

CHAPTER 5: TRANSPORTATION

The multimodal transportation system in Savage includes facilities for vehicles, freight, walking, bicycling, and transit. Facilities are operated by a number of agencies, including the City of Savage, Scott County, the Minnesota Department of Transportation (MnDOT), SmartLink, and the Minnesota Valley Transit Authority (MVTA).

The transportation chapter has been prepared in compliance with State of Minnesota Statutes and applicable Metropolitan Council guidelines. As part of this plan, the City has reviewed existing and future conditions for each mode and identified safety, operations, and network improvements that will be important to address over the 2040 planning horizon. The City has also developed goals and strategies to preserve and improve the transportation system.

SUMMARY OF REGIONAL STRATEGIES

This plan has been prepared to be consistent with the regional transportation strategies outlined in the Metropolitan Council 2040 Transportation Policy Plan (TPP). The TPP is a regional plan that evaluates the existing transportation system, identifies transportation challenges to the region, and sets regional goals, objectives, and priorities to meet the transportation needs of current residents while accommodating the region's anticipated growth. The TPP also guides local agencies in coordinating land use and transportation and establishes regional performance measures and targets.

The TPP is guided by the following goals:

- **Transportation system stewardship:** Sustainable investments in the transportation system are protected by strategically preserving, maintaining, and operating system assets.
- **Safety and Security:** The regional transportation system is safe and secure for all users.
- **Access to Destinations:** People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.
- **Competitive Economy:** The regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and State.
- **Healthy Environment:** The regional transportation system advances equity and contributes to communities' livability and sustainability while protecting the natural, cultural, and developed environments.
- **Leveraging Transportation Investment to Guide Land Use:** The region leverages transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

Funding is a key constraint that is acknowledged in the TPP. Current transportation revenue will not meet the region's transportation needs through 2040. As a result, the TPP includes two long-term investment scenarios: a fiscally-constrained scenario that identifies projects anticipated to be funded based on current revenue projections, and an increased revenue scenario that identifies project priorities should additional transportation funding become available.

Under the current fiscally constrained revenue scenario, the TPP is focused on operations and maintenance of the existing transportation system. Investments in highway mobility and access are limited to those projects that address multiple TPP goals and objectives.

The increased revenue scenario would allow additional investments in operations and maintenance, as well as regional mobility, access, safety, and bicycle/pedestrian improvements. However, congestion cannot be greatly reduced under even the increased revenue scenario. Under both scenarios, proposed investments are focused on areas of the metro with the greatest existing and future challenges and anticipated growth.

Savage is classified by the Metropolitan Council under the Suburban Community designation. Suburban communities saw their primary era of development during the 1980s and early 1990s as the Baby Boomers formed families and entered their prime earning years. With growing interest and demand for multimodal travel, local governments in Suburban communities will continue to develop a network of streets, sidewalks, trails, and roadways that are more integrated and connected to the regional transportation system.

The TPP's Highway Current Revenue Scenario identifies a pavement preservation project along TH 13 between the TH 13/101 interchange and CSAH 5 in Dakota County. This work was completed in 2017. There are no other highway projects identified in the Current Revenue Scenario.

The TPP's Transit Investment Plan does not show any transitway investments planned for Savage in the current revenue scenario, although the Orange Line BRT Transitway route is identified along I-35W in Burnsville and may attract ridership from Savage. The increased revenue scenario identifies the Orange Line extension and the Highway 169 Transitway as nearby corridors that again may attract ridership from Savage.

EXISTING ROADWAY SYSTEM

The sections below provide information about the existing roadway system in Savage, including existing number of lanes, roadway jurisdiction, functional classification, traffic

patterns, safety, and access management. This section also includes summary recommendations from recent plans and corridor studies.

Functional Classification

The functional classification system groups roadways into classes based on roadway function and purpose. Functional classification is based on both transportation and land use characteristics, including roadway speeds, access to adjacent land, connection to important land uses, and the length of trips taken on the roadway.

The Metropolitan Council, in its Transportation Policy Plan, presents a functional classification system applicable to the metropolitan area. The major classifications are: Principal Arterials, Minor Arterials, Collectors, and Local streets.

Figure 5-1 shows the existing and proposed functional classifications in the City of Savage and Figure 5-2 shows the existing and proposed roadway jurisdiction designations. The following sections describe each functional classification in greater detail and indicate which roadways fall into each classification.

The **functional classification system** organizes a roadway and street network that distributes traffic from local neighborhood streets to collector roadways, then to minor arterials and ultimately the principal arterial system. Roads are placed into categories based on the degree to which they provide access to adjacent land and mobility for through traffic. Functional classification gives an indication of the relative hierarchy of roadways in the transportation network.

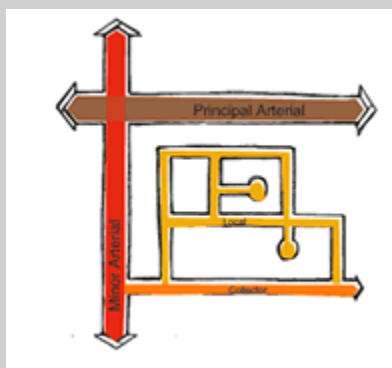


FIGURE 5-1: ROADWAY FUNCTIONAL CLASSIFICATION

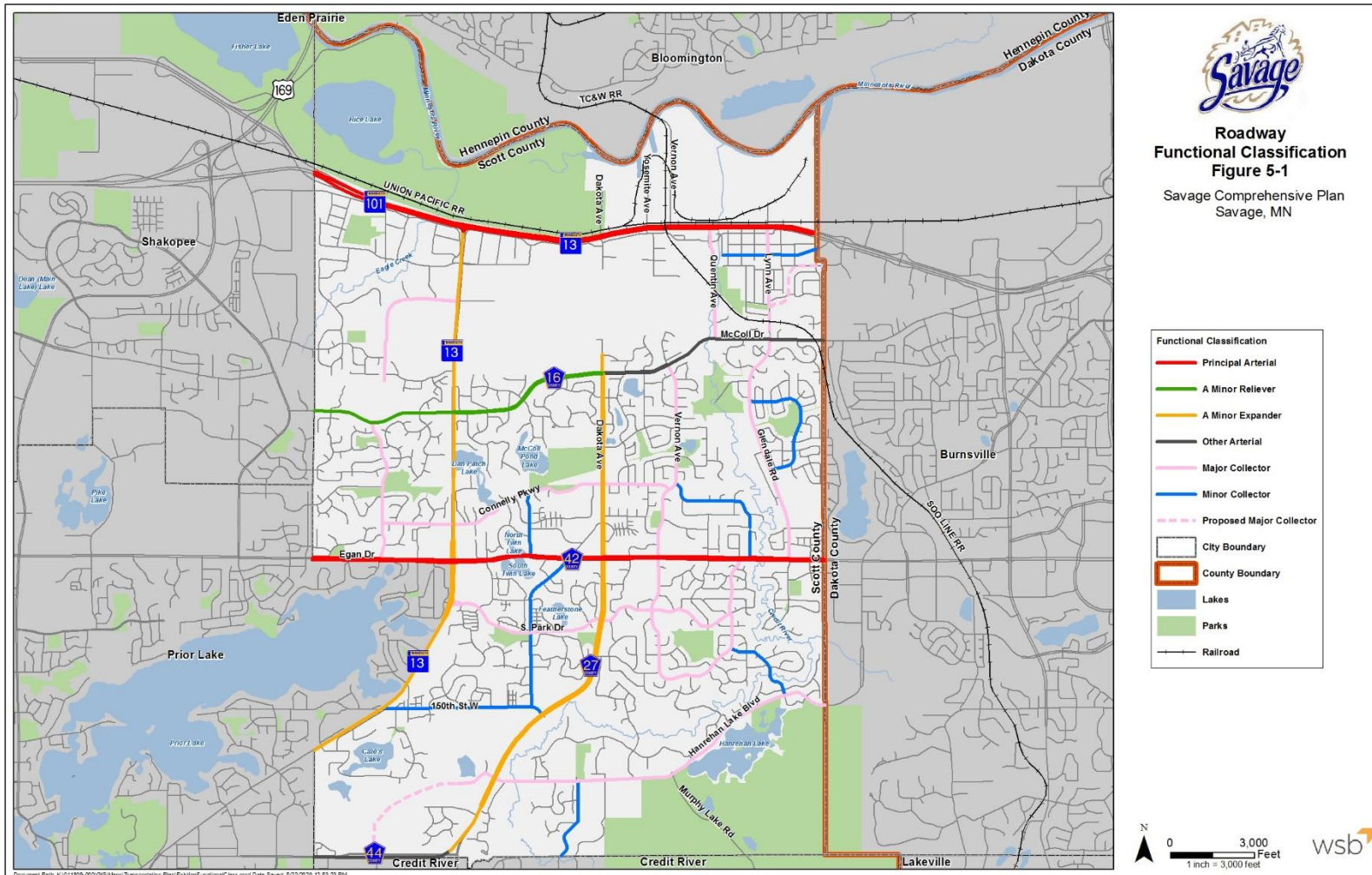
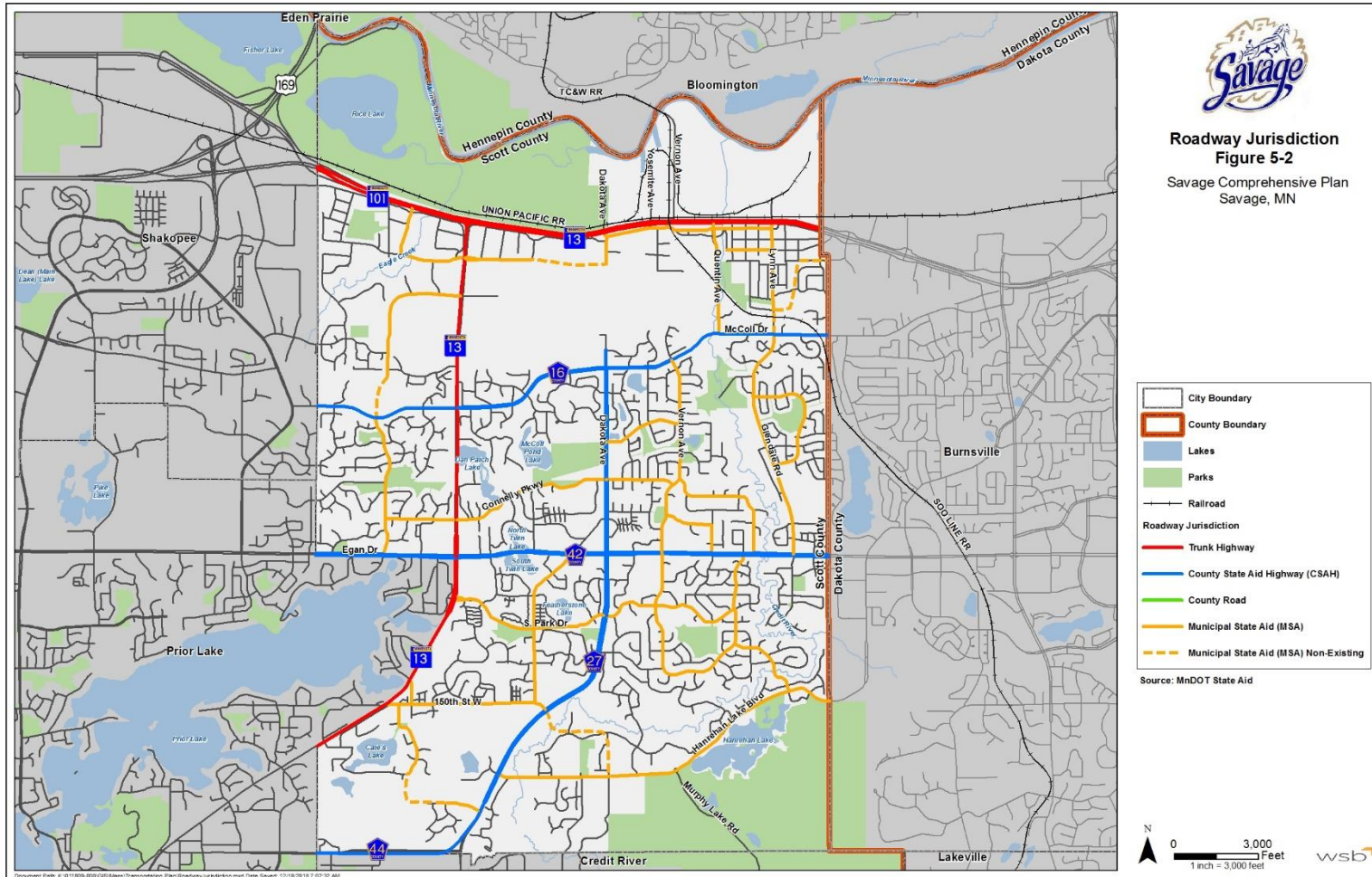


FIGURE 5-2: ROADWAY JURISDICTION



Principal Arterials

Principal arterials are roadways that provide the greatest level of mobility and access control. Within the metropolitan area, a majority of principal arterials are under MnDOT jurisdiction. These facilities are intended to serve trips greater than eight miles and express transit trips. Spacing of principal arterials varies within developing areas of the metropolitan area. Typically, these facilities are spaced between two and six miles apart. These facilities connect regional business and commercial concentrations, transportation terminals, and large institutions within the metropolitan area. Principal arterials also connect to other cities, regions, and states outside of the metropolitan area.

Principal arterials are intended to maintain average speeds of 40 mph during peak traffic periods. To maintain mobility and speeds on principal arterials, land access and transportation system connections are limited. There is little to no direct land access from principal arterials. Intersections are limited to interstate freeways, other principal arterials, and "A" Minor arterials. Access points are typically grade-separated or controlled with a signal and are spaced one to two miles apart.

Two routes designated as principal arterials are located in the City of Savage. These are the combination of Trunk Highways (TH) 13 and 101, which runs east-west across the northern portion of the city, and County State Aid Highway (CSAH) 42, which runs east-west through the center of the city.

TH 101/TH 13 serves as an interregional connection between south and southwest Minnesota and the Twin Cities, as well as providing a connection between northeast Scott County and the region via access to the I-35W and TH 169 river crossings. CSAH 42 connects northeastern Scott County with Dakota County and provides access to large commercial centers. CSAH 42 is spaced slightly less than three miles from TH 13. The 2040 Transportation Policy Plan does not propose any additional principal arterials within Savage.

Minor Arterials

Minor arterials maintain a focus on mobility but provide more land access than principal arterials. Minor arterials are intended to serve trips of four to eight miles in length. Within developing areas of the metro, these facilities are spaced between one and two miles apart. Minor arterials connect cities and towns within the region and link to regional business and commercial concentrations. Access points along minor arterials are generally at-grade and typically controlled with signals or stop signs.

During peak traffic, minor arterials in developing areas are intended to maintain 30 mph average speeds. As a result, transportation system connections are limited to interstate freeways, other principal arterials, other minor arterials, collectors, and some local

streets. Land access is limited to concentrations of commercial and industrial land uses. The Metropolitan Council has established a system of "A" Minor and "B" Minor arterials. "A" Minor arterials are eligible for federal funding administered by the Metropolitan Council.

The Metropolitan Council has split "A" Minor arterials into four types, described below:

- Relievers: Arterials located parallel to congested principal arterials. The purpose of "A" Minor Relievers is to provide additional capacity in congested corridors.
- Augmenters: Arterials that supplement the principal arterials system within urban centers and urban communities.
- Expanders: Arterials that supplement principal arterials in less-densely developed areas of the metro area.
- Connectors: Arterials that provide connections between rural towns and connect rural areas with the principal arterial system.

The Metropolitan Council has designated two north-south "A" Minor arterials in the City of Savage. The first is the segment of TH 13 that runs north-south and provides a connection to Prior Lake and the TH 101/TH 13 principal arterial. This segment of TH 13 has been identified for preservation in the Transportation Policy Plan. Much of this segment has been upgraded to a four-lane divided highway through Savage. The second north-south "A" Minor arterial is CSAH 27, which runs between CSAH 44 and CSAH 16. CSAH 16 is an east-west "A" Minor arterial between CSAH 18 and CSAH 27.

Below is a complete list of "A" Minor roadways within Savage:

"A" Minor Reliever:

- CSAH 16 west of CSAH 27

"A" Minor Expanders:

- TH 13 (north-south segment)
- Dakota Avenue (CSAH 27)

"B" Minor arterials (also known as "Other" arterials) have a similar focus on mobility above land access. These roadways connect major traffic generators in the region. "B" Minor arterials are not eligible for federal funding. "B" Minor arterials within Savage include the following:

- CSAH 16 (McColl Drive) east of CSAH 27
- CSAH 44

No additional minor arterials are proposed within Savage at this time.

Major and Minor Collectors

Major and minor collector roadways provide linkages to larger developments and community amenities. Collector roadways generally favor access to the system over mobility, but try to balance the two competing needs. Collector roadways are generally lower speed than the principal or minor arterial routes. Collector roadways are often owned and operated by cities, although counties operate some of these facilities. Within Savage, all collector roadways are owned and maintained by the City. Collectors are intended to serve trips of one to four miles in length. Collectors link minor arterials, other collectors, and local streets.

Major collectors typically serve higher density residential areas and concentrations of commercial and industrial land uses. These facilities tend to serve longer trips than minor collectors. Below is a list of major collectors within Savage:

- Lynn Avenue
- Glendale Road
- 154th Street/Hanrehan Lake Boulevard
- Eagle Creek Parkway
- Quentin Avenue
- Connelly Parkway
- South Park Drive
- Vernon Avenue
- Boone Avenue
- Eagle Creek Parkway
- O'Connell Road
- Dufferin Drive
- Ottawa Avenue

Of note, 154th Street between CSAH 27 and Murphy Lake Road has been reclassified from a "B" Minor Arterial to a Major Collector. This change is consistent with the existing Major Collector designation along Hanrehan Lake Boulevard to the east of Murphy Lake Road in Burnsville.

Minor collectors serve lower density residential areas and concentrations of commercial and industrial land uses. Compared to major collectors, minor collectors tend to serve shorter trips. Below is a list of minor collectors within Savage:

- River Crossing Road
- Utica Avenue
- 150th Street West
- 133rd Street
- West 137th Street
- Inglewood Avenue
- West 125th Street

- West Hidden Valley Drive
- Natchez Avenue
- Taylor Drive
- Kentucky Avenue
- Louisiana Avenue
- Allen Boulevard
- Hampshire Avenue South

Local Streets

Local streets are those streets that are not classified as arterials or collectors. These streets serve adjacent properties and are designed as low-speed, low-capacity facilities. Medium distance travel is purposefully directed away from these streets to the collector and arterial system. Local streets primarily serve residential areas and driveway access.

Existing Roadway Capacity and Safety

Roadway capacity and roadway safety are two key indicators of how well the roadway system is meeting Savage's transportation needs. The sections below provide information to better understand capacity and safety issues within Savage.

Existing Roadway Capacity

A roadway's capacity indicates how many vehicles may use a roadway before it experiences congestion. Capacity is largely dependent upon the number of lanes and whether a roadway is divided. Table 1 below lists planning-level thresholds that indicate a roadway's capacity. Additional variation (more or less capacity) on an individual segment is influenced by a number of factors including: amount of access, type of access, peak hour percent of traffic, directional split of traffic, truck percent, opportunities to pass, amount of turning traffic, availability of dedicated turn lanes, parking availability, intersection spacing, signal timing and a variety of other factors.

TABLE 5-1: PLANNING-LEVEL ROADWAY CAPACITIES BY DAILY TRAFFIC VOLUMES

Facility Type		Daily Two-way Volume	
		Lower Threshold	Higher Threshold
Arterials	Two-lane Undivided	10,000	12,000
	Two-lane Divided or Three-lane Undivided	15,000	17,000
	Four-lane Undivided	18,000	22,000
	Four-lane Divided or Five-lane Undivided	28,000	32,000
Freeways	Four-lane Freeway	60,000	80,000
	Six-lane Freeway	90,000	120,000
	Eight-lane Freeway or Higher	Calculated on a segment-by-segment basis	

Existing Daily Traffic Volumes

At the planning level, capacity issues are identified by comparing the existing number of lanes with current traffic volumes. Table 2 and Figure 5-3 illustrate the existing number of lanes on arterial roadways within Savage. Figure 5-4 illustrates existing traffic volumes on Principal Arterial, A-Minor Arterials and other significant roadways within Savage. The daily traffic volumes shown on Figure 5-4 cover State Highways, County State Aid Highways, County Roads, and Municipal State Aid Streets.

Most of the arterials in Savage currently exhibit traffic volumes below or within the range of the planning level capacity thresholds shown in Table 1; however, portions of TH 13 and CSAH 42 do exhibit daily traffic volumes that meet or exceed capacity thresholds, and are currently experiencing higher levels of congestion during peak travel periods. The east-west portion of TH 13 between the TH 169 river crossing and CSAH 5 in Burnsville experiences high volumes of commuter traffic in addition to a high proportion of truck traffic, affecting the roadway capacity. The two-lane undivided segment of TH 13 along the Savage and Prior Lake boundary also has traffic volumes that exceed capacity. In addition, the eastern segment of CSAH 42 at the Dakota County border exceeds the current four-lane divided capacity.

FIGURE 5-3: NUMBER OF EXISTING AND FUTURE ROADWAY LANES

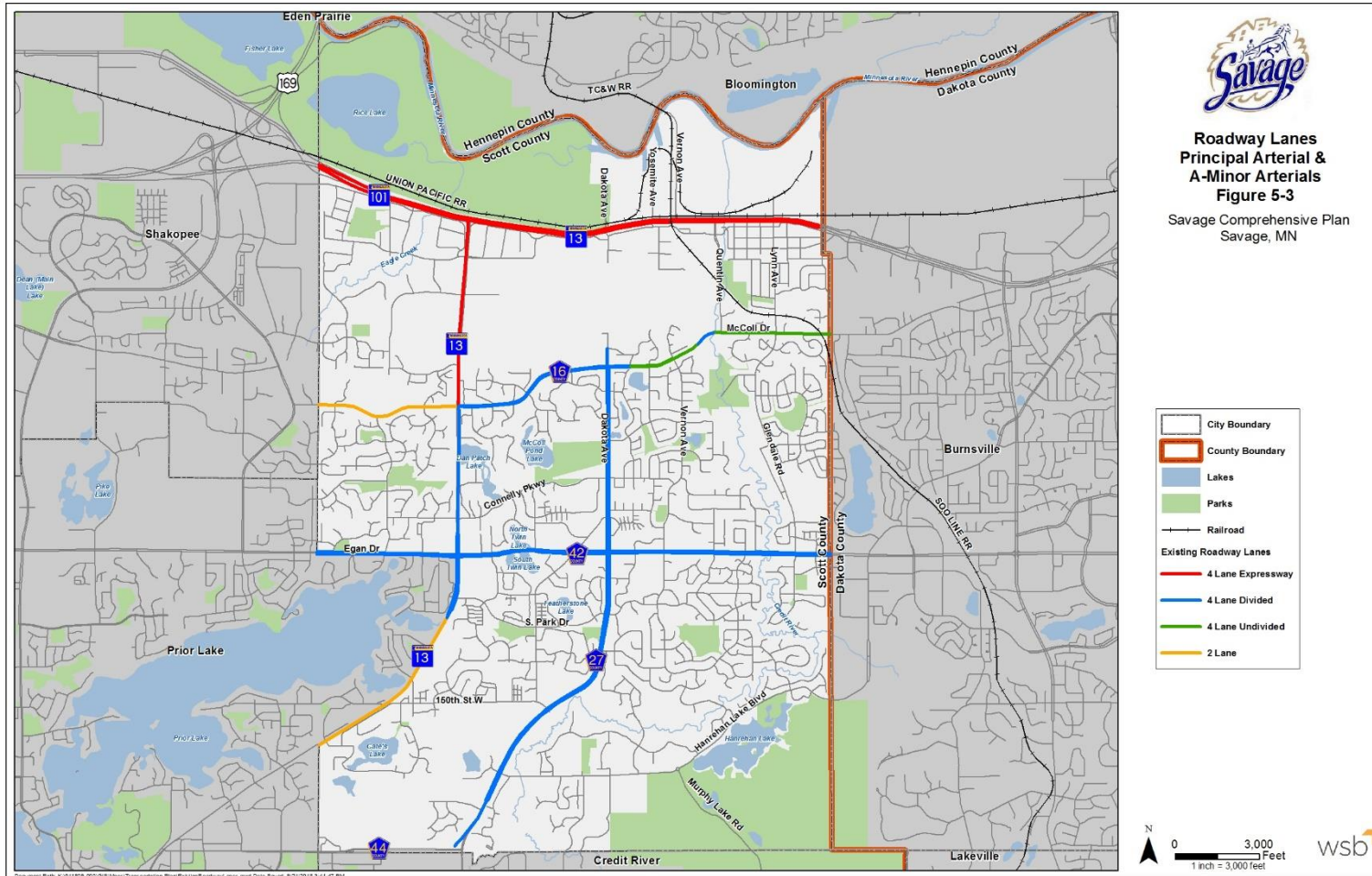


FIGURE 5-4: EXISTING DAILY TRAFFIC VOLUMES

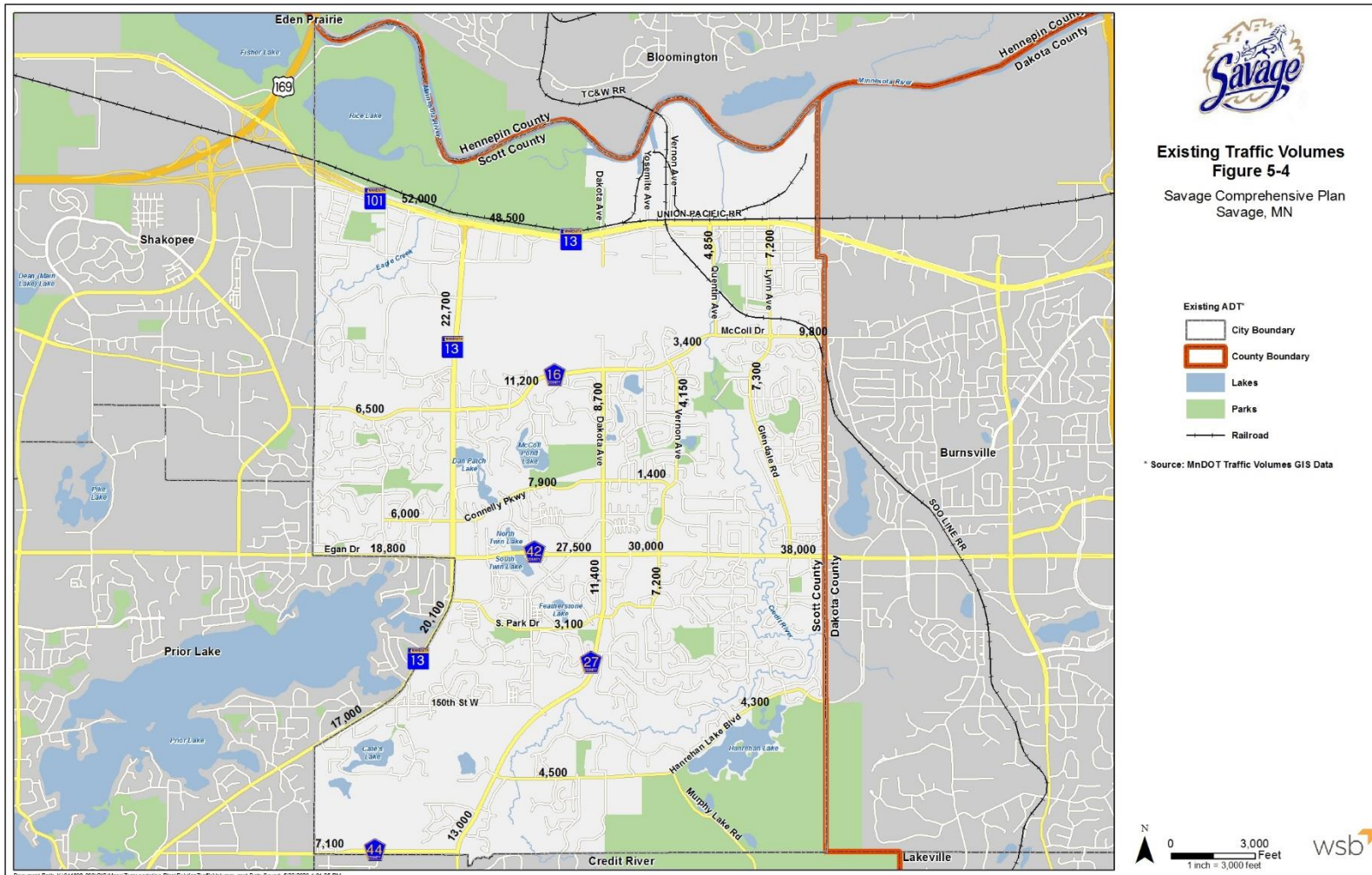


TABLE 5-2: EXISTING AND FUTURE NUMBER OF LANES ON ARTERIAL ROADS

Functional Classification	Roadway Name	Location	Number of Lanes
Principal Arterial	TH 101/TH 13	Savage-Shakopee border to Savage-Burnsville border	4
	Egan Drive (CSAH 42)	Savage-Shakopee border to Savage-Burnsville border	4
"A" Minor Expander	TH 13	Savage-Prior Lake border to TH 101/TH 13 interchange	2-4
	Dakota Ave (CSAH 27)	158 th St W (CSAH 44) to McColl Drive (CSAH 16)	4
"A" Minor Reliever	McColl Drive (CSAH 16)	Savage-Shakopee border to Dakota Ave (CSAH 27)	2-4
"B" Minor Arterial	McColl Drive (CSAH 16)	Dakota Ave (CSAH 27) to Savage-Burnsville border	4
	154th St	Dakota Ave (CSAH 27) to Hanrehan Lake Blvd	2
	158th St (CSAH 44)	Savage-Credit River border to Dakota Ave (CSAH 27)	4

Existing Safety and Operational Issues on Arterial Roadways

Most safety and operational issues within Savage occur on the arterial roadway network, which also handles the highest amounts of daily traffic. Major roadways (TH 13, CSAH 42, CSAH 27) and intersections with these roadways experience the majority of crashes within Savage. On-going monitoring of crashes and further study is recommended to identify specific safety issues and design, intersection control or other countermeasures that could be effective at reducing the rate and severity of crashes at these locations. The City of Savage will continue to work with MnDOT and Scott County to identify potential safety and operational improvements that may be identified as part of planning studies or implemented as part of programmed improvements.

Access Management

The purpose of access management is to provide adequate access to adjacent land development while maintaining acceptable and safe traffic flow on higher level roadways. Access management consists of carefully controlling the spacing and design of public street intersections and private access points to the public roadway system. Because they are designed for higher speed, longer distance trips, arterials generally have restricted access, while local streets can accommodate much greater access. Collector roadways fall in between arterials and local roadways regarding the amount of access that is permitted.

The agency with jurisdiction over a roadway sets access management guidelines. Access to TH 101 and TH13 must meet MnDOT access management guidelines. See Tables 3 and 4 for MnDOT Access Management Guidelines.

Scott County has established access spacing guidelines for county roadways, as displayed in Table 5. Scott County requires permits for new driveway access to county highways and when land uses change at sites adjacent to a county highway. Access management guidelines are reviewed as part of the driveway permit process.

It should be noted that there are existing access points that do not meet City, County, and MnDOT access spacing guidelines. In many cases these access points were established prior to agency access spacing guidelines. As roadways are reconstructed and as development or redevelopment occurs, each of these agencies generally work to modify and/or relocate access points that do not meet current access spacing guidelines, recognizing that this may not be feasible in many instances.

The City of Savage, through its ordinances, has authority to approve developments adjacent to City streets. Access guidelines oriented toward strengthening existing access control standards should be adopted and implemented to the greatest extent possible. This should be done to preserve the public investment in the roadway system while making available to developers those regulations under which plan preparation can occur.

TABLE 5-3: MNDOT ACCESS MANAGEMENT MANUAL - SUMMARY OF RECOMMENDED STREET SPACING FOR IRCS

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
1 High Priority Interregional Corridors & Interstate System (IRCs)					
1F	Interstate Freeway	Principal Arterials	Interchange Access Only		⊘
1AF	Non-Interstate Freeway		Interchange Access Only (see Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
1A	Rural		1 mile	1/2 mile	
1B	Urban/Urbanizing		1/2 mile	1/4 mile	
1C	Urban Core		300-660 feet dependent upon block length		
2 Medium Priority Interregional Corridors					
2AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (See Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
2A	Rural		1 mile	1/2 mile	
2B	Urban/Urbanizing		1/2 mile	1/4 mile	
2C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
3 Regional Corridors					
3AF	Non-Interstate Freeway	Principal and Minor Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
3A	Rural		1 mile	1/2 mile	See Section 3.2.5
3B	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
3C	Urban Core		300-660 feet, dependent upon block length		1/4 mile

Source: MnDOT

TABLE 5-4: MNDOT ACCESS MANAGEMENT MANUAL - SUMMARY OF RECOMMENDED STREET SPACING FOR NON-IRCS

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
4 Principal Arterials in the Twin Cities Metropolitan Area and Primary Regional Trade Centers (Non-IRCS)					
4AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
4A	Rural		1 mile	1/2 mile	See Section 3.2.5
4B	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
4C	Urban Core		300-660 feet dependent upon block length		1/4 mile
5 Minor Arterials					
5A	Rural	Minor Arterials	1/2 mile	1/4 mile	See Section 3.2.5
5B	Urban/Urbanizing		1/4 mile	1/8 mile	1/4 mile
5C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
6 Collectors					
6A	Rural	Collectors	1/2 mile	1/4 mile	See Section 3.2.5
6B	Urban/Urbanizing		1/8 mile	Not Applicable	1/4 mile
6C	Urban Core		300-660 feet, dependent upon block length		1/8 mile
7 Specific Area Access Management Plans					
7	All	All	By adopted plan		

Source: MnDOT

Note: Section 4B applies to TH 13 through the City of Savage.

TABLE 5-5: SCOTT COUNTY ACCESS SPACING GUIDELINES

Type of Access Being Requested	Type of County Highway Function Affected by Access			
	Principal Arterial	Minor Arterial A and B Minor	Collector	Local
A. Private Residential (3 or less shared driveways)	Not Permitted	Not Permitted ¼ mile in Agricultural & Transition Area	1/8 Mile	Determination based on other criteria
B. Commercial Driveways, or Private Streets	Not Permitted	Not Permitted	Full access at ¼ Mile Limited access at 1/8 Mile	Determination based on other criteria
C. Local Streets	Not Permitted	Full access at ¼ Mile Limited access at 1/8 Mile	1/8 Mile	1/8 Mile
D. Collector Streets	1 Mile Full Access (rural) Limited access at ½ Mile (urban)	Full access at ¼ Mile Limited Access at 1/8 Mile	¼ Mile	¼ Mile
E. Minor Arterial	1 Mile Full Access (urban) 1 Mile Full (rural)	½ to 1 Mile (urban) ½ Mile to 1 Mile (rural)	¼ to 1 Mile (urban) ½ to 1 Mile (rural)	¼ to 1 Mile (urban) ½ to 1 Mile (rural)

Source: Scott County

Recommendations from Recent Plans and Studies

Recommended improvements are projects that have been defined based on the results of transportation and traffic studies and the development of plans. While the studies and plans may have been presented to and approved by the Savage City Council, the projects have not yet been included in the City's Capital Improvement Program.

The reasons for not immediately including the recommended improvements in TIPs are many. For one, roadway improvements are prioritized, and other, more deserving, improvements where needs are more immediate, may have priority for implementation. Another reason may be a lack of funding, or incomplete coordination activities where interagency/multi-jurisdictional cooperation (MnDOT, Scott County, and/or neighboring municipalities) is needed to implement the recommended improvement.

Some of the recent studies that have formed the development of recommended transportation facility improvements include:

- County Highway 42 Corridor Study (February 1999)
- MnDOT TH 13 Corridor Study (2000, updated in 2013)
- CSAH 16 Corridor Planning Study (2002)
- Feasibility Report: North-South Collector Street Trunk Highway 13 to County State Aid Highway 16 (January 2004)
- Feasibility Report: South Savage Infrastructure Improvements (July 2006)
- CSAH 42 Vision and Implementation Study (December 2008)
- County Road 27 Corridor Study from CH 86 to CH 16 (October 2014)
- Dan Patch River Crossing Scoping Study (April 2015)
- Trunk Highway 13 Dakota Ave-Yosemite Ave Design Study (July 2017)
- Ten-Year Street Improvement Plan (June 2017)
- Metropolitan Council Principal Arterial Intersection Conversion Study (2017)
- Metropolitan Council Regional Truck Highway Corridor Study (2017)

The following is a list of recommended system improvements from recent plans and studies:

Trunk Highway 13

A series of improvements have been recommended for the east-west segment of TH 13 as it passes through the City of Savage. Metropolitan Council has identified the TH 13 corridor as a focus area in the 2017 Principal Intersection Arterial Conversion Study. Metropolitan Council also has identified TH 13 as the #2 truck delay hot spot in the Twin Cities Region in the 2017 Regional Truck Highway Corridor Study. The TH 13 Corridor is also a high priority in the Scott County 2040 Transportation Plan and has been identified

by the County as a priority corridor for utilizing Scott County Transportation Sales Tax revenues.

A variety of planning and preliminary design studies have occurred over the last 20 years in the TH 13 corridor. The most recent 2017 study documented crash rates above the statewide average and significant existing and forecasted congestion during AM and PM peak periods. The City of Savage and Scott County led the effort to evaluate long-term improvements in the vicinity of Dakota Avenue and Yosemite Avenue to address the high-volume of turning trucks and need to separate local truck access from commuter traffic. This study however did not evaluate proposed future connections to TH 13 such as the extension of Dakota Avenue from McColl Drive or any immediate impacts to adjacent roadways. This effort led to a proposed project to provide a grade separated access near the TH 13/Dakota Avenue intersection, including new north and south frontage roads from Dakota Avenue to Yosemite Avenue. The project is proposed for construction in 2022 with \$15 million of federal freight funds. This project is estimated to cost approximately \$30-35 million to construct, with the additional funding gap currently unsecured.

The 2000 MnDOT TH 13 Corridor Study explored the widening of TH 13 to six lanes. The 2013 update to the MnDOT TH 13 Corridor Study emphasized more low-cost high-benefit improvements and did not emphasize the need to expand the roadway to six lanes. While Mn/DOT no longer identifies additional lanes, added capacity remains a future need. The MnDOT TH 13 Corridor Study also discussed the need to add a traffic signal or new interchange at the TH 13/Chowen Avenue intersection, although a final recommendation was not determined.

Another study is planned for this corridor in 2018/2019 by MnDOT to continue the preliminary design and project development process for the Dakota Avenue and Yosemite Avenue area and to continue advancing future improvements along TH 13 east of Dakota Avenue to I-35W in Burnsville. The City of Savage will be heavily engaged in this study as impacts to local roadways will need to be evaluated in depth. City priorities for this upcoming study will include the following:

- Access to downtown Savage, Ports of Savage and adjacent TH 13 businesses (a number of minority owned businesses currently reside along the corridor (noted by FHWA)
- Quentin and Lynn Avenue bridges
- Local street connections to TH 13 and TH 13 parallel routes through Savage
- Possible "Green T" intersections at Lynn Avenue and Chowen Avenue
- Dakota Avenue proposed connection to TH 13 from McColl Drive (CSAH 16)
- Transit and bicycle/pedestrian needs

CSAH 42

A major reconstruction project occurred in 2018 along CSAH 42 between Boone Avenue and Louisiana Avenue as part of the CSAH 42/TH 13 intersection improvement project. The project installed dual left turn lanes on CSAH 42 and permanent signals at the CSAH 42/TH 13 intersection, new pavement surfacing, and completed trail/sidewalk gaps. This project was discussed for several years and evaluated as part of the CSAH 42 Vision and Implementation Study.

With the CSAH 42/TH 13 intersection improvement project complete, a remaining pavement rehabilitation project is programmed by Scott County in 2021 to overlay CSAH 42 from Louisiana Avenue to the Scott/Dakota County line. This will address most pavement issues with CSAH 42 in the near future. However, operational and capacity issues are still expected along CSAH 42. To plan for long-term needs, Scott County actively pursues right-of-way preservation as a recommended strategy for the CSAH 42 corridor. The County has some parcels identified for acquisition for future needs along CH 42. The City's support in right-of-way preservation is needed to pursue official mapping and the use of RALPH funds (which can offset the need to use construction dollars).

As future improvements are considered by Scott County along CSAH 42, it will be important to invest in mass transit projects to support workforce housing and provide other modes of transportation along this corridor.

CSAH 27

The Scott County CSAH 27 Corridor Study was completed in 2014. The Corridor Study found that intersection improvements may be needed at the following intersections:

- CSAH 27 and CSAH 16 (McColl Drive) intersection
- CSAH 27 and Connelly Parkway
- CSAH 27 and CSAH 42 (Egan Drive)
- CSAH 27 and 154th Street
- CSAH 27 and CSAH 44
- CSAH 27 and South Park Drive (completed)

The study also provided a design concept for a four-lane expansion with sidewalks and trails between CSAH 21 and CSAH 44 in Credit River Township (programmed for construction in 2021). This is an important connection to Savage and will provide a trail connection to Cleary Lake Regional Park.

CSAH 16

A corridor study for CSAH 16 was completed in 2002 between CSAH 83 in Shakopee and TH 13 in Savage. The study evaluated design concepts for a four-lane roadway. In Shakopee, a four-lane construction project occurred in 2016 between CSAH 83 and

CSAH 21. With the opening of CSAH 21 in 2011, traffic patterns have shifted and the four-lane need east of CSAH 21 may no longer be warranted. Scott County has tentatively programmed the reconstruction of CSAH 16 between CSAH 18 and TH 13 in Savage for 2024. The project would likely include reconstruction as a four-lane divided roadway or three-lane roadway with a center dedicated left turn lane and sidewalk/trail facilities. The City of Savage will be engaged in the design of this future project.

FUTURE ROADWAY SYSTEM

This section addresses future roadway improvement needs and roadway design guidelines.

Roadway Capacity – Traffic Forecasting

To determine future roadway capacity needs, year 2040 traffic forecasts were prepared using the Metropolitan Council travel demand model. The 2040 projections were compared to the expected 2040 roadway capacity or various roadway links to identify where capacity deficiencies may result. The 2040 roadway network assumed for this analysis is the same as the current roadway network, as the City and County Capital Improvement Plans (CIPs) do not include any projects that add significant capacity to the roadway network.

A central concept of travel demand forecasting is the use of Transportation Analysis Zones (TAZs). Each forecast study area, the City of Savage in this case, is divided into a series of TAZs. Each TAZ has socio-economic population, employment, and household data that is used by the model to assign trips to the various network roadways. Figure 5-5 displays Metropolitan Council TAZs within Savage. The socio-economic data in Figure 5-5 is consistent with the growth expectations presented in the Savage Future Land Use Map. The results of the Metropolitan Council travel demand model process are summarized in Figure 5-6, which displays Metropolitan Council 2040 projected average daily traffic volumes compared to the existing (2014-2017) traffic volumes obtained by MnDOT.

While the travel demand model is a valuable tool for identifying future traffic based on the proposed land use impacts, it is not meant for use in detailed traffic operations studies. For a more accurate representation of the transportation impacts from specific developments, detailed traffic studies should be conducted to determine the operational impacts on adjacent roadways and intersections.

TABLE 5-6: POPULATION, HOUSEHOLDS, AND EMPLOYMENT BY TAZ

TAZ	2010 Census			2020 Forecast			2030 Forecast			2040 Forecast		
	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
2135	0	0	266	0	0	606	0	0	658	0	0	703
2136	1845	781	417	2451	965	487	2744	1082	529	3016	1190	565
2137	677	220	1429	1089	431	1488	1219	483	1617	1340	531	1727
2138	1651	571	1398	1953	633	1247	2187	709	1355	2403	780	1447
2139	1663	454	105	1343	438	93	1504	491	101	1653	540	108
2140	1426	398	468	1173	381	464	1313	427	505	1443	470	539
2141	779	261	68	1268	442	156	1420	495	169	1560	545	181
2142	757	301	434	2064	710	578	2311	795	628	2540	875	671
2143	2329	786	40	2019	702	617	2261	786	670	2485	865	716
2144	1467	514	40	1455	475	56	1630	532	61	1791	585	65
2145	3744	1195	340	3256	1059	301	3646	1186	327	4007	1305	349
2146	608	191	300	558	183	365	625	205	397	687	225	424
2147	1090	346	7	1000	333	16	1119	373	17	1230	410	18
2148	2090	635	243	1301	430	244	1457	482	265	1601	530	283
2149	2434	713	44	2527	840	42	2829	941	46	3109	1035	49
2150	1085	462	87	1414	470	88	1583	527	95	1740	580	102
2151	1914	840	752	2593	1005	859	2904	1127	933	3191	1240	997
2245	707	224	242	1924	680	237	2155	764	258	2367	839	275
2246	645	224	73	4012	1423	156	4493	1595	169	4937	1755	181
Total	26,911	9,116	6,753	33,400	11,600	8,100	37,400	13,000	8,800	41,100	14,300	9,400

FIGURE 5-5: SAVAGE TAZS – METROPOLITAN COUNCIL

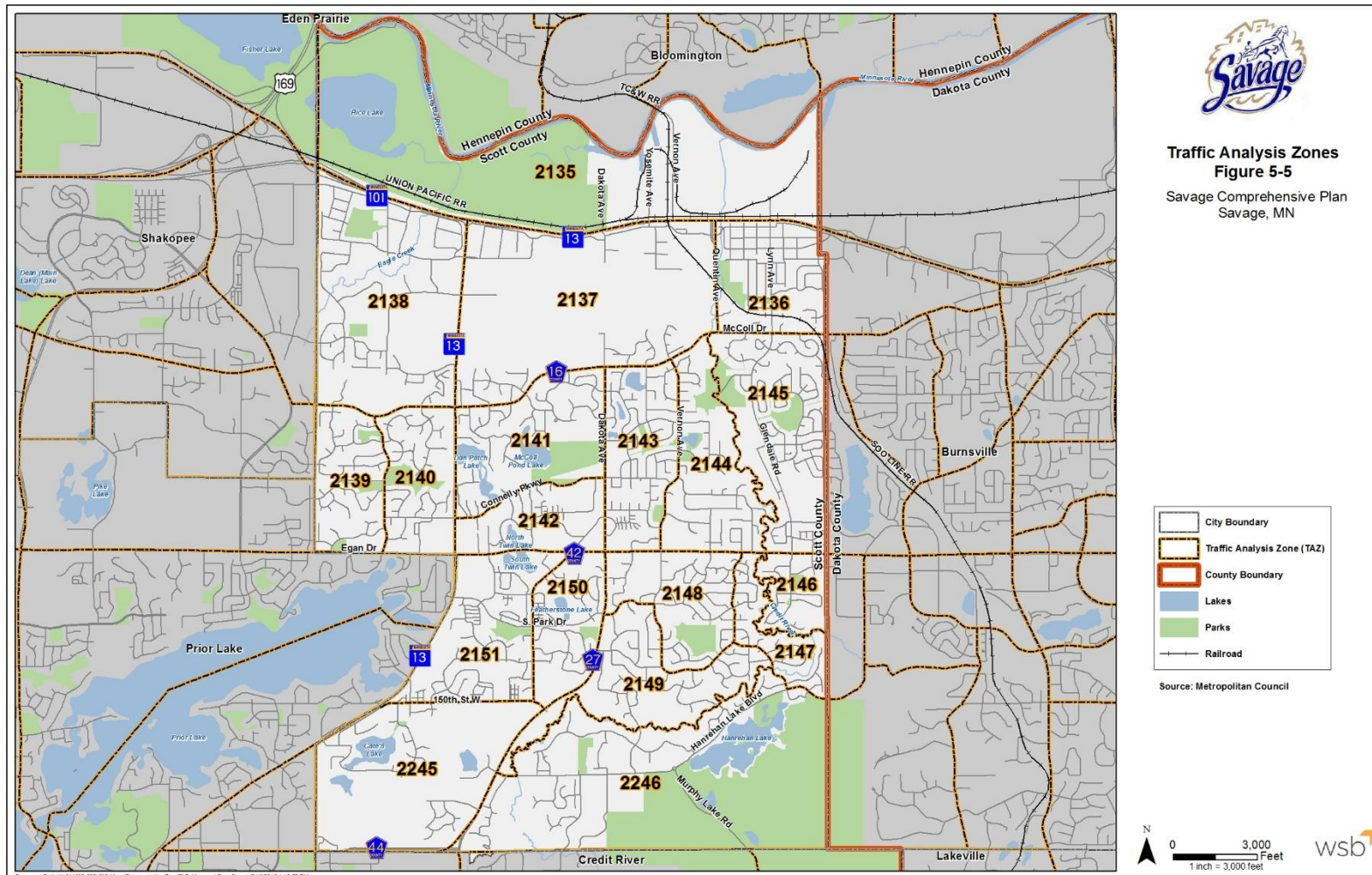
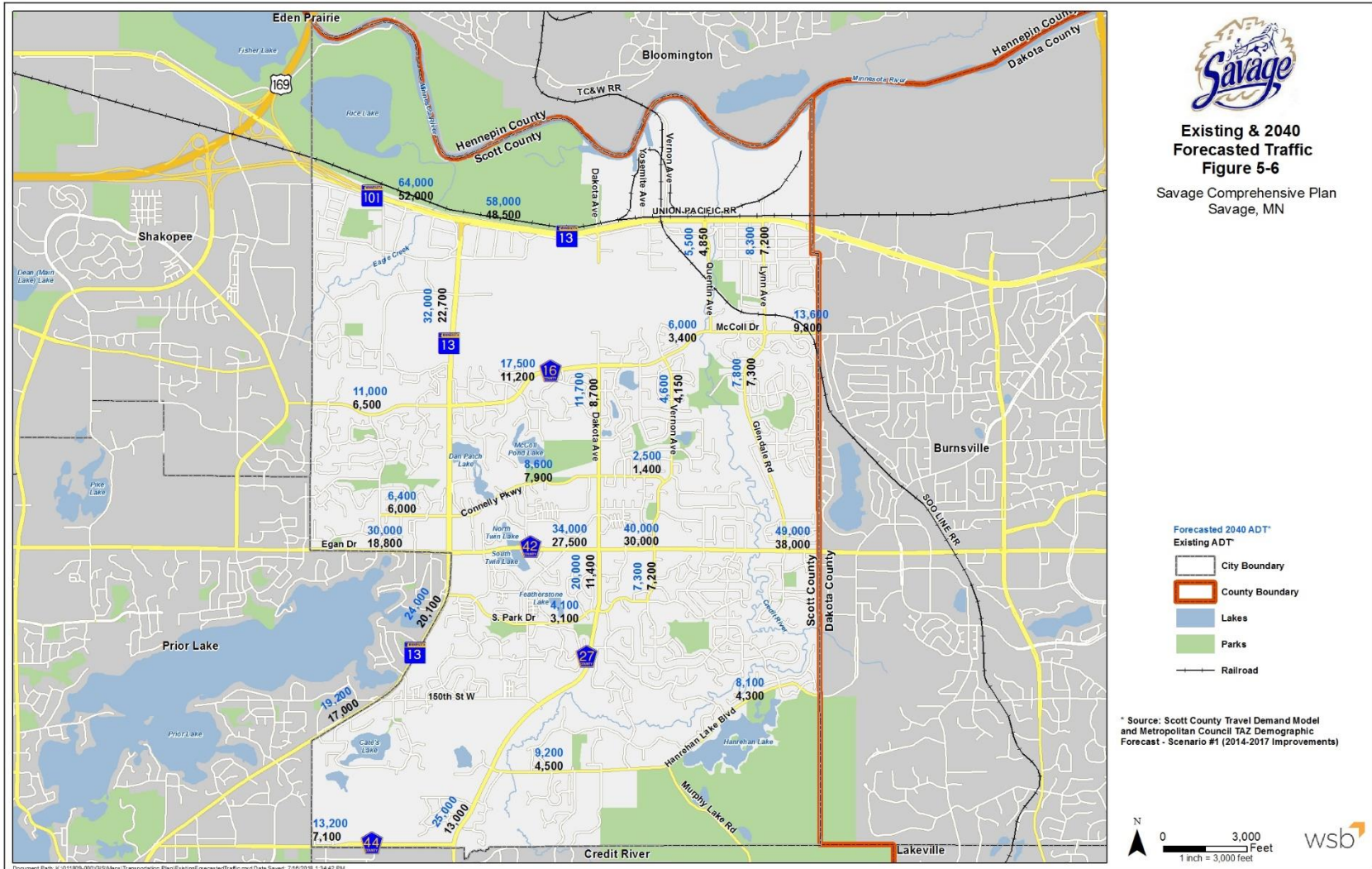


FIGURE 5-6: EXISTING AND 2040 FORECASTED DAILY TRAFFIC VOLUMES



2040 Future Roadway Capacity Improvement Needs

To identify the need for potential future capacity improvements, Metropolitan Council 2040 forecasts were compared to planning-level roadway capacities for Principal and A-Minor Arterial Roadways. Planning-level roadway capacities used for this analysis are illustrated in Table 7 below.

TABLE 5-7: PLANNING-LEVEL ROADWAY CAPACITY

Facility Type		Daily Two-way Volume	
		Lower Threshold	Higher Threshold
Arterials	Two-lane Undivided	10,000	12,000
	Two-lane Divided or Three-lane Undivided	15,000	17,000
	Four-lane Undivided	18,000	22,000
	Four-lane Divided or Five-lane Undivided	28,000	32,000
Freeways	Four-lane Freeway	60,000	80,000
	Six-lane Freeway	90,000	120,000
	Eight-lane Freeway or Higher	Calculated on a segment-by-segment basis	

Based on this comparison, TH 13 and CSAH 42 within Savage will continue to meet or exceed capacity to accommodate forecasted Metropolitan Council 2040 travel demands. However, at this time there are no programmed roadway expansions for either of these roadways.

TRANSIT

Existing Transit Service

Savage is located within the Metropolitan Transit Taxing District as identified in the Metropolitan Council 2040 TPP. The TPP classifies the metropolitan area into transit markets based on demographic and land use patterns. Savage is located within Transit Market Area III in the east and central developed parts of the city. The remaining portion of the city is located within Market Area IV. Transit service in Market Area III is primarily commuter express bus service with some fixed-route local service providing basic coverage. Transit service in Market Area IV is primarily peak-period express bus service along major corridors. General public dial-a-ride services are available where fixed-route service is not viable.

The City of Savage's public transit has been provided by the Minnesota Valley Transit Association (MVTA) since 1991. MVTA service consists of peak hour commuter routes running to downtown Minneapolis, downtown St. Paul and various routes running between cities, including destinations to Mall of America, Burnsville Center, the Minnesota Zoo, and other locations along the way. MVTA operates transit stations that connect several routes and provide access to the rest of the regional transit network.

Most of the express transit routes that serve Savage provide connections to downtown Minneapolis. However, there are routes that provide local service and connections to regional destinations such as the Mall of America and the University of Minnesota-Twin Cities campus. Current transit bus routes in Savage are listed below and shown on Figure 5-7:

- Route 492: Express route commuter between Prior Lake and Minneapolis with stops in Savage (this express route passes through Savage along CSAH 42, but currently does not stop in Savage)
- Route 464: Express route commuter between Savage-Burnsville-Minneapolis
- Route 421: Local bus route between Burnsville-Savage FLEX
- Route 491: Express route commuter service between Scott County cities and Minneapolis
- Route 444: Local bus route between Savage-Burnsville-Mall of America
- Route 495: Express route commuter between Mall of America-Burnsville-Shakopee with stops in downtown Savage

The Savage Park and Ride facility is located at CSAH 42 and Huntington Avenue and has 195 parking spaces. Although not located in Savage, the Burnsville Transit Station is a major collector point for Savage residents to utilize express services to the downtowns of Minneapolis and St. Paul. In addition, park-and-ride facilities make transit more convenient and accessible to people who do not live in areas that provide transit services. The Southbridge Crossing Park and Ride in Shakopee is

another easily accessible park and ride facility for Savage residents to access routes along the Highway 169 corridor.

General public dial-a-ride service is provided by SmartLink Transit. Dial-a-ride is a small bus service for the general public where regular route transit service is not available. Dial-a-ride service is for trips that cannot be accomplished on fixed route bus service alone, and may combine regular route and dial-a-ride service. The SmartLink Transit service is provided by Scott County. SmartLink provides transit services for Scott and Carver Counties.

SmartLink Transit also provides transit service for medical assistance. This service provides rides to and from medical, dental, and social service appointments. In addition, SmartLink has a Volunteer Driver Program, a citizen volunteer program to provide rides to ambulatory passengers.

Currently, bus-only shoulders exist on portions of the eastbound direction of TH 13. MnDOT has identified extending bus-only shoulders on TH 13 between the TH 13/101 intersection and east of I-35W in Burnsville. These shoulders improve mobility and reliability for express bus routes.

Potential Regional Transitway Service

Orange Line BRT Transitway

The TPP's transit investment plan does not show any transitway investments planned for Savage in the current revenue scenario. However, the TPP includes the Orange Line Bus Rapid Transit (BRT) along I-35W between downtown Minneapolis and Burnsville. Residents and employees in Savage may benefit from the development of the BRT along I-35W, providing efficient, convenient, and rapid transit to the Twin Cities metropolitan area.

The Orange Line transitway corridor links downtown Minneapolis with communities along I-35W south of downtown to Burnsville Transit Station. With limited-stop services, this new BRT line will improve commute for people travelling to and from the Twin Cities metropolitan area. Although the Orange Line BRT will not directly serve transit riders in Savage, the existing transit routes that services from Savage to Burnsville will connect these riders to the new Burnsville Transit Station. The addition of a BRT line will increase travel options for transit riders.

Highway 169 Transitway

Metropolitan Council's 2040 Transportation Policy Plan (TPP) identifies Highway 169 from Marschall Road (CSAH 17) in Shakopee to downtown Minneapolis via I-394 as an "Accelerated Transitway under study – mode and alignment not yet specified" in the Transitway Increased Revenue Scenario. Starting in 2015, Scott County, MnDOT, and

the Metropolitan Council prepared the US Highway 169 Mobility Study to evaluate the potential for Bus Rapid Transit (BRT) and MnPASS Express Lanes in the southwest metro area on US 169 from the City of Shakopee north to TH 55 and connecting to downtown Minneapolis.

Two BRT alternatives were identified and studied including (see graphic) I-394 and TH 55. An Optimized Scenario was selected in 2018 which incorporated low cost and high benefit trade-offs for consideration in future study and planning efforts. Both alternatives included three future BRT transit stops in Shakopee at Marschall Road Transit Station, Canterbury Road, and Southbridge Crossings Park and Ride. In

the Optimized Scenario, the Southbridge Crossings Park and Ride was removed from the BRT route due to the circuitous routing required, time penalty associated with an off-line station, and low projected ridership. Further study and agency coordination would be required to finalize BRT transit stop locations.

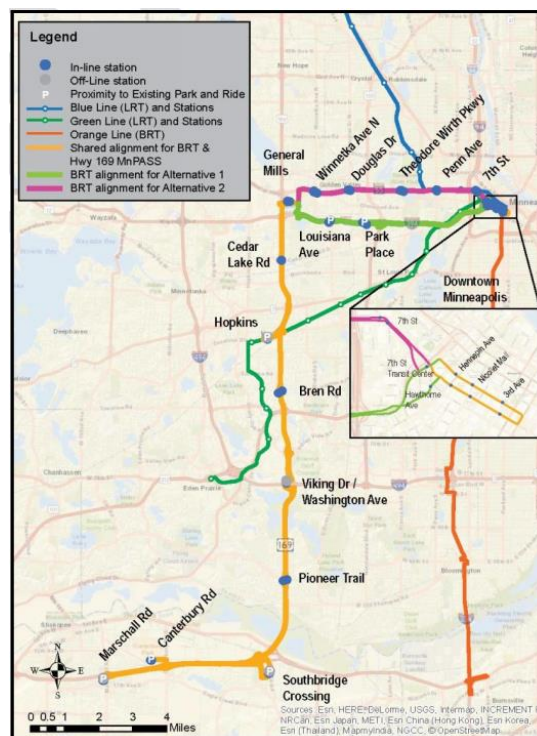
MnPASS feasibility was also studied as part of the US Highway 169 Mobility Study. MnPASS was looked at on Highway 169 from CSAH 17/Marschall Road in Shakopee to two potential northern termini, I-394 and I-494. The MnPASS alternatives were effective at improving throughput and reducing delay along TH 169. The study concluded that both MnPASS alternatives perform sufficiently to merit consideration for implementation.

While the transitway route and MNPASS lanes would not be within Savage, they would benefit transportation access and mobility for the Savage Community.

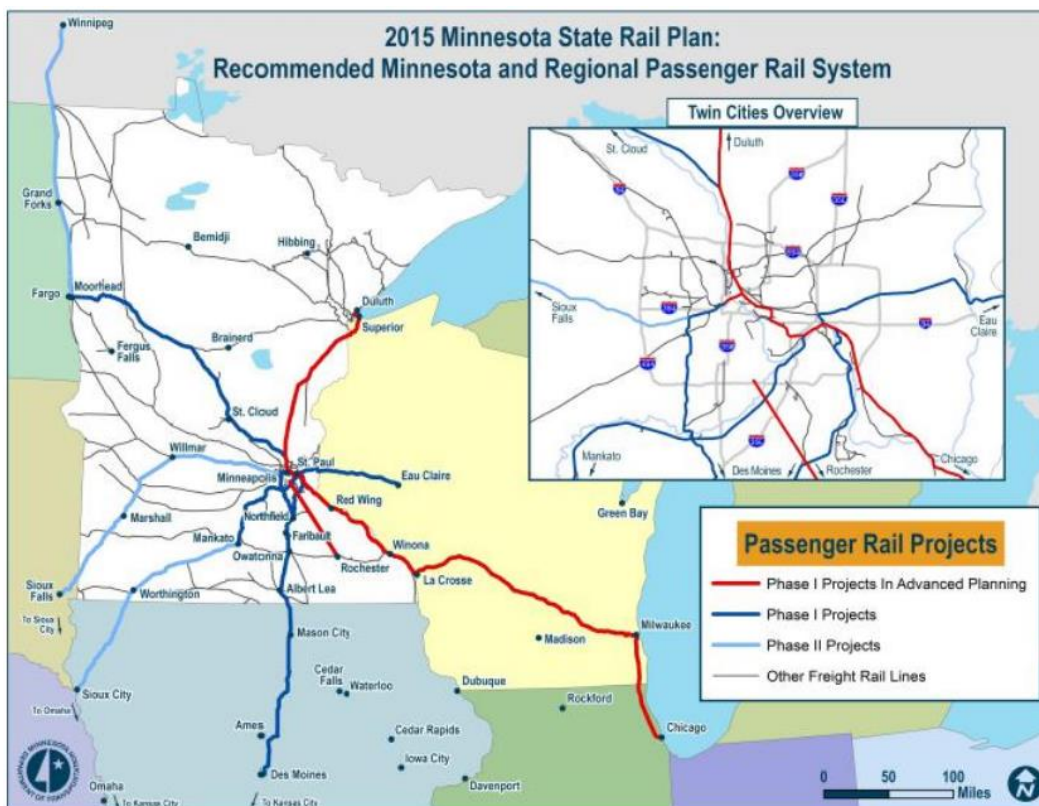
Dan Patch Line

In the 1990s, MnDOT studied commuter rail on the Dan Patch corridor. In 2002, the State of Minnesota legislated that the Metropolitan Council, the Commissioner of the Minnesota Department of Transportation and regional rail authorities must not expend any money for study, planning, etc. for the Dan Patch Commuter rail line. The Dan Patch legislative prohibition is only for commuter rail.

The 2015 Minnesota Statewide Rail Plan makes recommendations for passenger rail corridors. The Twin Cities to Albert Lea (I-35W Corridor) is identified as a Phase 1

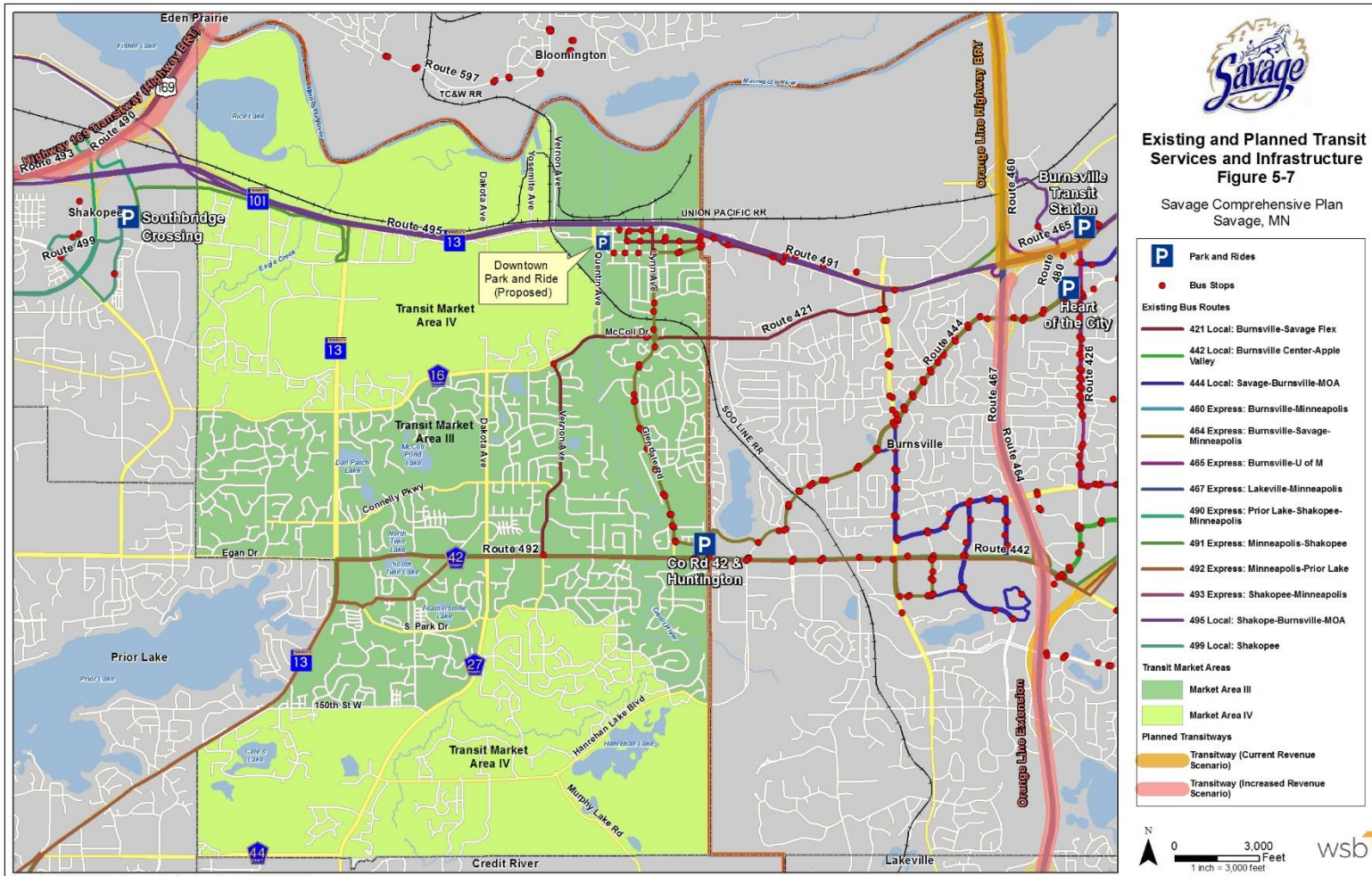


Corridor with an implementation horizon of 0-20 years. This alignment is recommended to use the Dan Patch river crossing.



In 2015, the City of Savage conducted the Dan Patch River Crossing study. The study identified the potential vehicle demand for a new river crossing at the location and made recommendations about possible reasonable options moving forward including: a two-lane arterial bridge across the river, re-establishment of a one-lane bridge, and explored alternative modes such as bicycle and pedestrian or commuter rail bridge. Due to limited road river crossings and forecasted congestion in the future, it is believed that the corridor could be a viable transportation choice south of the Minnesota River. The City would strongly support plans to further evaluate the options for the Dan Patch line, including revisiting the feasibility and potential opportunities to develop commuter rail and park and ride lots along this corridor across the Minnesota River from Savage to downtown Minneapolis and St. Paul. This study will require coordination with Metropolitan Council, MnDOT, Canadian Pacific Railroad, Twin Cities & Western Railroad and other communities along the Dan Patch Corridor. The City feels this corridor could have the potential for a major transit hub.

FIGURE 5-7: EXISTING AND PLANNED TRANSIT ROUTES



Future Transit Service

Downtown Park and Ride

The City has placed construction of a park and ride at the northeast corner of Quentin Avenue and 123rd Street in the CIP for 2019. This is referred to as the Downtown Park and Ride. This park and ride facility would create a stop for the Route 495. This future facility is shown in Figure 5-7.

Future Transit Needs

The region's changing population may require expanded transportation choices in the future. As people age, they become less mobile and more reliant on public transportation, family, and friends to get around. Younger generations are also looking for more transportation options. Local fixed routes may provide an opportunity to enhance transit service within the city and improve connectivity to the regional network. Certain parts of the city, including the Hamilton District, may be more appropriate for enhance transit service due to its higher densities and mix of land uses. Adding infrastructure such as benches and shelters to a transit service can enhance ridership and increase awareness of routes. It is recommended that the City of Savage discuss future transit needs with MVTA to align future transit service with local demand, the aging city population. It will be a priority of the City to coordinate with MVTA, Scott County and MnDOT to enhance transit investments in the City as opportunities present themselves, particularly along TH 13 and CSAH 42.

AVIATION

Cities are responsible for airspace protection to reduce hazards to air travel within its part of the region. There are no existing or planned aviation facilities within Savage. Savage is located approximately four miles southeast of Flying Cloud Airport in Eden Prairie, and about 10 miles southwest of Minneapolis-St. Paul (MSP) International Airport. Flying Cloud Airport is one of seven publicly owned airports in the Metropolitan Airports Commission (MAC) system. The airport's role in the MAC system is to serve as a primary reliever to the Minneapolis-St. Paul International Airport. The airport is popular for corporate business jets and turbo-props.

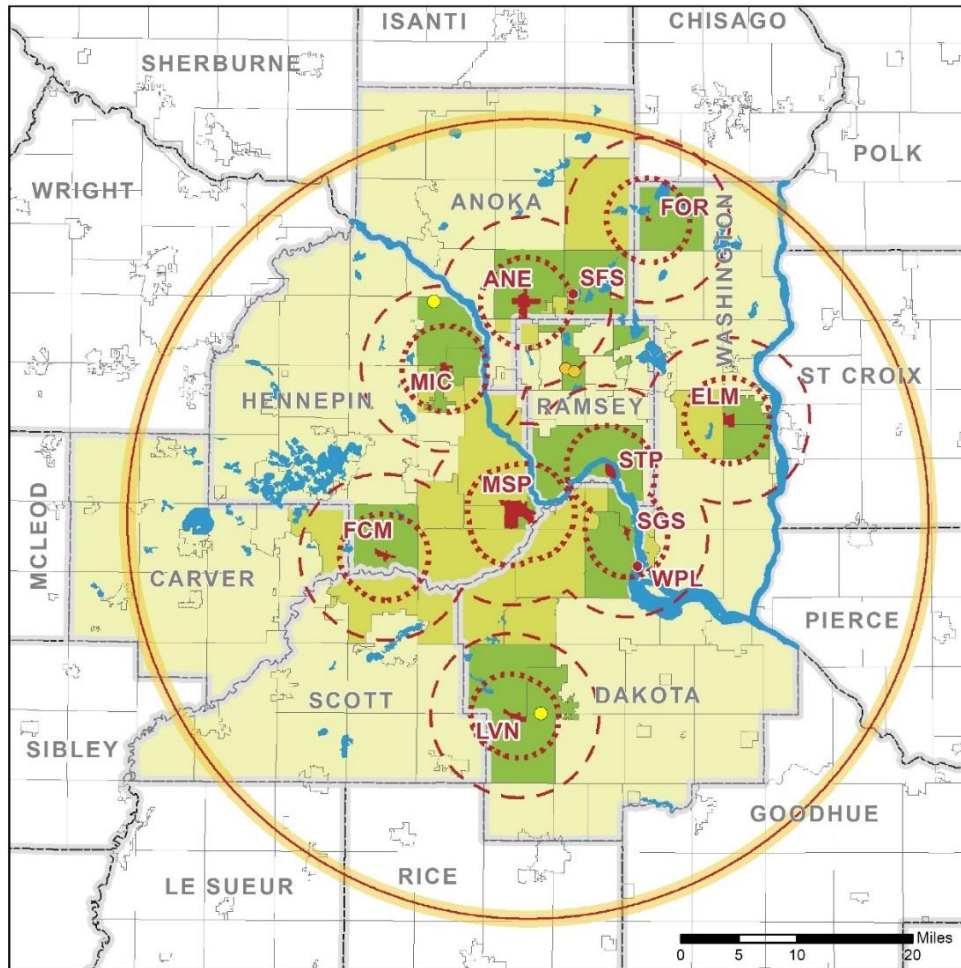
As shown in Figure 5-8, a portion of Savage is located within the Flying Cloud Airport Compatibility Area, which is defined as being within six nautical miles off the ends of existing and planned runways. However, Savage is not located within runway protection zones nor airport noise exposure zones for Flying Cloud and MSP Airports. There are no water, radio, TV, electric towers, or other structures within Savage that exceed 500 feet in height.

Any proposed structure over 200 feet shall require notification to the Federal Aviation Administration (FAA) at least 30 days prior to construction, using FAA Form 7460-1 "Notice of Proposed Construction or Alteration," as defined under code of federal regulations CFR - Part 77. The City's zoning code limits structure height; therefore, it is unlikely that any structures in the city will require FAA notification. The City will support, as necessary, compliance with FAA and Metropolitan Council requirements concerning visual and/or electronic interference with airport communications, air traffic operations, and other aviation land-use capability guidelines.

There are no seaplane bases located within the city. There are currently no heliports in Savage nor any known plans to construct one.

FIGURE 5-8: REGIONAL AIRPORT SERVICE AREAS AND LAND USE COMPATIBILITY

Airport Service Areas



- | | | | |
|---|---|--|---|
| <p>Public Owned Public Use Airport</p> <p>Airport Compatibility Area
(3 NM's - Noise, Zoning, Infrastructure)
(6 NM's - Landfills, Wind Towers)</p> <p>MSP Minneapolis - St. Paul International Airport (Wold-Chamberlain Field)</p> <p>STP St. Paul Downtown Airport (Holman Field)</p> <p>ANE Anoka County - Blaine Airport (Janes Field)</p> <p>FCM Flying Cloud Airport</p> | <p>MIC Crystal Airpot</p> <p>SGS South St. Paul Airport (Fleming Field)</p> <p>ELM Lake Elmo Airport</p> <p>LVN Airlake Airport</p> <p>FOR Forest Lake Airport</p> | <p>Privately Owned Public Use Airport</p> <p>SFS Surf-Side Seaplane Base (Rice Lake)</p> <p>WPL Wipline Seaplane Base (Miss. River)</p> | <p> Minneapolis Class-B Airspace Boundary</p> <p> Permitted Seaplane Surface Waters (within 7 County Area only)</p> <p> VOR Protection Zone</p> <p> Tall Tower Areas</p> <p> Aviation Facility Located in Community</p> <p> Community Directly Affected by Facility(s)</p> <p> General Airspace Notification/Protection</p> |
|---|---|--|---|

2040 TRANSPORTATION POLICY PLAN | METROPOLITAN COUNCIL
Figure 9-1



Source: 2040 Transportation Policy Plan, Metropolitan Council

EXISTING AND PLANNED NON-MOTORIZED TRANSPORTATION NETWORKS

This section addresses network needs for walking and bicycling within Savage. This section also addresses the needs of people using wheelchairs and assistive mobility devices such as mobility scooters, as they are considered pedestrians.

Enhancing the non-motorized elements of the Savage transportation system is a key goal in terms of improving transportation sustainability in the city and in the region. This approach gives residents an alternative to driving, supports transportation options for people who do not have consistent access to a personal vehicle, and encourages healthy activities and lifestyles.

This section includes information on the existing non-motorized transportation network within Savage, connections to land use planning, the planned local non-motorized transportation network, and the planned regional non-motorized transportation network. This section also includes recommendations and design best practices.

Existing Non-Motorized Transportation Network

The non-motorized transportation network in Savage is comprised of sidewalks and multi-use paved trails. As shown in Figure 5-9, there are approximately 65 miles of sidewalks and 32 miles of trails. While the sidewalk and trail network is quite extensive, there are some parts of Savage that do not have any bicycle and pedestrian facilities. Understanding the importance of network connectivity, the City of Savage is dedicated in addressing bicycle and sidewalk network gaps.

Sidewalks can be found in residential and commercial areas as well as around public facilities. Sidewalks are generally intended to serve pedestrians. While sidewalks are not located along all roadways, sidewalks are provided in most neighborhoods and provide access to other neighborhoods and the rest of the city. The Hamilton area in downtown Savage has an established sidewalk system with sidewalks along nearly all streets, making the area pedestrian friendly.

Multi-use trails are generally defined as paved or unpaved surfaces that can serve multiple users, including pedestrians, bicyclists, in-line skaters, etc. These trails are generally 8-10 feet wide and support the occasional two-directional traffic. Trails complement the sidewalk system, providing spaces for recreation, exercise, and non-motorized transportation. Existing trails are located within parks or adjacent to natural features. Several trails run adjacent to collector or arterial roadways and can serve longer biking trips within the city or to neighboring cities. The trails within Savage generally provide low-stress connections to destinations. However, certain trail segments cross heavily-trafficked intersections, driveways, and other roadways that require trail users to navigate high-stress situations.

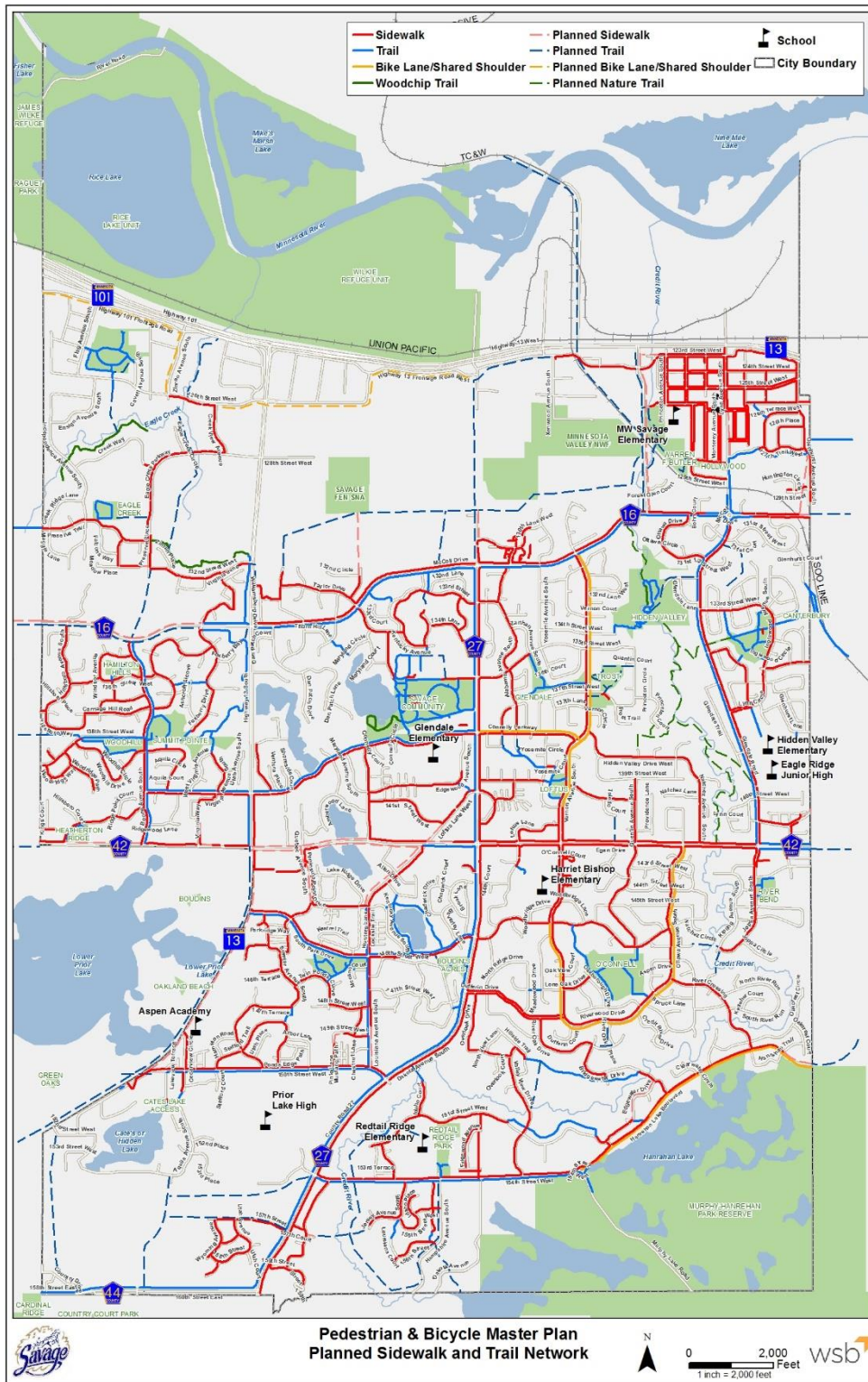
In addition to bituminous trails, there are natural surface trails, such as wood chips or grass, that exist within the city's parks and natural areas. These also serve a recreational function for users.

Connections to Land Use Planning

Savage has development patterns consistent with its designation as a Suburban community. In many areas of the city, existing residential development is lower in density compared with many suburban areas, reflecting a community that has developed relatively recently. Most commercial land uses are separated from largely single-family residential land uses. This means that people walking and bicycling must cover greater distances to reach commercial areas from their homes. In these areas of the city, development patterns are likely better suited to bicycling than walking for transportation trips.

As Savage continues to develop or redevelop, the inclusion of sidewalks and trails is an important consideration to accommodate pedestrian and other non-motorized movement in a safe manner, separate from vehicular traffic. The City supports completing gaps in the system network when opportunities arise, such as through development and roadway reconstruction projects. The City's land use planning and coordination with developers can help improve opportunities for walking and bicycling for transportation. The City can encourage mixed-use development that situates residents within a short walk of commercial destinations. The City can also work with developers to construct sidewalks and trails within developments. Additionally, the City can require pedestrian and bicycle connections in areas where the roadway network does not connect, such as cul-de-sac connector trails that provide shortcuts for people walking and bicycling.

FIGURE 5-9: EXISTING AND PROPOSED BICYCLE AND PEDESTRIAN FACILITIES



Planned Local Non-Motorized Transportation Network

In 2018, the City Council adopted the Pedestrian and Bicycle Master Plan. The Master Plan provides a framework for maintaining and expanding the sidewalk and trail system to increase walking and biking in Savage. As stated in the Master Plan, the vision for the Savage trail and sidewalk network is to:

- Connect to existing and planned recreational facilities and parks.
- Complete gaps in the network to connect neighborhoods and community destinations.
- Provide access to other communities and regional attractions.
- Provide opportunities to connect to the natural environment.

The Master Plan includes a planned non-motorized transportation network of sidewalks and trails as shown in Figure 5-9. When the network is complete, it will improve connectivity between residential areas and commercial, institutional, and recreational areas. This includes filling existing network gaps and adding new facilities in developing areas. The network will improve options for people to walk and bicycle for transportation within the city and facilitate regional connections.

6.4. Planned Regional Non-Motorized Transportation Network

The Metropolitan Council 2040 TPP encourages the use of bicycles as a transportation mode and establishes the Regional Bicycle Transportation Network (RBTN) as an integrated network of on street bikeways and off-road trails that complement each other and provide connections across the region. The RBTN identifies Tier 1 and Tier 2 alignments where existing regional or other trails exist or where a specific alignment has been identified. The RBTN also identifies Tier 1 and Tier 2 corridors where specific alignments have not yet been defined.

In 2017, revisions to the RBTN were proposed as part of the 2040 TPP Update in order to better align the network with county and city plans. While CSAH 42 has a RBTN Tier 2 alignment passing through Savage, there is a series of roadways generally following CSAH 16 and Glendale Road that have been identified as part of a RBTN Tier 2 corridor. The RBTN is important because it provides better accessibility to regional destinations. Especially because RBTN Tier 1 and Tier 2 alignments have points of connection, it is important to integrate the RBTN when making future local bicycle and pedestrian plans. The updated existing and proposed regional network is shown in Figure 5-10.

Non-Motorized Transportation Design Considerations

Design dimensions for sidewalks are recommended to be five-feet or wider, with a minimum of a four-foot-wide boulevard between the sidewalk and the curb. Increased

separation improves pedestrian comfort and provides space for street signs and snow storage.

Design considerations for bicycle facilities are somewhat more complicated due to the hierarchy of facility types. In order of their ability to provide a comfortable bicycling environment from largest improvement to smallest, facilities include: off-street facilities, protected bikeways, buffered bicycle lanes, conventional bicycle lanes, bicycle boulevards, and wide paved shoulders. Figure 5-11 shows examples of these facility types.

Multi-use trails are recommended to be a minimum of eight-feet wide. Regional trails are recommended to be a minimum of ten-feet wide due to higher use and the design requirements to comply with federal funding. Trails must have a two-foot wide clear zone on either side to reduce hazards for bicyclists and provide a recovery zone if a bicyclist leaves the edge of the trail. The clear zone can be paved or turf surface. No signs, furnishings, trees, or other obstructions can be in the clear zone.

Paved shoulders should be a minimum of four-feet wide if intended for bicycle and pedestrian use. Four-foot wide shoulders are adequate on streets with traffic volumes below 1,000 vehicles per day. Six- to eight-foot shoulders are recommended when traffic volumes exceed 1,000 vehicles per day. A wider shoulder improves pedestrian and bicyclist safety and comfort when vehicle traffic speeds and volumes are higher.

As non-motorized facilities are planned and designed, the City will consult additional planning and design resources, including:

- Minnesota's Best Practices for Pedestrian/Bicycle Safety, MnDOT
- Bikeway Facility Design Manual, MnDOT
- Minnesota Manual on Uniform Traffic Control Devices, MnDOT
- NACTO Urban Bikeway Design Guide, Second Edition, National Association of City Transportation Officials
- Guide for the Development of Bicycle Facilities, American Association of State Highway and Transportation Officials
- Guide for the Planning, Design, and Operation of Pedestrian Facilities, American Association of State Highway and Transportation Officials
- Complete Streets Implementation Resource Guide for Minnesota Local Agencies, MnDOT
- Public Rights of Way Accessibility Guidelines (PROWAG), US Access Board

A Complete Streets approach to planning and implementing non-motorized facilities, as described in the MnDOT Complete Streets Implementation Resource Guide, can provide a helpful framework for creating a community-supported, safe, comfortable, and convenient transportation network that serves all modes. A Complete Streets policy or process is intended to provide design guidance and implementation clarity, allowing the community and project designers to advance individual projects in a collaborative and cost-efficient manner.

Accessibility is a very important consideration for non-motorized design. All new pedestrian and bicycle facilities must meet the ADA accessibility guidelines established in PROWAG. The guidelines in PROWAG address the design needs of people with physical and/or visual impairments. Accessibility will become increasingly important over the next 20 years due to demographic changes. Baby boomers are aging and the population over age 65 is increasing. People over 65 are more likely to have physical and/or visual impairments that affect their ability to get around.

FIGURE 5-10: REGIONAL BICYCLE TRANSPORTATION NETWORK

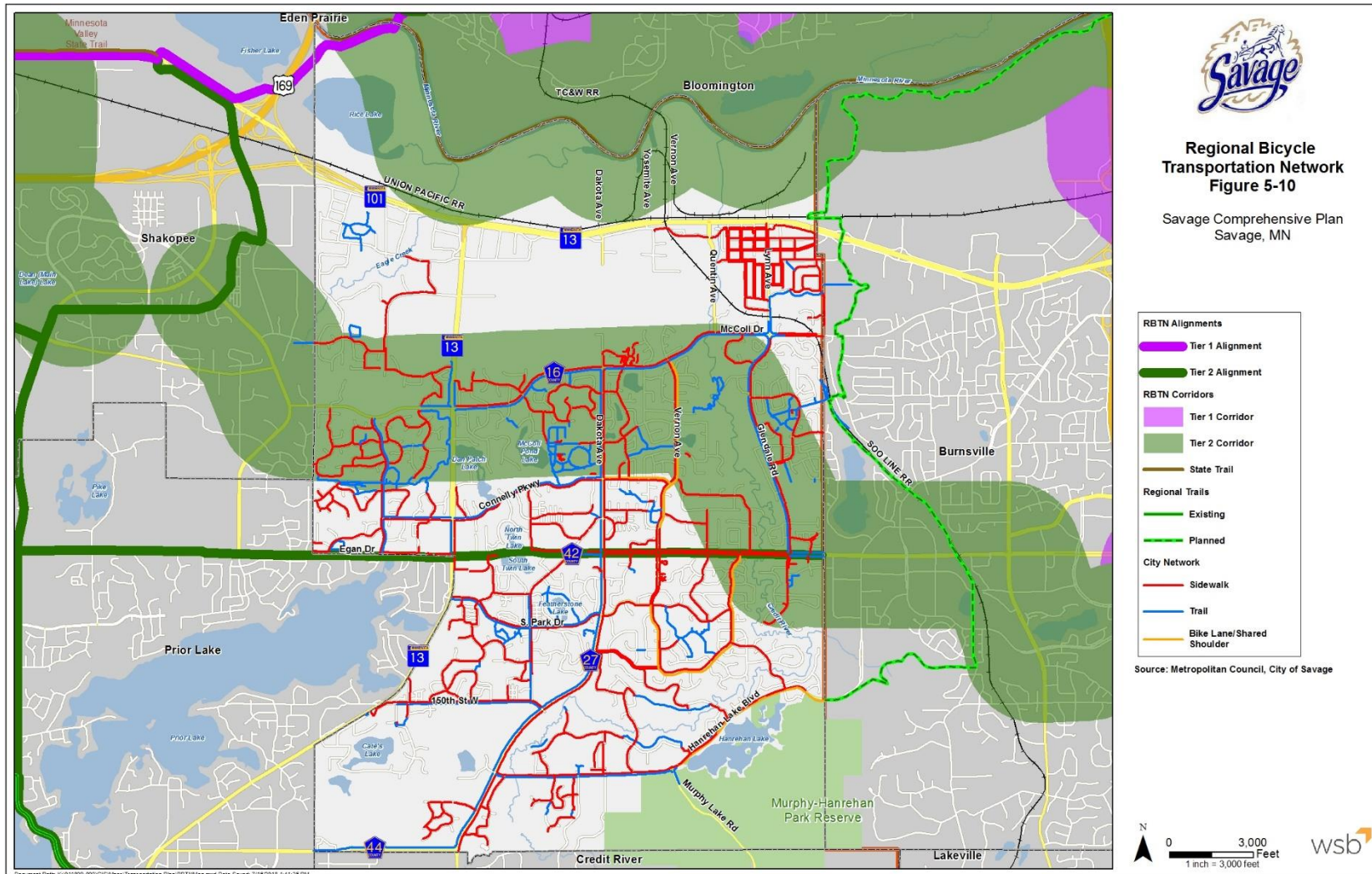


FIGURE 5-11: EXAMPLE BICYCLE FACILITIES



Off-street Facility
Source: www.pedbikeimages.org / Laura Sandt



Conventional Bicycle Lane
Source: www.pedbikeimages.org / Jennifer Compos



Protected Bikeway
Source: *NACTO Urban Bikeway Design Guide*



Bicycle Boulevard
Source: *NACTO Urban Bikeway Design Guide*



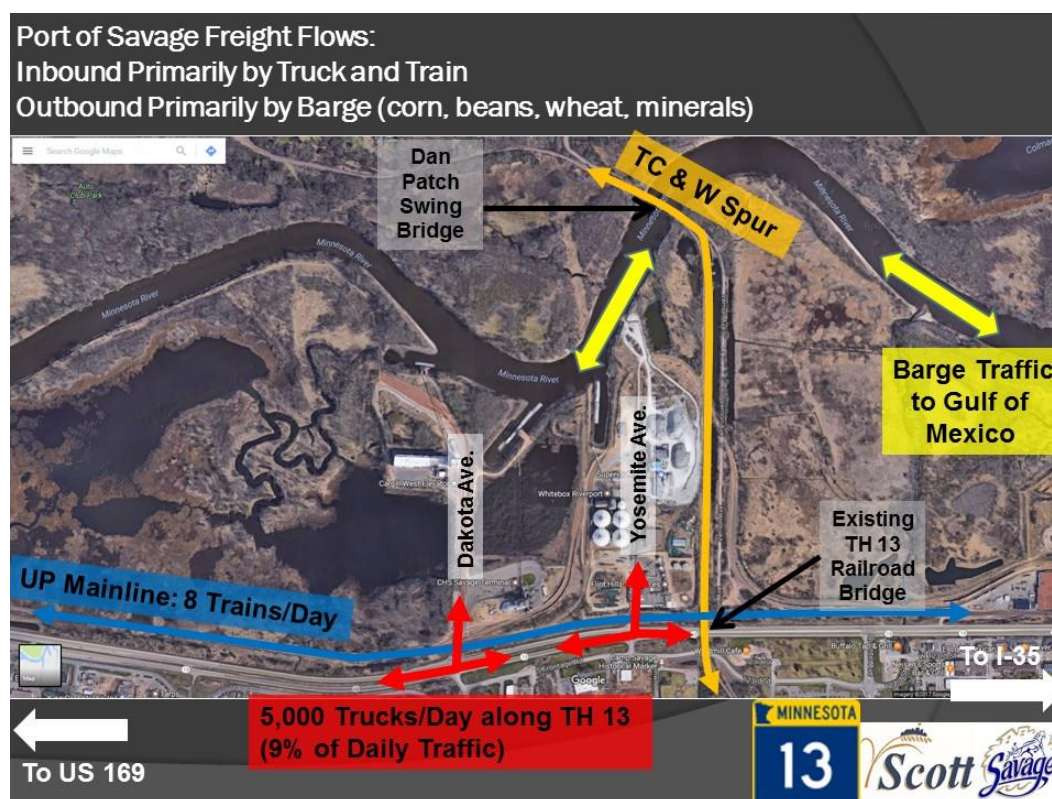
Buffered Bicycle Lane
Source: www.pedbikeimages.org / Lyubov Zuyeva



Wide Paved Shoulder
Source: www.pedbikeimages.org / Laura Sandt

FREIGHT

Freight transportation in Savage is served by the major TH 13/TH 101 east-west roadway, ports along the Minnesota River, and via railroad. Figure 5-12 shows the city's freight system network. TH 13 serves a key freight connection between agricultural rich lands in southwestern Minnesota to the Ports of Savage. The Ports of Savage, consisting of five separate private ports off the Minnesota River and two rail corridors served by three railroad companies, serves as an intermodal hub for the shipment of grain and other commodities beyond Minnesota. Approximately two million tons of material is shipped through the Ports of Savage annually from major operators including Cargill, CHS Inc., Bunge, and Superior Minerals. Ninety percent of the grain arrives to the ports by truck via TH 13 (see freight flows graphic).



Heavy commercial truck traffic can account for 9-18 percent of the total daily traffic on TH 13, with higher volumes of truck traffic typically in early morning and mid-day periods. TH 101/TH 13 is the only route that can be used by truck traffic to access the port facilities and the other major freeway facilities (I 35W and I-494). As a result, TH 101/TH 13 is heavily congested due to the high level of traffic as well as conflicts between trucks and automobiles. Because trucks and cars have different levels of acceleration, there are few gaps between traffic signals that allow for adequate turning movements (especially left turns) onto the roadway. There is limited room in the median for trucks to wait for a gap in the traffic.

There are two main railroad corridors within the city. Union Pacific Railroad operates a regional rail mainline between St. Paul, Mankato, Worthington, and Sioux City, Iowa. Significant train switching activity can occur in the Ports of Savage area related to operations at the Cargill sites off Dakota Avenue and Lynn Avenue. Canadian Pacific owns the north-south railroad line that crosses over TH 13 approximately 650 feet east of Yosemite Avenue. This line is commonly known as the Dan Patch Corridor and runs between Northfield and Minneapolis. The Dan Patch Corridor is currently classified as an inactive rail line south of TH 13. North of TH 13 the line is leased by Twin Cities & Western Railroad and is used for storing and switching train cars in the Ports of Savage Area.

The Metropolitan Council's Regional Truck Highway Corridor Study (completed in 2017) identified TH 101/ TH 13 as a Tier 1 regional key truck corridor. As the busiest grain port in Minnesota, TH 101/TH 13 is the only route that provides access to the port facilities on the Minnesota River.

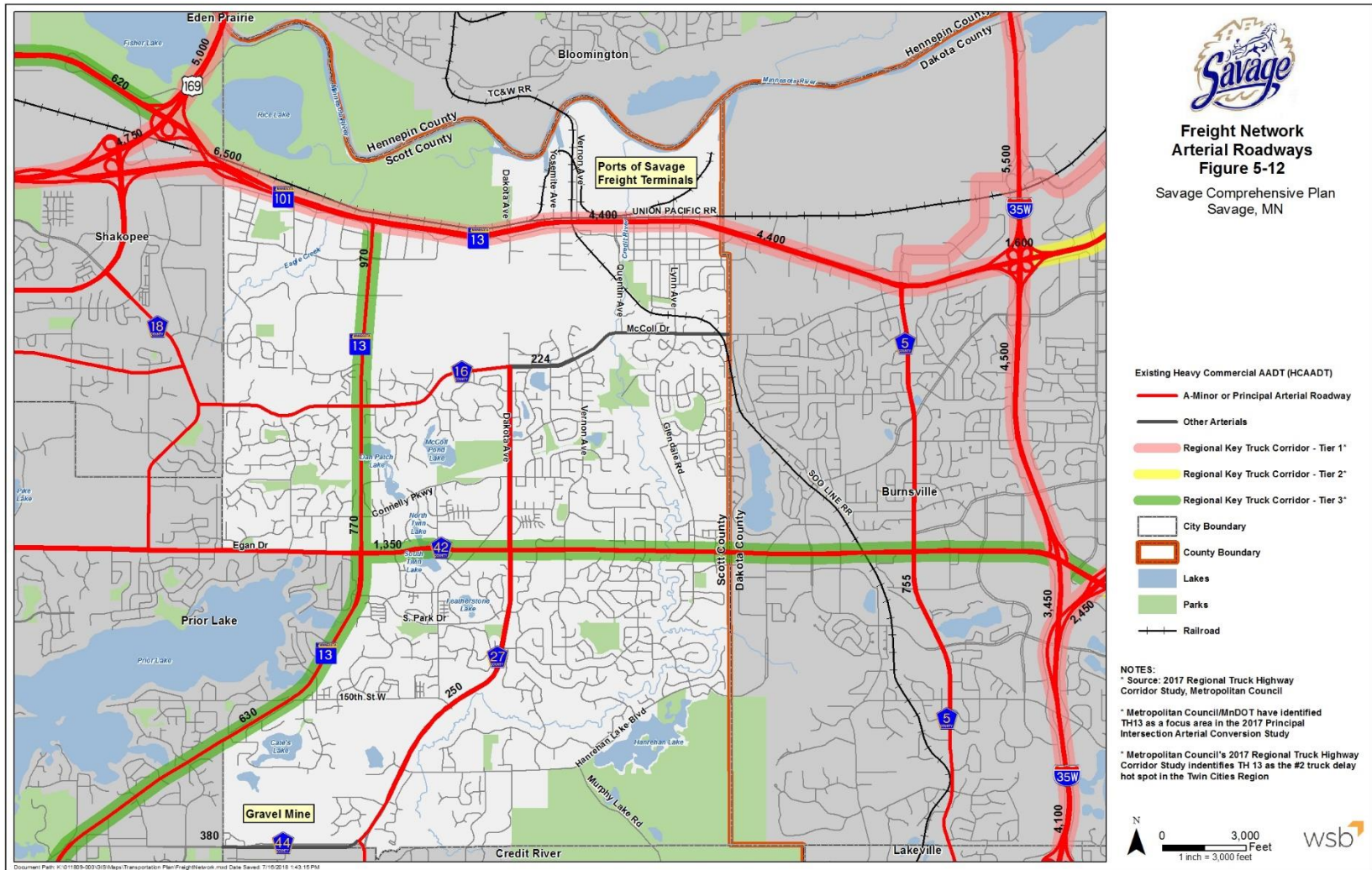
TH 13 (north-south bound through Savage) and CSAH 42, roadways that goes through Savage, were identified as Tier 3 regional key truck corridors. As defined in the Regional Truck Highway Corridor Study, the interstate system serves as the freight backbone, and other tiered roadways provide redundancy to the interstate system, as well as provide door-to-door access to manufacturing facilities, distribution centers, intermodal freight hubs, and ultimately, retailers and customers.

Figure 5-12 shows the Heavy Commercial Average Daily Traffic (HCADT) on arterial roadways within Savage. US TH 101/TH 13 carry the largest volumes of truck trips in the city. TH 101/TH13 carry 4,400-6,500 heavy commercial vehicles per day. CSAH 42 carries approximately 1,350 heavy commercial vehicles per day while the north-south segment of TH 13 carries between 770-970 heavy commercial vehicles per day.

The Metropolitan Council 2040 TPP acknowledges several freight challenges that impact the city and the region. Freight traffic and congestion are expected to increase and place pressure on the region's highway and rail systems. Additionally, there are concerns about compatibility between freight traffic and adjacent land use. While land uses adjacent to the city's primary freight routes are generally compatible, it will be important to ensure that future development is also compatible with freight operations.

Efficient landside access to the river terminals is important for congestion and safety reasons on TH 13 but is also important to provide a cost-effective means to transport grain from Minnesota's rural areas to global markets at ports to the South on the Mississippi River and to the West on the rail system. In effect, the ability to efficiently access terminals in Savage has a large influence on market prices and business viability for a large portion of Minnesota. Correcting the highway's current congested state would have far reaching benefits not only for Savage residents and river-dependent businesses, but for the entire state.

FIGURE 5-12: FREIGHT NETWORK AND HEAVY COMMERCIAL TRAFFIC VOLUMES



GOALS AND MULTIMODAL STRATEGIES

This Plan, and the City's actions over the next 20 years, will be guided by the following transportation goals and strategies.

Goals

The City of Savage has established the following goals to guide future planning, development, and operation of the multimodal transportation system:

1. Facilitate efficient movement of people and goods within and through Savage.
2. Provide a transportation system that is integrated with land use and development.
3. Improve transportation safety for all users and modes of transportation.
4. Maintain the existing transportation system.
5. Develop a safe and convenient multimodal transportation system.

Multimodal Strategies

The multimodal strategies listed in this section are specific, actionable steps that the City of Savage can take in support of the goals of this plan. These strategies are based upon existing and future transportation needs as described in detail in the previous sections of this chapter.

Each strategy is tied to one or multiple goals. Table 5-8 on the following pages describe each strategy, notes which goal(s) is/are related to each strategy and the lead agency responsible for implementing the strategy. Figure 5-13 illustrates the strategies geographically.

TABLE 5-8: TRANSPORTATION IMPLEMENTATION STRATEGIES

Roadway - Programmed
<p>Roadway: CSAH 27: CSAH 44 to CSAH 21 Lead Agency: Scott County Type of Improvement: Mobility Year: 2021 Goal: 1, 3, 5 Strategy: Expand roadway from 2 to 4 lanes, including separated trail and sidewalk.</p>
<p>Roadway: CSAH 42: Quebec Avenue to Dakota County Line Lead Agency: Scott County Type of Improvement: Pavement Preservation Year: 2021 Goal: 1, 3, 5 Strategy: Pavement overlay.</p>
<p>Roadway: TH 13/Dakota Avenue Interchange Lead Agency: MnDOT Type of Improvement: Mobility Year: 2022 Goal: 1, 3, 5 Strategy: Construct new Dakota Avenue interchange with TH 13 and north and south frontage roads from Dakota Avenue to Vernon Avenue. This project has received \$15 million of federal freight funding from MnDOT for fiscal year (FY) 2022. Additional funds will need to be obtained to construct this project, which is estimated to cost \$27 to \$32 million. This project will significantly improve freight mobility for TH 13 and the Ports of Savage. Investment in transit and bicycle facilities, downtown access, Ports of Savage access, local TH 13 street connections and mobility along TH 13 parallel routes will be priorities for the City for this project.</p>
<p>Roadway: CSAH 16 (McColl Drive): TH 13 to West City Limits Lead Agency: MnDOT Type of Improvement: Mobility Year: 2022 Goal: 1, 3, 5 Strategy: An expansion project is programmed in the Scott County CIP for 2022 to improve mobility in this corridor, however, the design for this improvement has not yet been developed.</p>

Roadway - Studies

Roadway: TH 13 Corridor Study: US Highway 169 to Interstate 35W

Lead Agency: MnDOT

Type of Improvement: Mobility

Year: 2018-2019

Goal: 1, 3, 5

Strategy: Further develop preliminary designs for the 2022 programmed TH 13/Dakota Avenue interchange and develop a future design vision for TH 13 east of the Dakota Avenue interchange to Interstate 35W. This study would specifically analyze potential mobility and safety improvements for at-grade intersections located at Quentin Avenue, Lynn Avenue, Chowen Avenue and Washburn Avenue and whether full grade separation of this corridor to a freeway design is warranted. Investment in transit and bicycle facilities, downtown access, Ports of Savage access, local TH 13 street connections and mobility along TH 13 parallel routes will be priorities for the City along the TH 13 corridor. The study should also evaluate a future connection of Dakota Avenue from McColl Drive to TH 13.

Roadway/Freight - Planned

Roadway: TH 13: US Highway 169 to Interstate 35W

Lead Agency: MnDOT

Type of Improvement: Mobility – Freeway Upgrade/Truck Freight

Year: TBD

Goal: 1, 3, 5

Strategy: Consider building out the TH 13 corridor from US Highway 169 to Interstate 35W to a grade separated freeway design with frontage and backage roads. Metropolitan Council has identified the TH 13 corridor as a focus area in the 2017 Principal Intersection Arterial Conversion Study. Metropolitan Council also has identified TH 13 at the #2 truck delay hot spot in the Twin Cities Region in the 2017 Regional Truck Highway Corridor Study. The TH 13 Corridor is also a high priority in the Scott County 2040 Transportation Plan and has been identified by the County as a priority corridor for utilizing Scott County Transportation Sales Tax revenues.

A variety of planning and preliminary design studies have occurred over the last 20 years in the TH 13 corridor. The most recent 2017 study documented crash rates above the statewide average and significant existing and forecasted congestion during AM and PM peaks. A FY 2022 project to grade separate the TH 13/Dakota Avenue intersection, including new north and south frontage roads from Dakota Avenue to Vernon Avenue, is programmed with \$15 million of federal freight funds. This project is estimated to cost approximately \$30 million to construct, with the additional funding gap currently unsecured.

Another study is planned for this corridor in 2018 to continue the preliminary design and project development process for the TH 13/Dakota Avenue interchange and continue the design vision planning process along TH 13 east of Dakota Avenue to Interstate 35W in Burnsville. Investment in transit and bicycle facilities, downtown access, Ports of Savage access, local TH 13 street connections and mobility along TH 13 parallel routes will be priorities for the City along the TH 13 corridor.

Project: Ports of Savage Minnesota River Dredging

Lead Agency: City of Savage/Lower Minnesota River Watershed District

Type of Improvement: Mobility – Minnesota River

Year: TBD

Goal: 1, 2, 4

Strategy: The City of Savage should coordinate with the Lower Minnesota River Watershed District and the U.S. Army Corps of Engineers to ensure that a regular schedule of dredging takes place along the Minnesota River so barge traffic traveling to and from the Ports of Savage can transport grain and other commodities.

Project: Quentin Avenue Railroad Bridge

Lead Agency: City of Savage/Canadian Pacific Railroad

Type of Improvement: Mobility – Railroad Bridge

Year: TBD

Goal: 1, 3, 5

Strategy: This railroad bridge is currently located on a tight curve with substandard height (10' 6" height clearance) and width clearance. The City of Savage should coordinate with the Canadian Pacific Railroad to upgrade this railroad bridge and roadway to meet minimum Municipal State Aid standards.

Project: Lynn Avenue Railroad Bridge

Lead Agency: City of Savage/Canadian Pacific Railroad

Type of Improvement: Mobility – Railroad Bridge

Year: TBD

Goal: 1, 3, 5

Strategy: This railroad bridge currently has substandard height (11' 6" height clearance) and width clearance. The City of Savage should coordinate with the Canadian Pacific Railroad to upgrade this railroad bridge and roadway to meet minimum Municipal State Aid standards.

Roadway: TH 13: TH 13/TH 101 Interchange to South City Limits

Lead Agency: MnDOT

Type of Improvement: Mobility

Year: TBD

Goal: 1, 3, 4, 5

Strategy: The Scott County 2040 Travel Demand Model forecasts this corridor to be over capacity (V/C > 1.0) by the year 2040. However, due to limited financial resources, MnDOT does not have any plans within the 2040 planning horizon to add additional capacity to this roadway.

Roadway: TH 13: TH 13/TH 101 Interchange to South City Limits

Lead Agency: MnDOT

Type of Improvement: Jurisdictional Transfer

Year: TBD

Goal: 4

Strategy: The 2040 Scott County Transportation Plan illustrates a proposed turnback of TH 13 to Scott County from the TH 13/TH 101 interchange in the City of Savage to TH 282 in the City of Jordan. As part of this turnback, it is proposed that (in part) CSAH 17 (west of Savage) and CSAH 42 through the City of Savage be turned up to the State from Scott County. These proposed jurisdictional realignments are also referenced in MnDOT’s “Minnesota Jurisdictional Realignment Project” report, dated July of 2014. However, as of the time of this City of Savage 2040 Transportation Plan update, no formal discussions have transpired between the County and MnDOT regarding these proposed changes.

Roadway: CSAH 42 (Egan Drive): East City Limits to TH 13

Lead Agency: Scott County

Type of Improvement: Mobility

Year: TBD

Goal: 1, 3, 5

Strategy: The Scott County 2040 Travel Demand Model forecasts this corridor to be over capacity ($V/C > 1.0$) by the year 2040. A corridor study with recommendations for automobile and truck mobility improvement projects as well as recommendations to improve mass transit and bicycle/pedestrian connections should be coordinated and initiated along CSAH 42 with Scott County.

Roadway: CSAH 42 (Egan Drive): TH 13 to West City Limits

Lead Agency: Scott County

Type of Improvement: Mobility

Year: TBD

Goal: 1, 3, 5

Strategy: The Scott County 2040 Travel Demand Model forecasts this corridor to be approaching capacity ($V/C > 0.90$) by the year 2040. A corridor study with recommendations for automobile and truck mobility improvement projects as well as recommendations to improve mass transit and bicycle/pedestrian connections should be coordinated and initiated along CSAH 42 with Scott County.

Roadway: CSAH 27 (Dakota Avenue)/CSAH 16 (McColl Drive) Intersection

Lead Agency: Scott County

Type of Improvement: Mobility – Intersection Improvements

Year: 2020 to 2030

Goal: 1, 3

Strategy: Consistent with the Scott County CSAH 27 Corridor Study completed in 2014, Scott County should coordinate with the City of Savage to reconstruct this intersection with appropriate geometric improvements.

Roadway: CSAH 27 (Dakota Avenue)/Connelly Parkway Intersection

Lead Agency: Scott County

Type of Improvement: Mobility – Traffic Signal

Year: 2019

Goal: 1, 3, 5

Strategy: Consistent with the Scott County CSAH 27 Corridor Study completed in 2014, Scott County should coordinate with the City of Savage to install a traffic signal at this intersection.

Roadway: CSAH 27 (Dakota Avenue)/CSAH 42 (Egan Drive) Intersection

Lead Agency: Scott County

Type of Improvement: Mobility – Intersection Improvements

Year: 2020 to 2030

Goal: 1, 3

Strategy: Consistent with the Scott County CSAH 27 Corridor Study completed in 2014, Scott County should coordinate with the City of Savage to make necessary improvements at this intersection. The CSAH 27 Corridor Study recommended a “Continuous Flow Intersection” (CFI) or grade separation. Further study and an evaluation of available funding will be necessary to determine the most effective and feasible improvement.

Roadway: CSAH 27 (Dakota Avenue)/154th Street Intersection

Lead Agency: Scott County

Type of Improvement: Mobility – Intersection Improvements

Year: TBD

Goal: 1, 3

Strategy: Consistent with the Scott County CSAH 27 Corridor Study completed in 2014, Scott County should coordinate with the City of Savage to monitor this intersection from a traffic and operations perspective and consider necessary geometric or stop control improvements as warranted.

Roadway: CSAH 27 (Dakota Avenue)/CSAH 44

Lead Agency: Scott County

Type of Improvement: Mobility – Intersection Improvements

Year: TBD

Goal: 1, 3

Strategy: Consistent with the Scott County CSAH 27 Corridor Study completed in 2014, Scott County should coordinate with the City of Savage to monitor this intersection from a traffic and operations perspective and consider necessary geometric or stop control improvements as warranted. Improvements at the CSAH 27/CSAH 44 intersection should be evaluated as part of a comprehensive corridor study review of CSAH 42 in cooperation with Scott County.

Roadway: Eagle Creek Parkway: New Alignment Extension South to McColl Drive

Lead Agency: City of Savage

Type of Improvement: Mobility – MSAS New Alignment

Year: TBD

Goal: 1, 5

Strategy: Construct new alignment roadway as part of the City of Savage Municipal State Aid System (MSAS).

Roadway: Aquila Avenue: New Alignment Extension East to South Allen Boulevard

Lead Agency: City of Savage

Type of Improvement: Mobility – MSAS New Alignment

Year: TBD

Goal: 1, 5

Strategy: Construct new alignment roadway as part of the City of Savage Municipal State Aid System (MSAS).

Roadway: 126th Street West: New Alignment Extension East to CSAH 27 (Dakota Avenue)

Lead Agency: City of Savage

Type of Improvement: Mobility – MSAS New Alignment

Year: TBD

Goal: 1, 5

Strategy: Construct new alignment roadway as part of the City of Savage Municipal State Aid System (MSAS).

Roadway: Bohn Property Roadway Network: West of CSAH 27 (Dakota Avenue and North of CSAH 16 (McColl Drive)

Lead Agency: City of Savage

Type of Improvement: Mobility – Property Development

Year: TBD

Goal: 1, 5

Strategy: Coordinate with property owner regarding establishment of necessary roadway network and utilities to service this property.

Roadway: Chowen Avenue: New Southerly Roadway Extension: TH 13 south to Lynn Avenue/CSAH 16 (McColl Drive)

Lead Agency: City of Savage

Type of Improvement: Mobility – New Roadway Extension

Year: TBD

Goal: 1, 5

Strategy: Establish new City street connection to TH 13 along Chowen Avenue.

Transit
<p><u>Improvement:</u> Various: First-Last Mile Connections to Transit Service <u>Lead Agency:</u> City of Savage, MVTA <u>Type of Improvement:</u> Bicycle and Pedestrian <u>Year:</u> TBD <u>Goal:</u> 1, 5 <u>Strategy:</u> Work with MVTA to evaluate and determine sidewalk and trail improvements to enhance non-motorized access to the Savage Park and Ride facility and bus stops.</p>
<p><u>Improvement:</u> Various: Local Transit Service Updates <u>Lead Agency:</u> MVTA, City of Savage <u>Type of Improvement:</u> Transit Service <u>Year:</u> TBD <u>Goal:</u> 1, 5 <u>Strategy:</u> Continue working with MVTA to evaluate current local bus service in Savage and determine long-term service needs. Transit investment is a priority for the City of Savage, especially along key mobility corridors such as TH 13 and CSAH 42. The City will work with MVTA, Scott County and MnDOT to evaluate overall transit needs in the City and invest in transit within these and other City corridors as opportunities present themselves.</p>
<p><u>Improvement:</u> Various: Transit Service to Hamilton District <u>Lead Agency:</u> MVTA, City of Savage <u>Type of Improvement:</u> Transit Service <u>Year:</u> TBD <u>Goal:</u> 1, 5 <u>Strategy:</u> Continue working with MVTA to evaluate providing bus service with transit stop and connections to the Hamilton District.</p>
<p><u>Improvement:</u> Dan Patch Line <u>Lead Agency:</u> MVTA, City of Savage <u>Type of Improvement:</u> Transit Service <u>Year:</u> TBD <u>Goal:</u> 1, 5 <u>Strategy:</u> The City proposes to further evaluate the options for the Dan Patch line, including revisiting the feasibility and potential opportunities to develop commuter rail and park and ride lots along this corridor across the Minnesota River from Savage to downtown Minneapolis and St. Paul. This study will require coordination with Metropolitan Council, MnDOT, Canadian Pacific Railroad, Twin Cities & Western Railroad and other communities along the Dan Patch Corridor.</p>

Roadway: Various: Bus Stop Infrastructure

Lead Agency: MVTA, City of Savage

Type of Improvement: Bus Stops

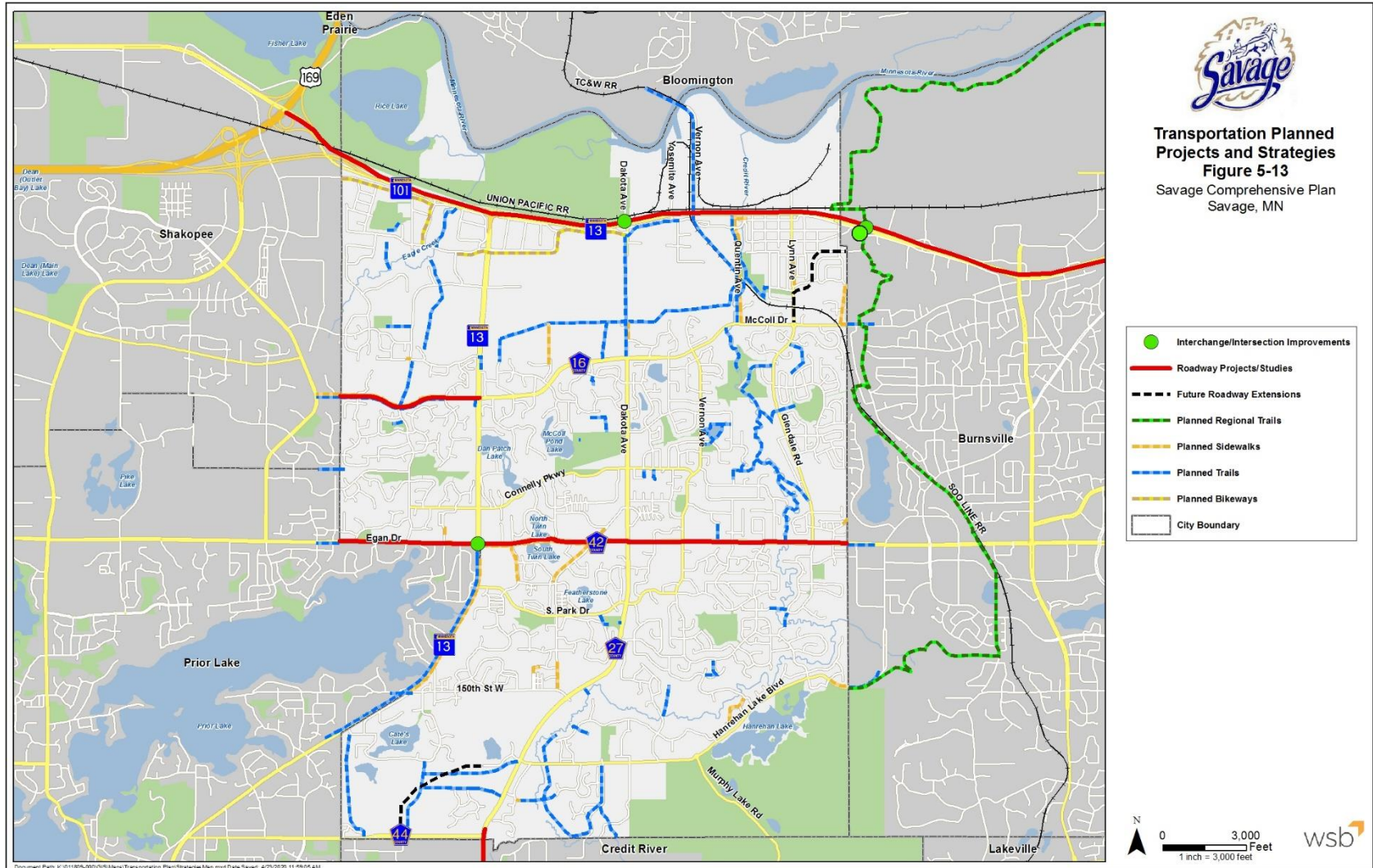
Year: TBD

Goal: 1, 5

Strategy: Work with MVTA to explore the potential and appropriate locations for providing fixed bus stop locations in Savage to enhance access and comfort for riders and to make transit service more visible in the community. Transit investment is a priority for the City of Savage, especially along key mobility corridors such as TH 13 and CSAH 42. The City will work with MVTA, Scott County and MnDOT to evaluate overall transit needs in the City and invest in transit within these and other City corridors as opportunities present themselves.

Pedestrian and Bicycle
<p>Roadway: Various: Sidewalk and Trail Gaps Lead Agency: City of Savage Type of Improvement: Sidewalks and Trails Year: TBD Goal: 1, 5 Strategy: Continue to complete gaps in the sidewalk and trail network by implementing the Pedestrian and Bicycle Master Plan. Annually review the master plan and incorporate priority projects into the capital improvement program as warranted.</p>
<p>Roadway: Various: Connect to Neighboring Community Sidewalk and Trail Networks Lead Agency: City of Savage Type of Improvement: Sidewalks and Trails Year: TBD Goal: 1, 5 Strategy: Work with neighboring cities and Scott County to complete sidewalk and trail gaps between communities to further enhance non-motorized access between Savage and the rest of the region.</p>
<p>Roadway: Various: Non-Motorized Access to Regional Destinations Lead Agency: City of Savage Type of Improvement: Sidewalks and Trails Year: TBD Goal: 1, 5 Strategy: Support making sidewalk and trail connections that provide access for Savage residents to regional destinations including Cleary Lake Regional Park, Murphy-Hanrehan Park Reserve, the Scott West Regional Trail, and the Minnesota Valley Wildlife Refuge.</p>
<p>Roadway: Various: Long-Term Maintenance and Funding Lead Agency: City of Savage Type of Improvement: Sidewalks and Trails Year: TBD Goal: 4 Strategy: Ensure the City can sustainably maintain its sidewalk and trail network by adequately funding necessary maintenance and operational needs as the network continues to expand.</p>

FIGURE 5-13: TRANSPORTATION STRATEGIES MAP



CONCLUSION AND NEXT STEPS

The purpose of this Transportation Plan is to set a multimodal transportation vision for the City of Savage through the year 2040. Goals and specific strategies have been identified collaboratively by the City, Scott County, MnDOT, and members of the public within the framework of Metropolitan Council requirements. The vision and associated strategies outlined in this plan were established by considering existing and forecasted conditions, Savage priorities, regional travel patterns and a variety of other factors. The City will periodically review the assumptions under which the Transportation Plan was developed, including estimates of future development, population trends, changing financial resources, and citizen and governmental input, and update the plan accordingly.

As the owners of the transportation network in Savage (i.e. City of Savage, Scott County, and MnDOT) advance their respective Capital Improvement Programs (CIPs), this plan is intended to serve as an important resource and reference in establishing priorities and advancing transportation projects for implementation. Advancing these projects from a planning to implementation phase will require collaborative discussions among facility owners, adjacent communities, the Metropolitan Council, residents and others to conduct traffic studies, finalize designs, preserve rights-of-way, obtain environmental clearances and leverage necessary financial resources. Figure 14 outlines the entire planning and project development process required for transportation projects from concept plans to construction implementation.

FIGURE 5-14: TRANSPORTATION PLANNING PROCESS



Transportation Planning Process

