



## CHAPTER 6

# GETTING AROUND

### VISION:

Our safe, connected system is economically and environmentally sustainable for all modes of transportation.

February 25, 2019

## Introduction

People get around and through Red Wing in different ways, and the term “Getting Around” in the *Red Wing 2040 Community Plan* encompasses all the ways people get from one place to another: by foot, bike, car, truck, bus, boat, or wheelchair. In Red Wing, we’ve made great steps to ensure in the future that all people are able to get where they are going safely and efficiently.

Over the last few years, major projects like our Highway 61-Main Street renovation, Levee Road and Trail project, West Avenue reconstruction, and Twin Bluff Road roundabout have added safety and aesthetic beauty to our town, and we look forward to continuing that tradition. Improvements in sidewalk policy, coupled with financial investments, are also helping Red Wing be a place where it’s easier to get around by walking year-round, thereby creating a healthier city overall.

This chapter of the *Community Plan* is a summary of the *Red Wing 2040 Transportation Plan*. This transportation plan examines all modes of getting around (i.e. roadways, transit, pedestrian facilities, bicycle facilities, freight, and aviation) and focuses on identifying, planning for, and guiding future decisions and improvements. The planning process views transportation in terms of the movement of people and goods, not just vehicles, and integrates transportation components into a system that efficiently and cost-effectively meets the mobility needs of Red Wing’s residents, businesses, industries, and the traveling public..

A transportation plan encompasses a comprehensive process that examines all transportation modes (e.g., roadways, transit, pedestrian facilities, bicycle facilities, freight and aviation). The process focuses

on identifying, planning for, and guiding future year transportation decisions and improvements. The planning process views transportation in terms of the movement of people and goods, not just vehicles. While the process analyzes specific transportation modes, it stresses the interrelationships between modes and facilitates the integration of the various transportation components into a system that efficiently and cost-effectively meets the mobility needs of the area’s citizens, businesses, industries and the traveling public.

The three primary objectives of the **2040 Transportation Plan** are:

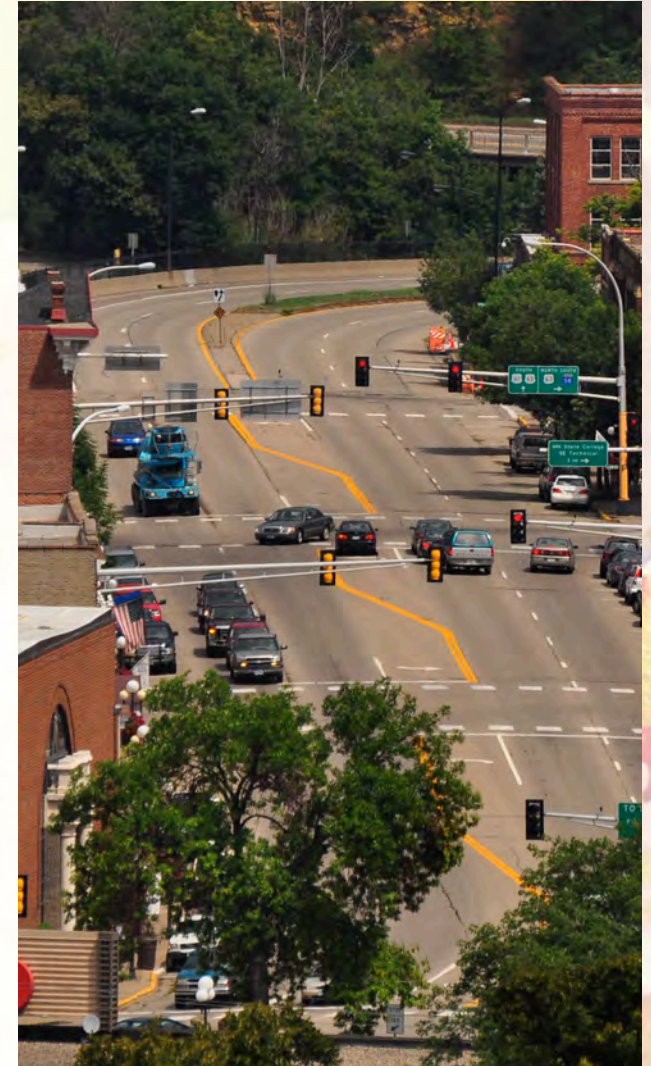
- » To provide a guidance document for city staff and elected officials regarding the planning and implementation of effective transportation facilities and systems through 2040.
- » To give private citizens and businesses background information on transportation issues and allow them to be better informed so they can better participate in the city’s decision-making on transportation issues.
- » To communicate to other government agencies Red Wing’s perspectives and intentions regarding transportation planning issues.

The plan begins by providing an overview of Red Wings existing transportation system to provide a closer look into what facilities are available to residents and visitors, and a basic overview of facility conditions. The plan then looks at public feedback received during the outreach process to identify opportunities and challenges within the transportation system. This feedback, combined with population and development projections for the city over the next twenty years, form the basis for the *2040 Transportation Plan* and recommendations.

To review the full *Red Wing 2040 Transportation Plan* visit the [Online 2040 Document Library](#).

## Community Engagement

A summary of input collected from the community is included on the following two pages.





# GETTING AROUND

What would make Red Wing a better place to live?

# 505

responses across all 2017 community engagement events and surveys mentioned improvements to transportation in Red Wing that would make it a better place to live. The top suggestions are shown to the right.



## Better Infrastructure Upkeep

83% of residents surveyed in the 2017 Community Survey think pavement repair in Red Wing is either excellent or good, and 89% feel that way about snow plowing. Those rank as very high rates of satisfaction compared with other Minnesota communities. However, 2017 community engagement and survey participants also said the city could do a better job keeping up with road repairs and snow plowing. Note: Over the past four years, Red Wing has experienced a large number of street reconstruction projects.



## Improvements to Public Transit

2017 community engagement and survey participants expressed their desire for access to more public transportation options in Red Wing. Many respondents believe the bus system would benefit from better scheduling and more frequent service. Other residents desire commuter train or bus service to Rochester and the Twin Cities. Ride share services like Uber and Lyft were also mentioned.



## Bike and Pedestrian Infrastructure

Community engagement participants said they wanted a more connected bike and pedestrian network in Red Wing. Many comments indicated a desire for continuous trails along the Mississippi River, especially between the parks. People also want a walkable and bikeable downtown, safe access to the high school across Hwy 58, and maintained sidewalks in neighborhoods.

# 260 / What do folks like most about living in Red Wing?

4,160

Responses mentioned transportation, including:

65

Location/ Proximity to Metro Areas

62

Walkable Community

56

Ease of Access/ Little Congestion

49

Recreational Biking & Hiking Trails

15

Amtrak/ Public Transit

11

Infrastructure & Upkeep



## Improvements to Traffic Flow and Parking

Parking and traffic downtown were posed as issues by many of the 2017 community engagement participants, including having trouble finding parking downtown and on Old West Main Street. People also noted some traffic congestion and wishing that traffic flowed better.



## Less Construction

With Highway 61 recently under construction and a new bridge project underway, it is understandable that people mentioned being tired of construction in Red Wing.



## Driver's Licenses for Undocumented Residents

The 2015 survey of Red Wing's Latino population found many residents are unable to acquire a driver's license. With limited transit options and barriers to year-round non-motorized transportation, not having a driver's license limits opportunities for immigrants to thrive.

## RED WING REPORT CARD SNAPSHOT

### BUS RIDERSHIP

Busing is a crucial service for some residents to get to daily destinations like work, day care, and the grocery store. Bus ridership has been on the rise for more than a decade:



7.4% of households in Red Wing are without a vehicle.

Source: U.S. Census Bureau American Community Survey

# Public Engagement

Engagement for the *Community Plan* began in 2017 with various outreach efforts. During this time, more than 500 respondents mentioned transportation improvements as an important element in making Red Wing a better place to live.

## Open House

On April 26, 2018, stakeholder feedback on the transportation system was collected at a 2040 *Community Plan* Open House held at the Red Wing Public Library. Comments were received from over 200 residents on their goals for the transportation system as well as comments on safety, connectivity, and services. Based on community feedback, the following preliminary goals were identified. These goals helped define the overall vision, goals and strategies for the 2040 *Transportation Plan*.

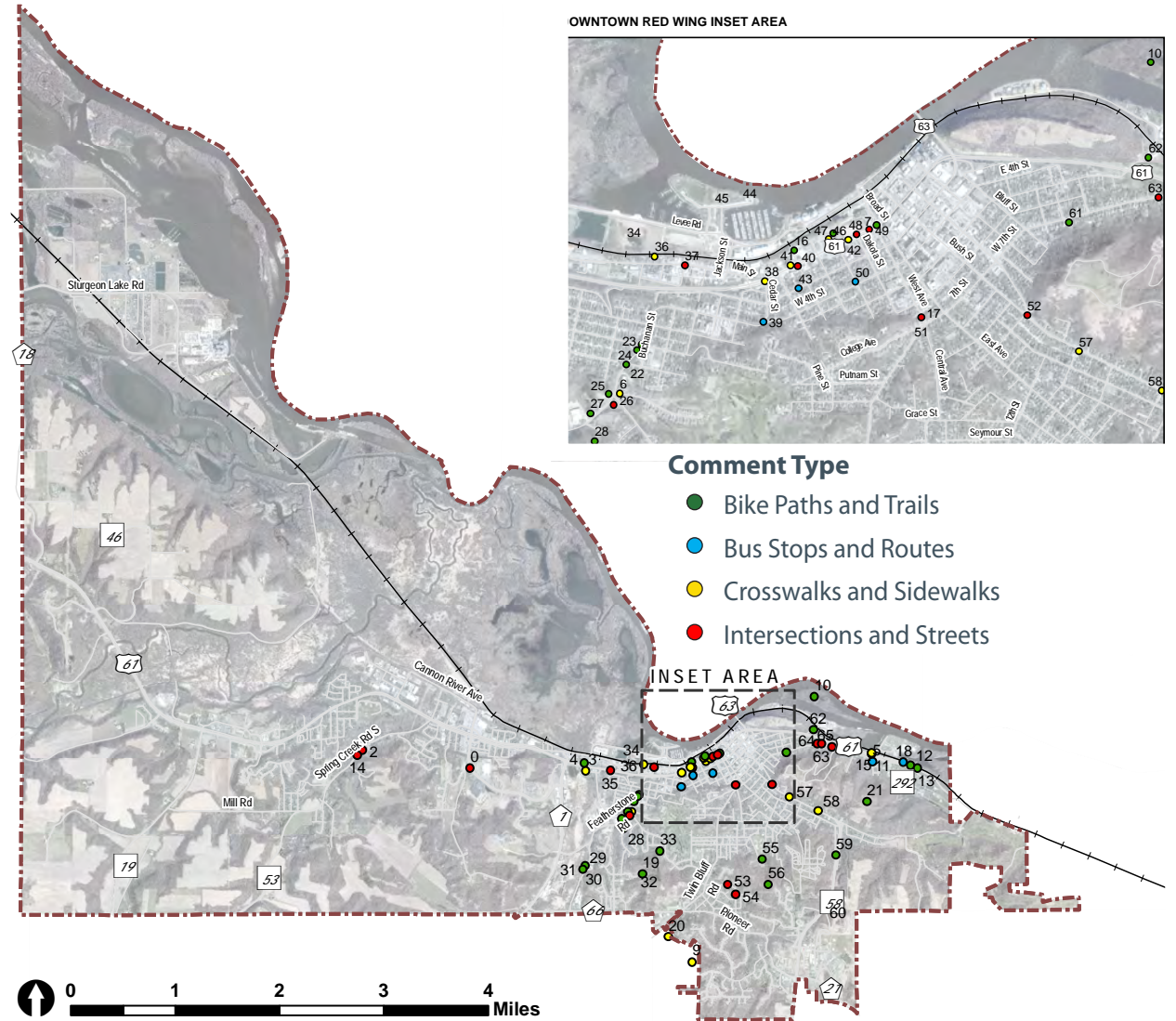
### Highest Priority Goals

- » Offer outstanding mobility, accessibility, and connections free from barriers.
- » Continue forging an innovative transportation system that invigorates our economy and prosperity.
- » Build a system that allows every resident to lead a healthier, more well-balanced lifestyle.

### Priority Goals

- » Preserve and maintain a high-quality system with superior standards.
- » Create a safe system for all users across all modes of transportation.

FIGURE 6.1 TRANSPORTATION RELATED COMMENTS RECEIVED AT APRIL 6, 2018 OPEN HOUSE



# 2017 Report Card

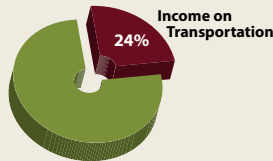
Recent projects have improved how we get to and from places.

Who is **not** being served adequately by our transportation options?

## Cost of Getting Places

As residents, transportation is one of our largest household expenses. In Red Wing, median-income families spend an average 24% of personal income going to and from places.

Source: U.S. Dept. of Housing and Urban Development's Location Affordability Index, and U.S. Census Bureau American Community Survey-2013

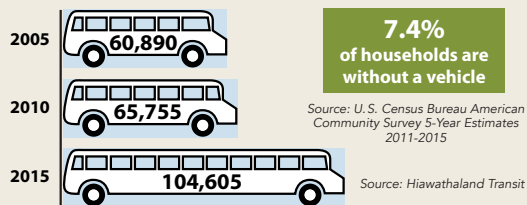


Goodhue County's average is 26%; Minnesota's average is 23%.

## Bus Ridership

The bus is a crucial service for some of us. Ridership jumped 72% from 2005 to 2016.

### Ridership on Hiawathaland Transit Bus



## Commuting

### Commuters Driving



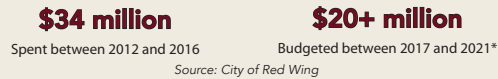
Source: U.S. Census Bureau American Community Survey 2011-2015. Numbers reflect commuting for primary jobs only; primary jobs are defined as one job per person using the highest-paying job.

How could rail possibly affect commuting in the future?

## Infrastructure Improvements

Investment in street and road reconstruction has more than doubled since 2012.

### Local, State, and Federal Dollars for Transportation Projects



Projects include Highway 61 Reconstruction; Levee Road; Twin Bluff School and Sunnyside School projects; Spring Creek Road Intersection; Multiple neighborhood street reconstructions.

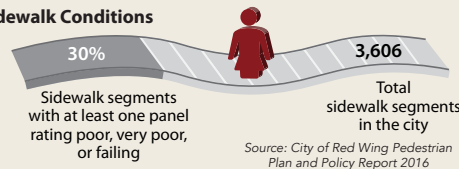
\* Does not include 63.4 million dollar bridge project over the Mississippi River.

## Walkability

Maintained and accessible sidewalks are vital for those who walk to destinations—especially the elderly, children, and people with mobility challenges.

**Did You Know?**  
The new bridge will have a protected bike and pedestrian lane and two overlooks.

### Sidewalk Conditions



### Sidewalk Connections



**Did You Know?**  
50 to 75 sidewalk segments will be fixed annually until all are brought up to code. Source: City of Red Wing Pedestrian Plan and Policy Report 2016.



# Existing Transportation System

Our existing transportation system in Red Wing consists of an infrastructure network that supports both motorized and non-motorized means of travel. While the primary means of transportation remains personal vehicles, modes such as walking, biking, transit, freight, rail, port, and aviation are significant elements of our overall system for transporting people and goods throughout our community and region. The following sections provide an inventory of the existing transportation system.

## Roadway Jurisdictional Classification System

Jurisdictional classification determines which level of government has obligations and authority over the regulation, maintenance, and construction of a roadway, as well as financial responsibility. A roadway jurisdictional classification is based on a variety of factors such as character of service, system continuity, access control, traffic volumes and land uses served.

The city has approximately 140 miles of roadway under five jurisdictions: federal, state, county, tribal, and municipal. Figure 6.2 provides a comprehensive map of the jurisdictional classifications for roadways within the city limits.

## Roadway Functional Classification System

A highly functional roadway network balances providing access to destinations with the safe and efficient transport of people and goods. The Functional Classification System categorizes roadways based on the degree to which they provide local access versus high-speed mobility. These

FIGURE 6.2 ROADWAY JURISDICTIONAL CLASSIFICATION SYSTEM

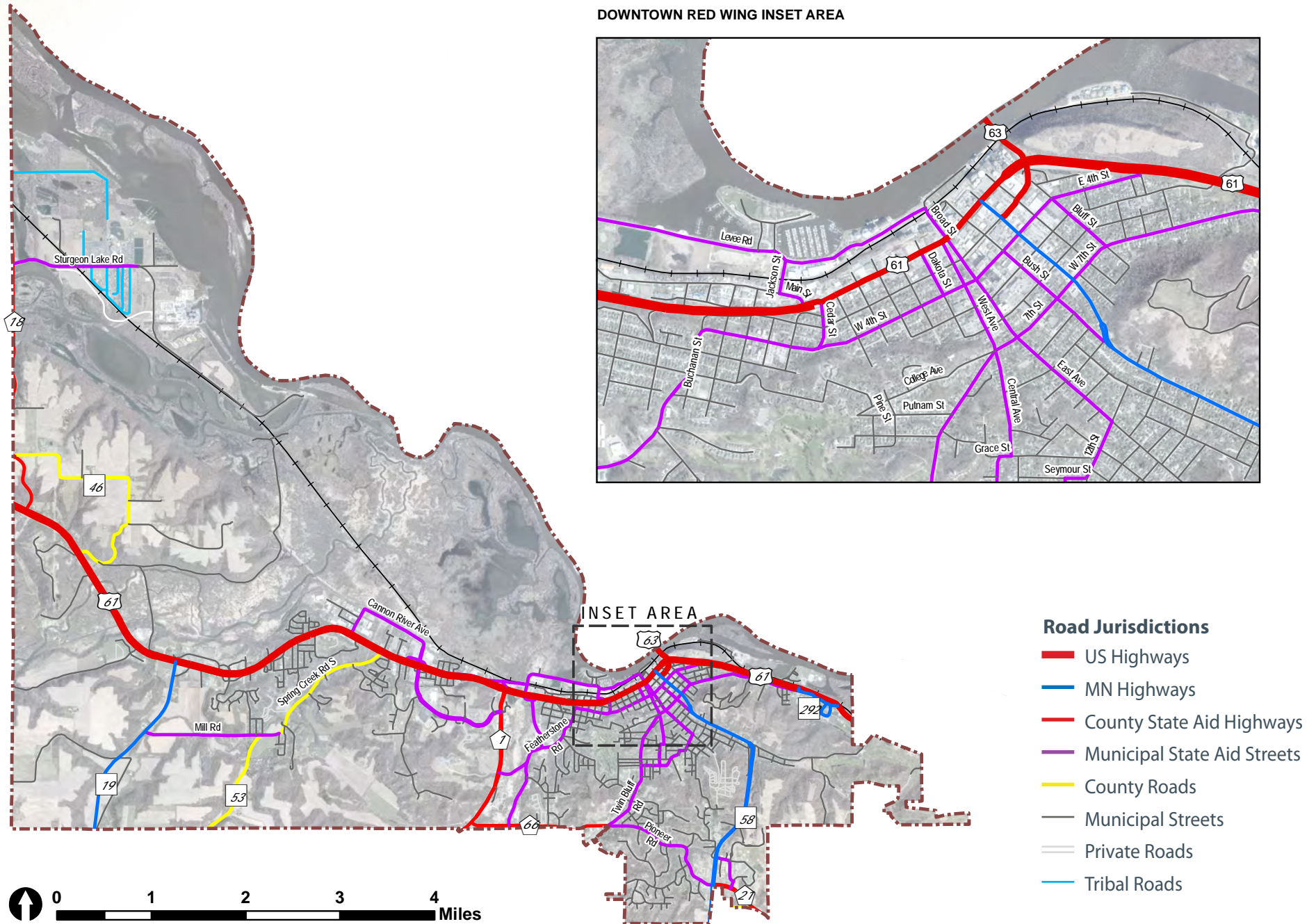
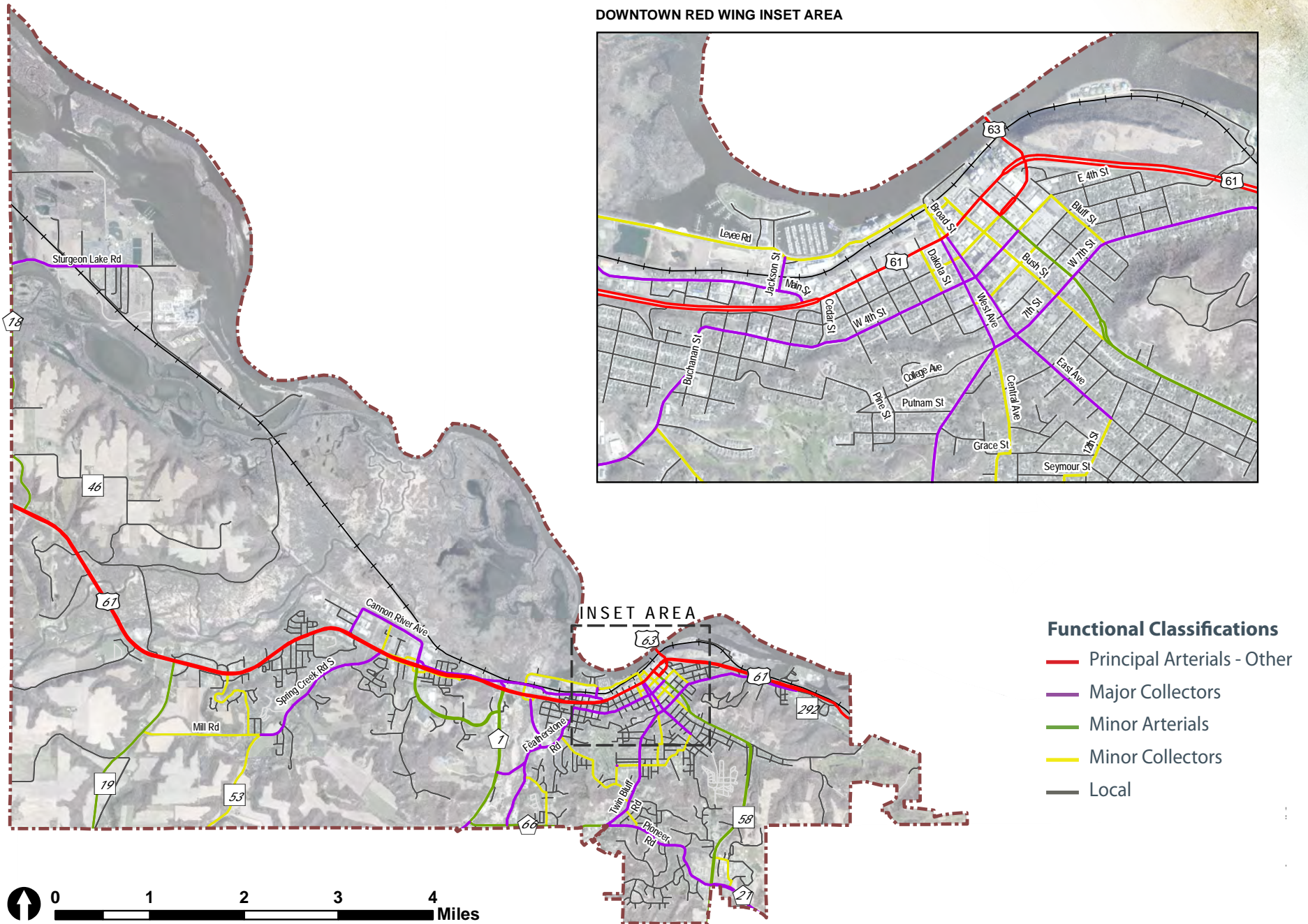


FIGURE 6.3 ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM





classifications include Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors and Local streets. Figure 6.3 provides a map of the functional street classifications.

- » **Principal arterials:** Highest vehicle speed; highest level of service to regional and national road networks; most limited access. (Example: U.S. Highway 61)
- » **Minor arterials:** High vehicle speed; high levels of service to regional road networks; limited access. (Example: Tyler Road South)
- » **Collectors:** Lower vehicle speeds; connections between neighborhoods and minor business/commercial concentrations; more access allowed. (Example: Levee Road)
- » **Local:** Lowest vehicle speed; connections and access to destinations, such as homes and shops; generally have low traffic volumes. (Example: South Park Street)

## Existing Traffic Conditions

How frequently a road gets used and the maximum capacity of the road are the two factors used in understanding network wide traffic conditions.

The existing traffic volumes are calculated using Annual Average Daily Traffic (AADT), which divides the total volume of vehicle traffic on a road in a year by 365 days. In general, the AADT of a road is correlated with its functional classification. Principal Arterials generally have high AADT volumes while minor collectors and local streets tend to have lower AADT volumes. For the most part, roads within the city follow this pattern. U.S. 61 and U.S. 63 have predictably high AADT volumes compared to the remainder of roads in the city, with upwards over 23,000 AADT while some minor collectors have volumes as low as 300 AADT.

## Capacity Analysis

In general, the capacity of a roadway is a measure of its availability to accommodate a certain volume of moving vehicles. A roadway segments level of service (LOS) is a quantitative comparison of an existing traffic volume (AADT) and the maximum volume the roadway can accommodate in its present configuration. Based on the ratio between existing traffic volumes and roadway capacity, an LOS grade (A to F) is assigned, which provides a qualitative indication of the roadway's operational efficiency or effectiveness. By definition, LOS A conditions represent very little delay or interference for motorists, and LOS F conditions represent significant delay or severe congestion for motorists.

Traffic flowing at capacity can be susceptible to breakdown caused by even a minor interruption or incident.

The LOS for all roadways with AADT information available through MnDOT's traffic data database was calculated by comparing the most recent available traffic counts for each facility to the traffic volume LOS thresholds. Based on the existing counts, all existing roadways have a planning LOS of A or B, indicating that each roadway is operating within its capacity. The roadway segment with the highest existing volume to capacity (v/c) ratio is the U.S. 63 Bridge north of U.S. 61 with a v/c ratio of 0.74, which is LOS B approaching LOS C. No other roadways had a v/c ratio over 0.7.

## Safety Assessment

As illustrated in Figure 6.4, from 2006 to 2015, our community experienced an annual average of 302 motor vehicle crashes, with the trend decreasing over the 10-year period (Source: MN Crash Mapping Analysis Tool).

FIGURE 6.4 10 YEAR CRASH HISTORY

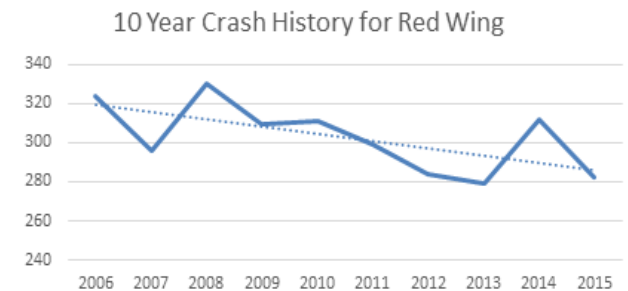


Figure 6.5 presents the locations and frequencies of crashes throughout the city. Location specific crash data was obtained from MnDOT's crash mapping analysis software (MnCMAT) from January 1, 2011 to December 31, 2015 (Crash data for 2016 and 2017 is not currently available through MnCMAT). The intersections with the most crashes during this time period occurred at the cross streets of U.S.61 and Tyler Road with 53 crashes, and U.S. 61 and East Avenue/West Avenue with 53 crashes. Nine of the top 11 intersections with the most crashes are located along U.S. 61 and U.S. 63, with the remaining two intersections located along MN-58.

Intersections with a high crash history should be further reviewed to determine the causal factors contributing to the high number of crashes. Problem locations should be monitored and further evaluated as deemed appropriate by city staff. Intersection geometric changes and/or traffic control changes can often be identified to reduce the frequency, or possibly the severity, of crashes that occur in the future. Intersection safety is routinely addressed as part of larger corridor construction and reconstruction projects.

FIGURE 6.5 CRASH LOCATIONS AND FREQUENCIES

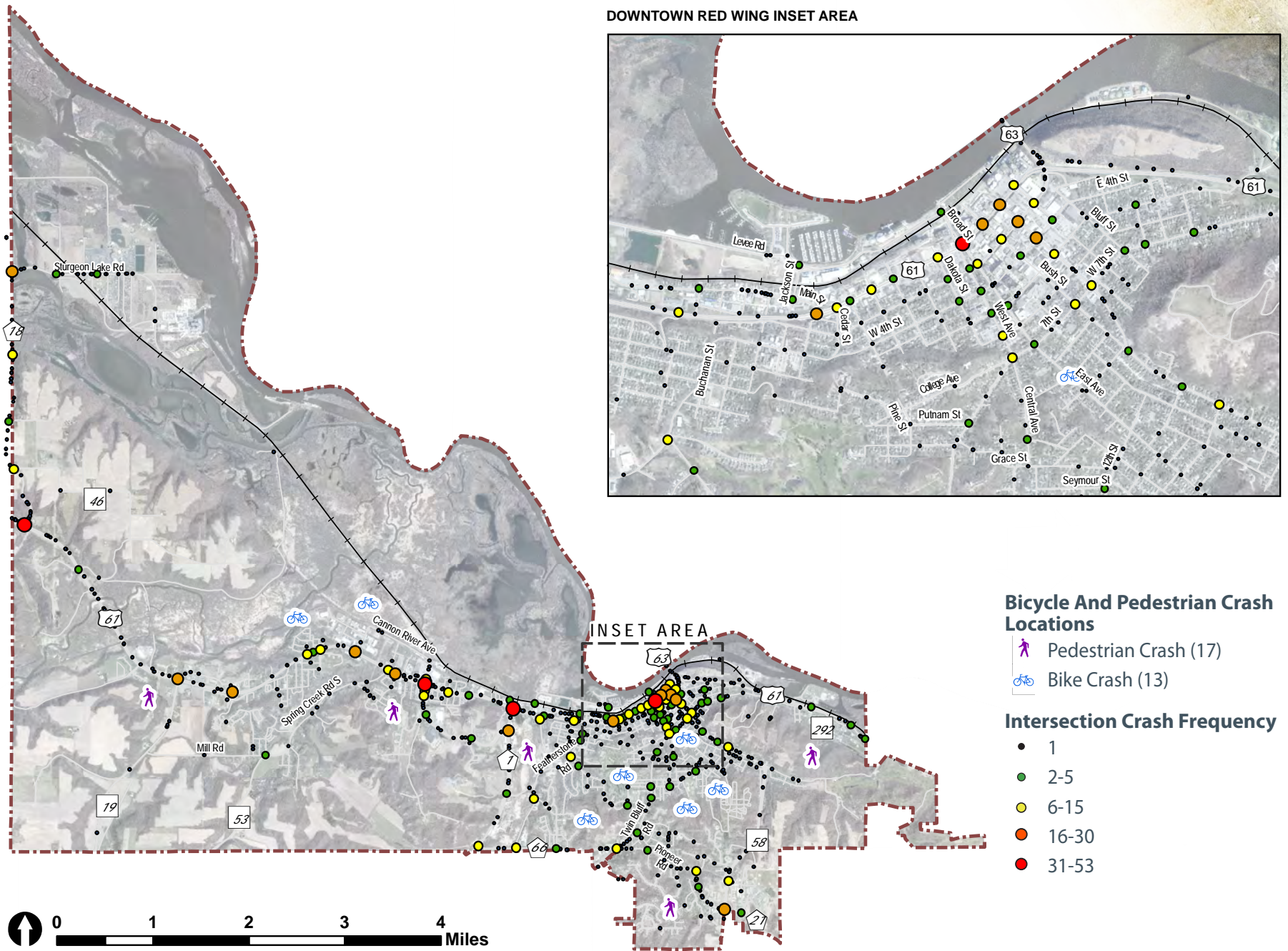




Image Source: Seattle Department of Transportation



### WHAT WE HEARD

“...I graduated a few years ago and crossing the highway was terrible. The light changes too fast and cars never watch...”

## Non-Motorized Safety

Beyond overall crash statistics, it’s important to look at crashes that involve pedestrians and bicyclists as they represent the most vulnerable users of the transportation network. Unlike motorists who are protected by in-vehicle safety measures, pedestrians and bicyclists are fully exposed to the impacts of a crash with a vehicles. Speed is a major factor in the severity of these crashes. At 20 mph, a pedestrian has a 90% chance of survival, while at 40 mph the chance of survival drops to 10 percent. Because of this vulnerability, pedestrian and bicyclist safety requires additional attention when planning a transportation network that is safe for all users.

From 2011 to 2015, there were 17 crashes that involved a pedestrian and 13 crashes that involved a bicyclist within the city. The location for these crashes can be seen on Figure 6.5. Unlike the vehicle only crashes, which mainly occur in high numbers along principal arterials and major collectors, the pedestrian and bicycle crashes are more spread out and occur on a variety of roadway types from principal arterials and major collectors to local roads. The *Bicycle and Pedestrian Master Plan* identifies additional problems and solutions to improving safer crossings throughout the city. In general, high speeds and wide roadways were seen as significant barriers to safe crossings, regardless of roadway type.

It should be noted that the absence of a crash at particular locations does not necessarily denote safety. Perceived safety issues for bicyclists and pedestrians can decrease use of an intersection or crossing, leading to avoidance of a particular area, which in turn decreases crash counts.

## Transportation Network Maintenance and Preservation

### Roadways

#### State/County

MnDOT and Goodhue County maintain pavement management systems to identify roadway maintenance priorities. Although the city does not control the state or county’s pavement management systems, mobility throughout the city can be reduced due to lack of maintenance on state or county-owned roads. State and county maintenance projects can also provide opportunities for the city to upgrade its utility systems or contribute toward making spot safety improvements. The city should work closely with MnDOT and Goodhue County to identify future projects and opportunities for improvements for mobility and safety within the city.

#### City

Our transportation network in Red Wing constitutes a valuable asset and major public investment. Therefore, maintenance and preservation of this asset must be managed in an efficient and cost-effective manner throughout the life-cycle of the infrastructure.

Primary transportation assets can be divided into five categories:

- » Roadway Pavement
- » Traffic (signals, traffic control signs, pavement markings, etc.)
- » Roadside features (retaining walls, guardrail, pedestrian ramps, etc.)
- » Drainage (curb/gutter, catch basins, culverts, retention/treatment ponds, etc.)
- » Bridges (including large culverts)

The Red Wing Engineering Department has identified the primary roadway needs for the coming years and have prepared a series of maintenance maps that highlight local routes planned for seal coating, mill and overlays, reclamation, and full reconstruction (see maps in the *Transportation Plan*).

Currently, the city does not have a comprehensive asset management plan for their transportation infrastructure. The city does monitor the overall condition of roadways and recently completed an inventory and assessment of sidewalks throughout the community. The city should consider adopting a formal Pavement Maintenance Program to provide a long-term strategy to enhance pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety, and meet resident's expectations. As shown in the diagram below, as the pavement condition decreases, the cost for the appropriate method of repair can increase significantly. Maintenance activities applied to surfaces in better condition,

such as sealcoats or thin overlays can be more cost effective than waiting until the pavement is in poor condition when it is necessary to perform more costly maintenance or reconstruction. In addition, the disruption of traffic is less for more frequent and minimal maintenance treatments in comparison to larger reconstruction treatments.

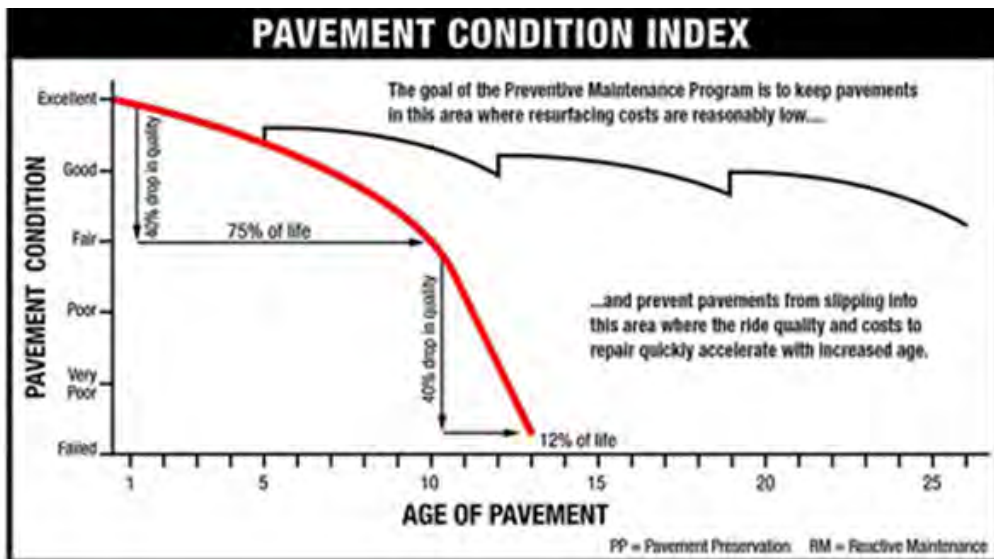
### Bridges

MnDOT has developed a database to help manage over 20,000 federal, state, county, and local bridges across the state. The database provides information on the age and structural sufficiency of each bridge. Within Red Wing, there are 51 bridges, 21 of which are owned by the state, 14 by the county, 14 by the city, one by a railroad, and one under private ownership.

Bridges within the city that scored less than 80 on the Sufficiency Rating are shown in the *Transportation Plan*. These scores are based on a 0 to 100 scale created by the Federal Highway Administration (FHWA). Bridges that score below 80 on the

Sufficiency Rating are eligible for rehabilitation while bridges that score below 50 are eligible for full replacement.

Based on MnDOT Bridge Reports (May of 2018), three bridges are eligible for full replacement (receiving a sufficiency rating less than 50) and six are eligible for bridge rehabilitation (with a sufficiency rating below 80). Of these, Bridge 9040 and Bridge 99205 are currently being replaced as part of MnDOT's Red Wing River Bridge project, which is scheduled to be complete in 2020. With the completion of these new bridges, the number of bridges below a 50 percent sufficiency rating will drop to roughly 4 percent, and the number of bridges below an 80 percent sufficiency rating will drop to roughly 10 percent.



## Transit Service

Public transit is an integral part of the Red Wing transportation system, providing mobility for those of us who may not own a car, be able to drive, or who may prefer an alternative to driving. Fixed transit routes that provide local, regional and national transit service by bus and rail are shown in the [Transportation Plan](#).

### Local Service

Existing public transportation within the city is operated by Hiawathaland Transit sponsored by Three Rivers Community Action Group, which offers a combination of fixed and on-demand bus service within the city limits and to a limited number of destinations outside the city limits.

According to data obtained from Hiawathaland Transit, bus ridership over the last three years (2015 to 2017) has remained steady with approximately 106,000 annual rides.

Service is offered seven days a week, 357 days per year. In-city bus routes include the Blue, Green and Red Routes, providing service from MN-19 in the west to MN-292 in the East and down to the southeastern edge of the city. Buses are provided every 45 minutes from 4:30 a.m. to 6:00 p.m. Early morning service was recently added at the request of residents. Dial-a-Ride services is also available through 9:00 p.m. on weekdays and 5:00 p.m. on weekends. The following web link provides more information regarding the transit services.

Link to routes: <https://threeriverscap.org/transportation/hiawathaland-transit/red-wing-service-area>

### Regional Service

Hiawathaland provides a daily transit service to and from neighboring communities including Plainview, Wabasha, Lake City, Wanamingo, Zumbrota, and Cannon Falls. This service was established to address employee commuter demand. Based on requests, the service was expanded to early morning hours; however, ridership has been light.

### Park and Ride Facilities

In an effort to reduce carbon emissions and vehicle miles traveled (VMT, the number of miles an individual drives a personal vehicle during a one year period), the city has provided three park and ride locations to facilitate carpooling and transit use. The newest facility has been completed at the intersection of U.S. 61 and Withers Harbor Drive and includes 31 parking spaces and an indoor transit station. Additional park and ride spaces are available at the La Grange and Studebaker parking ramps.

### Other Transit Options

#### Rail

Other transportation options in Red Wing include Amtrak's Empire Builder, which runs between Chicago and Seattle/Portland. Adjacent stations along Amtrak's route include Winona and La Crosse to the Southeast and Saint Paul and Saint Cloud to the northwest. The train station in Red Wing is adjacent to Levee Street, one block north of U.S. 61.

#### Casino Shuttles

Treasure Island Resort and Casino is a major local destination. The casino runs a free shuttle service from downtown Red Wing to Treasure Island Resort and Casino.

### Rideshare and Taxi Service

Rideshare and taxi services can be crucial in providing rides to locations that aren't served by other forms of transit. Limited rideshare services such as Lyft and taxi services such as Red Wing Taxi provide for-profit rides and are available on demand when drivers are available. In general, smaller cities such as Red Wing tend to have lower supply and demand for these services. Because of this, the reliability of rideshare and taxi services can vary greatly.

Non-public rideshare options within the city include a volunteer transit program known as HART (Hiawatha Auxiliary Regional Transit), that matches volunteers to those who are unable to use public transit or drive. Volunteers use their personal vehicles to help individuals get to medical appointments, the grocery store, and a variety of other locations.

## Non-Motorized Transportation

Walking and biking are the most common modes of non-motorized transportation. They provide inexpensive, healthy, and environmentally friendly ways of getting to and from destinations. These non-motorized modes can be used to transport people to and from work, school, entertainment centers, and public transit, and they can also be used as a means of recreation. The city has an extensive network of sidewalks, multi-use trails and bike facilities that provide residents with access to a variety of destinations and experiences. The following section outlines the existing facilities provided for non-motorized forms of transportation.

### Sidewalks/Trails

Red Wing has a total of 72 miles of sidewalks with the majority located in the downtown core and the area just to the south of downtown. Both areas feature

more compact development patterns.

Downtown Red Wing was originally built in a compact grid-like development pattern that supports a walkable community. Beyond the downtown area, development is more spread out due to the topographic changes of the Mississippi River bluffs and the suburban-style development that has occurred in more recent decades. These areas of sprawling development make it challenging to support vibrant pedestrian environments.

In addition to sidewalks, Red Wing has several multi-use trails that provide local and regional access for people traveling by foot, bicycle, wheelchair, scooter, skateboard, or various other forms of non-motorized transportation.

Red Wing boasts a total of 34 miles of paved trails, including the Cannon Valley Trail, Hay Creek Trail and Goodhue Pioneer Trail. Each of these trails provides local and regional access for recreation and transportation purposes. In the [2011 Bicycle and Pedestrian Master Plan](#), the city identified an additional 11 miles of planned trails, the majority of which will run parallel to the Canadian Pacific Railroad Line and along CR-53/ Spring Creek Road South. A three block, separated bicycle/pedestrian facility is located on a section of U.S. 61 near its intersection with Old West Main Street. A new separated bicycle/pedestrian facility is currently under construction as part of the new river bridge construction project, along two blocks of West Third Street and along the new bridge facility.

## Bicycle Network

A comprehensive and connected bicycle network is an important part of making a safe and connected transportation network that is economically and environmentally sustainable for all types of

transportation. At the time of this report, there were a limited number of on-street or bicycle-only facilities within the city. "Share the Road" routes exist along West Third Street, Hill Street, and West Avenue. The city currently lacks a comprehensive and connected bicycle network to meet the needs and goals identified in this and previous planning efforts.

Although bicyclists are allowed on city streets, the lack of designated bicycle facilities prohibits a large percentage of the population from participating due to safety and comfort concerns. According to a recent study conducted by the city of Portland, there are four different types of bicyclists: Strong and Fearless, Enthused and Confident, Interested but Concerned, and Not Interested.

Users in the Strong and Fearless and Enthused and Confident groups make up about 6-10 percent of the population. They are generally comfortable riding on all facility types, but the Enthused and Confident group generally choose low traffic stress routes or shared-use paths when available.

The largest user type is the Interested but Concerned cohort which makes up approximately 60 percent of the population. This group will typically only ride on low-speed residential streets or protected bicycle facilities where there are fewer perceived barriers such as traffic and safety. This group represents the largest opportunity to increase the rate of bicycling in the city, but they require more investment in infrastructure to participate.

To create a more connected network that works for all user types, bicycle routes have been identified in the [2011 Bicycle and Pedestrian Master Plan](#). Routes along Twin Bluff Road, Pioneer Road, West Fourth Street, and Seventh Street are planned for future bike lanes or Share the Road markings and signage.

Once completed, Red Wing will have an enhanced system of bicycle facilities, providing residents access to schools, places of employment, shopping, and entertainment centers.



New communication policies now remind residents early in the winter about sidewalk responsibilities.



Red Wing passed a Complete Streets Policy Resolution in 2011 and now uses data to see where priority projects are needed based on safety issues for pedestrians and bicyclists.

Source: Red Wing Engineering Department, 2018

## Complete Streets

As our transportation system evolves to meet future needs, we are committed to providing safe, convenient, and context-sensitive facilities for all modes of travel and for users of all ages and all abilities. To meet this commitment, the city adopted a [Complete Streets Policy](#) in January of 2011 which prioritizes the most vulnerable users: pedestrians, bicyclists and transit users. The Policy encourages development of sidewalks, bike facilities, transit amenities, and safe crossings in the building and redevelopment of streets within the city. By redistributing public right-of-way to accommodate all modes of travel, Complete Streets policies have the opportunity to:

- » Improve access and safety for those who cannot or choose not to drive motor vehicles
- » Provide public health benefits, such as encouraging physical activity and improving air quality, by providing the opportunity for more people to bike and walk safely
- » Reduce the amount of pavement, creating a more environmentally friendly street corridor
- » Avoid expensive retrofits by including discussions of multimodal facilities at the very beginning of a project
- » Provide safe routes to school for children

The [2040 Transportation Plan](#) incorporates these Complete Streets principles into the future transportation system by planning for a safe and connected network that is economically and environmentally sustainable for all types of transportation.

## Other Forms of Transportation

### Freight/Trucking

Red Wing is home to many industrial and commercial companies that collectively provide a large number of jobs for Red Wing and surrounding area residents. To survive and thrive, these companies rely on the network of roadways extending into, through and within the community. The state highway system (i.e. U.S. 61, U.S. 63, and MN 58) is the backbone of the truck route roadway network. Significant truck routes on the local roadway system include:

- » Levee Road
- » Broad Street
- » Withers Harbor Drive
- » Old West Main Street
- » Bench Street
- » Tile Drive

### Ports and Waterways

Located on the banks of the Mississippi River, Red Wing has a rich history of using the river for transporting people and goods. Though over the years, truck traffic (via the highway system) has become the predominant freight mode, the port is still a key element and a large part of what makes Red Wing a freight hub. There are three barge terminals in the community:

- » Red Wing Grain
- » ADM
- » Xcel Facility/Red Wing Municipal Dock #1

There are also several small vessel marina facilities including:

- » Ole Miss Marina (city owned)
- » Bill's Bay Marina
- » Red Wing Marina

## Rail

Red Wing is a hub for rail passenger service (Amtrak) and freight rail service (Canadian Pacific). Each is summarized below.

### Amtrak

Amtrak is the nation's largest provider of contract-commuter services for state and regional authorities. The passenger rail line serves more than 500 stations in 46 states. A small, unstaffed Amtrak station is located on Levee Street in Red Wing. Amtrak operates the Empire Builder (one daily train in each direction) that provides passenger service between Chicago and the Seattle/Portland area and utilizes Canadian Pacific Railroad tracks through Red Wing. The Empire Builder operates through Red Wing's historic depot, but there are currently no ticketing or baggage services available at the station.

### Canadian Pacific

The main line of the Canadian Pacific (CP) Railroad runs along the northern edge of Goodhue County between the Mississippi River and U.S. 61. The CP rail line averages 21 trains per day, with maximum timetable speeds of up to 79 mph within Red Wing's city limits. Trains on the corridor include passenger trains (Amtrak), intermodal trains, lower-speed coal and commodity trains, general freight trains, and local freight trains.

## Aviation

The Red Wing Airport (FAA Identifier: RGK) is owned and operated by the city of Red Wing. The Airport serves general aviation transportation needs and is located approximately 3 miles northeast of Red Wing and across the Mississippi River in Pierce County, Wisconsin. The airport property encompasses an area of approximately 540 acres. Access from downtown

Red Wing to the Airport is via U.S. Highway 63, across the Mississippi River to Wisconsin State Highway 35.

The airport has a single paved runway (Runway 9/27, constructed in 2000) that is 5,010 feet in length and 100 feet wide. While runway 9/27 is jet capable there is no scheduled commercial airline service at the airport. The airport has an average of 38 flights per day. Most of the flights consist of general aviation, with 5 percent use by military jet airplanes and 2 percent air taxi.

Red Wing is partially within the influence area of the airport, and subject to associated land-use restrictions. Height restrictions range from 927 feet above sea level along the river to 1122 feet southeast of downtown. With elevation in this area ranging from 700-1000 feet above sea level, it is unlikely that the restrictions will have a significant impact on future development.

The closest regional airport is the Minneapolis-St. Paul International Airport, approximately 40 miles to the northwest.



Red Wing's Regional Airport, located just three nautical miles away in Pierce County, provides a jet-capable runway and offers an added bonus to our economy and emergency service options.

Source: Red Wing Airport, 2018



# 2040 Transportation Plan

## 2040 Roadway System

The consideration of a 2040 roadway system needs to examine the conditions of the network that currently serves the city of Red Wing, while also anticipating future demands and deficiencies. Future deficiencies and recommendations are based on effects on the current system with an application of long-range (20-year) traffic projections. The 2040 roadway system analysis includes the following elements:

- » Development of 20-year traffic projections;
- » An inventory and assessment of the roadway system's existing and future capacity conditions and safety/traffic operations using 20-year traffic projections;
- » An inventory and determination of the suitability of the current functional and jurisdictional designation of the local and regional roadway system in the city of Red Wing;
- » Consideration of access and corridor preservation techniques.

## 2040 Traffic Volume Forecasts

Traffic volume projections were prepared for the year 2040 using a combination of AADT information available through MnDOT's Traffic Data database and MnDOT's Minnesota Equivalent Single Axle Load (MnESAL) Traffic Forecasting Tool. The forecasts take into account the demographics of Goodhue County and apply an adjustment to the forecast AADTs. Goodhue County has an adjustment factor of 0.93 and is classified as a medium growth area, which means that if the historical trend indicated a 1.0 percent per year growth rate the demographically adjusted forecast would use 0.93 percent per year as a

growth rate. The growth rate has a set minimum value of 0.5 percent per year. Any outliers in AADTs were removed to more accurately forecast future traffic demands.

## Capacity Assessment

Despite the topographical challenges the river valley presents, the city of Red Wing has a comprehensive system of roadways that fulfill travel desires of residents and employees in and surrounding the community. However, as development and travel demand increase, issues may arise regarding roadway capacity.

To gain a clearer understanding of potential areas of concern regarding future roadway capacity constraints, an assessment of forecast operational concerns throughout the city has been completed using the 2040 traffic forecasts along with the planning level capacity guidelines presented in the [Transportation Plan](#). The purpose of this analysis is critical in identifying transportation system needs and/or future roadway improvements that may require advanced planning, design, and implementation to avoid operational problems as travel demand and traffic volumes increase. However, it should be noted that the planning level capacity thresholds do not provide a basis for determining the need for specific intersection improvements. For instance, traffic conditions that do not fit the average daily traffic criteria (e.g., weekend thru traffic, seasonal/holiday peak travel periods, or special events) are likely to produce different levels of congestion. Additionally, factors such as the amount of direct access and unique roadway geometrics influence the capacity of a roadway.

Based on planned transportation improvements and forecast traffic volumes, no roadway segments

are projected to exhibit sustained congestion. The congestion levels for the segments of roadway in Red Wing are all anticipated to operate at acceptable levels of service A or B.

It should be noted that special traffic conditions, not meeting the definition of average daily traffic, such as seasonal peaks or special events, may affect congestion levels. Additionally, factors such as intersection design, access, and roadway geometrics may alter the capacity of the roadway.

## Safety Assessment

The Safety Assessment section under the Existing Transportation System presented an assessment of existing safety conditions including the identification of the eleven worst crash locations within Red Wing. Since the frequency and distribution of reported crashes indicate several "crash hot spots" it is recommended that these areas be regularly monitored. If future conditions deteriorate to a point of concern that corrective actions need to be implemented, a full safety assessment shall be conducted that would analyze crash type, severity, and contributing factors (e.g. roadway geometrics, speeds, traffic control type, etc.).

Many locations identified as having safety concerns may in fact be the result of an aging system that was built prior to modern roadway design standards. Implementation of current roadway design standards are expected to help eliminate many safety concern areas located throughout the community. Additional locations may become apparent as a result of new development and increases in traffic volumes.

## Right-of-way Preservation

Right-of-way preservation entails the coordinated application of various methods to obtain control of or otherwise protect right-of-way for future transportation improvements. The illustration shown in Figure 6.6 highlights the standard elements of a transportation right-of-way corridor.

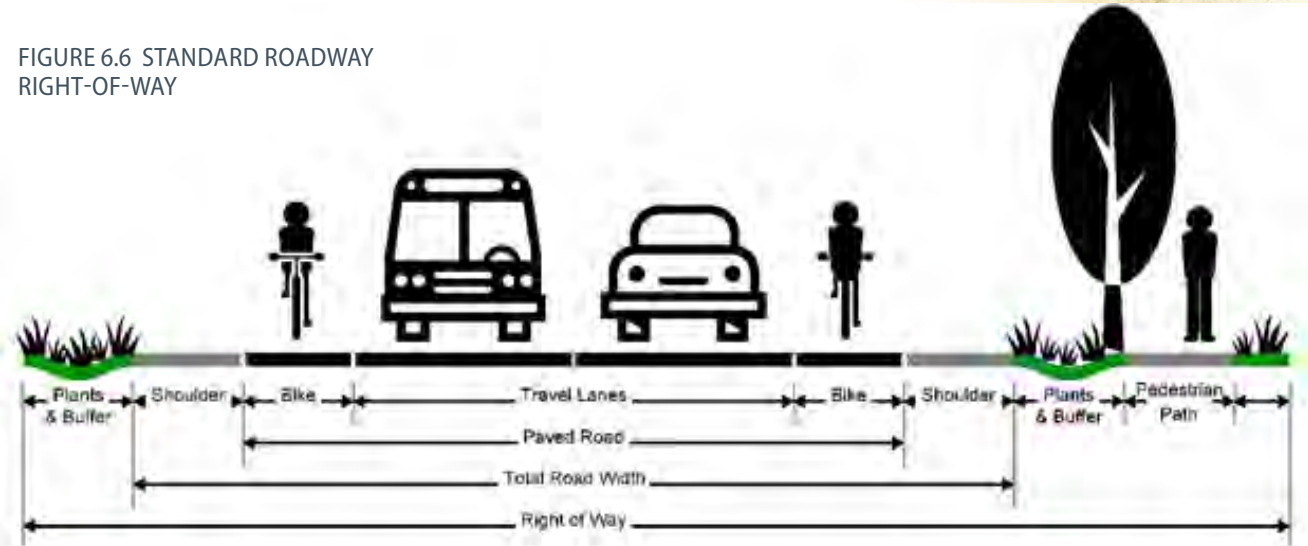
The primary purpose of preserving right-of-way is to greatly reduce the costs of acquiring property at the time of the actual implementation of the transportation infrastructure. Costs should be measured in terms of dollars, environmental impacts, and social effects incurred by homeowners, businesses and the community as a whole.

There are many different techniques available to protect right-of-way corridors for future transportation improvements. The city may determine the need to preserve right-of-way in developing and/or redeveloping areas. The basic approaches for preserving transportation right-of-way are summarized below:

- » Access Management (limiting property access)
- » Land Use Regulations (development activities, plat reviews, setback requirements, official maps, and other subdivision regulations)
- » Landowner Agreements (development agreements, transferable development rights)
- » Land Acquisition (purchase of easements, title purchase, and eminent domain)

In summary, the use of these preservation options is dependent on many factors including available funding, the timing of development, and the programming of the transportation improvements.

FIGURE 6.6 STANDARD ROADWAY RIGHT-OF-WAY



## Roadway Design Guidelines- Living Streets

### What is a Living Street?

Living Streets is a term that has developed over the past ten years that reflects a combination of the Complete Streets and Green Streets design philosophies. Complete Streets refers to street design that provides for multiple modes of transportation and Green Streets refers to street design that reduces environmental impacts by reducing impervious surface, managing stormwater, and providing shade.

Early in the transportation planning process, the city decided to incorporate the living street philosophy into the development of roadway design guidelines presented later in this section. The city recognizes the importance of establishing guidelines to provide uniformity and direction to the city's ongoing street maintenance and reconstruction process. The design guidelines recognize that while all public streets are designed for public use, different roadways are designed to have different functions and serve different types of traffic and travel modes. The volume of traffic that should be on each street is directly related to how a street is used and its function for the overall community.

### Benefits of Living Streets

- » **Economic:** lower initial costs; lower maintenance costs; increased property values; economic revitalization.
- » **Community:** improve public health; increase safety; enhance neighborhood beauty; strengthen sense of community; provide positive impact upon children.
- » **Environmental:** improve water quality; improve air quality; reduce the urban heat island affect; reduce materials and energy used in street construction; promote the planting of trees.
- » **Calming traffic:** Through implementation of different measures such as reducing street width, adding bump-outs, raised crosswalks, dynamic signing, and different pavement treatments. These measures help ensure roadways serve their specified function.

## Design Guidelines

Recognizing the unique characteristics of Red Wing's street network, which has developed over many years and is significantly influenced by the river bluff topography, the design guidelines are intended to be flexible and will continue to be refined. Street designs on the state-aid system will need to follow current state-aid standards that are in effect at the time of construction.

The Living Streets design templates apply to three primary roadway classification categories:

- » Urban Streets
- » Urban Roads
- » Rural Roads

The *Transportation Plan* illustrates these road designations for the city street network.

A brief discussion of each roadway type follows. The concepts include design options such as the number of traffic lanes, whether or not there are parking and/or bike lanes, whether or not sidewalks are provided, etc. The roadway typical section templates have been prepared to address the most common combination of options for each type of roadway (see the *Transportation Plan*).

### Urban Streets

Urban streets encompass the majority of roadway mileage under the city's jurisdiction. Their primary function is to provide access to residential neighborhoods and linking those neighborhoods to urban roads and destinations within and outside of Red Wing. See the *Transportation Plan* for the series of typical roadway sections.

#### General Design Parameters:

- » Typically 50'- 60' right-of-way, but could be as narrow as 40' and as wide as 100'

- » Roadway has two travel lanes (generally 10-foot) and on-street parking lane (7' to 8' width) on one or both sides of the roadway.
- » Sidewalks are generally provided on both sides of the street except in constrained rights-of-way or in locations with very low traffic volumes.

Under appropriate roadway geometry and low speed and AADT levels, urban streets may feature shared-lane markings or sharrows indicating a shared roadway between motorists and bicyclists. On urban streets with higher speed and higher traffic volumes, greater levels of separation may be needed between motorists and bicyclists. Facilities such as buffered bike lanes or multi-use trails can be warranted on busier local roads, especially in the vicinity of schools or parks or when a roadway is part of a key bicycle corridor.

### Urban Roads

Urban roads in comparison to urban streets tend to be more continuous, carry slightly higher traffic volumes, operate at higher speeds, and should average more than 300' between access points (driveways). Urban Roads may also serve residential land uses in urban and suburban areas, but also service commercial and industrial/manufacturing land uses. Urban roads typically terminate at higher functioning routes such as county roads or state highways.

#### General Design Parameters:

- » Typically 65' to 120' right-of-way
- » Roadway has either two or four travel lanes (11' to 12-foot)
- » No on-street parking allowed
- » Sidewalk or shared-use paths should be included along both sides of urban roads due to higher

traffic speeds and volumes. Enhanced crossings of urban roads should also be considered.

### Rural Roads

Rural roads serve lower density development in non-urban or suburban areas. Rural roads can provide connections to urban roads and higher functioning routes such as county roads and state highways. Rural roads have higher travel speeds, less frequent access (driveways and public road intersections), and serve fewer pedestrian/bicycle trips.

#### General Design Parameters:

- » Typically 60' to 80-foot right-of-way
- » Roadway has two travel lanes (11' to 12' width) and shoulders (6' to 10' width) on both sides of the roadway.
- » No curb and gutter drainage
- » No designated parking
- » Sidewalk and shared path application varies depending on land uses and pedestrian/bicycle movements and/or connections needed in the area.
- » May be paved or gravel based on roadway traffic volumes or drainages

## Access Management

Access management is an effort to maintain the effective flow of traffic on the network so each roadway can provide its functional duties while accommodating access needs of adjacent land.

Successful access management requires cooperation between land development and transportation interests in order to protect the public's investment in roads. Roadway functionality has a direct relationship between land access and roadway mobility. There is a correlation to the amount of access provided and the

ability to move traffic along a roadway. Higher levels of access reduce the ability for traffic to travel safely at higher speeds along roadways. Therefore, urban roads that have a high mobility function should have lower levels of access compared to urban streets that focus less on mobility and provide a higher level of access.

Red Wing can only control access onto city roadways and access onto other roadways becomes the responsibility of the state or county. However, access onto any route can be influenced and managed through local subdivision requirements, zoning regulations, and development standards/agreements. In Red Wing, adoption of access spacing guidelines are recommended as a strategy to effectively manage existing access and to provide access controls for new developments. See the *Transportation Plan* for proposed access management guidelines.

When the city receives a development proposal that proposes access onto a roadway under the jurisdiction of the state or county/township, the city will continue to coordinate the review of these proposals with the appropriate roadway authority. The city will also participate in the design process with the appropriate agency when roadways are proposed for construction or reconstruction to ensure proper design and location of access points.

## Regional Transportation System Considerations

### Highway

As noted in the Existing Transportation System section, the state highway system provides the primary connections between Red Wing and the surrounding region. Though outside the city's jurisdiction, it is important for the city to remain

engaged with MnDOT to better ensure that this system addresses the range of commuter and commerce needs of the community. A long standing priority has been plans to improve the safety and capacity of Highways 50, 52 and 61 to enhance this vital Red Wing to Twin Cities corridor.

### 2040 Transit Service

The local transit system, Hiawathaland Transit provides both fixed route and "dial-a-ride" service. As indicated in the Transit Service section, bus ridership increased by roughly 60 percent between 2010 and 2015. However, the system may face challenges in addressing the growing demands with limited resources. Service refinements have continued in an attempt to enhance service where there is the greatest demand and reduce services where ridership trends are lower.

In addition, input provided from transit agency staff indicate there are constraints in the roadway network that restrict the ability to provide effective service in certain areas with higher demand. These include:

- » Bus operations being adversely affected by afternoon congestion in the downtown area.
- » Constrained intersections along various routes limiting safe turning movements for transit vehicles
- » Constrained (narrow) roadways making it difficult for transit vehicles to negotiate streets, especially with on-street parking

Red Wing Public Works and transit staff need to continue their on-going coordination to identify priority issue areas and seek opportunities to pursue improvements to the roadway network, especially as part of the city's street maintenance and improvement process. Potential opportunities could

include:

- » Develop programs in coordination with local employers to promote carpooling
- » Partner with ridesharing services (i.e. Lyft and Uber) to provide supplemental transit service, including to customers outside the fixed route service area
- » Include transit service considerations when pursuing reconstruction of city streets (i.e. ensure streets on existing or potential transit routes are appropriately designed to accommodate transit vehicles and that sidewalks are included on streets that link to transit routes).

In addition to the local transit system considerations, the city should remain engaged in regional transit initiatives including the Red Rock Corridor. Though the corridor studies to date have not considered future services beyond Hastings, the city should stay connected with the efforts and continue to advocate for the longer term potential of regional transit services extending to Red Wing and other southeastern communities such as Rochester/ Zumbrota.



In response to more stringent federal Americans with Disabilities Act standards, the city has been upgrading sidewalk curb ramps since 2016. Each four-corner intersection costs an average of \$12,000 to make the ramp easily useable for wheelchairs, walkers, and strollers (it costs more when the intersection is on an incline or decline). The federally mandated improvements are required in order to be eligible for future state and federal transportation grants.

*Source: Mayor's Task Force on Streets and Sidewalks Pedestrian Plan and Policy Report, 2014-2016*

## 2040 Pedestrian and Bicycle Facilities

Walkable and bikeable communities support a high quality of life, improve personal and environmental health, and promote strong and connected communities and economies. The [Red Wing Bicycle and Pedestrian Master Plan](#) (adopted November 2011) and the [Pedestrian Plan & Policy Report](#) (2014-2016) highlight the existing conditions and the many benefits of non-motorized transportation options for residents and visitors. These plans also acknowledge that developing a fully connected system can take many years and only be accomplished through a series of smaller incremental improvements as limited fiscal resources are available to improve the transportation network as a whole.

As noted in the Non-Motorized Transportation section, the city has an extensive network of sidewalks, multi-use trails and bike facilities that provide residents with access to a variety of destinations and experiences. Generally, the downtown area is well connected with a grid of sidewalks, but there are gaps in the system, both downtown and reaching into the surrounding neighborhoods that should be targeted for improvement. The [Bicycle and Pedestrian Master Plan](#) identifies 11 miles of planned trails, including new corridors parallel to the CP Rail Line and along CR-53/Spring Creek Road S.

Non-Motorized Transportation Section discussed the city's limited on-street bicycle network. However, the [Bicycle and Pedestrian Master Plan](#) proposes to add roughly 37.5 miles of on-road facilities ranging from painted sharrows and route signage to protected bicycle lanes. The planned facilities are illustrated in [Transportation Plan](#).

In conjunction with the increased support of trail and sidewalk connectivity throughout Red Wing, the

city has become more aware of the safety needs of pedestrians. Special safety provisions for pedestrians shall be considered when pedestrian facilities are proposed along all roadways, but especially along major collector and/or arterial routes. The city shall continue to monitor pedestrian safety conditions and implement safety measures (e.g. enhanced lighting, signage, striping, signal systems, etc.) as issues arise.

Beyond the city limits, the city should stay involved as appropriate in efforts to extend regional trails along the Mississippi River Valley that could provide connections to Hastings and Lake City.

## Americans with Disabilities Act (ADA) Transition Plan

The Americans with Disabilities Act (ADA), enacted on July 26, 1990, is a civil rights law prohibiting discrimination against individuals on the basis of disability. ADA regulations require all public agencies such as Red Wing develop a Transition Plan detailing policies and practices for implementing physical pedestrian improvements on public lands, including within the public right-of-way.

On July 9, 2018, the [Red Wing ADA Transition Plan For Public Rights of Way](#) was adopted. The plan was prepared by the city's Engineering Department with input from city staff, City Council, and community members. The goals of the [ADA Transition Plan](#) are to optimize the pedestrian experience, to provide safe and usable pedestrian facilities for all individuals, and to assure compliance with federal, state and local regulations and standards.

As part of the plan development, Red Wing conducted a self-evaluation of its curb ramp facilities and details the accessibility of city-owned right-of-way as it relates to pedestrian curb ramps. In the future, the city will be conducting further evaluations

of its sidewalks, trails, buildings, communications, and city policies to identify additional updates to ensure future accessibility to all individuals.

The curb ramp evaluation found that, at this time, nearly 85 percent of all curb ramps in the city are non-compliant with ADA standards. As part of the planning process, an improvement priority schedule was established that ranked areas based on accessibility benefits for the greatest number of users. It is the city's intention to follow the priority area rankings for standalone ADA improvement projects. The [Pedestrian Plan & Policy Report](#) (2014-2016) recommended the city include funds in the annual Capital Improvement Program (CIP) to upgrade sidewalks and curb ramps to ADA standards.



However, the majority of curb ramp upgrades will occur in conjunction with other city street projects that will incorporate ADA compliant curb ramps into the design.

In 2010, the Minnesota Department of Transportation (MnDOT) adopted a statewide ADA Transition Plan for improvements being proposed on the Trunk Highway system and State Aid system. As a result,

several ADA compliant improvements, including the improvements along Main Street and those associated with the Highway 61/63 River Bridge Project have already been implemented throughout Red Wing.

The city's [Transition Plan](#) is a living document that will need to receive routine updates. As additional city-owned facilities (sidewalks, trails, buildings), communications, and policies are evaluated, and as projects are implemented, the [Transition Plan](#) will be updated.

## Other forms of Transportation

### Freight

The city of Red Wing is a freight hub for southeastern Minnesota. The city recognizes the importance of freight movement and how it plays a critical role in supporting the community's economy, competitiveness, and quality of life. A safe, efficient, reliable, and robust freight transportation system enables area residents to have access to goods and materials, and businesses that are dependent upon the freight transportation system to distribute their products or receive shipments needed to manufacture goods. The city also recognizes that many aspects of freight movement are controlled by the private sector and that mobility and access issues affecting freight transportation need to be coordinated with MnDOT and other partners (both private and public) to ensure the transportation system continues to address and support current and future freight needs.

Freight related infrastructure and facilities in Red Wing are discussed in the following sections:

### Trucking

The primary truck routes through the Red Wing area are U.S. 61, U.S. 63, MN-58, and MN-19. U.S. 61 travels through downtown Red Wing with approximately 5 to 7 percent of the AADT volumes being heavy commercial trucks. U.S. 61 generally provides north-south connectivity through the region linking southeastern Minnesota with the Twin Cities, which is approximately 35 miles northwest of Red Wing. As such, U.S. 61 is an important travel route for freight. Within Red Wing, however, U.S. 61 also functions as the primary general transportation roadway. There are not many options within Red Wing to relocate U.S. 61's function as a truck route thereby rerouting heavy truck movements through downtown and the boarder community. However, the reconfiguration of the U.S. 61/US 63 interchange near the east end of downtown will improve truck operations in the Plum Street/3rd Street/Main Street area. Improvements on the local transportation system (e.g. Withers Harbor Drive and Broad Street) shall consider truck movements to better service the freight connection between the Red Wing Grain Area and U.S. 61.

Through survey responses and discussions with key freight generators, it has been determined that minor improvements could be implemented including the construction of bypass lanes, wider shoulders, improved access to riverfront grain terminals, and enhanced signage and lighting at key locations.

The city will continue to work with freight stakeholders (MnDOT, Goodhue County, local industries) to provide appropriate identification of spot improvements that will benefit the trucking industry, particularly for drivers that may not be familiar with the Red Wing roadway system.

## **Port**

Red Wing has long been known as an industrial and manufacturing community. An important element of the community's transportation system is the presence of the Mississippi River and the Red Wing ports. Red Wing is one of only four river ports in Minnesota. In 2015, approximately 97,000 tons of commodities passed through Red Wing's port. The port not only allows barges to carry cargo to international destinations, but the port helps drive tourism via river cruises.

The Red Wing Port Authority will continue to play an active role in helping port dependent businesses expand and relocate to Red Wing. The city will also consider enhancements to the port areas that are focused around providing amenities and a positive experience for tourists.

## **Rail**

Railroads are an important component of the regional and statewide transportation system. Freight rail links the region with major national and international markets. Discussed in the Other Forms of Transportation section, the Canadian Pacific Railway (CP) owns and operates the railroad tracks in Red Wing. As with all privately owned rail facilities, the CP is responsible for the future maintenance, operation, and safety along the rail corridor.

Rail infrastructure and facilities can also impact the physical and social environment and other components of the transportation system. There are eleven public at-grade rail crossings, five grade separated crossings and seven private crossings within Red Wing. Safety at these crossings remains a high priority for the city. While constructing a grade separated (overpass/underpass) facility may be the safest option, it can be cost prohibitive.

Therefore, continued investment in high benefit-low cost at-grade rail crossing improvements and expanded educational programs may be more feasible approaches. The city will continue to work with MnDOT, Goodhue County, and the CP in making safety improvements where public roadways intersect and cross rail lines.

### ***Passenger Rail – Empire Builder***

Currently Amtrak's Empire Builder service includes one eastbound and one westbound train per day. Expanding service to two daily trains has been discussed for several years and was stated to be a Phase 1 corridor in the 2015 Minnesota State Rail Plan. Currently there are no set plans to expand the service; however, the city supports an additional daily train.

### ***High Speed Passenger Rail***

The rail corridor through Red Wing is part of the vision for establishing regional high speed passenger rail service between Chicago and the Twin Cities. The Minnesota Department of Transportation, the Federal Railroad Administration, and Goodhue County, in partnership with Minnesota's High Speed Rail Commission, have designated this Mississippi route as the preferred line for any high-speed rail connection. This initiative was also defined as a Phase 1 corridor in the 2015 Minnesota State Rail Plan, however at this time there are no established plans for implementing the high speed service.

### ***Red Rock Commuter Rail***

Studies have been completed that have assessed the feasibility of providing commuter rail service between St. Paul's Union Depot and Hastings. Some consideration has been given to the possibility to extend the service from Hastings to Red Wing. However, given ridership projections and costs,

the development of design plans for the Red Rock Commuter Rail service have been delayed. The city should continue to monitor the transit planning activities in the Twin Cities over time in case Red Rock service is ever reconsidered.

### ***Aviation / Airport***

As noted in the Other Forms of Transportation section, the Red Wing Airport (RGK) serves general aviation transportation needs. The Red Wing Airport Layout Plan was developed in 1995 and a Narrative Report Update was completed in 2008. According to the 2008 Report Update, the number of based aircraft is forecast to increase at about 1.4 additional aircraft per year. Also, aircraft operations at RGK are projected to increase on average at 2.2 percent annually and reach approximately 37,200 annual aircraft operations by year 2026.

The recommended runway length for Runway 9/27 for the 20-year Airport Narrative Report period (year 2026) is 7,000 feet, which is 1,990 feet longer than the existing runway. If Runway 9/27 was extended to the east, Wisconsin Highway 35 would need to be relocated. Another constraint to the east of the existing runway alignment is the terrain. The bluffs surrounding the area would be an obstruction to the runway approach if the runway was extended to the east. To the west, a runway extension would be limited to the clearance requirements over existing developments (e.g. testing towers located on Thomas and Betts property). Since 2000, the towers were no longer being used for testing purposes. In order to better entice businesses to the area, Red Wing will continue to propose the runway extension and conduct further discussions with adjacent landowners as the city plans for the extension of Runway 9/27 to 7,000 feet.

The Narrative Report Update identifies other “enhancements” that could improve safety and performance at the airport. The following is a summary list of recommended basic facility improvements listed in the Narrative Report Update:

- » improve pavement strength from 30,000 lbs. (single wheel gear) to 60,000 lbs.
- » expand auto parking lot to accommodate one parking stall per based aircraft
- » purchase additional land for future runway extension
- » expand the commercial apron and aircraft parking
- » construct additional hangers and taxi lanes

All facilities and operations at the airport will continue to be monitored and improvements will be planned and programmed as needed.

## Special Area Studies

As noted in the Public Engagement section, early in the plan development process city staff and the consultant team met to discuss previous planning efforts and identify priority areas of concern and need throughout the community. The discussion focused on all modes of transportation and centered on identifying potential system improvements to address key safety and operational issues. The intent of this process was to develop a set of conceptual transportation system improvements to determine if potentially feasible solutions could be identified. The intent was to document these concepts in the [2040 Transportation Plan](#) for reference and potential further consideration at a later date. The following locations were identified as priorities based on documented safety issues as well as the collective experience and observations of city staff:

- » US 61 and Tyler Road

- » MN 58 at Pioneer Road
- » MN 58 at Guernsey Lane/Hi Park Avenue
- » CSAH 18 at Sturgeon Lake Boulevard
- » College Avenue/West Avenue/Central Avenue/W 7th Street intersection
- » Featherstone Road/Maple Avenue/Alvina Street intersection
- » Tyler Road from Kosec Drive to Hewitt Boulevard
- » MN-58 at South Park Street and Bush Street
- » MN-58 at Bush Street and 10th Street
- » West Avenue at Maple Street
- » Old West Main Street from Bench Street to Withers Harbor Drive

The draft improvement concepts developed for these locations are illustrated in the [Transportation Plan](#). The city recognizes that the improvements represented in the graphics are conceptual and that further assessment and engineering, along with public outreach, would be required in order to determine whether any of the concepts merit potential implementation.

## Emerging Trends and Challenges Affecting Transportation

The transportation industry is facing new trends and emerging challenges that will likely influence future priorities in long range planning. The challenges derive from the impacts of national and global trends, including changing demographics, changing economy, technology and innovation, climate change, disparity and equity, health and livability, regional growth and urbanization, and fiscal constraints for aging infrastructure. Further complicating matters, many of the trends and challenges are interrelated and the linkages between them will affect the preservation, maintenance, and

renewal of transportation infrastructure. Therefore, it is important for Red Wing to monitor trends that influence the use and condition of the transportation system in order to adapt policies, operations, and investments in a timely manner. Key transportation trends and challenges that could influence how people and goods move within and through Red Wing over the next 20 to 30 years are summarized below.

- » Changing Demographics
- » Changing Economy
- » Ascent of Autonomous Vehicles
- » Shared Mobility Devices
- » Drones or Unmanned Aerial Vehicles
- » Advanced Telecommunications
- » Intelligent Transportation Systems (ITS) and Advanced Traffic Management Systems (ATMS)
- » Advanced Driver Assistance Systems
- » Performance-Based Practical Design
- » Climate Changes
- » Disparity and Equity
- » Health and Livability
- » Fiscal Constraints and Aging Transportation Infrastructure

See the [Transportation Plan](#) for a greater discussion of these topics.



## Implementation

The identification of transportation deficiencies is one of the main elements of a transportation plan. In total, these deficiencies will shape where and how the city will focus a majority of its financial resources in the coming years. The 20-year timeframe of this planning process extends well beyond the typical five-year horizon used by the city in the *Capital Improvement Plan* (CIP) to program infrastructure improvements. The five-year CIP represents projects a timeframe during which available funding can be estimated with reasonable certainty. Beyond five years, the financial resources that will be available to the city are less certain.

### Short Term Improvements (0-5 years): Capital Improvement Program

The city of Red Wing maintains a multi-year CIP that includes the city's short-term (0-5 years), capital investments. The CIP identifies strategic improvements to the city's existing infrastructure and is designed to address important community needs. The CIP is updated annually by city staff and submitted to the City Council for review and approval. Staff also uses the CIP for mid- and long-range planning and budget needs.

The programmed 2019 through 2023 roadway reconstruction projects identified in the city of Red Wing's current CIP are shown in the [Transportation Plan](#).

### Implementation Actions

In addition to the short-term CIP projects discussed above, the Implementation action items identified in this section represent opportunities to address the transportation needs and constraints identified throughout this Transportation Plan. This information,

organized according to travel mode and the different components of the overall transportation system is summarized below in Table 6.8. The implementation timeframes are broken into time horizons that should be used as general guides. In several instances a specific improvement, program, or policy may be scheduled for implementation in the short- or long-term horizon, but also identified as needing ongoing/monitoring of the situation. The time horizons are as follows:

- » Short Term Improvements: 0-5 years
- » Longer Term Improvements: 6-20+ years
- » Ongoing/Monitoring: No specific timeframe identified

### Funding Sources

The city will have varying degrees of financial participation in future roadway related projects, whether they are local, county, or state projects. A financial challenge facing the city is the impact of inflation on construction resources. Historically, annual inflation rates for transportation infrastructure projects has outpaced overall inflation indexes. In recent years, consumer inflation has ranged between approximately 1 percent and 2 percent while transportation construction costs typically increase between 3 percent and 4 percent each year. As a result the city's purchasing power for transportation infrastructure projects is decreasing over time.

In order to implement transportation improvements and programs the city may need to obtain funding from a variety of sources, some of which are included below.

- » General Ad Valorem (Property) Taxes
- » Municipal State Aid
- » Federal Transportation Funds

- » Cooperative Agreements with MnDOT
- » MnDOT Safe-Route-To-School Program
- » MNDNR Recreation Grant Programs
- » Tax Increment Financing (TIF)
- » Property Tax Abatement Development Participation
- » Assessments
- » Grants

The city's Transportation Vision Statement represents the big picture of what the city wants to achieve in the coming decades. It was crafted with input from the community to encompass the overall vision for the future of transportation in Red Wing.



TABLE 6.8 IMPLEMENTATION OF IMPROVEMENTS

Improvement Type		Short Term (0-5 years)	Mid- to Long-Term (6-20+ years)	Ongoing/ Monitoring
<b>Roadway/Traffic</b>				
1)	Construct programmed roadway improvements per the city's Capital Improvement Plan.	X		
2)	Further review high crash frequency intersections to determine the causal factors contributing to the high number of crashes.	X		
3)	Program needed safety improvements (e.g. geometric or traffic control changes) to reduce frequency of and/or severity of crashes at problem intersections.	X	X	X
4)	Monitor roadway operations and their design capacity thresholds and program improvements as appropriate.		X	X
5)	Change the functional classification of Bush Street/Golf Links Drive from T.H. 58 to U.S. 61 from a local route to a minor collector.	X		
6)	Monitor travel patterns and traffic volumes to determine if/when functional classification changes are warranted.			X
7)	Coordinate with Goodhue County on the transfer of County Road 46 (Mount Carmel Road) from CSAH 18 to U.S. 61 from county jurisdiction to Red Wing.	X		
8)	Coordinate with Goodhue County on the future jurisdictional classification of Pioneer Road	X	X	
9)	Support the jurisdictional transfer of MN 292 from the west intersection with U.S. 61/63 to the property line of the correctional facility to the MN Department of Corrections (facility driveway).	X		
10)	Where appropriate, utilize the City's Roadway Design Guidelines including the preservation and acquisition of needed right of way to implement the City's Complete Street and Living Street vision.			X
11)	Create an asset management plan for transportation infrastructure (pavement, bridges, sidewalks/trails, lighting, signage, pavement markings, etc.).	X	X	
12)	Monitor evolving requirements and design standards related to the American Disabilities Act and apply treatments in project designs.	X	X	X
13)	Perform/review site specific traffic studies and implement the city's access management guidelines.			X
14)	Periodically meet with Goodhue County to discuss roadway design standards and access management issues related to County Road improvements.			X
15)	Improve intersections when major improvements or reconstruction are needed at locations that have been identified as having significant geometric deficiencies.	X	X	
<b>Non-motorized Transportation (Pedestrians/Bicycle)</b>				
1)	Expansion of the city's pedestrian and bicycle transportation network in accordance with the Red Wing Bicycle and Pedestrian Master Plan.	X	X	

Improvement Type		Short Term (0-5 years)	Mid- to Long-Term (6–20+ years)	Ongoing/ Monitoring
2)	Monitor pedestrian/bicycle crashes in order to quickly address problem areas by implementing safety improvements for these vulnerable users of the transportation system.			X
3)	Utilize the Roadway Design Guidelines to plan and implement Complete Streets/Living Street concepts for new and reconstructed City streets.	X	X	
4)	Work with Goodhue County to evaluate and implement non-motorized improvements on County roads			X
5)	Implement ADA-compliant pedestrian improvements in accordance with the City's ADA Transition Plan.	X	X	
6)	Work with developers of new residential and/or commercial areas to accommodate bicycle and pedestrian access/facilities as discussed in the Red Wing Bicycle and Pedestrian Master Plan.			X
7)	Implement Mayor's 2016 Taskforce recommendations.	X	X	
<b>Transit</b>				
1)	Coordinate with Hiawathaland Transit to identify expanded service routes and stops complimentary to local origins/destinations.	X		X
2)	Support the future expansion of regional bus service and rail services.			X
3)	Encourage transit providers to partner with ridesharing programs to provide transit-like service to locations and routes that are not conducive to effective transit service.			X
4)	Monitor the demand of and need for expanded park-and-ride facilities.			X
5)	Develop marketing plan for current park-and-ride facilities.	X		
6)	Encourage expansion of ride-sharing services.			X
7)	Encourage expansion of bicycle sharing services.			X
<b>Freight/Trucking</b>				
1)	Initiate a feasibility study and coordinate with MnDOT on an improved connection to U.S. 61 from Withers Harbor Drive for trucks entering/exiting the riverfront area (e.g. Red Wing Grain).	X		
2)	Ensure designated Truck Routes are clearly and adequately signed for freight vehicles traveling within and thorough the community.	X		
3)	Continue to work with freight stakeholders to identify barriers/restrictions exist that limit the safe and efficient movement of freight throughout the community. Consider spot improvements (e.g. turn/bypass lanes, wider shoulders, acceleration/deceleration lanes, wider turning radii).			X
<b>Rail</b>				
1)	Continue to coordinate with rail stakeholders (e.g. MnDOT, CP Rail, Goodhue County) and seek high benefit-low cost safety improvements where public roadways cross rail lines.			X

Improvement Type		Short Term (0-5 years)	Mid- to Long-Term (6-20+ years)	Ongoing/Monitoring
2)	Continue to support the expansion of rail services including an additional daily train along the Amtrak Empire Builder line and future regional high speed rail and/or commuter rail services in the area.			X
3)	Rail safety - pursue at-grade crossing improvements	X	X	
Ports				
1)	Continue to help port dependent businesses expand and relocate to Red Wing. The City will also program enhancements to the port areas that are focused around providing amenities and a positive experience for tourists.			X
Aviation/Red Wing Airport				
1)	Continue to pursue basic facility improvements listed in the Red Wing Airport Facilities Plan Update.			X

## Goals, Strategies, and Actions

The city has identified five goals with corresponding strategies to provide a framework for realizing the Transportation Vision Statement. These include Stewardship, Safety, Mobility, Economy, and Health. Each transportation goal is described in greater detail below. The goals are numbered for ease of use and do not reflect prioritization.

### Goal 6.A: Stewardship

#### Strategy 6.A.1: Preserve and maintain the city's transportation system.

- » Maintain the city's transportation system in a state of good repair.

### Goal 6.B: Safety

#### Strategy 6.B.1: Provide a safe transportation system for all users – automobiles, trucks, trains, watercraft, aircraft, transit vehicles, bicycles and pedestrians.

- » Reduce the crash rate and increase safety.
- » Protect the city's interconnected transportation network to ensure emergency vehicle response times.
- » Work with public roadway partners and private property owners on new and redevelopment site design to ensure safe access, internal circulation and interconnectivity among adjacent developments.
- » Provide traffic calming techniques to improve bicycle and pedestrian safety

### Goal 6.C: Mobility

#### Strategy 6.C.1: Improve mobility, access, and connections for all users of the city's transportation system.

- » Maintain travel time reliability and predictability for all users.
- » Provide efficient access to freight terminals such as ports and rail yards.
- » Improve multimodal travel options and access for people of all ages and abilities.
- » Use access management guidelines to promote the appropriate balance between mobility and land access for different categories of roadway facilities.
- » Support policies that encourage ride-sharing commerce and technology.
- » Explore innovative alternatives to provide lower cost transportation options.

## Goal 6.D: Economy

### **Strategy 6.D.1: Support the economic competitiveness, vitality, and prosperity of the community through its transportation system.**

- » Make improvements to the transportation network in a cost-effective and economically sustainable manner.
- » Provide efficient access to freight terminals.
- » Improve multimodal and transit access to local job centers and businesses.
- » Attract businesses and residents to Red Wing by investing in a safe and efficient transportation system that provides multimodal travel choices.

## Goal 6.E: Health

### **Strategy 6.E.1: Encourage health, well-being and equity via a transportation system accessible to all users and in balance with the natural and cultural environment.**

- » Encourage walking and bicycling via a fully connected network of sidewalks, on-street bike lanes and trails.
- » Reduce transportation-related air and noise pollution by reducing vehicle miles traveled (VMT).
- » Improve transit access to hospitals, clinics, and health centers.
- » Minimize impacts of transportation construction on the natural and cultural environment.
- » Support electric vehicles.
- » Encourage bike sharing and E-bike options to increase the amount of biking in Red Wing.

## Online Library

You can see all of the foundational work of Red Wing 2040 on the City's website, <https://www.red-wing.org/red-wing-2040.html>

## Terminology

### **Goals:**

Goals are broad statements that describe a desired outcome. They are often long-term and aspirational in scope.

### **Strategies:**

Strategies are policies, projects, programs, and practices that support one or more of the plan's goals. They address the "who, what, when, where, and how" of reaching a goal and may involve multiple sub-strategies and actions. Strategies may be ongoing and may or may not have definitive start and completion dates.

TABLE 6.9 STRATEGY MATRIX

Strategy	SHARE Principle(s)	Who can help achieve this?	Timing
<b>Goal 6.A: Stewardship</b>			
» Strategy 6.A.1: Preserve and maintain the city's transportation system.	Sustainable, Healthy, Resilient	City, Engineering, Public Works, County, MnDOT	Ongoing
<b>Goal 6.B: Safety</b>			
» Strategy 6.B.1: Provide a safe transportation system for all users – automobiles, trucks, trains, watercraft, aircraft, transit vehicles, bicycles and pedestrians.	Healthy, Resilient, Equitable	City, Engineering, Public Works, County, MnDOT, Drivers, Bikers, Walkers	Ongoing
<b>Goal 6.C: Mobility</b>			
» Strategy 6.C.1: Improve mobility, access, and connections for all users of the city's transportation system.	Healthy, Accessible, Resilient, Equitable	City, Engineering, Public Works, County, MnDOT, Transit Providers	Ongoing
<b>Goal 6.D: Economy</b>			
» Strategy 6.D.1: Support the economic competitiveness, vitality, and prosperity of the community through its transportation system.	Sustainable, Healthy, Resilient	City, Engineering, Public Works, County, MnDOT, Community Development, Planning Commission, Real Estate and Development Community	Ongoing
<b>Goal 6.E: Health</b>			
» Strategy 6.E.1: Encourage health, well-being and equity via a transportation system accessible to all users and in balance with the natural and cultural environment.	Sustainable, Healthy, Accessible, Resilient, Equitable	City, Engineering, Public Works, County, MnDOT, Bike/Trail users, business community	Ongoing