



Safe Routes to School

A plan to make walking and biking to school a safe, fun activity.

Fosston, MN | June 2019

Fosston High School and Magelssen Elementary School



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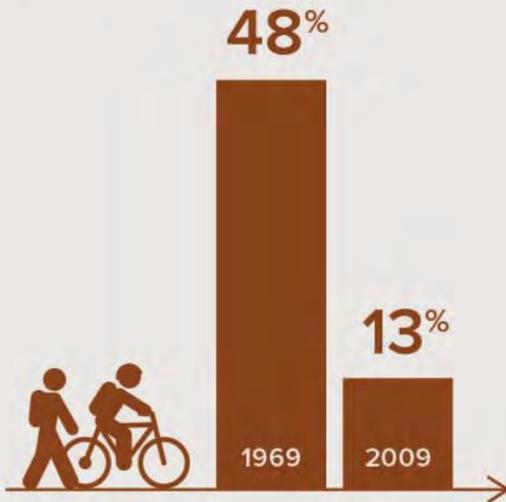
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Introduction + Context

Why Safe Routes to School?



THE PERCENTAGE OF CHILDREN WALKING OR BIKING TO SCHOOL HAS DROPPED PRECIPITOUSLY WITHIN ONE GENERATION



MOST KIDS ARE NOT GETTING ENOUGH PHYSICAL ACTIVITY



ROADS NEAR SCHOOLS ARE CONGESTED, DECREASING SAFETY AND AIR QUALITY FOR CHILDREN

KIDS WHO WALK OR BIKE TO SCHOOL:



Arrive alert and able to focus on school



Get most of the recommended 60 minutes of daily physical activity during the trip to and from school



Are more likely to be a healthy body weight



Demonstrate improved test scores and better school performance*



Are less likely to suffer from depression and anxiety

THE VICIOUS CYCLE OF INCREASED TRAFFIC LEADING TO REDUCED WALKING AND BICYCLING:

Fewer students walking & biking to school

More parents driving children to school

Rising concern about safety of walking & biking

Increased traffic at and around school



*More information, including primary sources, can be found at <http://guide.saferoutesinfo.org>



Introduction to Safe Routes to School

THE SIX E'S

Safe Routes to School programs use a variety of strategies to make it easy, fun and safe for children to walk and bike to school. These strategies are often called the “Six E’s”.

Equity

Equity is an overarching concept that applies to all of the Es. Equity in SRTS means that the SRTS program is inclusive, celebrates the diversity of students, allocates resources to overcome inequities, and supports a community where walking and biking is safe, comfortable, and convenient for every student.

Education

Programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making.

Encouragement

Programs that make it fun for kids to walk and bike, including incentive programs, regular events or classroom activities.

Engineering

Physical projects that are built to improve walking and bicycling conditions.

Enforcement

Law enforcement strategies aimed at improving driver behavior near schools and ensuring safe roads for all users.

Evaluation

Strategies to help understand program effectiveness, identify improvements, and ensure program sustainability.



Bicycles In A Rack Outside of Magelssen Elementary School In The Fall

NAVIGATING THIS PLAN

Below is a roadmap for navigating the way through this plan. Use it to find all the information you need for helping students be safer and more active!

Programs

Getting kids to walk and bike to school requires fun and engaging programs for schools and families. Turn to this section for recommended events, activities, and strategies that will get students moving.

Infrastructure

Ensuring the safety of students on their trips to and from school means upgrading the streets. See this section for suggestions to improve the safety, comfort and convenience of walking and biking, including paint, signage, and signals.

How to get involved

The more people involved with a local Safe Routes to School process, the more successful it will be! Use this section to find out how you can be a part of this important initiative.

Appendices

There is more information available than could fit in this plan. For additional resources, turn to this section



A Display Board Created For The Safe Routes To School Parent Survey Process.

The Vision

In the spring of 2018, the city of Fosston Public School District was awarded a Minnesota Department of Transportation (MnDOT) Safe Routes to School (SRTS) planning assistance grant. This grant made possible the development of a SRTS Plan that included the Fosston High School and Magelssen Elementary School.

This plan was made possible by support from MnDOT and developed in coordination with the city of Fosston and the Fosston School District. The creation of this plan included meetings, surveys, walk audits and discussions with several affiliated individuals. This plan offers recommendations on how to make it fun, easy and safe for kids to walk and bike to school in Fosston.

The vision of the Fosston SRTS plan is to enable students and residents walking, biking and rolling to/near school and throughout Fosston safely. The plan incorporates program and infrastructure suggestions that utilize the 6 E's model described to the right. All recommendations are meant to be on an approximate 5 to 10 year timeline. While not all of these recommendations can be implemented immediately, the strong sense of community and partnership will allow progression of the large and complex strategies listed below.

SMART Goals

This plan will offer recommendations for programs and infrastructure that are consistent with the concept of SMART Goals, which provide a framework for an effective and sustainable SRTS plan. SMART Goals for this plan will be:

Specific: the recommendations will communicate what needs to be accomplished and by whom.

Measurable: the outcomes from the recommendations will be quantifiable.

Attainable: the recommendations will be ambitious but reasonable.

Relevant: the recommendations will be responsive to the needs of the school and community.

Timely: the recommendations will have a specific timeline.

Fosston High & Magelssen Elementary Schools

Magelssen Elementary School was built in 1952 with 4 classrooms added in 1968. The structure is made of brick, and was renovated with additions built in 1996. Preschool to 6th grades can be found at Magelssen Elementary School and according to the City of Fosston Comprehensive Plan, provides classrooms for around 381 students. It can be found on 700 East 1st St.

Fosston High School can be found on 301 East 1st St. The oldest portion of the school was built in 1937, with additions occurring in 1962, 1984 and 1996-1997. Fosston High School has grades 7 through 12. According to the City of Fosston Comprehensive Plan, around 310 students are in this facility.

The Fosston High School and Magelssen Elementary School are located in the southern portion of Fosston, with the high school being located to the northwest of the elementary school. Both schools are within a northeast to southwest belt of local businesses, restaurants and other community infrastructure. The Fosston Public School community pledges to assist students in discovering that dreams, creative thinking, responsibility and respect inspire success.

The Fosston Public School District is very large, and encompasses rural and urban residents. A map of the school district can be found online through the MN Geospatial Information Office. There are about 711 students in the school system. (City map – Appendix F)

Both schools are near US Highway 2; Fosston High School borders an extremely busy roadway that crosses the entire state of Minnesota from East Grand Forks to Duluth. The functional classifications of roads that are found in Fosston can be viewed in Appendix C. Principal arterial and major/minor collector roads can be found within the city.

Traffic speed is a major concern along Highway 2 – children often run across the road to visit a gas station and other stores. There is no close crosswalk or traffic slowing device directly near Fosston High School. A speed limits map can be found in Appendix E. The road is heavily utilized by commercial traffic, with counts in portions of the road near the school averaging between 250 and 499 per day (Appendix B). The school district has seen approximately 24 vehicular crashes from approximately January, 2016 to February, 2018 (Appendix I).

The Burlington Northern Santa Fe Railway (BNSF) also divides the city, with volumes averaging between 1 and 10 trains/day. This particular track is part of a larger network, running east/west through the entire state of Minnesota. It is near both school buildings. Any potential rail accidents would have a direct effect, as well as potential spilled hazardous material. In addition, some residents on the southwestern portion of Fosston have their children crossing these tracks to walk and bike to school. A map of fosston railroad volumes, speeds & crossings can be seen in Appendices D and G.

A majority of parents utilize the school bussing service (34% morning, 58% afternoon), while others are dropped off by parents going to and coming from work (52% morning, 26% afternoon). Most frequently listed concerns included weather, safety of intersections/crossings, distance from school and the speed of traffic along the route.

Around 1% of the surveyed parents listed that their child biked to school, and about 10% to 14% walked to school. Having safe sidewalks/pathways as well as the speed of traffic along the route were the main determinants in letting children walk or bike to and from school.

Attitudes about walking and biking to school vary.

- The majority of surveyed parents (83%) see walking and biking to school as a healthy or very healthy activity.
- 43% of surveyed parents see walking and biking to school as a fun activity for their children, while another 50% are neutral on the subject.
- The vast majority of those surveyed (82%) neither encourage nor discourage their children from walking or biking to school.

For additional information on collected survey results can be found in Appendix J.

Highway 2 and the amount/speed of traffic is seen as a large barrier to walking and biking to both schools in Fosston. Columbia Road influences Magelssen Elementary, while Johnson Ave, 2nd St. and Granum Ave. affect Fosston High School (Appendix A).



Programs

Introduction to Programs

The Safe Routes to School movement acknowledges that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. Programs are a necessary component of any successful SRTS plan.

While engineering improvements such as sidewalks, crosswalks, and bikeways are important, equally important are education programs to give children and families basic safety skills, encouragement programs to highlight walking and bicycling to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts. Often, programs that help to get more kids walking and biking lead to increased public support for infrastructure projects - they can be an important first step towards building out the physical elements that make walking and biking safer and more comfortable. And relative to certain infrastructure projects, most programs are very low cost



Example of Traffic Management: Parents in Vehicles Waiting for School Dismissal to Pick Up Their Children. Students Accessing Busses, Biking and Walking Are Located on the Other Side of the School.

Existing Programs

The city of Fosston has been actively working alongside the Fosston Public School District towards the creation of an environment that promotes activity, a healthy lifestyle and walking/biking to school.

City or District led:

- Partnership with Polk County Sheriff's Dept.
- Sidewalk assessment
- Future housing sidewalk zoning
- Existing program/initiative
- Local capital improvement & other plans
- Incorporation of school in city efforts
- Comp Plan promotes healthy lifestyle/choices

School led:

- Regular parent communication
- Organized student drop-off / pick-up system
- Adult monitoring during arrival/dismissal
- Scheduled and phased dismissal for students walking, driving home and riding the bus.
- School education and safety curriculum
- Walking field trips
- Law enforcement presence end/beginning day
- Incorporation of city in school efforts
- Participation in SRTS friendly events, such as a bike rodeo/fun day held annually.
- Passed referendum that impacted SRTS
- Partnership with Healthier Fosston
- Partnership with Polk County SHIP
- School multi-year planning documents

Program Recommendations

The following programs were identified as priority programs during the Safe Routes to School Planning Process. These programs meet the needs and interest of the school, as well as have a positive benefit upon the city of Fosston.

Each recommended program shows the "E" it falls under, plus suggested lead, support, and priority.

Recommended Programs List:

- Bus Drop and Walk and/or Park and Walk
- Parent education on school-based initiatives
- Develop a walk/bike to school map
- Organize/implement a walking school bus
- Implementation of walk-bike-fun curriculum
- Getting staff signed up as a Walk-Bike-Fun Ambassador
- Utilize regional bike fleet in future events.
- Enforce parent pick-up and drop-off policies
- Create a snow removal campaign and recognize individuals that shovel and remove snow from walkways.
- Continue SRTS local incorporation into Healthier Fosston, Fosston Rotary, Polk County SHIP and other community/county organizations.

TABLE 1. RECOMMENDED PROGRAMS LIST

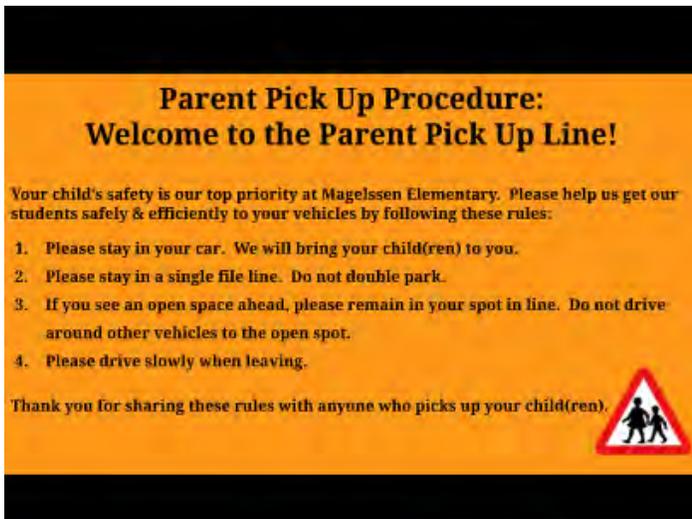
PROGRAM	WHICH “E”? *	PROGRAM LEADER	PROGRAM SUPPORT	PRIORITY
Bus Drop and Walk/Park and Walk	Encouragement	School Staff	District, Parents	Short term (1-2 years)
Parent education on school-based initiatives	Education	School Staff	District	Immediately
Walk/bike to school map	Equity	School Staff	District, City of Fosston	Medium term (2-4 years)
Walking school bus	Encouragement	School Staff	District, Parents, Polk County SHIP	Short term (1-2 years)
Implementation of Walk! Bike! Fun! curriculum	Education	School Staff	District	Short term (1-2 years)
Walk! Bike! Fun! Ambassador Training	Education	School Staff and/or Affiliated Community Member	District, City of Fosston	Short term (1-2 years)
Utilize regional bike fleet in future events.	Education	School Staff	District, Polk County SHIP, NW Regional Development Commission	Medium term (2-4 years)
Enforce parent pick-up and drop-off policies	Enforcement	School Staff	District, Parents	Medium term (2-4 years)
Snow removal campaign	Equity	City of Fosston, School Staff	Residents, District	Short term (1-2 years)
Continue SRTS local incorporation	Encouragement	School Staff, City of Fosston	Residents, District, Parents	Immediately

Ongoing evaluation

There are two great tools to evaluate all the SRTS work in your community:

- Parent Surveys: Recommended to be done once every 2-3 years. A hard copy survey or link to the survey can be sent to parents which asks their perceptions of walking and biking to school.
- Student Travel Tally: Recommended to be done fall and spring of every year. These in-class tallies ask students how they travel to and from school.
- More information on both the parent survey and the student travel tally can be found at <http://guide.saferoutesinfo.org/evaluation/>

*Engineering and Evaluation E’s are incorporated into the infrastructure strategies listed later.



Example of education on local school policies. This is displayed online on the Magelssen Elementary website.



Example: Polk County law enforcement supporting Fosston School District activities.

*Supporting Active Bicycle Safety At Magelssen Elementary!
Bicycles for kids at the bike rodeo.*



PROGRAM DESCRIPTIONS

Bus Drop and Walk / Park and Walk

This program is designed to give those who ride the bus or commute with a parent a chance to get physical exercise before school. School administration should choose a location a quarter to half mile away from school where drop off from buses and parent vehicles can occur on a single day. Not all students in the Fosston Public School District are able to walk or bike the whole distance to school; they may live too far away or their route may include hazardous traffic situations. This program allows students who are unable to walk or bike to school a chance to participate in Safe Routes to School programs.

Parent Education on School-Based Initiatives

Since parents often determine if children can walk or bike to school, integrating information sharing school/community events, policies and plans can provide a great way to enhance walking and biking for transportation in a community. In addition to support, this also provides the school and the community with additional resources and tools. Having information available publicly, online, through newsletters and at hosted events is a great way to raise awareness about local initiatives.

Walk/Bike to School Map

Route maps of a community can be created that detail important infrastructure for those walking and biking to school, such as: crosswalks, stoplights, signals, paths and signage. While elimination of safety risks can never completely occur, a well-defined route will maximize safety for students. Routes should try and limit exposure to high-speeding traffic, use the fewest/safest crosswalks and provide a base for safe usage of local transportation infrastructure. In some cases, additional information may be needed through walk/bike audits or other assessment methods.

Walking School Bus / Bicycle Train

A walking school bus is a group of children walking to school with one or more adults. Methods can vary from two families taking turns walking their children to school to a group of chosen volunteers that move along a structured routes with scheduled meeting times. A bicycle train employs the same concept, but utilizes adults supervising children riding their bikes to school. This strategy addresses safety issues that may prevent parents from letting students walk/bike to school independently, as well as guard against traffic concerns.

Implementation of Walk! Bike! Fun! Curriculum

The Minnesota Walk! Bike! Fun! Pedestrian and Bicycle Safety Curriculum is a two-part curriculum training class designed specifically for Minnesota's schools and youth education programs. Training classes can be requested to be held locally for teachers and community educators through BikeMN. It is structured to meet Minnesota education standards and is an important part of the Minnesota Department of Transportation's Safe Routes to School Program. Walk! Bike! Fun! helps children ages 5 to 13 learn traffic rules and regulations, the potential hazards to traveling, and handling skills needed to bike and walk effectively, appropriately and safely through their community. For more info: <https://www.bikemn.org/education/walk-bike-fun>

Walk! Bike! Fun! Ambassador Training

A training program and educational resource specifically for community members, parents, and volunteers who want to lead and help out with walking and biking initiatives for youth in their town. This training can give participants a general overview of walking and biking activities, or specific activities like: walking school bus, bus stop and walk/remote drop offs, bike trains, bike rodeos and biking/walking mapping. A bike rodeo is a clinic that teaches children the skills and precautions to ride a bike safely. Many communities and schools are joining in the movement to encourage more walking and biking as part of an active lifestyle. Typical Ambassador's Trainings are about four hours but can be customized to meet your needs. (<http://www.bikemn.org/education/walk-bike-fun/wbf-ambassadors-program>)

Enforce Parent Pick-Up and Drop Off Policies

The enforcement of parent pick-up and drop-off policies is an important step in traffic management. The Fosston School District has created a system to help eliminate vehicular bottlenecks created by students arriving/leaving school, walking, biking and getting picked up by parents. While increasing safety, this method also aids in the removal of local congestion and provides a scheduled approach to dismissal. Parent pick-up and drop off at Magelssen Elementary is done at the south side of the facility, while busses drop-off and pick up children on the north side. Adults, teachers and staff are present during these times for monitoring.

Regional Bike Fleet

A regional bike fleet consists of adjustable bikes which were designed specifically for use with Safe Routes to School (SRTS) programs. They are stored and transported in a trailer. The main purpose of this fleet is to provide communities and organizations access to safe and reliable bikes for bike education and encouragement events.

In Northwestern Minnesota, if an organization has taken the Walk! Bike! Fun! Ambassador training, they are eligible to be able to rent (for free) the bike fleet. Signing up is easy, and can be done online at the Northwest Regional Development Commission's website (www.nwrdc.org) in one week intervals. Transportation will be needed to haul the trailer to your location.

Snow Removal Campaign

A snow removal campaign identifies potential partners with the express purpose of recognizing neighbors who remove snow from sidewalks and driveways. This campaign is based on positive messages, thanking people for shoveling through the use of media such as: yard signs, postcards and flyers.

Local Integration of SRTS into Community and County Organizations.

Fosston is known as a vibrant community that enables an exceptional quality of life for all who call it home. Several organized, dedicated and active groups exist and work together to enhance opportunities for residents, visitors, businesses and organizations within the city. The Fosston School District is an active partner within the community and is incorporated with local groups. This ensures active support, participation, innovation and engagement for members and their associated actions/events.

Let's Go for a Walk!

PLANNING GUIDE FOR
A WALKABLE COMMUNITY
DEVELOPED BY
Minnesota Council on
Physical Activity and Sports

MDH
MINNESOTA DEPARTMENT OF HEALTH

MINNEAPOLIS
HEART INSTITUTE
FOUNDATION

Walking is a great way to get around your neighborhood and be healthy at the same time! Walking allows you to meet your neighbors and gives you an opportunity to see the area at a comfortable pace.

Some neighborhoods are better for walking than others. If you want to walk, or if you want to walk more, but you are not comfortable doing it in your neighborhood, this planning guide will help you improve conditions for walking.

One person or a small group with a mission can accomplish great things, so take steps to make your neighborhood more walkable and more livable.

Getting Started

- 1 Review this planning guide for tips that make a walkable community.
- 2 Go for a walk in your neighborhood and fill out the "Walking Route Form." Use the sample form for ideas.
- 3 Take the action steps to make your community a walkable community.

Brochure detailing how to plan to be a walkable community



Infrastructure

Introduction to Infrastructure

In addition to program recommendations, changes to the streetscape are essential to making walking and biking to school safer and more comfortable.

Meetings and a walking audit generated several recommendations about how to address key identified barriers for students that want to walk or bike to school. Some of these recommendations will also lead to increased health and wellness benefits for the residents of Fosston and will promote a general environment that encourages walking and biking for everyone.

This plan does not represent a comprehensive list of every project that could improve conditions for walking and biking within the city of Fosston, but rather addresses the key points and highest priority infrastructure improvements to improve walking and biking to both Fosston High School and Magelssen Elementary School. Recommendations can range from striping changes to infrastructure studies and alterations.

Funding is a major component to the following infrastructure suggestions. It should be noted that funding can be limited, and some strategies must be planned years in advance. Also, the costs for some of the recommended infrastructure changes may not yet be known due to required engineering studies and feasibility confirmation.

Existing Infrastructure

Fosston Inspirational Trail (FIT) – Originally built over a former landfill and encompassing multiple wetlands, the FIT was built in 2014 to accommodate walking, biking and snowshoeing opportunities in Fosston while enjoying an array of local flora and fauna. Trail consists of a 10-foot-wide paved recreational trail. Expansions of this trail have not only allowed safer walking and biking opportunities for residents of Fosston, but also connected multiple city buildings, housing and infrastructures. Future additions to the trail system are in the works to include access to the majority of Fosston, as well as the addition of lighting for extended use.

Sidewalk Assessment – Started in 2014, the city of Fosston has an assessment of sidewalks within the city limits detailing where sidewalks are not in place, where they exist and which streets do not intersect. This assessment is a building block towards resident/pedestrian/student safety. More information can be found in Appendix L as well as in maps found after the recommended infrastructure list.

Stop Signs – Fast moving traffic and distracted drivers along 1st Street NE can be a problem, especially when kids walk and bike to school. Stop signs installed at intersections with 1st. St. and other local traffic management had a calming effect upon vehicular traffic and increased pedestrian and student safety.

EXISTING INFRASTRUCTURE



Crosswalk near the school showing a need for road repair and crosswalk alteration.



A local sidewalk showing a need for maintenance and repair.



Potential location for a crosswalk on Highway 2 behind the Fosston High School. Students often cross near here to get to businesses.



Walk audit on a street with no sidewalks in winter.



A crosswalk showing footprints through accumulations of snow on an unshoveled sidewalk and curb.

TABLE 2. INFRASTRUCTURE RECOMMENDATION LIST

#	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATON	ANTICIPATED OUTCOME	LEAD	PRIORITY
A	Intersection of Highway 2, Granum Avenue and 1 st St. NE View A Map Here	A 5-way intersection directly to the East of the Fosston High School causes traffic management and flow issues. This intersection is utilized by pedestrians and students.	Do a traffic study with MnDOT and the city of Fosston to gauge alternatives for action. Create a plan with identified projects noted. Redirect current flow of traffic and control pedestrian crossing.	List of projects that can be implemented to address risk.	City of Fosston, MnDOT	High Priority
B	High traveled route from Thompson Field through Fosston High School and Magelssen Elementary School, connecting to the Sport Complex and FIT Trail (Map in Appendix K & project overview photo below)	Ramps need repair/upgrades and striping is faded and/or absent. (Appendix K).	Solicit funds and complete a funding application for MnDOT TAP funding. Add to future infrastructure update schedule for the city of Fosston. The city of Fosston Comprehensive Plan lists a local policy of working on upgrading existing sidewalks.	Updated ramps, curb infrastructure and striping along a heavily traveled route in 2023. See application in Appendix K. New infrastructure complies with ADA requirements.	City of Fosston, MnDOT	High Priority
C	US Highway 2 (See Appendix E)	Drivers are traveling at high speeds along Highway 2 and don't anticipate students crossing the street to get to businesses at the other side.	Install rapid flash beacons on Highway 2 to calm traffic speeds. Utilize speed monitoring signs and portable speed monitoring trailers to keep drivers aware of speeds near the school facilities. Continued presence of law enforcement during school arrival and dismissal times. Perform a study with MnDOT to gauge future alternatives for action on Highway 2, including the reduction of lanes within city limits. The city of Fosston Comprehensive Plan lists a local policy describing the identification and monitoring of high-traffic roads within city limits and regularly requesting traffic count assistance. This is to determine if the 40 mph speed limit on Highway 2 could be moved east of the city limits. An additional policy describes the continuance of monitoring, assessing and enhancing pedestrian safety on US Highway 2, in partnership with MnDOT.	Slower, and more aware drivers	City of Fosston	High Priority
D	Highway 2 outside of the Fosston High School	Students cross Highway 2 multiple times during the day to get to businesses across the street. No crosswalk exists by the high school where many of the students cross.	Install a student crossing, signage, hawk signals and/or rapid flash beacons, etc. in front of the high school, directing pedestrian traffic. Coordinate planned upgrades with a MnDOT Highway 2 repaving project scheduled to occur. A potential location for a student crosswalk was identified that already has some sidewalk infrastructure built in. (See photo above this spreadsheet)	Directed, managed traffic management strategy that diverts foot traffic away from a nearby 5-way intersection and gives students a safe place to cross Highway 2.	City of Fosston	High Priority

#	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATON	ANTICIPATED OUTCOME	LEAD	PRIORITY
E	See Sidewalk Assessment in Appendix L	Some areas of the city do not have sidewalks, causing pedestrians to have to walk on local roadways or berms. Sidewalks curbs and streets near and to the school need maintenance and updates. Obstructions exist.	<p>Zoning ordinance requires sidewalks to be installed on future housing. Phased plans are in place at both the school district and the city of Fosston.</p> <p>City of Fosston has planned sidewalk enhancements, including along US Highway 2 to Amber Avenue in 2020 and the streets and sidewalks for the Aspens property in 2022-2035. It enhances sidewalks based on the assessment attached in Appendix L. Sidewalk Enhancement is also noted in the maps below from the Capital Improvement Plan.</p> <p>Fosston School District long-term maintenance plan lists upgrades including a driveway replacement (2021) and sidewalk upgrades mentioned in letter L.</p> <p>Double sidewalks in the business district were noted as a beneficial structure in the walk audit. Additional width for other sidewalks near businesses was recommended.</p>	<p>Reduction of students walking on busy roadways or on the berms to get to/from school. Removal of obstructions and maintenance will lead to safer sidewalks, additional ADA compliance and greater access to the population of Fosston.</p> <p>Addition and enhancement of local sidewalks in coordination with the city of Fosston's Comprehensive plan and maintenance plan as well as their sidewalk assessment.</p>	City of Fosston, Fosston School District	Medium/High Priority
F	<p>Fosston High School and Magelssen Elementary School</p> <p>View A Map Here (Magelssen)</p> <p>View A Map Here (Fosston High School)</p>	Parked cars can create vision barriers around the school buildings. Children may run between the busses. Areas along 1 st St. NE have a blind backout by the elementary school.	<p>Continue adult supervision strategies during school arrival and dismissal. Enforce parent pick-up/drop-off policies. Enforce no-parking areas during school arrival and dismissal. Perform some of the traffic calming measures listed in Letter C above. Add spaces for school personnel to park.</p> <p>Update the Magelssen Elementary bus pick-up location infrastructure, including looking at alternative locations for parking. Look at alternative pick-up/drop-off layouts.</p>	Dismissal and arrival times can be busy and chaotic at both school locations. These strategies would reduce identified risk and create a safer environment for students walking and biking to school	City of Fosston, Fosston School District	Medium/High Priority
G	Fosston Public School District	Updates for infrastructure and maintenance upgrades that would include projects that would influence SRTS projects were contained in 3 school bond referendums for 2018. Only one passed the vote.	Reformulate efforts, attain public perspective and try again in future years.	Infrastructure upgrades require funding. The attainment of dollars is necessary.	Fosston School District	Medium/High Priority
H	Fosston Public School District	The large school district makes walking/biking to school not an option for some students.	Coordinate with the community and county to coordinate a periodic bus/park and walk activity. Do walking field trips, when appropriate. Continue to host bike rodeos and other community events that promote activity.	Opportunities to walk and bike to school for all individuals. Encouragement of a healthy lifestyle.	Fosston School District	Medium Priority
I	Fosston Public School District, Polk County Sheriff's Department	Fear of letting children walk alone to school exists and can influence walking/biking alone to school. School violence is increasing in the US.	<p>Continue law enforcement presence during school arrival and dismissal times. Promote active, regular planning with law enforcement personnel.</p> <p>Polk County Law Enforcement also has a drone. A flyover will be done so that aerial/video views during arrival, dismissal and other agreed upon times can be utilized for future planning purposes.</p>	<p>Presence of nearby law enforcement in times of need as well as continued traffic regulation and pedestrian safety benefits.</p> <p>Map of aerial views for future planning efforts.</p>	Polk County Sheriff's Department, Fosston School District, City of Fosston.	Medium Priority

#	LOCATION	PROBLEM/ISSUE	POTENTIAL SOLUTION/RECOMMENDATION	ANTICIPATED OUTCOME	LEAD	PRIORITY
J	Throughout City of Fosston	Ice and snow is a barrier for walking in winter months. Snow collects on berms and curbs. Ice collects on roads and sidewalks in the front of both schools. Empty lots also influence sidewalks and how much snow drifts upon them.	Fosston School District long-term maintenance plan lists upgrades happening including turf replacement on east side for drainage (2021) and downspout replacement (2023). Roofing upgrades listed in this plan will also positively affect stormwater drainage and runoff. City of Fosston has sidewalk upgrades listed in letter B. More frequent cleaning of city owned sidewalks and lots with possible alteration of existing snow removal equipment. Also will support snow removal campaign efforts listed above.	While winter issues cannot be completely mitigated, addressing snow issues will lead to safer walking and biking as well as reduce the risk of injuries. Snow can be a barrier for sidewalk and crosswalk use.	Fosston School District, City of Fosston	Medium/High Priority
K	Behind Magelssen Elementary School near 410 th St. SE. View A Map Here (Magelssen)	Congestion is sometimes seen during the end of the day at the elementary school for child pick-up. Traffic can spill onto the adjoining street.	Continue enforcement of child drop-off and pick-up policies. Create a park and walk system that identifies places/times to drop off children with an adult. Would need additional meetings to officially designate approved locations that keep kids away from heavy traffic areas and unsafe walkways.	Child pick-up and drop-off is deliberately separated from bus traffic and children walking to school. This policy keeps students safe. Bus drop/Park and walk system could save parents travel time and alleviate pick-up and drop-off lines at Magelssen Elementary.	Fosston School District	Medium Priority
L	City of Fosston, Fosston School District.	Special needs and wheelchair students can have issues getting/rolling to school. Identified projects often need time for the necessary funding/planning requirements to be met. There are some identified infrastructure in the school that needs alteration, ramps and other ADA compliance (Appendix H)	Ensuring ADA compliance is planned for in future upgrades by the school and city and occurs often. It is phased into local plans. Fosston sidewalk project listed in Letter B above addresses this issue, as well as the FIT trail and other planned upgrades. Fosston School District long-term maintenance plan lists upgrades happening including (but not limited to) sidewalk replacement at west entrance (2024, 2028), entrance door work involving stoop installation (2023) and an accessibility ramp (2019). Other infrastructure enhancements not listed here but can be found in Appendix H.	Higher ADA compliance structures within the city of Fosston and the Fosston School District. Greater ease of access for individuals that utilize wheelchairs within Fosston.	Fosston School District, City of Fosston	High Priority
M	BNSF railroad tracks and crossings through city limits (Appendix G)	Crossing the railroad tracks can pose a danger to vehicles, bikes and pedestrians. Vehicular collisions have affected residents in the past. Trains can travel through the city at high speeds.	City of Fosston will continue to monitor state of railroad tracks and crossings within city limits, working with BNSF to upgrade when necessary to provide safe crossings and healthy train speed through Fosston.	Safer rail crossings for pedestrian, bike and vehicular traffic. Lessened chance of a derailment from local railcars.	City of Fosston, BNSF	High Priority
N	Johnson Ave. View A Map Here	Existing decorative lighting needs higher power light bulbs for pedestrians walking.	City of Fosston will change light bulbs present in decorative lighting, possibly supplementing with LED lighting to keep the aesthetics while brightening up the area.	Safer, well-lit sidewalks present in Fosston	City of Fosston	Medium Priority
O	Intersection by Nords (South Johnson Ave. & 2 nd St.) View A Map Here Intersection by Methodist Church (2 nd St. & Granum Ave) View Map	Hard to see intersection for pedestrian and vehicular traffic. Traffic often pulls ahead. Trees near the intersection block the view for traffic. Pedestrians could be at risk.	City of Fosston will study this intersection, possibly requesting future infrastructure changes such as bump-outs. City of Fosston will look at tree maintenance at intersections throughout Fosston.	Safer intersections within the city of Fosston.	City of Fosston	Medium Priority



Example of trails that people use when no sidewalks are present. In support of adding sidewalks to Fosston.



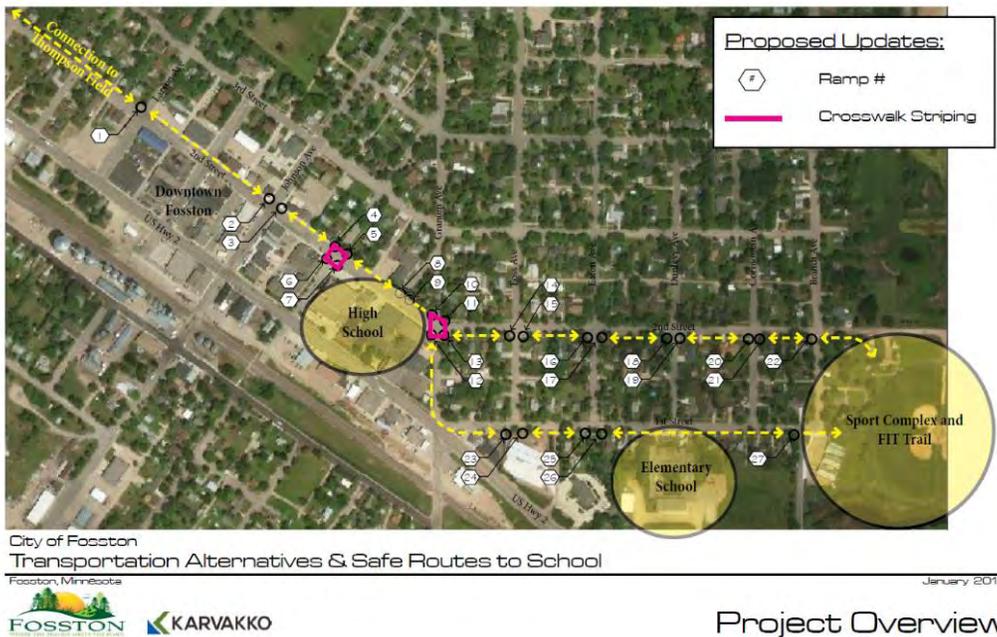
5-way intersection with a recommended traffic study on US Highway 2 near a business that sees high student traffic.



Area in front of Magelssen Elementary in the summer showing a maintenance need.



Area in front of Magelssen Elementary in the winter showing drainage, ice build-up and other winter issues that cause maintenance issues in the summer.



Project Overview

Map detailing ramp and crosswalk upgrades to a route connecting Thompson Field to the FIT Trail. The elementary and high schools are incorporated. (Recommendation B)







Sidewalks (1 of 2)

PEDESTRIAN SAFETY STRATEGIES



DESCRIPTION AND DEFINITION

A sidewalk is a path for pedestrian travel placed along the side of a roadway, usually separated from roadway traffic lanes by curb and gutter and sometimes by a planting strip or buffer zone.

SAFETY CHARACTERISTICS

The safety benefits of sidewalks come from the ability to provide pedestrians with their own travel space that is separated from the traffic on a roadway (FHWA-RD-01-101).

PROVEN, TRIED, OR EXPERIMENTAL

Sidewalks are a PROVEN safety strategy. Sidewalks on both sides of a street have been found to significantly reduce occurrences of “walking along the roadway” compared to locations where no sidewalks or walkways exist.

Walking along the roadway is a pedestrian crash risk (that is, the probability of a pedestrian being struck is higher if a sidewalk is not present.) Research has found an 88 percent reduction in “walking along the roadway” pedestrian crashes with the installation of sidewalk and/or walkways on both sides of the road (McMahon, et. al.).

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

The effort of planning for a network of sidewalks should include an audit of the current sidewalk system. The audit should document the accessibility of transit stops/service, schools, public buildings, and parks, etc., to pedestrians and should include consideration of sidewalk design issues, including obstructions (e.g., fire hydrants, signposts, etc.) and compliance with Americans with Disabilities Act (ADA) Standards for Accessible Design (see PROWAG guidelines).

For safety reasons, sidewalks should be implemented on all urban arterials and collectors, whenever possible. For urban streets without sidewalks or walkways, priorities should be established for adding new sidewalks. For example, higher priorities should be given for sidewalk installation on roads that connect pedestrian origins and destinations (for instance, connecting neighborhoods with schools and shopping areas) and for roads with higher speeds and volumes with priority at locations without shoulders.

TYPICAL COSTS

Typical costs for implementation of sidewalks vary depending on the location, amount of available right-of-way, and materials used, but are generally in the range of \$4 to \$5 per square foot for a concrete sidewalk, excluding costs for purchasing additional right-of-way. The cost for adding standard curbs and gutters is approximately \$20 to \$35 per linear foot, although the costs will vary

Sidewalks (2 of 2)

PEDESTRIAN SAFETY STRATEGIES

depending on the length of sidewalk, the type of base material, and whether curb ramps are needed. Asphalt curbs and walkways are less costly, but require more maintenance, when compared to concrete sidewalks.

DESIGN FEATURES

Items to consider when reviewing existing sidewalk or planning for the design of new sidewalks include the following:

- Curb ramps**—To meet ADA requirements, curb ramps at crosswalks along a sidewalk must be installed during reconstruction of roadways. Ideally, when curb ramps are installed, a ramp should be provided for each crosswalk, instead of a single ramp at the corner. Curb ramps on each side of a crosswalk not only provide better orientation for pedestrians who are visually impaired, but also assist pedestrians who use wheelchairs with direct connection to crossing the roadway instead of directing them toward the center of the intersection. Tactile warnings on curb ramps are also important. The ADA Standards for Accessible Design require that a strip of truncated dome-type tactile warning be placed on the base of the crosswalk.
- Sidewalk widths**—The Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE) recommend a minimum sidewalk width of 5 feet, which allows two people to walk comfortably side-by-side or two people to pass each other in the opposite direction. Wider sidewalks will be needed in urban areas which carry substantial volumes of pedestrians.

- Continuity**—Sidewalks should be continuous, installed on both sides of the roadway, and relatively free of obstacles that could cause a tripping hazard or impede travel by children, senior citizens, and people with visual or mobility impairments.
- Cross slope**—The cross slope of sidewalks should be less than 2 percent. Cross slopes greater than 2 percent cause pedestrians in wheelchairs to counteract the force of the cross slope, which, depending on the direction of the slope, may direct the wheelchair towards the roadway.
- Buffer zone**—A buffer zone of 4 to 6 feet is desirable to separate the sidewalk from the street and to improve the pedestrian's level of comfort. Landscaping strips, parked cars, and bicycle lanes can provide acceptable buffers.
- Shared Use Paths**—Consideration should be given for the need for a shared use path or trail. These differ from sidewalks in that they designate space on the path, separating bicycles and pedestrians, and are usually not adjacent to local streets. More information can be found in MnDOT's Bikeway Facility Design Manual

BEST PRACTICE

For safety reasons, sidewalks should be considered for implementation on all urban arterials and collectors, especially locations that connect pedestrian origins and destinations (for instance, connecting neighborhoods with schools and shopping areas) and for roads with higher speeds and volumes, with priority for locations without shoulders.

SOURCES

American Association of State Highway and Transportation Officials (AASHTO). 2004. *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. July.
 Federal Highway Administration (FHWA). 2002. *An Analysis of Factors Contributing to "Walking Along Roadway" Crashes: Research Study and Guidelines for Sidewalks and Walkways*. FHWA-RD-01-101. February.
 McMahon, Patrick J.; Charles V. Zegeer, Chandler Duncan, Richard L. Knoblauch, J. Richard Stewart, Asad J. Khattak.
 Federal Highway Administration (FHWA). 2005. *Pedestrian Countermeasure Policy Best Practice Report*. FHWA-SA-11-017. September.
 US Department of Justice. 2010. *Standards for Accessible Design*. Federal Register. September 15.
 Minnesota Department of Transportation. 2007. *MnDOT Bikeway Facility Design Manual*. March.



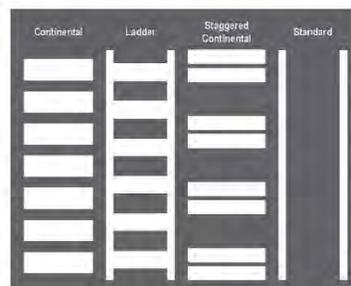
Crosswalks and Crosswalk Enhancements (1 of 6)

PEDESTRIAN SAFETY STRATEGIES

DESCRIPTION AND DEFINITION

A marked crosswalk is a type of pavement marking that indicates to pedestrians the recommended location to cross the roadway and also alerts approaching motorists as to where pedestrians may be crossing the street. In Minnesota, a legal crosswalk does not necessarily have to have a marked crosswalk. State laws (MN STATUTE 169.011, subd. 20 and STATUTE 169.21, subd. 2) define a legal crosswalk as the extension of the sidewalks across a road, whether it has a marked crosswalk or not. Marked crosswalks are often installed at signalized intersections, at a school zone crossing (whether signalized or not), and at unsignalized locations where engineers determine that there are enough pedestrians to justify a marked crossing. Crosswalks may be marked at midblock crossing locations as well as at intersections (see Pedestrian Hybrid Beacon System).

A variety of crosswalk enhancements may be used at marked crosswalks. For example, high-visibility crosswalks (ladder and continental styles) are much more visible to motorists than parallel-line crosswalks. An illustration of high-visibility crosswalks is provided.



An advance warning sign and signs at the crossing are typically installed where it is determined that signing is needed to supplement the markings to better alert drivers of the crosswalk placement. There are some situations, such as on multi-lane roads (roads with three or more vehicle lanes) where an advance stop or yield line with corresponding sign ("Stop here for pedestrians") may be useful to encourage motorists to stop or yield 20 to 50 feet in advance of the marked crosswalk. Studies have shown that having such advance stop or yield lines on multi-lane roads can reduce the risk of a "multiple-threat" pedestrian crash. (Note: A multiple-threat pedestrian crash sometimes occurs when one vehicle stops for a pedestrian right at the marked crosswalk and blocks the pedestrian's view, or sight distance, of an approaching vehicle in an adjacent lane. The approaching motorist and the crossing pedestrian do not see each other until it is too late to avoid a collision.) Having an advance yield line can improve the sight distance, because the stopping vehicle stops in advance of the crosswalk, and increases the visibility between the pedestrian and the approaching vehicle. The advance yield line allows more time and distance for a collision to be avoided.

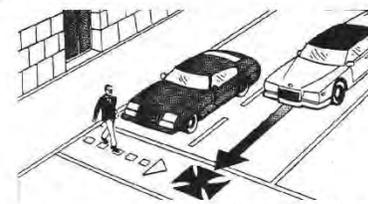


Illustration of a Multiple-threat Pedestrian Crash



Crosswalks and Crosswalk Enhancements (3 of 6)

PEDESTRIAN SAFETY STRATEGIES

PROVEN, TRIED, OR EXPERIMENTAL

The addition of marked crosswalks alone, without other more substantial roadway treatments, has not been found to reduce pedestrian crash rates, and may present an increased crash risk on multi-lane roads with vehicle volumes above 12,000 vehicles per day (unless other safety enhancements—such as traffic and pedestrian signals or raised medians—are also installed). Therefore, when providing pedestrian crossings, it is important to also consider crosswalk enhancements.

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

Crosswalks with vehicle stop lines should be considered at all signalized intersections where an engineering study finds that pedestrians would benefit. Crosswalks clearly indicate to motor vehicle drivers where they should stop; the crosswalks then delineate a path for pedestrians.

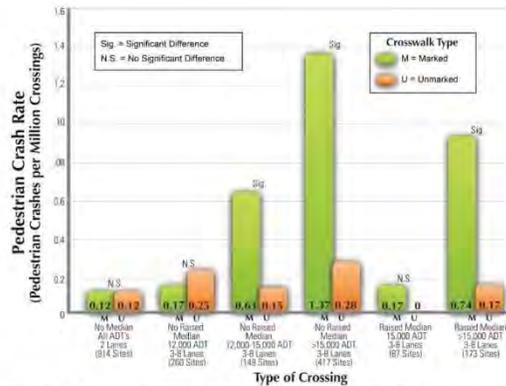
Marked crosswalks at uncontrolled intersections without related enhancements are unlikely to increase pedestrian safety. Marked crosswalks have been found to be as safe as unmarked crosswalks on two-lane roads and multi-lane roads that have average daily traffic (ADT) rates below 12,000 vehicles per day. However, on the multi-lane roads (three or more vehicle lanes) with higher volumes (above 12,000 ADT), other crosswalk enhancements should be considered.

MnDOT's Crosswalk Installation Decision flowchart, published in the *Guidance for Installation of Pedestrian Crosswalks on Minnesota State Highways*, can be used to determine the appropriate application of crosswalks at a given location.

TYPICAL COSTS

The following are typical approximate costs for installing crosswalk facilities:

- Standard (parallel-line) crosswalk: \$100 to \$200 each
- Ladder crosswalk: \$300
- High-visibility crosswalk: \$600 to \$5,000
- Patterned, stamped, or stained concrete crossings can cost up to \$3,000
- Typical signing and markings for a parallel-line crosswalk costs approximately \$2,000
- Maintenance of the markings must also be considered.



Source: Charles V. Zegers, et al., *Safety Effects Of Marked Vs. Unmarked Crosswalks At Uncontrolled Locations: Executive Summary And Recommended Guidelines, 1996-2001*. http://www.walkbicycles.org/pdf/cvz-crosswalk_021302.pdf

Curb Extensions (1 of 2)

PEDESTRIAN SAFETY STRATEGIES



DESCRIPTION AND DEFINITION

A curb extension is an extension of the sidewalk into the roadway that reduces the crossing distance of a roadway for pedestrians and their exposure to vehicular traffic.

SAFETY CHARACTERISTICS

Curb extensions can improve the safety of pedestrian crossings by reducing the pedestrian crossing distance, improving the visibility of pedestrians (by

positioning them in front of parked cars, traffic signs, streetlights, etc.), and reducing the time and distance that pedestrians are in the street. In addition, drivers are encouraged to reduce speeds at intersections or midblock locations with curb extensions, because the restricted street width sends a visual cue to drivers and the tight curb radii results in slower turning speeds. The reduction in the street cross section caused by curb extensions can also eliminate improper passing of turning vehicles by through movement vehicles. Curb extensions usually do not extend into travel lanes, bicycle lanes, or shoulders. On streets with parking, the curb extension should typically extend to the edge of the parked vehicles. The turning needs of larger vehicles such as trucks and school buses, need to be considered in curb extension design.

PROVEN, TRIED, OR EXPERIMENTAL

Curb extensions are a TRIED safety strategy. They shorten the crossing distance for pedestrians, reduce the speeds of turning vehicles, and improve the sight distance between motorists and crossing pedestrians. The specific effects on pedestrian crashes, however, have not been quantified.

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

Curb extensions are appropriate where there is an on-street parking lane. The curb extension moves the parked vehicles farther back from the intersection, improving sight lines and improving visibility of pedestrians near parked vehicles.

TYPICAL COSTS

Curb extensions cost from \$5,000 to \$10,000 per corner, depending on design and site conditions. Drainage is usually the most significant determinant of costs. If the curb extension area is large and special pavement and street furnishings and plantings are included, costs could be higher. Costs can go up significantly



Curb Extensions, City of Minneapolis
Source: City of Minneapolis Pedestrian Master Plan



Source: www.pedbikeimages.org / Dan Burden

Curb Extensions (2 of 2)

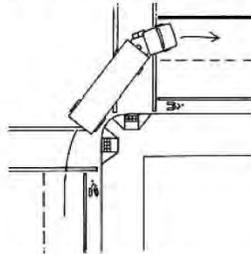
PEDESTRIAN SAFETY STRATEGIES

if something major such as a signal mast arm or controller box is moved. Curb ramps costs typically range from \$500 to \$1,600 each. The approximate cost of truncated domes is about \$40 per square foot, or \$300 each and is included in the overall costs above.

DESIGN FEATURES

Typically, the ideal implementation of curb extensions is on a roadway with a parking lane and where transit and/or bicyclists would be traveling outside of the curb edge for the entire length of the street.

The amount of heavy truck or bus traffic should be considered when designing curb extensions. However, it is important to consider that most trucks and buses can make tight turns at low speeds, which is desirable at an intersection with heavy pedestrian usage. It is also not always necessary for a roadway to be designed so that a vehicle is expected to turn from a right lane to another right lane—that is, the vehicles can often encroach into adjacent lanes safely where volumes are low and/or vehicle speeds are slow (example shown in sketch).

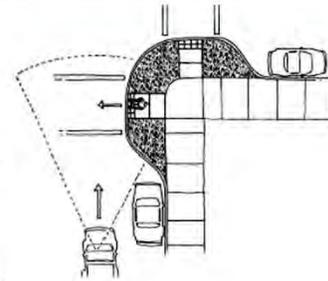


Emergency access is often improved through the use of curb extensions, as intersections are kept clear of parked cars. Drivers of fire engines and other emergency vehicles can climb a curb, whereas they would not be able to

move around a parked car. In addition, at mid-block locations, curb extensions can keep fire hydrants clear of parked cars and make them more accessible.

Curb extensions can be used to place landscaping and street furniture, which is especially beneficial where sidewalks are otherwise too narrow. However, care should be taken to ensure that street furniture and landscaping in the curb extension do not block motorists' view of pedestrians and vice-versa.

Stormwater runoff should be considered and additional catch basins may be required at locations with curb extensions. Where the crowns of the street are steep, curb extensions may actually go uphill because the new curb is higher than the original curb. If poorly designed, this configuration can result in puddles on the sidewalk. For winter maintenance, providing a marker delineating the extension can help plow truck drivers properly navigate around the extension.



BEST PRACTICE

Curb Extensions improve pedestrian safety by reducing the crossing distance and improving sight lines between pedestrians and drivers. The most common usage of curb extensions is to shadow on street curb parking along urban arterials.

SOURCES

Federal Highway Administration. 2005. Pedestrian Safety Impacts of Curb Extensions: A Case Study. <http://contextssensitivesolutions.org/content/reading/impacts_curb_ext/>. September, 2012



Pedestrian Hybrid Beacon System (1 of 3)

PEDESTRIAN SAFETY STRATEGIES



DESCRIPTION AND DEFINITION

A pedestrian hybrid beacon system, also known as a high-intensity activated crosswalk (HAWK), is a beacon installed at mid-block crosswalks. It consists of both a vehicle beacon with two side-by-side red lenses and a single yellow lens below the red, and also typical pedestrian signal heads with a WALK signal. The beacon remains dark until the pushbutton is activated by a pedestrian and the beacon flashes a sequence of amber warning beacons followed by a red STOP beacon, a message that tells motorists to stop for pedestrians at the crosswalk.

SAFETY CHARACTERISTICS

The purpose of the pedestrian hybrid beacon system is to provide gaps in roadway traffic at a crosswalk that allow pedestrians to cross safely. The crosswalk treatment is a tried safety strategy with up to 97 percent vehicle compliance of stopping at the crosswalk during the steady red beacon phase.

A 69 percent reduction in vehicle pedestrian crashes was found in a Federal Highway Administration (FHWA) study, and it was also found to be associated with a statistically significant 29 percent decrease in all crashes. It should be noted that like any warning traffic control device, the pedestrian hybrid beacon system may not work as effectively if it is used at too many locations with low pedestrian activity, or if it is not warranted.

Drivers		Pedestrians	
... will see this	... will do this	... will see this	... will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution if Clear		Continue Crossing (Crosswalk Signal)
	Proceed if Clear		Push the Button to Cross

Pedestrian hybrid beacon phases
Source: Michele Weisbart

PROVEN, TRIED, OR EXPERIMENTAL

Due to the low number of installations and research on the pedestrian hybrid beacon system, it is considered a TRIED strategy, but with promising results, including the 69 percent reduction in vehicle-pedestrian crashes in one study and a 29 percent reduction in total crashes.

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

As stated in Minnesota's 2011 *Manual on Uniform Traffic Control Devices* (MUTCD), pedestrian hybrid beacons should only be used in conjunction with a marked crosswalk and not at an intersection, because they are not intended to assist vehicles on a minor road with entering or crossing a major

Pedestrian Hybrid Beacon System (2 of 3)

PEDESTRIAN SAFETY STRATEGIES

road. However, the limitation of the pedestrian hybrid beacon to be used only at midblock locations is currently under discussion within the industry, and consideration is being given to its use at minor intersections.

The beacon is intended solely to assist pedestrians.

“Standard:

If used, pedestrian hybrid beacons shall be used in conjunction with signs and pavement markings to warn and control traffic at locations where pedestrians enter or cross a street or highway. A pedestrian hybrid beacon shall only be installed at a marked crosswalk.”

—MINNUTCD Chapter 4F

Typically, pedestrian hybrid beacons are used at locations where there are limited gaps in traffic for pedestrians to more safely cross the roadway or where vehicle speeds are too high to allow pedestrians to cross safely. The beacons should be used at locations with high volumes of pedestrian traffic, such as near transit stops or schools.

As with any new safety strategy, public outreach is needed to provide information on how the beacon operates and what drivers and pedestrians should do when encountering it.

TYPICAL COSTS

The costs for a typical beacon system can range from approximately \$50,000 to \$120,000, depending on site conditions and what equipment is already installed. Operating costs are approximately \$4,000 per year. A pedestrian hybrid beacon was installed in St. Cloud, Minnesota, in 2009 at a cost of about \$80,000, which included the costs of two mast arms, push button stations, a signal controller, and signs and markings.

DESIGN FEATURES

The pedestrian hybrid beacon system includes both vehicular beacons for roadway traffic and pedestrian signals (WALK and DON'T WALK). The vehicular beacons are suspended above the roadway with two round red lenses side-by-side, above a single yellow lens. There must be at least two beacons facing each vehicular approach to the crossing. A stop line should also be installed for each approach to the crosswalk.

When a pedestrian at the crosswalk presses the pedestrian push buttons, the vehicular beacon changes from a blank-out display to a flashing amber phase, then displays steady yellow, and finally steady red over a period of several seconds. While the vehicular beacon is red, the pedestrian signals changes from the DON'T WALK or hand display to the WALK indication (the WALK message or the walking-person with a countdown timer). During the pedestrian crossing phase the two vehicle beacons will alternate on and off, or wig-wag, red. The pedestrian signal will then display a flashing DON'T WALK (flashing hand). Then, the beacon facing motorists goes dark and the pedestrian signal remains in steady DON'T WALK (steady hand) display until the signal is activated by another pedestrian.

In addition to being used at crosswalks, pedestrian hybrid beacons may also be applied to crossing on multi-use trails, where beacons can be activated by pedestrians or bicyclists.



Rectangular Rapid Flashing Beacon (1 of 2)

PEDESTRIAN SAFETY STRATEGIES



DESCRIPTION AND DEFINITION

A rectangular rapid flashing beacon (RRFB) has two rapidly and alternatively flashing rectangular yellow indications attached to supplement the pedestrian warning sign (W11-2) or school crossing sign (S1-1) at a crosswalk. The beacon, when activated manually by a pedestrian or passively by a pedestrian detection system, uses an irregular flash pattern similar to emergency flashers on police vehicles, an alternating “wig-wag” flashing sequence (left light on, then right light on) with a pulsing light source.

SAFETY CHARACTERISTICS

The city of St. Petersburg, Florida completed experimentation with RRFBs at 18 pedestrian crosswalks across uncontrolled approaches including before and after data. The results showed high rates of motorist “yield to pedestrians” compliance, between 80 and 100 percent. These rates are in comparison to far lower rates (in the 15 to 20 percent range) for standard beacons. These high rates of yielding were even sustained two years after the installation of the RRFBs.

These high compliance rates are similar to a full traffic signal and a pedestrian hybrid beacon system, both of which stop traffic with steady red signal indications. This study also found that drivers were yielding or slowing down further in advance of the crosswalk with RRFB than with standard round yellow flashing beacons.

PROVEN, TRIED, OR EXPERIMENTAL

Due to the low number of installations and research on the RRFBs, they are considered a TRIED strategy, but with promising results including an increase from 16 percent yielding compliance for a standard yellow overhead beacon to 78 percent yielding compliance with the installation of a RRFB (Report FHWA-HRT-10-043).

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

The purpose of the RRFB is to increase driver awareness of crosswalks that are not across approaches controlled by YIELD signs, STOP signs, or traffic control signals. They can be used on crosswalks across the approach to and/or egress from a roundabout.

As with any new safety strategy implementation, effort should be made to perform outreach to the public to provide information on how the beacon operates and what drivers and pedestrians should do when encountering it.

TYPICAL COSTS

Costs for the installation of two units (one on either side of the street) range from \$10,000 to \$15,000. This cost includes all the signs and lights plus the solar panels for powering the unit. The costs vary depending on the type of activation, either manually by the pedestrian or passive detection.

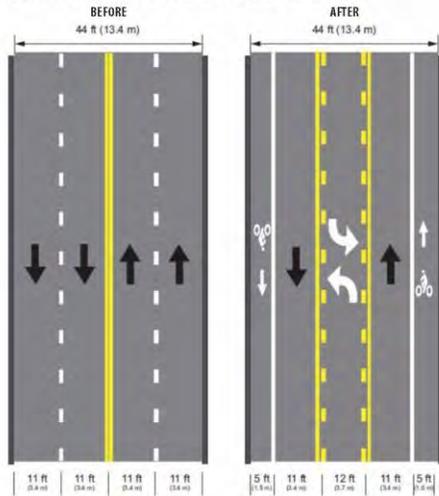


Road Diet (1 of 3)

BICYCLE SAFETY STRATEGIES

DESCRIPTION AND DEFINITION

"Road diet" is a term used for the reallocation of roadway lanes and/or space to integrate additional modes, such as bike lanes, pedestrian crossing islands, or parking, or a combination of modes on existing roadways. A common roadway reconfiguration involves converting an undivided four-lane (two-way) roadway into a three-lane roadway made up of two through lanes, a center two-way left turn lane, and a shoulder/bike lane, as shown below.



Source: American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities, Fourth Edition, 2012.*

Before and after photos of road diet conversions



8th Street and Wentworth Avenue, City of Bloomington, before and after a diet improvement



8th Street and Bryant, City of Bloomington, before and after a diet improvement



North 130th Street in Seattle, Washington, before and after a road diet improvement

Road Diet (2 of 3)

BICYCLE SAFETY STRATEGIES

SAFETY CHARACTERISTICS

Modifying from four lanes to two travel lanes with a two-lane left-turn lane has shown a 29 percent reduction in all roadway crashes (National Cooperative Highway Research Program [NCHRP] *Project 17-25 Final Report*).

According to the American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities, Fourth Edition*, safety benefits associated with this type of road diet include the following:

- Typically lower speeds due to one travel lane in each direction, and no passing allowed, requiring vehicles driving at higher speeds to slow down when following vehicles traveling at posted speeds. Lower travel speeds may reduce potential crash severities for all users.
- Reduction in the number of travel lanes (to just one in each direction) substantially reduces the likelihood of "multiple-threat" crashes (where a driver in one lane stops to yield, but the driver in the adjacent lane continues at speed). This reduction is a safety benefit for pedestrians, left-turning motorists, and bicyclists.
- The addition of left turn lanes provides a place for both motorists and bicyclists to make left turns, thus reducing the incidence of left-turn, rear-end crashes.
- Reduced incidence of sideswipe crashes because motorists no longer must change lanes to pass a vehicle waiting to make a left turn from the left-most through lane.
- The potential to construct a raised median or small refuge island at some pedestrian crossing locations, improving ease of pedestrian crossings and reducing the likelihood of crashes involving pedestrians.
- Improves visibility for left-turning vehicles.

PROVEN, TRIED, OR EXPERIMENTAL

The conversion from a four-lane undivided to a three-lane roadway is a **PROVEN** safety strategy for vehicle crashes, but with the limited amount of research on the benefits for pedestrian safety, this strategy is **TRIED** for pedestrian and bicycle crashes.

TYPICAL CHARACTERISTICS OF CANDIDATE LOCATIONS

Locations with the most success with road diet implementation have 15,000 or fewer vehicles per day, but there are a number of roads in the Minneapolis/St. Paul metropolitan area with volumes as high as 20,000 vehicles per day that have had successful road diet implementations.

"Before implementing a road diet, a traffic study should be conducted to evaluate potential reductions in crash frequency and severity, to evaluate motor vehicle capacity and level of service, to evaluate Bicycle LOS [Level of Service], and to identify appropriate signalization modifications and lane assignment at intersections."

—AASHTO *Guide for the Development of Bicycle Facilities, Fourth Edition, 2012, Section 4*

Driveway density, transit routes, and the number and design of intersections along the corridor, as well as operational characteristics, are some considerations to be evaluated before deciding to implement a road diet. Improvements to intersection turn lanes, signing, pavement markings, traffic control devices, transit stops, and pedestrian and bicyclist facilities may be needed to support this concept.

TYPICAL COSTS

The cost for a road diet improvement, which involves re-striping a four-lane street to one lane in each direction and adding a two-way left-turn lane with bicycle lanes, is about \$25,000 to \$40,000 per mile. If done during planned resurfacing, costs are minimal. Cost depends partly on the number of lane lines that need to be repainted. The estimated cost of extending the sidewalks or constructing a raised median can amount to \$100,000 per mile or more.

Road Diet (3 of 3)

BICYCLE SAFETY STRATEGIES

DESIGN FEATURES

As shown in the graphic to the right from the City of Minneapolis *Ten-Year Transportation Action Plan*, there are many variations of the use of an 80-foot right-of-way cross section, including the typical road diet discussed with one lane of traffic in each direction and a center turn lane.

BEST PRACTICE

Road diets refer to the conversion of roadways from four travel lanes to two and provide a number of safety benefits for pedestrians and bicycles. The reduction in the number of lanes regularly results in a decrease in travel speeds. In addition, the likelihood of multiple (vehicle) threats for pedestrians crossing the roadway is virtually eliminated and a space is created in the road that can be converted to a bicycle lane. Minor arterials and collectors with traffic volumes under 18,000 vehicles per day are considered candidates for conversion.

SOURCES

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ALTERNATIVE CROSS SECTIONS





How to Get Involved

Using this Plan

At the heart of every successful Safe Routes to School comprehensive program is a coordinated effort by parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health.

This plan provides an overview of Safe Routes to School with specific recommendations for a 6 E's approach to improve the safety and the health and wellness of students. The specific recommendations in this plan are intended to support improvements and programs over the next 5 years. These recommendations include both long- and short-term infrastructure improvements as well as programmatic recommendations.

It should be noted that not all these projects and programs need to be implemented right away to improve the environment for walking and bicycling to school. The recommended projects and programs listed in this plan should be reviewed as part of the overall and ongoing Safe Routes to School strategy. Some projects will require more time, support, and funding than others. It is important to achieve shorter-term successes while laying the groundwork for progress toward some of the larger and more complex projects.

Once approved, it is suggested that meetings occur between the school district, city, local groups and other members listed in the beginning of this plan.

- Integration of the SRTS plan/efforts into school, city, partner and county plans, upgrades, trainings and infrastructure enhancements when possible.
- Periodic discussion with the SRTS planning group about the SRTS plan and its progress, adding new members as needed. Utilize member strengths for continued success.
- Periodic review and update of this plan on a regular basis (annual is suggested)
- Major updates to the plan taking place on a 3-5-year basis
- Keep track of goals/strategies that have been achieved and new strategies that should be added.
- Keep track of local success metrics, such as the number of successful walking/biking events held, local education classes held, etc.
- Continue to partner with MnDOT on future initiatives to keep children safe while walking and biking to school.



WHO ARE YOU?

Successful programs are achieved through the coordinated efforts of parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health. Each partner has a key role to play in contributing to a plan's success. The following paragraphs highlight the unique contributions of key partners in Safe Routes to School.

I AM A PARENT

Parents can use this report to understand the conditions at their children's school and to become familiar with the ways an SRTS program can work to make walking and bicycling safer. Concerned parents or city residents have a very important role in the Safe Routes to School process. Parent groups, both formal and informal, have the ability and the responsibility to help implement many of the educational and encouragement programs suggested in this plan. Parent groups can also be key to ongoing success by helping to fundraise for smaller projects and programs.

I AM A COMMUNITY MEMBER

Community residents, even if they don't currently have children enrolled in school, can play an important role in supporting implementation of the plan. They can use this report to better

understand where there may be opportunities to participate in programming initiatives and infrastructure improvements. Community members, including seniors or retirees who may have more flexible schedules than parents with school-aged children, may volunteer in established programs or work with school staff or community partners to start new programs recommended in this plan.

I WORK FOR THE SCHOOL DISTRICT

School district staff can use this report to prioritize improvements identified on District property and develop programs that educate and encourage students and parents to seek alternatives to single family commutes to school.

District officials are perhaps the most stable of the stakeholders for a Safe Routes to School program and are in the best position to keep the program active over time. District staff can work with multiple schools, sharing information and bringing efficiencies to programs at each school working on Safe Routes.

I AM A SCHOOL ADMINISTRATOR

School administrators have an important role in implementing the recommendations contained within this SRTS plan. For a plan to succeed, the impetus for change and improvement must be supported by the leadership of the school



School administrators can help with making policy and procedural changes to projects that are within school grounds and by distributing informational materials to parents within school publications. Please read the SRTS Facts for School Communication in Appendix B.

I AM A TEACHER OR OTHER STAFF MEMBER

Other than parents, teachers might interact with students the most. Teachers can include bicycle and pedestrian safety in lesson plans (see Walk! Bike! Fun!). Sharing books in your classroom that promote walking and biking is a good way to get kids interested at an early age. Teachers can also arrange for field trips within walking distance of school and incorporate informal lessons about safety along the way. In general, being positive and encouraging about walking and biking is a great way to start!

I WORK FOR THE CITY OR COUNTY

City and County staff can use this report to identify citywide issues and opportunities related to walking and bicycling and to prioritize infrastructure improvements. City staff can also use this report to support Safe Routes to School funding and support opportunities such as:

- MnDOT Safe Routes to School (SRTS) grants
- Federal Safe Routes to School (SRTS) grants
- Statewide Health Improvement Program (SHIP)

For all infrastructure recommendations, a traffic study and more detailed engineering may be necessary to evaluate project feasibility, and additional public outreach should be conducted before final design and construction. For recommendations within the public right-of-way, the responsible agency will determine how (and if) to incorporate suggestions into local improvement plans and prioritize funding to best meet the needs of each school community.

WORK FOR THE POLICE DEPARTMENT

Police department staff can use this report to understand issues related to walking and bicycling to school and to plan for and prioritize enforcement activities that may make it easier and safer for students to walk and bike to school. The Police Department will be instrumental to the success of the enforcement programs and policies recommended in this plan. The Police Department will also have a key role in working with school administrations in providing officers and assistance to some of the proposed education and encouragement programs.

I WORK IN PUBLIC HEALTH

Public health staff can use this report to identify specific opportunities to collaborate with schools and local governments to support safety improvements and encourage healthy behaviors in school children and their families.



Nord's Pharmacy & Gifts shared a post.

May 20 at 2:56 PM

It's Family Fun Night at Magelssen Elementary tonight! Over 60 Bikes being given away!!

There will also be Car Seat Checks, Bike Helmet Sale and fitting checks, and the bike safety rodeo!

#Community #HometownCaring #GearUpForSummer



Appendices

The following appendices provide additional supplemental information that was imperative toward the creation of this plan and the aforementioned SRTS strategies for Fosston.

Appendix A: Average Daily Traffic Counts Map

Appendix B: Heavy Commercial Traffic Average Daily Traffic Counts Map

Appendix C: Fosston Road Functional Classifications Map

Appendix D: Fosston Railroad Volumes Map

Appendix E: Fosston Highway 2 Speed Limits Map

Appendix F: City of Fosston Map

Appendix G: Railroad Crossings & Train Speeds Map

Appendix H: School Long-Term Facilities Maintenance Plan

Appendix I: Fosston Crash Listings

Appendix J: Fosston Survey Results

Appendix K: Sidewalk Pedestrian Ramp Replacement & Crosswalk Marking Project

Appendix L: Fosston Sidewalk Inventory

Appendix M: Forms

Appendix A - Average Daily Traffic



Appendix C - Road Classifications

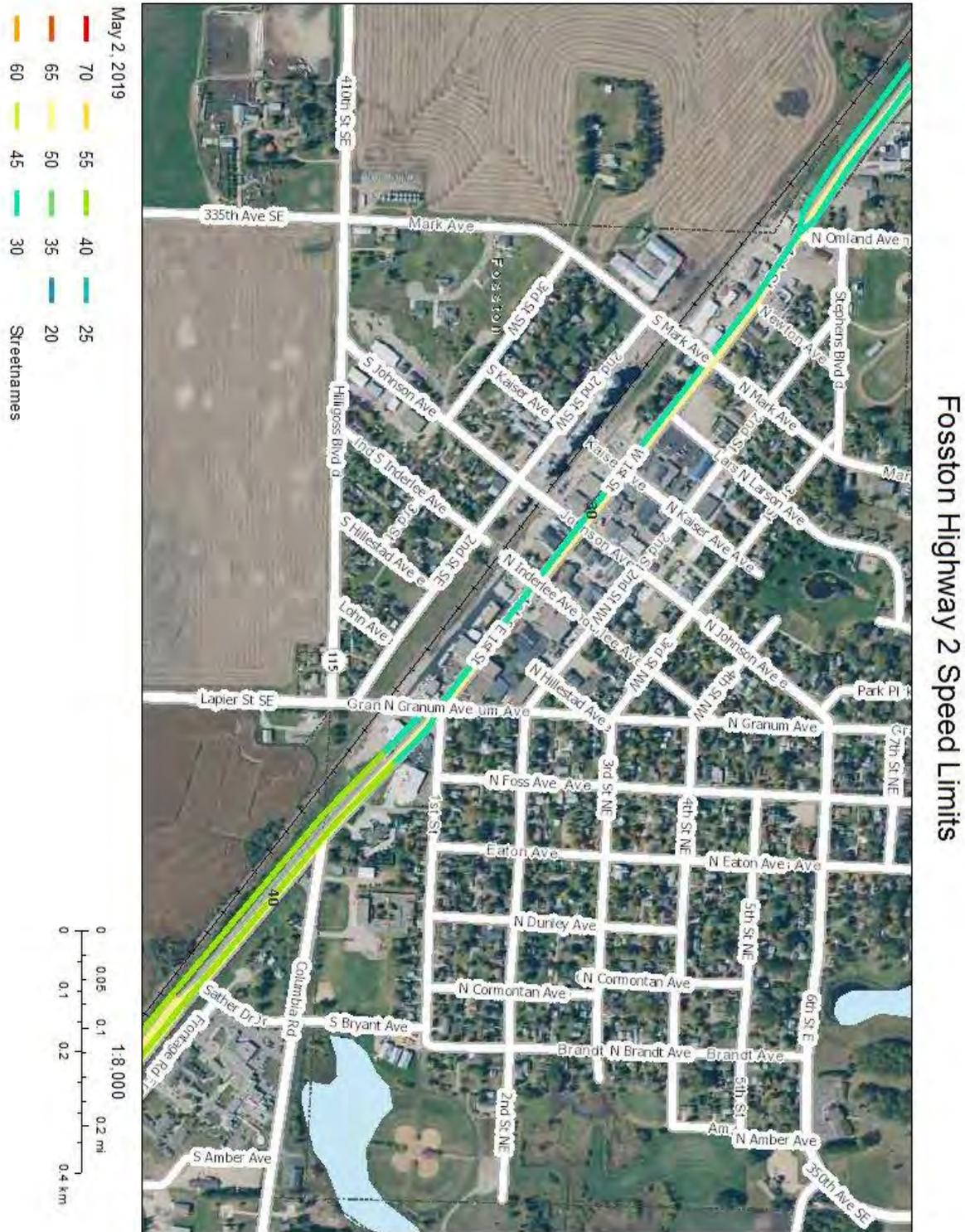
Fosston Road Functional Classification



Appendix D - Railroad Volumes



Appendix E – Hwy 2 Speed Limits

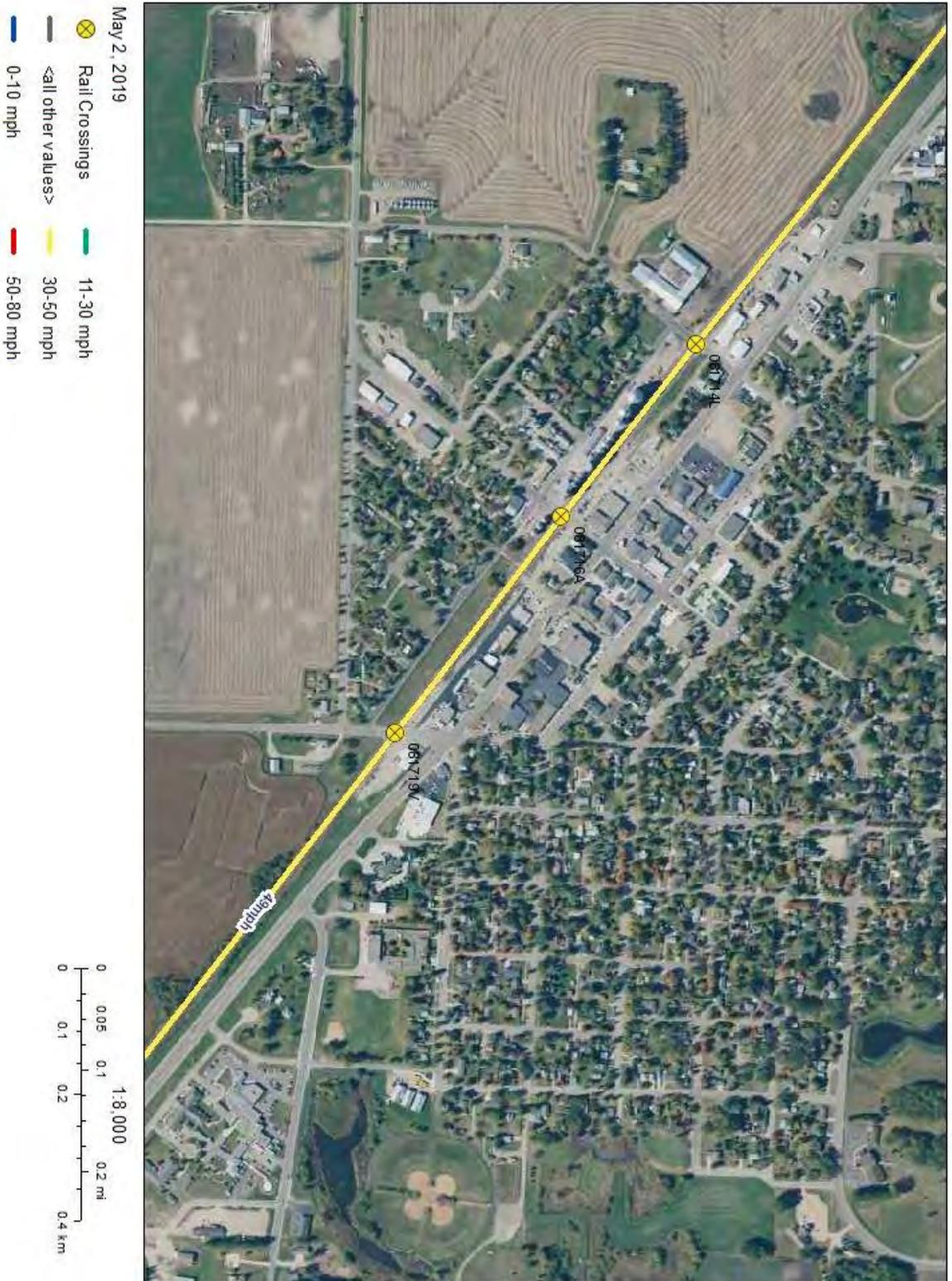


Appendix F - City of Fosston



Appendix G - Railroad Speeds

Fosston Railroad Crossings and Train Speed



Appendix H – Long-Term Facilities Maintenance



Magelssen

ITFM Project / Description	Budget	FACILITY MAINTENANCE															
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028					
Elementary Building Envelope																	
Control Joints in EIFS	\$1,375	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Clean Exterior Masonry, Repair/replace damaged and tuck	\$27,500	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Recaulk masonry control joints	\$2,063	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Re-stair/paint exterior wood	\$688	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace deteriorated Infill panels in window systems	\$20,625	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
Clean off efflorescence at gym brick	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
Paint steel and underside at SW canopy	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint steel and underside at east canopy	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair and recaulk sill along east wall	\$688	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Re-paint exterior steel doors and frames	\$688	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
Paint steel and underside at NE canopy	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint steel and underside at NW canopy	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Recaulk around perimeter of windows/door frames and	\$4,125	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair Asphalt pavement at front parking lot	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace weeps and weather-stripping around all doors	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tuck-point roof to wall transition over cafeteria	\$20,625	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint roof level louvers	\$688	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Caulk Roof level louvers	\$688	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Elementary Roofs																	
Roofs A (1990) and F (1987) Fully Adhered	\$289,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs A (1990) and F (1987) Fully Adhered	\$422,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs A (1990) and F (1987) BUR	\$569,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs B (1990) and G (2003) Fully Adhered	\$289,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs B (1990) and G (2003) BUR	\$289,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs C (1990) and H (1996) Fully Adhered	\$332,119	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs C (1990) and H (1996) BUR	\$442,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs D (1990) and I (1996) Fully Adhered	\$442,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs D (1990) and I (1996) BUR	\$442,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs E (1990) and J (1996) Fully Adhered	\$210,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs E (1990) and J (1996) BUR	\$210,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs F (1990) and K (1996) Fully Adhered	\$289,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roofs F (1990) and K (1996) BUR	\$289,499	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Elementary Interior																	
1952 Area																	
Patch and paint classrooms	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace Carpet	\$44,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace Chalkboards with white boards	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace Drinking Fountains (existing not ADA)	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace all cabinetry	\$89,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace wood doors	\$22,688	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Re-caulk perimeter/joints at windows	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Room 14 - remove and replace tile floor	\$3,438	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1952 Kitchen/Mechanical Rooms																	
Replace kitchen hall VCT with quarry tile	\$3,438	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace colling counter doors	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace casework with stainless steel	\$27,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint kitchen	\$688	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace tile floor at staff restrooms	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace all wood doors	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace lav at staff restrooms	\$4,125	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1952 Cafeteria																	
Patch and Paint restrooms	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Restroom ADA corrections	\$180,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fixture Replacement (Toilet, Urinal, LAV)	\$20,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace toilet partitions	\$6,250	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace ceiling tile in boys restroom	\$688	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace mirrors at corridor restrooms	\$1,031	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace lavs at corridor restrooms	\$4,125	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair tile walls and floors at cafeteria restrooms	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

High School

HS Building Envelope												
1937 Area												
Tuckpointing	\$206,250	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace windows/glass block throughout	\$302,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace Exterior Doors	\$37,813	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Replace sidewalk at West entrance for ADA	\$5,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Replace window sills	\$3,438	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Repair Plaster on north wall	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
1962 South												
Replace windows throughout	\$11,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair Brick along south	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
North Entrance doors not accessible due to setting. Install driveway on east	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace turf on east side for drainage	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace turf on east side for drainage	\$1,031	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1962 North												
Replace windows throughout	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair brick along NE corner	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair soffits at east entrance	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace doors at east entrance	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1981 North												
Replace Windows	\$28,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair Brick (3 areas)	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint Louver	\$344	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Exposed Insulation - Replace and Regrade	\$4,125	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tuckpoint Stone Wall	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1981 East												
Replace Windows	\$20,625	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tuckpointing (minor)	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace damaged downsput	\$688	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Damaged Overhead door section - Replace	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Entrance doors (2 locations) not ADA - Install stoop and w	\$5,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1981 South												
Replace Windows	\$11,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace damaged downsput	\$344	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace south entry doors	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tuckpointing/Repair	\$10,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1996 South												
Repair North and South Canopies - Removed	\$75,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Tuck-pointing (6 locations)	\$2,063	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Replace sidewalk at west entrance for ADA	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Repair EIFS near roof access	\$1,375	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Control Joint Caulking	\$6,875	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
General	\$0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Paint all Exterior Metal doors and frames	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Re-Caulk all masonry control joints and openings	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Provide new weather-stripping at all doors	\$13,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Caulk all EIFS control joints	\$2,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%



EXPENDITURE SHEET



Division of School Finance
1500 Highway 36 West
Roseville, MN 55113-4268

Long-Term Facilities Maintenance Ten-Year Expenditure Application

ED - 02478-04

Instructions: Enter estimated expenditures that are allowable uses of Long-Term Facilities Maintenance Revenue under Minnesota Statutes, section 123A.595, subdivision 10. Enter by Uniform Financial and Accounting Reporting Standards (UFARS) finance code by fiscal year in the space provided.

District Name		Fosston School District																						
District Contact for Questions on this Spreadsheet:		Kevin Kilde		Phone #:		218-435-6335		Email:		kilde@wofol.org														
Name:		Fiscal Year, Ending June 30th -->		District #		Date:																		
		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		
Estimated Expenditures:																								
Health and Safety - this section excludes project costs of \$100,000 or more for which additional revenue is requested for Finance Codes 368, 363 and 366.																								
Finance Code																								
Category																								
347	Physical Hazards	\$ 1,958.21	\$5,564	\$5,620	\$5,676	\$5,733	\$5,790	\$5,848	\$5,906	\$5,965	\$6,025	\$6,085	\$6,145	\$6,205	\$6,265	\$6,325	\$6,385	\$6,445	\$6,505	\$6,565	\$6,625	\$6,685		
349	Other Hazardous Materials	\$ 262.50	\$3,736	\$1,248	\$1,261	\$1,273	\$1,286	\$1,299	\$1,314	\$1,327	\$1,340	\$1,354	\$1,367	\$1,381	\$1,394	\$1,408	\$1,421	\$1,435	\$1,448	\$1,462	\$1,475	\$1,489	\$1,502	
332	Environmental Health and Safety Management	\$ 7,711.51	\$14,693	\$14,640	\$14,988	\$15,138	\$15,290	\$15,442	\$15,597	\$15,752	\$15,910	\$16,070	\$16,230	\$16,390	\$16,550	\$16,710	\$16,870	\$17,030	\$17,190	\$17,350	\$17,510	\$17,670	\$17,830	
338	Asbestos Removal and Encapsulation	\$ 5	\$13,315	\$520	\$525	\$531	\$536	\$541	\$547	\$552	\$558	\$563	\$568	\$573	\$578	\$583	\$588	\$593	\$598	\$603	\$608	\$613	\$618	
363	Fire Safety	\$ 24,728.77	\$10,458	\$10,563	\$10,668	\$10,775	\$10,883	\$10,991	\$11,101	\$11,212	\$11,325	\$11,438	\$11,552	\$11,666	\$11,781	\$11,896	\$12,011	\$12,126	\$12,241	\$12,356	\$12,471	\$12,586	\$12,701	
366	Indoor Air Quality	\$ 34,661	\$47,746	\$32,791	\$33,119	\$33,450	\$33,784	\$34,122	\$34,465	\$34,810	\$35,158	\$35,510	\$35,865	\$36,222	\$36,582	\$36,944	\$37,308	\$37,674	\$38,042	\$38,412	\$38,784	\$39,158	\$39,534	
Total Health and Safety Capital Projects																								
Health and Safety - Projects Costing \$100,000 or more per Site/Year																								
Finance Code																								
Category																								
338	Asbestos Removal and Encapsulation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
363	Fire Safety	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
366	Indoor Air Quality	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Health and Safety Capital Projects \$100,000 or More																								
Remodeling for Approved Voluntary Pre-K under Minnesota Statutes, section 124B.151																								
Finance Code																								
Category																								
335	Remodeling for prekindergarten (pre-K) instruction approved by the Commissioner	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Accessibility																								
Finance Code																								
Category																								
367	Accessibility	\$0	\$35,000	\$0	\$2,918	\$51,757	\$6,072	\$6,194	\$53,845	\$0	\$6,704	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Deferred Capital Expenditures and Maintenance Projects																								
Finance Code																								
Category																								
368	Building Envelope	\$ 14,342.88	\$25,000	\$0	\$131,689	\$64,946	\$89,603	\$72,778	\$1,579	\$16,110	\$0	\$3,636	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
369	Building Hardware and Equipment	\$ 5,409.50	\$8,375	\$0	\$0	\$0	\$0	\$0	\$29,851	\$0	\$8,216	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
370	Electrical	\$ 4,789.45	\$0	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
379	Interior Surfaces	\$ 34,854.65	\$11,200	\$46,616	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
380	Mechanical Systems	\$ 20,137.66	\$0	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
381	Plumbing	\$ 9,316.91	\$5,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
382	Professional Services and Salary	\$ 10,588.75	\$5,569	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
383	Roof Systems	\$ 2,699.81	\$15,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
384	Site Projects	\$ 6,770.56	\$43,800	\$0	\$8,390	\$114,946	\$139,603	\$175,110	\$125,813	\$204,659	\$59,216	\$3,636	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Deferred Capital Expense and Maintenance																								
Total Annual 10 Year Plan Expenditures																								
		\$143,551	\$196,710	\$144,407	\$226,116	\$200,153	\$179,460	\$217,926	\$214,123	\$239,469	\$99,374	\$95,890	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



ics CONSULTING, INC

Abbreviations

- ADA: Americans with Disability Act
- BUR: Built-Up Roof System
- EIFS: Exterior Insulation and Finish System
- Elem: Magelssen Elementary
- FY: Fiscal Year
- ICS: Innovate, Collaborate, Sustain
- LTFM: Long-Term Facilities Maintenance
- H&S: Health and Safety
- HS: Fosston High School
- HVAC: Heating, Ventilation and Air Conditioning
- VCT: Vinyl Composition Tile
- WSN: Wiseth, Smith, Nolting



Appendix I – Fosston Crash Listings

ROUTE NAME	MAP IT	COUNTY	CITY	DATE TIME	SEVERITY	Relationship to Intersection	FIRST HARMFUL EVEN/CRASH TYPE
USTH 2	Map It!	POLK	Fosston	1/22/2018	Property Damage Only Crash	T Intersection	Motor Vehicle in Transport
W 1ST ST	Map It!	POLK	Fosston	2/8/2018	Property Damage Only Crash	Driveway Access Related	Light Pole/Utility Pole
W 1ST ST	Map It!	POLK	Fosston	5/10/2016	0	Four-Way Intersection	Parked Motor Vehicle
W 1ST ST	Map It!	POLK	Fosston	1/6/2017	Property Damage Only Crash	Four-Way Intersection	Parked Motor Vehicle
S JOHNSON AVE	Map It!	POLK	Fosston	5/16/2017	Suspected Minor Injury Crash	Intersection Related	Motor Vehicle in Transport
N OMLAND AVE	Map It!	POLK	Fosston	11/7/2016	Property Damage Only Crash	T Intersection	Motor Vehicle in Transport
2ND ST NE	Map It!	Polk	Fosston	12/12/2017	Property Damage Only Crash	Four-Way Intersection	Motor Vehicle in Transport
2ND ST NE	Map It!	POLK	Fosston	5/3/2017	Possible Injury Crash	Not at Intersection, Interchange or Junction	Overturn/Rollover
E 1ST ST	Map It!	POLK	Fosston	1/4/2018	Property Damage Only Crash	T Intersection	Motor Vehicle in Transport
N EATON AVE	Map It!	POLK	Fosston	3/4/2016	Property Damage Only Crash	Intersection Related	Motor Vehicle in Transport

N DUNLEY AVE	Map It!	POLK	Fosston	2/8/2018	Property Damage Only Crash	Four-Way Intersection	Motor Vehicle in Transport
N MARK AVE	Map It!	POLK	Fosston	6/10/2017	Property Damage Only Crash	Intersection Related	Other - Fixed Object
N MARK AVE	Map It!	POLK	Fosston	2/23/2018	Property Damage Only Crash	Intersection Related	Motor Vehicle in Transport
SATHER DR	Map It!	POLK	Fosston	6/8/2016	Property Damage Only Crash	Intersection Related	Traffic Signal or Signal Structure
-- NOT ON ROADWAY --	Map It!	POLK	Fosston	5/10/2016	Property Damage Only Crash	Not at Intersection, Interchange or Junction	Light Pole/Utility Pole
USTH 2	Map It!	Polk		4/26/2017	Property Damage Only Crash	Not at Intersection, Interchange or Junction	Roadway Sign or Signal Structure
USTH 2	Map It!	Polk		1/2/2017	Property Damage Only Crash	Y Intersection	Motor Vehicle in Transport
USTH 2	Map It!	Polk		5/20/2016	Property Damage Only Crash	T Intersection	Motor Vehicle in Transport
430TH ST SE	Map It!	POLK		1/25/2016	Property Damage Only Crash	Not at Intersection, Interchange or Junction	Roadway Sign or Signal Structure
COLUMBIA RD	Map It!	POLK		7/27/2016	Property Damage Only Crash	Not at Intersection, Interchange or Junction	Parked Motor Vehicle
COLUMBIA RD	Map It!	POLK		7/17/2016	N/A	Not at Intersection, Interchange or Junction	Parked Motor Vehicle
320TH AVE SE	Map It!	POLK		1/22/2017	Property Damage Only Crash	Intersection Related	Overturn/Rollover

310TH AVE SE	Map It!	POLK		8/13/2017	N/A	Not at Intersection, Interchange or Junction	Overturn/Rollover
SATHER DR	Map It!	POLK		12/5/2016	Property Damage Only Crash	Four-Way Intersection	Motor Vehicle in Transport

Appendix J – Fosston Survey Results

Parent Survey Aggregate Summary

Program Name: Fosston School District

Date range: Fall 2018 (July - December 2018)

Date Report Generated: 01/02/2019

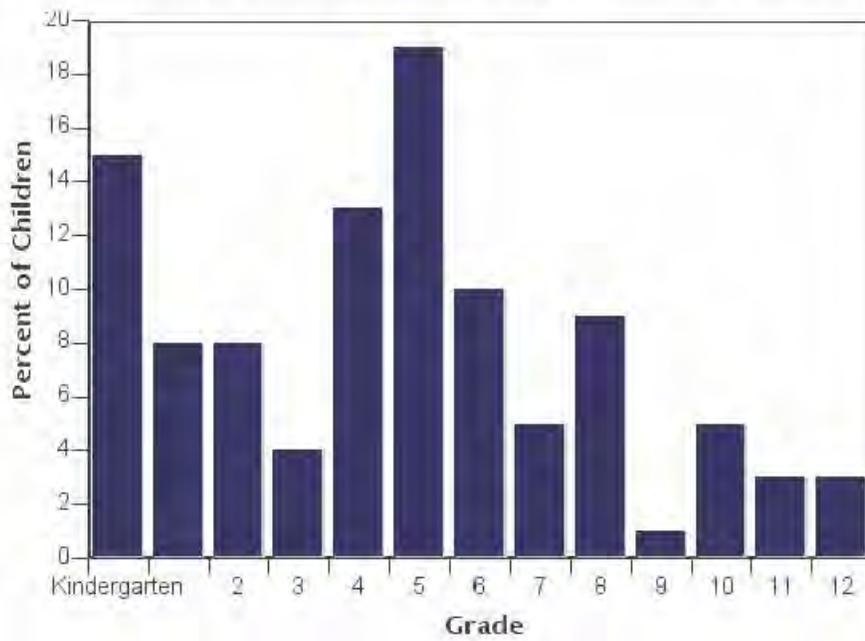
School Name(s):	Month & Year Collected & (Set ID)	School Enrollment:	Enrollment in Grades Targeted by SRTS Program:	Number of Questionnaires Distributed:	Number of Questionnaires Included in Report:
Fosston High School	December 2018 (18288)			0	25
Magelssen Elementary School	December 2018 (18286)			0	63
			Total:	0	89

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

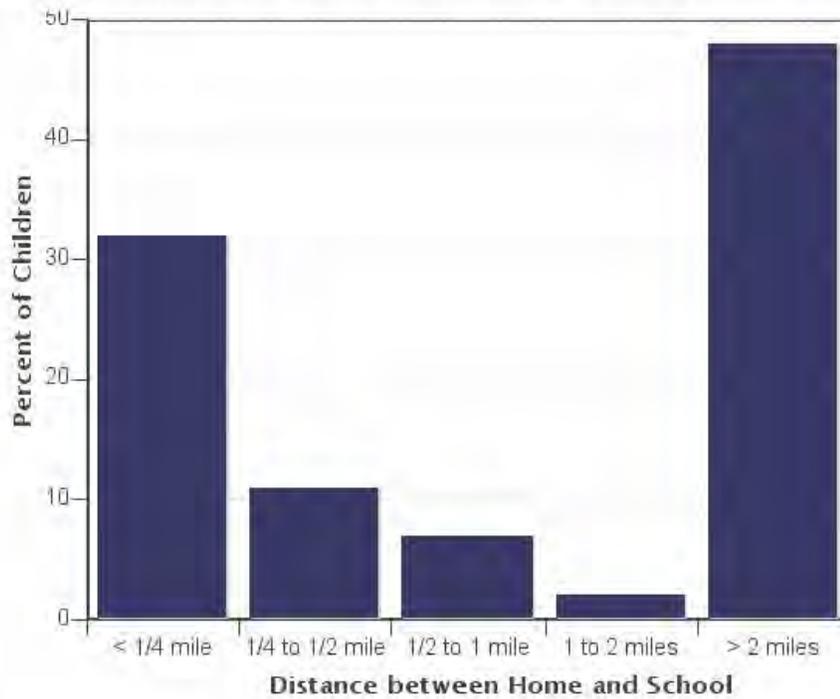


Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
Kindergarten	12	15%
1	6	8%
2	6	8%
3	3	4%
4	10	13%
5	15	19%
6	8	10%
7	4	5%
8	7	9%
9	1	1%
10	4	5%
11	2	3%
12	2	3%

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

Parent estimate of distance from child's home to school

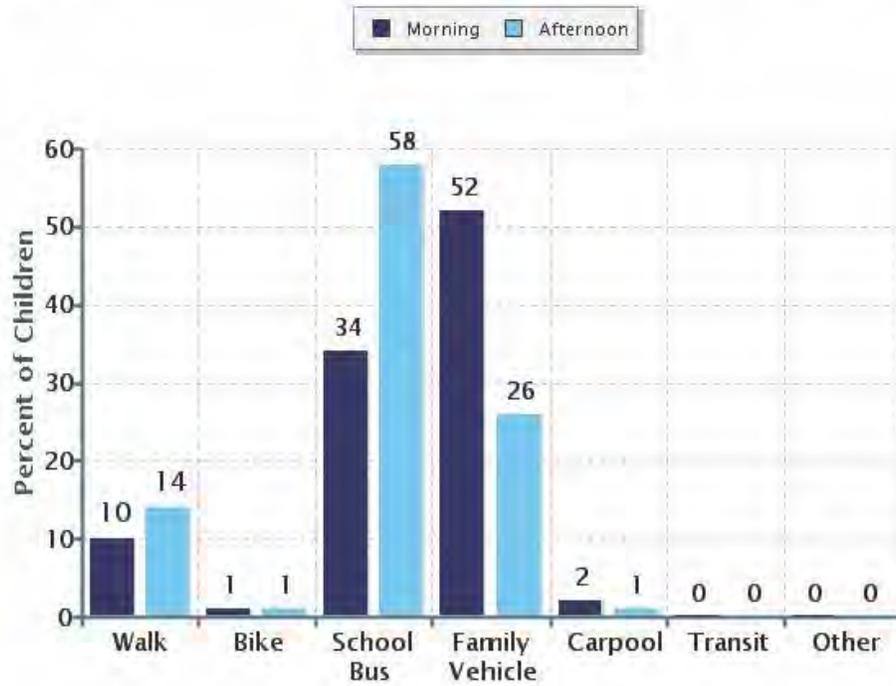


Parent Survey Aggregate Summary

Distance between home and school	Number of children	Percent
Less than 1/4 mile	27	32%
1/4 mile up to 1/2 mile	9	11%
1/2 mile up to 1 mile	6	7%
1 mile up to 2 miles	2	2%
More than 2 miles	41	48%

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

Typical mode of arrival at and departure from school



Typical mode of arrival at and departure from school

Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	87	10%	1%	34%	52%	2%	0%	0%
Afternoon	85	14%	1%	58%	26%	1%	0%	0%

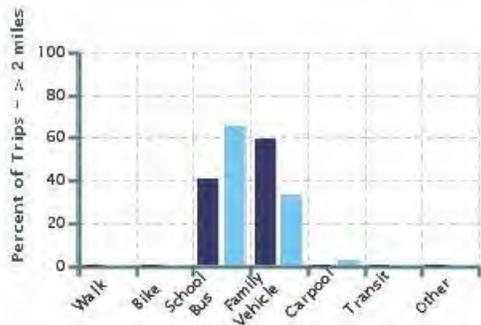
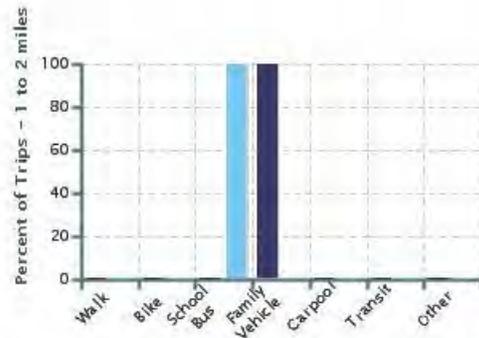
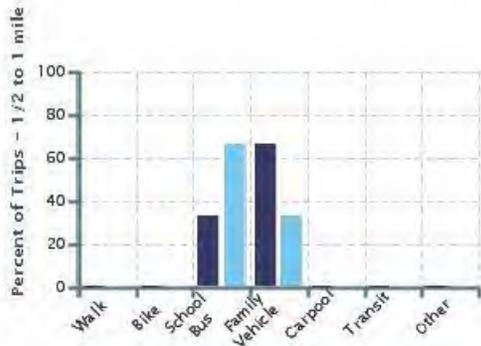
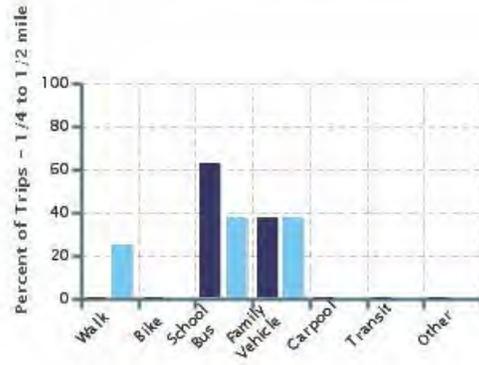
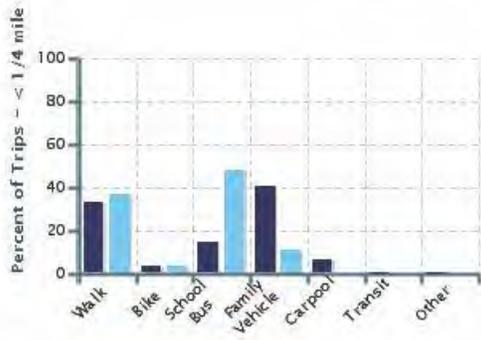
No Response Morning: 2

No Response Afternoon: 4

Percentages may not total 100% due to rounding.

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

■ Morning ■ Afternoon



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
1 Less than 1/4 mile	27	33%	4%	15%	41%	7%	0%	0%
2 1/4 mile up to 1/2 mile	8	0%	0%	63%	38%	0%	0%	0%
3 1/2 mile up to 1 mile	6	0%	0%	33%	67%	0%	0%	0%
4 1 mile up to 2 miles	2	0%	0%	0%	100%	0%	0%	0%
5 More than 2 miles	41	0%	0%	41%	59%	0%	0%	0%

Don't know or No response: 0

Percentages may not total 100% due to rounding.

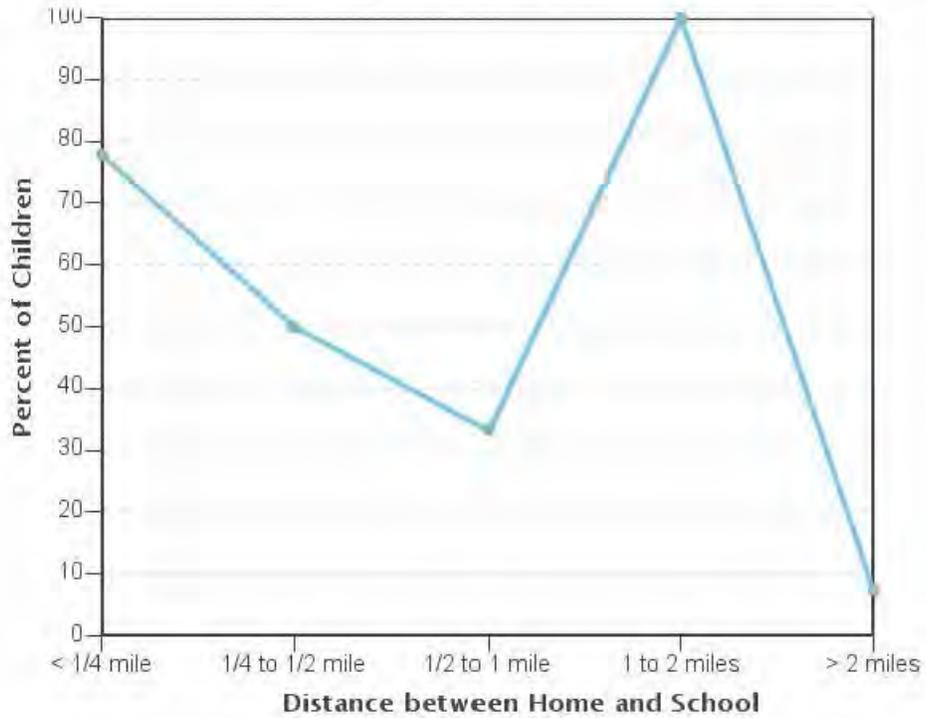
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	27	37%	4%	48%	11%	0%	0%	0%
1/4 mile up to 1/2 mile	8	25%	0%	38%	38%	0%	0%	0%
1/2 mile up to 1 mile	6	0%	0%	67%	33%	0%	0%	0%
1 mile up to 2 miles	1	0%	0%	100%	0%	0%	0%	0%
More than 2 miles	40	0%	0%	65%	33%	3%	0%	0%

Don't know or No response: 0

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

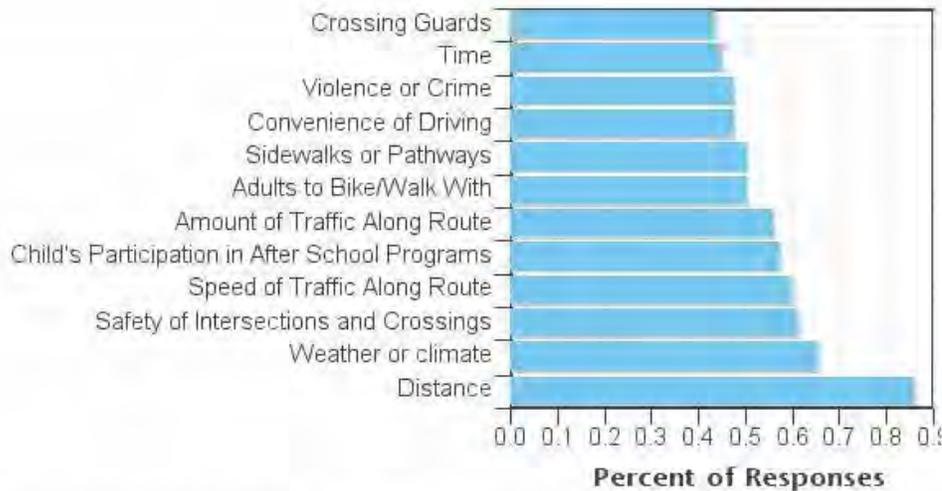


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

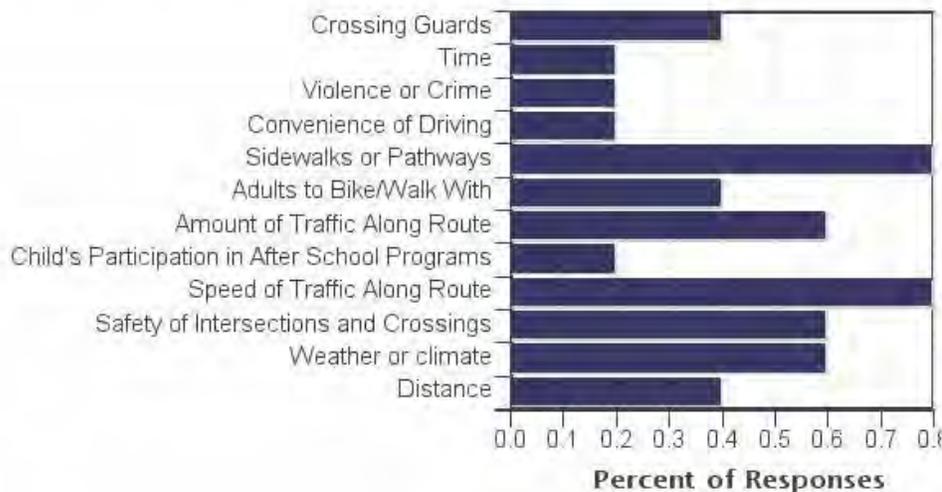
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	160	78%	50%	33%	100%	7%
No	260	22%	50%	67%	0%	93%

Don't know or No response: 0
 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	86%	40%
Weather or climate	66%	60%
Safety of Intersections and Crossings	62%	60%
Speed of Traffic Along Route	60%	80%
Child's Participation in After School Programs	58%	20%
Amount of Traffic Along Route	56%	60%
Adults to Bike/Walk With	51%	40%
Sidewalks or Pathways	51%	80%
Convenience of Driving	48%	20%
Violence or Crime	48%	20%
Time	45%	20%
Crossing Guards	44%	40%
Number of Respondents per Category	73	5

No response: 11

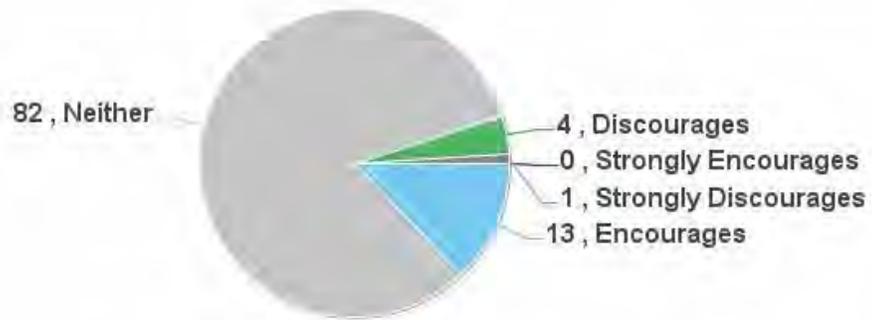
Note:

—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.

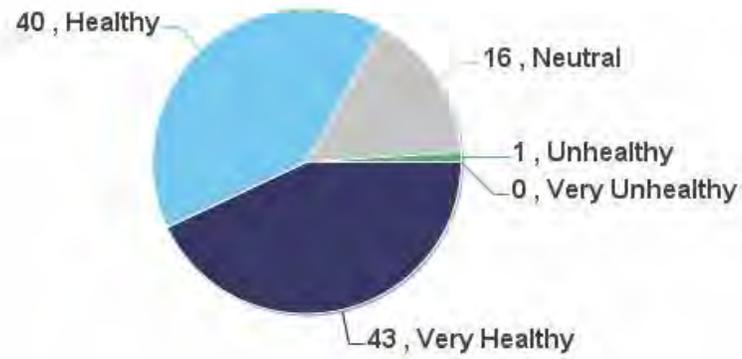
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



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



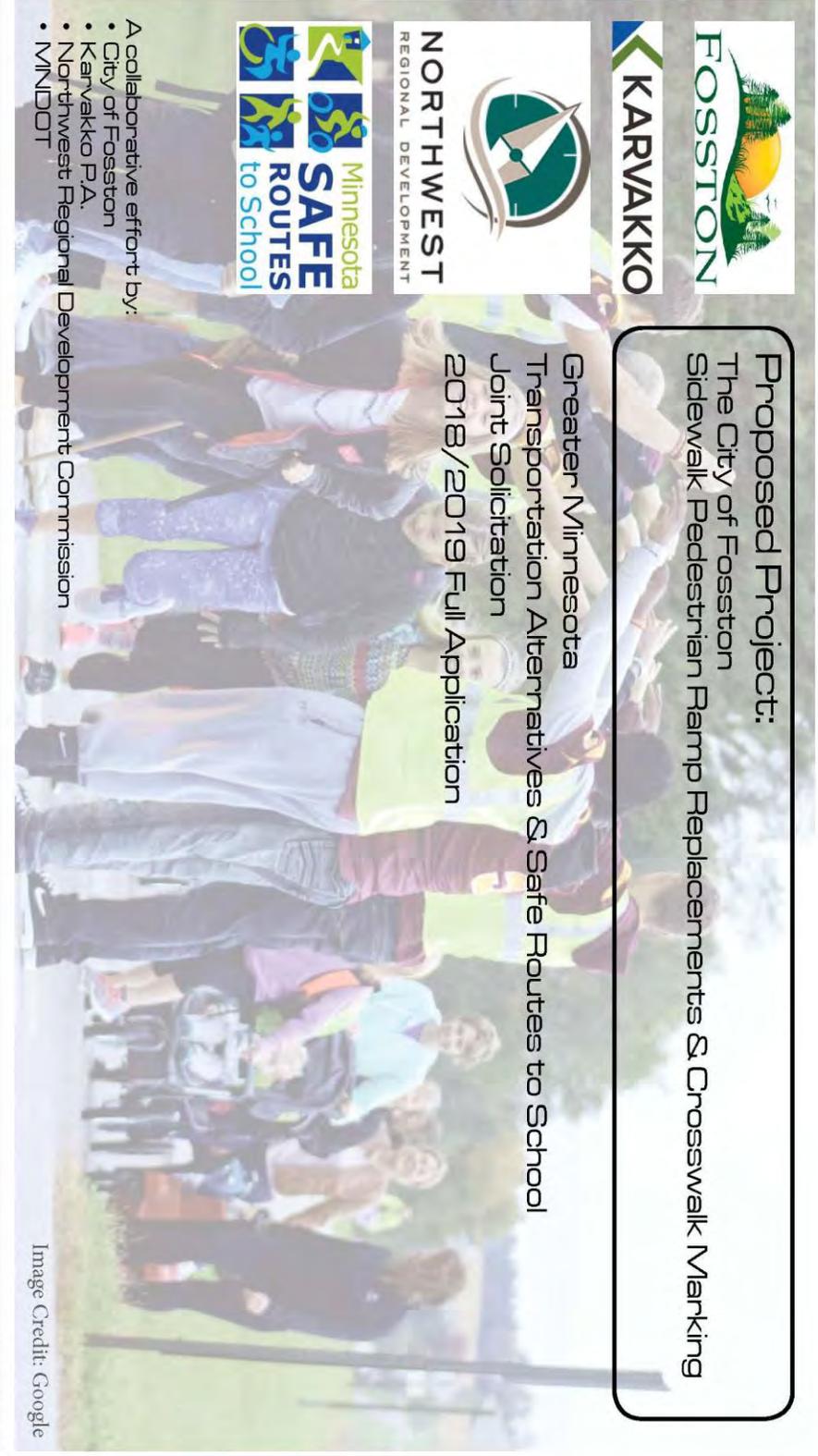
Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

School	SurveyID	Comment
Fosston High School	1643908	My child is in a wheelchair and we live in the country
Fosston High School	1643920	We live over by Lengby
Fosston High School	1644030	I am not against biking or walking but we live 8 miles out of town. Biking and Walking is not an option
Fosston High School	1644070	Some sidewalks need repair.
Magelssen Elementary School	1643797	Open enrolled, live south Erskine
Magelssen Elementary School	1643799	Kids that get on and off the bus at their bus stop or home I feel needs to be safer. I do not know how to solve this problem but it is very unsafe for kids to have to cross the road to get on the bus.
Magelssen Elementary School	1643801	We have a 2nd grader and Kindergartner. Next year, 3rd and 1st graders will walk most days. Overall very safe.
Magelssen Elementary School	1643814	My biggest concern is drivers not being aware of walkers
Magelssen Elementary School	1643819	My Child has special needs so I don't know if I'll ever truly feel safe for him to walk/bike to school.
Magelssen Elementary School	1643824	Doesn't apply to my child. We live in the country 16 miles away.
Magelssen Elementary School	1643827	A child walking or biking should be up to the parents, not the school. The school should not be libel.
Magelssen Elementary School	1643833	We live 5 miles out of town
Magelssen Elementary School	1643841	We walk as a group on nice days. As weather gets below 30 degrees we drive. Vehicles don't stop for crosswalks, or watch for kids crossing streets or alleys.
Magelssen Elementary School	1643845	This is not applicable in our situation as our child is wheelchair bound,
Magelssen Elementary School	1643846	I picked to buy my house because of the proximity to both schools. I work early or late so it was important to be close to schools.
Magelssen Elementary School	1643848	We live 8 miles from town
Magelssen Elementary School	1643852	I believe all children should be able to ride the school bus at anytime or age. No child should be forced to walk especially in winter conditions
Magelssen Elementary School	1643860	We live in the country but love that Fosston is still safe for kids to walk and bike.
Magelssen Elementary School	1643864	Build it!
Magelssen Elementary School	1643874	When Steven was in daycare, walking to and from school wasn't an issue. He no longer is in daycare or in town so these questions don't pertain as much.
Magelssen Elementary School	1643878	My son lives with his Mom 50% of time and she lives in town so he walks half time
Magelssen Elementary School	1643883	Get rid of the Ice. Make it not snow.

Appendix K – Sidewalk Pedestrian Ramp Replacement & Crosswalk Marking Project



Proposed Project:
The City of Fosston
Sidewalk Pedestrian Ramp Replacements & Crosswalk Marking

Greater Minnesota
Transportation Alternatives & Safe Routes to School
Joint Solicitation
2018/2019 Full Application

KARVAKKO

FOSSTON

NORTHWEST
REGIONAL DEVELOPMENT

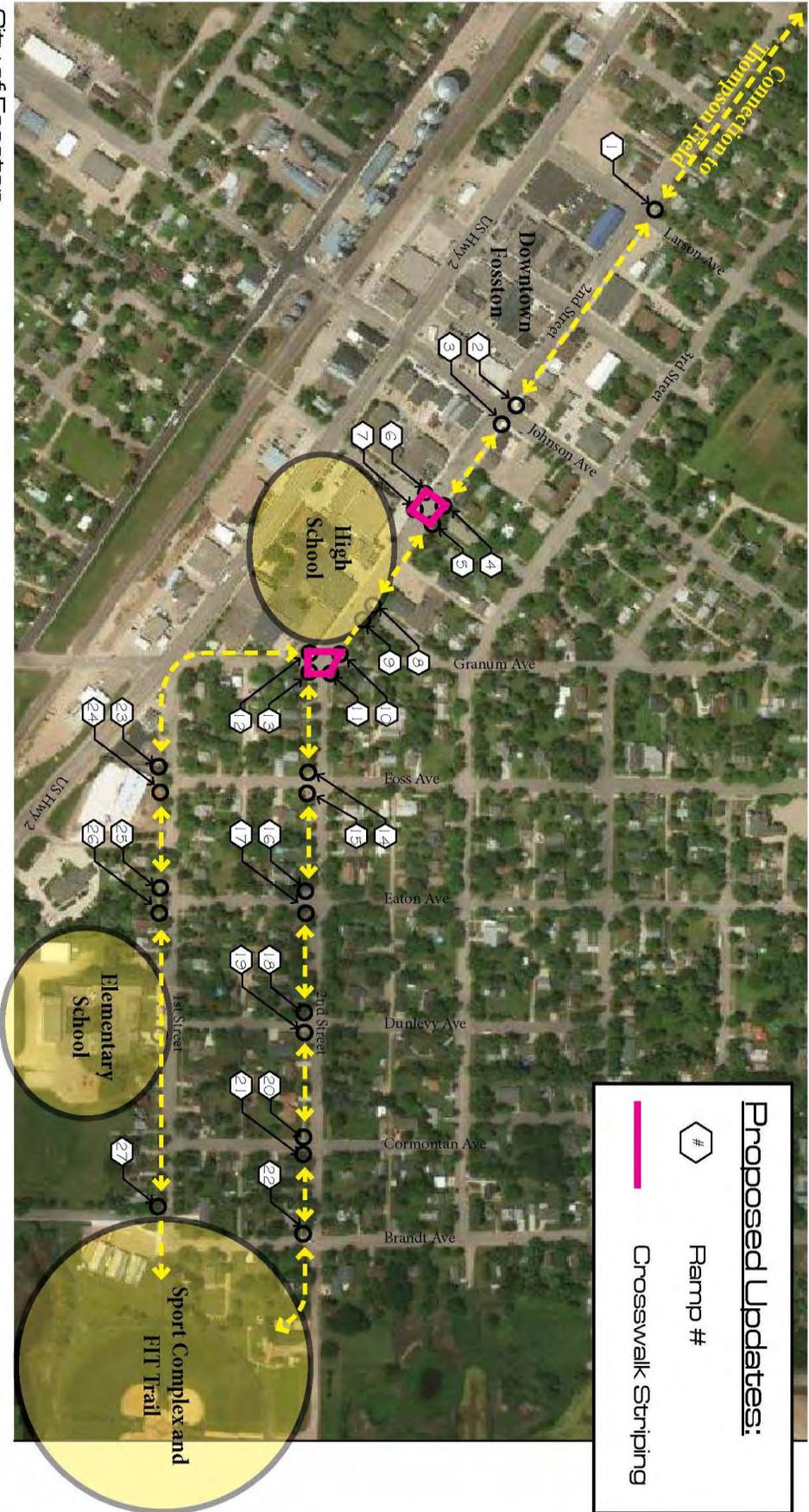
Minnesota SAFE ROUTES to School

A collaborative effort by:

- City of Fosston
- Karvako P.A.
- Northwest Regional Development Commission
- MN/DOT

Image Credit: Google

January 2019



City of Foston
 Transportation Alternatives & Safe Routes to School

Foston, Minnesota



Project Overview

January 2018



Ramp #1
Larson Ave/2nd St - NW quadrant



Ramp #2
Johnson Ave/2nd St - NW quadrant



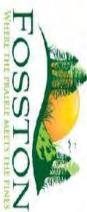
Ramp #3
Johnson Ave/2nd St - NE quadrant



Ramp #4
Inderlee Ave/2nd St - NW quadrant

**City of Fosston
Transportation Alternatives & Safe Routes to School**

Fosston, Minnesota



January 2019

Street Views



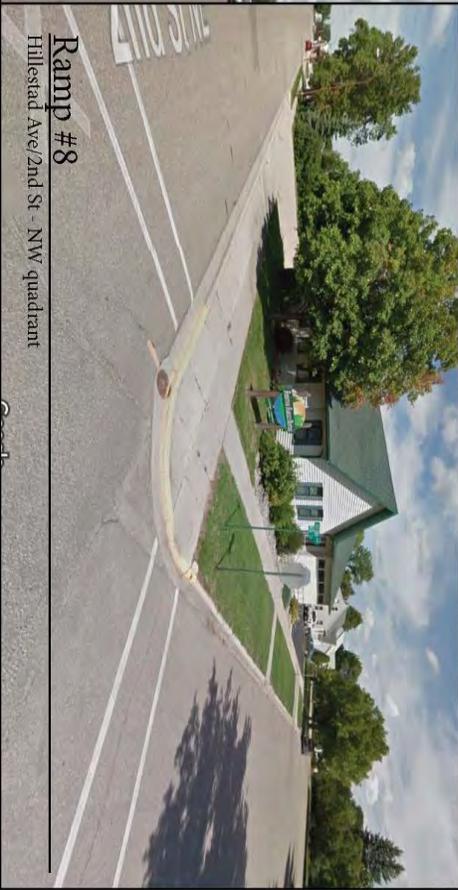
Ramp #5
Inderlee Ave/2nd St - NE quadrant



Ramp #6
Inderlee Ave/2nd St - SW quadrant



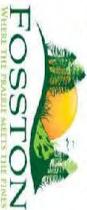
Ramp #7
Inderlee Ave/2nd St - SE quadrant



Ramp #8
Hillestad Ave/2nd St - NW quadrant

**City of Fosston
Transportation Alternatives & Safe Routes to School**

Fosston, Minnesota



January 2018

Street Views





Ramp #9
Hillestad Ave/2nd St - NE quadrant



Ramp #10
Granum Ave/2nd St - NW quadrant



Ramp #11
Granum Ave/2nd St - NE quadrant



Ramp #12
Granum Ave/2nd St - SW quadrant

**City of Fosston
Transportation Alternatives & Safe Routes to School**

Fosston, Minnesota



January 2019

Street Views





Ramp #13
Granum Ave/2nd St - SE quadrant



Ramp #14
Foss Ave/2nd St - SW quadrant



Ramp #15
Foss Ave/2nd St - SE quadrant



Ramp #16
Baton Ave/2nd St - SE quadrant

**City of Fosston
Transportation Alternatives & Safe Routes to School**

Fosston, Minnesota



January 2019

Street Views



Ramp #17
Eaton Ave/2nd St - SE quadrant



Ramp #18
Dunlevy Ave/2nd St - SW quadrant



Ramp #19
Dunlevy Ave/2nd St - SE quadrant

Notes: Will need to relocate tree and place north ramp east of light pole.



Ramp #20
Cormontan Ave/2nd St - SW quadrant

City of Fosston
Transportation Alternatives & Safe Routes to School

Fosston, Minnesota



January 2019

Street Views



Ramp #21
Common Ave/2nd St - SE quadrant



Ramp #22
Brandt Ave/2nd St - SW quadrant



Ramp #23
Foss Ave/1st St - SW quadrant



Ramp #24
Foss Ave/21st St - SE quadrant

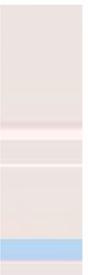
**City of Foston
Transportation Alternatives & Safe Routes to School**

Foston, Minnesota



January 2019

Street Views





Ramp #25
Eaton Ave/1st St - SE quadrant

Notes: Consider replacing with single approach and ped ramp



Ramp #26
Eaton Ave/1st St - SE quadrant

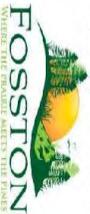


Ramp #27
Brandt Ave/1st St - SW quadrant

Notes: Extend curb radius so tangent is on Brandt Ave. Extend sidewalk.

**City of Fosston
Transportation Alternatives & Safe Routes to School**

Fosston, Minnesota



January 2019

Street Views

Estimated Cost Breakdown

Item Number	Item Description	Unit	Total Quantity	Unit Price	Extended Amount
2021.501	MOBILIZATION	LUMP SUM	1	\$15,000.00	\$15,000.00
2104.501	REMOVE CURB & GUTTER	LN FT	870	7.50	6,525.00
2104.502	SALVAGE SIGN TYPE C	EACH	5	100.00	500.00
2104.503	REMOVE CONCRETE SIDEWALK	SQ FT	3,340	2.00	6,680.00
2104.503	SAVING BITUMINOUS PAVEMENT (FULL DEPTH)	LN FT	900	2.00	1,800.00
2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ FT	300	2.50	750.00
2104.518	REMOVE BITUMINOUS PAVEMENT	SQ FT	1,930	2.00	3,860.00
2211.501	AGGREGATE BASE CLASS 5	TON	137	15.00	2,055.00
2504.602	ADJUST VALVE BOX	EACH	5	500.00	2,500.00
2506.522	ADJUST FRAME AND RING CASTING	EACH	14	500.00	7,000.00
2506.502	INSTALL CASTING	EACH	2	500.00	1,000.00
2501.602	SAFETY GRATE	EACH	2	1,000.00	2,000.00
2503.602	ADJUST SANITARY SEWER CLEANOUT	EACH	1	500.00	500.00
2504.602	ADJUST CURB STOP	EACH	2	500.00	1,000.00
2521.618	6" CONCRETE WALK (SPECIAL)	SQ FT	5,480	10.00	54,800.00
2531.501	CONCRETE CURB & GUTTER DESIGN (TBD)	LN FT	900	20.00	18,000.00
2531.618	TRUNCATED DOME	SQ FT	470	50.00	23,500.00
2545.602	ADJUST HANDHOLE	EACH	1	500.00	500.00
2569.601	TRAFFIC CONTROL	LUMP SUM	1	10,000.00	10,000.00
2564.502	INSTALL SIGN TYPE C	EACH	5	500.00	2,500.00
2571.524	TRANSPLANT TREE (SPADE SIZE 78")	EACH	1	2,000.00	2,000.00
2573.530	STORM DRAIN INLET PROTECTION	EACH	16	250.00	4,000.00
2575.505	TURF RESTORATION	LUMP SUM	1	10,000.00	10,000.00
2582.503	CROSSWALK PREFORM TAPE- GROUND IN	SQ FT	1,440	14.00	20,160.00
SUBTOTAL:					\$ 196,630.00
10% Contingencies					\$ 19,663.00
Total Construction Estimate					\$ 216,293.00
Engineering (25%)					\$ 54,073.25
TOTAL PROJECT COST					\$ 270,366.25

Engineer's Estimate

Construction Cost \$ 216,000

Engineering \$ 54,000

Total Project Cost \$ 270,000

City of Fosston Transportation Alternatives & Safe Routes to School



Detailed Cost Estimate

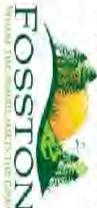
Breakdown of Estimated Quantities

Item Number	Item Description	Unit	Ramp 1	Ramp 2	Ramp 3	Ramp 4	Ramp 5	Ramp 6	Ramp 7	Ramp 8	Ramp 9	Ramp 10	Ramp 11	Ramp 12	Ramp 13	Ramp 14	Ramp 15	Ramp 16	Ramp 17	Ramp 18	Ramp 19	Ramp 20	Ramp 21	Ramp 22	Ramp 23	Ramp 24	Ramp 25	Ramp 26	Ramp 27	Total		
2201.501	MOBILIZATION	LUMP SUM																														
2104.502	REINFORCE CURB & GUTTER	LIN FT	40	40	30	50	40	20	40	30	30	30	30	30	30	30	40	30	40	30	40	40	20	20	20	20	20	20	20	20	870	
2104.502	SAWAGE SIGN TYPE C	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2104.502	REINFORC CONCRETE SIGNPOST	300	240	180	240	100	180	180	180	240	60	60	180	180	120	100	120	100	120	100	100	50	50	50	30	30	30	30	30	3,340		
2104.508	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	40	40	30	50	40	20	40	30	30	30	30	30	30	30	40	30	40	30	40	40	20	20	20	20	20	20	20	850		
2104.518	REINFORC CONCRETE DRIVEWAY PAVEMENT	SQ FT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2211.501	REINFORCEMENT BASE CLASS 5	TON	80	80	60	100	80	60	80	60	60	60	60	60	60	60	80	60	80	60	80	80	40	40	40	40	40	40	40	40	1,950	
2304.502	ADJUST VALVE BOX	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2306.502	ADJUST HAVEN AND RINGCASTING	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2309.602	INSTALLCASTINGS	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2309.602	SAFETY GRADE	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2309.602	ADJUST SANITARY SEWER CLEANOUT	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2309.602	ADJUST CURB STOP	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2309.602	ADJUST CURB STOP	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2321.618	6" CONCRETE WALK (SPECIAL)	SQ FT	300	240	180	240	180	180	180	240	240	240	240	240	200	200	180	240	180	240	240	300	240	100	100	100	100	100	100	100	5,480	
2331.501	6" CONCRETE CURB & GUTTER DESIGN (TRB)	LIN FT	40	40	30	50	40	20	40	30	30	30	30	30	30	30	40	30	40	30	40	40	20	20	20	20	20	20	20	20	900	
2331.618	TRUNCATED DOME	SQ FT	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	10	10	10	10	10	10	10	10	470	
2345.602	ADJUST HANDHOLE	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2345.601	TRAFFIC CONTROL	LUMP SUM																													1	
2345.502	INSTALL SIGN TYPE C	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2371.524	TRANSPIRANT TREE (GRADE SIZE 78")	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2373.530	STORM DRAIN INLET PROTECTION	EACH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2375.505	TURF RESTORATION	LUMP SUM																													1	
2382.508	CROSSWALK PREFORM TYPE - GROUND IN	SQ FT																													1,440	
Estimated Material Ramp Yards																																
Combined Directional			X				X																									
Depressed Corner				X																												
Directional Ramp Walkable Flare (One Way)																																
Perpendicular																																

City of Fosston Transportation Alternatives & Safe Routes to School

Fosston, Minnesota

January 2019



Detailed Cost Estimate

SUMMARY OF SIDEWALK INVENTORY CITY OF FOSSSTON

WSN PROJECT NO. 51300105
JULY 9, 2015

Key: Blank box = Streets do not intersect
Yellow X = No sidewalk
Blue Box with number = Length of Sidewalk (ft)

Blue Box with number = Length of Sidewalk (ft)

Page 6

STREET	Kaiser Avenue		Larson Avenue		Lohn Avenue		Mark Avenue		Mary Avenue		Newton Avenue		Northwood Avenue		Omland Avenue		Park Place		Prairie Pines Drive		Skle Boulevard		Salther Drive		U.S. Hwy 2		CSAH 6 North		CSAH 6 South		CSAH 1 West		CSAH 1 East		CSAH 30 North		
	North	South	East	West	East	West	East	West	East	West	East	West	East	West	East	West	East	West	North	South	East	West	East	West	North	South	East	West	North	South	East	West					
Second Street SE																																					
Third Street SE																																					
Second Street SW																																					
Third Street SW																																					
Airport Road																																					
Amber Avenue																																					
Brandt Avenue																																					
Columbia Road																																					
Common Avenue																																					
Dunlevy Avenue																																					
Eaton Avenue																																					
Foss Avenue																																					
Granum Avenue																																					
Grandstand Court																																					
Hillstead Avenue																																					
Hillsgess Boulevard																																					
Indefier Avenue																																					
Industrial Avenue																																					
Johnson Avenue																																					
TOTAL SIDEWALK SEGMENTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL MISSING SIDEWALK SEGMENTS	4	4	0	0	6	6	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL SIDEWALK LENGTH (FT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Appendix M – Forms

1. SCHOOL NAME: _____
2. GRADE: _____
3. ARRIVAL START TIME: _____ END TIME: _____
DISMISSAL START TIME: _____ END TIME: _____
4. CIRCLE APPLICABLE WEATHER CONDITIONS:
SUNNY RAINY OVERCAST SNOW OTHER: _____
5. APPROXIMATE TEMPERATURE: _____

	YES	NO
6. IS THERE AN APPOINTED SCHOOL STAFF MEMBER OR VOLUNTEER DIRECTING TRAFFIC FLOW?	<input type="checkbox"/>	<input type="checkbox"/>
7. IS THERE A SPECIFIED DROP-OFF / PICK-UP AREA?	<input type="checkbox"/>	<input type="checkbox"/>
8. IS THE DROP-OFF / PICK-UP ZONE SEPARATE FROM OTHER VEHICLES?	<input type="checkbox"/>	<input type="checkbox"/>
9. IS THERE A SPECIFIED BIKE ARRIVAL / DISMISSAL AREA?	<input type="checkbox"/>	<input type="checkbox"/>

Print a map of your school area. If one does not exist use an online map such as Google Maps. Outline the observation area of each location where you are conducting the observations. Assign a location number to each observation area using the numbers listed in the table below. Then complete the remaining columns in each row with the corresponding observer name, whether the listed traffic control devices are present (enter Y or N) and whether the location is at midblock or an intersection (enter M or I). You can have up to six observation areas. It may be helpful to have observers document their observation area by taking pictures of their area from where they are standing.

Location Number	Observer Name	Which of the following traffic control devices are present at the observation area? (Mark an X in the column for each device that is present)						Midblock (M) or Intersection (I)
		Crosswalk Present	Pedestrian Crossing	Signal	Stop Sign	Crossing Guard	School Patrol	
1								
2								
3								
4								
5								
6								

OBSERVER NAME: _____ LOCATION: _____ DATE: _____ AM / PM (CIRCLE)

	Distracted (e.g. using phone, texting, eating, etc.)	Not driving in designated space (e.g., driving wrong direction, in bike lane, etc.)	Stopping outside of designated space	Does not yield to pedestrian	Other:
A D U L T					
T E E N S					
Total Pedestrians	Distracted (e.g. using phone, texting, etc.)	Wearing headphones or earpiece	Unsafe crossing behavior	Other:	Other:
Total Bicyclists	Distracted (e.g. using phone, texting, etc.)	Wearing headphones or earpiece	Not biking in designated area or correct side of road	Not wearing helmet	Other:

Walking Route Form:

Group Name Anytown USA Neighborhood Watch Group Date October, 200

Walking Route Location Downtown Main Street to High School

and Back along Lake Front

Concerns

Short Term Action Steps

Long Term Action Steps

- 1** Do you have room to walk?
- * Sidewalks broken, cracked or blocked
 - * No sidewalks, paths or shoulders
 - * Snow or leaves cover the walking route

- * pick another route for now
- * tell city/county traffic engineers or public works department about specific problems
- * ask neighbors to clear sidewalk or path

- * write/petition city for walkways
- * alert media to problem
- * organize a community group to help rake or shovel

- 2** Is it easy to cross streets?
- * Traffic signals do not allow enough time to cross
 - * Crosswalks/traffic signals needed
 - * View of traffic blocked by parked cars, trees, plants, or snowbanks

- * pick another route for now
- * tell city/county traffic engineers or public works department about specific problems
- * trim your trees or bushes that block the street and ask your neighbors to do the same

- * request crosswalks/signals/parking changes at city meetings
- * report illegally parked cars to the police
- * request the public works department trim trees or plants, and clear snow

- 3** Do drivers behave safely?
- * Back-up without looking
 - * Drive too fast
 - * Speed up to make traffic lights, or drive through red lights

- * pick another route for now
- * set an example: slow down and yield to pedestrians
- * report unsafe driving to police

- * petition for more law enforcement
- * organize a neighborhood speed watch program
- * write letters to the editor or articles for your community paper

- 4** Do walkers behave safely?
- * Do not cross at cross walks or with traffic signal
 - * Do not look both ways before crossing
 - * Do not walk on sidewalks or shoulders facing traffic

- * educate yourself about safe walking
- * report unsafe walking to police
- * tell city/county traffic engineers or public works department about specific problems

- * request signs promoting crosswalk use
- * work with community groups to promote pedestrian safety
- * organize community to identify safe walking routes

- 5** Is the route pleasant?
- * Needs grass, flowers, trees
 - * Scary dogs
 - * Not well lit
 - * Littered or dirty

- * ask neighbors to keep dogs leashed or fenced
- * report scary dogs to the police
- * take a walk with a trash bag and pick up litter

- * promote planting of trees, flowers, and bushes in your community
- * work with the neighborhood crime watch group to increase lighting
- * organize a community clean-up day

Walking Route Form:

Group Name _____

Date _____

Walking Route Location _____

Concerns

Short Term Action Steps

Long Term Action Steps

1

Do you have room to walk?

2

Is it easy to cross streets?

3

Do drivers behave safely?

4

Do walkers behave safely?

5

Is the route pleasant?

Appendix N – Executive Summary

The Fosston School District, city of Fosston and several local, county and city staff, residents and agencies have come together to complete the Fosston Safe Routes To School (SRTS) Plan. The Fosston SRTS Plan establishes infrastructure and program recommendations that will improve overall safety for students walking, biking and rolling to school. The plan will also improve these same capabilities for the residents and visitors of Fosston.

In 2018, the Fosston School District successfully applied for a Minnesota Department of Transportation (MnDOT) SRTS program planning assistance grant to develop a SRTS Plan. The MnDOT Safe Routes to School Program is federally funded for activities which enable and encourage children of all abilities to walk and bicycle to school.

A combination of meetings, site assessments, walk audit and surveys were done over the 2018-2019 year timeframe. Assessment activities identified areas of concern as well as infrastructure/program recommended strategies involving engineering, education, encouragement, enforcement, equity and evaluation. Strategies varied from low to high priority with many items intended to be implemented on an ongoing, community-wide basis. The success of the Fosston SRTS plan is dependent upon whole community involvement in order for achievement of listed implementation strategies.