

SAINT PAUL PEDESTRIAN PLAN

AN ADDENDUM TO THE SAINT PAUL COMPREHENSIVE PLAN



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Steering Committee

Kathy Lantry, Saint Paul Public Works
Paul Kurtz, Saint Paul Public Works
Randy Newton, Saint Paul Public Works
Reuben Collins, Saint Paul Public Works
John Maczko, (former) Saint Paul Public Works
Paul Sawyer, Saint Paul Parks and Recreation
Kat Brown, Saint Paul Police Department
Tia Anderson, Saint Paul Department of Safety and Inspections
Anton Jerve, Saint Paul Planning and Economic Development
Nora Riemenschneider, Saint Paul Planning and Economic Development
Russ Stark, Office of Saint Paul Mayor Melvin Carter
Mai Chong Xiong, Saint Paul Ward 1
Tania Maki, Saint Paul Ward 2
Melanie McMahon, Saint Paul Ward 3
Matt Privratsky, Samantha Henningson and Libby Kantner Saint Paul Ward 4

Hwa Jeong Kim and Kim O'Brien, Saint Paul Ward 5
Stephanie Harr, Saint Paul Ward 7
Carissa Glatt, Saint-Paul Ramsey County Public Health and Statewide Health Improvement Partnership
Connie Bernardy, Ramsey County Active Living
Ted Schoenecker, Ramsey County Public Works
Mackenzie Turner Borgen, MnDOT Metro District
Berry Farrington, Metro Transit
Tom Burr, Saint Paul Public Schools
Jill Chamberlain, Blue Cross Blue Shield
John Mark Lucas, Saint Paul Transportation Committee
Stuart Knappmiller, Stop for Me
Jessica Treat, Move Minnesota

Project Team

Fay Simer, Project Manager, Saint Paul Public Works
Alta Planning + Design
SEH Inc.

Cover Photo

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SAINT PAUL PEDESTRIAN PLAN

Executive Summary

Photo credit: Dan Anderson

The Saint Paul Pedestrian Plan addresses citywide walking needs such as connecting the sidewalk system, providing safer ways to cross streets and education and enforcement programs to support safe walking. It includes recommendations to achieve the plan's vision: *Saint Paul is a walking city—we are more healthy, resilient and connected when walking is safe and appealing for all.* Advancing equity informed all aspects of the plan's development, from our community engagement strategy, to analysis, to recommendations to support safe walking throughout Saint Paul.

Chapter 2 describes the goals of this plan:

- 1. Make walking safe for everyone.** People of every age and ability deserve to be safe while walking – in every neighborhood of Saint Paul. We can make walking safe by prioritizing pedestrian safety in street design, teaching safe walking and driving behaviors and eliminating traffic-related fatalities and injuries.
- 2. Connect vibrant communities in all parts of Saint Paul.** Walking enables us to connect with the people and places that make up our community. We can connect communities by focusing walking investments in places with the greatest needs, accelerating completion of the sidewalk network and improving snow and ice removal.
- 3. Get it done.** We will achieve our vision of a walking city by coordinating activities across city departments, pursuing opportunities for low-cost interim solutions and updating this plan every five years.

WHAT DOES EQUITY MEAN WHEN WE TALK ABOUT WALKING IN SAINT PAUL?

Equity is at the foundation of this plan. Here are some of the ways our plan Steering Committee defined equity at the start of this planning process:

“All neighborhoods are equally safe to walk in, regardless of demographic differences.”

“Don't make infrastructure improvements based on complaints—invest where need is greatest.”

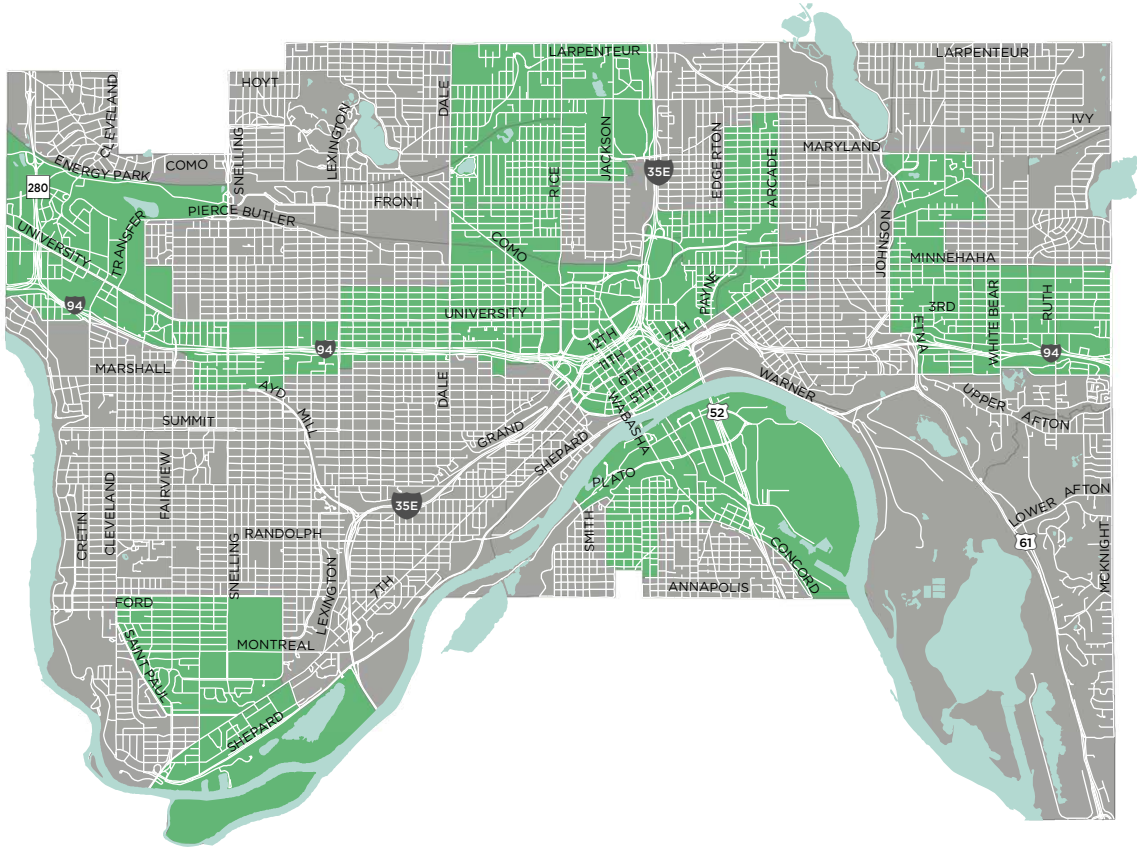
“Have a transparent, consistent process for pedestrian improvements.”

Chapter 3 describes how community members participated in this plan. Over 4,000 Saint Paul residents, workers and visitors shared their experiences walking in Saint Paul and helped shape the priorities and recommendations of the plan. People from every part of the city requested that the city invest in safe walking.

The Saint Paul Pedestrian Plan goals, strategies and actions address our community's top priorities for walking and identify how the City of Saint Paul will focus walking investments in ways that equitably distribute resources and prioritize locations with highest need. The plan focuses on actions that can be implemented in the next five to ten years.

The full plan is available online at <https://www.stpaul.gov/departments/public-works/transportation/walking-saint-paul>

Figure 1. High Priority Areas for Walking Investments



High Priority Areas for Walking Investments

Participants in the planning process shared their top three priorities for walking investments:

- Equity: Make investments in neighborhoods where residents rely on walking the most
- Safety: Make investments along and across busy streets such as four-lane roads
- Connectivity: Make investments in areas of the city that lack sidewalks

Chapter 4 describes how these priorities translate into measures that are used to score

areas of Saint Paul and prioritize the need for walking investments in these areas. Saint Paul census tracts were assessed on measures of equity, safety, connectivity, health, access to transit, population and employment density, and destinations to establish High Priority Areas for Walking Investments (Figure 1). Equity, safety and connectivity are the most heavily weighted factors in the analysis.

The city will prioritize future walking investments in High Priority Areas for Walking Investments. The map in Figure 1 will guide the location of future capital investments such as sidewalk infill, sidewalk repair and crossing improvements.

OUR VISION

Saint Paul is a walking city—we are more healthy, resilient and connected when walking is safe and appealing for all.

Infrastructure and Maintenance Priorities

An overwhelming majority of people who participated in the planning process want the city to invest more in pedestrian safety. Participants reported that the top three improvements that would make walking safer and easier are:

- Improving ways to cross busy streets such as four-lane roads
- Adding sidewalks to streets without sidewalks
- Improving snow and ice removal on sidewalks

Chapter 5 describes how each of the priorities listed above is implemented today and identifies actions to support each priority through the implementation of this plan. Of the actions to support infrastructure and maintenance of Saint Paul's walking network, some are identified as near-term actions. These actions are those the City of Saint Paul is already in the process of implementing or is poised to make progress toward in the next one to two years. Table 1 lists the top near-term infrastructure and maintenance actions.

Program Priorities

City of Saint Paul staff administer several programs to support walking. These programs fall into four categories: encouragement, education, enforcement and evaluation of the walking network.

Information about the following programs and actions to support and sustain them can be found in Chapter 5:

- Stop for Me
- Crash Response
- Safe Routes to School
- Paint the Pavement
- Pedestrian and Bicycle Counting

See Appendix C for a complete list of all actions identified in the plan.

Monitoring Our Progress

Chapter 6 describes how the City of Saint Paul will monitor progress toward the goals of the pedestrian plan and maintain information about our walking system. The City of Saint Paul will monitor progress on the pedestrian plan and the development of the city's pedestrian network over time in order to move Saint Paul toward this plan's vision: *Saint Paul is a walking city—we are more healthy, resilient and connected when walking is safe and appealing for all.*

Table 1. Top Near-Term Infrastructure and Maintenance Actions

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-5. Establish a consistent process for reviewing, improving and prioritizing pedestrian crossings. Review and update policies as necessary to incorporate best practices and national guidelines. Apply these policies to all projects and requests that include crossing improvements.	Saint Paul Public Works	x			
1-9. Dedicate additional funding to improve pedestrian crossings in conformance with best practices and support on-going maintenance of these treatments.	Saint Paul Public Works, Mayor's Office, City Council		x		
1-14. Construct sidewalks on both sides of every street as part of street reconstruction projects, in accordance with Saint Paul City Council Resolution 17-65.	Saint Paul Public Works	x			
2-2. Study alternative funding structures to construct new sidewalk that equitably distribute property assessment burdens.	Saint Paul Public Works, City Council	x			
2-4. Require property owners to install sidewalk adjacent to all streets abutting properties undergoing site redevelopment.	Saint Paul Public Works, Saint Paul Department of Safety and Inspections, Saint Paul Planning and Economic Development	x			
2-5. Use High Priority Areas for Walking Investments to select areas for grant funding opportunities, such as Safe Routes to School, Metropolitan Council Regional Solicitation and Ramsey County partnerships.	Saint Paul Public Works		x		
2-8. Develop a public awareness campaign to educate residents and businesses about the city snow removal ordinance and encourage people to report violations.	Saint Paul Public Works				x
2-11. Explore a proactive system to address non-compliance with sidewalk shoveling ordinance. Empower inspectors to uphold high standards for snow and ice clearance.	Saint Paul Public Works, Saint Paul Department of Safety and Inspections				x
2-12. Explore ways to accelerate corner clearing after snowfalls, especially in High Priority Areas for Walking Investments.	Saint Paul Public Works			x	
3-2. Review and update the Saint Paul Department of Public Works Temporary Pedestrian Access Route (TPAR) policy (originally adopted 2014) to define requirements for TPAR implementation and mandate use of best practices identified by Public Right-of-Way Accessibility Guidelines. Proactively inspect TPARs and enforce contractor compliance with city policy.	Saint Paul Public Works	x			

A photograph of a person and a child walking away from the camera on a sidewalk covered in snow. The person is wearing a red and black jacket and dark pants. The child is wearing a blue jacket and dark pants. To the right is a chain-link fence. In the background, there are trees and a building with a sign that says "FANTASY MARKET". The image has a blue tint.

CHAPTER I

INTRODUCTION: WHY A PEDESTRIAN PLAN?

This pedestrian plan is intended to help the City of Saint Paul focus walking investments in places where they will have the greatest impact on safety and equity for people walking. This plan addresses recommendations that are achievable in the next five to ten years, and identifies important first steps toward realizing the plan's vision: **Saint Paul is a walking city—we are more healthy, resilient and connected when walking is safe and appealing for all.**

Why Walking is Important

Everyone is a pedestrian. Saint Paul residents and visitors walk and roll to meet their daily needs, to improve their health and to connect with the people, places and natural areas that make up our community. Even trips by bus and by car begin and end with walking—everyone is a pedestrian at some point in their day. A connected, safe and comfortable pedestrian transportation network ensures all people have equitable access and opportunity to contribute in a vibrant and healthy city.

Walking plays a strong role in our quality of life. Saint Paul residents walk to experience nature, connect with other people and feel part of their communities.



This plan uses a broad definition of pedestrian. The term “pedestrian” includes people who use mobility devices, such as wheelchairs and people who travel on foot. The term “walking” includes people who use wheelchairs and other mobility devices to move around Saint Paul.

In Our Own Words:



It's fun
and
friendly!

I like walking in
the parks and
checking out
new businesses
opening.

**Walking helps
calm your body.**

Thank you for developing this plan! Additional efforts to improve walking (and biking) in St. Paul make it a more appealing place for me to live and to continue living here as I begin to start a family.

Walking shouldn't need to be treated as some special activity—**it's a basic human function and the city infrastructure should support it.**

Walking improves health, connects community members and makes for a sustainable city.

Walkability is so important to our city and its vitality.





Image credit: Amy Sutherland

Saint Paul is a Great Place to Walk

Saint Paul's residents enjoy walking in our city. Several assets make Saint Paul a great place to walk.

Sidewalk Network and Destinations

Saint Paul's streets are largely laid out in a traditional grid, supporting choice in walking routes and efficiently connecting people walking to their destinations. Saint Paul is renowned for its distinctive neighborhoods that offer many walkable destinations throughout the city.

Aesthetics and Amenities

Many streets in Saint Paul offer a pleasant walking environment. The tree canopy covers over 32 percent of the total land area of Saint Paul. This is higher than Chicago, New York City and Minneapolis. Most streets have planted boulevards separating the sidewalk from the street and pedestrian-scale street lighting that make walking a comfortable activity.

Saint Paul's park and trail system is extensive and was ranked second in the nation by the Trust for Public Land in 2018.

Most Saint Paul residents live within a short walk of a park. Saint Paul's trails are destinations for walking and connect people with the lakes, Mississippi River and other natural amenities in the city.

Programs to Encourage Walking

A variety of programs have been initiated recently in Saint Paul to encourage walking and support pedestrian safety, including:

- Safe Routes to School, which encourages students to walk and bike to school safely
- Paint the Pavement, which allows residents to design and paint murals in intersections
- Stop for Me, which reinforces changes to make stopping for pedestrians part of Saint Paul's driving culture through crosswalk law education and enforcement events
- Walk with a Doc, which encourages public housing residents to build relationships with healthcare professionals while walking
- 8-80 Vitality Fund, a three-year, \$42.5M investment program that focused on improving infrastructure and creating vibrant places and spaces. This effort put people first and started conversations about the importance of walking in creating a vibrant community.

Saint Paul has Work to Do

Community members identified four challenges that can make walking especially difficult in Saint Paul.

Equity in Prioritization and Decision-Making Processes

Saint Paul’s current approach to distributing limited funding for installation or maintenance of sidewalks or crossing treatments is not perceived to be equitable or transparent by community members. Although some funding is budgeted each year to respond to known safety concerns, some of the city’s high-need areas may be left without improvements because there is not a defined process for identifying and prioritizing projects.

Winter Maintenance

Saint Paul is a winter city. Snow, ice and long nights create additional challenges for pedestrians. Snow plowing causes snow to build up on curb ramps or in medians. Meanwhile, individual property owners are responsible for clearing sidewalks, creating a patchwork of walking conditions. Winter walking can be especially challenging for the very old, very young and those with mobility impairments.

Safety

People walking are at higher risk of traffic injury and death than people driving. From 2008 to 2017, pedestrians were involved in two percent of total crashes in Saint Paul but nearly nine percent of crashes that resulted in a fatality or serious injury. Across all ages, races and zip codes, plan participants identified getting across busy streets as a top challenge they face when walking.

Personal safety is also a concern that influences when and where many people walk in Saint Paul.

Incomplete Sidewalk Network

Saint Paul’s sidewalk network is incomplete. When there is no sidewalk, people walking do not feel safe or comfortable traveling streets to reach destinations. There are approximately 1,080 miles of sidewalk in Saint Paul and 330 miles of sidewalk gaps. Sixty-two miles of gaps (19 percent) are along arterials and collector streets, which carry the most traffic and serve more destinations than other streets.

WHAT DOES EQUITY MEAN WHEN WE TALK ABOUT WALKING IN SAINT PAUL?

Equity is at the foundation of this plan. Here are some of the ways the plan Steering Committee defines equity when it comes to walking in Saint Paul:

“All neighborhoods are equally safe to walk in, regardless of demographic differences.”

“Don’t make infrastructure improvements based on complaints- invest where need is greatest.”

“Have a transparent, consistent process for pedestrian improvements.”

Beyond the four challenges to walking described above, Saint Paul faces challenges to making walking safe and comfortable that are common in many U.S. cities:

- **Funding:** Current funding levels do not meet needs for pedestrian infrastructure. New funding sources are needed to address this plan's priorities of making street crossings safer, improving snow and ice removal and completing the sidewalk network.
- **Programs:** There is a lack of staff capacity to support robust education, encouragement, enforcement and evaluation programs. Programs help change mindsets and behaviors related to walking and make infrastructure investments go farther. Existing Saint Paul staff have limited capacity to support or expand these initiatives. For example, neither the City of Saint Paul nor Saint Paul Public Schools have a full-time staff person dedicated to advancing Safe Routes to School.
- **Internal Coordination:** There is a need for improved internal coordination to take advantage of opportunities to improve walking. Redevelopment, utility maintenance work and road projects initiated by partner agencies are a few examples of underutilized opportunities to improve walking.
- **Maintenance:** The city lacks comprehensive data summarizing the overall condition of the sidewalk network and its state of repair. This limits the city's ability to work proactively to address areas where repairs are most needed.
- **Attitudes and Norms:** People driving do not routinely stop for pedestrians. As a result, people who walk are less safe and feel less comfortable crossing the street. At some Saint Paul crosswalks, less than 20% of drivers stop for pedestrians.
- **Temporary Design Solutions:** Saint Paul does not routinely implement low-cost, temporary designs for pedestrian infrastructure. There is no program in place to prioritize locations for temporary improvements or fund on-going maintenance of these improvements after they are installed.
- **Engagement Practices:** Saint Paul has few procedures for engaging residents about walkability and identifying pedestrian needs for street projects in advance of project scoping and budgeting.
- **Arterial Roadways:** Saint Paul's arterial streets carry more traffic at higher speeds and see higher rates of pedestrian crashes than other streets in the city. Changes to these roadways that would make them safer for walking often entail difficult tradeoffs or high-cost solutions that substantially change the character of the roadway for all users. In many cases, these roadways are owned by Ramsey County or the Minnesota Department of Transportation (MnDOT), rather than the City, which can require additional coordination to implement changes.

How We Got Here

There is energy to improve walking in Saint Paul. Residents have spoken up: people want to be able to safely travel along and across our streets during every month of the year. Volunteers have stepped up to participate in Stop for Me events to educate and enforce crosswalk laws.

The City of Saint Paul is committed to making it safe and appealing to walk in Saint Paul. The city created a Pedestrian Safety Advocate position in 2017. Saint Paul Public has formed active partnerships with the Saint Paul Public Schools, District Councils, Saint Paul Police, Saint Paul-Ramsey County Public Health and others to advance initiatives to support walking.

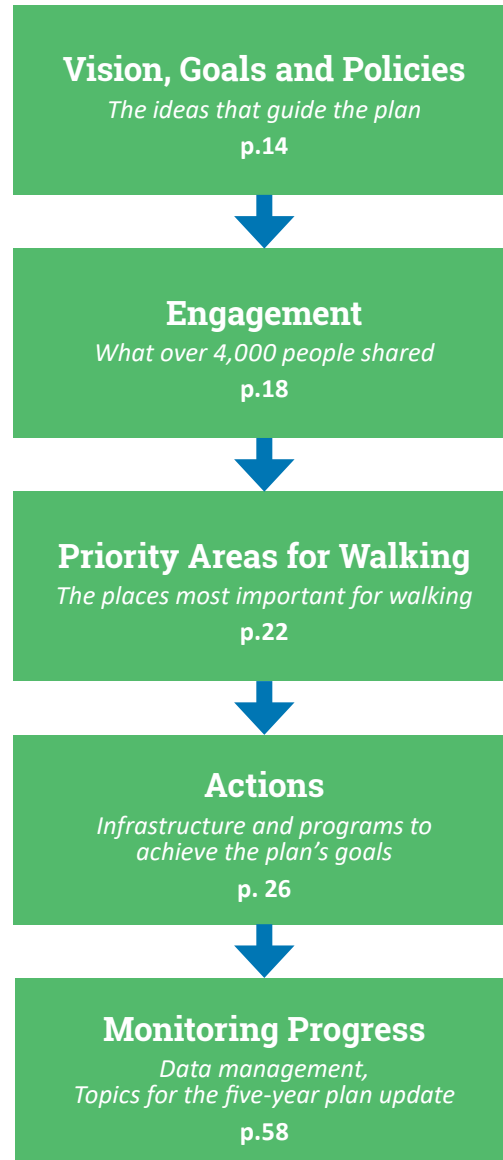
This plan carries forward momentum to make walking safer in Saint Paul. It summarizes months of community conversations to establish shared values and policies that support walking.

A Steering Committee guided development of the Saint Paul Pedestrian Plan. The Steering Committee reviewed community input and weighed in on the vision, goals, and actions presented in the plan.

What's Included in the Plan

The plan provides information about current practices and clear steps for action to make walking safe and appealing for all.

Throughout the plan, sidebars highlight current city programs and initiatives that support walking in Saint Paul.





CHAPTER 2 VISION, GOALS AND POLICY FRAMEWORK

*Our Vision:
Saint Paul is a walking city—we are more
healthy, resilient and connected when walking
is safe and appealing for all.*

Goals

Goal 1: Make Walking Safe for Everyone

People of every age and ability deserve to be safe while walking – in every neighborhood of Saint Paul. The following strategies will guide our work to make walking safe for everyone:

- Prioritize pedestrian safety in street design
- Teach and reinforce safe walking and driving behaviors
- Reduce the number of pedestrian crashes and eliminate traffic-related fatalities and injuries
- Be proactive, consistent and transparent in installing prioritized pedestrian safety improvements at street crossings
- Improve peoples' sense of personal safety by increasing the total number of people walking

Goal 2: Connect Vibrant Communities in All Parts of Saint Paul

Walking enables us to connect with the people and places that make up our community. The following strategies will help us connect vibrant communities across Saint Paul:

- Make walking a joyful experience that connects people with their community and with destinations
- Focus investments in places with the greatest needs to reduce disparities in accessible and safe walking environments
- Improve snow and ice removal so people of all ages and abilities can travel year-round
- Accelerate completion of the sidewalk network in areas where potential for use is highest
- Increase the rate of sidewalk and curb ramp reconstruction
- Maximize impact of existing public investments and pursue new opportunities to enhance walking
- Improve community health through increased rates of walking

Goal 3: Get it Done

To achieve a walking city, we need to put ideas into action. The following strategies will help us stay focused on our vision:

- Spark a culture shift: everybody plays a part in making Saint Paul a safe and appealing place to walk
- Maximize impact within existing capital investments and pursue new funding sources
- Pursue opportunities for low-cost, interim solutions as well as creative maintenance solutions
- Communicate, coordinate and integrate activities across city departments
- Update the Pedestrian Plan every five years

Policy Framework

Saint Paul for All, the city's draft 2040 Comprehensive Plan, guides all aspects of Saint Paul's development and sets policies to support community vitality through land use, transportation, housing, parks and open space, water resources, and cultural preservation. The Saint Paul Pedestrian plan is intended to be adopted as an addendum to Saint Paul for All that further defines strategies to support walking and pedestrian infrastructure throughout the city.

Saint Paul for All prioritizes pedestrian comfort and safety on all street projects. Other supporting actions include maintaining sidewalks and street crossings year-round, evaluating crosswalk striping, design and pedestrian-scaled lighting standards and providing safe citywide connections to schools, libraries, parks and recreation centers. Additionally, the plan organizes the city around Neighborhood Nodes, locations of high pedestrian activity where residents can meet many of their daily needs. The vast majority of residences will be within a twenty minute walk to a Neighborhood Node.

Saint Paul's other adopted plans and policies support the vision and goals of the Pedestrian Plan. The following plans and policies support walking as a safe form of transportation for all people and identify opportunities to enhance the city's pedestrian infrastructure:

- [Saint Paul Street Design Manual and Complete Streets Action Plan](#)
- [Saint Paul Safe Routes to School Policy Plan](#)
- [Saint Paul Bicycle Plan](#)
- [Saint Paul Roadway Safety Plan](#)
- [Saint Paul Public Works ADA Transition Plan](#)
- [Public Works Five-Year Plan](#) (see sidebar on page 17)

PUBLIC WORKS FIVE-YEAR PLAN

The Department of Public Works follows a Five-Year Capital Improvement Plan that identifies prioritized street reconstruction and resurfacing projects to take place in the next five years. Department staff update the plan annually and submit it to the City Council for adoption and funding authorization.

To determine which projects to include in the Five-Year Plan, staff review pavement condition and traffic volumes and score street segments for potential inclusion in the plan. Staff also consider other factors including:

- Maintenance history
- Age of the street
- Needs identified in a small area plan
- Planned bicycle facilities
- Safety concerns
- Utility work needs (Xcel, Water, Gas, District Energy)

Resurfacing projects (also called mill and overlay projects) are repairs to the road surface. The top two inches of asphalt road surfaces are ground up (milled) and poured back down to smooth out the surface. Road markings are repainted at this time, so mill and overlay projects create cost-effective opportunities to evaluate crosswalk markings and bike lane striping. During mill and overlays, the City of Saint Paul also replaces pedestrian curb ramps to make these facilities accessible to people with disabilities.

Reconstruction projects replace all elements of the road: the surface, curb, curb ramps and utility infrastructure beneath the surface. The most cost-effective opportunities to add pedestrian curb extensions, refuge medians and reduce turning radii come during reconstruction projects when roads are being fully redesigned. In 2017, the Saint Paul City Council adopted Resolution 17-65 stating that new sidewalk will be constructed on or added to both sides of the street on road reconstruction projects. This policy is intended to reduce gaps in the sidewalk network as roads are reconstructed over time.

CHAPTER 3

ENGAGEMENT: WHAT WE HEARD





How Community Members Shaped the Plan

Steering Committee

Throughout the planning process, the Saint Paul Pedestrian Plan Steering Committee guided the direction of the plan. Members included staff from multiple city departments, partner agencies like Ramsey County and Saint Paul Public Schools and community partners like Move Minnesota and Blue Cross Blue Shield Center for Prevention. A full list of Steering Committee members is included on the acknowledgments page.

Public Outreach

Over 4,000 people provided input to this plan through in-person events and an online survey. Staff worked proactively in all areas of the city to engage residents that are representative of Saint Paul's demographic diversity.

Over 2,700 people responded to the online survey. The Steering Committee reviewed the demographics of survey respondents to identify under- and over-representation. See Appendix A for more details on the survey.

Staff held targeted outreach meetings to ensure a full spectrum of Saint Paul residents participated in the process, beyond those who responded to the survey. Staff held meetings with teens, public housing residents, people learning English as a second language and elders. Engagement at Safe Summer Nights events in 2017 reached a greater proportion of residents who identify as a race other than white, who are under 25 or who have lower incomes.

What We Asked: Key Questions

We asked community members the following key questions throughout the planning process. The responses guided the recommendations presented in this plan.

- Why do you walk in Saint Paul?
- What challenges do you face when walking?
- Where is it most important to improve walking in Saint Paul?
- What are the top things that would make walking safer and easier for you?
- Do you think the city should invest more to make walking safer?

The survey process and a complete list of survey questions is included in Appendix A.

What We Heard

The following themes emerged through community engagement.

Focus Investment on Crossings, Sidewalk Gaps and Snow and Ice Removal

An overwhelming majority of engagement participants want the city to invest more in pedestrian safety. As shown in Figure 2, participants reported that the top three improvements that would make walking safer and easier are:

- Improving snow and ice removal on sidewalks
- Improving ways to cross busy streets such as four-lane roads
- Adding sidewalks to streets without sidewalks

Figure 2. Online survey responses to the question: “Choose the top three things that would make walking safer and easier for you”





Improve Walking Conditions on Busy Streets, in Areas that Lack Sidewalks and in Areas Where People Rely on Walking the Most

As shown in Figure 3, participants shared that the top three locations for walking improvements are:

- Along and across busy streets such as four-lane roads
- In areas of the city that lack sidewalks
- In neighborhoods where residents rely on walking the most

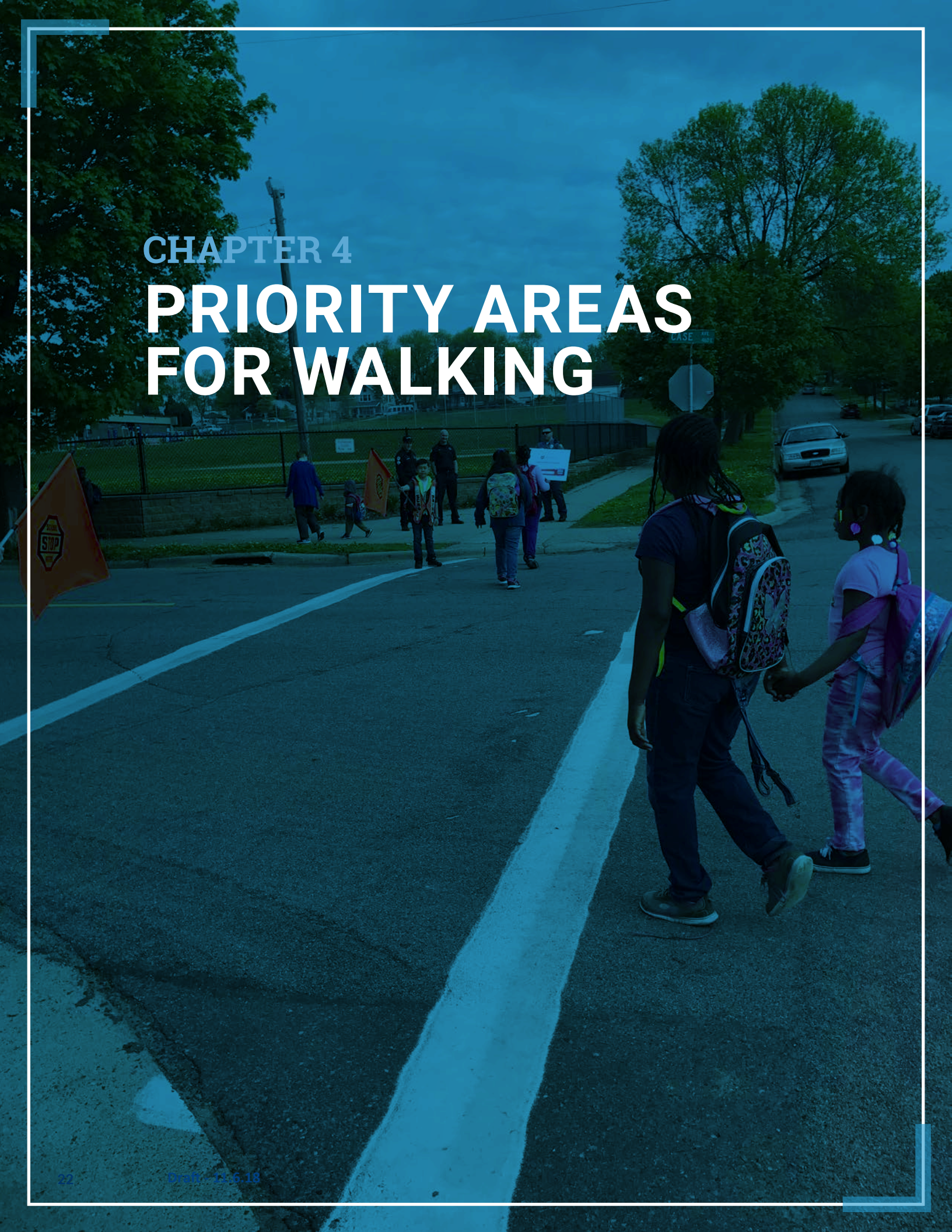
The top three locations held true across every demographic variable.

Figure 3. Online survey responses to the question: “Choose the top three locations where it is most important to you to improve walking”



CHAPTER 4

PRIORITY AREAS FOR WALKING



Where are investments in walking most important?

This plan is intended to help the City of Saint Paul focus walking investments in places where they will have the greatest impact. The plan combines data analysis and community priorities to establish High Priority Areas for Walking Investments. These represent areas where walking investments are most needed to help more people be safe while walking in Saint Paul. This section describes the process for identifying High Priority Areas for Walking Investments and identifies how this map will inform future efforts to support walking programs and infrastructure. A full description of the methodology is posted at stpaul.gov/walking.

Process for Mapping Walking Priorities

Community members gave input during the plan's outreach process that helped identify how important it is to improve walking in certain kinds of locations relative to others.

For example, community members identified "neighborhoods whose residents rely on walking the most" as one type of location where walking investments are most needed. This plan defines "neighborhoods whose residents rely on walking the most," with a set of data that includes census tracts of concentrated poverty where 50 percent or more of residents are people of color, census tracts with high numbers of persons with disabilities, and census tracts with high numbers of vehicle-less households. This set of data creates a measure of equity for each census tract in Saint Paul. A similar set of data was applied to define measures of safety, connectivity, destinations, transit, health, and density for each Saint Paul census tract. This data is presented in Table 2 on the following page.

Weighting Categories

After defining measures for equity, safety, connectivity, destinations, transit, health and density, each category was weighted based on the level of priority it was given by community members and the steering committee. Equity, safety, and connectivity are the priorities expressed by the community during plan outreach. Census tracts that are identified as high priority areas for walking investments are



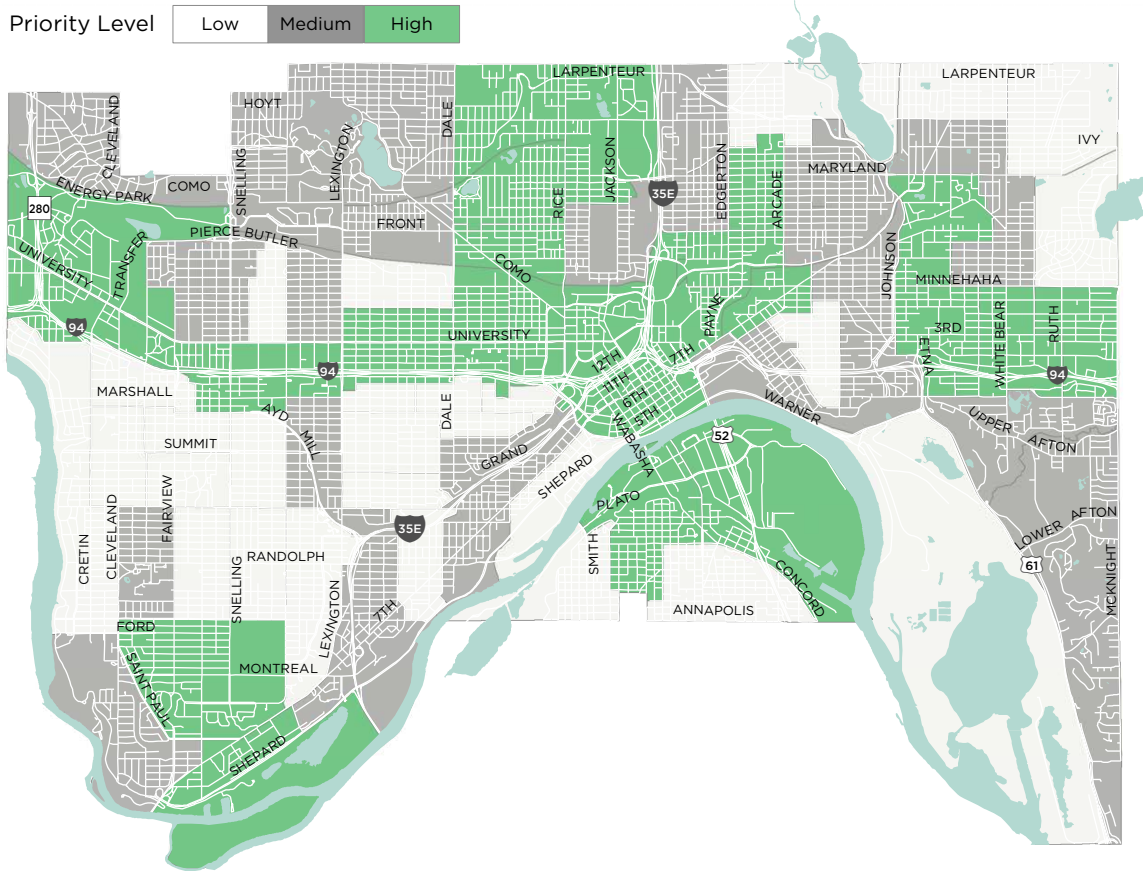
areas where measures of equity, safety, and connectivity indicate the greatest disparities and potential for improvement through walking investments. Table 2 shows the

relationship between community priorities and the analysis for Priority Areas for Walking Investments. Top community priorities are in bold.

Table 2. Relationship between Community Priorities and Analysis Categories and Measures

Community Priority in Outreach	Category	Analysis Measures
<ul style="list-style-type: none"> • Along and across busy streets (e.g. four-lane roads) 	Safety	<ul style="list-style-type: none"> • Pedestrian involved crashes • Priority roadways for safety improvements
<ul style="list-style-type: none"> • Areas of the city that lack sidewalks 	Connectivity	<ul style="list-style-type: none"> • Gaps in sidewalk network
<ul style="list-style-type: none"> • Neighborhoods whose residents rely on walking the most 	Equity	<ul style="list-style-type: none"> • Areas of Concentrated Poverty where 50 percent or more of residents are people of color (ACP50) • Disability • Vehicle ownership
<ul style="list-style-type: none"> • Streets connecting children to schools • Streets connecting people to parks, libraries, universities, and places of worship • Streets connecting people to grocery stores, convenience stores, and farmers markets • Streets connecting people to local businesses 	Destinations	<ul style="list-style-type: none"> • Schools • Universities • Public buildings • Parks • Grocery stores, corner stores, Farmers Markets, food shelves • Neighborhood nodes • Regional destinations beyond Saint Paul borders
<ul style="list-style-type: none"> • Streets connecting people to bus or light rail stops 	Transit	<ul style="list-style-type: none"> • Weekly transit boardings and alightings
<ul style="list-style-type: none"> • Neighborhoods whose residents have the greatest health risks 	Health	<ul style="list-style-type: none"> • Obesity • Heart disease • Asthma • Diabetes
<ul style="list-style-type: none"> • Areas where the most people live or work 	Density	<ul style="list-style-type: none"> • Population density • Employment density

Figure 4. Priority Areas for Walking Investments



Results

Figure 4 depicts priority areas for walking investments in Saint Paul. Census tracts that ranked in the top third are shown as high priority. Census tracts in the middle third are shown as medium priority and those in the bottom third are shown as low priority. This ranking highlights areas of the city that have the greatest need for walking improvements and are most likely to see greatest benefits from improved opportunities for walking.

An enlarged version of Figure 4, and all other maps in this plan, is presented in Appendix B.

Application

The City of Saint Paul will prioritize future walking investments in High Priority Areas for Walking Investments. This map will guide the location of capital investments like sidewalk infill, sidewalk repair and crossing improvements. It will also be used as a tool to evaluate programming like pedestrian counting, Stop for Me and Paint the Pavement to assure these activities provide equitable benefits to residents throughout Saint Paul.

This prioritization does not mean that the city will not work to address walking needs in low and medium priority areas. However, this map provides a framework for identifying where walking investments will have the greatest impact in advancing equity and safety goals.

CHAPTER 5

HOW WE WILL SUPPORT WALKING IN SAINT PAUL

Actions to Support Walking

This chapter highlights infrastructure and maintenance priorities as well as programs that support walking in Saint Paul. The plan identifies actions to support each of the priorities and programs.

Each action is assigned a category to clarify the type of resources that are needed to support plan implementation.

- **Policy:** Actions that require updates to existing city policy or adoption of new city policy.
- **Capital Investments:** Actions related to funding, planning, design and construction of pedestrian infrastructure.
- **Operations:** Actions related to maintaining pedestrian infrastructure.
- **Programs:** Non-infrastructure actions related to education, encouragement, evaluation and enforcement.

Actions identified as top near-term actions are those the City of Saint Paul is already in the process of implementing or is poised to make progress toward in the next one to two years.

All actions are compiled in Appendix C. Action numbering is organized by the goal the action advances and the order of the action in the Appendix. For example, Action 2-2 is the second action in the Goal 2 table in Appendix C.

Infrastructure and Maintenance Priorities

Saint Paul community members have identified three priorities for making walking safer and easier:



Crossing busy streets

(page 28)



Filling sidewalk gaps

(page 36)



Improving snow and ice removal

(page 42)

This section highlights current practices and presents policies and actions to support improvement toward each of the three top priorities.



Busy streets are barriers for people walking. When people feel unsafe or uncomfortable crossing the street, they are less likely to choose to walk and have less access to nearby destinations. Street crossings are especially challenging on multi-lane roads: wider streets create longer distances for people to cross and carry more traffic at higher speeds than two-lane roads. Although state law requires people driving to stop for pedestrians at all unsignalized intersections (marked and unmarked crossings) and at marked mid-block crossings, drivers do not always comply with this law and many locations need engineering treatments to help people cross the street safely.

The biggest safety risks for people crossing streets are exposure and speed. Exposure refers to the amount of time someone spends in the street and their potential to come into contact with a vehicle. Higher vehicle speeds mean that people driving and walking have less time to react to one another. Higher speeds also mean that a person walking is more likely to be injured or killed if they are struck by a person driving a vehicle.

WHAT WE HEARD

“Many drivers completely ignore the crosswalks. If I can’t make eye contact with somebody in the car coming at me, I don’t trust them to stop!! Some don’t!!”

“I have found that the change in light timing where the walk signal goes on slightly before the green light (like at Minnehaha and Snelling) is a huge, huge improvement. I feel so much more confident crossing the street, especially when my young kids are with me, because it makes us much more visible to cars trying to make turns across the crosswalk.”

“As a pedestrian I can never assume any driver will stop for me no matter the type of street and it is not uncommon to wait for very long times to finally have a break.”

Figure 5. Pedestrian crash survival rates by vehicle speed

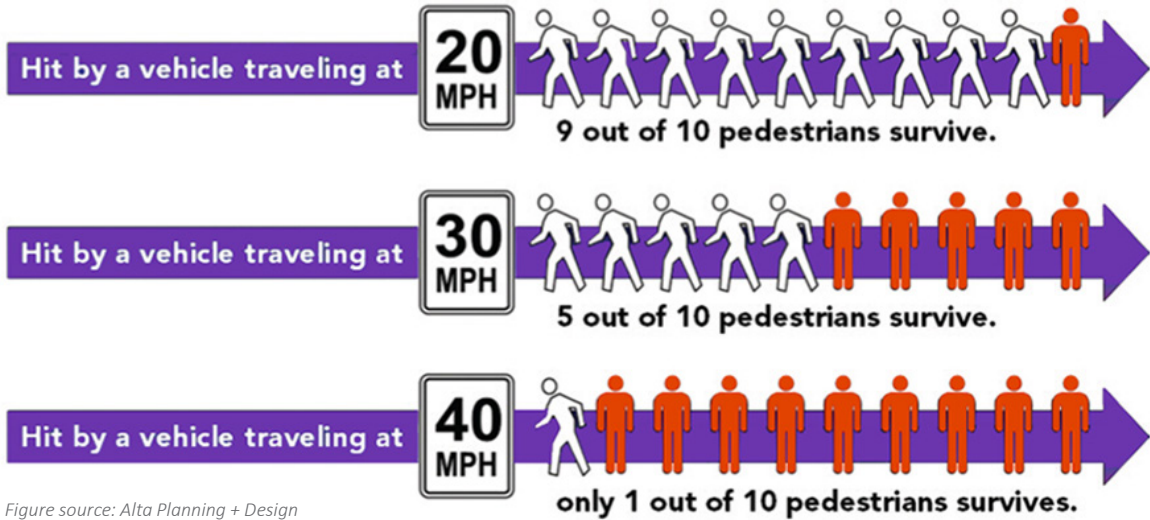


Figure source: Alta Planning + Design

What We Do Today

Engineering: Designing Streets for People

The most effective way to address the two dangers of exposure and speeds is by redesigning roads to be safer for people. Narrower streets control driving speeds and provide less space for pedestrians to encounter vehicles, making it safer for people to cross the street. Some ways to narrow streets include:

- Four-to-three lane conversions
- Reduced lane widths
- Curb extensions
- Refuge medians

Reducing driving speeds improves conditions for walking at every intersection along a corridor. The most cost-effective opportunities to narrow streets are in conjunction with road resurfacing and reconstruction projects. The Department of Public Works Five-Year Capital Plan identifies which streets will be resurfaced or reconstructed in the next five years. Pedestrian improvements are incorporated into these projects in response to identified needs and available funding.

When narrowing streets to reduce speeds is not immediately feasible, the city considers crossing improvements at specific locations. Potential treatments include marked crosswalks, crosswalk signage, beacons, or stand-alone improvements such as curb extensions and refuge medians. (See pages 32-33 for more information on these treatments)

As part of the Saint Paul Pedestrian Plan process, Public Works developed pedestrian crossing site evaluation guidelines to guide staff in selecting appropriate crossing treatments for any given location. This tool enables staff to make consistent and transparent decisions about crossing improvements based on safety research and national best practices.

Enforcement and Education: The role of Individuals

While engineering treatments play a role in making it safer to cross the street, individual drivers play an important role in keeping pedestrians safe. The Saint Paul Police Department is an important partner in enforcing the state's crosswalk law and helping to educate drivers about their responsibility to stop for people who are crossing the street. These efforts are described in more detail on page 48.



INTERIM SOLUTIONS

Saint Paul uses low-cost materials like flexible traffic posts to build temporary refuge medians and curb extensions in some locations. These can be installed much more quickly and cheaply than permanent solutions that involve constructing curb.

Interim solutions enable the city to be more responsive to areas where crossing improvements are needed and increase safety at a relatively low cost. These temporary solutions also enable the city to test designs before permanent changes are made.

Although interim installations do not use expensive materials, they entail on-going maintenance costs that permanent improvements do not. Flexible posts that are knocked down by drivers or plowed snow must be continuously replaced for the life of the installation. The City of Saint Paul focuses interim installations in areas where upcoming road projects are planned. This enables the city to transition temporary improvements to permanent improvements that have higher aesthetic quality and lower maintenance needs.

How We Fund Pedestrian Safety Improvements

Pedestrian safety improvements such as curb ramps, curb extensions and medians are typically made in conjunction with road alteration projects. Stand-alone pedestrian projects are funded by the city's Bicycle, Pedestrian and Traffic Safety fund or in combination with external grants.

Bicycle, Pedestrian and Traffic Safety Fund

The Bicycle, Pedestrian and Traffic Safety fund is typically funded at \$250,000 annually. This funding source is intended to be used for on-going programs, temporary and test installations and permanent improvements that improve bicycle, pedestrian and traffic safety. The on-going programs supported by this fund include the centerline pedestrian sign program, the dynamic speed display rotation program and the bike rack installation program. This fund is limited and there are a number of competing priorities and requests for permanent improvements with significant price tags for this funding source. For reference, a single curb extension can cost between \$20,000 and \$50,000. An RRFB costs approximately \$30,000 and a Pedestrian Hybrid Beacon (also called a HAWK beacon) costs approximately \$180,000. In addition to the uses described above the fund has also been utilized to fund the incremental signing and striping cost of new bike lanes projects and for the local match of Safe Routes to School Projects.

Safe Routes to School

In 2017, the City of Saint Paul created a \$125,000 annual program to fund Safe Routes to School capital projects. Typical projects include crossing improvements, sidewalk gap infill and bike lane striping to support students

walking and bicycling to school. The city's \$125,000 annual program has been used to fund new infrastructure near schools that have completed Safe Routes to School plans and as local match for Safe Routes to School projects funded by the federal government.

Both the State of Minnesota and the federal government award grants to local municipalities to fund Safe Routes to School investments. The City of Saint Paul has been awarded federal Transportation Alternatives funds to make improvements at Expo Elementary School (2018) and Washington Technology Magnet (planned in 2020).

How We Maintain Crossings

The Department of Public Works maintains over 1,600 marked crosswalks throughout the City of Saint Paul. Most crosswalks in Saint Paul are marked with parallel bars. Saint Paul is transitioning to high-visibility crosswalks on roads that are resurfaced or reconstructed. These make crosswalks more visible than parallel bars and are a recognized best practice for marking crosswalks. City striping crews restripe each crosswalk in the city at least twice a year to make sure paint is fresh and visible. In 2017, city operations crews spent approximately \$300,000 maintaining the city's inventory of marked crosswalks. This work is funded from the city's traffic operations budget, funded through property taxes.

As new pedestrian crossing infrastructure is added, it will be increasingly important to incorporate these improvements into the operations crew work schedules and to increase maintenance budgets accordingly, to support additional labor to ensure these features are usable year-round.

CROSSWALKS AND MINNESOTA STATE LAW

Minnesota Statute 169.21 defines pedestrians' rights while crossing the street at intersections without traffic signals:

(a) Subd. 2. Rights in absence of signal. Where traffic-control signals are not in place or in operation, the driver of a vehicle shall stop to yield the right-of-way to a pedestrian crossing the roadway within a marked crosswalk or at an intersection with no marked crosswalk. The driver must remain stopped until the pedestrian has passed the lane in which the vehicle is stopped. No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.

What this means:

- Drivers must stop for people at every corner, even if there is not a marked crosswalk
- People walking must not enter the roadway unless approaching drivers have time to safely stop. People walking should clearly indicate that they would like to cross by making eye contact with approaching drivers and standing at the edge of the roadway.

Crossing Treatments

Recent advancements in engineering have added new tools and treatments to make pedestrian crossings safer. At intersections without stop signs or traffic signals, pedestrians are especially vulnerable. Curb extensions and refuge medians help make pedestrians more visible, reduce the amount of time pedestrians spend in the street and control motorist speeds. Crosswalk markings, Rectangular Rapid Flashing Beacons (RRFBs) and Pedestrian Hybrid Beacons make crossings more visible and increase a motorist’s likelihood of stopping.



Curb Extension

Curb extensions minimize pedestrian exposure during crossing by shortening crossing distance and giving pedestrians a better chance to see and be seen before committing to crossing. They are appropriate for any crosswalk where it is desirable to shorten the crossing distance. Often these are installed in a parking lane adjacent to the curb. Approximate cost: \$20,000 - \$50,000 per corner.



Interim Installations

Saint Paul and other cities are installing new pedestrian crossing features, such as curb extensions, with low-cost materials such as flexible traffic posts. These can be installed relatively cheaply and quickly, but do cost more to maintain over time than permanent installations. As posts are knocked down by drivers or bend under the weight of accumulated snow, they must be re-installed or replaced. This adds cost in both labor and equipment. Approximate cost: \$3,000 per installation.



Median Refuge Island

Median refuge islands shorten pedestrian crossing distance and reduce the number of lanes pedestrians have to cross at once. This addresses one of the most dangerous risk people face when crossing by allowing pedestrians to cross fewer lanes of traffic at a time. Approximate cost: \$30,000 - \$100,000 per island.

High-Visibility Crosswalk

A marked crosswalk signals to motorists that they must stop for pedestrians and encourages pedestrians to cross at designated locations. High-visibility crosswalk markings are a recognized best practice and are more visible to drivers than a crosswalk with two parallel lines. Approximate cost: \$1,500 per crosswalk.



Rectangular Rapid Flashing Beacon (RRFB)

RRFBs are crosswalk signs with lights that flash when a pedestrian pushes a button indicating they are ready to cross. They are used at unsignalized intersections or mid-block crosswalks. RRFB flashing patterns have been shown to increase driver yielding rates at crosswalks. An Oregon Department of Transportation study found that the average yielding rate at crosswalks without RRFBs was 17.8%; Following installation of RRFBs at these crosswalks, the average yielding rate increased to 79.9%. Approximate cost: \$30,000 per location.



Pedestrian Hybrid Beacon

A Pedestrian Hybrid Beacon, also known as a High-intensity Activated Crosswalk (HAWK), consists of a traffic signal head with two red lenses over a single yellow lens on the major street and pedestrian and/or bicycle signal heads for the minor street.

Hybrid beacons are used to improve bicyclist and pedestrian crossings of major streets in locations where refuge medians or other techniques to control traffic speeds are not feasible. Because these devices act like a stoplight, they have high rates of compliance among drivers stopping for pedestrians in these locations. The Federal Highway Administration notes that PHBs can result in a yielding rate above 90%. Approximate cost: \$180,000 per location.



Actions

The following table shows actions that the city will take to improve pedestrian safety and comfort at busy street crossings.

Table 3. Actions to improve pedestrian comfort and safety at busy street crossings

Actions	Top Near - Term Action	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-1. Plan, design, build and maintain the city's transportation system in a way that prioritizes walking first, followed by bicycling and transit use and lastly other vehicles.		Saint Paul Public Works, in coordination with Ramsey County, MnDOT and Metro Transit		x		
1-2. Advocate for a statewide reduction in urban speed limits as part of the city's legislative agenda.		Mayor's Office, City Council	x			
1-3. Follow best practices for marking crosswalks. Convert crosswalks marked with parallel bars to high-visibility crossings to improve visibility of crosswalks. Whenever possible, use durable crosswalk marking materials.		Saint Paul Public Works			x	
1-4. Ensure visibility of pedestrian crossings. Review sign placement, street furniture, bus shelters, foliage growth, and parking restrictions at intersections as part of all reconstruction projects and requests for crossing improvements.		Saint Paul Public Works	x			
1-5. Establish a consistent process for reviewing, improving and prioritizing pedestrian crossings. Review and update policies as necessary to incorporate best practices and national guidelines. Apply these policies to all projects and requests that include crossing improvements.	x	Saint Paul Public Works	x			
1-6. Reduce pedestrians' exposure to motor vehicles and lower street design speeds. Pursue changes in street designs that lower design speeds and reduce roadway crossing widths.		Saint Paul Public Works, in coordination with Ramsey County, and MnDOT		x		
1-7. Coordinate with transit providers and the Saint Paul Bicycle Plan to ensure pedestrian solutions complement bicycling and transit needs.		Saint Paul Public Works, in coordination with Metro Transit	x			
1-8. Develop a program to proactively implement infrastructure improvements in high crash risk locations. Conduct a Pedestrian Systemic Safety Analysis to identify the highest risk locations for pedestrian crashes. Develop a prioritized list of candidate pedestrian safety improvements on high-risk streets and a five-year plan for implementation.		Saint Paul Public Works		x		

Actions	Top Near - Term Action	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-9. Dedicate additional funding to improve pedestrian crossings in conformance with best practices and support on-going maintenance of these treatments.	x	Saint Paul Public Works, Mayor's Office, City Council		x		
1-10. Provide regular crossing opportunities on collector and arterial streets, prioritizing streets in High Priority Areas for Walking Investments.		Saint Paul Public Works, in coordination with Ramsey County and MnDOT		x		
1-11. Support access to transit stops by supporting safe crossings and waiting environments.		Saint Paul Public Works, in coordination with Ramsey County, MnDOT and Metro Transit		x		
1-12. Identify resources to improve on-going maintenance of existing crossing facilities, including snow and ice removal at crossings, crosswalk markings and replacement of flexible traffic posts in temporary crossing improvements.		Saint Paul Public Works, Mayor's Office, City Council			x	
2-1. Design streets in accordance with Saint Paul's Street Design Manual to promote a comfortable walking environment on all street types in Saint Paul.		Saint Paul Public Works		x		
3-1. Pursue opportunities to install and maintain interim pedestrian crossing improvements using low-cost materials.		Saint Paul Public Works		x		
3-2. Review and update the Saint Paul Department of Public Works Temporary Pedestrian Access Route (TPAR) policy (originally adopted 2014) to define requirements for TPAR implementation and mandate use of best practices identified by Public Right-of-Way Accessibility Guidelines. Proactively inspect TPARs and enforce contractor compliance with city policy.	x	Saint Paul Public Works	x			



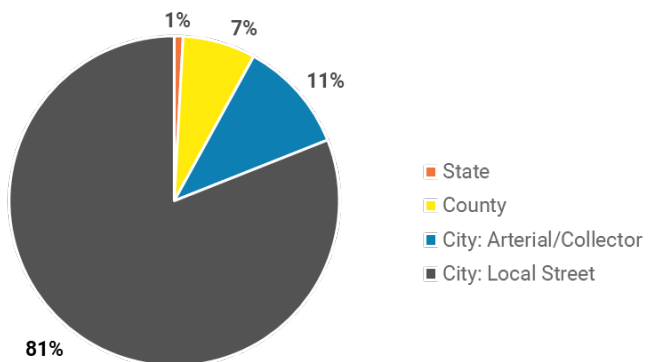
A sidewalk gap is a location where one or both sides of a street is without a sidewalk. When there is no sidewalk, people walking do not feel safe, comfortable, or welcome when they travel streets to reach their destinations.

The City of Saint Paul maintains an existing network of approximately 1,100 miles of sidewalk; however, many streets in Saint Paul are without sidewalk on one or both sides. Sidewalk gaps are most common in industrial areas and in residential and commercial areas developed after the 1940s to favor automobiles.

In total, Saint Paul’s pedestrian network has approximately 327 miles of sidewalk gaps. When streets parallel freeways, railroads, or other barriers that result in a lack of pedestrian destinations on one side of a street, missing sidewalk bordering these features is not considered a sidewalk gap. Routes served by multi-use trails, such as the Mississippi River Trail, the Sam Morgan Trail, or the Bruce Vento Trail, are also not considered sidewalk gaps. See Appendix A for a map showing all gaps.

Of the city’s 327 miles of sidewalk gaps, 301 miles (92 percent) are along streets under Saint Paul’s jurisdiction. Twenty-six miles are along roads owned by Ramsey County or MnDOT. Sixty-two miles of gaps (19 percent) are along arterials and collectors.

Figure 6. Percentage of All Sidewalk Gaps Under City, County and State Jurisdiction



What We Do Today

Saint Paul does not have a dedicated program or funding source to address gaps in the sidewalk network. The amount of sidewalk infill constructed each year varies. Sidewalk infill is completed on a project-by-project basis and is funded several different ways: property owner assessments; county, federal and state grants; site plan review requiring sidewalk on redeveloped properties; and street reconstruction.

1. Property owner assessments: The Saint Paul City Council has the authority to order sidewalk construction within city right-of-way and assess the cost of this construction to adjacent property owners. These projects are typically initiated by property owner request or in cases with strongly demonstrated community and political support.
2. County, federal and state grants: Sidewalk infill projects funded by external grants are identified as individual programs in the city's Capital Improvement Budget, which typically provides local match for these funds. In these instances, no costs are assessed to adjacent property owners. Examples are Safe Routes to School and Transportation Alternatives federal funding.
3. Site plan review: The city may require sidewalk construction by the property owner as a condition of approval on permits related to redevelopment plans for properties undergoing site plan review.
4. Street reconstruction: Sidewalk construction costs are included in the overall cost of roadway reconstruction projects. Street reconstruction projects are funded as stand-alone projects with Municipal State Aid funds or as part of the city's annual Saint Paul Streets program (funded via a combination of street reconstruction bonds and assessments to adjoining property owners). Sidewalks are typically constructed on both sides of the street in locations with gaps, with some exceptions. Street reconstruction

projects also include new curb ramps and pedestrian safety features such as curb extensions and medians at the discretion of the design engineer. When Ramsey County reconstructs roads in Saint Paul, infill sidewalks are paid for by the county at 50 percent and the remaining 50 percent is the City's responsibility, which is typically assessed to adjacent property owners.

Each of the funding sources described above pays differing amounts of the cost to construct sidewalk. As a result, Saint Paul property owners are assessed at different levels when new sidewalks are installed, depending on its funding source. This raises concerns about fairness and equity in how these costs are distributed among property owners.

Sidewalks are a shared resource that provide benefits for all members of the public.

Action 2-2 recommends studying alternative funding structures, such as a Sidewalk Improvement District, that can fund new sidewalk construction and equitably distribute these costs. MN Statute 435.44 authorizes municipalities to establish sidewalk improvement districts and distribute all or part of the total costs of sidewalk construction and repair among all of the parcels located in the district. This is one tool that may facilitate sidewalk construction and more-equitably distribute this cost among all who benefit from this network.

How We Maintain Our Sidewalk System

The Sidewalk Reconstruction Program funds replacement of deteriorating sidewalks. The program's budget has fluctuated in recent years; the program's annual budget ranged from \$500,000 to \$1,300,000 between 2000 and 2018. From 2000 to 2015, Saint Paul reconstructed approximately 135 miles of deteriorated sidewalk, averaging nine miles per year.

WHAT WE HEARD

“What happens if there are no sidewalks in areas of concentrated poverty – if no one can pay for a sidewalk install?”

“Please add sidewalks to St. Anthony Ave from Cretin/Vandalia to East River Pkwy...This stretch of St. Anthony Ave is a true safety hazard for pedestrians. I have seen children alone and moms with strollers walking in the middle of the road along St. Anthony. It’s a curvy road with blind spots and too-fast cars, but because it doesn’t have sidewalks in parts of it, pedestrians have to walk on the road and risk being hit. Please fix this before someone dies.”

“Adding sidewalks where there is danger to pedestrians on heavily-traveled streets is a safety issue. For example, when I’m driving on McKnight at night it’s often hard to see pedestrians out for a stroll or walking their dogs if they aren’t wearing reflective tape or vests. Also, children have to wait for school buses in the street in the dark. It would be safer for them if they had a sidewalk, even an island on a corner, to stand on.”

The amount of sidewalk repairs Saint Paul completes each year has not kept up with the need to replace panels that are cracked, heaving, or damaged. Rising costs are attributable to increases in materials and labor costs and evolving standards for accessible pedestrian ramps required under the Americans with Disabilities Act. While the cost to reconstruct sidewalks has increased, the annual program budget has not increased accordingly. In addition, fluctuations in the program’s annual budget adds an additional challenge in planning how to prioritize funds.

Saint Paul Public Works uses sidewalk patching records and constituent comments to identify sidewalk segments needing replacement. The city reconstructs sidewalk on a panel-by-panel basis; only select panels requiring repair are

replaced on a block. Public Works prioritizes locations where sidewalk replacement is most needed using the following criteria:

- Locations causing water entry to buildings
- Property owner discussions
- Complaints from residents
- Massive heaves
- Council and leadership direction
- Disintegrating panels that can no longer be patched
- Locations where injuries have occurred
- Areas located near other scheduled sidewalk work

Other Ways Sidewalks are Replaced

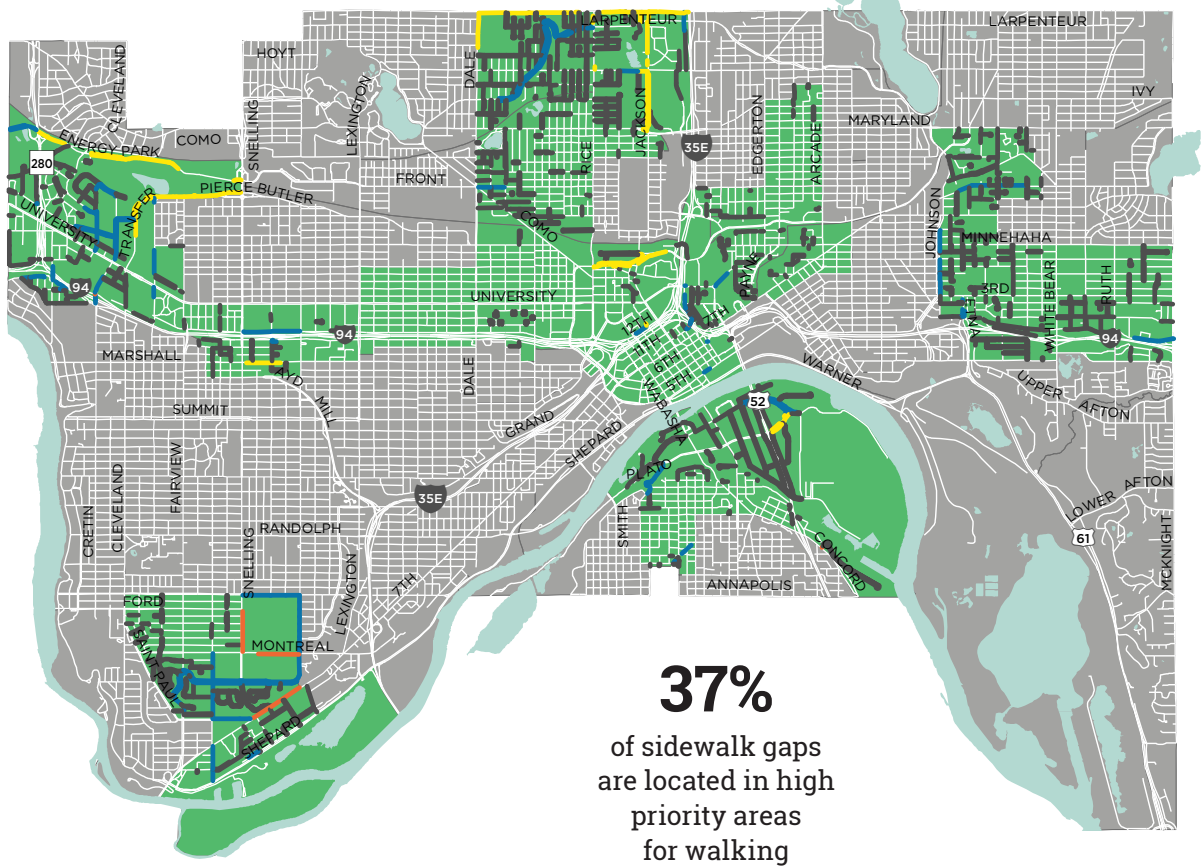
Ramsey County replaces sidewalks along county roads that are being reconstructed. For sidewalks along county roads, Ramsey County pays 100 percent of replacement costs if the county determines that the sidewalk is in serviceable condition. If not serviceable, the county pays 50 percent of the cost and the City of Saint Paul must pay the remaining 50 percent of costs, typically by assessing property owners.

MnDOT evaluates existing sidewalks along state highways to incorporate the repair and replacement of ADA non-compliant sidewalks during MnDOT-led repaving and preservation projects. MnDOT evaluates sidewalk gaps along state highways during MnDOT-led repaving and preservation projects in collaboration with local jurisdictions and agency partners to fill sidewalk gaps where feasible.

Figure 7. Sidewalk Gaps in High Priority Areas for Walking Investments

— Gap on State Arterial/Collector
 — Gap on County Arterial/Collector
 — Gap on City Arterial/Collector
 — Gap on Local Street

Note: High Priority Areas for Walking Investments are shown in green.



High Priority Sidewalk Gaps

Identifying critical gaps in the sidewalk network is the first step in identifying possible solutions to address sidewalk infill in these locations.

One hundred and twenty miles of sidewalk gaps (37 percent) are located in High Priority Areas for Walking Investments (See Figure 7).

This section presents sidewalk gaps within the High Priority Areas for Walking Investments. Sidewalk gaps in highest priority areas are most critical to the city’s pedestrian network, because they can most address goals of equity and safety while serving key destinations for walking.

High Priority Sidewalk Gaps on Arterials and Collectors

Within the high priority areas, sidewalk gaps along arterial and collector streets are more important than gaps along local streets, because these streets serve more destinations, carry higher levels of traffic and in many cases are also transit routes.

Arterial and collector high priority sidewalk gaps are good candidates for external funding sources, such as federal Transportation Alternatives, Safe Routes to School and Ramsey County funding. The city seeks participation from Ramsey County and MnDOT in addressing sidewalk gaps on county and state roads.

Tables 4, 5, and 6 list sidewalk gaps on arterial and collector streets in High Priority Areas for Walking Investments. These seven miles of missing sidewalk are suitable for stand-alone projects and would enhance access for people walking to destinations on these corridors. In addition to listing gaps suitable for stand-alone projects, Appendix A lists sidewalk gaps that overlap planned multi-use paths and sidewalk gaps that are most suitable to be constructed in conjunction with street reconstruction projects, transitway developments, or land use redevelopment.

High Priority Sidewalk Gaps on Local Streets

Sidewalk gaps on local streets tend to occur in clusters. These groupings of streets without sidewalks are most common in industrial

neighborhoods and in post-1940s residential areas built when auto-oriented street design was prevalent. Creating a connected walking network on these streets requires sidewalk construction on multiple streets; constructing sidewalk on any one street by itself would not substantially increase a neighborhood’s connectivity. Local streets are best addressed as a group, rather than singly, to facilitate cost-effective construction. Saint Paul commonly uses street reconstruction projects (which also occur at a neighborhood scale) or external grants to fund sidewalk construction on local streets. Establishing a sidewalk improvement is another funding mechanism that may help address funding needs in these locations.

Additional details about high priority local street sidewalk gap clusters are included in Appendix A.

Table 4. Potential Stand-Alone Sidewalk Project Candidates on City Streets

Gap Location	Gap Length
Front Avenue: Dale Street to Mackubin Street	0.2 miles
Hazelwood Street: Maryland Avenue to Ames Avenue	0.3 miles
Highland Parkway: Snelling Avenue to Hamline Avenue	0.5 miles
Hamline Avenue: Highland Parkway to Montreal Avenue	0.5 miles
Prior Ave: University Avenue to Oakley Avenue	0.2 miles
Minnehaha Avenue: Tatum Street to Fairview Avenue	0.1 miles
St. Anthony Avenue: Pascal Street to Hamline Avenue	0.2 miles
Case Avenue: Clarence Street to Kennard Street	0.5 miles
Etna north of Hwy 10	0.1 miles
Old Hudson Road: Birmingham Street to White Bear Avenue	0.6 miles
TOTAL	3.2 miles

Table 5. Potential Stand-Alone Sidewalk Project Candidates on County Roads

Gap Location	Gap Length
Jackson Street: Larpenteur Avenue to Arlington Avenue	1.3 miles
Larpenteur Avenue: Dale Street to I-35E	1.5 miles
Marshall Avenue: east of Snelling Avenue to west of Albert Street	0.3 miles
Dale Street: Nebraska Avenue to Larpenteur Avenue	0.3 miles
TOTAL	3.4 miles

Table 6. Potential Stand-Alone Sidewalk Project Candidates on State Roads

Gap Location	Gap Length
Montreal Avenue: East of Snelling Avenue to Hamline Avenue	0.35 miles
Snelling Avenue: South of Ford Parkway to Montreal Avenue	0.35 miles
TOTAL	0.7 miles

Actions

The following table shows general actions related to sidewalk gaps. The city will update policies and seek funding to accelerate construction of high priority sidewalk gaps.

Table 7. General Actions Related to Sidewalk Gaps

Actions	Top Near - Term Action	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-13. As new mobility options emerge, prioritize the safety and comfort of people walking when managing usage of and access to sidewalks, paths and curb space.		Saint Paul Public Works, in coordination with Ramsey County and MnDOT	x			
1-14. Construct sidewalks on both sides of every street as part of street reconstruction projects, in accordance with Saint Paul City Council Resolution 17-65.	x	Saint Paul Public Works	x			
2-2. Study alternative funding resources to construct new sidewalk that equitably distribute property assessment burdens.	x	Saint Paul Public Works, City Council	x			
2-3. Incorporate the presence of pedestrian needs into selection criteria for future Saint Paul Streets projects.		Saint Paul Public Works	x			
2-4. Require property owners to install sidewalk adjacent to all streets abutting properties undergoing site plan review for site redevelopment.	x	Saint Paul Public Works, Saint Paul Department of Safety and Inspections, Saint Paul Planning and Economic Development	x			
2-5. Use High Priority Areas for Walking Investments to select areas for grant funding opportunities, such as Safe Routes to School, Metropolitan Council Regional Solicitation and Ramsey County partnerships.	x	Saint Paul Public Works		x		
2-6. Identify citywide sidewalk replacement needs and use High Priority Areas for Walking Investments to prioritize sidewalk replacement locations. Develop a dataset to identify and track sidewalk condition throughout the city.		Saint Paul Public Works		x		
3-3. Maximize impact of capital projects through coordination with partner jurisdictions such as Ramsey County, MnDOT and Metro Transit. Define internal structure for managing external partnerships and identifying opportunities to maximize use of resources during capital projects.		Saint Paul Public Works, in coordination with Ramsey County, MnDOT and Metro Transit		x		



Saint Paul is a winter city: snow and ice on sidewalks are common for many months of the year. For some, snow-covered or icy sidewalks are not just inconveniences; they can prevent people from leaving their homes at all. Even when a sidewalk is clear of snow and ice, it can be a challenge for people to navigate berms, ice and puddles of melting snow at corners and crossings. With more frequent freeze/thaw cycles and more extreme snow events due to climate change, snow and ice removal will be an issue of increasing importance in the coming years.

What We Do Today

This summary addresses snow and ice removal on public roadways, excluding parks and bridges.

Removing snow and ice from sidewalks is the responsibility of adjacent property owners. Saint Paul Code of Ordinances Chapter 113 states: “The owner or occupant of any building or lot abutting a public sidewalk is responsible

for and shall remove any accumulation of snow and/or ice from said public sidewalk within twenty-four (24) hours after the snow and/or ice has ceased to fall, gather or accumulate.” Properties on parkways are regulated by Saint Paul Legislative Code 170.08, which requires snow, ice and dirt removal before noon of every day.

Snow or ice that remains on a sidewalk 24 hours after a snowfall event is considered a “nuisance.” Saint Paul ordinance requires that property owners are given both notice and time to correct a nuisance before the city can correct the nuisance and charge a fee.

Residents can report unshoveled or icy walks to the Department of Safety and Inspections (DSI) 24 hours (or more) after a snowfall event. After receiving a complaint about a specific property, DSI mails a letter to the property owner reminding them to clear their walkway. From January to June 2018, DSI responded to approximately 7,000 complaints regarding sidewalk snow and ice.

This represents approximately 20 percent of the total complaints DSI responded to in that timeframe.

DSI crews inspect properties 48 hours after notice is mailed out. Typically, 80 percent of property owners who receive notice shovel their walks without further action from the city and are not assessed fees. For properties with sidewalks that have not been cleared, city crews perform the work and a fee of approximately \$280 is billed to the property owner.

Many have expressed concern that the current snow removal process is slow and results in sidewalks being unshoveled for too long. In response, the Saint Paul City Council revised city ordinance in 2015 to address problem properties with recurring snow and ice violations. Property owners who have more than one violation in a calendar year are subject to immediate abatements for future valid complaints of snow and ice.

Addressing Crossings

The Department of Public Works is responsible for clearing public stairways, refuge medians and porkchop islands of snow and ice. Public Works currently has 75 street services workers who are tasked with maintaining city streets and clearing 130 separate pedestrian facilities across the city.

Public Works Street Services workers plow streets, clear pedestrian facilities and fill potholes after every snowfall accumulation. During major snowfall events, crews can spend up to four days plowing streets, following up on clean-up work and addressing complaints. After streets are cleared of snow, crews shift their priority to clearing pedestrian facilities and filling potholes. Downtown refuge medians and porkchop islands are prioritized first, followed by the remaining 110

public stairways, porkchop islands and refuge medians spread across the city.

The evolution of the city's pedestrian infrastructure brings a new challenge to operations staff. Safety improvements for pedestrians, such as refuge medians and interim installations with flexible traffic posts, require labor-intensive snow clearing. Street services workers clear each facility by hand, so the incremental cost and labor associated with new facilities is difficult to absorb within the city's existing street maintenance and snow clearing budget. Shortening the timeline to clear pedestrian facilities after a snowfall is logistically infeasible without considerable added investment in resources to staff crews that could operate concurrently with the

WHAT WE HEARD

"The city does not ask us to plow our own streets, but we have to shovel the snow. This implies the city prioritizes driving cars, not walking. That is backwards!"

"Improve snow and ice removal on sidewalks- without the use of salt and chemicals that are bad for the environment."

"Enforce the time period allowed to a property owner for removing all ice and snow after a significant snowstorm."

"Number one priority I would suggest is making sidewalks, ESPECIALLY curb cuts, passable in the winter. I am lucky enough to be able to climb over snow and ice, but people who depend on wheels (wheelchairs, scooters, walkers, strollers) are completely stuck, unable to use the sidewalks sometimes for weeks or months on end."

snowplow team and specialized equipment that can reduce labor costs of clearing the public right-of-way.

How We Fund Snow and Ice Removal

Property owners are responsible for clearing sidewalks and bus stops adjacent to their property.

Funding to keep crossings free of snow and ice comes from the Saint Paul Street Maintenance budget, which is funded through property taxes.

Actions

The following table highlights policies and actions that guide snow and ice removal on sidewalks and crossings.

Table 8. Actions to address snow and ice removal

Actions	Top Near - Term Action	Responsible Entity	Policy	Capital Investments	Operations	Programs
2-7. Explore programs or policy changes to encourage greater compliance with sidewalk snow and ice removal policies.		Saint Paul Public Works, Saint Paul Department of Safety and Inspections				x
2-8. Develop a public awareness campaign to educate residents and businesses about the city snow removal ordinance and encourage people to report violations.	x	Saint Paul Public Works, Saint Paul Department of Safety and Inspections				x
2-9. Highlight snow removal responsibilities in all snow emergency communications.		Saint Paul Public Works				x
2-10. Communicate sidewalk maintenance responsibilities to adjacent property owners when new sidewalks are constructed.		Saint Paul Public Works				x
2-11. Explore a proactive system to address non-compliance with sidewalk shoveling ordinance. Empower inspectors to uphold high standards for snow and ice clearance.	x	Saint Paul Public Works, Saint Paul Department of Safety and Inspections				x
2-12. Explore ways to accelerate corner clearing after snowfalls, especially in High Priority Areas for Walking Investments.	x	Saint Paul Public Works			x	
2-13. Evaluate existing resources and priorities for snow and ice removal across all city departments and identify potential modifications to enhance snow and ice removal of pedestrian facilities.		Saint Paul Public Works, in coordination with the Mayor's Office	x			x

Top Near-Term Infrastructure and Maintenance Actions

The City of Saint Paul is ready to act to achieve the goals of this plan. This table summarizes the top near-term actions to address public priorities of improving busy crossings, filling sidewalk gaps and improving snow and ice removal. These actions are those the City of Saint Paul is already in the process of implementing or is poised to make progress toward in the next one to two years.

Table 9. Top near-term actions

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-5. Establish a consistent process for reviewing, improving and prioritizing pedestrian crossings. Create and revise policies as necessary to ensure the process and results are consistent, transparent and equitable. Update policies at least every two years to incorporate best practices and update to national guidelines. Apply these policies to all projects and requests that include crossing improvements.	Saint Paul Public Works	x			
1-9. Dedicate additional funding to improve pedestrian crossings in conformance with best practices and support on-going maintenance of these treatments.	Saint Paul Public Works, Mayor's Office, City Council		x		
1-14. Construct sidewalks on both sides of every street as part of street reconstruction projects, in accordance with Saint Paul City Council Resolution 17-65.	Saint Paul Public Works	x			
2-2. Study alternative funding structures to construct new sidewalk that equitably distribute property assessment burdens.	Saint Paul Public Works, City Council	x			
2-4. Require property owners to install sidewalk adjacent to all streets abutting properties undergoing site plan review for site redevelopment.	Saint Paul Public Works, Saint Paul Department of Safety and Inspections, Saint Paul Planning and Economic Development	x			
2-5. Use High Priority Areas for Walking Investments to select areas for grant funding opportunities, such as Safe Routes to School, Metropolitan Council Regional Solicitation and Ramsey County partnerships.	Saint Paul Public Works		x		
2-8. Develop a public awareness campaign to educate residents and businesses about the city snow removal ordinance and encourage people to report violations.	Saint Paul Public Works				x

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
2-11. Explore a proactive system to address non-compliance with sidewalk shoveling ordinance. Empower inspectors to uphold high standards for snow and ice clearance.	Saint Paul Public Works, Saint Paul Department of Safety and Inspections				x
2-12. Explore ways to accelerate corner clearing after snowfalls, especially in High Priority Areas for Walking Investments.	Saint Paul Public Works			x	
3-2. Review and update the Saint Paul Department of Public Works Temporary Pedestrian Access Route (TPAR) policy (originally adopted 2014) to define requirements for TPAR implementation and mandate use of best practices identified by Public Right-of-Way Accessibility Guidelines.	Saint Paul Public Works	x			

Program Priorities

City of Saint Paul staff administer several programs to support walking. These programs fall into four categories: encouragement, education, enforcement and evaluation of the walking network.

Programs highlighted here include:



Stop for Me



Crash Response



Safe Routes to School



Paint the Pavement



Pedestrian and Bicycle Counting

The following sections summarize recommendations to support and improve existing programs. While additional opportunities to promote walking could be realized by adding new programming, this plan focuses on existing programs and actions that can be achieved with existing staff in the next five to ten years.





What We Do Today

The city's enforcement program related to pedestrian safety is "Stop for Me." This program was developed in partnership with community volunteers seeking to raise awareness of the state's crosswalk law. Plain clothes officers and community volunteers cross through designated crosswalks during Stop for Me events. Drivers who fail to stop for a pedestrian when it is safe for them to do so are pulled over and issued citations.

These events reinforce changes in Saint Paul's driving culture and increase awareness of the state's crosswalk law. Police select crosswalk locations at the request of community members and work with Saint Paul's District Councils to recruit community volunteers to events. The program has hosted almost 300 traffic enforcement events since 2015.

How We Fund Stop for Me

The program is funded through Toward Zero Deaths grants from the State of Minnesota, which pay for officer overtime to conduct traffic stops outside of regular duties.

Actions to Support and Sustain Stop for Me

The table on the following page presents actions that will support and sustain the Stop for Me program.

Table 10. Actions to Support Stop for Me

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-15. Continue to host officer-supported Stop for Me events and engage local media to raise community awareness of pedestrian and driver responsibilities under the state’s crosswalk law and encourage community member participation in events.	Saint Paul Police Department in coordination with Saint Paul Public Works				x
1-16. Identify city resources to support Stop for Me that reduce reliance on external funding and allow greater flexibility in program activities.	Saint Paul Police Department, Saint Paul Public Works, Mayor’s Office				x
1-17. Use Stop for Me to draw attention to new pedestrian crossing improvements (such as pedestrian-activated beacons or infrastructure funded through Safe Routes to School) and to emphasize specific times of year when pedestrian risks increase (such as back-to-school).	Saint Paul Public Works, Saint Paul Police Department				x
1-18. Identify some sites each year for repeat Stop for Me events several times per season to sustain driver awareness of the crosswalk law. Pair these activities with enhanced engineering treatments where appropriate.	Saint Paul Public Works, Saint Paul Police Department				x
3-5. Evaluate the impact of Stop for Me on driver awareness and citywide rates of drivers yielding to pedestrians.	Saint Paul Public Works, Saint Paul Police Department				x
3-6. Evaluate Stop for Me’s impact through an equity lens, including reviewing how locations are selected, demographics of drivers stopped, demographics of drivers receiving warnings vs. citations and demographics of volunteers.	Saint Paul Public Works, Saint Paul Police Department				x

UNIVERSITY OF MINNESOTA CROSSWALK YIELDING STUDY

In 2017 and 2018, the City of Saint Paul partnered with MnDOT and University of Minnesota researchers on a study seeking to increase the number of drivers who stop for people in Saint Paul crosswalks. The study combined engineering, enforcement and encouragement efforts to change drivers’ mindsets when it comes to stopping for people walking. Saint Paul police hosted crosswalk enforcement events at eight intersections, visiting each intersection a total of eight times over a four-month period. As the study progressed, experimental signs were placed at the intersections to remind drivers of the presence of a crosswalk. In addition, all partners made a concerted effort to heighten awareness of the crosswalk law through signage, social media posts and news blasts. Throughout the study period, researchers measured yielding rates at the eight study intersections, plus eight “control” intersections.

At the beginning of the study, only one in three drivers stopped for people crossing in these locations. Five months later, yielding rates averaged 60 percent at all sites and 77 percent at sites with additional engineering and enforcement. This demonstrates that behavior change is possible and combining enforcement, encouragement and engineering efforts brings meaningful results.



What We Do Today

The Saint Paul Police Department (SPPD) maintains a database of bicycle and pedestrian crashes and makes this data available online. This information is available to the general public and is updated more frequently than crash data published by MnDOT. SPPD also encourages residents to report near misses, which are not recorded in state data.

How Crash Response Work is Funded

Crash response record-keeping is incorporated into current staff responsibilities.

Actions to Improve Crash Response

The table on the following page presents actions that will improve crash response efforts in Saint Paul.

Table 11. Actions to Support Improved Crash Response

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-19. Continue to educate police officers on the importance of fully reporting the details of pedestrian-involved crashes so that Police and Public Works can better understand contributing factors.	Saint Paul Police Department, Saint Paul Public Works				x
1-20. Encourage members of the public to report near-misses. Review the reporting process to ensure it is easy for members of the public to share information about near-misses and crashes.	Saint Paul Police Department, Saint Paul Public Works				x
1-21. Continue to maintain statistics about traffic injuries that involve people walking and biking and share these with the public.	Saint Paul Police Department, Saint Paul Public Works				x

VISION ZERO

Vision Zero is a national movement to eliminate traffic fatalities and severe injuries. Cities across the country have adopted Vision Zero as a comprehensive strategy to prevent traffic crashes and prioritize safety as a public health issue. Vision Zero cities prioritize pedestrians and bicyclists in street design, and many use automated red light enforcement and automated speed enforcement to make streets safer.

Saint Paul’s Draft 2040 Comprehensive Plan Policy T-4 states: Adopt and implement a “Vision Zero” program with the long-term goal of achieving zero traffic fatalities and severe injuries. Components of the program will include engineering improvements and behavioral safety improvements, such as reducing driver impairment, inattentiveness and speed through education and enforcement.

The policies and programs described in Saint Paul’s Pedestrian Plan lay a strong foundation for prioritizing safety over speed, a core principle of Vision Zero.



What We Do Today

The city adopted a Safe Routes to School (SRTS) Policy Plan in 2017. The plan outlines a city-wide approach to support walking and bicycling to school in partnership with Saint Paul Public Schools (SPPS) and Ramsey County. A SRTS Steering Committee including city, county and school district representatives meets bi-monthly to discuss coordination opportunities.

Seven Saint Paul Schools have completed SRTS plans in the last five years. Saint Paul has received over \$500,000 in federal funding for sidewalk infrastructure near two of these schools following completion of their plans.

SPPS supports walking and bicycling to school by coordinating district-wide participation in Walk to School Day and organizes bike safety classes at some schools using a district-owned bicycle fleet.

How Safe Routes to School is Funded

SRTS planning work is completed as part of current staff responsibilities and with support from the MnDOT SRTS Planning Assistance program. SRTS infrastructure is funded through state and federal grants as well as designated city funding. The Saint Paul Public Works Five-Year Plan included \$125,000 in SRTS infrastructure funding in 2017. The Five-Year Plan also includes \$125,000 annual SRTS funding for 2020, 2021 and 2022. City SRTS infrastructure funding has been used to implement crosswalk restriping and curb extensions recommended in school SRTS plans. City funding is also used as the required local match for federal SRTS infrastructure grants.

Actions to Support and Sustain Safe Routes to School

The table on the following page presents actions that will support and sustain the Safe Routes to School program.

Table 12. Actions to Support the Safe Routes to School Program

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
1-22. Develop a school zone speed limit policy.	Saint Paul Public Works	x			
1-23. Develop a clear and transparent process for prioritizing implementation of Safe Routes to School infrastructure.	Saint Paul Public Works	x			
2-14. Continue to allocate city funds on an annual basis to support implementation of infrastructure improvements near schools and to serve as local match for grant opportunities. Create a permanent Safe Routes to School planning and funding mechanism.	Saint Paul Public Works, Mayor's Office, City Council		x		
2-15. Use school demographic data and High Priority Areas for Walking Investments to prioritize schools for Safe Routes to School planning and infrastructure resources. Provide support to priority schools in completing Safe Routes to School plans.	Saint Paul Public Works, in coordination with Saint Paul Public Schools	x			
3-7. Encourage and support SPPS in prioritizing and leading SRTS efforts by providing matching funding for SPPS investments in SRTS, providing communications support to SPPS and/or involving city staff in supporting events such as Walk to School Day.	Saint Paul Public Works, in coordination with Saint Paul Public Schools				x
2-16. Develop a city-wide Walking Routes for Youth map encompassing every school and publicize recommended walking and bicycling routes to school.	Saint Paul Public Works, in coordination with Saint Paul Public Schools				x
3-8. Facilitate close coordination among school district, city and county staff by continuing to host regular SRTS Steering Committee meetings. Engage the Saint Paul Planning Commission and Transportation Committee in SRTS and invite Committee members to join the SRTS Steering Committee.	Saint Paul Public Works, Saint Paul Public Schools, Ramsey County				x
3-9. Develop a program to implement and test pedestrian safety improvements before funding is available for permanent improvements.	Saint Paul Public Works				x
3-4. Designate a Safe Routes to School Coordinator to advance planning and identify infrastructure needs around schools. The SRTS Coordinator tasks may include facilitating across agency boundaries, monitoring and evaluating progress, helping schools apply for funding and reviewing school rezoning and siting requests.	Saint Paul Public Works, in coordination with Saint Paul Public Schools				x



What We Do Today

The City of Saint Paul's Paint the Pavement program allows residents to design and paint murals in intersections. The program is important for improving walking in Saint Paul because the murals help to calm traffic, provide an interesting walking environment and encourage residents to see public space in a new way.

The program supports projects on low-volume, local streets at intersections or along a block. Seventy-five percent of adjacent property owners and/or residents must agree to the project for the city to approve the application. Applicants plan and install each project.

How Paint the Pavement is Funded

Applicants pay for the cost of paint for the pavement mural. Administration of the Paint the Pavement program is incorporated into current staff responsibilities.

Actions to Support and Sustain Paint the Pavement

The City will increase the ease of applying for the program and promote the program in areas that have not previously completed Paint the Pavement programs.

Ways to streamline the application process include:

- Review and update program documents to ensure information is current, concise and complete.
- Survey recent program participants about challenges encountered during the application process and solicit ideas for streamlining the process.
- Consider adjusting project application requirements. This could include reducing the requirement for approval by 75 percent of adjacent property owners or residents.

Ways to publicize the program include:

- Organize phone and in-person meetings with community leaders, district councils and art-based organizations to reintroduce them to Paint the Pavement.
 - Seek opportunities to promote and implement projects in partnership with Parks & Recreation programming and Safe Summer Nights.
 - Distribute program information to block leaders in advance of National Night Out and other neighborhood events.
 - Maintain a list of past Paint the Pavement community leaders willing to provide advice to new program participants.
 - Publicize funding resources in tandem with program information. For example, Statewide Health Improvement Partnership (SHIP) healthy community initiatives could help reduce the program cost to community members.
 - Add a dedicated Paint the Pavement page to the city’s website. Include a photo gallery and videos documenting the success of recent Paint the Pavement Projects.
- Distribute Paint the Pavement program information to schools participating in Safe Routes to School and to partners on the Safe Routes to School Steering Committee.

ENCOURAGING WALKING: WALK WITH A DOC

‘Walk with a Doc’ is a partnership between Saint Paul Public Housing Agency (PHA), Allina Health United Hospital and Saint Paul-Ramsey County Statewide Health Improvement Partnership to improve community health and social well-being by organizing monthly group walks for Saint Paul PHA residents. A guest healthcare provider joins each month to chat about a current health topic and walk with the group. These thirty-minute walks are for all ages and all abilities; participants use feet, strollers, canes, wheelchairs and other walking aids to move through the neighborhood. The event rotates to a different public housing site each month.

Table 13. Actions to Support and Sustain the Paint the Pavement Program

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
2-17. Publicize the Paint the Pavement program to promote increased participation.	Saint Paul Public Works				x
2-18. Streamline the Paint the Pavement application process.	Saint Paul Public Works				x
2-19. Create Paint the Pavement media fact sheets and toolkits to help community members invite media coverage of project sites.	Saint Paul Public Works				x
2-20. Seek city funding for staff time and materials to implement Paint the Pavement projects.	Saint Paul Public Works, Mayor’s Office, City Council				x



What We Do Today

Saint Paul's pedestrian and bicycle counting program began in 2013. Volunteers have since conducted counts at 130 unique locations. Most sites are rotated on a three- to five-year cycle, while 25 benchmark locations are counted every year. Manual counts are captured during afternoon peak hour times (4 pm to 6 pm) and three permanent counters capture longer duration counts.

The existing count program is intended to:

- Increase understanding of where and how people are traveling throughout the city
- Inform future investments in safety and infrastructure
- Measure impacts of new walking and biking investments

How the Pedestrian and Bicycle Counting Program is Funded

Pedestrian and bicycle counting activities are incorporated into current staff responsibilities.

Actions to Support and Sustain Pedestrian and Bicycle Counting

The city will focus on ensuring the existing program equitably distributes resources among High Priority Areas for Walking Investments and incorporates technological advances in counting methods as they rapidly evolve.

To ensure appropriate geographic distribution of count sites, Public Works will inventory existing count sites, monitor the number of count sites within High Priority Areas for Walking Investments and identify potential locations where additional counts are needed.

Public Works will continue partnerships with neighboring jurisdictions to coordinate volunteer recruitment for manual counts, as well as creating new partnership with agencies such as the National Park Service and Ramsey County to collect additional pedestrian counts in Saint Paul and share count information.

Public Works will create systems for pedestrian data collection by taking the following steps:

- Dedicate staff resources to managing existing pedestrian data collection, expand data collection and incorporate technological advances into the city’s data collection practices.
- Develop a centralized database that combines manual pedestrian counts and additional data sources, such as pedestrian counts completed as part of traffic studies. Explore ways that the pedestrian database can be integrated into the city’s traffic count database.
- Use video detection to identify pedestrian needs at intersections and inform pedestrian needs at high-risk locations.
- Inventory existing traffic cameras at signalized intersections to understand capabilities for counting pedestrian traffic by modifying existing equipment.
- Use pedestrian count data to estimate changes in crash rates over time.
- Purchase and install pedestrian counting equipment and incorporate pedestrian counting into the city’s routine traffic collection efforts.

Table 14. Actions to Support the Pedestrian and Bicycle Counting Program

Actions	Responsible Entity	Policy	Capital Investments	Operations	Programs
2-21. Inventory existing pedestrian and bicycle count sites to ensure appropriate geographic distribution.	Saint Paul Public Works				X
2-22. Continue existing partnerships and create new partnerships for pedestrian and bicycle data collection.	Saint Paul Public Works, in coordination with the National Park Service and Ramsey County				X
2-23. Create systems for pedestrian and bicycle data collection, including use of automated counting equipment.	Saint Paul Public Works			X	X

CHAPTER 6

MONITORING OUR PROGRESS



The city will seek funding to fill the top stand-alone sidewalk gaps in High Priority Areas for Walking Investments (Table 12).

Monitoring Progress on the Walking Network

The City of Saint Paul will monitor progress on the pedestrian plan and the development of the city's pedestrian network over time. New data collection and maintenance efforts will be needed to provide information about the pedestrian system. Recommended data collection and maintenance actions include:

1. Develop and maintain geographic databases with the following information:
 - a. The sidewalk network, including locations with sidewalk and locations where gaps exist in the network. Update this database annually to reflect new sidewalk construction that occurs through road projects and as part of redevelopment projects.
 - b. Pedestrian curb ramps. Update this database annually to incorporate new curb ramp construction that occurs with road projects. Use the database to update the city of Saint Paul Public Works Department ADA Transition Plan identifying the number of additional ramps and the number of replacement ramps needed to achieve ADA compliance across the system.
 - c. Marked crosswalks. Update this database annually to reflect changes in crosswalk markings completed with road projects. Use this information to prepare cost-estimates for transitioning all existing crosswalks marked with parallel bars to high-visibility crosswalk markings.

- d. Safe Routes to School (SRTS) infrastructure recommendations. Updated annually as new SRTS plans are developed and SRTS infrastructure recommendations are implemented.

2. Develop a rating system and collect data to track the condition of Saint Paul's sidewalk network. Use this information to proactively identify high-priority locations for repairs.
3. Continue to collect pedestrian counts throughout the city and document changes in walking rates at the count sites.
4. Continue to collect data documenting all pedestrian crashes, including near misses.
5. Develop a systemic safety analysis to assess risk factors associated with pedestrian crashes at intersections, resulting in a list of high-priority intersections for pedestrian improvements.

City staff will update the Saint Paul Transportation Committee annually on Pedestrian Plan progress and identify areas to be addressed in a five-year plan update. Topics included in the update may include:

- Change in walking rates at pedestrian count sites
- The percentage of people walking and taking transit to work, using one-year Census American Community Survey data
- Change in serious injury and fatal crashes reported over time
- Updates on program, policy and procedural changes implemented since plan adoption
- Updates on ADA Transition Plan Progress
- Highlight major projects completed in the city and their impact to the walking network
- Progress on Complete Streets Action Plan recommendations related to walking