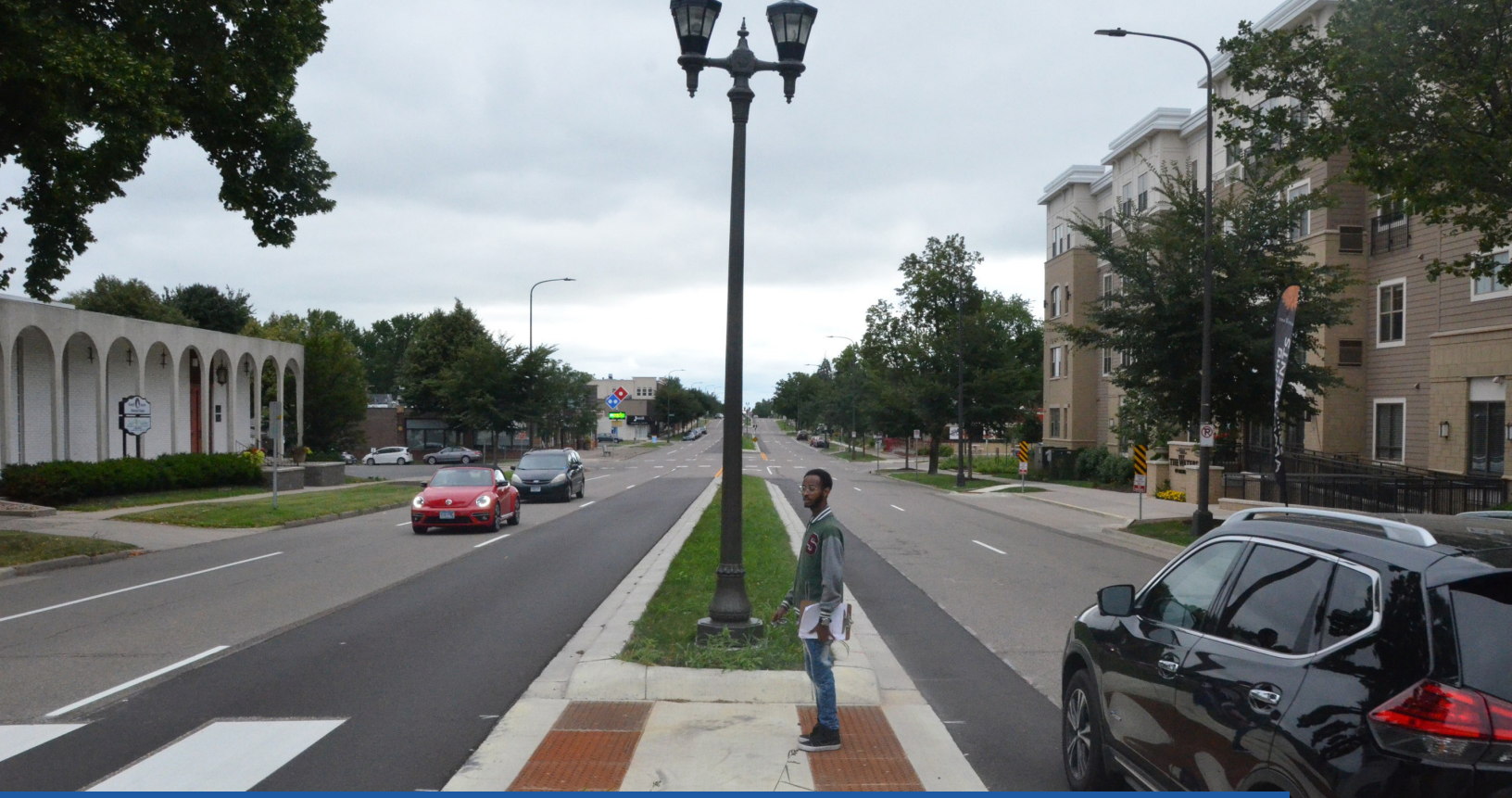


SAINT PAUL
MINNESOTA

Safe Streets for All

TRANSPORTATION SAFETY ACTION PLAN

November 2026

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Letter from
Mayor Kaohly Her

Saint Paul is a special place. Minnesota's capital city is a place of lively neighborhoods, spectacular parks, and a diverse population with roots from around the world. Our history and cultural richness are our greatest strengths – they make Saint Paul a place where people want to live, work, visit, and play.

In our city, we work hard to support one another, lead with care, and meet challenges head on. It is our responsibility for improving safety and we fight to make Saint Paul a better and safer place for everyone. A central tenet of my administration is to help government better meet community needs, whether that means improved government efficiency, reinvigorating pride in our downtown, or striving to improve public safety needs. Traffic crashes are all too common on the streets of our city. Serious and fatal injury crashes continue to happen in Saint Paul. Our goal must be to drive them down to zero.

In 2023, the City of Saint Paul supported this work in Resolution 23-875, which set the goal of achieving zero traffic deaths and serious injuries on all surface streets in Saint Paul by 2045, with an interim goal of 50 percent reduction in fatal and serious injury crashes within ten years (2033). I also commit to the ongoing work to achieve this goal, recognizing that this will take an enduring commitment over a number of years.

The City has completed the Safe Streets for All: Transportation Safety Action Plan – a comprehensive, data-driven effort to re-think how we understand transportation safety which prioritizes investments to achieve safer outcomes. And while the Transportation Safety Action Plan is an important step on this journey, it will take continued and focused work to make our safety goals a reality.

From 2021 to 2025, Saint Paul had nearly 22,000 crashes, of which 14,000 (64 percent) were on non-freeway streets in the city. During this time period, there were 68 fatal crashes in which 73 people lost their lives, and 292 serious injury crashes. These incidents are not just statistics. The numbers are real people. They are friends, family members, neighbors, co-workers, and our children. Their lives and those of their families are forever changed by these tragedies. Vulnerable road users, including people walking and bicycling, as well as people living in neighborhoods with lower average household incomes, are disproportionately more likely to be killed or severely injured while traveling around Saint Paul. Let me be clear – these terrible crashes are unacceptable, and in Saint Paul we are making it our goal to understand and eliminate them.

Crashes continue every day in this city, but we must meet our ambitious reduction goal. We do this work across departments to focus our attention and resources on understanding the problem and collaborate with our transportation agency and public safety partners. We intentionally chose to include surface streets from other jurisdictions, because people traveling around Saint Paul don't care who owns a street; they just want to get home safely every day.

The Transportation Safety Action Plan is a down payment on our commitment to safety-focused decision-making. We commit to continue working with our neighborhoods and their lived knowledge and expertise about transportation safety problems that need attention in neighborhoods across the city.

I know that we can do much better to prevent fatal and serious injury crashes. I am confident we can get there, making this city a safer and better place for people to live, work, and play.

MAYOR KAOHLY HER

Introduction

Between 2021 and 2025, there were 73 crash related fatalities and 292 serious injury crashes on Saint Paul streets[1]. Each one of those people was a member of the Saint Paul community – someone's parent, child, sibling, and friend. All of these injuries and deaths were preventable.

This Transportation Safety Action Plan (TSAP) is a recognition that the high toll of traffic crashes in our community is unacceptable. This plan was created in response to Saint Paul's commitment to eliminate all serious injury and fatal crashes on surface streets within the city. The plan illustrates where and how Saint Paul can do better.

THIS PLAN INCLUDES...

- An in depth analysis of the factors that contribute to fatal and serious injury crashes throughout Saint Paul;
- An understanding and acknowledgment of the communities most impacted by traffic crashes, and the needs of those communities;
- A description of projects that utilize data driven strategies proven to reduce crash incidence and severity;
- Policy recommendations that change the way the City selects and designs future projects;
- Recommendations for programs involving enforcement, education, and partnerships with other agencies;
- A focus on equity to ensure that projects are selected, funded, designed, and implemented in a way that aligns with the City's goals; and
- A roadmap for implementing the strategies in this plan, including detailed guidance for the next five years and ten years.

Eliminating traffic deaths will not be easy, and it will take time. Many of Saint Paul's roads were designed to move large amounts of vehicles at high speeds, ignoring the impacts on bicyclists, pedestrians, and high crash risk to drivers. Saint Paul cannot redesign all its streets at once, nor can the City finance more than a handful of large scale reconstruction projects in a decade. Additionally, many surface streets within Saint Paul are owned by Ramsey County and the Minnesota Department of Transportation (MnDOT), necessitating strong and enduring collaboration to make real progress on some of the city's most challenging roads. Through this plan, Saint Paul is committed to leading these efforts.

WHY FOCUS ON SURFACE STREETS?

Saint Paul's commitment is focused on traffic crashes that occur on all surface (non-freeway) streets within the city. This may seem counterintuitive since a large number of traffic crashes within the city occur on the freeways, including interstates. However, the City has limited control over the design and function of these roads. The City will continue to work with MnDOT and the federal government and advocate strongly for strategies that improve interstate safety but cannot commit to changes on roadways it does not control. For this reason, the goal to eliminate traffic deaths will be measured based on all other transportation facilities.

[1] *Minnesota Crash Mapping Analysis Tool (MnDOT). Additional details available in Appendix A.*

Our Goal

In June 2023, the Saint Paul City Council unanimously passed a resolution committing to the goal of **eliminating traffic deaths and serious injuries on all surface streets in Saint Paul by 2045**. To achieve this goal, the City has adopted the following benchmark goals:

- Reduce deaths from traffic crashes by 50 percent within 10 years
- Reduce serious injuries from traffic crashes by 50 percent within 10 years

Saint Paul acknowledges that achieving these goals will require significant ongoing coordination with partner agencies including MnDOT, Ramsey County, the Metropolitan Council, and Metro Transit. The City also understands achieving these goals will require additional staff and financial resources. The City intends to incorporate safety investments into the planning of future projects and policies of all types.

Safe System Approach

This plan utilizes the **Safe System Approach** to traffic safety, a multi-faceted method of improving transportation safety. This approach is the guiding safety paradigm of the United States Department of Transportation (USDOT) and is a key part of the National Roadway Safety Strategy (NRSS) and Toward Zero Deaths initiative.

While a conventional approach to road safety attempts to change human behavior to prevent crashes, the Safe System Approach acknowledges that humans make mistakes and that we have a responsibility to build layers of protection to prevent crashes and minimize harm when crashes happen.



Figure 1: Five Elements of Safe System Approach. Source: USDOT

OBJECTIVES OF A SAFE SYSTEM APPROACH

- **Safer People –** Addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.
- **Safer Roads –** Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur.
- **Safer Speeds –** Reducing speeds can accommodate human injury tolerance in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.
- **Safer Vehicles –** Expanding the availability of vehicle systems and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants.
- **Post-Crash Care –** Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for vital first responders and preventing secondary crashes through traffic incident management practices.



Focus on Vulnerable Road Users

This plan places an emphasis on improving safety for vulnerable road users. **A vulnerable road user (VRU) is anyone who is not protected by being inside a vehicle** – including pedestrians, bicyclists, people using wheelchairs or scooters, and people walking to and from transit. Unlike drivers, vulnerable road users also represent users from all ages and walks of life, from infants in strollers to the elderly.

VRUs are especially exposed to roadway crashes. Historically, roadway design has prioritized the needs of drivers to reach their destination quickly over the safety needs of other road users. VRUs crossing busy roads are particularly at risk, and those hit at higher speeds are more likely to be killed than those hit by low-speed drivers. Data from this plan show that while only 1.6 percent of all crashes involving vehicles resulted in a person being killed or a serious injury, 17.1 percent of all crashes involving pedestrians and 8.3 percent of crashes involving bicyclists resulted in a fatality or serious injury. In fact, between 2021 and 2025, pedestrians involved in crashes in Saint Paul walked away without injury only 15 percent of the time, compared to nearly 82 percent of drivers. For this reason, the plan focuses on methods to prevent all crashes involving VRUs, rather than just fatalities.

This plan illustrates the acute dangers faced by vulnerable road users, and it represents not only an opportunity to understand their safety challenges, but also to intentionally move project selection criteria, design, and City policy in the direction of promoting lower traffic speeds and designs that promote and improve VRU safety and visibility on Saint Paul streets.

How Does This Plan Relate to Other City Goals?

Transportation safety is critical to addressing equity, quality of life, economic vibrancy, and sustainability throughout the community. The Transportation Safety Action Plan (TSAP) is supportive of many of the City's longstanding goals developed and adopted through other planning projects and is a critical piece of the City's Community First Public Safety Initiative. In particular, the plan is supportive of several of the core values adopted through the Saint Paul for All 2040 Comprehensive Plan:

Equity and Opportunity

Welcoming and Safe

People-Centered

The TSAP also supports various City plans and initiatives. This plan will advance the safety-driven goals and projects identified in the following plans:

- **Saint Paul Pedestrian Plan (2019):** "Make Walking Safe for Everyone."
- **Saint Paul Speed Limit Evaluation (2020):** "Support the City's traffic safety goal of zero traffic deaths and severe injuries; to improve safety and comfort for people of all abilities walking, bicycling and taking transit."
- **Saint Paul Street Design Manual (2016):** "Ensure Safety for All Users."
- **Saint Paul Climate Action and Resilience Plan (2019):** "Increase safe and reliable access to city destinations without the use of a private automobile; mitigate the historical effects of discriminatory transportation decision-making and bring transportation equity to marginalized communities."
- **Community First Public Safety:** "Designing Public Spaces for Safety."

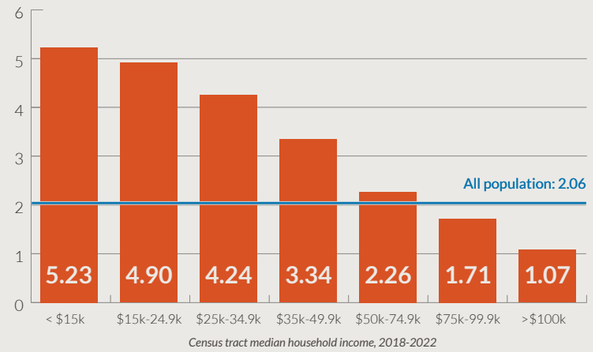


Prioritizing Equity

In Saint Paul and across the nation, traffic safety is an equity issue. While traffic safety affects all people, certain communities are disproportionately impacted by transportation-related injuries and fatalities. People who are Black and Indigenous are more likely to die while walking compared to people of other races and ethnicities, and people walking in low-income communities are more likely to be killed than people walking in wealthier areas. These disparities result from a variety of historic and ongoing inequities, including disinvestment in walking and biking infrastructure in certain communities or transportation policies and practices that prioritize the needs of drivers over those of pedestrians and bicyclists. We must work to ensure that all communities have access to safe and reliable transportation options, and that policies and practices prioritize the safety of all road users, regardless of their mode of transportation, race, or income.

Lower-income areas have far higher rates of pedestrian deaths

Pedestrian fatalities per 100,000 people by census tract income



Source: Dangerous by Design 2024 by Smart Growth America

The Transportation Safety Action Plan prioritizes equity in addressing traffic safety challenges by ensuring that the communities most burdened by traffic-related deaths and injuries are prioritized in the safety solutions. There are five ways equity is integrated throughout the Plan, including:

1. Identify and apply existing City of Saint Paul equity frameworks, goals, and metrics to the planning process
2. Use crash data and demographic mapping to understand crash trends and identify communities that are overburdened by traffic safety concerns
3. Focus public and stakeholder engagement efforts in these communities, and use feedback to develop community-driven solutions
4. Use feedback from engagement and data from the equity analysis to inform criteria used in the project prioritization
5. Recommend and integrate strategies to advance equity and safety in the implementation plan

The Transportation Safety Action Plan's equity framework is grounded in existing City plans, as outlined below:

2040 Comprehensive Plan (2019):

- "Prioritize safety and equity benefits in transportation project selection."
- "Prioritize equitable public investments relative to areas of concentrated poverty."
- "Improve the stability and health of communities of concentrated disadvantage by implementing place based investments, such as public infrastructure, improvements and maintenance."

Racial Equity Metrics (2021): "We work toward the vision of being a city where race does not predetermine opportunities in education, employment, housing, health, and safety."

Saint Paul's Racial Equity Toolkit (2023):

- "Racial equity in services, policies: No person or group will be disadvantaged in city services or through our policies because of their race."
- "Racial equity in community engagement: We listen to and value all voices in our community."



Crash Trends

The citywide Crash Analysis is central to the Transportation Safety Action Plan. It includes an evaluation of national and statewide crash trends, five year crash trends in Saint Paul, an equity analysis of crashes in Saint Paul, a High Injury Network for all modes, and a High Crash Network for vulnerable roadway users.

This analysis is based on all crashes within the City of Saint Paul from January 1, 2021, through December 31, 2025. During this period, there were 21,904 crashes in Saint Paul, 34 percent of which were on limited access highways. Since limited access highways are not a focus of this plan and the City has no control over their design or management, these roadways were filtered out of the dataset for the analysis.[2] The remaining 14,416 crashes that occurred on surface streets within the City of Saint Paul (including county and state owned roadways) are the focus of this analysis.

Saint Paul's goal is to eliminate fatal and serious injury crashes by 2045. As shown in Figure 2, fatal and serious injury crashes have remained relatively consistent over the five year study period. The rate of fatal and serious injury crashes has also declined, a promising sign of progress. In 2025, 13 fatal crashes and 58 serious injury crashes occurred on Saint Paul's roadways.

The following section identifies significant trends over the five year analysis period that inform the city's strategy for eliminating fatal and serious injury crashes. The full crash analysis is available in Appendix A.

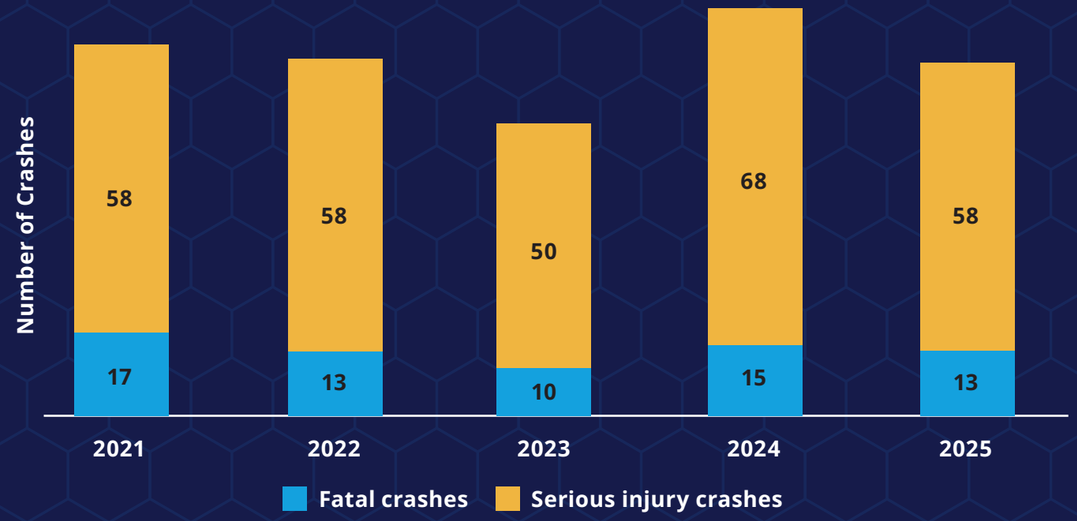


Figure 2: Fatal and Serious Injury Crash Trend in Saint Paul, 2021-2025. Source: MnCMAT2

[2] **Limited access highway crashes include all crashes that occurred on Interstate 35E, Interstate 94, U.S. Highway 52, Trunk Highway 280, and all ramps.** Crashes that occurred at the intersections of Saint Paul streets and freeway on- and off ramps are included in the analysis.

Fatal and Serious Injury Crashes

Figure 3 shows the spatial patterns of fatal and serious injury crashes throughout the city. Fatal and serious injury crashes are concentrated on the eastern and northern sides of the city, along major streets, and throughout downtown. There are high concentrations of fatal and serious injury crashes along University Avenue, Dale Street, Rice Street, Maryland Avenue, East and West 7th Street, and White Bear Avenue.

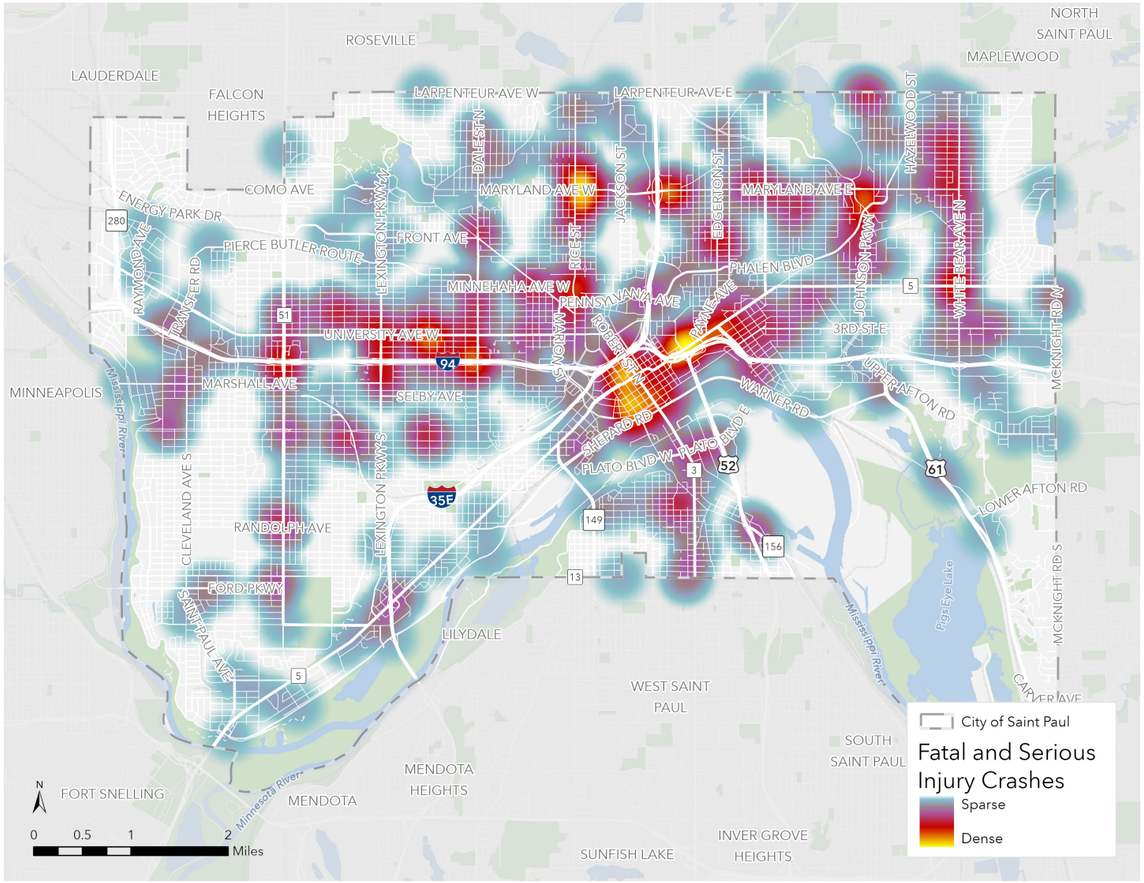


Figure 3: Fatal and Serious Injury crashes in Saint Paul, 2021-2025
Source: MnCMAT2

VULNERABLE ROAD USERS

Vulnerable Road Users, including pedestrians and bicyclists, are at a higher risk of being involved in more serious crashes, especially when comparing the severity of crashes involving each mode with the percentage of total trips involving that mode. This indicates all vulnerable road users, and particularly pedestrians, are at higher risk of injury or death while using the city's transportation system, and future investments should prioritize improving safety for these users.

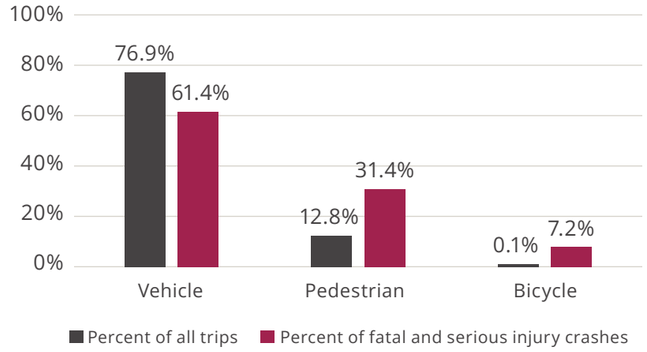


Figure 4: Crash Severity Compared to Travel Patterns, 2021-2025
Source: MnCMAT2 and Met Council 2019 Household Travel Survey

CRASHES BY ROADWAY OWNERSHIP AND FUNCTIONAL CLASS

While only 19 percent of the city's lane miles are on the county or state system, 45 percent of all fatal and serious injury crashes occurred on those streets. Targeting safety interventions along these roads, in partnership with Ramsey County and MnDOT, should be a priority strategy for decreasing fatal and serious injury crashes.

Minor Arterial roadways connect throughout Saint Paul and into neighboring cities. These are the roads that residents and frequent visitors to the city would recognize as "busy streets." While Minor Arterials only account for 21 percent of all lane miles in Saint Paul, 40 percent of all crashes occurred on Minor Arterials between 2021 and 2025 and 50 percent of all fatal and serious injury crashes took place on Minor Arterials during this period (Figure 5). Targeting safety interventions along Minor Arterials should be a priority strategy for decreasing fatal and serious injury crashes.

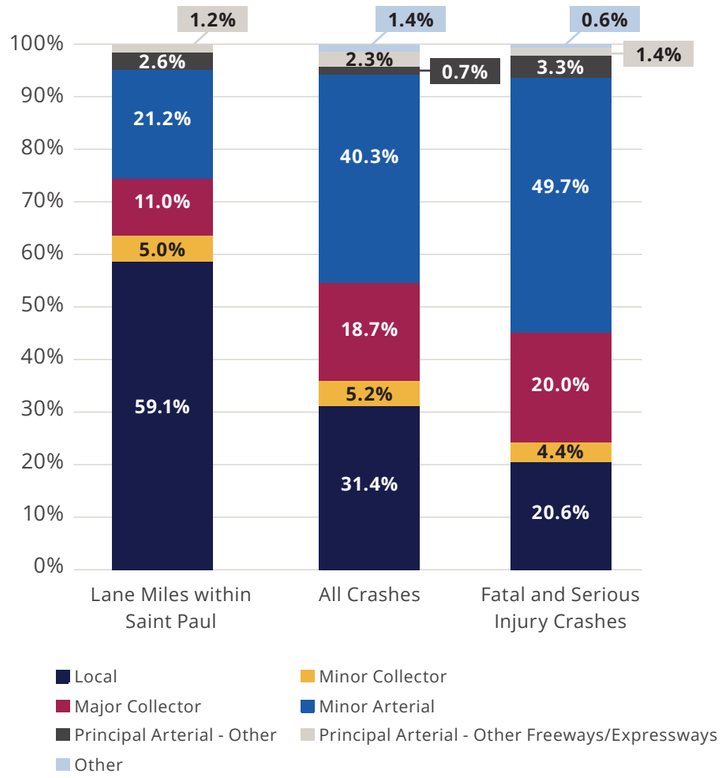


Figure 5: Crashes by Functional Classification, 2021-2025
Source: MnCMAT2 and City of Saint Paul

INTERSECTION CRASH TRENDS

As shown in Figure 6, about 52 percent of all crashes and 58 percent of fatal and serious injury crashes occur at an intersection. Approximately half (51 percent) of all crashes and fatal and serious injury crashes that occurred at an intersection were at intersections with a traffic control signal. Targeting intersection safety improvements at signalized intersections is likely to have a high impact on crash reduction.

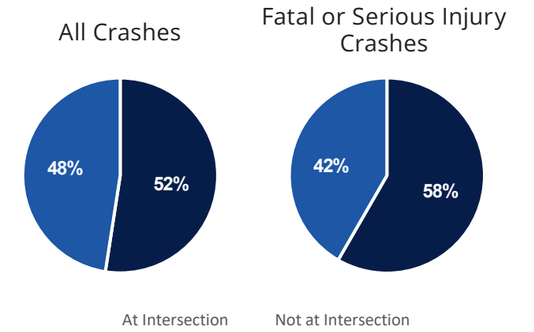


Figure 6: Intersection and Non-Intersection Crashes by Severity, 2021-2025
Source: MnCMAT2

CROSSING ROADS DANGEROUS FOR VULNERABLE ROAD USERS

A high proportion of both pedestrians and bicyclists are hit when they are crossing traffic (especially at intersections with a marked crosswalk). Turning vehicle movements are much more likely to result in pedestrian or bicycle crashes, compared with all crashes. These trends indicate that intersection projects that improve safety for bicyclists and pedestrians, especially those that reduce conflicts and speed of turning vehicles, will improve safety for vulnerable road users.



BEHAVIORAL FACTORS

The proportion of fatal and serious injury crashes caused by red light running, reckless and aggressive driving, and speeding increased significantly over the past five years. As shown in Figure 7, over the five-year study period, the proportion of fatal and serious injury crashes caused by drivers running red lights increased by 111 percent, crashes caused by reckless and aggressive driving increased by 58 percent, and crashes caused by speeding increased by 32 percent. This plan should identify design-based methods to reduce driver speeds, as well as possible behavioral strategies to reduce red light running and reckless or aggressive driving through partnerships with other agencies.

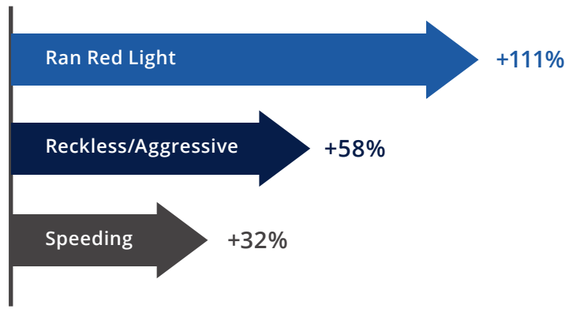


Figure 7: Change in Proportion of Fatal and Serious Injury Crashes Attributed to Select Behavioral Factors, 2025 vs. 2021
Source: MnCMAT2

High Injury Network and High Crash Network

The High Injury Network (HIN), a series of streets where more severe crashes occur, captures about 62 percent of all fatal and injury crashes in Saint Paul between 2018 and 2022, and represents about 11 percent of the city's roadway miles. The High Vulnerable Road Users Crash Network (HCN) is a series of road segments with the highest number of bicycle and pedestrian crashes per mile, or segments with a high number of total bicycle and pedestrian crashes. Concentrating investments along the identified streets that have both high fatality/injury rates and high rates of vulnerable road user crashes have the potential to significantly improve traffic safety.

There is significant overlap between the HIN and HCN. The figure to the right highlights the HIN and the HCN within the city, including the many roadways where the two networks overlap (indicating roadways that are especially dangerous for all modes). This includes segments of University Avenue, Rice Street, Maryland Avenue, East and West 7th Street, White Bear Avenue, and several streets in Downtown Saint Paul.

NOTE:
The High Injury Network and High Crash Network are based on crash data from 2018–2022, which was the study period when the TSAP was first developed in 2023. These analyses were not expected to change much with updated crash data for 2021–2025 (the study period used for this 2026 version of the TSAP). Thus, the City prioritized analyses that were expected to change. Future updates to the TSAP would include an updated High Injury Network and High Crash Network.

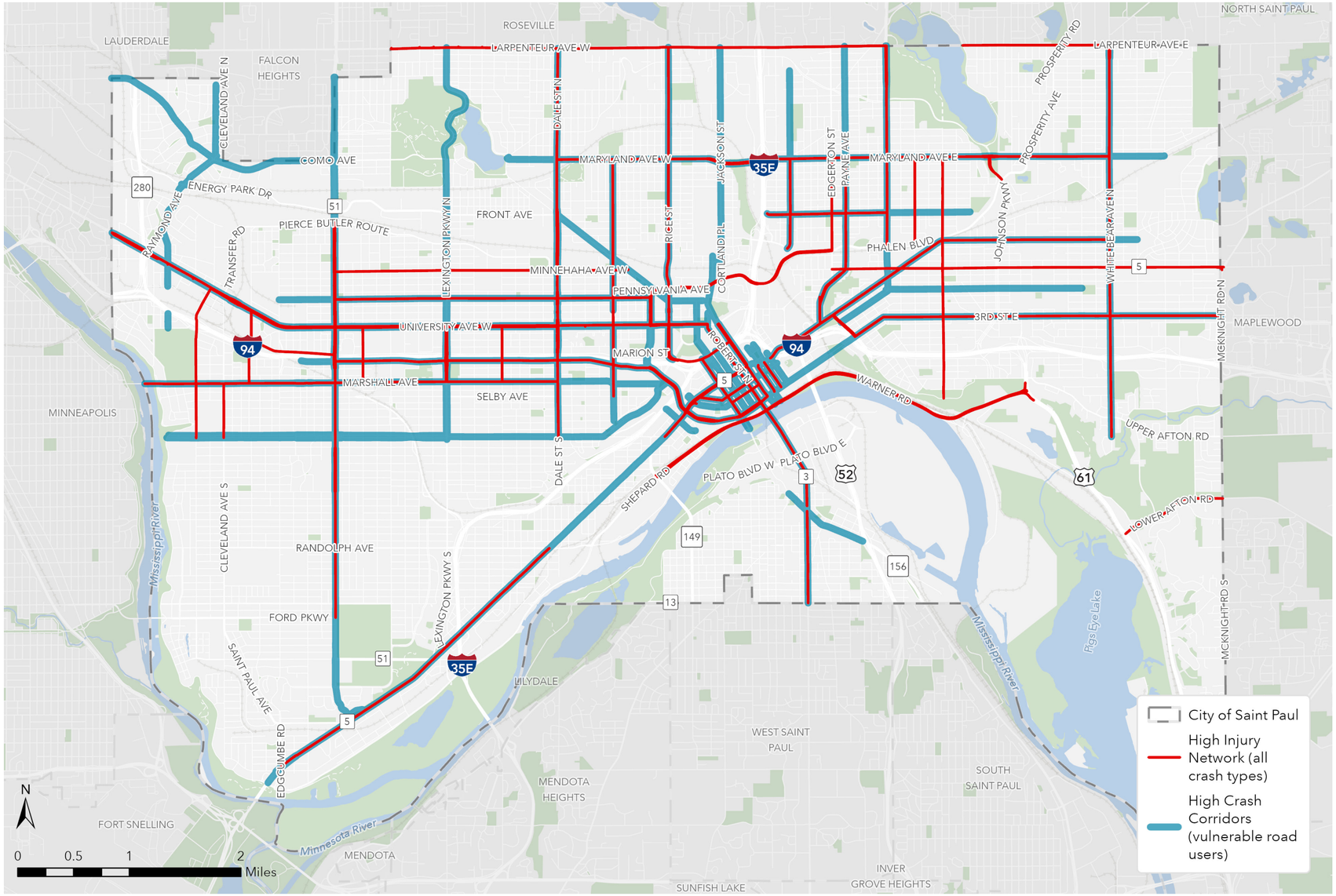


Figure 8: High Injury Network and High Crash Network for Vulnerable Road Users

Equity Analysis

Traffic safety is an equity issue. Nationally, People of Color and low-income communities bear a disproportionate burden of traffic-related injuries and fatalities. When crash data was overlaid on the project Equity Priority Areas in Saint Paul, as shown in Figure 9, the Equity Priority Areas bear a disproportionate burden of traffic-related serious injuries and fatalities. Additionally, crashes that occurred in Equity Priority Areas were more likely to be serious or fatal compared to the other parts of the city. This analysis indicates that the people within these areas are disproportionately affected by traffic crashes, and the plan should prioritize improvements in these areas to mitigate these disparities.

"Equity Priority Areas" are census tracts in which over 50 percent of residents identified as BIPOC and/or Hispanic, based on 2022 Census data, and are a disadvantaged census tract, as defined by USDOT's Equitable Transportation Community Explorer tool (as of July 2024).

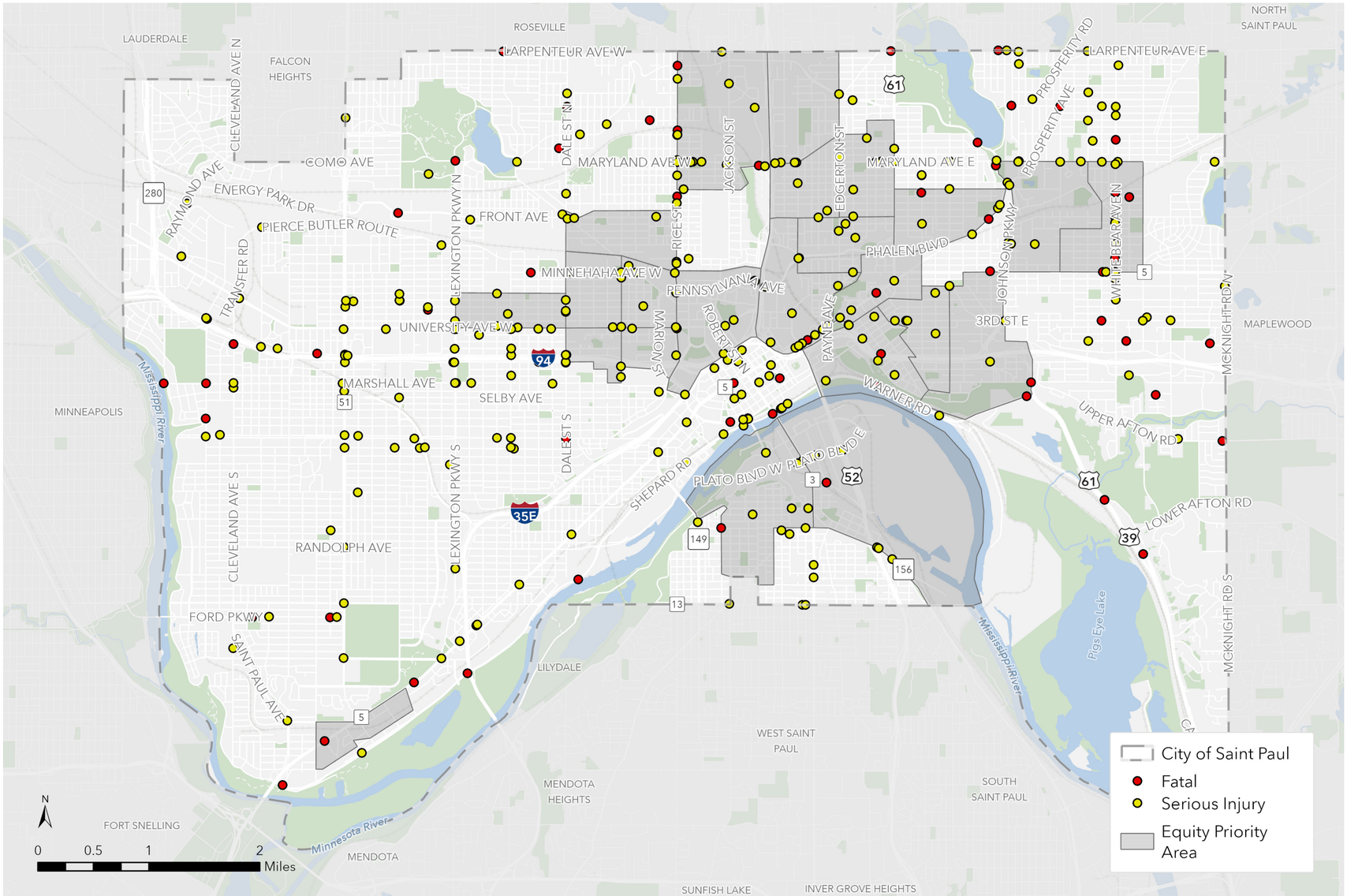


Figure 9: Fatal and Serious Injury Crashes (2021-2025) with Equity Priority Areas
Source: MnCMAT2

Community Engagement

From February to April 2023, the City conducted community engagement to better understand transportation safety challenges that people using Saint Paul streets experience. Engagement efforts prioritized historically disadvantaged, low income, and BIPOC communities highly impacted by vehicle, pedestrian, and bicycle crashes, and that have been under engaged in recent years. These areas are referred to as "Tier 1" or "priority" areas for engagement.

WHAT DID WE LEARN FROM PREVIOUS ENGAGEMENT?

The City compiled a previous engagement summary to understand transportation safety themes from previous engagement efforts led by the City and key partners, including MnDOT, Ramsey County, and Metro Transit. Key themes from this review include:

- Safer and improved crossings, especially for pedestrians and bicyclists
- Traffic calming to address high speed traffic areas
- Improved sidewalks and better sidewalk connections
- Drivers speeding, running stop signs, and not yielding to pedestrians
- More and improved pedestrian lighting
- More left turn lanes on certain corridors such as Rice Street



Figure 10: Social media graphic promoting the project.

Engagement Strategies

Engagement for the Transportation Safety Action Plan took several forms. The goals of engagement were to incorporate and reflect community voices in the planning process in order to inform project priorities. Full details on engagement strategies and results can be found in Appendix B.

Engagement tools included an online survey and comment map, two pop-up events, and direct outreach to organizations in priority areas.

CITYWIDE ENGAGEMENT

Citywide engagement included an online survey and comment map. The City used social media, email, a project webpage, emails to the Saint Paul District Councils and a presentation at their transportation committee meeting to promote the survey and comment map. The online survey and comment map were open from March 1 to April 14, 2023. The survey received 1,238 responses which were separated into two groups for analysis: citywide data and Tier 1/priority areas. The comment map received 893 responses, 501 of which were from the Tier 1 zip codes. The focus of analysis on both the survey and map were the priority areas.

1,238 *survey responses*

893 *map comments*

2,200+ *total people engaged*

FOCUSED ENGAGEMENT

Focused engagement efforts centered primarily on Tier 1 areas, which represent historically disadvantaged, low-income and BIPOC communities highly impacted by vehicle, pedestrian, and bicycle crashes, and that have been under-engaged in recent years.

The City hosted two pop-up engagement events in Tier 1 areas. The first was at **Eastern Heights Elementary School** (near the intersection of White Bear Avenue and Minnehaha Avenue), the second was at **HmongTown Marketplace** (near the intersection of Rice Street, Pennsylvania Avenue, and Como Avenue).

Beyond these strategies, the City also conducted direct outreach to 121 businesses, apartment buildings, community centers, nonprofits, and other organizations near the Tier 1 areas and heard feedback from at least 20 of those organizations.



Figure 11: Project team member at a pop-up event.

TECHNICAL ADVISORY COMMITTEE

In addition to public-facing engagement, the development process for the TSAP included engagement with a Technical Advisory Committee (TAC), which included a variety of stakeholders and decision-makers who are involved in implementing transportation projects in Saint Paul. The TAC met monthly throughout the plan development process and provided feedback on plan materials, insight into policy and project priorities, and helped define the overall project direction. The TAC will continue to meet regularly into the project implementation phase to finalize project prioritization and policy recommendations, as well as to facilitate communications with partner agencies.

Agencies and organizations represented on the TAC include:

- Saint Paul Transportation Planning
- Saint Paul Traffic Engineering
- Saint Paul Street Engineering and Construction
- Saint Paul Public Works Operations and Maintenance
- Saint Paul Public Works Communications
- Saint Paul Planning and Economic Development
- Saint Paul Parks Department
- Saint Paul Public Schools
- Saint Paul Police Department
- Saint Paul Fire Department
- Saint Paul Office of Neighborhood Safety
- Ramsey County
- Minnesota Department of Transportation
- Metropolitan Council
- Metro Transit
- University of Minnesota Human First Lab



What We Heard

Based on previous engagement, direct outreach to priority areas, the project survey, comment map, and engagement events, the project team learned about key transportation safety concerns and ideas for improvement. The takeaways identified below are expanded upon in more detail in Appendix B.

GENERAL CONCERNS

- **Driver behavior** stood out as a primary safety concern for people using all forms of transportation. Speeding and reckless driving concerns were mentioned in nearly every engagement interaction. Engagement participants also noted drivers failing to yield and drivers running red lights and stop signs as a safety concern.
- **Safer pedestrian crossings** were also mentioned repeatedly both citywide and in the priority areas. This ties in with driver behavior, as the project team often heard reports of drivers not stopping at designated crosswalks.
- **Bicycle infrastructure** also came up repeatedly, primarily through the survey and comment map. Engagement participants would like to see more bike lanes, protected bike lanes, and better maintenance of existing bike infrastructure.
- **Poor road conditions,** especially potholes, also came up frequently in engagement. This was likely top of mind for people as the engagement period took place in late winter.

LOCATION-SPECIFIC CONCERNS

While there were dozens of problem locations shared by respondents across the city, the following locations came up repeatedly throughout engagement as dangerous roads in Tier 1 areas:

- **Snelling Avenue**
- **University Avenue**
- **White Bear Avenue**
- **Rice Street**
- **Pennsylvania Avenue**

Engagement participants noted concerns in these areas such as speeding, busy roads, cars not yielding to pedestrians, lack of safe bicycle and pedestrian infrastructure, and difficulty crossing.

Additional engagement is planned for the Fall and Winter of 2026, after the completion of this plan update. This round of engagement will focus on informing stakeholders and the public on the outcomes and implementation of the TSAP.



Figure 12: Engagement map activity from HmongTown Marketplace Pop-Up

Plan, Policy, and Best Practice Review

In addition to physical projects that address safety and improve on the ground infrastructure, policies are important for improving safety because they shift the way that the city does business and prioritizes projects. Improving road safety while maintaining the status quo is difficult. Changing road safety policies that address topics such as speed, street design, project selection and evaluation is important to get closer to reaching zero road deaths and serious injuries.

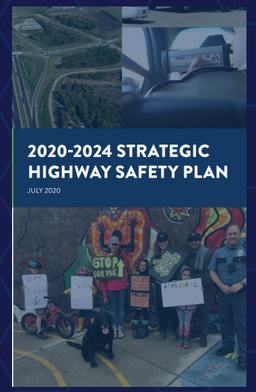
A thorough plan and policy review was conducted of existing Saint Paul documents to identify policies and strategies that have previously been identified as needs or opportunities to improve traffic safety in the city and assess the existing policies that impact traffic safety. This was coupled with a review of Vision Zero and safety action plans and practices from peer jurisdictions through plan reviews and stakeholder interviews. Interviews were conducted with leadership within those jurisdictions to learn from their successes and challenges in implementing Vision Zero. In addition to the peer jurisdiction review, a high level review of international approaches to Vision Zero and safety was also completed. Findings from these reviews were used as a lens to assess Saint Paul's existing policies and identify opportunities that will help the City design, build, and maintain safe streets for everyone on a routine basis.













Review of Existing Policy Documents

Various Saint Paul plans were reviewed for policy content including the Saint Paul Policy and Procedure Manual (2019), the Complete Streets Action Plan (2016), the Saint Paul Street Design Manual (2016), the City of Saint Paul Roadway Safety Plan (2016), the Saint Paul Bicycle Plan (2017), the Saint Paul Pedestrian Plan (2019), the Saint Paul for All: 2040 Comprehensive Plan (2020), the Ramsey County Comprehensive Plan (2019), the Minnesota Strategic Highway Safety Plan (2020 & 2025), and the Minnesota Highway Safety Plan (2022).

Several plans, including the 2040 Comprehensive Plan, the Complete Streets Action Plan, and the Saint Paul Climate Action & Resilience Plan include broad strategies related to safety, generally recommending the implementation of existing bicycle and pedestrian plans, as well as the adoption and implementation of Vision Zero, which the City has initiated through the development of this plan and its June 2023 Vision Zero commitment from City Council. Several safety-related themes were prominent throughout many of the planning documents, including:

- **Street Design:** Plans such as the 2040 Comprehensive Plan, the Complete Streets Action Plan, the Saint Paul Climate Action & Resilience Plan, and the Saint Paul Bicycle Plan highlight strategies related to bikeway design, pedestrian crossings, and sidewalks to create better multimodal networks.
- **Funding and Implementation:** Several plans call out the need for increased and consistent funding for safety improvements and expansions of the bicycle and pedestrian networks. Some plans included strategies on how funding could be allocated to improve safety, as well as potential resources for additional funding to reduce crashes. Recommendations were also found throughout the documents to streamline implementation and incorporate private development as opportunities to implement projects.
- **Project Prioritization:** Several plans provide guidance about elevating safety in the project prioritization process, noting that limited resources are always a factor and prioritization is necessary.
- **Agency Coordination and Project Development:** Through several prior plans, Saint Paul has emphasized the importance of coordination across a range of partners, linking the Public Works Department with staff in the Police Department, Public Schools, and other local agencies, as well as corresponding county, regional, and state agencies in advancing its safety goals. Strategies on how coordination could be increased and improved through the project development process were included.
- **Engagement and Education:** Some past plans include specific recommendations on ways to engage the public on traffic safety issues, in addition to a theme of needing to raise awareness among the public about traffic safety initiatives and issues.
- **Evaluation:** Strategies focus on collecting and evaluating data to ensure that safety efforts are having the desired impact on the local community.
- **Vehicle Speed:** While many recommendations across the above categories influence speed, it is worth noting speed as a separate category. Speed both influences the likelihood of crashes, as well as crash severity. Recent plans, such as the 2040 Comprehensive Plan and Saint Paul Pedestrian Plan identify strategies for reducing speeds in Saint Paul. The City recently implemented a citywide speed limit reduction on City-owned streets, establishing a speed limit of 20 mph (20 mph for local residential streets and 25 mph for larger, arterial and collector roads), as one measure to deal with excessive speeding.
- **Enforcement:** Enforcement was noted in several plans as a way to raise awareness of critical traffic safety issues, such as specific behaviors like red light running.

Peer City and Best Practice Review

Staff from peer jurisdictions that have developed and started to implement Vision Zero and safety action plans were interviewed to learn from their successes and challenges. Peer jurisdictions included Ann Arbor, MI; Denver, CO; Jersey City, NJ; and Madison, WI. A high-level review of international practices supplemented the peer jurisdiction review. Key takeaways from the peer city and best practice review highlighted the importance of the best practices listed below.

The lessons learned from peer cities, as well as national best practice guidance, can be used to inform how Saint Paul moves forward in implementing this plan.

Table 1: Peer City and Best Practice Review

Best Practice	Ann Arbor	Denver	Jersey City	Madison	International
Project prioritization that puts safety at the forefront above other metrics and incorporates equity into the process.	✓	✓			✓
Project development processes that incorporate safety in all projects early in the process and systematize interventions.	✓	✓	✓		✓
Aligning funding streams with the city's goals on safety and equity.		✓		✓	
Streamlining construction contracts to facilitate implementation.			✓		
Design and operations policies that standardize the design and implementation criteria of safety countermeasures, with safety prioritized over other metrics, such as traffic delay.	✓	✓			
Importance of high-quality data, including crash data and project metrics, in identifying the right solutions.		✓			
Consistent and continual public engagement to keep Vision Zero and specific messages on traffic safety in the spotlight.	✓		✓	✓	
Strong leadership from the highest level of government on Vision Zero and safety issues.			✓		✓
Emphasis on speed management and a safe systems approach.					✓

Key Policy Opportunities

Based on this review, Saint Paul has several key opportunities to institutionalize practices and policies that will lead to better safety outcomes within the transportation system, including:

- **Review existing design policies**, assessing whether safety is prioritized within the guidance. Saint Paul's Street Design Manual as well as federal best practices should be used to inform policy adjustments.
- **Review existing practices that are not documented in a policy** to determine whether the existing practices align with safety priorities; document the appropriate practice, either in its existing form or incorporating changes where necessary.
- **Revise the Capital Improvement Program process** to incorporate safety as a prominent criterion in project selection.
- **Review the project development process** and evaluate if the relevant City departments and agencies have input at the appropriate point of the process.
- **Develop standards and/or guidelines for traffic safety measures** to be incorporated into project development processes.
- **Evaluate existing funding streams** and levels in comparison to desired capital improvement targets.

As Saint Paul implements its Safety Action Plan, the City has the opportunity to build upon safety strategies listed in the existing plans outlined in this review, as well as precedents from other cities and national and international guidance to create a safer, more comfortable, and more multimodal city.



Project Identification and Prioritization

Project Prioritization Framework

As part of the Transportation Safety Action Plan, the project team developed a Project Prioritization Framework to guide how transportation safety projects are prioritized for future implementation.

Separately from this process, the City's Public Works Department is undergoing an exercise to modernize its capital planning process by developing a data driven prioritization process. These two processes are separate, but share common goals of prioritizing projects that improve safety, increase equitable access, and provide high benefit.

This prioritization framework is data driven, reflecting the federal priority placed on data driven planning. Having a data driven prioritization framework will support efforts to secure federal funding for roadway safety projects, including funding through the Safe Streets and Roads for All discretionary funding program.

This process heavily weights roadway safety factors, placing more emphasis on dangerous or potentially dangerous project locations. The framework also uses other community data to reflect the understanding that safety investments also have impacts on other City priorities, such as quality of life, sustainability, and equity. Incorporating all of these factors into the process will help the City determine which investments have the best return on investment and to make the best use of limited resources, whether that funding is from federal, state, or local sources.

POTENTIAL FUTURE UPDATES

The methodology outlined in this plan section should be considered dynamic and adaptable. Future updates to the process may consider:

- **Refining points and weighting** to eliminate excessively correlated criteria
- **Further aligning the process** with other prioritization processes (i.e., CIP prioritization)
- **Refinement of metrics capturing social equity** and other community attributes, including using the standard USDOT Equitable Transportation Communities index rather than the binary criteria of the Equity Priority Areas
- **Further analyzing safety challenges** in each project area to determine appropriate treatments and refining project benefit scoring
- **Determining the appropriate role of community support** and engagement in how projects are prioritized

Prioritization Factors



CRASH HISTORY AND RISK

Crash history and risk criteria measure previous crash history near a proposed project, as well as factors like speed and traffic volume that are more likely to lead to crashes in the future. The following characteristics should elevate a project's prioritization score:

- **High Injury Network.** Projects located along the High Injury Network should score higher.
- **High Crash Network for Vulnerable Road Users.** Projects located along the High Crash Network for Vulnerable Road Users should score higher.
- **Excessive Speed.** Projects in locations with high 85th percentile observed vehicle speeds (compared to the posted speed limit) should score higher. Speed data should be collected by staff to determine.
- **High Traffic Volume.** Projects in higher vehicle volume locations should score higher.



ACCESS TO OPPORTUNITY

Access to opportunity criteria measure the activity around a proposed project location, aiming to capture factors like equity, proximity to key destinations, future land use, pedestrian volumes, and needs of transit and trail users. The following characteristics should elevate a project's prioritization score:

- **Equity Priority Area.** Projects located in the Equity Priority Area should score higher.
- **Proximity to Activity Generators.** Projects located closer to key destinations like schools, parks, libraries, and community centers should score higher.
- **Neighborhood Nodes.** Projects within Neighborhood Nodes (as defined by the Saint Paul 2040 Comprehensive Plan) should score higher.
- **Proximity to Transit.** Projects closer to high-frequency transit should score higher.
- **Trail Crossings.** Projects that would involve improving or adding a trail crossing should score higher in prioritization.



PROJECT BENEFIT

The project benefit criteria aims to capture the potential safety benefit of a project based on the proposed countermeasure.

- **High-Impact Countermeasures.** Projects with countermeasures proven highly effective at reducing fatal and serious injury crashes should score higher in prioritization. Resources from the Federal Highway Administration (FHWA), National Highway Traffic Safety Association (NHTSA) and the Crash Modification Factors Clearinghouse should be used to inform the effectiveness of safety treatments.

Crash Mitigation Strategies

Introduction

The City of Saint Paul has identified proven strategies to create safer streets and to promote safe driving, walking, and bicycling behaviors. The data driven crash mitigation strategies identified in this toolbox are informed by the high risk behaviors and locations identified in the Crash Analysis and Evaluation. This toolbox contains both engineering and non engineering (education and enforcement) strategies. In combination with the Saint Paul Street Design Manual and other City plans, policies, and programs, this toolbox guides the City toward implementing safety improvements to respond to the highest priority risk factors.

Strategy Overview

The strategies included in this plan are guided by federal, state, city, and industry best practices to eliminate fatalities and serious injuries from local, county, and state roads, not including controlled access freeways. As a matter of practice, the City of Saint Paul already integrates Federal Highway Administration (FHWA) Proven Safety Countermeasures into its capital projects. The City's guidelines for uncontrolled crossings are based on the FHWA STEP Guide for Improving Pedestrian Safety at Uncontrolled Intersections. The Saint Paul Street Design Manual provides guidance for many of the proven strategies identified in this toolbox.

Each strategy listed in this toolbox addresses at least one of the safety focus areas. Many strategies help address more than one safety focus area. Many of these strategies are already widely used in Saint Paul and are described in existing City plans, like the Saint Paul Pedestrian Plan, Saint Paul Bicycle Plan, and the Saint Paul Street Design Manual. This inventory is intended to be a toolbox of priority strategies that advance the goal of eliminating fatal and serious injury crashes.

SAFETY STRATEGY SOURCES

- Federal Highway Administration (FHWA) Proven Safety Countermeasures
- FHWA STEP Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- Crash Modification Factor Clearinghouse
- Minnesota Department of Transportation (MnDOT) Best Practices for Bicycle/ Pedestrian Safety
- National Highway Traffic Safety Administration (NHTSA) Countermeasures That Work

NOTE:

These strategies are intended as a toolbox of options, but are not prescriptive. All strategies are dependent on site-specific conditions, and may be more or less beneficial in different contexts. Implementation of safety strategies should consider the unique needs of each street, such as truck routes, functional classification, and emergency response. All strategies should be implemented consistently with applicable standards, policies, and practices, and a thorough review is needed by Engineering staff to determine applicability and feasibility. Strategies may be implemented together to provide additional safety benefits and further mitigate crash incidence and/or severity.

As of the writing of this plan, speed safety cameras and red light cameras may not be used in Saint Paul. These strategies may be an option in future years with legislative action.

Safety Focus Areas

The following high-risk behaviors and high-risk location types represent the safety focus areas identified in the Transportation Safety Action Plan. The Crash Analysis and Evaluation identified these behaviors and location types as top concerns for transportation safety in Saint Paul.

HIGH-RISK BEHAVIORS



Speeding

Speeding was cited as a primary cause of 3 percent of all crashes and 8 percent of all fatal and serious injury crashes between 2021 and 2025. However, it is important to note that speeding is likely a contributing factor in many more crashes in Saint Paul, as over 50 percent of all crashes do not have a contributing factor listed in the MnCMAT2 database.



Reckless/Careless Driving

Reckless/careless driving was cited as the primary cause of 6 percent of all crashes and 9 percent of fatal and serious injury crashes.

HIGH-RISK LOCATIONS



Minor Arterials

Minor Arterial roadways are generally higher volume roadways with a greater mix of land uses. While Minor Arterials only account for 21 percent of all lane miles in Saint Paul, 40 percent of all crashes and 50 percent of all fatal and serious injury crashes occurred along these roadways. These roadways typically have many access points and driveways, creating many potential conflict points.



Signalized Intersections

The crash analysis identified that signalized intersections should be a priority target of future safety improvements. Over half of all fatal and serious injury crashes occurred at signalized intersections. This is consistent with the fact that traffic signals are typically installed on roads with higher traffic volumes, and intersections represent conflict points between vehicles traveling different directions and reducing and increasing travel speed.



Intersection Crossings for Pedestrians and Bicyclists

Vulnerable Road Users, including pedestrians and bicyclists, are at a higher risk of being involved in more serious crashes, especially when comparing the severity of crashes involving each mode with the percentage of total trips involving that mode. A high proportion of both pedestrians and bicyclists are hit when crossing traffic at an intersection (especially at intersections with a marked crosswalk).

Strategy Summary Table

Potential strategies are listed in Table 2. This table is organized by strategy type and appropriate location and also shows the safety focus areas that each strategy addresses.

For engineering strategies, locations include roadway strategies appropriate along a roadway corridor or at a midblock location, intersection strategies, and uncontrolled crossing strategies appropriate for pedestrian or bicycle crossing locations not at a signalized or signed intersection.

Table 2: Engineering, Enforcement, and Education Strategies

Strategies	Safety Focus Areas Addressed: Speeding	Reckless/Careless Driving	Minor Arterials	Signalized Intersections	Ped/Bike Intersection Crossings
ENGINEERING STRATEGIES					
Access Management			✓		
Advanced Stop Bar			✓	✓	✓
Bike Box				✓	✓
Bike Intersection Crossing Marking				✓	✓
Corner Radius Reduction	✓	✓	✓	✓	✓
Curb Extension	✓	✓	✓	✓	✓
Daylighting Intersection			✓	✓	✓
Dedicated Left Turn Lane			✓	✓	
Hardened Centerline and Slow Turn Wedge	✓	✓	✓	✓	✓
High Visibility Crosswalk				✓	✓
In-Street Stop for Pedestrian Sign			✓		✓
Landscaping, Trees, and Plantings	✓	✓	✓		
Lane Width Reduction	✓	✓	✓	✓	✓
Leading Pedestrian Interval (LPI) and Leading Bicycle Interval (LBI)				✓	✓
Median Safety Island	✓		✓	✓	✓
Neighborhood Traffic Circle	✓	✓			
No Right Turn on Red			✓	✓	✓
On-Street Bike Boulevard					
On-Street Bike Lane	✓		✓		
Physically Separated Bikeway or Path	✓	✓	✓		
Protected Intersection				✓	✓
Protected Signal Phasing for Vulnerable Road Users			✓	✓	✓
Raised Crossing	✓		✓		✓
Raised Median	✓	✓	✓		✓
Rectangular Rapid Flashing Beacon (RRFB)			✓		✓
Road Diet	✓	✓	✓	✓	✓
Roadway and/or Pedestrian Lighting			✓	✓	✓
Roundabout	✓	✓	✓	✓	✓
School Speed Zone	✓		✓		✓
Slip Lane Redesign/Removal	✓	✓		✓	✓
Speed Feedback Sign	✓	✓	✓		
Speed Humps, Tables, and Cushions	✓	✓	✓		
ENFORCEMENT AND EDUCATION STRATEGIES					
Enforcement					
High-Visibility and Targeted Enforcement	✓	✓			✓
Parking Enforcement at Intersections				✓	✓
Red Light Cameras		✓		✓	
Speed Safety Cameras	✓	✓	✓	✓	
Education					
Pedestrian, Bicycle, and Driver Safety Education	✓	✓	✓	✓	✓
Public Awareness Campaigns and Communications	✓	✓	✓	✓	✓

Strategy Details

The descriptions in this section provide more details on the previously listed strategies. The strategies listed are grouped by engineering strategies, education strategies, and enforcement strategies. Within each category, strategies are ordered alphabetically. Strategies should be implemented according to a detailed engineering review, consistent with applicable standards, policies, and practices. The key below indicates how widely each strategy is anticipated to be applied. **Strategies are context sensitive and inclusion below indicates strategies that may be considered. Limited operations funding also may limit or eliminate the use of certain treatments.**

Strategies are classified by how they are expected to be applied as follows: **broadly** (applicable in many locations), in **some cases** (applicable in selective locations), or in **unique cases** (uncommon and only applicable in specific locations).

Strategy Application Key: ● Broadly ◑ Some Cases ◔ Unique Cases

ENGINEERING STRATEGIES

Access Management ●

Limiting and consolidating vehicle driveways or access points (also known as access management) is proven to improve traffic operations and safety for all modes by redirecting drivers to intersections with appropriate traffic control devices. Access management may include increasing spacing between signals, regulating driveway spacing, and median treatments to discourage risky turning movements.[3]

Advanced Stop Bar ◑

An advanced stop bar is a solid white line painted ahead of crosswalks to alert drivers where to stop to let pedestrians cross. This encourages drivers to stop back far enough for a pedestrian to see if a second driver is approaching, reducing the risk of crashes. These can be placed at mid-block crossings or multi-lane intersections.

Bike Box ◔

A green box used at a signalized intersection to guide bicyclists making left turns. Bike boxes provide a means for bicyclists to make "two-stage" turns at intersections, rather than using turn lanes or a more vehicular style turn that is difficult for less experienced bicyclists in mixed traffic.

Bike Intersection Crossing Marking ◑

Bike intersection crossing markings indicate the intended path of bicyclists. The primary safety benefits include raising awareness for both bicyclists and drivers to potential conflict areas, increasing the visibility of bicyclists, and reducing conflicts between bicyclists and turning drivers.

[3] Municipalities in Minnesota are currently limited in the degree to which they can manage access. In many other states including Colorado and Pennsylvania, cities have more authority to manage access from private properties onto public roadways. Saint Paul should monitor legislative changes that would allow this proven safety countermeasure to be used more extensively.

Curb Extension ●

Curb extensions project into the roadway at a corner, shortening the crossing distance for pedestrians and providing improved visibility between drivers and pedestrians at intersections.

A **curb extension** like the example shown to the right at Marshall Avenue and Fairview Avenue helps improve pedestrian safety and visibility by physically narrowing the roadway, shortening crossing distance, and making it easier for pedestrians and drivers to see each other. Curb extensions can also help prevent illegal parking that would block visibility at intersections.



Figure 13: Curb extension at Marshall Avenue and Fairview Avenue

Corner Radius Reduction ◑

Curb returns or radii are the inside paths which drivers take when making a right turn. Smaller corner radii increase pedestrian safety by shortening crossing distances and improve pedestrian visibility. Smaller radii also decrease driver turning speed at a corner/intersection. Reducing a corner radius needs to be balanced with providing a sufficient turning radius for the types of vehicles likely to use a street.

Daylighting Intersection ◑

Intersection daylighting restricts parking within 20–25 feet of the intersection, often in high pedestrian areas. This can increase driver and pedestrian visibility by removing vehicle obstructions. Daylighting physically demarcates the area of an intersection where city ordinance already prohibits parking – within 20 feet of an intersection and within 30 feet of a traffic signal or stop sign.

As shown in Figure 14, **daylighting** helps eliminate blind spots where pedestrians and drivers cannot see each other. When implemented appropriately, daylighting can be a low-cost solution using materials like paint and bollards to mark where drivers cannot park. The City of Hoboken, NJ, implemented daylighting nearly citywide and has had zero traffic deaths since 2017. The daylighting policy is considered a significant contributing factor.

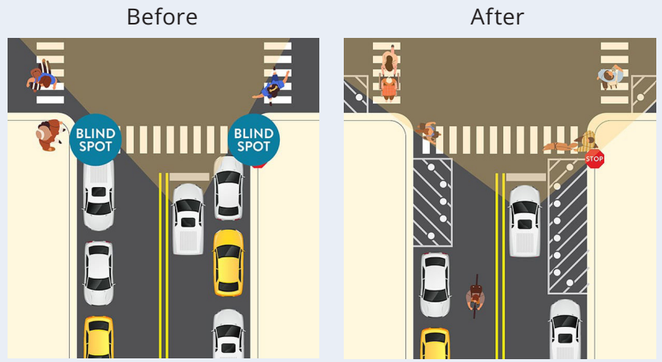


Figure 14: Intersection daylighting before and after (Source: City of Lancaster, PA)

Strategy Application Key: Broadly | Some Cases | Unique Cases

Dedicated Left Turn Lane

Dedicated left turn lanes are intended to be used by left-turning drivers only and provide physical separation between turning traffic that is slowing or stopped. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn. Turn lanes can reduce the potential for rear-end collisions and collisions of drivers turning left across opposing through traffic, as well as conflicts between vehicles and pedestrians/bicyclists. This strategy is most typically used along higher volume corridors and is already used in many locations in Saint Paul. The number of locations where adding a new left turn lane would be appropriate may be limited due to available right-of-way.

Hardened Centerline and Slow Turn Wedge

Hardened centerlines consist of permanent or temporary curbs and bollards and/or speed bumps to calm left turns and prevent "corner cutting." Hardened centerlines can be paired with slow turn wedges that consist of bollards or speed bumps to calm left and right turns at intersections of one-way streets. They address failure to yield crashes caused by left turning drivers that involve pedestrians and bicyclists by encouraging drivers to make slower and squarer left turns and slower right turns near the corner.

High-Visibility Crosswalk

Marked crosswalks signal to drivers that they must stop for pedestrians and encourage pedestrians to cross at designated locations. The use of highly reflective material in a "continental" or "ladder" style is more visible than standard parallel lines. Not all crosswalks in Saint Paul are marked, and the City will follow existing policy to determine where marked crosswalks are appropriate.

In-Street Stop for Pedestrian Sign

In-street pedestrian crossing signs (MUTCD R1-6a) are temporarily placed within the roadway on the centerline or between lanes of traffic to remind drivers to stop for pedestrians at both marked and unmarked crosswalks.

Landscaping, Trees, and Plantings

The careful use of landscaping, trees, and plantings along a street can provide separation between drivers and pedestrians, reduce the visual width of the roadway (which can help to reduce vehicle speeds), and provide a more pleasant street environment for all. While trees are expected to be broadly applied, plantings and landscaping are somewhat limited due to the higher costs of maintenance.

Lane Width Reduction

Restriping narrower travel lanes to acceptable, safe standards has been shown to reduce vehicle speeds. The reduction in lane width may provide space for other roadway uses including bicycle and pedestrian facilities. Reducing lane width can also minimize the distance that pedestrians and bicyclists need to cross. Narrowing lanes is not always possible due to the need to provide room for turning vehicles, particularly buses, trucks, and emergency services.

Leading Pedestrian Interval (LPI)

A leading pedestrian interval (LPI) is a signal phasing strategy that may improve the visibility of crossing pedestrians by giving them a head start crossing a road ahead of turning vehicles at the beginning of a green light phase.

By giving pedestrians a head start of a few seconds before drivers get a green light, **leading pedestrian intervals** provide vulnerable road users with increased visibility and reduce the potential for conflicts between pedestrians and turning drivers at intersections. Studies have shown that LPIs can significantly reduce pedestrian-driver collisions when used appropriately.

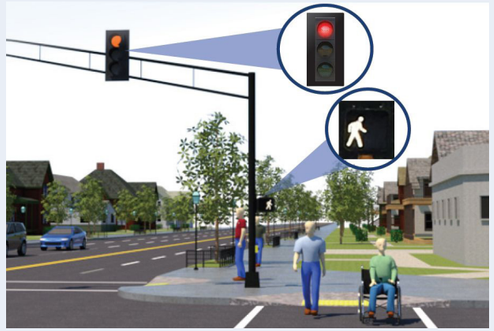


Figure 15: Leading pedestrian interval (Source: FHWA)

Median Safety Island

Median safety islands are raised islands installed in the center of a street at intersections or at midblock crossings that serve as a place for pedestrians or bicyclists to safely pause when crossing a street. They break up a crossing into at least two parts, reducing the distance a pedestrian needs to cross at once. Safety islands also act as medians and can help to channelize and reduce vehicle speeds.

Neighborhood Traffic Circle

Traffic circles are circular islands installed in the center of appropriate residential street intersections to reduce traffic speeds and collisions. Traffic circles may be installed using markings with bollards or raised islands.

No Right Turn on Red

The No Right Turn on Red designation is intended to restrict drivers from turning right during a red phase and conflicting with pedestrians and other drivers who have the right-of-way. While the law requires drivers to come to a full stop and yield to cross-street traffic and pedestrians prior to turning right on red, many drivers do not fully comply with the regulations. No Right Turn on Red signage may be an effective treatment when an intersection has visibility challenges, an exclusive pedestrian signal phase, or high pedestrian volumes.

Drivers turning right are often looking for traffic approaching from the left and may not be alert to pedestrians approaching on their right. Drivers often pull up into the crosswalk to look left and wait for a gap in traffic, blocking pedestrian crossing movements. In some instances, drivers simply do not come to a full stop. **No Right Turn on Red** signage may help address this at strategic locations.

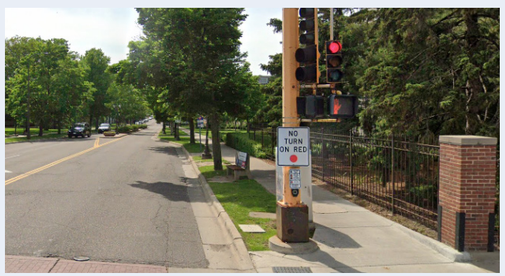


Figure 16: No right turn on red signage at Snelling Avenue and Grand Avenue

Strategy Application Key: Broadly | Some Cases | Unique Cases

On-Street Bike Boulevard

Bicycle boulevards (also called neighborhood greenways or neighborways) are streets with low motorized traffic volumes and speeds, designed and designated to give people traveling by bike, foot, or other mobility assist devices such as scooters or wheelchairs travel priority. Bicycle boulevards use pavement markings and traffic calming tools to create a safe and convenient route for people, especially at crossings of busy cross streets.

On-Street Bike Lane

On-street bike lanes are painted lanes in the street that designate a portion of a roadway for exclusive use by people biking and provide horizontal space between bicyclists and drivers. The designated space can mitigate or prevent interactions, conflicts, and crashes between users. This bicycle facility group includes bike lanes, buffered bike lanes, bike shoulders, and climbing bike lanes (bike lane provided only in uphill direction).

Physically Separated Bikeway or Path

Separated bikeways provide additional horizontal space between bicyclists and drivers compared to on-street bike lanes. The additional space can further mitigate or prevent interactions, conflicts, and crashes between users compared to on-street bike lanes. There are three different types of separated bikeways. These facility types are included in the Saint Paul Bicycle Plan, which guides the City's approach to improving its bicycle network:

- **On-Street Separated Bikeway:** a space designated for biking only, between the curbs in the roadway bed, and separated from driving space by a vertical and physical barrier (curb or concrete median, planters, bollards or flexible delineators, or vehicles in a parking lane). Typically used as a temporary treatment.
- **Off-Street Separated Bikeway:** a space for biking that is vertically and horizontally separated from vehicles, outside the curbs in the roadway bed, but separated from people walking.
- **Shared Use Path:** a space shared by people walking and biking, vertically and horizontally separated from vehicles, outside the curbs in the roadway bed. A shared use path can run along a road (sidepath) or in a corridor distant from a road (similar to a trail running through a park).

An **off-street separated bikeway** like the example shown at right on Bohland Avenue provides full separation from vehicular traffic and pedestrians. Implementing separated bikeways where appropriate and feasible is part of Saint Paul's approach to improving the bicycle network for all ages and abilities.



Figure 17: Off-street separated bikeway along Bohland Avenue

Protected Intersection

Protected intersections separate pedestrians, bicyclists and motor vehicle drivers using a variety of design elements. Protected intersections can be implemented at signalized or stop-controlled intersections to create safe, comfortable conditions for people bicycling and walking.

A **protected intersection** enhances safety by separating vehicle and bicyclist paths with physical barriers, reducing conflict points, and providing clear visibility. This design ensures safer interactions for pedestrians, bicyclists, and drivers.

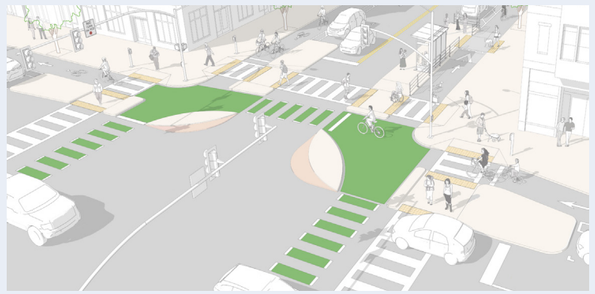


Figure 18: Protected intersection as represented in NACTO Design Strategies for Signalized Intersections

Protected Signal Phasing

Protected signal phasing is a strategy that provides a green arrow for left turning drivers while stopping both oncoming traffic and parallel pedestrian and bicyclist crossings. This helps eliminate conflicts between drivers turning left and pedestrians and bicyclists crossing in a parallel direction, in addition to conflicts between left turning vehicles and oncoming vehicular traffic. This strategy may be appropriate in locations with high left turn volumes or a high number of left turn conflicts.

Raised Crossing and Raised Intersection

Raised crossings and intersections are elevated to the level of the sidewalk and create a safe, slow-speed crossing and public space at intersections.

Like speed humps and other vertical speed control elements, **raised crossings and intersections** reinforce slow speeds and encourage drivers to slow when approaching the intersection and yield to pedestrians and bicyclists in the intersection. These interventions are typically located along neighborhood streets where they intersect a trail along a larger roadway. They may also be considered for arterial and collector streets in certain cases.



Figure 19: A raised crosswalk along Wheelock Parkway, completed in 2024

Strategy Application Key: Broadly | Some Cases | Unique Cases

Raised Median

Median barriers are raised curbs or islands that extend along a main street and may extend through an intersection. They are primarily a traffic management technique used where there is significant cut-through traffic on neighborhood streets or where left-turn movements are a safety concern.

At intersections, medians force drivers to make slower and wider turns rather than cutting into oncoming lanes, and can restrict certain turning movements. Medians also create a channelization effect on the roadway and help to calm speeds. They can also include plantings that make the roadway feel narrower for drivers.

Rectangular Rapid Flashing Beacon

A Rectangular Rapid Flashing Beacon (RRFB) is a pedestrian warning signal consisting of yellow LED lights that make a flashing pattern similar to that used on emergency vehicles. When used appropriately, RRFBs are proven to be effective enhancements to crossing signs, crosswalks, or bicycle crossings. RRFBs are typically not used on high volume arterial or collector streets.

Roadway and/or Pedestrian Lighting

Roadway lighting can illuminate roadways and can offer better visibility for road users. Increased visibility can affect drivers' detection of non-motorized road users and pedestrians, as well as motorized traffic. Pedestrian lighting is street lighting intended to illuminate sidewalks and crossings to increase the visibility of pedestrians during nighttime or low-light hours. While roadway and pedestrian lighting may be broadly applied, additional crosswalk lighting may be applied in unique cases.

Roundabout

Roundabouts provide unsignalized traffic control at intersections. Installation of roundabouts results in a significant decrease in the severity of crashes. Modern roundabouts in urban areas can be difficult to install, as they take up a significantly larger footprint than a traditional signalized intersection.

Variations of roundabouts have been used to accommodate intersections with more than four legs or include roads entering the intersection at acute angles.

Road Diet

A road diet, also known as a lane conversion or lane reduction, is a restriping treatment to reduce the width or number of lanes on a street allowing for more bicycle and/or pedestrian infrastructure. This can be paired with lane width reduction, which has been shown to decrease traffic speeds.

School Speed Zone

School speed zones are roadways adjacent to schools or along key walking and biking routes to schools where the speed limit is reduced, typically during arrival and dismissal periods. While applicability in Saint Paul is limited due to the citywide speed limit of 20 mph on residential streets, school speed zones may be appropriate on state or county roadways where the speed limit is 30 mph or greater.

Slip Lane Redesign/Removal

Slip lanes, also known as channelized turn lanes, are dedicated turning lanes that allow drivers to make quick and easy turns. Slip lanes may result in uncomfortable and unsafe crossing conditions for pedestrians if they are designed with large turning radii that encourage high-speed turns and drivers failing to yield to pedestrians and bicyclists. The redesign or removal of slip lanes can create safer crossing conditions by lowering vehicle speeds at intersections and improving the visibility of vulnerable road users to drivers. Slip lanes are often very site specific and in some cases may be more pedestrian friendly than the alternative.

Speed Feedback Sign

Speed feedback signs, also known as dynamic digital speed limit signs, show drivers vehicle speeds in real time compared to the posted speed limit. This may be effective in reducing motorized traffic speeds and increasing road safety. While permanent installations of speed feedback signs are only appropriate in very specific locations, temporary programs are broadly applied.

Speed Humps, Tables, or Cushions

Speed humps, tables, and cushions are vertical traffic calming devices typically made of concrete or rubber. These are used to reduce vehicle speeds as drivers slow down to traverse the vertical feature.

Speed humps, tables, and cushions are effective vertical speed control elements designed to reduce vehicle speeds and enhance safety. These raised devices slow down drivers, promoting safer conditions on neighborhood streets and improving pedestrian and bicyclist safety. While speed humps are most common on local streets, they may also be implemented on arterial and collector streets under specific conditions to manage traffic speeds and ensure safer roadways.

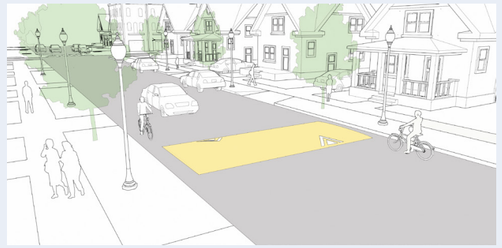


Figure 20: Speed hump as represented in the NACTO Urban Street Design Guide

Strategy Application Key: Broadly | Some Cases | Unique Cases

ENFORCEMENT STRATEGIES

High-Visibility and Targeted Enforcement

High-visibility and targeted enforcement campaigns have been used to deter speeding and aggressive driving through specific and general deterrence. The objective is to convince the public that speeding, aggressive driving actions, and failing to yield to pedestrians are likely to be detected and that offenders will be arrested and punished. Prioritizing high pedestrian traffic areas could increase pedestrian safety by increasing driver awareness.

The City's **Stop for Me campaign** is a method of High-Visibility Enforcement that raises awareness that Minnesota law requires vehicles to stop for pedestrians in dedicated crosswalks. Plain clothes officers and community volunteers cross through designated crosswalks during Stop for Me events, and drivers who fail to stop for a pedestrian when safe to do so are issued citations. This program has involved hundreds of events since 2015 and is funded through sources including the State of Minnesota's Toward Zero Deaths program. A 2023 study showed that the program has had sustained benefits including improved driver yielding in the area around where an event took place.



Figure 21: A police officer explains the Stop for Me program to a group of volunteer participants

Parking Enforcement at Intersections

Enforcement of parking restrictions near controlled and uncontrolled intersections can deter drivers from parking vehicles that encroach on crosswalks and reduce visibility for all roadway users. Similar to other officer-based enforcement strategies, this strategy can be limited by resources for parking enforcement.

Red Light Cameras

Red light cameras are an automated enforcement system that captures violations of drivers entering an intersection against red signal lights. Red light cameras have been proven as safety countermeasures to reduce red light running and dangerous offset and right-angle crashes at intersections.

A red light camera and speed safety camera enforcement pilot program was signed into law following the 2024 Minnesota Legislative session. This pilot will run from 2025 to 2029 and applies only to Minneapolis and Mendota Heights. These systems are not legal elsewhere in Minnesota and additional legislation would be needed to enable a red light camera program in Saint Paul.

Speed Safety Cameras

Speed safety cameras (SSCs) detect speeding and capture photographic or video evidence of drivers that are violating a set speed threshold. With proper controls in place, SSCs can offer fair and equitable enforcement of speeding, regardless of driver age, race, gender, or socioeconomic status. SSCs are listed as proven safety countermeasures by the FHWA, which states that stationary SSCs can reduce crashes on urban principal arterial roads by up to 54 percent, and injury crashes by up to 47 percent. Speed safety cameras were also included as part of the pilot program authorized by the State of Minnesota for 2025 to 2029 in Minneapolis and Mendota Heights.

EDUCATION STRATEGIES

Pedestrian, Bicycle, and Driver Safety Education

Pedestrian and bicycle safety education is typically classroom-based training for children and adults to inform them about state laws and safe walking and biking practices. Studies have shown that educational programs increase the understanding of state laws and safe practices but are inconclusive on whether this education results in safer behavior.

Driver safety education typically involves comprehensive training programs that cover state laws, defensive driving techniques, and hazard recognition to enhance driver awareness and response. These programs can target new drivers or drivers that have been cited for high-risk behaviors such as speeding or reckless/careless driving. Similar to pedestrian and bicyclist educational programs, studies have shown that these programs increase understanding around traffic laws and safe practices but the direct impact of programs on improving driver behavior is uncertain.

Public Awareness Campaigns and Communications

Local public awareness campaigns and communications are a common way to spread awareness about safety issues and safe behaviors. While data is limited on their effectiveness, many communities have implemented creative campaigns to target speed reduction, seat belt use, obeying traffic signals, not driving under the influence, and other safe behaviors. Campaigns can be focused on specific groups (i.e., teen drivers), or on specific safety focus areas. Through City media channels and events, the City can broadcast that we all have a role to play in achieving zero traffic fatalities and serious injuries.

In 2022, the Portland Bureau of Transportation and Seattle Department of Transportation partnered on a campaign centered on the phrase **"Slow the Flock Down!"** as an eye-catching way to encourage safe speeds. The cities featured their state birds on yard signs and distributed them at events. Seattle and Portland designed this campaign to complement their other education, engineering, and enforcement efforts to encourage roadway safety.



Figure 22: Graphics featured in Seattle's "Slow the Flock Down" public awareness campaign (Source: Seattle Department of Transportation)

Many strategies may be combined to increase effectiveness. For example, physical improvements at an intersection may be combined with high-visibility enforcement to increase compliance and educate about new engineering safety improvements. This list of strategies should be used creatively to combine strategies where appropriate.

Implementation

Tracking Our Progress

Per the City's June 2023 Vision Zero resolution, Saint Paul's goal is to eliminate fatal and serious injury crashes on our roadways by 2045. To accomplish and sustain this goal, the City must implement the recommendations of this plan, including the following, as outlined in this section:

- **Establish benchmark measurements** to track progress toward the City's goal of eliminating fatal and serious injury crashes within its boundaries
- **Identify additional funding for ongoing operations and maintenance needs**
- **Prioritize equity** at all stages of the implementation process
- **Identify future studies** to examine safety challenges in specific areas of the city



Tracking and Measurement

Regular data collection, evaluation, and reporting are essential for accountability as the City implements the Transportation Safety Action Plan. The City will issue annual updates on the progress toward the overall goal of eliminating all traffic deaths and serious injuries and track key metrics and safety improvements since the initial adoption of this plan, as included in the City Council's June 2023 resolution. The Department of Public Works will be primarily responsible for tracking progress on the Transportation Safety Action Plan. The graph in Figure 23 shows the interim progress needed to achieve this goal. To meet this goal, the number of crashes year over year must be reduced by 2.9 crashes annually for serious injuries and 0.7 crashes for fatal crashes. Since City Council adopted this goal in 2023, the number of crashes has not decreased.

The City should maintain a website for the TSAP that includes the following resources and information:

- Safety Action Plan document
- Annual evaluation reports (current and previous)—see additional details on page 42
- Plan vision and goals—including Saint Paul's commitment to the Safe System Approach
- Current and planned safety projects—including link to Public Works webpage
- Key safety data for current reporting period—including fatal crashes, serious injury crashes, and all crashes
- Links to related plans

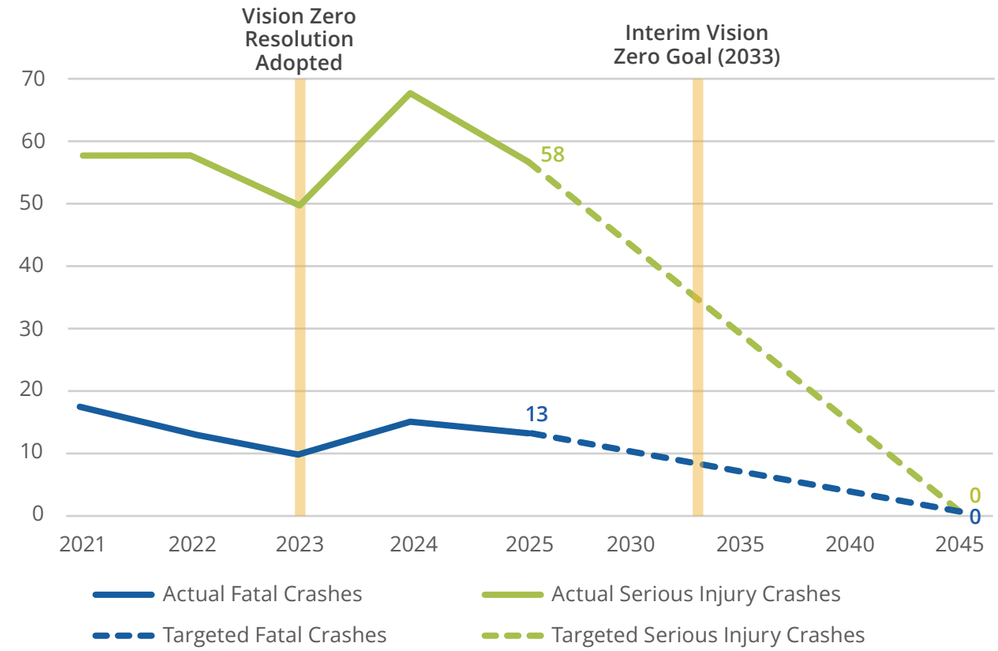


Figure 23: Projected trend of fatal and serious injury crashes from 2025 to 2045, as committed in Saint Paul's June 2023 Vision Zero Resolution

ANNUAL EVALUATION REPORT

Tracking will include a brief annual report evaluating the number of fatalities, injuries, and total crashes, as well as an update on capital improvements, policies, and projects that are contributing to improving traffic safety overall. Additional metrics may be identified as the plan moves through implementation, subject to identifying a reliable data source, measurement process, and staff resources. This report will highlight recent work on the Transportation Safety Action Plan and provide traffic safety benchmark statistics. The report could include the following:

- **Overview:** An introduction to the purpose and goals of the annual evaluation report.
- **Annual Performance Metrics:** A one-page table of specific metrics used to evaluate the effectiveness of the Transportation Safety Action Plan. Metrics could include those shown in Table 3.
- **Progress Assessment:** An assessment of the progress made toward achieving the goals and objectives of this plan. This assessment may include an evaluation of the targets set in the plan, the degree of progress achieved, and any challenges or barriers encountered.
- **Stakeholder Engagement:** An assessment of stakeholder involvement and engagement in safety project implementation. This may include feedback from community organizations, county and state partners, law enforcement, and other relevant stakeholders.
- **Recommendations:** Actionable recommendations for enhancing the effectiveness of the plan based on the evaluation findings. These recommendations may include suggested policy changes, infrastructure improvements, educational campaigns, or enforcement measures.
- **Future Goals and Objectives:** Outline strategies for continuous improvement, setting new targets, and refinements to the plan based on the lessons learned.
- **Appendix (Technical Data Analysis):** Any detailed analysis of the data collected during the evaluation period, including trends, patterns, and comparisons to baseline or previous years.

Table 3: Annual Evaluation Report Performance Metrics

Metric	Data Source
Change in total number of traffic fatalities, serious injuries, and minor injuries on Saint Paul's roadways	MnCMAT2
Change in the rate of traffic fatalities, serious injuries, and minor injuries per VMT	MnCMAT2, MnDOT
Change in total number and rate of crashes involving pedestrians and bicyclists	MnCMAT2
Number of capital improvements on the HIN and HCN	City of Saint Paul, MnDOT, Ramsey County
Annual mileage of new pedestrian and bicycle infrastructure	City of Saint Paul

Funding and Operations Needs

Three major funding needs are required to implement the projects, policies, and strategies identified in this plan: ongoing operations and maintenance funding, staffing, and capital funding. Operations and maintenance funding is primarily provided locally while staffing is fully local. Capital funding, as with all transportation projects in the city, will be identified through a combination of federal, state, and local or regional sources.

OPERATIONS AND MAINTENANCE

Operations and maintenance resources are a major ongoing challenge for the City of Saint Paul and are a limitation to achieving the City's overall goal of eliminating roadway fatalities and serious injuries. The current funding levels are inadequate to maintain the existing transportation network in an acceptable state of good repair, much less maintain new treatments that are critical to providing a safer transportation system. **In order to achieve and sustain progress, additional operations and maintenance resources will be needed.**

While capital improvements (such as roadway reconstructions and new facilities) are important to meeting our safety and mobility goals, the benefits of these investments also rely upon adequate operations and maintenance resources. Compared to capital projects, there is little to no external grant funding available for operations and maintenance, and yet these are ongoing needs that continue for the life of the asset. Furthermore, a lot of the crash mitigation strategies identified in this report, such as raised medians, curb extensions, speed control devices, and separated bikeways, require additional maintenance. During the roadway design process, future maintenance costs and funding should be considered. It is important to strike the right balance between new investments and the maintenance needs that will be required to accommodate these features.

The City is aware of these funding and resource challenges and is actively working to identify ways to overcome them. As an action item of this plan, the City should develop and support an overall funding strategy that delivers ways to sustainably increase operations and maintenance funding and dedicate the resources required to make meaningful progress.



STAFFING

In addition to the operations and maintenance staffing needs described above, additional staff capacity is needed to proactively advance many of the planning and engineering tasks and other action items described in this plan. Moving forward with the plan will require additional staff. Staffing availability currently limits the following tasks:

- Review of safety inquiries from the public
- Crash analysis updates
- Safety data upkeep and improvements
- Proactive safety work
- Engagement for safety projects
- Project prioritization
- Development of initial concepts for projects, up through preliminary design
- Annual evaluation reports for safety
- Pursuit of external funding opportunities
- Advancement of policies that require legislative approval (i.e., speed safety cameras)

CAPITAL FUNDING

This plan's recommendations are grounded in an understanding of the City's capital planning process. Most capital projects in Saint Paul are funded locally, while others are funded by agency partners such as Ramsey County, MnDOT, or the Metropolitan Council. External grant funding sources are also available, but these sources are often unpredictable. Safety projects are managed by the Department of Public Works and are programmed via the Capital Improvement Budget (CIB) process for financing and implementation. Currently, there is very limited funding that is dedicated towards safety projects. Providing a higher level of dedicated funding would help advance the recommendations of this plan.

With the variety of funding sources available, safety needs to be a key component of project prioritization. The project prioritization tool included in this plan is intended to be a resource to help guide the capital improvement planning process. The High Injury Network and High Crash Network should be updated regularly to plan projects in the highest-crash and highest-injury areas. Beyond prioritization, all future capital projects, even those that are not explicitly safety projects, should be reviewed for their ability to incorporate safety enhancements.

This plan also helps position the City to pursue a variety of grant funding opportunities. Grant opportunities should be matched with potential projects, but as mentioned above, reviewing grants, selecting projects, and preparing grants takes staff resources that do not currently exist to the level needed to support regular active grant pursuits.

Equitable Implementation

Equity must be integrated into the Plan's implementation to ensure that the safety needs and concerns of all community members are centered in decision-making, particularly roadway users and communities that data shows are most vulnerable to transportation safety issues. Some areas to be particularly attentive to in order to integrate equity in the plan's implementation:

- **Project Prioritization:** Include equity in the project prioritization framework by using the equity priority areas as a criterion to rank or score the projects. The crash data equity analysis found that Saint Paul neighborhoods that are low income and predominantly Black, Indigenous, and People of Color (BIPOC) residents are disproportionately impacted by fatal and serious injury car crashes. Using the equity priority areas in the project prioritization will help target safety resources and interventions in neighborhoods most likely to be affected by transportation safety issues.
- **Data Collection and Monitoring:** Integrate equity into crash data collection and monitoring procedures to identify disparities in the distribution of crashes and their impacts on different communities over time.
- **Community Engagement:** Identify opportunities for communities to inform decision-making as transportation safety actions are implemented at a time and way that their comments are impactful to the process. The process-oriented actions may have more opportunities for community engagement to influence decisions than the more technical design-oriented actions.
- **Community Partnerships:** Foster relationships and partnerships with community organizations that serve people in equity priority areas, as the opportunity arises. Community organizations often have deep-rooted connections and trust within the communities they serve. By collaborating with these organizations, Saint Paul can learn from their knowledge, expertise, and understanding of local needs and dynamics. These organizations may also be able to reach people and communities that are distrustful of government and have been historically excluded from government decision-making. Building positive and trusting relationships with community organizations will help enhance the reach and effectiveness of the TSAP.
- **Documentation:** Continue to document how equity is integrated into Saint Paul's transportation safety actions and projects. Documenting the equity considerations, strategies, and actions taken during the project supports transparency and accountability by providing a record of the steps taken, creating a reference point for future projects, and providing an opportunity for evaluation and learning. Documenting strategies now will help future project teams assess the effectiveness of equity measures and learn from best practices and lessons learned to improve future transportation projects and refine strategies for achieving equitable outcomes. Saint Paul's Racial Equity Toolkit provides a framework to document how equity is integrated into a policy, process, or project.

Future Transportation Safety Studies

To provide additional guidance on specific priority areas identified in this plan, Saint Paul should conduct the following further studies to build upon this plan:

- **Downtown Crash Study:** Downtown Saint Paul is a crash hot spot for all modes, likely due to high traffic volumes as well as high pedestrian and bicyclist traffic. A future analysis of downtown crash trends would be necessary to identify a specific set of improvements aimed at improving safety in the downtown area. This analysis will be included in the scope of the Downtown Mobility Plan & Key Corridor Study.
- **Comprehensive Review of Minor Arterials and Collector Roadways:** These roadways account for approximately 75 percent of all fatal and serious injury crashes in the city. However, this analysis did not review these roadways individually to identify the specific factors leading to high crash rates. A comprehensive review of these roadways, including city, county- and state-owned streets, would be necessary to identify the factors leading to the high injury rates, as well as identify potential future improvements.
- **Comprehensive Review of High Crash Intersections:** Similarly, while this analysis identified the top high crash intersections within Saint Paul, it did not review the intersections in detail to identify the specific risk factors or mitigating improvements. A future review of high-crash intersections would more specifically provide improvement recommendations at those locations.
- **Future Crash Equity Analysis:** This plan's analysis included a racial equity focused crash analysis. The city should share the findings of this analysis with community members, leaders, and partners to discuss and interpret it. These conversations could provide valuable context and future directions for equity work (for example, engaging community members and others to understand whether the Equity Priority Areas are the appropriate geographic units). Areas for future crash equity analysis could include the following:
  - Undertaking additional demographic analysis using crash data from the Saint Paul Police Department or more recent FARS data as it becomes available.
  - Undertaking additional geographic analysis with statistical analysis to control for population density and other factors, and to understand the degree to which fatal and serious injury crashes are concentrated in Equity Priority Areas.
  - Examining traffic safety benefits as well as burdens. Transportation equity considers the fair distribution of both burdens and benefits. This analysis examined transportation safety burdens in terms of serious injuries and deaths; future analyses could explore the distribution of benefits and the role of the City of Saint Paul and other public agencies in them. For example, the city could do a look-back to see where transportation safety improvements have been made, and how many were within the Equity Priority Areas. This could inform future project criteria and prioritization.
- **Standard Safety Evaluation:** As safety features are added to roadways it is important to understand the impact that these projects have. Saint Paul should develop a standard evaluation procedure to be completed before and after safety project construction to determine the effectiveness of the improvements.

Action Plan

Saint Paul will take the following actions to implement the recommendations made in this Transportation Safety Action Plan. These policy and process improvements will facilitate implementation of the plan and advance the City's goal to eliminate all road deaths and serious injuries on surface streets within the city by 2045, with a 50 percent reduction within 10 years.

See Table 4 below for a list of actions. These actions are organized by themes of Analysis, Coordination, Education, Enforcement, Funding, Policy, Process, and Projects and are prioritized based on timing. Short-term actions should be undertaken within the next year and all actions included in this table should be implemented within 10 years to achieve the City's ambitious goal. The Saint Paul Public Works Department is the lead agency and department for most of these actions, but it will need to work closely with other city departments, as well as Ramsey County and MnDOT.

Several identified actions would require additional Public Works staffing to permit a greater focus on transportation safety as a priority. Staff capacity is currently very limited. **Increasing staff capacity is critical to improving transportation safety in Saint Paul.**

Table 4: Action Plan

	Action	Timing	Lead Department/ Organization	Partner Department/ Organization
	ANALYSIS			
A.1	Develop a process for reviewing all fatal and serious injury crashes on an ongoing basis	Short-Term	Public Works	Traffic Engineering Dept, Police, County, MnDOT
A.2	Complete a dedicated downtown crash study to identify a specific set of improvements aimed at improving safety in the downtown area	Mid-Term	Public Works	Metro Transit, MnDOT
A.3	Complete a comprehensive crash (or safety) review of minor arterials and collector roadways to provide improvement recommendations	Mid-Term	Public Works	N/A
A.4	Complete a comprehensive review of high crash intersections to provide improvement recommendations	Mid-Term	Public Works	N/A
A.5	Complete a crash equity analysis and share results with the public	Long-Term	Public Works	Police

	Action	Timing	Lead Department/ Organization	Partner Department/ Organization
	COORDINATION			
C.1	Complete multidepartment review and discussion on incident response strategy	Mid-Term	Public Works	Fire, Police
C.2	Work with Metro Transit to coordinate siting of transit shelters and station lighting	Mid-Term	Public Works	Metro Transit
C.3	Develop process with Metro Transit to regularly review fatal and serious injury crashes involving Metro Transit facilities and operations	Mid-Term	Public Works	Metro Transit
C.4	Work with Met Council to coordinate safety work and continue discussions on enhancing collaborations and funding opportunities	Mid-Term	Public Works	Met Council
C.5	Identify and create an interagency safety working group and identify specific safety contacts with each agency	Long-Term	Public Works	County, MnDOT, Metro Transit (as needed)
C.6	Coordinate with Ramsey County and MnDOT to track assets and identify and make safety improvements on county- and state-owned streets.	Ongoing	Public Works	County, MnDOT
C.7	Develop ongoing coordination process with Saint Paul first responders and transportation design staff on design standards and policies	Short-Term	Public Works, Police, Fire	N/A
C.8	Continue regular and ongoing coordination with Saint Paul Public Schools to review, identify, and address school safety needs	Ongoing	Public Works, SPPS, Police	Other City Depts
C.9	Support ongoing staffing of the Saint Paul Public Schools Safe Routes to Schools Coordinator position	Short-Term	SPPS	All City Depts, County, MnDOT, Other Partner Agencies

	Action	Timing	Lead Department/ Organization	Partner Department/ Organization
	EDUCATION			
ED.1	Develop and implement a traffic safety public information and education campaign based on the findings of the TSAP	Long-Term	Public Works	Police, Fire, Other City Depts, Neighboring Jurisdictions
ED.2	Continue to gather community input and feedback on safety approach and strategies	Ongoing	Public Works	N/A
ED.3	Continue SPPD education and enforcement campaigns (including Stop for Me) and identify new potential opportunities	Ongoing	Police	Public Works
ED.4	Continue engineering and education programs such as the Dynamic Speed Sign Program, In-Street Ped Sign Program, and 20 is Plenty, while identifying new potential programs	Ongoing	Public Works	N/A
	ENFORCEMENT			
EN.1	Determine a process for public engagement and discussion regarding the City's approach to traffic enforcement	Mid-Term	Police/Public Works	N/A
EN.2	Expand the SPPD Traffic and Pedestrian Safety Unit with full-time officers dedicated to daily traffic enforcement	Mid-Term	Police	N/A
EN.3	Fund and maintain a parking enforcement unit that can adequately meet the City's parking enforcement needs	Long-Term	Police	N/A
EN.4	Explore the potential for red light or speed safety cameras and determine if this should be a legislative priority for the city	Long-Term	Public Works	County, MnDOT
EN.5	Explore the potential for automated enforcement of transit lanes through cameras and determine if this should be a legislative priority for the City	Long-Term	Public Works	Metro Transit, County, MnDOT

	Action	Timing	Lead Department/ Organization	Partner Department/ Organization
	FUNDING			
F.1	Develop an overall funding and operations strategic plan that identifies the necessary staffing, maintenance, and capital resources to achieve Vision Zero	Mid-Term	Public Works	N/A
F.2	Develop an overall funding strategy for traffic and safety enforcement	Mid-Term	Police	Other City Depts
F.3	Coordinate with MnDOT and Ramsey County to address maintenance funding gaps on state and county roadways	Ongoing	Public Works	MnDOT, County
F.4	Develop a first responder tools and equipment needs list to further enable quick and effective response to crashes	Mid-Term	Fire	Other City Depts
	POLICY			
PO.1	Evaluate and update prioritized traffic and street design policies and practices based on the opportunities identified in the TSAP	Short-Term	Public Works	N/A
PO.2	Develop Master Agreement with Metro Transit for transit facilities in the city	Short-Term	Public Works	Metro Transit
PO.3	Develop a full update to the Street Design Manual	Mid-Term	Public Works	PED
PO.4	Continue to work with partners to encourage safety-focused flexibility in MSA and CSAH rules	Mid-Term	Public Works	County, MnDOT, Neighboring Jurisdictions
PO.5	Effectively maintain vegetation in the public ROW to benefit transportation safety	Mid-Term	Public Works, Parks Dept	Other City Depts
PO.6	Leverage private development (when appropriate) to advance transportation safety improvements directly impacting the development site	Mid-Term	Public Works	PED
PO.7	Review Zoning Code for consistency and support of Vision Zero and the Safe System Approach to Traffic Safety	Mid-Term	DSI, PED, Public Works	N/A
PO.8	Develop a comprehensive and enterprise encompassing action item list to address the ongoing wire theft issue that is impacting the City's lighting system	Mid-Term	All City Depts	Partner Agencies

	Action	Timing	Lead Department/ Organization	Partner Department/ Organization
	PROCESS			
PR.1	Using the prioritization criteria, continue to develop and maintain a transportation safety project list	Short-Term	Public Works	
PR.2	Coordinate with the ongoing Public Works process to evaluate the City's CIP prioritization process to ensure safety needs are adequately addressed	Short-Term	Public Works	Other City Depts
PR.3	Include high-ridership transit transfer areas as priority areas in safety-related policies	Mid-Term	Public Works	Metro Transit
PR.4	Develop process for standard safety evaluations after projects have been constructed to track effectiveness of safety-related treatments over time	Mid-Term	Public Works	
PR.5	Develop an annual monitoring process to track progress against the fatality and serious injury goals and equity goals	Long-Term	Public Works	
	PROJECTS			
PJ.1	Research and apply for capital funding to implement infrastructure improvements in areas identified as priorities in this plan	Short-Term	Public Works	
PJ.2	Advance SS4A Implementation grant-funded projects and studies	Short-Term	Public Works	County
PJ.3	Expand use of targeted temporary safety improvements	Mid-Term	Public Works	County, MnDOT
PJ.4	Leverage transit investments to advance safety in partnership with Metro Transit	Mid-Term	Public Works	Metro Transit, County
PJ.5	Expand early project scoping and early agency coordination to ensure early identification of safety needs along corridors	Mid-Term	Public Works	County, MnDOT, Other City Depts
PJ.6	Investigate leveraging non-transportation projects such as sewer and water work to advance transportation safety improvements in the ROW	Ongoing	Public Works	Sewers Division, SPRWS, Private Utilities

SAINT PAUL
MINNESOTA