
# TRANSPORTATION

# Introduction

The Transportation Chapter guides the creation of a safe, equitable and well-maintained multi-modal transportation system in Saint Paul that supports the needs of all users, enhances vitality, and sets the stage for infill development to accommodate the city's projected growth. The transportation system relies primarily on streets, which connect people to jobs, homes, shopping, education and recreation, but also includes water (the Mississippi River) and rail. It is important to have a consistent long-term vision that will gradually, strategically and consistently remake the city's transportation system so that it works better for all users.

## The following goals guide the Transportation chapter:

1. investment that reflects the City's priorities;
2. safety and accessibility for all users;
3. a transportation system that supports employment and access to jobs;
4. true transportation choice throughout the city, with a shift from single-occupant vehicles toward other modes;
5. sustainable and equitable maintenance models;
6. environmentally sustainable design;
7. functional and attractive Parkways; and
8. a system that shapes and responds to technology.

Since opportunities to remake streets are infrequent due to limited funds and a high volume of needs (the life expectancy of Saint Paul streets is approximately 40 years, and many go 90 years or more before being reconstructed), the chapter establishes clear priorities for project selection. Projects will prioritize safety and equity benefits, followed by support of quality jobs. Maintenance is also established as a "first cut" for project selection, because regular maintenance is much more cost-effective in the long run and allows for a greater number of projects to be accomplished over time. Further, the ability to obtain outside funding will be considered. These priorities – as well as our land use priorities – will also guide our approaches to future technology changes.

Priorities are also established for the design of our rights-of-way, with the needs of pedestrians and bicyclists placed at the top. This includes aggressively evaluating and pursuing "road diets" that improve pedestrian safety while having a minimal impact on traffic flow. Considering pedestrians first will ensure a safe transportation system that works well for everyone.

Our transportation system will also work hand-in-hand with land use by supporting employment, providing quality transit where we expect more density via redevelopment and infill, and presenting a finer-grained streetscape as larger contiguous sites are redeveloped.

## Goal 1: Investment reflects City priorities.

**Policy T-1.** Prioritize safety and equity benefits in project selection, followed by support of quality full-time, living wage jobs – both through business support and connection of residents to job centers such as downtown. Priorities will also be informed by specific modal plans, such as the Bicycle Plan or the forthcoming Pedestrian Plan (See Sidebar and Figures T-1, T-3, T-5, and T-6).

**Policy T-2.** Use surface condition and multimodal usage rates to identify a first cut of transportation projects for potential investment, to ensure well-maintained infrastructure that benefits the most people (See Figures T-9 and T-11).

**Policy T-3.** Design rights-of-way per the following modal hierarchy:

1. Pedestrians, with a focus on safety
2. Bicyclists, with a focus on safety
3. Transit
4. Other vehicles

## Goal 2: Safety and accessibility for all users.

**Policy T-4.** Adopt and implement a "Vision Zero" program with the long-term goal of achieving zero traffic fatalities and severe injuries. Components of the program should include engineering improvements and behavioral safety improvements, such as reducing driver impairment, inattentiveness and speed through education and enforcement.

**Policy T-5.** Implement "road diets" for undivided four-lane roads to convert them to three lanes, where feasible, in order to prioritize pedestrian safety (See Figure T-2).

**Policy T-6.** Implement intersection safety improvements such as traffic signal confirmation lights, pedestrian countdown timers, and leading pedestrian signal intervals. Reduce pedestrian roadway exposure via median refuge islands, curb extensions and narrowed travel lanes.

**Policy T-7.** Reduce speed limits where it will improve safety, and work with State and Ramsey County governments to overcome obstacles to implementing this policy.

**Policy T-8.** Design the rights-of-way for all users, including older people, children and those with mobility constraints, as guided by the Street Design Manual and Safe Routes to School Plans, and by thoughtfully addressing streetscape issues such as curb cut design, level sidewalks, lighting, accessibility to/from bus stops, and the presence of benches and buffers between sidewalks and streets.

**Policy T-9.** Design sidewalks, trails and transit stops for personal safety (real and perceived), including by providing lighting and boulevards.

**Policy T-10.** Support driver, bicyclist and pedestrian education to improve mutual awareness and safety.

**Policy T-11.** Minimize and consolidate driveway curb cuts as opportunities arise for redevelopment and infill sites that can reasonably be accessed via side streets, alleys or shared driveways, especially in areas with anticipated high pedestrian activity or with adjacent planned bikeways.

**Policy T-12.** When street design changes involve the potential loss of on-street parking spaces, prioritize safety for all transportation modes, and explore mitigation of lost spaces where feasible and practical.

### Economic and Social Impacts of Motor Vehicle Crashes

Transportation safety is worth the investment. According to a National Highway Traffic Safety Administration (NHTSA) study, in 2010 there were 32,999 people killed, 3.9 million people injured, and 24 million vehicles damaged in motor vehicle crashes in the United States. The economic costs of these crashes totaled $242 billion, which represents the equivalent of nearly $784 for each person living in the United States, and 1.6 percent of the $14.96 trillion real U.S. Gross Domestic Product for 2010. These costs represent the tangible losses that result from motor vehicle crashes. However, in cases of serious injury or death, such costs fail to capture the rather intangible value of lost quality-of-life that results from these injuries. When quality of life valuations are considered, the total value of societal harm from motor vehicle crashes in 2010 was $836 billion. In 2015, the number of traffic fatalities was 35,091, a 6% increase over 2010. In Saint Paul in 2016, there were 314 vehicular crashes involving pedestrians and bicyclists alone, including 4 fatalities and 242 injuries (163 requiring hospital attention).


## Goal 3: A transportation system that supports employment and access to jobs.

**Policy T-13.** Work with agency partners and the Saint Paul Port Authority to implement and support freight transportation improvements in and near industrial areas of regional economic importance, particularly West Midway, the Great Northern corridor, river industrial areas, and the portion of West Side Flats east of Robert Street, to improve safety and connections to the regional transportation network.

**Policy T-14.** Explore freight delivery solutions that avoid loading/unloading conflicts in congested areas so as to support businesses and provide safety to pedestrians and road users.

**Policy T-15.** Support financing for above-standard streetscapes in business areas.

**Policy T-16.** Use pricing to manage parking demand and improve parking efficiency in areas with high demand and short supply.

**Policy T-17.** Work with agency partners and the Metropolitan Airports Commission to maintain a regional aviation system that balances commercial demand and capacity while being compatible with the community.

**Policy T-18.** Work with the Saint Paul Port Authority to maintain the Mississippi River as a working river through land use policy and support for jobs in river-related industries.

**Policy T-19.** Prioritize investments in infrastructure that improve river commerce and conditions necessary to maintain and grow regional logistics and commodities hubs connecting, river, rail, truck modes.

## Goal 4: True transportation choice throughout the city.

**Policy T-20.** Reduce vehicle miles traveled (VMT) by improving transportation options beyond single-occupant vehicles.

**Policy T-21.** Pursue shifting mode share towards pedestrian, bicycle, public transit and carpooling as a solution to existing or anticipated traffic issues analyzed through traffic studies, rather than automatically assuming current mode share.

**Policy T-22.** Implement the Bicycle Plan to make bicycling safe and comfortable throughout the city, and to increase bicycling mode share.

**Policy T-23.** Implement the forthcoming Pedestrian Plan to make walking safe and comfortable throughout the city, and to increase pedestrian mode share for short-distance trips. Until the Pedestrian Plan is adopted, focus pedestrian infrastructure improvements in areas with acute pedestrian safety concerns, with existing or anticipated high pedestrian activity, and/or in racially concentrated areas of poverty.

**Policy T-24.** Provide sidewalks throughout the city, generally on both sides of the street, except potentially in portions of Highwood as directed via other officially-adopted City plans (See Figure T-1).

**Policy T-25.** Improve public transit mode share and support quality public transit in all parts of the city through strategic establishment of transit-supportive land use intensity and design, working with transit providers to improve their service offerings, and supporting transit facilities (See Figures T-5 and T-6).

**Policy T-26.** Expand commuter options with Travel Demand Management (TDM) and support of carpooling facilities.

1. Require a TDM Plan for large developments and large employers.
2. Explore individual incentives, employer programs and parking policies that encourage alternatives to single-occupancy vehicles.
3. Support the work of other agencies, organizations and the private sector to market and support transit, carpooling, biking, walking, flexible work hours and telecommuting.
4. Consider options to enforce and improve implementation of TDM Plans.

**Policy T-27.** Design holistically for all mode users, especially pedestrians and bicycles, in any bridge reconstruction or maintenance project such as for bridges (or lids) over interstate highways or the Mississippi River. Ensure that the project scope incorporates adjacent intersections as necessary.

**Policy T-28.** Establish (or re-establish) the right-of-way grid with block lengths of 300 to 600 feet as redevelopment occurs on large sites in order to increase neighborhood connectivity and accommodate pedestrian-oriented, higher-density development.

**Policy T-29.** Accommodate access to community events and around construction projects by all mode users, including by working with Metro Transit to provide additional transit service, providing sufficient bicycle parking, generally avoiding the closure of bicycle lanes and providing detours for all modes.

**Policy T-30.** Improve pedestrian and recreational connections to the Mississippi River.

**Policy T-31.** Promote safe walking and bicycling to school by supporting Safe Routes to School efforts and investing in sidewalk connectivity and crossing enhancements near schools.

## Roadway Safety Plan

In January 2016, MnDOT released its Roadway Safety Plan for Saint Paul, a consultant-produced document with City of Saint Paul staff participation that identified the greatest opportunities to reduce the number of severe crashes based on the City's crash data, street contexts and strategies with demonstrated effectiveness in mitigating the types of severe crashes experienced here. The study recommended focusing on certain arterial streets, employing the following types of safety projects:

- improving pedestrian safety (primarily at intersections);
- reducing the frequency of red light violations at traffic signals; and
- improving the safety characteristics of undivided streets.
- The specific safety improvement strategies could include:
  - road diet (convert to three lanes);
  - access management;
  - traffic signal confirmation lights;
  - pedestrian/bicycle countdown timers;
  - pedestrian/bicycle leading pedestrian intervals
  - pedestrian/bicycle curb extensions; and
  - pedestrian/bicycle median refuge islands.

## Goal 5: Sustainable and equitable maintenance models.

**Policy T-32.** Pursue fiscally-sustainable models for equitably maintaining transportation infrastructure in Saint Paul, including for right-of-way maintenance, bridges, sidewalks, trails and alley snowplowing.

**Policy T-33.** Consider the full long-term infrastructure costs when allocating maintenance funding compared to reconstruction funding.

**Policy T-34.** Maintain roadway pavements in pursuit of achieving a Paving Condition Index (PCI) of 70 on all City-owned streets. (See Figure T-9).

**Policy T-35.** Reduce the number of heavy vehicle trips on local streets through measures such as consolidation, coordination and route designation/planning, in order to reduce maintenance costs.

## Goal 6: Environmentally sustainable design.

**Policy T-36.** Seek opportunities to improve the environmental sustainability of rights-of-way in the city, such as through shared, stacked-function green infrastructure (SSGI) and planting trees to reduce the urban heat island effect.

**Policy T-37.** Lessen the negative impacts of interstate highways by supporting design interventions, such as "freeway lids" and landscaping and liner buildings on new bridges, that improve connectivity, hide the road and/or reduce pollution.

## Goal 7: Functional and attractive Parkways.

**Policy T-38.** Maximize space for recreation and landscaping uses within Parkway rights-of-way, and prioritize recreation and landscaping in Parkway design in order to maintain a park-like feel, particularly on the Grand Round.

## Goal 8: A system that shapes and responds to technology.

**Policy T-39.** Ensure that new technologies, such as automated vehicles, further the City's transportation and land use priorities.

**Policy T-40.** Ensure that right-of-way design accounts for changing vehicle technologies and forms of use, such as automated vehicles, car-sharing and ride-sharing.