VERMONT
Safe Routes to
SCHOOL

Cambridge Elementary School

Safe Routes to School Travel Plan

Spring 2016

Prepared with assistance from the VT SRTS Resource Center

saferoutes.vermont.gov

CONTENTS

INTRODUCTION

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 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

This Travel Plan represents the work of the Cambridge Elementary School Safe Routes to School Team. Our school believes that creating and maintaining this Travel Plan is a good way to ensure an on-going Safe Routes to School (SRTS) program.

SRTS programs adopted by schools like ours across the country have been shown to provide a variety of benefits to their communities. A strong SRTS program can help to:

1. Reduce traffic congestion around our school
2. Reduce costs and need for busing students to school
3. Increase our students' sense of independence and responsibility
4. Teach students fundamental safety skills
5. Strengthen our sense of community
6. Provide more transportation options for everyone

The SRTS team at Cambridge Elementary School (CES) 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 CES. Our school team will use this document as a resource to plan our encouragement, education, infrastructure, enforcement, and evaluation efforts with assistance from the VT SRTS Resource Center.

The Vermont Agency of Transportation (VTrans), through the VT 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 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 Town of Cambridge and the Village of Jeffersonville.

Members of the Cambridge Elementary School SRTS Team	
Mary Anderson, Principal	Sue Reed, School Nurse
Donna Rooney, Wellness Coordinator	Donald Lange, Village Trustee
Rob Moore, Lamoille County Planning Commission	Joyce Larro, Department of Health

TEAM VISION

The SRTS program at CES aligns with the community's efforts towards promoting active lifestyles through walking, hiking, and biking. The SRTS program goals to improve the safety and health of students who walk and bike to school also fit our school and town values.

Our vision for CES (and the surrounding town) is:

- To be a school where more students can safely bicycle and walk to school
- To encourage a more physically active student body reflecting our town's values as an active community
- To build community support and respect of pedestrians and bicyclists both on our roads and on our school grounds
- To develop a regular Walking/Biking School Bus program
- To involve all generations of residents in active transportation

This Travel Plan outlines CES's intentions for making walking to and from school more regular and safer for students and the community. Through our SRTS program we hope to reach 15% (or 13) of our students walking or biking to school during year one and 25% (or 21) 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.

Cambridge Elementary School hopes to engage 100% of its student population through the next year in their Safe Routes to School program.

ABOUT THIS PLAN

Our SRTS team met twice with the VT SRTS Resource Center to develop this SRTS Travel Plan. Each meeting provided education on the benefits of SRTS and highlighted successful program components and strategies. The "engineering meeting" included a guided walk audit of the areas around our school. We also discussed education, encouragement, enforcement, and evaluation strategies which helped identify needed and complementary programs to support proposed engineering strategies. The next step is for this plan to be adopted by the school and to continue acting on the non-infrastructure recommendations.

Meeting Date	Content and Outcomes
December 2015	**Kick-off Meeting**: **How the VT SRTS Travel Plan Works** - Award of the planning assistance grant - Overview of the planning process **Engineering Meeting** - Team visioning - Opportunity and barrier discussions - Walk audit - Observed dismissal
May 2016	**Plan Review** - Reviewed the draft plan - Identified roles and continued steps for non-engineering recommendations

TRAVEL PLAN CONTEXT

CAMBRIDGE ELEMENTARY SCHOOL AND TOWN OF CAMBRIDGE OVERVIEW

CES is located in the Town of Cambridge, VT which includes the Village of Jeffersonville. Cambridge has a population of approximately 3,600 year-round residents. The town of Cambridge is focused around the intersection of VT 15 and VT 108, surrounded by a rural landscape. Its dispersed population, low-density development patterns, hilly terrain, and a general lack of bicycle and pedestrian facilities limit students living in much of the community from easily walking or biking to school.

CES is located on School Street – a Class 2 town road. It is near the intersection of VT 108 and Mill Street/VT 108, a state highway and the main road through town. The posted speed limit on both VT 108 and Mill Street is 25 miles per hour near the school.

The SRTS program at CES is a key component in the school's efforts to improve the health of its students and community as well as to increase awareness of bicycles and pedestrians within town.

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 Cambridge as a walkable, bikeable, and sustainable community.

CURRENT SCHOOL DEMOGRAPHICS

CES serves the Town of Cambridge and has a total of 328 students enrolled for the 2015-2016 school year. Our school serves grades K-6. CES offers busing to all enrolled students. Six buses serve this school.

DEMOGRAPHIC	COUNT	PERCENTAGE OF STUDENT BODY
Students with Disabilities	59	18%
Limited English proficient students	0	0
DISTANCE FROM SCHOOL		
Students living within 1/4 mile of school	26	8%
Students living within 1/2 mile of school	33	10%
Students living within 1 mile of school	45	14%
Students living within 2 miles of school	63	18%
Students in grades K-3	198	60%
Students in grades 4-6	130	40%

CURRENT STUDENT TRAVEL MODES

TRAVEL MODE	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	PUBLIC TRANSIT	OTHER
Percentage of Students (AM)	4%	1%	40%	54%	0	0	0
Percentage of Students (PM)	6%	1%	51%	41%	0	0	1%

Data based on SRTS Student Tally Report administered in October 2015.

SCHOOL ARRIVAL AND DISMISSAL PROCEDURES

CES 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 school day begins at CES at 7:50 am.

Students walking, biking, and travelling by car arrive

staggered before school starts – typically between 7:30 am and 7:50 am. The school buses arrive at 7:30 am, dropping students off on the southeast side of school at the front entrance. They then proceed to the rear of the parking lot and remain there until dismissal.

Students who walk to school typically travel along Main Street, up Carlton Avenue or School Street, to the main school entrance. Students travelling by bike may leave their bicycles in the rack just north of the main entrance, between School Street and the school building.

The parking lot functions as a two-way loop in front of the school for vehicles. Vehicles can enter by either School Street or Carlton Avenue. These roads are also used by delivery vehicles loading and unloading products for businesses on Main Street.

Dismissal begins at 2:20 pm with all students dismissed at once. Students riding the bus board directly from the door on the west side of the school building. Dismissal continues until approximately 2:40 pm with students who walk and bike being dismissed through the front door (facing the parking lot). Parents who pick-up their children in grades K-2 need to park and physically pick-up their child from the classroom. Children in grades 3-6 are dismissed all at once and picked up in the lobby. School staff are present at dismissal to ensure that children are behaving properly and safely until they leave the school grounds.

ARRIVAL		
Travel Mode	**Procedure**	**Time**
Walk	Arrive staggered	7:30-7:50 am
Bike	Arrive staggered	7:30-7:50 am
School Bus	Arrives at designated time	7:45 am
Family Vehicle	Arrive staggered	7:30-7:50 am
DISMISSAL		
Travel Mode	**Procedure**	**Time**
Bus	Dismissed through rear door	2:20 pm
Family Vehicle	k-2 students: parent pick up in classroom 3-6 students: parent pick up in lobby	2:20 pm
Walk	Dismissed all at once through front door	2:20 pm
Bike	Dismissed all at once through front door	2:20 pm

EXISTING TRAVEL HABITS

Most students travel to CES via VT 108. As shown in the Student Locator Map in Attachment A, about 10% of the student population lives within a half mile of the school in the Village Center and 20% live within two miles clustered in the Jeff Heights neighborhood to the south of the school. However, the number of students who can walk or bike to school is low due to limited sidewalks and no bicycle facilities near the school. The majority of students would be served by sidewalks on School St. and Carlton Ave. On December 17th, 2015, (the day of our safety observation) one child was observed bicycling home from school and approximately 5 students were observed walking from school.

A parent survey was conducted in September and October 2015, and is included in Attachment B. Of the nearly 300 surveys distributed, 4 were returned. The survey identified the following barriers to walking to school:

- **Speed of traffic along route** (4/4)
- **Amount of traffic along route** (4/4)
- **Safety of intersections and crossings** (4/4)
- **Sidewalks or pathways are not present along entire walking route** (3/4)
- **Distance** (3/4)
- **Weather or climate** (2/4)
- **Time** (2/4)
- **Lack of adults with whom to bike or walk** (1/4)
- **Violence or crime** (1/4)
- **Child's participation in after school programs** (1/4)
- **School crossing guards are not present at key intersections along walking route** (1/4)

(Data based on SRTS Parent Survey results administered in October 2015)

Many of the issues in the list above can be addressed with either infrastructure or non-infrastructure strategies (or in some cases both). Alone, the limited responses to the parent survey do not allow us to gauge the general attitudes of the CES Community. We attempted to supplement the survey responses with conversations with parents and staff. We kept the identified issues in mind when picking the strategies that we want to accomplish.

KEY ISSUES

The team identified the following barriers to walking and biking to school:

Issue: No sidewalks to the school grounds.

There are no sidewalks leading to the school even though the school is located within the Village Center. Carlton Avenue to the south of the school and School Street to the north both connect VT 108 to the school. VT 108, also known as Main Street, is the walkable mixed-use core of the Village. Both streets are residential, and there are high traffic volumes during school arrival and dismissal.

Students walk in the road on Carlton Ave because there are no sidewalks.

Issue: A chaotic atmosphere in the school parking lot exists at arrival and dismissal times. Space to separate pedestrians from vehicles is often informal or unclear.

The volume of vehicular traffic in the school parking lot at arrival and dismissal times, combined with a lack of defined pedestrian space, creates a dangerous atmosphere for pedestrians and bicyclists on and around the school grounds. The school has a parking lot and head-in parking along the east side of Carlton Avenue/School Street by the playing fields. The school has visitor designated parking but lack of clear signage means that staff and visitors park in both areas. During dismissal, cars idle in the street and in the parking lot lanes, blocking the view and access of the school front entrance. There are no sidewalks in the parking lot, so students walk around and behind parked cars and are not always visible to drivers.

Parents travel along Carlton Ave/School St next to parked cars and students walking from the building.

Issue: Safety of the Main Street/Church Street/Mill Street intersection

Main Street, Church Street, and Mill Street (all part of VT 108) form a three-way intersection at the south end of the Village Center. Main Street is a primary route through town along with Church Street. The posted speed limit in the village is 25 mph and higher outside the village. There are no designated pedestrian crossings at the intersection. The south and east sides of the intersection lack pedestrian facilities. Main Street carries approximately 1,800 vehicles per day near the school.[1]

Lack of pedestrian accommodations and clear right-of-way make maneuvering this intersection confusing and unsafe

Issue: Lack of sidewalks on Upper Pleasant Valley and Jeff Heights Roads.

Jeff Heights, a neighborhood less than .75 miles southwest of the school, has a large school age population. The neighborhood links to the Village Center by way of Upper Pleasant Valley Road. Steep grades on Upper Pleasant Valley Road make walking and biking to school difficult for students coming from these neighborhoods. The lack of pedestrian facilities along Upper Pleasant Valley Road, poor sight lines, and the high speeds at which cars travel are barriers to walking and biking.

[1] Based on Annual Average Daily Traffic (AADT) on VT 108 Main Street from Church Street to VT 15. Vermont Agency of Transportation, *2012 (Route Log) AADTs: State Highways*, May 2013, p. 34.

TRAVEL PLAN RECOMMENDATIONS

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

Non-Engineering Strategies

The Non-Engineering Strategies in the following section identify 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 available in **the mini-guides available on the VT SRTS website http://saferoutes.vermont.gov/resources/miniguides**.

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 activities that will build the SRTS program momentum. The Calendar is located in **Attachment C**.

Engineering Recommendations

With assistance from the VT 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 **Attachment D,** along with typical infrastructure recommendations in the Infrastructure Glossary available at http://saferoutes.vermont.gov/resources/miniguides#infrastructure.

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 SRTS 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 **Attachment E**.

NON-ENGINEERING STRATEGIES

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	*What we plan to do this school year*	*What we plan to do next school year*	*What we plan to do starting in two years*

EDUCATION STRATEGIES

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

- Provide educational materials for parents and residents regarding general safe-driving behaviors via the school newsletter, town website, town meetings, and Front Porch Forum.
- Establish 5th grade mentors through Girls on the Run to teach younger students safe walking skills.
- Incorporate WalkSmart/BikeSmart Vermont! Curriculum into 2016/2017 school year in PE class.
- Partner with other schools in the area and request the Bike Smart Trailer from Local Motion in order to supply bikes and equipment needed for on-bike skills training.
- Distribute information about the issues, particularly for children's health, of idling.

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:

- Host a Vermont Intergenerational Walk and Roll to School Day event on first Wednesday of May.
- Host an International Walk and Roll to School Day event on the first Wednesday of October.
- Draw signs with students to promote events.
- Encourage students to ride the bus or carpool when biking or walking is not an option.

- Distribute free or reduced-cost bicycle helmets to students in need each May.
- Develop a remote drop-off site once the school has sidewalk access so that students who live further away can walk or bike.

ENFORCEMENT STRATEGIES

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

- Invite local law enforcement on event days.
- Disseminate information about dismissal procedures and parking.
- Distribute a Safe Driver Pledge to parents.

EVALUATION STRATEGIES

Evaluation is an important component of our SRTS program. We plan to regularly complete the student tally and parent survey forms provided by the National Center for Safe Routes to School (NCSRTS). Parent surveys will help us measure the effectiveness of SRTS efforts over time. We first administered parent surveys in October 2015 and student tallies in September 2015, which provided baseline information on student travel behavior and parental perceptions.

We will continue to conduct walk audits on a regular basis 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 to guide future SRTS activities.

EVALUATION TOOL	LEADER	SCHEDULE
Parent Surveys	Donna Rooney	Annually in October
Student Tallies	Donna Rooney & Sue Reed	Annually in September
Walk Audits	SRTS Team and students	Every other year, 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 of school drop-off and pick-up practices. Descriptions of typical engineering recommendations can be found in the **Infrastructure Glossary** (http://saferoutes.vermont.gov/resources/miniguides#infra)**.**

We recognize that infrastructure improvements take time to complete and are a collaborative effort among CES, the Town of Cambridge and potentially VTrans to implement. The following short, medium, and long-term 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 CES can be found in **Attachment D.**

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' (AASHTO) *Policy on Geometric Design of Highways and Streets* and the latest version of 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.

ADDITIONAL GUIDANCE

The V SRTS Resource Center has developed a series of miniguides on topics to assist us with applying our plan. The miniguides are located at http://saferoutes.vermont.gov/resources/miniguides and include the following topics:

- Starting a Program
- Walk and Roll to School Days
- Contests and Incentives
- Teaching Walking and Biking Safety
- Walking School Buses and Bike Trains
- Measuring Success
- Safety and Enforcement
- Working with Your Community
- Walk Audit
- Travel Plan
- Infrastructure Glossary
- Arrival and Dismissal

ATTACHMENTS

A. Student Locator Map

B. Student Tally Report, September 2015 & Parent Survey Report, October 2015

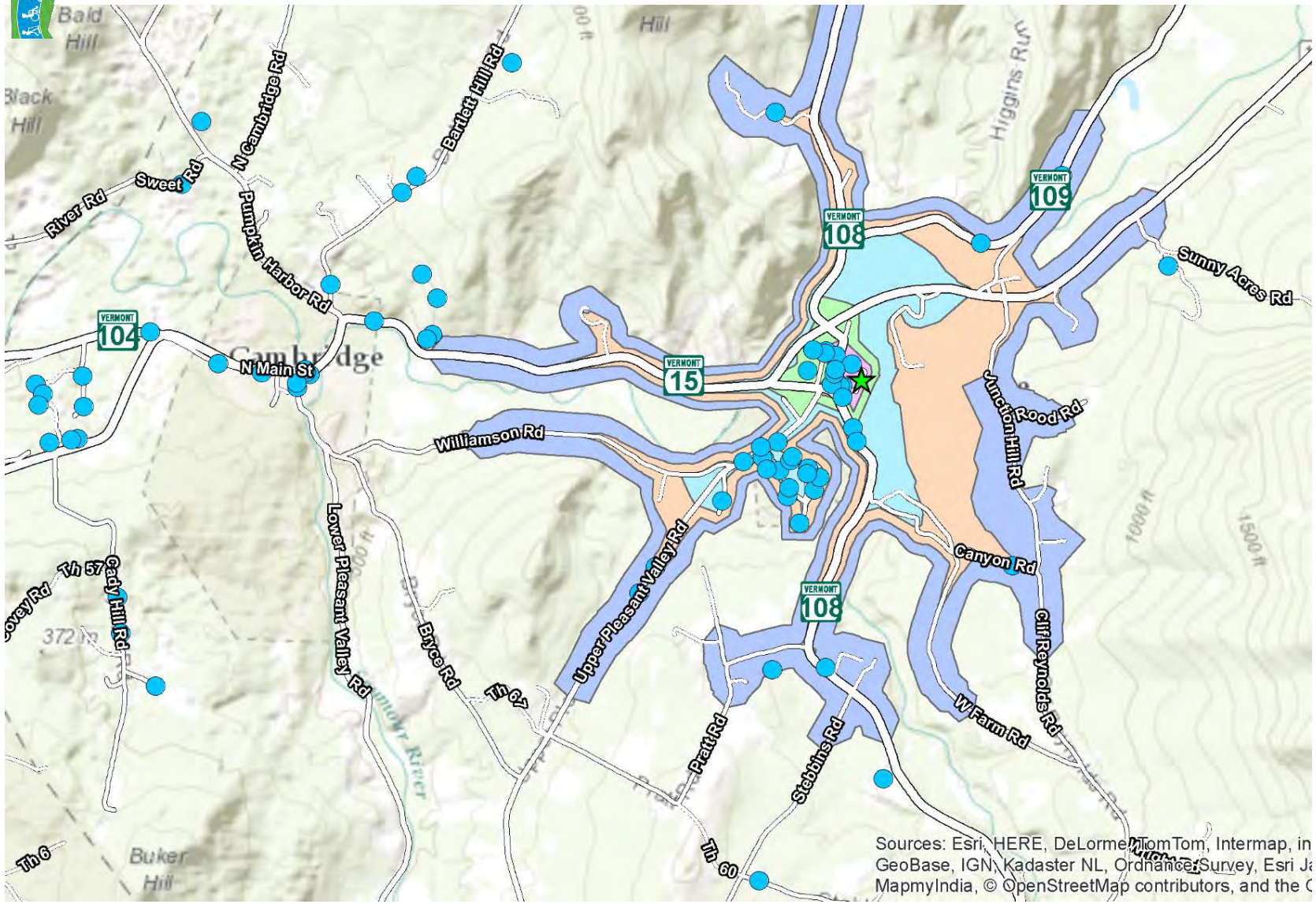
C. Non-Infrastructure Strategies Calendar

D. Location-Specific Engineering Recommendations

E. Snow Removal Best Practices

Attachment A
Student Locator Map

Cambridge Elementary School Student Locator Map

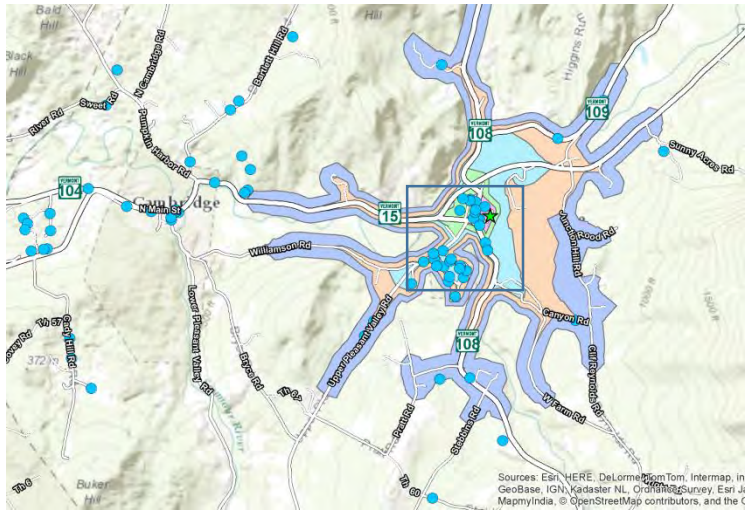


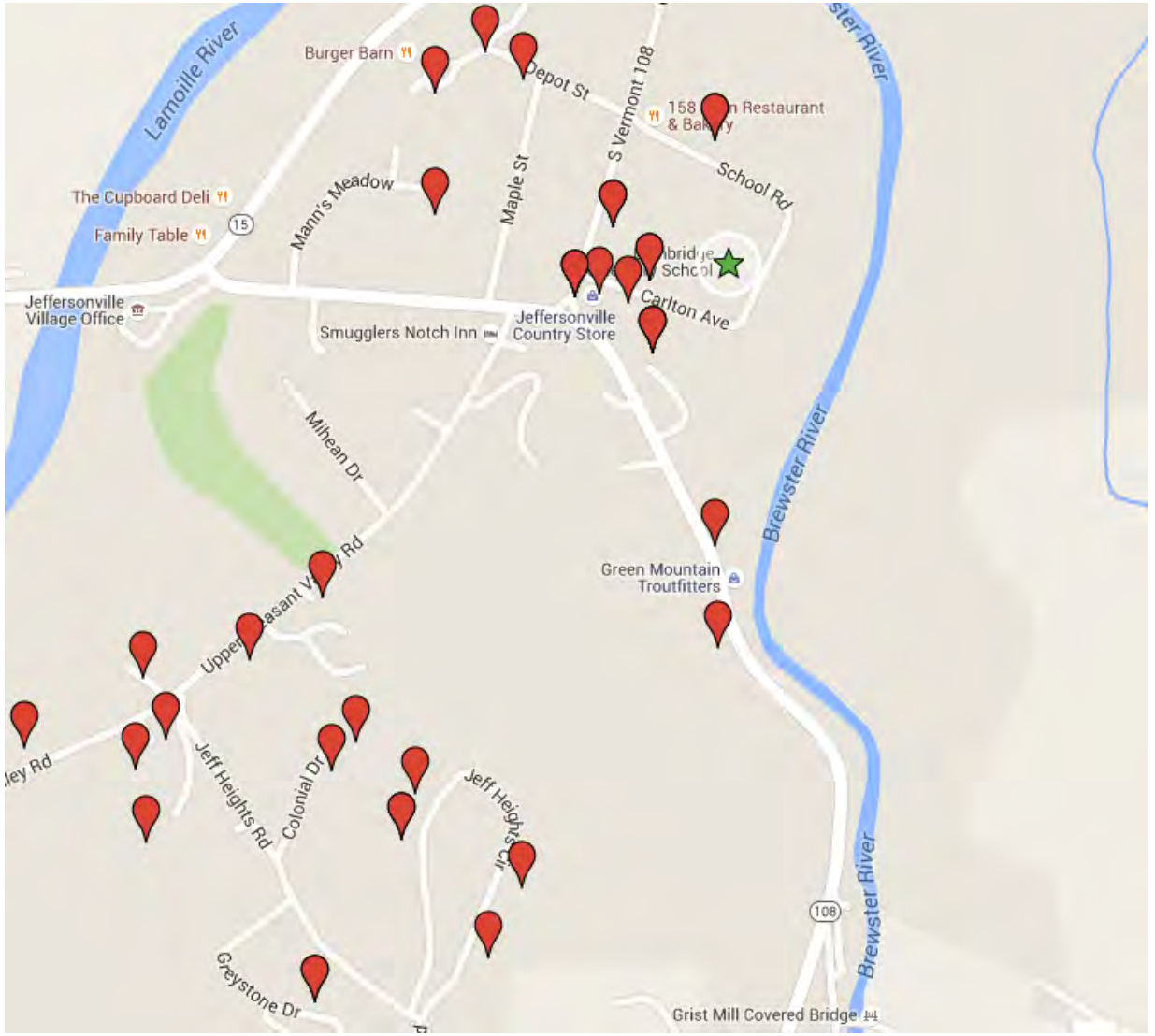
Students who live within:	Number	Percentage
0.25 mile	26	15%
0.5 mile	33	19%
1 mile	45	25%
1.5 mile	59	33%
2 miles	63	35%

School Location

Student Residence

Cambridge Elementary School Student Locator Map





Attachment B
Student Tally Report & Parent Survey Report

Student Travel Tally Report: One School in One Data Collection Period

School Name: Cambridge Elementary School

School Group: LCPC - Lamoille

School Enrollment: 0

% of Students reached by SRTS activities: 76-100%

Number of Classrooms Included in Report: 19

Set ID: 18341

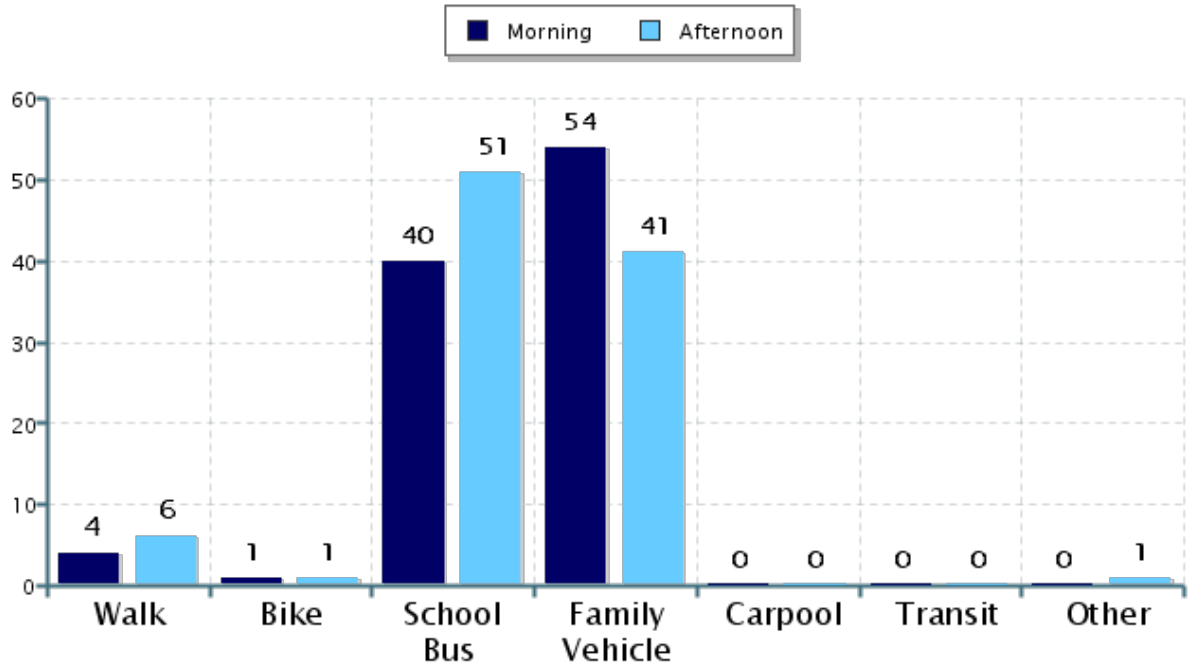
Month and Year Collected: September 2015

Date Report Generated: 09/23/2015

Tags:

This report contains information from your school's classrooms about students' 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

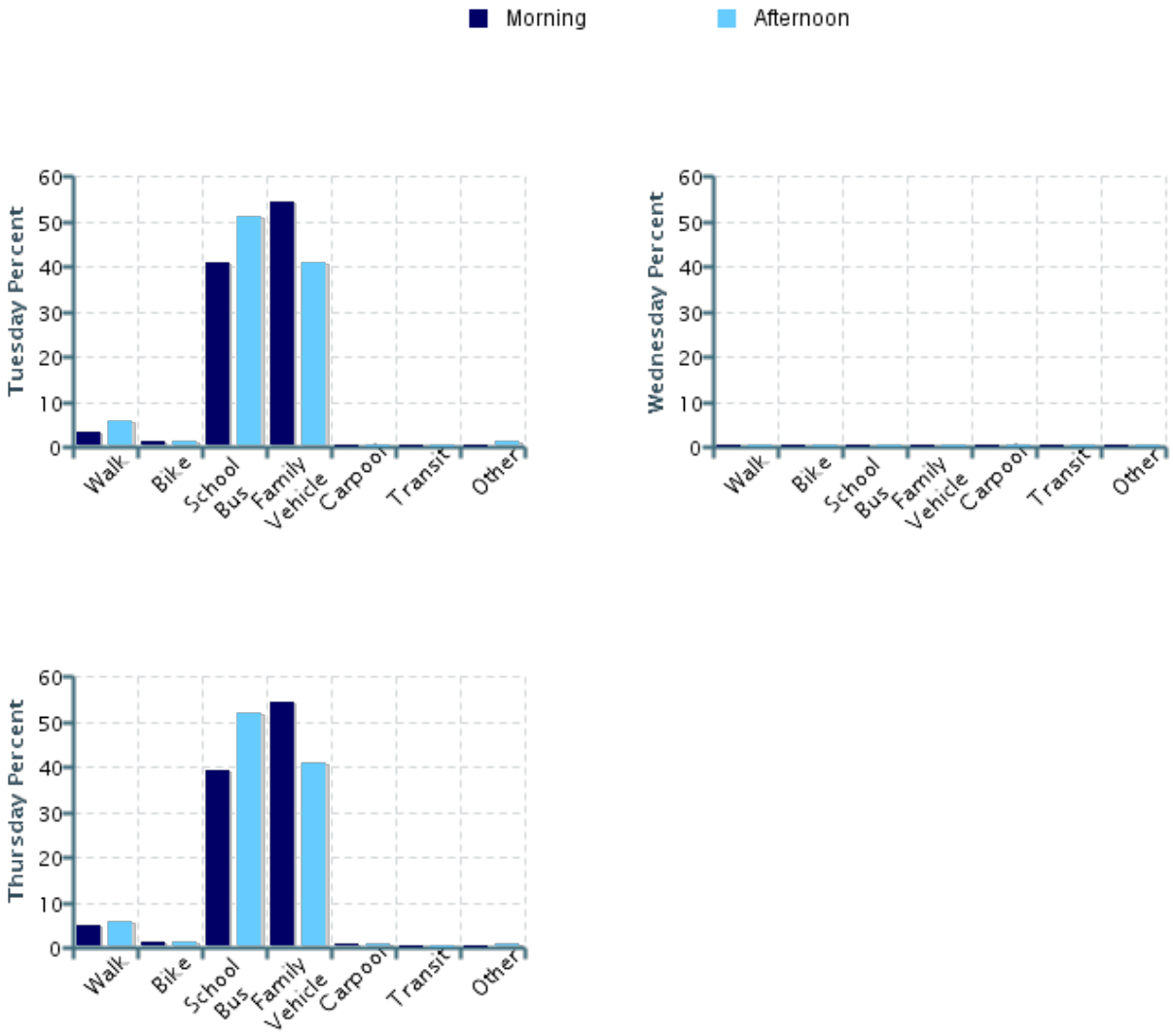


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	599	4%	1%	40%	54%	0.2%	0%	0%
Afternoon	570	6%	1%	51%	41%	0.4%	0%	0.9%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

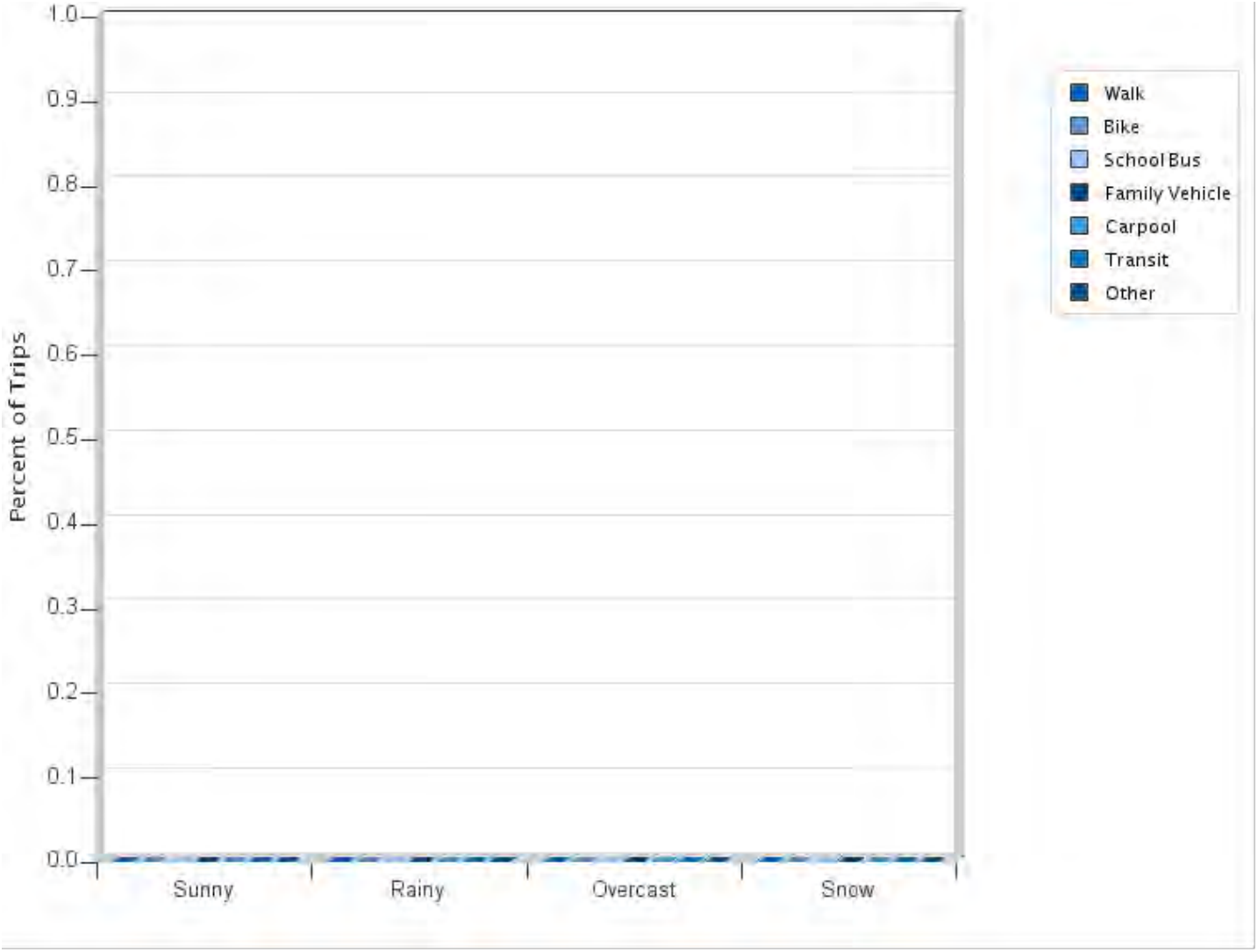


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	301	3%	1%	41%	54%	0%	0%	0%
Tuesday PM	282	6%	1%	51%	41%	0%	0%	1%
Wednesday AM		0%	0%	0%	0%	0%	0%	0%
Wednesday PM		0%	0%	0%	0%	0%	0%	0%
Thursday AM	298	5%	1%	39%	54%	0.3%	0%	0%
Thursday PM	288	6%	1%	52%	41%	0.7%	0%	0.3%

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	0	0%	0%	0%	0%	0%	0%	0%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	0	0%	0%	0%	0%	0%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Parent Survey Report: One School in One Data Collection Period

School Name: Cambridge Elementary School

Set ID: 14319

School Group: LCPC - Lamoille

Month and Year Collected: October 2015

School Enrollment: 328

Date Report Generated: 03/08/2016

% Range of Students Involved in SRTS: 0-25%

Tags:

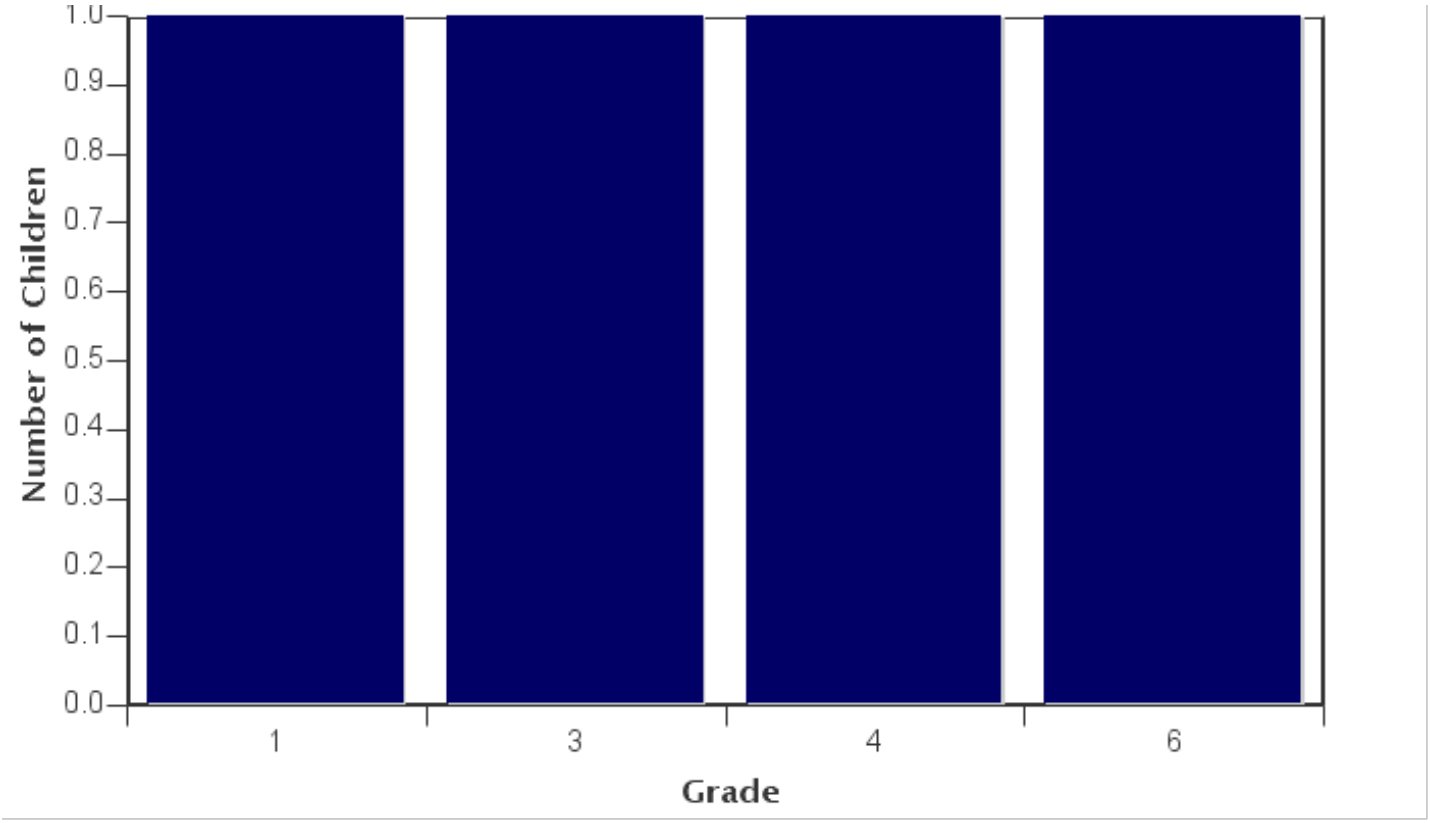
Number of Questionnaires Distributed: 300

Number of Questionnaires Analyzed for Report: 4

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.

**Because less than 30 questionnaires are included in this report, each graph and table display counts rather than percentage information.

Grade levels of children represented in survey

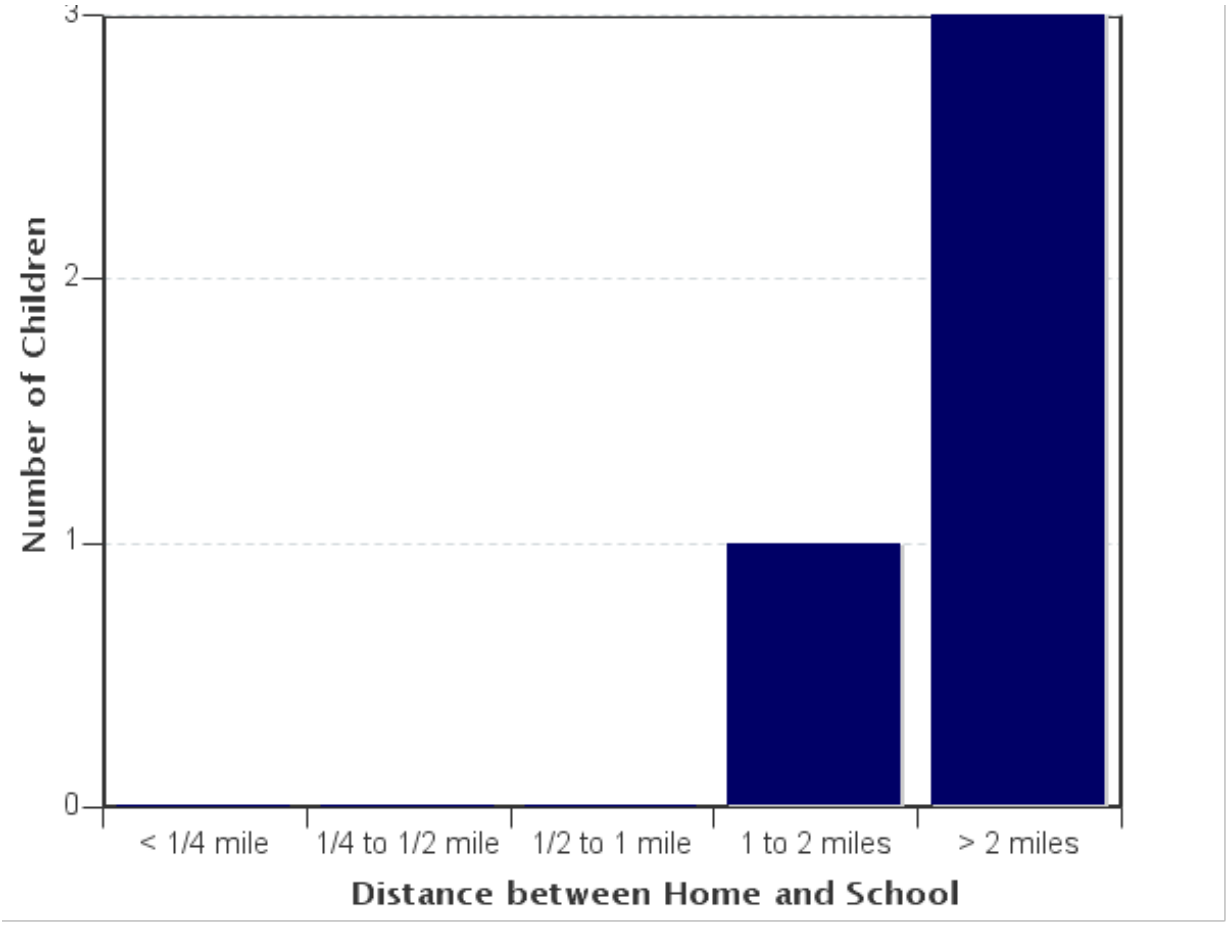


Grade levels of children represented in survey

Grade in School	Responses per grade
	Number
1	1
3	1
4	1
6	1

No response: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Parent estimate of distance from child's home to school

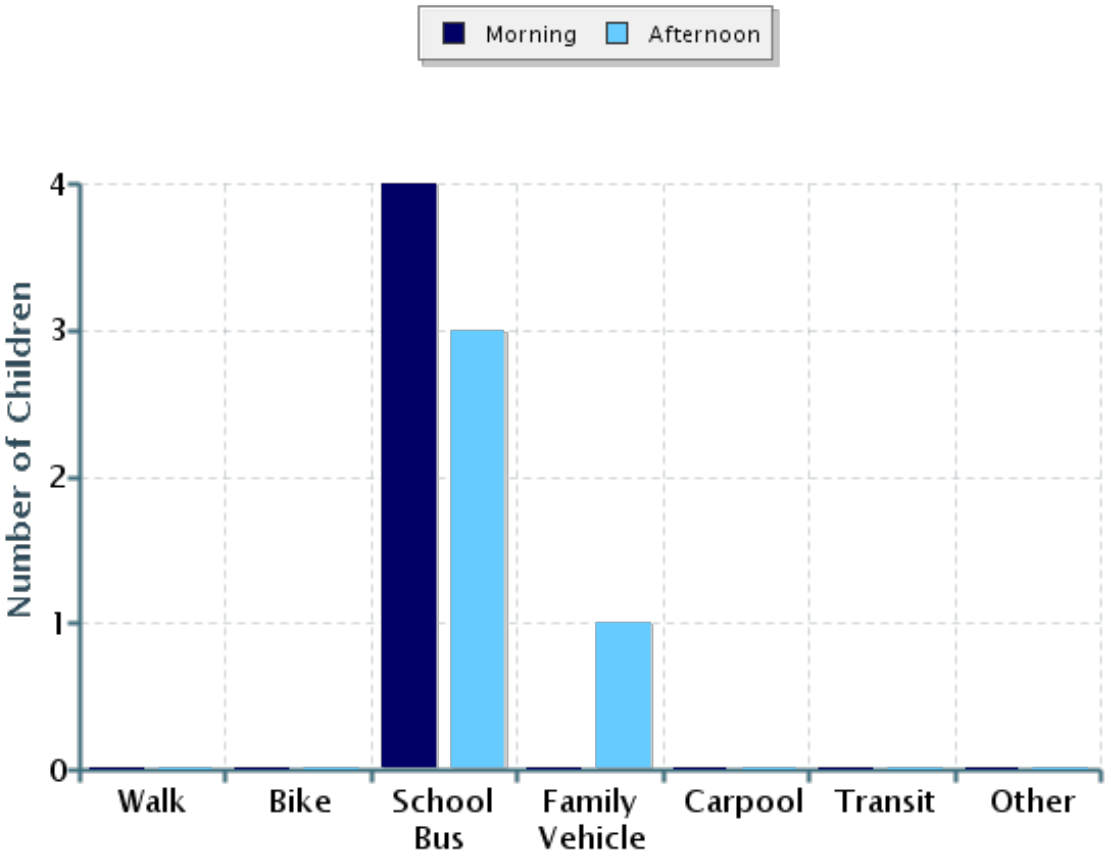


Parent estimate of distance from child's home to school

Distance between home and school	Number of children
Less than 1/4 mile	0
1/4 mile up to 1/2 mile	0
1/2 mile up to 1 mile	0
1 mile up to 2 miles	1
More than 2 miles	3

Don't know or No response: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Typical mode of arrival at and departure from school

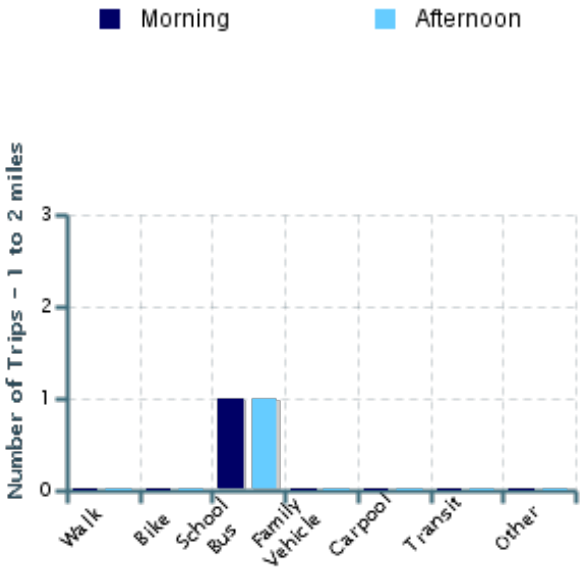


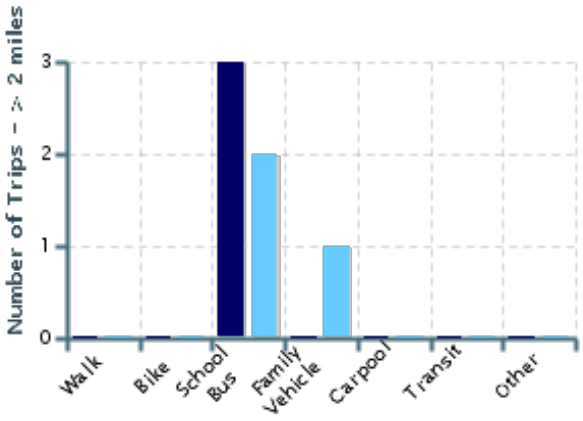
Typical mode of arrival at and departure from school

Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	4	0	0	4	0	0	0	0
Afternoon	4	0	0	3	1	0	0	0

No Response Morning: 0
No Response Afternoon: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

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	0	0	0	0	0	0	0	0
1/4 mile up to 1/2 mile	0	0	0	0	0	0	0	0
1/2 mile up to 1 mile	0	0	0	0	0	0	0	0
1 mile up to 2 miles	1	0	0	1	0	0	0	0
More than 2 miles	3	0	0	3	0	0	0	0

Don't know or No response: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	0	0	0	0	0	0	0	0
1/4 mile up to 1/2 mile	0	0	0	0	0	0	0	0
1/2 mile up to 1 mile	0	0	0	0	0	0	0	0
1 mile up to 2 miles	1	0	0	1	0	0	0	0
More than 2 miles	3	0	0	2	1	0	0	0

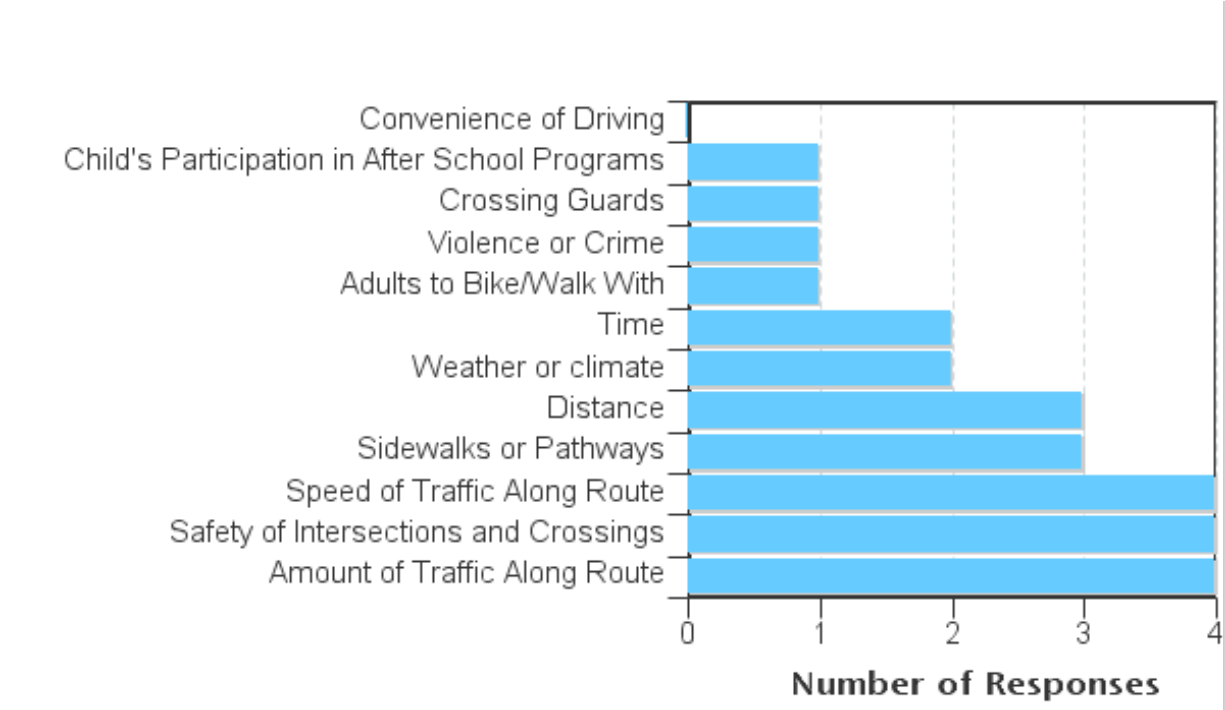
Don't know or No response: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Number 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	2	0	0	0	0	2
No	2	0	0	0	1	1

Don't know or No response: 0
Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

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

Issue	Child does not walk/bike to school	Child walks/bikes to school
Amount of Traffic Along Route	4	0
Safety of Intersections and Crossings	4	0
Speed of Traffic Along Route	4	0
Sidewalks or Pathways	3	0
Distance	3	0
Weather or climate	2	0
Time	2	0
Adults to Bike/Walk With	1	0
Violence or Crime	1	0

Crossing Guards	1	0
Child's Participation in After School Programs	1	0
Convenience of Driving	0	0
Number of Respondents per Category	**4**	**0**

No response: 0
Note:
--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

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

Level of support	Number of children
Strongly Encourages	0
Encourages	2
Neither	1
Discourages	1
Strongly Discourages	0

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

Level of fun	Number of children
Very Fun	0
Fun	2
Neutral	2
Boring	0
Very Boring	0

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

How healthy	Number of children
Very Healthy	2
Healthy	2
Neutral	0

Unhealthy	0
Very Unhealthy	0

Comments Section

SurveyID	Comment
1407266	This was filled out for me by one of our children who has special needs.I would be much more open to this idea is we didn't live so far away from school, if there were so much traffic and it weren't so fast and if an adult was to accompany my children. Distance is the main reason in our case.
1407272	I would love to live where my child could walk or bike to school, but our road is too unsafe.
1407275	I wish we didn't live up a steep, narrow hill with fast drivers because I think walking or biking to school would be very beneficial.
1407276	We live off a very busy road, not practical for him to walk/bike to school. Also, as a walker myself, downtown Jeffersonville near school is not very walker friendly with no sideawalks near school and fast traffic

Attachment C
Non-Engineering Strategies Calendar

Attachment: Non-Infrastructure Strategies Calendar

Activity		August	September	October	November	December	January	February	March	April	May	June	July
EDUCATION													
Provide educational materials for parents and residents regarding general safe-driving behaviors via the school newsletter, town website, town meetings, and Front Porch Forum.													
Lead													
Plan													
Implement													
Establish 5th grade mentors through Girls on the Run to teach younger students safe walking skills.													
Lead													
Plan													
Implement													
Incorporate WalkSmart/BikeSmart Vermont! Curriculum into 2016/2017 school year in PE class.													
Lead													
Plan													
Implement													
Partner with other schools in the area and request the Bike Smart Trailer from Local Motion in order to supply bikes and equipment needed for on-bike skills training.													
Lead													
Plan													
Implement													
Distribute information about the issues, particularly for children's health, of idling.													
Lead													
Plan													
Implement													

Activity		August	September	October	November	December	January	February	March	April	May	June	July
ENCOURAGEMENT													
Host a Vermont Intergenerational Walk and Roll to School Day event on first Wednesday of May.													
Lead													
Plan													
Implement													
Host an International Walk and Roll to School Day event on the first Wednesday of October.													
Lead													
Plan													
Implement													
Draw signs with students to promote events.													
Lead													
Plan													
Implement													
Encourage students to ride the bus or carpool when biking or walking is not an option.													
Lead													
Plan													
Implement													
Distribute free or reduced-cost bicycle helmets to students in need each May.													
Lead													
Plan													
Implement													
Develop a remote drop-off site once the school has sidewalk access so that students who live further away can walk or bike.													
Lead													
Plan													
Implement													

Activity		August	September	October	November	December	January	February	March	April	May	June	July
		ENFORCEMENT											
Invite local law enforcement on event days.													
Lead													
Plan													
Implement													
Disseminate information about dismissal procedures and parking.													
Lead													
Plan													
Implement													
Distribute a Safe Driver Pledge to parents.													
Lead													
Plan													
Implement													
Activity		August	September	October	November	December	January	February	March	April	May	June	July
		EVALUATION											
Parent surveys in October (annually)													
Lead													
Plan													
Implement													
Student tallies in September (annually)													
Lead													
Plan													
Implement													

Attachment D
Engineering Recommendations

Appendix C: Location-Specific Engineering Recommendations

Safe Routes to School (SRTS) 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 Cambridge Elementary School (CES). These recommendations were developed by Toole Design Group, LLC based on input from the CES 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 CES 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.

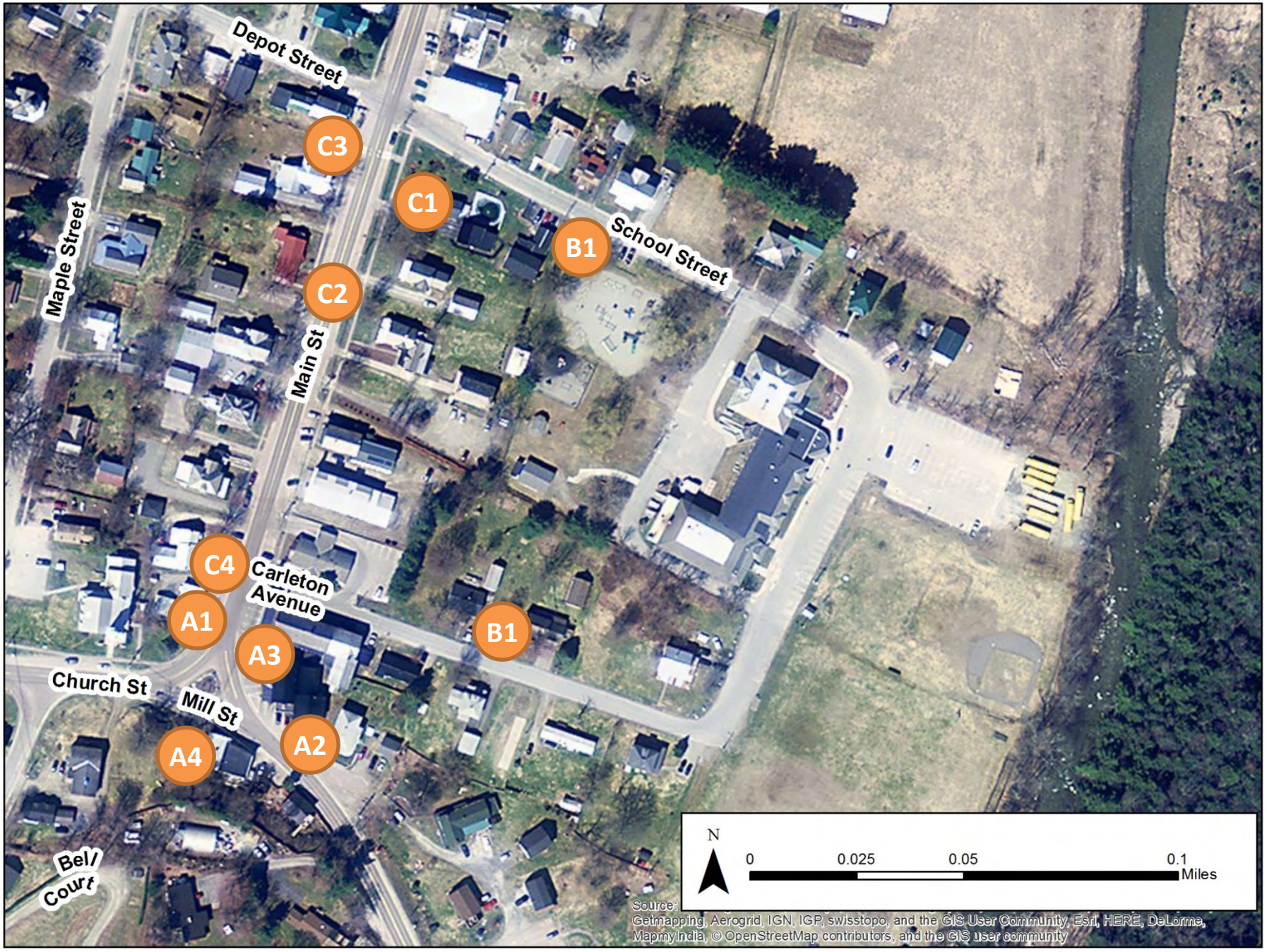
Description of Streets with Engineering Recommendations

Street name	Functional Classification	Speed Limit	AADT (2012)	Surface	Curb
VT 108/Main Street	Major Collector	25	1,800	Asphalt	None
School Street	Local	Not posted	N/A	Asphalt	None
Carlton Avenue	Local	Not posted	N/A	Asphalt	None
VT 108/Church Street	Major Collector	25	N/A	Asphalt	None
VT 108/Mill Street	Major Collector	25	4,900	Asphalt	None

Site	Need	Recommendation	Time Frame	Team Priority
A Main Street/Church Street/Mill Street	The geometry of the intersection of Church Street, Mill Street and Main Street encourages motorists to make high speed right turns from Main Street onto Church Street and from Mill Street onto Main Street. Students walking or biking to school from Upper Pleasant Valley Road and Jeff Heights Road must cross Church Street to access the sidewalk on Main Street. There are no crossing facilities at the intersection. Additionally, the approach from Church Street to Mill Street is a sharp turn with limited visibility and there are no pedestrian facilities on either road. Pedestrians walking along the east side of Main Street are exposed to vehicles entering and exiting parking spaces in front of the Jeffersonville County Store, which have no barrier between parking and the road. The excessive amount of asphalt poses potential vehicle-pedestrian conflicts.	A1. Add pedestrian crossing on Main Street at the approach to Church Street and Mill Street. Install W11-2 Pedestrian Crossing sign on Main Street on the approach to Church Street/Mill Street.	Short	High
		A2. Construct a sidewalk on the east side of Main Street and Mill Street.	Medium	High
		A3. Extend the sidewalk at the Country Store between the parking spaces and the building. Add concrete parking bumpers to prevent cars from overhanging the sidewalk.	Medium	High
		A4. Reconstruct the intersection to T Main Street at Church Street/Mill Street and restrict access on east side for parking and pedestrians only.	Long	Medium

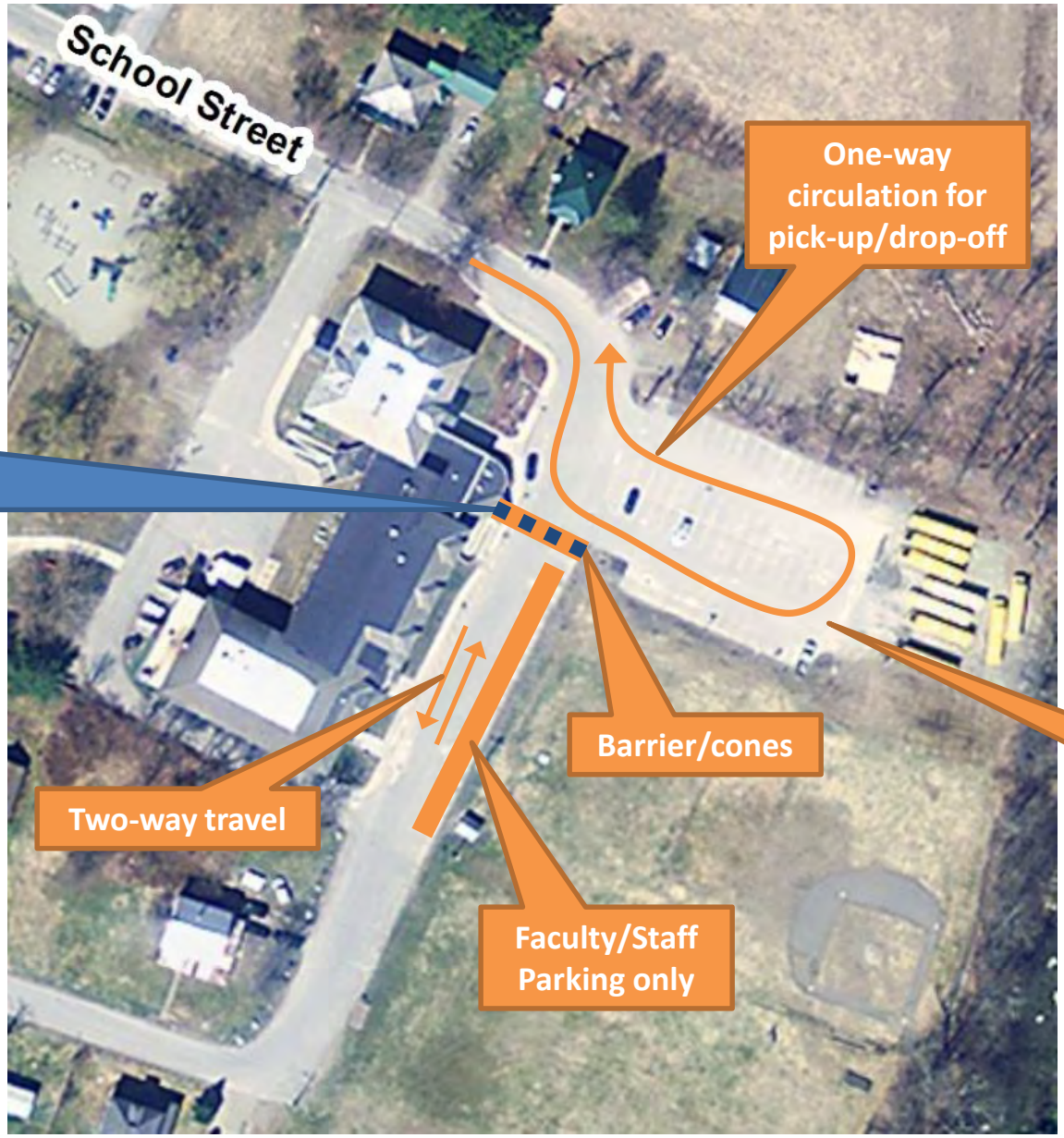
Site	Need	Recommendation	Time Frame	Team Priority
B School Street/Carlton Avenue	School Street and Carlton Avenue are the only access points to the school and lack adequate pedestrian facilities. Students walk in the road on either School Street or Carlton Avenue among cars, which can be problematic due to higher traffic volumes during school arrival and dismissal.	B1. Install a pedestrian walkway on the south side of School Street and north side of Carlton Avenue connecting the sidewalks on Main Street and the school grounds.	Short	High

Site	Need	Recommendation	Time Frame	Team Priority
C Main Street	The sidewalks on Main Street are narrow and in poor condition. Students walking or biking to school must travel down Main Street to reach the school grounds via School Street or Carlton Avenue. There is a lack of school zone markings on Main Street and no crosswalk at the intersection with Carlton Avenue.	C1. Reconstruct sidewalks along Main Street to be ADA compliant.	Long	High
		C2. Install "School zone" pavement markings (2) to supplement existing school zone signage.	Short	High
		C3. Review potential with VTrans to install an in-street pedestrian sign at the crosswalk to School Street.	Short	High
		C4. Install crosswalk at the intersection of Main Street and Carlton Avenue and review potential with VTrans to install an in-street pedestrian sign at the crosswalk.	Short	High


Depot Street
C3
C1
B1
School Street
Maple Street
C2
Main St
C4
Carleton Avenue
A1
B1
A3
Church St
Mill St
A4
A2
Bell Court
N
0
0.025
0.05
0.1
Miles
Source: Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Site	Need	Recommendation	Time Frame	Team Priority
School Parking Lot	A chaotic atmosphere in the school parking lot exists at arrival and dismissal times. Space to separate pedestrians from vehicles is often informal or unclear. The parking lot does not have designated direction of flow and School Street and Carlton Avenue are two-way roads. Drivers park in the spaces on the east side of School Street next to the playing fields where students walk from the school and must back out into the road leading to an unsafe environment when students are walking and biking to and from school grounds.	Pilot a new circulation plan as shown on next page. • Close through travel between School Street and Carlton Avenue with traffic cones or other barrier. This will give pedestrians a place to cross between parking and school that does not cross vehicle paths. • Create a one-way loop through the parking lot for parents to use during arrival and dismissal. • Students and parents walk from parking lot to school via a new crosswalk at the closure point/barrier between School Street and Carlton Avenue. • Designate parking along Carlton Avenue for faculty/staff only to minimize vehicle traffic when students are walking and biking. • Designate parking lot for faculty/staff and visitor parking.	Short	High

Parking Lot Circulation Plan



Attachment E
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.