

SAFE ROUTES TO SCHOOL

A plan to make walking, biking, and rolling to school a safe, accessible, and fun aspect of physical and emotional health for students and all members of the growing Boeckman community

FARMINGTON, MINNESOTA

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Boeckman Middle School



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ORGANIZATION OF THIS REPORT

This report is designed to support and be accessible to multiple groups of people involved with Safe Routes to School in Farmington, including students, caregivers, teachers, school administrators, city staff, elected officials, and county and state employees. This plan focuses on key information and recommendations, while the appendices document additional participation, analysis, resources, and deliberation that shaped the development of the plan.

THE VISION

A plan to make walking, biking, and rolling to school a safe, accessible, and fun aspect of physical and emotional health for students and all members of the growing Boeckman community.

THE 6 Es

Safe Routes to School (SRTS) programs rely on six core strategies, called the “Six Es,” to work toward their vision.



EQUITY – THE OVERARCHING E

Prioritizing positive outcomes for students from lower-income households; Black, Indigenous, and other students of color; students with disabilities; and other students who face disproportionate barriers to walking, biking, and rolling to school because of their group membership. This plan uses the term “priority populations” to refer to disproportionately impacted groups of students and other community members.



ENGAGEMENT

Working with students, families, school staff, and community members and organizations, especially those from priority populations, to identify needs, better understand barriers, and create solutions together for walking, biking, and rolling.



EVALUATION

Measuring how Safe Routes to School initiatives are implemented (process evaluation) and what their impacts are (outcome evaluation), especially how initiatives Engage with and support priority populations.



EDUCATION

Providing students and other community members, especially those from priority populations, with skills and knowledge about walking, biking, and rolling.



ENCOURAGEMENT

Normalizing a culture of walking, biking, and rolling through incentive programs, events, and activities that center priority populations.



ENGINEERING

Developing Equity-focused changes to the built environment that support youth travel, designed and prioritized through community Engagement.

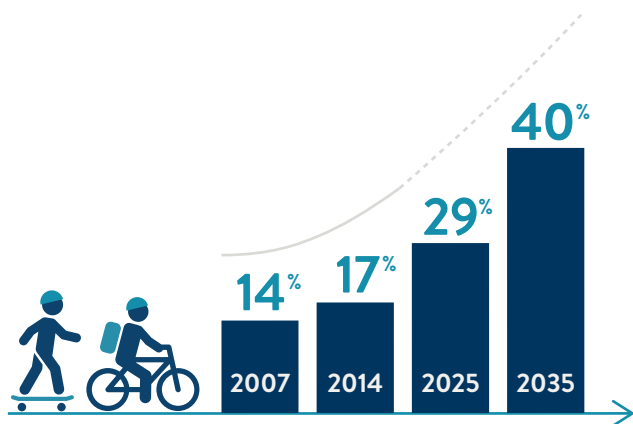




01. WHY SAFE ROUTES TO SCHOOL?

Why Safe Routes to School?

Today, less than 20% of K-8 students walk or bike to school, but as recently as 1970, nearly 50% of students walked or biked to school. Where schools and housing are located, how roads are designed, and how automobiles are regulated have all contributed to this decline. Through policy changes, infrastructure improvements, and programs, Safe Routes to School helps create physical and social environments that empower students, their families, and their communities to walk and bike more often. Communities that participate in Safe Routes to School also benefit from less air, noise, and water pollution; lower road maintenance costs; and more pleasant streetscapes for pedestrians, bicyclists, and drivers alike.



SRTS initiatives are contributing to more students and families walking and biking to school.



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 their recommended daily physical activity just from traveling to and from school



Feel better about their physical health



Have better school performance and test scores



Are more likely to have good mental health

A REINFORCING CYCLE OF WALKING AND BIKING TO SCHOOL



More students walking and biking to school

Greater focus on policies, infrastructure, and programs to support walking and biking

Better air quality and more pleasant bike and pedestrian environments

Safer and easier routes to and from school

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



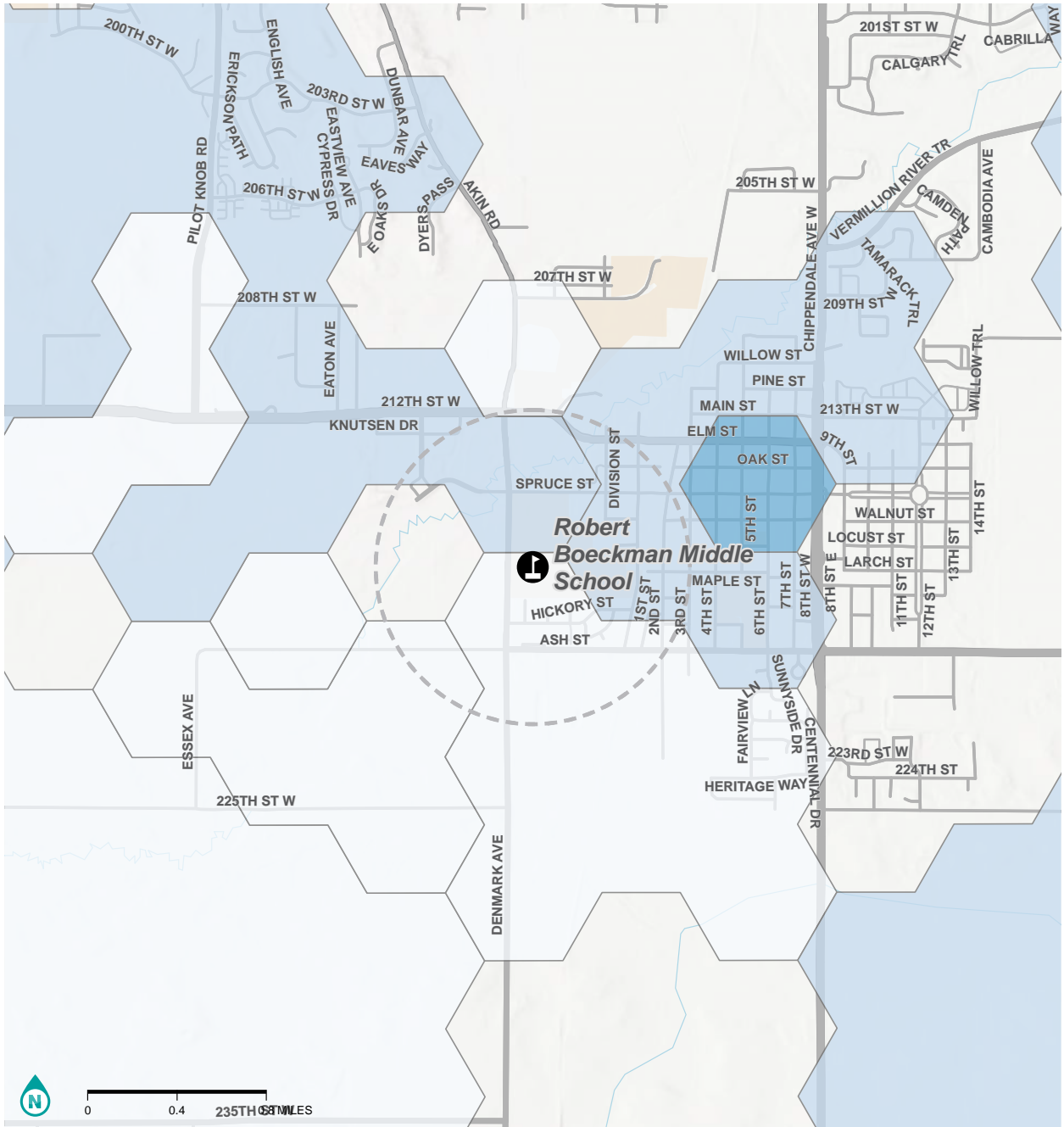
Equity in SRTS

Disparities in access to resources such as high-quality jobs, schools, parks, healthcare, food, and a full range of transportation choices impact the health and well-being of communities. These differences are not random—they are the results of government policy and funding in the past and present, which has worked to the benefit of some and to the disadvantage of others.

Equity in Safe Routes to School is impacted by transportation system inequities—such as limited access to high-quality walking and biking infrastructure or the presence of highways or busy roads in lower-income neighborhoods and neighborhoods with more BIPOC (Black, Indigenous, and People of Color) individuals—as well as inequities in related systems. For example, racial wealth inequities and racial discrimination in housing mean that BIPOC or lower-income students may live further away from schools

than their white peers and those from higher-income families.

Safe Routes to School works to improve walking and biking opportunities for all students, while addressing these inequities through programs, infrastructure, and policy improvements that specifically help priority populations. Priority populations include individuals, groups, and communities who are more likely to rely on walking, biking, or transit for transportation; are more vulnerable to unsafe traffic conditions; or have suffered historic disinvestment in safe, comfortable, walking and biking infrastructure. By looking at demographic data, examining existing transportation services and policies, and speaking with members of the community, the Boeckman Safe Routes to School team worked to develop recommendations that support equity in walking and biking to school.



PRIORITY EQUITY AREAS
 BOECKMAN MIDDLE SCHOOL
 SAFE ROUTES TO SCHOOL PLAN

- 15-Minute Walk Buffer
- Active Transportation Equity Score**
- 1 - 3
- 4 - 6
- 7 - 9
- 10 - 12
- 13 - 15



Refer to Appendix G for a description of the methods used to produce this map.



Boeckman Middle



SITE CIRCULATION:

Pedestrians and Bicyclists: Due to the lack of a sidewalk or trail along Denmark Avenue and 220th Street W, most students walking to school enter from the east or north side of campus. There are existing trail connections through Rambling River Park, as well as the playground at Hickory Street and Westview Drive, that help students connect to the school from the north and south, respectively. Students directly south of the school use a drainage connection extending from Westwood Court to access school grounds.

From the east, a walking path extends from the school toward Maple Street along Westview Park. Many students need to cross the northeast/southwest running railroad tracks that cut through town, and the preferred location to do so is at Oak Street. On 220th Street, students walk in the road to cross the railroad tracks.

Future improvements to Spruce Street will improve access to the school from the northeast. A new sidepath along the south side of Spruce Street from Division Street east to the railroad tracks is programmed for summer 2023. Farmington has also planned for a future sidepath along Spruce Street from CSAH 31 to Division Street.

A new townhome development is under construction across CSAH 31 from the school and will likely house Boeckman students. Students on the west side of CSAH 31 are bused today, but an enhanced crossing would help future students in this development walk and bike to school.

School Buses: School buses drop off and pick up students in the parking lot south of the school.

Vehicles: Parents and caregivers drop off and pick up students from the north and west doors of the building. Drivers enter the school grounds from Denmark Avenue (CSAH 31) and exit on Spruce Street after dropping their students off.

SCHOOL CONTEXT:*

Boeckman Middle



ENROLLMENT:

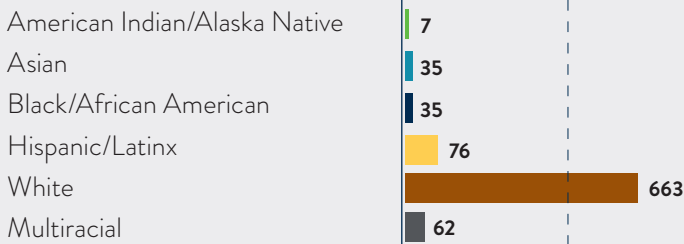
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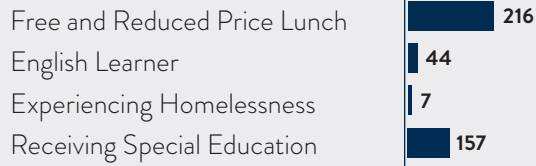
GRADES SERVED:

6-8

DEMOGRAPHICS



SOCIOECONOMIC



STUDENT DEMOGRAPHICS:

- Students who attend Boeckman are predominantly White (76%), with relatively small subsets of students who are Hispanic/Latinx, two or more races, Black/African American, Asian, or American Indian/Alaska Native.
- One-quarter of Boeckman students qualify for free or reduced lunch.
- Three percent of Boeckman students speak a language other than English at home.
- Sixteen percent of Boeckman students are ineligible for busing because they live within two miles of school. An additional 80 students are bused despite living in the walk zone because there are hazards along their route.
- Farmington is preparing for the communities surrounding Boeckman to grow with anticipated workforce housing in the coming years. Accordingly, the SRTS team is working to make sure there are affordable, reliable transportation connections to the school grounds for all future residents, but especially low-income residents.

*Source: SY 2023 student enrollment data from the Minnesota Department of Education.





02. INFRASTRUCTURE



Introduction to Infrastructure

Physical changes to the streetscape are essential to making walking, biking, and rolling to school safer and more comfortable.

An in-person walk audit and discussions with the Safe Routes to School Team, school and district staff, caregivers, students, community members, and city and county staff informed recommendations to address key barriers to walking and biking around Boeckman Middle School.

Recommendations are prioritized on the basis of community and stakeholder input, traffic and roadway conditions, cost, number of students impacted, and benefit to priority populations. This planning process was designed to address historical and contemporary

inequities in who benefits from and who is burdened by transportation systems, and equity considerations accordingly played a central role in the prioritization of infrastructure recommendations. Especially in the winter months, improved maintenance and lighting can contribute to improving equitable access to walking and biking routes, even where a sidewalk or path is present.

WINTER MAINTENANCE

For students and community members with disabilities, winter maintenance is key to accessing sidewalks and trails during snowy months. This is also true for students and families who walk and roll as their primary means of transportation, either because they cannot afford or choose not to own a vehicle, or because other transportation options aren't accessible to them. Cities can adopt policies that prioritize winter maintenance of



existing infrastructure and make it easier for the most vulnerable users of our transportation system—including students—to get around in winter. These policies help to increase transparency and improve reliability for the active transportation network.

For example, they can:

- Adopt policies that prioritize snow clearing and removal on active transportation facilities
- Prioritize clearing of routes that provide access to transit
- Develop and share information publicly regarding sidewalk and shared use pathway snow clearing and removal practices
- Hold a winter maintenance forum or conduct a survey around specific winter engagement concerns
- Work with schools to establish volunteer groups of residents to clear sidewalks on priority routes to school

LIGHTING AND VISIBILITY

Similarly, lighting for people walking and biking is important for both actual and perceived sense of safety and security. In winter climates like Minnesota’s, where darker days mean school arrival and dismissal can occur in the dark, lighting is especially important for mitigating safety concerns and encouraging active transportation throughout the year.

While lighting can sometimes be seen as a costly investment, it is an important step for ensuring equitable access to walking and biking routes. Lighting should be seen as a necessary component of bicycle and pedestrian safety improvements, not seen as a potential add-on or “nice-to-have” feature.

Communities can consider:

- Creating a lighting plan for priority pedestrian routes to install trail or sidewalk lighting over time
- Partnerships with or requirements for private



development to provide lighting

- Incorporating high-visibility safety vests into crossing guard and Walking School Bus events
- Giveaways that help kids access winter gear such as clothing or bike lights

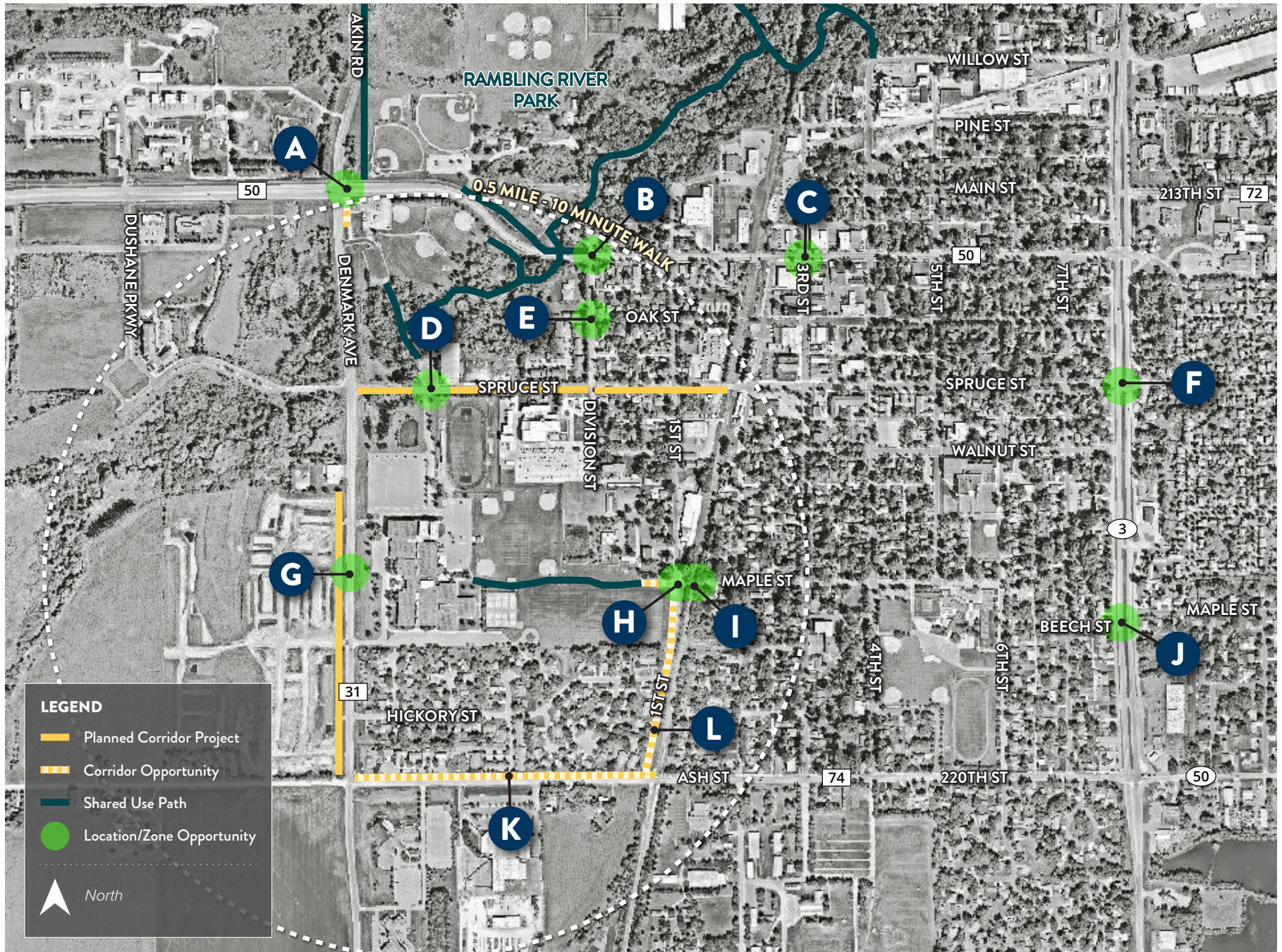
HOW TO USE THIS PLAN

This plan does not represent a comprehensive list of every project that could improve conditions for walking and bicycling, rather community priorities, key conflict areas, and potential improvements identified in the planning process. Recommendations range from simple striping changes to more significant changes to streets, intersections, and school infrastructure.

Recommendations identified in this plan are not necessarily endorsed by MnDOT but planning-level concepts that will require additional engineering design. Additionally, all recommendations for pedestrian and bicycle crossings of County Highways will be evaluated using Dakota County's Pedestrian Crossing Safety Assessment prior to implementation.



Infrastructure Recommendations



CSAH 50 AND DENMARK AVENUE/ AKIN ROAD



PRIORITY Medium ○●○

School stakeholders and community members supported this project. While it is unlikely to benefit priority populations, it will provide significant safety and comfort benefits.

WHO WILL MAKE THIS HAPPEN?

Dakota County; City of Farmington

RECOMMENDATION

Evaluate intersection design and traffic signal for overall pedestrian improvements including ADA accessibility, pavement markings, and applicable signal modifications. Add a sidewalk or trail connection between the new crossing and the entrance to Rambling River Park on the east side of Denmark Avenue (on City-owned property).

WHY IS THIS RELEVANT?

Currently, students connecting between the trail on Akin Road and the school are missing a crossing and do not have a safe place to walk and bike on Denmark Avenue south of CSAH 50. Improving this link would connect students to the trail in Rambling River Park, and eventually an improved crossing at Spruce Street to the northern school driveway (recommendation D). The County is pursuing a potential mill and overlay project on CSAH 50 in the next 5 years that could provide an opportunity for pedestrian crossing and accessibility improvements.

HOW WILL THIS ADDRESS EQUITY?

While this recommendation supports walking and biking, it does not directly address transportation equity goals.

CSAH 50 AND DIVISION STREET



PRIORITY Medium ○●○

School and city staff supported a connection at this location, which is likely to benefit priority populations. This is an important community connection and is relatively low cost to implement.

WHO WILL MAKE THIS HAPPEN?

Dakota County; City of Farmington

RECOMMENDATION

Identify appropriate pedestrian crossing enhancements in accordance with the Dakota County Pedestrian Safety Assessment. Consider utilizing quick-build demonstration projects for recommended elements such as curb extensions or median islands until permanent infrastructure can be installed.

WHY IS THIS RELEVANT?

There are times when the Vermillion River and the park path under CSAH 50 are flooded. Adding an improved crossing at this location provides an alternative route that students and community members can count on. This is an important community connection to the broader trail system through Rambling River Park and to the ball fields north of CSAH 50. The County is pursuing a potential mill and overlay project on CSAH 50 in the next 5 years that could provide an opportunity for pedestrian crossing improvements.

HOW WILL THIS ADDRESS EQUITY?

This recommendation would improve connectivity through a corridor of priority populations.



CSAH 50/ELM STREET AND 3RD STREET



PRIORITY High ●○○

This is a relatively low-cost project to implement using existing signal infrastructure and would improve conditions for priority populations.

WHO WILL MAKE THIS HAPPEN?

Dakota County, with support from the City of Farmington

RECOMMENDATION

Evaluate intersection and traffic signal operation for opportunities to improve comfort and safety of pedestrians including the consideration of protected pedestrian phases, automatic pedestrian recall, and leading pedestrian intervals. Upgrade crosswalk markings to high-visibility markings.

WHY IS THIS RELEVANT?

Stakeholders noted that students use this intersection to reach businesses and destinations around downtown, but that it does not feel friendly for people walking. Recent improvements added accessible curb ramps, but there are additional opportunities to improve pedestrian comfort and safety. With a new development under construction nearby on 2nd Avenue, this location will likely see increased pedestrian activity. The County is pursuing a potential mill and overlay project on CSAH 50 in the next 5 years that could provide an opportunity for pedestrian crossing improvements.

HOW WILL THIS ADDRESS EQUITY?

This recommendation would improve a crossing in a central location for priority populations and all community members.

SPRUCE STREET AT NORTH SCHOOL DRIVEWAY



PRIORITY High ●○○

This project will serve a large number of students, will address accessibility between school and the arena, and could be implemented with a range of costs depending on materials. There is broad stakeholder support for this project.

WHO WILL MAKE THIS HAPPEN?

City of Farmington

RECOMMENDATION

Enhance the existing crossing by marking the crosswalk and adding school crossing signs on the east leg of Spruce Street. Consider geometric changes such as adding (quick-build) curb extensions.

WHY IS THIS RELEVANT?

Students access the school via the north driveway if they are using the trail through Rambling River Park, or if they are connecting to the arena, downtown, or neighborhoods to the east via Spruce Street. Currently there is only a sidewalk on the north side of Spruce Street to the east of the driveway, though a future sidepath is under construction for the south side from CSAH 31 to Division Street, and sidewalks are planned for 2023 on the north and south side of Spruce Street from Division Street to the railroad crossing. The City has already programmed pedestrian ramp installations at the four corners here.

HOW WILL THIS ADDRESS EQUITY?

This project will improve a main connection point to the school for students coming from the east, including areas with the highest active transportation equity score in Farmington.

DIVISION STREET AND OAK STREET



PRIORITY Medium ○●○

This project improves an important connection for priority populations, will provide safety and comfort benefits, and is likely to be relatively low cost.

WHO WILL MAKE THIS HAPPEN?

City of Farmington

RECOMMENDATION

Add a high-visibility crosswalk and school crossing signs across Division Street on the northern side of Oak Street/ Whispering River Lane.

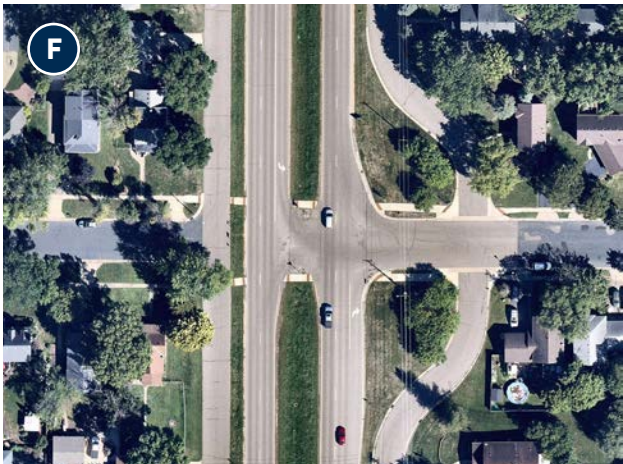
WHY IS THIS RELEVANT?

With a railroad crossing on Oak Street closer to downtown, this is a popular route for students moving between school and downtown and the surrounding neighborhoods. From this location, students walk down Division Street and Spruce Street to reach the northern school driveway.

HOW WILL THIS ADDRESS EQUITY?

This recommendation supports improved crossings for priority populations coming from east of the school.

HIGHWAY 3 AND SPRUCE STREET



PRIORITY Medium ○●○

This project will serve a moderate number of students, will provide moderate safety and comfort benefits, and is likely to be moderately expensive.

WHO WILL MAKE THIS HAPPEN?

MnDOT

RECOMMENDATION

Enhance the existing at-grade crossing; consider high-visibility crosswalks, crossing ahead signage, and a pedestrian hybrid beacon to improve the east-west crossing of Highway 3. Consider opportunities to introduce traffic calming through geometric changes such as curb extensions, which could be installed as a demonstration project. Continue to coordinate with the school district on proposed changes.

WHY IS THIS RELEVANT?

Stakeholders noted this as a priority crossing location for students coming from east of Highway 3. Note that currently, students living east of Highway 3 are bused to school. At the moment, the school district does not promote crossing Highway 3 with the current vehicle speeds and at-grade nature of the crossing.

HOW WILL THIS ADDRESS EQUITY?

While this recommendation supports walking and biking, it does not directly address transportation equity goals.



ENTRANCE TO NEW DEVELOPMENT



PRIORITY High ●○○

A significant investment would need to be made before school or county staff would endorse a crossing on Denmark Avenue; however, a structured crossing is needed with the new housing development. The recommendation in this vicinity will evolve with additional study.

WHO WILL MAKE THIS HAPPEN?

Dakota County; Farmington Area Public Schools

RECOMMENDATION

Coordinate with Dakota County to participate in a potential near-term corridor study/design effort on Denmark Avenue. The study should develop and incorporate safe pedestrian crossings to the school from residential areas. Crossing solutions could include an enhanced at-grade crossing in conjunction with traffic calming and lower vehicle speeds, or potentially a grade separated crossing.

WHY IS THIS RELEVANT?

Denmark Avenue is a crossing barrier based on the speed and volume of traffic. Students on the west side of Denmark Avenue are currently bused to school. The new development will bring around 270 housing units and likely many students. A trail will be installed with the development on the west side of Denmark Avenue, adjacent to the county right-of-way.

HOW WILL THIS ADDRESS EQUITY?

While this recommendation supports walking and biking, it does not directly address transportation equity goals.

MAPLE STREET AND 1ST STREET



PRIORITY Medium ○●○

This project will fill an important crossing gap for a large number of students and would require moderate costs.

WHO WILL MAKE THIS HAPPEN?

City of Farmington

RECOMMENDATION

Add a marked crosswalk to connect to an enhanced railroad crossing (coordinate with Location I), and create a designated path on Maple Street to the west of 1st Street to connect with the existing paved path on school grounds.

WHY IS THIS RELEVANT?

Formalizing a crossing here would provide a safer and more visible way to connect between the school campus and the many residential neighborhoods to the east.

HOW WILL THIS ADDRESS EQUITY?

This connection would improve biking and walking access for priority populations in neighborhoods to the east of the school.

RAILROAD CROSSING AT MAPLE STREET



PRIORITY High ●○○

Stakeholders supported this project, which will serve a large number of students. Coordination with railroad partners may make this a challenging project to implement; coordination should start as soon as possible.

WHO WILL MAKE THIS HAPPEN?

City of Farmington; Canadian Pacific Railroad

RECOMMENDATION

Clear vegetation, add crossing warning signage, and add a path following Maple Street across the railroad tracks east of 1st Street, similar to the railroad crossing at E Oak Street.

WHY IS THIS RELEVANT?

Students access the school grounds from Maple Street on the west side of the tracks. Some already use this informal crossing to get across the railroad tracks from neighborhoods to the east. Formalizing a crossing here would provide a safer and direct crossing for those students and significantly increase community connectivity.

HOW WILL THIS ADDRESS EQUITY?

Increasing accessibility at this location will allow students, caregivers, and other community members with disabilities to safely make this connection between neighborhoods and the school. This connection would also improve biking and walking access for priority populations in neighborhoods to the east of the school.

HIGHWAY 3 AND MAPLE STREET / BEECH STREET



PRIORITY Low ○○●

This project will serve a moderate number of students, will provide moderate safety and comfort benefits, and is likely to be moderately expensive.

WHO WILL MAKE THIS HAPPEN?

MnDOT

RECOMMENDATION

Enhance the existing crossing with a pedestrian hybrid beacon to improve the east-west crossing of Highway 3. Add advanced stop bar and associated sign, and explore opportunities to introduce traffic calming through geometric changes in the vicinity of the existing crosswalk. Continue to coordinate with the school district on proposed changes.

WHY IS THIS RELEVANT?

Stakeholders noted this as a priority crossing location for students coming from east of Highway 3. Note that students living east of Highway 3 are bused to school currently. At the moment, the school district does not promote crossing Highway 3 with the current vehicle speeds and at-grade nature of the crossing.

HOW WILL THIS ADDRESS EQUITY?

While this recommendation supports walking and biking, it does not directly address transportation equity goals.



ASH STREET/220TH STREET W/CSAH 74



PRIORITY Low ○○●

Stakeholders supported this project, and it would close an important biking and walking gap, but it may be costly to implement. Coordination with railroad partners may take time; coordination should start as soon as possible.

WHO WILL MAKE THIS HAPPEN?

Dakota County; Canadian Pacific Railroad

RECOMMENDATION

Add a sidewalk or off-street trail from Denmark Avenue/CSAH 31 to east of the railroad tracks (east of 1st Street) along the north side of Ash Street/220th Street W/CSAH 74. Include an enhanced pedestrian crossing at the railroad tracks.

WHY IS THIS RELEVANT?

This segment of Ash Street/220th Street W/CSAH 74 is uncomfortable to walk or bike along, with no dedicated active transportation facilities. Community members have expressed concern about a lack of east-west facilities to reach the school, especially when it is snowy or muddy, and students avoid the informal railroad crossing at Maple Street. A facility on this segment would also connect to a future trail along Denmark Avenue adjacent to the new housing development.

HOW WILL THIS ADDRESS EQUITY?

This project would improve biking and walking access for priority populations in neighborhoods to the east of the school.

1ST STREET FROM MAPLE STREET TO 220TH STREET



PRIORITY Medium ○●○

This project will serve a modest number of students, will address a gap in the walking and biking network, and is likely to be relatively low cost.

WHO WILL MAKE THIS HAPPEN?

City of Farmington

RECOMMENDATION

Add an on-street bikeway or shoulder to 1st Street between Maple Street and 220th Street, including associated signs. This could be implemented as a temporary on-street shared use path or demonstration project using quick-build materials.

WHY IS THIS RELEVANT?

Roads to the south and west of school are not comfortable for people walking and biking currently. Adding an active transportation connection will increase access from the neighborhoods to the south and east of school, for students to reach campus more comfortably.

HOW WILL THIS ADDRESS EQUITY?

This project would improve biking and walking access for priority populations in neighborhoods to the east of the school.

BIKE ROUTE SIGNAGE



PRIORITY Medium ○●○

Stakeholders supported this project, which will serve a large number of students and community members, and could be implemented with a range of costs depending on the signage and marking materials.

WHO WILL MAKE THIS HAPPEN?

City of Farmington, Dakota County

RECOMMENDATION

Install wayfinding signage along the city’s prominent bike routes, starting near the school.

WHY IS THIS RELEVANT?

Stakeholders requested more signage for bike paths and bike crossings to raise awareness with the public on important trail connections. Funding may be available to help with implementation through the Minnesota Department of Health’s Statewide Health Improvement Program (SHIP).

HOW WILL THIS ADDRESS EQUITY?

Increasing visibility of the city’s bike routes will make the system more visible and accessible, especially for those who have not used the trails or felt comfortable on a bike before.



03. PROGRAMS



Introduction to Programs

Programs are opportunities to increase awareness, understanding, and excitement around walking, biking, and rolling to school.

Programs are focused on educating students, families, and the broader community about walking and biking. Programs also help to build a culture that supports and normalizes walking and biking to school and other destinations. Because programs are low cost and can often be implemented quickly by an individual school or the school district, they represent an important Safe Routes to School strategy that complements longer-term strategies, including infrastructure improvements and policy changes.

Program Recommendations



EXISTING PROGRAMS

With an active Bike Club and interested staff and students, Boeckman has a great foundation of SRTS activities. This work provides a valuable baseline for expanding programs to encourage more students to walk and bike.

Active or previously implemented programs include:

- The Farmington Parks and Recreation Department offered a bike repair class in spring 2022, and has offered a bike auction in the past.
- Boeckman has a bike fleet of 36 bicycles and has offered a one-week bike education course in a physical education class.
- Bike rodeo in May 2023, hosted by the middle school Bike Club.
- History of working with a bike repair shop in Farmington.
- Bike Safety Story “story walk” in local park.

PROGRAM RECOMMENDATIONS

Conversations with school and district staff, caregivers, students, community members, and city and county staff led to the following program recommendations. Programs were identified to meet the needs, capacities, and interests of the community and were prioritized based on existing programs, input from local stakeholders, the extent to which the program would serve priority populations, and the readiness of the school to launch the program.

Recommended programs:

- Bike rides with school and community leaders
- Bike Train
- Drop and Walk
- Safe Routes to School Campaign
- Suggested Route Map
- Walk and Bike to School Days
- Walk! Bike! Fun! Curriculum

EQUITABLE IMPLEMENTATION CONSIDERATIONS

Each of the recommended programs can be implemented to benefit priority populations. In some cases, programs are inherently beneficial, but other times they require intentional thought to make sure they are implemented equitably and reach students who could benefit the most from them.

When working to start a new or update an old program, school staff and partners should ask themselves:

- Who could benefit the most from this program?
- Are there any barriers to participating in this program, including cultural, social, or financial?
- Are there any school resources that can help reduce barriers to participation?
- Are there community partners who could help us spread the word about this program, or help make it more effective?

After an event, it is also important to think about what went well and what could be improved in the future. Helpful questions to consider include:

- Is this a one-off program, or is there a way to provide ongoing support for it?
- Were any student or family groups absent? Is there something that could help them participate in the future?
- What did students think of the event? Families? Staff?

Taking a few minutes before and after an event to check in on these questions can make a big difference in building a culture of walking and biking that is accessible to all students and families.



BIKE RIDES WITH COMMUNITY LEADERS

A great way to build excitement around biking is to have school and community leaders lead by example. Bike rides could be educational, sharing safe route ideas, or just for fun, with themes or costumes.

When, where, and how will this be implemented? Bike rides could be held on a recurring basis or at important points in the school year, such as at the beginning of the school year or before summer break. The middle school Bike Club could help line up leaders and suggest routes.

Why is this relevant and recommended? Organizing bike rides with respected adults from the community can help normalize biking and make it fun.

How will this address transportation inequities? Using Boeckman's bike fleet, these events could provide (fun) opportunities to ride and get more comfortable on a bike for students who do not have access to one outside of school.

How will this be evaluated? Student participation counts.

Who needs to be involved to make this happen? School staff, Boeckman Bike Club, students.

What is the timeline for implementation? Short term (1 year).



BIKE TRAIN

A Bike Train is a group of students bicycling to school with one or more adults. Parents or caregivers can take turns leading the group, which follows the same route every time and picks up children from their homes or bus stops at designated times.

When, where, and how will this be implemented?

Parents or caregivers of students who already bike to school can organize along their current route. School staff can share materials with families to help jump-start the initiative.

Why is this relevant and recommended?

These events build enthusiasm for biking to school, and help parents and caregivers feel more confident in their student's safety getting to school. Given the interest in biking, caregivers' desire for supervision heard in public engagement, and the pre-existing Bike Club, a Bike Train program could be a good fit for Boeckman students.

How will this address transportation inequities?

These groups help parents or caregivers who have inflexible work schedules, such as shift work, feel confident that their student can get to school safely.

How will this be evaluated?

Student participation counts.

Who needs to be involved to make this happen?

Students, parents/caregivers, school staff.

What is the timeline for implementation?

Medium term (2-3 years).

DROP AND WALK

During a drop-and-walk event (also called park and walk) bus drivers and caregivers drop students at a designated off-campus location, and students walk to school from there. Remote drop-off events can help reduce congestion on campus and provide students who live farther from school with an opportunity to walk.

When, where, and how will this be implemented?

School communications can encourage families driving to school to drop students off at a central location, such as the Rambling River Park parking lot, where they can take the trail to school once the recommended enhanced crossing at Spruce Street and the northern school driveway is installed.

Why is this relevant and recommended?

Walking through the park on the way to school provides students an opportunity to start their day with activity and spend time in green space. Using this location off County Road 50 and Hwy 31 would reduce the number of cars adding to congestion on campus.

How will this address transportation inequities?

This program will promote walking but will not directly address transportation inequities.

How will this be evaluated?

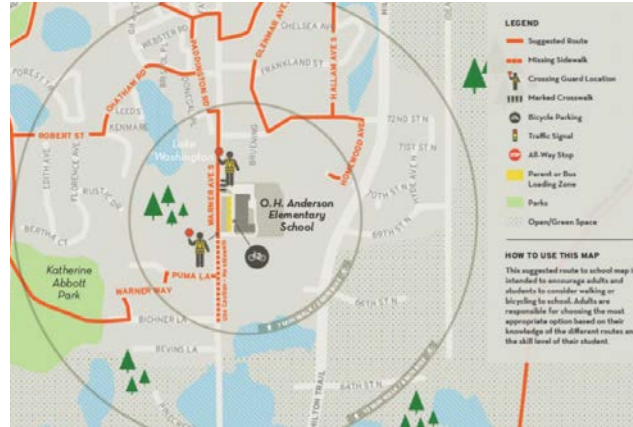
Annual caregiver survey.

Who needs to be involved to make this happen?

Students, school, and potentially city staff.

What is the timeline for implementation?

Short term (1 year).



SAFE ROUTES TO SCHOOL CAMPAIGN

A coordinated SRTS campaign can feature activities, events, and communications highlighting the many benefits of active school travel for students, families, and the wider community. Planning a schedule of campaign activities to happen throughout the school year is a good way to build awareness, enthusiasm, and a school culture that supports walking and biking.

When, where, and how will this be implemented?

An SRTS campaign can begin anytime that there are staff resources to organize events and materials. Communications can be built into existing school and community channels.

Why is this relevant and recommended?

Parent/caregiver survey results showed that the school seems neutral when it comes to supporting SRTS. Creating a campaign can help to change that perception and build enthusiasm around walking and biking to school.

How will this address transportation inequities?

Integrating SRTS information into existing communications helps prevent a situation where parents and caregivers with additional time and resources are the only ones able to participate in a program.

How will this be evaluated?

Annual caregiver survey.

Who needs to be involved to make this happen?

School staff and students.

What is the timeline for implementation?

Short term (1 year).

SUGGESTED ROUTE MAP

Route maps show signs, signals, crosswalks, sidewalks, paths, and hazardous locations around a school that shape the best places to walk or bike. A well-defined route should provide the greatest physical separation between students and traffic, expose students to the lowest traffic speeds, using the fewest and safest crossings.

When, where, and how will this be implemented?

The city and school staff can work with students to identify preferred routes. City staff can pursue project funding and school partners can distribute route info.

Why is this relevant and recommended?

Upcoming projects by the City and County will improve conditions for walking near the school, and identifying suggested routes can help highlight those improvements. With railroad crossings and other major barriers around Farmington, suggested routes may give parents and caregivers more confidence that their student has a safe route to school.

How will this address transportation inequities?

This program can provide families with a shared baseline understanding of walking conditions, even if they do not feel confident in that knowledge on their own.

How will this be evaluated?

Annual caregiver survey on transportation preferences.

Who needs to be involved to make this happen?

School and city staff, students, MnDOT/SHIP.

What is the timeline for implementation?

Short term (1 year).





WALK AND BIKE TO SCHOOL DAYS

National Walk and Bike to School Days engage millions of students and families every October and May. Minnesota also celebrates Winter Walk to School Day in February. Additional education and encouragement programming can increase awareness and expand participation. Events can also take place more frequently (e.g., Walking Wednesdays) if there's interest and capacity.

When, where, and how will this be implemented? In October, February, and May to start, adults or secondary school students can lead walking or biking groups along pre-identified routes. MnDOT provides materials and contests to promote the events.

Why is this relevant and recommended? These events build enthusiasm for walking and biking, and help families try out new transportation options/routines.

How will this address transportation inequities? Coordinated events can make walking and biking accessible to students disproportionately impacted by unsafe crossings.

How will this be evaluated? Student participation counts.

Who needs to be involved to make this happen? School staff, students, parents.

What is the timeline for implementation? Short term (1 year).

WALK! BIKE! FUN! CURRICULUM

Walk! Bike! Fun! is a two-part curriculum designed specifically to meet Minnesota education standards. The program helps students 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.

When, where, and how will this be implemented? Physical education or health teachers can integrate Walk! Bike! Fun! as a component in their annual curriculum for students of all ages.

Why is this relevant and recommended? Walk! Bike! Fun! is tailored to meet physical education standards for students in Minnesota. Access to the bicycle and pedestrian trail in Rambling River Park provides a unique opportunity to extend the classroom beyond the school campus onto dedicated pedestrian and bicycle facilities.

How will this address transportation inequities? In-school curriculum provides all students an opportunity to engage with walking and biking safety, regardless of the resources available to them outside school.

How will this be evaluated? Number of students with access to bike/walk education.

Who needs to be involved to make this happen? School staff, Bike MN, students.

What is the timeline for implementation? Medium term (2-3 years).

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04. **WORKING FOR
CHANGE**



Action Steps

This plan provides two critical ingredients for creating a more equitable transportation system around Boeckman Middle School: a prioritized set of infrastructure and program recommendations. To make these recommendations a reality, all members of the Boeckman community can play a role. The following text provides ideas for where to start.

PRIORITY SRTS INITIATIVES

- Focusing on key connections to the school grounds - through crossing improvements at Spruce Street, and continuing coordination with Dakota County staff on upcoming Denmark Avenue studies.
- Formalizing a railroad crossing to the east of campus for better neighborhood connections.
- Instituting Walk! Bike! Fun! curriculum during class time, with the help of external partners who are ready to help implement the program.
- Establishing a drop-and-walk program using existing park facilities near the school.

IMPLEMENTING INFRASTRUCTURE CHANGES

DEMONSTRATION PROJECTS

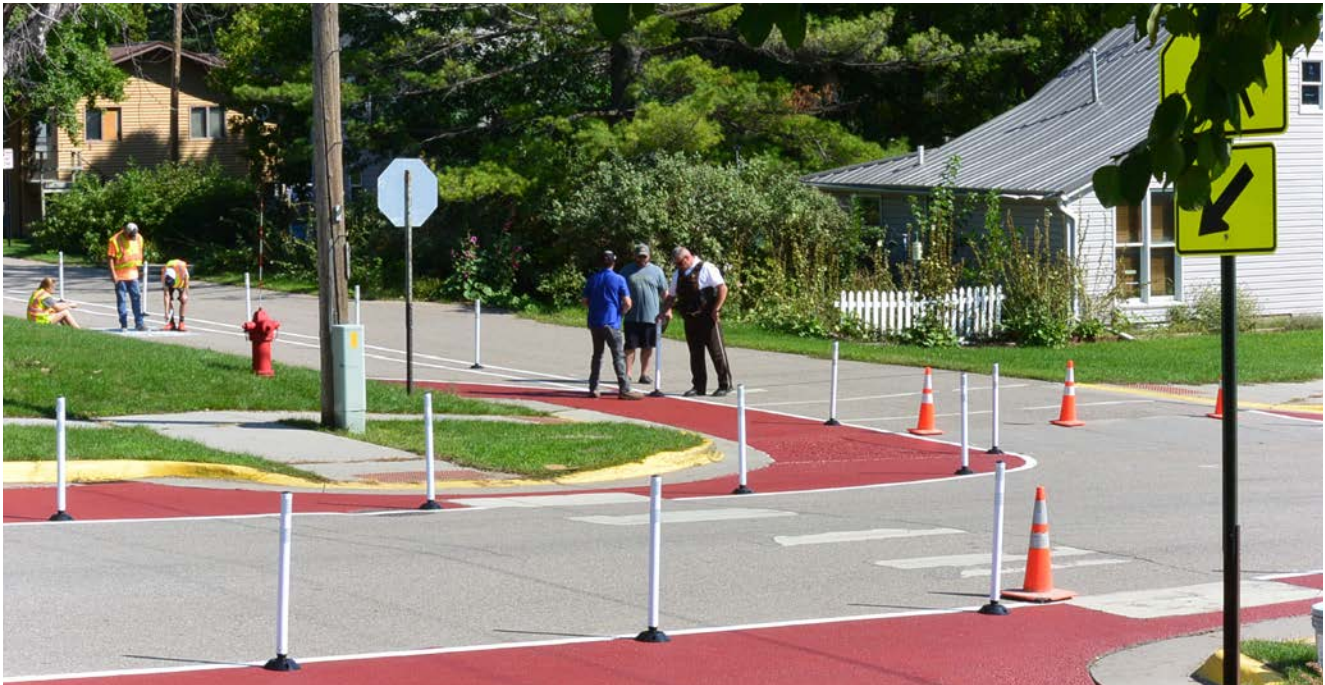
Before investing in a long-term infrastructure change, cities and partners may implement a demonstration project to test out an idea. These temporary projects are quick, have a relatively low installation cost, and build support for a long-term permanent change. Demonstration projects can also help engineers and designers make sure that design details are worked out before any new concrete is installed, such as making sure school buses have enough room to turn.

Demonstration projects can also be paired with programming or educational events to encourage additional behavior change. For example, new curb extensions may be paired with a crossing guard to bring additional attention to tricky crossing locations. Or a school may organize a Walk or Bike to School Day after installing a demonstration project to encourage students and families to try out the new infrastructure.

This raised crosswalk connects to a school entrance and slows traffic on the adjacent road.



A demonstration project can include multiple components. The project shown here includes curb extensions and an on-street walking lane where there is currently a sidewalk gap.



DEMONSTRATION PROJECT EXAMPLES

Demonstration projects can take many forms, with a few examples shown here. In previous SRTS efforts, communities have installed a shared use path on the street where there are no sidewalks (top left photo below), curb extensions at wide and uncomfortable intersections (top right and bottom photos below), and a number of other creative solutions.

Demonstration projects are typically installed in the spring or fall to have enough time to observe their effects before winter arrives. In some cases, a community may be specifically interested in a component of winter maintenance and may design the project to stay in place through the winter.





TAKING COMMUNITY ACTION

A more equitable transportation system that prioritizes safe, comfortable, and fun opportunities to walk, bike, and roll benefits everyone. While this plan is focused on addressing connections to schools, many improvements will benefit people with no relationship to the schools because we all share the same streets, sidewalks, and trails. Likewise, many needed changes, such as reducing speed limits and normalizing walking and biking, extend far beyond the school system.

Your number one role as a community member is to advocate for changes that make walking, biking, and rolling safer, more comfortable, and more fun. Speak to elected officials, show up to community meetings, talk about walking and biking at school events and with school administrators, and organize and vote for candidates who support walking, biking, and public transit.

I AM A STUDENT, CAREGIVER, OR COMMUNITY MEMBER

Students, families, neighborhood associations, advocacy groups, and local businesses can have incredible influence when advocating for change in their school and broader community. This is true both as individuals, as well as when community members come together into groups, such as a Parent Teacher Organization or disability advocacy groups. For example, students, caregivers, and community members can support and lead SRTS initiatives including:

- Advocating for policy change and funding at City Hall
- Developing campaigns to generate enthusiasm and improve social conditions for SRTS
- Volunteering time to lead a Walking School Bus or organize a bike drive
- Fundraising for SRTS programs and small infrastructure projects

I AM A SCHOOL DISTRICT EMPLOYEE

School district staff bring an important perspective and voice to advocating for a more equitable transportation system. By describing the challenges and opportunities their students face around walking and biking, and by petitioning local elected officials for improvements, school district employees can support policy and infrastructure improvements that benefit their students and the broader community. Staff are also ideally positioned to implement the recommendations in this plan, whether it be a classroom-level curriculum or school district-wide policy around walking and biking.

I WORK FOR THE CITY OR COUNTY

As members of the governments that own, regulate, and maintain the roads, city and county staff can be instrumental in reorienting transportation policies and infrastructure around walking and biking to schools and other destinations. City and county staff can leverage their expertise to identify, advocate for, and implement changes that contribute toward a more equitable transportation system. Key policies that staff can support include:

- Reducing lane widths and vehicular speed limits
- Reducing minimum parking requirements
- Revising land use regulations to promote denser and more integrated land uses that promote walkable and bikeable trips
- Prioritizing municipal maintenance and snow clearing of all pedestrian and bike facilities
- Requiring complete streets infrastructure as part of all road resurfacing and reconstruction projects

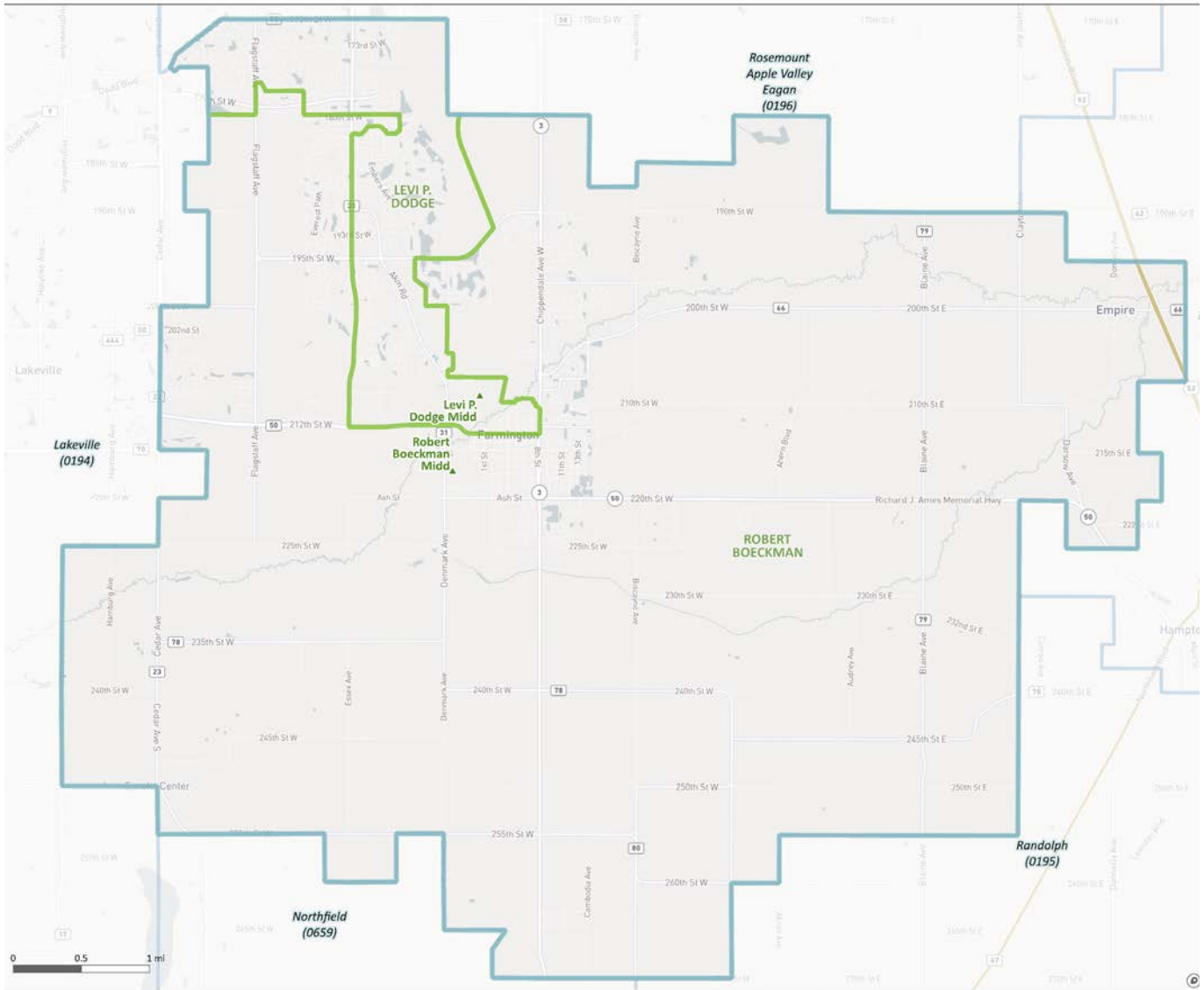
City staff can also use this report to support Safe Routes to School funding applications to programs such as MnDOT SRTS grants, federal infrastructure grants, and the Statewide Health Improvement Program (SHIP).





05. APPENDICES

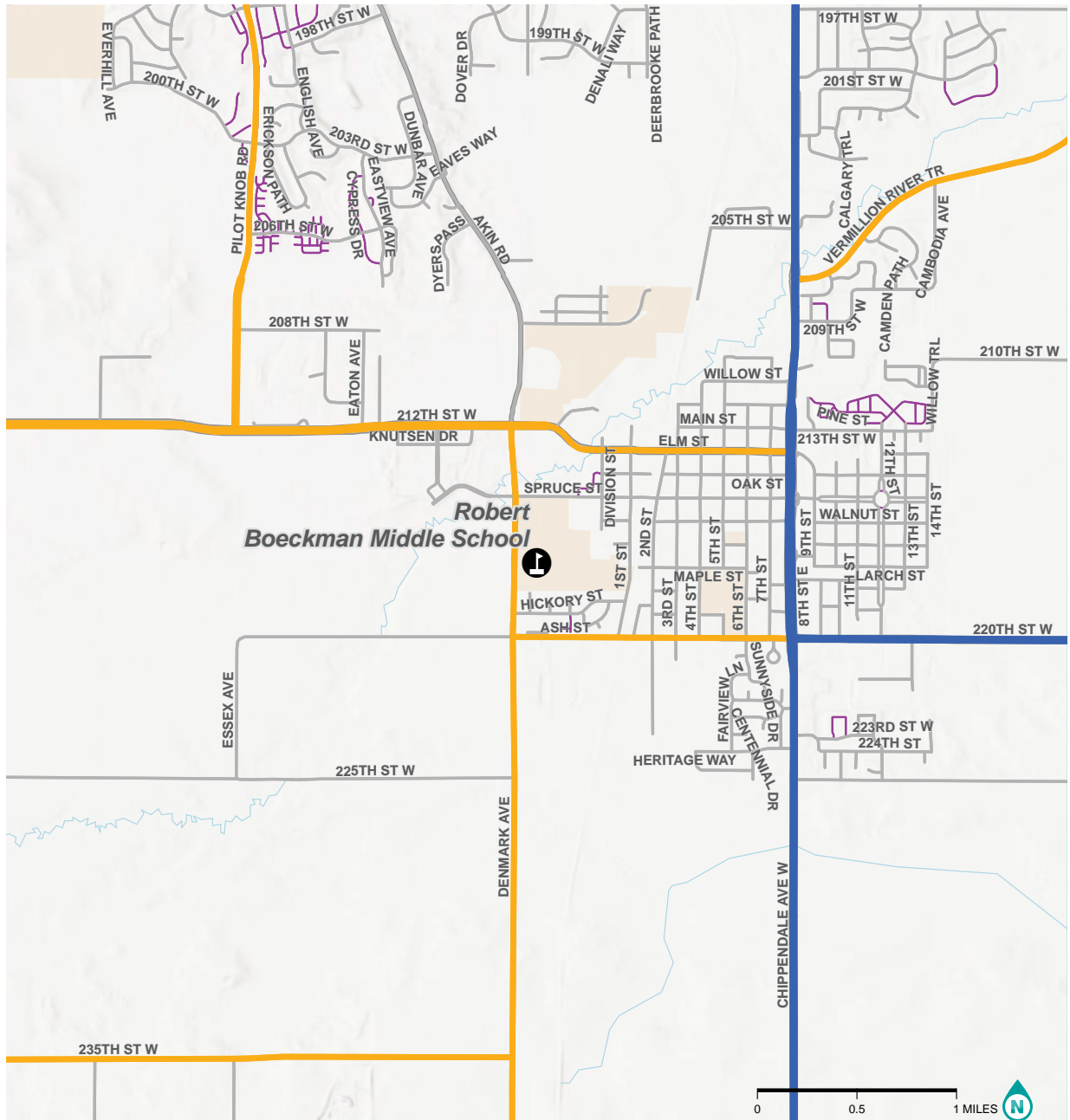
Appendix A: Boeckman Attendance Zone



Map produced by the Minnesota Department of Education using data from the Minnesota Geospatial Commons, last updated February 14, 2023.



Appendix B: Road Ownership



ROAD OWNERSHIP

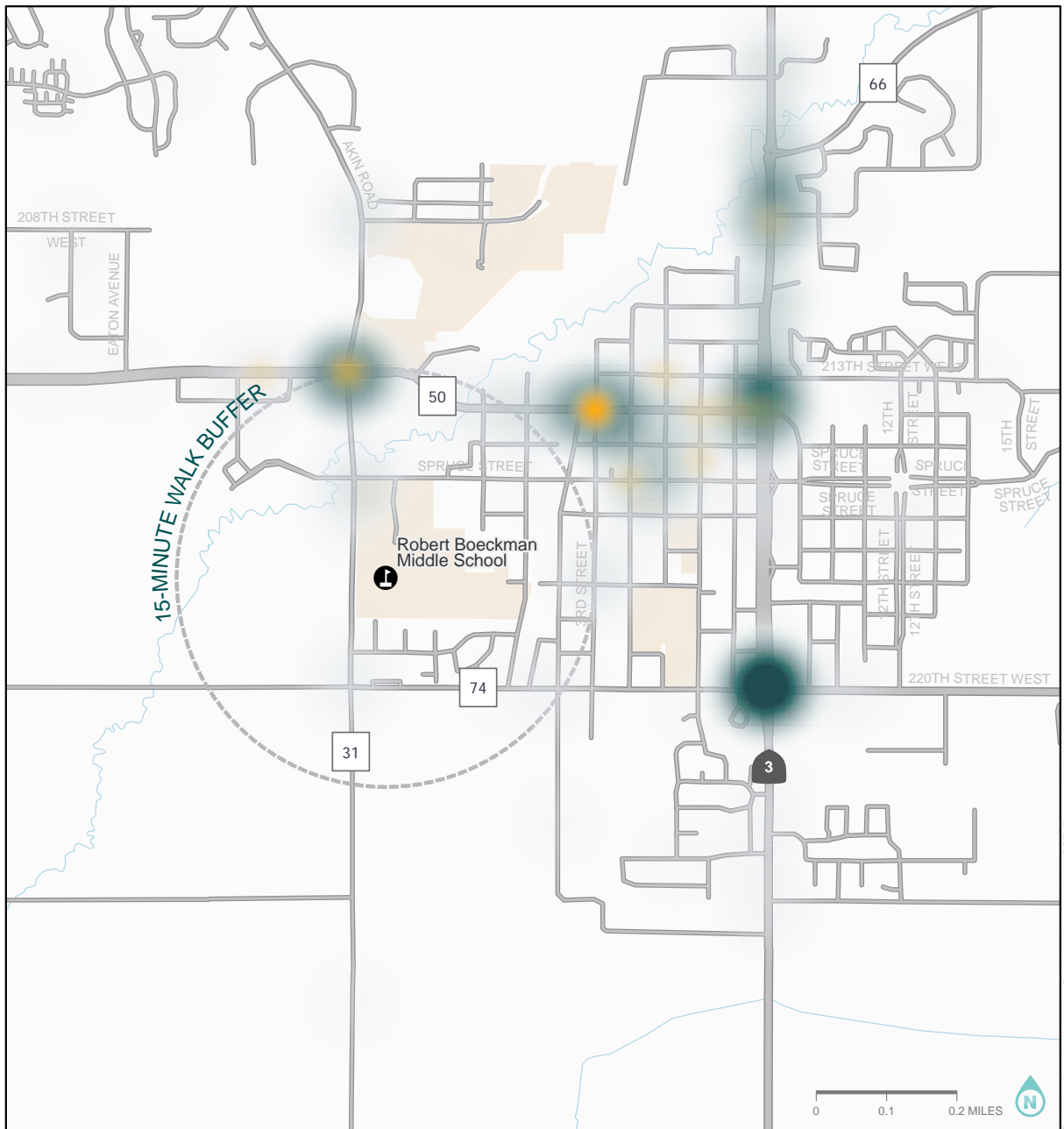
BOECKMAN MIDDLE SAFE ROUTES TO SCHOOL PLAN

- Federal
- State
- County
- Tribal
- Local
- Other



Refer to Appendix G for a description of the methods used to produce this map.

Appendix C: Crashes by Road User Vulnerability (2008 - 2022)








Crash data from January 2008 to October 2022, provided by MnDOT. Date saved: 3/24/2023.

COLLISIONS BY ROAD USER VULNERABILITY

BOECKMAN MIDDLE SCHOOL
SAFE ROUTES TO SCHOOL PLAN

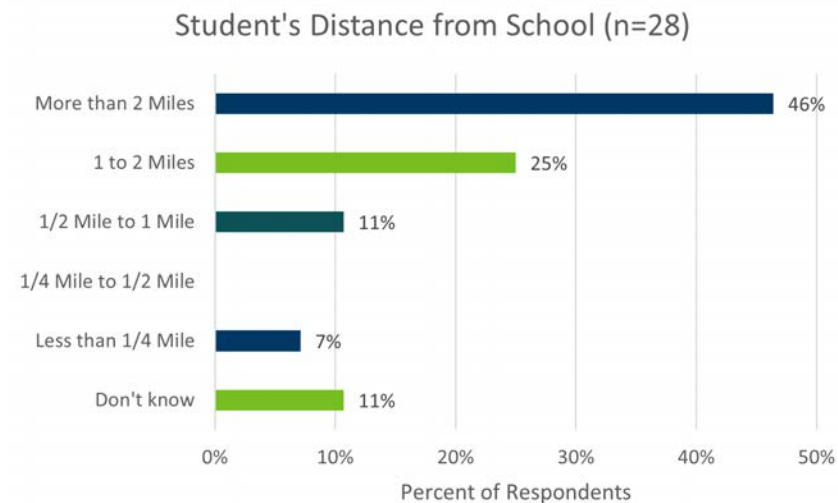
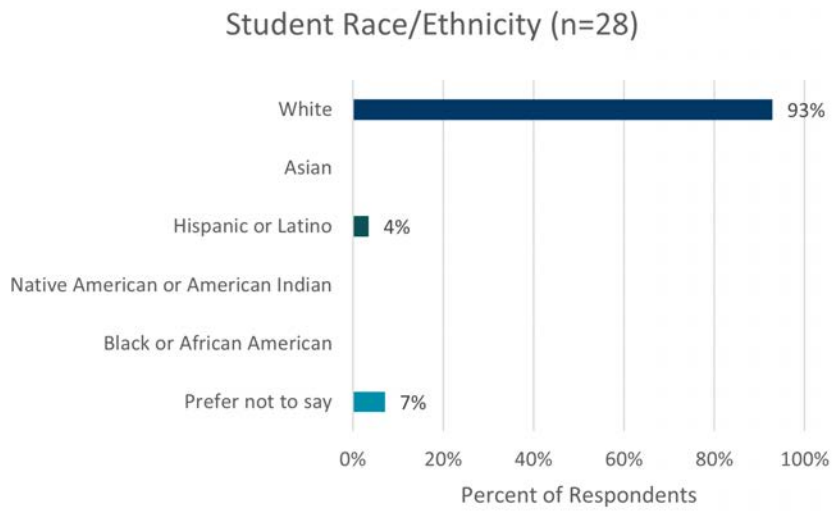
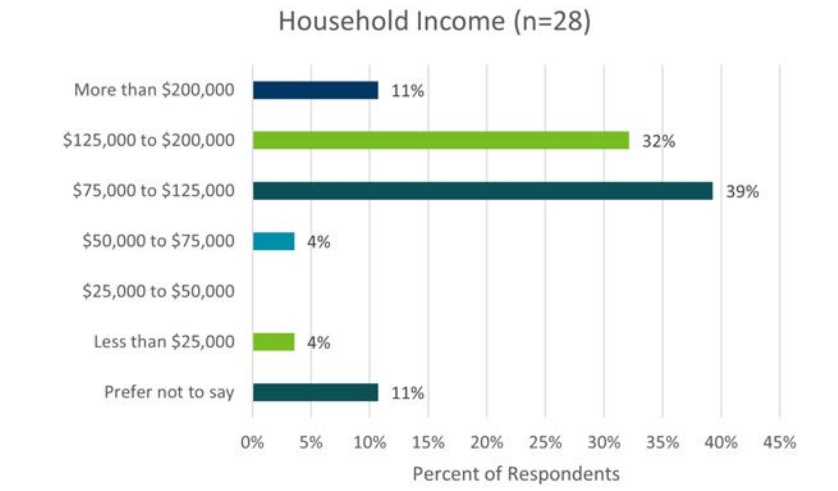


-  15-Minute Walk Buffer
-  Fewer Vehicle Crashes
-  More Vehicle Crashes
-  Fewer Bike/Ped Crashes
-  More Bike/Ped Crashes

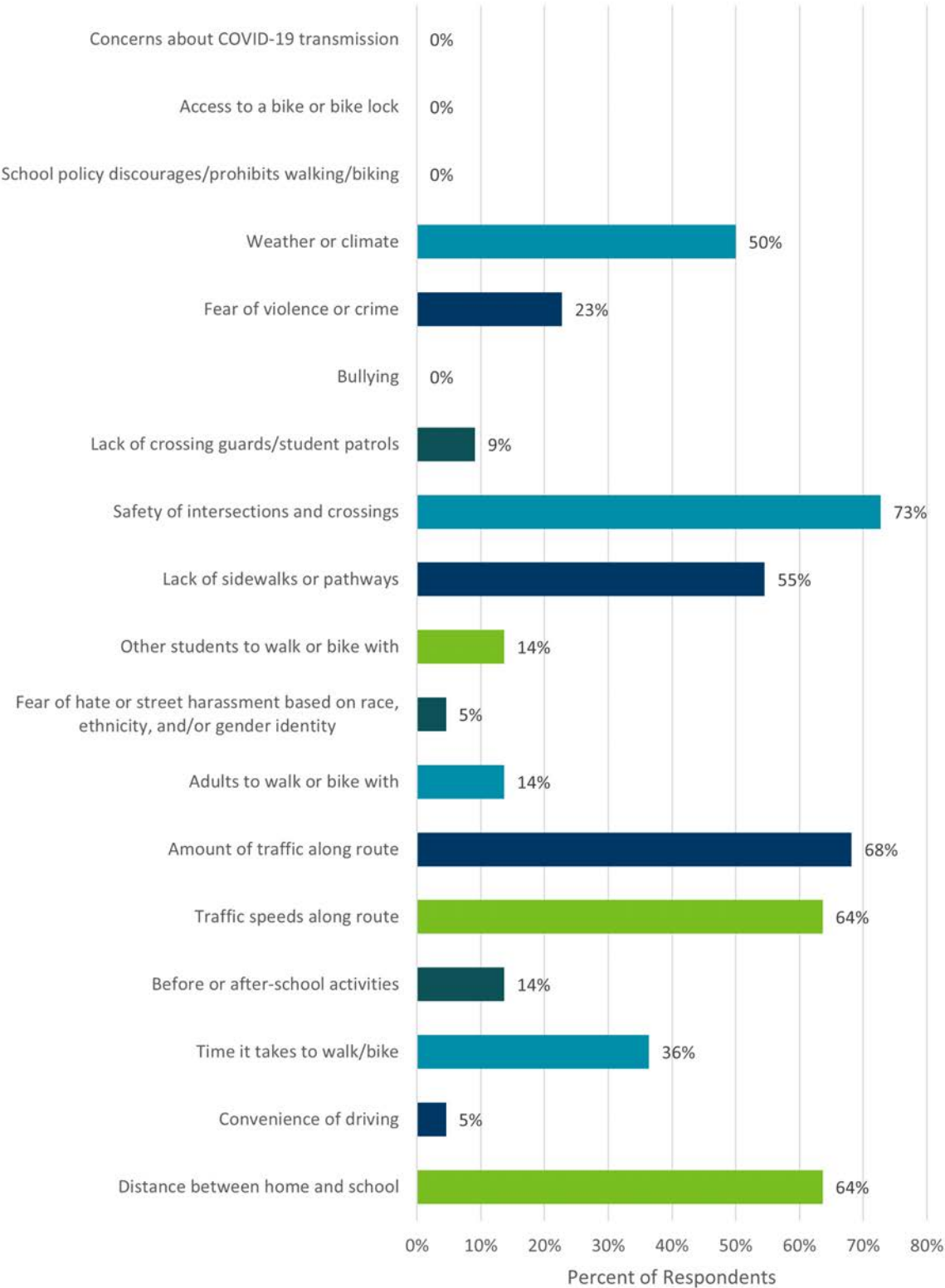
Refer to Appendix G for a description of the methods used to produce this map.



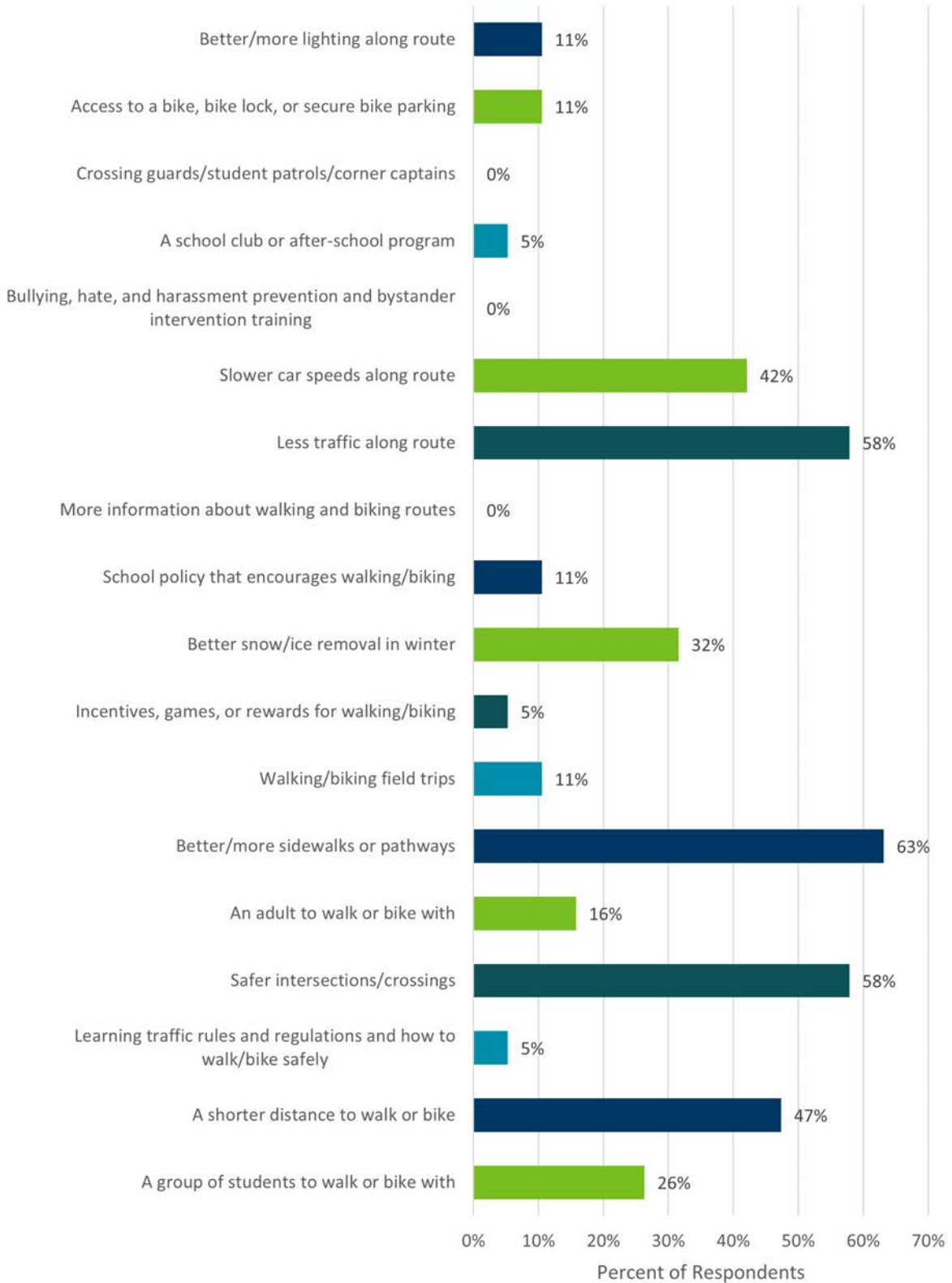
Appendix D: Caregiver Survey Results



Which of the following issues prevent your student from walking or biking to school? (n=22)



What would help your child walk or bike to/from/at school more often? (n=19)



Appendix E: Project Process and Timeline

Intro Call: SRTS staff and consultants meet with local SRTS team lead(s), review the timeline of the planning process, talk through the responsibilities of the different stakeholders, and identify short-term next steps, such as scheduling the kick-off meeting and finalizing stakeholders for the SRTS team, including local community members and staff from the school(s), city and county governments, and MnDOT.

Kick-Off Meeting: the SRTS team, including SRTS staff and local and county participants, reviews the planning process and talks about high-level goals.

Engagement + Data Collection: SRTS staff and consultants work with the schools, non-profits, and the broader community to build awareness of the planning process, solicit input, and identify opportunities for programs and infrastructure improvements.

Rapid Planning Workshop: the SRTS team discusses past efforts around walking and biking in the community, identifies areas of need, and brainstorms possible resources, collaborations, and opportunities to implement new programs and infrastructure improvements.

Technical Meeting: SRTS staff speak with local, county, and MnDOT staff about existing studies, projects, and other opportunities and constraints relating to pedestrian and bicyclist infrastructure within the planning area.

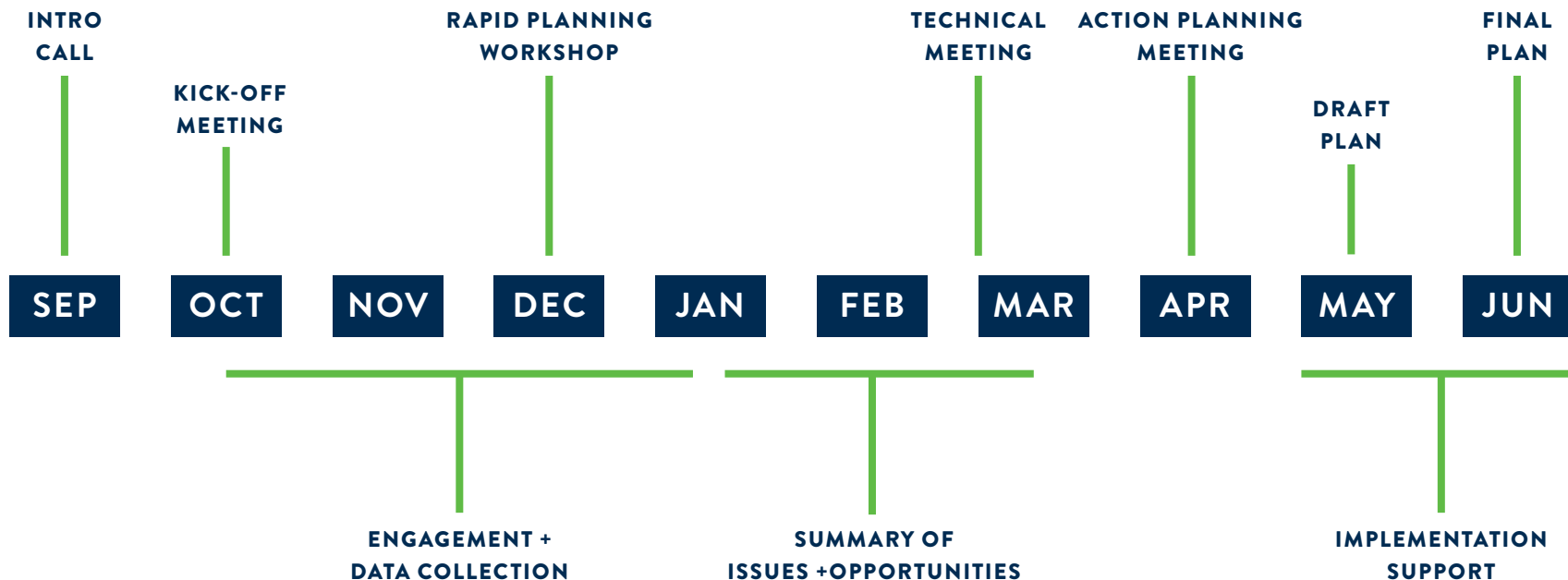
Summary of Issues + Opportunities: building on input from community engagement, data collection, the Rapid Planning Workshop, and the technical meeting, SRTS staff and consultants compile identified program opportunities and locations where infrastructure improvements could support walking and biking to school.

Action Planning Meeting: the SRTS team reviews the summary of issues and opportunities and discusses possible actions to take in response to issues/opportunities.

Draft Plan: the SRTS team reviews and provides feedback on a draft of the full plan.

Implementation Support: SRTS staff and consultants assist the community with short-term actions, such as designing a concept for a demonstration project to test improvements at a problematic intersection near the school.

Final Plan: the completed plan is published online and in print and is formally adopted to guide future SRTS efforts.



Appendix F: Engagement Summary

INTRODUCTION

Safe Routes to School (SRTS) staff provided community engagement support to collect ideas on walking and biking from the Boeckman community. SRTS staff assisted local Boeckman Safe Routes to School staff by using multiple strategies such as hosting an [interactive engagement website](#), requesting feedback through caregiver and student surveys, and engaging with families at in-person events (shown in Figure 1).

The purpose of the engagement was to:

1. Identify walking and biking challenges
2. Understand where people would like to go
3. Provide information about walking and biking safety
4. Build excitement for the Boeckman Safe Routes to School Plan

These engagement strategies were chosen to make it easy for the Boeckman community to talk to staff and participate.

Figure 1: Staff talk with students and caregivers during a Back-to-School event at Boeckman Middle School.



TABLE 1: ENGAGEMENT STRATEGIES

DATE	STRATEGY	DESCRIPTION	COUNT
October 7, 2022 – January 20, 2023	Interactive map	Interactive online map provided for residents to leave comments and match them to the exact locations.	6
September 29, 2022 – January 20, 2023	Caregiver survey	Survey to identify why families walk and bike and what would help make it safer to walk and bike. The survey was available online and in paper-pencil form upon request. Available languages were English, Spanish, Somali, Karen, Hmong, and Chinese.	28
August 30, 2022	Back-to-School event	Table during Boeckman Middle School’s open house to talk to families before the beginning of the new school year.	109

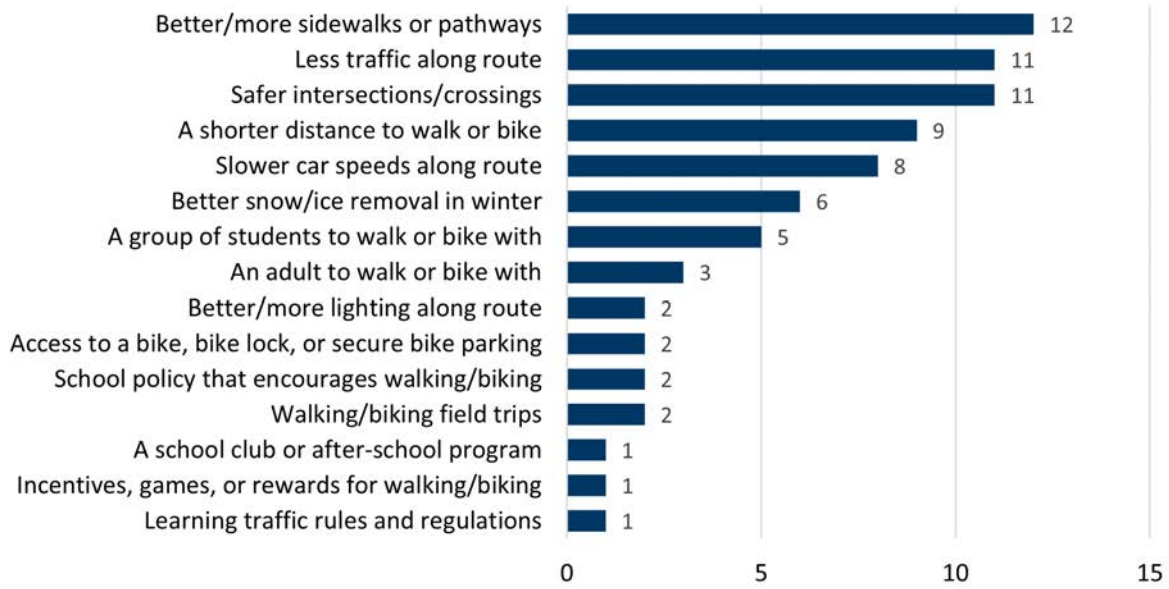
DATE	STRATEGY	DESCRIPTION	COUNT
November 9, 2022	Meeting with Bike Club	Met with students in the Bike Club to discuss their routes and infrastructure challenges. Activities included a presentation and a table plot map.	12
November 30, 2022	Equity scorecard	Equity analysis completed with the project team during the Rapid Planning Workshop and used to guide engagement strategies.	12
November 30, 2022	Student discussion	Asked Bike Club students questions during the Rapid Planning Workshop to better understand their successes and challenges with walking and biking in their community.	7

KEY TAKEAWAYS

- Students and caregivers are interested in walking and biking, and there is a Bike Club at the school. However, most caregivers felt uncomfortable with their students walking or biking alone to school.
- The most frequent issues noted by caregivers and students were multiple high-speed roads, difficult-to-cross roads, and a lack of walking and biking infrastructure in Farmington. These concerns were reflected in answers to the question about what would help their child walk or bike to school more often on the caregiver survey (Figure 2).
- A new housing development west of the school will house students who need a safe route to cross Denmark Avenue/CSAH 31.
- English, Spanish, and American Sign Language are the three primary languages at Boeckman Middle School.



Figure 2: Caregiver responses to survey question: “What would help your child walk or bike to school more often? Check all that apply.”



EQUITY

Boeckman Middle School is a hub for many family activities, including sporting events, theater performances, and other community events. These events serve this vibrant community and draw large numbers of people that primarily drive to get to and from the school, partly due to the lack of safe walking and biking routes connecting surrounding neighborhoods to the school. At the Rapid Planning Workshop, many from the local SRTS team suggested attending these events in the future to engage the Farmington community.

The new housing development being built near Boeckman, to the west of Denmark Avenue/County Road 31, are anticipated to house Boeckman students in the future. Students living in the area will need safe crossings on Denmark Avenue/County Road 31.

Spanish and American Sign Language are two languages used often at conferences by school staff. All Safe Routes to School materials targeting the Boeckman community should be available in these languages in the future.

PROGRAMS

At the Boeckman Back-to-School event, the primary concern expressed by caregivers and students was crossing high-speed roads to get to school and elsewhere in the community (Figure 3). Some students had a strong desire to bike to school, but caregivers felt it would be too dangerous for them to navigate alone. As one caregiver said, “There’s just too many big intersections to cross.”

There are several Safe Routes to School programs that could make walking and biking safer and more appealing for students and caregivers.

BIKE RODEO AND BIKE MECHANIC TRAINING

At a meeting with Bike Club students during Boeckman’s WIN session (in-school extracurricular learning period), students expressed interest in hosting a Bike Rodeo with Bike Mechanic Training. This could be an opportunity for students and caregivers to improve their biking skills and collaborate on tuning up bikes with a trusted adult. The Bike Club students wanted to teach their peers the importance of bike skills and safety in this setting. The Bike Club is planning this event for spring 2023.

CROSSING GUARDS

There are busy high-speed roads in every direction within a mile of the school. At the Back-to-School event, caregivers noted feeling nervous about letting their students cross roads near school due to speeding and inattentive drivers. This is especially true for Denmark Avenue/County Road 31.

Crossing guards at the 212th Street West/County Road 50 and Denmark Avenue/County Road 31 intersection could assist students coming from the housing development to the northwest. A crossing guard could also help students cross Highway 3, at the Spruce Street intersection, where the Bike Club leader recommended an improved crossing.

BIKE TRAIN

A common theme at the Back-to-School event was caregiver concerns over students navigating their way alone. Students who bike in their community tend to do so with the supervision of a caregiver (e.g., to Rambling River Park or the ice cream shop). Caregivers would prefer students ride in a group to school together if they cannot go with them. Given the interest in biking, caregivers' desire for supervision, and the pre-existing Bike Club, a Bike Train program could be a good fit for Boeckman Middle School.

DROP AND WALK

Living too far away was a common reason caregivers and students gave at the Back-to-School event for not walking or biking to school. A Drop and Walk would minimize this barrier by providing a centralized drop-off location from which students can walk the rest of the way to school. A potential drop-off location could be Rambling River Park. The park is one-half mile north of the school and was mentioned by families as a destination for recreation.

Figure 3: Students participate in trivia questions during a Back-to-School event.



ROUTE MAP

A few students at the Back-to-School event biked or planned to bike to school. They shared recommended routes, including streets with less traffic and nearby trails. Spreading awareness of these routes could help other caregivers feel more comfortable letting their students walk or bike to school or in the community. The Bike Club leader also bikes to school and provided support for this idea.

SCAVENGER HUNT

One student at the Rapid Planning Workshop suggested organizing a scavenger hunt for bikers to encourage students to familiarize themselves with the school area. They suggested kicking off this event by meeting at the school for “Bike Rack Burritos,” using food as an incentive to attend. This student noted that many of their peers frequently ride in the summer, so they believe this program would have strong attendance.

INFRASTRUCTURE

At the Back-to-School event, the most frequent issues noted by caregivers and students were high-speed roads, difficult crossings, and a lack of walking and biking facilities. One family noted, “We thought about open-enrolling at Dodge Middle School because it’s more bikeable.” Another student said, “I don’t feel fully safe until I’m inside the school.” These remarks were supported by caregivers who responded to the caregiver survey question, “Which of the following issues prevent your child from walking or biking to/from school? (check all that apply)” (Figure 4).

The following roads and intersections were noted as particularly challenging.

DENMARK AVENUE/CSAH 31

Denmark Avenue/CSAH 31 runs north-south and is directly adjacent to Boeckman. At the Back-to-School event, caregivers and students mentioned high-speed traffic, distracted driving, difficult crossings, and a lack of bike and pedestrian facilities on this road. Students noted that biking feels unsafe because there is no bike

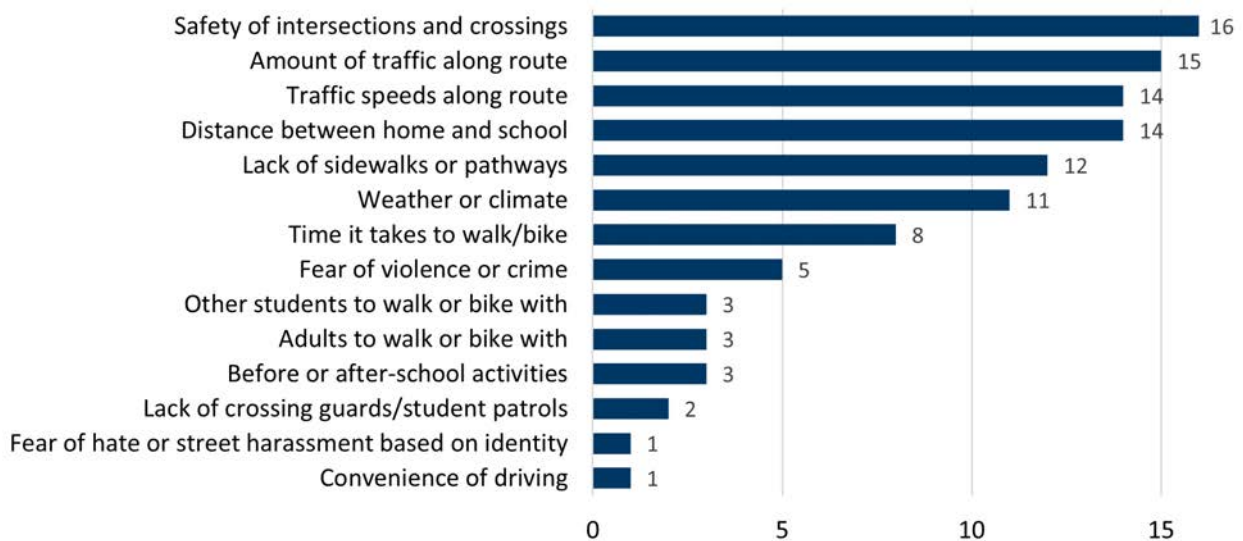
path. They must use the narrow shoulder next to high-speed traffic. Students and caregivers also expressed a desire for a sidewalk and crosswalk on the west side of the road. This was especially noted by those who live north of CSAH 50 and west of Akin Road.

The intersection at 212th Street West/CSAH 74 was noted as intimidating for students to cross alone, particularly because inattentive right-turning drivers may not see crossing students.

HIGHWAY 3

Highway 3 runs north-south through Farmington and is approximately one-half mile east of the school. There are only two traffic lights on this road where students may reasonably cross: 220th Street W and Elm Street. At the Back-to-School event, caregivers and students noted that crossing Highway 3 is difficult without a traffic light where it is more convenient to cross, and requires waiting for a gap in traffic. Students prefer crossing at Spruce Street instead of at the signalized Elm Street intersection because drivers turning right at the light do not pay attention to pedestrians.

Figure 4: Caregiver responses to survey questions “Which of the following issues prevent your child from walking or biking to/from school? (check all that apply)”



One caregiver noted, “Crossing 3 is not an option - very unsafe.” At the Rapid Planning Workshop, one teacher said that cars will run both sets of red lights going north and south. Cars also do not look for pedestrians when turning right at intersections along Highway 3.

One teacher mentioned that the roundabout at County Road 66 is the safest point to attempt crossing on a bike, despite the lack of signal. One caregiver noted that they feel safer when their student bikes along the frontage road west of the highway.

220TH STREET W

220th Street W runs east-west and is approximately one-half mile south of the school. At the Back-to-School event, caregivers and students noted that crossing is difficult and that they would only bike on this road using the sidewalk. The Bike Club students cross this road to access the fairgrounds to the south and have expressed similar challenges.

BIKE TRAILS

One caregiver at the Back-to-School event said there should be better labels on the bike trails behind Riverview Elementary School, which multiple students said they use. This trail is part of the City of Empire Trail network.

At the Rapid Planning Workshop, many attendees noted that stop signs, yield signs, and the general right-of-way are not respected by cars in regard to bikers. They said, “People aren’t looking for bikes.” They want better signage for bike paths and crossings to increase awareness of crossing potentials.

When crossing the railroad tracks on the bike trail north of Boeckman Middle School, bike riders must ride through a small, narrow tunnel that floods frequently. One student from the Bike Club mentioned that they lifted their head too early inside the tunnel and damaged their helmet from the force. Students identified this as a safety hazard and as an obstacle when walking and biking to school.

Another obstacle is that students crossing the railroad tracks near the bike trail must lift their bikes over the raised tracks, making it more difficult to cross.



Appendix G: Methods and Data Sources

CRASHES BY ROAD USER VULNERABILITY

Visualized crashes are taken from a crash database that spans from January 2008 to October 2022. Pedestrian- and bike-involved crashes were those events with “Crash Type Description” values of either “Pedalcycle (bike)” or “Pedestrian.”

ROAD OWNERSHIP

Highway Performance Monitoring System (HPMS) data from 2021 were visualized on the basis of each road segment’s “Ownership” value. These values were consolidated from 26 categories down to six for visualization purposes; these six categories were “Federal,” “Tribal,” “State,” “County,” “Local,” and “Other.”

SCHOOL ENROLLMENT CHARACTERISTICS

[School year 2022-2023 enrollment data](#) were downloaded from the Minnesota Department of Education Data Center.

PRIORITY EQUITY AREAS

Data representing priority populations used for this report is from MnDOT’s Active Transportation Equity application. This process used a set of data inputs to assign an equity score to half-mile hexagons across the state of Minnesota, for use in awarding Active Transportation Program grants.

Scores range from 0 to 13 out of a possible 15 points (note that no hexagon received 15/15 points). Higher numbers of points indicate areas with greater equity needs that will receive more points in the equity section of grant solicitation.

Input data sets used to create the scores include:

- Life expectancy lower than MN average (CDC U.S. Small-area Life Expectancy Estimates Project 2010-2015)
- Presence of transit (Metropolitan Council, 2019; MnDOT Office of Transit and Active Transportation)
- Presence of pedestrian-generating jobs (On the Map LEHD 2017)
- Presence of schools (Minnesota Department of Education SY 2019-2020)
- Two or more pedestrian crashes within 5 years (DPS Crash Data, 2014-2018)
- Tribal government areas (MnDOT Tribal Government Areas)
- Foreign born population greater than MN average (American Community Survey 2017 5-year estimates)
- More people 17 and under than MN average (American Community Survey 2017 5-year estimates)

(Continued on next page)

- More people 65 and older than MN average (American Community Survey 2017 5-year estimates)
- More people with disabilities than MN average (American Community Survey 2017 5-year estimates)
- More people of color than MN average (American Community Survey 2017 5-year estimates)
- More people with low incomes than MN average (American Community Survey 2017 5-year estimates)
- More people without vehicle access than MN average (American Community Survey 2017 5-year estimates)
- More people who do not speak English than MN average (American Community Survey 2017 5-year estimates)
- More people without high school diplomas than MN average (American Community Survey 2017 5-year estimates)

Appendix H: Student Travel Tally

BACKGROUND

This report contains information from Boeckman Middle School about students' trips to and from school. The data shown here were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Results from Boeckman Middle School reflect responses from three grades (6-8). Travel surveys were provided for the morning and afternoon commute over three days in early October 2022. A total of 2,003 responses were recorded, with an average of 333 responses per commute.

Figure 1: Results from Boeckman Middle School's morning travel tally.

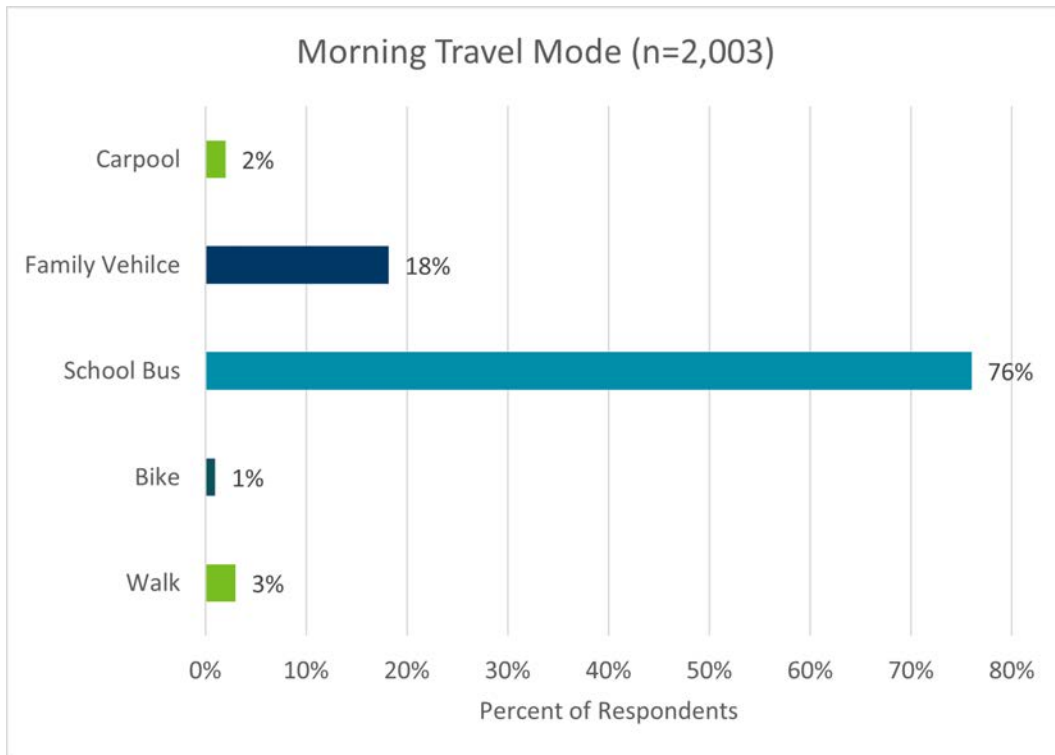
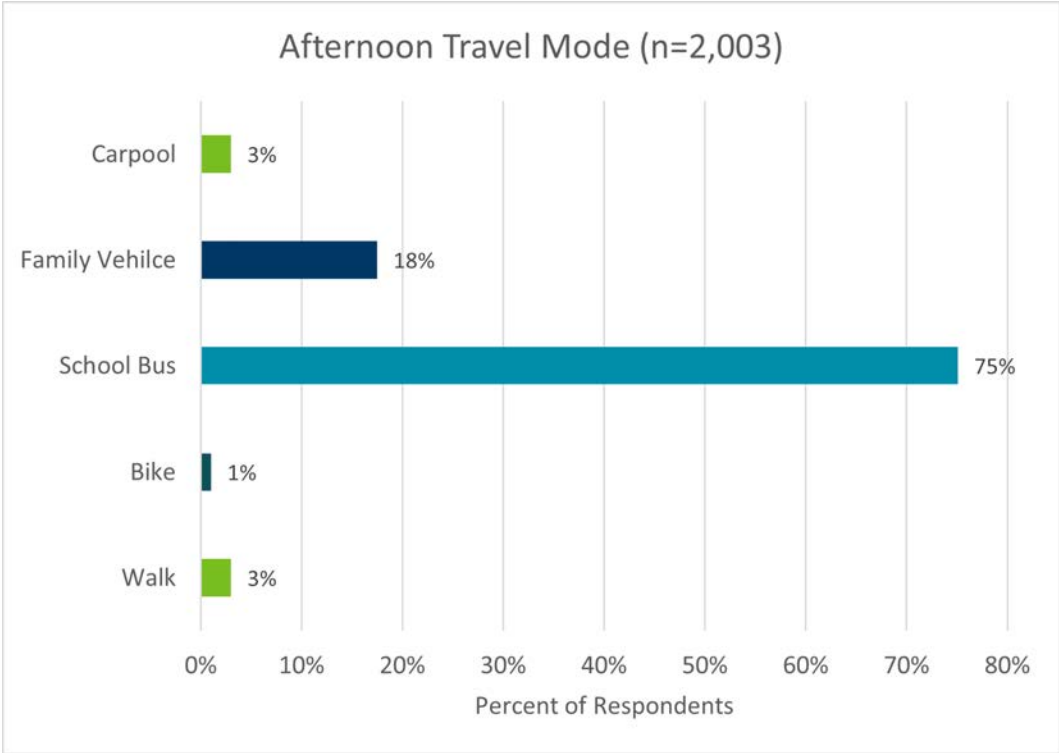


Figure 2: Results from Boeckman Middle School's afternoon travel tally.



Appendix I: Bike Parking for Schools

Bicycle parking at schools does more than just provide space for storage during the school day. Depending on design, bicycle parking can actually encourage students and staff to choose to ride their bikes to school. Here are some things to think about when planning bicycle parking at school.

HOW MUCH PARKING SHOULD BE PROVIDED?

The amount of bike parking needed will depend on the capacity of your school, the ages of students, and the number of staff. But remember: be aspirational! Provide parking for the number of students and staff you'd like to see biking! The following are some guidelines:

- Aim for 25% of the maximum student capacity of the school.
- Provide additional parking to encourage staff and faculty to bike to school.

For example, if each classroom has a max capacity of 20 students and there are 10 classrooms, space for 50 bicycles should be provided. Don't forget to add some for faculty and staff!

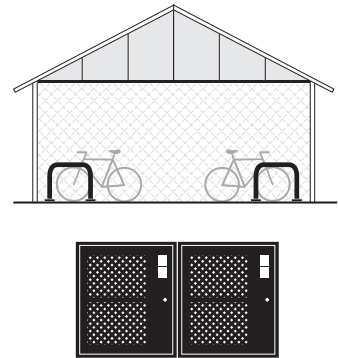
WHERE SHOULD PARKING BE LOCATED?

Well-located bike parking will be:

- Visible to students, staff, and visitors
- Near the primary school entrance/exit
- Easily accessed without dismounting
- Clear of obstructions which might limit the circulation of users and their bikes
- Easily accessed without making a rider cross bus and car circulation
- Installed on a hard, stable surface that is unaffected by weather
- Often found near kindergarten and daycare entrance, which allows caregivers to conveniently pick up their children on their bikes

CAN MY SCHOOL PROVIDE ADDITIONAL AMENITIES?

Bike parking shelters and lockers provide extra comfort and security for those choosing to ride to school. They're also a great project for a shop class. Both can be very simple in construction and go a long way toward making biking attractive and prioritized!

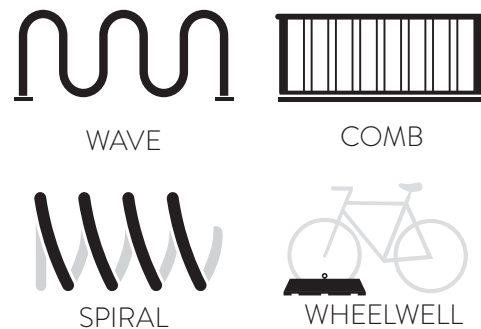


RECOMMENDED RACKS

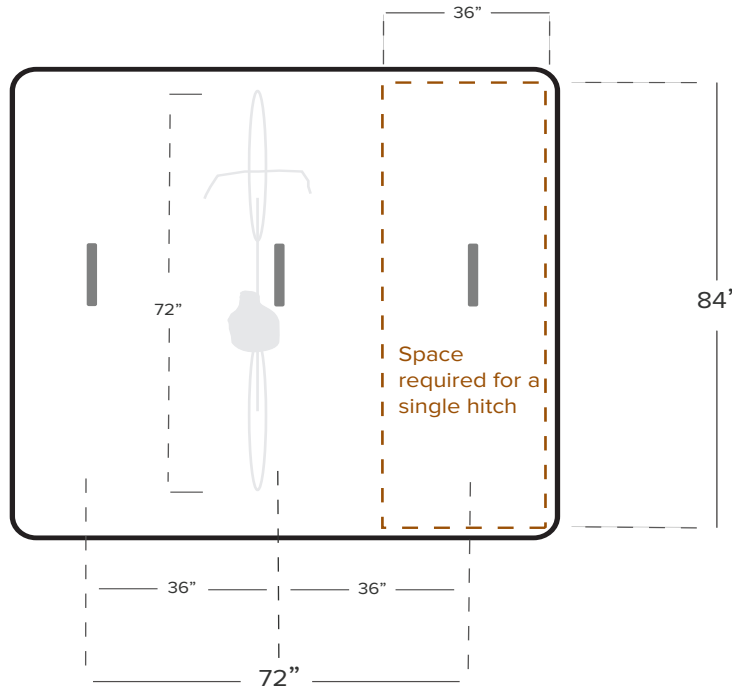


These racks provide two points of contact with the bicycle, accommodate varying styles of bike, allow for at least one wheel to be U-locked, and are intuitive to use!

RACKS TO AVOID

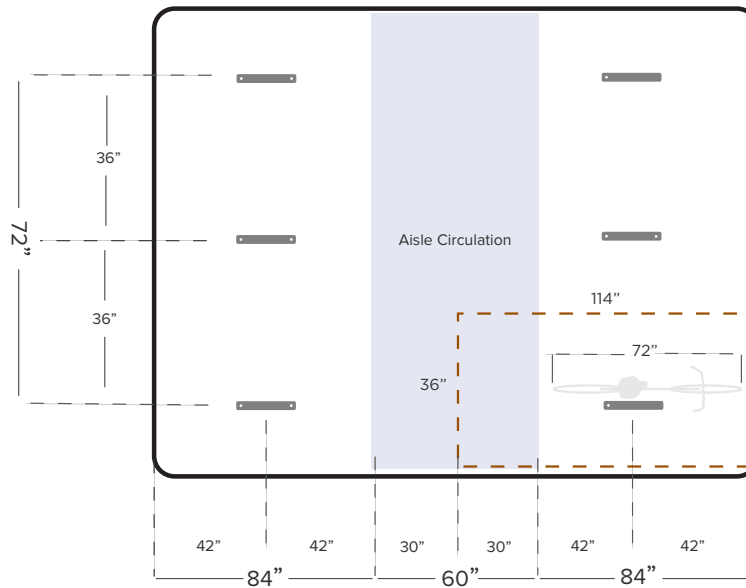


SPACE REQUIREMENTS



The space requirements shown here assume a person parking their bike would have open access forward and from behind.

The space requirements shown here assume the area is confined on either side (left and right). Access is located at the top and bottom of the image, requiring a center aisle for circulation.



Space required for a single hitch

MORE INFORMATION

[APBP Essentials of Bike Parking](#)
[Bike Shelter Development Guide - Portland Public Schools](#)

RESOURCES FOR EQUIPMENT

[Dero](#)
[Sportworks](#)
[Urban Racks](#)

Graphics courtesy of Association of Pedestrian and Bicycle Professionals Essentials of Bike Parking report (2015).



