Safe Routes to School

Sibley East

Table of Contents

Introduction	1
Context	1
Process	4
Parent Surveys	4
Existing Conditions	6
Proposed Projects	9
Program Recommendations	13
Safe Routes to School Recommendations	14
Safe Routes Engineering Toolkit	15
Credits	19
Appendix I - Survey Report	21
Appendix II - MnDOT Traffic Count Map	34
Appendix III - Student Travel Tally Worksheet	35
Get Involved!	36

MINNESOTA SAFE ROUTES TO SCHOOL

Prepared by:

REGION NINE DEVELOPMENT COMMISSION

May 2017

Introduction

Communities across Minnesota use Safe Routes to School planning to increase the number of children who safely walk or bike to school. Active lifestyles increase overall wellness and lead to more attentiveness in the classroom; however, simply pushing to change the transportation mode is unlikely the answer for better health. Students and parents living within walking or biking distance to school may have concerns about walking or biking, ranging from timing to safety. Overall, while some problems are not correctable, Safe Routes to School plans propose strategic improvements that can make walking or biking an easy choice.

Safe Routes plans assess and develop strategic goals in five different areas: education, encouragement, engineering, enforcement, equity, and evaluation.

- Education: programs, events, or outreach designed to develop skills and improve decision-making
- Encouragement: programs or activities which promote more activity
- Engineering: where and how physical improvements can be made to improve connections to the school from the community
- Enforcement: applied to encourage behaviors that increase student safety
- Equity: understanding that hearing from all people is important
- Evaluation: measuring the effectiveness of changes and sustaining the Safe Routes program in the school and city

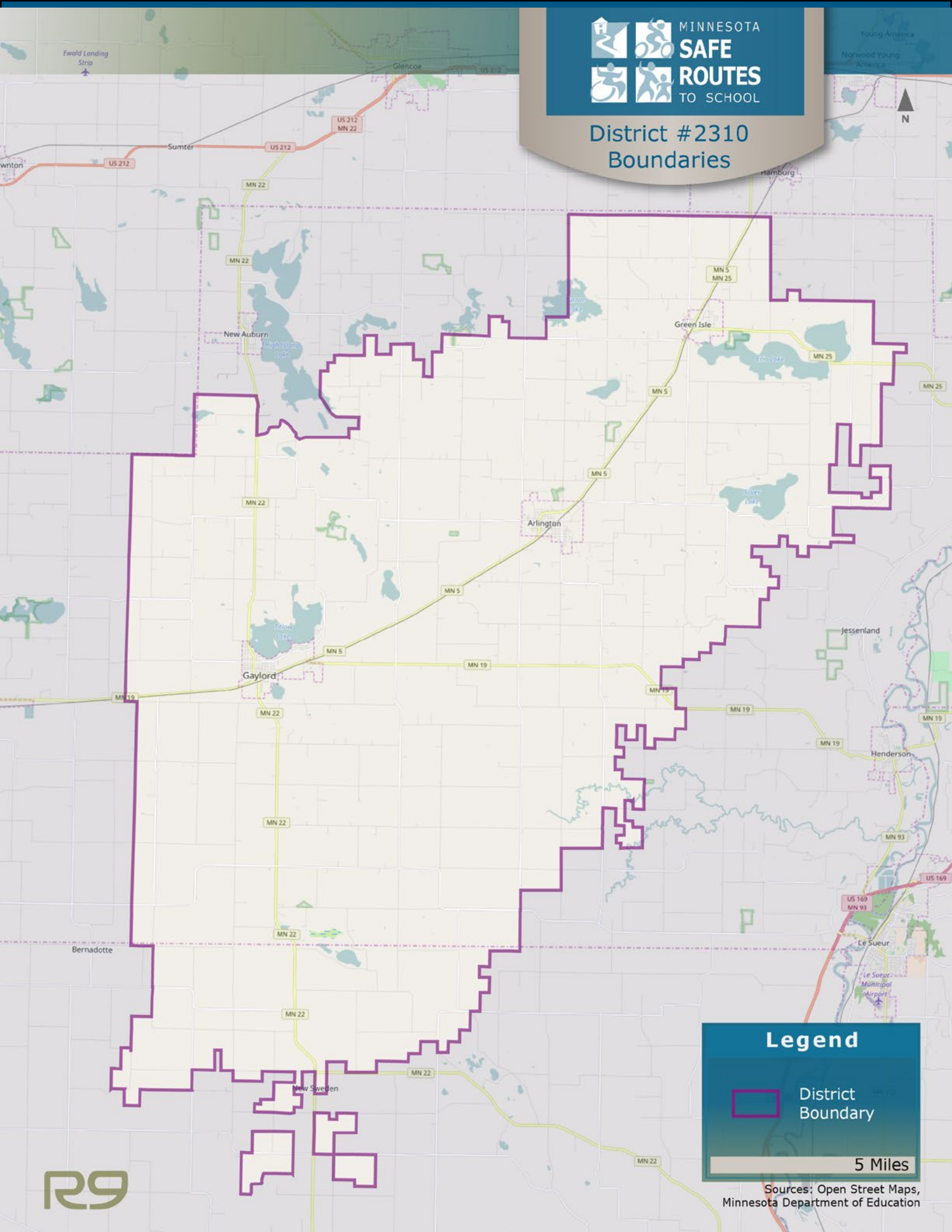
The Safe Routes planning process typically assesses what works well and what could be improved near the school and seeks to make improvements. This is a unique plan in that the school transition does not allow this process to react upon existing conditions.

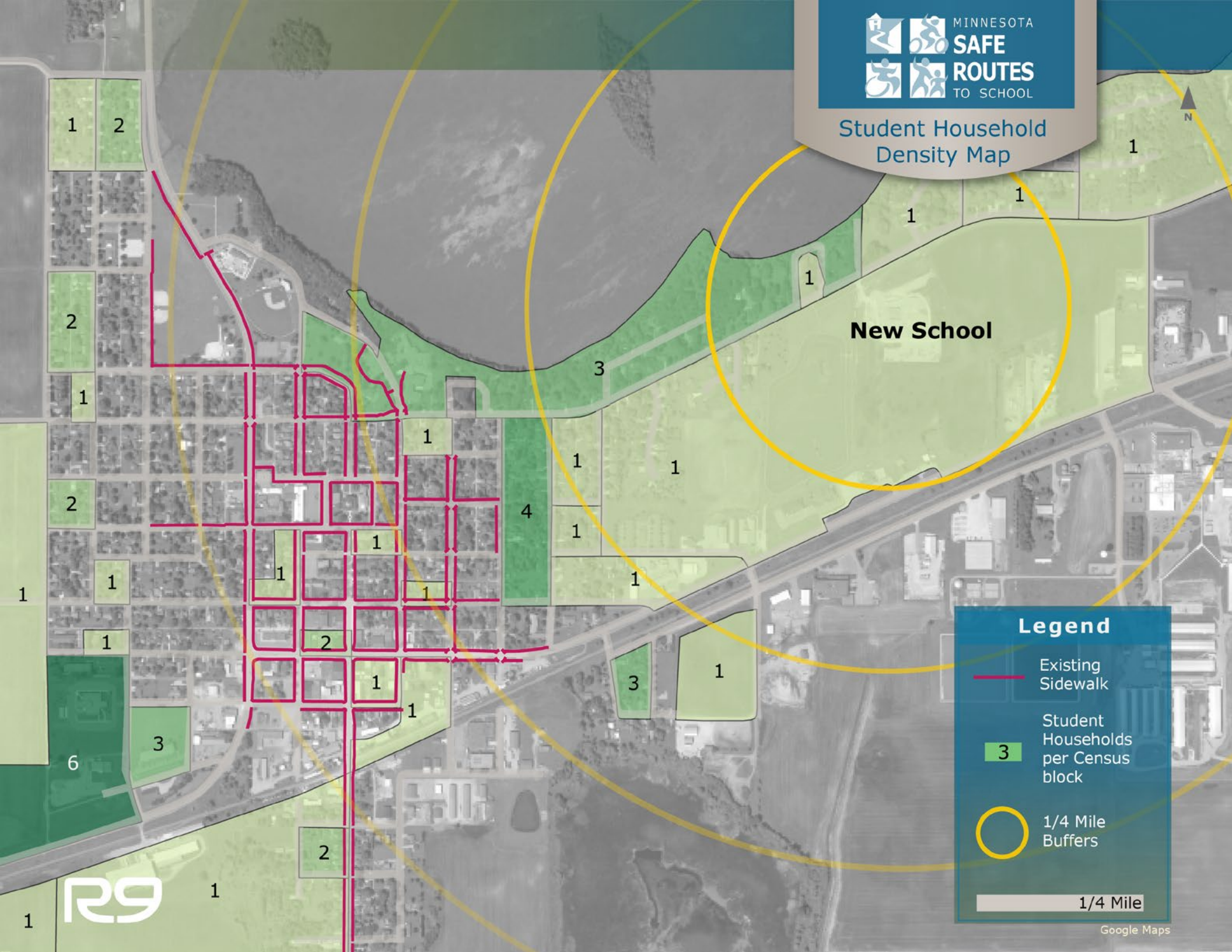
Context

District #2310 is part of a large area that serves approximately 250 square miles of mostly rural eastern Sibley and northern Nicollet Counties, including the cities of Gaylord, Arlington, and Green Isle (see District Map on page two). In the 2015-2016 school year, the district enrolled 1,188 students, including 529 in kindergarten through fifth grade. A new elementary school on the eastern side of Gaylord will open in the fall of 2017, replacing the existing school building in the middle of town. The new building site will be designed for family vehicle drop-offs and school bus access, but will need some connections to get students safely to school.

As county seat of Sibley County, the City of Gaylord's 2015 population was estimated at 2,080 by the Census Bureau's American Community Survey. Minnesota Highways 5, 19, and 22 all run through Gaylord's downtown, creating high-traffic areas throughout the city. Minnesota Prairie Line, a short-line railroad, operates an active railroad through the southern half of the city at a rate of no higher than ten miles per hour. These busy highways create north-south and east-west hazard zones for busing consideration in Gaylord.

Vision: Sibley East Elementary will use the long-term Safe Routes to School structure to instill a healthy community culture through student incentives, safe and connected infrastructure, parental relationships and willingness to work together as a community.


MINNESOTA
SAFE
ROUTES
TO SCHOOL
District #2310
Boundaries
N
Ewald Landing Strip
Glencoe
Sumter
US 212
MN 22
Hamburg
New Auburn
Green Isle
MN 5
MN 25
Arlington
Gaylord
MN 19
Jessenland
Henderson
MN 93
US 169
Le Sueur
Le Sueur Municipal Airport
Bernadotte
New Sweden
Legend
District Boundary
5 Miles
Sources: Open Street Maps, Minnesota Department of Education


MINNESOTA
SAFE
ROUTES
TO SCHOOL
Student Household
Density Map
New School
Legend
Existing
Sidewalk
Student
Households
per Census
block
1/4 Mile
Buffers
1/4 Mile
Google Maps

Process

The Safe Routes to School process relies on community members from multiple sectors to direct the project steering committee. The committee met in August 2016 to review the planning process, strengths and weaknesses of walking and biking in Gaylord, and to develop a vision for the plan. The committee met again in October to complete observations at the current school and visit the new school site. Parent surveys were distributed to parents in the early fall and travel tallies were also collected by the teachers in the elementary school

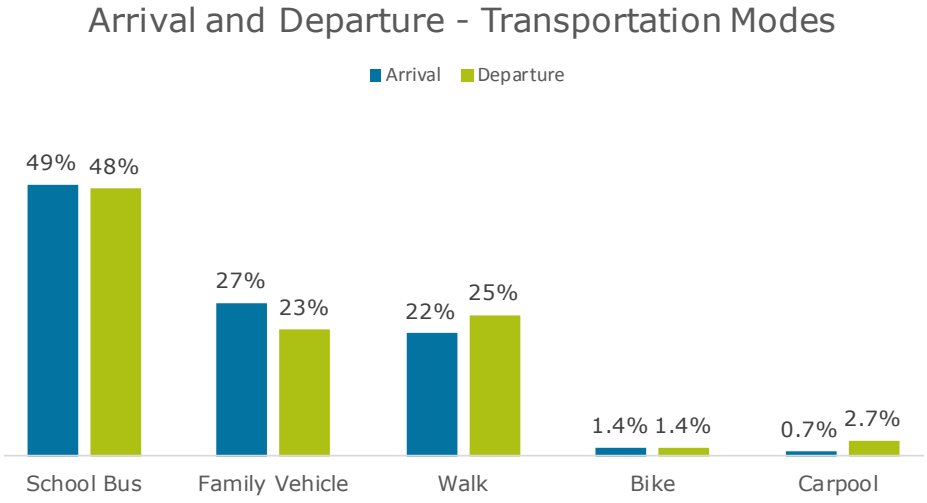
These observations and surveys only serve to address conditions specific to the current school site. Therefore, he data gathered would serve little use upon the conclusion of the 2016-2017 school year. However, sustaining the Safe Routes to School program in Gaylord will require familiarity with the process, specifically which student and driver behaviors to study as well as the survey and travel tally process.

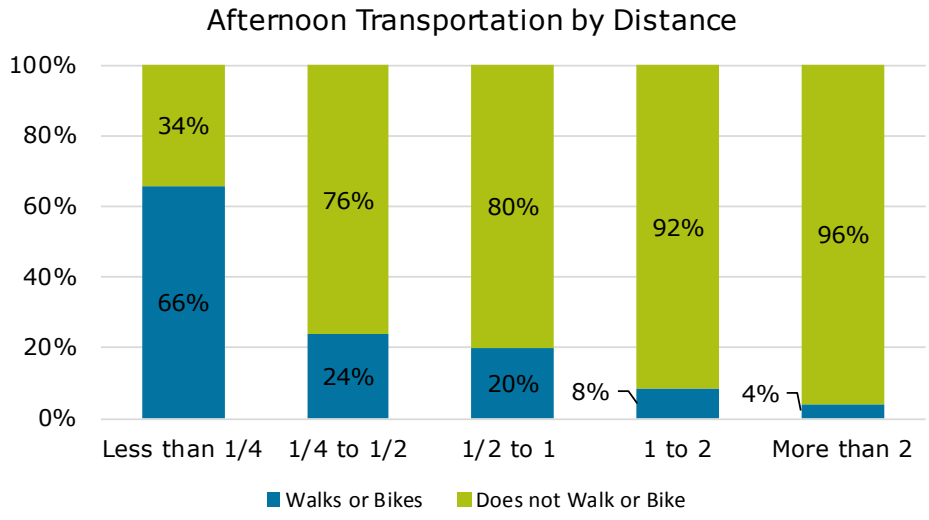
Parent Surveys

There were 145 parent surveys returned from families with enrolled elementary students. Of those surveyed 57 percent indicated they live within one mile of the school and 28 percent indicating they live within one quarter of a mile.

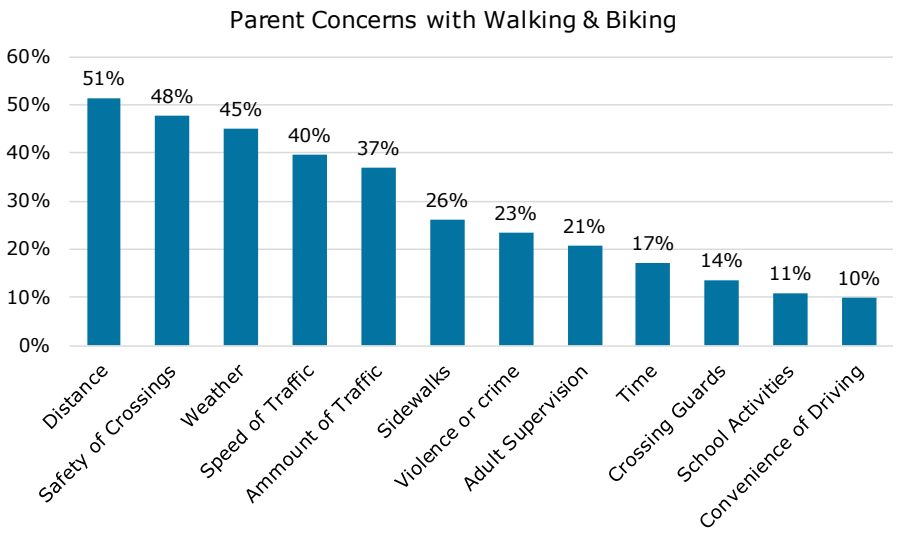
Nearly 50 percent of elementary students at Sibley East used the school bus before and after school according to the survey. Almost every school features higher rates of family vehicles in the morning and more carpooling and walking in the afternoon. This is likely due to limited time in the mornings and riding with parents en route to work.

The Afternoon Transportation by Distance chart shows parent responses to their willingness to cut students walk or bike after school. A chart with arrival data is in the appendix, but the afternoon data is more revealing as more students typically walk after school. Within a quarter-mile, 66 percent of students were walking or biking, a rate that decreased to 24 percent between one-quarter and one-half mile.

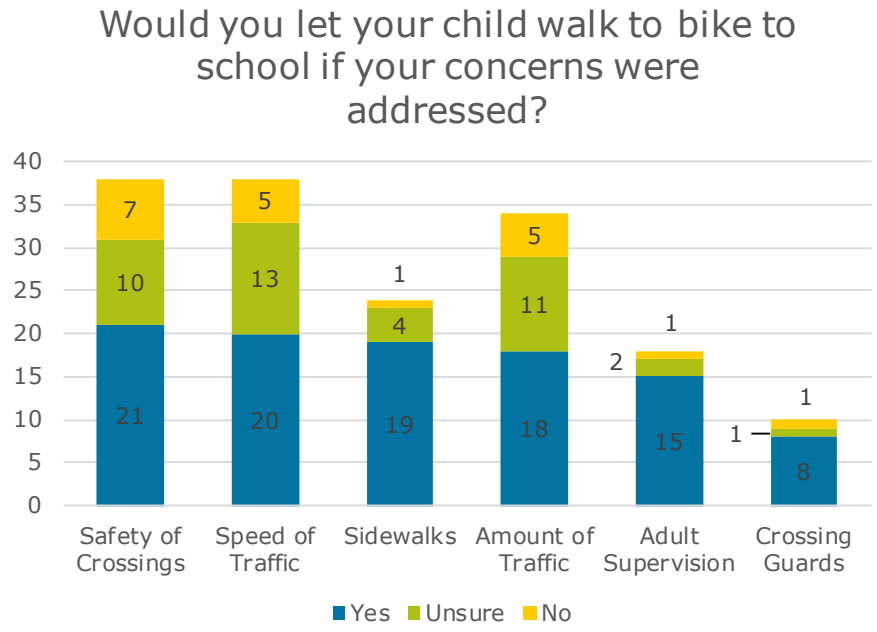




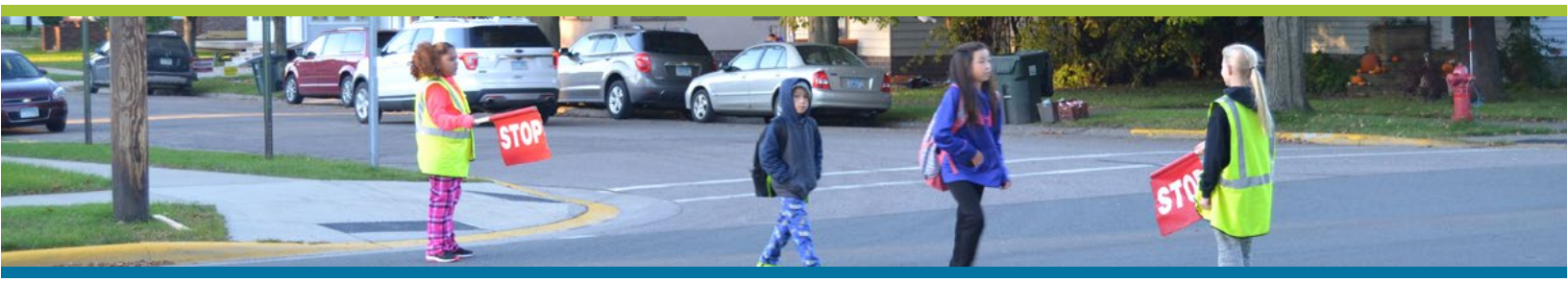
Typical with a school that draws students from a large distance, parents indicated that distance was the most important factor in not allowing their children to walk or bike to school. Safety of crossings, weather, speed of traffic, and amount of traffic complete the top five parent concerns. Sidewalks were a point of concern for 26 percent of parents. With a rather complete sidewalk network north of Main Avenue (State Highway 19) and east of 6th Street (State Highway 22), it will be curious how sidewalks are evaluated from the perspective of a new school site in future surveys.



Lastly, parents were asked their willingness to let their child walk to school if some concerns were met. Removing distance and weather from consideration, parents indicated that a combination of safe crossings, traffic speeds, sidewalks, amount of traffic, adult supervision, and crossing guards were needed to permit their children to walk or bike to school. The impact of the highways in Gaylord likely propel the speed and amount of traffic categories, in addition to safety of crossings. Some crossing concerns were identified around the school during observations on otherwise low-traffic and low-speed roads.



The full collection of data gathered from parent surveys are provided in the appendix of this document.



Existing Conditions

Infrastructure

Gaylord features a connected sidewalk network between downtown and the city park north of Lincoln Avenue. State Highways 19 and 22, which were recently reconstructed, also feature new sidewalks complaint to American with Disabilities Act (ADA) standards. Areas with sidewalk become increasingly scarce outside the city's core. The city has a sidewalk network plan, which is overlaid with the infrastructure the Safe Routes Committee desires the Safe Routes Improvements Map.

An ambitious trails plan is also in place in Gaylord, with a segment around the storm water pond adjacent the new school and to the east along Lincoln Avenue. Trails are also available along 6th Street near the aquatic center. The long-term plan is to position Gaylord's trails as part of the proposed Prairie Line Regional Trail.

The new school will have all traffic access from Lincoln Avenue, with a long-term plan to eventually have some connection to Highway 19. Lincoln Avenue, which is Sibley County Road 31, is currently a 30 MPH speed zone, but only 1,600 feet to the east it is a full 55 MPH zone at Melro Street. This means that many drivers of the road are transitioning to the city speed zone. Speed was noted problematic local law enforcement at this speed transition area.

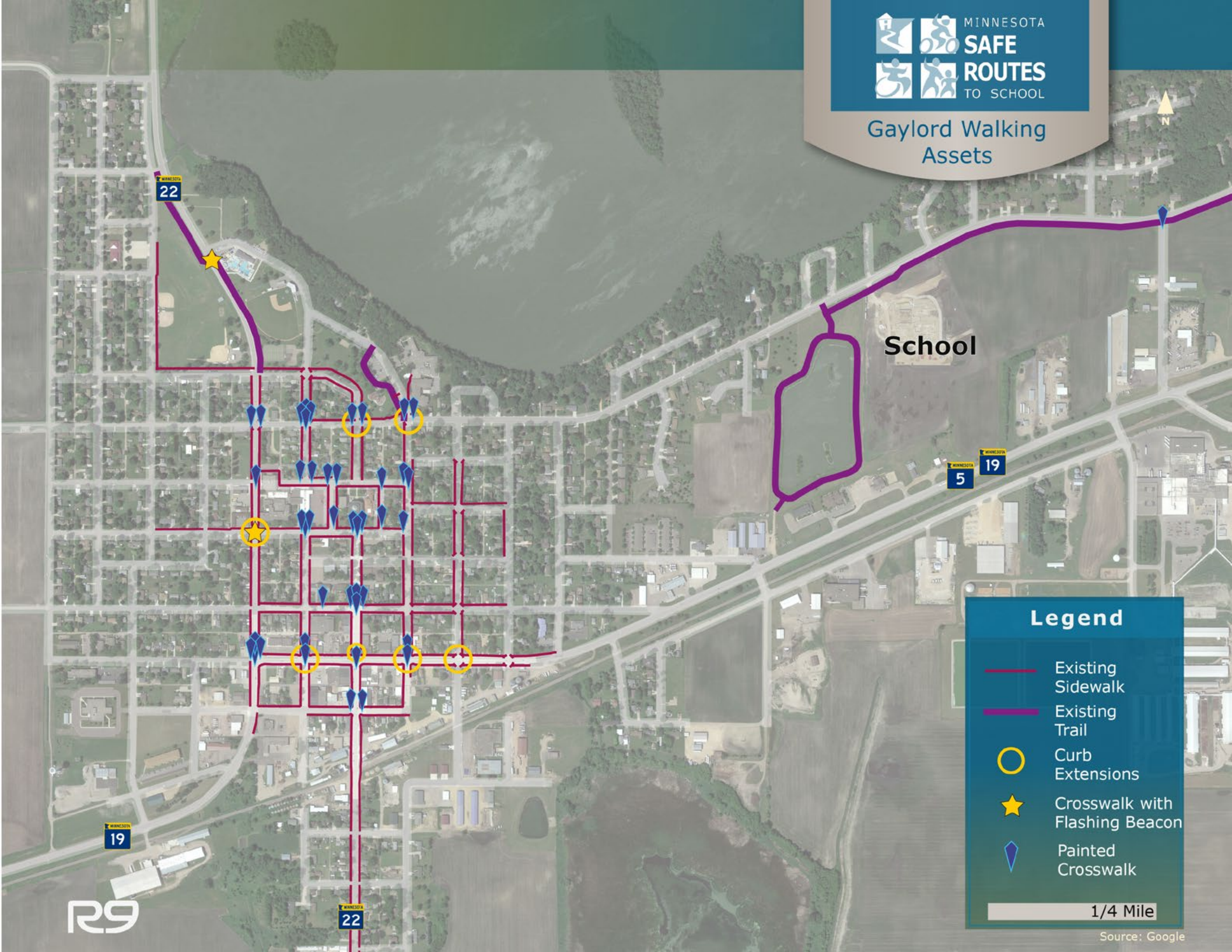
Lincoln Avenue will also be the primary access point to the school for vehicles as well as students walk and bike. Recently reconstructed, Lincoln features two twelve-foot driving lanes and paved ten-foot shoulders which accommodate parking. Children have been observed walking and biking in either direction on the wide roadway shoulders. Each roadway that intersects Lincoln Avenue has a stop sign, and standard crosswalks are painted at the intersections of Lake Boulevard, Linden Place, 5th Street, and 6th Street (Highway 22). Stop bars are also marked on Lincoln Street at the Highway 22 intersection to provide adequate stopping space to accommodate people using the crosswalk.

Walking Assets Map

The road that serves as the only connection from Gaylord to the new school site, Lincoln Avenue, features a trail that runs eastward from the school but also around the storm water pond to the west of the school. Sidewalks are mostly available east of 6th Street, west of 1st Street, and between downtown and the city park, north of Lincoln Avenue. Within the existing sidewalk network, many of those intersections include marked crosswalks, especially near parks, downtown, the former school, and courthouse. Curb extensions, also referred as bump-outs, have also been installed in intersections to better accommodate people walking as part of recent highway projects. Curb extensions are intended to provide a shorter crossing, increase visibility of people at intersections, reduce vehicle speeds, and help people better see oncoming traffic. Intersections with curb extension installations include Main Street at 2nd, 3rd, 4th, and 5th Streets, one at 6th Street and Court Avenue, and along Lincoln Avenue at Linden Place and Lake Boulevard/3rd Street. See the Walking Assets Map on page seven.

Rapid flashing beacons also operate at the 6th Street and Court Avenue, Main Avenue and 4th Street, as well as the trail crossing on Highway 22 near the aquatic center. Flashing beacon signs are intended to create additional awareness for drivers to slow down and stop for people waiting to cross.

The location of the new school does not easily connect into the existing safe walking or biking assets already in place in Gaylord, which increases the importance of building new connections.

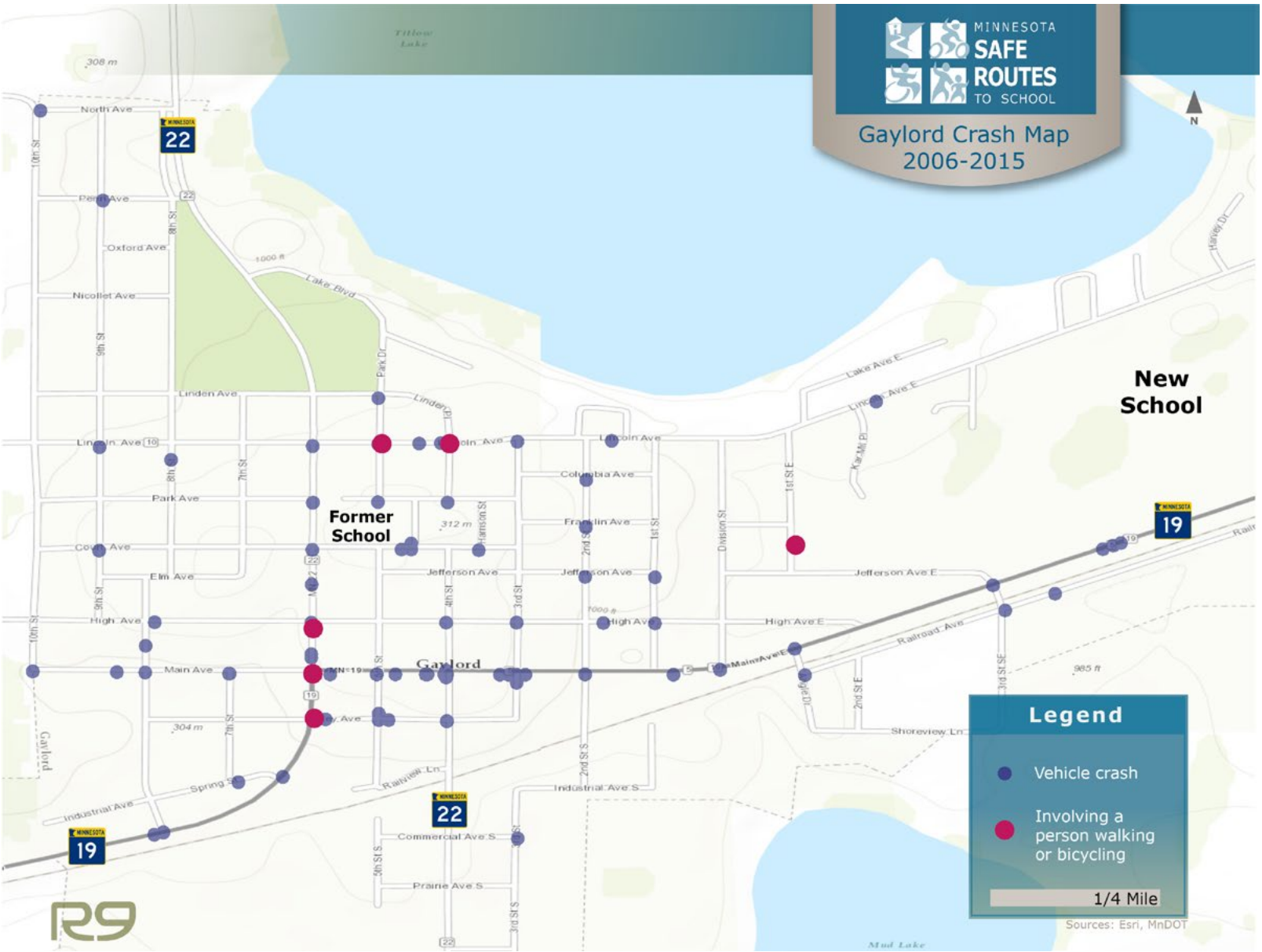

MINNESOTA
SAFE
ROUTES
TO SCHOOL
Gaylord Walking Assets
N
School
22
19
5
19
22
Legend
Existing Sidewalk
Existing Trail
Curb Extensions
Crosswalk with Flashing Beacon
Painted Crosswalk
1/4 Mile
Source: Google

Crash Map

Crashes reported to MnDOT between 2006 and 2015 indicate that accidents in Gaylord align with the high-traffic roads in town (see map below). Structural issues are difficult to detect in crash data because of the various factors that may contribute to a crash, including time, weather, human error, or sometimes random factors. While most accidents do not involve people walking or biking, there were six reported incidents of which two involved teenagers near city park, and two under the age of ten crossing Highway 19.

Busing

Many students load the bus on the north or west sides of the building. If students were located beyond the hazard zones at the old school, they will still be at the new school. Additionally, the site is less central so the school will continue to offer bus service to all students within the City of Gaylord. Bus routes will be determined for the 2017-2018 school year in coming months.



Proposed Projects

With the school's location on the east side of town, strategic and impactful connections for children seeking to walk or bike to school can be made. (See the Improvements Map on page 11). There will be two primary points in which students can get to the school building from the west: by taking the trail around the pond, or by taking Lincoln Avenue.

The trail around the pond terminates behind the hotel on Highway 19 and leads into some parking lots, creating an indirect and unenjoyable walking experience. The Safe Routes proposal is to build a trail connection directly to the Franklin Avenue and 1st Street East intersection. From that intersection, Safe Routes sidewalks are proposed along Franklin Street, south two blocks on Division Street, and east one block on High Avenue, to join with the existing sidewalk network. These sidewalks are part of the City of Gaylord future sidewalks and trails plan, but are prioritized as part of this Safe Routes plan for the impact they will have in creating a safe and comfortable route for students.

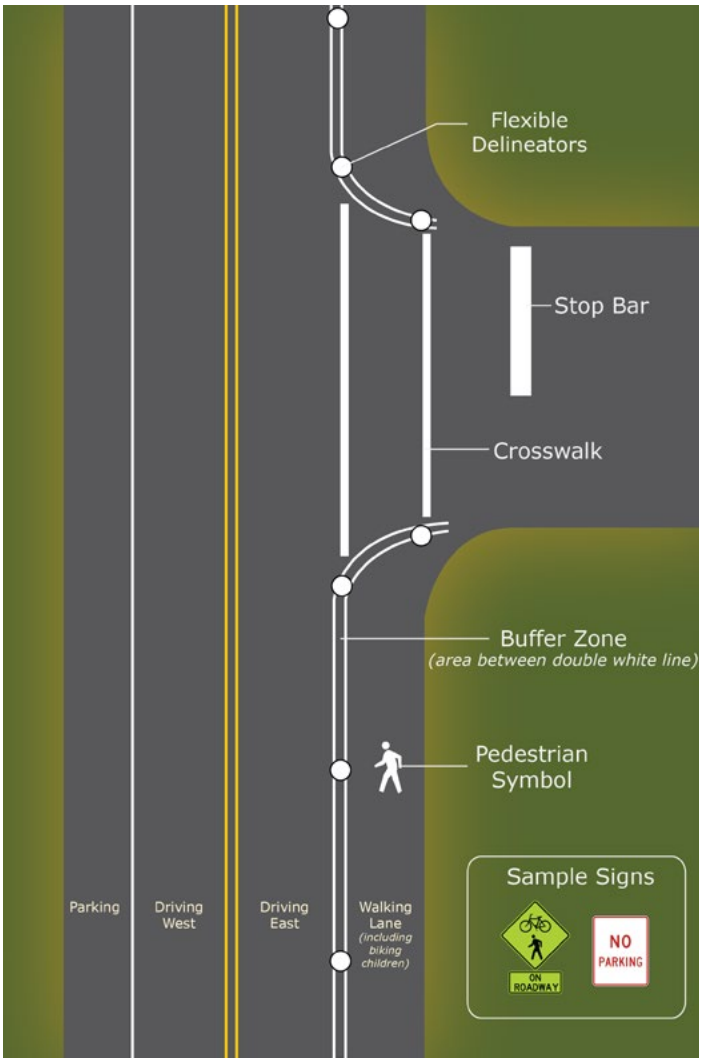
Lincoln Avenue Trail

A multi-use trail along Lincoln Avenue is also planned as part of the City of Gaylord sidewalks and trails plan. As this is positioned to be the most direct route for students who walk and bike to school, it is also a Safe Routes priority. A trail facility that is separated from the road by a curb, and ideally buffered with grass or other plantings will have the most impact in enabling students to walk or bike.

Acknowledging that constructing an off-road trail may take multiple years to finance and construct, temporary solutions should be pursued to accommodate the students that will choose to walk or bike to the new school. As walking and biking were popular means in which students arrived and departed from the former school site, it should be expected that these habits will continue for many. To ease safety concerns, there are some stopgap options that may be considered on Lincoln Avenue. Because of the younger students that attend the elementary school, walking and biking should be expected in the same space. Sidewalks can reasonably accommodate younger elementary-age bikers, but courtesy and expectations of yielding to people should also be taught. It is important to note that bicycle traffic is permitted on sidewalks in the City of Gaylord unless there are signs posted by the city indicating that it is prohibited.

Until a separated trail can be built along Lincoln Avenue, this plan proposes that parking should be made available exclusively on the north side of the street and a visually-separated facility for students who walk and bike should be established on the south side, which reduces the number of students crossing the road (see Figure 1). This would create an environment that is clearly marked for non-motorized traffic and would prevent people from encroaching into traffic lanes to go around parked cars. Painting a buffer zone of two parallel white lines will provide the initial visual separation but flexible delineators would create a vertical element that would work to visually narrow the driving area, reducing driver speeds and making people walking and biking in the protected zone feel more secure. Placing flexible delineators, which would be reflective plastic posts that are not affixed to the road, would be recommended with any changes to increase the awareness of the change in the driving environment. These delineators could be removed in the winter for road plowing purposes with the expectation of fewer students on the road, although the roadway markings may not be visible. Supplemental signs can also be posted notifying drivers of the roadway configuration in a florescent green color.

Figure 1: Lincoln Avenue Recommendation



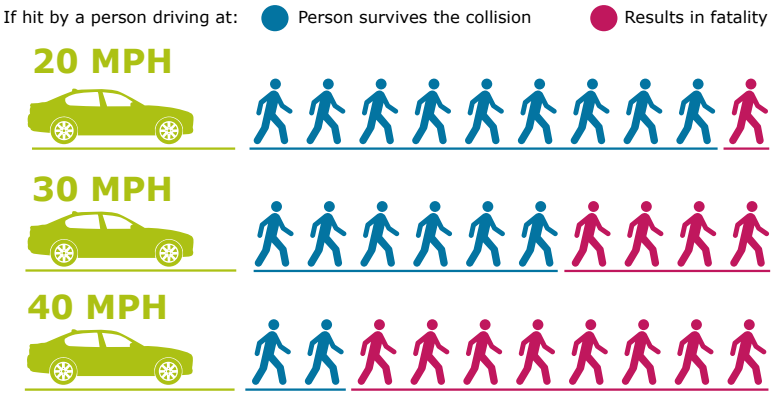
Reconfiguring Lincoln Avenue is possible within Minnesota Local State-Aid Route Standards, where it is functionally-classified as a low-traffic minor collector, flexibility is granted in reducing driving and parking lane widths from 12-feet to 11-feet and from ten-feet to seven-feet respectively. As school walking and biking traffic will be eastbound in the morning and westbound in the afternoon, accommodating people walking different directions is not a priority. Additionally, because the students are young, and could otherwise be riding on sidewalks in Gaylord, a Pedestrian Lane from the Department of Transportation's *Small Town and Rural Multimodal Networks* serves as the guidance for this temporary measure.

Line painting and flexible delineators can also be used to narrow intersections, reducing vehicle speeds at the corners and shortening the exposure time that people have in the intersection. Crosswalks should also be painted to align these areas across intersections as a reminder to drivers that they should expect people walking and biking through the intersection.

MINNESOTA
SAFE
ROUTES
TO SCHOOL
Improvements
Map
N
Crosswalk
Speed
Feedback
Radar
Crosswalk
School
Trail
Sidewalk
Lincoln Avenue
Crosswalk
Flashing
Beacon
1st Street E
Franklin
Avenue
Trail
High Avenue
22
19
5
19
22
Legend
Existing
Sidewalk
Planned
Sidewalk
Existing
Trail
Planned Trail
Proposed
SRTS Trail
Proposed SRTS
Sidewalk
Point
Improvements
1/4 Mile
Sources: Google, City of Gaylord

Speed Reduction Tools

According to the National Highway Traffic Safety Administration, a person hit by a car at 20 miles per hour has a 95 percent chance of survival; at 40 mph, that person has only a 15 percent chance of survival. Additionally, the faster a car is moving, the more time and distance it takes to stop. Drivers traveling at 20 miles per hour can stop in three car lengths; a driver traveling at 40 miles per hour takes as much as nine car lengths to stop.



Speed Feedback Radar

As speed was indicated from observations and steering committee members as an issue for westbound traffic emerging into the reduced speed limit zone, a speed feedback radar is proposed to promote better 30 MPH speed limit compliance from drivers. The proposed location is near where the 55 MPH speed limit on County Road 21 (Lincoln Avenue) reduces to 30 west of the Merlo Street intersection.

School Speed Zone

In the State of Minnesota, local governments only have the authority to reduce speed limits on a roadway by either establishing a bike lane, which enables the speed limit to be reduced to 25 miles per hour, or by establishing a school speed zone, which could reasonable reduce the legal limit to 20 miles per hour. The process of establishing a school zone is determined by the Minnesota Department of Transportation and based upon the premise that environmental indicators, such as roadway width and lines of sight, have more bearing on the speed drivers feel comfortable traveling than the speed limit. With a disconnect between the speed limit and environmental indicators, often the only means to effectively reduce speeds is through extra law enforcement presence. While the school speed evaluation process would need to be determined in the case of Lincoln Avenue, narrowing lanes or potentially installing other engineering improvements which depress driver speeds would likely need to be considered.

Other Engineering Speed Reduction Tactics

If speed is determined to be an issue during observations at the new school site, the roadway width of County Road 21 might be a deterrent due to its width. Using paint and flexible delineators to channelize the lanes, while keeping them at the same width to not limit any traffic, could be an easy option to force drivers to reduce speeds. A mini-roundabout, where buses and trucks can still traverse the median could be installed at Merlo Street as a permanent, more expensive solution as well to reduce speeds of through-traffic vehicles.

Additional methods to reduce speeds, and promoted in the Federal Highway Administration's Small Town and Rural Multimodal Networks guide include paining the speed limit on the roadway or paining speed reduction markings which provide the illusion that a vehicle is driving faster than it is by progressively reducing marking spacing.

Program Recommendations

This Safe Routes plan is intended to change over time as progress is achieved and new ideas emerge. For this initial Safe Routes to School Plan, the following programs were prioritized by the committee for completion in the short (1-2 years) and medium terms (2-3 years). Engineering projects are typically reserved for long-term projects because of funding availability and scheduling capital improvement plans. Programs, program support, and news about Safe Routes to School in Minnesota can be found online at www.dot.state.mn.us/mnsaferoutes. Many of these programs have occurred previously in Gaylord and throughout south central Minnesota.

Walk and Bike to School Map

Developing a map of the best routes in Gaylord for students to get to school was a suggestion from the steering committee. The map can identify crossing guards, sidewalks, hazards, or bike routes to get parents and students to think more about walking and biking in Gaylord.

Bike Rodeo

Bike Rodeos have been hosted in the past in Gaylord and are a way to create a fun, community-learning atmosphere to promote using bikes in the city. Bike rodeos are typically active-participation events with rule of the road, helmet-fitting, obstacle courses, and prizes and can be incorporated into school days, community events, or as a stand-alone event.

Walk/Bike to School Day

Walk/Bike to School Day is an heavily-promoted event which encourages all school-aged children to participate in some degree. Students may gather and walk or bike together, walk with parents, and involve students who ride the bus by parking away from the school. This event often includes a celebration at the school after the morning walk or ride in, and can include awards, prizes, or other incentives. These days occur nationally on predetermined dates that are promoted through various advocacy organizations and with additional available support from MnDOT.

Walking School Bus

The walking school bus program is a fixed route with timed stops, typically led by a parent or volunteer, that creates a social environment to school which promotes active behavior. It can be a one-time pilot or an ongoing program.

Walk! Bike! Fun! Curriculum

Walk! Bike! Fun! is a curriculum with lessons and activities tailored to different ages of students. A teacher at the school is typically trained during a one-day session, which allows the school to integrate the curriculum into lesson plans as it sees fit. Having the curriculum in place also enables the school to connect with BikeMN for bike fleet access and special instruction.

Maintain Safe Routes Program

Sustaining the Safe Routes to School program in Gaylord is an important goal. Regularly collecting student travel habits by collecting tallies and getting feedback from parents is part of sustaining the program and evaluating success of implemented programs. New ideas will also emerge as new achievements are met and new challenges arise.

Program Recommendations Chart

Strategy	Timeline	Project Lead	Potential Partners	How is success measured?
Engineering: Construction of separated multi-use trails along Lincoln Avenue and connection to Franklin Avenue.	Long	City	County, ATP, MnDOT, School	All walking or biking students using either pathway
Engineering: Create an interim pedestrian lane on Lincoln Avenue with crosswalks to provide a safe route for walking and biking students.	Short	County	MMS SHIP, Police, City, School	All students walking or biking in the designated lane
Engineering: Install sidewalk links, as provided in the Improvements Map, to build off-road connections which feed into the trails.	Long	City	ATP	More parents will allow their children to walk due to few concerns
Engineering: If sidewalks are completed on Lincoln Avenue to the west of Sixth Street, consider moving flashing beacon to intersection	Long	MnDOT	City, County, MMS SHIP	Children crossing Highway 22 will be concentrated at one intersection
Enforcement: Install speed feedback radar	Short	County	City, School	Reduced traffic speed either observed or collected in data
Encouragement: Provide good bicycle parking racks in a visible, location near the school entrance.	Short	School	MMS SHIP	Bikes are upright and secured
Education: Conduct a Bike Rodeo to create a fun, community-learning atmosphere to promote using bikes in the city.	Short	Police	MMS SHIP, School, City, Newspaper	All children on bikes are using the right side of the road, signaling turns, and wearing helmets
Education: Hold Walk and Bike to School Days throughout the year.	Short/ Annually	School	MMS SHIP	All children have an opportunity to participate in some form
Encouragement: Create a Walking School Bus program with fixed routes.	Medium	School	Volunteers	75% of children living within one-half mile regularly participate
Education: Implement the Walk! Bike! Fun! curriculum	Short	School	MMS SHIP, BikeMN	Training received from BikeMN with classroom implementation
Evaluation: Continue meeting as a Safe Routes committee to identify opportunities and adjust programs accordingly.	Annually	School	MMS SHIP, City, County, Police, Region Nine	Discuss safe routes projects and gather tallies and parent surveys on a regular basis for evaluation
Enforcement: Conduct a school speed zone study	Medium	Police	City, County, MnDOT	Attaining an enforceable reduced speed near the school
Equity: Complete observations at the school to observe behaviors and patterns	Short	Police	School, City, County, Volunteers, Region Nine	Observing arrival and departure patterns to inform improvements
Evaluation: Complete travel tallies in fall to develop a baseline	Short	School	Region Nine	All students counted and new expectations can be set
Evaluation: Conduct parent surveys after families become accustomed to the new school	Short/ Regularly	School	Region Nine	Distributing to all parents in the school with over 100 returns

MMS SHIP: Meeker-McLeod-Sibley Statewide Health Improvement Partnership; ATP: Area Transportation Partnership

Safe Routes Engineering Toolkit

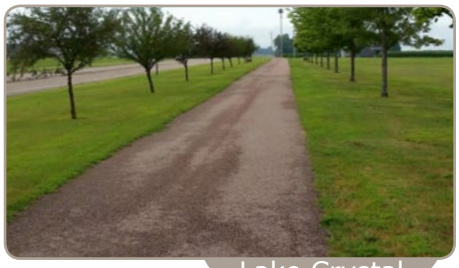
This section provides a variety of different bicycle and pedestrian facility types that could provide solutions to the problems identified in this plan.

ADA/Universal Design

The purpose of universal design is to provide an environment that is equally accessible and comfortable for users of different abilities and ages. To help ensure access for all, the Americans with Disability Act (ADA) of 1990 prohibits discrimination on the basis of disability. Sidewalks and other pedestrian facilities in the public right-of-way are subject to the requirements of the ADA. The *Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way* by the United States Access Board, a federal agency, provides the most current guidance. Local governments are encouraged to have a transition plan in place to remedy existing non-ADA gaps in the public right-of-way.

Sidewalk and Trail Buffers

The space between the sidewalk and closest lane of moving vehicles is the sidewalk buffer. Wider sidewalk buffers allow for a person walking to avoid splashing caused by vehicles, create a comfortable separation from the road, and collect snow piled from plows without interfering with the sidewalk. Sidewalks are often placed right next to multi-lane roads because of the lack of public right-of-way, which can create an uncomfortable environment for walking so close to high-speed traffic. Trees, like used along the Knights Lane multi-use trail in Lake Crystal (pictured), also make the walk more enjoyable.



Lake Crystal

Sidewalk Width

The preferred minimum sidewalk width recommended for Safe Routes is five feet, with six recommended. Walking can be a social activity and should accommodate walking side-by-side. The six-foot width allows for two people to walk comfortably side by side and provides sufficient space for people crossing in the opposite direction. Sidewalks with a width of eight to ten feet or more should be built where there is no sidewalk buffer along a busy street and areas where large numbers of people walking could be expected.

Street Lighting

Street lighting improves visibility, helps with personal security, and can enhance the attractiveness of an area. Street lighting scaled to people, which are lower and intended to illuminate the sidewalk, provide a safer and more inviting environment, especially where large nearby trees block roadway lights. Good lighting at intersections is the most important as it allows drivers to better see people during dark conditions.

Curb Extensions

Increasingly popular on wider roads with faster speeds in Minnesota, curb extensions increase safety for people crossing the street as it shortens crossing distance and, if cars are parked on either side of the road, allows people to better see oncoming traffic by providing a lane-width head start. Curb extensions slow through-traffic movement by narrowing the driving area and also reduce turning speeds because of a tightened curb radius. Pictured here are the curb extensions at the Lincoln Avenue and Lake Boulevard in Gaylord.

Gaylord

Pedestrian Islands

Pedestrian islands, similar to what is in place on Knights Lane in Lake Crystal, are another means to shorten crossings, by creating two separate crossings at the same place in the road. Newer islands feature an angled channel in the middle that enable people walking to look directly into traffic when crossing. The pictured island in New Ulm connects the recreation center to the school campus and routes children walking or biking to school away from a nearby busy intersection.

New Ulm

Signs

When effectively used, signs can inform and remind drivers to expect people walking or biking. Helpful signs range from permanently reminding drivers to share the road to temporary signs reminding drivers that it is their legal responsibility to stop for people in the crosswalk (pictured on the right). Checking regularly that signs in place meet reflectivity requirements for non-daylight use, are not faded, and free of damage is a helpful practice in which cities, schools, and citizens can engage.

Temporary Trials

Temporary installations are a means in which more permanent solutions can be tested prior to construction. Street paint, flexible delineators, planters, and signs are often available for grants to analyze the project prior to construction. Temporary curb extensions and bicycle tracks, pictured, were installed by their local Statewide Health Improvement Partnership affiliate in Alexandria, Minnesota last year through the use of paint, flexible delineators, and tree planters.

Jessica Peterson, Horizon Public Health

Alexandria

Curb Radii

Intersections with high-speed roads or locations frequented by large semis or emergency vehicles often feature long, open turns. From a bicycle and pedestrian standpoint, these intersections are more likely to be problematic as a wider radius allows for higher vehicle speeds and also increases crossing distance. Street intersections in neighborhoods are more likely to feature shorter curbs, decreasing vehicle speeds around corners. The intersection of Minnesota Highways 19 and 22 on the west end of Main Street in Gaylord are an example of wide curb radii to accommodate larger vehicles. A block to the north at the High Avenue intersection at Highway 22 (6th Street), a much smaller radius is provided to slow vehicle turns as the roadway does not need to accommodate freight traffic.

Crosswalk Markings

A variety of crosswalk markings can be used at intersections to provide drivers an expectation of where people should be crossing. Popular routes with sidewalks in place should feature crosswalks for increased awareness.

The most common form of crosswalks are those in standard form, or two parallel lines which connect sidewalk segments through the street surface. As they are not visible from very far distance in approaching vehicles, standard crossings are typically most appropriate in areas with low traffic speeds or at intersections where vehicles are coming to a complete stop. Continental, ladder, and staggered continental are other frequently-used crosswalk designs that provide higher visibility from further distances. Examples of standard and continental-style crosswalk markings can be found in Gaylord.

Crosswalks can be marked by using paint, epoxy, or preformed tape, and can also be placed within a milled surface to protect from snowplow blades. Each option features different costs and longevity.

Bike Racks

Gaylord

Placing bike racks in high-visibility, surfaced locations promotes bicycle awareness and riding. Bike racks come in a variety of colors and styles and are best used when covered from rain. Many racks are not intuitive and improperly used, leading to disorganization or bicycle damage. The below example from Gaylord shows leaning bicycles at the school because the narrow slots are intended for wheels to hold the bicycle upright while the wider gaps are designed to remain empty. These racks provide the most capacity for their cost, but are discouraged as they do not support the frame of the bicycle at two different points and are not u-lock compatible. Various forms of more intuitive bike racks, which can accommodate a similar number of bikes, provide support at two locations of the bike, and do not have to be secured to the ground are available.

Curb Ramps and Warning Strips

Curb ramps should be perpendicular wherever possible, where each corner has two ramps installed perpendicular to the face of the curb, not a single ramp facing diagonally at an intersection. These curb ramps can lead directly along the line of travel, guiding people into the crosswalk rather than into the middle of the intersection. Two ramps, which end at the crosswalk, also provide directional guidance to pedestrians with vision impairments.

Truman

Truncated domes are the standard design requirement for detectable warnings on curb ramps and at transitions from sidewalks to street crossings. These small, flattened domes provide a surface that is distinguishable underfoot and by cane. ADA guidelines require the use of a truncated dome warning strip at the bottom of every newly constructed curb ramp. These domes provide a tactile warning to pedestrians with a visual impairment who would otherwise be given warning by the presence of a curb. The truncated dome tactile strip should be two feet deep for the entire width of the ramp and should have a contrasting color with the adjacent sidewalk or trail.

Narrow Lanes

There are several ways to narrow a street. Paint is a simple, low cost, and easy way to narrow the street or travel lanes. If the narrower lanes can result in a striped shoulder, the shoulder will provide a buffer for pedestrians, a place for bicyclists to ride, and a refuge for disabled motor vehicles. The shoulder stripe will also provide better motorist guidance. Interior traffic lanes can be narrowed to 10 feet wide to encourage slower speeds. Narrow lanes also enable road lane reconfigurations, which may include painted medians, center turn lanes, bicycle lanes, or parking lanes.

Speed Humps

Speed humps represent one type of traffic calming measure which has been used by many local agencies for slowing traffic. Modern speed humps are 12 to 14 feet wide and have a rounded appearance which is 2.5 to four inches high at the center. Longer and flatter speed humps are referred to as speed tables. Speed humps have been shown to reduce motor vehicle speeds on streets where they were installed.

Mankato

Roundabouts

The modern roundabout is a form of circular intersection in which traffic travels at low speeds counterclockwise around a central island. Vehicles entering a roundabout must yield, or stop if needed, to circulating traffic. Roundabouts allow for more continuous traffic flow compared to conventional stop or signalized intersections. Additionally, compared to conventional stop or signalized intersections, roundabouts reduce and simplify the number of places where motor vehicles would potentially conflict with other vehicles, bicycles, and pedestrians.

Credits

2016-17 Planning Committee

Jim Swanson, Sibley County Commissioner

Mari Lu Martens, Sibley East Elementary Principal

Tim Becker, Sibley County Engineer

Justin Black, Gaylord City Engineer

Ben Nelson, Gaylord Police

Mary Bachman, Meeker, McLeod, Sibley Healthy Communities

Rod Nelson, Community Member

Margi Swanson, Chair of the Gaylord Trails Committee

Appendix

Appendix I - Survey Report

Parent Survey Report: One School in One Data Collection Period

School Name: Sibley East-Gaylord Elementary School

Set ID: 15536

School Group: Sibley East Safe Routes

Month and Year Collected: September 2016

School Enrollment: 0

Date Report Generated: 03/16/2017

% Range of Students Involved in SRTS: Don't Know

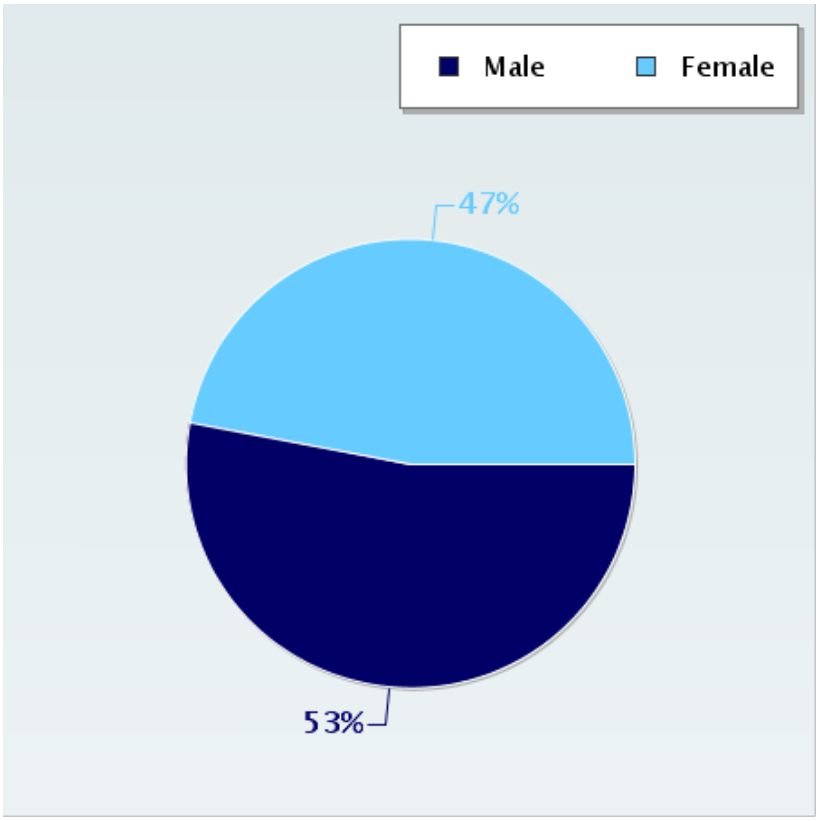
Tags:

Number of Questionnaires Distributed: 0

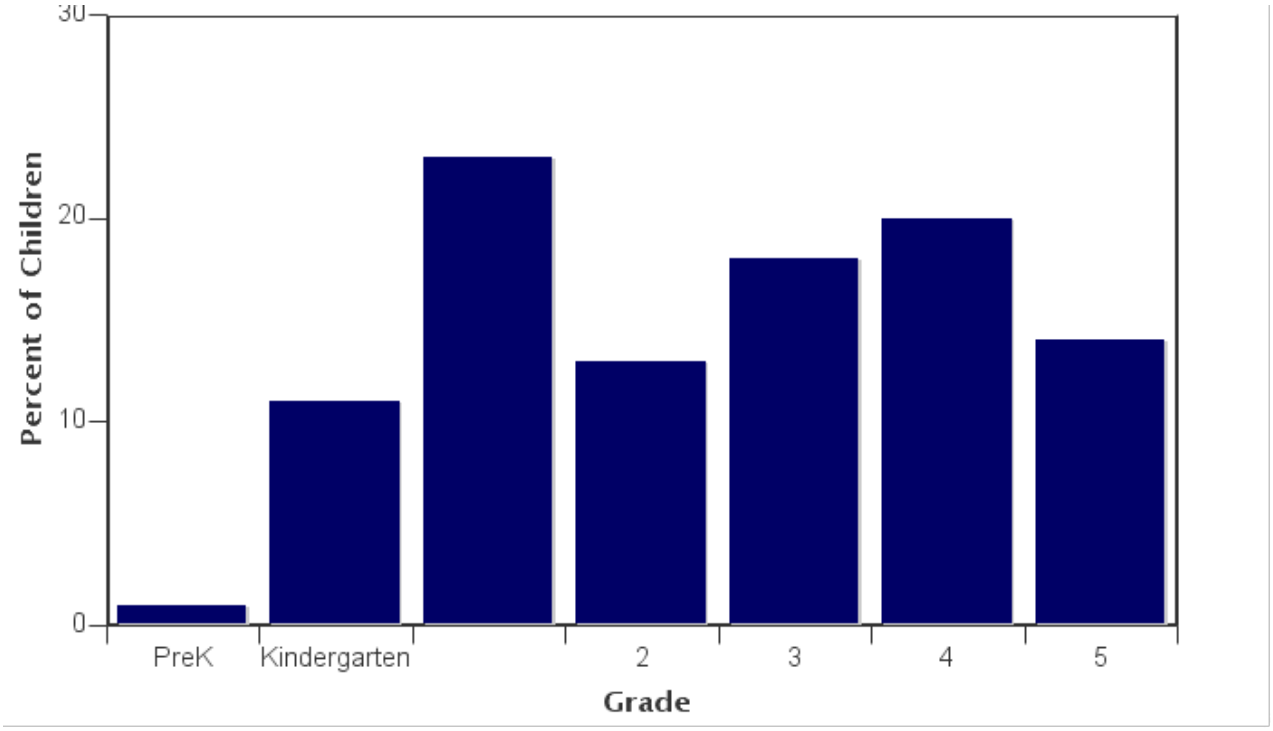
Number of Questionnaires Analyzed for Report: 145

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



Grade levels of children represented in survey

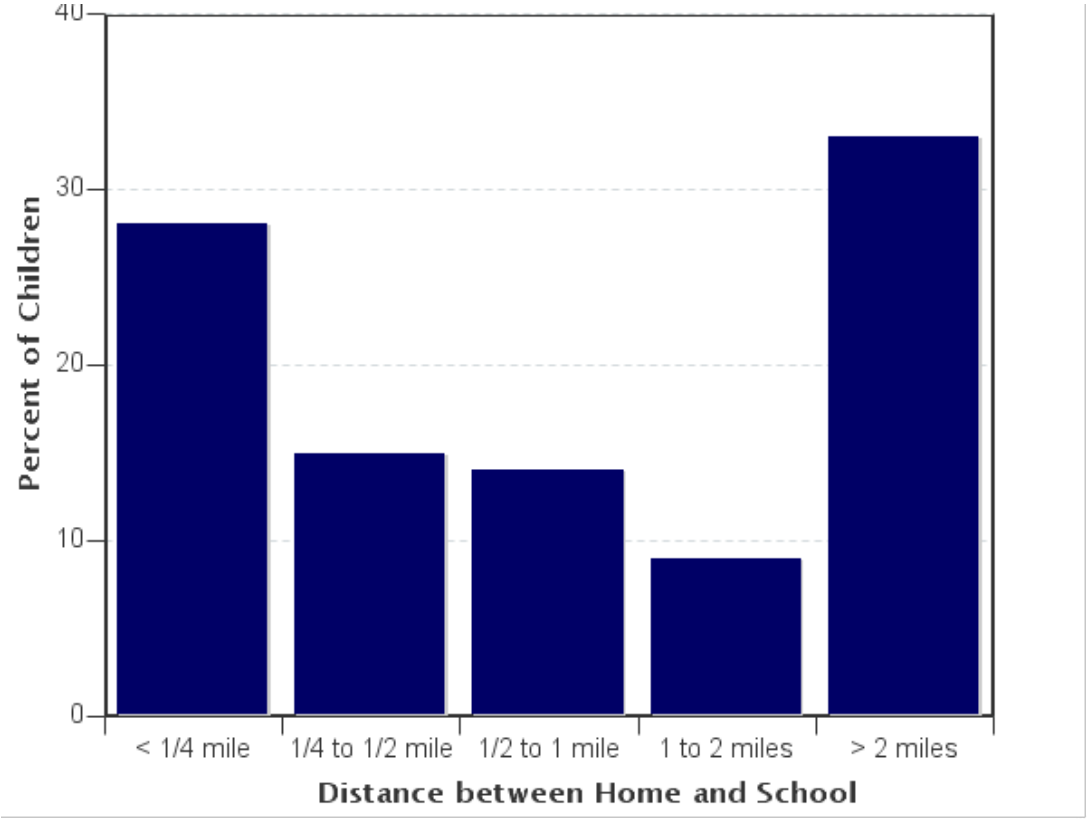


Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
PreK	1	1%
Kindergarten	15	11%
1	32	23%
2	19	13%
3	26	18%
4	28	20%
5	20	14%

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

Parent estimate of distance from child's home to school

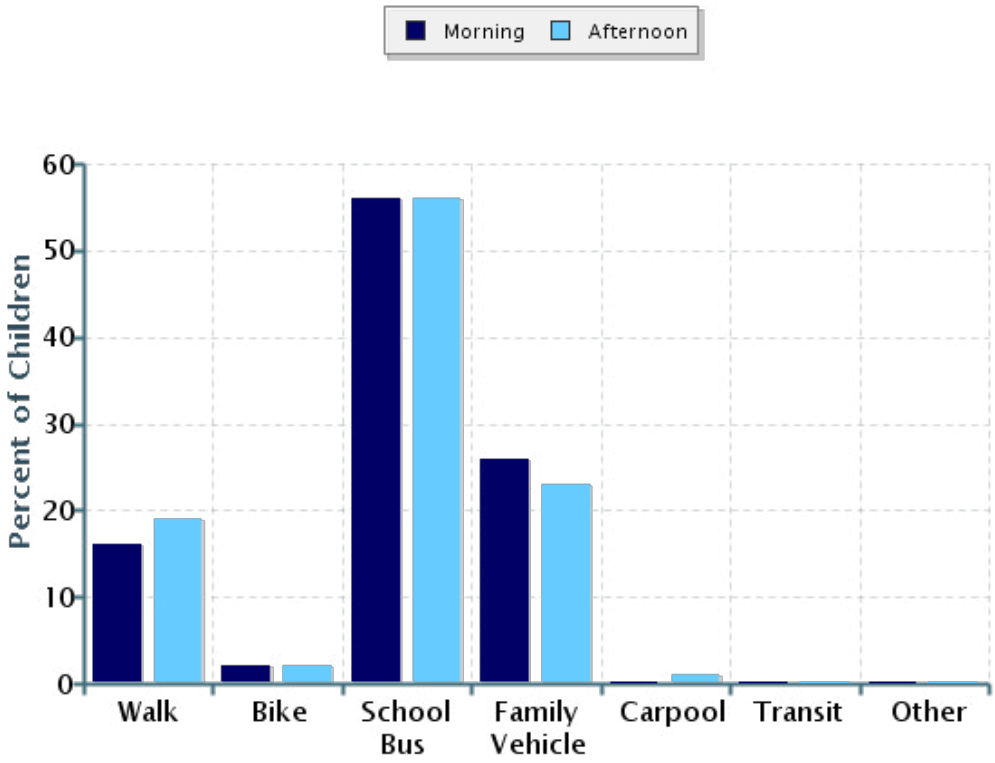


Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	39	28%
1/4 mile up to 1/2 mile	21	15%
1/2 mile up to 1 mile	20	14%
1 mile up to 2 miles	13	9%
More than 2 miles	46	33%

Don't know or No response: 6
Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school

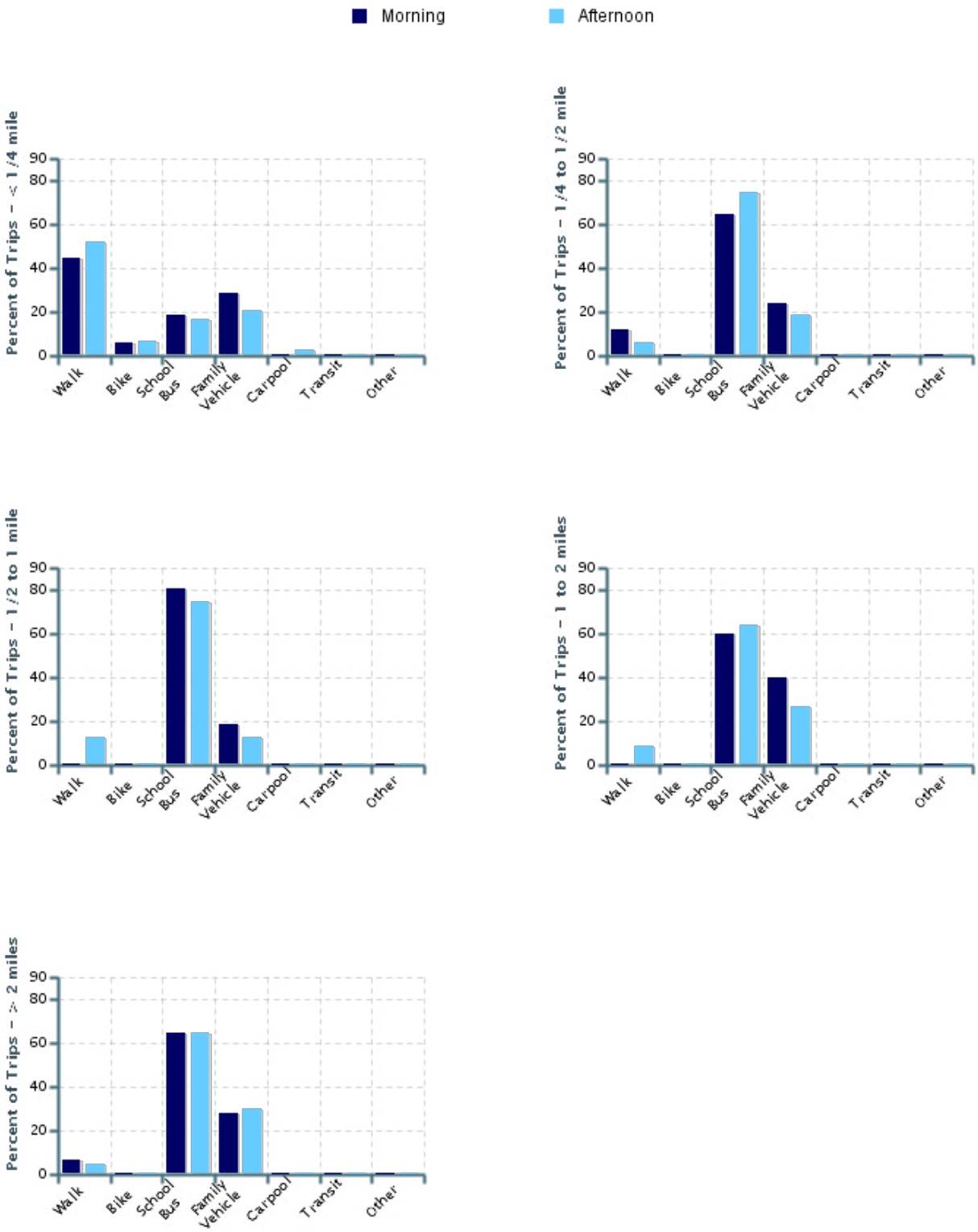


Typical mode of arrival at and departure from school

Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	125	16%	2%	56%	26%	0%	0%	0%
Afternoon	120	19%	2%	56%	23%	0.8%	0%	0%

No Response Morning: 20
No Response Afternoon: 25
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	31	45%	6%	19%	29%	0%	0%	0%
1/4 mile up to 1/2 mile	17	12%	0%	65%	24%	0%	0%	0%
1/2 mile up to 1 mile	16	0%	0%	81%	19%	0%	0%	0%
1 mile up to 2 miles	10	0%	0%	60%	40%	0%	0%	0%
More than 2 miles	46	7%	0%	65%	28%	0%	0%	0%

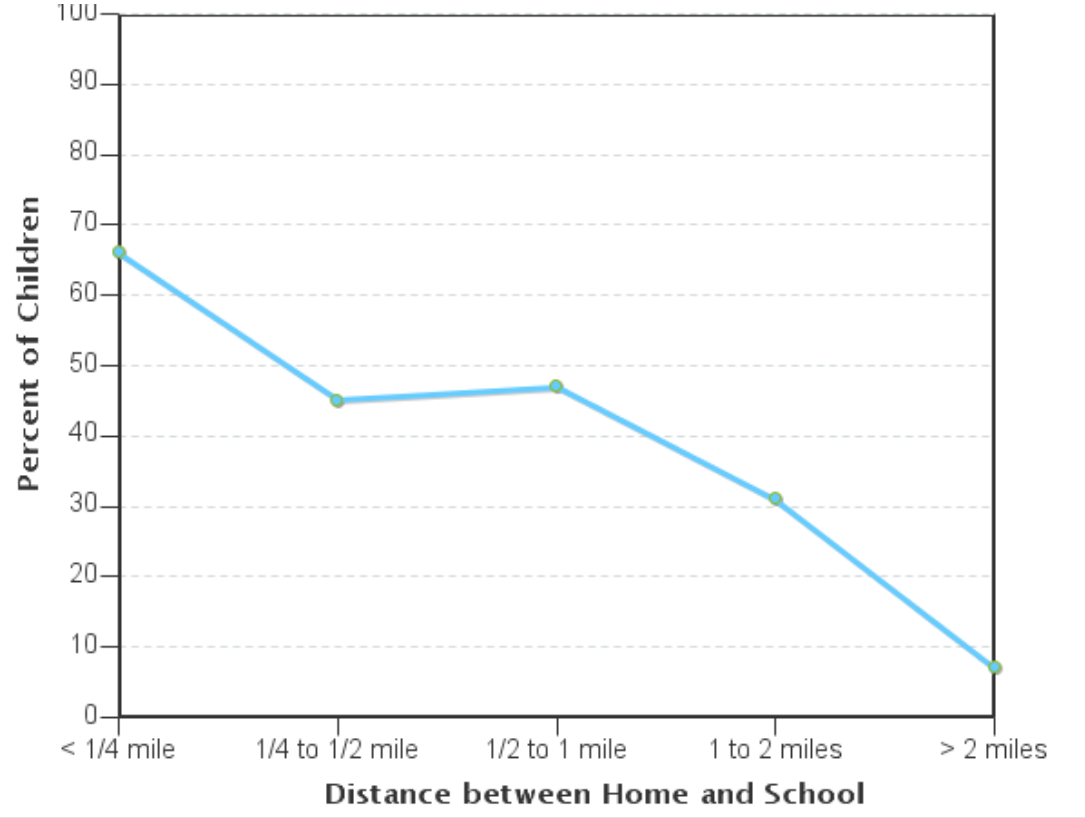
Don't know or No response: 25
Percentages may not total 100% due to rounding.

School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	29	52%	7%	17%	21%	3%	0%	0%
1/4 mile up to 1/2 mile	16	6%	0%	75%	19%	0%	0%	0%
1/2 mile up to 1 mile	16	13%	0%	75%	13%	0%	0%	0%
1 mile up to 2 miles	11	9%	0%	64%	27%	0%	0%	0%
More than 2 miles	43	5%	0%	65%	30%	0%	0%	0%

Don't know or No response: 30
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

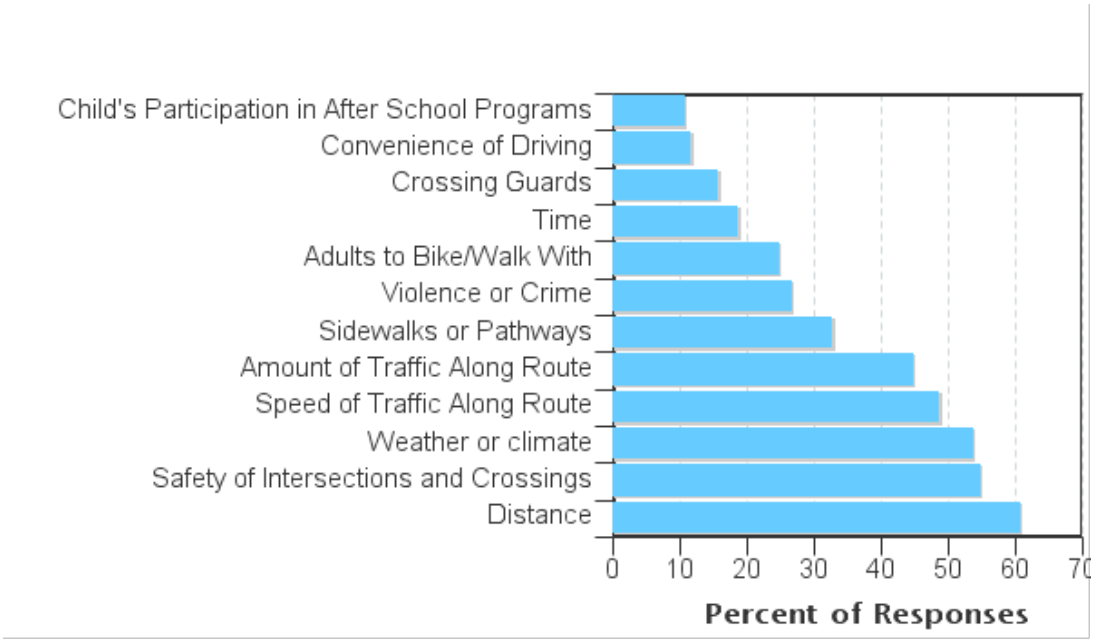


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

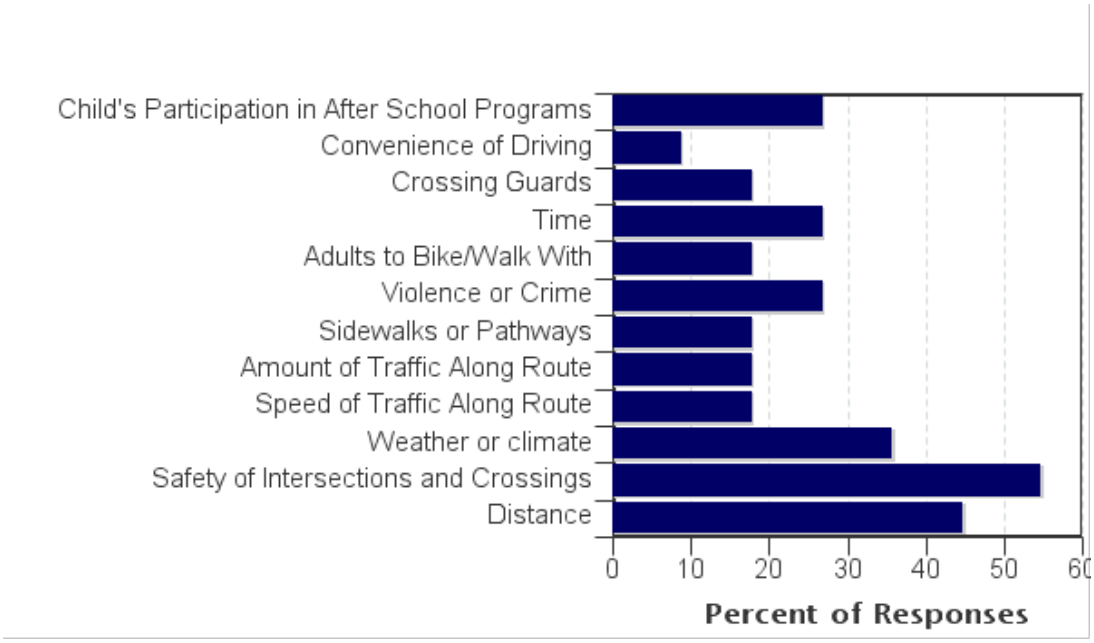
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	50	66%	45%	47%	31%	7%
No	86	34%	55%	53%	69%	93%

Don't know or No response: 9
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

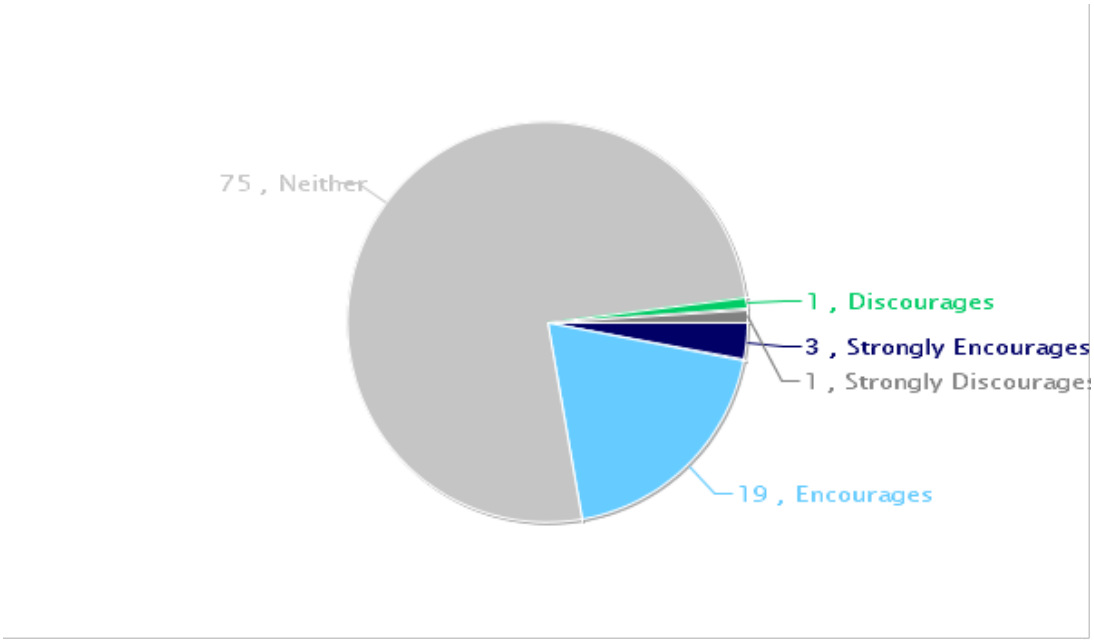


Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

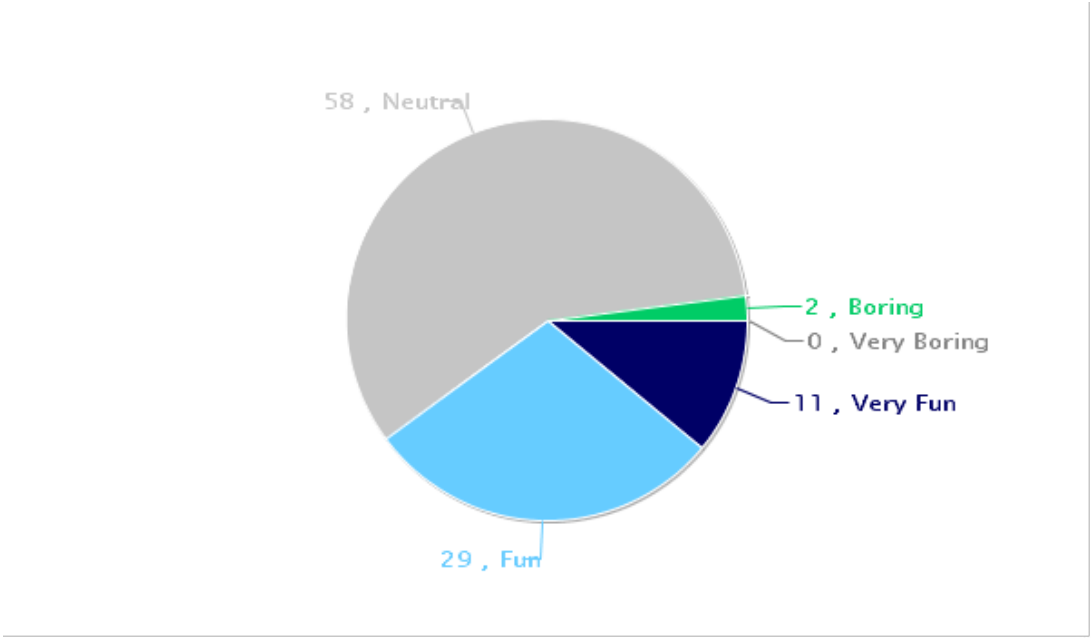
Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	61%	45%
Safety of Intersections and Crossings	55%	55%
Weather or climate	54%	36%
Speed of Traffic Along Route	49%	18%
Amount of Traffic Along Route	45%	18%
Sidewalks or Pathways	33%	18%
Violence or Crime	27%	27%
Adults to Bike/Walk With	25%	18%
Time	19%	27%
Crossing Guards	16%	18%
Convenience of Driving	12%	9%
Child's Participation in After School Programs	11%	27%
Number of Respondents per Category	**85**	**11**

No response: 49
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.

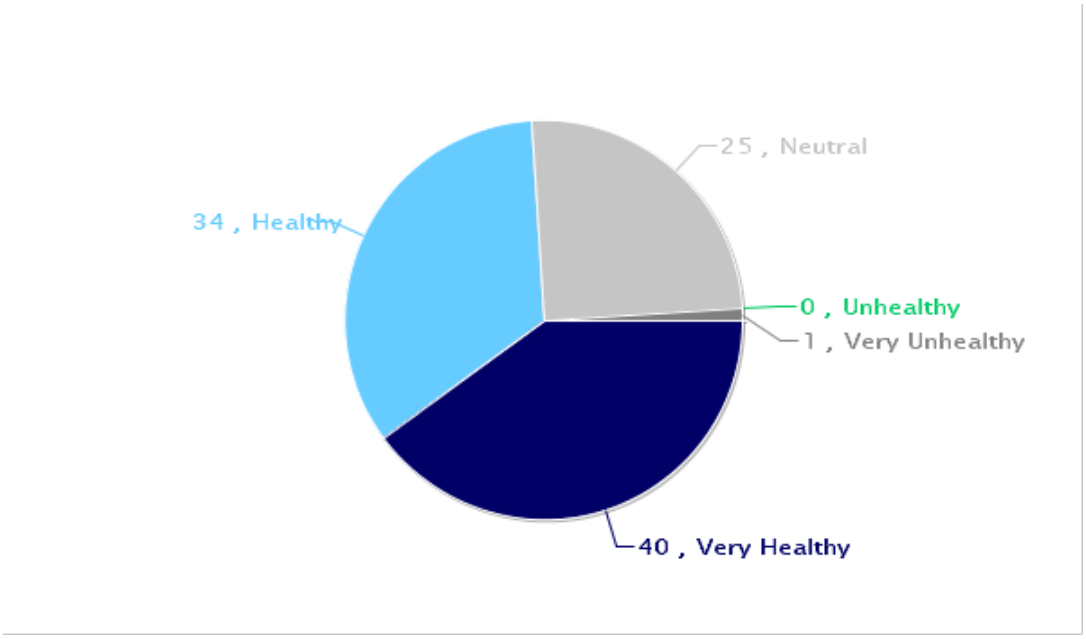
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



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
1524784	WORRIED SHE WILL NOT GO AN PLAY AT PARK INSTEAD.
1524786	WASTE OF TAX PAYER MONEY
1524805	THIS IS A WASTE OF TAX PAYER MONEY
1524835	THE CITY OF GAYLORD NEEDS TO PAY CLOSER ATTENTION TO CROSSWALK LAWS AND PARKING THAT BLOCKS VIEW OF STREET FOR CHILDREN. NOT SCHOOL'S FAULT
1524875	ONCE THE NEW SCHOOL IS COMPLETED MY VIEW MAY BE DIFFERENT AS IT IS FURTHER AND A LOT MORE TRAFFIC/SPPED ON THE ROAD TO/FROM SCHOOL. ALSO I WILL ONLY HAVE ONE CHILD ATTENDING THE ELEMENTARY SCHOOL
1524821	ALL MY CHILDREN ARE ASSISTED TO/FROM SCHOOL BY THEIR SIBLINGS.
1524829	WALKING TO SCHOOL YOU HAVE TOMAKE SURE CHILD GETS TO SCHOOL MY OTHER CONCERN THAT THEY WILL DECIDE NOT TO GO.
1524831	WE LIVE IN A DIFFERENT TOWN 10 MILES OUT
1524846	QUESTION #9 - HWY DOESN'T HAVE BIKE LANE
1524857	WE LIVE ON THE OTHER SIDE OF THE HIGHWAY EVER WHEN WE WALK OTHER PLACES CARS DO NOT STOP AT THE CROSSWALKS. MAYBE A CROSSING GUARD ESP MORNINGS AND AFTERNOONS WOULD BE SAFER & NICE FOR THE KIDS THAT DO WALK.
1524904	I WOULD LOVE TO ALLOW MY KIDS TO BIKE TO SCHOOL BUT CROSSING A BUSY HIGHWAY THE LACK OF CROSSWALK & SAFE PATH KEEPS ME FROM ALLOWING THEM TO.
1524823	WOULD LIKE TO SEE A 4 WAY STOP OR SOMETHING SIMILAR ACROSS MAIN ST INTERSECTIONS. MAYBE POLICE SUPERVISION/ESCORTS ALONG THIS ROUTE
1524852	AFTER THE NEW SCHOOL IS COMPLETE I WILL NO LONGER ALLOW MY CHILD TO WALK/RIDE BIKE TO SCHOOL. IT IS A RIDICULOUS LOCATION FOR A NEW SCHOOL.
1524774	IT WOULD BE NICE TO HAVE AN ADULT ESCORT THE KIDS TO LATCHKEY AT IMMANUEL.
1524853	MY CHILD BIKES TO SCHOOL ONLY UNTIL IT STARTS SNOWING.
1524871	QUESTION #9 - ONLY IF NEEDED!!!
1524876	WE LIVE ON THE OTHER SIDE OF THE RAILROAD TRACKS AND BY THE HIGHWAY (19 & 5) AND THERE ARE NO SIDEWALKS
1524800	MY KIDS GET DROPPED OFF IN TOWN AT MY MOTHER'S HOUSE IN THE MORNING AND SHE WALKS THEM TO SCHOOL. I PICK THEM UP AFTER SCHOOL AND DRIVE THEM HOME TO OUR FARM.
1524778	WE LIVE 13 MILES FROM THE ELEMENTARY AND JR. HIGH SCHOOL. AND 7 MILES FROM THE HIGH SCHOOL.

1524819	MY KIDS GET DROPPED OFF AT MY MOTHER'S IN TOWN IN THE MORNING & SHE WALKS THEM TO SCHOOL. I PICK THEM UP AFTER SCHOOL AND DRIVE THEM TO OUR HOME ON A FARM.
1524783	WE LIVE IN WINTHROP AND OUR CHILDREN GO TO SCHOOL IN GAYLORD. IT WOULD NOT BE SAFE OR MAKE SENSE TO HAVE THEM WALK OR BIKE ALONG THE HIGHWAY TO GET TO SCHOOL.
1524794	WE LIVE 13 MILES FROM THE ELEMENTARY AND JR. HIGH SCHOOL. AND 7 MILES FROM THE HIGH SCHOOL.
1524799	CROSSING HIGHWAY 22 MAKES ME NERVOUS BEFORE SCHOOL BECAUSE PATROL STUDENTS AREN'T ALWAYS OUT AT INTERSECTION UNTIL AFTER 8:00 AM & MY CHILD IS USUALLY THERE BY 8:00 A.M. SO HE CROSSES ALONE.
1524848	QUESTION #9 - WITH BROTHER
1524856	DOESN'T REALLY APPLY. WE LIVE 8 MILES FROM SCHOOL. RIDING WOULD INVOLVE 3 MILES OF GRAVEL ROADS AND 4 MILES OF COUNTY HIGHWAYS.
1524860	THE ONLY REASON I ALLOW MY CHILD TO WALK THE SCHOOLS CURRENT LOCATION IS 2 TWO BLOCKS AWAY
1524861	SAM HAS AUTISM AND IS DELAYED & RIDES THE SPECIAL ED VAN TO ANOTHER CITY THAT IS TOO FAR TO WALK OR RIDE BIKE.
1524832	THIS IS ONLY MY SECOND YEAR WITH THIS SCHOOL NOT TO SURE ABOUT THE LAST FEW ANSWERS. BUT OVERALL LOVE THE RESPECT THEY HAVE FOR EVERYONE OF EVERY RACE
1524866	OUR CHILDREN ARE 12 MILES FROM SCHOOL SO WALKING OR BIKING IS NOT AN OPTION.
1524881	I DIDN'T ANSWER 10 11 THROUGH 14 BECAUSE MY KIDS OUR TO YOUNG TO WALK OR BIKE BY THEM SELFS.
1524867	I WOULD SOMETIMES I'D PICK KEITH UP FROM SCHOOL OR WALK HIM TO SCHOOL IF HE MISSED THE BUS.

Appendix II - MnDOT Traffic Count Map

Appendix III - Student Travel Tally Worksheet

Safe Routes to School Students Arrival and Departure Tally Sheet

+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +

School Name: | Teacher's First Name: | Teacher's Last Name:

Grade: (PK,K,1,2,3...) 0 2 | Monday's Date (Week count was conducted) M M D D Y Y Y Y | Number of Students Enrolled in Class: 1 5

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

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

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

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

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

+ +

Safe Routes to School
Sibley East

Get Involved!

Many of the programs identified in this plan will require some sort of volunteer effort. The Sibley East Safe Routes to School Plan is always evolving to include new ideas and initiatives. If you are interested in bringing ideas or making things happen, please contact Sibley East Elementary School at (507) 237-5511.