Transportation Plan

Prepared with assistance from WSB Associates

Transportation Background

The City of engaged the services of WSB Associates to complete a Transportation Plan on behalf of the City. The Transportation Plan is included in the Comprehensive Plan Update by reference.

Transportation Priorities

Ramsey has several transportation priorities highlighted in the Transportation Plan. Detailed planning efforts are planned for each of these main corridors.

- Highway 10
- Highway 47
- Mississippi River Crossing
- Nowthen Boulevard
- Armstrong Boulevard
- Green Valley Road
- 181st Avenue

Ramsey hopes to have Corridor Plans completed for each of these corridors by 2023.

Introduction

The transportation system in Ramsey generally operates well today. The city's multimodal transportation system includes facilities for vehicles, freight, walking, bicycling and transit. Facilities are operated by a number of agencies, including the City of Ramsey, Anoka County, the Minnesota Department of Transportation (MnDOT), Metro Transit, and the Burlington Northern Santa Fe (BNSF) Railway.

This 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.

Transportation Glossary

CIP: Capital Improvement Plan – five year plan for capital investments in the transportation system

This transportation plan includes the following information:

1. Summary of Regional Strategies
2. Existing Roadway System
3. 2040 Traffic Forecasts and Roadway Network Planning
4. Existing and Planned Non-Motorized Transportation Network
5. Freight Network
6. Transit
7. Aviation
8. Goals and Multimodal Strategies
9. Proposed Short and Long Range Roadway Projects
10. Public Comments
11. Conclusion and Next Steps

and in other capital assets owned by the city (equipment, buildings, etc.).

CR: County Road – county-owned roadway that does not receive State funding.

Critical Crash Rate: Statistical indicator of a safety problem at a location. If crash rates at a location are above the critical crash rate, it indicates that the location has a crash rate that is statistically significant compared to similar roadways.

CSAH: County State Aid Highway – county-owned roadway that receives State Aid funding.

MnDOT: Minnesota Department of Transportation.

RBTN: Regional Bicycle Transportation Network – existing and planned regional bicycle network established by the Metropolitan Council.

TH: Trunk Highway – State highway owned and operated by MnDOT.

TPP: Transportation Policy Plan – Regional transportation plan for the Twin Cities metropolitan region, developed by the Metropolitan Council.

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). Similar to this Plan, the TPP 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 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.

The Metropolitan Council classifies Ramsey under the Emerging Suburban Edge Community Designation. Based on *Thrive MSP 2040*, Emerging Suburban Edge areas are expected to plan for forecasted population and household growth at average densities of at least three to five units per acre for new development and redevelopment. These communities are also expected to target opportunities for more intensive development near regional transit investments.

Existing Roadway System

The sections below provide information about the existing roadway system in Ramsey, including existing number of lanes, existing roadway jurisdiction, existing functional classification, existing traffic, existing safety, and access management. This chapter 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 **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.

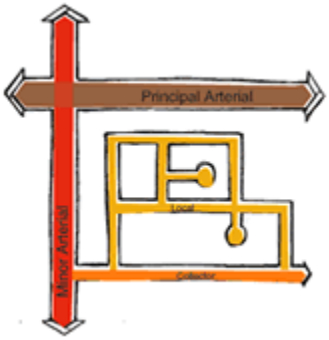
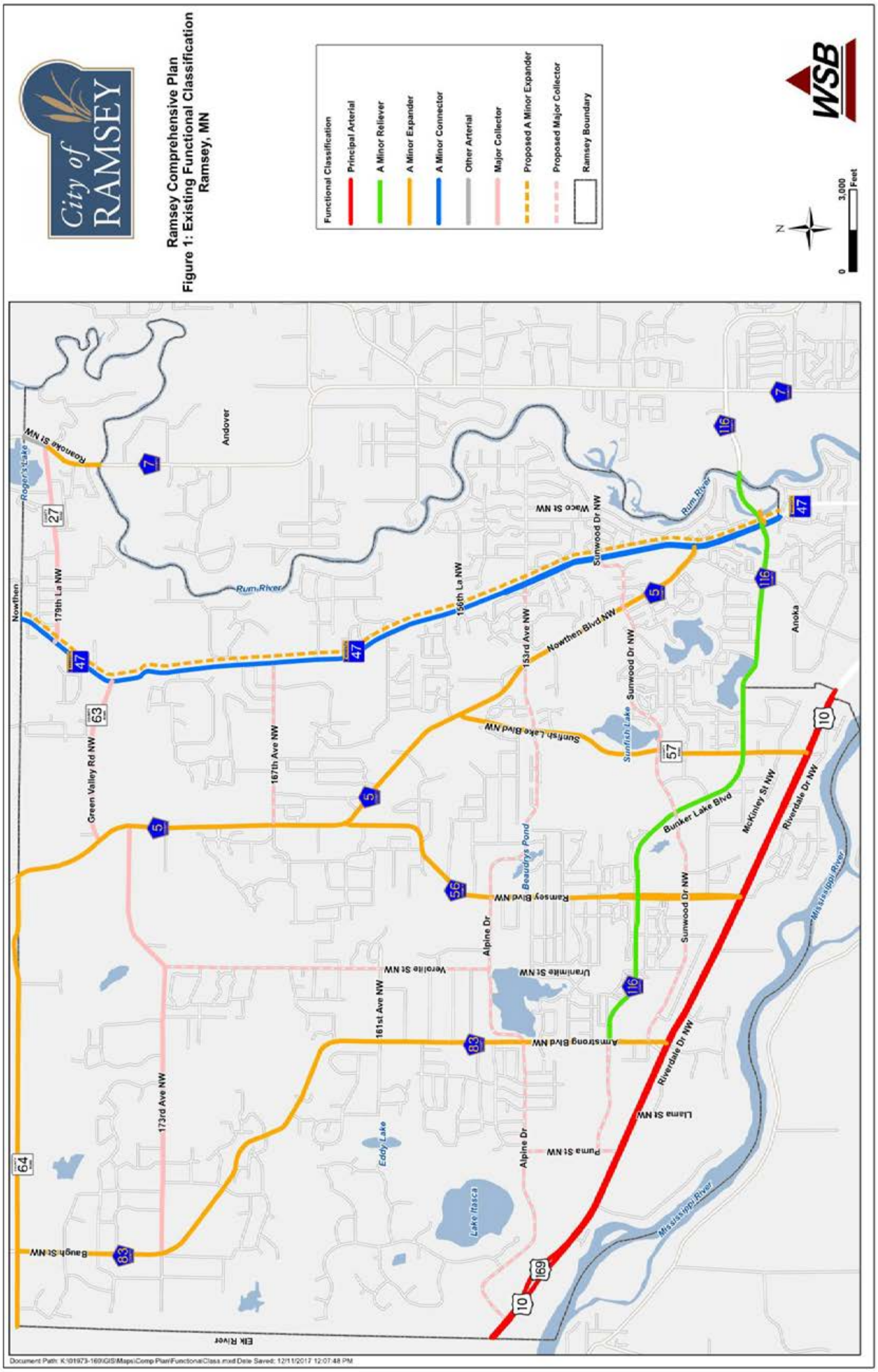


Image: MnDOT

Four classes of roadways are included in the seven-county metropolitan area functional classification system: principal arterials, minor arterials, collector streets, and local streets. **Figure 1** shows the existing functional classification of each road in the City of Ramsey and **Figure 2** shows the existing roadway jurisdiction. The following sections describe each functional class in greater detail and indicate which roadways fall into each classification.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 1: Existing Functional Classification
Ramsey, MN
Functional Classification
Principal Arterial
A Minor Reliever
A Minor Expander
A Minor Connector
Other Arterial
Major Collector
Proposed A Minor Expander
Proposed Major Collector
Ramsey Boundary
N
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3,000
Feet
WSB
Andover
Nowthen
Anoka
Rum River
Mississippi River
Rogers Lake
Sunfish Lake
Beaudrys Pond
Eddy Lake
Lake Itasca
Elk River
Roanoke St NW
179th La NW
Green Valley Rd NW
167th Ave NW
156th La NW
153rd Ave NW
Nowthen Blvd NW
Sunwood Dr NW
Waco St NW
Sunfish Lake Blvd NW
Bunker Lake Blvd
McKinley St NW
Riverdale Dr NW
Ramsey Blvd NW
Alpine Dr
Variolite St NW
Uranimite St NW
161st Ave NW
Armstrong Blvd NW
173rd Ave NW
Llama St NW
Puma St NW
Baugh St NW
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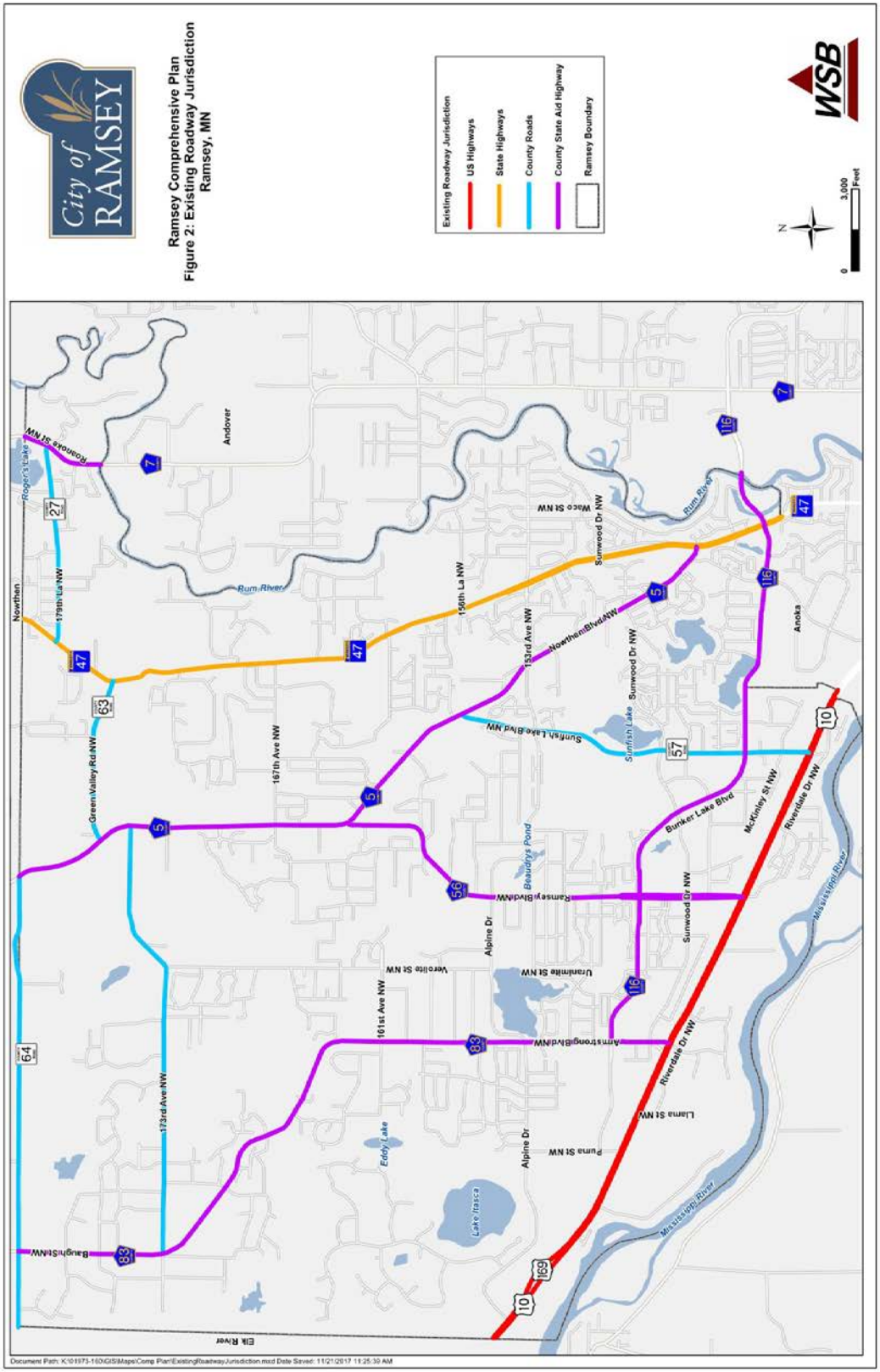
City of RAMSEY
Ramsey Comprehensive Plan
Figure 2: Existing Roadway Jurisdiction
Ramsey, MN
Existing Roadway Jurisdiction
US Highways
State Highways
County Roads
County State Aid Highway
Ramsey Boundary
WSB
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3,000
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Anoka
Nowthen
Rum River
Sunfish Lake
Ramsey Blvd NW
Bunker Lake Blvd
Sunwood Dr NW
Riverdale Dr NW
Alpine Dr
Eddy Lake
Lake Itasca
Mississippi River
Elk River

Principal Arterials

Principal arterials are roadways that provide the greatest level of mobility and access control. Within the metropolitan area, the great majority of principal arterials are under MnDOT jurisdiction. Principal arterials are typically Interstate highways or other state or US freeways or expressways. 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.

One existing principal arterial is located within Ramsey. US Highway (US) 169/US Highway 10 crosses the southern portion of the city in a northwest-southeast direction parallel to the Mississippi River. US 169 and US 10 join in the City of Elk River to the west of Ramsey and diverge again in the City of Anoka, just east of Ramsey. US 169 connects northern Minnesota with the Twin Cities metropolitan area, Mankato, and areas further south. US 10 provides a connection between the western portion of the state and the Twin Cities metropolitan area and Wisconsin. These roadways are also trunk highways (THs) on the MnDOT system, and these combined highways in Ramsey are hereafter referred to as "US 10" in this Plan. The 2040 Transportation Policy Plan does not propose any additional principal arterials within the city.

Minor Arterials

Minor arterials maintain a focus on mobility, but provide more land access than principal arterials. Within Ramsey, all minor arterials are under the jurisdiction of MnDOT or Anoka County. 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 further 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.

There are seven "A" Minor Expanders, one "A" Minor Reliever, and one "A" Minor Connector within the city:

"A" Minor Expanders:

- Anoka County State Aid Highway (CSAH) 5 (Nowthen Boulevard)
- CSAH 7 (Rum River Boulevard) south of 179th Lane
- CSAH 22 (181st Avenue)
- CSAH 56 (Ramsey Boulevard)
- CSAH/County Road 57 (Sunfish Lake Boulevard)
- County Road 64 (181st Avenue)
- CSAH 83 (Armstrong Boulevard/Baugh Street)

"A" Minor Reliever:

- CSAH 116 (Bunker Lake Boulevard)

"A" Minor Connector:

- Trunk Highway (TH) 47 (St. Francis Boulevard)

"B" Minor 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 the city include the following:

- CSAH 7 (Rum River Boulevard) north of 179th Lane

An additional B minor arterial connecting CSAH 5 with TH 47 in the northern section of the city is identified as a planned arterial in the 2040 Transportation Policy Plan.

Major and Minor Collectors

Major and minor collector roadways provide linkages to larger developments and community amenities. They generally do not link communities to one another. 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 Ramsey, two collector roadways are owned and operated by the city, and Anoka County operates two. 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. Major collectors within the city include the following:

- 173rd Avenue Northwest
- 175th Avenue Northwest
- County Road 63 (Green Valley Road)
- County Road 27 (179th Lane Northwest)

There are no minor collectors within the city, and the 2040 Transportation Policy Plan does not propose any additional collector roadways within the city.

Local Roadways

The primary function of local roadways is land access. Local roadways connect individual land parcels with other local roadways and collectors. Trips on local roadways are typically under two miles. Speeds on local roadways are typically low. Longer trips are facilitated by local roadway connections to the collector and arterial systems. Local roadways are under the jurisdiction of the City of Ramsey. Local roadways are all roadways that are not arterials or collectors.

Planned Functional Classification

Aside from new proposed roadways, no functional classification changes are currently recommended in the city.

A note on transportation plan strategies:

Throughout this Plan, locations associated with numbered mode-specific strategies are identified on corresponding maps. These strategies are listed and described in further detail in **Table 8.**

Existing Roadway Capacity and Safety

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

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. **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, and amount of turning traffic, the availability of dedicated turn lanes, parking availability, intersection spacing, signal timing and a variety of other factors.

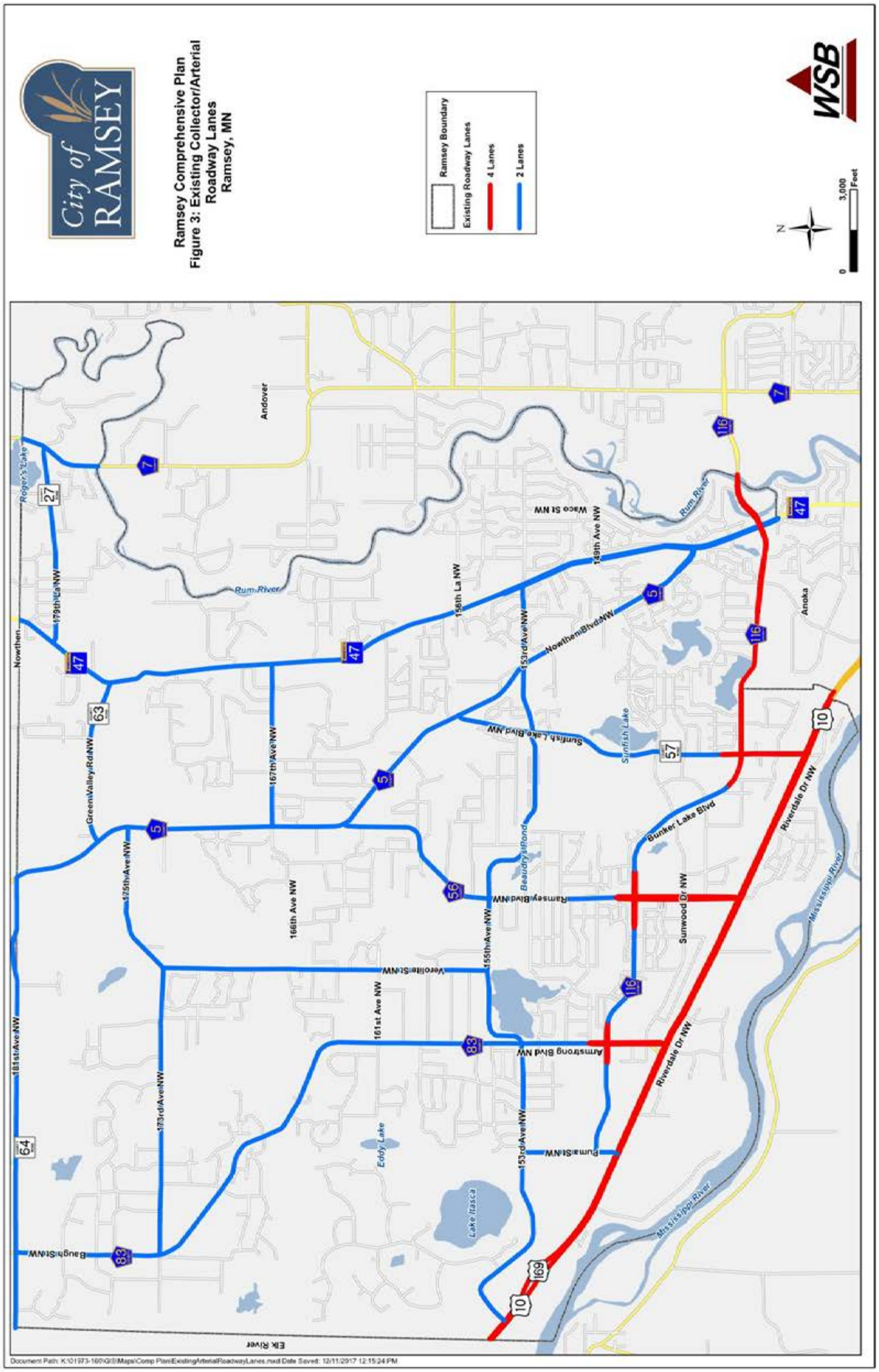
Table 1: Planning-level Urban Roadway Capacities

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	

1.1.1. Existing Capacity Problems on Arterial Roads

At the planning level, capacity problems are identified by comparing the existing number of lanes with current traffic volumes. **Table 2** and **Figure 3** illustrate the existing number of lanes on collector and arterial roadways within the city. **Figure 4** illustrates existing traffic volumes on Principal Arterial, A-Minor Arterials and other significant roadways within the city.

As shown in the table, US 10 has four lanes throughout the city, as do portions of CSAH 56 (Ramsey Boulevard), CSAH 57 (Sunfish Lake Boulevard), CSAH 83 (Armstrong Boulevard), and CSAH 116 (Bunker Lake Boulevard). All other arterial roadways have two lanes. Most of the arterials in Ramsey currently exhibit traffic volumes below or within the range of the planning level capacity thresholds shown in **Table 1**; however, existing volumes on TH 47 (St. Francis Boulevard) exceed these thresholds in the southeastern area of the city. This indicates that this roadway may be experiencing some levels of congestion during peak travel periods.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 3: Existing Collector/Arterial Roadway Lanes
Ramsey, MN
Ramsey Boundary
Existing Roadway Lanes
4 Lanes
2 Lanes
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WSB
Andover
Nowthen
Anoka
Elk River
Rum River
Mississippi River
Roger's Lake
Sunfish Lake
Beaudry's Pond
Eddy Lake
Lake Itasca
179th La NW
Green Valley Rd NW
175th Ave NW
181st Ave NW
173rd Ave NW
Baugh St NW
167th Ave NW
166th Ave NW
161st Ave NW
Variolite St NW
158th La NW
155th Ave NW
153rd Ave NW
Ramsey Blvd NW
Armstrong Blvd NW
Puma St NW
Nowthen Blvd NW
Sunfish Lake Blvd NW
149th Ave NW
Waco St NW
Bunker Lake Blvd
Sunwood Dr NW
Riverdale Dr NW

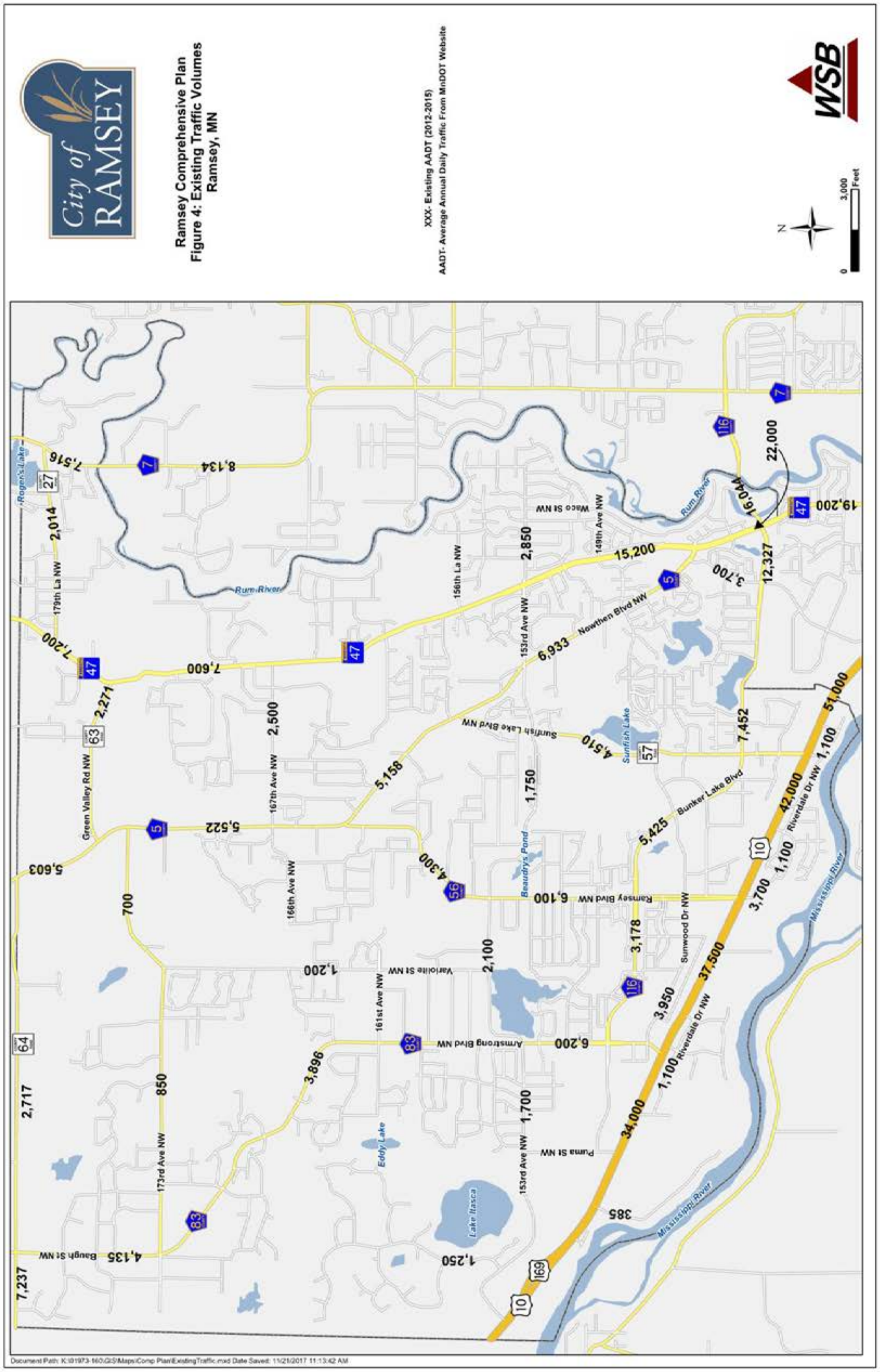

City of RAMSEY
Ramsey Comprehensive Plan
Figure 4: Existing Traffic Volumes
Ramsey, MN
XXX- Existing AADT (2012-2015)
AADT- Average Annual Daily Traffic From MnDOT Website
WSB

Table 2: Existing number of lanes on arterial roads

Functional Classification	Roadway Name	Location	Number of Lanes
Principal Arterial	US 10	Ramsey-Elk River border to Ramsey-Anoka border	4
"A" Minor Expander	CSAH 5 (Nowthen Boulevard)	TH 47 to Ramsey-Nowthen border	2
	CSAH 7 (Rum River Boulevard)	Ramsey-Andover border to 179th Lane	2
	CSAH 22 (181st Avenue)	Ramsey-Elk River border to CSAH 83	2
	CSAH 56 (Ramsey Boulevard)	US 10 to CSAH 5	2–4
	CSAH/County Road 57 (Sunfish Lake Boulevard)	US 10 to CSAH 5	2–4
	County Road 64 (181st Avenue)	CSAH 83 to CSAH 5	2
	CSAH 83 (Armstrong Boulevard/Baugh Street)	US 10 to Ramsey-Nowthen border	2–4
"A" Minor Reliever	CSAH 116 (Bunker Lake Boulevard)	CSAH 83 to Ramsey-Anoka border	2–4
"A" Minor Connector	TH 47 (St. Francis Boulevard)	Ramsey-Anoka border to Ramsey-Nowthen border	2
"B" Minor	CSAH 7	179th Lane to Ramsey-Oak Grove border	2

Existing Safety and Operational Issues

There are a number of intersection locations within Ramsey where safety, geometric, or operational issues have been identified for motorists and pedestrians. These locations include:

- TH 47 and Bunker Lake Boulevard (CSAH 116)
- TH 47 and Nowthen Boulevard (CSAH 5)
- Armstrong Boulevard (CSAH 83) and Alpine Drive
- Armstrong Boulevard (CSAH 83) and 161st Avenue
- Ramsey Boulevard (CSAH 56) and Alpine Drive
- Ramsey Boulevard (CSAH 56) and Nowthen Boulevard (CSAH 5)
- Nowthen Boulevard (CSAH 5) and Sunfish Lake Boulevard (CSAH 57)
- Nowthen Boulevard (CSAH 5) and 167th Avenue
- Nowthen Boulevard (CSAH 5) and 175th Avenue
- Nowthen Boulevard (CSAH 5) and Green Valley Road

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 US 10 must meet MnDOT access management guidelines. See **Tables 3.1** and **3.2** for MnDOT Access Management Guidelines.

Anoka County has established access management guidelines for county roadways, as displayed in **Table 4**.

MnDOT Access Management Manual

Table 3.1 – 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		¼ 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

MnDOT Access Management Manual

Table 3.2 – 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		

Table 4: Anoka County Access Spacing Guidelines

Roadway Type	Route Speed (miles per hour)	Intersection Spacing: Full Movement Intersection	Intersection Spacing: Conditional Secondary Intersection	Signal Spacing	Private Access
Principal Arterial	50 – 55	1 mi.	1/2 mi.	1 mi.	Subject to conditions for all roadway types and speeds
	40 – 45	1/2 mi.	1/4 mi.	1/2 mi.	
	< 40	1/8 mi.	300 – 660 ft.	1/4 mi.	
Arterial Expressway	50 – 55	1 mi.	1/2 mi.	1 mi.	
Minor Arterial	50 – 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 – 45	1/4 mi.	1/8 mi.	1/4 mi.	
	< 40	1/8 mi.	300 – 660 ft.	1/4 mi.	
Collector and Local	50 – 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 – 45	1/8 mi.	NA	1/4 mi.	
	< 40	1/8 mi.	300 – 660 ft.	1/8 mi.	
Specific Access Plan	By adopted plan/agreement/covenant on land				

Recommendations from Recent Plans and Studies

A number of recent planning efforts have been completed that identify potential improvements to the City of Ramsey's transportation system. This section describes these studies and summarizes their recommendations.

Highway 10 Access Planning Study

In 2014, MnDOT completed the Highway 10 Access Planning Study to identify safety and mobility along the US 10 corridor between the Anoka/Sherburne County line and the Rum River. Specifically, the purpose of the study was to identify high-benefit improvements that are fiscally responsible so that improvements can be funded, programmed, and implemented incrementally. The study area was divided into subareas and concepts were developed and evaluated, and recommendations for individual projects were broken into immediate priority, short-term priority projects, mid-term priority projects, and opportunity/development/safety-driven projects. The recommended projects specific to the City of Ramsey include the following:

- Immediate Priority projects
  - Construct North Frontage Road from Sunfish Lake Boulevard to Anoka Technical College
  - Construct North Frontage Road from Ramsey Boulevard to Sunfish Lake Boulevard
  - Construct South Frontage Road from Traprock Street to Ramsey Boulevard
- Short-Term Priority projects
  - Extend Riverdale Drive east of Tungsten Street (two alignment options)
- Mid-Term Priority projects
  - Grade separation at Sunfish Lake Boulevard – Highway 10 flyover with access or overpass with right-turn access
  - Grade separation at Ramsey Boulevard – Highway 10 flyover with access or overpass with right-turn access
- Opportunity/Development/Safety Driven Priority projects
  - Purchase ROW north of US 10 and west of Ramsey Boulevard
  - Extend Civic Center Drive to Ramsey Boulevard
  - Railroad grade separation at Sunfish Lake Boulevard
  - Railroad grade separation at Ramsey Blvd
  - Extend 156th Street from Jarvis Street to Alpine Drive
  - Construct a Reduced Conflict U-Turn (RCUT) intersection at US 10 and Alpine Drive
  - Construct a Reduced Conflict U-Turn (RCUT) intersection at US 10 and Bowers Drive
  - Extend Riverdale Drive from Bowers Drive to Llama Street

Mississippi Skyway Preliminary Engineering Report

In 2014, the City of Ramsey completed the Mississippi Skyway Preliminary Engineering Report to identify potential alignments for a new pedestrian bridge crossing of US 10 near Riverdale Drive. This study also produced a preliminary analysis of alternative profiles and aesthetic design options, along with impacts associated with various alternatives. This study recommended an open air bridge with a helix approach ramp located just south of Riverdale Drive. A preferred bridge concept was also identified, with a prefabricated steel truss including dual modified bowstring arches.

Future Roadway System

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

Roadway Capacity – Traffic Forecasting

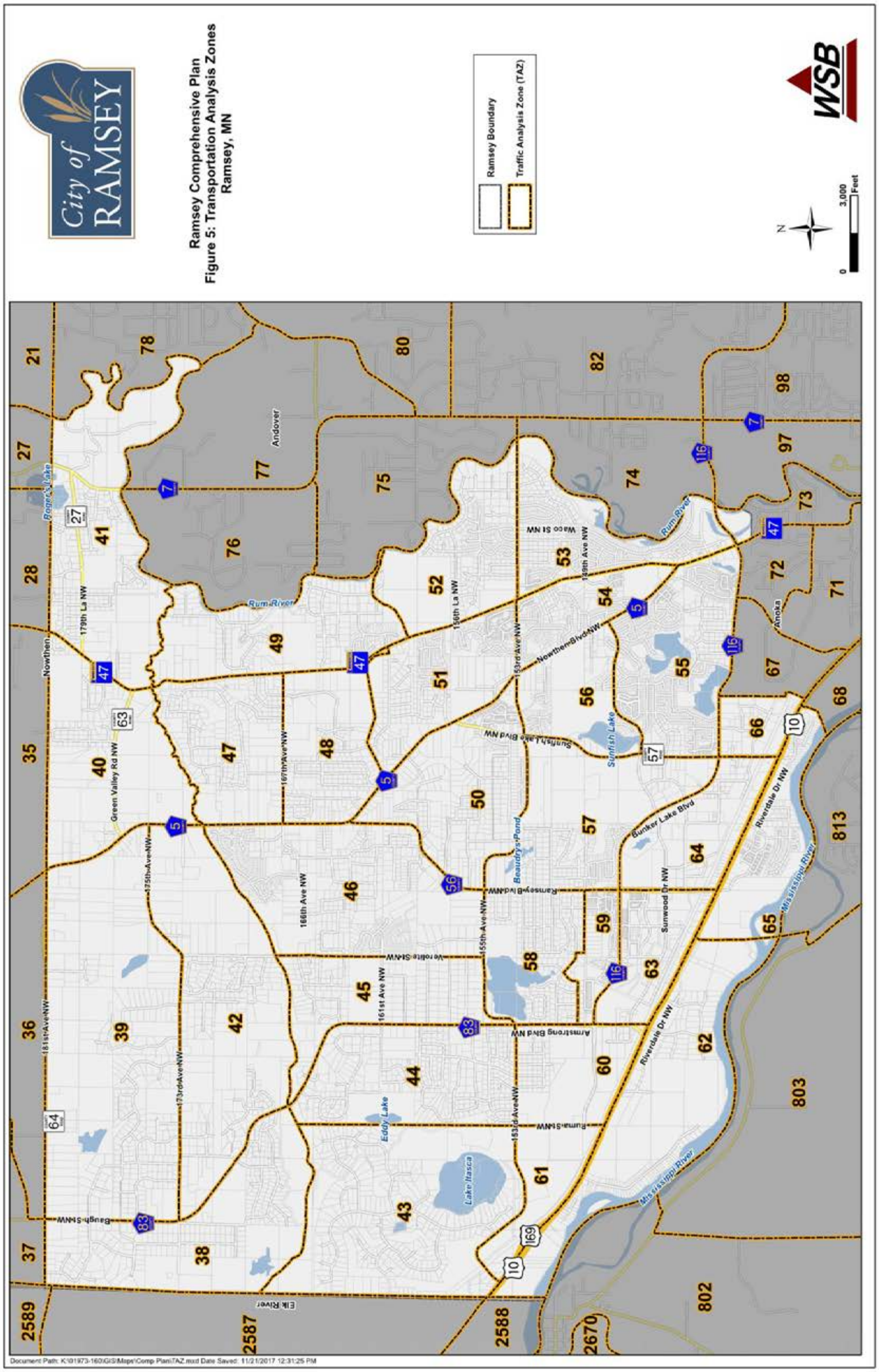
To determine future roadway capacity needs, year 2040 traffic forecasts were prepared using the Metropolitan Council travel demand model. The 2040 projections were compared against the assumed 2040 roadway network to see where roadway segment capacity deficiencies may result. The 2040 roadway network 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.

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.

A central concept of travel demand forecasting is the use of Transportation Analysis Zones (TAZs). Each forecast study area, in this case, the City of Ramsey, is divided into a series of TAZs. Each TAZ has population, employment, and household data that is used by the model to assign trips to the various network roadways. **Figure 5** displays Metropolitan Council TAZs within Ramsey.

The results of the Ramsey modeling process are summarized in **Figure 6**, which displays Metropolitan Council 2040 projected average daily traffic volumes compared to the existing (2012–2015) traffic volumes.

Tables 5 provides a summary of existing and forecasted demographic growth by TAZ for Ramsey through the year 2040. The Ramsey population is forecasted to reach 39,150 by the year 2040, with households and employment increasing by approximately 5,500 and 3,600 respectively. Allocated demographic growth and associated land use was located throughout the community. Higher density residential was generally allocated to the southern portion of the city, with commercial and multi-optional development areas also generally identified within the southern portion of the city, consistent with the Center of Ramsey (COR) land use plan. For more information about the demographic allocation and associated land use forecast, please refer to the Ramsey Land Use Plan of the Ramsey Comprehensive Plan.



Ramsey Comprehensive Plan
Figure 5: Transportation Analysis Zones
Ramsey, MN
Ramsey Boundary
Traffic Analysis Zone (TAZ)
City of RAMSEY
WSB

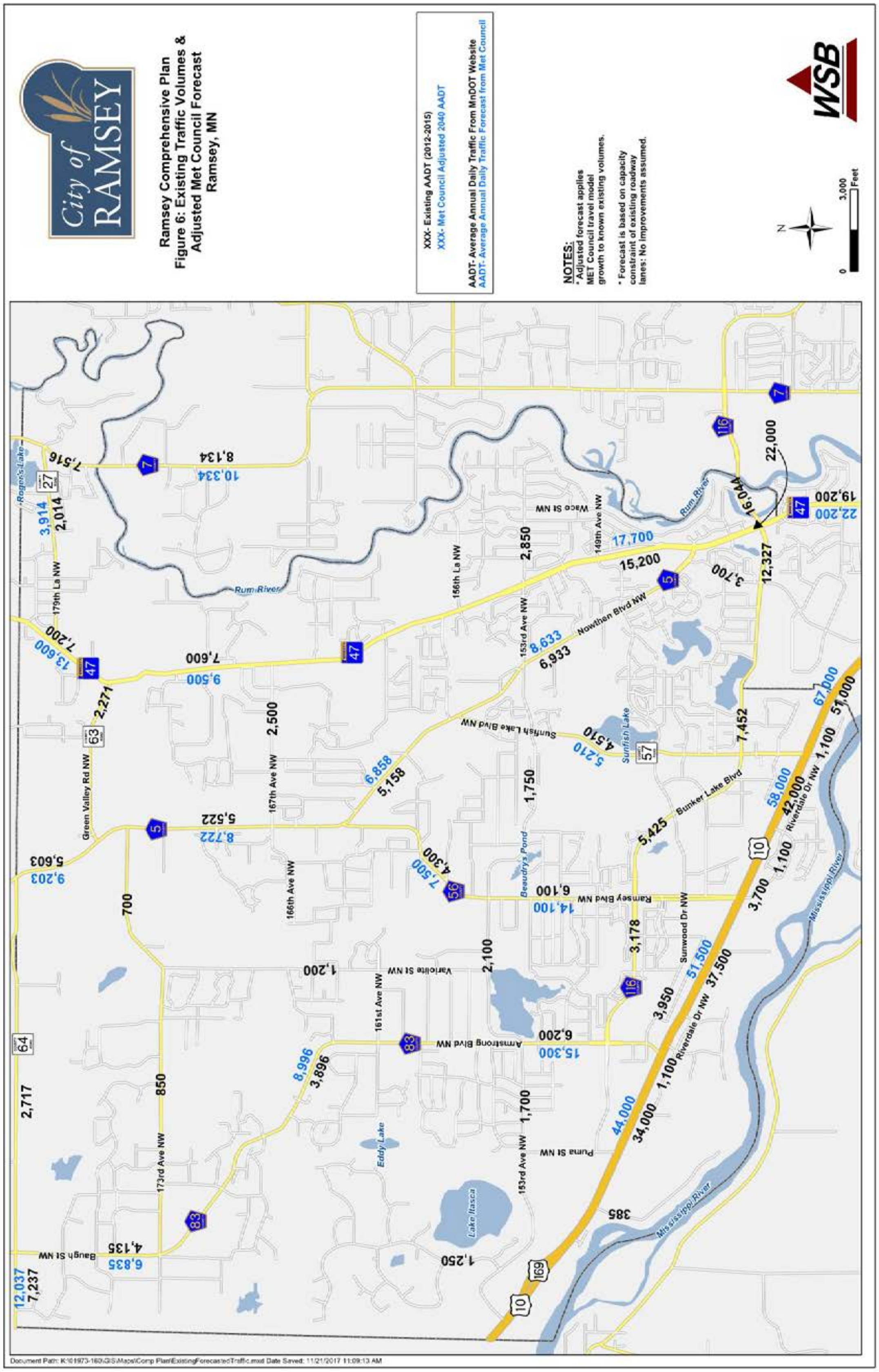

City of RAMSEY
Ramsey Comprehensive Plan
Figure 6: Existing Traffic Volumes &
Adjusted Met Council Forecast
Ramsey, MN
XXX- Existing AADT (2012-2015)
XXX- Met Council Adjusted 2040 AADT
AADT- Average Annual Daily Traffic From MnDOT Website
AADT- Average Annual Daily Traffic Forecast from Met Council
NOTES:
* Adjusted forecast applies
MET Council travel model
growth to known existing volumes.
* Forecast is based on capacity
constraint of existing roadway
lanes: No improvements assumed.
WSB
Rum River
Mississippi River
Sunfish Lake
Lake Itasca
Eddy Lake
Beaudrys Pond
Rogers Lake
Green Valley Rd NW
179th La NW
173rd Ave NW
167th Ave NW
166th Ave NW
161st Ave NW
156th La NW
153rd Ave NW
149th Ave NW
Nowthen Blvd NW
Sunfish Lake Blvd NW
Bunker Lake Blvd
Ramsey Blvd NW
Armstrong Blvd NW
Variolite St NW
Sunwood Dr NW
Riverdale Dr NW
Puma St NW
Baugh St NW
Waco St NW

Table 5: Ramsey 2040 Land Use Plan TAZ Growth Allocation

TAZ	POP2010	EMP2010	HH2010	POP2020	EMP2020	HH2020	POP2030	EMP2030	HH2030	POP2040	EMP2040	HH2040	Change from 2020-2030			Change from 2030-2040		
													POP	HH	EMP	POP	HH	EMP
38	700	6	234	788	11	281	986	11	367	1145	11	434	198	86	0	159	67	0
39	750	20	266	900	10	321	1143	13	426	1355	16	515	243	105	3	212	89	3
40	322	126	102	340	180	121	538	189	197	831	192	309	198	76	9	293	112	3
41	531	15	207	607	3	207	601	8	209	600	12	211	-6	2	5	-1	2	4
42	597	16	195	686	50	240	1918	52	336	3161	53	734	96	96	2	1,243	398	1
43	1,052	160	325	1207	179	421	1488	220	537	1558	224	574	281	116	41	70	37	4
44	742	23	265	999	53	349	1290	62	466	1443	64	532	291	117	9	153	66	2
45	456	5	160	675	9	245	788	9	295	847	9	323	113	50	0	59	28	0
46	1,034	21	358	1503	31	544	1729	32	648	1824	33	696	226	104	1	95	48	1
47	647	41	207	637	33	228	769	35	282	919	36	342	132	54	2	150	60	1
48	577	13	198	601	189	215	688	196	253	766	198	285	87	38	7	78	32	2
49	665	57	215	642	66	219	655	76	228	672	81	237	13	9	10	17	9	5
50	1,351	19	496	1496	19	535	1661	20	612	1770	20	662	165	77	1	109	50	0
51	1,864	89	600	1797	84	644	1942	89	719	1988	90	749	145	75	5	46	30	1
52	1,038	3	315	923	7	315	908	12	318	898	20	321	-15	3	5	-10	3	8
53	1,792	199	577	1648	195	570	1611	218	579	1588	233	588	-37	9	23	-23	9	15
54	1,075	109	358	1096	174	389	1080	249	396	1078	310	401	-16	7	75	-2	5	61
55	3,785	126	1,269	3512	148	1264	3450	154	1286	3438	156	1304	-62	22	6	-12	18	2
56	489	121	158	436	96	157	427	114	160	430	129	165	-9	3	18	3	5	15
57	715	498	241	683	753	234	682	779	238	694	805	240	-1	4	26	12	2	26
58	725	1	253	1016	3	368	1066	3	400	1018	3	389	50	32	0	-48	-11	0
59	522	134	200	866	93	314	1061	101	399	1215	106	466	195	85	8	154	67	5
60	179	51	60	654	467	106	708	643	255	1290	639	473	54	149	176	582	218	-4
61	0	12	0	416	31	72	99	44	36	227	56	86	-317	-36	13	128	50	12
62	313	82	123	500	178	185	1944	611	576	3546	776	809	1,444	391	433	1,602	233	165
63	447	426	175	1364	835	384	2339	868	617	3015	982	967	975	233	33	676	350	114
64	246	1,579	81	228	1745	79	226	1614	80	227	1756	82	-2	1	-131	1	2	142
65	1,022	150	375	1279	324	473	1552	426	585	1606	428	606	273	112	102	54	21	2
66	0	665	0	1	917	0	1	952	0	1	962	0	0	0	35	0	0	10
73	32	13	20	50	17	20	48	18	21	49	20	21	-2	1	1	1	0	2
2040	23,668	4,780	8,033	27,550	6,900	9,500	33,350	7,800	11,500	39,150	8,400	13,500	5,800	2,000	900	5,800	2,000	600
Land Use Plan													3,882	1,467	2,120			
Totals																		

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 6** below. Based on this comparison, most roadways in the city have adequate capacity to accommodate forecasted Metropolitan Council 2040 travel volumes with little to minimal congestion. These roadways are expected to function well through the 2040 planning horizon.

Table 6: 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 these planning level roadway capacities, portions of TH 47, US 10, Armstrong Boulevard (CSAH 83), and Ramsey Boulevard (CSAH 56) are expected to exceed capacity in 2040. TH 47 is currently a rural two-lane roadway with a planning-level capacity of 10,000–12,000 and a forecasted 2040 volume of 9,500–22,200. US 10 is a four-lane divided roadway with a planning-level capacity of 28,000–32,000 and a forecasted 2040 volume of 44,000–67,000. Armstrong Boulevard (CSAH 83) and Ramsey Boulevard (CSAH 56) each vary between two and four lanes within Ramsey, but each roadway includes a segment where the forecasted 2040 volume would surpass the associated planning-level capacity for a two-lane undivided roadway of 10,000–12,000 (15,300 for Armstrong Boulevard and 14,100 for Ramsey Boulevard). Accordingly, motorists will likely experience some congestion along these roadways during the 2040 planning horizon.

Existing and Planned Non-Motorized Transportation Network

This section addresses network needs for walking and bicycling within Ramsey. 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 Ramsey 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 Ramsey, 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 for intersection improvements and design best practices.

Existing Non-Motorized Transportation Network

The non-motorized transportation network in Ramsey is comprised of sidewalks, on-street bicycle lanes/shoulders, local multi-use trail, and regional trail. As shown in **Figure 7**, there is existing sidewalk on many of the streets in the COR and on some residential streets in other areas of the city. There are also approximately 38 miles of city trails, which are largely paved with asphalt and primarily adjacent to roadways, connecting parks, schools, and other destinations within the city.

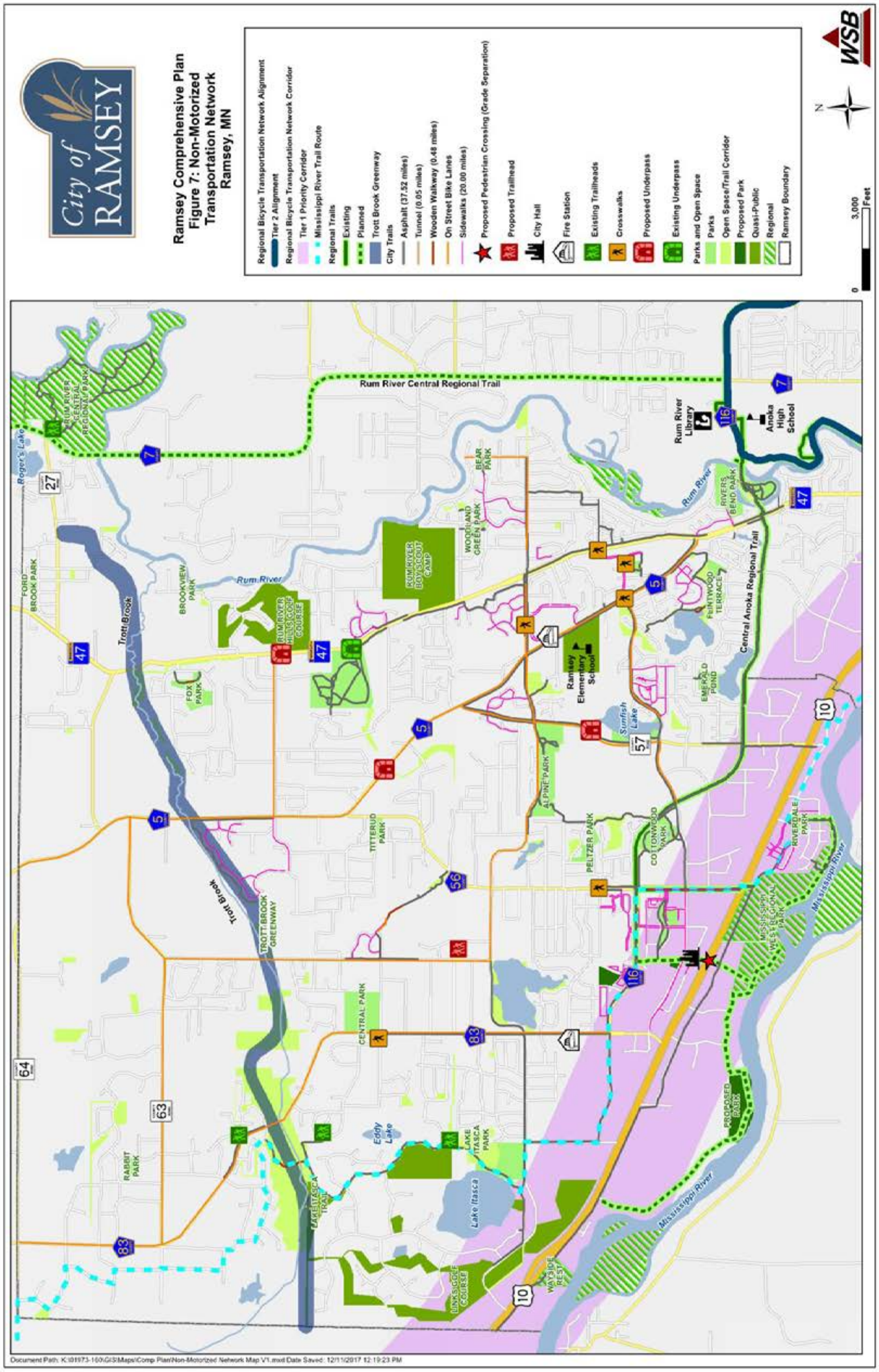
Additionally, there are two regional multi-use trails located in the City of Ramsey. The Central Anoka Regional Trail is an existing Anoka County regional trail that, when complete, will be 26 miles long, beginning at the Mississippi West Regional Park in Ramsey and ending at the Anoka-Washington County line. The completed portions of the trail within Ramsey are located along Bunker Lake Boulevard and Ramsey Boulevard. A route for the Mississippi River Regional Trail (which is also part of a national bikeway) crosses the southern portion of the city using a combination of on-street and off-street facilities.

4Connections to Land Use Planning

Ramsey has development patterns largely consistent with its designation as an Emerging Suburban Edge community. In many areas of the city, existing residential development is lower in density compared with many urban and suburban areas, reflecting a community that has developed relatively recently. As a result, 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 for most trips due to the distance between residential and commercial areas of the city. However, the COR area demonstrates existing and planned land use patterns that are more similar to urban or suburban areas, including transit facilities and a mix of land uses at higher densities, along with a more regular street grid. In this area, development patterns are better-suited to bicycling and walking.

The city's land use planning and coordination with developers can help improve opportunities for walking and bicycling for transportation. The city can continue to 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.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 7: Non-Motorized
Transportation Network
Ramsey, MN
Regional Bicycle Transportation Network Alignment
Tier 2 Alignment
Regional Bicycle Transportation Network Corridor
Tier 1 Priority Corridor
Mississippi River Trail Route
Regional Trails
Existing
Planned
Trott Brook Greenway
City Trails
Asphalt (37.52 miles)
Tunnel (0.05 miles)
Wooden Walkway (0.48 miles)
On Street Bike Lanes
Sidewalks (20.00 miles)
Proposed Pedestrian Crossing (Grade Separation)
Proposed Trailhead
City Hall
Fire Station
Existing Trailheads
Crosswalks
Proposed Underpass
Existing Underpass
Parks and Open Space
Parks
Open Space/Trail Corridor
Proposed Park
Quasi-Public
Regional
Ramsey Boundary
N
0
3,000
Feet
WSB
Rum River Central Regional Trail
Rum River
Mississippi River
Trott Brook
Central Anoka Regional Trail
Rum River Library
Anoka High School
Ramsey Elementary School

Planned Local Non-Motorized Transportation Network

The city's planned local non-motorized transportation network includes sidewalk, paved multi-use trails, and on-street bicycle lanes or shoulders. The existing and proposed network is shown in **Figure 7**. When the network is complete, it will provide safe, convenient linkages between residential areas and commercial, institutional, and recreational areas within the city. This includes filling existing network gaps and adding facilities adjacent to developing areas. The planned network also includes completion of the Trott Brook Trail Corridor, which would generally follow Trott Brook from the city's border with Elk River to Rum River Regional Park. The network will improve options for people to walk and bicycle for transportation within the city, and facilitate regional connections (described in greater detail in the following section).

The planned non-motorized transportation network also includes construction of the planned Mississippi Skyway, a bicycle and pedestrian bridge that would cross US 10, providing a dedicated crossing between the COR and Mississippi West Regional Park for non-motorized users. While the project is being led by the City of Ramsey and is important in providing a local connection between the COR and the Mississippi River area, the Mississippi Skyway would be a key regional connection, likely becoming part of the Central Anoka Regional Trail and providing a key connection to the Mississippi River Regional Trail (MRRT).

Planned Regional Non-Motorized Transportation Network

The Metropolitan Council 2040 TPP encourages the use of bicycles as a mode of transportation and establishes a Regional Bicycle Transportation Network (RBTN) to establish an integrated network of on-street bikeways and off-road trails that complement each other to improve conditions for bicycle transportation at the regional level. 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.

Within Ramsey, the RBTN identifies one Tier 1 RBTN corridor. The corridor follows the alignment of US 10 west–east along the Mississippi River and the southern border of the city. This corridor substantially contains completed or planned off-street segments of the MRRT. In 2017, a segment of the MRRT was constructed within the US 10 right of way between Mississippi West Regional Park and the city's border with Elk River. The county's planned ultimate alignment for MRRT will include a segment closer to the river. The timing for construction of this portion of the MRRT is dependent on the pace of development in the area and available funding. The city proposes the ultimate MRRT alignment as the RBTN alignment.

The Rum River Regional Trail is a planned Anoka County trail that, when completed, would be 20 miles long stretching north to south through the county along the east side of the Rum River. A short segment of this trail is planned to pass through the City of Ramsey along CSAH 7 and connecting to Rum River Central Regional Park in the northeastern portion of the city. Anoka County also plans to complete the Central Anoka Regional Trail through the city, completing existing gaps in the trail. The city and county plan to realign Central Anoka Regional Trail to pass through the COR and over the Mississippi Skyway. This would provide an off-road connection to Mississippi West Regional Park.

The existing and proposed regional network is shown in **Figure 7**.

Roadway Crossing Improvements for Bicycling and Walking

Through public outreach, a number of intersections and other locations throughout the city have been identified for potential improvements based on safety issues for crossing pedestrians and bicyclists. In these locations, potential improvements could be made by adding or improving pavement markings or signals, constructing traffic calming elements, shortening crossing distances, and/or providing pedestrian refuges. In most cases, addition of these features would be evaluated and conducted as opportunities arise. For example, crossing improvements would be considered in concert with adjacent roadway improvements or as development/redevelopment occurs in an area.

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 8** 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 should 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.

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

Figure 8:
Example Bicycle Facilities
Ramsey Transportation Plan
Ramsey, MN

Freight

Freight transportation in Ramsey is primarily served by one rail line and arterial roadways. **Figure 9** shows the city's freight system and potential freight generators. A Burlington Northern Santa Fe (BNSF) rail line passes through the southern portion of the city, adjacent to TH 10.

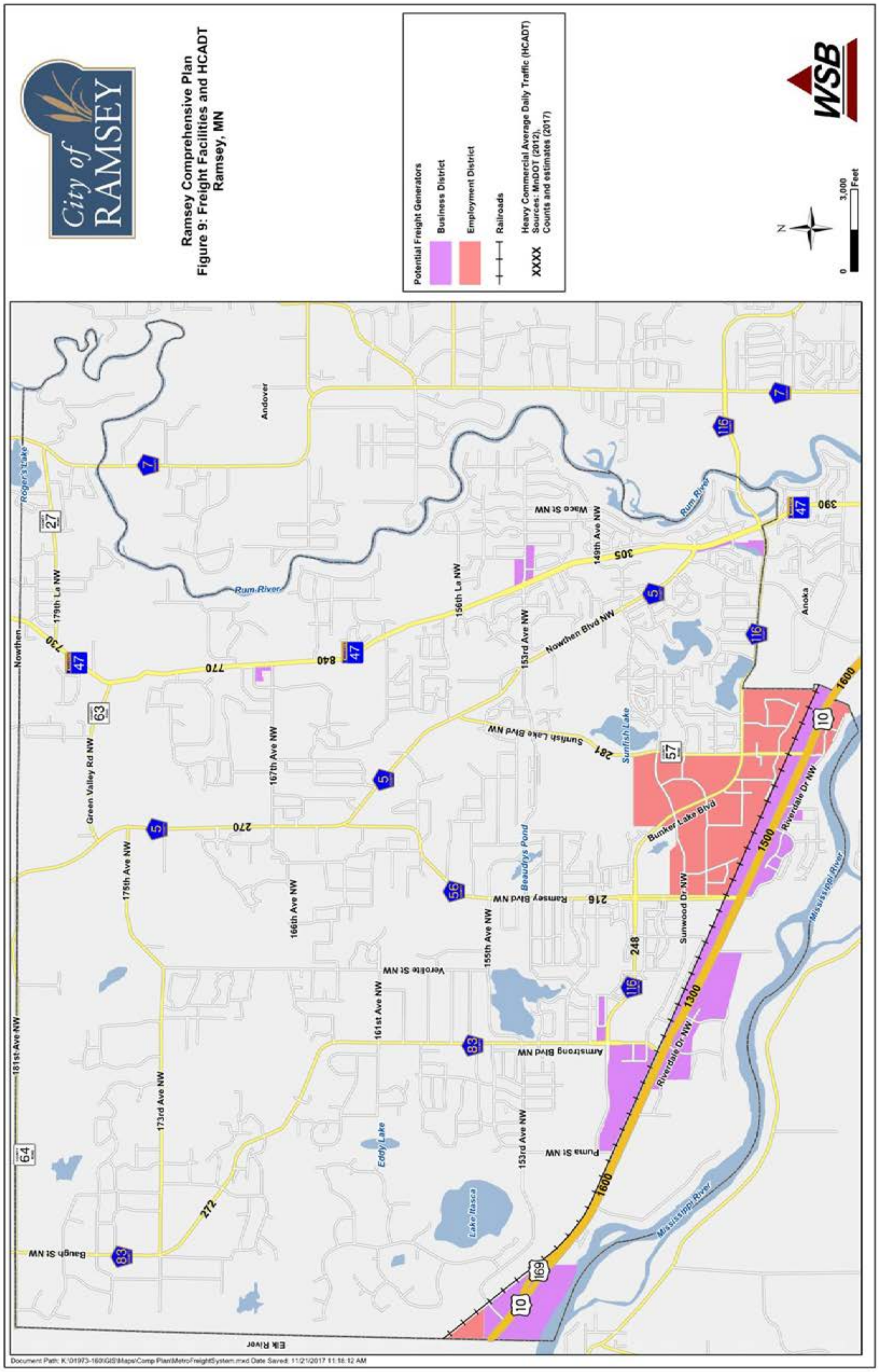
There are no large freight traffic generators or intermodal facilities within the city. Most truck and rail traffic is passing through Ramsey on trips to, from, and through the Twin Cities. Freight traffic generators within Ramsey are located along the BNSF rail line and TH 10. Freight generators include concentrations of industrial and commercial land uses along the TH 10 corridor.

Figure 9 also shows Heavy Commercial Average Annual Daily Traffic (HCAADT) within the City of Ramsey. TH 10 carries the greatest number of heavy commercial vehicles (1,600 vehicles per day). TH 47 also carries a substantial amount of heavy commercial traffic within the city. The 2017 Regional Truck Highway Corridor study identifies TH 10 as a Tier 2 Corridor on the regional freight network.

The BNSF rail line carries 40–80 trains per day through Ramsey, depending on market conditions, which includes 12 Northstar Commuter Rail trains and 2 Amtrak trains. The Metropolitan Council 2040 TPP notes that freight rail traffic has increased substantially since 2010. Throughout the region, freight rail traffic is expected to increase, especially as the regional population continues to grow.

With the recent construction of a grade separation at Armstrong Boulevard, there are three remaining locations in the city where the BNSF rail line crosses public roadways at grade: Alpine Drive, Ramsey Boulevard, and Sunfish Lake Boulevard. Each of these crossings is controlled by flashing lights and gates. The Ramsey Boulevard crossing includes sidewalk and the Sunfish Lake Boulevard crossing includes multi-use trail.

The Metropolitan Council 2040 TPP acknowledges several freight challenges that impact the city and the region. As mentioned above, freight traffic is expected to increase and place pressure on the region's highway and rail systems. East-west traffic on the BNSF lines has increased in recent years in part due to growth in the Bakken oil fields of North Dakota and Montana. Safety is also an increasing concern, particularly rail safety as related to Bakken crude oil being transported through the region on the BNSF lines. The volume of rail traffic has therefore raised concerns about compatibility between freight traffic and adjacent land uses. While land use adjacent to the city's primary freight routes is generally compatible with these uses (industrial, commercial, etc.), there are several areas of existing and planned multi-family residential housing or mixed use that lie adjacent to the rail lines, particularly in the COR area.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 9: Freight Facilities and HCADT
Ramsey, MN
Potential Freight Generators
Business District
Employment District
Railroads
XXXX Heavy Commercial Average Daily Traffic (HCADT)
Sources: MnDOT (2012),
Counts and estimates (2017)
N
0
3,000
Feet
WSB
Andover
Anoka
Nowthen
Rum River
Mississippi River
Elk River

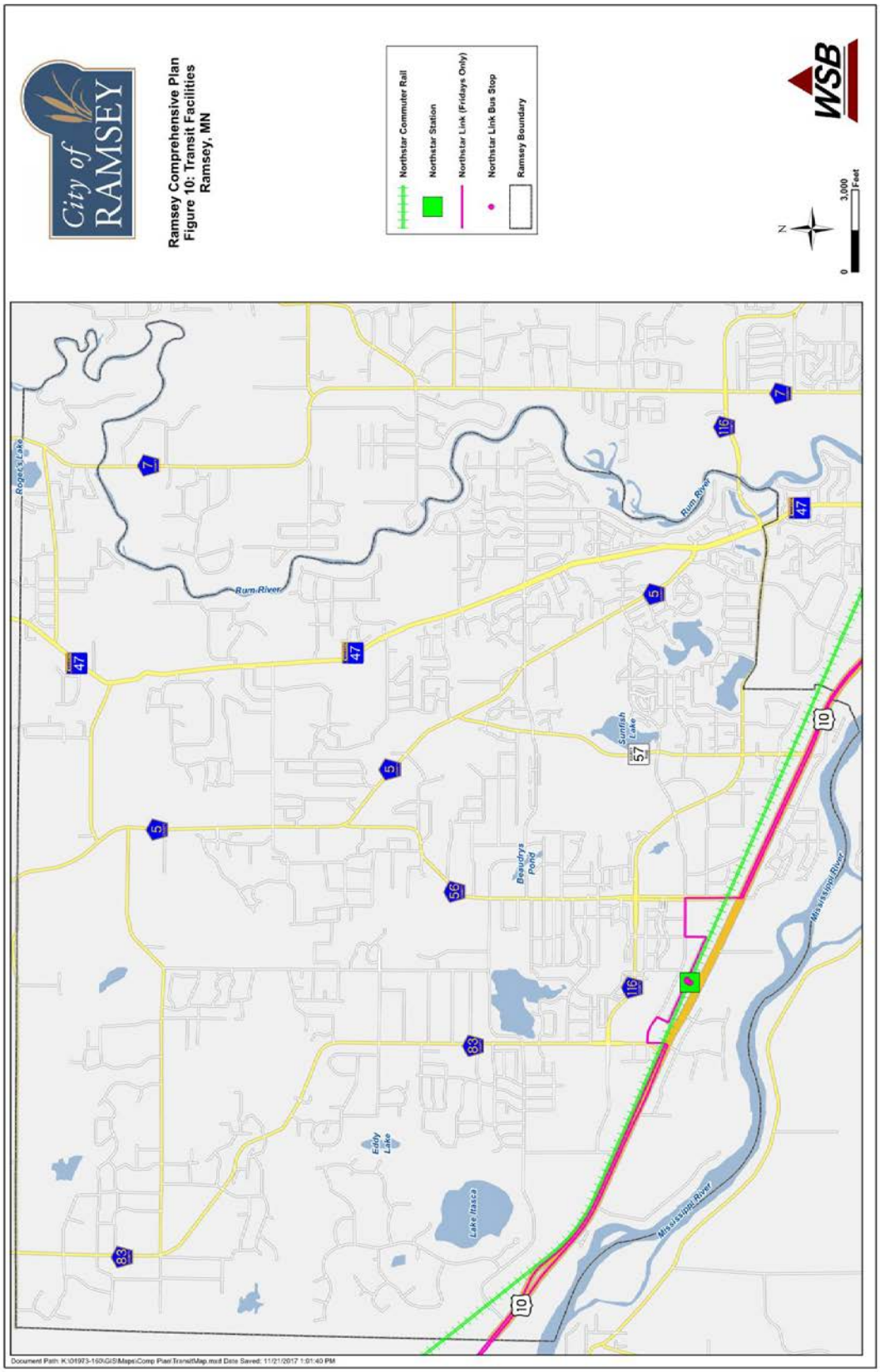
Transit

Ramsey is located within the Transit Capital Levy District as shown in the Metropolitan Council 2040 TPP. The TPP further classifies the metropolitan area into transit markets based on demographic and urban design factors. Ramsey is located in Market Area IV. Market Area IV generally supports public dial-a-ride services and can support peak-period express bus services if a sufficient concentration of commuters likely to use transit service is located along a corridor. However, with the presence of the Northstar transitway, Ramsey has a unique level of transit service for a city in Market Area IV.

The Northstar transitway is a commuter rail line that runs six daily round trips between Big Lake and downtown Minneapolis, with stations in Elk River, Ramsey, Anoka, Coon Rapids, and Fridley. It uses the BNSF rail corridor, and the Ramsey station is located within the COR area, supporting transit-oriented development and providing an alternative for Ramsey residents commuting to Minneapolis. The station includes a park-and-ride lot with 350 free parking spaces as well as ticket machines, seating, and covered and enclosed waiting areas. The Northstar Link also provides commuter bus service to Ramsey on Fridays. Transit facilities in Ramsey are shown on **Figure 10**.

In addition to the fixed-route transit options, the city is also served by Anoka County Transit Link, a dial-a-ride service for the general public. Transit Link provides connections to destinations within Anoka County. Transit Link also connects to regular route transit for trips within the metro area, including outside of Anoka. Ramsey residents also have opportunities to participate in the Metro Vanpool program. This program provides financial assistance for vanpools to serve areas with limited regular-route transit service.

The TPP's transit investment plan does not show any additional regional transitway investments planned for Ramsey in the current revenue scenario. The city is interested in exploring the feasibility of future bus service between Ramsey Station and Anoka Technical College. Following additional growth in the COR, demand may be sufficient in the future to provide this service. There is also interest in partnering with Anoka Commuter Solutions in the future to provide circulator-type service between the city and Anoka and Coon Rapids, connecting the Northstar station and the COR with employment areas in neighboring communities.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 10: Transit Facilities
Ramsey, MN
Northstar Commuter Rail
Northstar Station
Northstar Link (Fridays Only)
Northstar Link Bus Stop
Ramsey Boundary
WSB
N
0
3,000
Feet
Rogers Lake
Rum River
Sunfish Lake
Beaudrys Pond
Eddy Lake
Lake Itasca
Mississippi River
7
116
47
5
10
57
56
88
Document Path: K:\01973-160\GIS\Maps\Comp Plan\TransitMap.mxd Date Saved: 11/21/2017 1:01:40 PM

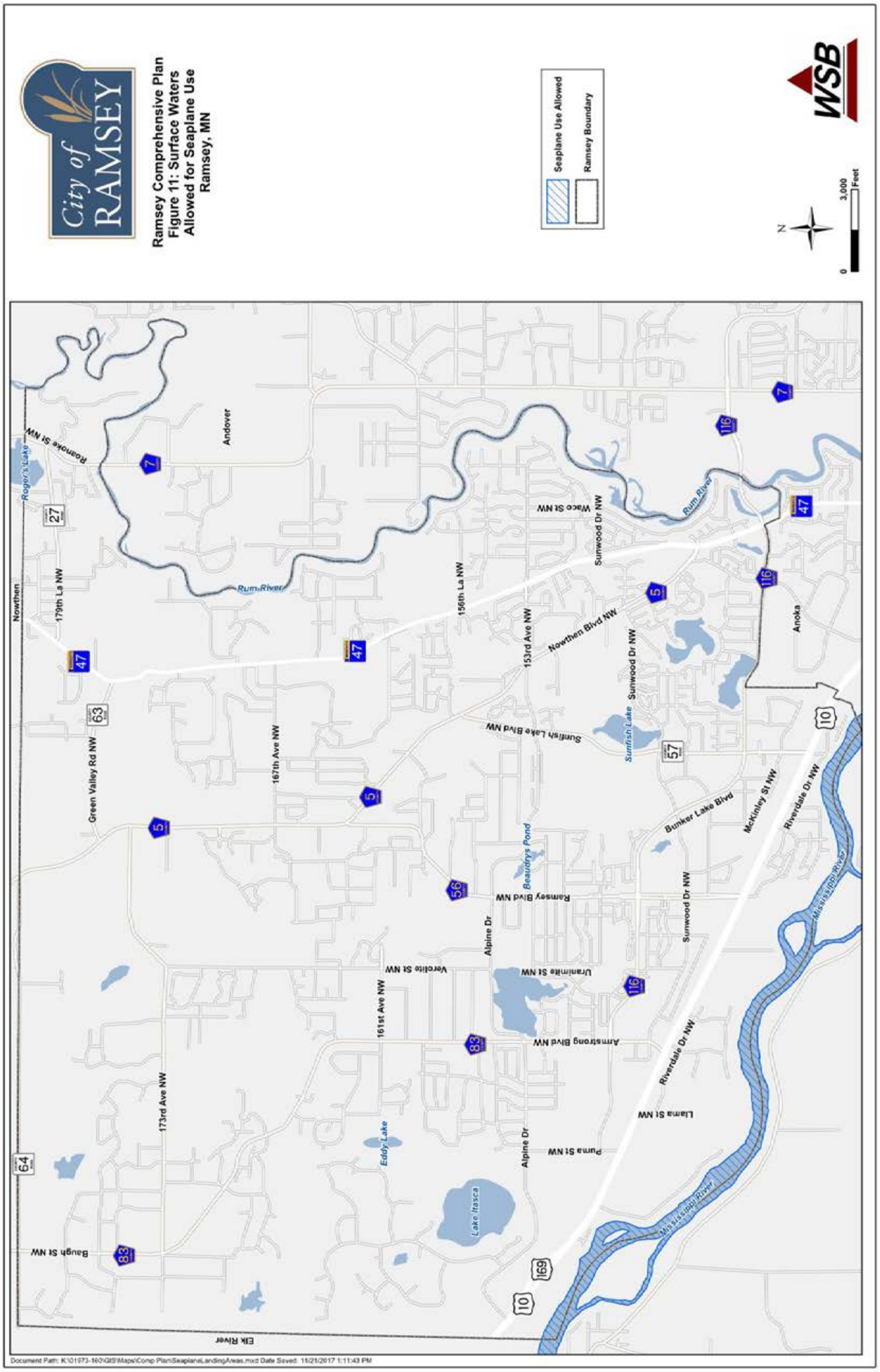
Aviation

There are currently no existing or planned aviation facilities within Ramsey. However, the city is responsible for airspace protection in order to reduce hazards to air travel within the region. The closest airport is the Anoka County-Blaine Airport, approximately 10 miles southeast of Ramsey.

Due to the distance to the nearest airport, there are no radio beacons or other air navigation aids located in off-airport locations in Ramsey. The city is not within an area of influence, and is therefore not subject to associated land use restrictions.

Any person or organization who intends to sponsor the construction or alteration of a structure affecting navigable airspace as defined in Federal Regulation Title 14; Part 77 needs to inform the Federal Aviation Agency (FAA) of the project. This notification is accomplished through the completion and submittal to FAA of Form 7460-1, Notice of Proposed Construction or Alteration. In Ramsey, this requirement applies to any construction or alteration exceeding 200 feet above ground level. The city's zoning code also requires the zoning administrator to provide notification to MnDOT when an applicant proposes construction or alteration of a structure that would exceed 200 feet.

There are currently no heliports in Ramsey or any known plans to construct one. As shown on **Figure 11**, the Mississippi River within the city is identified by MnDOT as an authorized landing site for seaplanes.


City of RAMSEY
Ramsey Comprehensive Plan
Figure 11: Surface Waters
Allowed for Seaplane Use
Ramsey, MN
Seaplane Use Allowed
Ramsey Boundary
0
3,000
Feet
N
WSB
Andover
Nowthen
Anoka
Rum River
Mississippi River
Roger's Lake
Sunfish Lake
Beaudrys Pond
Eddy Lake
Lake Itasca
Roanoke St NW
179th La NW
Green Valley Rd NW
173rd Ave NW
167th Ave NW
161st Ave NW
156th La NW
153rd Ave NW
Nowthen Blvd NW
Sunwood Dr NW
Waco St NW
Sunfish Lake Blvd NW
Bunker Lake Blvd
McKinley St NW
Riverdale Dr NW
Ramsey Blvd NW
Alpine Dr
Variolite St NW
Uranimite St NW
Armstrong Blvd NW
Llama St NW
Puma St NW
Baugh St NW
Elk River

Transportation Strategies and Actions

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

Strategies and Actions

Table 7 below displays the goals and of the Ramsey Transportation Plan. These goals represent the city's overall vision for transportation over the next 20 years. The strategies listed in the following section provide guidance that the city can use to reach the transportation objectives.

Table 7: Transportation Plan Goals and Objectives

Strategies	Actions
1. Facilitate efficient movement of people within and through the city	1.1. Improve local roadway system connectivity to county roadways and state highways.
	1.2. Provide safe and efficient routes for emergency and public safety vehicles.
	1.3. Provide adequate capacity to relieve congestion.
	1.4. Encourage sound access management.
	1.5. Preserve necessary rights-of-way for the 20-year planning horizon and beyond.
2. Facilitate efficient movements of goods within and through the city	2.1. Maintain a safe and effective network of roadways for freight movement.
	2.2. Coordinate with MnDOT and Anoka County to proactively address freight safety.
3. Provide a transportation system that is integrated with land use and development	3.1. Coordinate transportation system investments with the City of Ramsey Land Use Plan.
	3.2. Connect land use districts and provide safe access to major activity areas.
	3.3. Design, construct, and maintain roadways that fit the character of the adjacent land use (rural vs. urban development areas).
	3.4. Require private residential streets be designed to city standards.
4. Improve transportation safety for all users and modes of transportation	4.1. Implement safety improvements to address high crash locations.
	4.2. Proactively address bicycle and pedestrian safety concerns along roadways and at crossings.

	4.3. Bring sidewalks, trails, and intersections into compliance with ADA.
	4.4. Support traffic calming and design to minimize speed on minor city collectors and local roadways.
5. Develop a safe and convenient multimodal transportation system	5.1. Invest in multi-modal transportation solutions including bicycle and pedestrian infrastructure.
	5.2 Consider a "complete streets" approach to designing and constructing roadways in high pedestrian and bicycle traffic corridors.
	5.2. Preserve adequate right of way for sidewalk and trail construction.
6. Conserve and enhance environmental resources	6.1. Support investments in bicycle, pedestrian, and transit infrastructure to reduce environmental impacts of transportation.
	6.2. Manage storm water effectively and minimize the construction of new impervious surfaces.
	6.3. Support native plant landscapes along roadways.
	6.4. Design new roadways to preserve natural features.
7. Maintain the Existing Transportation System	7.1. Regularly assess transportation maintenance needs and include roadway, trail pavement, and other transportation infrastructure maintenance in the City of Ramsey Capital Improvement Program.

Multimodal Strategies

The multimodal strategies listed in this section are specific, actionable steps that the city 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 Plan.

Each strategy is tied to one or multiple goals; however, not all goals are associated with a specific strategy. In these cases, the city's goals apply across individual projects, and the city will identify opportunities to achieve them throughout its existing project and policy development processes. **Table 8** on the following pages describes each strategy, notes which goal(s) is/are related to each strategy, and identifies the lead agency for the strategy. **Figures 12–14** following the tables illustrate the location-specific strategies geographically.

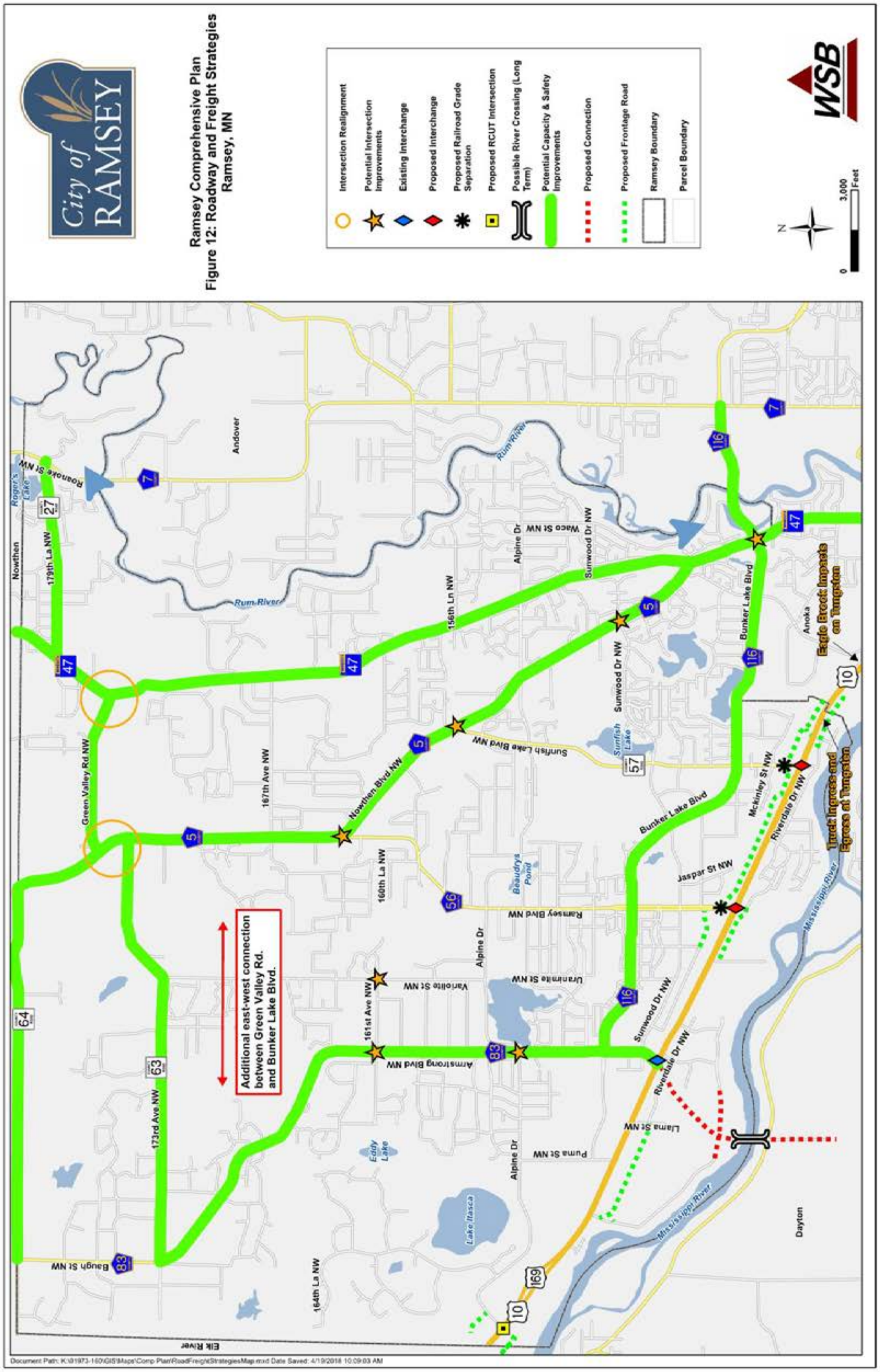
Table 8: Transportation Implementation Strategies

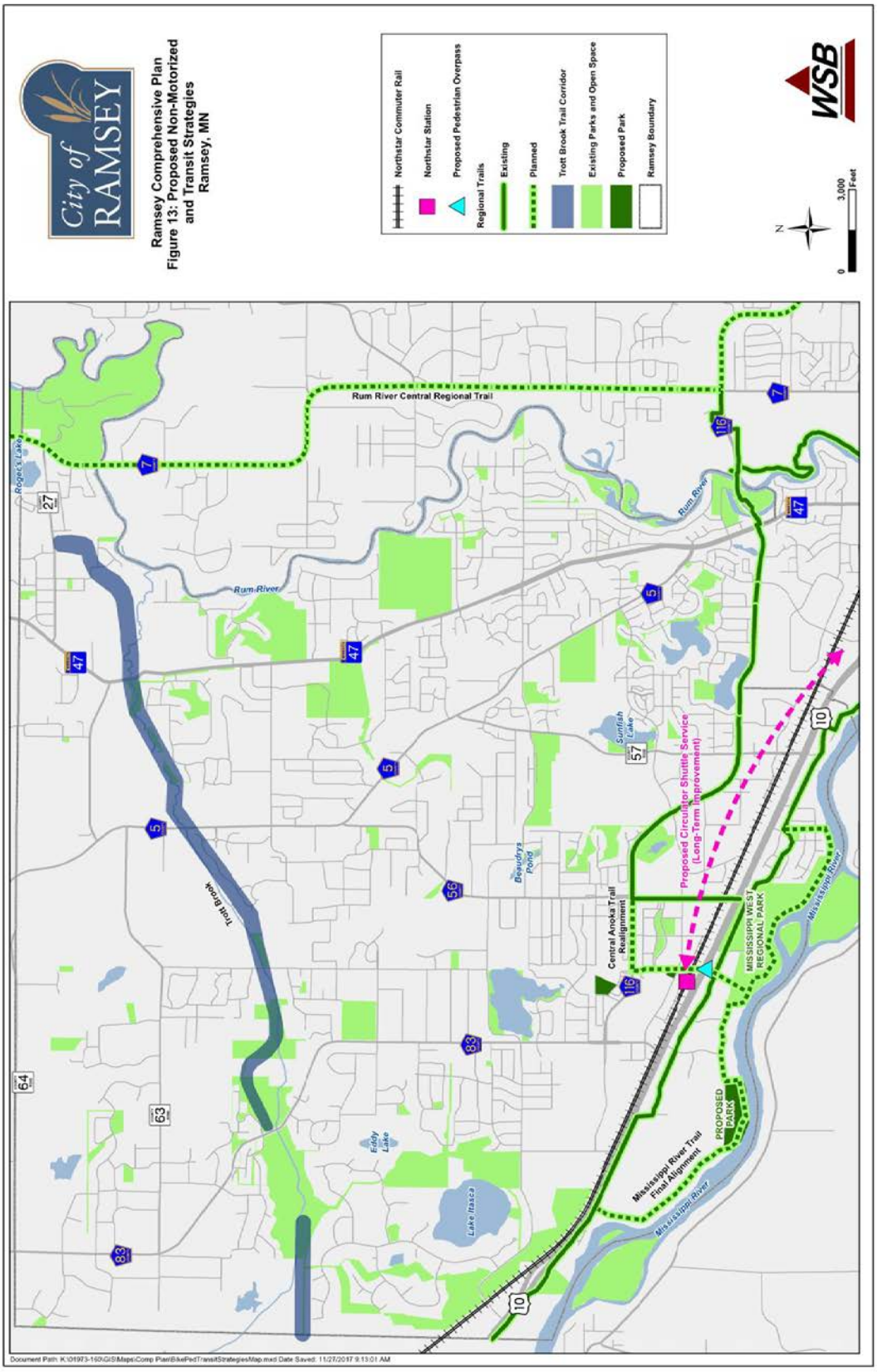
Location	Type of Improvement	Action	Map Reference	Lead Agency(ies)
CR 63/TH 47/179th Avenue NW (CR 27 from CSAH 83 to Roanoke Street NW	Corridor Study	Conduct a multimodal safety/operations corridor study to evaluate potential elimination of intersection jog at Green Valley Road NW/County Road 5/175th Avenue NW. Also evaluate overall safety operations along entire corridor to evaluate speed, shoulder adequacy, signing, bicycling and pedestrian safety, traffic enforcement etc.	Figure 12	Anoka County/ City of Ramsey
East/West Collector between CR 63 (Green Valley Road) and Bunker Lake Boulevard (CSAH 116)	Corridor Study	Conduct a multimodal corridor feasibility study to evaluate purpose and need and potential alignment alternatives for a new east/west collector roadway connecting Armstrong Boulevard (CSAH 83) to TH 47.	Figure 12	City of Ramsey
Mississippi River Crossing	River Crossing Study	Conduct a feasibility study to evaluate purpose and need and potential alignment alternatives for a new Mississippi River crossing connecting the City of Ramsey to the City of Dayton	Figure 12	City of Ramsey/ City of Dayton/ Anoka County/ Hennepin County
Bunker Lake Boulevard (CSAH 116) and Puma Street NW from Alpine Drive to CSAH 7	Corridor Study	Conduct a multimodal corridor study to evaluate safety, operations, and capacity deficiencies. As part of this study, the segment between Ramsey Boulevard (CSAH 56) and Sunfish Lake Boulevard (CSAH 57) should specifically be considered for a four-lane divided expansion and signals at Sunwood Drive NW	Figure 12	Anoka County/ City of Ramsey
Armstrong Boulevard (CSAH 83) from Sunwood Drive to 161st Avenue NW	Corridor Study	Conduct a multimodal corridor study to evaluate safety, operations, and capacity deficiencies. As part of this study, a four-way stop or other intersection control options should be considered at Alpine Drive and updates/enhancements to the pedestrian crossing and associated signage will be considered at 161st Avenue NW.	Figure 12	Anoka County/ City of Ramsey
TH 47 from north city limits to south city limits	Corridor Study	Conduct a multimodal corridor study to evaluate safety, operations, and capacity deficiencies.	Figure 12	MnDOT/ City of Ramsey

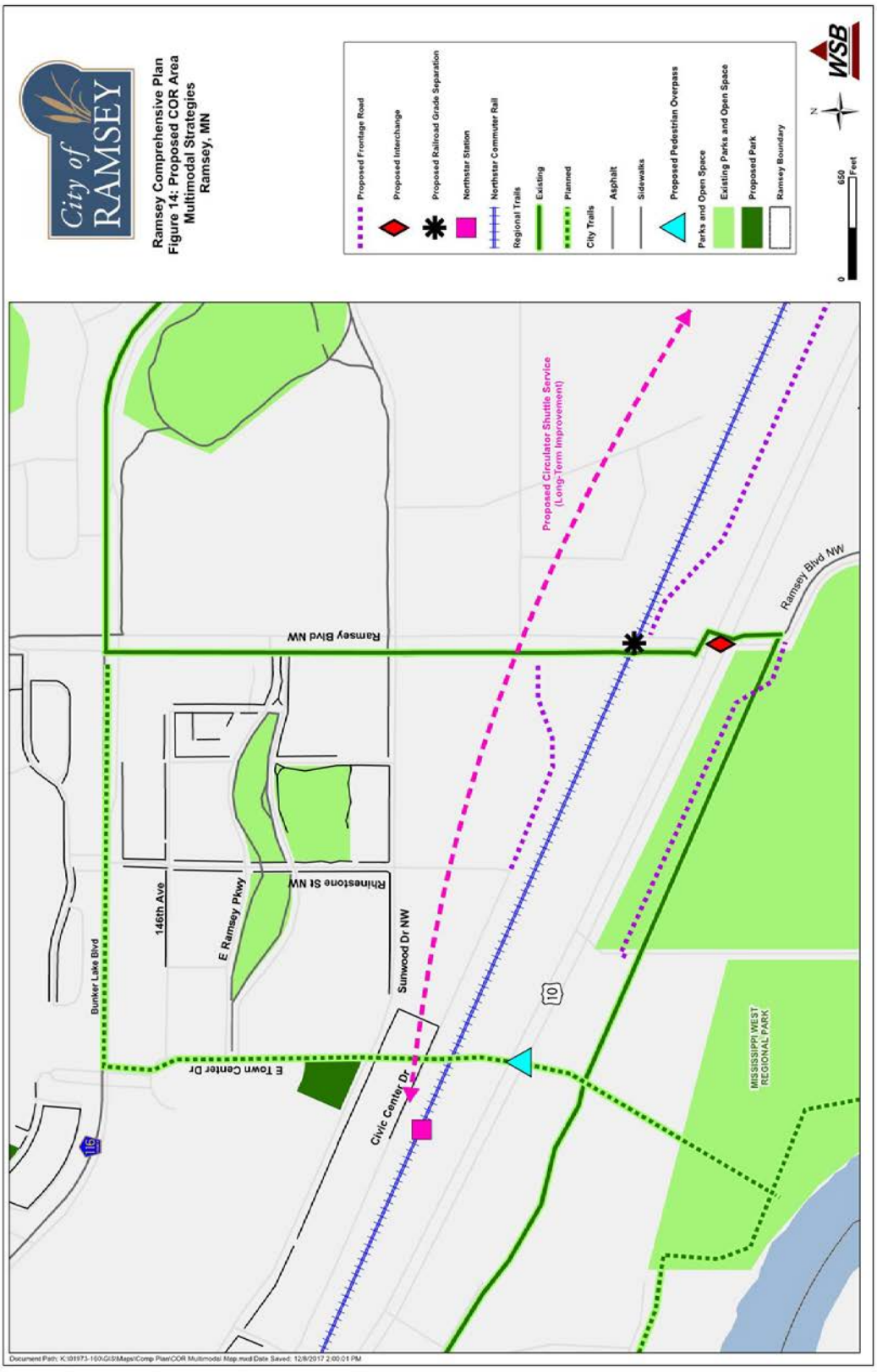
Location	Type of Improvement	Action	Map Reference	Lead Agency(ies)
TH 10/Ramsey Boulevard (CSAH 56)	Interchange and Railroad Grade Separation	Construct full access grade-separated interchange including railroad grade separation of BNSF mainline railroad per Highway 10 Access Planning Study Report (September 2014) and Metropolitan Council Principal Arteria Intersection Conversion Study (January 2017) – "low priority" in Metropolitan Council Study	Figure 12	MnDOT/ City of Ramsey/ Anoka County
TH 10/ Sunfish Lake Boulevard (CSAH 57)	Interchange and Railroad Grade Separation	Construct full access grade-separated interchange including railroad grade separation of BNSF mainline railroad per Highway 10 Access Planning Study Report (September 2014) and Metropolitan Council Principal Arterial Intersection Conversion Study (January 2017) – "high priority" in Metropolitan Council Study	Figure 12	MnDOT/ City of Ramsey/ Anoka County
TH 10	Frontage Roads	Construct north and south frontage roads through the City of Ramsey consistent with the Highway 10 Access Planning Study Report (September 2014)	Figure 12	City of Ramsey/ MnDOT/ Anoka County
Alpine Drive and Armstrong Boulevard (CSAH 83)	Intersection Control	Explore need for intersection control and/or geometric improvements	Figure 12	City of Ramsey
Sunfish Lake Blvd/157th Lane and Nowthen Boulevard	Safety/ Operations	Evaluate intersection for potential left-turn lane or other geometric improvements	Figure 12	City of Ramsey
Bunker Lake Boulevard (CSAH 116)	Freight – Intelligent Transportation Systems (ITS)	Evaluate feasibility of installing advanced warning system to notify drivers of approaching trains along BNSF mainline to allow drivers time to consider alternate routes	Figure 12	Anoka County/City of Ramsey
TH 10/Tungsten Street NW	Freight – Truck Ingress and Egress	Coordinate with MnDOT to explore solution to truck ingress/egress	Figure 12	City of Ramsey/MnDOT

Location	Type of Improvement	Action	Map Reference	Lead Agency(ies)
Ramsey Northstar Station	Transit Improvement	Consider long-term improvement of circulator shuttle bus service by Anoka Commute Solutions between Anoka businesses and the Ramsey Northstar Station	Figure 13	Anoka County/ Metro Transit
Ramsey Northstar Station	Transit Improvement	Consider long-term improvement of adding shuttle bus service between Anoka Technical College and the Ramsey Northstar Station	Figure 13	Anoka County/ Metro Transit
COR Area	Transit-Oriented Development	Continue to implement urban design and land use policies (including the Design Framework for the COR) supportive of transit use within the COR area, including compacted, mixed use development patterns and convenient multimodal connections to Ramsey Northstar Station	Figure 13	City of Ramsey
TH 10/Ramsey Northstar Station	Bicycle and Pedestrian Bridge	Construct Trunk Highway 10 pedestrian bridge extension of existing Ramsey Northstar Station pedestrian bridge between Ramsey Boulevard (CSAH 56) and Armstrong Boulevard (CSAH 83) consistent with the Mississippi Skyway Preliminary Engineering Report (December 2014)	Figure 13	City of Ramsey/MnDOT
Rum River Regional Trail Corridor	Bicycle and Pedestrian Improvements	Construct trail between Ramsey–Anoka border and Ramsey–Oak Grove border as opportunities arise	Figure 13	Anoka County
Mississippi River Regional Trail Corridor	Bicycle and Pedestrian Improvements	Construct final trail alignment along river as opportunities arise. Designate as Tier 1 RBTN alignment.	Figure 13	Anoka County/ City of Ramsey
Central Anoka Regional Trail Corridor	Bicycle and Pedestrian Improvements	Realign regional trail along Bunker Lake Blvd. and E. Town Center Dr. through COR and over Mississippi Skyway to Mississippi West Regional Park	Figure 13	Anoka County
Various Locations	Bicycle and Pedestrian Improvements	Sidewalks shall be installed with any street reconstruction project		City of Ramsey

Location	Type of Improvement	Action	Map Reference	Lead Agency(ies)
		occurring within the City's urban service area		
Various Locations	Bicycle and Pedestrian Improvements	Continue to proactively pursue opportunities to make off-road multiuse trails and on-road bicycle lane and wide shoulder network connections to existing trails, schools, parks, commercial nodes, and residential areas		City of Ramsey
Various Locations	Bicycle and Pedestrian Safety	Evaluate intersections for potential safety improvements such as intersection controls, crosswalks, etc.		City of Ramsey
Various locations	Bicycle and Pedestrian Maintenance	Continue to monitor and maintain bicycle and pedestrian facilities to provide safe and convenient conditions for users		City of Ramsey/ Anoka County


Ramsey Comprehensive Plan
Figure 12: Roadway and Freight Strategies
Ramsey, MN
Intersection Realignment
Potential Intersection Improvements
Existing Interchange
Proposed Interchange
Proposed Railroad Grade Separation
Proposed RCUT Intersection
Possible River Crossing (Long Term)
Potential Capacity & Safety Improvements
Proposed Connection
Proposed Frontage Road
Ramsey Boundary
Parcel Boundary
Additional east-west connection between Green Valley Rd. and Bunker Lake Blvd.
Eagle Brook Impacts on Tungsten
Truck Ingress and Egress at Tungsten


City of RAMSEY
Ramsey Comprehensive Plan
Figure 13: Proposed Non-Motorized and Transit Strategies
Ramsey, MN
Northstar Commuter Rail
Northstar Station
Proposed Pedestrian Overpass
Regional Trails
Existing
Planned
Trott Brook Trail Corridor
Existing Parks and Open Space
Proposed Park
Ramsey Boundary
WSB
3,000
Feet
Rum River Central Regional Trail
Rum River
Trott Brook
Proposed Circulator Shuttle Service (Long-Term Improvement)
Central Anoka Trail Realignment
Mississippi River Trail Final Alignment
MISSISSIPPI WEST REGIONAL PARK
PROPOSED PARK
Mississippi River
Sunfish Lake
Beaudrys Pond
Eddy Lake
Lake Itasca
Rogers Lake


City of RAMSEY
Ramsey Comprehensive Plan
Figure 14: Proposed COR Area
Multimodal Strategies
Ramsey, MN
WSB
Proposed Frontage Road
Proposed Interchange
Proposed Railroad Grade Separation
Northstar Station
Northstar Commuter Rail
Regional Trails
Existing
Planned
City Trails
Asphalt
Sidewalks
Proposed Pedestrian Overpass
Parks and Open Space
Existing Parks and Open Space
Proposed Park
Ramsey Boundary
650
Feet
Proposed Circulator Shuttle Service
(Long-Term Improvement)
Ramsey Blvd NW
Ramsey Blvd NW
Rhinestone St NW
146th Ave
E Ramsey Pkwy
Sunwood Dr NW
Bunker Lake Blvd
E Town Center Dr
Civic Center Dr
10
MISSISSIPPI WEST
REGIONAL PARK

Proposed Short and Long Range Roadway Projects

The sections below identify proposed short and long range roadway projects identified in the city's CIP and based on the proposed land use and redevelopment activities described in previous sections of this Plan. This section does not include information on proposed projects from the Metropolitan Council 2040 TPP, as the TPP does not include any planned improvements to principal arterials in Ramsey (aside from the completed interchange at TH 10 and Armstrong Boulevard (CSAH 83). No additional interchanges, MnPASS lanes, dedicated busways, or bus-only shoulders are proposed in the Current Revenue Scenario of the 2040 TPP.

Proposed Projects from CIPs

The city's CIP identifies a number of roadway projects. These projects are primarily reconstruction and overlay projects intended to improve and maintain the roadway surface. However, there are also several projects that will extend or expand the operational capacity of the roadway network within the COR area, including improvements along Zeolite Street and Bunker Lake Boulevard. A number of projects identified in the Highway 10 Access Planning Study are also included in the CIP, including extension of Riverdale Drive, construction of a BNSF railroad underpass on Ramsey Boulevard, construction of north and south frontage roads along TH 10. Other road improvement projects included in the CIP include projects for striping, lighting, and landscaping.

There are also a number of non-motorized transportation projects identified in the city's CIP. These include completion of the off-road Mississippi River Regional Trail within the city, construction of a trail connection to McKinley Street in the City of Anoka, a number of other high-priority trail connections, and a pedestrian underpass at Alpine Drive.

Proposed Projects based on Land Use and Development

Transportation needs in the city will shift as development occurs. Narrow rural roadways may no longer be suitable in certain areas. Additionally, there may be areas where development occurs and requires new connecting roadways to ensure that roadways and intersections can accommodate additional traffic volumes. Similarly, areas with new development may require non-motorized transportation facilities to provide safe access to the transportation system for pedestrians and bicyclists. Consideration of roadway modifications, intersection traffic control improvements, and non-motorized facilities will continue as individual proposals for development move forward.

Public Comments

The city held a workshop to gather public input on the transportation plan. At this workshop, members of the public identified issues and opportunities related to transportation as well was parks, trails, and recreation. A wide range of topics was raised, including roadway speeds, pedestrian safety, congestion, enforcement of speeding/stop signs, general support for trails, support for an additional river crossing, and a request for a new east/west road connection in the community. These comments were compiled and used to inform the strategies identified in **Table 8**.

Conclusion and Next Steps

The purpose of this Transportation Plan is to set a multimodal transportation vision for the City of Ramsey through the year 2040. Goals and specific strategies have been identified collaboratively by the city, Anoka 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, City of Ramsey priorities, regional travel patterns and a variety of other factors.

As the owners of the transportation network in Ramsey (i.e. City of Ramsey, Anoka County, MnDOT, Metro Transit, and the BNSF railway) 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 15** on the following page outlines the entire planning and project development process required for transportation projects from concept plans to construction implementation.

Figure 15
Transportation Planning Process