- Seek funding to support the program—materials, awards, prizes, etc.
- Recognize and reward participation.
- Track participation.
- Make changes as needed—the program will change over time to fit the unique needs of your school community.

Figure 25 - Symonds Elementary School students get their cards punched for the Symonds "Walk, Roll, and Ride" program.

4. Provide Resources for Parents to Carpool to School.

Many communities involved in Safe Routes to School have encouraged parents to organize carpools to alleviate traffic congestion in parent pick up and drop off areas and reduce auto emissions. Parent volunteers in groups like the PTA share the responsibility of getting children to and from school safely. Carpools to remote drop off locations may also increase the number of students who participate in walking or bicycling to school. Tips to organize a parent carpooling program include:

- Define a team of parents at your school who are interested in carpooling with others. Work out a schedule with interested families based on location, times, and days.
- Print out a weekly carpool schedule for each participating family that includes contact information.
- Use carpool websites such as Divide the Ride, Carpool World, ERideShare, and CarpooltoSchool.

Enforcement

Enforcement strategies help reduce unsafe behaviors by drivers, pedestrians, and bicyclists and encourage all road users to obey traffic laws and share the road safely. Law enforcement, school personnel, and community members can work together to create and sustain a safe environment for walking and biking to school. Enforcement strategies should be implemented in combination with education, encouragement, and engineering strategies to have a maximum impact. Used on its own, enforcement does not usually result in long-term, lasting changes in driver behavior. Recommended enforcement strategies are listed below.

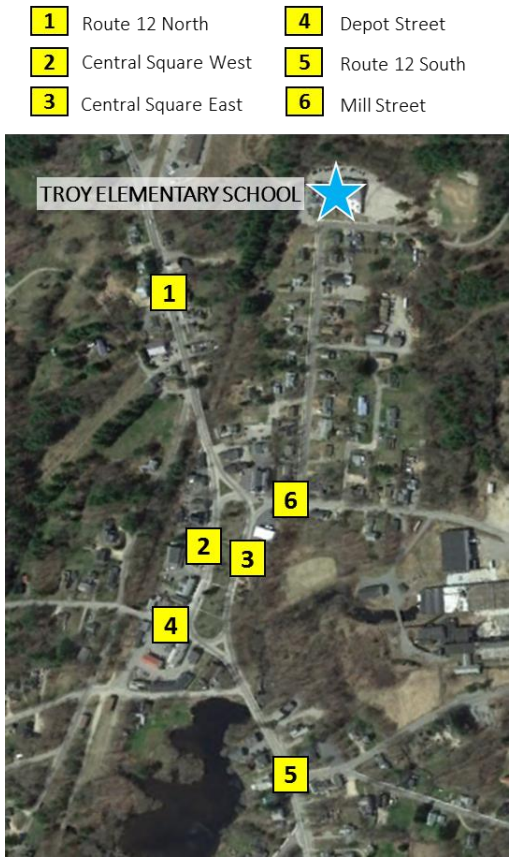
1. **Enforce Parent Pick-Up and Drop-Off Process.**
   The school should inform and remind parents of the proper drop off and pick up process on a regular basis. The entrance, exit, and vehicle turn-around area could be marked with signage to clarify the process and reduce potential traffic conflicts. Since one parent was observed backing up over the pedestrian crosswalk in front of the school, TES may want to consider increasing their presence of enforcement personnel in the parent pick up and drop off area to ensure parents are following safe pick up and drop off procedures.

2. **Work with Local Law Enforcement to Appoint Crossing Guards at Key Intersections.**

   The volume and speed of traffic on Route 12 is a safety concern and barrier to parents allowing their children to walk or bike to school, indicating a need for crossing guard personnel. TES should consider working with the local police department to bring on crossing guards to monitor key intersections (designated points on Route 12, Mill Street, and Central Square) and assist students in crossing the street safely. Ideally, an adult crossing guard program develops out of a partnership between law enforcement agents, planning departments, and school systems. An adult school crossing guard can be a paid employee or a volunteer member of the community that is trained and passes a background check. Further information on crossing guard safety, please see the National Safe Routes to School's Adult Crossing Guidelines.

3. **Coordinate a School Safety Patrol Program.**
   TES could consider assigning safety patrol duties to older elementary school children who could help assist younger students crossing the crosswalk in front of the school. This would foster a sense of responsibility in older students and provide an opportunity for leadership

Figure 26 - Potential Troy crossing guard locations



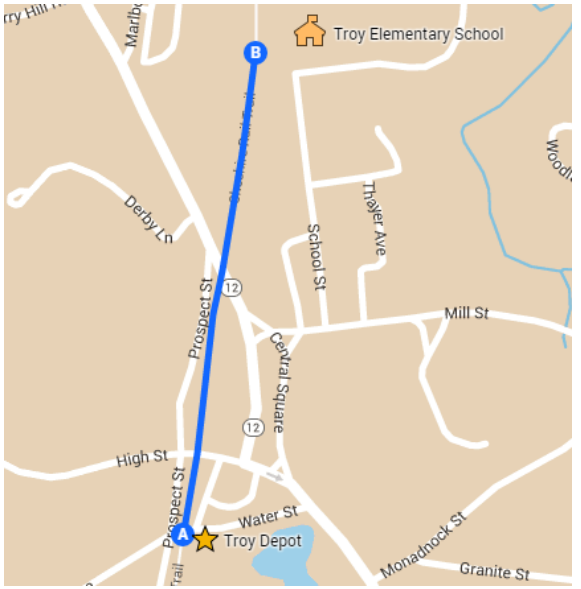
development among students. It is also a chance for older and younger students to form a relationship around walking and bicycling to school.

4. Install Active Speed Monitors or Radar Speed Trailers to Enforce Speed Limit on School Street.
   TES is located on School Street, which was noted as having a high amount of speeding. Portable speed trailers visually display driver's real-time speeds and compare them to the actual speed limit. They have the potential to reduce speeds and increase awareness of local speed limits. Occasionally, speed trailers are supplemented with a local police officer to further enforce the speed limit. Speed trailers should be placed in locations that do not block pedestrians, bicyclists, motor vehicle traffic, or significant traffic control signs.

Engineering

Engineering is a broad concept used to describe the design, implementation, operation and maintenance of traffic control devices or physical measures, including low-cost as well as high-cost capital measures. Infrastructure such as sidewalks, wide paved shoulders or bike lanes, visible crosswalks, trails/paths, and connectivity between sidewalks and trails/paths creates conditions that improve safety for walking and bicycling in the area surrounding the school. Recommended engineering strategies for TES are listed below.

Figure 27 - The Cheshire Rail Trail connects the Troy Depot (point A) to Troy Elementary School (point B).



1. Work with Town of Troy to improve school access to Cheshire Rail Trail.
   The Cheshire Rail Trail was identified by the Troy Safe Routes to School task force as an opportunity to encourage students to walk or bike to school. Students can access the trail at the Depot Center and avoid crossing NH Rt. 12 entirely. However, the connection between the trail and the school is currently very steep and starting to wash away. TES should consider working with the Town of Troy to either improve the existing school access to the Cheshire Rail Trail or acquire a new access point to the Rail Trail.

2. Work with Town of Troy and NHDOT to address safety concerns at the crosswalk on NH Route 12 near the Gay-Kimball Library.
   According to the Troy Police Chief and comments received from the Parent Survey, the crosswalk on NH Rt. 12 by the Gay-Kimball Library is unsafe due to high traffic volumes, poor sight lines, and the tendency for drivers to go around vehicles stopped at the crosswalk. In order to address these concerns, the school should consider working with the Town and NHDOT to improve the visibility of this crosswalk and calm traffic. Example strategies could include adding

"YIELD" and "PEDESTRIAN" pavement markings in advance of the crosswalk, adding curb extensions to prevent cars from going around stopped cars, and/or moving the crosswalk to a location with a shorter crossing distance and better sight lines.

Figure 28 – View of the crosswalk on NH Route 12 located near the Gay-Kimball Library.

3. **Work with Town of Troy to calm traffic on roads near the school.**
   The TES traffic studies revealed that there is significant speeding on roads near the school, including on School Street, Mill Street, and NH Route 12. The school should consider working with the Town of Troy, and where applicable, the NHDOT to calm traffic along these routes. Example traffic calming strategies include installing curb extensions at pedestrian crossings, using paint to visually narrow travel lanes, and installing active speed signs in problematic areas. For more ideas for traffic calming strategies, see the National Safe Routes to School "Slowing Down Traffic" page: guide.saferoutesinfo.org/engineering/slowing_down_ traffic.cfm.

Figure 29 – A sidewalk on Mill Street where it dead ends.

4. **Work with Town of Troy and NHDOT to improve and extend the sidewalk on Mill Street.**
   TES should consider working with the Town of Troy to improve the existing sidewalk on Mill Street and extend it to the intersection of Mill Street and Monadnock Street. Currently, the sidewalk on Mill Street stops about 430 feet east of School Street at the top of a hill where the road curves. The sidewalk is in fair condition, and it ranges in width from three to five feet. The existing sidewalk should be improved to be a minimum of five feet wide with either a buffer strip or a curb separating it from the travel lanes. If feasible, the sidewalk should be extended to Monadnock Street so students have a safe place to walk on the steep and curvy section of the road.

Evaluation

Evaluation involves monitoring and documenting outcomes, attitudes and trends through the collection of data before and after program activities or projects. These activities help track which strategies would be most or least successful and which should be modified for better results. Troy School has already collected baseline data on student travel modes to and from school and parent concerns about walking and bicycling to school. Moving forward, the school should consider the evaluation recommendations listed below.

1. **Administer the "Safe Routes to School Arrival and Departure Tally Sheet" on an annual basis to track trends over time**

The Student arrival and departure tally sheet is simple to administer, and it provides useful data on student travel modes to and from school. By collecting this data on an annual basis, the school will be able to track trends in travel modes over time and adjust education, encouragement, enforcement, and engineering strategies accordingly. The data from the tally sheets can also be used to enhance applications for grant funds to help support Safe Routes to School programs and/or infrastructure projects. The National Center for Safe Routes to Schools will tabulate survey responses for free; for more information please visit www.saferoutesinfo.org. A copy of this survey can be found in Appendix C.

Figure 30 - Screenshot of the National Center for Safe Routes to School website home page. The Data Center is circled in yellow.

2. **Administer the "Parent Survey about Walking and Biking to School" on a bi-annual basis (every two years)**

The parent take-home survey provides useful information about parents' safety concerns related to their children walking and biking to school, and it helps to uncover the reasons behind travel behaviors. In order to stay current with the school population, this survey should be administered once every two years. The National Center for Safe Routes to Schools will tabulate survey responses for free; for more information please visit www.saferoutesinfo.org. A copy of this survey can be found in Appendix B.

3. **Update the Safe Routes to School Action Plan every five years**

The data and recommendations outlined in this Action Plan are intended to be used as a starting point for launching a comprehensive Safe Routes to School program. As the program progresses, the Action Plan will need to be updated to include current data and recommendations that fit the needs of the school and community at that time. The Troy SRTS task force or the Troy Wellness Committee should consider taking this task on.

IMPLEMENTATION

Following the adoption of this Action Plan, Troy Elementary School should identify an existing committee or form a Safe Routes to School Task Force to implement this plan. If possible, the Committee or SRTS Task Force should include representation from parents, school administrators and teachers, community members, City staff and/or officials, and students.

Once a group has been identified to implement this Action Plan, the SRTS strategies should be prioritized based on factors such as the level of impact for each strategy, the funding and/or resources available to help implement each strategy, and the ease of implementation. Figure 30 gives an example chart that can be used to help with the prioritization process. Table 5 provides information about each strategy, including partners to help with the strategy, timeframe for implementation, implementer, and resources for implementation.

Implementation Steps:

1) Designate an existing committee or form a SRTS Task Force to implement this Action Plan that includes the following:
    a. Parents
    b. School administrators and teachers
    c. Community members
    d. City staff and/or officials
    e. Students
2) Prioritize Strategies for implementation. Factors to consider may include:
    a. Expected impact of strategy
    b. Ease of implementation
    c. Availability of resources such as funding, volunteers, etc.
3) Begin putting high priority strategies into action
4) Evaluate success and share results!

Figure 31 - Prioritization chart for SRTS strategies.

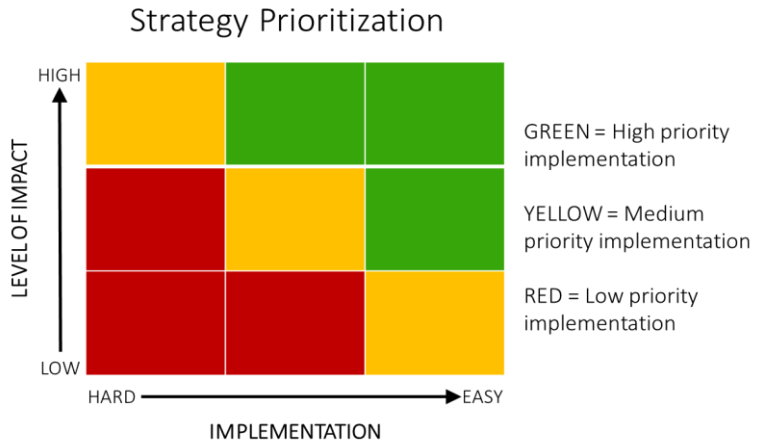


Table 4 - Safe Routes to School Strategies for Troy Elementary School.

	Strategy	Partners	Timeframe	Implementer	Potential Funding Source
EDUCATION	1. Schedule school-wide assemblies focused on pedestrian and/or bicycle safety	Local police dept., Bike-Walk Alliance of New Hampshire, local civic group (i.e. Kiwanis, Lions, Rotary, etc.),	Ongoing/yearly	Troy Elementary School(TES)	Bike-Walk Alliance of New Hampshire; TES, Monadnock Region School District (MRSD)
	2. Lead small group "Walkability Audits" for children and parents	Parent volunteers, Troy SRTS task force	3 months - 1 year	TES	N/A
	3. Provide developmentally appropriate on-the-bicycle education via 'bicycle rodeos.'	Local bicycle shop, local civic group (i.e. Kiwanis, Lions, Rotary, etc.), Monadnock Region School District (MRSD)	Ongoing/yearly	TES	Advocates for Healthy Youth (AFHY) Mini Grant Program
	4. Start a "Troy Elementary School Bike Club" to teach students bicycling skills in a safe and supervised environment	Parents, School Staff interested in leading the club	3 months - 1 year, then ongoing	TES	Troy School/MRSD; AFHY Mini Grant Program
	5. Share information on student bicycle and pedestrian safety via the school website, newsletter, and/or other information outlets	Staff in charge of maintaining the school website, SRTS task force	Ongoing	TES	N/A

	Strategy	Partners	Timeframe	Implementer	Potential Funding Source
EDUCATION	6. Include information about how families can walk, bike, take the bus, or carpool to school on the TES website	Staff in charge of maintaining the school website, SRTS task force, SWRPC (to help make walking route maps, etc.)	Ongoing	TES	N/A
	7. Give presentations about Safe Routes to School at School Board meetings, PTA meetings, and other meetings as appropriate	TES Parent Teacher Association (PTA), MRSD School Board, SWRPC	Ongoing/yearly	TES SRTS Task Force	N/A
ENCOURAGEMENT	1. Organize Walk/Bike to School Day Events to Promote Walking and Bicycling to School.	TES PTA, Local Businesses, Community Service Groups	Start September 2016, then ongoing	TES SRTS Task Force	TES/MRSD; AFHY Mini Grant Program
	2. Organize a Walking School Bus or Bicycle Train with Parents and Community Members	TES PTA, Community Service Groups	3-6 months to implement, then ongoing	TES SRTS Task Force	TES/MRSD; AFHY Mini Grant Program
	3. Create a School-Wide Mileage Club or Contest to Offer Incentives to Students who Bike or Walk to School	TES PTA, Local Businesses, Community Service Groups	3-6 months to implement, then ongoing	TES SRTS Task Force	TES/MRSD; AFHY Mini Grant Program
	4. Provide Resources for Parents to Carpool to School	TES PTA, MRSD	3-6 months to implement, then ongoing	TES SRTS Task Force	N/A

	Strategy	Partners	Timeframe	Implementer	Potential Funding Source
ENFORCEMENT	1. Work with Local Law Enforcement to Appoint Crossing Guards at Key Intersections	Troy Police Department	Start September 2016, then ongoing	TES	Local Police Department
	2. Enforce Parent Pick-Up and Drop-Off Process.	Troy Police Department	Start September 2016, then ongoing	TES	Local Police Department
	3. Coordinate a School Safety Patrol Program	Troy Police Department	1-3 months to implement, then ongoing	TES	Local Police Department
	4. Install Active Speed Monitors or Radar Speed Trailers to Enforce Speed Limit on School Street.	Town of Troy, Troy Police Department	1-3 months to implement, then ongoing	Town of Troy	Local Police Department
ENGINEERING	1. Work with the Town of Troy to improve school access to Cheshire Rail Trail	Town of Troy, SWRPC	6 months - 5 years	Town of Troy	N.H. Recreational Trails Program (RTP) grant*, Transportation Alternatives Program (TAP)*
	2. Work with Town of Troy and NHDOT to address safety concerns at the crosswalk on NH Route 12 near the Gay-Kimball Library	Town of Troy, NHDOT, SWRPC	6 months - 5 years	NHDOT	TAP*, Highway Safety Improvement Program (HSIP)*, N.H. Congestion Mitigation and Air Quality (CMAQ) Program*

	Strategy	Partners	Timeframe	Implementer	Potential Funding Source
ENGINEERING	3. Work with Town of Troy and NHDOT to calm traffic on roads near the school (N.H. Route 12, Central Square, Mill Street)	Town of Troy, NHDOT, SWRPC	6 months - 5 years	Town of Troy/NHDOT	TAP*, HSIP*, CMAQ*
	4. Work with Town of Troy and NHDOT to improve and extend the sidewalk on Mill Street	Town of Troy, NHDOT, SWRPC	6 months - 5 years	Town of Troy/NHDOT	TAP*, Town of Troy Capital Improvement Plan
EVALUATION	1. Administer the "Safe Routes to School Arrival and Departure Tally Sheet" on an annual basis to track trends over time	SWRPC, National Center for Safe Routes to School	Ongoing/yearly	TES	N/A
	2. Administer the "Parent Survey about Walking and Biking to School" on a bi-annual basis (every two years)	SWRPC, National Center for Safe Routes to School	Ongoing/every two years	TES	N/A
	3. Update the TES Safe Routes to School Action Plan every five years	SWRPC (to help update plan)	Every 5 years	TES SRTS Task Force	SWRPC

** Note: Projects may or may not be eligible for funds through TAP, HSIP, and CMAQ. Please contact SWRPC for assistance with applying for funds through these programs.*

APPENDICES

Troy Elementary School Field Review Summary

Date: Wednesday, April 13, 2016
Weather: Sunny/clear, 30 degrees in the morning and 50 degrees in the afternoon

BUS DROP-OFF AND PICK-UP

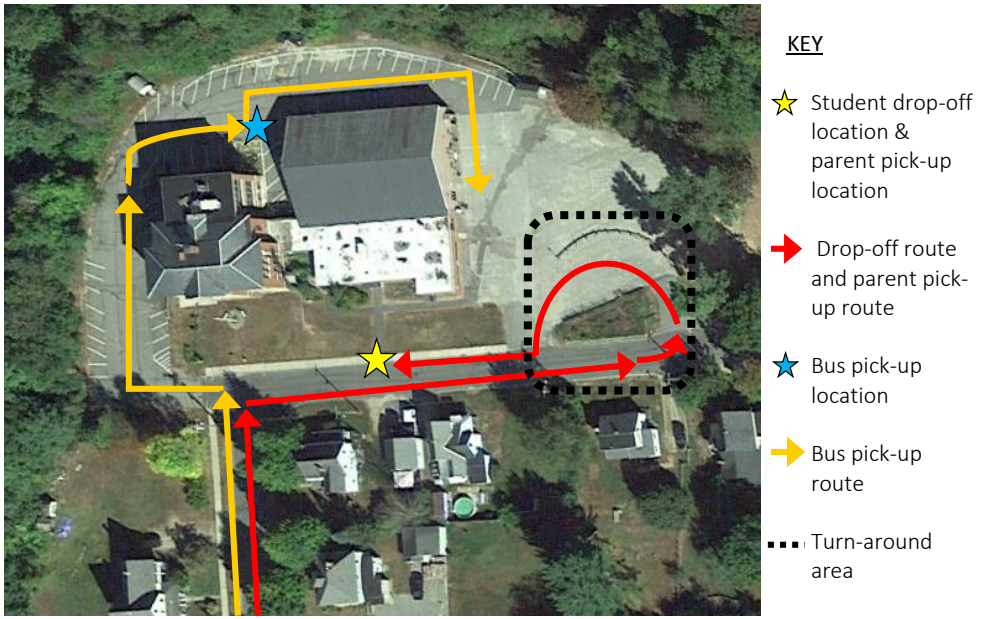
There are two standard school buses that drop off and pick up children each day. In the morning, the buses drop off students in front of the school at the student drop-off location, shown in Figure 1. There was one staff person present to help students exit the school bus and direct them to the school entrance, and another staff person who held open the door for students as they entered the school. There were no safety concerns related to bus drop-off noted during student arrivals; however it was noted that the entrance to the turn-around location could be more clearly marked. In the afternoon, the buses pick up students in back of the school to avoid conflicts with parent pick-up. A staff person led students to the bus in a single file line and helped students board the bus. There were no conflicts observed with other vehicles, however according to anecdotal evidence, on occasion there are parents who will drive around the back of the school during bus pick-up. The bus pick-up location is shown in Figure 1.

In addition to the two standard buses, there are two van school buses and a Thomas Transportation van that drop off and pick up children using the parent drop-off route.

PARENT DROP-OFF AND PICK-UP

The parent drop-off and pick-up route is shown in red in Figure 1. In the morning, parents start lining up to drop off their children at about 8:00 a.m., but they wait until 8:15 a.m. to let their children out of the car. A staff person was present to direct students from the drop-off location to the school entrance. Once the line started moving, the average wait time for parents to get through the line and drop off their child was roughly 3 minutes and 15 seconds. About a dozen parents were observed parking in the side parking lot or in the rear parking lot of the school and walking with their children

Figure 1. Parent and Bus drop-off and pick-up routes.



to the school instead of using the drop-off route. In two instances, parents drove against the flow of traffic to drop off their children on the east side of the school. These parents entered the exit driveway for the turn-around area to access the east side of the school, which created a conflict point with vehicles following the sanctioned drop-off route shown in Figure 1. One parent was observed dropping off their child at the southwest corner of the school grounds and then backing up over the pedestrian crosswalk that connects the sidewalk on School Street to the sidewalk in front of the school.

In the afternoon, parents began lining up at 3:05 in front of the school. In general, parents turned off their vehicles while they waited for their children. Several parents got out of their cars and waited on the grass in front of the school. At 3:13 p.m., students were allowed to go to their parents. By about 3:17, all vehicles were cleared out. Between 3:13 pm and 3:17 pm, the average wait time for parents to pick up their students and exit to School Street was about 45 seconds.

Above: Parents and school van lining up in front of Troy Elementary School for drop-off.

SPEED

There is one speed limit/school zone sign on School Street which indicates that the speed limit is 25 miles per hour. This sign does not flash, and there is only one speed limit sign for the entire length of the road. Additional speed limit signs that face both directions of traffic could be considered to help remind drivers of the speed limit on this road. As vehicles approach the school, there is a speed limit sign for 10 miles per hour on school grounds. No excessive speeding was observed during the field review, however according to a local police officer and a resident living on School Street, speeding is a problem on this road.

Above: Speed limit sign on posted on school grounds.

LIGHTING

No lighting issues were observed during the field review, which took place during daylight hours. Street lamps are posted at regular intervals along School Street and several lights are mounted on the outside walls of the school building.

WAYFARING

In general, wayfaring around the school could be improved. For example, the entrance and exit to the school as well as the vehicle turn-around area could be marked with "entrance" and "exit" signs. Pedestrian crosswalks could also be more clearly marked, especially the crosswalk in front of the school where the paint has mostly faded away. There are no wayfaring signs to direct people on bike or foot to the school.

Signs posted on the exterior walls of the school building direct drivers to locations such as the visitor parking area and the school office. There is an unmarked access trail that connects to the Cheshire Rail Trail on the west side of the school, but it does not appear to be maintained for safe access.

Above: wayfaring signs direct drivers to the school office and visitor parking areas.

BICYCLE USE & FACILITIES

There is one bicycle rack on the east side of the school that can hold approximately 20 bicycles. On the day of the field review, three bicyclists were observed bicycling to and from school using the sidewalks on Mill Street and School Street. All three students wore helmets and parked their bicycles at the bicycle rack.

There are no "Share the Road" signs or other signs/road markings on streets around the school indicating that drivers should share the road with bicyclists. Shoulders are narrow or non-existent on Mill Street, and high traffic volumes make NH Rte. 12 unsafe for children bicycling. The sidewalks on Mill Street and School Street, which range from 4 feet to 5 feet wide, are not sufficiently wide for bicyclists and pedestrians to safely share the sidewalk.


Above: Bike rack located on east side of school.

SIDEWALKS

In general, sidewalks on School Street and on the school grounds are in good condition and are well-maintained. Most of the sidewalks are five foot wide concrete with granite curbs or a green buffer separating them from the travel lanes. The sidewalks on Mill Street and along NH Rte. 12, however, are made with asphalt and are in fair or poor condition. These sidewalks, which are narrower, should be improved to enable safe access for children using them to walk to school.


Above: Sidewalk on Mill Street.

CROSSINGS

There is a marked crosswalk directly in front of Troy Elementary School that connects the sidewalk on School Street to the sidewalk in front of the school. This crosswalk could be more clearly marked with a pedestrian crossing sign and new paint. In general, drivers yielded to pedestrians in the crosswalk at this location, however there were a couple instances where vehicles did not stop. Pedestrian-vehicle conflicts at this crosswalk could be minimized by enforcing the parent drop-off and pick-up route, which would reduce the number of vehicles driving over the crosswalk during drop-off and pick-up times.

There is another marked crosswalk near the intersection of School Street and Mill Street that crosses Mill Street. This crosswalk, which is located on a busy road with turning traffic from NH Rte. 12, could be more clearly marked with a pedestrian crossing sign. The presence of a crossing guard may also be beneficial for helping students cross the road safely.

DRIVER BEHAVIOR

There were a few instances of driver behavior that were problematic, but for the most part parents and other motorists drove carefully while in the vicinity of the school. Traffic was calm and flowed smoothly during parent drop-off and pick-up, and very little congestion was observed during these times. According to a police officer and a resident who lives on School Street, speeding can be an issue on that road, however speeding was not observed on the day of the field review. There were two parents who went against the flow of traffic during morning drop-off, as described in the "Parent drop-off and pick-up" section. In addition, one parent was observed backing up over the pedestrian crosswalk in front of the school. Better wayfinding signs and/or a staff person directing traffic to the traffic turn-around area could potentially help improve this behavior.

ENVIRONMENTAL CONDITIONS

Walking and bicycling routes around the school and on School Street are clear of litter and pleasant to walk. Traffic noise and exhaust could be a deterrent for students walking along NH Rte. 12.

Above: Faded crosswalk in front of the school.

Above: The student drop-off location and school entrance.

Above: Students walking home from School on Mill Street, headed towards NH Rte. 12/Central Square.

Parent Survey About Walking and Biking to School

Dear Parent or Caregiver,

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.

Thank you for participating in this survey!

+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +

School Name:

1. What is the grade of the child who brought home this survey? ☐☐ Grade (PK,K,1,2,3…)

2. Is the child who brought home this survey male or female? ☐ Male ☐ Female

3. How many children do you have in Kindergarten through 8th grade? ☐☐

4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)

and

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

5. How far does your child live from school?

- ☐ Less than ¼ mile
- ☐ ¼ mile up to ½ mile
- ☐ ½ mile up to 1 mile
- ☐ 1 mile up to 2 miles
- ☐ More than 2 miles
- ☐ Don't know

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box. +

6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)

Arrive at school	**Leave from school**
☐ Walk	☐ Walk
☐ Bike	☐ Bike
☐ School Bus	☐ School Bus
☐ Family vehicle (only children in your family)	☐ Family vehicle (only children in your family)
☐ Carpool (Children from other families)	☐ Carpool (Children from other families)
☐ Transit (city bus, subway, etc.)	☐ Transit (city bus, subway, etc.)
☐ Other (skateboard, scooter, inline skates, etc.)	☐ Other (skateboard, scooter, inline skates, etc.)

+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +

7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)

Travel time to school	**Travel time from school**
☐ Less than 5 minutes	☐ Less than 5 minutes
☐ 5 – 10 minutes	☐ 5 – 10 minutes
☐ 11 – 20 minutes	☐ 11 – 20 minutes
☐ More than 20 minutes	☐ More than 20 minutes
☐ Don't know / Not sure	☐ Don't know / Not sure

+ +

8. Has your child asked you for permission to walk or bike to/from school in the last year? ☐ Yes ☐ No

9. At what grade would you allow your child to walk or bike to/from school without an adult?

(Select a grade between PK,K,1,2,3…) ☐☐ grade **(or)** ☐ I would not feel comfortable at any grade

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)

11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)

	My child already walks or bikes to/from school		
☐ Distance	☐ Yes	☐ No	☐ Not Sure
☐ Convenience of driving	☐ Yes	☐ No	☐ Not Sure
☐ Time	☐ Yes	☐ No	☐ Not Sure
☐ Child's before or after-school activities	☐ Yes	☐ No	☐ Not Sure
☐ Speed of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Amount of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Adults to walk or bike with	☐ Yes	☐ No	☐ Not Sure
☐ Sidewalks or pathways	☐ Yes	☐ No	☐ Not Sure
☐ Safety of intersections and crossings	☐ Yes	☐ No	☐ Not Sure
☐ Crossing guards	☐ Yes	☐ No	☐ Not Sure
☐ Violence or crime	☐ Yes	☐ No	☐ Not Sure
☐ Weather or climate	☐ Yes	☐ No	☐ Not Sure

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

☐ Strongly Encourages ☐ Encourages ☐ Neither ☐ Discourages ☐ Strongly Discourages

13. How much fun is walking or biking to/from school for your child?

☐ Very Fun ☐ Fun ☐ Neutral ☐ Boring ☐ Very Boring

14. How healthy is walking or biking to/from school for your child?

☐ Very Healthy ☐ Healthy ☐ Neutral ☐ Unhealthy ☐ Very Unhealthy

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

15. What is the highest grade or year of school you completed?

☐ Grades 1 through 8 (Elementary)
☐ Grades 9 through 11 (Some high school)
☐ Grade 12 or GED (High school graduate)
☐ College 1 to 3 years (Some college or technical school)
☐ College 4 years or more (College graduate)
☐ Prefer not to answer

16. Please provide any additional comments below.

Safe Routes to School Students Arrival and Departure Tally Sheet

CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY

School Name:

Teacher's First Name:

Teacher's Last Name:

Grade: (PK,K,1,2,3...) 0 2

Monday's Date (Week count was conducted) M M D D Y Y Y Y

Number of Students Enrolled in Class: 1 5

- Please conduct these counts **on two of the following three days Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted)**
- **Please do not conduct these counts on Mondays or Fridays.**
- Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.
- Ask your students as a group the question "**How did you arrive at school today?**"
- Then, reread each answer choice and record the number of students that raised their hands for each. **Place just one character or number in each box.**
- Follow the same procedure for the question **"How do you plan to leave for home after school?"**
- You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1.
Fill in the weather conditions and number of students in each class

Step 2.
AM – "**How did you arrive at school today?**" Record the number of hands for each answer.
PM – "**How do you plan to leave for home after school?**" Record the number of hands for each answer.

Key	Weather	Student Tally	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
	S= sunny R= rainy O=overcast SN=snow	Number in class when count made	-	-	-	Only with Children from your family	Riding with children from other families	City bus, subway, etc.	Skate-board, scooter, etc.
Sample AM	S N	2 0	2	3	8	3		3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

Appendix D: Safe Routes to School Resources

National Safe Routes to School Guide:
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_full.pdf
This guide is a comprehensive online reference manual designed to support the development of Safe Routes to School (SRTS) programs. Available online or in a downloadable PDF version, the guide covers engineering, education, enforcement, encouragement, evaluation and more.

Safe Routes to School's Bicycle and Pedestrian Curricula Guide: Making the Case for Bicycle and Pedestrian Youth Education
http://www.in.gov/indot/files/BicyclePedestrianCurriculaGuide2011.pdf
The Safe Routes to School National Partnership created this guide to provides background and tips for systematic implementation of bicycle and pedestrian safety education and a variety of curriculum programs and materials are provided.

How to Plan a Walk to School Day Event Guide:
http://www.walkbiketoschool.org/sites/default/files/WBTS_HowToPlan_ForWeb.pdf
This guide provides steps, tips, and ideas for planning a fun and safe walk to school day event.

Get Out and Get Moving: Opportunities to Walk to School through Remote Drop off Programs:
http://www.changelabsolutions.org/sites/default/files/SRTS-Remote-Drop-Off-Rural_School_Districts-FINAL_20140611.pdf
This resource provides information on organizing a remote drop off location and offers examples of how different schools have structured their own remote drop off programs to ensure safety.

Safe Routes to School Encouragement Guide
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Encouragement.pdf
The Safe Routes to School Encouragement Guide provides tips for organizing a variety of encouragement activities including walk to school day events and mileage clubs and contests.

Student Drop off and Pick up Guide:
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Dropoff-Pickup.pdf
The Student Drop off and Pick up Guide provides information on how to improve drop off and pick up procedures using engineering, enforcement, and education, and encouragement solutions.

School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students
http://www.wsdot.wa.gov/NR/rdonlyres/5463FD69-F7B9-477D-B9AA-D21CEEFCF722/0/SchoolAdminGuide.pdf
This guide provides resources for school administrators and educators to help develop, maintain, and improve school walk routes and address bicycle and pedestrian safety.

Walkability Checklist
http://www.saferoutesinfo.org/sites/default/files/walkabilitychecklist.pdf
The walkability checklist allows users to evaluate a neighborhood's walkability to plan safe walking routes to and from school.

Bikability Checklist
http://www.saferoutesinfo.org/sites/default/files/resources/Bikeability_Checklist.pdf
The bikability checklist allows users to evaluate a neighborhood's bikability.