

SAFE ROUTES TO SCHOOL

A community-centered plan to improve the safety and accessibility of walking and biking to school and community destinations, while improving students' physical and mental well-being

SAINT PAUL, MINNESOTA

Mississippi Creative Arts

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We gratefully acknowledge the participation of the following individuals and organizations in the development of this Safe Routes to School plan.

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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 the Mississippi Creative Arts community, including students, caregivers, teachers, school administrators, public works 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 community-centered plan to improve the safety and accessibility of walking and biking to school and community destinations, while improving students' physical and mental well-being.

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.

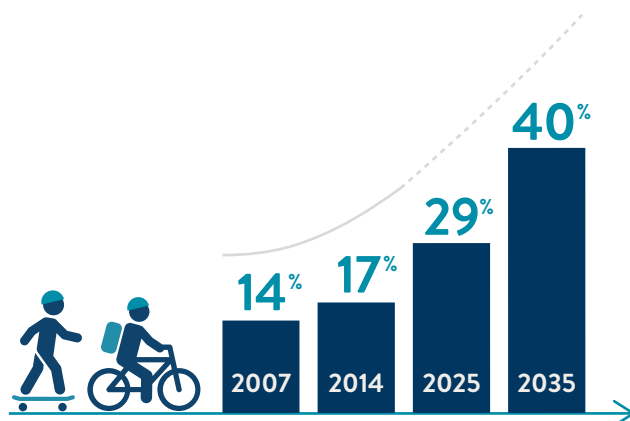




01. WHY SAFE ROUTES TO SCHOOL?

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>.



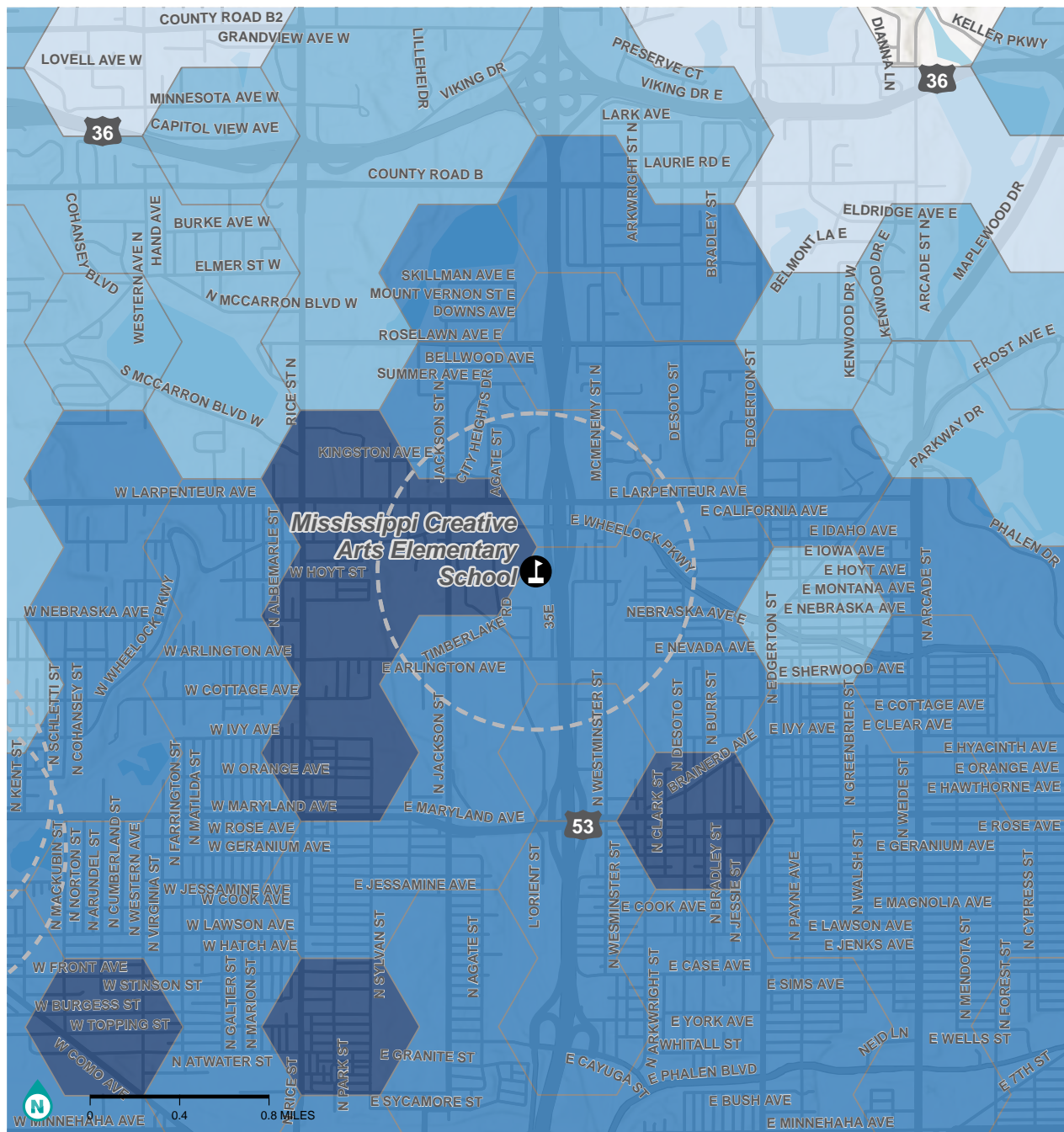
Equity in SRTS

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 address these inequities through programs, infrastructure, and policy improvements that 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 Mississippi Creative Arts Safe Routes to School team worked to develop recommendations that support equity in walking and biking to school.



PRIORITY EQUITY AREAS

MISSISSIPPI CREATIVE ARTS SAFE ROUTES TO SCHOOL PLAN

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



Mississippi Creative Arts School

SITE CIRCULATION



Pedestrians and Bicyclists: At dismissal, some students are greeted by parents or caregivers at the back entrance of the school to walk home together. Teachers walk groups of students up the path to Timberlake Road, past McDonough Recreation Center. A large group of students turns to walk past the recreation center to cross at the crosswalk there. A smaller group of students takes the sidewalk north of the recreation center to cross Timberlake at Biglow Lane, where there is not a marked crosswalk. Some caregivers meet students at that intersection. When walking to or from residences north of the school, some students will cut through the athletic fields, which are not well lit, rather than taking the path from Wheelock and L'Orient. Some students walk to residences or destinations east of I-35E. The freeway overpasses can be uncomfortable and noisy to walk across. While no students were observed biking to

school, there is some bicycle infrastructure adjacent to the school, including a trail along East Wheelock Parkway. There are also other nearby trails including the Trout Creek Trail and the Gateway State Trail.

School Buses: From L'Orient Street, buses keep right in the school parking lot to go around the loop. There is some congestion and conflict between caregiver drop-off/pick-up and school bus movements.

Vehicles: Passenger vehicles use the same entrance/exit to the school parking lot as school buses, on L'Orient Street adjacent to an I-35E on-ramp. At pick-up and drop-off times, there is some conflict between caregivers dropping students off and school buses. Passenger vehicles wait in the entrance to the parking lot so as to not block the buses.

SCHOOL CONTEXT:*

Mississippi Creative Arts



ENROLLMENT:

566

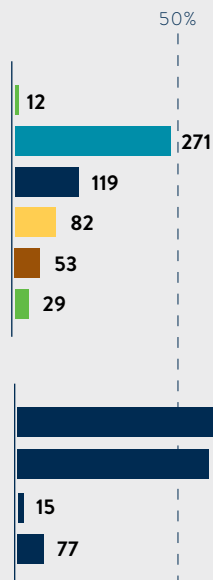


GRADES SERVED:

Pre-K-5

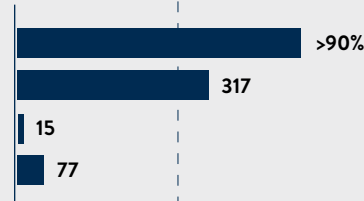
DEMOGRAPHICS

American Indian/Alaska Native
Asian
Black/African American
Hispanic/Latinx
White
Two or More Races



SOCIOECONOMIC

Free and Reduced Price Lunch
English Learner
Experiencing Homelessness
Receiving Special Education



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

STUDENT DEMOGRAPHICS:

- Just under 50% of the Mississippi Creative Arts student population is Asian, with a significant number of Black/African American, Latinx, and White students. There are relatively small subsets of students who are two or more races or American Indian/Alaska Native.
- Mississippi Creative Arts has a high percentage of free and reduced price lunch-eligible students (over 90%) compared to the state of Minnesota (40%).
- More than 55% of Mississippi Creative Arts students speak a language other than English at home.
- Equity considerations for this plan focus on students who live in the McDonough Homes, the public housing development immediately to the west and south of the school, and other apartments near the school campus, as well as those who live east of I-35E.





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 Mississippi Creative Arts.

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, cities 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 are planning-level concepts that will require additional engineering design.

Infrastructure Summary



JACKSON ST



PRIORITY Low ○○●

While some stakeholders and community members supported this project, it will provide safety and comfort benefits, and it is likely to benefit priority populations, it will serve relatively few students.

WHO WILL MAKE THIS HAPPEN?

Ramsey County, City of St. Paul

RECOMMENDATION

Add sidewalks or shared use paths on both sides of the street where there are gaps.

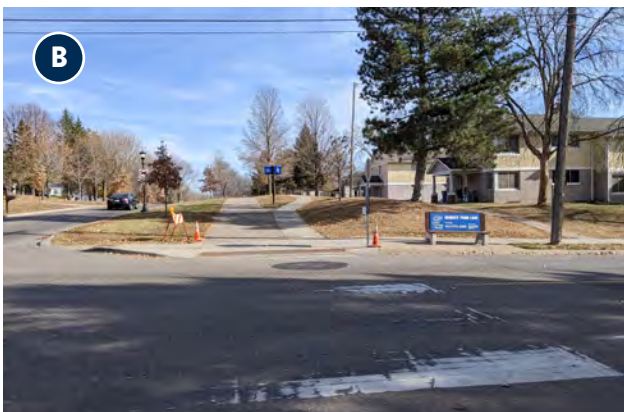
WHY IS THIS RELEVANT?

Families expressed the need for walking and biking facilities and reduced traffic speed along both sides of Jackson Street. This route is used by heavy trucks and buses and is on a slope, which can make walking or biking along or across the street uncomfortable. There is a 2026 Ramsey County reconstruction project on Jackson St, which will include bicycle and pedestrian facilities and will consider crossing improvements.

HOW WILL THIS ADDRESS EQUITY?

Some higher-priority equity areas are located along and west of Jackson St, which is a barrier between housing in McDonough Homes and destinations, including Mississippi Creative Arts School, the McDonough Recreation Center, and Metro Transit bus stops.

JACKSON ST AND E WHEELOCK PKWY



PRIORITY Low ○○●

While some stakeholders and community members supported this project, it will provide safety and comfort benefits, and it is likely to benefit priority populations, it will serve relatively few students.

WHO WILL MAKE THIS HAPPEN?

Ramsey County, City of St. Paul

RECOMMENDATION

Explore crossing improvements at this location, including adding a stop bar and refreshing the crosswalk markings with durable material. Consult the St. Paul Department of Public Works policy on crosswalk markings when considering marked crosswalks.

WHY IS THIS RELEVANT?

Families expressed concerns about cars pulling into the crosswalk, blocking the path for people walking and biking, since the stop sign is located behind the corner and the crosswalk is faded. There is an upcoming Ramsey County reconstruction project on Jackson St, which will include bicycle and pedestrian facilities and will consider crossing improvements.

HOW WILL THIS ADDRESS EQUITY?

Some higher-priority equity areas are located along and west of Jackson St, which is a barrier between housing in McDonough Homes and destinations, including Mississippi Creative Arts School, the McDonough Recreation Center, and Metro Transit bus stops.

JACKSON ST BETWEEN ARLINGTON AVE E AND WHELOCK PARKWAY



PRIORITY High ●○○

Stakeholders and community members supported this project, it will provide safety and comfort benefits, and it is likely to benefit priority populations.

WHO WILL MAKE THIS HAPPEN?

Ramsey County, City of St. Paul

RECOMMENDATION

Evaluate feasibility of a midblock crossing near the Metro Transit bus stops at Hoyt Ave E or a nearby location. If a shared-use path is included in a future reconstruction project, consider including curb extensions as a part of a mid-block crossing.

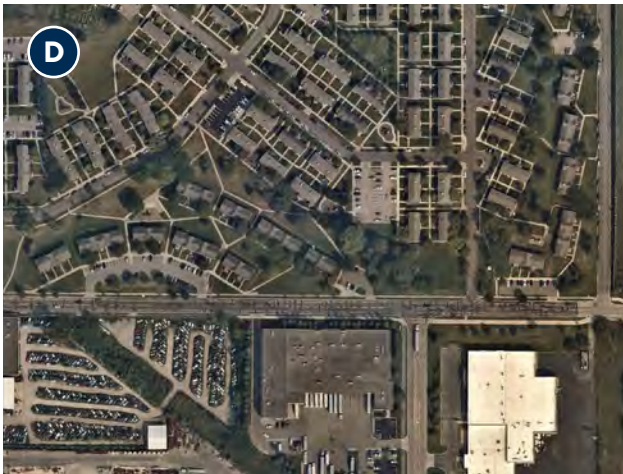
WHY IS THIS RELEVANT?

Community members expressed a need for a mid-block crossing at Jackson St and Hoyt Ave E, so that students and families living in the Jackson Street Village Apartments can cross safely and access destinations including school, the McDonough Recreation Center, and Metro Transit bus stops. This location was identified through a walk audit led by the Saint Paul Housing Authority.

HOW WILL THIS ADDRESS EQUITY?

Some higher-priority equity areas are located along and west of Jackson St, which is a barrier between housing in McDonough Homes and destinations, including Mississippi Creative Arts School, the McDonough Recreation Center, and Metro Transit bus stops.

ARLINGTON AVE E



PRIORITY Low ○○●

While stakeholders and community members supported this project, it will provide safety and comfort benefits, it will serve relatively few students.

WHO WILL MAKE THIS HAPPEN?

City of St. Paul

RECOMMENDATION

Add a separated bikeway connection between Wheelock Pkwy and the Gateway State Trail. Re-stripe crosswalks at Jackson St and add crossing enhancements or protected intersection design at the eastern intersection with L'Orient St. Consult the St. Paul Department of Public Works policy on crosswalk markings when considering marked crosswalks.

WHY IS THIS RELEVANT?

Families indicated that crossing these intersections can feel uncomfortable or unsafe due to conflicts with turning vehicles. One-way bike lanes on each side of the street necessitate crossing Arlington Avenue. This section is identified as a priority for a separated bikeway in the St. Paul Bicycle Plan.

HOW WILL THIS ADDRESS EQUITY?

Some higher-priority equity areas are located along and south of Arlington Avenue. Improving bicycle and pedestrian facilities along and across this corridor will increase access to destinations.

TIMBERLAKE RD



PRIORITY High ●○○

Stakeholders supported this project, which will serve a large number of students, will provide safety and comfort benefits, will benefit priority populations, and is likely to be moderately expensive.

WHO WILL MAKE THIS HAPPEN?

City of St. Paul, St. Paul Public Housing Agency, St. Paul Public Schools

WALKING PATHS TO MCAS



PRIORITY Medium ○●○

This project will serve a moderate number of students, will benefit priority populations, will provide moderate safety and comfort benefits, and is likely to be relatively inexpensive.

WHO WILL MAKE THIS HAPPEN?

St. Paul Public Schools

RECOMMENDATION

Improve crossings adjacent to the school/park property along Timberlake Rd, including at Biglow Ln where the path to the school meets the bus stop, the crossing near McDonough Recreation Center, and at Klainert St N. Evaluate locations and types of signage and upgrade curb ramps to current design standards. As a short-term option, consider installing a demonstration project and/or paint-the-pavement. See Appendix J for a demonstration project concept. Consult the St. Paul Department of Public Works policy on crosswalk markings when considering marked crosswalks.

WHY IS THIS RELEVANT?

Students who live in housing west of the school need to cross this street, and there is only one marked crosswalk. A large group of students crosses at Biglow Ln, where there isn't a marked crosswalk. Families reported that cars speed down this residential road, making it feel uncomfortable to walk along or across.

HOW WILL THIS ADDRESS EQUITY?

This recommendation will improve access to school and the recreation center for students living in McDonough Homes.

RECOMMENDATION

Evaluate condition, accessibility, and winter maintenance of existing paths and walking routes. In the school parking lot, add an artistic element to indicate the safe walking route and striping to prevent cut-through traffic.

WHY IS THIS RELEVANT?

Community feedback indicated that these paths can be difficult for students with disabilities to traverse. Pavement is in poor condition, can be icy in winter, and there is a steep hill. Students will walk through the parking lot south of the school rather than using the sidewalk and the school entrance at the back of the building. SPPS has a 2026 pavement replacement and stormwater management project at this site that will address some of these concerns.

HOW WILL THIS ADDRESS EQUITY?

Facilities that meet ADA standards ensure that students, caregivers, and other community members with disabilities can safely access key destinations such as the school campus.

E WHELOCK PKWY AND L'ORIENT ST, MISSISSIPPI ST



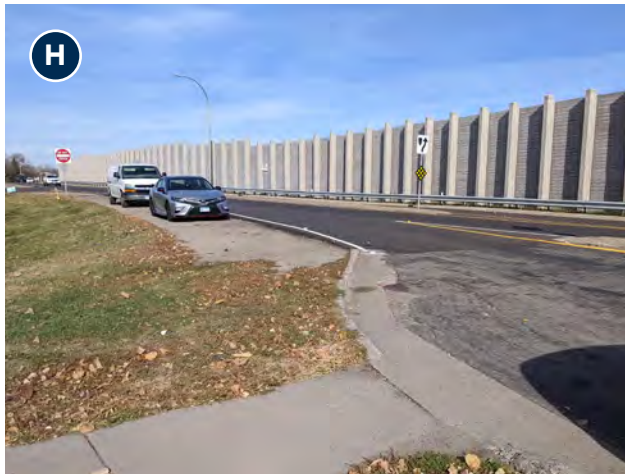
PRIORITY Medium ○●○

While some stakeholders supported this project, it is unlikely to benefit priority populations and will serve relatively few students. It will be relatively inexpensive to implement.

WHO WILL MAKE THIS HAPPEN?

City of St. Paul, MnDOT

L'ORIENT ST



PRIORITY Medium ○●○

This project will serve a modest number of students, will address on-campus accessibility and safety concerns, and is likely to be relatively low cost.

WHO WILL MAKE THIS HAPPEN?

City of St. Paul

RECOMMENDATION

Add a marked crosswalk on the south side of Wheelock Pkwy crossing L'Orient St. Add a stop bar on the Mississippi St crossing. Explore adding artistic elements to the bridges over I-35E.

WHY IS THIS RELEVANT?

People driving exit and enter the interstate at high speeds and make turns onto Wheelock Pkwy. People driving may not be aware of people walking and biking across L'Orient St and Mississippi St.

These are challenging crossings because of the on- and off-ramps. Some students live east of I-35E or walk from school to destinations on the other side of the interstate.

HOW WILL THIS ADDRESS EQUITY?

Interstate highways have historically created barriers through communities. Improving crossings can help increase non-motorized transportation access and connectivity.

RECOMMENDATION

Consider traffic calming measures along L'Orient St near the school, including formalizing the parking on the west side with a paved parking lane and extending the curb and gutter.

WHY IS THIS RELEVANT?

People drive at high speeds as they approach the interstate on-ramp. Families expressed that there can be congestion on this road, especially at school arrival and dismissal, and especially near the school entrance. Caregivers park on L'Orient Street south of the school entrance.

HOW WILL THIS ADDRESS EQUITY?

Interstate highways have historically created barriers through communities. Calming traffic on streets connected to highway on- and off-ramps could help ease these effects for nearby residents and students.

COMPLETE SIDEWALK NETWORK



PRIORITY High ●○○

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

WHO WILL MAKE THIS HAPPEN?

City of Saint Paul

RECOMMENDATION

Ensure streets near the school(s) have sidewalks in good condition by filling sidewalk gaps, repairing or replacing sidewalks in poor condition, and installing ADA-compliant curb ramps where needed.

WHY IS THIS RELEVANT?

City of Saint Paul staff have data on sidewalk gaps and ADA compliant curb ramps near the school. See Appendix D for maps. Although a full audit of existing sidewalk conditions near the school was not completed as part of this planning process, it is estimated that about half the sidewalk network citywide is deficient and needs repair based on historical projects and segmented inspections. More information is needed to determine the existing sidewalk condition within a half mile radius of the school.

HOW WILL THIS ADDRESS EQUITY?

Improving sidewalks and curb ramps around the school(s) improves safety for people walking, including those who live in equity priority areas and people with disabilities.



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

Saint Paul Public Schools (SPPS) and Mississippi Creative Arts School have been actively working toward providing safe and inviting spaces around school for students. This work provides a valuable baseline for expanding programs to encourage more students to walk and bike.

Active or previously implemented programs include:

- Community bike repair volunteer at McDonough Recreation Center during the summer
- Bike lock lending program at McDonough Recreation Center
- SPPS Walk, Bike, and Roll to School Days, including Bus Drop and Walk events
- Stop for Me and traffic enforcement details near schools at the start of the school year
- School safety patrol
- SPPS bike fleet and Walk! Bike! Fun! curriculum training available to teachers

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:

- Walk, Bike, and Roll to School Days
- Bike Rodeo
- Walking School Bus or Bike Train
- Bus Drop and Walk
- Walk! Bike! Fun! Curriculum
- Walk and bike field trips
- Enhanced school communications
- Suggested route map
- Crossing guards and school safety patrol

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.



WALK, BIKE, AND ROLL 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?

On district-wide Walk, Bike, and Roll to School Days, including promotion and celebrations for participants, remote bus drop and walk events, and/or bike trains.

Why is this relevant and recommended?

District-wide events are held each year; a champion at the school could continue coordinating participation.

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?

Students, PTO, school and district staff.

What is the timeline for implementation?

Short term (1 year).



BIKE RODEO

Bike Rodeos are events where bicycle skills and safety stations are offered for children and sometimes parents. Examples are obstacle courses, bicycle safety checks, helmet fittings, and rules of the road instructions. Events can be held during or after school, can be administered by adult volunteers or through the local police and/or fire department.

When, where, and how will this be implemented?

Hold a Bike Rodeo in conjunction with an existing family event. Have the Saint Paul Police Department bike truck available to offer helmets and bike maintenance.

Why is this relevant and recommended?

Although many students own bikes, a number of students mentioned that their bikes were broken and not rideable.

How will this address transportation inequities?

Coordinated events can make learning walking/biking safety and bike maintenance accessible to students at a time when families will already be visiting the school.

How will this be evaluated?

Student participation counts.

Who needs to be involved to make this happen?

Students, PTO, school staff, SPPD, community partners.

What is the timeline for implementation?

Short term (1 year).



WALKING SCHOOL BUS OR BIKE TRAIN

A Walking School Bus or Bike Train is a group of children walking or 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?

The school and SRTS team could help recruit adult leaders to establish walking school buses and bike trains.

Why is this relevant and recommended?

These events build enthusiasm for walking and biking, and help families try out new transportation options/routines. Walking/biking in a group also helps parents and caregivers feel more confident in their child's safety.

How will this address transportation inequities?

The school could prioritize recruitment in areas where there are transportation inequities.

How will this be evaluated?

Annual caregiver survey about transportation preferences.

Who needs to be involved to make this happen?

School staff, students, parents.

What is the timeline for implementation?

Short term (1 year).



BUS DROP AND WALK

During a bus drop and walk event (also called park and walk or remote drop-off) bus drivers and caregivers drop students at a designated off-campus location and students walk the rest of the way to school. Remote drop-off events can help reduce drop-off congestion on campus and provide students who live further from school with an opportunity to walk to school.

When, where, and how will this be implemented?

Coordinated drop-off points along Wheelock Parkway on either side of I-35E.

Why is this relevant and recommended?

Drop-off locations on the eastern and western sides of I-35E can remove a major crossing barrier.

How will this address transportation inequities?

Coordinated events can make walking/biking accessible to students who live farther away from school or who are disproportionately impacted by unsafe crossings.

How will this be evaluated?

Annual caregiver survey about transportation patterns.

Who needs to be involved to make this happen?

Students, PTO, school staff.

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. Walk! Bike! Fun! helps students ages five to thirteen 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 teachers or recreation center staff 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 education standards for students in Minnesota. Direct access to nearby trails provides a unique opportunity to extend the classroom.

How will this address transportation inequities?

This curriculum supports student knowledge of and comfort with walking/biking, regardless of a student's access to such resources outside school. Adaptations are available for students with special needs. This can be implemented in school or at out-of-school programs that serve students.

How will this be evaluated?

Number of students with access to bike/walk education.

Who needs to be involved to make this happen?

Teachers, school staff, St. Paul Parks and Recreation, Bike MN, students.

What is the timeline for implementation?

Medium term (2-3 years).



WALK AND BIKE FIELD TRIPS

A field trip made on foot or by bicycle gives students a supportive environment in which to practice their pedestrian safety or bicycling skills and showcases the many benefits of walking and bicycling for transportation, including health and physical activity, pollution reduction, and cost savings. The destination of the field trip may vary, or the field trip could be the ride itself.

When, where, and how will this be implemented?

Teachers could use the SPPS bike fleet, Ramsey County bike fleet, or BikeMN bike fleet, and trips could utilize nearby trails. Both types of field trips could be conducted as a part of science, PE or other classes.

Why is this relevant and recommended?

Walk and bike field trips can empower students to increase walking and biking for transportation. Direct access to nearby trails provides a unique opportunity.

How will this address transportation inequities?

Trips organized during the school day provide all students an opportunity to walk and bike, regardless of whether they have a bike at home.

How will this be evaluated?

Student travel tallies to measure modal change over time.

Who needs to be involved to make this happen?

Teachers, school staff, PTO.

What is the timeline for implementation?

Medium term (2-3 years).



ENHANCED SCHOOL COMMUNICATIONS

Existing communication channels can highlight the benefits of active school travel for students and families. Sharing regular SRTS updates and events in multiple languages throughout the school year will keep the benefits top-of-mind, gradually shift perceptions about safety and convenience, and contribute to a school culture that supports walking and biking.

When, where, and how will this be implemented?

- Back to school tour to introduce families to routes
- Visual marking of routes at the start of the year
- Social media could connect families who are interested in walking or bicycling together

Why is this relevant and recommended?

This will build upon the district's strong communications resources.

How will this address transportation inequities?

Connecting parents with each other and with information will provide support to those who are new to the school or trying walking or bicycling for the first time. Updates can be translated and/or communicated via text and call.

How will this be evaluated?

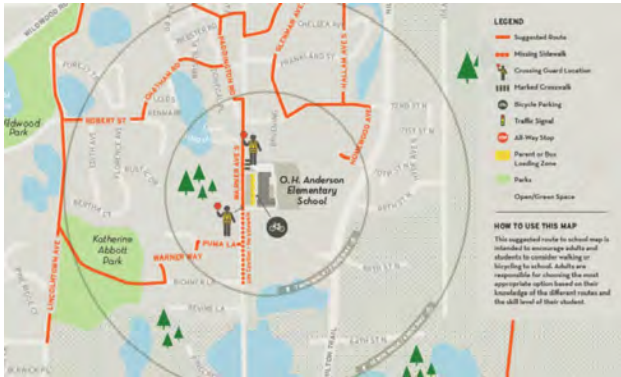
Number of parents reached.

Who needs to be involved to make this happen?

District communications staff, PTO, school staff.

What is the timeline for implementation?

Short term (1 year).



SUGGESTED ROUTE MAP

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

When, where, and how will this be implemented?

Artistic route maps and lawn signs that highlight safe routes to MCAS can be developed and updated as safety improvements are implemented.

Why is this relevant and recommended?

Route maps can help guide students along relatively safe routes and to navigate difficult crossings safely.

How will this address transportation inequities?

This program can provide families with a shared baseline understanding of conditions, even if they do not feel confident in that knowledge on their own. Routes can be tailored to focus on access for priority populations.

How will this be evaluated?

Counts of students walking and biking, annual caregiver survey about transportation preferences.

Who needs to be involved to make this happen?

School and city staff.

What is the timeline for implementation?

Short term (1 year).



CROSSING GUARDS AND SCHOOL SAFETY PATROL

Crossing guards are trained adults, paid or volunteer, who are legally empowered to stop traffic to assist students with crossing the street. School safety patrols are trained student volunteers responsible for enforcing drop-off and pick-up procedures and assisting with street crossing.

When, where, and how will this be implemented?

Existing school safety patrols can be augmented by additional student safety patrols and/or formal, trained adult crossing guards.

Why is this relevant and recommended?

Intersections near the school campus are seen as barriers to walking and biking by families who live in the neighborhood.

How will this address transportation inequities?

This program will support student safety and comfort with walking/biking; crossing guards or safety patrols can be positioned to support routes for priority populations.

How will this be evaluated?

Driver yielding tallies; student travel tallies to measure modal change over time.

Who needs to be involved to make this happen?

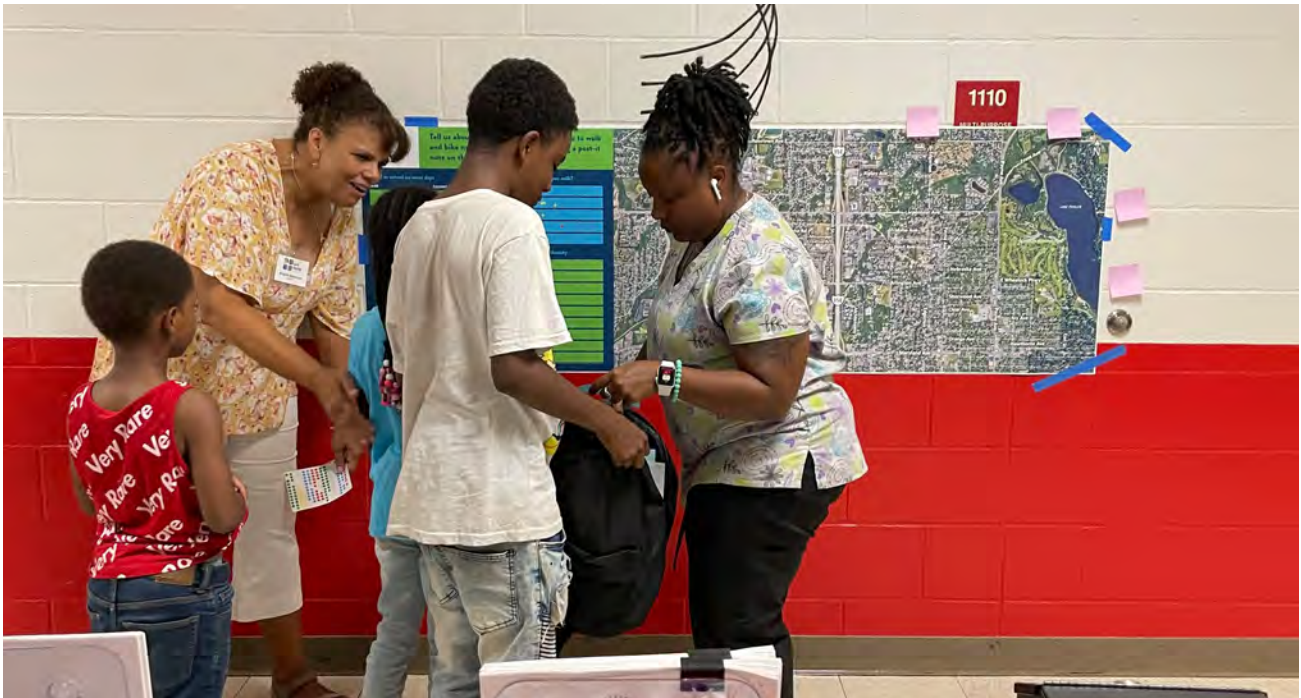
School district, school administration or PTA, teachers, staff, local government, local law enforcement, volunteers.

What is the timeline for implementation?

Short term (2-3 years).



04. WORKING FOR CHANGE



Action Steps

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

PRIORITY SRTS INITIATIVES

- Work with partners at St. Paul Housing Authority and McDonough Recreation Center to explore a Paint the Pavement project on Timberlake Road
- Implement recommendations as part of SPPS planned project pavement replacement and stormwater management
- Continue Walk, Bike, and Roll to School Days and expand to fall and winter
- Conduct a bike rodeo as part of a family event

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 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.

See Appendix J for a demonstration project concept.

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
- Ensuring that the governing body has adopted subdivision regulations requiring new and proposed developments to have connected sidewalks and/or bicycle infrastructure. This is a requirement for SRTS funding eligibility for projects on city or county right-of-way

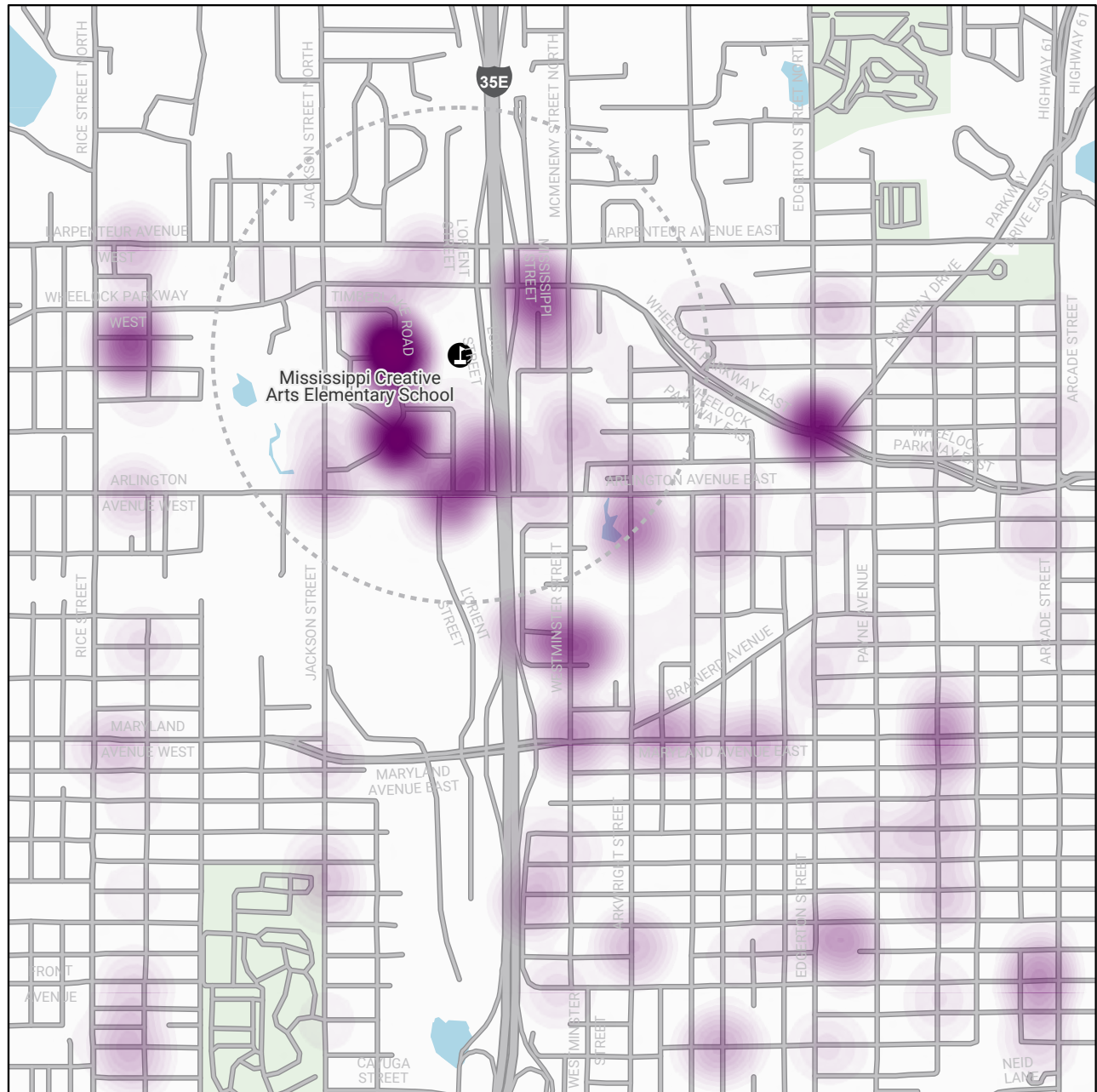
City staff can also use this report to support Safe Routes to School funding applications to programs such as MnDOT SRTS grants, federal infrastructure grants, and the Statewide Health Improvement Program (SHIP).





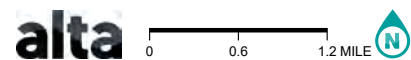
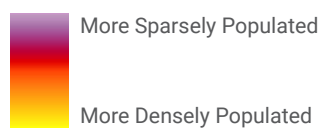
05. APPENDICES

Appendix A: Student Residential Density



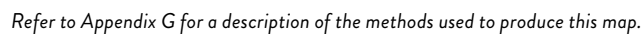
STUDENT RESIDENTIAL LOCATIONS

CONCENTRATION OF STUDENTS

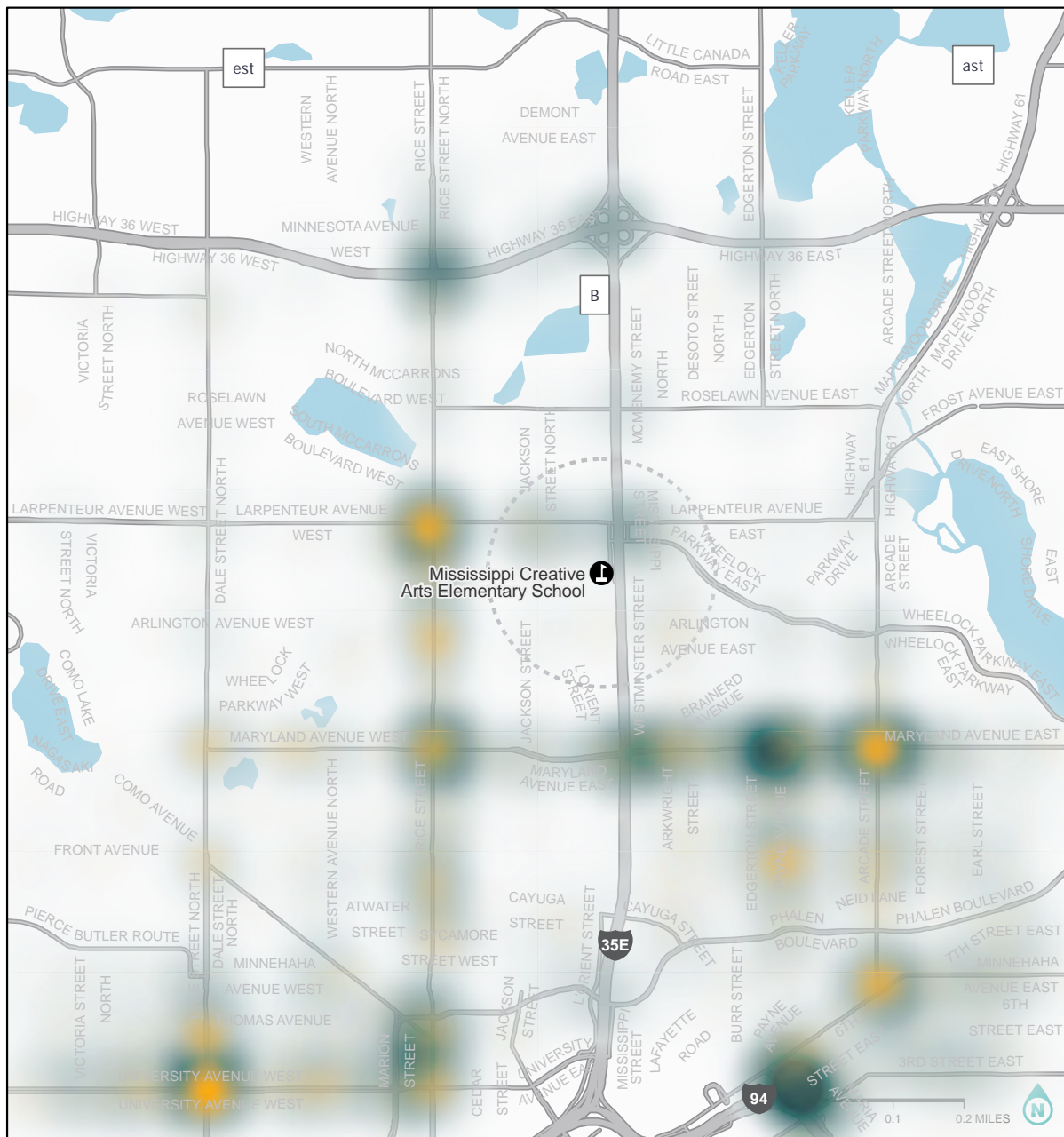


Refer to Appendix F for a description of the methods used to produce this map.





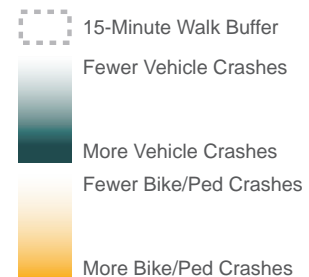
Appendix C: Crashes by Road User Vulnerability (2008 - 2022)



COLLISIONS BY ROAD USER VULNERABILITY

MISSISSIPPI CREATIVE ARTS
SAFE ROUTES TO SCHOOL PLAN

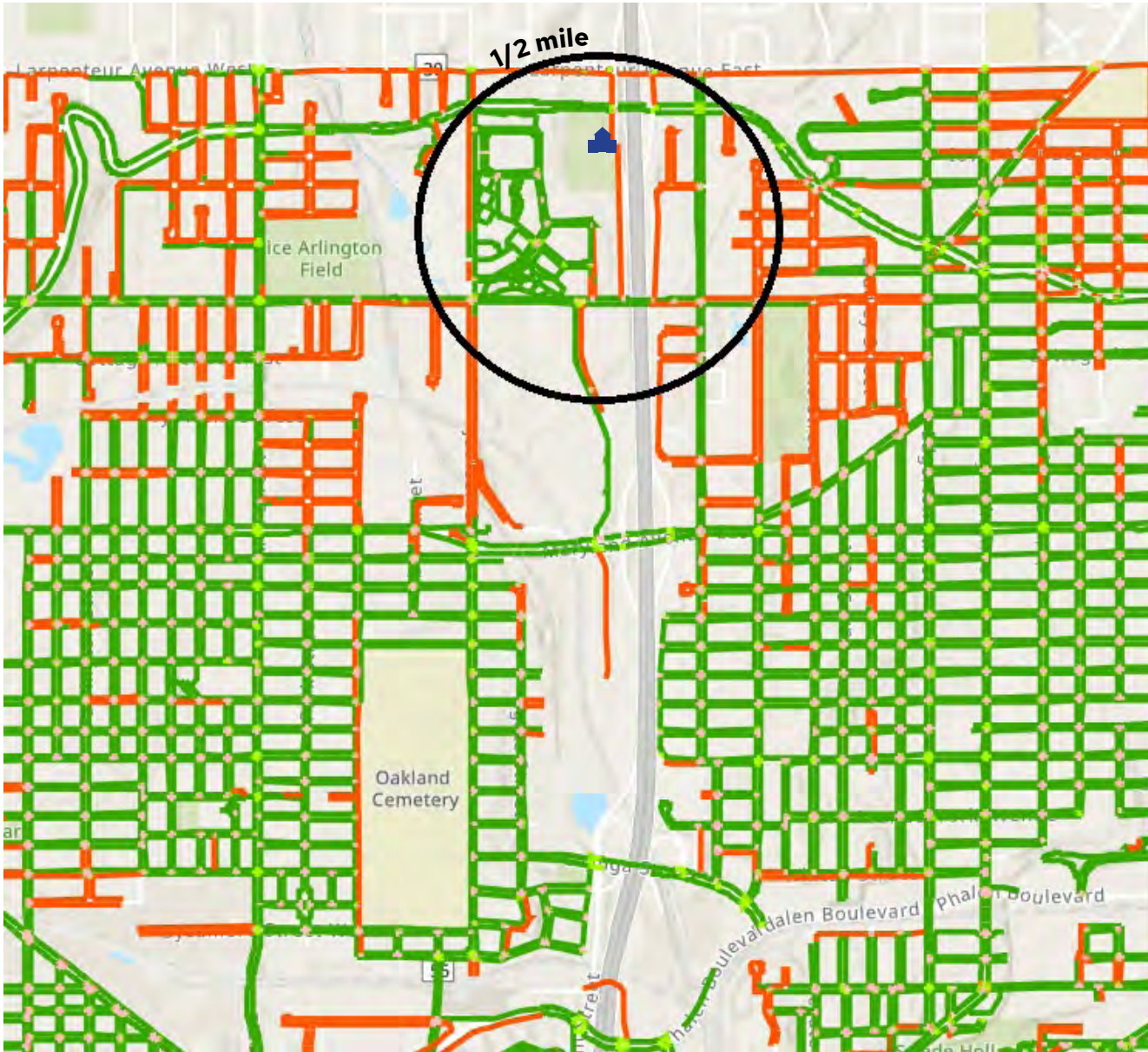
alta



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



Appendix D: Sidewalk Network



data provided by City of Saint Paul Department of Public Works, August 2023

- Sidewalk Network**
Mississippi Creative Arts School
- Sidewalk present
 - Sidewalk missing
 - 🏠 School location

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 discusses 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.

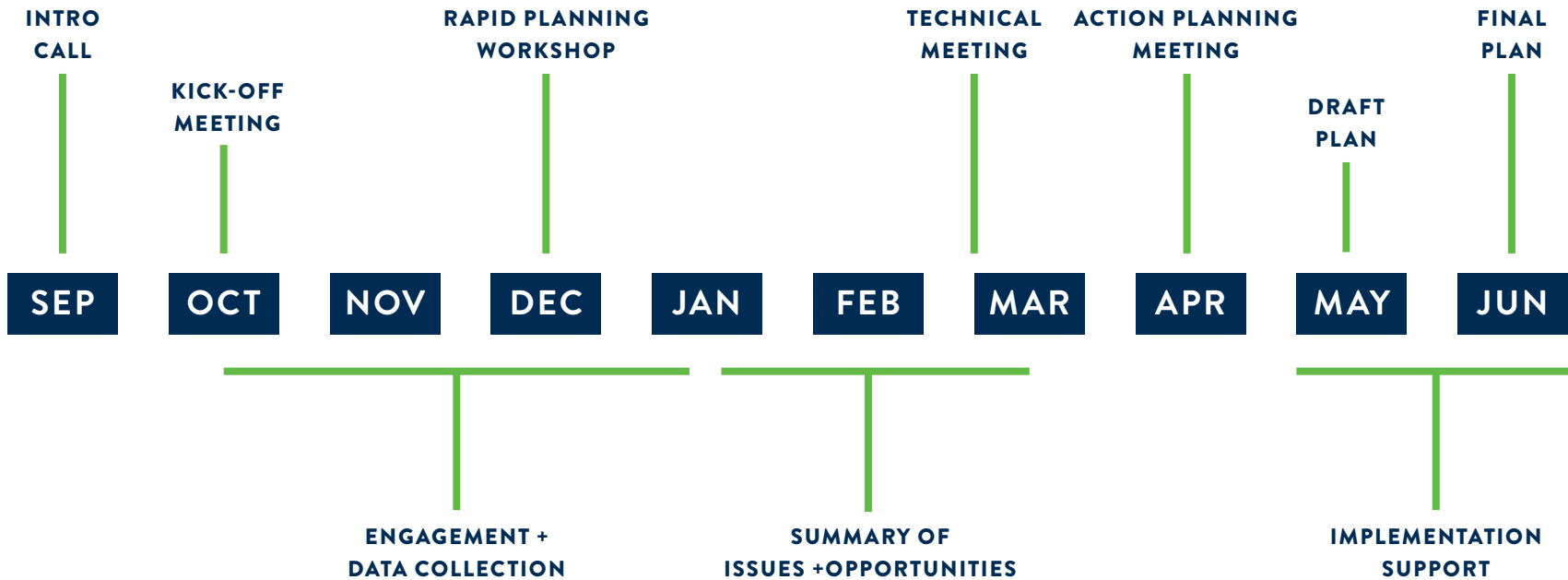
Summary of Issues + Opportunities: building on input from community engagement, data collection, the rapid planning workshop, and the technical meeting, SRTS staff and consultants compile identified program opportunities and locations where infrastructure improvements could support walking and biking 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 Mississippi Creative Arts community. The SRTS team assisted Mississippi Creative Arts staff by using multiple strategies such as hosting an [interactive engagement website](#), requesting feedback through a caregiver survey, and tabling at an open house with activities such as a trivia board and a table plot that gave space to provide feedback (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 Mississippi Creative Arts Safe Routes to School plan

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

Figure 1: Staff engage with a family at an open house.



ENGAGEMENT HIGHLIGHTS

Key takeaways from engagement include:

- Families expressed concern over personal security for students in the areas around school, especially related to violence and gun violence. Many caregivers said their communities are neglected which is reflected by the conditions of their transportation options to get to destinations safely. A mother living on Maryland Avenue said, “We need more street lights, stop signs, and to have the roads and sidewalks actually smoothed and repaved.”
- Programs like walking trains or bus drop and walk could be good fits for all Mississippi Creative Arts students, including students who already walk and students who live too far away to walk or bike to school.
- L’Orient Street, I-35E and Arlington Avenue were all mentioned as barriers to safer walking and biking to school. People said they are uncomfortable to cross due to fast-moving, high vehicle traffic. Families are also concerned about the poor conditions of sidewalks and crossings in the area that make it hard to walk and bike to school and other nearby destinations.
- The SRTS pop-up tables at the back-to-school event and at conferences did the best job at capturing feedback from the diverse population at the school while online methods like the survey and interactive map and survey were less successful. Future engagement efforts should prioritize meeting people where they’re at in-person to best reach the families of Mississippi Creative Arts.

TABLE 1: ENGAGEMENT STRATEGIES

DATE	STRATEGY	DESCRIPTION	COUNT
September 1, 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 as well as in paper-pencil upon request and available in English, Spanish, Somali, and Chinese.	1
September 1, 2022	Pop-up table	Tabling at Mississippi Creative Arts back-to-school event. Activities included a table plot with space to provide feedback, informational boards and comment cards.	23
November 8, 2022	Equity scorecard	An equity analysis was completed with the project team during the Rapid Planning Workshop and used to guide engagement strategies.	12
November 17, 2022	Pop-up table	Tabling at Mississippi Creative Arts Conferences. Activities included an interactive trivia board, a roll plot map of the school's neighborhood, and a sticker survey.	37

EQUITY

Future SRTS engagement needs to consider the wide range of cultures and languages present at Mississippi Creative Arts. Ninety-one percent of students are students of color, including Hmong, Karen, Somali, Latino, and Black students. Fifty-four percent of students are in an English Language Learner course. The SRTS pop-up tables at the back-to-school event and at conferences did the best job at capturing feedback from the diverse population at the school while online methods like the survey and interactive map and survey were less successful. Future engagement efforts should prioritize meeting people where they're at in-person to best reach the families of Mississippi Creative Arts.

Many families report feeling unsafe and overlooked based on the gun violence and neglected streets of their neighborhoods. Many of the major streets surrounding Mississippi Creative Arts were described as being centers for shootings, being too dark late at night, and having roads and sidewalks in poor condition. Some of the caregivers shared that they do not feel comfortable having their students walk or bike outside without their supervision. One mother living on Maryland Avenue shared that when her children want to walk through their community during times when it's dark out, she has to follow them in her car with the highlights beaming. "We need more streetlights there." Others say the shootings are out of control and they're preventing them from going to their community centers, parks, and churches.

PROGRAMS

There are several Safe Routes to School programs that could make walking and biking safer and more appealing for students and caregivers, especially people who live or travel to places close to school. Some families live in McDonough Homes or are users of the McDonough or Dayton's Bluff Recreation Centers. There are also programs for students who take the bus or are driven to get to school that could help build skills and create excitement for walking and biking to school.

Figure 2: Staff engage with a family at conferences.



CROSSING GUARDS

Because so many children and families felt the busy, high-traffic streets surrounding them were too dangerous for students to cross unsupervised, having crossing guards could be a solution. Crossing guards are specifically trained to assist students with crossing the street. Parents can feel more at ease knowing these professional supervisors are watching over their children.

WALKING TRAIN

Students who live near each other or go to the same places after school like McDonough Recreation Center could do a walking train with supervising adults. Walking trains are groups of students who walk together and can be done with a trusted staff person or parent. There are already some informal groups of students who walk together, and promoting this to others in the area might encourage families to try it out.

BUS DROP AND WALK

Caregivers of students who walk to school said that they prefer to walk with their students because they are too young to be making the trip alone. Implementing a Bus Drop and Walk for those who live further away from Mississippi Creative Arts could help some students who live too far to walk get some exercise at the beginning

or end of the day. With a Bus Drop and Walk, students who ride the bus are dropped off at a designated location a little further away from school and walk the rest of the way with adult supervisors.

BIKE MECHANIC TRAINING

Although many students at Mississippi Creative Arts own bikes, a number of students mentioned that their bikes were broken and not rideable. Bike Mechanic Training would be a good program to teach students repair skills and encourage and empower them to take charge of their own transportation. A bicycle mechanic training could be made available to students as a one-time basics lesson or as a multi-session course.

INFRASTRUCTURE

Speeding, lack of stop signs, potholes, and steep hills were among the infrastructure-related complaints from Mississippi Creative Arts families. Specific roads named included I-35E, L'Orient Street, and Arlington Avenue.

I-35E

Many people mentioned crossing I-35E as a walking and biking barrier to get to school. People said crossing the entrance and exit ramps from I-35E are especially difficult for students as drivers are moving fast through the intersection and often not looking for walkers or bikers. Caregivers feel it is not comfortable for their students to cross the bridges on foot or by bike. Many families east of I-35E either take the bus or get a ride to get to school.

L'ORIENT STREET

A couple people mentioned the lack of sidewalks on L'Orient Street as an issue. The road has fast-moving traffic near the I-35E on-ramp in front of the school. People who mentioned the lack of sidewalks would like a potential sidewalk to have a good amount of separation from vehicle traffic.

ARLINGTON AVENUE

The project team talked to several families from the Park Vista Apartment building who use Arlington Avenue regularly. Families said that the road and pedestrian crossings are in poor condition and don't get plowed very well in the winter. They said the poor conditions are preventing them not only from walking and biking more regularly to school, but also from walking and biking to the Arlington Dog Park and Mosaic Church.

TIMBERLAKE ROAD

There are many students who live in McDonough Homes who walk to school on Timberlake Road. Several caregivers said they wish there were easy crossings on Timberlake Road including more stop signs. One teacher mentioned that the road often floods by the McDonough Recreation Center and is very slippery to walk on in the winter.

MARYLAND AVENUE

In addition to the gun violence mentioned on Maryland Avenue in the area, families say there is unsafe driving there. One caregiver said, "I'd like my kids to visit the library and playground more often but walking there is a nightmare....traffic is too busy and drivers don't care about pedestrians." People said drivers speed and sometimes run stop signs. The safety issues prevent caregivers from allowing their children to visit the Arlington Playground and other destinations in the neighborhood.

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: 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 percent 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, and there are 50 bicycles, space should be provided. Don't forget to add some for faculty and staff!

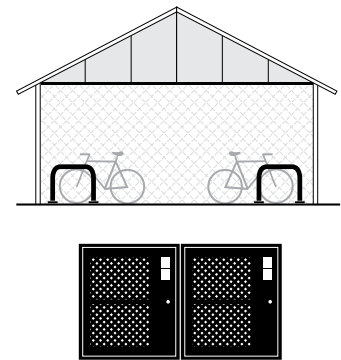
WHERE SHOULD PARKING BE LOCATED?

Well-located bike parking will be:

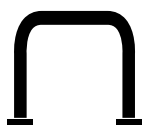
- Visible to students, staff, and visitors
- Near the primary school entrance/exit
- Easily accessed without dismounting
- Clear of obstructions which might limit the circulation of users and their bikes
- Easily accessed without making a rider cross bus and car circulation
- Installed on a hard, stable 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



INVERTED U



WHEELWELL SECURE



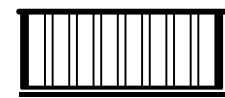
POST & RING

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



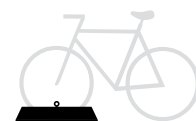
WAVE



COMB

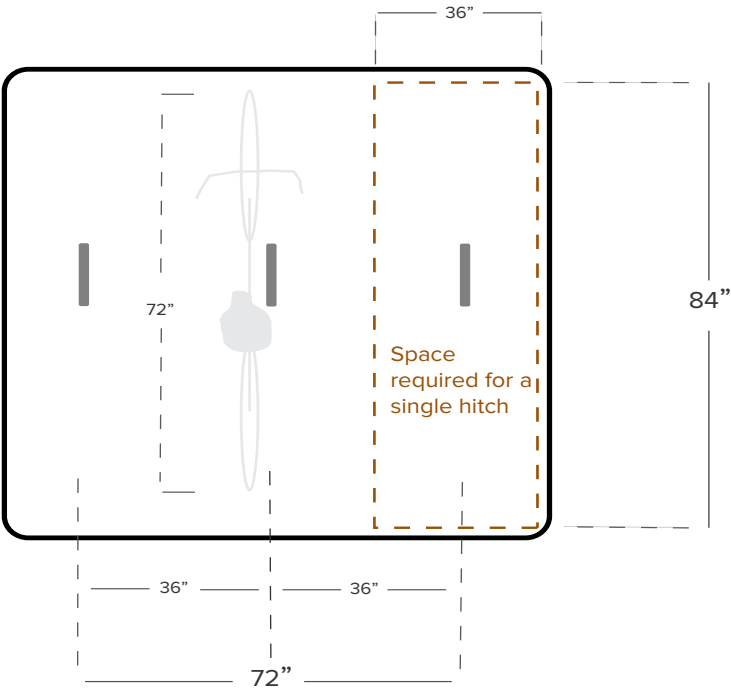


SPIRAL



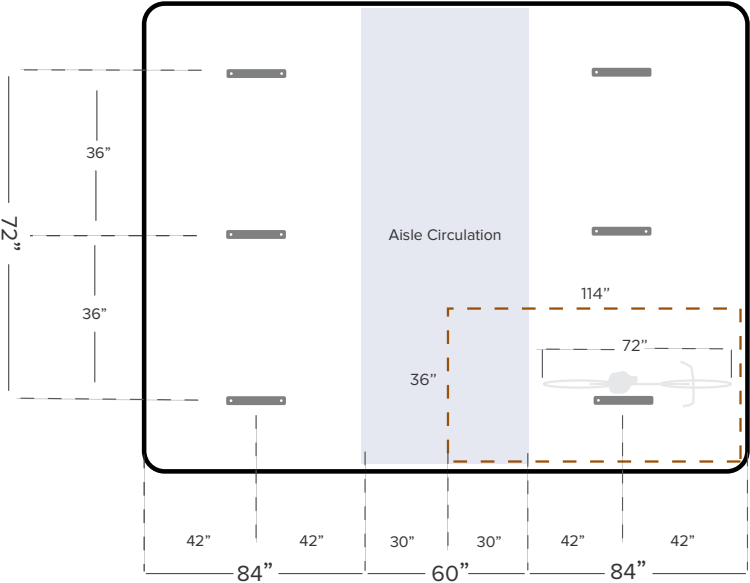
WHEELWELL

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).



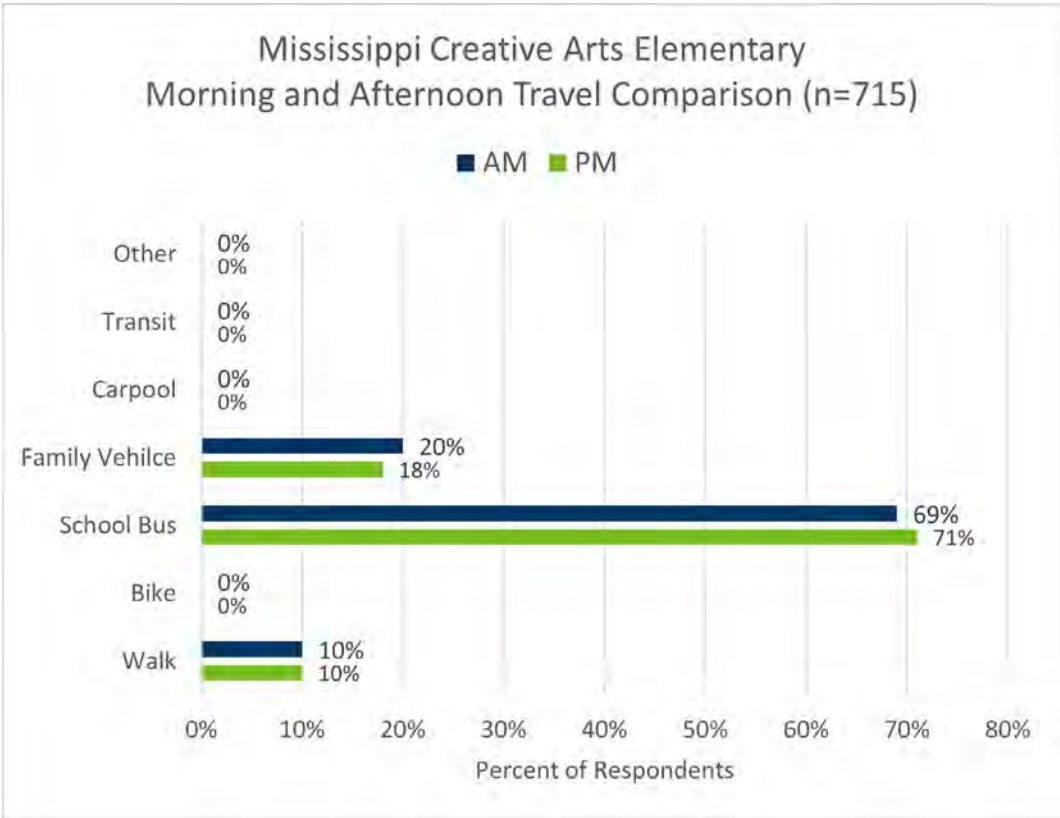
Appendix I: Student Travel Tally

BACKGROUND

This report contains information from Mississippi Creative Arts Elementary School about students’ trip 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 Mississippi Creative Arts reflect responses from 19 classrooms and an average of 357 respondents (of the 539 students enrolled in the school). Travel surveys were provided for the morning and afternoon commute over two days in November 2021.

Figure 1: Results from Mississippi Creative Arts Elementary School travel tally.



Appendix J: Demonstration Project Concept



