

VERMONT
Safe Routes to
SCHOOL



Saint Albans City School

Safe Routes to School Travel Plan

October 2013

Prepared with assistance from the VT SRTS Resource Center

SafeRoutesVT.org

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SAINT ALBANS CITY SCHOOL TRAVEL PLAN

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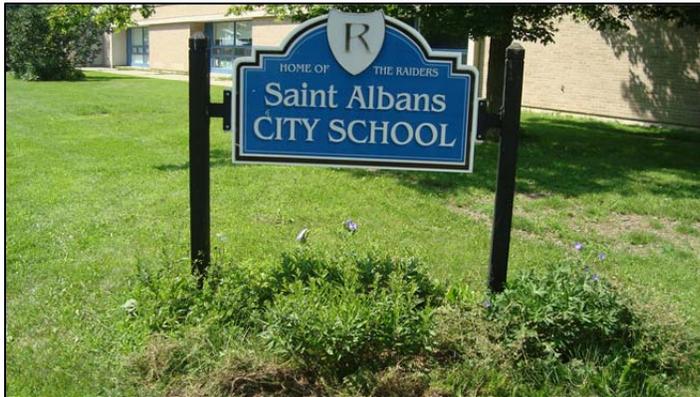
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INTRODUCTION

This Travel Plan represents the work of the Saint Albans City School Safe Routes to School Team. Our school is striving for a Silver Level Partnership with the Vermont Safe Routes to School Resource Center. We believe creating and maintaining this Travel Plan is a good way to ensure an on-going Safe Routes to School (SRTS) program at our school.

Our SRTS team consists of parents, teachers, and other community stakeholders who have provided input, guidance, and oversight in writing our plan.



The ideas and recommendations developed during this process will guide us in creating a well-balanced approach to building our SRTS program at Saint Albans City School (SACS). Our school team will use this document as a resource to plan our encouragement, education, enforcement, and evaluation efforts with assistance from the VT SRTS Resource Center.

The Vermont Agency of Transportation (VTrans), through the Vermont SRTS Resource Center, has provided technical assistance in producing this plan. With the help of the Resource Center, we have identified infrastructure improvements that would have a positive impact on walking and biking to school. These infrastructure

The Five E's

SRTS combines many different approaches to make it safer for children to walk and bicycle to school and to increase the number of children doing so.

Engineering strategies create safer environments for walking and bicycling to school through improvements to the infrastructure surrounding schools. These improvements focus on reducing motor vehicle speeds and conflicts with pedestrians and bicyclists, and establishing safer and fully accessible crossings, walkways, trails and bikeways.

Education programs target children, parents, caregivers and neighbors, teaching how to walk and bicycle safely and informing drivers on how to drive more safely around pedestrians and bicyclists. Education programs can also incorporate health and environment messages.

Enforcement strategies increase the safety of children bicycling and walking to school by helping to change unsafe behaviors of drivers, as well as pedestrians and bicyclists. A community approach to enforcement involves students, parents or caregivers, school personnel, crossing guards and law enforcement officers.

Encouragement activities promote walking and bicycling to school to children, parents and community members. Events such as Walk to School Day, contests such as a Frequent Walker/Bicyclist challenge, or on-going programs such as a Walking School Bus or Bicycle Train can promote and encourage walking and bicycling as a popular way to get to school.

Evaluation is an important component of SRTS programs that can be incorporated into each of the other E's. Collecting information before and after program activities or projects are implemented allow communities to track progress and outcomes, and provide information to guide program development.

- Excerpted from "Safe Routes to School: A Transportation Legacy", the report of the National Safe Routes to School Task Force

recommendations are considered planning level and will require further engineering analysis to determine feasibility. It is our hope that our recommendations can be the basis for grants and/or improvements initiated by the City of Saint Albans.

Members of the Saint Albans City School SRTS Team	
Joan Cavallo Principal	Chip Sawyer Director of Planning & Development
Georgie Andrews Assistant Principal	Katelin Brewer-Colie & Amanda Holland Northwest Regional Planning Commission-Planner
Mike Janson St. Albans Cooperative Creamery, Inc	Allen Robtoy Director Public Works
Chad Spooner City Council President Public Safety Chair	David Schofield Saint Albans City School bus driver
Amy Brewer, NMC Inc. Health Educator	David Hutchinson Walk/Bike St. Albans
Dorey Demers Public Health Nurse	Judy Ashley District Director of VT Department of Health
Lieutenant Ron Hoague Saint Albans Police Department	Mitch Craib School Wellness Coordinator
Mike Cain Walk/Bike Saint Albans	Denise Smith School Board

TEAM VISION

The SRTS program at SACS aligns with the community’s efforts towards promoting walking and biking. The SRTS program goals of combining engineering, education, enforcement, evaluation, and encouragement strategies (also known as the Five E’s) to improve the safety and health of students who walk and bike to school, fit our school and town values.

Our vision for SACS (and the surrounding neighborhoods) is:

- To be a school where students are empowered to safely and confidently bicycle and walk to school
- To have a more physically active student body
- To be a school that teaches the lifelong skills of walking and biking safety
- To be a community where walking and biking to destinations is the default mode of transportation
- To build the community as a destination for biking and walking through improved infrastructure
- To create a connected on-street and off-street bicycle and pedestrian network with safe crossings
- To improve how all modes of transportation interact with one another
- To be a community that works together to create a strong and meaningful SRTS program

This Travel Plan outlines SACS's intentions for making walking to and from school more sustainable and safer for students and the community. Through our SRTS program we hope to reach 20% of our students walking or biking to school during year one and 25% of our students walking or biking to school for year two. We believe this goal is attainable through encouraging more walking and biking in town and through educating students on safe walking and biking practices. We currently have 52% of students that live within 1-mile of school, and 98% that live within 2 miles of school.

ABOUT THIS PLAN

Our SRTS team met three times with the VT SRTS Resource Center to develop and adopt this SRTS Travel Plan. Each meeting provided education on the benefits of SRTS and highlighted successful program components and strategies. We also discussed education, encouragement, enforcement, and evaluation strategies which helped identify needed and complimentary programs to support proposed engineering strategies.

Meeting Date	Content and Outcomes
July 2013	<p>Kick-off Meeting: How the VT SRTS Travel Plan Works</p> <ul style="list-style-type: none"> - Award of the planning assistance grant - Overview of the planning process <p>Engineering Meeting</p> <ul style="list-style-type: none"> - Team visioning - Opportunity and barrier discussions - Walk audit
August 2013	<p>Plan Review</p> <ul style="list-style-type: none"> - Reviewed the draft plan - Identified roles and continued steps for non-engineering recommendations - Observed arrival and dismissal
October 2013	<p>Plan Adoption</p> <ul style="list-style-type: none"> - Adopted Plan - Discussed continuation of non-infrastructure recommendations

TRAVEL PLAN CONTEXT

SAINT ALBANS CITY SCHOOL AND CITY OF SAINT ALBANS OVERVIEW

Saint Albans City School is located in the City of Saint Albans, VT, in the northern Champlain Valley approximately 30 miles north of Burlington and 70 miles south of Montreal. According to the 2010 U.S census, the current population of the City of Saint Albans is 6,918. The population curve of Saint Albans reflects steady growth after its incorporation in 1896 followed by population decline during the mid-1900's as a direct result from the weakening railroad economy.

The regional position of Saint Albans to Burlington and Canada has aided in the city's cultural and economic development, as well as to define a significant shopping destination for northwestern Vermont. Adding to the cultural and historic nature of the community, the Saint Albans Historic District lies in the center of the city, and is listed in the National Register of Historic Places.

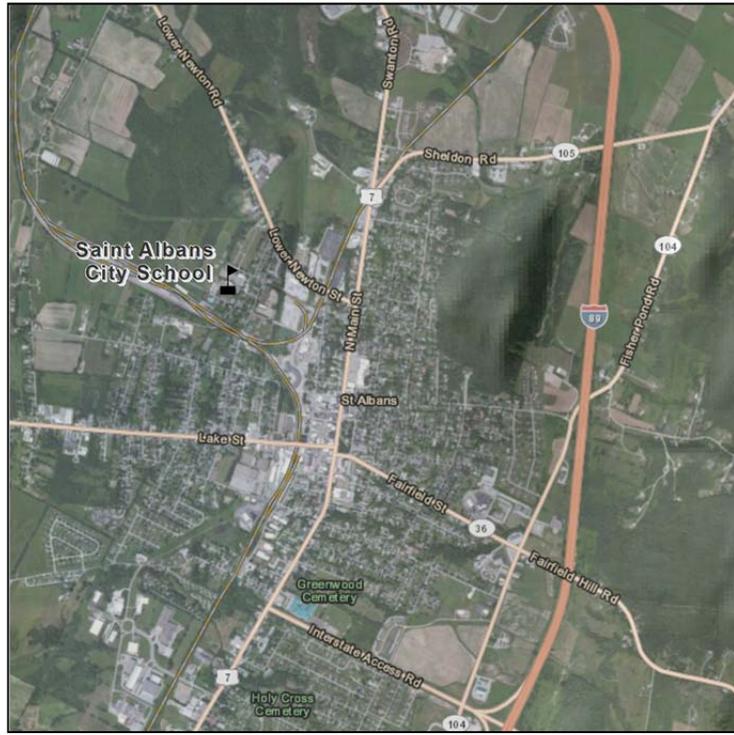
Saint Albans City School is located at the terminus of Bellows Street – classified as a Class 3 Local Road, accessible from N Elm Street and Aldis Street. The speed limit on SACS grounds is

posted 5 miles per hour. The parking lot area has curbing around the school grounds; sidewalks are present along the majority of the parking area on at least one side.

The SRTS program at Saint Albans City School is a key component in the school's efforts to improve the health of its students and community, as well as to reduce traffic congestion in and around the school campus.

The Saint Albans City Comprehensive Municipal Plan 2012-2017, adopted in June 2012 was developed to provide guidance for envisioning the future of the City of Saint Albans including the goal of increasing transportation options and promoting walking.

Several years ago, the State of Vermont passed Complete Streets legislation which took effect July 1, 2011. Complete Streets policies ensure that state and local transportation agencies consider all users in the design and operation of the right of way to make roads safer and more accessible for everyone regardless of age or ability. Complete Streets policies, working in tandem with the SRTS travel plan, will help to define Saint Albans as a walkable, bikeable, and sustainable community.



Saint Albans City School Context Map

CURRENT SCHOOL DEMOGRAPHICS

SACS had a total of 710 students enrolled for the 2013-2014 school year. Our school serves grades PK-8. Saint Albans City School provides busing to all K-8 enrolled students.

Demographic	Count	Percentage of student body
Free/Reduced Lunch	431	59%
Students with Disabilities	175	25%
Limited English proficient students	14	2%
Distance From School		
Students living within 1/4 mile of school	22	3%
Students living within 1/2 mile of school	65	9%
Students living within 1 mile of school	331	47%
Students living within 2 miles of school	656	94%
Pre-School Students	30	4%
Grade K Students	100	14%
Grade 1 Students	83	12%
Grade 2 Students	77	10%
Grade 3 Students	76	10%
Grade 4 Students	80	11%
Grade 5 Students	68	10%
Grade 6 Students	81	11%
Grade 7 Students	68	10%
Grade 8 Students	71	10%

CURRENT STUDENT TRAVEL MODES

Travel Mode	Walk	Bike	School Bus	Family Vehicle	Carpool	Public Transit	Other
Percentage of Student Body (AM)	6%	8%	58%	28%	0%	0%	0%
Percentage of Student Body (PM)	6%	8%	78%	8%	0%	0%	0%

Data based on SRTS Student Tallies administered October 2010.

SAINT ALBANS CITY SCHOOL ARRIVAL AND DISMISSAL PROCEDURES

SACS relies on policies, practices, and support activities to ensure a safe and orderly process for arrival and dismissal, regardless of how students travel to school. Parents are reminded of these procedures in the student handbook and in newsletters that are mailed to students' homes.

The morning bell for SACS rings at 7:45 am and 8:15 am. The kindergarten students start at 8:15 am and finish school between 2:15 am and 2:30 am.

This school is served by seven buses. Session A buses begin arriving at the school at 7:30 am, dropping students off on the north side of school on Calvary Street. Session B buses begin arriving at the school campus starting at 8:00 am. All buses enter and exit via Calvary Street and bus riders de-board and enter at the back entrance of the school. Students walking, biking, and travelling by car arrive staggered before school starts - typically between 7:15 am and 8:15 am. Parents dropping off their children enter the school campus off of Bellows Street and Aldis Street. Bellows Street has one-way traffic operations on the school property during arrival. Cones narrow the drop-off lane and keep cars from parking in that area. Parents who want to park can do so in the school's main parking lot and access the school by utilizing a crosswalk that crosses the drop-off lane. All students observed walking and biking entered on Bellows Street.



Parents drop of their students at the main entrance in the school main parking lot.

Dismissal procedures take place from 2:45 pm to 3:15 pm- bus riders, car riders, walkers, and bikers are released on a first arrival, first dismissal to school schedule. During dismissal, all students are released at the same time and either exit at the front or back of the school. The bus riders exit from the rear on Calvary Street and board the buses. All walkers, bikers, and personal vehicle take place from the school front entrance. The separate exits assist in reducing the conflicts between the different travel modes.

Arrival		
Travel Mode	Procedure	Time
Walk	Arrive staggered to front entrance on Bellows Street	7:15-8:15 am
Bike	Arrive staggered to front entrance on Bellows Street	7:15-8:15 am
School Bus	Session A arrival Session B arrival staggered to rear entrance on Calvary Street	7:30 am 8:00 am
Family Vehicle	Arrive staggered to front entrance on Bellows Street	7:15-8:15 am
Dismissal		
Travel Mode	Procedure	Time
Bus	Dismissed from rear exit on Calvary Street	2:45-3:15 pm
Family Vehicle	Dismissed from front exit on Bellows Street	2:45-3:15 pm
Walk	Dismissed from front exit on Bellows Street	2:45-3:15 pm
Bike	Dismissed from front exit on Bellows Street	2:45-3:15 pm

EXISTING TRAVEL HABITS

Students travel primarily from the south and east directions to SACS, and access the school grounds occurs via Bellows Street, Calvary Street, and N Elm Street. 52% of the student population lives within a mile of the school on or adjacent to roads with sidewalks and 98% of

the student population lives within in 2 miles of the school. These students are most likely to begin walking or riding a bike to school with the team’s support. On August 28, 2013, (the day of our safety observation) approximately 30 students were observed bicycling to school and 30 students walking to school.

The SRTS team identified the following barriers to walking to school based on the results of Parent Surveys conducted in October 2010:

- Violence or crime
- Safety at intersections and crossings
- Weather or climate
- Adults to Bike/Walk with
- Speed of traffic along route
- Crossing guards
- Amount of traffic along route
- Time
- Distance
- Sidewalks or pathways
- Child’s participation in after school programs
- Convenience of driving



The recently constructed sidewalk on N Elm Street at the railroad track intersection will help increase safety at the crossing.

(Data based on SRTS Parent Survey results administered in October 2010)

Many of the issues in the list above can be addressed with either infrastructure or non-infrastructure strategies (or in some cases both). We kept these concerns in mind when picking the strategies that we want to accomplish in the upcoming school year, 2013-2014.

KEY ISSUES

The team identified the following barriers when developing this Travel Plan:

Issue: The City of Saint Albans has sidewalks on most streets within the downtown core and many along at least one side of collector and local roadways however, markings for crosswalks and key intersections

along walking routes lack sufficient pavement markings and signage is noncompliant with the Manual on Uniform Traffic Control Devices (MUTCD).

The lack of compliant signage, heavy vehicular traffic, and sight lines make for unsafe crossing conditions. Motorists appear unaware of pedestrian crossings, school zones, and pedestrians.

Issue: A large presence of industrial facilities exist in Saint Albans and high volumes of heavy truck traffic is present throughout the city.

The main arterial roadways carry much of the industrial traffic entering and exiting the city. Future projects include transforming these roadways to be comfortable for pedestrians, improving connectivity, and managing traffic along these corridors. The SACS Travel Plan aligns with these principles and will assist with improving safety and encourage more children to safely walk and bike to school.

Issue: Students use the St. Albans Cooperative Creamery, Inc. plant as a shortcut route walking to school. As of September 2013, 'Slow Children' and 'No Trespassing' signs have been installed at various locations along the St. Albans Cooperative Creamery, Inc. plant driveways and along the railroad property. SACS and the creamery will continue to monitor this travel behavior.

The plant property is currently used by students as a short cut route walking to school. The Saint Albans City School plans to work with the St. Albans Cooperative Creamery, Inc. plant to reduce and eliminate this travel behavior.

Issue: The railroad infrastructure crisscrosses the City of Saint Albans, bisecting the sidewalk and bicycling network, presenting a barrier for many users.

The at-grade railroad crossings passing along the City of Saint Albans have minimal signage or enhanced crossing treatments to properly alert walkers and bikers. The lack of crossing treatments is a barrier. A current project in the city on N Elm Street is upgrading the crossing treatments for this railroad crossing.

OVERVIEW: TRAVEL PLAN RECOMMENDATIONS

This Travel Plan is comprised of several sections detailing activities and programs for SACS to implement now and projects for us to develop over time with local officials.

Non-Engineering Plan

This Travel Plan identifies best practice education, encouragement, enforcement, and evaluation activities and programs suitable for our school. Information on the advantages and considerations for each strategy, and resources to help us implement each, are included in the **Appendix G**.

16-Month SRTS Activity Calendar

Our team will pursue a smaller subset of items in the non-engineering plan during the next 16 months. We will review our work periodically, adding additional activities that will build the SRTS program momentum. The Calendar is located in **Appendix A**.

Engineering Recommendations

With assistance from the Vermont SRTS Resource Center, we have identified short, medium and long-term engineering treatments to make walking and bicycling to school safer for our students. Engineering Recommendations can be found in **Appendix C**, along with typical Infrastructure recommendations in **Appendix B**.

Snow Removal Toolkit

Snow, sleet, slush, ice, and rain impact all modes of transportation, and the timely clearance and removal of the elements are essential for the functionality and accessibility of a Safe Routes to School program. A Snow Removal Toolkit can better inform communities about snow removal policies and procedures, providing tools to increase compliance and safety. Snow removal recommendations are located in **Appendix H**.

NON-ENGINEERING TRAVEL PLAN

We identified a number of activities and programs to promote walking and biking to school. These activities and programs, while grouped by “The Five E’s”, are dependent upon each other for their individual success. We plan to work on our highest priority programs this year, following up with other programs in successive years. We used the timeframe below to determine when to initiate programs:

Type	Short	Medium	Long
Encouragement, Education, Enforcement, Evaluation	<i>What we plan to do this school year</i>	<i>What we plan to do next school year</i>	<i>What we plan to do starting in two years</i>

EDUCATION STRATEGIES

The education strategies included in our 16-month activity calendar are aimed at providing all students with safe pedestrian walking skills. Our education activities this year include:

- Continue Biking Unit (grades 3-6) and provide bike trailer in 2 week modules (Spring)
- Continue to provide education resource materials for students receiving new bicycles
- Encourage teachers cycling to school to serve as role models for student population
- Incorporate Walk Smart/Bike Smart Vermont! Curriculum into 2013/2014 school year. Taught in LMC during a 9-week module
- Incorporate educational/informational videos during Movie Friday
- Create Public Service Announcements (PSA) featuring students from SACS
- Include parent driver education in school newsletter
- Encourage students to teach parents about safety
- Establish biking and walking expectations in SACS student handbook
- Include SRTS information at the School Resource Fair
- Prepare SRTS informational article for the Saint Albans Messenger
- Work with students to create educational videos on walking and biking safety to be shared during lunch time and morning announcements (Team with Saint Albans Police Department)

ENCOURAGEMENT STRATEGIES

Encouragement strategies included in our 16-month activity calendar will help students and their parents feel more comfortable and confident about walking and bicycling to school. Our encouragement activities this year will include:

- Participate in International Walk to School Day in October and Intergenerational Walk and Roll to School Day in May
- Continue World Fit, grades 4-6 and create credit for biking/walking
- Continue cycling the RR- trail, 11 & 22 miles for 6th graders and explore opening to all grades
- Continue City Cards program- bicycle helmet or lock as reward
- Establish partnership with hospital to get subsidized helmets
- Incorporate students who bike/walk to school into the riders of the month club
- Establish park and walk sites and a remote bus drop-off site- Houghton Park, Taylor Park and/or the Senior Center

- Continue Blue Cross Blue Shield (BCBS) “Walk at Lunch Day”
- Work with local businesses to provide prizes to students
- Offer coffee to parents who bike and walk to school with students

ENFORCEMENT STRATEGIES

Our SRTS enforcement strategies are aimed both at changing the behavior of drivers and making the neighborhood safer and more secure for students walking to and from school. Our enforcement activities this year will include:

- Require helmets for students who bike to school
- Enforce proper crosswalk behavior and compliance from biker, walkers, and motorists
- Request temporary speed trailer/feedback machine for Federal Street and/or Lake Street during the start of the school year
- Work with St. Albans Cooperative Creamery, Inc plant to re-route students who travel across the creamery property
- Establish a school crossing guard program with the police department- Wellness Coordinator to potentially monitor
- Enforce and target motor vehicle speeding around the St. Albans Co-op, Federal Street, and Aldis Street
- Establish a volunteer program to assist with crossing guard and crosswalk procedures



Clever signage helps to educate and enforce proper crossing and walking behavior on the school grounds.

EVALUATION STRATEGIES

Evaluation is an important component of our SRTS program. We plan to complete regular in-classroom student tallies and evaluation tools such as the student tally and parent survey forms provided by the National Center for Safe Routes to School (NCSRTS). We first administered

these in October 2010, which provided base line information on student travel behavior. Parent surveys will help us measure the effectiveness of SRTS efforts over time and will be completed in September 2013.

We will continue to conduct annual walk audits to evaluate the existing walking and biking environment as well as monitor the progress of recommended projects.

Other evaluation strategies we will work on after this year are:

- Administer parent surveys annually to capture opinions of new parents and changes in overall parental perceptions.
- Collect student tally data each year to measure progress toward goals.
- Keep the SRTS Travel plan updated and use it as a tool for increased SRTS activities.

Evaluation Tool	Leader	Schedule
Parent Surveys	Wellness Coordinator- Mitch	Annually
Student Tallies	Wellness Coordinator- Mitch	Annually
Walk Audits	SRTS Team	Annually, within first two months of school

ENGINEERING TRAVEL PLAN

Our goal for engineering improvements is to enhance the physical environment along walking and biking routes that students use. Engineering improvements generally fall into three categories: providing sidewalks and paths, improving crossings, and implementing infrastructure associated with improving the safety and efficiency of school drop-off and pick-up practices. Descriptions of typical engineering recommendations can be found in **Appendix B**.



The City of Saint Albans began an ambitious downtown streetscape improvement and reconstruction project on Main Street. The proposed project includes improved sidewalks, roadway, utilities, and visitor amenities downtown from Hudson Street to Stebbins Street.

We recognize that infrastructure improvements can take time to complete and are a collaborative effort between Saint Albans City School, the City of Saint Albans and potentially the Vermont Agency of Transportation (VTTrans) to implement the projects. The following short, medium, and long timeframes are a guide for anticipated project completion, but actual timeframes may vary:

Short term	Within 2 years
Medium term	Within 5 years
Long term	Longer than 5 years

The SRTS team prioritized the infrastructure improvements as high, medium, or low. The factors affecting this ranking include:

- Locations with specific safety concerns
- Locations along existing student walking or bicycling routes, or with a significant number of school family residences
- Locations that are priorities for the school community

Engineering Recommendations for specific locations in the vicinity of Saint Albans City School can be found in **Appendix C**.

CONSIDERATIONS FOR DESIGN AND FUNDING

Design

- All infrastructure recommendations in this plan are considered “planning level” and will require further engineering analysis, design, or public input before implementation.
- Recommended changes to existing traffic patterns (adding a signal, adding a stop sign, changing lane patterns, etc.) will require a study to evaluate the potential impact that the recommendation could have on existing traffic conditions.
- Drainage, existing utilities and ADA compliance will need to be evaluated for all recommendations at the time of design. ADA guidelines recommend particular design features to accommodate persons with disabilities. ADA design considerations for curb ramps, sidewalks and paths, include appropriate slopes, landing areas, surface conditions, and use of detectable warning materials for visually impaired pedestrians, among other design features.
- Right-of-way was not evaluated as a part of this project. Recommendations assume that sufficient right-of-way exists or that a method to gain needed right-of-way will be identified as the project progresses.
- VTrans district office staff will be involved in the planning and design process for any recommendation made on the State system.
- All infrastructure recommendations should comply with federal, state, and local standards including the American Association of State Highway and Transportation Officials’ Policy on Geometric Design of Highways and Streets and the Manual on Uniform Traffic Control Devices (MUTCD).
- Refer to the Vermont Pedestrian and Bicycle Facility Planning and Design Manual for guidelines on pedestrian and bicycle accommodations.

Funding

- A variety of funding sources may be used for the recommendations. For example, projects requiring right-of-way acquisition or existing utilities relocation are not typically eligible with SRTS funds, but may be funded through other sources.

More information on the types of projects eligible for SRTS funding through VTrans can be found online at: saferoutes.vermont.gov/getting_started/funding.

APPENDICES

- A. Non-Infrastructure Strategies Calendar
- B. Typical Infrastructure Recommendations
- C. Location-Specific Engineering Recommendations (Location Key and Recommendations Tables)
- D. Saint Albans City School Student Population Locator
- E. Saint Albans City School SRTS Enrollment Form
- F. Student Travel Tally/Parent Survey Reports, July and July 2013
- G. Non-Engineering Strategies Resource Guide
- H. Snow Removal Toolkit
- I. Infrastructure Strategies Resource Guide

APPENDIX A

NON-INFRASTRUCTURE STRATEGIES CALENDAR

Appendix: Non-Infrastructure Strategies Calendar

Activity	Aug 2013	Sept 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	April 2014	May 2014	June 2014	July 2014
EDUCATION												
Continue Biking Unit (grades 3-6) and provide bike trailer in 2 week Modules												
<i>Lead</i>	PE teacher- Meg/Rusty/Brannon											
<i>Plan</i>												
<i>Implement</i>												
Continue to provide education resource materials for students receiving new bicycles												
<i>Lead</i>	Wellness Coordinator- Mitch											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Encourage teachers cycling to school serve as role models for student population												
<i>Lead</i>	Wellness Coordinator- Mitch											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Incorporate WalkSmart-BikeSmart Vermont! Curriculum into 2013/2014 School Year (Taught in LMC during 9-week module. Included in this module will be bus and railroad safety concepts and skills.)												
<i>Lead</i>	Principal- Joan											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Incorporate educational/informational videos during Movie Friday												
<i>Lead</i>	Wellness Coordinator- Mitch											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Create Public Service Announcement (PSA) featuring students from SACS												
<i>Lead</i>	Wellness Coordinator- Mitch											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Include parent driver education in school newsletter and daily announcements.												
<i>Lead</i>	Assistant Principal- Georgie											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Encourage students to teach parents about safety												
<i>Lead</i>	PE teacher- Meg/Rusty/Brannon											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Establish biking and walking expectations in SACS student handbook												
<i>Lead</i>	Assistant Principal- Georgie											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Include SRTS information at the School Resource Fairs												
<i>Lead</i>	Walk/Bike St. Albans- David											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Publish informational articles in the St. Albans Messenger												
<i>Lead</i>	Principal- Joan											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											
Staff will create educational videos												
<i>Lead</i>	Principal- Joan											
<i>Plan</i>	ON-GOING											
<i>Implement</i>	ON-GOING											

APPENDIX B

TYPICAL INFRASTRUCTURE RECOMMENDATIONS

APPENDIX: TYPICAL INFRASTRUCTURE RECOMMENDATIONS

The following infrastructure recommendations are typical treatments used in SRTS projects. These recommendations may or may not be included in this travel plan. The basic information is provided to give an overall understanding and implementation guidance on each treatment.

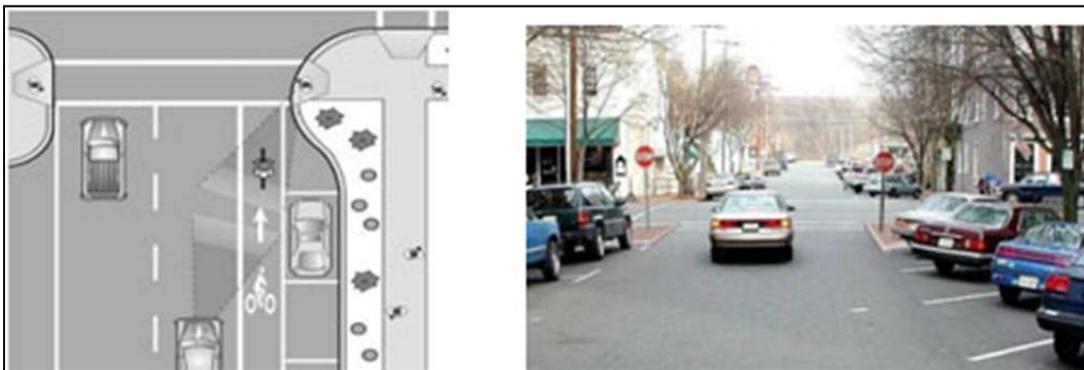


Rectangular Rapid Flashing Beacons:

Rectangular rapid flashing beacons (RRFB), as shown to the left, are warning beacons used to increase visibility of students and all pedestrians as they cross the roadway at uncontrolled crosswalks. This type of signal is pedestrian-activated, i.e., the signal will only flash if a pedestrian has pushed a button, indicating that they need to cross the street. Any proposed RRFB locations need to meet current guidance provided in the interim approval of the Manual on Uniform Traffic Control Devices (MUTCD). For proposed uncontrolled crosswalks on state maintained roads, VTrans approval and justification are needed.

Curb Extensions:

Curb extensions, as shown below, are recommended to reduce pedestrian crossing distances (and thus exposure to traffic) and to slow motor vehicle turning speeds at intersections. Curb extensions located along school bus routes should effectively calm traffic, but not impede buses from making the turn. Design considerations should include the appropriate design vehicle, maintenance concerns, and snow plow accommodations depending on the roadway jurisdiction.



Curb Radius Reductions:



Curb radius reductions are recommended to slow motor vehicle turning speeds and to reduce pedestrian crossing distances (and thus exposure to traffic). Curb radius reductions involve tightening the motor vehicle turning radius at an intersection, as shown to the left, without extending the curb line into a parking lane. Curb radius reductions located along school bus routes should effectively calm traffic but not impede buses from making the turn. Design considerations for curb radius reductions include the appropriate design vehicle depending on the roadway jurisdiction and ADA compliance.

High Visibility Crosswalks:

High visibility crosswalk striping improves the visibility of pedestrians to motorists. Different striping patterns can be used and the most common patterns are variations of the ladder style, shown right. Reflective durable materials should be used to resist decay.



Sidewalks and buffers:

One of our long-term goals is to establish a well-connected sidewalk network throughout the neighborhoods so that families can walk for more of their daily trips, rather than drive. Sidewalks are the most effective when they include a buffer. This buffer increases pedestrian comfort and safety and can also serve as a place for pedestrian “overflow”, especially closer to the school where groups of walkers are largest. Based on Vermont Pedestrian and Bicycle



Facility Planning and Design Manual, the preferred design for sidewalks is a minimum six foot wide sidewalk with a minimum two foot wide buffer for local roadways with curbs. For downtowns and village centers on roadways with curbs, the preferred design for sidewalks is a minimum eight foot wide sidewalk with a minimum four foot wide buffer. For roadways without curbs, the buffer should be a minimum of five feet. Available right of way will impact the ultimate design of the sidewalk.

School Zone Identification:

School pavement markings are recommended to alert motorists that they are entering a school zone where pedestrians may be present both along and crossing the roadway. New pavement markings can work with existing school zone signs to reinforce the message to motorists about the school zone. The detail provided in the figure below is an excerpt of the MUTCD.



Speed Feedback Signs:

Communities may use a mobile “speed trailer” that can be placed in locations where motorists exceed the speed limit often enough that passive enforcement is appropriate. Permanently installed feedback signs, shown right, provide ongoing information to motorists about the speed at which they are traveling. SRTS recommended any potential feedback signs be strategically located at main access points.



For towns interested in reducing the speed limit of a roadway, an engineering study needs to be conducted by the town. Approval from VTrans is needed for state maintained roads.

Pedestrian Refuge Island:



A Pedestrian refuge island, as shown right, may be used to narrow the roadway, reduce motor vehicle speeds, and improve pedestrian crossings. In locations with crosswalks, these islands improve pedestrian safety and access by reducing crossing distances and enable pedestrians to cross roadways in two stages. Pedestrian refuge islands should be used on multi-lane roadways or roadways with insufficient vehicular gaps to pedestrians to safely cross. Prior to design, a gap study should be conducted. Other considerations for pedestrian refuge islands include ADA compliance,

maintenance concerns, and snow plow accommodations.

APPENDIX C

LOCATION SPECIFIC ENGINEERING RECOMMENDATIONS

Appendix C: Location-Specific Engineering Recommendations

Safe Routes to School engineering strategies create safer environments for walking and bicycling to school through improvements to infrastructure in and around school grounds. These improvements focus on reducing motor vehicle speeds and conflicts with pedestrians and bicyclists, as well as establishing safer and fully accessible crossings, walkways, trails, and bikeways.

The following tables provide a summary of the engineering strategies recommended for Saint Albans City School (SACS). These recommendations were developed by Toole Design Group, LLC based on input from the SACS SRTS Team. The tables include an estimate of the amount of time that is likely needed to implement the recommended improvements at each site (Estimated Time Frame). The table also indicates the priority of the proposed improvements at each site for the SACS SRTS Team (Team Priority).

These recommendations are for planning purposes only and may require further engineering analysis, design, or public input before implementation and shall be in full compliance with the Manual on Uniform Traffic Control Devices for Streets and Highways, (MUTCD) Latest Edition adopted by the state.

The summary table provided below is followed by information about implementation and a map which shows where the recommendation sites are located in relation to the school.

Description of Streets with Engineering Recommendations

State of Vermont Classification

Class 1: Form extensions of State Highways and are numbered as such.

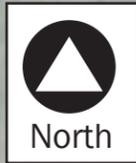
Class 2: Form connections from town to town, and/or carry a more significant volume of traffic than other roads in town.

Class 3: All other traveled roads receiving State Aid funds.

Street name	Classification of Town Highways	Speed Limit	Curb/No curb & Surface
Aldis Street	Class 3	25	No curb, Asphalt
Bellows Street	Class 3	25	No curb, Asphalt
Federal Street	Class 3	25	No curb, Asphalt
Finn Avenue	Class 3	25	No curb, Asphalt
Lake Street, VT Route 36	Class 1	25	Curb, Asphalt
Lower Newton Road, VT Route 38	Class 1	25, 40	No curb, Asphalt
N Elm Street	Class 2	15, 25	No curb, Asphalt

Note:

The Saint Albans City School property has a posted speed limit of 5 mph.



Saint Albans City Elementary School Location Key, I of 2

Saint Albans, VT
October 2013

 School Location

 Segment Improvement

 Intersection/Spot Improvement





Saint Albans City Elementary School Location Key, 2 of 2

Saint Albans, VT
October 2013

-  School Location
-  Intersection/Spot Improvement
-  Segment Improvement
-  Segment Improvement by Others



Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>A</p> <p>Bellows Street/ Calvary Street/ SACS School</p> <p>Bellows Street is a two-way, Class 3 residential roadway running east-west from N Elm Street and provides direct access to the SACS grounds. The street becomes one-way as it reaches the school parking lot. Vehicular circulation through the parking lot must loop onto Aldis Street to exit the school grounds.</p> <p>The posted speed limit is 25 mph and there is a posted 5 mph zone on the SACS grounds.</p>	<p>Bellows Street provides entry to the school grounds from N Elm Street. It is the point of entry for walkers, bikers and motorists during pick-up/drop-off activities.</p> <p>Bellows Street currently provides pedestrian access via an existing sidewalk to the front entrance of the school. The sidewalk crosses a driveway aisle for angled parking that does not provide compliant crossing treatments.</p>	<p>A1. Install a high-visibility, durable, block-pattern crosswalk crossing the school access aisle connecting the existing sidewalks on the northside of Bellows Street. Construct ADA-compliant curb ramps at both ends of the crosswalk and install a curb extension on the eastside of the school access aisle.</p>	<p>Medium Term</p>	<p><input checked="" type="checkbox"/> <i>Safety concerns.</i></p> <p><input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i></p> <p><input checked="" type="checkbox"/> <i>Priorities for the school community.</i></p>	<p>High</p> <p>3</p>
		<p>A2. Construct an ADA-compliant sidewalk segment along the westside of the school access aisle (approx. 60ft) and an ADA-compliant sidewalk segment on the northside of Calvary Street from the school access aisle to N Elm Street (approx. 315ft).</p>	<p>Medium Term</p>		
		<p>A3. Install a high-visibility, durable, block-pattern crosswalk crossing Calvary Street, connecting the proposed sidewalk segments along the school access aisle and Calvary Street (A2). Construct ADA-compliant curb ramps at all ends of the both crosswalks.</p>	<p>Short Term</p>		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>A</p> <p>Bellows Street/ Calvary Street/ SACS School</p> <p>(Cont.)</p>		<p>A4. Install additional racks for bicycle parking. Upgrade the existing bicycle parking with a covered and secure facility on the school grounds.</p>	<p>Medium Term</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> <i>Safety concerns.</i> <input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i> <input checked="" type="checkbox"/> <i>Priorities for the school community.</i> 	<p>High</p>

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>B</p> <p>N Elm Street</p> <p>N Elm Street is a two-way, Class 2 roadway that travels north/south parallel to N Main Street (VT Route 7).</p> <p>With a few gaps, sidewalks exist on both sides of N Elm Street from Lake Street to Lower Newton Road (VT Route 38).</p> <p>The posted speed limit is 25 mph and there is a 5 mph posted speed limit on the SACS grounds.</p>	<p>N Elm Street is a residential collector roadway providing access to Lower Newton Street (VT Route 38) to the north and Lake Street (VT Route 36) to the south that serves as direct access to Bellows Street and the school grounds for pedestrians, bicyclists, and motorists.</p>	<p>B1. Install "SCHOOL" word pavement marking at the existing school advance assembly signs (S1-1) on N Elm Street in advance of either side of the Bellows Street intersection.</p>	<p>Short Term</p>	<p><input checked="" type="checkbox"/> <i>Safety concerns.</i></p> <p><input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i></p> <p><input checked="" type="checkbox"/> <i>Priorities for the school community.</i></p>	<p>Medium</p>
	<p>Intersections along N Elm Street provide access to key residential and commercial destinations in the City of Saint Albans. Students and pedestrians walking or bicycling to school need to cross these intersections to reach the school main entrance.</p>	<p>B2. Install a high-visibility, durable, block-pattern crosswalk crossing Calvary Street at the N Elm Street intersection, connecting the existing sidewalk on the westside of N Elm Street to the proposed sidewalk on Calvary Street (A2).</p>	<p>Short Term</p>		
	<p>Pedestrians crossing at these locations are not highly visible to motorists.</p> <p>The N Elm Street segment from Aldis Street to Pearl Street was identified by the SRTS team as a location observed to have high vehicular speeds.</p>	<p>B3. Install an ADA-compliant sidewalk segment (approx. 15ft) connecting the existing crosswalk crossing N Elm Street to the existing sidewalk on the eastside of N Elm Street at the Bellows Street intersection. Construct ADA-compliant curb ramps at all ends of both of the existing crosswalks.</p>	<p>Medium Term</p>		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
B N Elm Street (cont.)		B5. Install a high-visibility, durable, block-pattern crosswalk on the northside of Aldis Street crossing N Elm Street, connecting the existing sidewalks on both sides of N Elm Street. Construct ADA-compliant curb ramps at all ends of the existing and proposed crosswalks at the N Elm Street and Aldis Street intersection.	Medium Term	<input checked="" type="checkbox"/> <i>Safety concerns.</i> <input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i> <input checked="" type="checkbox"/> <i>Priorities for the school community.</i>	Medium
		B6. Install high-visibility, durable, block-pattern crosswalks crossing N Elm Street on the southside of Pearl Street and on the westside of Pearl Street, connecting the existing sidewalks on the west side of N Elm Street. Construct ADA-compliant curb ramps at all ends of both proposed crosswalks.	Medium term		
		B7. Install curb extensions with ADA-compliant curb ramps at both existing crosswalk locations crossing Lake Street at the N Elm Street intersection. Curb extension construction must maintain sufficient roadway width for snow plows.	Long term		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>B</p> <p>N Elm Street</p> <p>(cont.)</p>		<p>B8. Install a double yellow center line (DYCL) to provide two 11ft travel lanes from Pearl Street to Lower Newton Road (Route 38).</p>	<p>Medium Term</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> <i>Safety concerns.</i> <input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i> <input checked="" type="checkbox"/> <i>Priorities for the school community.</i> 	<p>Medium</p>

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>C</p> <p>Finn Avenue</p> <p>Finn Avenue is a two-way, Class 3 residential roadway that travels north/south intersecting with Calvary Street at the rear of SACS grounds.</p>	<p>Finn Avenue connects to a number of residential homes north of the school grounds. Finn Avenue could serve as a walking or biking route for a number of students, but currently lacks crossing treatments.</p> <p>The lack of compliant crossings create gaps in the sidewalk network.</p>	<p>C1. Install a high-visibility, durable, block-pattern crosswalk crossing Finn Avenue at the Calvary Street intersection, connecting the proposed sidewalk segment on Calvary Street (A2). Construct ADA-compliant curb ramps at both ends of the crosswalk.</p>	<p>Medium Term</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> <i>Safety concerns.</i> <input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i> <input checked="" type="checkbox"/> <i>Priorities for the school community.</i> 	<p>Medium</p>

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>D</p> <p>Aldis Street</p> <p>Aldis Street is a two-way, Class 3 roadway that travels east/west intersecting with Federal Street, the rear of SACS and Saint Albans City Pool.</p> <p>Aldis Street provides access to the St. Albans Cooperative Creamery, Inc plant and is a major trucking route.</p>	<p>Aldis Street is a collector roadway providing access to N Elm Street and Federal Street. Aldis Street also provides direct access to the St. Albans Cooperative Creamery, Inc plant and has high volumes of large trucking vehicles accessing the site.</p> <p>Intersections along Aldis Street provide access to key residential, recreational, and industrial destinations in the City of Saint Albans. Students and pedestrians walking or bicycling to school need to cross these intersections and driveways to reach the school main entrance.</p> <p>Pedestrians crossing at these locations are not highly visible to motorists.</p> <p><i>Note: The City of Saint Albans has recently installed a sidewalk at the intersection of Aldis Street and Federal Street. The sidewalk was installed on the northside of Aldis Street from Federal Street to west of the railroad tracks and includes two crosswalks- one crossing Federal Street on the northside of Aldis Street intersection and one crossing Aldis Street west of the railroad tracks. (Completed summer 2013).</i></p>	<p>D1. Install advanced pedestrian warning (W11-2) at the proposed crosswalk crossing Aldis Street west of the railroad tracks. The proposed signs shall be high fluorescent yellow/green color with reflective material.</p>	<p>Short Term</p>	<p><input checked="" type="checkbox"/> <i>Safety concerns.</i></p> <p><input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i></p> <p><input checked="" type="checkbox"/> <i>Priorities for the school community.</i></p>	<p>High</p>
		<p>D2. Install two Rectangular Rapid Flashing Beacons (RRFB) at the intersection of Aldis Street and Federal Street at the existing crosswalk crossing Federal Street.</p>	<p>Long Term</p>		
		<p>D3. Install a double yellow center line (DYCL) to provide two 11ft travel lanes from Federal Street to N Elm Street.</p>	<p>Short term</p>		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
<p>E Federal Street</p> <p>Federal Street is a two-way, Class 3 roadway that travels north/south intersecting with Lower Newton Street (VT Route 38) to the north and Lake Street (VT Route 36) to the south.</p> <p>Federal Street provides access and is a major trucking route to the St. Albans Cooperative Creamery, Inc plant.</p>	<p>Federal Street is a collector roadway providing access to Lower Newton Road (VT Route 38), Aldis Street and Lake Street (VT Route 36). Federal Street also provides direct access to the St. Albans Cooperative Creamery, Inc plant and has high volumes of large trucking vehicles accessing the site.</p> <p>Intersections along Federal Street provide access to key residential, recreational, and industrial destinations in the City of Saint Albans. Students and pedestrians walking or bicycling to school need to cross these intersections and driveways to reach the school main entrance. A lack of pedestrian facilities on the westside create a disconnected sidewalk network.</p> <p>Pedestrians crossing at these locations are not highly visible to motorists.</p>	E1. Patch and repair the existing sidewalk on the eastside of Federal Street from Aldis Street to Kingman Street.	Medium Term	<input checked="" type="checkbox"/> <i>Safety concerns.</i> <input checked="" type="checkbox"/> <i>Existing walking or bicycling routes.</i> <input checked="" type="checkbox"/> <i>Priorities for the school community.</i>	High
		E2. Install an ADA-compliant sidewalk segment (approx. 1,025ft) on the westside of Federal Street from Lower Newton Road (VT- Route 38) to Aldis Street, connecting to the existing sidewalk on the southside of Lower Newton Road (VT- Route 38) and the proposed sidewalk enhancement project on the northside of Aldis Street.	Long Term		
		E3. Trim existing street tree branches for improved visibility at the intersection of Aldis Street and Federal Street.	Short Term		
		E4. Study the feasibility to install a radius reduction at the westside corner of Lower Newton Road (VT- Route 38). The radius reduction must maintain sufficient roadway width to maintain truck access and snow plow maintenance. Construct ADA-compliant curb ramps at the existing crosswalk location crossing Federal Street at the Lower Newton Road (VT- Route 38) intersection.	Long Term		

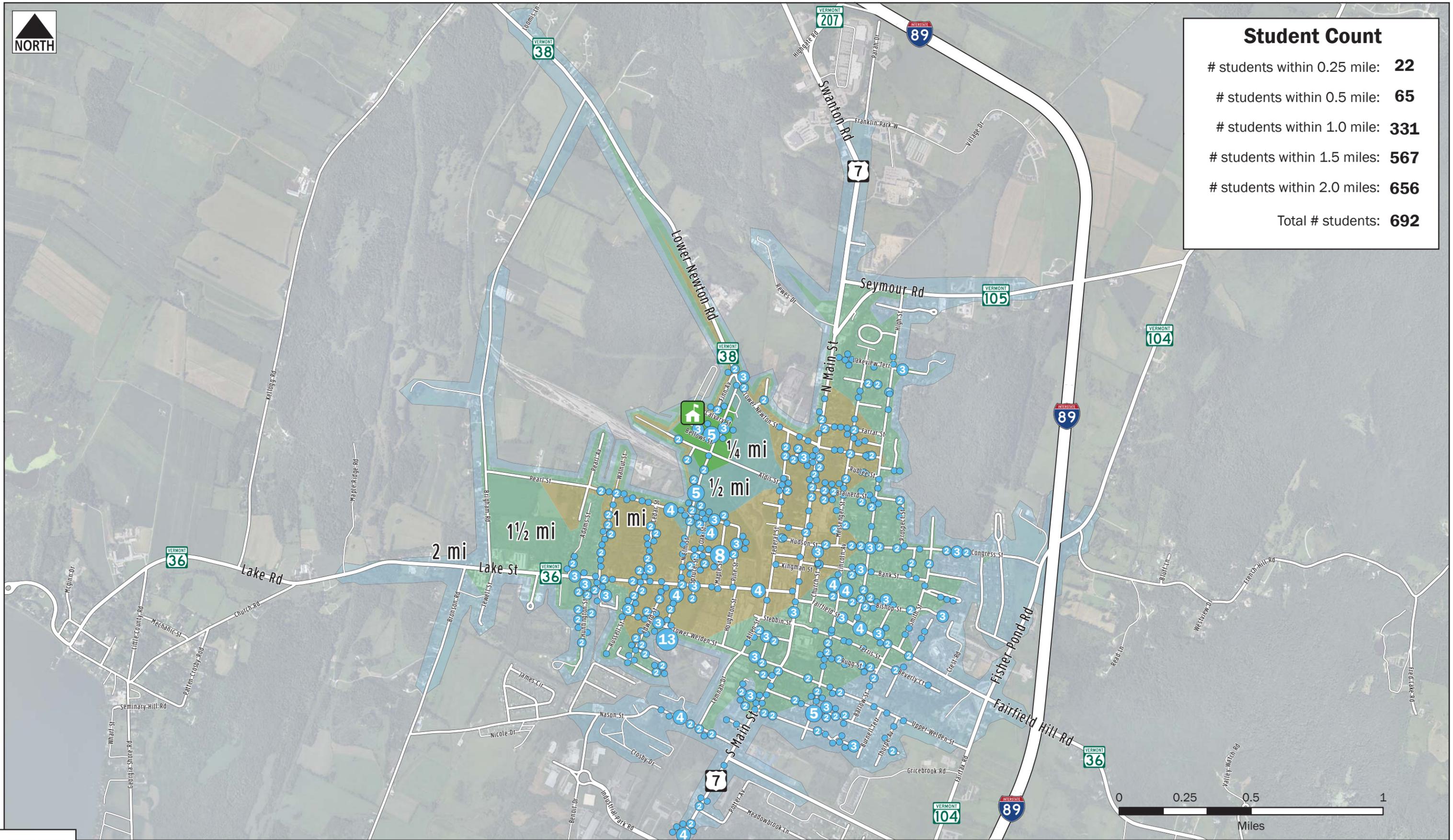
APPENDIX D

STUDENT POPULATION LOCATOR



Student Count

# students within 0.25 mile:	22
# students within 0.5 mile:	65
# students within 1.0 mile:	331
# students within 1.5 miles:	567
# students within 2.0 miles:	656
Total # students:	692



St Albans City School Student Locator

St. Albans, VT
Fall 2013

- School Location
- Student Residence
- Multiple Student Residences

Travel Distance to School
1/4 mile to 2 miles



APPENDIX E

SAINT ALBANS SAFE ROUTES TO SCHOOL ENROLLMENT

Non-Profit

Design Survey

Collect Responses

Analyze Results

[View Summary](#)

Default Report ▾

[Browse Responses](#)[Filter Responses](#)[Crosstab Responses](#)[Download Responses](#)[Share Responses](#)

Displaying 35 of 35 respondents

Response Type:
Normal Response**Collector:**
VT SRTS Enrollment Form
(Web Link)**Custom Value:**
*empty***IP Address:**
216.66.108.70**Response Started:**
Monday, October 15, 2012 6:37:05 AM**Response Modified:**
Monday, October 15, 2012 6:46:32 AM**1. Please provide your contact information below:**

Name: - Mitchell Craib

Title: - Wellness Coordinator

School: - St. Albans City School

Address: - 29 Bellows Street

City/Town: - St. Albans

ZIP: - 05478

Email Address: - craibm@fcsuvt.org

Phone Number: - 802 527 0565

2. Does your school have an existing Safe Routes to School Program?

No

3. If yes, please check the SRTS Elements of your school's current program:**No Response**

4. A School Travel Plan is a written document that outlines a school community's intentions of making walking and biking to and from school more sustainable and safe. The plan is completed through a team-based process and will be the school community's guiding document for putting a successful Safe Routes to School program in action. Would you like your school to be considered for hands-on Travel Plan assistance offered by the Resource Center?

Yes

5. How many students attend this school? Please list total student population by grade.

K - 84

1 - 85

2 - 81

3 - 82

4 - 72

5 - 78

6 - 66

7 - 76

8 - 77

Total - 701

6. Approximately what percentage of students live within:

1 mile of school - 80

2 miles of school - 20

7. Approximately how many students currently:

Walk to school - 10

Bike to school - 15

8. How many crossing guards are assigned to this school? If none, please provide details if school staff, volunteers, student safety patrols, etc help to cross students.

There are no crossing guards.

9. Please mark the stakeholders that will participate in the SRTS program:

Principal

Parents

School Staff

Local Police Department

Community Organization

Local Planning or Engineering Department

10. I have received the support from my school's principal to pursue a Safe Routes to School program

Yes

Principal Joan Cavallo St. Albans City School 29 Bellows Street, St Albans VT. 05478 802 527 0565 X1104
cavalloj@fcsuvt.org**Follow Us:** [Facebook](#) • [Twitter](#) • [LinkedIn](#) • [Our Blog](#)**Help:** [Tutorials](#) • [Answers & FAQs](#) • [Contact Support](#)**About Us:** [Management Team](#) • [Board of Directors](#) • [Partners](#) • [Newsroom](#) • [Contact Us](#) • [We're Hiring](#) • [Sitemap](#)**Policies:** [Terms of Use](#) • [Privacy Policy](#) • [Anti-Spam Policy](#) • [Security Statement](#) • [Email Opt-Out](#)[Dansk](#) • [Deutsch](#) • [English](#) • [Español](#) • [Français](#) • [한국어](#) • [Italiano](#) • [Nederlands](#) • [日本語](#) • [Norsk](#) • [Português](#) • [Русский](#) • [Suomi](#) • [Svenska](#) • [中文\(繁體\)](#)

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APPENDIX F

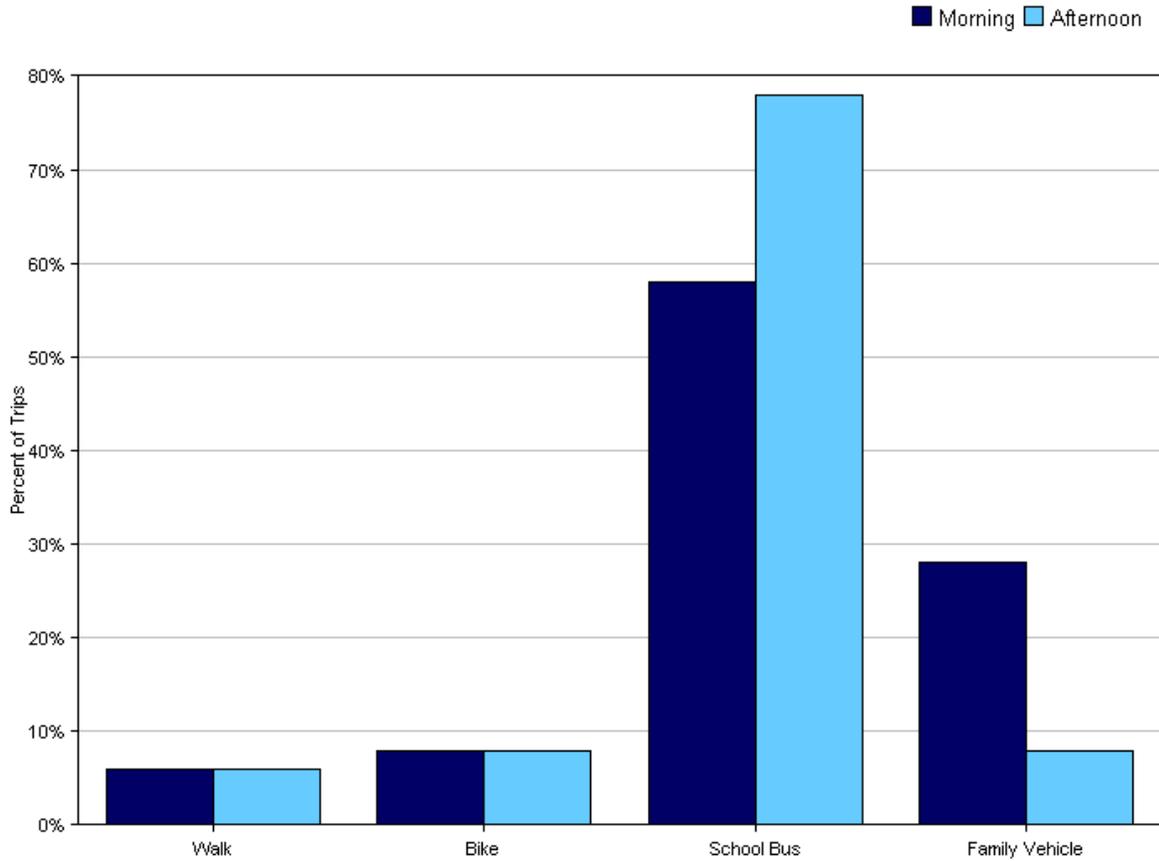
STUDENT TRAVEL TALLY/PARENT SURVEY REPORTS

Tally Report Summary

Program Name:	Safe Routes (Saint Albans City School)	Month and Year Collected:	October 2010
School Name:	Saint Albans City School	Set ID:	5319
School Enrollment:	675	Date Report Generated:	02/13/2012
Enrollment within Grades Targeted by SRTS Program:	525	Number of Classrooms Included in Report:	1
Number of Classrooms in School:	34		

This report contains information from parents about their children's trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

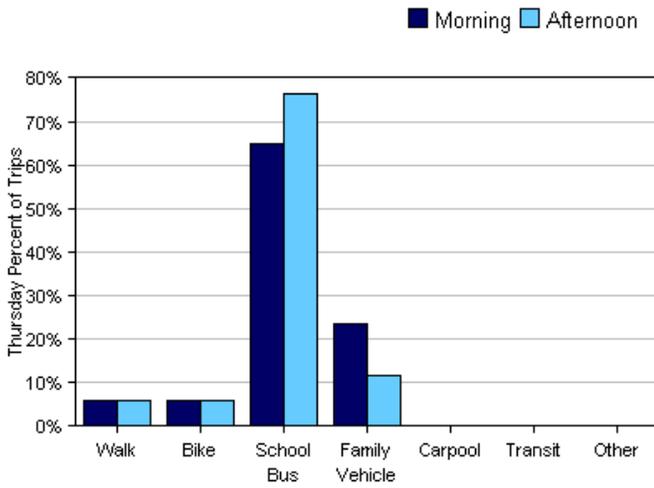
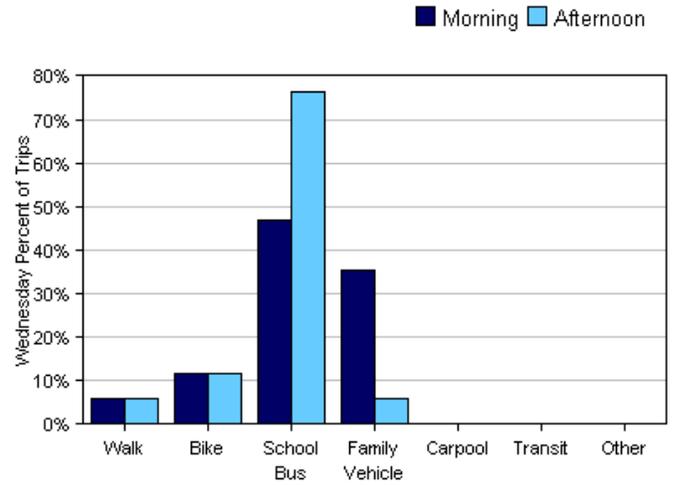
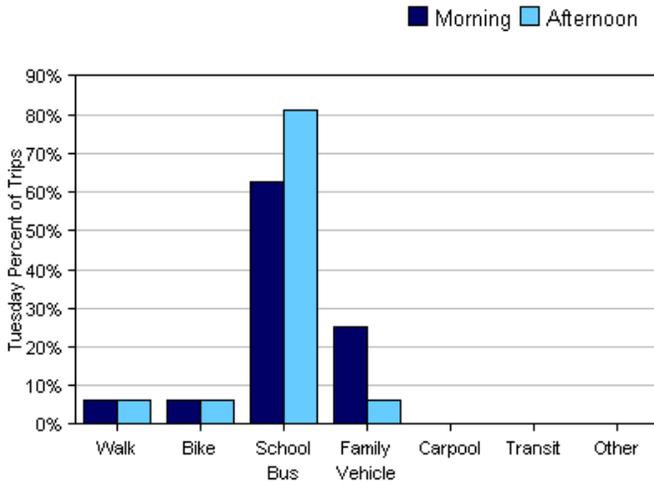


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	50	6%	8%	58%	28%	0%	0%	0%
Afternoon	50	6%	8%	78%	8%	0%	0%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

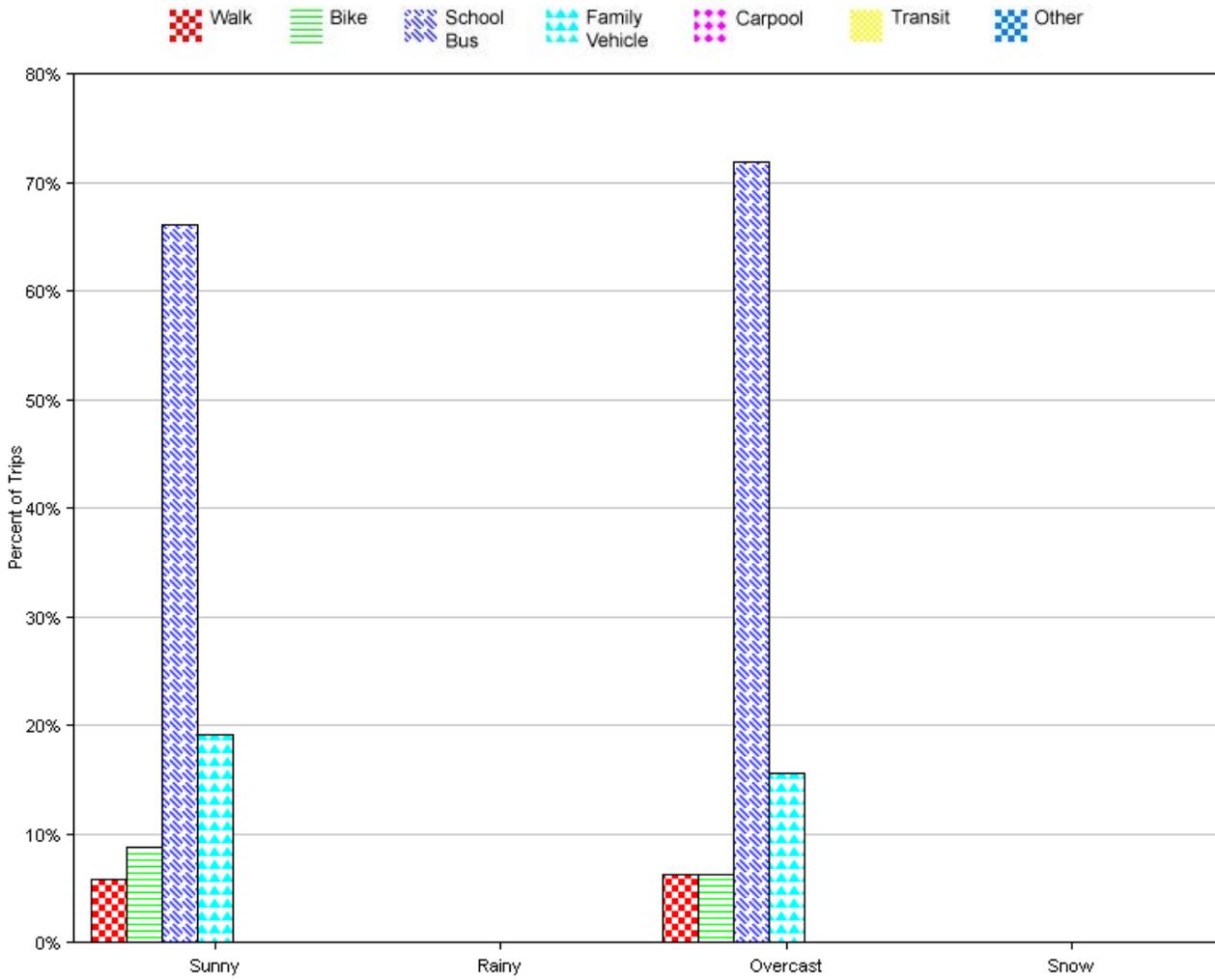


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	16	6%	6%	63%	25%	0%	0%	0%
Tuesday PM	16	6%	6%	81%	6%	0%	0%	0%
Wednesday AM	17	6%	12%	47%	35%	0%	0%	0%
Wednesday PM	17	6%	12%	76%	6%	0%	0%	0%
Thursday AM	17	6%	6%	65%	24%	0%	0%	0%
Thursday PM	17	6%	6%	76%	12%	0%	0%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	68	6%	9%	66%	19%	0%	0%	0%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	32	6%	6%	72%	16%	0%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

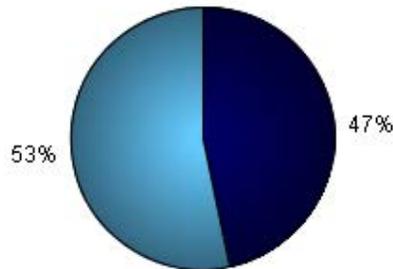
Parent Survey Summary

Program Name:	St. Albans Schools (City and Town Educational Center)	Month and Year Collected:	October 2010
School Name:	SACS	Set ID:	4956
School Enrollment:	730	Date Report Generated:	07/17/2013
Enrollment within Grades Targeted by SRTS Program:	730	Number of Questionnaires Analyzed for Report:	74
Number of Questionnaires Distributed:	600		

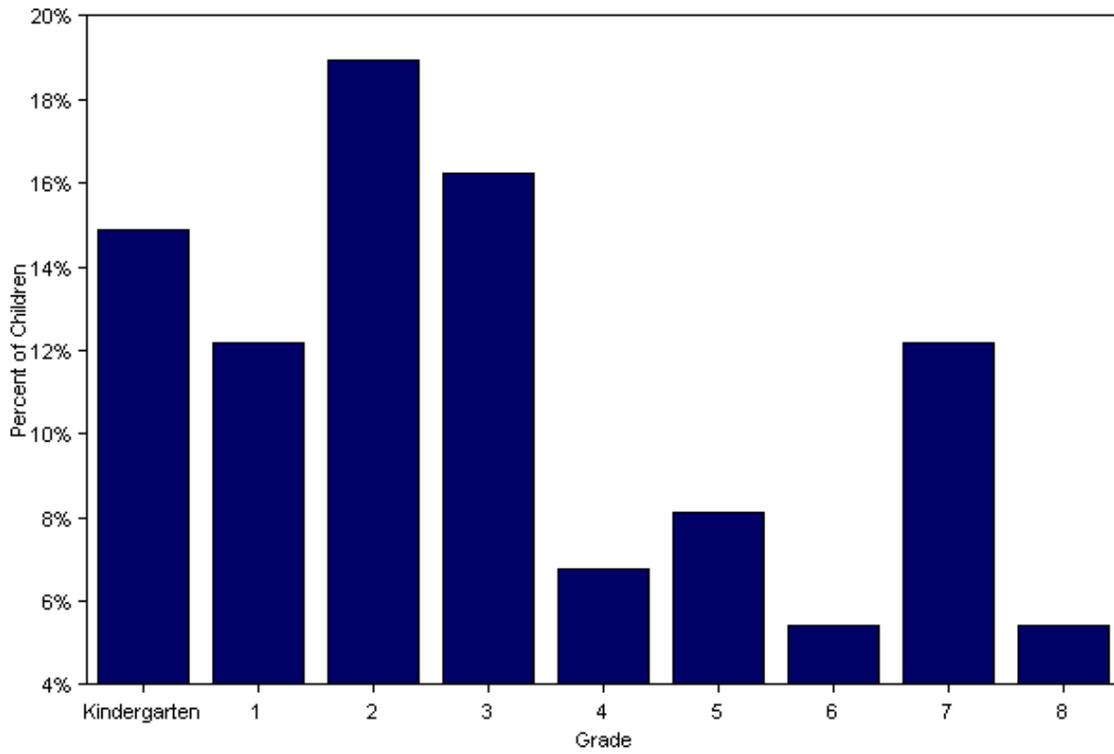
This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information

■ Male ■ Female



Grade levels of children represented in survey

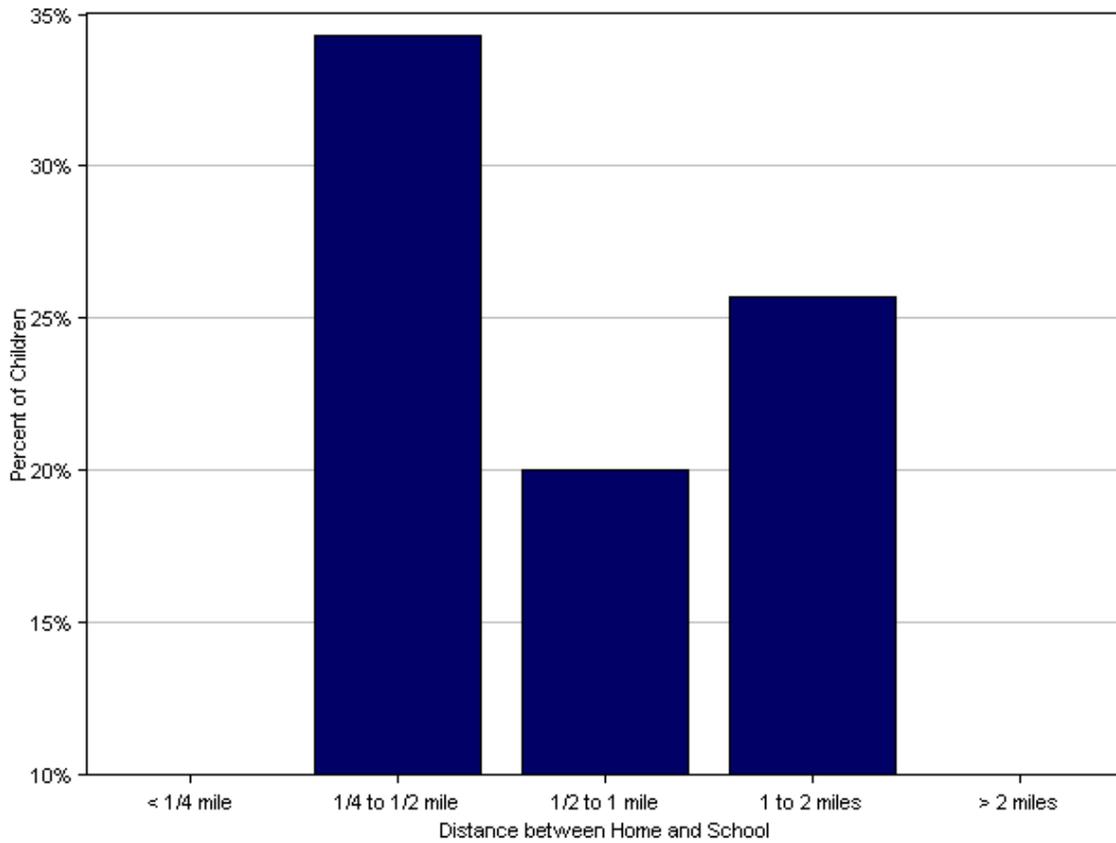


Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
Kindergarten	11	15%
1	9	12%
2	14	19%
3	12	16%
4	5	7%
5	6	8%
6	4	5%
7	9	12%
8	4	5%

No response: 0
 Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school

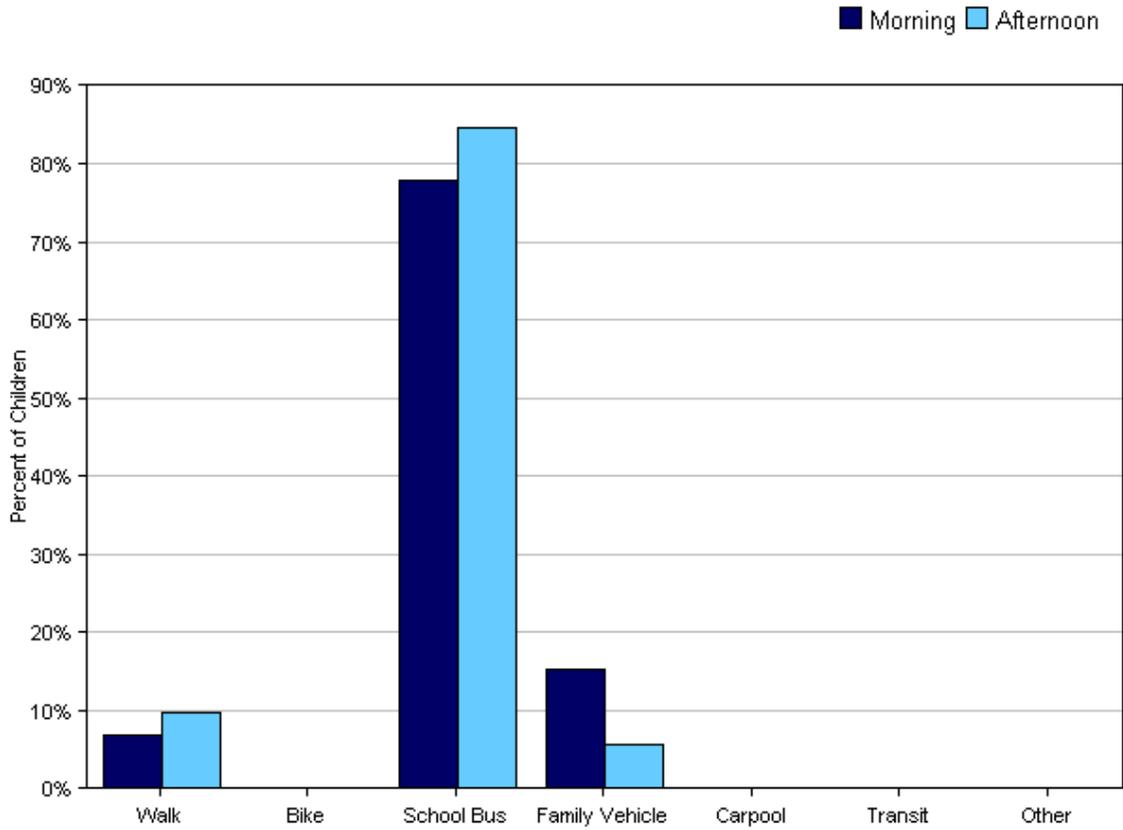


Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	7	10%
1/4 mile up to 1/2 mile	24	34%
1/2 mile up to 1 mile	14	20%
1 mile up to 2 miles	18	26%
More than 2 miles	7	10%

Don't know or No response: 4
 Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school



Typical mode of arrival at and departure from school

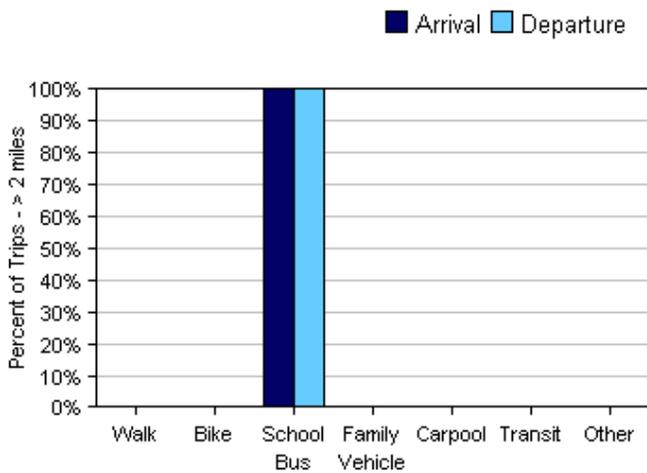
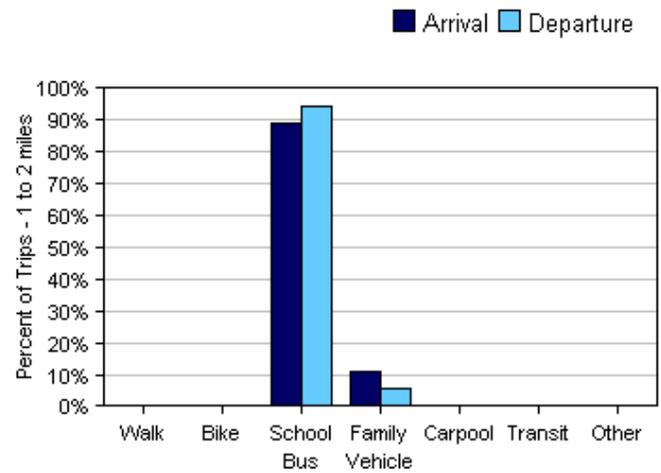
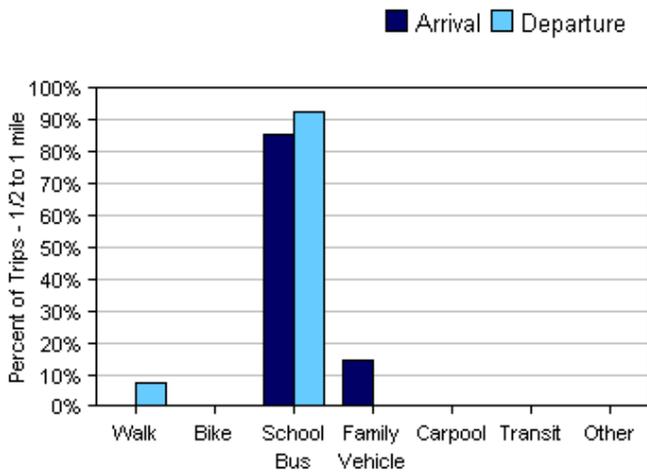
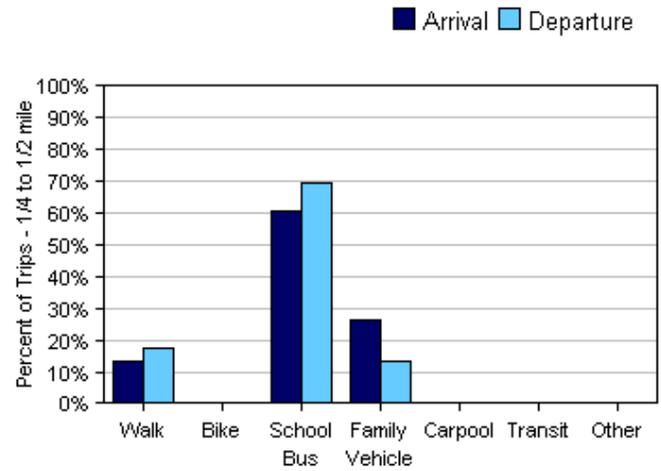
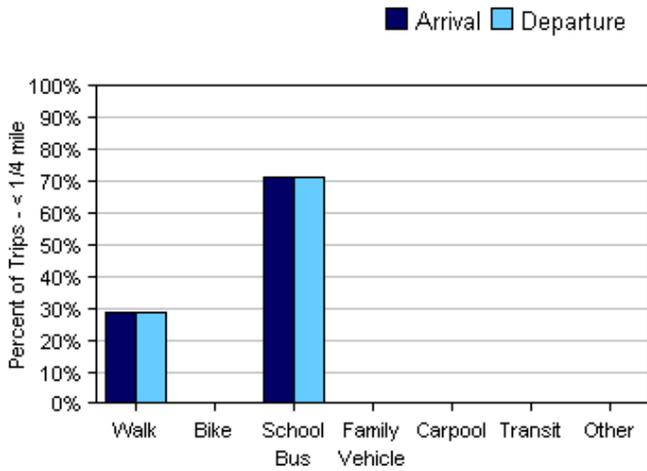
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	72	7%	0%	78%	15%	0%	0%	0%
Afternoon	71	10%	0%	85%	6%	0%	0%	0%

No Response Morning: 2

No Response Afternoon: 3

Percentages may not total 100% due to rounding.

Typical mode of school arrival and departure by distance child lives from school



Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	7	29%	0%	71%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	23	13%	0%	61%	26%	0%	0%	0%
1/2 mile up to 1 mile	14	0%	0%	86%	14%	0%	0%	0%
1 mile up to 2 miles	18	0%	0%	89%	11%	0%	0%	0%
More than 2 miles	7	0%	0%	100%	0%	0%	0%	0%

Don't know or No response: 5

Percentages may not total 100% due to rounding.

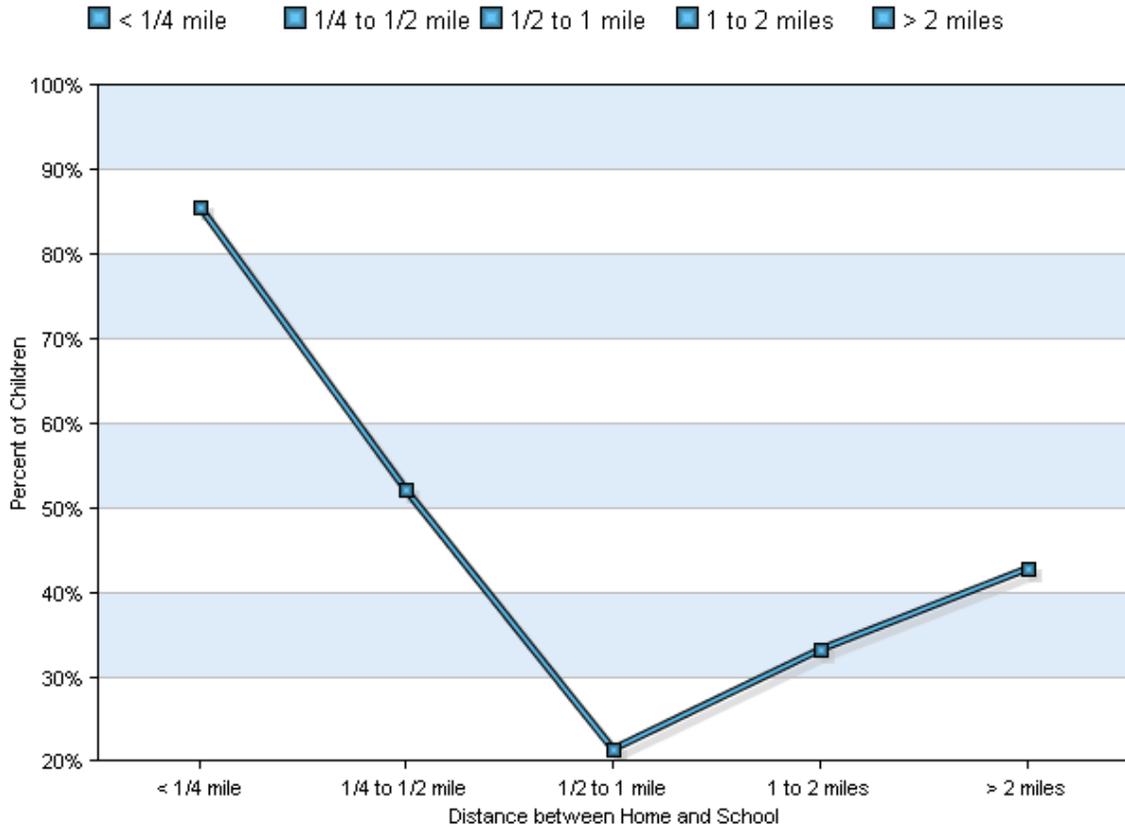
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	7	29%	0%	71%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	23	17%	0%	70%	13%	0%	0%	0%
1/2 mile up to 1 mile	14	7%	0%	93%	0%	0%	0%	0%
1 mile up to 2 miles	18	0%	0%	94%	6%	0%	0%	0%
More than 2 miles	6	0%	0%	100%	0%	0%	0%	0%

Don't know or No response: 6

Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

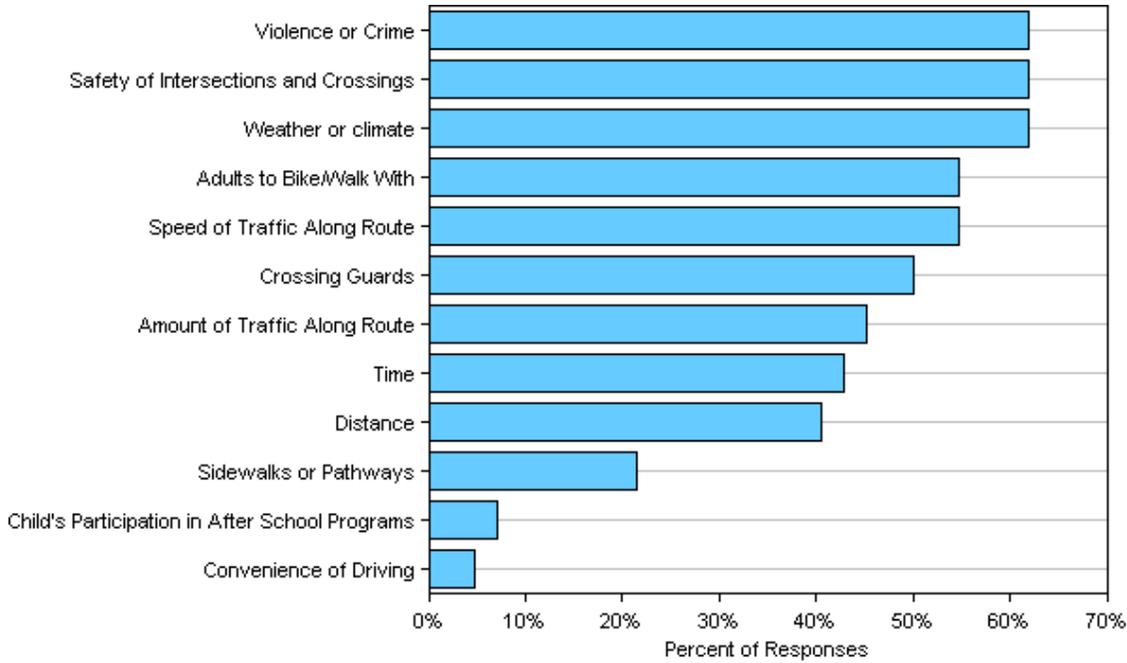


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

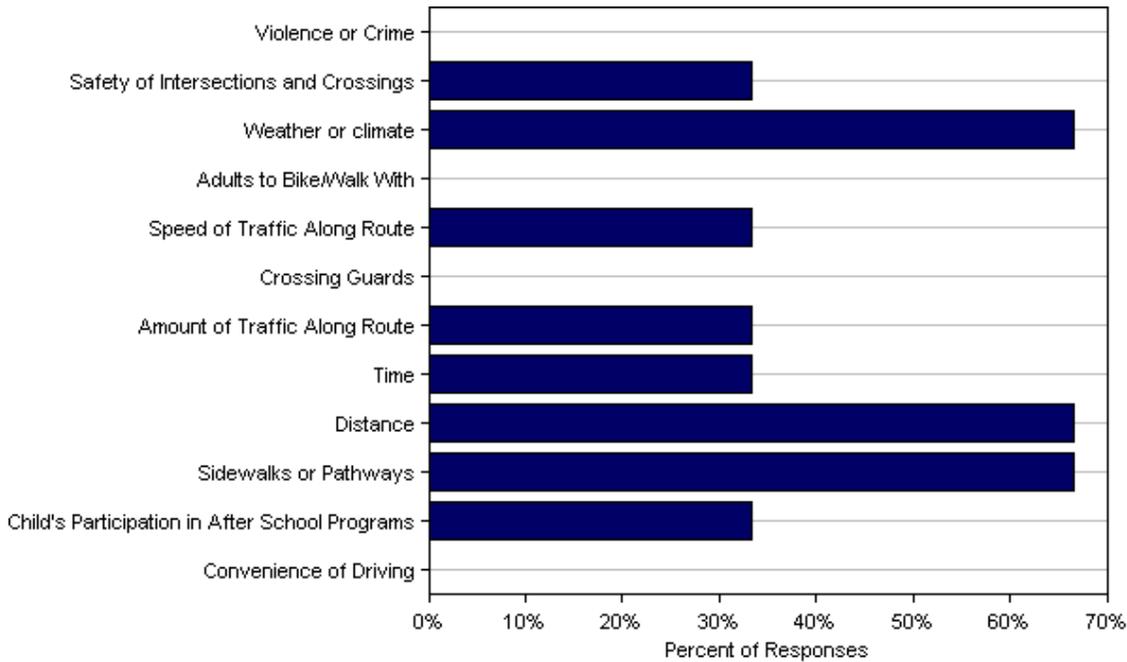
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	30	86%	52%	21%	33%	43%
No	39	14%	48%	79%	67%	57%

Don't know or No response: 5
 Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Violence or Crime	62%	0%
Safety of Intersections and Crossings	62%	33%
Weather or climate	62%	67%
Adults to Bike/Walk With	55%	0%
Speed of Traffic Along Route	55%	33%
Crossing Guards	50%	0%
Amount of Traffic Along Route	45%	33%
Time	43%	33%
Distance	40%	67%
Sidewalks or Pathways	21%	67%
Child's Participation in After School Programs	7%	33%
Convenience of Driving	5%	0%
Number of Respondents per Category	42	3

No response: 29

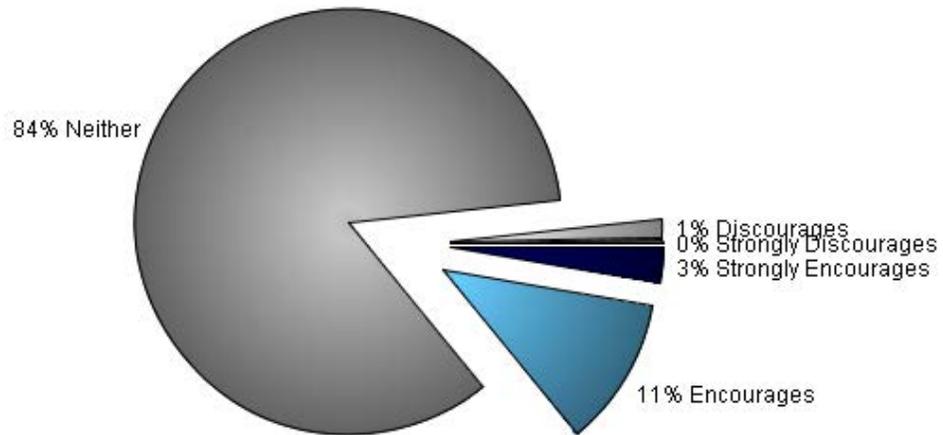
Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

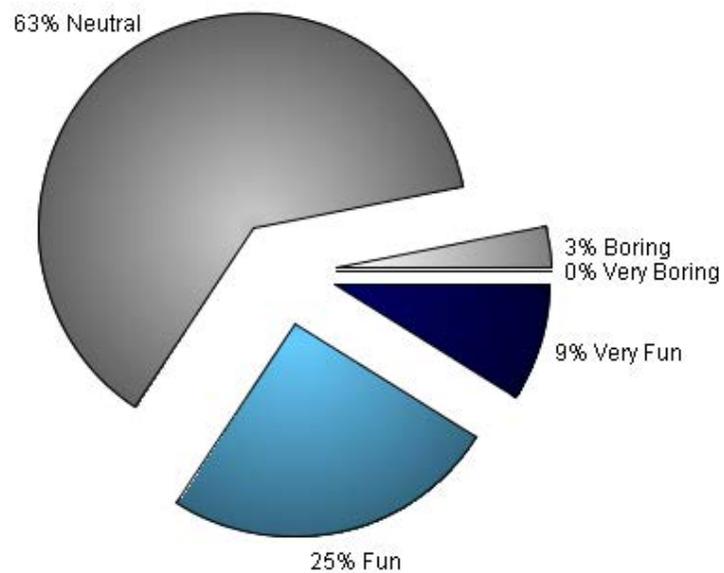
--Each column may sum to > 100% because respondent could select more than issue

--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

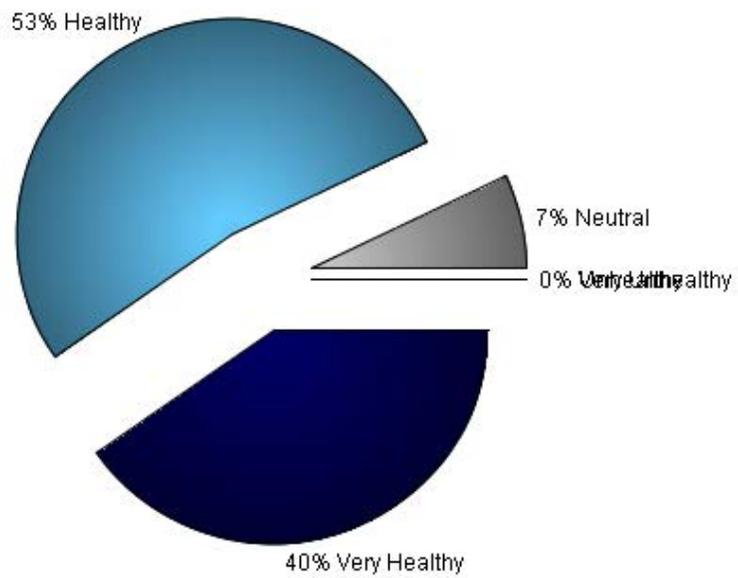
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

SurveyID	Comment
524559	I don't think a child is old enough to walk/bike to school until they are 12 years old.
524614	My children are extremely responsible! I have no concerns of their confidence to get to school or home. I have many concerns of child molesters and kid nappers.
564461	My most significant concern would be related to interactions with people unconcerned with my child's safety. St. Albans city is very walkable and we should encourage kids to walk/bike to school. Unfortunately they have to cross through an undesirable section of Town to get there.
564487	My children would have to cross the train tracks. That is not ok for me unless a crossing guard was there.
524622	Some people don't have phones so what happens if the child don't make it to school. Maybe have more crossing guards and let kid who live a least one mile from school for now just to see how that works.
524627	Too young. My son is too young at this point. In fourth grade he will walk more times than ride the bus.
528144	My only concern is the uprise of crime and how busy Lake Street is in the morning. If we could get a crossing there I may allow my walk to and from.
528150	I have a son in preschool and when weather is good we all walk even the son in the survey. I would not allow without an adult though to much bullying happens.
532400	Just moved about a month ago so I don't know as much about this school.
564455	Two or three days my child goes to his grandparents to stay. They live in another town and need to drive.
524605	I would not feel comfortable letting my child walking or biking to school with all the crime and weird people out there.
528500	The crime and traffic in this town is too unsafe for children to walk alone! Would never let my child walk/bike to or from school. Highest grade or year of school completed shouldn't have anything to do with this decision.
564451	We simply live to far from school to consider walking at this time. If we were allowed to attend St. Albans Town School which is across the street, I would allow walking across the street with a crossing guard present.
564470	I have no way of knowing that my child has made it to school safely until it is too late if she walks without an adult. Until she is much older and can walk with a friend, this is not a comfortable scenario for me. The intersection at Main and Newton is horrendous with no crosswalk, crossing light or crossing guard. People run red lights constantly and I have almost been hit in my car.
524608	If we lived closer to school I would not have such a problem with it. Also safety would be my concern.
524625	My parents never let me walk to school and it was across the street, said they would wonder all day if I got there. It is a safety concern for many reasons, we are against it w/o any adult. If I could walk him everyday we probably could do it together, I just have to be to work and its almost 2 mi!
524628	I believe that walking and biking is good exercise for children but safety and violence and crime in St. Albans or anywhere for that matter is an issue.
528148	I wouldn't want my child walking anywhere without an adult until he's 12 years old. Except next door to go to friends house. He's not responsible enough to go where he's suppose to and he wonders and to friendly.
528493	Don't get rid of bussing.
532395	Should be crossing guards at all major intersections.
564454	When the weather is nice we sometimes walk or bike to school, but would not let him go alone about 4th grade.

APPENDIX G

NON- ENGINEERING STRATEGIES RESOURCE GUIDE

NON-ENGINEERING STRATEGIES RESOURCE GUIDE

Strategy	E's	Advantages	Considerations	Resources
<p>Walking and Biking Safety Curriculum and/or Assembly</p> <p>These lessons can be held in the fall to promote Walk to School Day. Guest speakers teach the students pedestrian and bicycle safety skills that they can use when walking and biking to school.</p> <p>Instruction as a part of school curriculum is also vital to ensuring on-going learning of bicycle and pedestrian safety and development of skills.</p>	<p>Education, Encouragement</p>	<ul style="list-style-type: none"> • Assures all children learn bicycle and pedestrian safety skills • Establishes habits that benefit children throughout their lives, regardless of whether they currently walk or bike to school • Establishes consistent messages for young pedestrians and bicyclists • Provides a refresher for parents if take home materials are provided in conjunction with the assembly. It's never too late to correct bad habits. • Events can make learning fun, and help strengthen community ties with event organizers and participants. 	<ul style="list-style-type: none"> • Best taught using a combination of methods, including one-time instruction (e.g. assemblies), multi-lesson classroom curricula, and skills practice (e.g. bicycle safety fairs). • Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer. 	<ul style="list-style-type: none"> • Walk Smart/Bike Smart Vermont! http://healthandlearning.org/documents/WalkSmartBikeSmartFINAL2008_001.pdf • National Highway Traffic Safety Administration Pedestrian Safety Lessons http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum • WalktoSchool.org - Classroom activities that encourage walking and biking. www.walktoschool.org/eventideas/classroom.cfm • Willie Whistle - The National Highway Traffic Safety Association has created a video to help teach children pedestrian safety skills. http://www.nhtsa.gov/people/injury/willie/willie.zip • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
<p>Continue to Participate in Walk to School Day</p> <p>Walk to School Day is a one-day event that celebrates walking and biking to school.</p> <p>Generally this event is scheduled for the first full week in October. Why not use this strategy multiple times a year?</p>	<p>Education, Encouragement</p>	<ul style="list-style-type: none"> • Excellent kick-off event for Safe Routes to School program • Generates enthusiasm for walking and biking • Way to raise community awareness about safety issues • Can be as simple as a few kids and parents meeting to walk to school or very elaborate celebrations • Can be folded into studies of international cultures as it is an international event • Date is flexible- to be counted by the National Center for Safe Routes to school the event need only take place before Dec 1. 	<ul style="list-style-type: none"> • Preparations for elaborate celebrations must begin several months in advance to allow time to identify partners, plan activities, and promote the event • Should provide bicycle and pedestrian safety information to children and parents • International Walk to School Day takes place in October but some schools organize multiple Walk to School Day (or “Walk and Roll Day”) events over the course of the school year (e.g. one in the fall and one in the spring). 	<ul style="list-style-type: none"> • U.S. Walk to School Day website (provides resources and event registration): www.walktoschool.org • International Walk to School Day website: www.iwalktoschool.org/ • Plan and promote your Walk to School Day event http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/How%20To%20-%20Special%20Events.pdf • Include students when it is too far or unsafe http://saferoutes.vermont.gov/sites/saferoutes/files/Including%20Students%20When%20It%27s%20Too%20Far%20or%20Unsafe%20VT.pdf • See Partner Resource CD for more materials
<p>Frequent Walker/Bicyclist Program or Walking Wednesdays</p> <p>Track and reward students who walk and bicycle to school. Can be an individual competition or a competition among classes.</p>	<p>Encouragement</p>	<ul style="list-style-type: none"> • Provides positive reinforcement for walking and bicycling. • Children respond to incentives. • Can include all students. • Can include walking and bicycling beyond the trip to school. 	<ul style="list-style-type: none"> • Necessary to identify a coordinator. • Establish a simple record-keeping system. • Establish age-appropriate goals. • Consider giving rewards to parents as well, since parents are often involved in the commute to school. 	<ul style="list-style-type: none"> • Frequent Walker Punch card template http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/VT_SRTS_Punchcard_v2_110825-1.png • Vermont Challenge: Walk Across America http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/The%20VT%20Challenge%20-%20Walk%20Across%20Vermont%21.pdf • Tips for creating a walking and bicycling route map http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/Tips%20for%20Creating%20Walking%20and%20Bicycling%20Route%20Maps.pdf • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
<p>Traffic Enforcement (Staff)</p> <p>This can be an ongoing program for school staff. This could work well in conjunction with PBIS.</p>	<p>Education, Enforcement, Encouragement</p>	<ul style="list-style-type: none"> • Crossing guards play an important role in helping children cross the street at key locations, reminding drivers of the presence of pedestrians, and making parents feel more comfortable about letting their children walk and bicycle to school. • Staff and crossing guards can also reward students with Paws of Praise in order to reinforce positive behavior. 	<ul style="list-style-type: none"> • Requires some training and coordination with crossing guards 	<ul style="list-style-type: none"> • Adult School Crossing Guard Guidelines (NCSRTS) http://guide.saferoutesinfo.org/crossing_guard/pdf/crossing_guard_guidelines_web.pdf • Florida School Crossing Guard Training Guidelines http://saferoutesinfo.org/program-tools/florida-school-crossing-guard-training-guidelines • Lessons from Florida's Crossing Guard Program http://saferoutesinfo.org/events-and-training/srts-webinars/lessons-floridas-crossing-guard-program • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
<p>Bicycle Safety Fair</p> <p>This is a single-day event that promotes bicycle safety. At the bicycle safety fair, students can borrow bicycles or bring their own.</p>	Education, Encouragement	<ul style="list-style-type: none"> • Events such as bike safety fairs make learning fun and can help strengthen community ties with event organizers and participants. • At the bicycle safety fair students learn safety skills such as how to properly wear a helmet and how to behave while bike riding. The bicycle safety fair can also have a closed “test course” for the students to ride along. This helps the students to practice in a safe environment and gain confidence in their decision-making skills. • Possible partners for this include the Caledonia County Sheriff’s Department or Kingdom Trails. 	<ul style="list-style-type: none"> • Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer. • These events require planning and materials to share with students 	<ul style="list-style-type: none"> • Teaching a Bicycle Safety Fair in Vermont http://www.vtbikeped.org/what/VT_Safety_Fair_Curriculum.pdf • Bicycling Life page on bicycle safety fairs: http://www.bicyclinglife.com/SafetySkills/BicycleRodeo.htm • An organizer’s guide to bicycle safety fairs http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf • Easy steps to properly fit a bicycle helmet http://www.nhtsa.gov/people/injury/pedbimot/bike/EasyStepsWeb/
<p>Walk Audit/Parent Surveys / Student tallies</p> <p>The team will meet annually (ideally in August before school starts) to review the accomplishments from the previous year and set new goals for the upcoming school year.</p>	Evaluation	<ul style="list-style-type: none"> • Establishes baseline information on student travel behavior and perceived barriers to walking and biking • Helps determine existing needs • Helps determine success of SRTS efforts and identify needed adjustments 	<ul style="list-style-type: none"> • Best to conduct initial surveys before SRTS measures have been implemented • Requires teacher buy-in and administrative organization • Getting parents to fill out and return surveys can be a challenge. Follow up is necessary. Consider a contest among classes for highest rate of return. 	<ul style="list-style-type: none"> • Student In-Class Travel Tally Form: http://www.saferoutesinfo.org/resources/evaluation_student-in-class-travel-talley.cfm • Parent Survey Form: http://www.saferoutesinfo.org/resources/evaluation_parent-survey.cfm • Instructions for Survey Administration: http://www.saferoutesinfo.org/resources/evaluation_instructions.cfm • Instructions for Data Entry: http://www.saferoutesinfo.org/resources/evaluation_cover-sheets.cfm

Strategy	E's	Advantages	Considerations	Resources
<p>Walking School Buses/ Bicycle Trains</p> <p>Walking school buses and bicycle trains are adult supervised groups of students walking and/or bicycling to school.</p>	<p>Education, Encouragement</p>	<ul style="list-style-type: none"> • Adult supervision on the walk to school • Can be loosely structured or highly organized • Can include a meeting point in a parking lot so children and parents who must drive can participate. • Adults can rotate who will lead each time. 	<ul style="list-style-type: none"> • Need to identify routes where conditions support walking and there is sufficient demand for supervised walking • Requires parents willing to walk with children and learn about how Walking school buses are organized and conducted. • More organized structure requires considerable planning 	<ul style="list-style-type: none"> • How to start a walking school bus or bike train http://guide.saferoutesinfo.org/walking_school_bus/pdf/wsb_guide.pdf
<p>Drive Safe Campaigns</p> <p>Some parents are not aware of how their driving behavior can put walking students at risk. This teaches parents how their unsafe driving habits can put their children in danger.</p>	<p>Education</p>	<ul style="list-style-type: none"> • Has the ability to effect positive change in the community and around the school • Improves the safety of the walking environment • Good drivers can help to set the example for good behavior. This is especially true for helping to control speeds. 	<ul style="list-style-type: none"> • This requires a person to organize and administer the campaign. • May not be effective at schools where parent/teacher organizations are weak • Law enforcement officers would be great at speaking at the campaign events. Sometimes, due to their heavy schedules that can be difficult to pin down. • A good way to contact parents is at back to school night and PTA meetings. Starting at the beginning of the year helps to prevent bad habits from starting. Law enforcement officers (or other teachers) can hold a brief assembly to explain the dangers of unsafe driving in school areas. • Law enforcement officers can provide a demonstration of how difficult it is to quickly stop a moving vehicle at 50, 40 and 30 mph. The National Center has information on how the speed of the vehicle can affect the severity of injury that the pedestrian experiences in a crash. 	<ul style="list-style-type: none"> • Driving Around Schools: Keeping Children Safe http://apps.saferoutesinfo.org/lawenforcement/resources/driving_tips.cfm • Parents, Avoid Becoming a Traffic Hazard http://www.aaamidatlantic.com/FetchFile.ashx?id=e55bfa26-a70d-4e17-afde-073b86cc9975

Strategy	E's	Advantages	Considerations	Resources
<p>Crossing Guard Appreciation Day</p> <p>Crossing guards help our children cross the road safely in the mornings and afternoons, in all weather conditions. Remind them that you appreciate their service and dedication. Students can create thank you cards that they deliver themselves during their walks home, or teachers and administrators can honor them formally during a school assembly.</p>	<p>Encouragement</p>	<ul style="list-style-type: none"> • Maintains a positive relationship between the crossing guards and the school/community. • Can inspire crossing guards to continue to be reliable, safety figures. • Creates an opportunity to remind students why it is important to practice safe walking skills. 	<ul style="list-style-type: none"> • Requires coordination between the crossing guards, school administrators and school instructors. • May require materials to create the thank-you cards. • Is most effective with newsletter and in-school announcements. • Relatively inexpensive strategy 	<ul style="list-style-type: none"> • Active Transportation Alliance webpage for Crossing Guard Appreciation Day http://www.activetrans.org/crossingguard

APPENDIX H

SNOW REMOVAL TOOLKIT

SNOW REMOVAL TOOLKIT

Prompt and effective snow, ice, and slush clearance on sidewalks along Safe Routes to School is critical for maintaining safe biking and walking conditions. Snow removal of bicycle and pedestrian accommodations that are designated school routes should be planned for. According to the VT Pedestrian and Bicycle Facility Design Manual Section 10.5.1, local policies should treat the clearance of snow from walkways as equally important as clearance of snow from roadways in order to maintain year-round accessibility.

Guidelines

The responsibility of all snow and ice clearance generally falls upon the property owner of the facility. A municipality's highway department is typically responsible for snow and ice removal on roads and sidewalks on public property. Private roads and sidewalks on private property are the responsibility of the property owner.

A clear, unobstructed pathway at a minimum of 48" wide should be provided on all sidewalks, curb ramps, and through crosswalks. Snow, slush, and ice should be cleared from sidewalks, to provide a clear path of 48", ideally, within 12 hours after a storm event. Designated portions of the roadway for bicycle use should also be cleared since, even in winter, some experienced bicyclists commute by bicycle.

Pedestrian walkways, curb ramps, and crosswalks or bicycle facilities should not be used for areas of snow storage. Additional consideration should also be taken to maintain adequate sight distances at all intersections and to prevent snow storage from building up too close to walkways.

Paved shared-use paths that are designated routes to school should be kept clear of snow so that students can walk to school year-round. Snow clearance is not a consideration for natural surface paths that are used for winter activities which also allow students to cross-country ski or snow-shoe to school.

Recommendations

The following six basic recommendations can assist a community in developing a strategy to improve sidewalk snow and ice clearance.

1. Create a norm of snow and ice clearance through social awareness campaigns.
2. Identify a municipal point person for snow removal.
3. Determine priority sidewalks and paths for snow clearance.
4. Improve monitoring and enforcement.
5. Design sidewalks for easier snow removal.

6. Train municipal and private snow plowing personnel on the guidelines for pedestrian and bicycle facility clearance (i.e., 48" clear path and priority routes.)

Monitoring and Enforcement

There are three primary ways in which the clearance of sidewalks can be monitored and enforced;

1. Identify who monitors and enforces.
2. Define penalties and how they will be enforced.
3. Implement a social awareness campaign.

APPENDIX I

INFRASTRUCTURE STRATEGIES RESOURCE GUIDE

Strategy	Advantages	Considerations	Resources	Actions
<p>Wide Paved Shoulders</p> <p>Wide paved shoulders are created by striping a roadway to provide space for a shoulder and a travel way for motor vehicles. Wide paved shoulders can be created by adding pavement to one or both sides of the paved roadway or by narrowing travel lanes.</p> <p>Current Vermont State Standards recommend ten-foot minimum travel lanes for state and local roads.</p>	<ul style="list-style-type: none"> • Provide room for pedestrians when there is no sidewalk or other facility. • Provide a clear space for bicyclists that is separated from the motor vehicle travel way. • Research has shown that by narrowing travel lanes, motor vehicle speeds might also be reduced. 	<ul style="list-style-type: none"> • Lane markings need to be bright and maintained to clearly delineate the motor vehicle travel lane. When lane markings fade, the travelway for motor vehicles appears to be wider, which tends to encourage motorists to travel at higher speeds. • When adding pavement to widen the roadway and accommodate shoulders, the base material for the shoulder needs to be integrated well with the base material under the existing road to minimize the potential for pavement cracking and settling that would create hazardous conditions for bicyclists and motorist. • The <i>Vermont State Standards</i> provide detailed information on appropriate travel lane and paved shoulder widths for different classifications of state roads. These standards also provide a guide for appropriate lane and shoulder widths for town roads. • Other considerations include right-of-way, drainage, grading, existing signs and structures, and utilities. 	<ul style="list-style-type: none"> • Vermont State Standards http://www.aot.state.vt.us/progdev/standards/statabta.htm 	<ul style="list-style-type: none"> • For town roads, start with discussions with the appropriate, Selectboard, Board of Trustees, or City Council (municipal legislators) and town officials, such as road commissioner and/or town engineer to determine the municipality’s policies on travel lanes widths. Provide background information on the benefits of narrower travel lanes for speed reduction and safer conditions for pedestrians and bicyclists. • Review shoulder widening proposals with municipal officials. If sufficient pavement exists, suggest conducting an experiment with temporary striping to provide wider shoulders. • Follow up the experiment with feedback and request for comments from municipal officials and community.

Strategy	Advantages	Considerations	Resources	Actions
<p>Speed Feedback Signs</p> <p>Speed feedback signs, either temporary or permanent, show motorists how fast they are traveling as calculated by radar.</p>	<ul style="list-style-type: none"> Speed feedback signs tend to slow motorists and remind motorists of the posted speed limits. 	<ul style="list-style-type: none"> Speed feedback signs on state roads must follow the State’s placement guidelines for state roads. Installing a feedback sign requires a highway access permit from the State. Permanent signs may be appropriate at school zones; elsewhere temporary signs, set up for short periods at various locations, can be more effective. Speed feedback signs, including those installed through VTrans funded projects on state roads, require a maintenance and care agreement with the local municipality. 	<ul style="list-style-type: none"> <i>Guidelines for the Use of Radar Speed Feedback Signs on the State Highway System</i> http://www.aot.state.vt.us/documents/3014_Guidelines_on_the_Use_of_Radar_Speed_Feedback_Signs.pdf <i>Classification of Vermont Roads</i> http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/ 	<ul style="list-style-type: none"> Review the State’s speed feedback sign guidelines to be sure the proposed location is acceptable. Contact the municipality to determine the appropriate person to contact regarding the placement of speed feedback signs, either temporary or permanent. Check with the local police or sheriff to see if they have a portable trailer that can be used on a temporary basis as a trial. Contact the responsible party to understand their process for the placement of speed feedback signs and whether the sign should be temporary or permanent. Follow the process for installation of the speed feedback sign. If a temporary feedback sign was installed, review the results with the municipality to determine if it has been successful. If successful, suggest the municipality install a permanent speed feedback sign. Permanent feedback signs are an eligible use for SRTS funds. Check with the regional planning commission about this and other potential funding sources.

Strategy	Advantages	Considerations	Resources	Actions
<p>High-visibility Crosswalks</p> <p>High-visibility crosswalks are roadway markings designating a location for pedestrians to cross a roadway.</p> <p>High-visibility crosswalks are typically in locations that are convenient to pedestrians and visible to motorists. High-visibility crosswalks must be installed with reflective durable material.</p>	<ul style="list-style-type: none"> • Crosswalks provide notification to both pedestrians and motorists to where pedestrians may be crossing the roadway. • Pedestrians have the right-of-way when in a crosswalk and motorists are supposed to stop their vehicles until the pedestrian has cleared the roadway. 	<ul style="list-style-type: none"> • Pedestrians should assume that a motorist may not see them or stop. • Crosswalks should have a receiving facility, such as a path, sidewalk, or adequate shoulder for use by pedestrians on either end. • Crosswalks may be marked with different striping patterns but the most common pattern is the ladder style. Further considerations may be needed for crosswalks at unsignalized intersections and at mid-block locations to determine if the crosswalk is warranted. • Crosswalks are not appropriate for every location as they may give the pedestrian a perceived sense of safety that may not exist. 	<ul style="list-style-type: none"> • <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i> http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • <i>Vermont's Guidelines for the Installation of Crosswalk Markings and Pedestrian Signing at Marked and Unmarked Crossings</i> http://www.aot.state.vt.us/progdev/sections/highway%20info/DocumentsRoadwayPages/TrafficOpsCrosswalk%20Guidelines%202004.pdf <i>Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations</i> http://www.fhwa.dot.gov/publications/research/safety/04100/04100.pdf • <i>Classification of Vermont Roads</i> http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/ 	<ul style="list-style-type: none"> • For all classifications of roadways, state and local, consult with the regional planning commission about the appropriateness of the proposed location for a crosswalk. • Follow-up with the municipal road commissioner, planner, or engineer to seek their guidance and support. • For non-state roads, after gaining appropriate endorsements, work with the appropriate local official or employee to get the high-visibility crosswalk installed in the proper and safe location. • For state roads, work with the regional planning commission to get a formal study to determine if a crosswalk is warranted and safe.

	Advantages	Considerations	Resources	Actions
<p>Shared-use Paths</p> <p>Shared-use paths are separate facilities for non-motorized users such as bicyclists and pedestrians. Typically these facilities have their own right-of-way rather than sharing a right-of-way with a roadway.</p>	<ul style="list-style-type: none"> • Provides a safe place for non-motorized users that are typically separated from motor vehicles. • Shared-use paths appeal to users of all different skill levels, particularly those with basic or beginner skills. 	<ul style="list-style-type: none"> • Shared-use paths should typically be a minimum of ten feet wide and paved with asphalt. • Guidelines for the construction of shared-use paths can be found in the <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i>. • Further considerations are needed at intersections of the shared-use path and roadways to ensure safety for all users. 	<ul style="list-style-type: none"> • <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i> http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html 	<ul style="list-style-type: none"> • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed shared-use path. • Work with municipal partners to engage the regional planning commission with the project in terms of funding or other support for an initial alignment study to determine the appropriate shared-use path alignment and end points. This study will help the community understand where the shared-use path may be located as well as the issues that will need to be addressed, the types of permits that will be needed, and the potential cost for developing the shared-use path as proposed. This study, done with community input, will help the community decide if they want to proceed further with the project. • If the community wishes to continue to pursue a shared-use path, work with the municipal partner to understand potential funding sources and the various requirements involved in obtaining them.

Strategy	Advantages	Considerations	Resources	Actions
<p>Bicycle Routes/ Bicycle Pedestrian Warning Signs</p> <p>Bicycle route signs are officially designated routes for bicyclists through municipalities; they are typically used to focus bicycle travel onto roadways most suited for it.</p> <p>Bicycle and/or Pedestrian present warning signs (with an image of a bicycle and a pedestrian) provide a notice to motorists, that bicyclists or pedestrians are likely to be present.</p>	<ul style="list-style-type: none"> • Bicycle route signs assist bicyclists in determining the best route for their travel. • Warning signs raise safety conditions for bicyclists due to greater awareness by motorists of bicyclists on the road. 	<ul style="list-style-type: none"> • The number and location of bicycle routes and signs should be carefully studied by the community prior to implementation. Measures should be taken to reduce sign clutter. • Bicycle route signs and warning signs must meet the guidelines provided in the <i>Manual on Uniform Traffic Control Devices</i> (MUTCD). • In cases where there are on-road sections of bicycle connecting nearby trails, where a bike lane ends or a paved shoulder is reduced at a bridge, a “Share the Road Sign” may be appropriate. The “Share the Road” sign should be used to indicate a relatively brief special condition. 	<ul style="list-style-type: none"> • <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i> http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • <i>Manual on Uniform Traffic Control Devices, latest edition (MUTCD)</i>, http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm 	<ul style="list-style-type: none"> • Review guidelines provided in the latest edition of the MUTCD to make sure signs are compliant. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the creation of bicycle routes. • Follow the recommendations of the local official or employee as to the appropriate way to proceed, which could include: <ul style="list-style-type: none"> - Presenting the idea to the municipal legislators; - Implementing existing recommendations in a bicycle plan for the community; - Undertaking the development of a bicycle plan for the community to make sure that the specific recommendations still work within the context of the entire municipality; and - Working with the regional planning commission.

Strategy	Advantages	Considerations	Resources	Actions
<p>Sidewalks</p> <p>Sidewalks are paths separated from other roadway users along the sides of the roadway reserved for pedestrians.</p>	<ul style="list-style-type: none"> • Sidewalks provide a relatively safe location for pedestrians along the sides of a roadway. • They help to separate other roadway users and pedestrians within the same right-of-way. 	<ul style="list-style-type: none"> • The availability of sufficient right-of-way to install sidewalks, including the travel way for vehicles and standards for sidewalk width, must be assessed. • Sidewalks are most effective when they include a buffer from the paved surface of the road that is at least five feet wide. • When sufficient right-of-way is not available for a buffer, a curb can provide some degree of separation between the roadway and the sidewalk. • Other considerations include drainage, grading, existing signs, structures, and utilities. • Sidewalks can be constructed of various materials including concrete, asphalt, or stone dust. 	<ul style="list-style-type: none"> • <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i> http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • <i>Designing Walkable Urban Thoroughfares: A Context Sensitive Approach</i> (Institute of Transportation Engineers - Publication #RP 036A) http://www.ite.org/modules/scriptcontent/orders/ProductDetail.cfm?pc=RP-036A-E 	<ul style="list-style-type: none"> • Review the State's <i>Pedestrian and Bicycle Facility Planning and Design Manual</i> to determine the appropriate dimensions based on roadway classification. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed sidewalk. • Work with municipal partners to determine the appropriate sidewalk location based on available right-of-way. • Review the sidewalk location to determine if any additional issues will need to be addressed, the types of permits that will be needed, and the potential cost for developing the proposed sidewalk. This review, done with community input, will help the community decide if they want to proceed further with the project. • If the community wishes to continue work on the proposed sidewalk, work with the municipal partners to understand potential funding sources and the various requirements involved in obtaining them.

Strategy	Advantages	Considerations	Resources	Actions
<p>School Zones</p> <p>A school zone is an identified location on the roadway abutting a school which extends several hundred feet in each direction. It is identified with signs and pavements markings and sometimes includes a reduced speed zone.</p>	<ul style="list-style-type: none"> School zones increase motorists' awareness to look for students on or near the road and to drive with more caution. 	<ul style="list-style-type: none"> The creation of a school zone typically needs the approval of the municipality, either from the Selectboard, Board of Trustees, or City Council, unless they have passed on this approval to the road commissioner. School zones created on state roads need VTrans approval. Sight distances and other roadway conditions should inform the location of signs and pavement markings noting the limits of the school zone, within MUTCD guidelines. With few exceptions, school zones are located on the roadway adjacent to the school's main entrance. Must comply with State sign laws and laws for setting speed limits. 	<ul style="list-style-type: none"> <i>Manual on Uniform Traffic Control Devices, latest edition (MUTCD)</i>, http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm Refer to <i>Vermont Statute 23, Section 1007</i> for guidance on assigning local speed limits http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=23&Chapter=013&Section=01007 	<ul style="list-style-type: none"> Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed school zone. Discuss the creation of a school zone with local Selectboard, Board of Trustees, or City Council to gain their support. For a school zone on a state road, work with municipal officials and/or the regional planning commission to contact VTrans to propose a school zone. Work with the municipal planning office, road commissioner, administrator, or other municipal officials to determine the specific limits of the school zone and the methods to be used to notify motorists of its presence, including signage, warning lights during arrival and dismissal times, pavement markings, or other methods. Work with municipal partners to determine the most appropriate way to provide funding for the notifications as appropriate and work with them to secure funding.

Strategy	Advantages	Considerations	Resources	Actions
<p>Road Signs</p> <p>Road signs provide information on road conditions, direction, advisories, or mandatory actions. Road signs may be regulatory, warning, or guide signs.</p>	<ul style="list-style-type: none"> • Signs notify road users about road conditions, other users, regulations, or conditions that may not be immediately apparent. • Many signs are not typically an expensive installation and can be approved and installed quickly. 	<ul style="list-style-type: none"> • The number and type of existing signs can influence the effectiveness of new signs. Sign “clutter” can diminish the impact of new signs. • Permanent signs can become part of the background and their perception by regular road users can diminish over time. • Changing conditions, such as temporary flashing lights or periodic flags, can help to continually draw attention to a sign. • Adding new signs to a local road typically needs the approval of the municipality, either from the Selectboard, Board of Trustees, or City Council, unless they have passed on this approval to the road commissioner. • Signs added to state roads need VTrans approval. • Any proposed signage must meet the guidelines provided in the <i>Manual on Uniform Traffic Control Devices</i> (MUTCD). • Temporary devices such as in-street “Yield to Pedestrian” signs, require designated personnel to provide continuous maintenance. Such signs must be installed and removed EACH DAY of intended use and should not remain on the roadside when not in use. 	<ul style="list-style-type: none"> • <i>Vermont Pedestrian and Bicycle Facility Planning and Design Manual</i> http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • <i>Manual on Uniform Traffic Control Devices, latest edition (MUTCD)</i>, http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm • <i>Classification of Vermont Roads</i> http://maps.vermont.gov/imf/sites/ANR_NATR/ESViewer/jsp/ 	<ul style="list-style-type: none"> • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the placement of new signs. • Discuss the placement of new signs with local Selectboard, Board of Trustee or City Council to gain their support. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to determine the appropriate place for the signs while meeting guidelines provided in the MUTCD. • If proposed on a state road, work with the municipal officials and the regional planning commission to contact VTrans to gain their approval and any necessary permitting for the proposed sign s.