FIGURE A.9 – CONDITION OF SIGNED SHARED BICYCLE ROUTES.

FIGURE A.10 - STRIPING CONDITION OF SIGNED SHARED USE BICYCLE ROUTES.

OFF-ROAD FACILITIES

Shared Use Path Pavement Condition

The Parks & Trails Council of Minnesota conducted a pavement condition assessment of most shared use paths within the APO in 2020. The Council used a specially equipped electronic bicycle with instruments aboard to record the "bumpiness" of the pavement throughout the MPA.

The study concluded that over 40% of Sauk Rapids's shared use paths are in "very smooth" to "smooth" condition. Several facilities, such as the shared use path along Second Street N/CSAH 3, are in "smooth" condition.

Approximately 15% of all shared use paths in the city were identified as being in "rough" to "very rough" condition. Facilities in the neighborhood on 10th Avenue NE east of US 10 require repair along with smaller neighborhood segments across the city. Nearly half of the City's trails were rated as "fair," much higher than the region's average.

Since the pavement condition assessment was conducted, the City has reconstructed River Avenue south of Second Street N with the addition of new shared use paths. As part of the 2020 reconstruction of Benton Drive, the city extended the shared use paths south of Summit Avenue to Franklin Avenue.

FIGURE A.11 - NEWLY PAVED SHARED USE PATH IN LIONS PARK.

FIGURE A.12 – SHARED USE PATH PAVEMENT CONDITION (2019).

SAUK RAPIDS PLANS FOR ACTIVE TRANSPORTATION

The 2005 Comprehensive Plan (https://bit.ly/2YvB3Rt) and the 2011 Transportation Plan (https://bit.ly/2YvPR2l) for the City of Sauk Rapids provide the current planning framework for transportation. Both recognize the significance of planning to accommodate non-motorized modes to relieve growing congestion on roadways. Each of the city's plans cites the need for new or improved roadway facilities, including infrastructure for bicycles and pedestrians and expanding the off-road system as the area grows.

As a guide to transportation and other investments, the city maintains a Capital Improvement Program (CIP) (https://bit.ly/3p8l9HV). The CIP includes projected short- and long-term projects based on anticipated future revenues and needs.

CITY OF SAUK RAPIDS' 2005 COMPREHENSIVE PLAN

Ensuring safe and convenient travel for non-motorized users is one of the leading transportation goals identified in the Sauk Rapids Comprehensive Plan. The plan includes promoting bicycling, walking, and transit opportunities to accomplish this goal. A discussion on expanding the existing network of trails and other infrastructure is included to achieve this vision. The plan suggests strategies to design and maintain roadways that accommodate all travel modes. The city seeks to balance the need to efficiently move traffic through the region and provide local access to homes and businesses while also addressing the needs of pedestrians.

Active Transportation Needs as Identified in Comprehensive Plan

Among issues cited in the 2005 Comprehensive Plan is the lack of transportation infrastructure (all kinds) to accommodate growth, especially for developing commercial and industrial areas. The Comprehensive Plan includes specific strategies to provide routes from residential to pedestrian-friendly commercial areas, focusing on improving the City's downtown pedestrian environment. Strategies call for a complete network of sidewalks and additional wayfinding signage to the city's river-facing parks. In addition, the plan states the importance of connecting neighborhoods with sidewalks and expanding the network of parks and trails/shared use paths.

CITY OF SAUK RAPIDS' 2011 TRANSPORTATION PLAN

As identified in the city's 2011 Transportation Plan, residents rely on active transportation for recreational and commuting needs. The city strives to develop an active transportation network that complements the roadway system by expanding the network of bike lanes, sidewalks, and shared use paths

Active Transportation Needs as Identified in the Transportation Plan

According to the city's Transportation Plan, the primary barrier to bicycle and pedestrian trips is the limited ability to cross primary arterials. With few roadway crossings and only one shared use path that crosses US 10, the highway remains a significant barrier for residents who rely on walking and biking to get to schools, jobs, or other destinations.

The Transportation Plan calls for additional shared use paths around the high school and developing neighborhoods along CSAH 1/Mayhew Lake Road. In addition, the plan

recommends expanding roadways shoulders and designating additional bike lanes to serve the needs of all users.

The plan also addresses the lack of active transportation infrastructure surrounding schools and local parks. It is suggested that sidewalks and shared use paths be provided where there is an adequate right-of-way. The city should reserve the right to increase minimum right-of-way requirements for future roadways to accommodate active transportation modes.

CITY ORDINANCES

Along with various citywide planning efforts, Sauk Rapids City Code (https://bit.ly/3tCM1TY) has established several ordinances pertaining to the active transportation system and its users.

City Code Section 12 outlines provisions for active transportation with new street construction or reconstruction. A sidewalk and trail network shall connect new and existing subdivisions. With new construction or reconstruction of urban collector and arterial streets, city ordinance calls for a minimum five-foot (unstriped) bicycle route or (striped) lane plus the addition of five-foot sidewalks (on both sides of the street) if possible. The reconstruction of rural collector and arterial roads shall include five-foot bicycle routes or lanes plus a five-foot sidewalk or an eight-12 foot wide trail (shared use path). As determined, the sidewalk and trail network may also be adjacent to local streets. The adjacent active transportation network may extend to residential, commercial, or industrial development. The city's Sidewalk/Trail Committee plans and makes recommendations to the Planning Commission and City Council for improving the network (City Code Section 12.06 subd. 8D).

Sidewalk maintenance, in particular snow and ice removal, is the responsibility of the landowner or tenant whose property is abutting the sidewalk. Snow removal must occur within 24 hours of the snowfall event. If the persons responsible do not comply, the city may assess removal costs. (City Code Section 8.04)

In addition, city ordinances also outline designated parking areas for nonmotorized vehicles and call for speeding restrictions of 5 mph within city parks.

SYSTEM USAGE

Understanding bicycling and walking behavior on the active transportation network within the City of Sauk Rapids can help in a couple of ways. The purpose of collecting system usage data is to measure the change in usage over time, prioritize the investment of new and existing infrastructure, and assist in planning and designing future facilities. It is essential to know how well current facilities address the user's needs.

BICYCLE AND PEDESTRIAN COUNTS

APO staff regularly place a MnDOT-owned portable bicycle and pedestrian counter along shared use path locations throughout the MPA, including three spots within the City of Sauk Rapids.

The MnDOT counter uses two different types of counters simultaneously. The Pneumatic TUBE counter uses two sets of tubes placed perpendicular to traffic. When a cyclist passes over the tubes, this counter can record that cyclist and determine which direction that person was heading. Meanwhile, the PYRO-Box utilizes infrared technology to measure people's body heat who pass in front of its sensor. This counter, much like the TUBE counter, can identify travel directions. While the PYRO-Box can detect bicyclists and pedestrians, it cannot definitively distinguish between the two. When used in conjunction with the TUBE counter, APO staff can calculate pedestrian traffic from the PYRO-Box by subtracting the bicyclists from the total count.

With these portable counters, APO staff monitors daily usage of shared use paths for one week intervals at specified locations. However, the portable counters are owned by MnDOT. As a result, various agencies and jurisdictions can (and have) utilized the counters throughout the year, impacting the consistency in obtaining data. As a result, no 2020 count data was collected in the City of Sauk Rapids.

As stated earlier, the APO regularly deploys the counter at three counting locations throughout the city:

1. The Ox Cart Trail in Island View Park.
2. The Helix Spiral at the Sauk Rapids bridge.
3. The shared use path along Second Street N/CSAH 3 just south of Seventh Avenue N.

The Helix Spiral location is one of a handful of sites throughout the MPA that has counts done seasonally – winter, spring, summer, and fall. Due to weather conditions, the TUBE counter is not deployed during winter. The year-round counting program is relatively new (beginning in 2020), so limited data is available.

Location	Dates Counted (2019)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Ox Cart Trail	07/08 – 07/14	2	114	0	125
Helix Spiral	07/15 – 07/21	3	81	3	104
Second Street N	07/22 – 07/28	2	50	1	27

FIGURE A.13 – 2019 BICYCLE AND PEDESTRIAN COUNTS FROM THE THREE SAUK RAPIDS LOCATIONS.

As found in Figure A.13, summer pedestrian usage of these three facilities is relatively high, with average weekday counts ranging between 50 and 114 users.

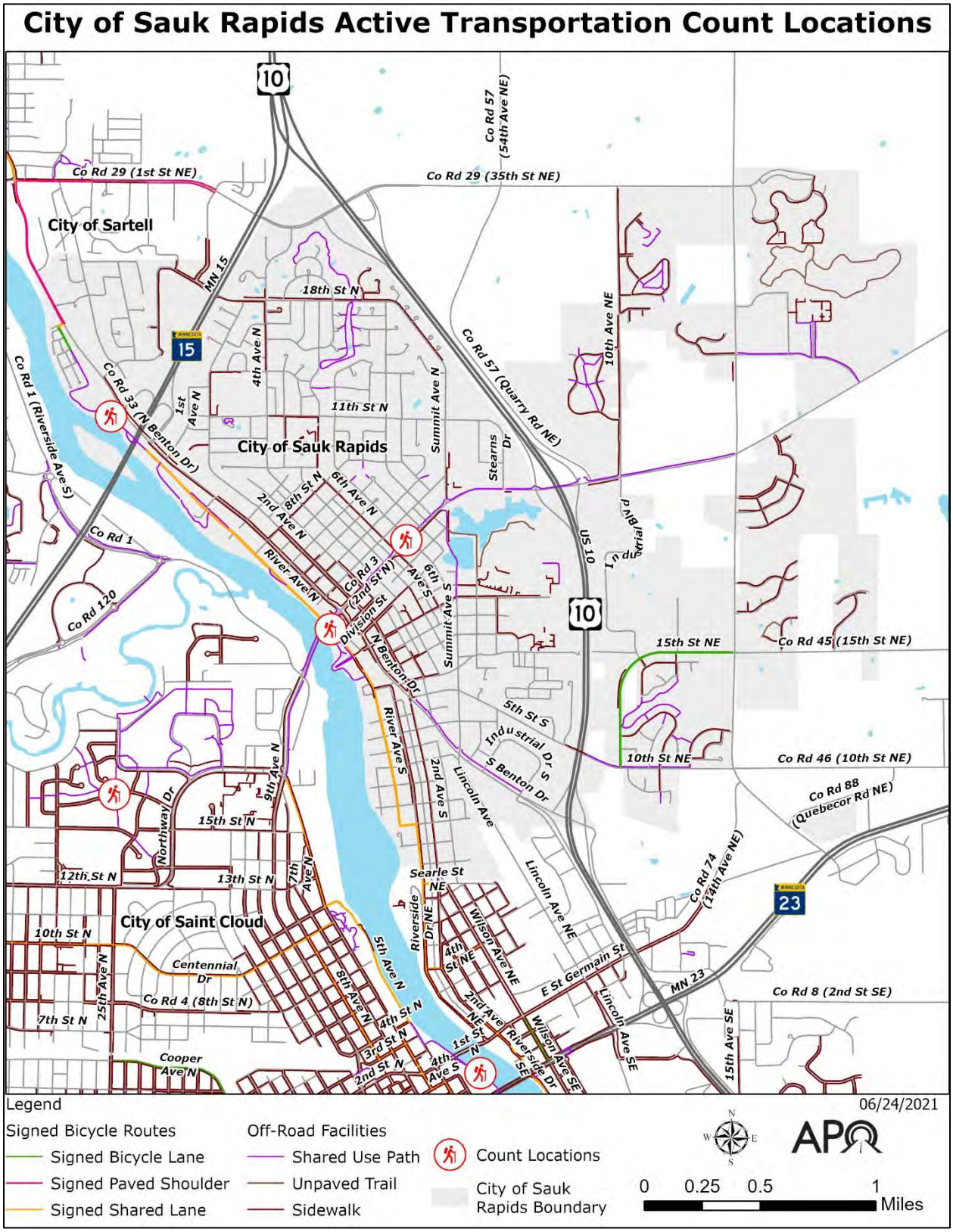


FIGURE A.14 – LOCATIONS WHERE THE APO REGULARLY DEPLOYS AUTOMATIC BICYCLE/PEDESTRIAN COUNTERS WITHIN SAUK RAPIDS.

Figure A.15 is the one-week winter seasonal count on the Helix Spiral in 2020. As seen below, usage of this facility in the winter can be correlated to outside temperatures.

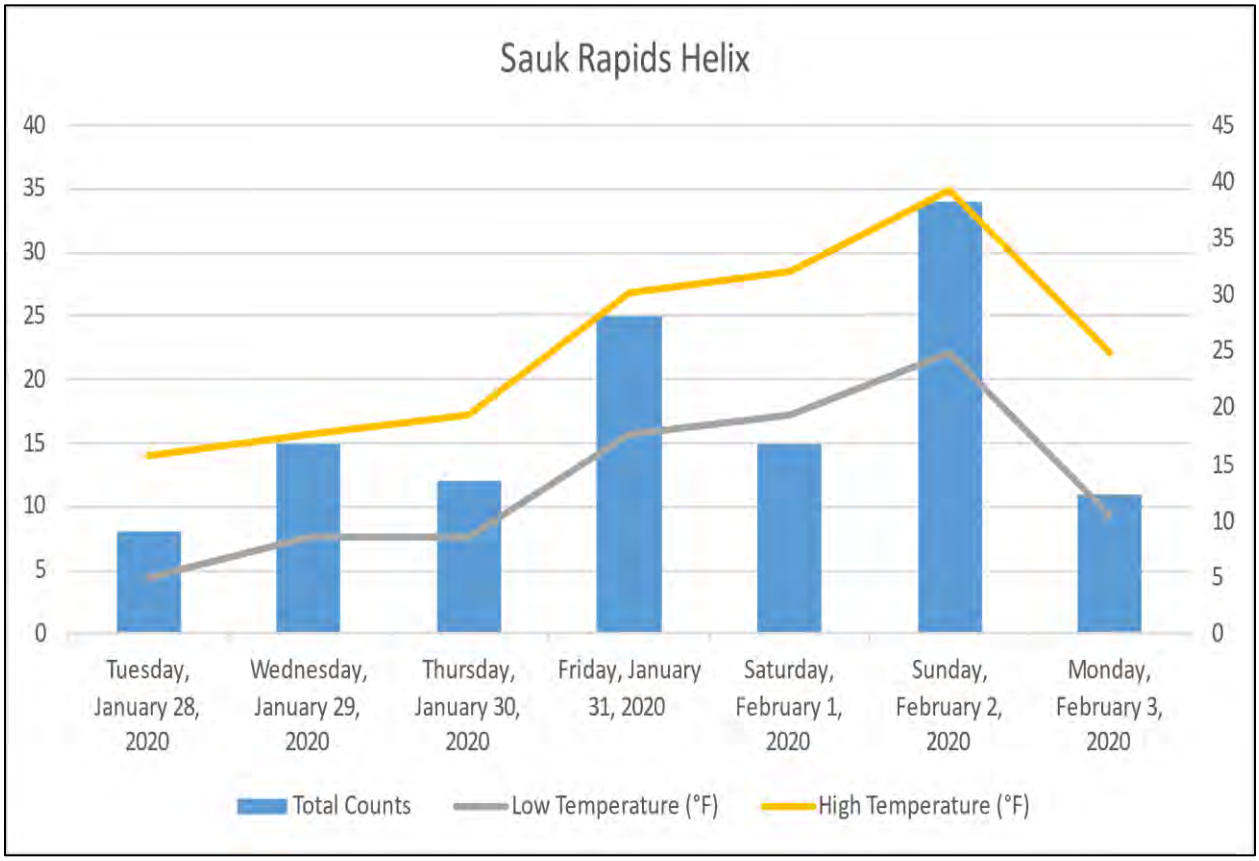


FIGURE A.15 – 2020 WINTER COUNT INFORMATION AT THE SAUK RAPIDS HELIX SPIRAL COMPARED TO DAILY HIGH AND LOW TEMPERATURES.

DESTINATIONS

Common destinations for active transportation users include schools, food assets, employers, and parks. These destinations are shown in Figure A.16. Food assets are grocery stores/supermarkets, specialty food stores, meat markets, convenience stores, and non-profit community food services. Employers listed have 100 or more full- and/or part-time employees.

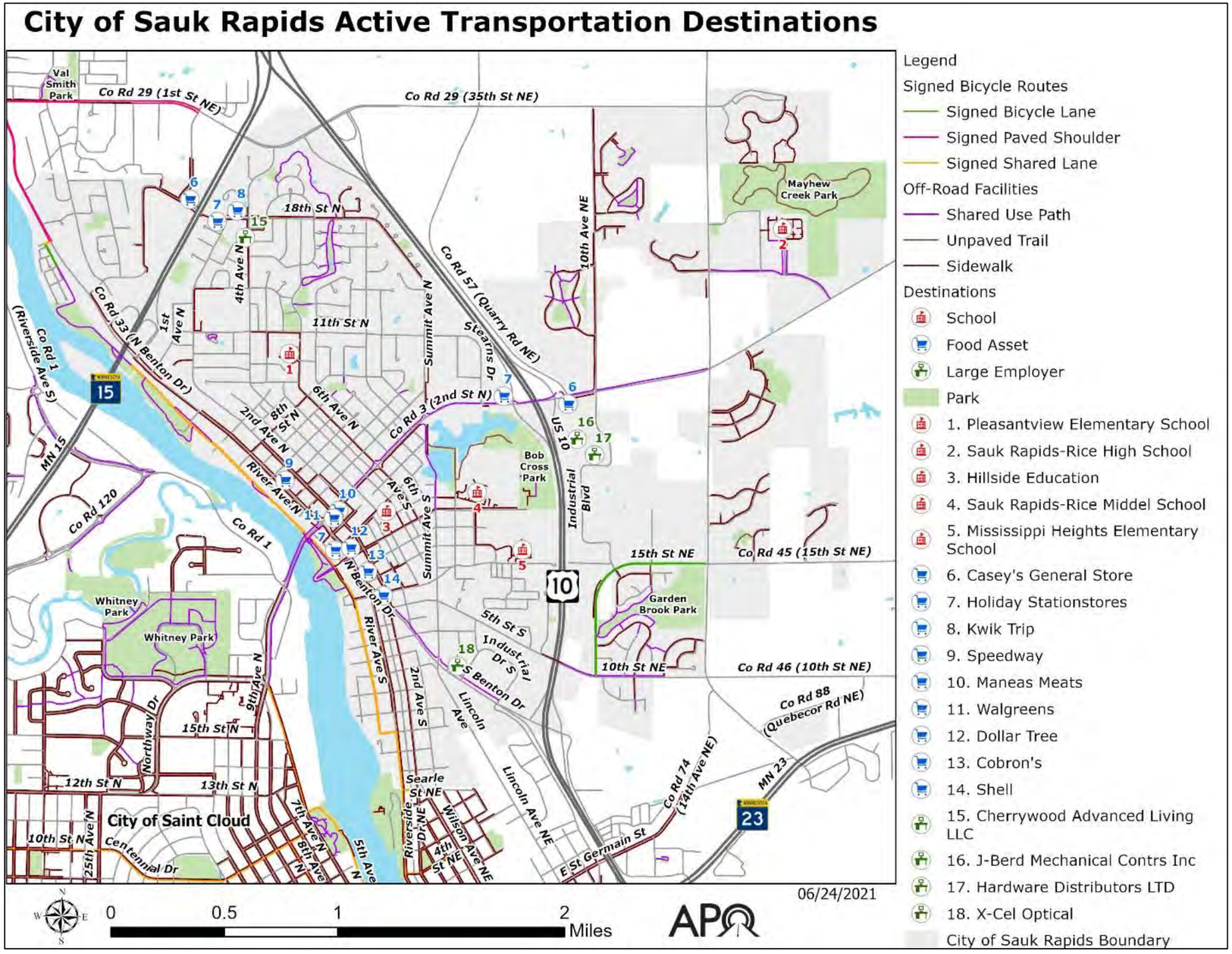


FIGURE A.16 – DESTINATIONS FOR ACTIVE TRANSPORTATION USERS WITHIN THE CITY OF SAUK RAPIDS.

Schools

Among the city's largest employers, the Sauk Rapids-Rice School District (SR-R District) operates five public schools within city limits. Rice Elementary School, located in Rice, is also part of the SR-R District.

The 2011 Transportation Plan cited safety concerns such as crossing and traffic speeds in many school areas. And while a mix of sidewalks and shared use paths has expanded over time to improve access and safety for students who bike or walk, gaps remain in some areas.

Name	Address	Grades Served	Approximate Number of Students Served
Hillside School	30 Fourth Ave. S	Early Childhood/Adult Basic Education	N/A
Pleasantview Elementary School	1009 Sixth Ave. N	K-5	800
Mississippi Heights Elementary School	1003 Fourth St. S	K-5	1,040
Sauk Rapids-Rice Middle School	901 First St. S	6-8	1,060
Sauk Rapids-Rice High School	1835 Osauka Road	9-12	1,300

FIGURE A.17 – THE FIVE PUBLIC SCHOOLS LOCATED WITHIN THE CITY OF SAUK RAPIDS.

Food Assets

Figure A.16 shows grocery stores and other food destinations are primarily found in the downtown commercial area. This includes Coborn's, Manea's Meats, Walgreens, Dollar Tree, and various small convenience stores. Other food asset hubs are located around the US 10/CSAH 3 interchange and locations along 18th Street N and 18th Street NW near the intersection of MN 15.

Food assets are typically along some sort of active transportation facility – either a sidewalk or a shared use path. In addition, food assets such as those in the downtown area are often located near transit stops.

Large Employers

Large employment centers within Sauk Rapids are located within the city's industrial areas. As shown in Figure A.16, two major employers (J-Berd and Hardware Distributors, LTD) can be found along Industrial Boulevard east of US 10. Other major employers are located along Industrial Drive S, and Benton Drive S. Good Shepherd Community is another major employer in the city's northern section.

Most large employers are located on a Metro Bus fixed route, though access to sidewalks and shared use paths vary. Again, it is worth noting that US 10 is a major barrier to active transportation facilities. Workers who live west of US 10 would need to travel miles out of their way to reach these employers by active transportation modes.

Parks

The City of Sauk Rapids has 24 parks within city limits. While most are small neighborhood parks, the city does define six regional parks – Island View Park, Municipal Park, Lions Park, Southside Park, Bob Cross Park, and Mayhew Creek Park.

These larger parks and several of the newer neighborhood parks in the city are generally well served with sidewalks or shared use paths. As a result, residential areas near these parks are more likely to have active transportation facilities. Older and smaller neighborhood parks tend to have limited or no sidewalk access.

In the park plan component of the 2005 Comprehensive Plan, the city identified the need to grow its park and recreation system. Strategies include integrating the city's parks with regional parks and trails plans. The city plans to expand and improve existing paved and unpaved trail systems between these parks. Park facilities along the Mississippi are planned to connect with the downtown area and other community parks and trail systems.

SAFETY

According to the Minnesota Department of Public Safety (DPS), fatalities, serious injuries, and minor injuries involving bicyclists and pedestrians are rising in the Saint Cloud MPA. Within the City of Sauk Rapids, DPS crash data has indicated that 27 crashes involving active transportation users and vehicles have occurred in the 10 years between 2010 and 2019. Of those crashes, 11 injury crashes (41%) occurred in the downtown area. See Figure A.18 for locations and severity.

While most of these crashes resulted in minor injuries, it is essential to note that during this time frame, two pedestrians were killed. A pedestrian death resulted from a crash on US 10 near CSAH 3 in 2013 and another on Benton Drive near MN 15 in 2016. Both crashes involved pedestrians on high-speed arterials struck by vehicles in the traffic lane.

Crash history is reviewed to determine locations where crashes appear to be more likely to occur and whether there may be an engineering solution or partial solution to help mitigate the crashes. It is unclear from the DPS crash reports whether physical conditions at the crash locations were a contributing factor or if physical changes to the facilities may help mitigate future crashes. DPS crash reports do not indicate a common theme or roadway infrastructure/design flaw as a contributing factor. Some reports cited careless behavior or inattention to traffic laws on the part of the bicyclist or pedestrian. The crashes may be due to the high number of vehicles and active transportation users in this area, increasing the likelihood of possible conflicts.

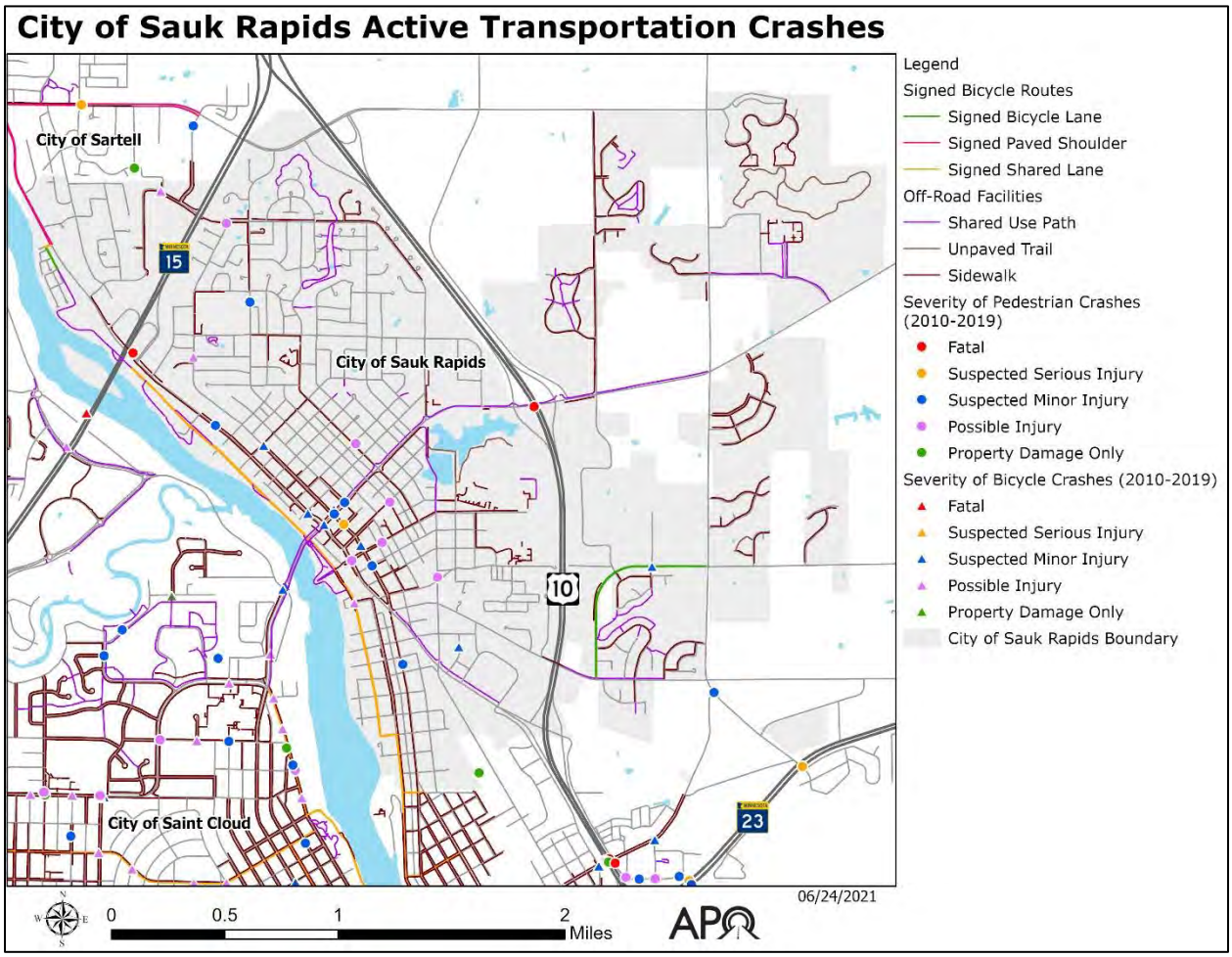


FIGURE A.18 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS (2010-2019) WITHIN THE CITY OF SAUK RAPIDS.

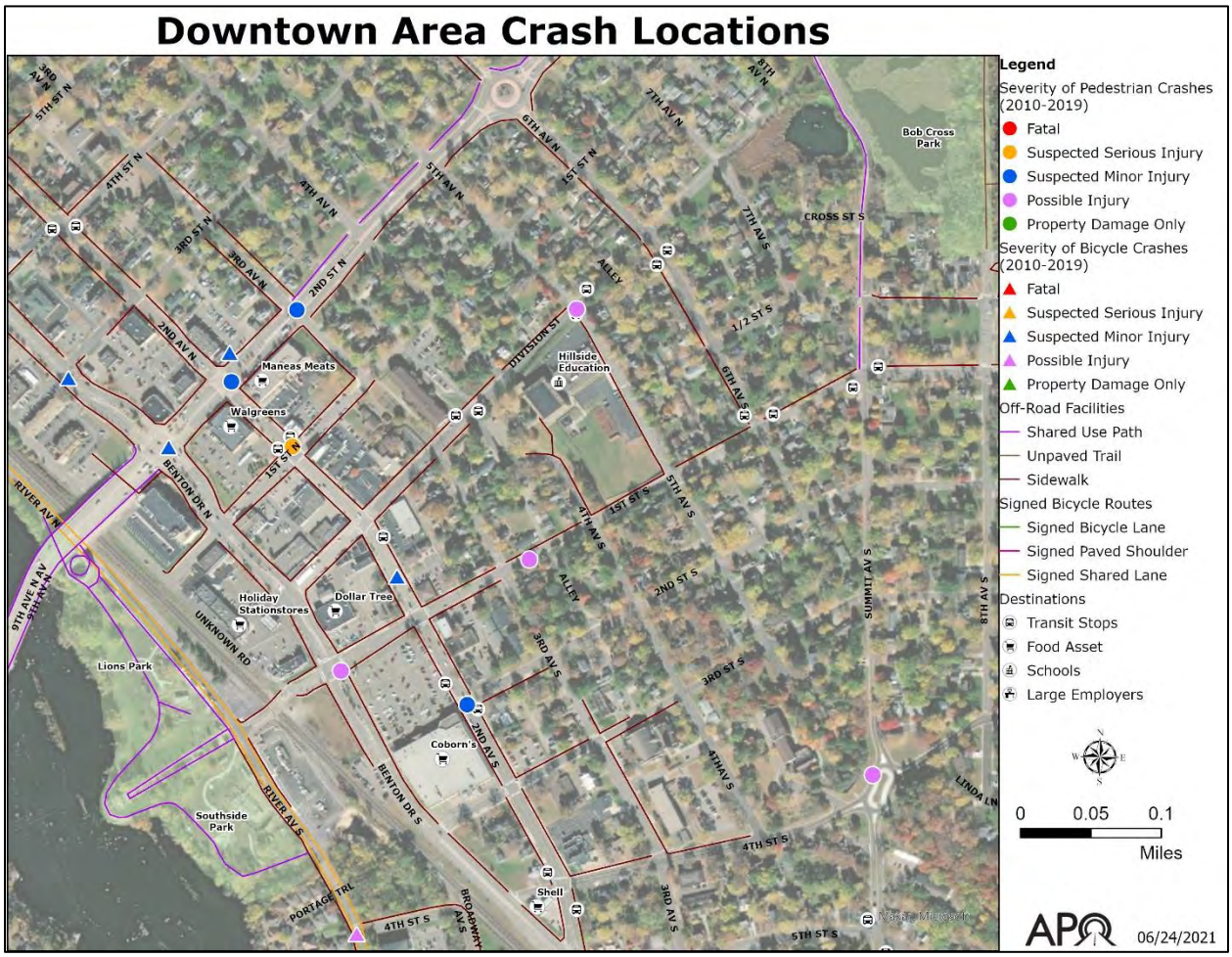


FIGURE A.19 – DOWNTOWN SAUK RAPIDS LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS.

PROGRAMMED AND PLANNED IMPROVEMENTS

As referenced earlier, the City of Sauk Rapids maintains a Capital Improvement Program (CIP), which identifies short-term projects and long-range concepts designed to improve active transportation facilities. The CIP also indicates anticipated future revenues that may be available to implement such projects.

Two active transportation projects are identified in the CIP. In 2021 the city planned to construct a shared use path along Mayhew Lake Road (CSAH 1) from Golden Spike Road NE (CSAH 3) to Osauka Road NE. Around 2024, Second Avenue S from Benton Drive to 10th Street S is slated to be reconstructed and will possibly include the addition of sidewalks along with reconstruction work of existing active transportation infrastructure. The city includes the upgrade of shared use paths and sidewalks with its program of road reconstruction projects.

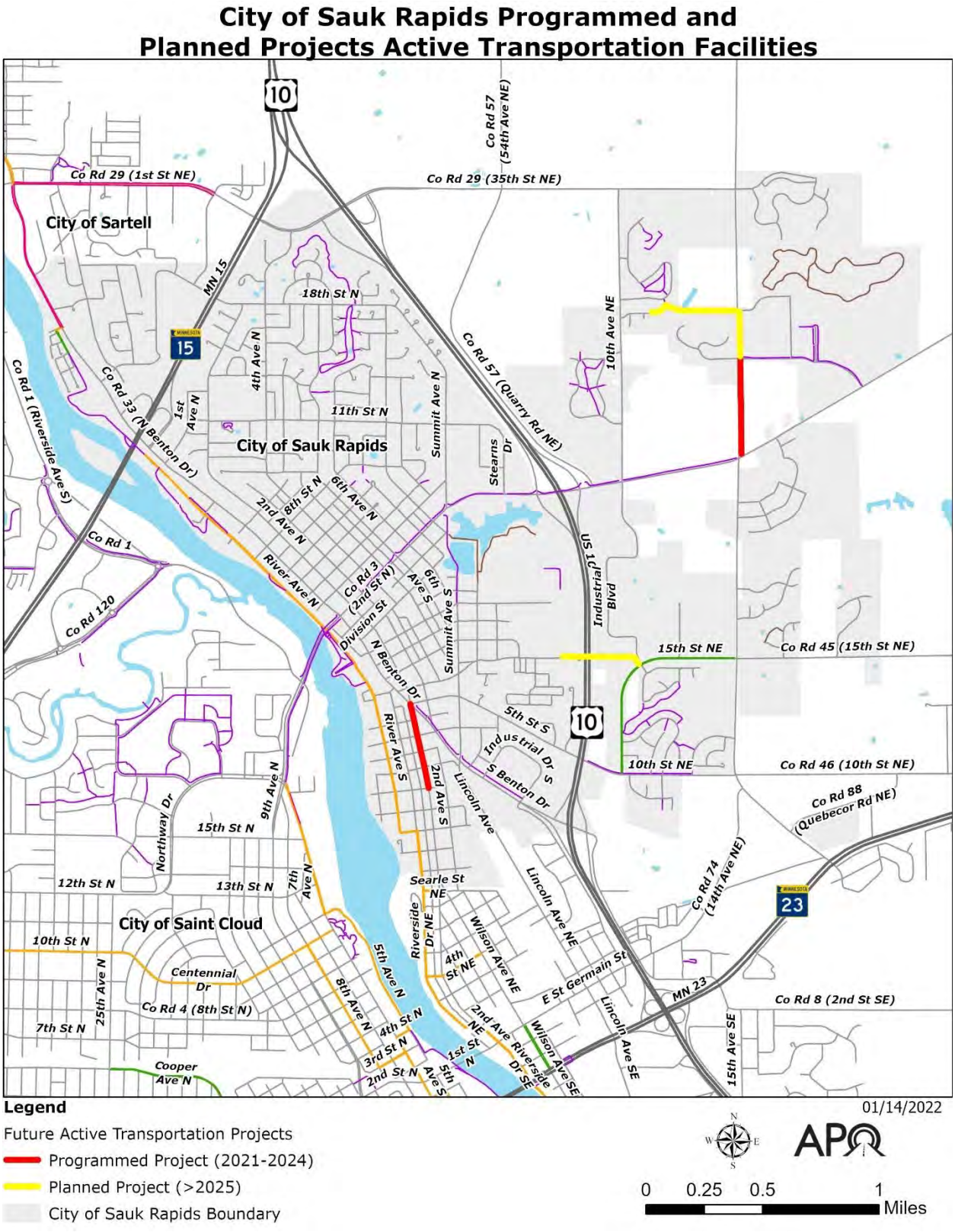


FIGURE A.20 – EXISTING NETWORK WITH PROGRAMMED AND PLANNED FACILITIES.

Long-term (though currently unfunded) goals for the city's active transportation network include the following:

- Extending the shared use path north from Osauka Rd NE to the city water tower, then west to 29th Street NE. This would connect to the existing and planned network of sidewalks serving neighborhoods in northeast Sauk Rapids.
- Constructing a grade-separated pedestrian bridge across US 10 connecting Fourth Street S to 10th Avenue NE. This would provide Mississippi Heights Elementary School access to the neighborhood east of US 10.

ACTIVE TRANSPORTATION NEEDS ASSESSMENT

APO staff performed a citywide analysis of facility and other needs for active transportation users to supplement and inform current city planning efforts. The intent of this assessment, conducted in coordination with city staff and representatives, was to identify active transportation needs within the city and assist in prioritizing those needs in the event funding becomes available.

GOALS AND OBJECTIVES FOR ACTIVE TRANSPORTATION

The regional goals and objectives for active transportation as adopted by the APO provide a starting point for the Sauk Rapids needs assessment.

Those goals were:

1. Improve bicycle and pedestrian safety and comfort.
2. Improve active transportation connections to desired destinations.
3. Improve the condition of active transportation infrastructure.
4. Provide equitable access to active transportation facilities for all people of all abilities.
5. Promote an interconnected regional active transportation network.

The evaluation factors were equally applied for assessing needs within each city and across the MPA. The goals, objectives, and factors used to evaluate services and needs relative to each objective are detailed in Chapter 4. Performance ratings from the evaluation of factors for Sauk Rapids are shown in Figure A.21.

NEEDS ASSESSMENT METHODOLOGY

From the goals and objectives framework, APO staff, in coordination with Sauk Rapids city staff and community volunteers, developed the following methodology to address critical gaps in the current active transportation system. It should be noted that while this process does not account for every gap or need in the network, it does focus on addressing gaps utilizing existing data as it relates to the region's active transportation goals and objectives.

The APO's active transportation needs assessment methodology was broken into three phases. Beginning with an in-depth analysis of transportation networks, APO staff identified issues and needs within individual communities across the region. This cursory review led to a more detailed analysis of active transportation needs for focus areas identified within each city and ultimately the identification of jurisdictional-level project recommendations – Phase 2. In the final phase, local and regional needs identified in the previous phases were prioritized according to the degree goals and objectives would be addressed.

Sauk Rapids		2019	
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average		*0.6*	
Percentage miles of arterials & collectors that have a sidewalk or shared use path (SUP) on at least one side		*38.6%*	
Percent of destinations that fall within distance categories	Schools	0 Ft (Asset Served by AT Facility)	*100%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Food Assets	0 Ft (Asset Served by AT Facility)	*100%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Large Employers	0 Ft (Asset Served by AT Facility)	*25.0%*
		1-310 ft (One block or less)	*25.0%*
		311-930 ft (Two to three blocks)	*25.0%*
		> 931 ft (Four or more blocks)	*25.0%*
	Parks	0 Ft (Asset Served by AT Facility)	*92.9%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*7.1%*
	Transit Stops	0 Ft (Asset Served by AT Facility)	*34.9%*
		1-310 ft (One block or less)	*23.3%*
		311-930 ft (Two to three blocks)	*23.3%*
		> 931 ft (Four or more blocks)	*18.6%*
Percent of street crossings that do not meet full ADA standards		*80.0%*	
Miles of Active Transportation facilities per 1,000 residents in EJ/Title VI Sensitive Areas in comparison to non-sensitive areas		*3.1:3.9*	
Percent mileage of Regional Priority bicycle facilities that do NOT exist		*46.3%*	
Percent of on-road bicycle facilities with poor pavement		*41.8%*	
Percent of SUP with rough/very rough pavement		*14.4%*	

FIGURE A.21 – SAUK RAPIDS PERFORMANCE REPORT CARD (2019)

Phase 1: Evaluating Needs for the City of Sauk Rapids

In order to begin this evaluation, APO staff reviewed needs and service area gaps relative to the factors listed under goals 1-4. APO staff compiled a series of maps and data that detailed the city's existing active transportation conditions. Utilizing the objectives and

applying factors (as identified in Chapter 4), staff began to dive into the existing conditions data to look for network gaps or areas of concern (i.e., high crash locations, locations of under-designed on-road/off-road facilities).

Figure A.22 summarizes the findings for the City of Sauk Rapids.

Areas of Need - City of Sauk Rapids

	Safety & Comfort Factors						Connectivity Factors			Facility Condition			Equity Factors			Issues	Potential Treatments
		1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern		1 Access to Destinations	2 Access to Transit		1 On Road Conditions	2 Off Road Conditions		1 Underserved Demographic	2 ADA Compliance		
CSAH 3 (2nd St N) - Benton Dr to 3rd Ave N			X												X	Downtown area - crashes with injuries, intersections not ADA compliant	Pedestrian and bicycle crossing improvements, traffic calming, bring intersections to ADA standards.
CSAH 33 (Benton Dr N) - TH 15 to CSAH 3			X												X	One fatality (TH 15), crashes with injuries (downtown), intersections not ADA compliant	Pedestrian and bicycle crossing improvements, traffic calming, bring intersections to ADA standards.
11th Street North					X	X		X	X							Major collector without adjacent facilities, serves school destination (Pleasantview), speed & safety concerns for students, lacks transit stops.	Construct sidewalks or shared use paths, crosswalks or crossing improvements, reduce speeds.
Summit Ave S - 1st St S to Benton Dr					X	X		X	X					X		Major collector without adjacent facilities, serves school destinations (elem, middle school), speed & safety concerns, high percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths, crosswalks or crossing improvements, reduce speeds.
River Ave N				X							X	X				Signed shared lane with 30 mph speed (25 mph is the guideline). On road pavement condition (fair/poor). Oxcart Trail in rough condition.	Reduce speeds, add signage, striping bike lanes, improve pavements.
River Ave S				X	X						X					Signed shared lane with 30 mph speed (25 mph is the guideline). On road pavement condition (fair).	Reduce speeds, add signage, striping bike lanes, improve pavements.
Benton Dr S - Summit Ave to Hwy 10					X	X		X								Minor Arterial without adjacent facilities, serves major employers, speed & safety concerns in the overpass area.	Construct sidewalks or shared use paths, manage speeds.
Mayhew Lake Rd - North of CSAH 3					X			X						X		Minor arterial without adjacent facilities, neighborhoods not connected, serves high school, high percentage aged 18 or younger. Funded project completes gap from CSAH 3 to Osauka Rd NE.	Future project identified: connect from Osauka Rd NE to sidewalks at 29th St NE.
Mayhew Lake Rd - South of CSAH 3					X			X						X		Collector without adjacent facilities, neighborhood sidewalk facilities not connected, high percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths to connect current facilities.
Industrial Boulevard								X	X					X		Serves large employers, transit stops with limited P/B facilities. High percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths to serve current transit stops, businesses.
Industrial Drive S								X	X					X		Serves large employers, transit stops with limited P/B facilities. High percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths to serve current transit stops, businesses.
5th St S - Summit Ave to Hwy 10					X			X	X					X		Major collector without adjacent facilities, transit stops with limited P/B facilities, service to large employers, high percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths to serve current transit stops.
4th St S - 4th Ave S to Mississippi Heights Elementary School						X		X	X					X		Area with schools, transit stops with limited P/B facilities, high percentage of low income & zero vehicle households.	Construct sidewalks or shared use paths to serve current transit stops, neighborhoods and schools. Future project: Hwy 10 pedestrian crossing.

FIGURE A.22 – SAUK RAPIDS PHASE 1 NEEDS ANALYSIS.

Considered along with the factors were the comments from the APO's initial public input along with comments from city staff. Areas where multiple issues were revealed when the factors were applied became the focus of further review and analysis.

Phase 2: Analysis of Sauk Rapids Focus Areas

From the process described for the review of needs and gaps for the City of Sauk Rapids, the following areas were identified as priority areas for improvements.

- 11th Street N area.
- Sauk Rapids-Rice Middle School and Mississippi Heights Elementary area.
- Mayhew Lake Road (Benton CSAH 1) area.

APO staff working in conjunction with city staff for each focus area further analyzed needs and issues and worked to identify possible solutions.

11th Street N Area

The 11th Street N focus area spans the entirety of the roadway from 13th Avenue to First Avenue N as well as Stearns Drive from 13th Avenue N to Second Street N/Benton CSAH 3 as shown in Figure A.23. Due to traffic speed, safety concerns, limited facilities, and the location of Pleasantview Elementary School, this is included as a focus area.

NEEDS AND ISSUES

Eleventh Street N is one of only a few continuous east-west collector roadways in the City of Sauk Rapids and often sees relatively high vehicle traffic. A 2015 traffic count estimated 1,650 vehicles use 11th Street N daily. The posted speed is 30 mph.

The area surrounding 11th Street N is primarily residential, with an abundance of single-family homes. Many homes along this corridor have direct driveway access to the street. Given its proximity to Pleasantview Elementary School, a lot of young children use this roadway. Eleventh Street N also serves the Good Shepherd Community - a church plus care facilities and congregate housing for older adults. The eastern end of the corridor is light industrial, providing many jobs. The 11th Street N corridor, therefore, is a conduit facilitating the flow of workers to and from those jobs.

While there is a small section of sidewalk on this collector roadway − between Fourth Avenue N and Sixth Avenue N − the roadway is not outfitted with much active transportation infrastructure. There are also several transit stops along the corridor.

FIGURE A.23 – SAUK RAPIDS 11TH STREET N AREA OF FOCUS.

Local public safety officials report concerns with vehicle speeds and the safety of children walking and/or biking to Pleasantview Elementary. The city has noted concerns, especially with crossing the intersection of 11th Street N and Sixth Avenue N as part of the 2011 Transportation Plan.

City ordinance calls for a minimum five-foot (unstriped) bicycle route or (striped) lane plus the addition of five-foot sidewalks (on both sides of the street) with reconstructed urban streets where possible.

Recognizing the concern for safety in this school area, the city has made some improvements to active transportation facilities. A new sidewalk, additional crosswalks, and signage were added to the section of 11th Street between 4th Avenue N and 6th Avenue N with the implementation of a Safe Routes to School project in 2014. With the City's restriping of 11th Street N in 2021, the driving lanes were narrowed, and the shoulders widened to help calm vehicle traffic. On-street parking will remain along portions of this corridor.

RECOMMENDATIONS

To address needs for the 11th Street N area, it is suggested that investments be directed to improvements along this corridor as follows.

- The city's Transportation Plan called for additional crosswalks along the corridor, traffic control devices, and warning flashers to address safety needs. This plan reiterates these recommendations, especially near Pleasantview Elementary. Consider implementing crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Add additional sidewalk on at least one side of the roadway from Second Avenue N on the west end, across Summit Avenue N, into the industrial park and following Stearns Drive right-of-way connecting to the existing shared-use path on Second Street N/Benton CSAH 3. This will help provide a critical continuous active transportation connection across US 10. The sidewalk will also help provide needed access to existing transit stops.
- The posted speed limit and traffic volume on 11th Street N suggest that an on-road bicycle facility would be relatively safe and comfortable for most users. The existing pavement is 42 feet wide. This appears to be sufficient for two five-foot wide bicycle lanes (one in each direction), two 12-foot wide driving lanes, and one eight-foot wide parking lane. While parking is permitted on both sides of the roadway, a parking study should be conducted to reaffirm adequate amount of street parking is available. Painting the parking lane and the bike lanes on the pavement should also help control excess speeds on the corridor by visually tightening the drivable area.

Middle School/Mississippi Heights Area

The area surrounding Sauk Rapids-Rice Middle School and Mississippi Heights Elementary School was identified as a focus area due to excessive speeds, safety concerns, and limited facility access to the two public schools. This area of focus includes much of Summit Avenue South and the network of streets that provide access to the City's centrally located elementary and middle schools.

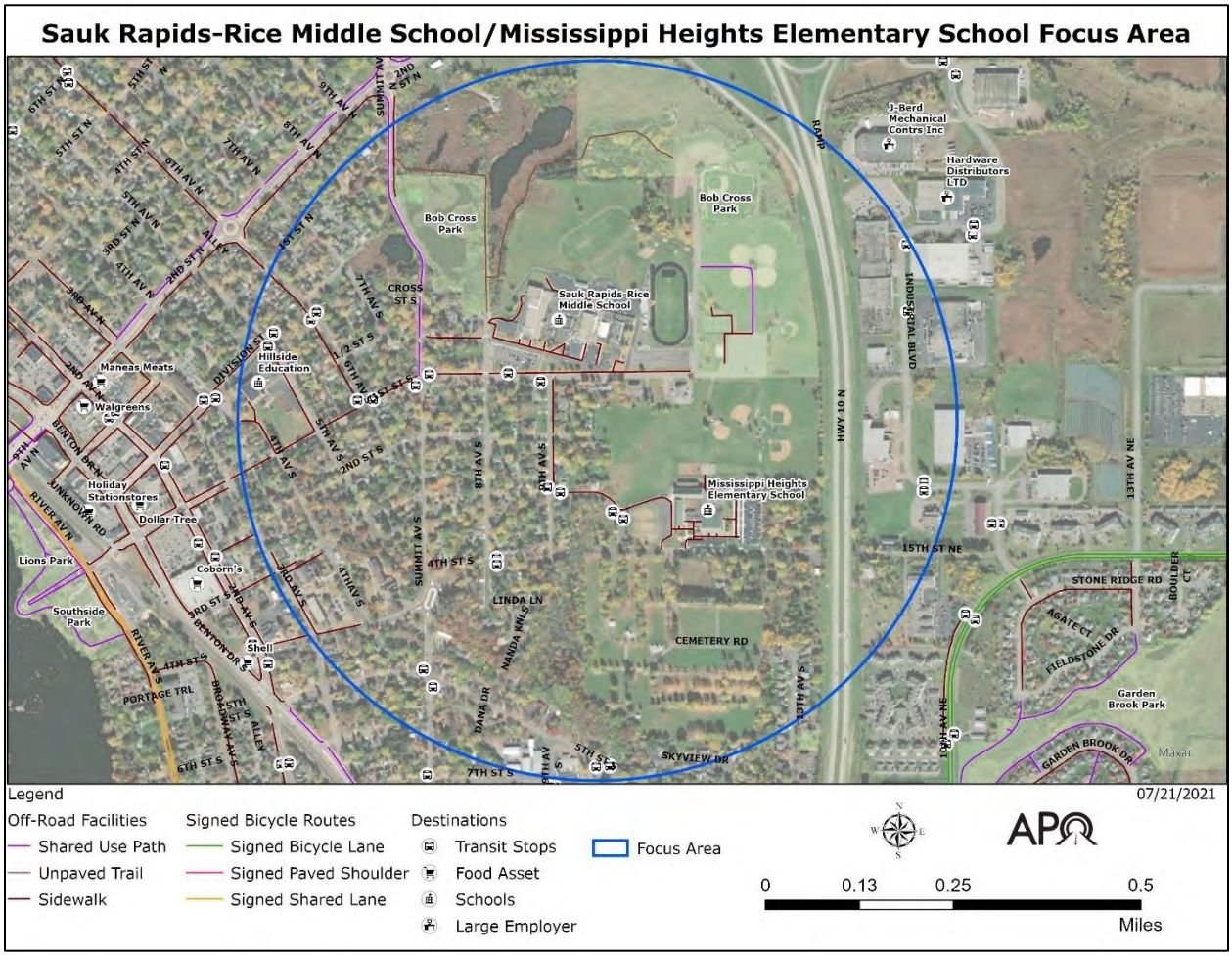


FIGURE A.24 – MIDDLE SCHOOL AND MISSISSIPPI HEIGHTS AREA OF FOCUS

NEEDS AND ISSUES

Vehicles often use Summit Avenue as one of the few crosstown north/south routes. Daily traffic on Summit Avenue was measured at about 1,850 vehicles in 2015. At the same time, Summit Avenue and other streets are used by those walking or biking to the nearby schools.

While a local street, Fourth Street S is the primary access to Mississippi Heights Elementary. At present, there are no active transportation facilities.

Within the focus area, the land use is primarily single-family residential. The residential area surrounding both the middle school and Mississippi Heights Elementary School has a higher number of low-income and zero vehicle households. These demographic groups have been known to rely more heavily on active transportation.

Aside from sidewalks along First Street S and Ninth Avenue S, this area predominately lacks active transportation infrastructure, including access to transit stops along Summit Avenue S and Fourth Street S.

As noted in the 2011 Transportation Plan, there are also concerns with the speed of vehicle traffic along the Fourth Street S corridor. Crossing Summit Avenue S and Sixth Avenue S

were identified as safety concerns in the Transportation Plan. Also noted was the difficulty for vehicles on Summit Avenue S and Fourth Street S to see bicycles and pedestrians.

Concerns from the public have been expressed with vehicle speeds approaching the roundabouts on Fourth Street S and Summit Avenue S and the safety of children who walk or bike on these streets.

The city has long-term plans for a new grade-separated shared use path under or over US 10, providing a direct connection between the elementary school and the residences on the east. However, funding has not yet been identified.

RECOMMENDATIONS

- This plan reiterates and reinforces the City's plan for a grade-separated shared use path at US 10, connecting Fourth Street S with 15th Street NE, allowing school-aged children to traverse the highway safely.
- Further, adding sidewalks or shared use paths along Fourth Street S is recommended to improve safe access to the schools and other nonmotorized users. If this is impractical, the city may consider the possibility of alternative routes for pedestrians and bicycles such as Third Street S. A continuous active transportation facility from US 10 to the existing sidewalks at the edge of downtown (i.e., Third Avenue S at Third Street or Fourth Street) would be ideal.
- East of US 10, it is recommended that a continuous sidewalk or shared-use path be constructed along 15th Street NE to the Pheasant Ridge Apartments and to Stone Ridge Road.
- Marked crosswalks on Summit Avenue (especially at Third Street S and Fourth Street S) will improve safety and serve as a visual reminder to drivers to expect pedestrians crossing their path of travel. They may also help address the speeding concern as expressed by the public.

Mayhew Lake Road Area

The focus area shown in Figure A.25, CSAH 1 (Mayhew Lake Road) from CSAH 3 to 10th Street NE, was identified due to the lack of connected facilities to residential neighborhoods. This is a growing part of the city with a high percentage of low-income and zero vehicle households.

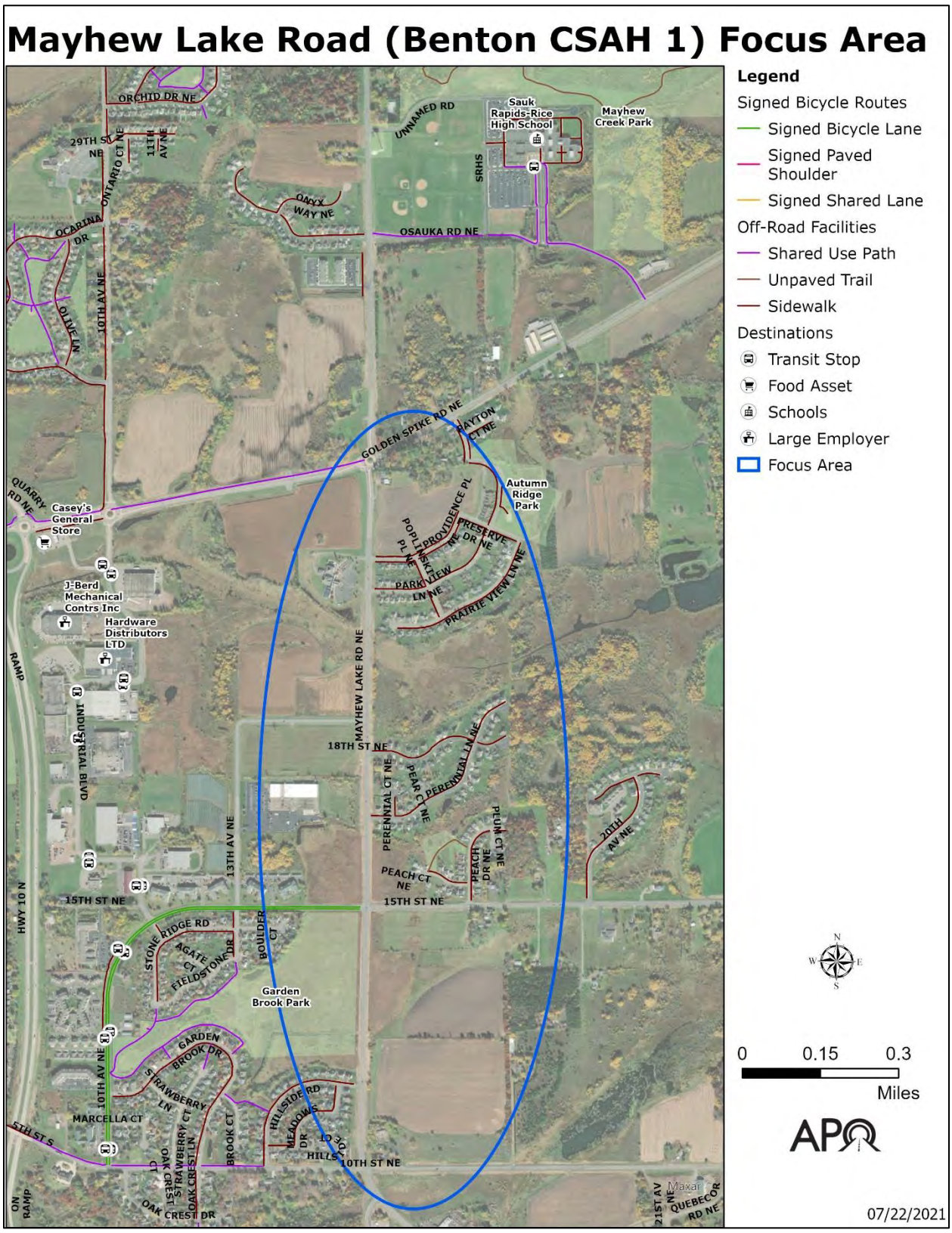


FIGURE A.25 – MAYHEW LAKE ROAD/BENTON CSAH 1 FOCUS AREA.

NEEDS AND ISSUES

The housing developments along Mayhew Lake Road NE south of CSAH 3/Golden Spike Road NE – which mostly contain sidewalks – are missing connections to the City's more extensive active transportation network. This includes access to the shared use path along CSAH 3, leading to the high school and connecting downtown. Residential subdivisions along 15th Street SE are also missing connections to the more extensive network. The relatively high volume of motor vehicles (3,300-4,800 vehicles per day) and posted speed (55 mph) along Mayhew Lake Road are significant safety concerns for bicycles and pedestrians.

Much of this area is undeveloped. Vacant land along these corridors offers areas with infill potential. New residential or other land use types in the Mayhew Lake Road area will also need connections.

RECOMMENDATIONS

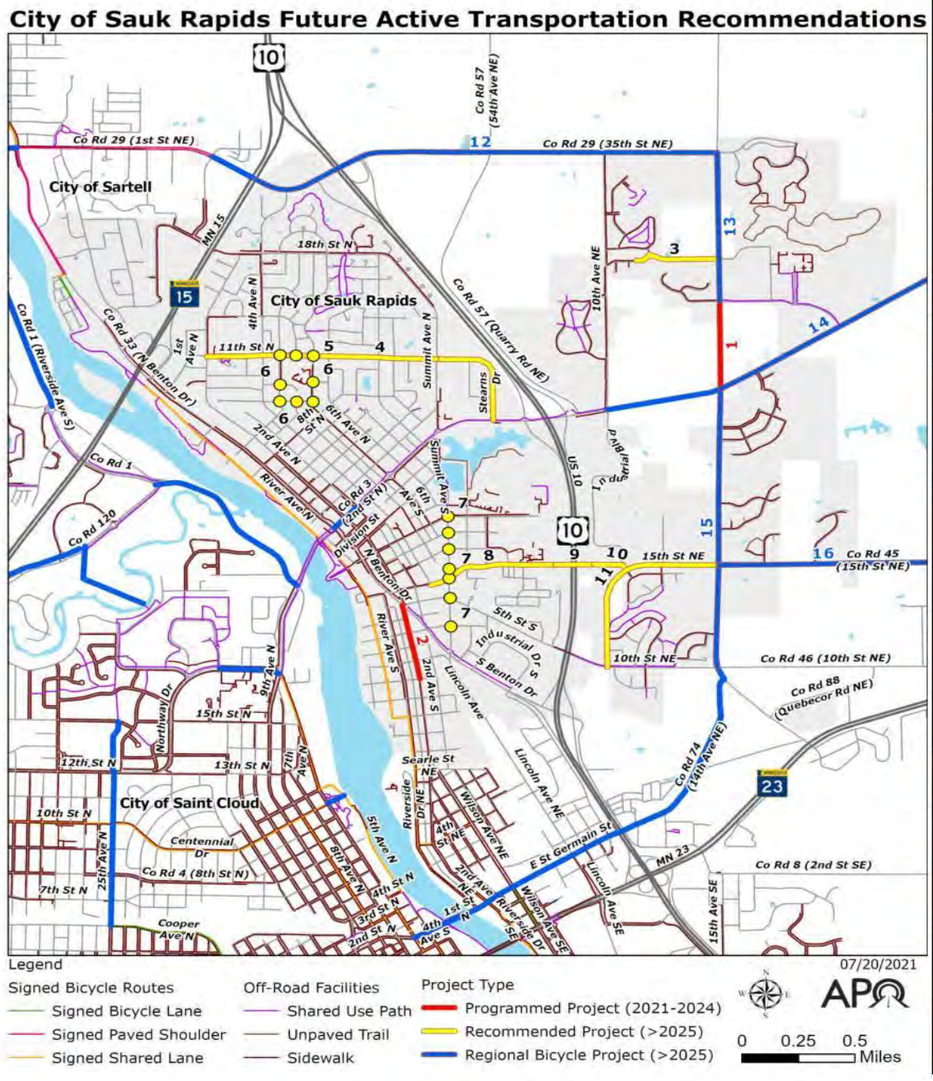
- Construct a new shared use path along south Mayhew Lake Road from CSAH 3 (Golden Spike Road) to 10th Street NE. Mayhew Lake Road currently has a rural cross-section - which is to say; there are open drainage ditches on both sides of the roadway. But this corridor is destined to become a significant arterial roadway in this fast-growing part of Sauk Rapids. There should be sufficient right-of-way to add a shared-use path on at least one side of the corridor. Doing so would add a vital connection between all subdivisions and neighborhood sidewalks and trails.
- Strong consideration should be given to connecting a new shared use path along Mayhew Lake Road to the recommended shared use path grade-separated crossing of US 10 (see the previous section) via 15th Street NE, thus connecting many east-side neighborhoods with the central part of Sauk Rapids and the downtown area. Continuing the path south to 10th Street NE would allow the facility to link into the network on the south end.
- Consider a shared use path connection east of Mayhew Lake Road along First Street NE to 20th Street NE.

Phase 3: Evaluating Needs for the Region

The final phase of the needs analysis was to identify improvements to the regional facility network within the City of Sauk Rapids. These projects would assist in achieving an interconnected active transportation network that satisfies regional needs.

Regional bicycle facilities will logically connect cities and other parts of the planning area outside Sauk Rapids and include potential links to areas outside the planning region. Projects that connect the area regionally will provide an approximate spacing of two miles between facilities. In structuring a regional system, the preference is to complete gaps with shared use paths over on-road facilities.

Recommended regional facilities to extend the existing network within Sauk Rapids include shared use paths along 35th Street NE (existing County Road 29), north along Mayhew Lake Road (County Road 1), and east along 15th Street NE (County Road 45).



Map Number and Description	
1	Construct regional shared use path along Mayhew Lake Road (Benton CSAH 1) from Osauka Road NE to Golden Spike Road (Benton CSAH 3).
2	Reconstruct of Second Avenue S from North Benton Drive to 10th Street South with the inclusion of sidewalks.
3	Build a shared use path along future roadway extension of 29th Street NE traveling east of the water tower.
4	Construct a sidewalk on at least one side of 11th Street N/Stearns Drive.
5	Paint in a 5 foot wide bicycle lane on each side of 11th Street N.
6	Install additional crosswalks, traffic control devices, and warning flashers near Pleasantview Elementary.
7	Paint marked crosswalks along Summit Avenue.
8	Add sidewalks or shared use paths along 4th Street S connecting to Mississippi Heights Elementary School.
9	Construct a grade separated active transportation bridge crossing of US 10.
10	Build a shared use path from proposed bridge over US 10 along 15th S NE/Industrial Boulevard.
11	Construct a shared use path along 15th Street NE.
12	Build a regional shared use path along 35th Street NE (Benton CSAH 29).
13	Extend the regional shared use path along Mayhew Lake Road (Benton CSAH 1).
14	Construct a regional shared use path along Golden Spike Road (Benton CSAH 3).
15	Build a regional shared use path along Mayhew Lake Road (Benton CSAH 1).
16	Construct a regional shared use path connection along 15th Street NE (Benton County Road 45) east.

FIGURE A.26 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE CITY OF SAUK RAPIDS.

APPENDIX B: SARTELL CITY PROFILE

Straddling two shores of the Mississippi River, the City of Sartell has grown from a small town that supported a lumber and paper industry to become a major growth center within the MPA. The City's many recreational areas and parks are a popular draw locally and from the nearby region. Sartell has a large and expanding network of locally owned and maintained active transportation facilities to serve those living and working in the city and the many visitors from outside the community.

DEMOGRAPHICS

The City of Sartell is currently the most rapidly growing municipality in the APO's MPA. According to the U.S. Census Bureau's 2014-2018 American Community Survey (ACS) Five-Year Estimates, the City of Sartell's population has grown 77.1% since 2000.

The City strives to provide equitable service to all segments of the community in its transportation planning investments. The APO tracks specific population demographic subsets known as traditionally underrepresented populations at a regional level. This includes the following:

- People-of-Color (Black/African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and other Pacific Islander alone; some other race; two or more races; Hispanic or Latino descent regardless of race).
- Persons with low income.
- People with disabilities.
- People with limited English-speaking capabilities.
- Households without access to a motor vehicle.
- Persons over the age of 65.
- Persons under the age of 18.

A look at these demographics in Sartell finds that close to 30% of the city's population is under age 18. Approximately one in 10 residents are people of color. One in 20 households are without a vehicle. See Figure B.2 below for other details.

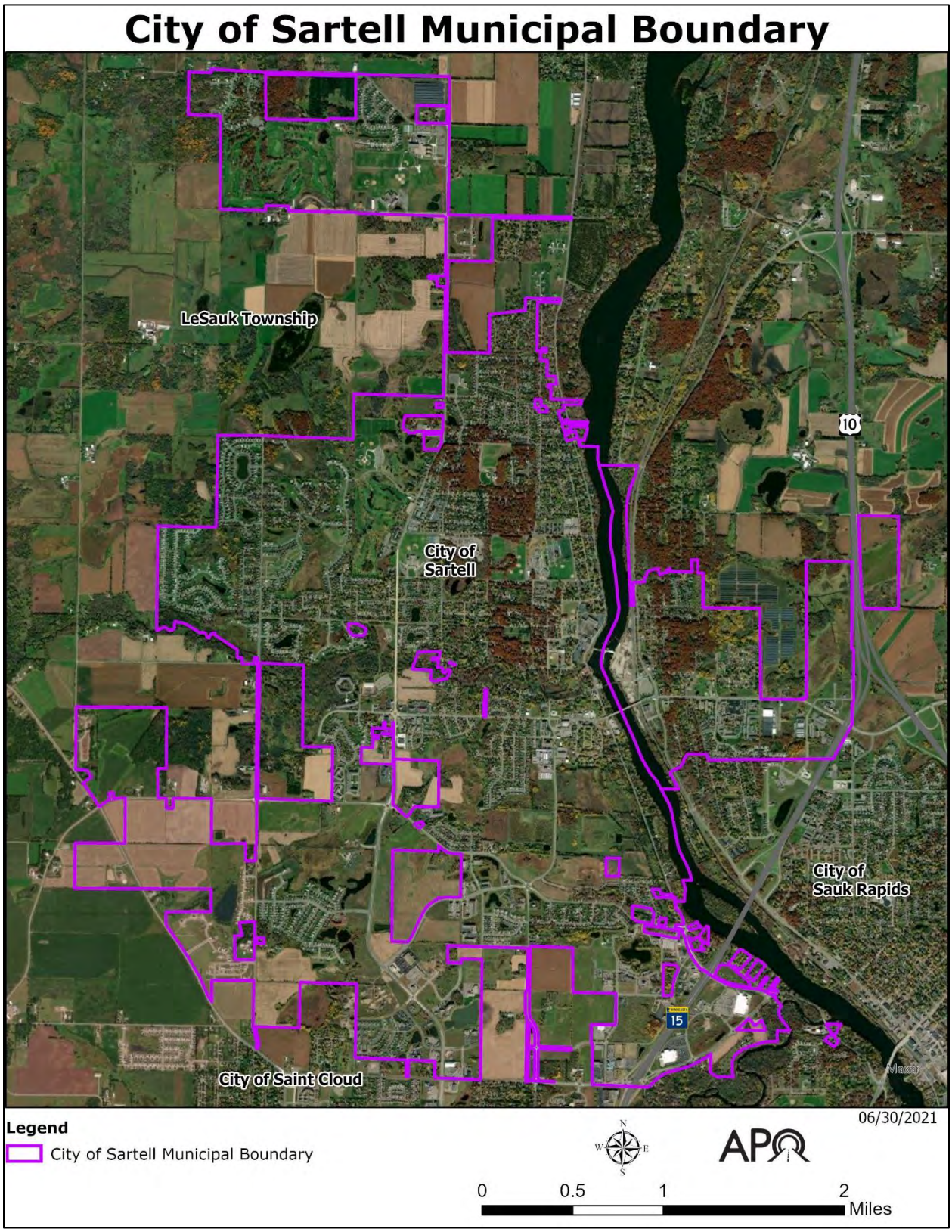


FIGURE B.1 – CITY OF SARTELL.

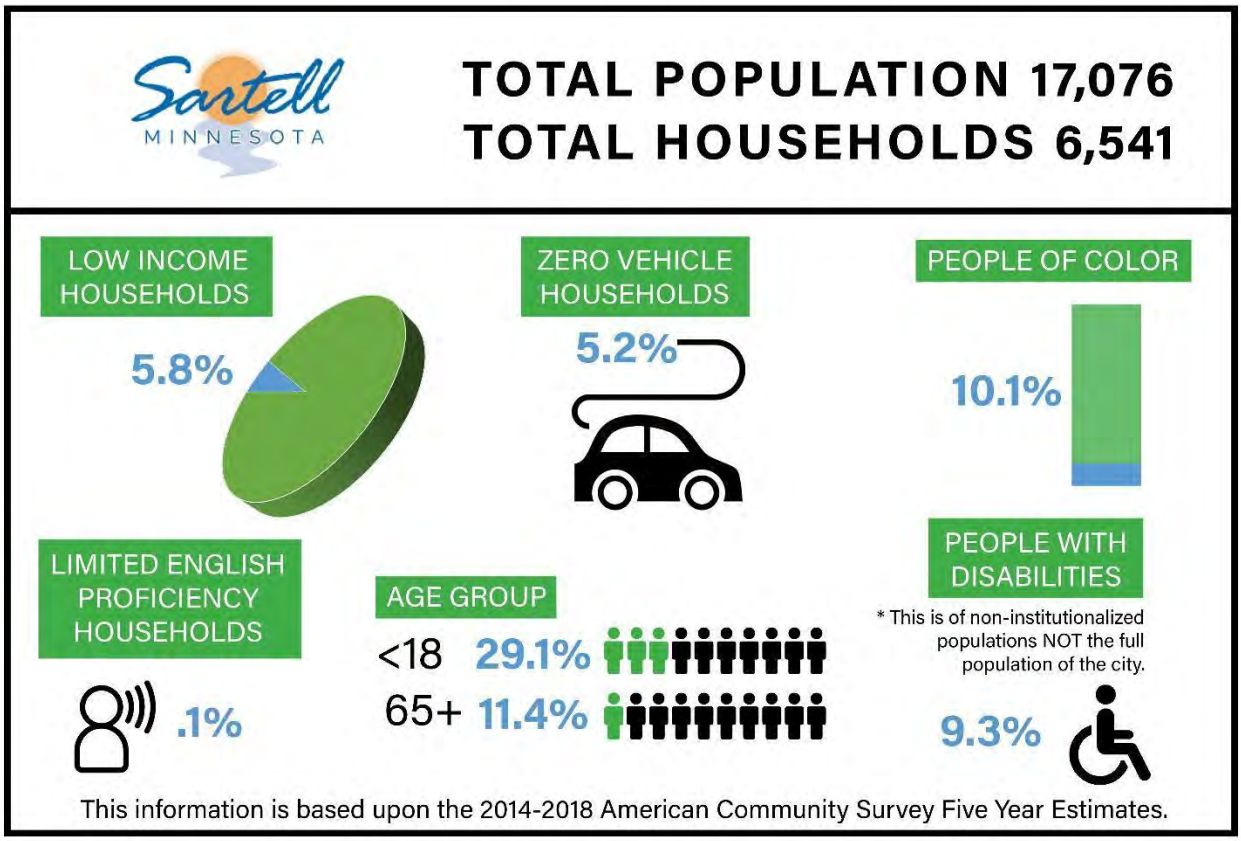


FIGURE B.2 – DEMOGRAPHIC PROFILE OF THE CITY OF SARTELL.

EXISTING LAND USES

How cities use the land within their boundaries (i.e., residential, commercial, industrial) impacts the transportation network and the modes of travel available or desirable to users. Land use can play a role in developing a transportation system that is mode-friendly to motorized and non-motorized users.

Due to its location relative to the rivers, major highways, and its unique development pattern over time, the City of Sartell lacks a centrally focused downtown area. Instead, several small commercial, office, and industrial centers serve the City's residents and visitors.

As described in the Comprehensive Plan, the city is working to respond to the needs and desires of a complex mix of urban and rural land uses. While many homes in Sartell are within easy access to services, other newly developing areas of the city are more distant and secluded. The current land use pattern within the city is shown in Figures B.3 and B.4.

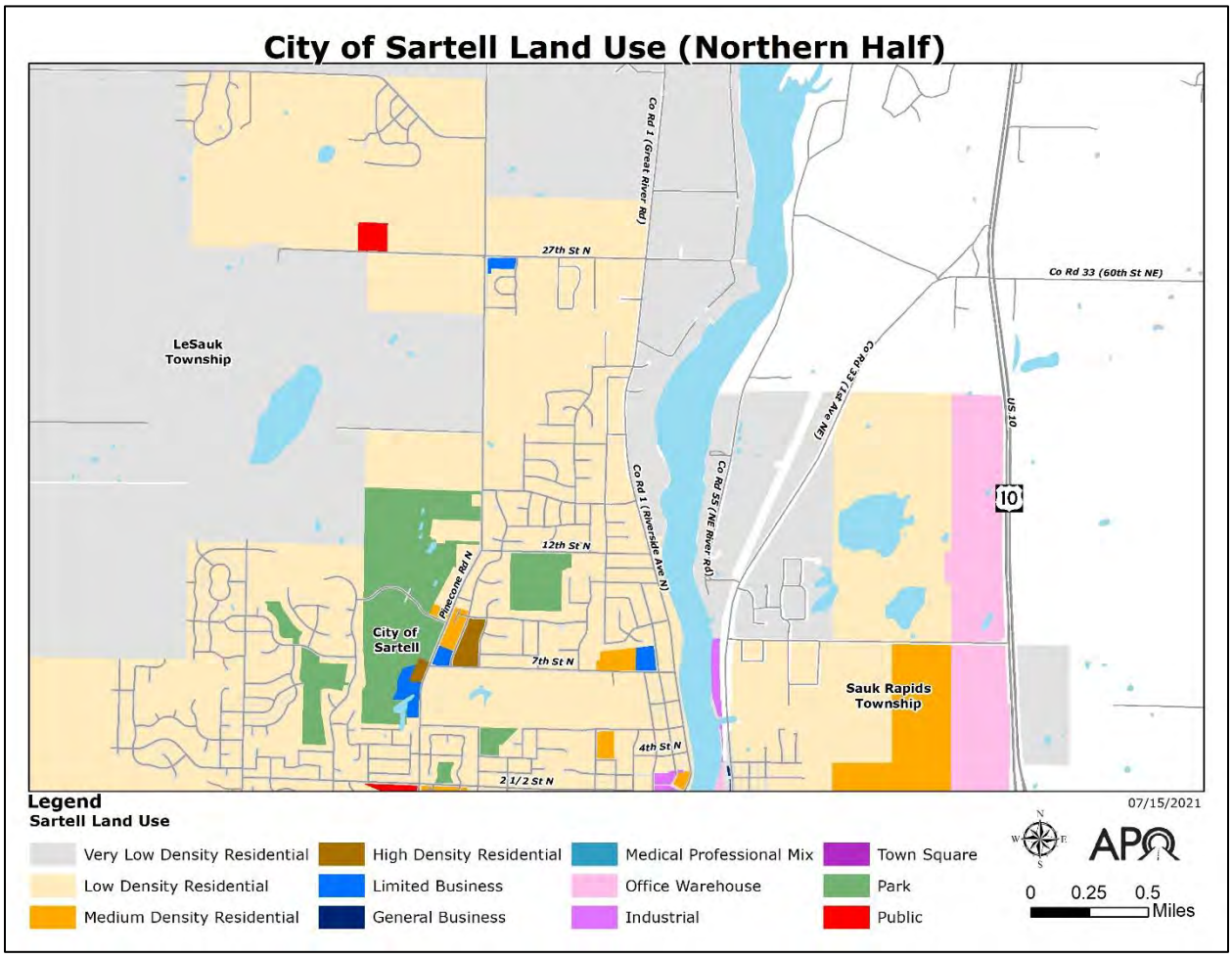


FIGURE B.3 – 2019 LAND USES IN NORTHERN SARTELL AS IDENTIFIED BY THE CITY.

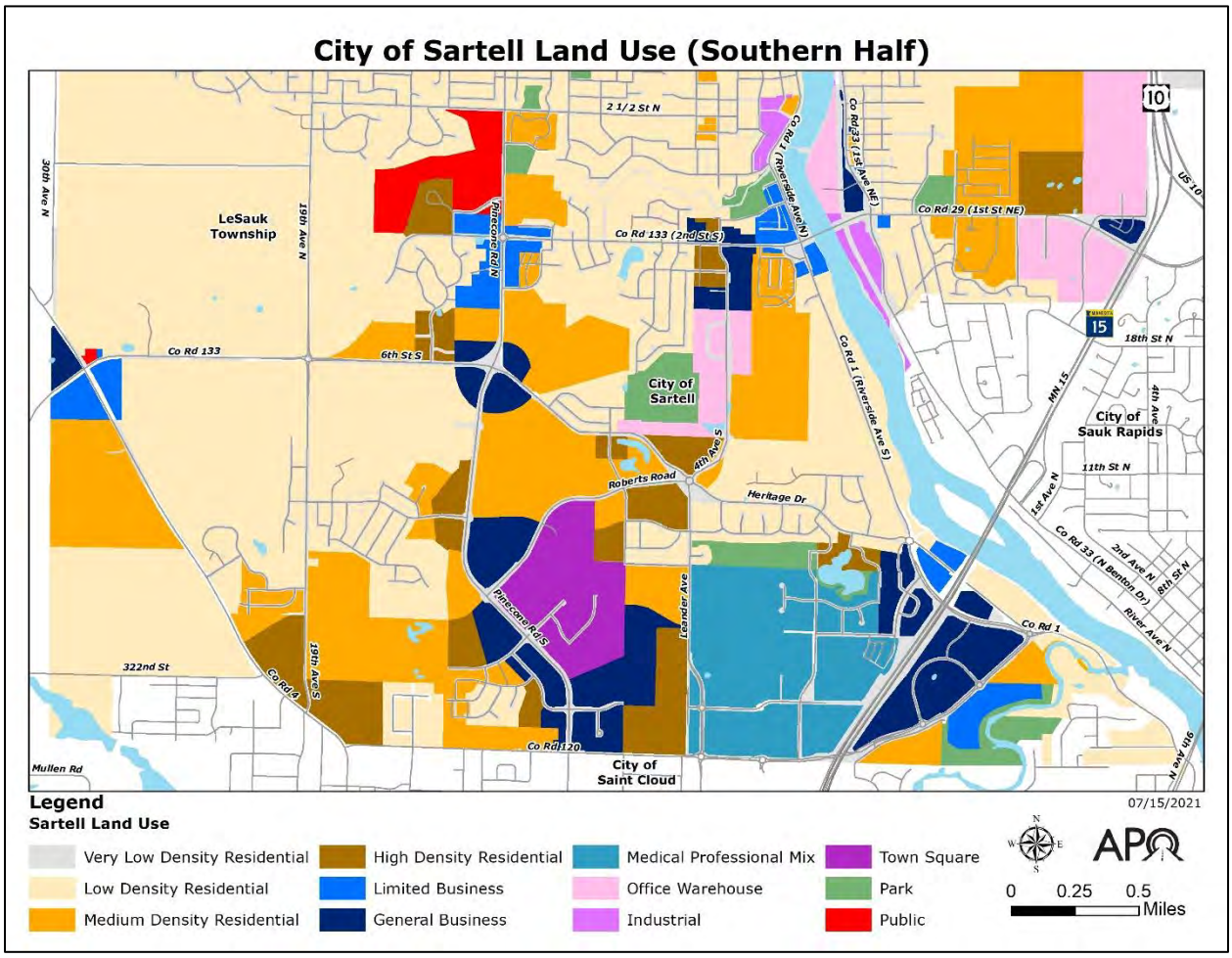


FIGURE B.4 – 2019 LAND USES IN SOUTHERN SARTELL AS IDENTIFIED BY THE CITY.

The many different areas of growth that have emerged throughout the City of Sartell have their distinctive land uses.

East Sartell generally refers to the part of the city east of the Mississippi River. Among various residential types and densities are assorted business and industrial uses. The city plans to further expand commercial development on the east side, particularly along US 10.

West of the Mississippi in the core area of Sartell is a mix of low and medium-density residential uses with pockets of retail and other commercial uses along Pinecone Road and Riverside Avenue. Between Fifth Street N and Seventh Street N is the campus area for three of Sartell's public schools. The DeZURIK manufacturing facility on Riverside Avenue is a long-established industrial site.

The MN 15 approach to the Sartell bridge has become a highly attractive commercial area with several large retailers for the city and region. West of MN 15 is a growing medical complex with various treatment centers.

Many acres of parkland, open space, and greenways are spread throughout the city. West of Pinecone Road is two of the city's large regional parks. West of Pinecone to County Road 4 and north to 35th Street N are patches of newly developing areas, primarily low-density residential use. The City's new high school is in north Sartell.

Understanding how the city plans to develop in the future will inform the type of transportation system needed. Residents and visitors will only reach these destinations through the transportation network that is available to them.

TYPES OF ACTIVE TRANSPORTATION INFRASTRUCTURE

Sartell has a variety of infrastructure designed specifically for active transportation users. Some are integrated into the roadway network, such as bike lanes (on-road facilities). Others are separated from the roadway network, such as sidewalks and shared use paths (off-road). Complementing the on- and off-road active transportation network is the transit network operated by Saint Cloud Metro Bus. Bicyclists and pedestrians can rely on both the on- and off-road network and the Metro Bus system to reach their destinations.

ON-ROAD FACILITIES

The City of Sartell has 6.7 lane miles of on-road bicycle facilities to serve bicyclists, including signed paved shoulders on portions of the Mississippi River Trail (MRT) and signed shared lanes along the Great River Road.

The Mississippi River Trail (MRT)

The MRT is a planned network of bicycle facilities that follows the river's east shore through the City of Sartell. The MRT follows the Northeast River Road and continues south to Sauk Rapids. This on-road facility is regionally significant to the city as a nationally recognized bicycle route.

In addition, the MRT has been identified as one of the Minnesota Department of Transportation (MnDOT's) high priority corridors for bicycle routes due to its inter-jurisdictional nature – spanning from northern Minnesota to Louisiana – and high potential of connecting to other regional active transportation facilities.

The Great River Road Scenic Byway

Riverside Avenue, sometimes referred to as the West River Road, is part of the Great River Road Scenic Byway, another route of regional significance. The Great River Road crosses to the east side of the Mississippi at the Sartell bridge, then continues south, joining the MRT into Sauk Rapids.

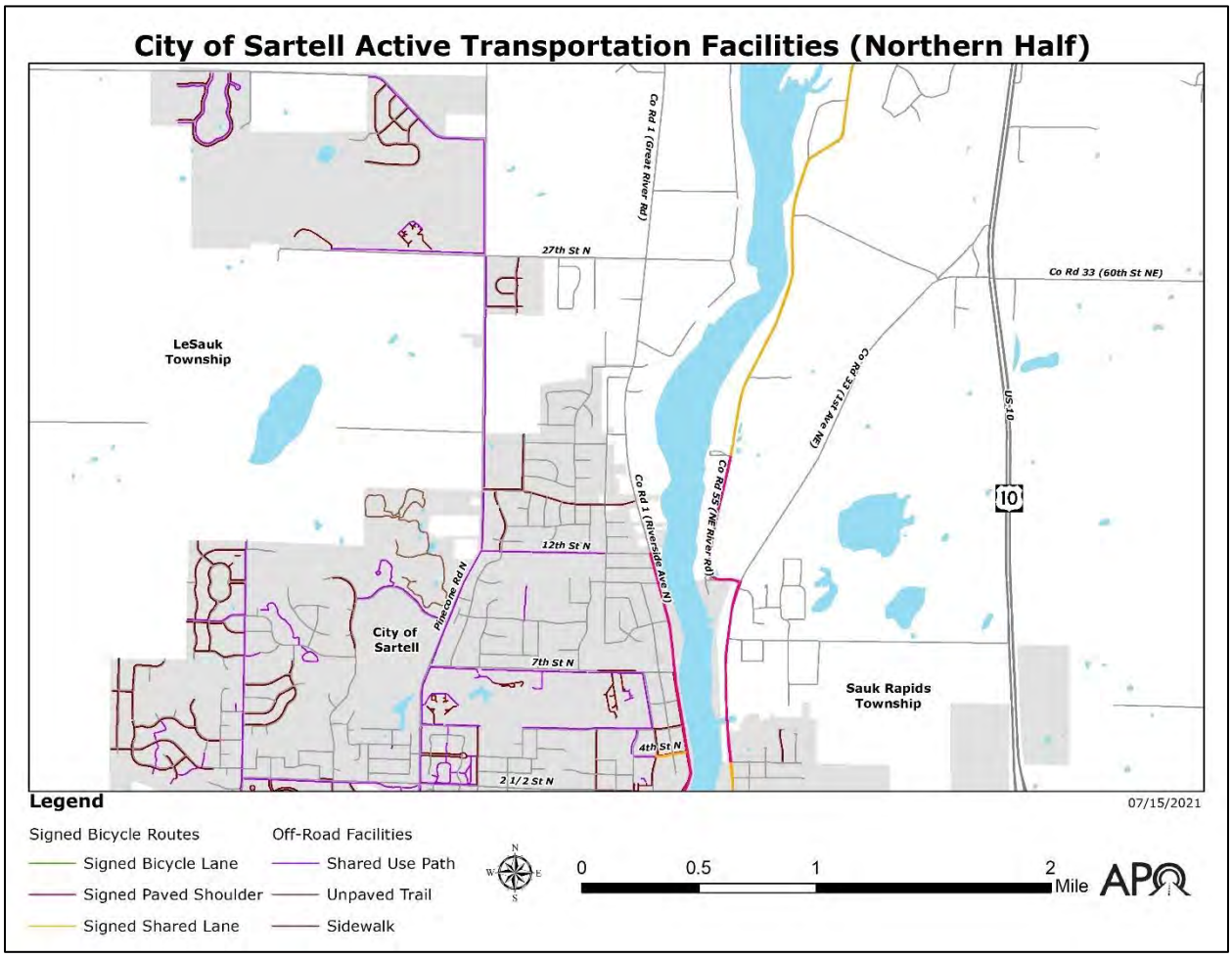


FIGURE B.5 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN NORTH SARTELL BY TYPE AND LOCATION.

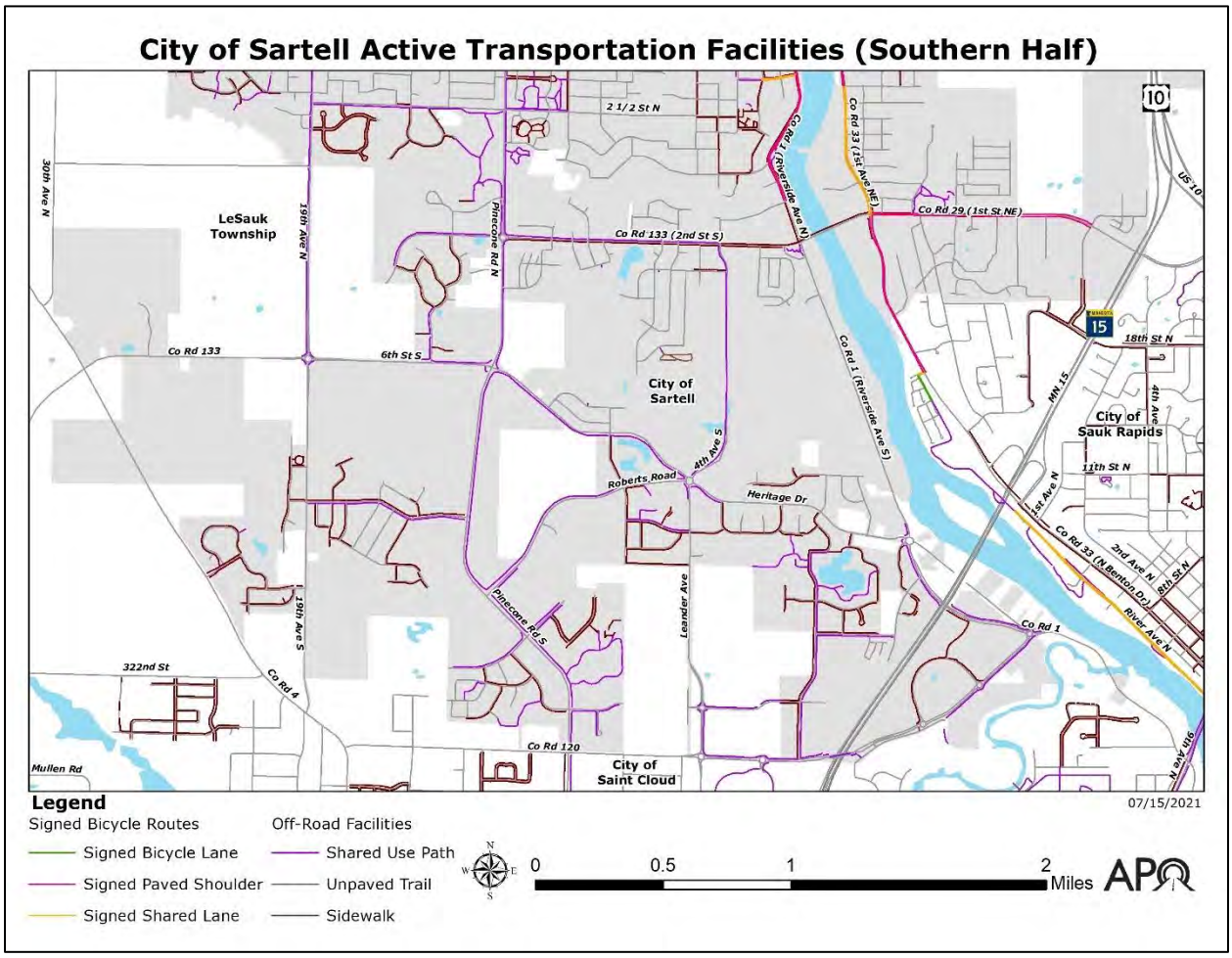


FIGURE B.6 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN SOUTHERN SARTELL BY TYPE AND LOCATION.

OFF-ROAD FACILITIES

Shared Use Paths and Trails

The 32.3 miles of shared use paths provide Sartell neighborhoods access to the city's parks, recreational areas, and schools. Within Pinecone Central Park are 1.8 miles of unpaved trails.

A continuous shared use path follows along Pinecone Road from the Oak Ridge Elementary School to the southern city boundary. Throughout Sartell other shared use paths generally follow many north-south and east-west collector routes.

Sidewalks

There are 32.5 miles of sidewalks in the City of Sartell. Sidewalks provide access to the City's schools and parks and are prevalent in the newer neighborhoods to the west and north.

Figures B.5 and B.6 show the location of all active transportation infrastructure within the City of Sartell.

TRANSIT SERVICE AND INFRASTRUCTURE

As the urban public transit provider, Saint Cloud Metro Bus is responsible for the daily management, operation, and maintenance of Fixed Route (FR) and Dial-a-Ride (DAR) systems within Saint Cloud, Waite Park, Sartell, and Sauk Rapids.

Figure B.7 shows each Metro Bus fixed routes within the City of Sartell and the ConneX service area.

FIXED ROUTE SERVICE

Metro Bus provides fixed route transit service to the City of Sartell seven days a week through routes 21, 22, and 31. Currently, fixed route service is available to the eastern and southern Sartell portions.

In east Sartell, residents can access Routes 21 and 22, the primary service route for Sauk Rapids. While these routes provide service to the same areas within east Sartell, they operate in opposite directions. Route 21 operates according to a weekday schedule, and Route 22 offers a seven-day service. Route 21 and Route 22 transit infrastructure includes signed bus stops some with shelters and benches.

Route 31 connects provides service from the downtown transit center in Saint Cloud to the medical hub on MN 15 in southeastern Sartell. Stops within Sartell include CentraCare Plaza and Walmart/Sam's Club.

Figure B.8 provides a closer look at locations of transit stops in relation to active transportation infrastructure. Transit stops along the fixed route system typically include sidewalk access.

OTHER TRANSIT SERVICE

While fixed route service is limited to certain areas, nearly all Sartell residents can access the Metro Bus ConneX service. ConneX provides curb-to-curb and door-to-door on demand service seven days a week throughout the City of Sartell.

Dial-a-Ride, an operator-assisted paratransit service provided for those who cannot use fixed routes, is available to those who qualify.

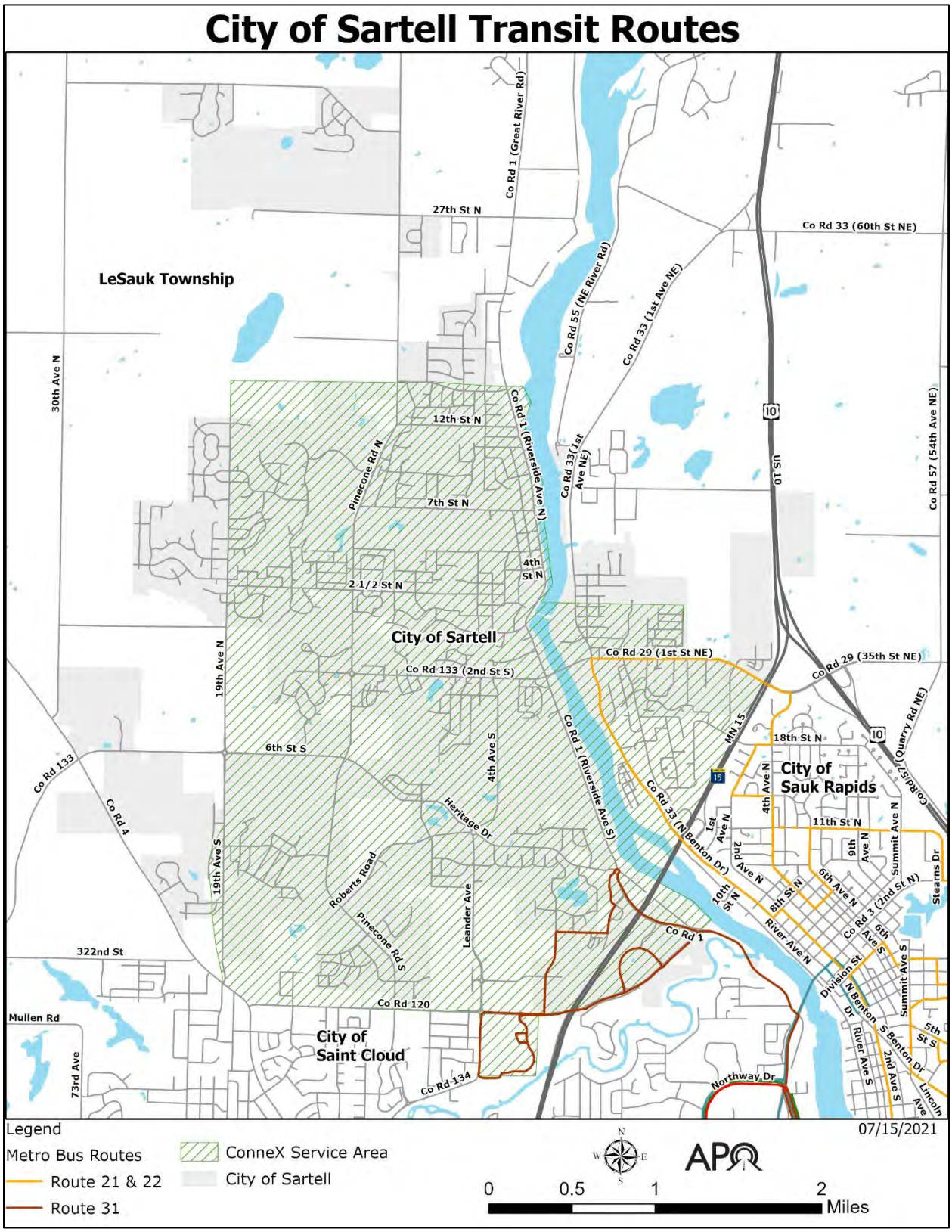


FIGURE B.7 – METRO BUS FIXED ROUTE AND CONNEX SERVICE TO THE CITY OF SARTELL.

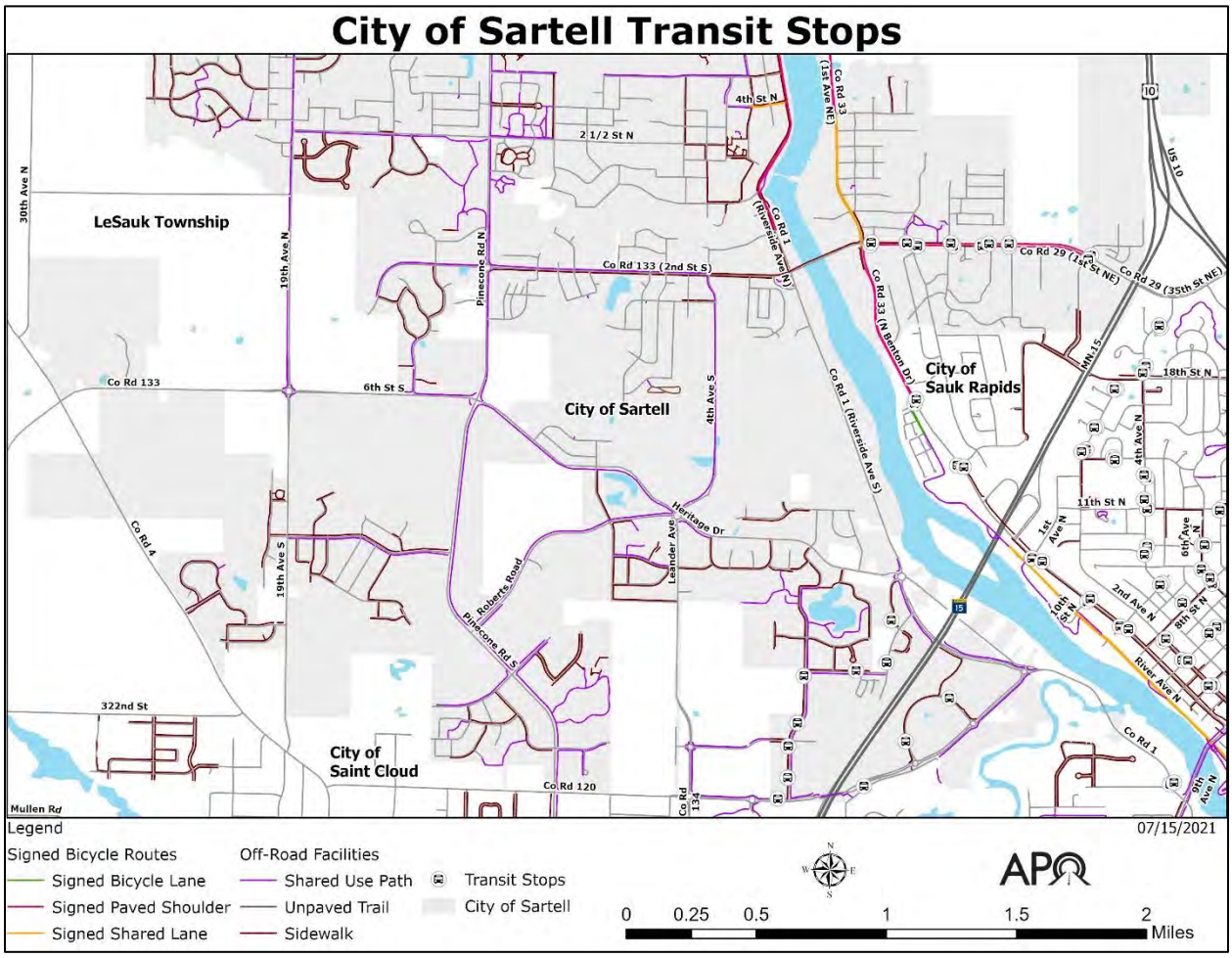


FIGURE B.8 – TRANSIT STOPS WITHIN THE CITY OF SARTELL RELATIVE TO THE ACTIVE TRANSPORTATION SYSTEM.

CONDITION OF ACTIVE TRANSPORTATION INFRASTRUCTURE

If the existing active transportation infrastructure is in poor condition, it may cause safety issues, inconvenience for the user, or result in the underutilization of the facility. Keeping the system in good condition assures safety and a comfortable experience.

Pavement conditions data for on-road and off-road active transportation facilities within the City of Sartell was collected from areawide surveys performed for the APO as discussed in Chapter 2 of the ATP.

ON-ROAD FACILITIES

Pavement Condition and Striping

In 2019 GoodPointe Technology collected pavement and striping condition data on the existing on-road bicycle routes in Sartell. This includes the bicycle lanes on First Avenue NE and the marked paved shoulders on Riverside Avenue and First Street NE.

Pavement condition was evaluated using a Digital Inspection Vehicle (DIV) − a specialized vehicle equipped with cameras and laser sensors to detect pavement distress and roughness. All lane miles within Sartell were rated as being in very good or good condition as shown in Figure B.9.

Striping conditions of on-road facilities were rated from a visual inspection. In the City of Sartell, 5.4 lane miles are striped. With an exception of a small section of First Avenue NE and First Street NE, the majority of on-road striping was rated in fair to poor condition as shown in Figure B.10.

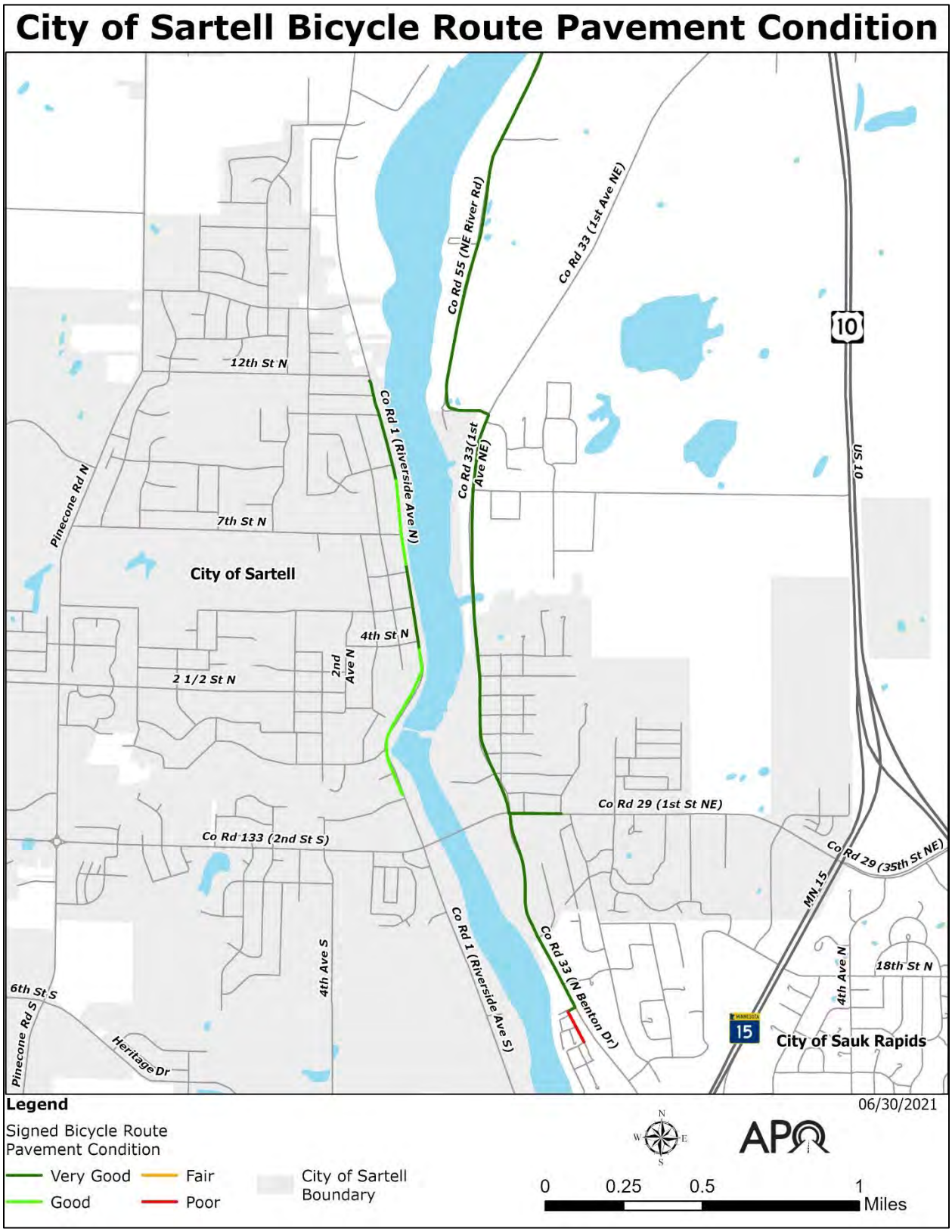
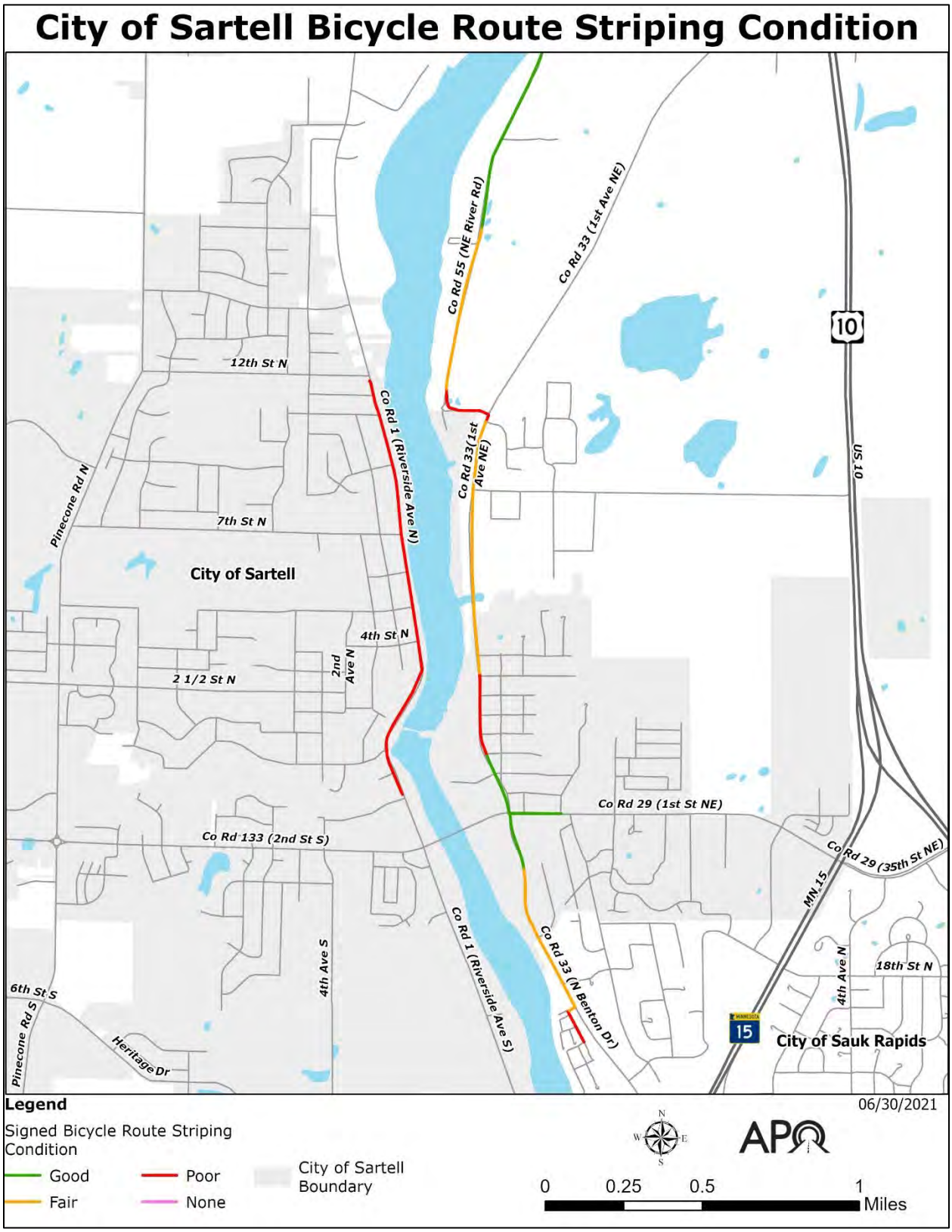


FIGURE B.9 – CONDITION OF PAVEMENTS SIGNED AS BICYCLE ROUTES IN NORTH SARTELL.



FIGURES B.10 – STRIPING CONDITION OF ON-ROAD BICYCLE FACILITIES IN NORTH SARTELL.

OFF-ROAD FACILITIES

Shared Use Path Pavement Condition

The Parks & Trails Council of Minnesota conducted a pavement condition assessment of most shared use paths within the APO in 2020. The Council used a specially equipped electronic bicycle with instruments aboard to record the "bumpiness" of the pavement throughout the metropolitan planning area.

Pavement conditions along shared-use paths in the City of Sartell are shown in Figures B.11 and B.12. While conditions are generally better in Sartell than across the rest of the MPA, about 16% of the city's paths were rated as "rough/very rough" and about 21% "fair." More than half of the shared use paths in Sartell received a rating of "smooth" or "very smooth."

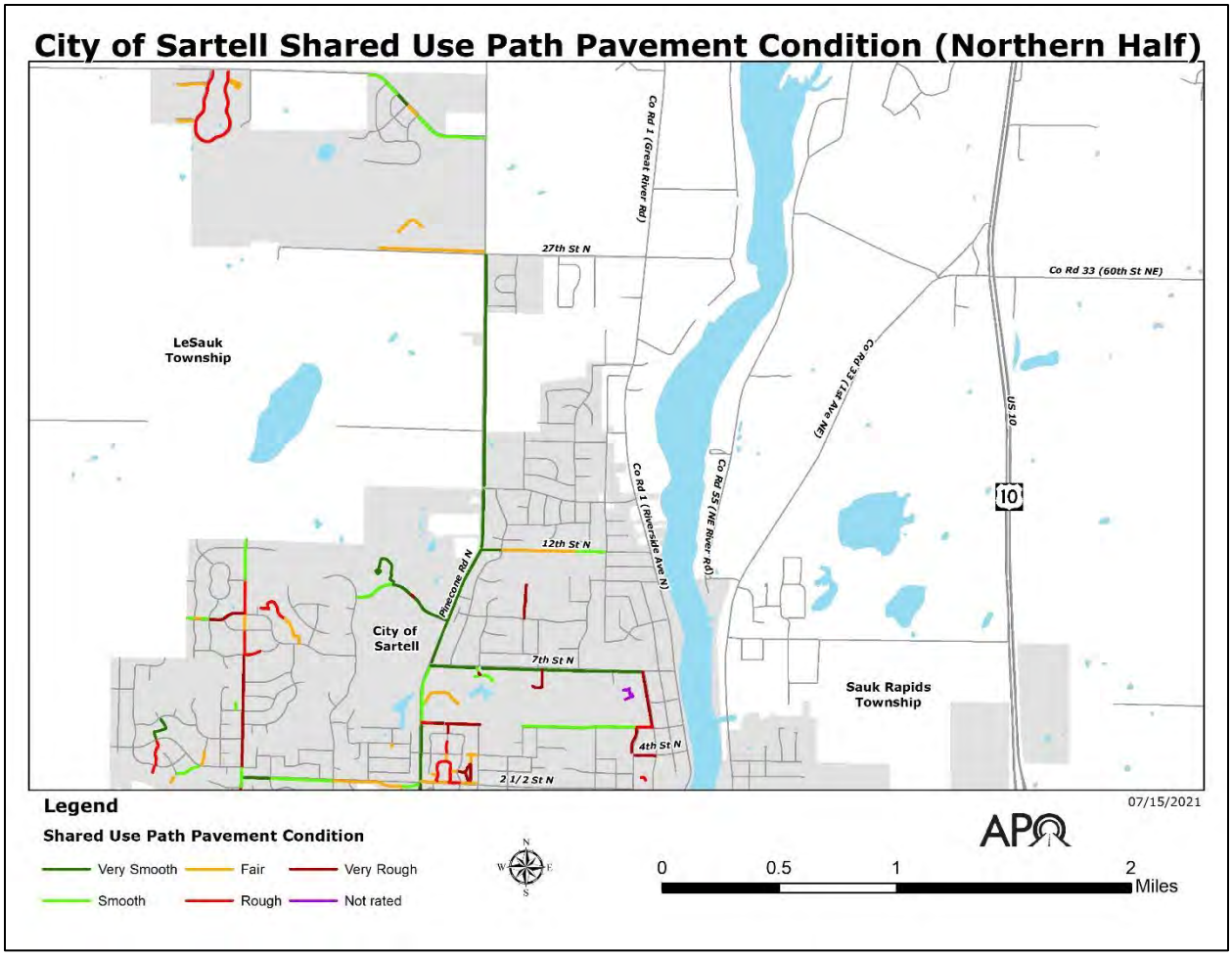


FIGURE B.11 – CONDITION OF PAVEMENTS ON SHARED USE PATHS IN NORTH SARTELL.

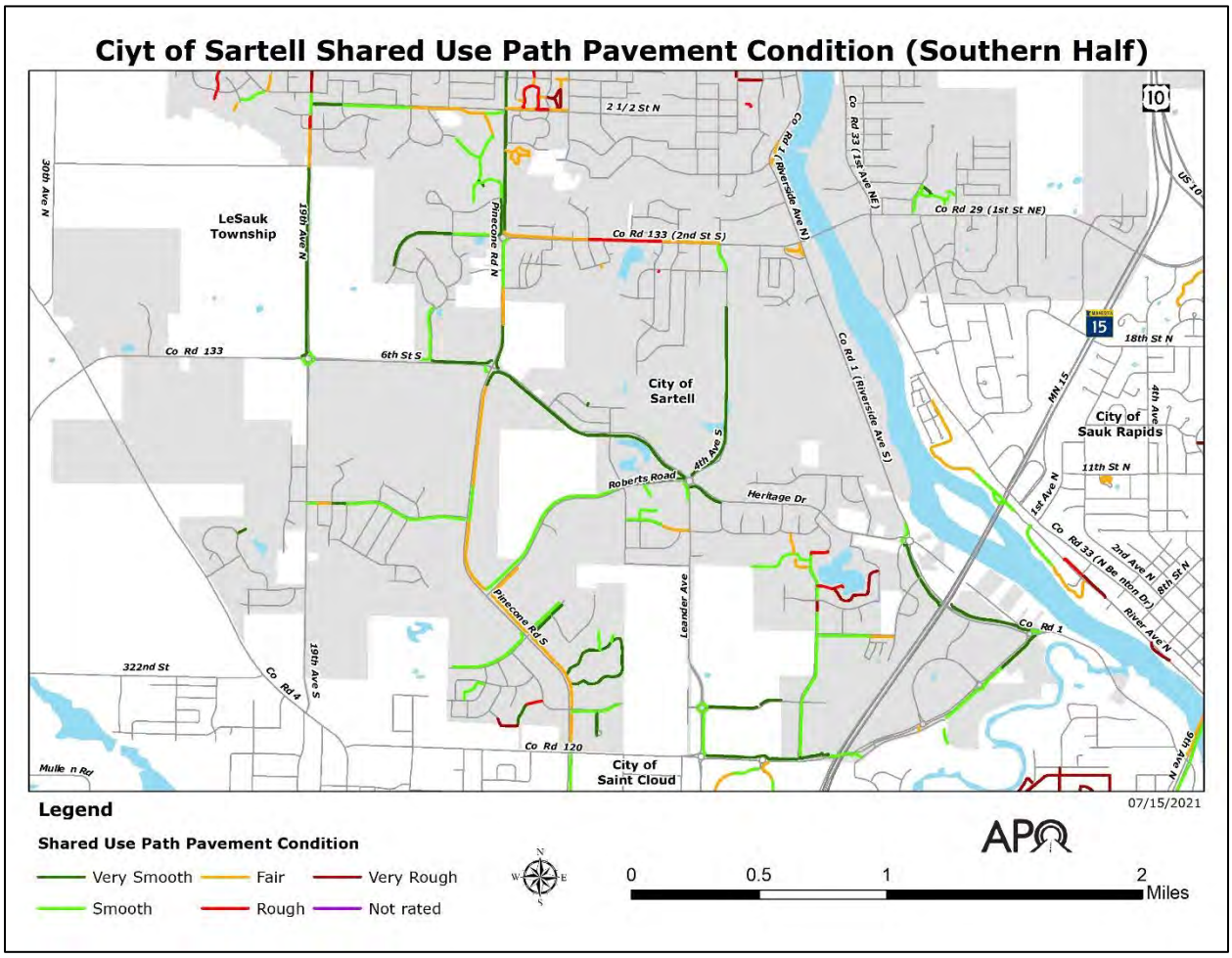


FIGURE B.12 – CONDITION OF PAVEMENTS ON SHARED USE PATHS IN SOUTHERN SARTELL.

SARTELL PLANS FOR ACTIVE TRANSPORTATION

2016 COMPREHENSIVE PLAN

The City of Sartell provides policy and decision-making guidance in the 2016 Comprehensive Plan (https://bit.ly/3jcD2UJ). The plan identifies goals and strategies that support an active and healthy community with services that enhance the quality of life for residents and families.

Active Transportation Needs as Identified in Comprehensive Plan

The transportation component of the comprehensive plan note the growing traffic volume on the city's roadways. As such, intersection crossing safety is among the most commonly cited concerns from residents. The City plans to improve traffic management and safety for all users in response. As stated in the plan, while there is a need for moving traffic through Sartell and lessen congestion, the city's efforts are focused on encouraging travel modes that will lessen the need for cars to get people to their destinations. The city plan promotes traffic calming -- road designs that reduce speed and volumes to enhance safety for

pedestrians and bicyclists – as a way to increase safety. In addition, the plan outlines the need to encourage narrow lane widths and the installation of roundabouts.

The 2016 comprehensive plan also outlines goals for the city's parks and open spaces. In terms of active transportation, the City is planning to expand its network of trails (shared use paths) and sidewalks – focusing on completing connections to neighborhoods and schools. Strategies to achieve this goal include a periodic review with plans and projects that add to and maintain the city's active transportation network that will encourage safe, unrestricted use of trails.

2018 COMPLETE STREETS

The City of Sartell adopted a Complete Streets Policy (https://bit.ly/3aGNJfo) in 2018. In implementing this policy, the City seeks to achieve equity for its transportation system, balancing the needs of all ages and abilities.

With this policy in place, the City is committed to considering the access needs for all users while planning and improving roadways networks. This entails incorporating road design elements to assist in closing existing gaps and addressing active transportation network deficiencies consistent with land use.

As the city develops projects, planning efforts will be made to anticipate and respond to future demands for walking, bicycling, and transit usage. All this in an effort to ensure safe travel for all users of the system.

2017 BICYCLE FRIENDLY COMMUNITY

Because of its efforts to promote active transportation, the City of Sartell was awarded a Bronze tier Bicycle Friendly Community from the League of American Bicyclists in 2017.

CITY ORDINANCES

Along with various citywide planning efforts, the Sartell City Code (https://bit.ly/3rIAzES) has established many ordinances pertaining to the active transportation system and its users.

City Code Section 11 outlines provisions for active transportation within new developments in the city. Sidewalks, trails, and pathways shall be in proximity to parks, schools, shopping centers, and other service areas of a similar nature. They must conform to city design standards and be compliant with the Americans with Disabilities Act (ADA). Trails and walkways are to continue from those existing surrounding areas. Every new subdivision must have a sidewalk or trail on at least one side of every public or private street. (City Code, 11-5-4). Sidewalks shall be built to a width of 6-feet or greater (City Code 11-6-9).

In Sartell, snow and ice must be removed from public sidewalks by the owner or occupant of the premises within 12 hours of a snow or weather event. Failure to do so is considered a nuisance (City Code 4-6-3). The city will recover its costs to eliminate the nuisance. (City Code 4-8-7).

The City's ordinances affirm Minnesota statutes in recognizing that bicyclists have the same rights and duties as a driver of a vehicle (City Code 6-3-1). Cyclists must respect pedestrian usage. Within a business district, bicyclists cannot ride on the sidewalk. Cyclists in Sartell

shall yield the right-of-way to pedestrians. (City Code, 6-3-3). If you are walking, legally, you must cross roadways only at intersections (City Code 6-1-12).

Sartell's city code is unique in defining and regulating self-propelled wheeled devices (SPWDs). SPWDs include inline skates, skateboards, roller-skates, roller skis, wagons, and strollers. Operators of these devices have the same rights and duties as a driver of a vehicle. (City Code, 6-5-2) As such, they may use city streets, though not more than two abreast, and they must always yield to pedestrians. (City Code 6-5-4).

SYSTEM USAGE

Understanding bicycling and walking behavior on the active transportation network within the City of Sartell can help in a couple of ways. The purpose of collecting system usage data is to measure the change in usage over time, prioritize the investment of new and existing infrastructure, and assist in planning and designing future facilities. It is essential to know how well current facilities address users' needs.

BICYCLE AND PEDESTRIAN COUNTS

APO staff regularly place a MnDOT-owned portable bicycle and pedestrian counter along shared use path locations throughout the MPA, including three spots within the City of Sartell.

The MnDOT counter uses two different types of counters simultaneously. The Pneumatic TUBE counter uses two sets of tubes placed perpendicular to traffic. When a cyclist passes over the tubes, this counter can record that cyclist and determine which direction that person was heading. Meanwhile, the PYRO-Box utilizes infrared technology to measure people's body heat who pass in front of its sensor. This counter, much like the TUBE counter, can identify travel directions. While the PYRO-Box can detect bicyclists and pedestrians, it cannot definitively distinguish between the two. When used in conjunction with the TUBE counter, APO staff can calculate pedestrian traffic from the PYRO-Box by subtracting the bicyclists from the total count.

With these portable counters, APO staff monitors daily usage of shared use paths for seven-day intervals at specified locations. However, the portable counters are owned by MnDOT. As a result, various agencies and jurisdictions can (and have) utilized the counters throughout the year, impacting the consistency in obtaining data. As a result, two of the three Sartell locations were counted in 2020.

As stated earlier, the City of Sartell has three counting locations throughout the city:

1. The shared use path along Heritage Drive west of Seventh Avenue S.

2. Pinecone Road Trail #1, across from Sartell City Hall.

3. Pinecone Road Trail #2, near 24th Street N.

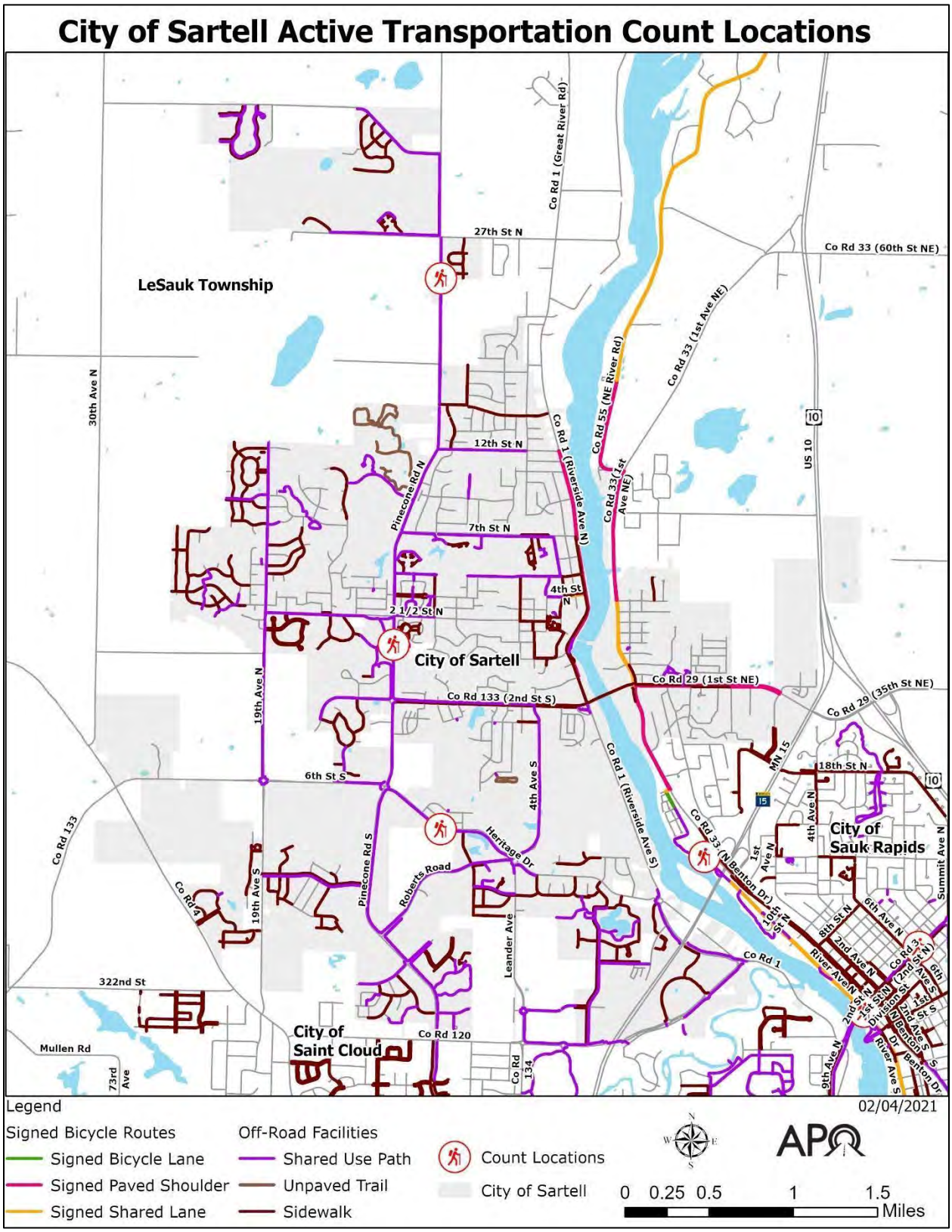


FIGURE B.13 – LOCATIONS OF AUTOMATIC COUNTERS OF BICYCLE AND PEDESTRIAN USAGE IN SARTELL.

All three of these locations are ideally counted each summer.

Location	Dates Counted (2019)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Heritage Drive	08/19 – 08/25	2	73	1	53
Pinecone Road Trail #1	08/12 – 08/18	10	227	14	209
Pinecone Road Trail #2	08/05 – 08/11	11	104	6	99

FIGURE B.14 – 2019 BICYCLE AND PEDESTRIAN COUNTS FROM THE THREE SARTELL LOCATIONS.

Location	Dates Counted (2020)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Heritage Drive	06/16 – 06/22	2	11	3	122
Pinecone Road Trail #2	05/26 – 06/01	16	259	22	271

FIGURE B.15 – 2020 BICYCLE AND PEDESTRIAN COUNTS FROM TWO OF THE THREE SARTELL LOCATIONS.

The APO's counts indicate that shared use paths receive significant usage, particularly from pedestrians. In particular, facilities along Pinecone Road seem to experience relatively high usage among pedestrians.

DESTINATIONS

Common destinations for active transportation users include schools, food assets, employers, and parks. For this plan, APO staff are primarily looking at public schools. Food assets are grocery stores/supermarkets, specialty food stores, meat markets, convenience stores, and non-profit community food services. Employers listed have 100 or more full- and/or part-time employees.

Figures B.16 and B.17 show these destination locations within the City of Sartell.

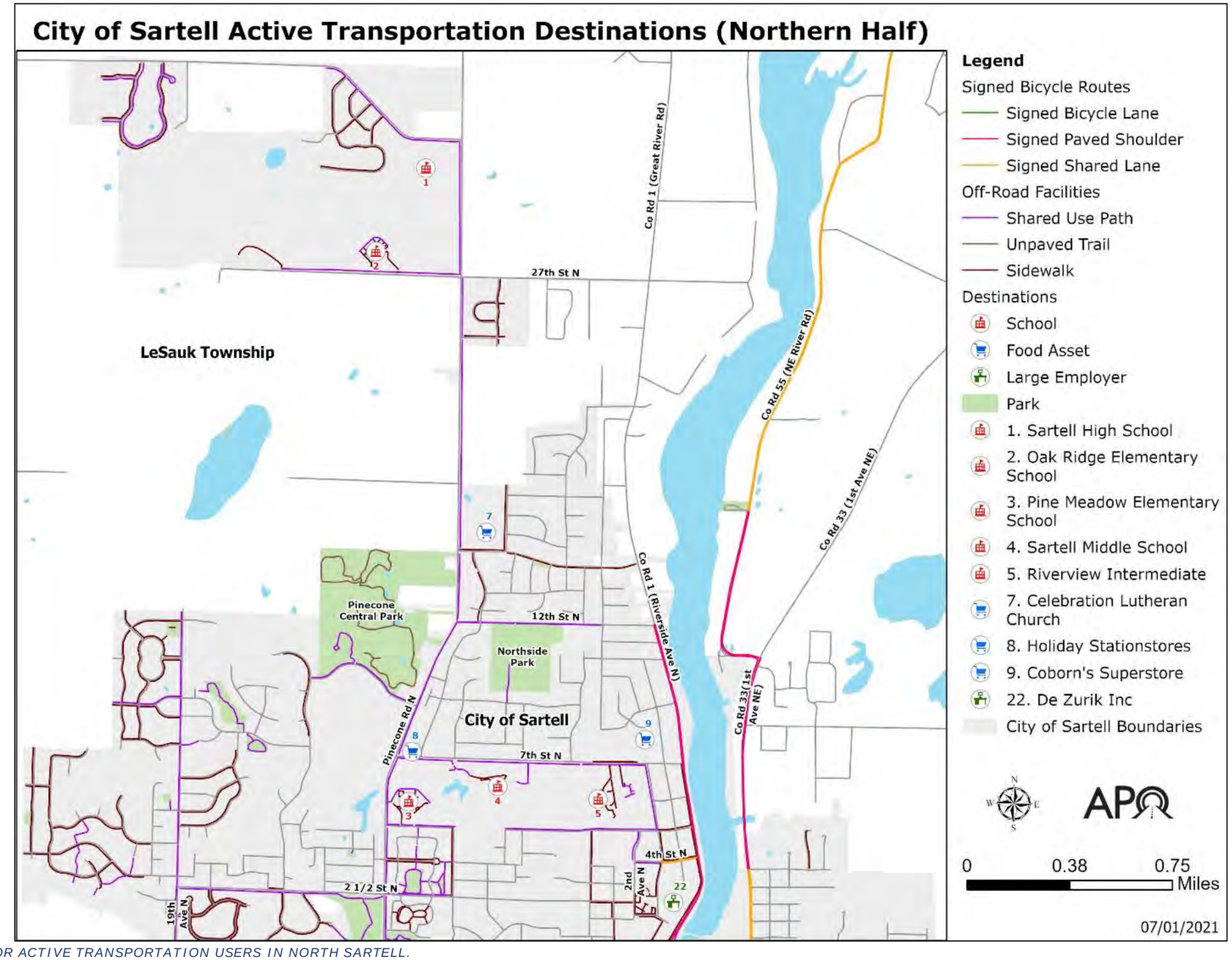


FIGURE B.16 – DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN NORTH SARTELL.

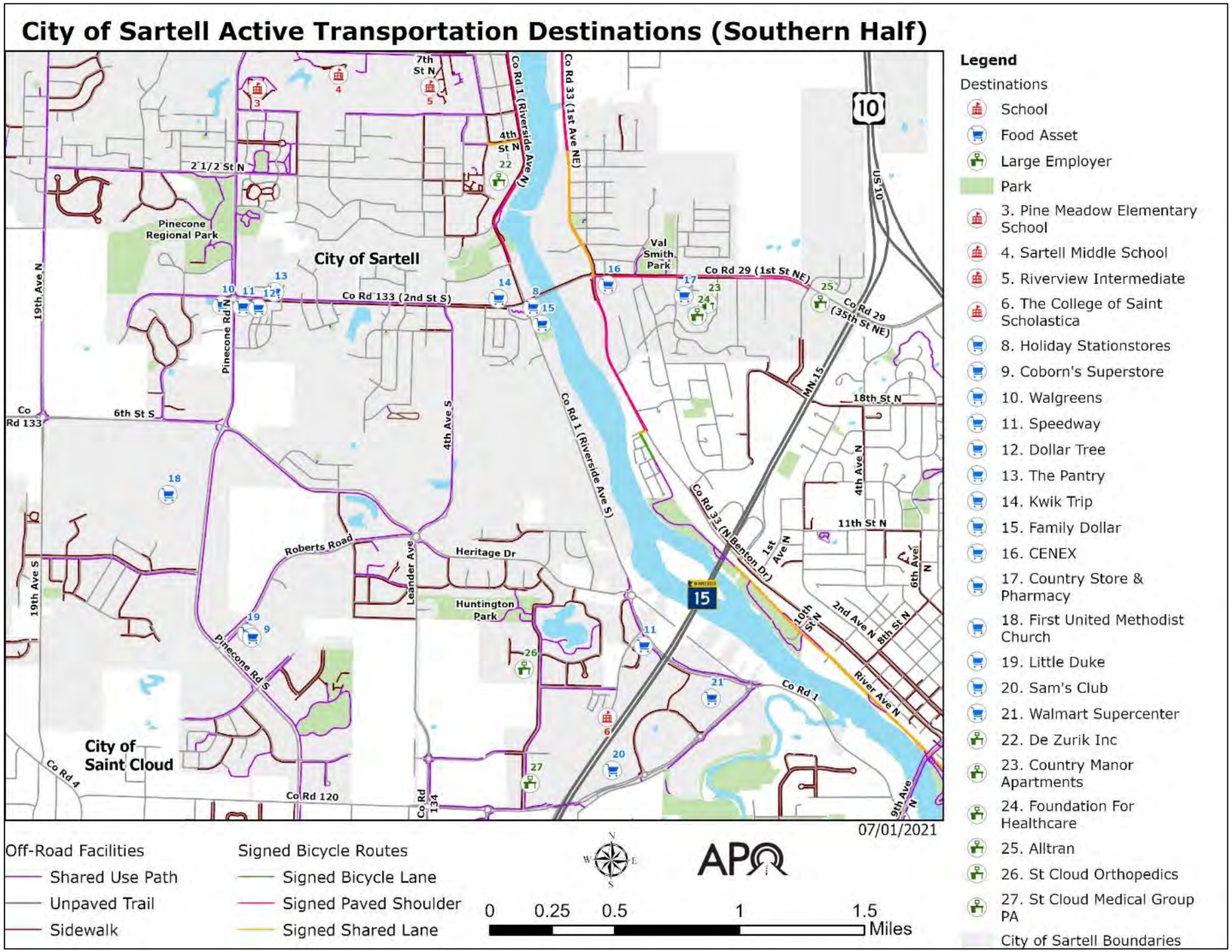


FIGURE B.17 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN SOUTHERN SARTELL.

Schools

While residents of Sartell have access to three different school districts, most of the students are enrolled in the five public schools operated within the city by the Sartell-St. Stephen School District (ISD #748).

These schools are also among the City's largest employers. And while a mix of sidewalks and shared use paths has expanded over time to improve access and safety for students who bike or walk, gaps remain in some areas.

ISD #748 encompasses most of the city though it should be noted that east Sartell is part of the Sauk Rapids-Rice School District (ISD #47), and portions of southwest Sartell are included in the Saint Cloud School District (ISD #742). Other schools within Sartell are St. Francis Xavier Catholic School on Second Street North and the College of St. Scholastica north of MN 15.

Name	Address	Grades Served	Approximate Number of Students Served
Oak Ridge Early Learning Center	1111 – 27th St North	Early Childhood	750
Pine Meadow Primary School	1029 5th St North	1-2	675
Riverview Intermediate School	627 Third Ave N	3-5	700
Sartell Middle School	748 7th St North	6-8	775
Sartell High School	3101 Pinecone Rd North	9-12	1200

FIGURE B.18 – THE FIVE PUBLIC SCHOOLS LOCATED WITHIN THE CITY OF SARTELL.

Food Assets

Figures B.16 and B.17 shows grocery stores and other food destinations are primarily found in the city's commercial hubs.

Walmart and Sam's Club, large shopping centers located in south Sartell between MN 15 and County Road 120, are also among the City's primary employment centers. Fast food and other food destinations are also in this area. Food assets in east Sartell include a variety of convenience stores. Along Pinecone Road is a commercial town square with a Coborn's superstore. Along Pinecone Road, another area with several food destinations is around the intersections with Second Street North. Two churches that serve as food distribution centers are also shown.

Large Employers

Many commute to their workplace using modes other than a vehicle. Some are dependent upon facilities that will enable them to walk, bike, or use public transit to get to their jobs.

The DeZURIK manufacturing site centrally located along the Mississippi River is the City's largest employer. The DeZURIK facility, which makes valves for municipal and industrial applications, began in 1925.

Largest employers are found among the growing complex of medical treatment facilities in south Sartell along Connecticut Avenue, including St. Cloud Orthopedics and Central Minnesota Health Partners. These health service centers are close to Metro Bus service routes.

Major employers in east Sartell are the Country Manor Apartments and the Foundation for Health Care.

These and other large employers within the City's commercial and industrial hubs are shown in Figures B.16 and B.17.

Parks

The City of Sartell has 28 public parks and public green spaces along the Mississippi and Watab Rivers. The city defines three regional or special use parks – Pinecone Central Park, Pinecone Regional Park, and the Sauk River Regional Park.

As part of the City's 2016 comprehensive plan, Sartell seeks to ensure that city residents are within a short walking distance of parks and recreational opportunities. Parks in Sartell are generally served with nearby sidewalks or shared use paths. Residential areas nearest the parks are more likely to have pathways to get to them. It should be noted that many of the city's smaller neighborhood parks have limited or no sidewalk access.

CRASH HISTORY

According to the Minnesota Department of Public Safety (DPS), fatalities, serious injuries, and minor injuries involving bicyclists and pedestrians are rising within the Saint Cloud MPA. Within the City of Sartell, DPS crash data shows 25 crashes involving active transportation users and vehicles have occurred between 2010 and 2019. See Figure B.19 and B.20 for locations and severity.

While most of these crashes resulted in minor injuries, it is essential to note that during this time frame, one pedestrian was killed, and two resulted in serious injuries. A pedestrian death resulted from a crash on Second Street S near Horizon Avenue in 2019. Dark and rainy conditions may have been contributing factors.

A serious injury crash during this 10-year reporting period occurred in 2012 when a pedestrian was struck on First Street NE.

Crash history is reviewed to determine locations where crashes appear to be more likely to occur and whether there may be an engineering solution or partial solution to help mitigate the crashes. It is unclear from the DPS crash reports whether physical conditions at the crash locations were a contributing factor or if physical changes to the facilities may help mitigate future crashes. DPS crash reports do not indicate a common theme or roadway

infrastructure/design flaw as a contributing factor. Some reports cited careless behavior or inattention to traffic laws on the part of the bicyclist or pedestrian. The crashes may also be due to the high number of vehicles and active transportation users in this area, increasing the likelihood of possible conflicts.

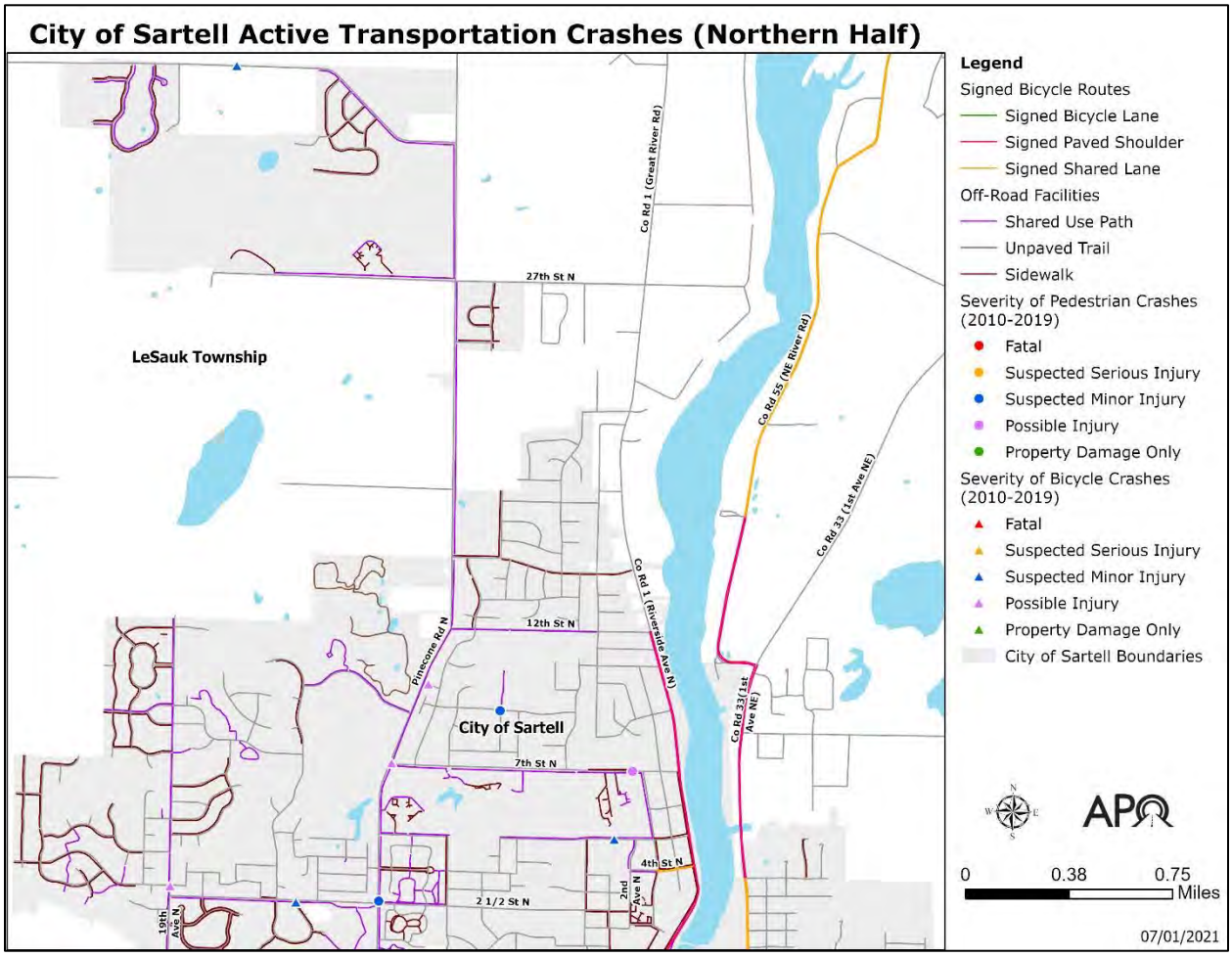


FIGURE B.19 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN NORTH SARTELL.

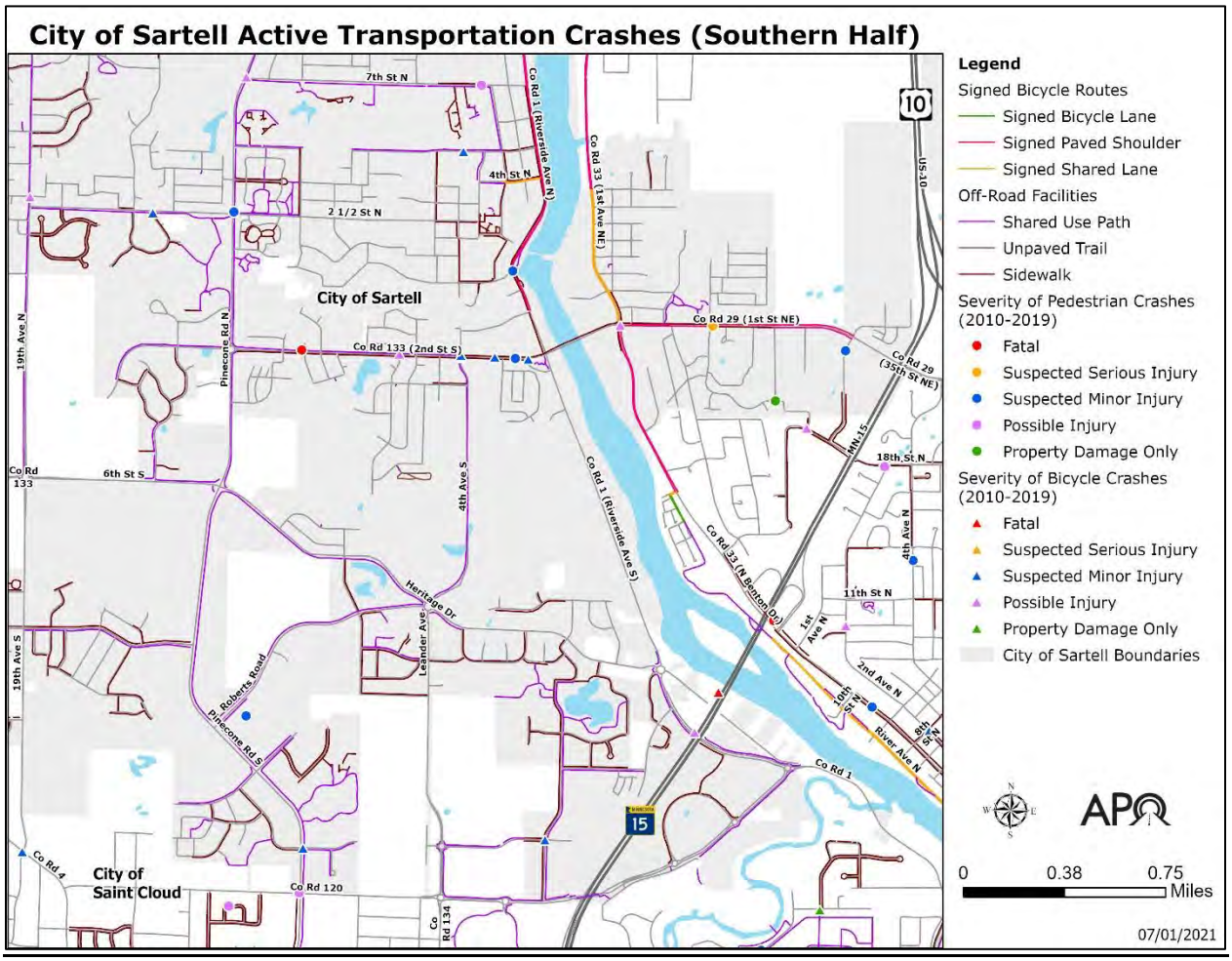


FIGURE B.20 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN SOUTH SARTELL.

PROGRAMMED AND PLANNED IMPROVEMENTS

Following its policy on Complete Streets and consistent with its ADA Transition Plan, the City of Sartell has proactively identified and addressed issues and concerns for those who use the active transportation network.

In 2017 the city studied pedestrian crossing operations at 13 locations. The study examined pedestrian usage, speed, volume, and conditions at these intersections. New crossing treatments, possible additions, and other improvements were among the recommendations from the city's analyses. Nearly half of these locations have since been improved with city and county projects.

Sartell adopted an ADA Transition Plan in 2019. This includes evaluating and prioritizing additional improvement needs for ramps at pedestrian crossings.

The city is allocating funding annually to implement pedestrian crossing improvements systematically.

In response to Safe Routes to School (SRTS) plans, Sartell schools and the city implemented SRTS facility improvements in 2020, including upgraded sidewalks on Seventh Street N, 2 ½ Street N, Second Avenue N, and Fifth Avenue N. Improvements also included adding a marked crosswalk on Fifth Street N at the east entrance of Pine Meadow Elementary.

City planners and engineers prepared the Sidewalk and Trail Gap Plan in 2019 to identify planned connections and assign priorities for adding shared use paths and sidewalks to the current network. Based on the City's planning analysis and response from community residents, they have identified projects to close gaps consistent with priority needs. Many connections have been made, and others are soon to be completed.

The City of Sartell also maintains a Capital Improvement Program (CIP), which identifies short-term projects and long-range concepts designed to improve active transportation facilities. The CIP indicated anticipated future revenues that may be available to implement such projects.

Consistent with the City's evaluation through various studies and plans, Sartell has programmed financing to complete these active transportation projects:

- Reconstruct 19th Avenue from CSAH 4 to CSAH 133 (Sixth Street S) to include the addition of sidewalks.
- Extend the current shared use path on Heritage Drive from Huntington Drive S to Amber Avenue S. This will include the installation of two marked crosswalks at Seventh Avenue S and Connecticut Avenue S.
- Extend Scout Drive to Dehler Drive to include shared use paths.
- Added sidewalks with the Eagle Ridge and Arbor Ridge residential developments.
- With the Stearns County reconstruction of CSAH 1 (Riverside Avenue) from Sartell Street to 12th Street, the city plans to complete the shared use path along the Mississippi River.
- A shared use path along Seventh Street N to fill the gap from Second Avenue N to Riverside Avenue N.
- A shared use path along 12th Street N to fill the gap from Fourth Avenue N to Riverside Avenue N.
- Adding sidewalk to fill a gap along 13th Avenue N connecting Grizzly Lane.
- Adding sidewalk to fill a gap along Third Street N connecting 19th Avenue N.

The City's active transportation network's long-term (though currently unfunded) goals include completing the remaining network gaps with planned connections. Programmed and planned facilities to connect current routes to the more extensive regional network are shown in Figures B.21 and B.22.

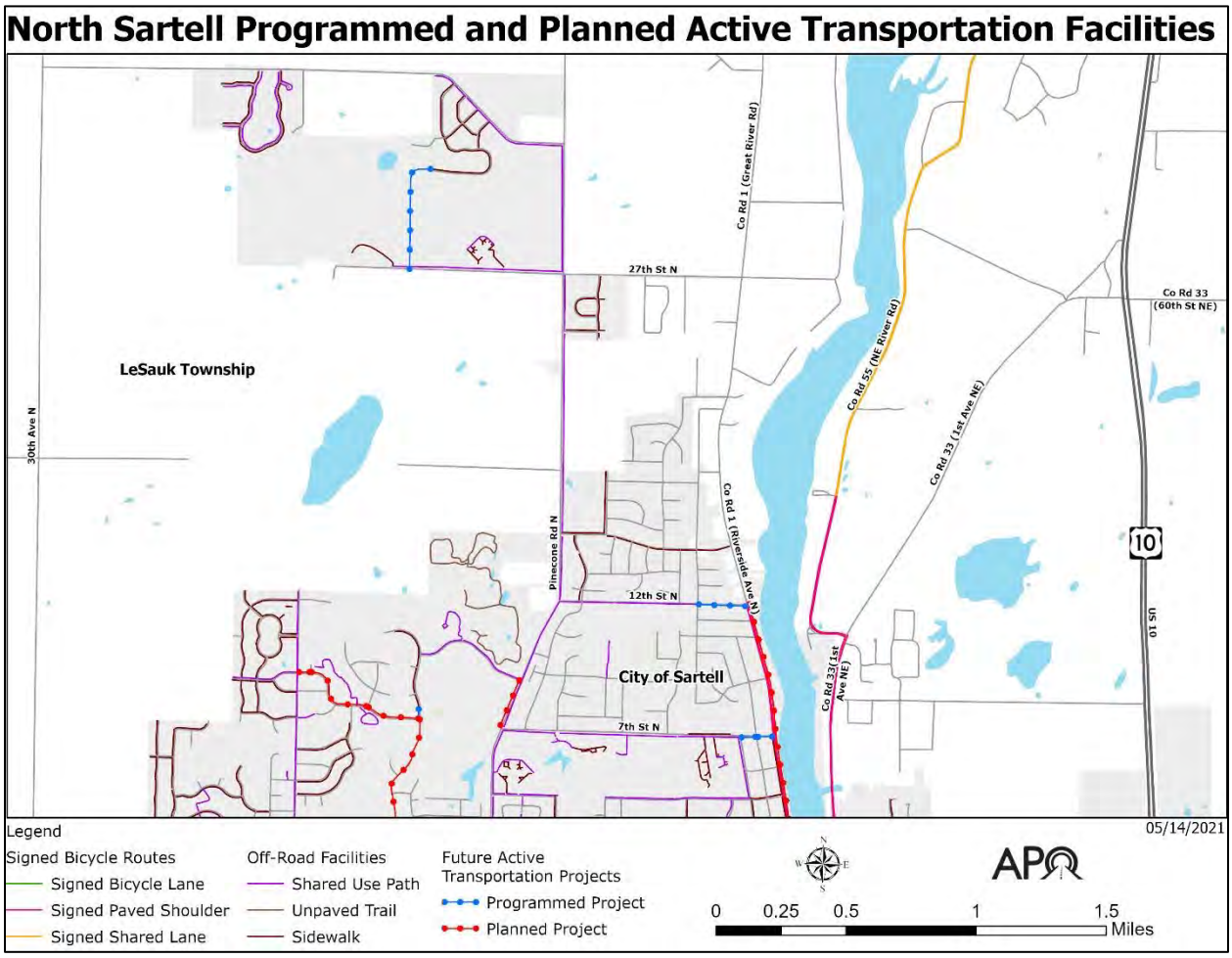


FIGURE B.21 – PROGRAMMED AND PLANNED FACILITIES IN NORTH SARTELL.

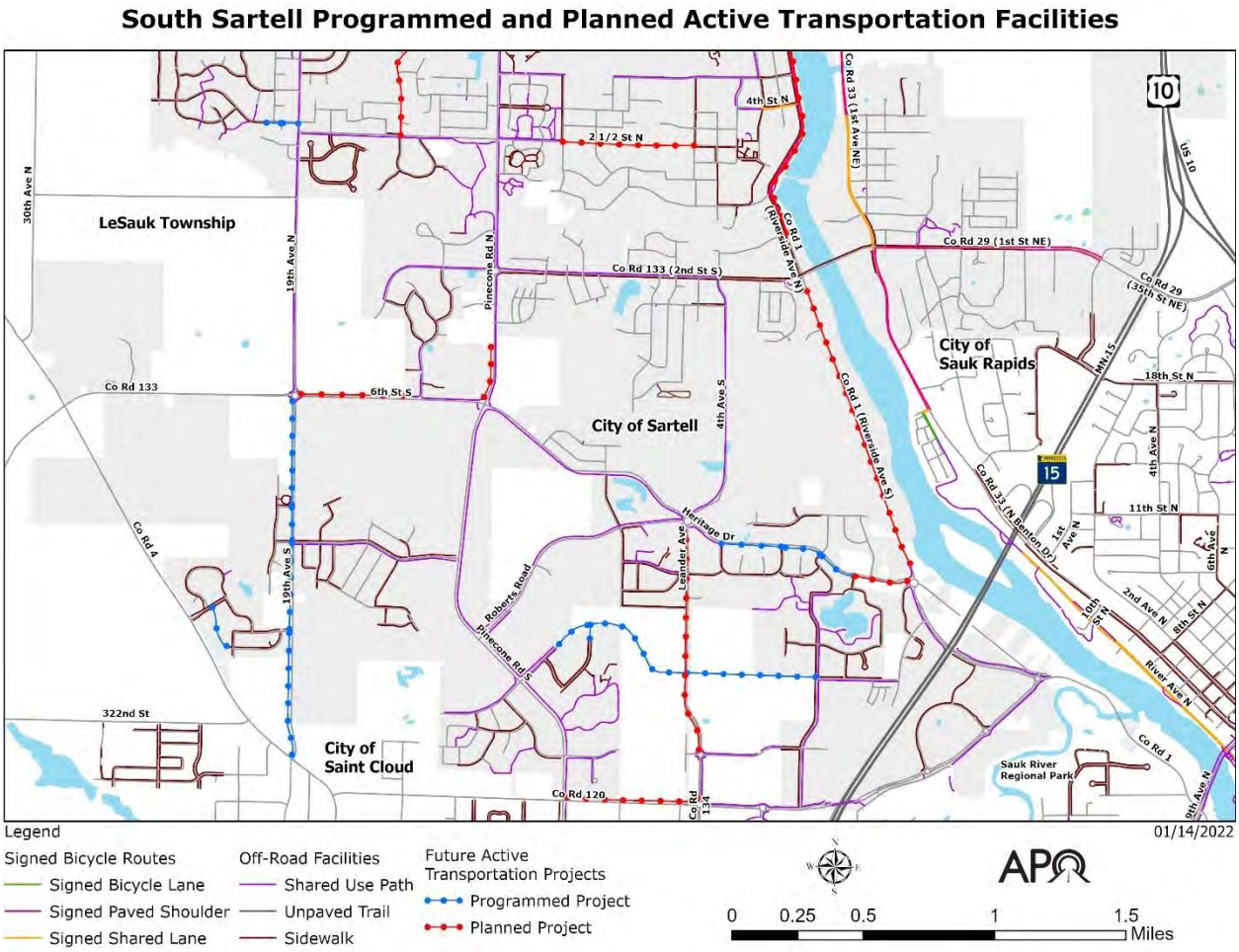


FIGURE B.22 – PROGRAMMED AND PLANNED FACILITIES IN SOUTH SARTELL.

ACTIVE TRANSPORTATION NEEDS ASSESSMENT

APO staff performed a citywide analysis of facility and other needs for active transportation users to supplement and inform current city planning efforts. The intent of this assessment, conducted in coordination with city staff and representatives, was to identify active transportation needs within the city and assist in prioritizing those needs in the event funding becomes available.

GOALS AND OBJECTIVES FOR ACTIVE TRANSPORTATION

The regional goals and objectives for active transportation as adopted by the APO provide a starting point for the Sartell needs assessment.

Those goals were:

1. Improve bicycle and pedestrian safety and comfort.
2. Improve active transportation connections to desired destinations.
3. Improve the condition of active transportation infrastructure.

4. Provide equitable access to active transportation facilities for all people of all abilities.
5. Promote an interconnected regional active transportation network.

The evaluation factors were equally applied for assessing needs within each city and across the MPA. The goals, objectives, and factors used to evaluate services and needs relative to each objective are detailed in Chapter 4. Performance ratings from the evaluation of factors for Sartell are shown in Figure B.23.

Sartell			2019
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average			*0.4*
Percentage miles of arterials & collectors that have a sidewalk or shared use path (SUP) on at least one side			*60.2%*
Percent of destinations that fall within distance categories	Schools	0 Ft (Asset Served by AT Facility)	*83.3%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*16.7%*
		> 931 ft (Four or more blocks)	*0.0%*
	Food Assets	0 Ft (Asset Served by AT Facility)	*88.9%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*11.1%*
		> 931 ft (Four or more blocks)	*0.0%*
	Large Employers	0 Ft (Asset Served by AT Facility)	*85.7%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*14.3%*
		> 931 ft (Four or more blocks)	*0.0%*
	Parks	0 Ft (Asset Served by AT Facility)	*93.8%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*6.3%*
		> 931 ft (Four or more blocks)	*0.0%*
	Transit Stops	0 Ft (Asset Served by AT Facility)	*73.9%*
		1-310 ft (One block or less)	*8.7%*
		311-930 ft (Two to three blocks)	*8.7%*
		> 931 ft (Four or more blocks)	*8.7%*
Percent of street crossings that do not meet full ADA standards			*82.8%*
Miles of Active Transportation facilities per 1,000 residents in EJ/Title VI Sensitive Areas in comparison to non-sensitive areas			*0.0:4.2*
Percent mileage of Regional Priority bicycle facilities that do NOT exist			*30.6%*
Percent of on-road bicycle facilities with poor pavement			*0.0%*
Percent of SUP with rough/very rough pavement			*4.4%*

FIGURE B.23 – SARTELL PERFORMANCE REPORT CARD (2019)

NEEDS ASSESSMENT METHODOLOGY

From the goals and objectives framework, APO staff, in coordination with Sartell city staff and community volunteers, developed the following methodology to address critical gaps in the current active transportation system. It should be noted that while this process does not account for every gap or need in the network, it does focus on addressing gaps utilizing existing data as it relates to the region's active transportation goals and objectives.

The APO's active transportation needs assessment methodology was broken into three phases. Beginning with an in-depth analysis of transportation networks, APO staff identified issues and needs within individual communities across the region. This cursory review led to a more detailed analysis of active transportati0on needs for focus areas identified within each city and ultimately the identification of jurisdictional-level project recommendations – Phase 2. In the final phase, local and regional needs identified in the previous phases were prioritized according to the degree goals and objectives would be addressed.

Phase 1: Evaluating Needs for the City of Sartell

In order to begin this evaluation, APO staff reviewed needs and service area gaps relative to the factors listed under goals 1-4. APO staff compiled a series of maps and data that detailed the city's existing active transportation conditions. Utilizing the objectives and applying factors (as identified in Chapter 4), staff began to dive into the existing conditions data to look for network gaps or areas of concern (i.e., high crash locations, locations of under-designed on-road/off-road facilities).

Figure B.24 summarizes the findings for the City of Sartell.

Conisdered along with the factors were the comments from the APO's initial public input along with comments from city staff. Areas where multiple issues were revealed when the factors were applied became the focus of further review and analysis.

Analysis of Areas of Need - City of Sartell

	Safety & Comfort Factors	1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern	Connectivity Factors	1 Access to Destinations	2 Access to Transit	Facility Condition	1 On Road Conditions	2 Off Road Conditions	Equity Factors	1 Underserved Demographic	2 ADA Compliance	Issues	Potential Treatments
Stearns CR 133 (2nd St S)		X	X									X				Business/Residential area - crashes with injuries & one fatality, shared use path needs upgrades	Crossing improvements, upgrade shared use path. (City reviewed roundabout at Pine Cone Rd. in 2017 - recommended RRFB.)
Benton CR 29 (1st St NE)			X	X				X						X		Minor arterial - injury crashes, underdesigned for traffic volumes, area with many large employers, food assets, zero veh hhs, elderly.	Pedestrian and bicycle crossing improvements, facility design, improved access to large employers, multifamily development.
2 1/2 St N			X					X				X				Minor arterial - lacks east/west connectivity, serves large employer, neighborhood shared use paths rated "rough."	Look at feasibility of completing gap, upgrade shared use paths.
5th St N								X				X				School area - current gap, "rough" shared use paths.	Complete gap, upgrade shared use paths. (City shows a planned connection on 5th Street.)
7th St N					X			X				X				School area - current gap, "rough" shared use paths.	Complete gap, upgrade shared use paths. (City shows a planned connection on 7th St)

FIGURE B.24 – SARTELL NEEDS ANALYSIS.

Phase 2: Analysis of Sartell Focus Areas

From the process described for the review of needs and gaps for the City of Sartell, the following were identified as priority areas for improvement.

- Second Street S (Stearns CSAH 133) area.
- First Street NE (Benton CSAH 29) area.

APO staff working in conjunction with city staff for each focus area further analyzed needs and issues and worked to identify possible solutions.

Second Street S (Stearns CSAH 133) area

The Second Street S focus area includes the length of Second Street from Pinecone Road to the Mississippi River. The area of Second Street S was identified as a focus area for further study and analysis due to the number of crashes involving bicycles and pedestrians and the condition of the shared use paths along the roadway.

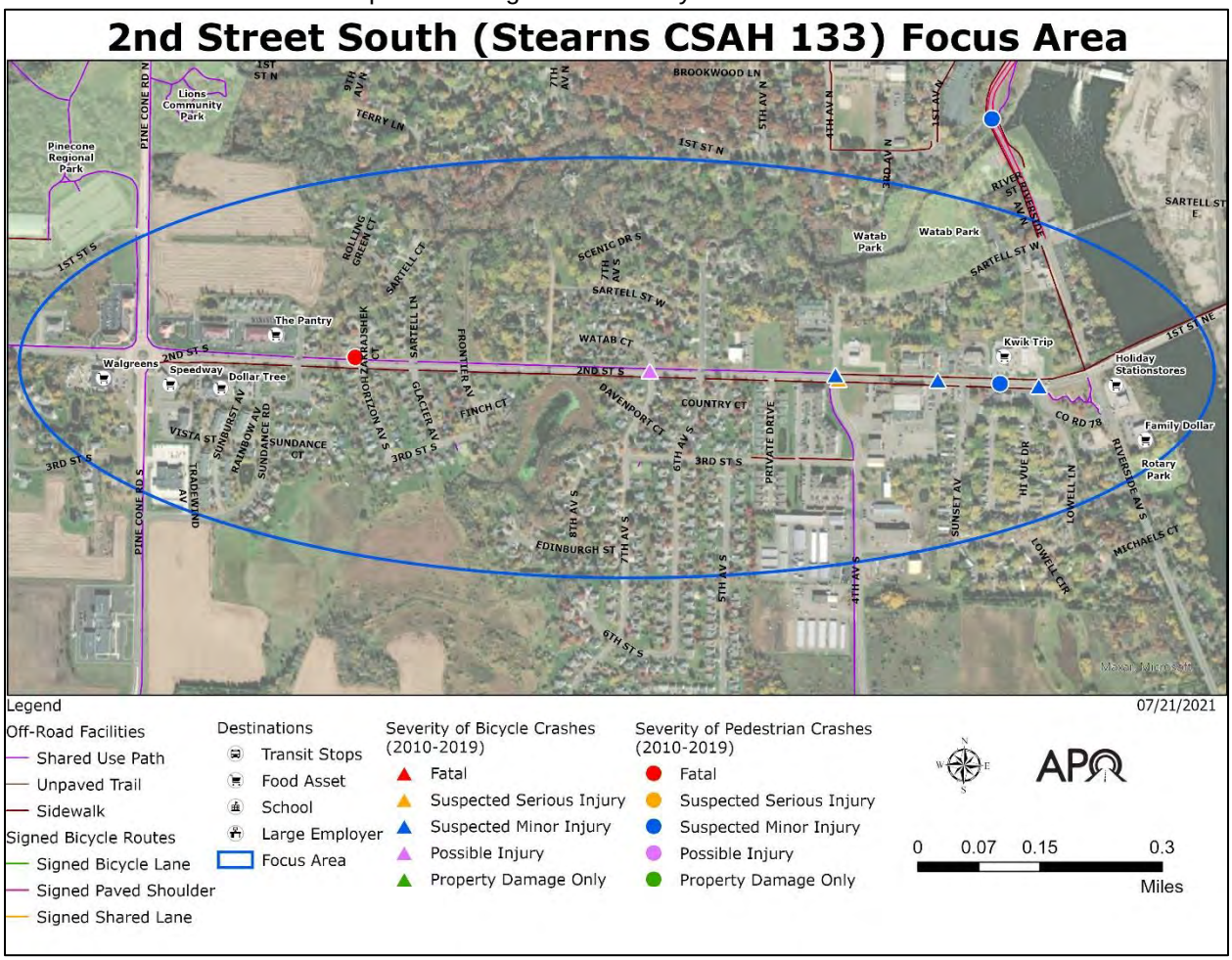


FIGURE B.25 – SECOND STREET S (STEARNS CSAH 133) FOCUS AREA.

NEEDS AND ISSUES

People in nearby neighborhoods use or cross Second Street S to reach several food destinations and other services. The average daily traffic on Second Street S is 11,700 vehicles with a posted speed of 35 mph. Of the 25 locations within Sartell with crashes involving pedestrians and bicyclists, seven crashes (28%), including a fatality and a serious injury, occurred within this area. A review of the crash reports reveals that in most instances the cyclist or pedestrian was properly crossing at the intersection but was not seen by the driver of the vehicle. Some reports also indicated drivers were seeking a gap to merge into heavy flowing traffic on Second Street S, failing to notice the active transportation user crossing the roadway.

The City's 2017 study of pedestrian crossings reviewed concerns for crossing safety with the volume of traffic at the roundabout with Pinecone Road and suggested potential improvements.

Figure B.26 provides a more detailed view of the area between Fourth Avenue S and the Sartell bridge to highlight the locations where crashes have occurred.

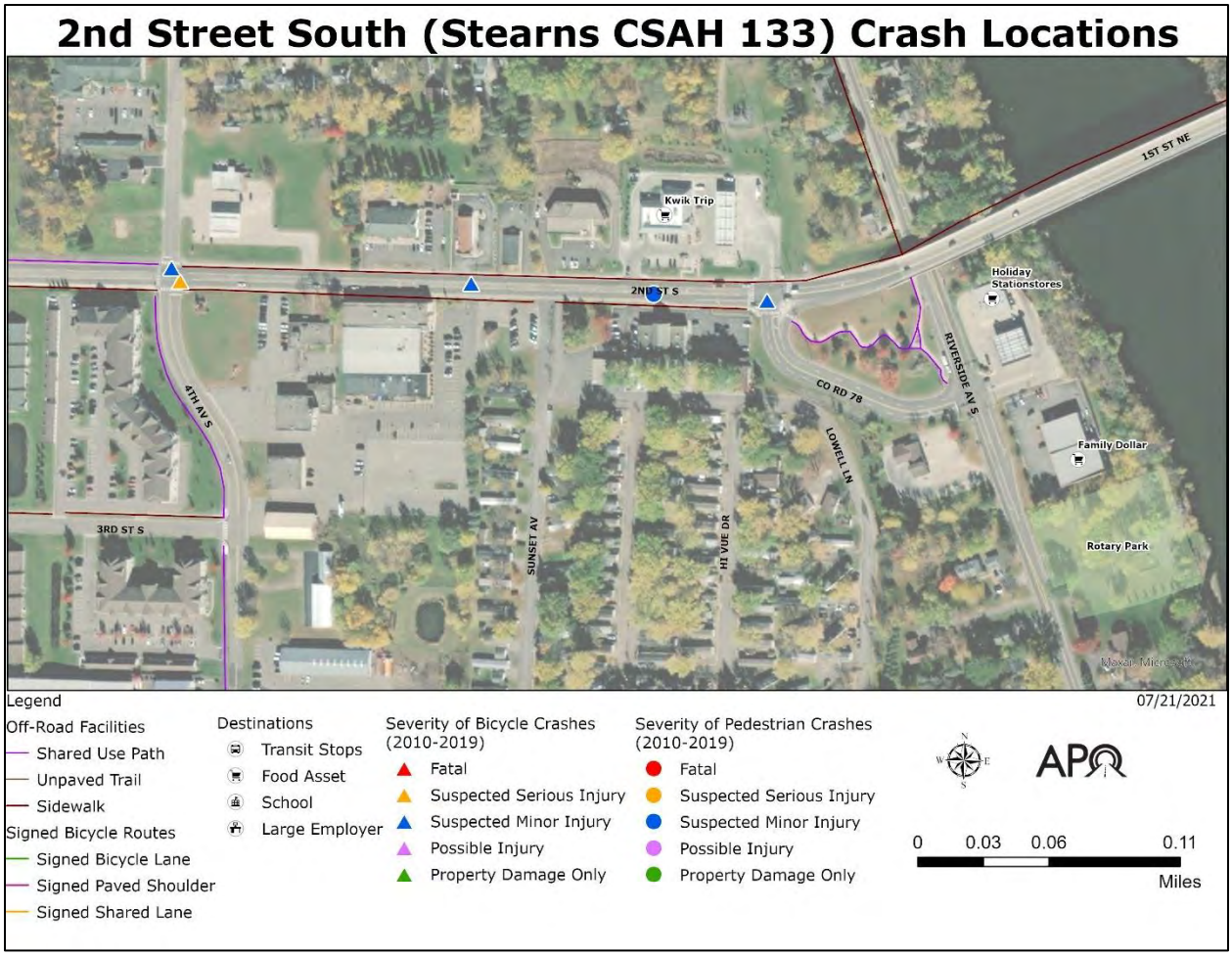


FIGURE B.26 – DETAILED LOCATIONS OF CRAHSES ALONG SECOND STREET S/CSAH 133 IN SARTELL.

A shared use path runs along the north side of the roadway from Pinecone Road as far east as Fourth Avenue S. Between Fourth Avenue S and the Mississippi River there is a sidewalk

on both the north and south side of the roadway. Much of the shared use path along the northside of Second Street is in either fair or rough condition.

RECOMMENDATIONS

A safety study of Second Street S – particularly between the areas of Fourth Avenue S and the Mississippi River – should be strongly considered. Crossing improvements that increase driver awareness may be warranted along Second Street S at the locations where crashes have occurred. There's a variety of potential safety improvements, including warning signs, marked crosswalks, and flashing beacons that could be utilized. However, some effort should be made to determine the most appropriate infrastructure solution, if there is one.

In addition, while the condition of Sartell's shared use paths is generally better than the regional average, that is partly because so much of the city's infrastructure is new. The city should consider designating funding specifically for maintaining existing active transportation infrastructure, including routine investments like crack filling and seal coating to extend the life of the pavement.

First Street NE (Benton CSAH 29) Area

This focus area includes much of east Sartell along First Street NE from the Mississippi River to MN 15. This was identified as an area of focus due to the potential safety issues with the volume of traffic, the number of injury crashes, its many destinations for walking and biking (major employers, food assets), and concentrations of residential use with a large number of zero vehicle households and persons aged 65 and older.

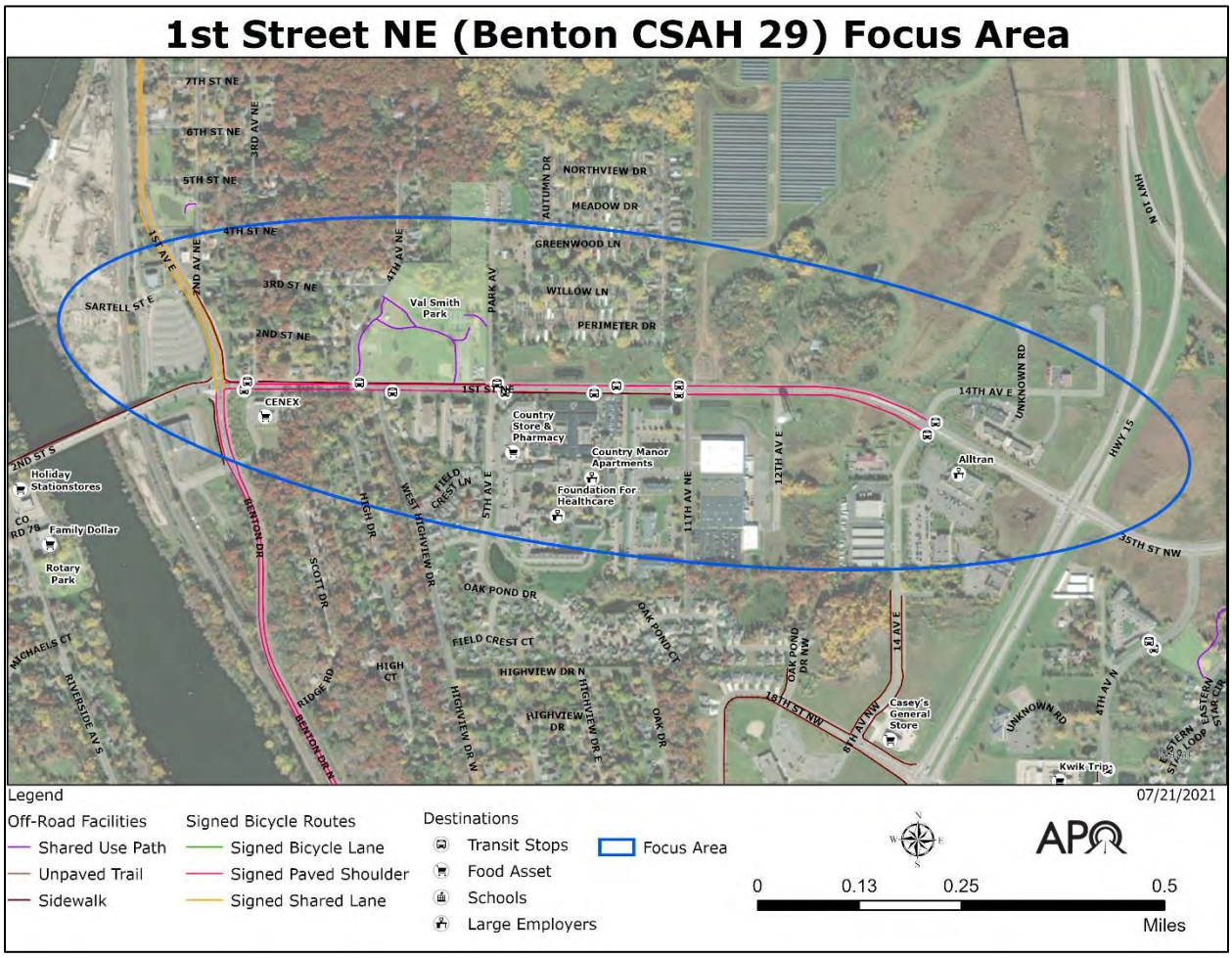


FIGURE B.27 - FIRST STREET NE (BENTON CSAH 29) FOCUS AREA.

NEEDS AND ISSUES

First Street NE (Benton CSAH 29) is the only direct east-west road connection from the Sartell bridge to MN 15. The roadway has signed bicycle lanes from Benton Drive to 14th Avenue. However, the corridor carries an average of 7,900 vehicles per day at a posted speed limit of 35 mph. In that context, MnDOT design guidelines recommend a grade separated shared use path.

There is a 6-foot wide sidewalk along the north side of First Street NE between the Sartell Bridge and Park Avenue. There is also a shared use path that leads into Val Smith Park. The sidewalk shifts over to the south side of First Street NE and runs as far as 11th Avenue E at Park Avenue.

Except for the existing facilities that follow First Street NE, single-family, multi-family, and manufactured housing neighborhoods in east Sartell are missing shared use paths or sidewalks. Also lacking facility access are two employment centers south of First Street NE (Alltran and Country Manor).

Much of this area's active transportation network has undergone reconstruction by both the city and county within the past few years. The sidewalks along First Street NE were rebuilt in 2018 by Benton County. The city reconstructed streets in the eastside neighborhood in 2019 and 2020. At that time, the city considered including new sidewalks but encountered strong opposition from neighborhood residents. As a result, sidewalks were not deemed a priority for inclusion.

Finally, according to ACS data, east Sartell south of this corridor is home to many traditionally underserved groups. A significant percentage of households in this area are low-income. A high proportion does not have access to a vehicle. Data indicates that this area of Sartell also has a high concentration of adults age 65 and over along with a high population of people with disabilities. For these groups in particular, the need for adequate active transportation infrastructure is high.

RECOMMENDATIONS

Given the population demographics surrounding this corridor, providing more continuous facilities and connections neighborhoods around First Street NE/Benton CSAH 29 seem like it may be necessary. The lack of access to homes and employment centers suggests the need for projects that would add sidewalks or shared use path connections to and from this roadway. It is recommended the city explore southern connections to First Street NE along Fifth Avenue E, 11th Avenue E, and 14th Avenue E.

North of First Street NE, a sidewalk along Park Avenue would provide access to the large manufactured housing complex.

While there is an on-road bike lane along this corridor, it does not meet MnDOT design guidance. The City should complete a small planning study to determine if a shared use path is feasible along the corridor. It bears noting that the existing sidewalk adjacent to First Street NE is 6-feet wide and the minimum width for a shared use path is eight feet.

Finally, between 2010 and 2019, there was one suspected serious injury crash involving a pedestrian along the corridor by Park Avenue. There is a marked crosswalk, however, the city should investigate and consider other potential safety measures at that intersection since that is where the northside sidewalk shifts to the southside.

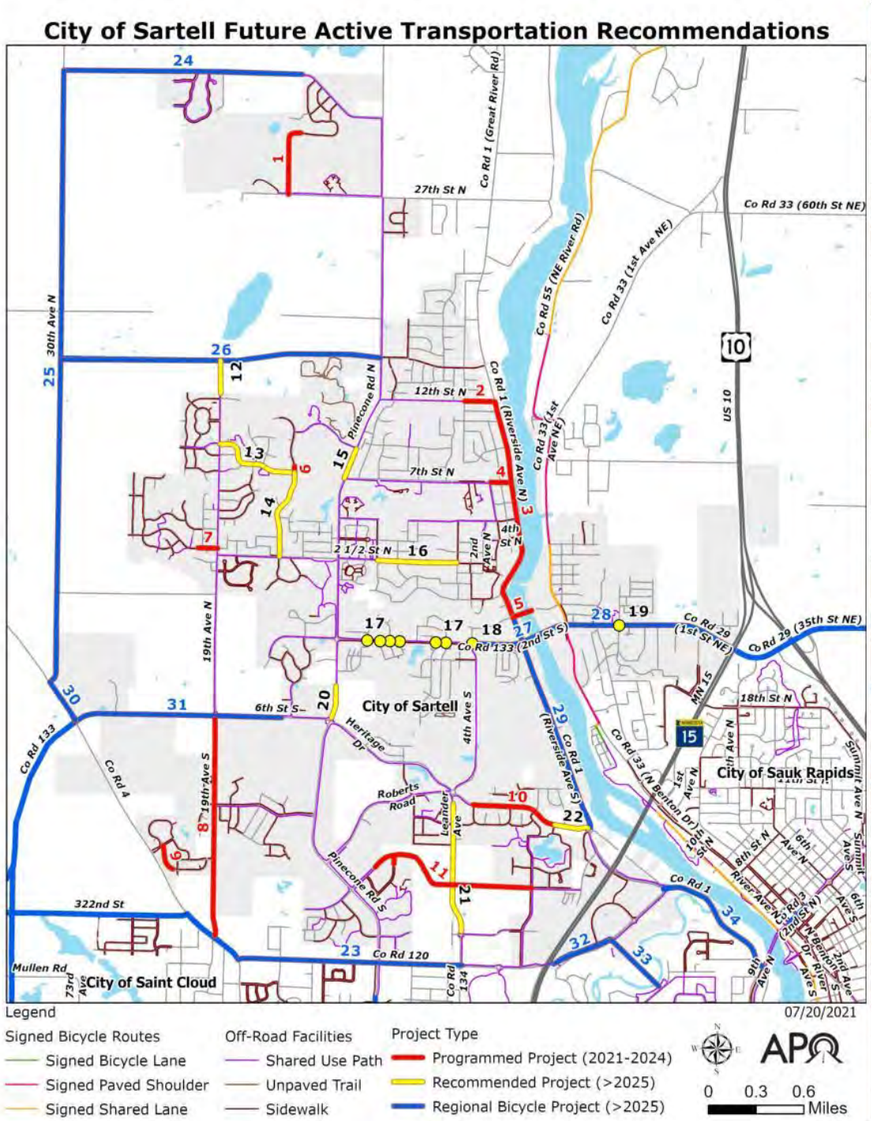
Phase 3: Evaluating Needs for the Region

The final phase of the needs analysis was to identify improvements to the regional facility network within the City of Sartell. These projects would assist in achieving an interconnected active transportation network that satisfies regional needs.

Regional bicycle facilities will logically connect cities and other parts of the planning area outside Sartell and include potential links to areas outside the planning region. Projects that connect the area regionally will provide an approximate spacing of two miles between facilities. In structuring a regional system, the preference is to complete gaps with shared use paths over on-road facilities.

Recommended regional facilities to extend the existing network within Sartell include continuous bicycle facilities along Riverside Avenue, Second Street South, and First Street NE. Also adding shared use paths along County Road 133, County Road 120, 15th Street N, and 35th Street N to the west as part of the regional network.

In addition, it is recommended the city consider adding additional sidewalk connections in coordination with the City of Sauk Rapids. The Sartell/Sauk Rapids boundary roughly follows the centerline of Highview Drive N − about one-third mile south of First Street NE. There are several instances of existing sidewalks in the Sauk Rapids half that stop at the Sartell boundary. Completing these connections (and perhaps adding more) would allow both Sartell and Sauk Rapids residents the ability to reach food assets and employers within Sartell.



	Map Number and Description
1	Install a sidewalk along 12th Avenue N.
2	Fill the gap along 12th Street N with a shared use path.
3	Construct a shared use path along Riverside Avenue N (Stearns CSAH 1).
4	Fill shared use path gap along 7th Street N.
5	Convert decommissioned Mississippi River bridge to pedestrian facility.
6	Complete sidewalk gap along 13th Avenue N.
7	Fill sidewalk gap along 3rd Street N.
8	Install a shared use path along 19th Avenue S.
9	Complete sidewalk connection along Sandstone Loop S to Arbor Parkway.
10	Construct a shared use path along Heritage Drive.
11	Install a shared use path along future Scout Drive.
12	Complete the 19th Avenue N shared use path connection.
13	Construct a shared use path on Grizzly Lane.
14	Construct a sidewalk along 13th Avenue N.
15	Install a shared use path on west side of Pinecone Road N.
16	Construct a shared use path connection along 2 1/2 Street N.
17	Add more crosswalks and signage along 2nd Street S (Stearns CSAH 133).
18	Install flashing beacons along 2nd Street S (Stearns CSAH 133).
19	Install a warning flasher at Park Avenue on 1st Street NE (Benton CSAH 29).
20	Construct a shared use path on west side of Pinecone Road S.
21	Install a shared use path along Leander Avenue
22	Complete shared use path gap along Heritage Drive.
23, 32	Construct a regional shared use path along Stearns CSAH 120.
24	Install a regional shared use path along 35th Street N.
25	Install a regional shared use path along 30th Avenue N.
26	Construct a regional shared use path along future 15th Street N corridor.
27	Construct a regional shared use path along 2nd Street S (Stearns CSAH 133).
28	Convert sidewalk on 1st Street NE (Benton CSAH 29) into a regional shared use path.
29, 34	Construct a regional shared path along Riverside Avenue S (Stearns CSAH 1).
30	Install a regional shared use path along Stearns CSAH 4.
31	Construct a regional shared use path along 6th Street S (Stearns CSAH 133).
33	Install a regional shared use path to connect path across Sauk River in Saint Cloud.

FIGURE B.28 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE CITY OF SARTELL.

APPENDIX C: SAINT JOSEPH CITY PROFILE

The City of Saint Joseph is a gateway community for visitors entering the MPA from the west and features the Lake Wobegon Trail, a popular facility for both residents who use active transportation and visitors from other areas. Saint Joseph proudly identifies itself as a small-town community with a rich history dating to the 1850s. The downtown area is much valued for its variety of locally owned businesses and pedestrian-friendly amenities. Saint Joseph is also a regional center for education, home to the College of Saint Benedict (CSB) and the Kennedy Community School.

DEMOGRAPHICS

According to the U.S. Census Bureau's 2014-2018 American Community Survey (ACS) Five-Year Estimates, the City of Saint Joseph has experienced a population growth of 48.2% since the year 2000.

The City strives to provide equitable service to all segments of the community in its transportation planning investments. The APO tracks specific population demographic subsets known as traditionally underrepresented populations at a regional level. This includes the following:

- People-of-Color (Black/African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and other Pacific Islander alone; some other race; two or more races; Hispanic or Latino descent regardless of race).
- Persons with low-income
- People with disabilities.
- People with limited English-speaking capabilities.
- Households without access to a motor vehicle.
- Persons over the age of 65.
- Persons under the age of 18.

A look at these demographics in Saint Joseph finds that the largest of these groups is in the proportion of households with low incomes (16.6%). The City has a relatively large number of residents aged 65 and over (11.6%). In addition, approximately one in 10 people within the city have a disability.

The City of Saint Joseph has a low median age (21.7 in 2018), which is reflected by the large number of college-age students within the city. According to the City's Comprehensive Plan, students from the College of Saint Benedict (in Saint Joseph) and Saint John's University (located in Collegeville) make up 30% of the City's population.

See Figure C.2 below for other details.

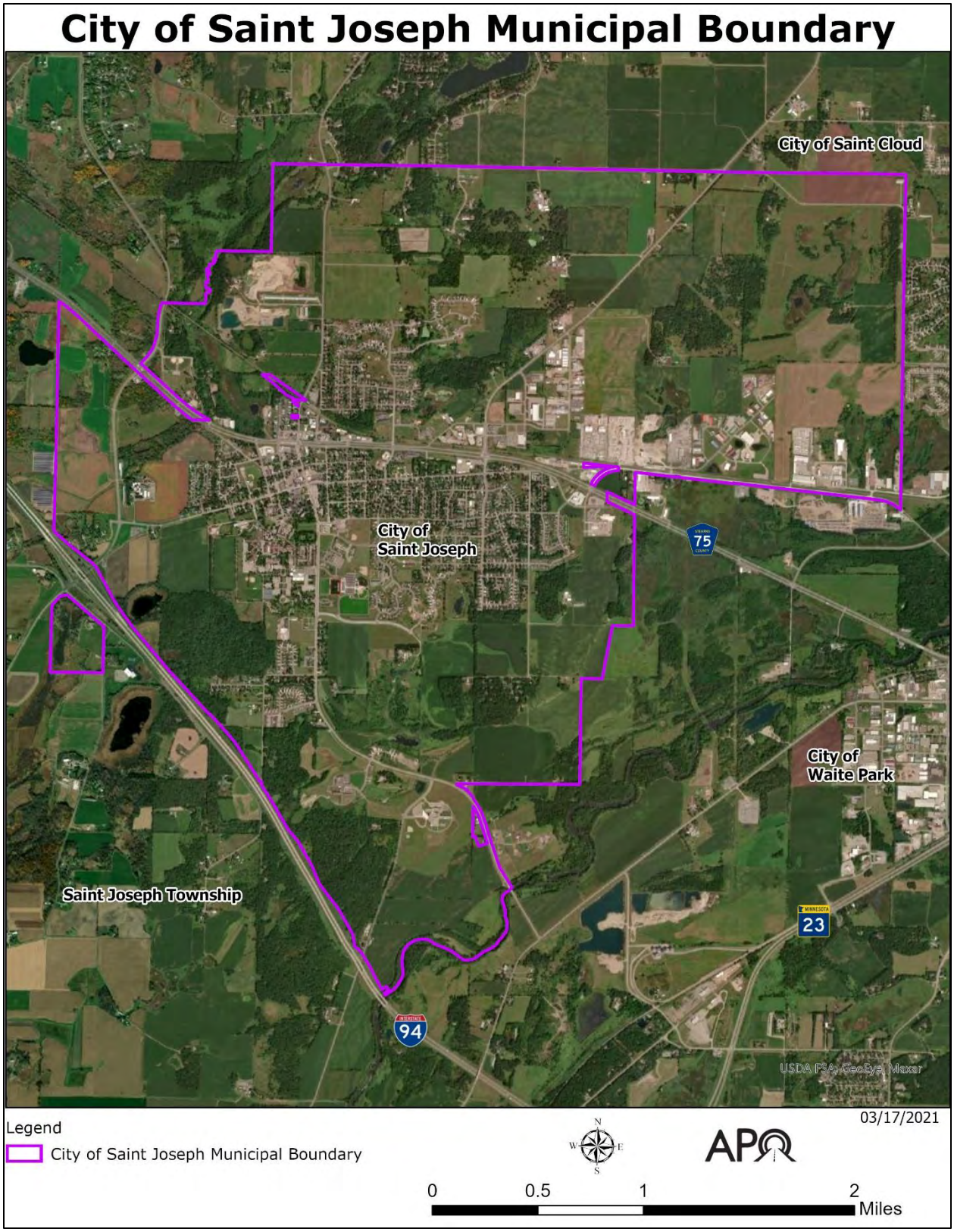


FIGURE C.1 – CITY OF SAINT JOSEPH.

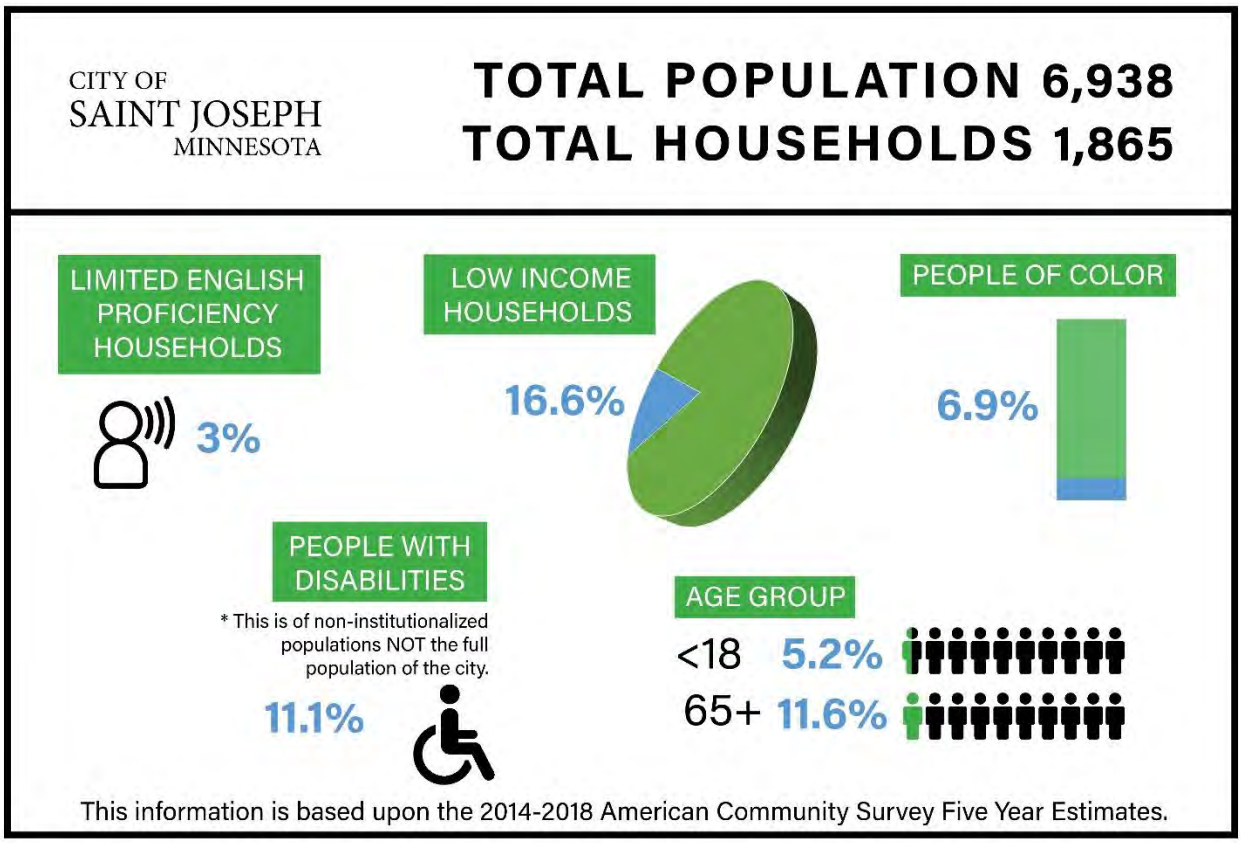


FIGURE C.2 – DEMOGRAPHIC PROFILE OF SAINT JOSEPH

EXISTING LAND USES

How cities use the land within their boundaries (i.e., residential, commercial, industrial, etc.) impacts the transportation network and the modes of travel available or desirable to users. Land use can play a role in developing a transportation system that is mode-friendly to motorized and non-motorized users.

Based on a land-use inventory developed with Saint Joseph's 2018 Comprehensive Plan, the city identified existing and proposed land uses as shown in Figure C.3. Most of the city consists of single-family residential uses with various areas of multiple-family use as identified. The city continues to experience new housing development growth primarily to the south along County Road 121 (College Avenue S).

Much of the City's retail and commercial activity is focused in the downtown area near the college. Various businesses are located along much of the CSAH 75 corridor. Light industrial uses are located along the County Road 133 and County Road 134 corridors on the City's north side.

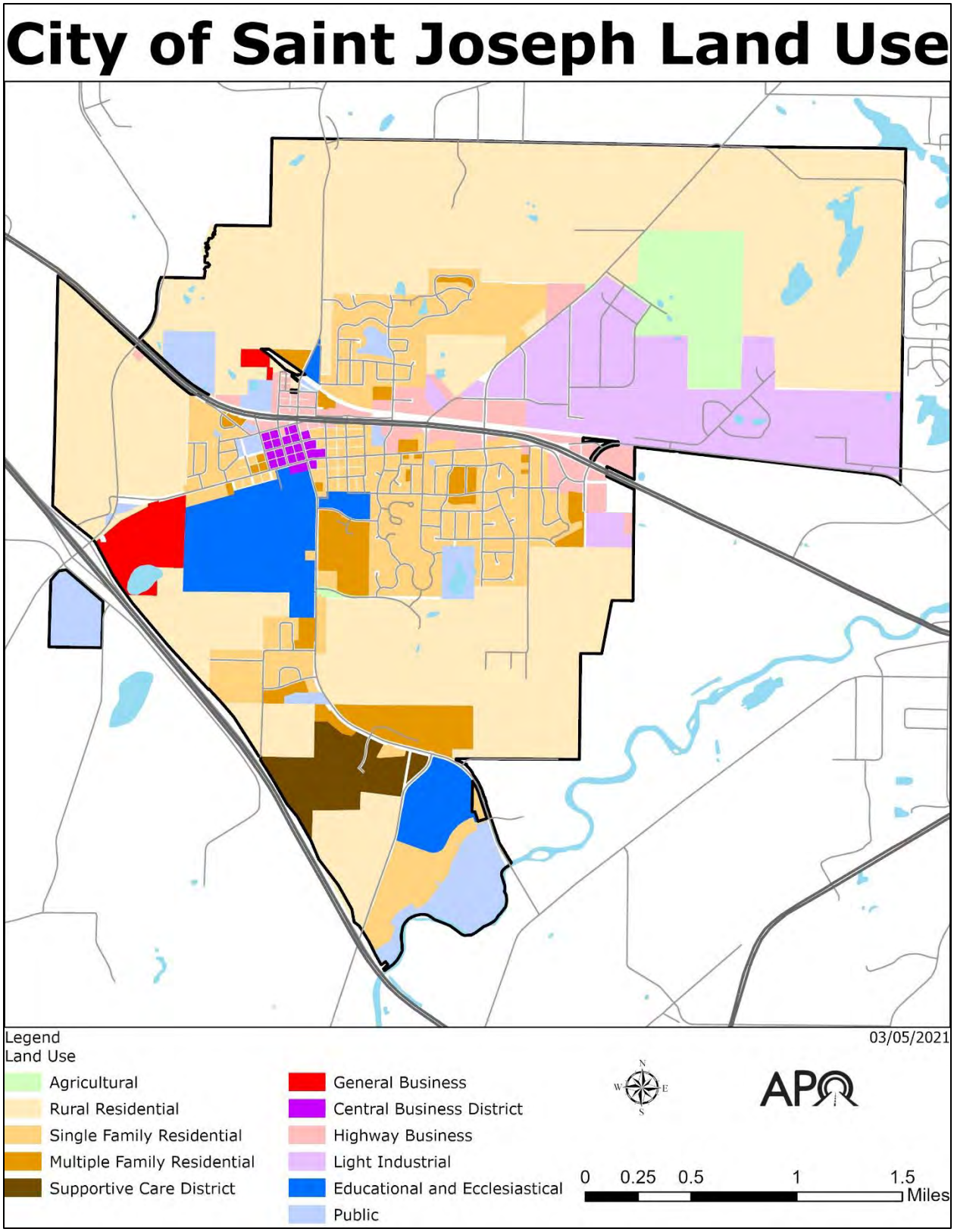


FIGURE C.3 – SAINT JOSEPH LAND USES.

Two large areas from the land use map are "educational and ecclesiastical." One is the CSB campus area which includes the college, student housing, and the St. Benedict's Monastery. Further south is the area that includes Kennedy Community School.

Located throughout the city are 78 acres of parkland. This includes various neighborhood parks, the Lake Wobegon Trail Visitors Center, and a public open space preserve along the Sauk River.

Understanding how the city plans to develop in the future will inform the type of transportation system needed. Residents and visitors will only reach these destinations through the transportation network that is available to them.

TYPES OF ACTIVE TRANSPORTATION INFRASTRUCTURE

Saint Joseph has a network of sidewalks and shared use paths specifically for active transportation users. These are off-road facilities separated from the roadway network. Bicyclists and pedestrians rely on the available off-road network to reach their destinations.

The roadway network within Saint Joseph does not include on-road facilities.

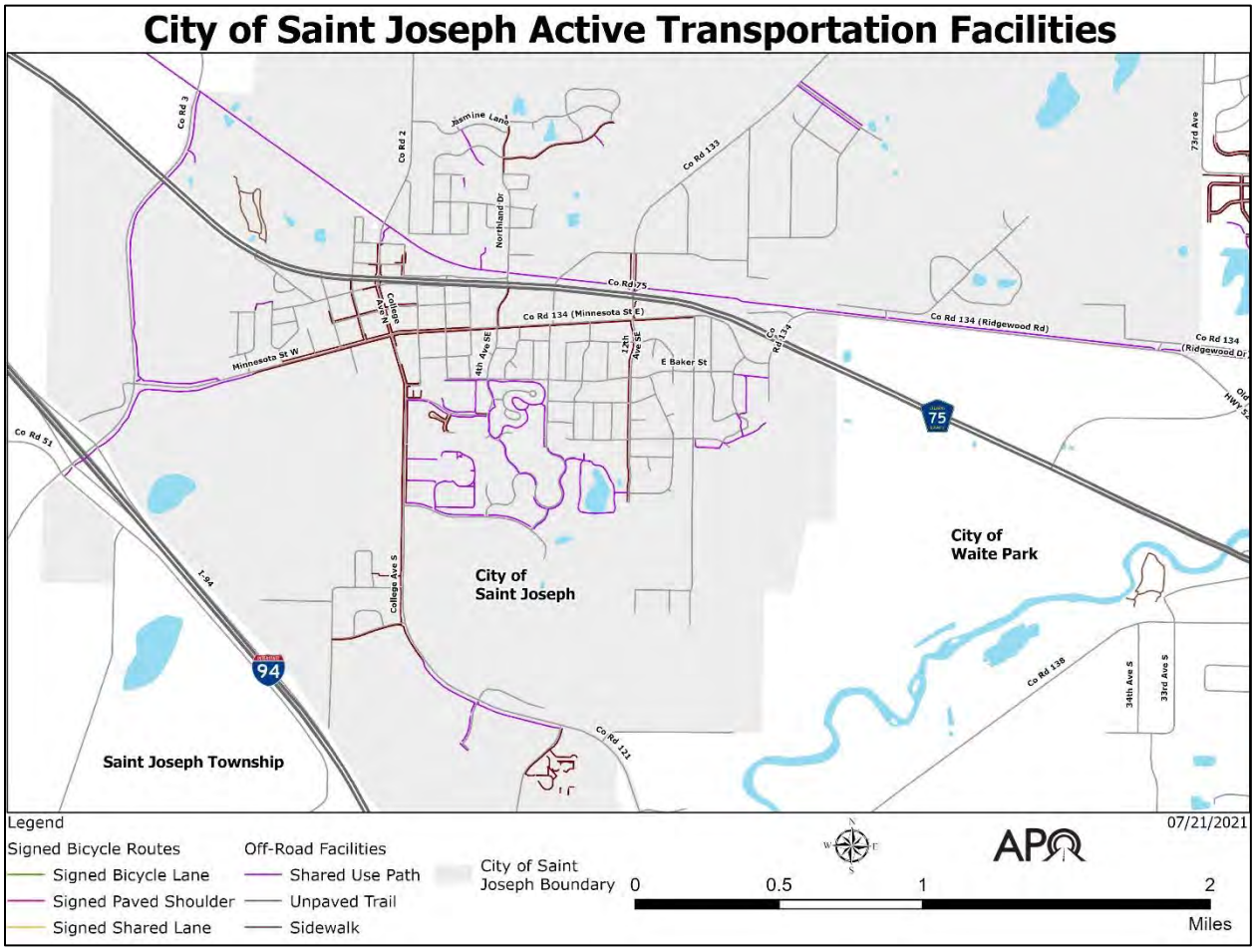


FIGURE C.4 – OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN SAINT JOSEPH BY TYPE AND LOCATION.

OFF-ROAD FACILITIES

Shared Use Paths and Trails

There are 13.1 miles of shared use paths within the city. This includes the Lake Wobegon Trail, a regionally significant facility connecting the MPA to cities to the west, such as Avon, Albany, and Osakis. Approximately 3.6 miles of the Lake Wobegon Trail falls within the city's boundaries and is maintained by Stearns County. The shared use path along County Road 3 and County Road 2 connects the Lake Wobegon Trail to Minnesota Street and areas of south Saint Joseph. Other shared use paths primarily serve southside neighborhood areas and Klinefelter Park.

Many of these paths provide neighborhoods access to the City's parks, recreational areas, and schools. There are 0.7 miles of unpaved trails, mostly walking paths within Millstream Park.

Sidewalks

Approximately 8.4 miles of sidewalks are located within the city. Much of the sidewalks are located along College Avenue, Minnesota Street, and other parts of the downtown and commercial area. There is also a continuous sidewalk along much of 12th Avenue SE.

TRANSIT SERVICES AND INFRASTRUCTURE

The Jefferson Lines College Connection and the Tri-CAP Transit Connection provide transit services to residents of Saint Joseph. The College Connection offers scheduled pickups and drop-offs at CSB with stops at SJU, Saint Cloud State University, south Saint Cloud on Clearwater Road, and the Metro Bus Transit Center in downtown Saint Cloud. Tri-CAP is a public transit service that provides a curb-to-curb dial-a-ride service from Saint Joseph to other parts of the MPA with call-ahead reservations.

The areawide transit network operated by Saint Cloud Metro Bus that provides Fixed Route (FR) and Dial-a-Ride (DAR) systems for much of the metropolitan area does not provide service to Saint Joseph.

CONDITION OF ACTIVE TRANSPORTATION INFRASTRUCTURE

If the existing active transportation infrastructure is in poor condition, it may cause safety issues, inconvenience for the user, or result in the underutilization of the facility. Keeping the system in good condition assures safety and a comfortable experience.

Pavement conditions data for off-road active transportation facilities within the City of Saint Joseph was collected from areawide surveys performed for the APO as discussed in Chapter 2 of the ATP.

OFF-ROAD FACILITIES

Condition of Off-Road Shared Use Paths

The Parks & Trails Council of Minnesota conducted a pavement condition assessment of most shared use paths within the APO in 2020. The Council used a specially equipped

electronic bicycle with instruments aboard to record the "bumpiness" of the pavement throughout the metropolitan planning area.

The study concluded that several facilities such as the shared use path along County Road 3 and the Lake Wobegon Trail are in good or 'smooth" conditions.

Approximately 11.4% of all shared use paths in Saint Joseph were identified as being in "rough" condition. This includes the path that loops within Klinefelter Park and some neighborhood areas. About 10% of the City's paths were rated as "fair." Locations and their condition ratings are shown in Figure C.5.

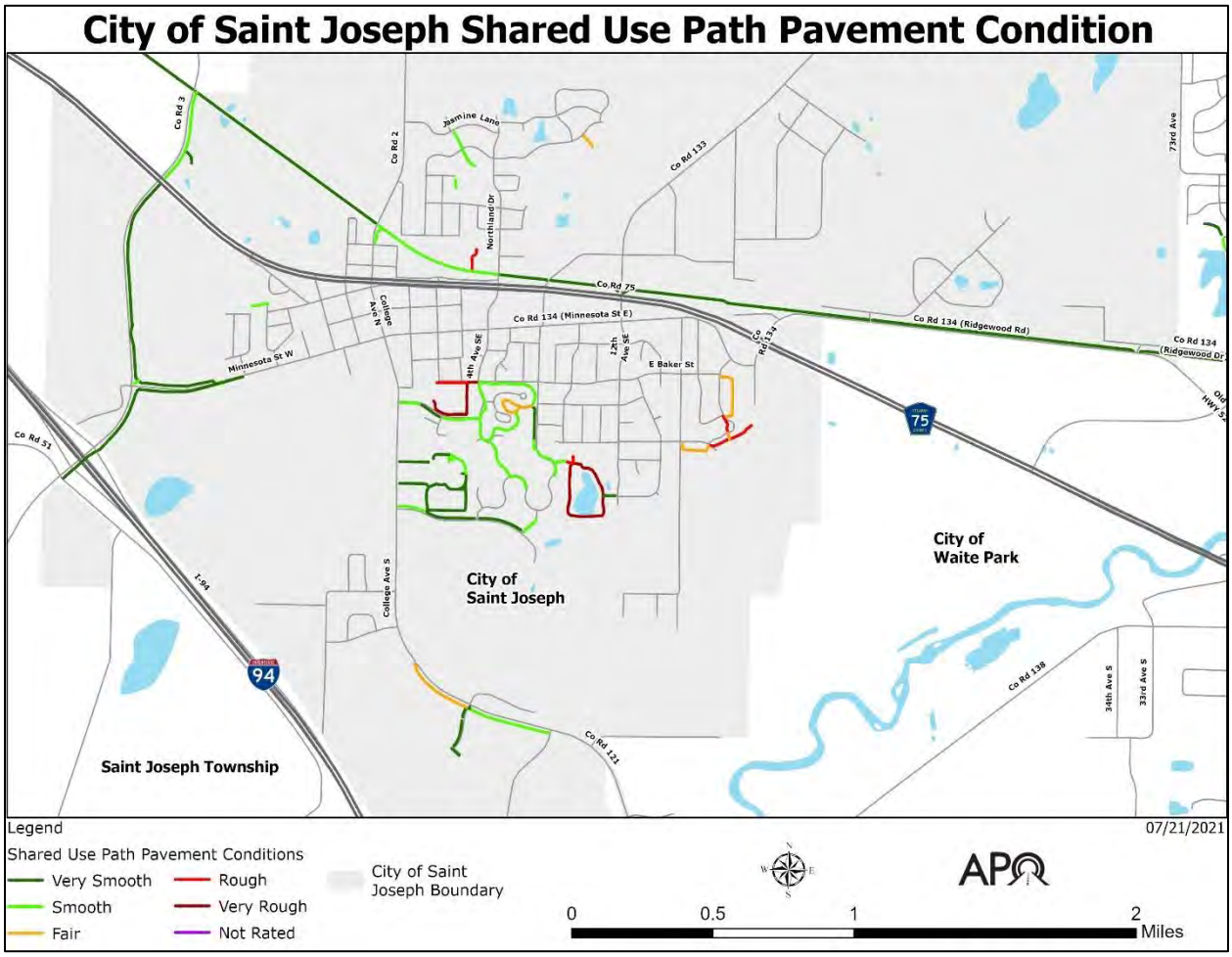


FIGURE C.5 – 2020 SHARED USE PATH PAVEMENT CONDITION FOR SAINT JOSEPH.

SAINT JOSEPH PLANS FOR ACTIVE TRANSPORTATION

The 2012 Transportation Plan Update (https://bit.ly/3zn4ib8), a 2017 CSAH 75 Pedestrian Crossing Study (https://bit.ly/3FTc2ny) and the 2018 Comprehensive Plan (https://bit.ly/3HxSF3L) provide the current planning framework for active transportation within Saint Joseph. These plans stress the importance of a usable and growing transportation network for the city that includes trails and sidewalks.

2012 TRANSPORTATION PLAN UPDATE

The City's 2012 Transportation Plan Update (an update to the 2006 document) included new design guidelines and an updated analysis of transportation facilities and needs. This update also discussed plans for improving and enhancing the transportation system which includes the pedestrian and bicycle network. The Transportation Plan Update recommends continuous trails and sidewalks that connect area businesses, parks, and schools.

Active Transportation Needs as Identified in the Transportation Plan

According to the City's Transportation Plan, given the importance of biking and walking as a means of practical transportation, the transportation system should continue to expand to accommodate pedestrian and bicycle needs. A non-motorized system responsive to the needs of pedestrians and bicyclists will include sidewalks, trails, bike lanes, and shared roadway facilities. Basic needs for system improvements are to provide continuous facilities that connect origins and destinations important to people who bike and walk. This includes removing physical barriers and providing continuity across political boundaries.

The Transportation Plan identifies CSAH 75 as a high volume, high-speed corridor with safety concerns for all modes of traffic that cross the highway. The plan notes growing traffic along the CSAH 75 corridor results in safety concerns for all modes that cross the highway. The Transportation Plan calls for full access signalized intersections and, should safety problems arise, the reduction of partial access intersection locations.

2017 CSAH 75 PEDESTRIAN CROSSING STUDY

The 2017 CSAH 75 Pedestrian Crossing Study analyzed current conditions and safety along the CSAH 75 corridor through Saint Joseph. Identifying a feasible location and other strategies to address safe crossing and connective needs were the chief purpose for this study. The study established the need for a grade-separated crossing for bicycles and pedestrians to travel between the Lake Wobegon Trail and areas south of the highway. A series of recommendations are included in the final report.

2018 COMPREHENSIVE PLAN

The 2018 Comprehensive Plan represents the City's vision for Saint Joseph. This vision includes providing all residents with walkable neighborhoods, a vibrant downtown, and many usable recreational spaces. One strategy to achieve this vision is a pedestrian-focused design for the downtown and CSB campus area. Elsewhere in the City, well-designed neighborhoods will include a network of connected, walkable, and safely accessible sidewalks, trails, and streets.

Active Transportation Needs as Identified in Comprehensive Plan

The Comprehensive Plan's primary goals are to plan, develop, and maintain a safe and accessible multimodal transportation system. Strategies include developing a pedestrian and bicycle plan, requiring off-street or on-street facilities where appropriate, and maintaining an interconnected system. The city will also focus on building new segments to close gaps in the network.

According to the Comprehensive Plan, there are limited opportunities for active transportation facilities, primarily through residential areas. However, the plan recommends developing a network of bicycle routes through the city to improve access to schools,

transit, employment, recreation, and other needs. Traffic calming measures will be introduced where necessary to improve bicycle safety. The plan also calls for further study and implementation of a safe crossing of CSAH 75 for pedestrians and bicyclists.

The 2018 Comprehensive Plan's park component establishes a goal to create and maintain an interconnected trail and sidewalk system tying together parks and open spaces with the urban and suburban areas of the city. Several strategies are presented to achieve this goal including guidance and solutions presented by the city for improving user safety, comfort, convenience, and connectivity. As the City grows, its shared use paths will be protected from the impact of vehicular traffic and development.

OTHER PLANNING EFFORTS

In 2017, CSB conducted a planning study to examine several pedestrian crossings along College Avenue. This study recommended the completion of sidewalks and crosswalks at intersections along College Avenue South on Minnesota Street to facilitate safe crossings for CSB students, staff, and faculty. This study included a concept for a shared use path to add connectivity across College Avenue from southside development, proposing an alignment that follows Field Street.

CITY ORDINANCES

Along with various citywide planning efforts, Saint Joseph City Code (https://bit.ly/2QvH3ZU) has established several ordinances pertaining to the active transportation system and its users.

City Code Chapter 5 outlines provisions for active transportation with new street construction or reconstruction. A sidewalk and trail network shall be in proximity to public service areas such as parks, schools, and shopping facilities. With the construction of streets, the city ordinance calls for a minimum of 6-foot sidewalks on at least one side of every street, though the city may require sidewalks on both sides of streets. Where called for, trails (shared use paths) shall have a minimum paved width of 8-feet. All facilities shall conform to design standards and Americans with Disabilities Act (ADA) guidelines. The City Council takes recommendations for improving the sidewalk and trail network from the Planning Commission (City Code 540.15).

Property owners have responsibility for sidewalk maintenance. Snow, ice, or other walkway obstructions are to be removed within 24 hours of when deposited. If the owner does not comply, the city may assess the costs of removal (City Code 303.03). The property owner is also responsible for sidewalk repairs. Upon receiving notice from the city that the sidewalk is defective, the owner has 60 days to make repairs or be assessed the cost of repair by the city (City Code 303.04).

Within restricted areas as specified by ordinance, the City of Saint Joseph prohibits certain types of usage on sidewalks. Riding a bicycle or a skateboard is prohibited on Minnesota Street and other sidewalks in the downtown area. Except for crossing a street, travel on roller skates is also prohibited within the restricted area (City Code 809). In addition, the city prohibits the operation of any self-propelled vehicle on any of its sidewalks (City Code 807). By Minnesota law (Sec 169.222), bicyclists have the same rights and responsibilities as the drivers of motor vehicles, and therefore have the right to use any public roadway.

SYSTEM USAGE

Understanding bicycling and walking behavior on the active transportation network within the City of Saint Joseph can help in a couple of ways. The purpose of collecting system usage data is to measure the change in usage over time, prioritize the investment of new and existing infrastructure, and assist in planning and designing future facilities. It is essential to know how well current facilities address the user's needs.

BICYCLE AND PEDESTRIAN COUNTS

APO staff regularly place a MnDOT-owned portable bicycle and pedestrian counter along shared use path locations throughout the MPA. This includes a location on the Lake Wobegon Trail near its intersection with College Avenue (County Road 2).

The MnDOT counter uses two different types of counters simultaneously. The Pneumatic TUBE counter uses two sets of tubes placed perpendicular to traffic. When a cyclist passes over the tubes, this counter can record that cyclist and determine which direction that person was heading. Meanwhile, the PYRO-Box utilizes infrared technology to measure people's body heat who pass in front of its sensor. This counter, much like the TUBE counter, can identify travel directions. While the PYRO-Box can detect bicyclists and pedestrians, it cannot definitively distinguish between the two. When used in conjunction with the TUBE counter, APO staff can calculate pedestrian traffic from the PYRO-Box by subtracting the bicyclists from the total count. With these portable counters, APO staff monitors daily usage of shared use paths for seven-day intervals at specified locations.

The Lake Wobegon Visitors Center is one of many locations throughout the MPA that has counts done seasonally − winter, spring, summer, and fall. Due to weather conditions, these seasonal counts are done using only the PYRO-Box counter. This counting program is relatively new (beginning in 2020), so limited data is available.

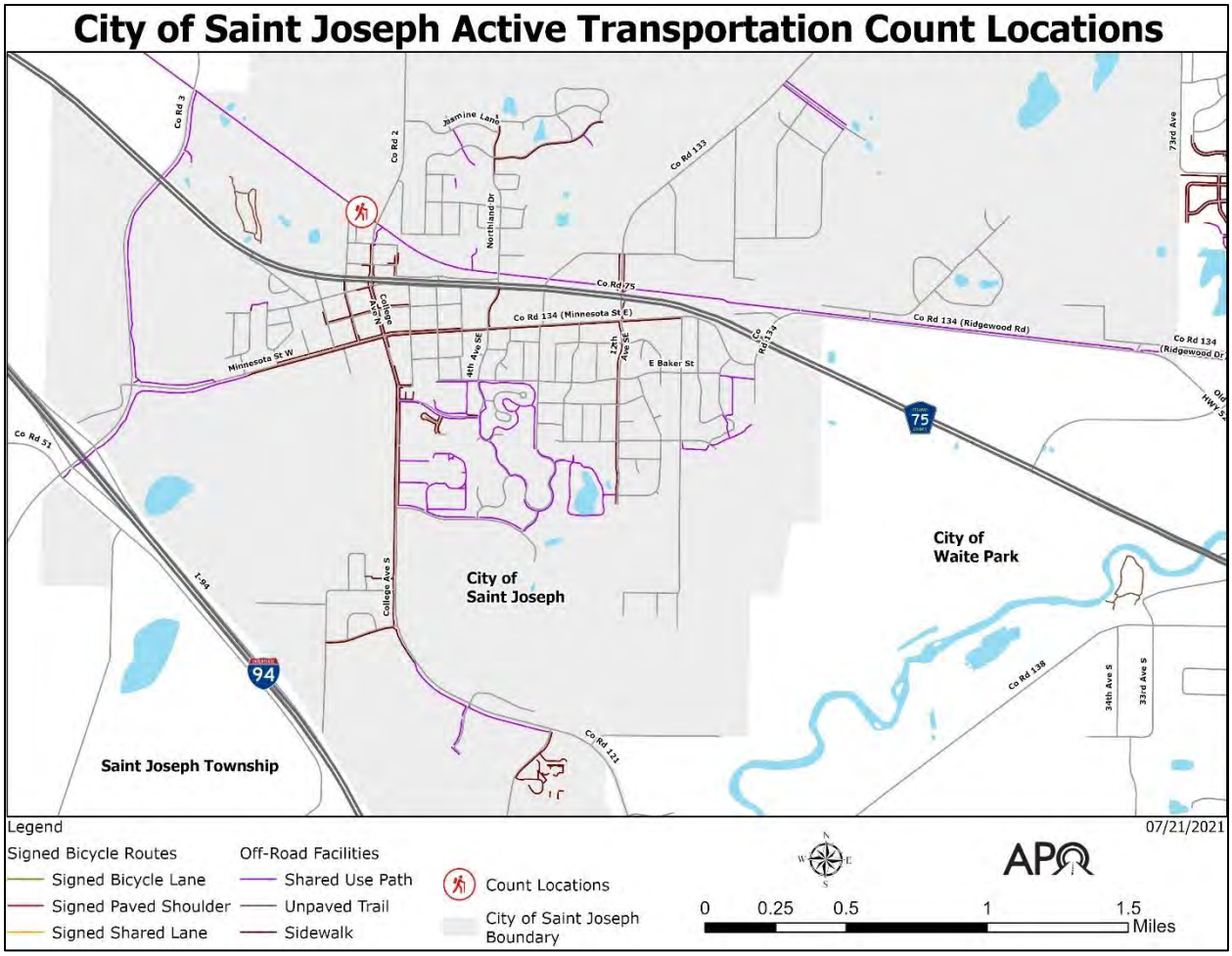


FIGURE C.6 – PORTABLE AUTOMATIC BICYCLE/PEDESTRIAN COUNT LOCATIONS WITHIN THE CITY OF SAINT JOSEPH.

The APO's counts indicate that the Lake Wobegon Trail at the Saint Joseph trailhead receives significant usage, mainly on weekends. Figure C.7 compares summer pedestrian usage in 2019 and 2020. When college is in session, average daily weekend counts tend to be significantly higher than when college is recessed.

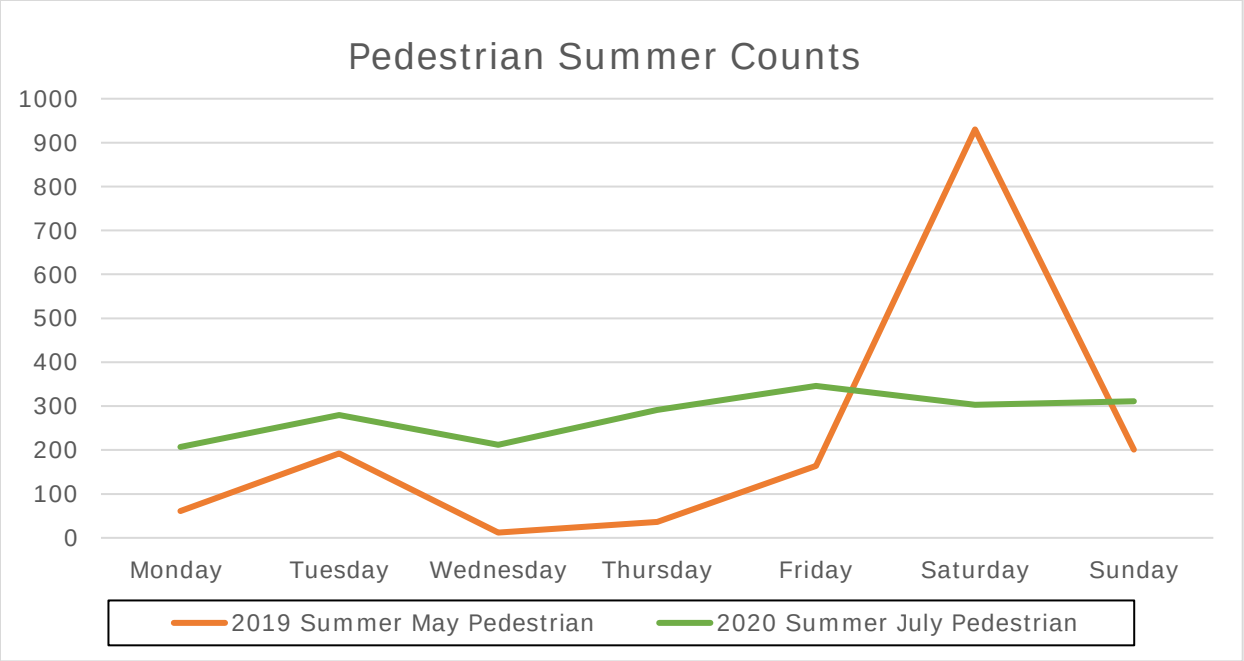


FIGURE C.7 – 2019 AND 2020 PEDESTRIAN COUNTS AT THE LAKE WOBEGON VISITORS CENTER IN SAINT JOSEPH.

Figure C.8 shows the most recent one-week winter seasonal counts on the Lake Wobegon Trail for pedestrians and bicycles. As the graph shows, the number of people using this facility in the winter can be correlated to outside temperatures.

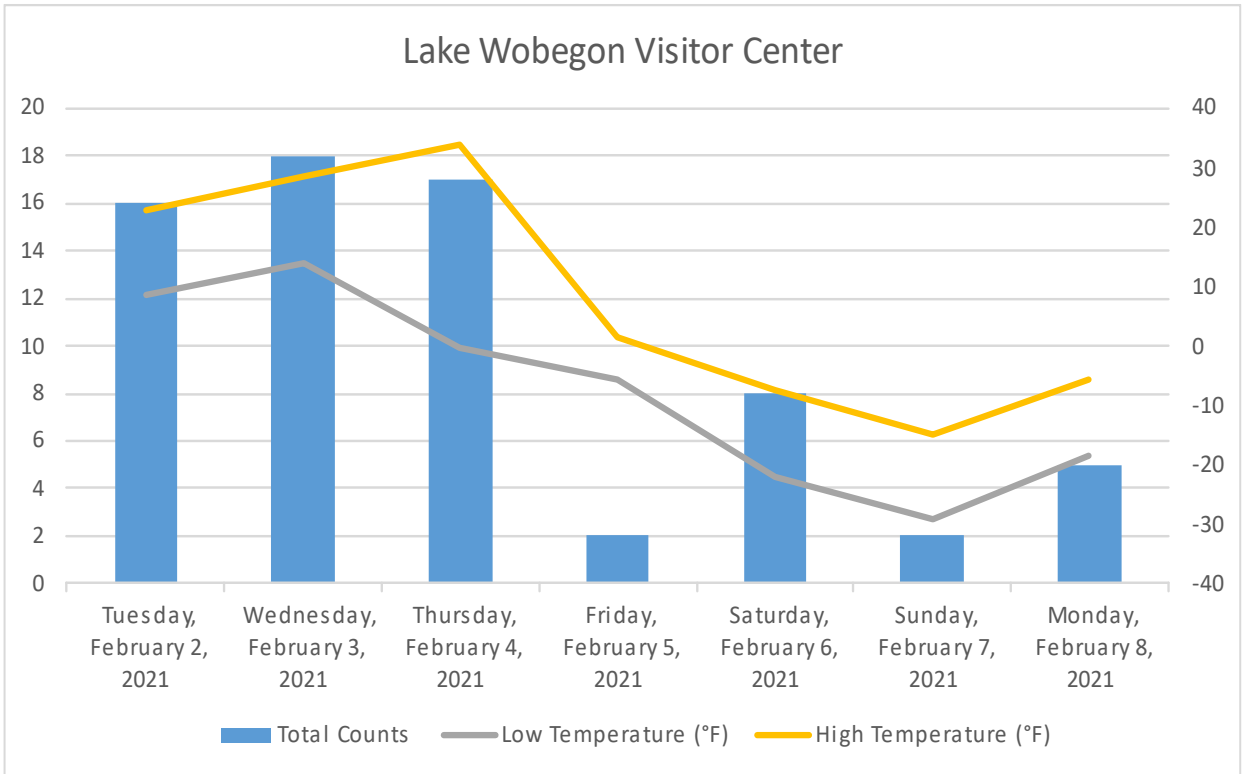


FIGURE C.8 – 2021 WINTER COUNTS AT THE LAKE WOBEGON TRAIL IN COMPARISON TO DAILY HIGH AND LOW TEMPERATURES.

DESTINATIONS

Common destinations for active transportation users include schools, food assets, employers, and parks. Figure C.9 shows the locations of these destinations within the City of Saint Joseph. Food assets are grocery stores/supermarkets, specialty food stores, meat markets, convenience stores, and non-profit community food services. Employers listed have 100 or more full- and/or part-time employees.

Schools

The City of Saint Joseph prides itself on the quality educational opportunities provided by the College of Saint Benedict and Kennedy Community School.

The CSB campus, a privately operated college for women, is located entirely within the City of Saint Joseph adjacent to the downtown area. CSB is closely associated with nearby Saint John's University, which offers higher education for men. Much of the SJU student population also lives within the City of Saint Joseph.

Kennedy Community School, part of St. Cloud Area School District 742, is in south Saint Joseph with access from Jade Road. This school of approximately 800 students provides education for students from preschool to eighth grade.

Food Assets

As shown in Figure C.9, grocery stores and other food destinations are primarily found in the downtown area and near intersecting streets along CSAH 75. There are several small grocery outlets, Saint Joseph Meat Market, and Gateway Church (a food distribution site) located within the downtown area. Various convenience stores and a Coborn's supermarket are located near roadways that cross CSAH 75.

Food assets are often along some sort of active transportation facility. Locations in the downtown area have a nearby sidewalk. Some food assets along CSAH 75 have access to the Lake Wobegon Trail.

Large Employers

Among the City's largest employers are CSB and Kennedy Community School. Asphalt Service Technologies facility located in the east industrial park along CR 134 is a major employer. Another is Woodcrest of County Manor, a senior living and health care facility along College Avenue S.

Parks

Eight city parks, the Lake Wobegon Trailhead and Visitors Center, and an archery range can be found within the City of Saint Joseph.

The larger parks generally have access to nearby sidewalks or shared use paths. As a result, residential areas near these parks are more likely to have active transportation facilities. It should be noted that many of the city's smaller neighborhood parks have limited or no sidewalk access.

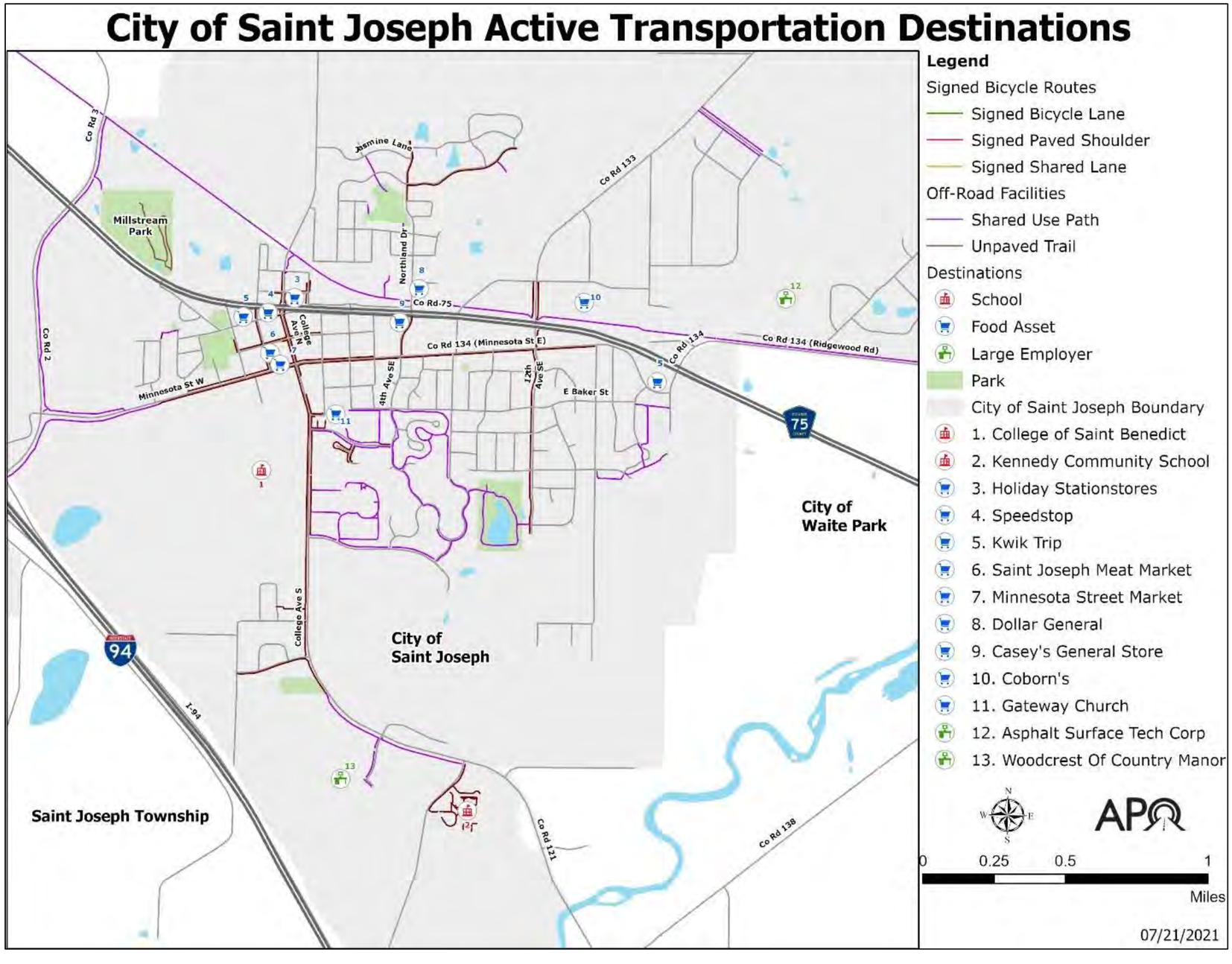


FIGURE C.9 – DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN SAINT JOSEPH.

SAFETY

According to the Minnesota Department of Public Safety (DPS), fatalities, serious injuries, and minor injuries involving bicyclists and pedestrians are rising within the Saint Cloud MPA.

Specifically, within the City of Saint Joseph, DPS crash data has indicated that nine crashes involving active transportation users and vehicles have occurred in the 10 years between 2010 and 2019. See Figure C.10 for locations and severity.

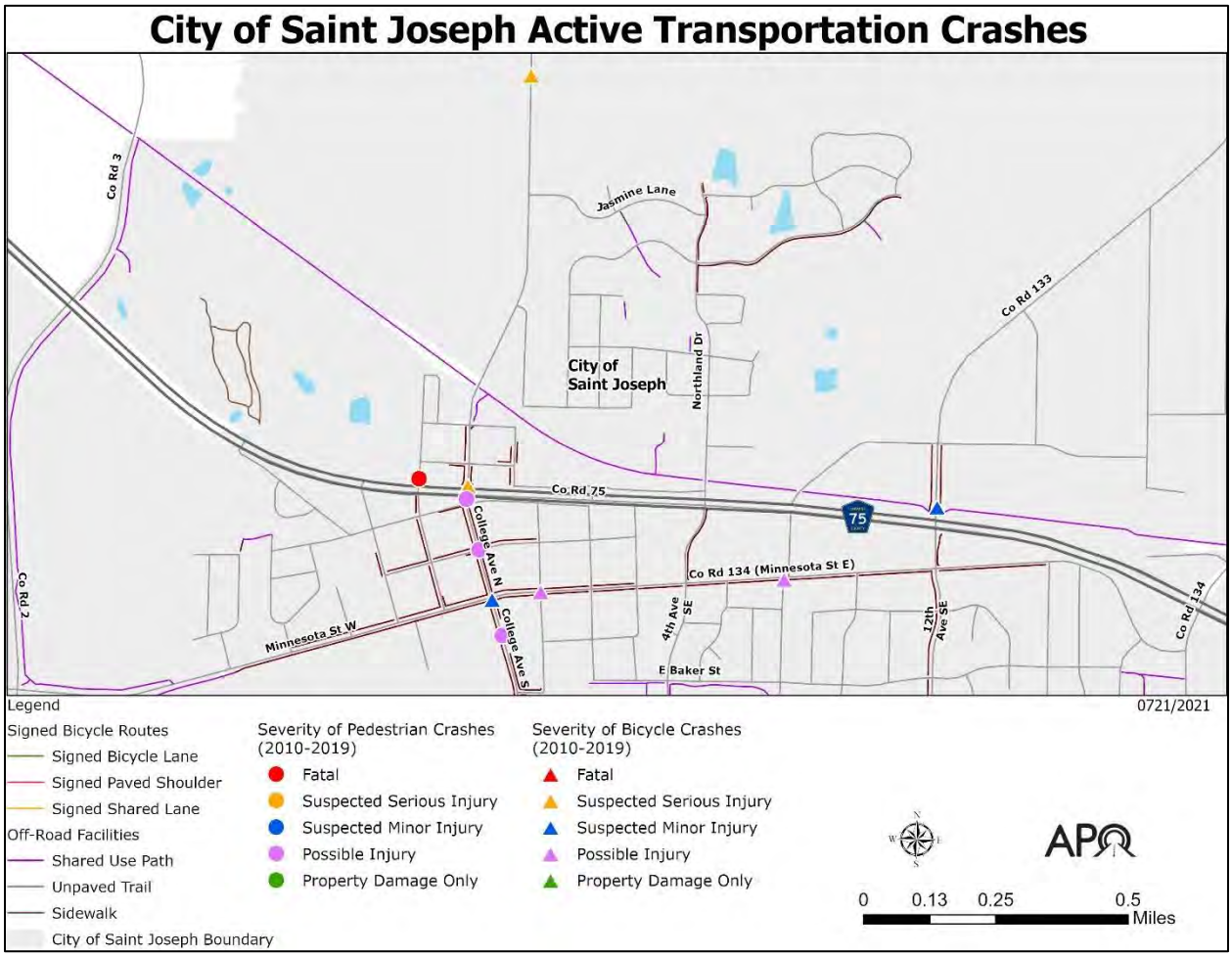


FIGURE C.10 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS (2010-2019).

Most of the crashes occurred within or near the downtown area of Saint Joseph. While most resulted in minor injuries, a fatality and two serious injuries to pedestrians occurred. A crash at a location along the frontage road north of the First Avenue NE intersection with CSAH 75 resulted in the death of a child. A bicyclist was seriously injured in a crash at the intersection of College Avenue N and CSAH 75. According to the report, the cyclist was legally crossing but could not be seen by the driver. Another crash with a serious injury to a cyclist occurred further north on County Road 2. In this instance, the cyclist was impaired, and night conditions may have contributed.

Crash history is reviewed to determine locations where crashes appear to be more likely to occur and whether there may be an engineering solution or partial solution to help mitigate

the crashes. While most of the crashes involving pedestrians and bicyclists were in the downtown area along College Avenue and Minnesota Street, only one location, the CSAH 75/College Avenue intersection, had more than one crash in 10 years. Crash reports indicate that the driver did not see the pedestrian or cyclist of the vehicle in many cases. It is unclear from the DPS crash reports whether physical conditions at the crash locations were a contributing factor or if physical changes to the facilities may help mitigate future crashes.

PROGRAMMED AND PLANNED IMPROVEMENTS

As a guide to transportation and other investments, the City of Saint Joseph maintains a Capital Improvement Program (CIP). The CIP includes the projected five-year program of projects based on current needs and available revenues. The CIP contains short-term projects designed to improve active transportation facilities. The CIP also indicates anticipated future revenues that may be available to implement such projects.

One such project identified jointly by both Saint Joseph and Stearns County is the active transportation improvements to CSAH 133 to be completed as part of the programmed roadway reconstruction. In addition to the roadway expansion from CSAH 75 to 15th Avenue, this project will also include ADA compliant elements with a sidewalk and/or shared use path on at least one side of the roadway. Intersection improvement will also be made at the Elm Street intersection (a potential roundabout) address safety concerns.

Also identified in the CIP is a northern sidewalk connection along Northland Drive and a shared use path connection that would extend from 20th Avenue SE to existing neighborhood facilities.

Long-term (though currently unfunded) goals for the City's active transportation network include a grade-separated bicycle and pedestrian crossing of CSAH 75 as recommended in the 2017 CSAH 75 Pedestrian Crossing Study.

The city also has a long-term plan to acquire right-of-way and extend a new north roadway corridor from 73rd Avenue to CSAH 133. When built, the new north corridor may also include the addition of active transportation facilities, according to city staff.

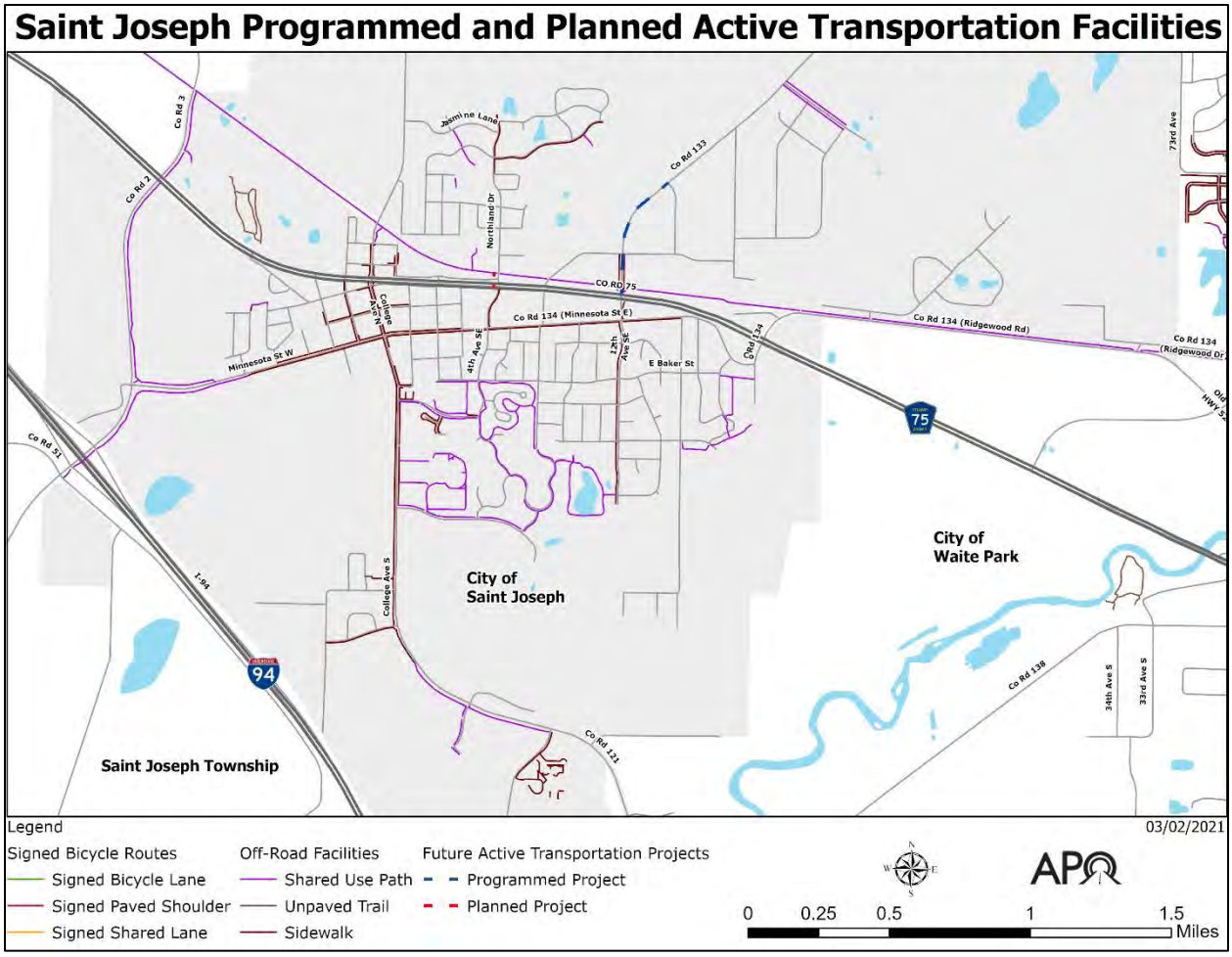


FIGURE C.11 – EXISTING NETWORK WITH PROGRAMMED AND PLANNED FACILITIES FOR THE CITY OF SAINT JOSEPH.

ACTIVE TRANSPORTATION NEEDS ASSESSMENT

APO staff performed a citywide analysis of facility and other needs for active transportation users to supplement and inform current city planning efforts. The intent of this assessment, conducted in coordination with city staff and representatives, was to identify active transportation needs within the city and assist in prioritizing those needs in the event funding becomes available.

GOALS AND OBJECTIVES FOR ACTIVE TRANSPORTATION

The regional goals and objectives for active transportation as adopted by the APO provide a starting point for the Saint Joseph needs assessment.

Those goals were:

1. Improve bicycle and pedestrian safety and comfort.
2. Improve active transportation connections to desired destinations.
3. Improve the condition of active transportation infrastructure.
4. Provide equitable access to active transportation facilities for all people of all abilities.
5. Promote an interconnected regional active transportation network.

The evaluation factors were equally applied for assessing needs within each city and across the MPA. The goals, objectives, and factors used to evaluate services and needs relative to each objective are detailed in Chapter 4. Performance ratings from the evaluation of factors for Saint Joseph are shown in Figure C.12.

Saint Joseph			2019
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average			*0.4*
Percentage miles of arterials & collectors that have a sidewalk or shared use path (SUP) on at least one side			*49.7%*
Percent of destinations that fall within distance categories	Schools	0 Ft (Asset Served by AT Facility)	*100.0%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Food Assets	0 Ft (Asset Served by AT Facility)	*30.0%*
		1-310 ft (One block or less)	*40.0%*
		311-930 ft (Two to three blocks)	*30.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Large Employers	0 Ft (Asset Served by AT Facility)	*50.0%*
		1-310 ft (One block or less)	*50.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Parks	0 Ft (Asset Served by AT Facility)	*83.3%*
		1-310 ft (One block or less)	*16.7%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Transit Stops	0 Ft (Asset Served by AT Facility)	*NA*
		1-310 ft (One block or less)	*NA*
		311-930 ft (Two to three blocks)	*NA*
		> 931 ft (Four or more blocks)	*NA*
Percent of street crossings that do not meet full ADA standards			*80.0%*
Miles of Active Transportation facilities per 1,000 residents in EJ/Title VI Sensitive Areas in comparison to non-sensitive areas			*0.0:3.1*
Percent mileage of Regional Priority bicycle facilities that do NOT exist			*62.2%*
Percent of on-road bicycle facilities with poor pavement			*NA*
Percent of SUP with rough/very rough pavement			*11.4%*

FIGURE C.12 – SAINT JOSEPH PERFORMANCE REPORT CARD (2019).

NEEDS ASSESSMENT METHODOLOGY

From the goals and objectives framework, APO staff, in coordination with Saint Joseph city staff and community volunteers, developed the following methodology to address critical gaps in the current active transportation system. It should be noted that while this process

does not account for every gap or need in the network, it does focus on addressing gaps utilizing existing data as it relates to the region's active transportation goals and objectives.

The APO's active transportation needs assessment methodology was broken into three phases. Beginning with an in-depth analysis of transportation networks, APO staff identified issues and needs within individual communities across the region. This cursory review led to a more detailed analysis of active transportation needs for focus areas identified within each city and ultimately the identification of jurisdictional-level project recommendations – Phase 2. In the final phase, local and regional needs identified in the previous phases were prioritized according to the degree goals and objectives would be addressed.

Phase 1: Evaluating Needs for the City of Saint Joseph

In order to begin this evaluation, APO staff reviewed needs and service area gaps relative to the factors listed under goals 1-4. APO staff compiled a series of maps and data that detailed the city's existing active transportation conditions. Utilizing the objectives and applying factors (as identified in Chapter 4), staff began to dive into the existing conditions data to look for network gaps or areas of concern (i.e., high crash locations, locations of under-designed on-road/off-road facilities).

Figure C.13 summarizes the findings for the City of Saint Joseph.

Considered along with the factors were the comments from the APO's initial public input along with comments from city staff. Areas where multiple issues were revealed when the factors were applied became the focus of further review and analysis.

Phase 2: Analysis of Saint Joseph Focus Areas

From the process described for the review of needs and gaps for the City of Saint Joseph, the following areas were identified as priority areas for improvements.

- College Avenue/Stearns CSAH 2 area.
- Fourth Avenue NE/Northland Drive area.
- Stearns County Road 134 area.

APO staff working in conjunction with city staff for each focus area further analyzed needs and issues and worked to identify possible solutions.

It is important to note that all three focus areas identified have one common feature: CSAH 75. Ensuring pedestrians and bicyclists can safely cross this roadway has been identified in the City's plans and APO studies as an ongoing challenge. Given the growing vehicle traffic on CSAH 75 and the popularity of the Lake Wobegon Trail, these issues have increased in significance. Current traffic counts show a daily average of 11,700 vehicles on CSAH 75, with much higher usage at peak times. Data from 2014 shows that approximately 35,000 people use the Lake Wobegon Trail annually. The potential for conflicts coupled with the need to provide access for active transportation users led to identifying these focus areas.

Analysis of Areas of Need - Saint Joseph

	Safety & Comfort Factors						Connectivity Factors			Facility Condition			Equity Factors			Issues	Potential Treatments
		1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern		1 Access to Destinations	2 Access to Transit		1 On Road Conditions	2 Off Road Conditions		1 Underserved Demographic	2 ADA Compliance		
College Avenue/CR 2 (Downtown Area)			X		X	X									X	Downtown area - crashes with injuries, one fatality, intersection not ADA compliant, no facilities north of Lake Wobegon Trail.	Pedestrian and bicycle crossing improvements, traffic calming, bring intersections to ADA standards, adding active transportation facilities and connections.
College Avenue/CR 121 (Kennedy School Area)					X	X		X								Vehicle speeds and safety concerns for students, serves destinations (school, major employer), no facilities on CR 121 south of Jade Road.	Pedestrian and bicycle crossing improvements, traffic calming, adding active transportation facilities and connections.
4th Avenue NE /Northland Drive						X		X								Vehicle speeds and safety concerns for crossing CSAH 75, intersection not ADA compliant, serves destinations (food assets, park).	Pedestrian and bicycle crossing improvements, traffic calming, bring intersections to ADA standards, adding active transportation facilities and connections.
12th Ave NE /CR 133					X	X		X								Vehicle speeds and safety concerns for crossing CSAH 75, no facilities north of Elm Street, serves destinations (food assets).	Stearns County and city funded project along CR 133 will improve crossings, bring intersections to ADA standards, and add active transportation facilities.
20th Ave SE /CR 134					X	X		X							X	Vehicle speeds and safety concerns for crossing CSAH 75, intersection not ADA compliant, serves destinations (food assets, large employer),	Adding active transportation facilities and connections, pedestrian and bicycle crossing improvements, bring intersections to ADA standards,

FIGURE C.13 – SAINT JOSEPH NEEDS ANALYSIS.

College Avenue/County Road 2 Area

As shown in Figure C.14, this focus area covers the length of College Avenue from Jasmine Lane to Calloway Street, its adjacent land use, and the connecting street network. Parts of the downtown are within this area as is the Lake Wobegon Trailhead and Visitors Center and residential areas and businesses north of CSAH 75.

This area was chosen due to a high level of activity from all transportation modes, the history of crashes, crossing concerns, and limited facilities.

NEEDS AND ISSUES

The core area of the City of Saint Joseph, where College Avenue intersects with CSAH 75, is the primary access to the City's many downtown attractions and CSB campus. Users of the Lake Wobegon Trail will typically cross CSAH 75 to reach the many food conveniences and other services in the downtown area. The high usage in this area increases the potential for conflicts.

The amount of traffic in this area and the safety of active transportation users are of primary concern. Vehicle traffic volumes along CSAH 75 in this area are very high, as is the vehicle traffic and turning movements north and south of the highway onto College Avenue and First Avenue NW. Of the intersections along CSAH 75 that were counted as part of the 2017 planning study, the highest usage from bicycles and pedestrians was the intersection at College Avenue. More crashes have occurred in the downtown area than elsewhere in the city. While speeds on collectors and arterials within this area are posted at 30-35 mph, speeds increase to 55 mph north of Jasmine Lane.

This area has a large number of active transportation users primarily due to the location of the Lake Wobegon Trailhead and Visitors Center. This destination includes a large parking area, a shelter, and bike share facilities. The Lake Wobegon Trail crosses College Avenue at a signed location marked with a crosswalk but without a signal. This crossing, which users must take to get to and from the trailhead facilities, has been identified by Stearns County as non-compliant with ADA standards.

While there are sidewalks south of the Wobegon that lead to downtown and the college area, there are no sidewalks or other active transportation facilities to the north. The gap in sidewalk connectivity to the north was identified in the 2017 planning study. Existing neighborhoods, mainly east of County Road 2, appear to lack adequate facilities for walking and bicycling.

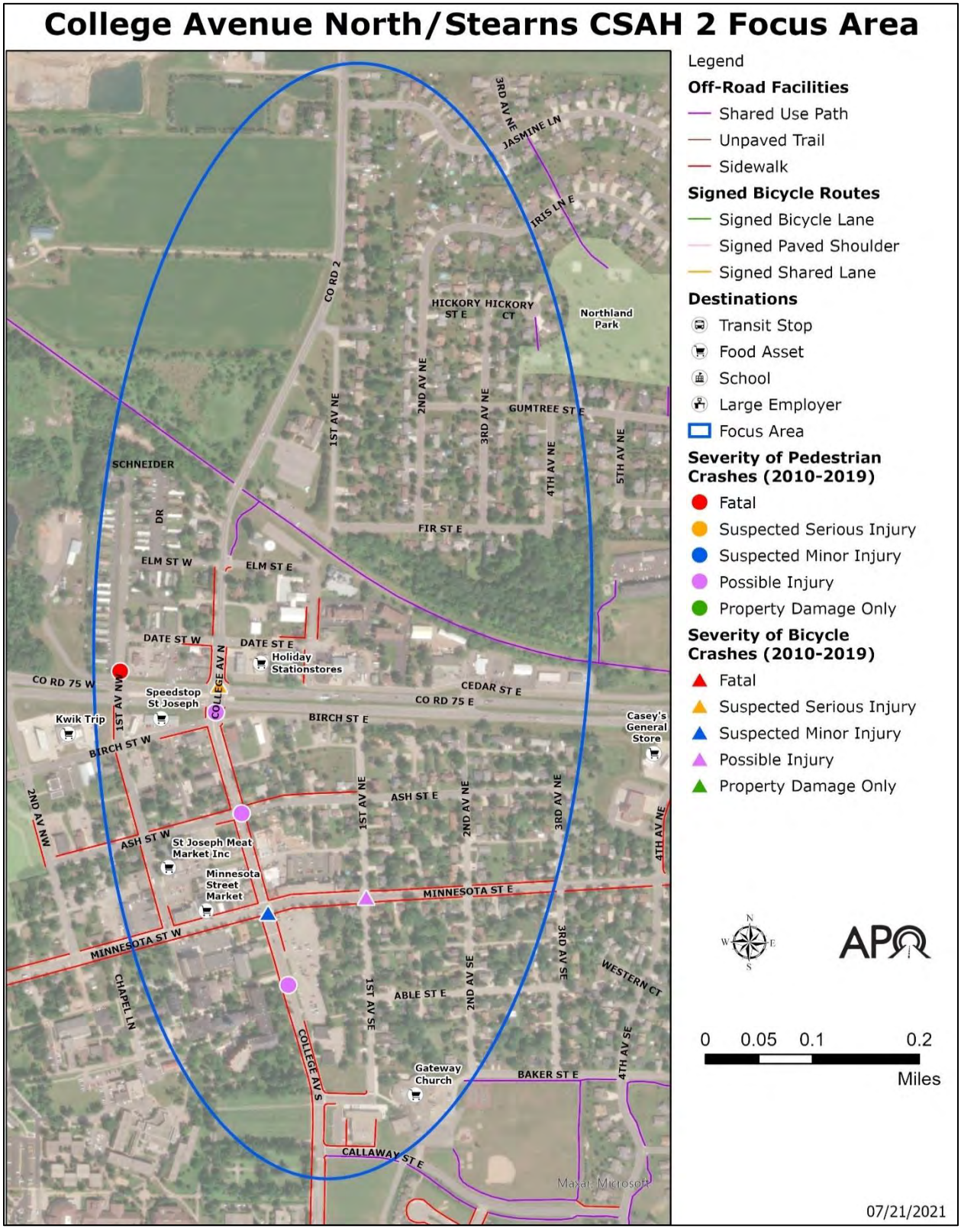


FIGURE C.14 – COLLEGE AVENUE/COUNTY ROAD 2 FOCUS AREA IN THE CITY OF SAINT JOSEPH.

RECOMMENDATIONS

- Add additional sidewalk or a shared use path along College Avenue N/County Road 2 north from the Lake Wobegon Trail to Jasmine Lane. Consideration should be given to additional connections from the northside neighborhoods.
- Further study of safety improvement needs at the First Avenue NW and College Avenue crossings of CSAH 75. The density of development in this area and growing traffic from all modes increases the potential for conflicts. The areas around these intersections should be monitored and studied, with safety improvements implemented as needed.
- Improve the Lake Wobegon Trail crossing of County Road 2 with a pedestrian-activated signal and otherwise upgrade to meet ADA compliance standards.

Fourth Avenue NE/Northland Drive Area

As shown in Figure C.15, this area extends from Jasmine Lane to Baker Street along Fourth Avenue NE and Northland Drive. The area includes Northland Park, the CSAH 75 signalized crossing, adjacent neighborhood areas, and the connecting street network.

This focus area was identified due to bicycle and pedestrian safety concerns in crossing the CSAH 75 and the lack of connecting facilities to destinations like the Lake Wobegon Trail, a city park, and northside neighborhoods.

NEEDS AND ISSUES

The Lake Wobegon Trail crosses Northland Drive near the Cedar Street E frontage road and CSAH 75. Currently there is no facility that connects to the Wobegon. However, it is known from the planning study that large numbers of pedestrians and bicyclists leave the trail and cross CSAH 75 at this intersection to reach south side destinations. Aside from the regional trail itself and a short stub connecting to Boulder Ridge Apartments, there are no sidewalks or other facilities that connect to the trail in this area. On the south side of CSAH 75, the only network connection is a sidewalk along one side of Fourth Avenue NE.

The 2017 planning study recommended a grade-separated underpass of CSAH 75 be constructed in this area. The study notes interim steps will need to be included to further connect the northern CSAH 75 and southern CSAH 75 portions of the active transportation network along with the existing signalized crossing at Fourth Avenue NE.

The short-term connectivity and safety recommendations from the 2017 study are new approaches to the east and south of the Fourth Avenue NE/Northland Drive intersection. The study recommends that marked crosswalks and pedestrian-activated signals be installed at the intersection, a south spur extension of the Lake Wobegon Trail, and a sidewalk to the north. The city will be adding sidewalks along the east of Northland Drive to Northland Park.

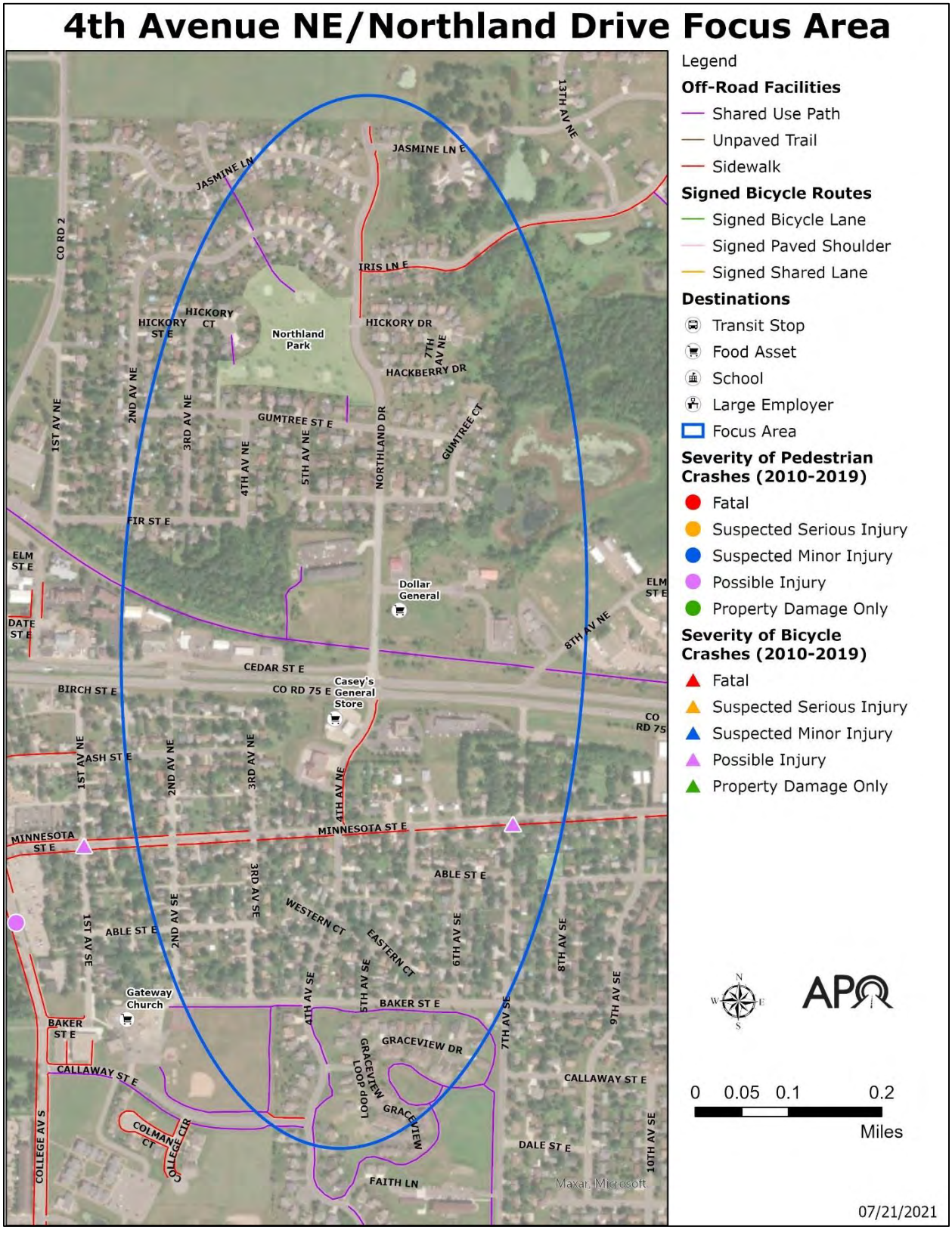


FIGURE C.15 – FOURTH AVENUE NE/NORTHLAND DRIVE AREA OF FOCUS.

RECOMMENDATIONS

- This plan reiterates the findings of the CSAH 75 Pedestrian Crossing Study to make a shared use path connection from the Lake Wobegon Trail to CSAH 75 east of the Northland Drive/Fourth Avenue NE intersection. With this connection, relocate the existing at-grade crossing of CSAH 75 with the suggested design for crosswalks and pedestrian-activated signals.
- Add a sidewalk from CSAH 75 to Hickory Drive to fill the sidewalk gap.
- Install a shared use path from CSAH 75 to Fifth Avenue NE so user of the Lake Wobegon Trail can bike from the trail to their neighborhood.
- Build a grade-separated crossing of CSAH 75 consistent with the CSAH 75 Pedestrian Crossing Study recommendations.

Stearns County Road 134 Focus Area

As shown in Figure C.16, the Stearns County Road 134 focus area extends from 16th Avenue NE to the east industrial park along Ridgewood Rd/CR 134. Included are businesses and the neighborhood area south of CSAH 75.

This area was chosen due to safety concerns, the lack of facility connections to the Lake Wobegon Trail, and the location of destinations attracting pedestrians and bicyclists.

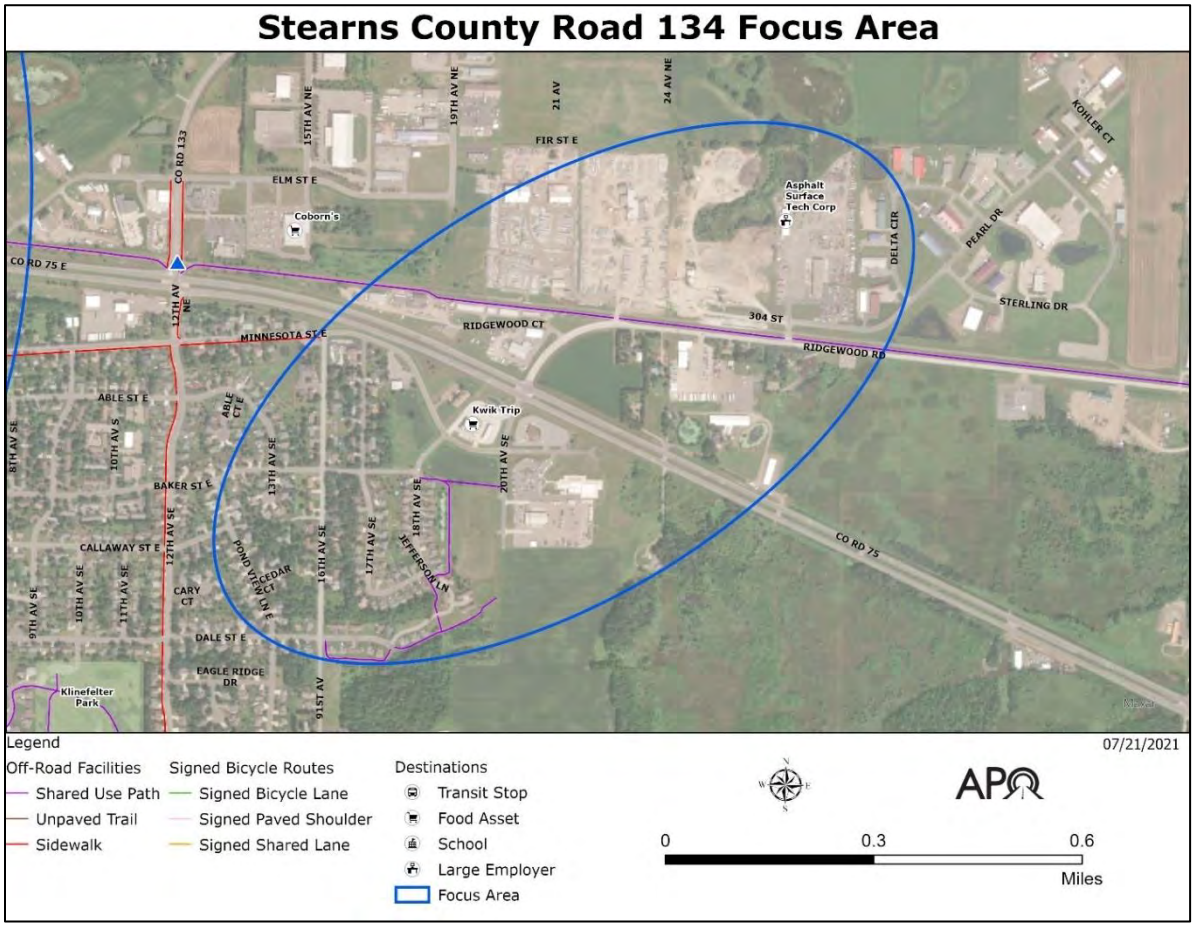


FIGURE C.16 – STEARNS COUNTY ROAD 134 AREA OF FOCUS IN SAINT JOSEPH.

NEEDS AND ISSUES

A portion of the Lake Wobegon Trail, the east industrial park, food destinations, and homes south of CSAH 75 lack connections for bicycles and pedestrians. The existing sidewalk on Minnesota Street from the west stops at 16th Avenue. The city is building a new shared use path along 20th Avenue SE connecting south with the shared use path on Dale Street. This improvement, though still missing, is connecting facilities to Minnesota Street and north and south of CSAH 75.

Projects that would complete facility gaps north and south of the intersection of CSAH 75 and County Road 134 would be consistent with the recommendations from the CSAH 75 Pedestrian Crossing Study. However, due to heavy truck usage on County Road 134, pedestrians and bicycles will be discouraged from crossing CSAH 75 at the County Road 134 intersection until separated off-road facility connections are in place. This was also recommended in the 2017 planning study.

RECOMMENDATIONS

- Extend the sidewalk or add a shared use path from where the sidewalk ends on Minnesota Street east to 20th Avenue, then continue this facility north along County Road 134 to connect with the Lake Wobegon Trail.
- After adding the recommended separated facility connections, improve the intersection crossing of County Road 134 and CSAH 75 as recommended in the 2017 planning study.

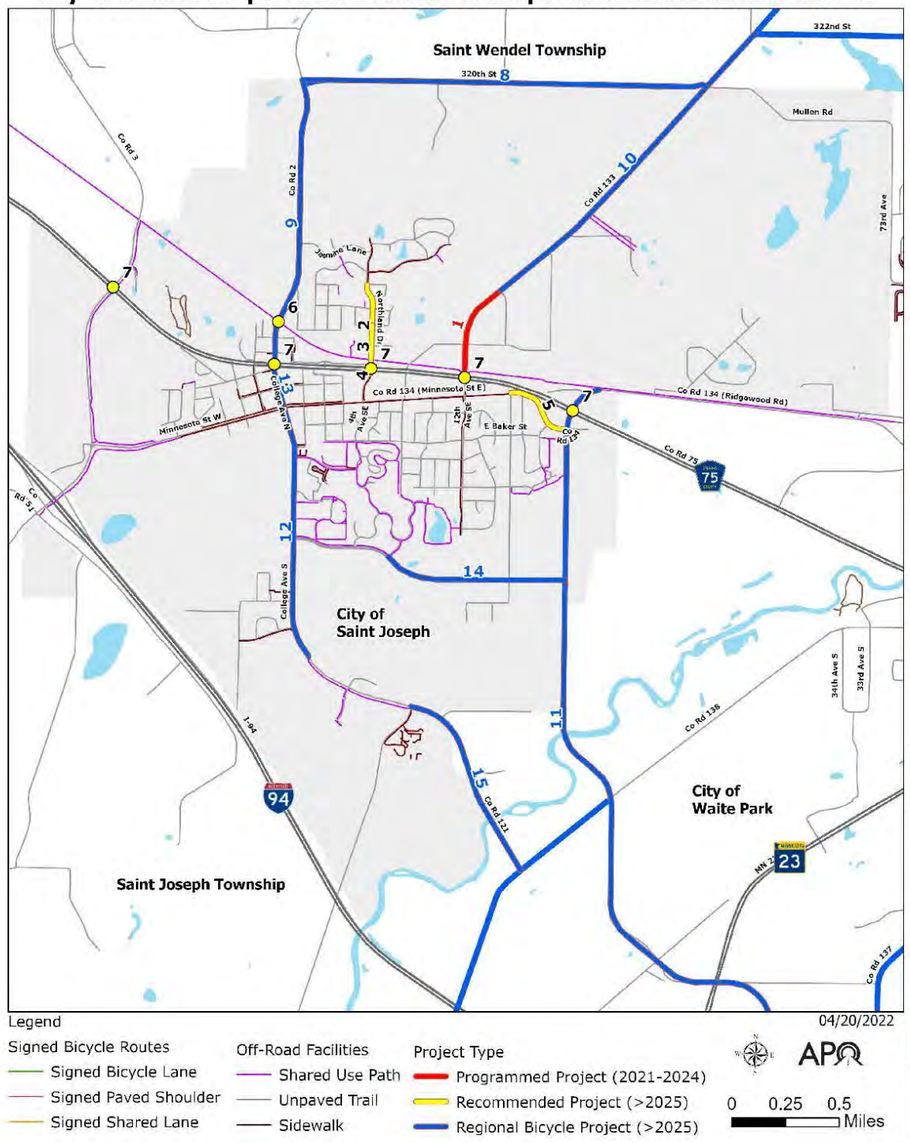
Phase 3: Evaluating Needs for the Region

The final phase of the needs analysis was to identify improvements to the regional facility network within the City of Saint Joseph. These projects would assist in achieving an interconnected active transportation network that satisfies regional needs.

Regional bicycle facilities will logically connect cities and other parts of the planning area outside of Saint Joseph and include potential links to areas outside the planning region. Projects that connect the area regionally will provide an approximate spacing of two miles between facilities. In structuring a regional system, the preference is to complete gaps with shared use paths over on-road facilities.

Recommended regional facilities to extend the existing system within Saint Joseph include adding shared use paths along County Road 133 north to Saint Cloud and Sartell, along College Avenue (County Road 2/County Road 121), and along Field Street east through the city.

City of Saint Joseph Future Active Transportation Recommendations



Map Number and Description	
1	Install sidewalks along Stearns CSAH 133 from 15th Avenue NE to Stearns CSAH 75.
2	Construct a sidewalk from CSAH 75 to Hickory Drive.
3	Install a shared use path from CSAH 75 to Fifth Avenue NE.
4	Build a grade separated crossing of Stearns CSAH 75 at the Northland Drive/4th Avenue SE crossing.
5	Construct a sidewalk or shared use path along Stearns CSAH 134 from end Minnesota Street sidewalk to 20th Avenue SE.
6	Improve the Stearns CSAH 2 crossing of the Lake Wobegon Trail.
7	Add a leading pedestrian interval (LPI) at signalized intersections on Stearns CSAH 75 as warranted.
8	Construct a regional shared use path along 320th Street.
9	Build a regional shared use path along Stearns CSAH 2.
10	Construct a regional shared use path along Stearns CSAH 133.
11	Build a regional shared use path along future beltway connection.
12	Construct a regional shared use path along College Avenue S (Stearns County Road 121) from Minnesota Steet to southern shared use path.
13	Install bicycle facilities along College Avenue between Minnesota Street to CSAH 75.
14	Build a regional shared use path along future Field Street that will connect to the future beltway.
15	Construct a regional shared use path along College Avenue S (Stearns County Road 121).

FIGURE C.17 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE CITY OF SAINT JOSEPH.

APPENDIX D: WAITE PARK CITY PROFILE

The City of Waite Park has grown from its historic roots as a railroad hub to become a primary center for retail and commercial activity within the MPA. Today, as the point at which MN 23 and CSAH 75 come together, Waite Park's significance to the region continues to grow along with the challenges of its position. While focused on responding to these demands, the "City with a Smile" retains its small-town values and strong neighborhood ties. The city strives to provide community facilities and services to support a good quality of life to be enjoyed by all.

DEMOGRAPHICS

According to the U.S. Census Bureau's 2014-2018 American Community Survey (ACS) Five-Year Estimates, the City of Waite Park has a population that has grown 16.1% since 2000.

The City of Waite Park strives to provide equitable service to all segments of the community in its transportation planning investments. The APO tracks specific population demographic subsets known as traditionally underrepresented populations at a regional level. This includes the following:

- People-of-Color (Black/African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and other Pacific Islander alone; some other race; two or more races; Hispanic or Latino descent regardless of race).
- Persons with low-income.
- People with disabilities.
- People with limited English-speaking capabilities.
- Households without access to a motor vehicle.
- Persons over the age of 65.
- Persons under the age of 18.

A look at these demographics finds that within Waite Park, many of these groups make up a large share of the City's population, more so than other cities in the MPA. People-of-color comprise about a third of the city's population. A large proportion of households (over 15%) are low income, and about 8% of households are without access to a vehicle.

See Figure D.2 below for details.

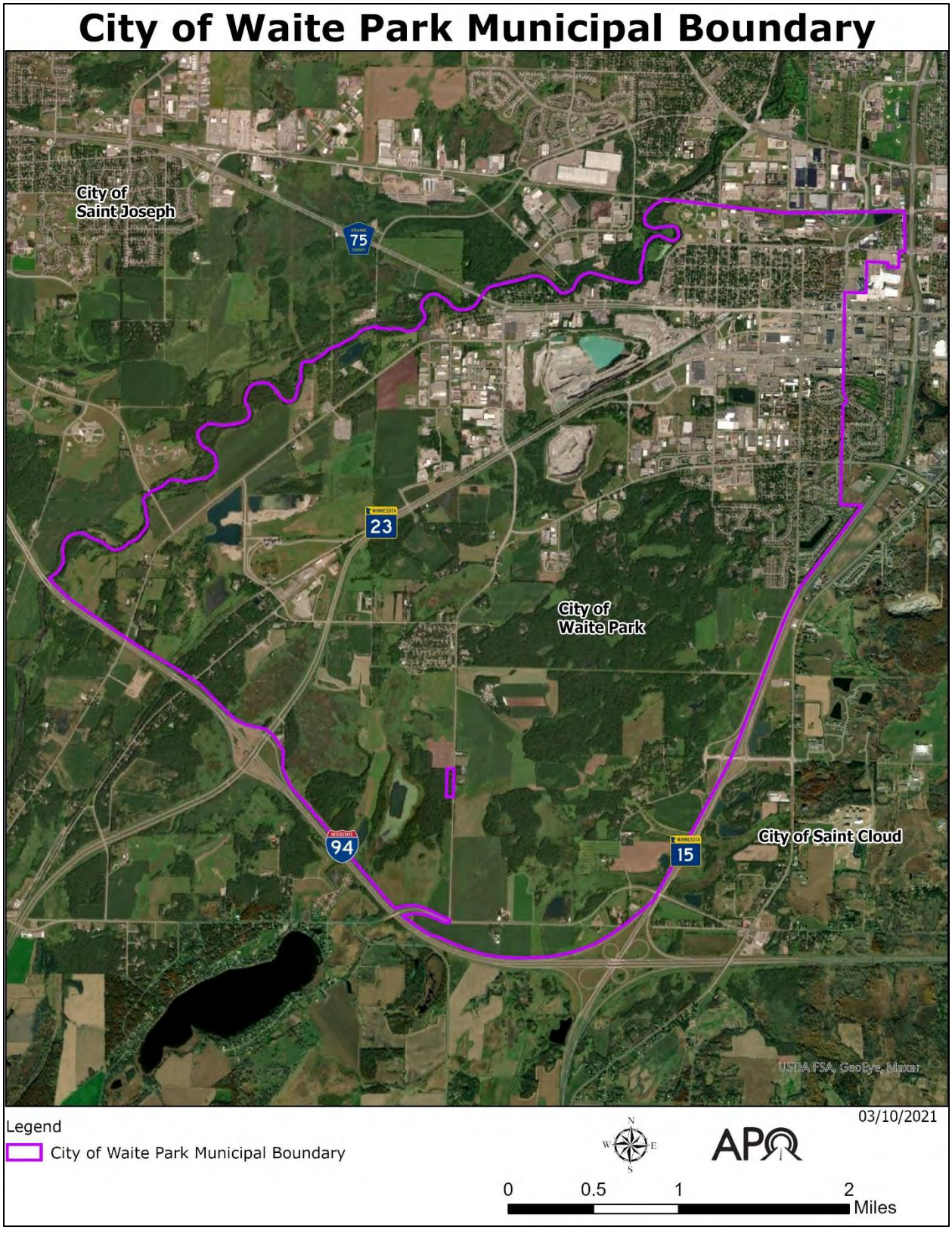


FIGURE D.1 – CITY OF WAITE PARK.

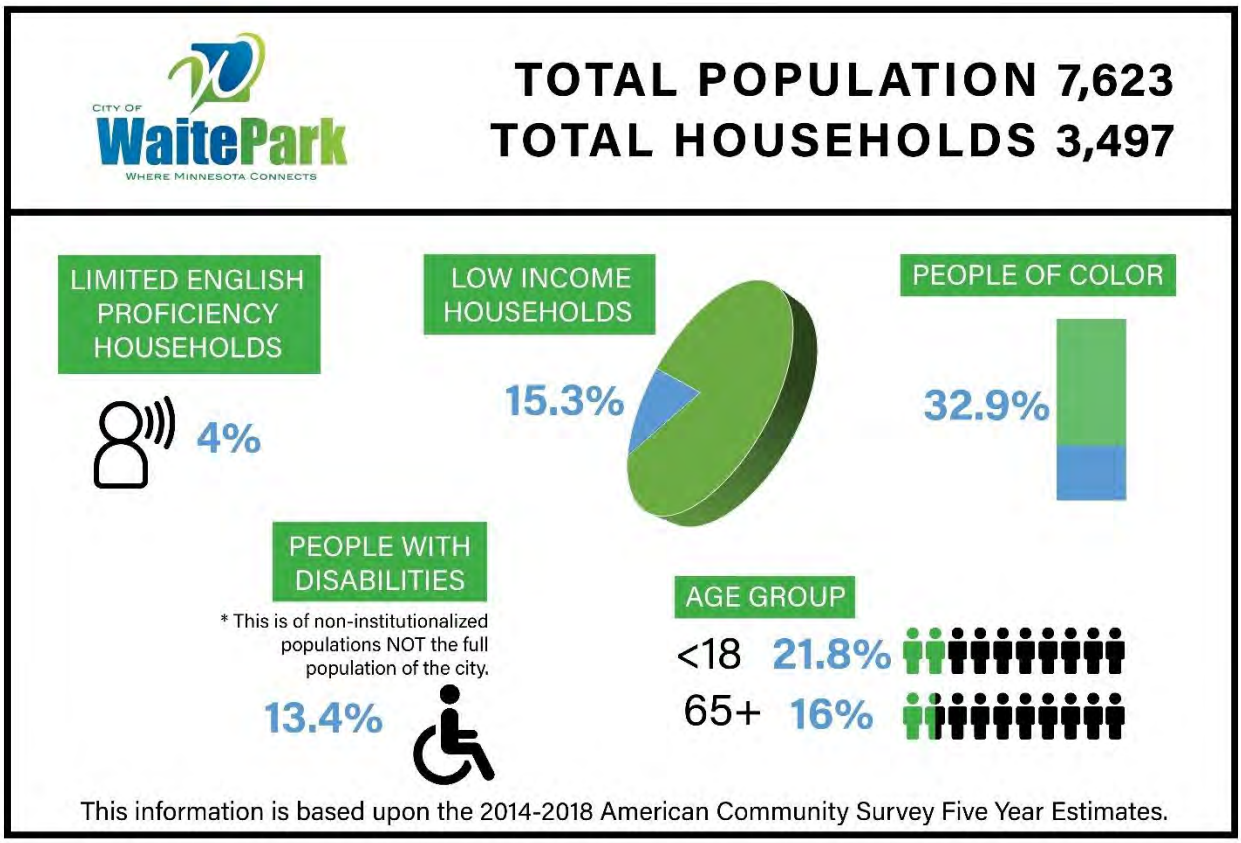


FIGURE D.2 – DEMOGRAPHIC PROFILE FOR THE CITY OF WAITE PARK.

EXISTING LAND USES

How cities use the land within their boundaries (i.e., residential, commercial, industrial, etc.) impacts the transportation network and the modes of travel available or desirable to users. Land use can play a role in developing a transportation system that is mode-friendly to both motorized and non-motorized users.

Based on the land use inventory developed with the City's 2005 Comprehensive Plan, updated to account for newly annexed areas, the city identified existing and proposed land uses as shown in Figure D.3.

The characteristic of Waite Park is a high concentration of commercial and light industrial uses along MN 23 and CSAH 75. Much of the remaining developed areas of the city are a mix of single-family (shown as suburban residential) and multiple-family residential uses.

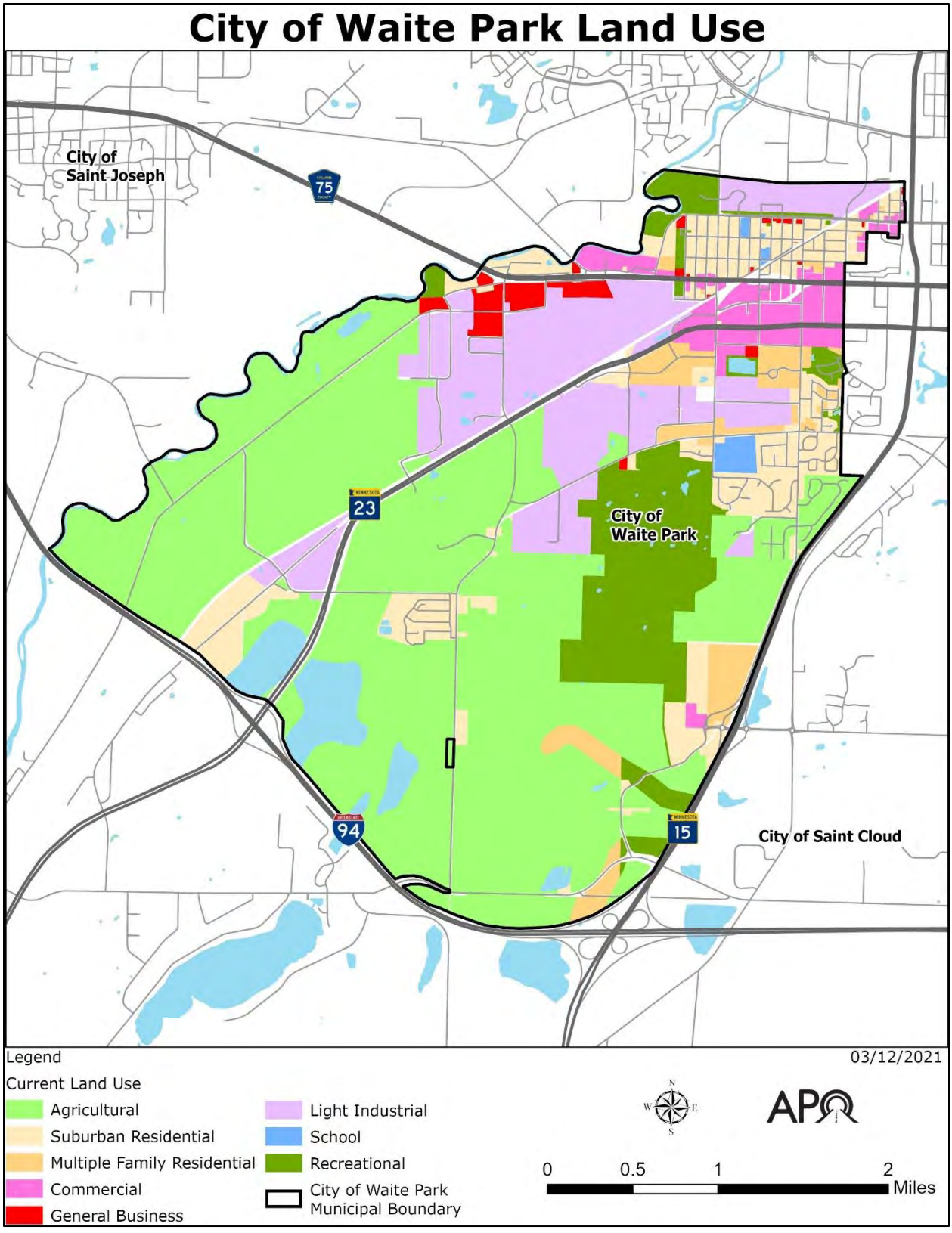


FIGURE D.3 – LAND USES WITHIN THE CITY OF WAITE PARK.

Understanding how the city plans to develop in the future will inform the type of transportation system needed. Residents and visitors will only reach these destinations through the transportation network that is available to them.

TYPES OF ACTIVE TRANSPORTATION INFRASTRUCTURE

Waite Park has a variety of infrastructure designed specifically for active transportation users. Some are integrated into the roadway network, such as bike lanes (on-road facilities). Others are separated from the roadway network, such as sidewalks and shared use paths (off-road). Complementing the on- and off-road active transportation network is the transit network operated by Saint Cloud Metro Bus. Bicyclists and pedestrians can rely on both the on- and off-road network and the Metro Bus system to reach their destinations.

ON-ROAD FACILITIES

The City of Waite Park has one on-road bicycle facility along Second Avenue S. This 1.8 mile signed bike lane starts south of Stearns County Road 137/Seventh Street S and ends when the roadway becomes Graniteview Road.

OFF-ROAD FACILITIES

Shared Use Paths and Trails

There are 19.5 centerline miles of shared use paths within the city (See Figure D.4). This includes the Lake Wobegon Trail, a regionally significant facility with connections to Saint Joseph, Saint Cloud, and cities west beyond the MPA. This facility was extended from Saint Joseph to Waite Park in 2018 and provides access to the Healthy Living Trail from Rivers Edge Park.

Many southside areas of the city are served with shared use paths, particularly those along Seventh Street South and 28th Avenue S. Nearby paths provide many neighborhoods access to the City's parks, recreational areas, and schools.

In addition to shared use paths, Stearns County's Quarry Park and Nature Preserve (located within Waite Park) is home to several unpaved trails.

Sidewalks

Approximately 29.2 miles of sidewalk are located throughout much of the developed core of Waite Park. A sidewalk grid between CSAH 75 and Third Street N serves older neighborhood areas and the McKinley School. Much of the remaining city sidewalks are along southside collector routes.

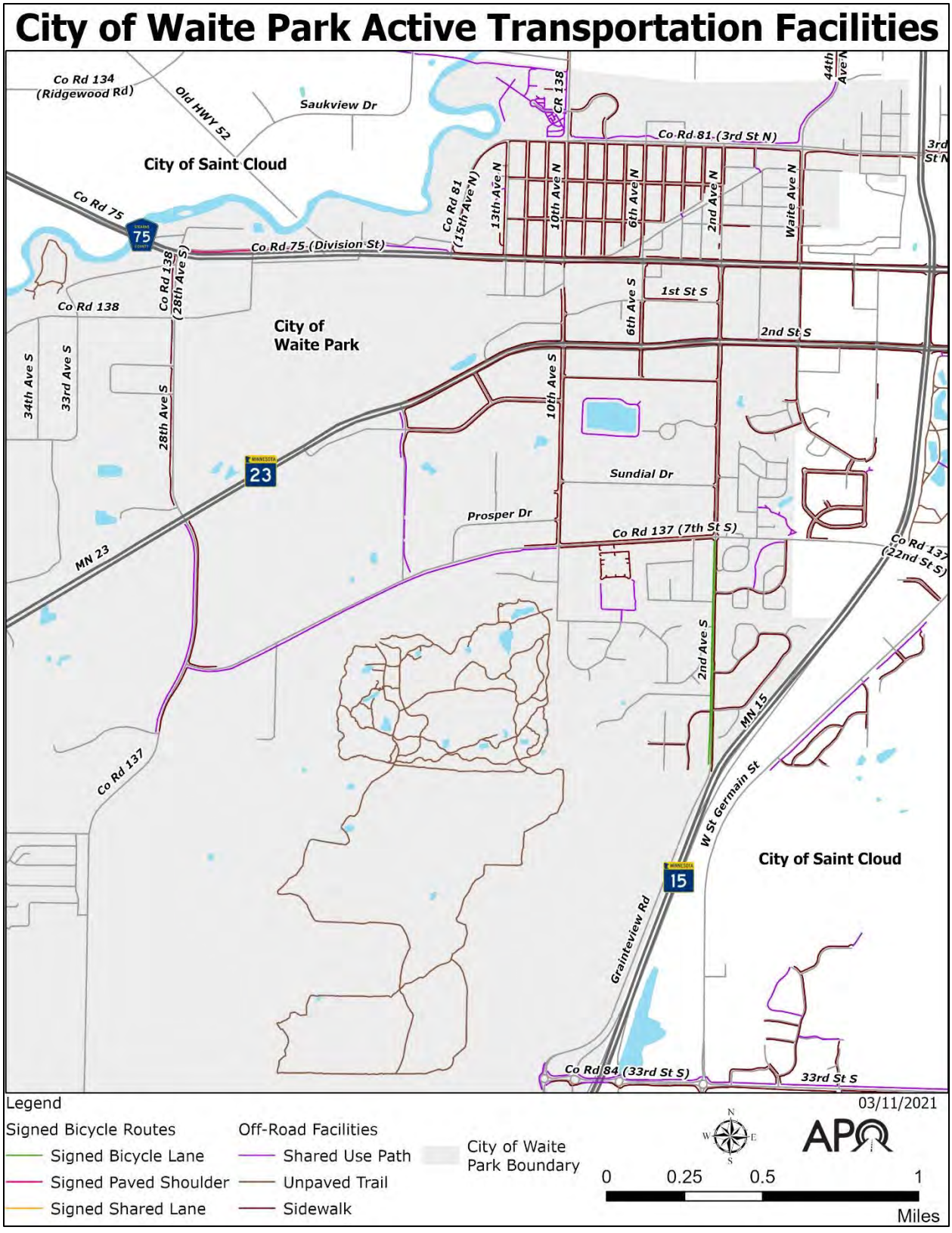


FIGURE D.4 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN WAITE PARK BY TYPE AND LOCATION.

TRANSIT SERVICES AND INFRASTRUCTURE

As the urban public transit provider, Saint Cloud Metro Bus is responsible for the daily management, operation, and maintenance of Fixed Route (FR) and Dial-a-Ride (DAR) systems within Saint Cloud, Waite Park, Sartell, and Sauk Rapids.

FIXED ROUTE SERVICE

Metro Bus provides fixed route transit service to the City of Waite Park seven days a week through routes 1, 2, 3, and 5. Crossroads Center in Saint Cloud is a primary transfer site and connection point to other Metro Bus routes.

Routes 1 and 2 provide service to roughly the same area of north Waite Park; however, they operate from opposite directions. These are primarily east/west routes and include stops at McKinley School River's Edge Park.

Route 3 is a loop that circulates through much of the developed area of Waite Park. Route 3 connects southside neighborhoods to Waite Park's commercial district along with providing access to the Stearns County Service Center, Tri-CAP, and Quarry Park.

Route 5 provides access to the southern residential portion of the city and stops at destinations such as WACOSA, Goodwill, and Cash Wise Foods.

All fixed route transit stops on each Metro Bus route are signed. Many of these stops, particularly on the east side of Waite Park, include benches and shelters.

Figure D.5 shows how the Metro Bus routes are laid out and connected. Figure D.6 shows the location of transit stops and how close they are to active transportation infrastructure. While transit stops in Waite Park typically include sidewalk access, there are few bicycle facilities to continue trips from the bus stop to homes and various destinations.

FIGURE D.5. METRO BUS FIXED ROUTE SERVICE WITHIN THE CITY OF WAITE PARK.

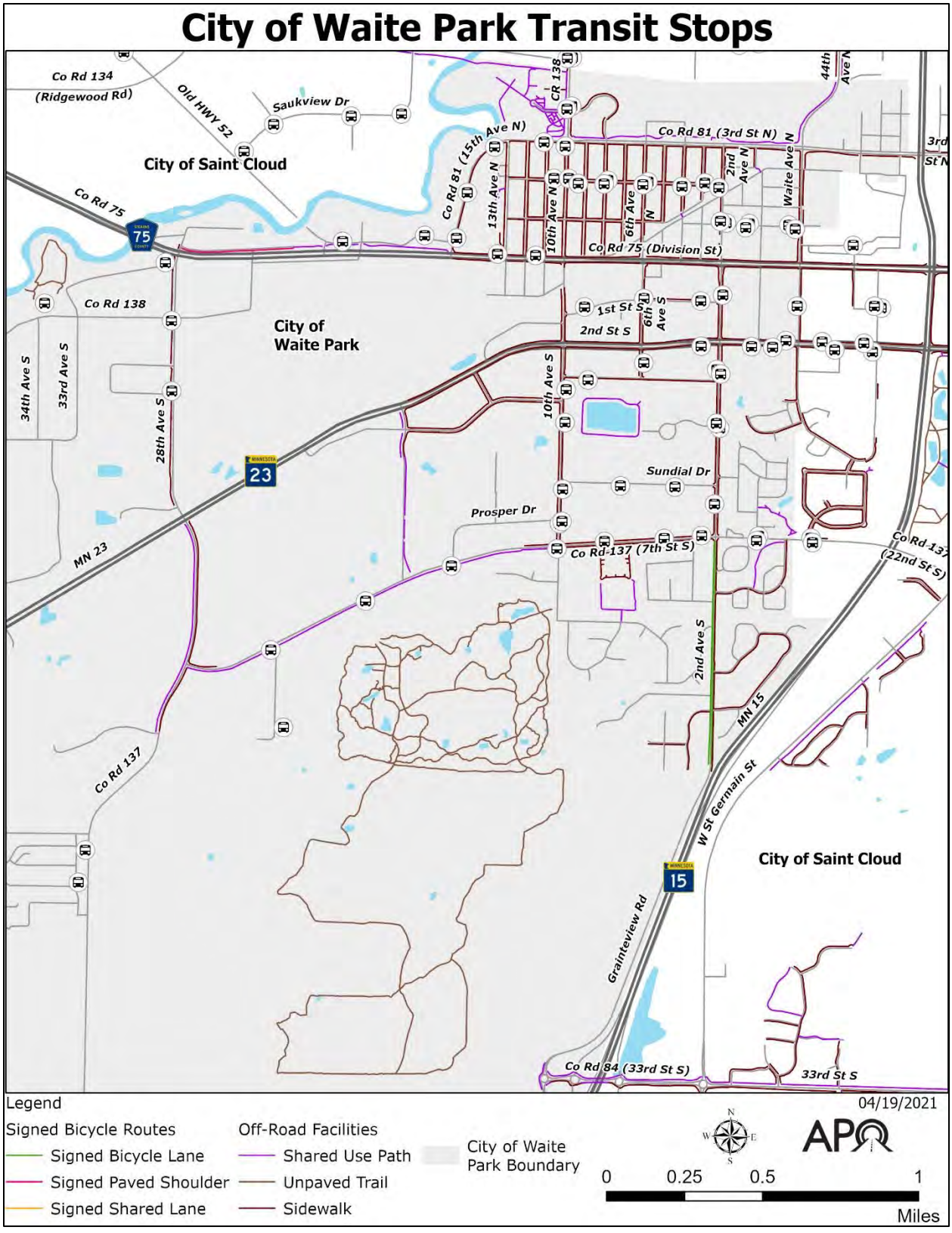


FIGURE D.6. TRANSIT STOPS IN RELATION TO THE ACTIVE TRANSPORTATION SYSTEM IN WAITE PARK.

OTHER TRANSIT SERVICES

Metro Bus also offers additional transit service for Waite Park residents. Dial-a-Ride (DAR) is an operator-assisted paratransit service provided for those unable to use fixed routes. The DAR service area has a three-quarter mile buffer around all four fixed bus routes.

CONDITION OF ACTIVE TRANSPORTATION INFRASTRUCTURE

If the existing active transportation infrastructure is in poor condition, it may cause safety issues, inconvenience for the user, or result in the underutilization of the facility. Keeping the system in good condition assures safety and a comfortable experience.

Data on the current pavement conditions for the on- and off-road active transportation facilities within the City of Waite Park was collected from areawide surveys performed for the APO as discussed in Chapter 2 of the ATP.

ON-ROAD FACILITIES

Pavement Condition and Striping

In 2019 GoodPointe Technology collected pavement and striping condition data for Second Avenue S, the only existing on-road facility in Waite Park.

Pavement condition was evaluated using a Digital Inspection Vehicle (DIV) – a specialized vehicle equipped with cameras and laser sensors to detect pavement distress and roughness. As shown in Figure D.7, the pavement on Second Avenue S was found to be in good to very good condition.

Striping conditions of on-road facilities were rated from a visual inspection. In contrast to the high marks for pavement quality, bike lane striping along Second Avenue S was noted as being in fair to poor condition. See Figure D.8 for a more detailed look.

OFF-ROAD FACILITIES

Condition of Off-Road Shared Use Paths

The Parks & Trails Council of Minnesota completed a pavement condition assessment of almost all shared uses paths within the APO in 2020. The Council used a specially equipped electronic bicycle with instruments aboard to record the "bumpiness" of the pavement throughout the MPA.

Approximately 20% of all shared use paths in Waite Park were rated as "rough" or "very rough" conditions. This includes the paths around Discovery Community School, those near several of the city's parks, and those within some neighborhood areas. About 19% of the pavement on the City's shared use paths was rated as "fair." Locations and their condition ratings are shown in Figure D.9.

FIGURE D.7 – 2019 ON-ROAD BIKE LANE PAVEMENT CONDITIONS IN WAITE PARK.

FIGURE D.8 – STRIPING CONDITION OF SIGNED BICYCLE ROUTES WITHIN WAITE PARK.

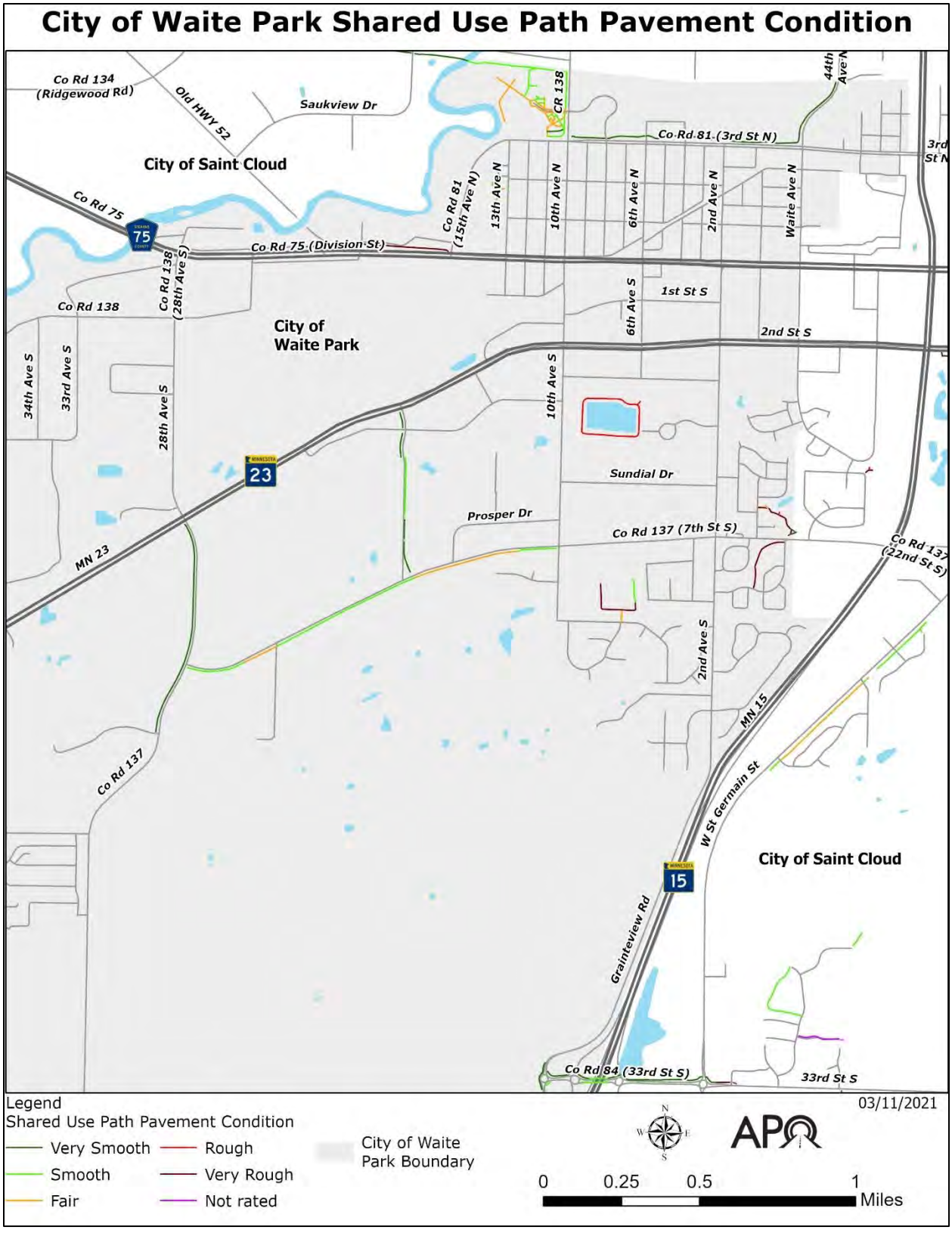


FIGURE D.9 – SHARED USE PATH PAVEMENT CONDITION BY LOCATION WITHIN THE CITY OF WAITE PARK.

WAITE PARK PLANS FOR ACTIVE TRANSPORTATION

The 2005 Comprehensive Plan (https://bit.ly/3qLLU7L) and the 2007 Transportation Plan (https://bit.ly/3ET4zDJ) for the City of Waite Park provide the current planning framework for transportation. These plans stress the importance of a usable and growing transportation network for the city, including trails and sidewalks.

Both plans emphasize sustaining a transportation system that appropriately balances access and mobility needs. In Waite Park, Division Street and Second Street S are heavily traveled commuting routes serving essential mobility needs while also providing access to Waite Park businesses and area residents. Ensuring pedestrian safety at busy intersection crossings from high volumes of vehicular traffic along these corridors is identified as a primary concern.

In addition to the two city specific plans, APO staff also reviewed the 2007 Feasibility Study for Stearns County Rails with Trails (https://bit.ly/3FXXLGa) document. This study outlined possible implications for Waite Park as the county seeks to expand the regional network.

2005 COMPREHENSIVE PLAN

The 2005 Comprehensive Plan represents Waite Park's goals and strategies for land use and orderly development. Implementation of these goals is a joint responsibility of members of the public, the City Council, its staff and advisory boards, and prospective developers. The Comprehensive Plan states that the APO, Stearns County, and MnDOT also have a role in the development and redevelopment of Waite Park.

Active Transportation Needs as Identified in Comprehensive Plan

While the Comprehensive Plan recognizes that Division Street (CSAH 75) serves a vital mobility need, steps are needed to minimize its impact as a fragmenting barrier within the community. Traffic congestion levels particularly on Division Street, 10th Avenue, and Second Street S (MN 23) are identified as pedestrian crossing safety issues.

Developing nonmotorized transportation alternatives to mitigate congestion was one of the many goals outlined in the city's comprehensive plan.

The plan goes on to state parks, trails, and other public facilities will be improved. This includes the development of trails and pathways to overcome highway barriers and connect neighborhoods, parks, and commercial areas throughout the city. Facilities used by bicycles and pedestrians are to be integrated into a system network that is usable and attractive.

The 2005 plan recommends greater system connectivity and a future grade-separated pedestrian crossing of CSAH 75. Given limited financial resources and other areas of need, a separated crossing is not considered a high priority by the city.

2007 TRANSPORTATION PLAN

Waite Park's 2007 Transportation Plan was developed to identify future transportation alternatives that would further serve the needs of Waite Park. The significance of MN 23 and CSAH 75 as high mobility corridors with growing impacts is noted. However, the focus is on developing the future roadway network, not on a plan to serve active transportation needs better. This plan was not intended to, nor does it present precise solutions that may alleviate traffic congestion or improve safety on existing arterials and collectors.

2007 STEARNS COUNTY RAILS WITH TRAILS FEASIBILITY STUDY

This study prepared for the Stearns County Parks Department in 2007 examined the feasibility of alignments through Waite Park to complete shared use path connections for the Lake Wobegon Trail and the ROCORI Trail. This study recommended the 2018 connection of the Lake Wobegon Trail from Saint Joseph to Waite Park. In addition, this study examined alternatives for connecting the ROCORI Trail through the City of Waite Park. A recommended alignment for the ROCORI Trail would follow County Road 138, 28th Avenue, and cross CSAH 75 to connect with the Lake Wobegon Trail at River's Edge Park. While the findings of the 2007 study are relevant, further analysis may be needed to determine if this alignment and crossing location remains the best alternative for a regional connection.

CITY ORDINANCES

Along with various citywide planning efforts, Waite Park City Code (https://bit.ly/3d9FWYH) has established several ordinances pertaining to the active transportation system and its users.

City Ordinance 58 outlines provisions for active transportation with new street construction or reconstruction. With the construction of streets, the subdivision code calls for a minimum of 6-foot sidewalks designed to city standards. The City Council takes its recommendations for platting and improvements to the transportation network from the Planning Commission (City Code 58.6). Typically, the city has asked for sidewalks or shared use paths on at least one side of collector and arterial routes in developing areas.

The occupants or owners of any building or lot have responsibility for maintaining abutting sidewalks. Sidewalks shall be kept clear of snow and ice, to be removed daily by noon. Failure to comply with snow and ice removal is considered a misdemeanor. (City Code 31).

The city's ordinance requires pedestrians to cross streets at signalized intersections where they are available. Vehicles are to yield to pedestrians at crosswalks, otherwise pedestrians shall yield the right-of-way to vehicles. (City Code 60.10).

By Minnesota law (Sec 169.222), bicyclists have the same rights and responsibilities as the drivers of motor vehicles, and therefore have the right to use any public roadway but must also obey all traffic laws.

SYSTEM USAGE

Understanding bicycling and walking behavior complement information on the available active transportation network within the City of Waite Park. It is essential to know how many people use the system, where they need and/or desire to go, and how well current facilities address those needs.

BICYCLE AND PEDESTRIAN COUNTS

APO staff regularly place a MnDOT-owned portable bicycle and pedestrian counter along shared use path locations throughout the MPA, including three spots within the City of Waite Park.

The MnDOT counter uses two different types of counters simultaneously. The Pneumatic TUBE counter uses two sets of tubes placed perpendicular to traffic. When a cyclist passes

over the tubes, this counter can record that cyclist and determine which direction that person was heading. Meanwhile, the PYRO-Box utilizes infrared technology to measure people's body heat who pass in front of its sensor. This counter, much like the TUBE counter, can identify travel directions. When used in conjunction with the TUBE counter, APO staff can calculate pedestrian traffic from the PYRO-Box by subtracting the bicyclists from the total count.

With these portable counters, APO staff monitors usage of shared use paths for one week intervals at specified locations:

1. The Lake Wobegon Trailhead at the Sauk River in River's Edge Park.
2. Healthy Living Trail north of Third Street N near Sixth Avenue N.
3. County Road 137 at 28th Avenue S.

All three of these locations are ideally counted each summer. However, the portable counters are owned by MnDOT. As a result, various agencies and jurisdictions can (and have) utilized the counters throughout the year, impacting the consistency in obtaining data. As a result, two of the three locations (as shown in Figure D.11) were counted in 2020.

Location	Dates Counted (2019)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Lake Wobegon Trail Head	05/13 – 05/19	2	149	2	14
Healthy Living Trail	05/20 – 05/26	5	41	3	87
County Road 137	06/17 – 06/23	2	57	1	33

FIGURE D.10 – 2019 BICYCLE AND PEDESTRIAN COUNTS FROM THE THREE WAITE PARK LOCATIONS.

Location	Dates Counted (2020)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Healthy Living Trail	07/15 – 07/21	7	119	4	137
County Road 137	06/24 – 06/30	1	88	1	140

FIGURE D.11 – 2020 BICYCLE AND PEDESTRIAN COUNTS FROM TWO OF THE THREE WAITE PARK LOCATIONS.

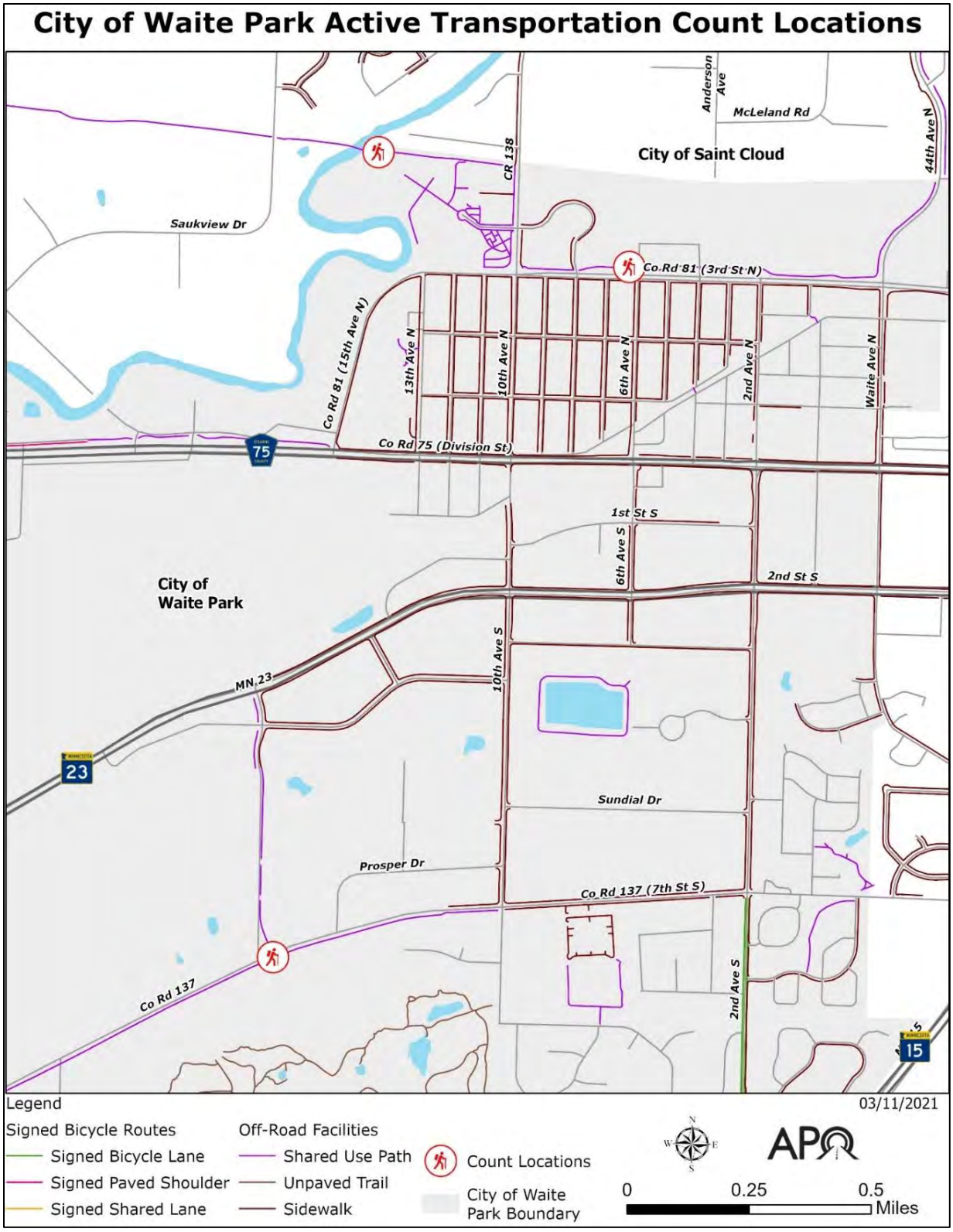


FIGURE D.12 – LOCATION WHERE THE APO REGULARLY DEPLOYS AUTOMATIC BICYCLE/PEDESTRIAN COUNTERS IN WAITE PARK.

The APO's counts indicate that shared use paths receive much usage, particularly from pedestrians. The counter on the Lake Wobegon Trail recorded the highest number of users in 2019, averaging over 110 pedestrians per day in the summer months.

Figure D.13 shows the most recent one-week winter seasonal counts on the Lake Wobegon Trail at River's Edge Park for pedestrians and bicycles. As the graph shows, the number of people using this facility in the winter can be correlated to outside temperatures.

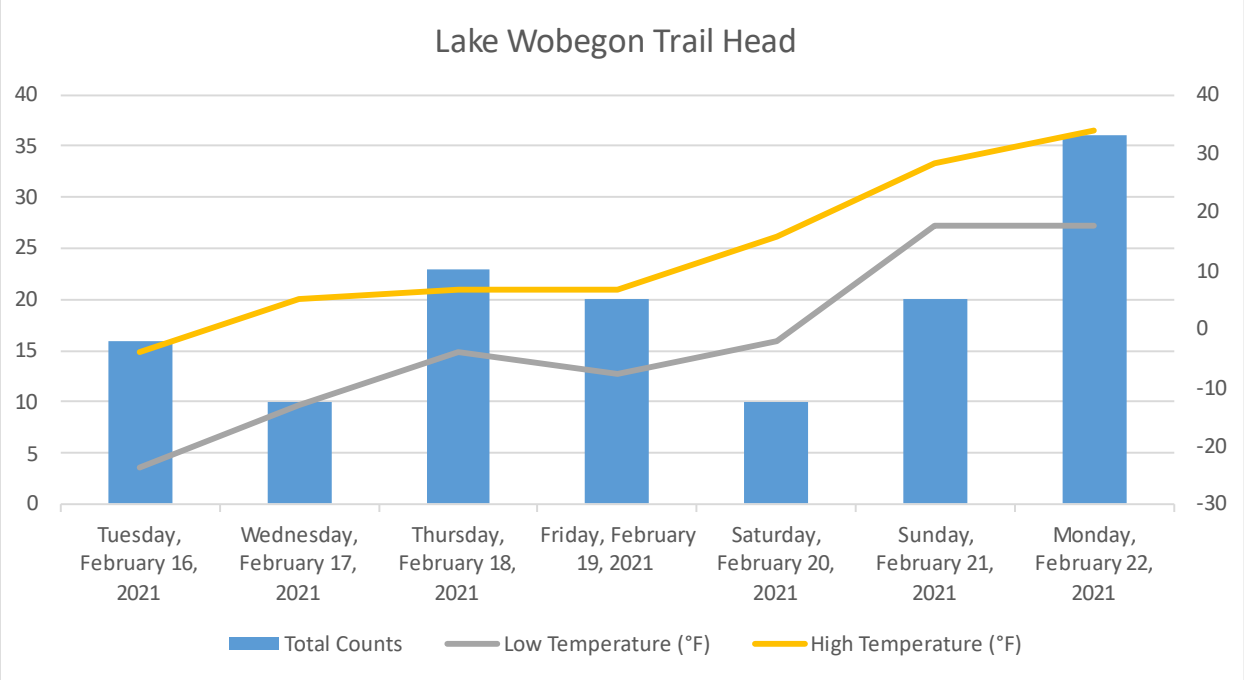


FIGURE D.13 – 2021 WINTER COUNTS AT THE LAKE WOBEGON TRAIL IN COMPARISON TO DAILY HIGH AND LOW TEMPERATURES.

DESTINATIONS

Common destinations for active transportation users include schools, food assets, employers, and parks. These destinations are shown in Figure D.14. Food assets are grocery stores/supermarkets, specialty food stores, meat markets, convenience stores, and non-profit community food services. Employers listed have 100 or more full- and/or part-time employees.

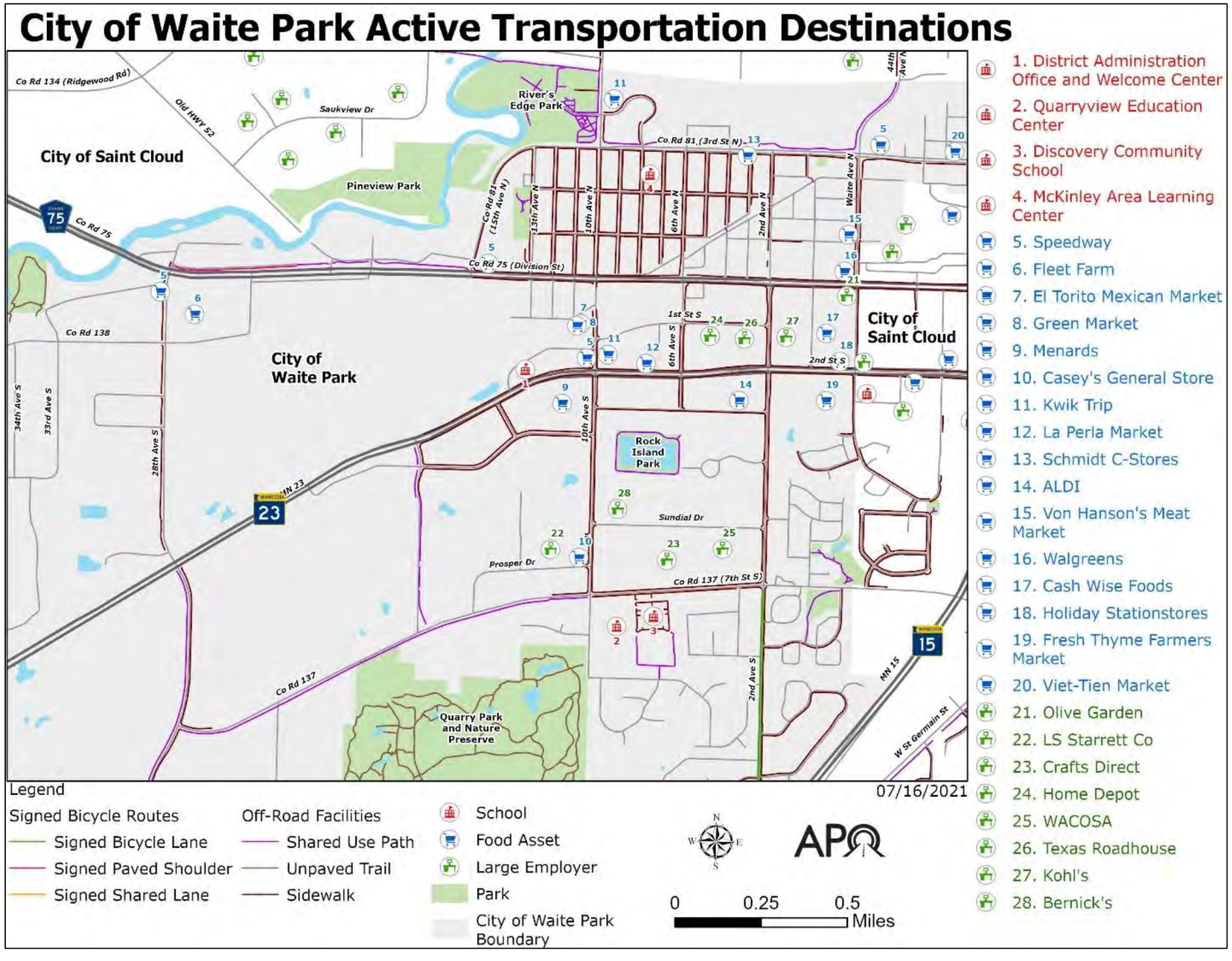


FIGURE D.14 – DESTINATIONS FOR ACTIVE TRANSPORTATION USERS WITHIN THE CITY OF WAITE PARK.

Schools

Included among Waite Park's largest employers, the St. Cloud Area School District 742 operates three public school facilities within Waite Park. Discovery Community School and Quarryview Education Center are located adjacent one another. Also within the Waite Park City limits is the main district office.

Name	Address	Grades Served	Approximate Number of Students Served
Discovery Community School	700 Seventh St. S	PK-5	524
Quarryview Education Center	800 Seventh St. S	Early Childhood/ Community Education	2,900
McKinley Alternative Learning Center	216 Eighth Ave. N	9-12	1,250

FIGURE D.15 – PUBLIC SCHOOLS LOCATED WITHIN THE CITY OF WAITE PARK.

According to city staff, residents of Waite Park have cited safety concerns with street crossings and traffic speeds in the Seventh Street S area near Discovery School and the Third Street N area near McKinley ALC. While a mix of sidewalks and shared use paths has expanded over time to improve access and safety for students who bike or walk to each school, gaps remain in some areas.

Food Assets

As shown in Figure D.14, grocery stores and other food providers, are prevalent through the CSAH 75 and MN 23 commercial district. Large market centers such as Cash Wise and ALDI's are among these food assets as are many specialty markets and convenience stores.

Waite Park's food assets are often along an active transportation facility, typically a sidewalk. However, pedestrians and cyclists often need to cross roadways with many fast-moving cars to get to these destinations.

Large Employers

Among the City's largest employers are the public schools and larger food stores such as Cash Wise. In addition, large employment centers include retail outlets along the Second Street S corridor, such as Kohl's, Home Depot, and Menards. Several large employers (Crafts Direct, the LS Starrett Co., and WACOSA) are in the commercial area around Sundial Drive.

Most of the City's large employers are located on or near Metro Bus fixed routes with access to nearby sidewalks or shared use paths.

Parks

The City of Waite has approximately 767 acres of parkland. Much of this acreage is found within Stearns County's Quarry Park and Nature Preserve. The city maintains Rivers Edge Park and several small neighborhood parks scattered throughout.

The larger parks within Waite Park generally have access to nearby sidewalks or shared use paths. Quarry Park receives much usage from pedestrians and bicyclists with its extensive network of natural surface trails. As a result, residential areas near these larger parks are more likely to have active transportation facilities.

The city's smaller neighborhood parks have a varying degree of sidewalk access.

SAFETY

According to the Minnesota Department of Public Safety (DPS), fatalities, serious injuries, and minor injuries involving bicyclists and pedestrians are rising within the Saint Cloud MPA.

Specifically, within the City of Waite Park, DPS crash data shows 34 crashes involving active transportation users and vehicles have occurred in the 10 years between 2010 and 2019. See Figure D.16 for locations and severity.

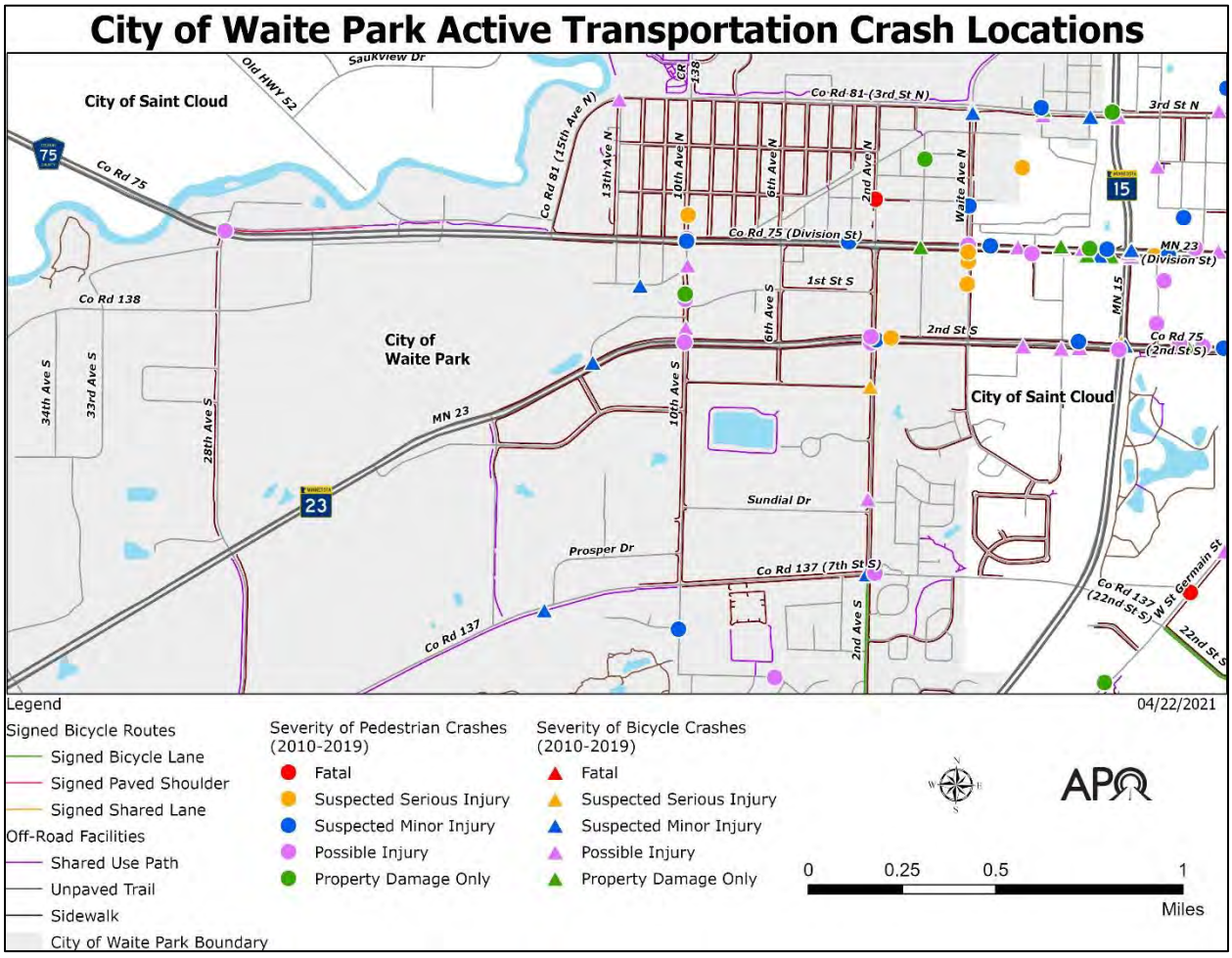


FIGURE D.16 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS WITHIN THE CITY OF WAITE PARK (2010-2019).

High concentrations of crashes are found along Division Street and Second Street S. In addition, collector routes such as 10th Avenue S and Waite Avenue N have also experienced a number of crashes. While most resulted in minor injuries, it is essential to note that during this time frame, there was a pedestrian fatality on Second Avenue N and three crashes with

serious injuries to pedestrians on Waite Avenue S between Division Street and Second Street S.

Crash history was reviewed to determine locations where crashes appear to be more likely to occur and whether there may be an engineering solution or partial solution to help mitigate the crashes.

Crash reports indicate that the driver did not see the pedestrian or cyclist of the vehicle in many cases. In many of these crashes, the active transportation user was not using a crosswalk. It is unclear from the DPS crash reports whether physical conditions at the crash locations were a contributing factor or if physical changes to the facilities may help mitigate future crashes.

PROGRAMMED AND PLANNED IMPROVEMENTS

The City of Waite Park maintains a Capital Improvement Program (CIP), identifying short-term projects and long-range concepts designed to improve active transportation facilities. The CIP also indicates anticipated future revenues that may be available to implement such projects.

One such project identified in the city's CIP is the construction of a shared use path that extends west from Rivers Edge Park to the frontage road on Division Street.

Among long-term planning considerations for the city's active transportation network is a connection to the ROCORI Trail with a crossing of CSAH 75. Such a crossing was the recommendation of a study prepared for the APO. While the City and the County have not yet identified a preferred alignment, the shared use path west of Rivers Edge Park in the City's CIP may be part of this envisioned regional facility.

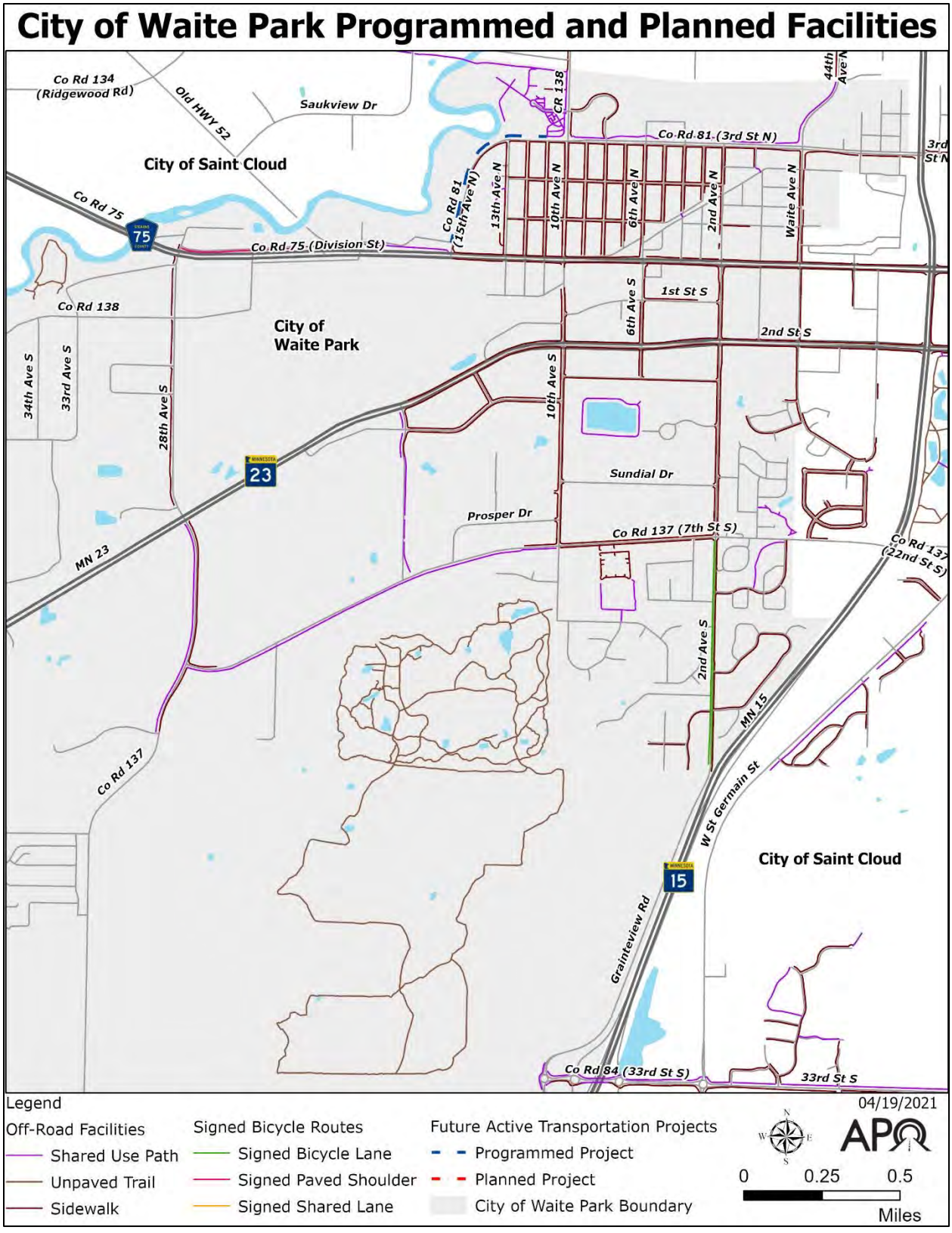


FIGURE D.17 – EXISTING NETWORK WITH PROGRAMMED AND PLANNED FACILITIES WITHIN THE CITY OF WAITE PARK.

ACTIVE TRANSPORTATION NEEDS ASSESSMENT

APO staff performed a citywide analysis of facility and other needs for active transportation users to supplement and inform current city planning efforts. The intent of this assessment, conducted in coordination with city staff and representatives, was to identify active transportation needs within the city and assist in prioritizing those needs in the event funding becomes available.

GOALS AND OBJECTIVES FOR ACTIVE TRANSPORTATION

The regional goals and objectives for active transportation as adopted by the APO provide a starting point for the Waite Park needs assessment.

Those goals were:

1. Improve bicycle and pedestrian safety and comfort.
2. Improve active transportation connections to desired destinations.
3. Improve the condition of active transportation infrastructure.
4. Provide equitable access to active transportation facilities for all people of all abilities.
5. Promote an interconnected regional active transportation network.

The evaluation factors were equally applied for assessing needs within each city and across the MPA. The goals, objectives, and factors used to evaluate services and needs relative to each objective are detailed in Chapter 4. Performance ratings from the evaluation of factors for Waite Park are shown in Figure D.18.

NEEDS ASSESSMENT METHODOLOGY

From the goals and objectives framework, APO staff, in coordination with Waite Park city staff and community volunteers, developed the following methodology to address critical gaps in the current active transportation system. It should be noted that while this process does not account for every gap or need in the network, it does focus on addressing gaps utilizing existing data as it relates to the region's active transportation goals and objectives.

The APO's active transportation needs assessment methodology was broken into three phases. Beginning with an in-depth analysis of transportation networks, APO staff identified issues and needs within individual communities across the region. This cursory review led to a more detailed analysis of active transportation needs for focus areas identified within each city and ultimately the identification of jurisdictional-level project recommendations – Phase 2. In the final phase, local and regional needs identified in the previous phases were prioritized according to the degree goals and objectives would be addressed.

Waite Park			2019
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average			*0.6*
Percentage miles of arterials & collectors that have a sidewalk or shared use path (SUP) on at least one side			*48.6%*
Percent of destinations that fall within distance categories	Schools	0 Ft (Asset Served by AT Facility)	*100.0%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*0.0%*
	Food Assets	0 Ft (Asset Served by AT Facility)	*88.9%*
		1-310 ft (One block or less)	*80.0%*
		311-930 ft (Two to three blocks)	*15.0%*
		> 931 ft (Four or more blocks)	*5.0%*
	Large Employers	0 Ft (Asset Served by AT Facility)	*62.5%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*25.0%*
		> 931 ft (Four or more blocks)	*12.5%*
	Parks	0 Ft (Asset Served by AT Facility)	*60.0%*
		1-310 ft (One block or less)	*0.0%*
		311-930 ft (Two to three blocks)	*0.0%*
		> 931 ft (Four or more blocks)	*40.0%*
	Transit Stops	0 Ft (Asset Served by AT Facility)	*69.7%*
		1-310 ft (One block or less)	*12.1%*
		311-930 ft (Two to three blocks)	*10.6%*
		> 931 ft (Four or more blocks)	*7.6%*
Percent of street crossings that do not meet full ADA standards			*86.7%*
Miles of Active Transportation facilities per 1,000 residents in EJ/Title VI Sensitive Areas in comparison to non-sensitive areas			*5.2:8.5*
Percent mileage of Regional Priority bicycle facilities that do NOT exist			*73.3%*
Percent of on-road bicycle facilities with poor pavement			*0.0%*
Percent of SUP with rough/very rough pavement			*19.4%*

FIGURE D.18 – WAITE PARK PERFORMANCE REPORT CARD (2019).

Phase 1: Evaluating Needs for the City of Waite Park

Analysis of Areas of Need - Waite Park

	Safety & Comfort Factors	1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern	Connectivity Factors	1 Access to Destinations	2 Access to Transit Needs	Facility Condition	1 On Road Conditions	2 Off Road Conditions	Equity Factors	1 Underserved Demographic	2 ADA Compliance	Issues	Potential Treatments
10th Ave S/CR 138 (Division to 2nd St S)			x			x		x						x		High volume minor arterial corridor, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
Waite Ave (3rd St N to 2nd St S)			x			x		x						x		High usage, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
Division/CSAH 75 (Waite Ave to 10th Ave)			x			x		x						x	x	High volume arterial, concentration of crashes, crossing safety concerns, multiple destinations, vulnerable populations, ADA intersection standards.	Pedestrian and bicycle crossing improvements, traffic calming, bring intersections to ADA standards.
2nd St S/MN 23 (Waite Ave to 10th Ave)			x			x		x				x		x		Area with concentration of crashes, destinations (employers, food assets), crossing concerns, multifamily housing, vulnerable populationss.	Pedestrian and bicycle crossing improvements, facility design options, improved access to large employers, multifamily development.
3rd St N/CR 81 (East limits to Waite Ave N)			x			x		x						x		High concentration of crashes, crossing safety concerns, destinations (school, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, added facilities, traffic calming.
7th St S/CR 137 (2nd Ave S to 10th Ave S)						x		x				x				Speeds, crossing safety, destinations (school, employers, park), shared use path pavement conditions.	Pedestrian and bicycle crossing improvements, facility design, improved access to schools, large employers.
2nd Ave S (2nd St N to 7th St S)			x			x		x						x		Area with concentration of crashes, destinations (employers, food assets), crossing safety, multifamily housing, vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, improved access to homes and destinations.

FIGURE D.19 – WAITE PARK NEEDS ANALYSIS.

Considered along with the factors were the comments from the APO's initial public input along with comments from city staff. Areas where multiple issues were revealed when the factors were applied became the focus of further review and analysis.

Phase 2: Analysis of Waite Park Focus Areas

From the process described for the review of needs and gaps for the City of Waite Park, the following areas were identified as priority areas for improvement.

- 10th Avenue S area.
- Waite Avenue area.
- Second Avenue S area.

These three focus areas all have very similar characteristics. All are high volume minor arterials or collectors which active transportation users often cross to reach their destinations. In addition, these focus areas intersect with at least one of the two arterials within Waite Park – Division Street/CSAH 75 and Second Street S/MN 23.

Being able to assure that pedestrians and bicyclists can safely cross CSAH 75, MN 23, and other heavily used routes in Waite Park has been identified in the City's plans and regional transportation studies as an ongoing challenge. Given the growing vehicle traffic in Waite Park, these safety issues have increased significantly. The history of crashes with the potential for more dangerous conflicts between vehicle and active transportation users, coupled with the need to improve access, led to identifying these focus areas.

These three focus areas have many destinations for active transportation users. While there is often a connecting facility network within these areas to get to these destinations, their ability to cross heavily used roads are the prevailing concern safely.

APO staff working in conjunction with city staff for each focus area further analyzed needs and issues and worked to identify possible solutions.

However, due to the unique challenges facing Waite Park, APO staff sought assistance from the Minnesota Department of Transportation's (MnDOT's) Bicycle and Pedestrian Safety Engineer. Based on current facilities and conditions, vehicle traffic speeds and volumes, destinations served, and other factors, MnDOT staff and their consultants offered their analysis relative to Federal Highway Administration (FHWA) and MnDOT guidelines.

Many of the suggested recommendations for these three focus areas were taken from the MnDOT analysis found at the end of this profile.

10th Avenue S Area

This focus area, as shown in Figure D.20, follows 10th Avenue S from Division Street to Seventh Street S (CR 137). Key cross street intersections within this area include Division Street, Second Street S, Sundial Drive, and Seventh Street S.

This area was chosen due to a high level of activity from all transportation modes, the history of crashes, and the number of destinations often sought by bicyclists and pedestrians.

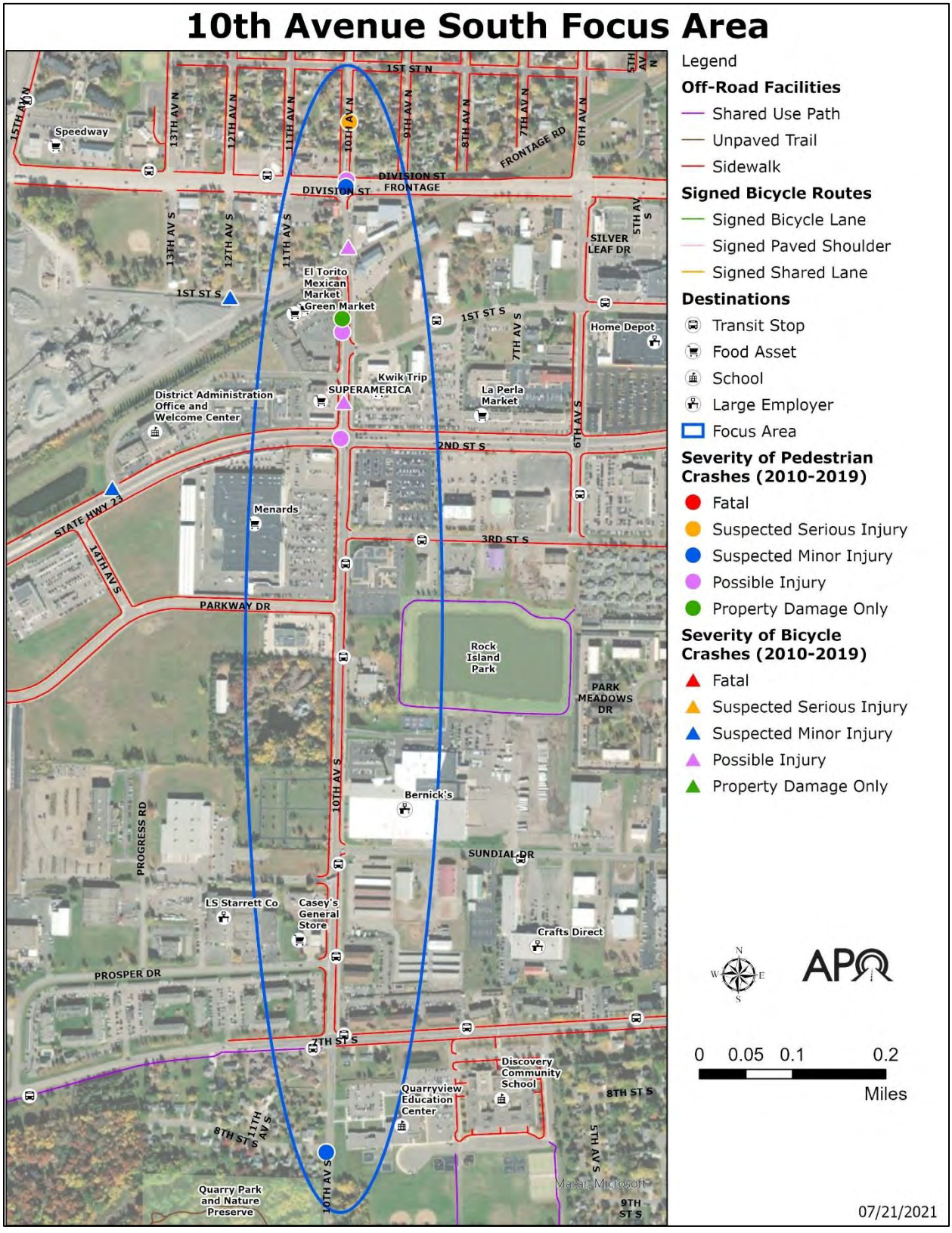


FIGURE D.20 – ***CITY OF WAITE PARK'S*** *10TH AVENUE S AREA OF FOCUS.*

NEEDS AND ISSUES

The 10th Avenue S area has many destinations for active transportation users including many food assets along with Menards (retail) and Bernick's (warehouse). The main concern for this corridor is the high volume of traffic and the safety of active transportation users who travel along or across 10th Avenue S to reach these destinations.

Approximately 14,000 vehicles per day travel on 10th Avenue S between Division Street and Second Street S. The average daily volume drops to 5,700 vehicles south of Second Street S. The posted speed on 10th Avenue S north of Second Street S is 30 mph, increasing to 40 mph south of this roadway. About 10,000 vehicles per day utilize the cross streets (Division Street and Second Street S) with a large number of vehicles turning onto or off of 10th Avenue S.

Within the few blocks that separate Division Street and Second Street S, seven crashes have involved pedestrians and bicyclists between 2010 and 2019. A review of the crash reports for crashes within the focus area indicates that vehicle drivers often do not see pedestrians. Whether crashes are due to inattention or a facility flaw is difficult to determine, though the number of crashes suggests improvements are needed.

There are many Metro Bus transit stops between Second Street S and Seventh Street S. However, there are a limited number of crosswalks along the 10th Avenue S corridor. The only crossings with pedestrian-activated signals are at the Division Street and Second Street S intersections. Those who utilize transit services at these locations will often be crossing 10th Avenue in an area where there may be heavy vehicle traffic with no crosswalks.

While sidewalks are in place along most of 10th Avenue S, they are not designed or intended for use by bicyclists. There are gaps in the sidewalks north of the railroad tracks (10th Avenue N).

RECOMMENDATIONS

- In the near term, consider reconfiguring the four lanes on 10th Avenue S along the segment south of Second Street S to three lanes and add bicycle lanes with restriping. This could be incorporated with a mill and overlay or safety project. Bicycle lanes act as a buffer and improve comfort for pedestrians walking adjacent to higher-speed traffic.
- Consider filling the sidewalk gaps on 10th Avenue S between Division and Second Street S. Jog the sidewalk, so the new crossing is perpendicular to the railroad tracks.
- With street reconstruction, consider a three lane section with a 10-foot shared use path and buffer area with plantings, street lighting, or signage. With the three lane section, consider adding crosswalks with median pedestrian refuge islands at T-intersections.
- If the configuration on 10th Avenue is to remain a four lane, implement crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Consider adding a leading pedestrian interval (LPI) at signalized intersections to improve visibility and increase crossing time.

Waite Avenue Area

The Waite Avenue focus area (as found in Figure D.21) starts from the intersection with Third Street N and ends just south of Second Street S near Thielman Lane. Within this corridor are intersections with roadways garnering heavy vehicle traffic – Third Street N, Division Street, and Second Street S. In addition, entrances to major trip generators like Crossroads Center, Cash Wise, and Marketplace Shopping Center are located along this corridor.

This area was chosen due to the high level of vehicle traffic, the history of crashes, crossing safety, and the number of desired destinations.

NEEDS AND ISSUES

Waite Avenue experiences a high traffic volumes which poses safety risks to those who need to cross Waite Avenue and its cross streets to reach their destinations. The average daily traffic on Waite Avenue ranges from 7,700 to 8,400 vehicles. Vehicle traffic volumes approaching Waite Avenue from the east on Division and Second Street S average 14,000-15,000 per day. The volume of vehicle turning movements at each intersection is also very high.

There have been nine crashes along Waite Avenue involving pedestrians and bicyclists between 2010 and 2019. Three of these serious injury crashes occurred in just the one block between Division Street and Second Street S.

There are sidewalks along at least one side of Waite Avenue, but they are not designed to be shared with bicycles. Only a limited number of locations provide crosswalks for active transportation users. The only signal-controlled intersections are at Third Street N, Division Street, and Second Street S.

RECOMMENDATIONS

- Pedestrian safety would be improved on the north end of Waite Avenue with an additional crosswalk either at First Street N or Second Street N. Ideally, a crosswalk would be more beneficial at Second Street N due to the existing traffic signal and ADA curb cuts in place. However, First Street N could be considered due to existing transit stops.
- Consider reconfiguring the four lanes on Waite Avenue south of Second Street S to three lanes and add bicycle lanes with restriping. This could be incorporated with a mill and overlay or safety project. Bicycle lanes act as a buffer and improve comfort for pedestrians walking adjacent to higher-speed traffic.
- Consider completing sidewalks on both sides of Waite Avenue.
- With street reconstruction, consider a three lane section with a 10-foot shared use path and buffer area with plantings, street lighting, or signage.
- If the configuration remains a four lane, implement crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time at the signalized intersections.

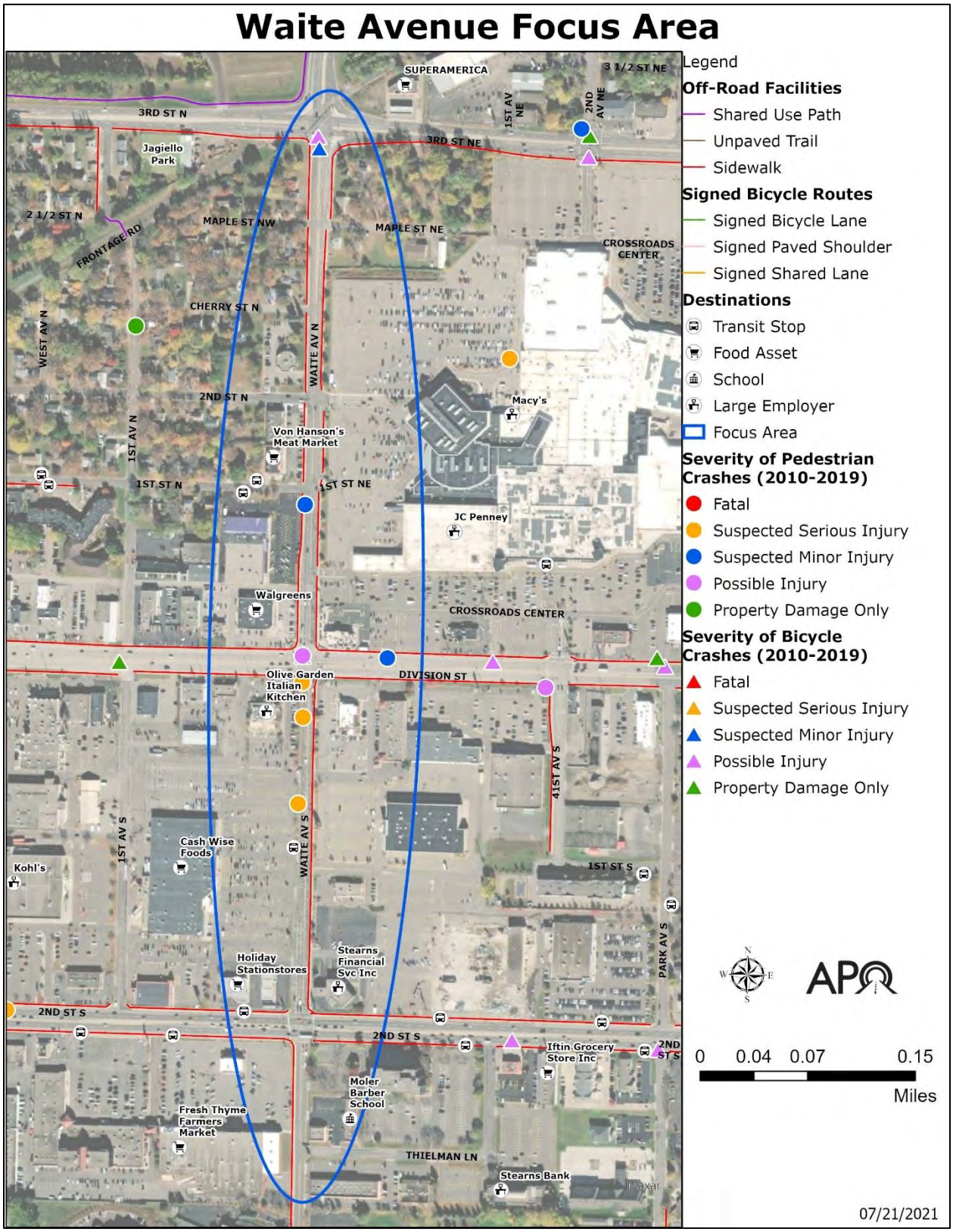


FIGURE D.21 – WAITE AVENUE AREA OF FOCUS IN THE CITY OF WAITE PARK.

Second Avenue S Area

The Second Avenue S focus area (see Figure D.22) spans the roadway from its intersection with First Street S to the intersection with Aspen Circle. Major cross streets along this corridor include Second Street S, Third Street S, Park Meadows Drive, Sundial Drive, and Seventh Street S.

Given the crash history and traffic volume on Second Avenue S, there is a concern for pedestrian and bicycle safety. This area was also chosen due to its larger residential area and proximity to many large employers.

NEEDS AND ISSUES

Roadway traffic volumes along Second Avenue S are highest near the intersection with Second Street S, averaging 9,500 vehicles per day. Vehicle traffic volumes diminish further south along Second Avenue S, averaging 6,400 vehicles per day. However, while traffic volumes are less along the southern section of this corridor, there are a large number of vehicles turning off at the Second Street S/Second Avenue S intersection to access various retail stores.

Several Metro Bus stops span this corridor. However, many who use the bus at these locations lack facilities and safe crossings. There are signed bicycle lanes south of Seventh Street S but only sidewalks to the north of Seventh Street S. Except for Third Street S, there are no active transportation facilities connecting streets along Second Avenue S. There are also a limited number of crosswalks with only the intersection at Second Street S providing a signal-controlled crossing.

Coupled with the high vehicle traffic, the Second Avenue S corridor – particularly south of Third Street S – is highly residential. Several apartment complexes can be found along this stretch of roadway. In addition, many of these residential areas have been identified by ACS data as having sizeable low-income household populations. Concerns have been raised about the safety of individuals living in the area crossing Second Avenue S or accessing some of the busier cross streets.

Safety issues along Second Avenue S have been documented through the history of active transportation related crashes. Between 2010 and 2019 three serious injury crashes have occurred at the intersection of Second Avenue S/Second Street S. During this time frame a cyclist was killed at the intersection of Second Avenue S/Third Street S.

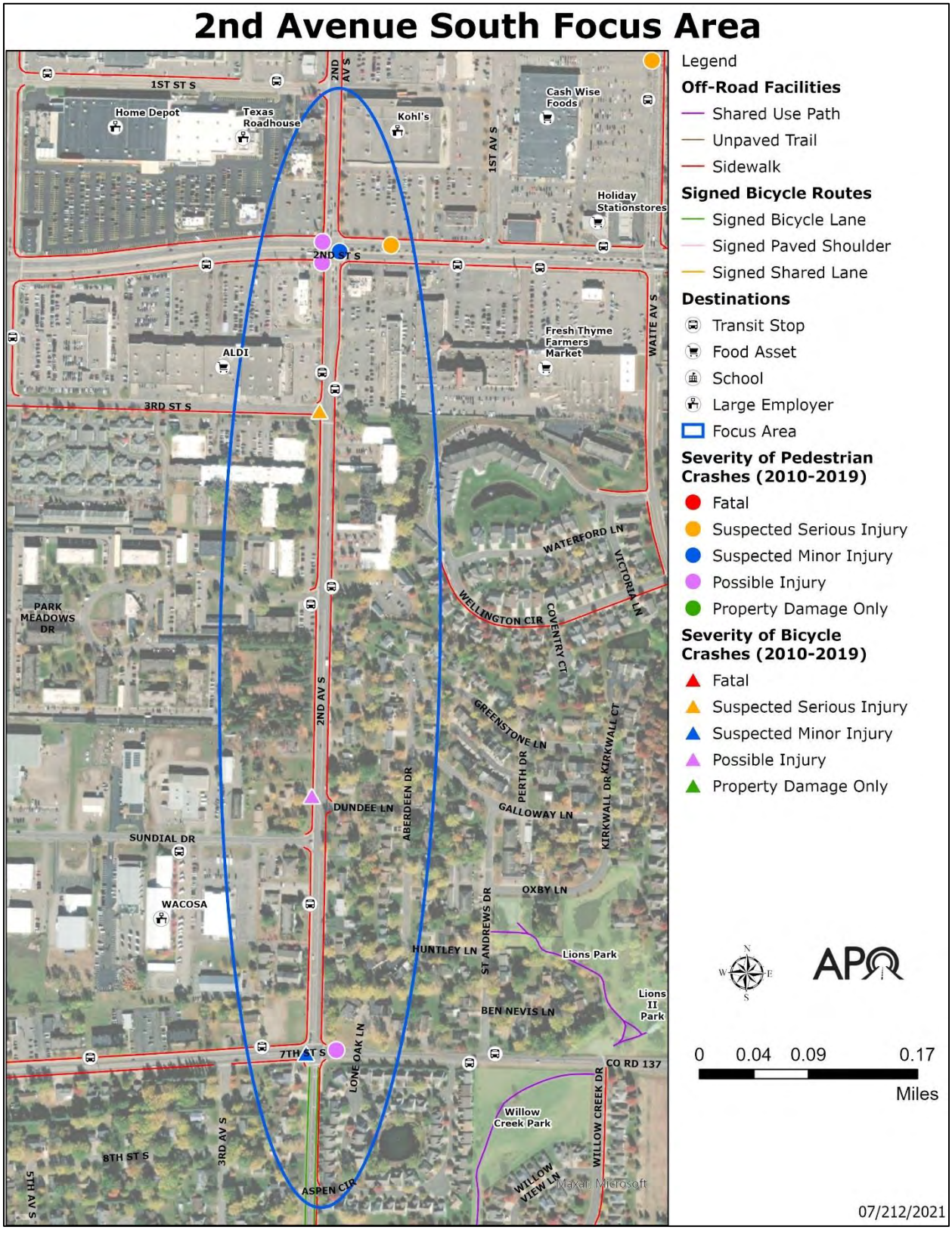


FIGURE D.22 – SECOND AVENUE SOUTH AREA OF FOCUS IN WAITE PARK.

RECOMMENDATIONS

- Adding a sidewalk connection on the south side of Sundial Drive from 10th Avenue S to Second Avenue S would serve transit stops and provide needed pedestrian access to large employers and other businesses.
- Consider reconfiguring the four lanes on Second Avenue S to three lanes and add bicycle lanes with restriping. This could be incorporated with a mill and overlay or safety project. Bicycle lanes act as a buffer and improve comfort for pedestrians walking adjacent to higher-speed traffic.
- With street reconstruction, consider a three lane section with a 10-foot shared use path and buffer area with plantings, street lighting, or signage.
- If the configuration remains a four lane, implement crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- At the signalized intersections on Second Street S, consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time.

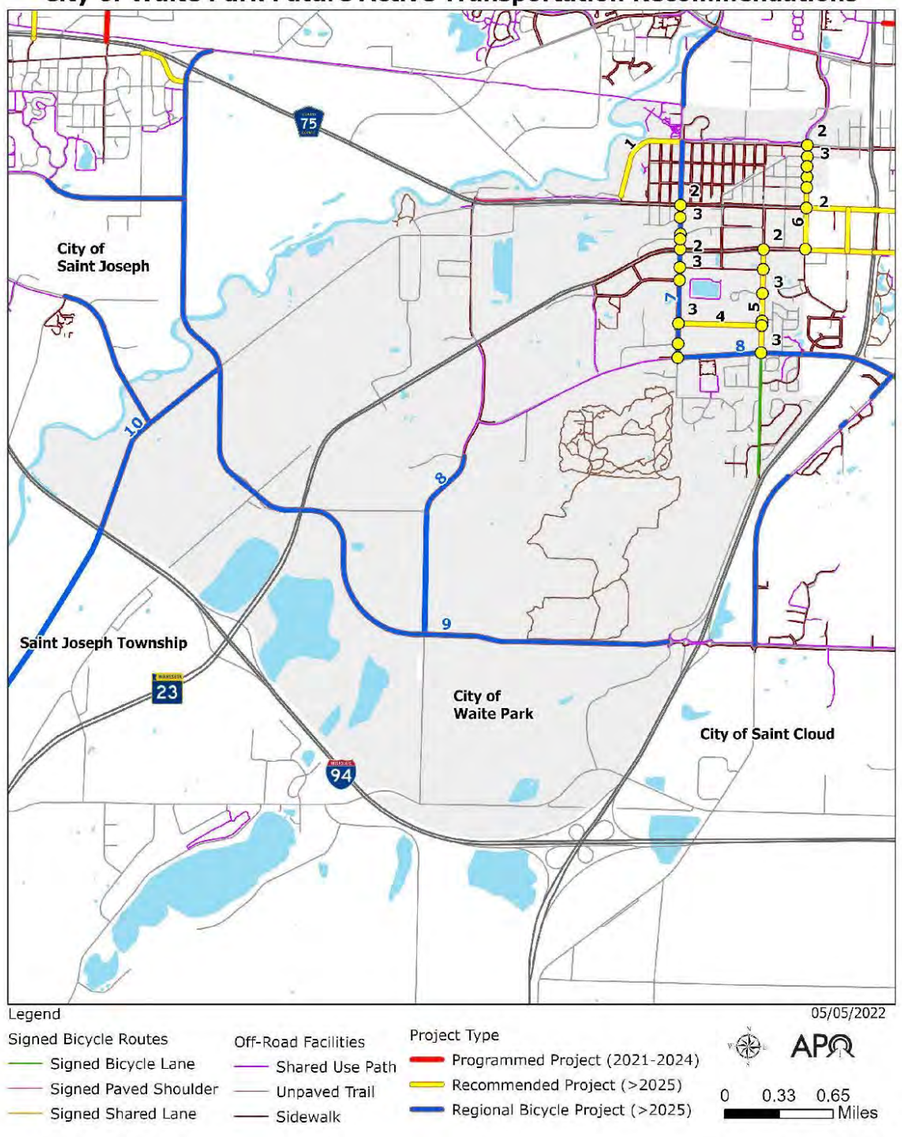
Phase 3: Evaluating Needs for the Region

The final phase of the needs analysis was to identify improvements to the regional facility network within the City of Waite Park. These projects would assist in achieving an interconnected active transportation network that satisfies regional needs.

Regional bicycle facilities will logically connect cities and other parts of the planning area outside Waite Park and include potential links to areas outside the planning region. Projects that connect the area regionally will provide an approximate spacing of two miles between facilities. In structuring a regional system, the preference is to complete gaps with shared use paths over on-road facilities.

Recommended regional facilities to extend the existing system within Waite Park include a future shared use path connection to the ROCORI and Glacier Lakes Trail that aligns with Seventh Street S (County Road 137). This path is proposed to continue north along 10th Avenue to connect with the Lake Wobegon Trail with the reconstruction and widening of 10th Avenue. The future regional bikeway network would also include the proposed alignment for the Southwest Beltway.

City of Waite Park Future Active Transportation Recommendations



Map Number and Project Description	
1	Construct a shared use path along 15th Avenue N (Stearns CSAH 81).
2	At signalized intersections along 10th Avenue South, 2nd Street South, and Waite Avenue consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time when appropriate.
3	Install Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs) along 10th Avenue South, 2nd Avenue South, and Waite Avenue where appropriate.
4	Add sidewalks along Sundial Drive.
5	Construct a shared use path or bicycle lanes along 2nd Avenue South.
6	Build a shared use path or bicycle lanes along Waite Avenue.
7	Construct a regional shared use path along 10th Avenue.
8	Add a regional shared use path along 7th Street S (Stearns CSAH 137).
9	Construct a regional shared use path along future beltline.
10	Build a regional shared use path along Stearns CSAH 138.

FIGURE D.23 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE CITY OF WAITE PARK.

APPENDIX E: SAINT CLOUD CITY PROFILE

With portions located within Benton, Sherburne, and Stearns counties, the City of Saint Cloud is bounded by Sartell, Sauk Rapids, and Waite Park.

Known as "The Granite City," Saint Cloud's early growth and development were influenced by its location on a national rail line and the advantage of its position on the Mississippi River. Saint Cloud has become a significant regional retail and employment hub for central Minnesota. The City is also a major transportation hub with I-94, MN 23, MN 15, and US 10 connecting the region with the rest of the state. Bicycle routes of national and regional significance meet in Saint Cloud, such as the Lake Wobegon Trail and the Beaver Island Trail, a component of the Mississippi River Trail. The city continues to grow and is challenged to expand the transportation network to keep pace with the demands of a regional economic center.

DEMOGRAPHICS

According to the U.S. Census Bureau's 2014-2018 American Community Survey (ACS) Five-Year Estimates, the City of Saint Cloud has a population that has grown 14.2% since the year 2000.

The City of Saint Cloud strives to provide equitable service to all segments of the community in its transportation planning investments. The APO tracks specific population demographic subsets known as traditionally underrepresented populations at a regional level. This includes the following:

- People-of-Color (Black/African American alone; American Indian and Alaska Native alone; Asian along; Native Hawaiian and other Pacific Islander alone; some other race; two or more races; Hispanic or Latino descent regardless of race).
- Households with low-income.
- People with disabilities.
- People with limited English-speaking capabilities.
- Households without access to a motor vehicle.
- Persons over the age of 65.
- Persons under the age of 18.

In recent years Saint Cloud has attracted a large immigrant and ethnically diverse population. A look at the demographic makeup in Saint Cloud finds that people-of-color currently comprise nearly one-quarter of the City's population. Though incomes generally are rising, almost one in five households are considered low-income. Saint Cloud has a comparatively young population, with nearly 20% of its residents under the age of 18. See Figure E.2 below for other details.

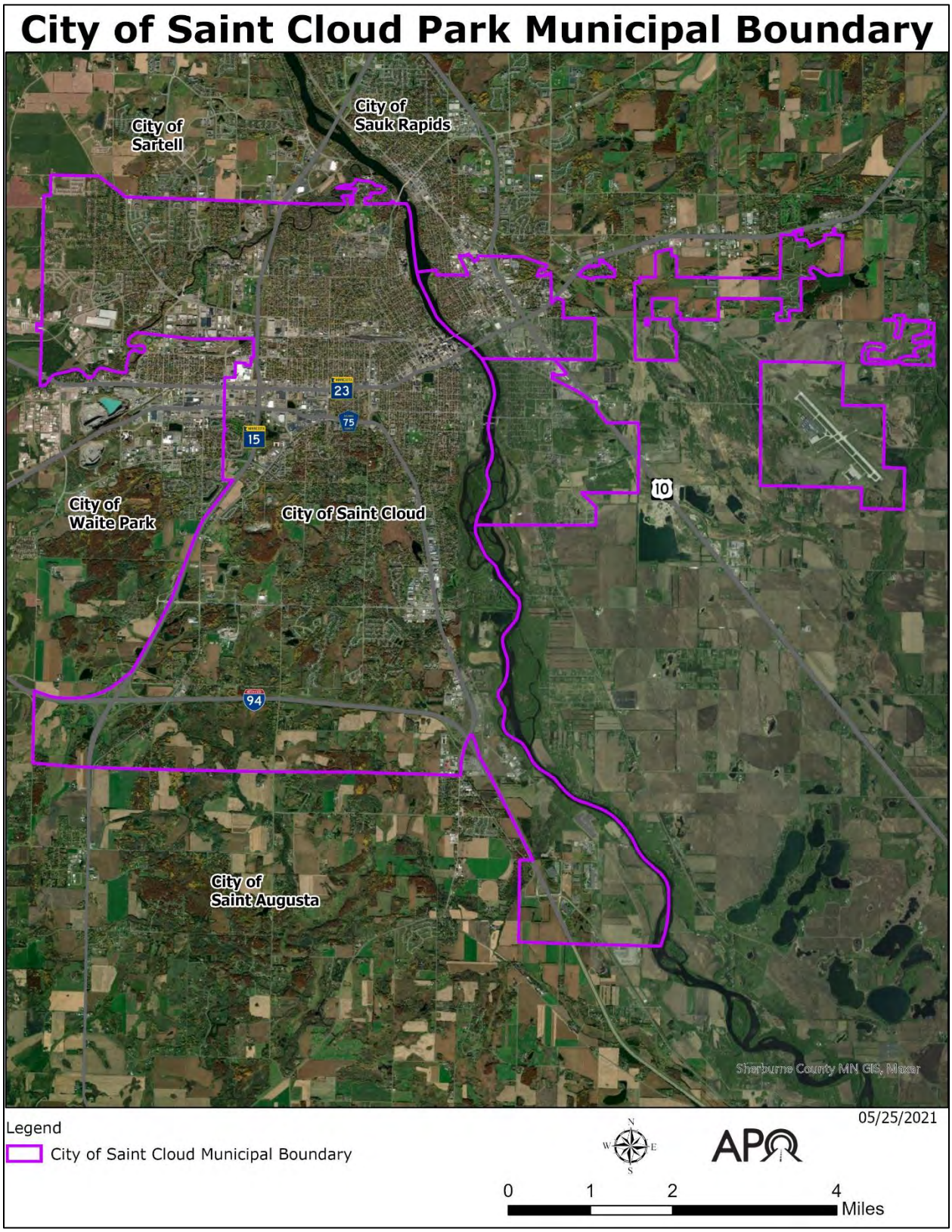


FIGURE E.1 – CITY OF SAINT CLOUD.

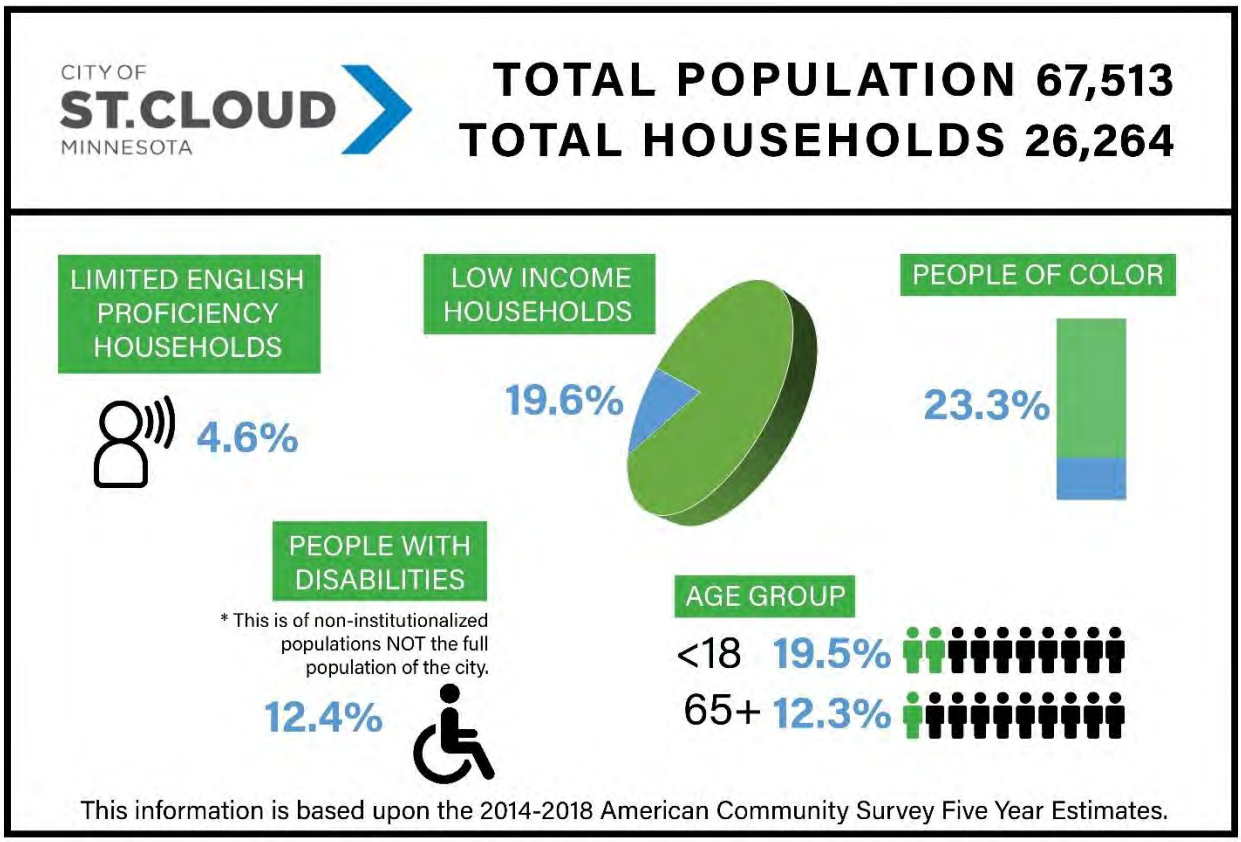


FIGURE E.2 – DEMOGRAPHIC PROFILE OF SAINT CLOUD.

EXISTING LAND USES

How cities use the land within their boundaries (i.e., residential, commercial, industrial) impacts the transportation network and the modes of travel available or desirable to users. Land use can play a role in developing a transportation system that is mode-friendly to motorized and non-motorized users. Understanding the city's land use types and how areas are intended to develop in the future is helpful in reviewing how the transportation system serves these uses.

As part of developing the City's 2015 Comprehensive Plan, the city conducted a land use inventory. The current land use pattern within the city is shown in Figures E.3 – E.5.

Each part of the City of Saint Cloud has distinctive characteristics and a widely varying range of land use and development. As noted in the Comprehensive Plan, the city is somewhat divided relative to natural features such as the Mississippi and the Sauk Rivers and transportation features such as its principal highways and rail alignments.

In giving a general overview of land uses and facilities for such a large city, the following discussion will review characteristics for the north, south, and east portions of Saint Cloud.

For purposes of this analysis:

- North Saint Cloud generally refers the area north of 22nd Street S and west of the Mississippi River.

- South Saint Cloud generally refers to area south of 22nd Street S and west of the Mississippi River.
- East Saint Cloud will generally refer to the portion of the city east of the Mississippi River.

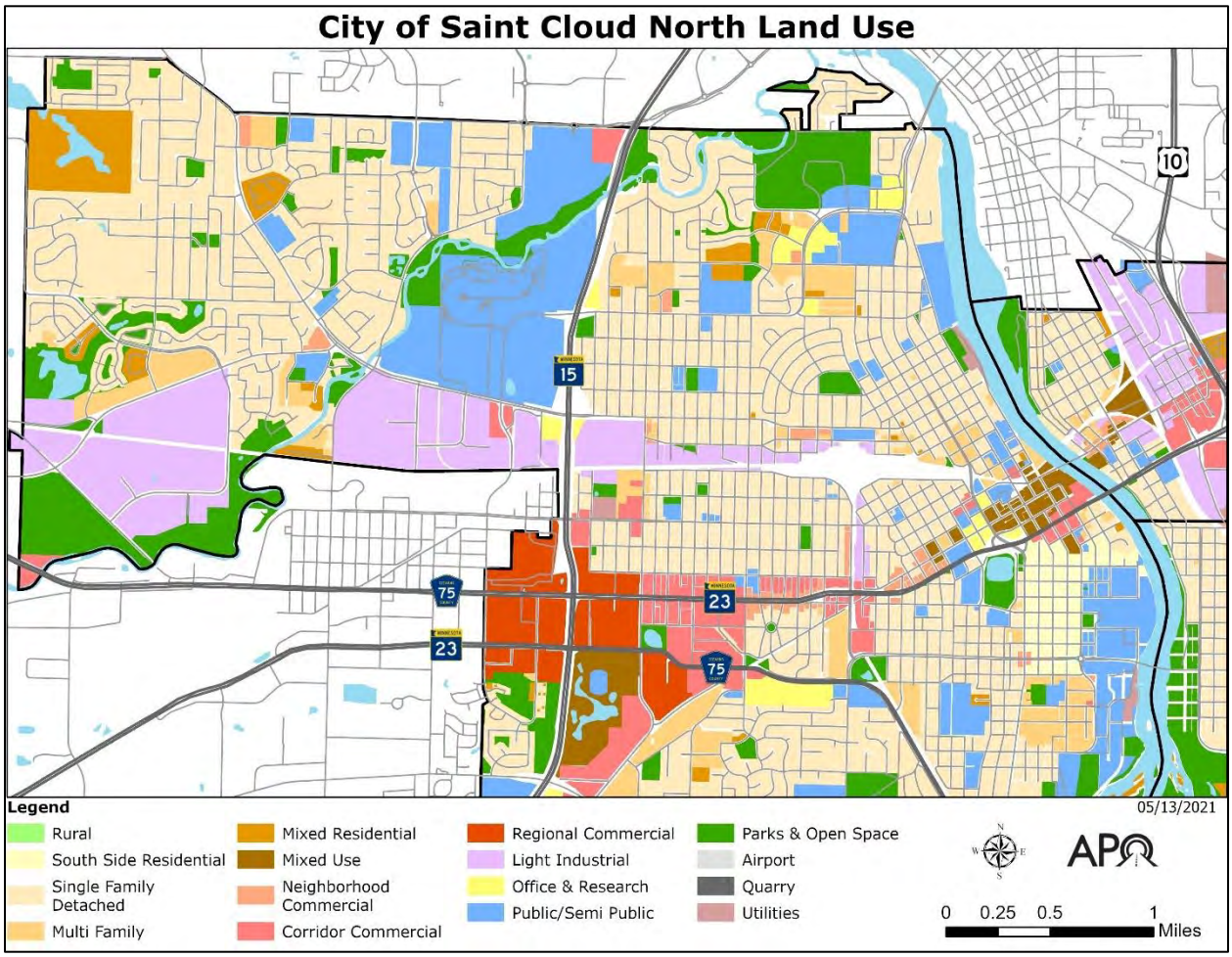


FIGURE E.3 – LAND USES WITHIN NORTH SAINT CLOUD.

NORTH SAINT CLOUD

North Saint Cloud includes areas of significant commercial use. This consists of the Crossroads Center, market squares, and shopping complexes along Division and Second Street S. Many retail and entertainment amenities are concentrated in the downtown area.

Much of north Saint Cloud is developed for residential use, with the many schools and parks available to northside residents. This area is the focus of the region's health care network and his home to Saint Cloud Hospital. In addition, this section of Saint Cloud includes Saint Cloud State University (SCSU) and many industrial parks located in close proximity to the BSNF rail line.

North Saint Cloud is home to many of the city's oldest neighborhoods. But, recent residential growth can also be found in this section of the city – particularly in the northwestern area.

The City's general goal from the land use plan is to provide infill and redevelopment on the north side. The city seeks to address service needs for neighborhoods and other current uses.

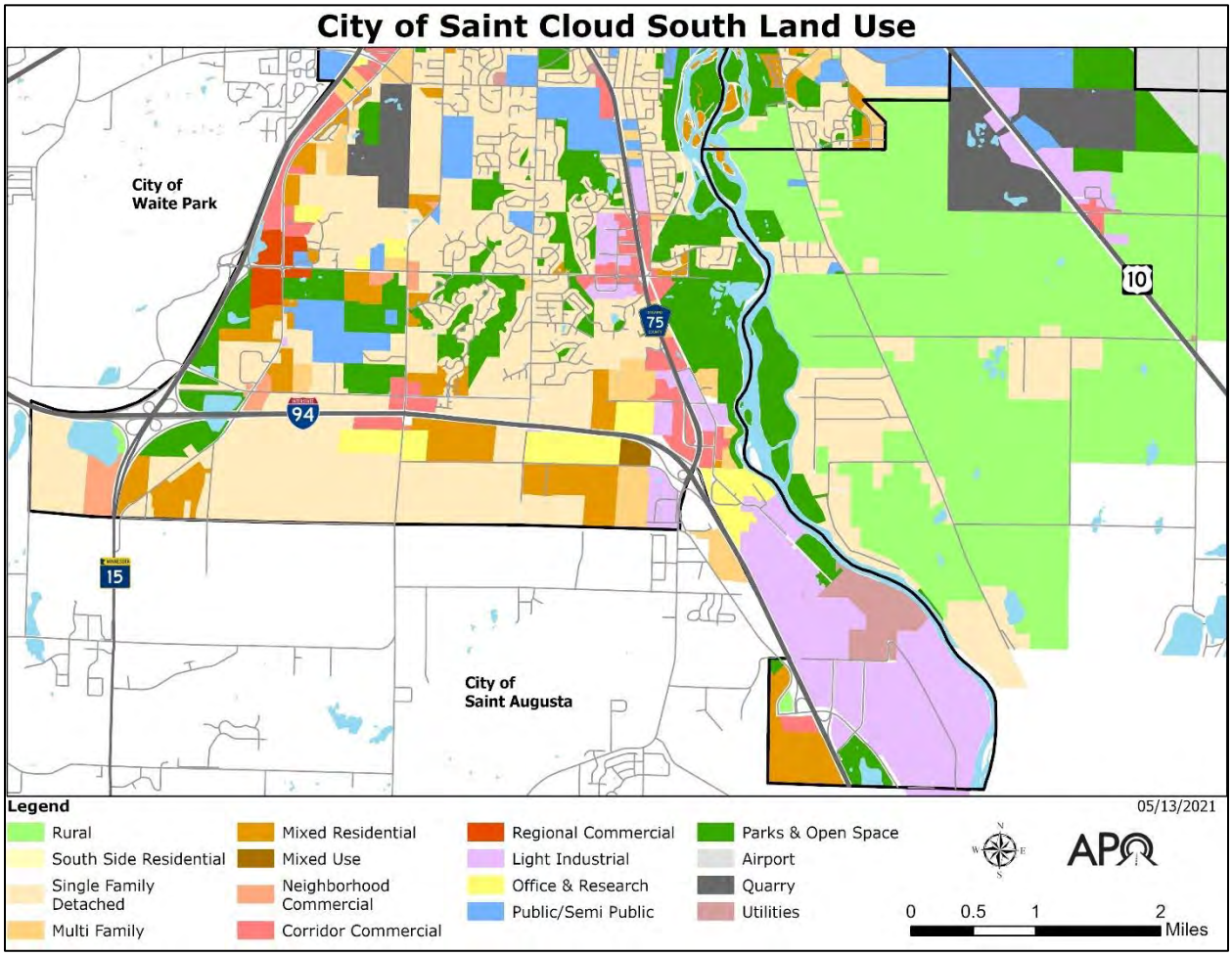


FIGURE E.4 – LAND USES WITHIN SOUTH SAINT CLOUD.

SOUTH SAINT CLOUD

South Saint Cloud can be defined by its areas of mixed-use, single family residential developments, and the parks and schools that serve them. Areas of commercial and industrial development follow Roosevelt Road and I-94.

The city regards south Saint Cloud as its primary growth area. The city is promoting development opportunities south of 33rd Street S and north of I-94. The city also sees growth potential along West Saint Germain Street, Oak Grove Road, and 40th Street S.

The City's goal is to complement services to the existing neighborhood and commercial areas of south Saint Cloud and expand services to support future growth and development.

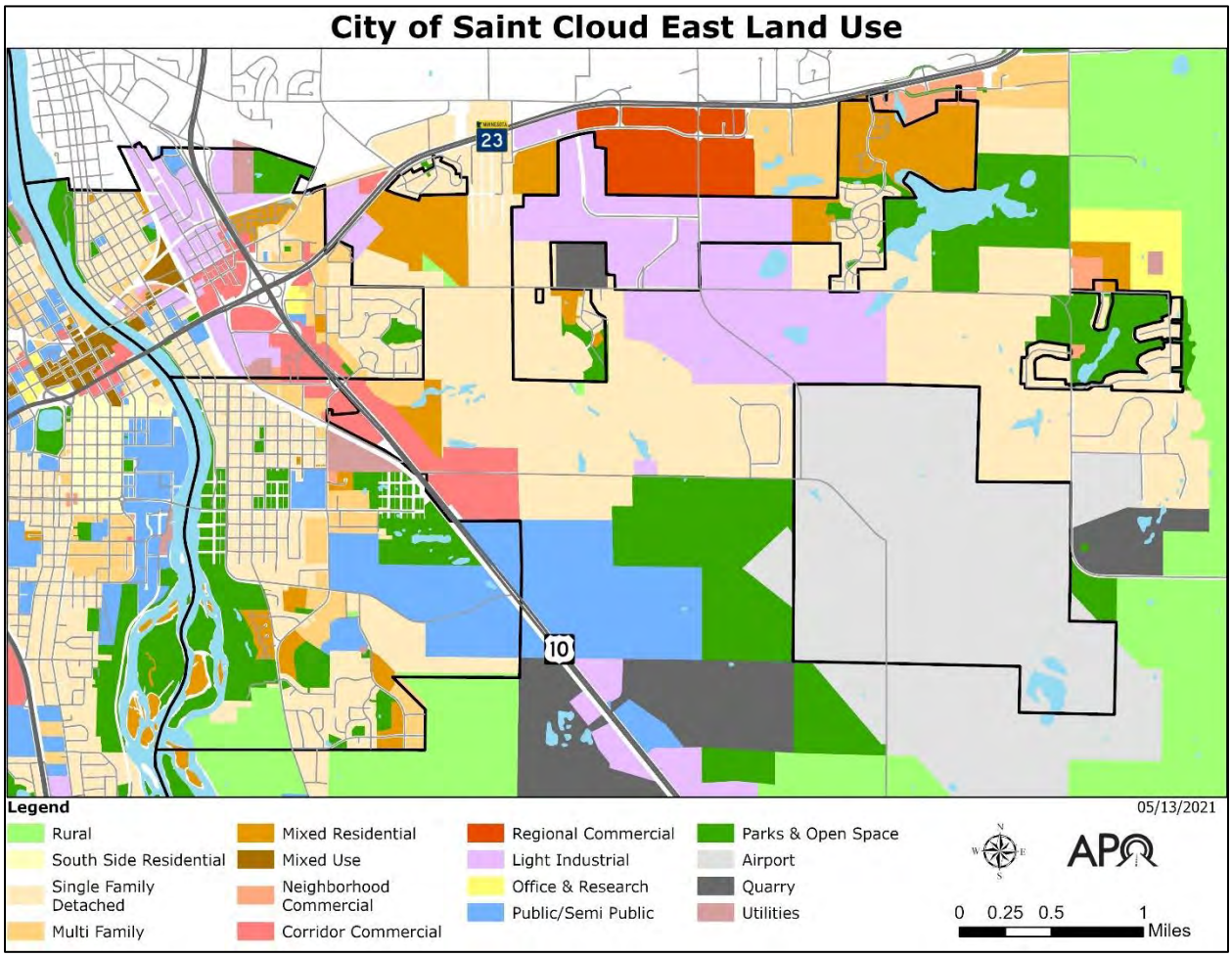


FIGURE E. 5 – LAND USES WITHIN EAST SAINT CLOUD LAND.

EAST SAINT CLOUD

Many established residential neighborhoods and public parks are east of the Mississippi River. Along and near US 10 and Lincoln Avenue is a mix of residential uses along with light industrial and commercial activity. New residential and industrial development can be found further east of US 10 and south of MN 23. This area is also home to the Saint Cloud Regional Airport.

The city seeks to focus on infilling vacant areas in east Saint Cloud as well as encouraging new development near the airport.

Understanding how the city plans to develop in the future will inform the type of transportation system needed. Residents and visitors will only reach these destinations through the transportation network that is available to them.

TYPES OF ACTIVE TRANSPORTATION INFRASTRUCTURE

Saint Cloud has a variety of infrastructure designed specifically for active transportation users. Some are integrated into the roadway network, such as bike lanes (on-road facilities). Others are separated from the roadway network, such as sidewalks and shared use paths (off-road).

Complementing the on- and off-road active transportation network is the transit network operated by Saint Cloud Metro Bus.

Bicyclists and pedestrians can rely on both the on- and off-road network and the Metro Bus system to reach their destinations.

ON-ROAD FACILITIES

The City of Saint Cloud has 46.2 lane miles of on-road bicycle facilities which include signed bicycle lanes, signed paved shoulders, and signed shared lanes.

FIGURE E.6 – BIKE LANE ON OAK GROVE ROAD IN SAINT CLOUD.

About one-third of this network are dedicated bicycle lanes found primarily south of SCSU and along Cooper Avenue. However, much of these on-road miles are part of the nationally recognized Mississippi River Trail (MRT).

Mississippi River Trail (MRT)

The MRT, a planned network of bicycle facilities encompassing the length of the Mississippi River, enters the City of Saint Cloud on both sides of the river having split at the Sauk Rapids bridge.

The western section of the MRT briefly follows Ninth Avenue N before making its way along Sixth Avenue N in front of Saint Cloud Hospital. From there, the MRT makes its way through downtown Saint Cloud along Fifth Avenue N before crossing MN 23 and continuing south near the SCSU campus. After a brief two block split near Eighth Street S, the facility reconnects with the eastern section near the intersection of University Drive S and First Avenue S. From there, the MRT follows the off-road Beaver Island Trail facility to 38th Street S where it once again becomes an on-road facility following Clearwater Road and ultimately CSAH 75 outside of the city limits.

The eastern section enters Saint Cloud from Sauk Rapids's River Avenue S. Following Saint Cloud's Riverside Drive NE, the MRT does a brief jog to Kilian Boulevard SE before connecting with University Drive S. The MRT then heads west across the University Bridge before reconnecting with its western counterpart.

The MRT has been identified as one of the Minnesota Department of Transportation's (MnDOT's) high priority corridors for bicycle routes due to its interjurisdictional nature – spanning from northern Minnesota to Louisiana – and high potential of connecting to other regional active transportation facilities.

OFF-ROAD FACILITIES

Shared Use Paths and Trails

There are 46.9 miles of shared use paths that provide neighborhoods access to many of the City's parks, recreational areas, and schools. Of the nearly 47 miles of shared use paths 9.5 miles are unpaved trails found primarily within city parks.

One of the most well-known shared use paths within the City of Saint Cloud is the Beaver Island Trail.

Beaver Island Trail

Named for a small cluster of islands within the Mississippi River south of SCSU, the Beaver Island Trail is a continuous shared use path starting at the university and running south along the river. North of the campus, portions of the facility have been piecemealed to include sidewalk and bike route sections along Fourth Street S and Third Avenue S. After the intersection of Division Street, the facility once again becomes a shared use path following the Mississippi River behind the Rivers Edge Convention Center before ending near Cathedral High School.

Sidewalks

Approximately 236 miles of sidewalks are located within Saint Cloud. A highly integrated network of sidewalks that follow a grid system is found within the City's core development

area. The presence of sidewalks in different parts of the City vary depending upon when the subdivision was built.

For a better description, the active transportation network for Saint Cloud has been identified within six areas of the city, shown in E.7 – E.12. South and East Saint Cloud (as defined in the previous section) have remained the same. North Saint Cloud, however, has been further subdivided to show the network in the core Central Business District (CBD) and SCSU area, the north-central area, west-central area, and the northwest area.

CBD AND SCSU AREA

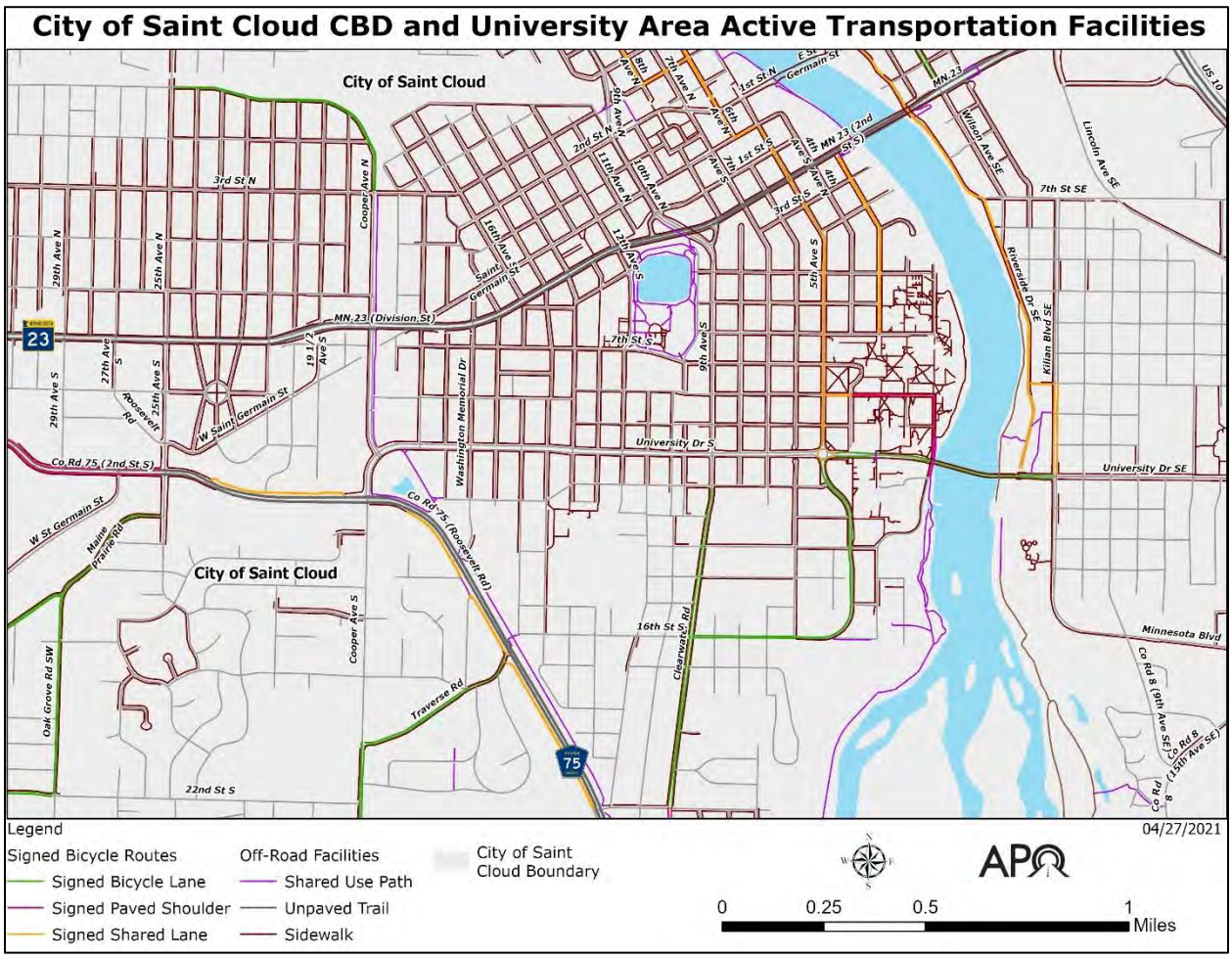


FIGURE E.7 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN THE SAINT CLOUD CBD AND SCSU AREA BY TYPE AND LOCATION.

The CBD and SCSU area have several on-road active transportation facilities. Signed bicycle lanes can be found along Clearwater Road, Oak Grove Road, and Cooper Avenue N. Additional on-road facilities are also located along CSAH 75/Roosevelt Road and just north of the downtown area. It should be noted that many of the on-road bicycle facilities in this area of the city are below the MnDOT design guidelines for posted vehicle speeds and traffic volume.

The most notable off-road facility in this area is the Beaver Island Trail. However, off-road facilities can also be found around Lake George, Cooper Avenue, and CSAH 75/Roosevelt Road.

Much of this area is also served by sidewalks – which primarily follow the existing street grid network.

NORTH-CENTRAL SAINT CLOUD

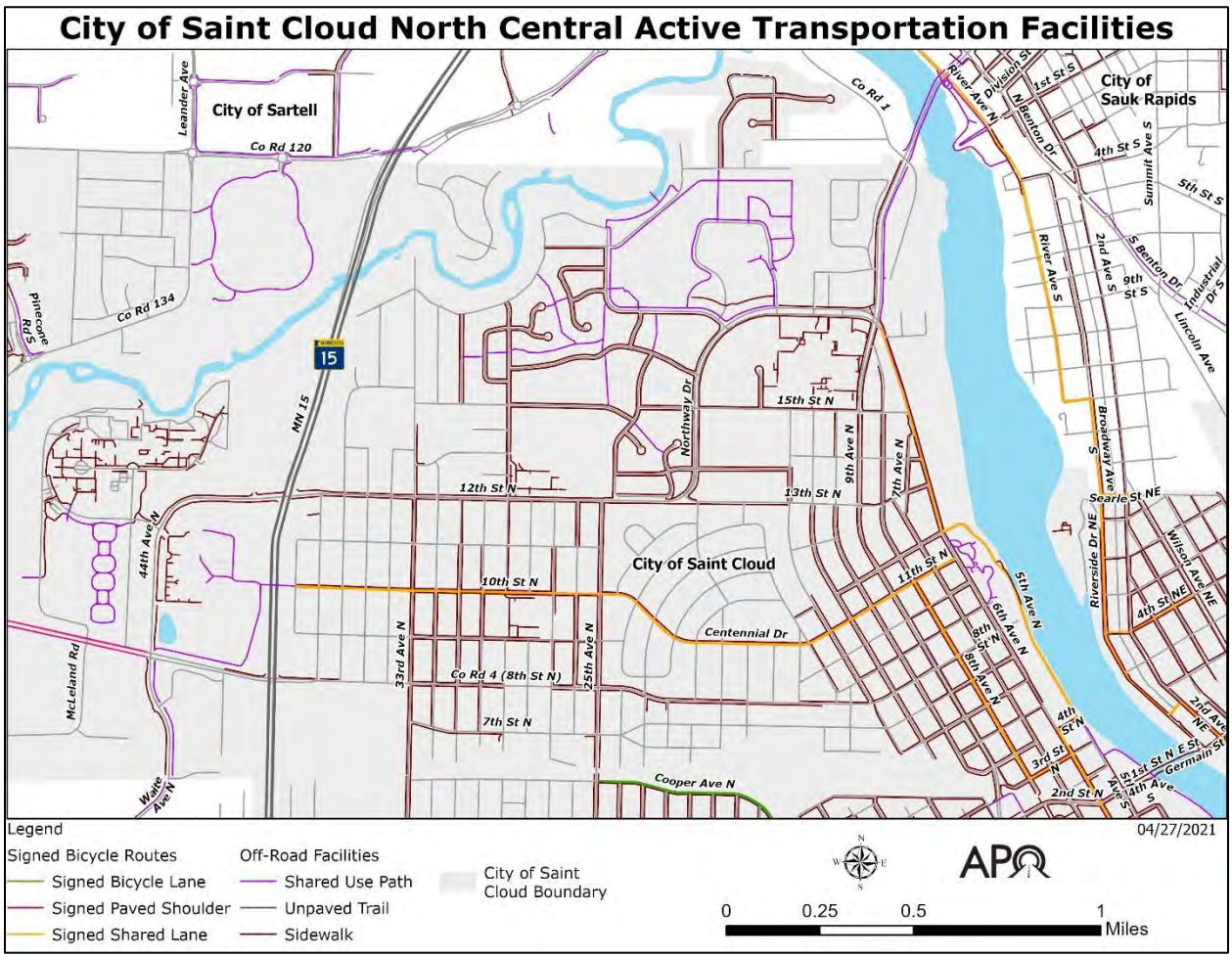


FIGURE E.8 – ON AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN THE NORTH CENTRAL AREA OF SAINT CLOUD BY TYPE AND LOCATION.

In contrast to the previous area, north-central Saint Cloud has very few on-road active transportation facilities. However, this area does have a signed shared lane along 10th Street N/Centennial Drive serving as an on-road connection between the Apollo High School pedestrian bridge and the downtown area.

The off-road network throughout this area (as seen in Figure E.8) is fairly inconsistent. A cluster of shared use paths can be found around the Whitney Park, the VA, CentraCare Health Plaza, and Hester Park areas. And while sidewalks are seen closer to the downtown and Saint Cloud Hospital area, several areas including near Madison Elementary School, are lacking a connected sidewalk network.

WEST-CENTRAL SAINT CLOUD

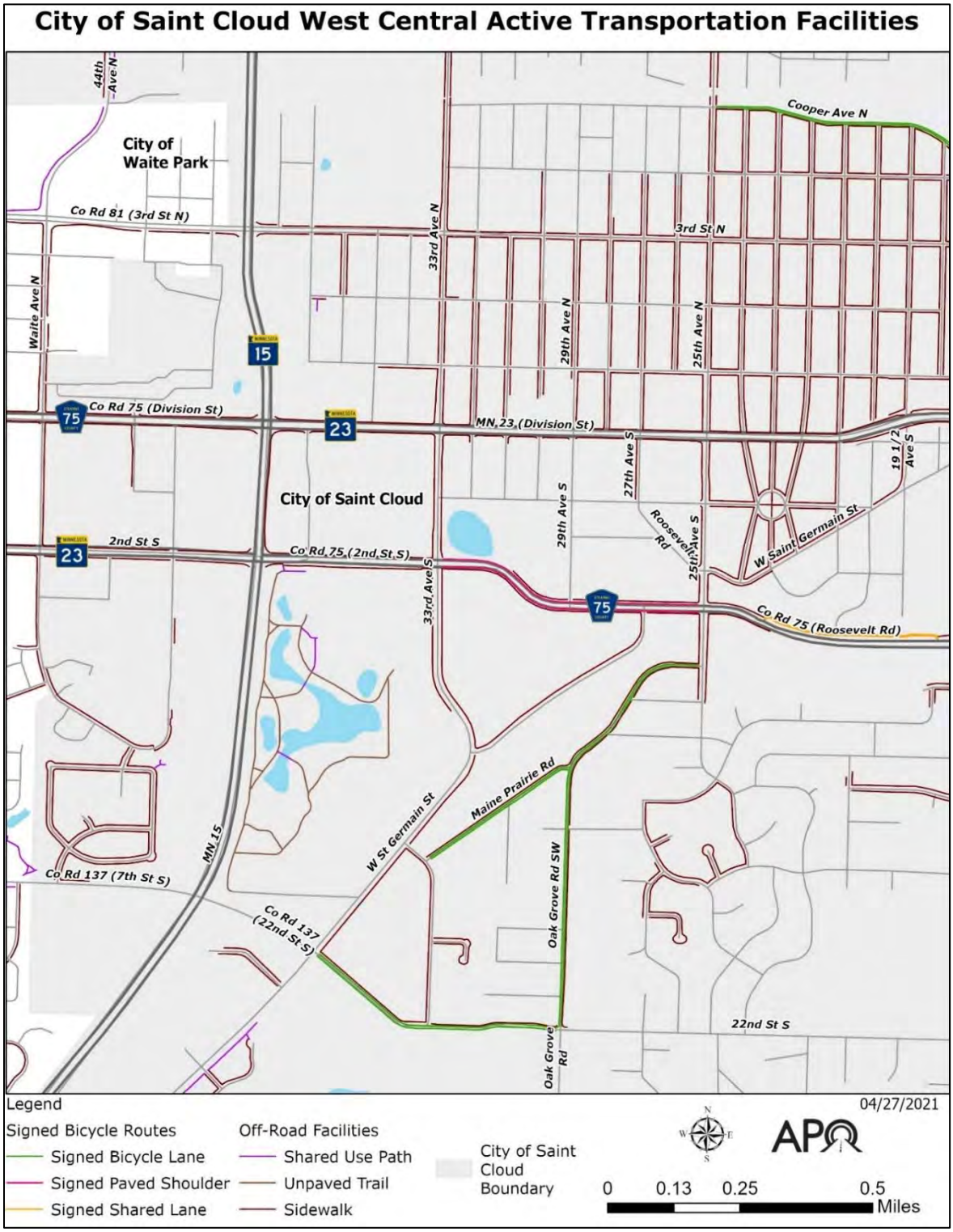


FIGURE E.9 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN THE WEST CENTRAL AREA OF SAINT CLOUD BY TYPE AND LOCATION.

The west-central area of Saint Cloud faces many challenges for active transportation users due to the presence of the high vehicle traffic corridors of MN 23, MN 15, and CSAH 75. Several plans and studies have identified these roadways as major barriers for bicyclists and pedestrians.

Few on-road facilities are found within this section of Saint Cloud, primarily concentrated south of CSAH 75 along 22nd Street S, Maine Prairie Road, and Oak Grove Road SW. CSAH 75/Second Street S also has some on-road facilities (signed paved shoulders); however, these facilities do not meet design standards per MnDOT guidance.

Neighborhoods in the west central Saint Cloud area have mixed levels of off-road active transportation facilities. Where the street grid network is present, the sidewalk network is rather robust − though gaps do remain (particularly between Third Street N and Cooper Avenue N). In newer developed areas south of CSAH 75, there is a definite lack of sidewalks within many residential areas.

Rounding out the active transportation infrastructure within the west central region is a series of unpaved walking trails within Heritage Park near the Stearns History Museum and Costco.

NORTHWEST SAINT CLOUD

On-road facilities within the northwest Saint Cloud area found in two locations: Veterans Drive/Eighth Street N between 44th Avenue N and Anderson Avenue and along Rolling Ridge Road between CSAH 4 and just west of Cypress Road. A continuous connection between these two facilities is piecemealed together with a combination of shared use paths and sidewalks. But even still, gaps do remain.

The Lake Wobegon Trail passes through the southern portion of this area. Additional shared use paths and the majority of sidewalks within this region are concentrated in the neighborhood surrounding Westwood Parkway. Sporadic sidewalks are also located in residential areas between CSAH 4 and Pinecone Road S as well as just south of 322nd Street.

FIGURE E.10 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN THE NORTHWEST AREA OF SAINT CLOUD BY TYPE AND LOCATION.

SOUTH SAINT CLOUD

Running through the southern portion of Saint Cloud, the MRT once again becomes an on-road facility – splitting from the Beaver Island Trail. This signed paved shoulder facility continues south outside of the city's municipal boundary. Other on-road facilities within this portion of Saint Cloud include signed bicycle lanes along Cooper Avenue S.

Major off-road facilities within the south Saint Cloud section include the Beaver Island Trail along the Mississippi River and the shared use path constructed along 33rd Street S. A slight gap in the latter remains but is planned to be added during the expansion of 33rd Street S within the next few years.

Some residential areas – clustered south of 33rd Street S between Cooper Avenue S and Oak Grove Road SW – do have sidewalks. Several residential areas within this section of Saint Cloud, however, do not have access to active transportation facilities.

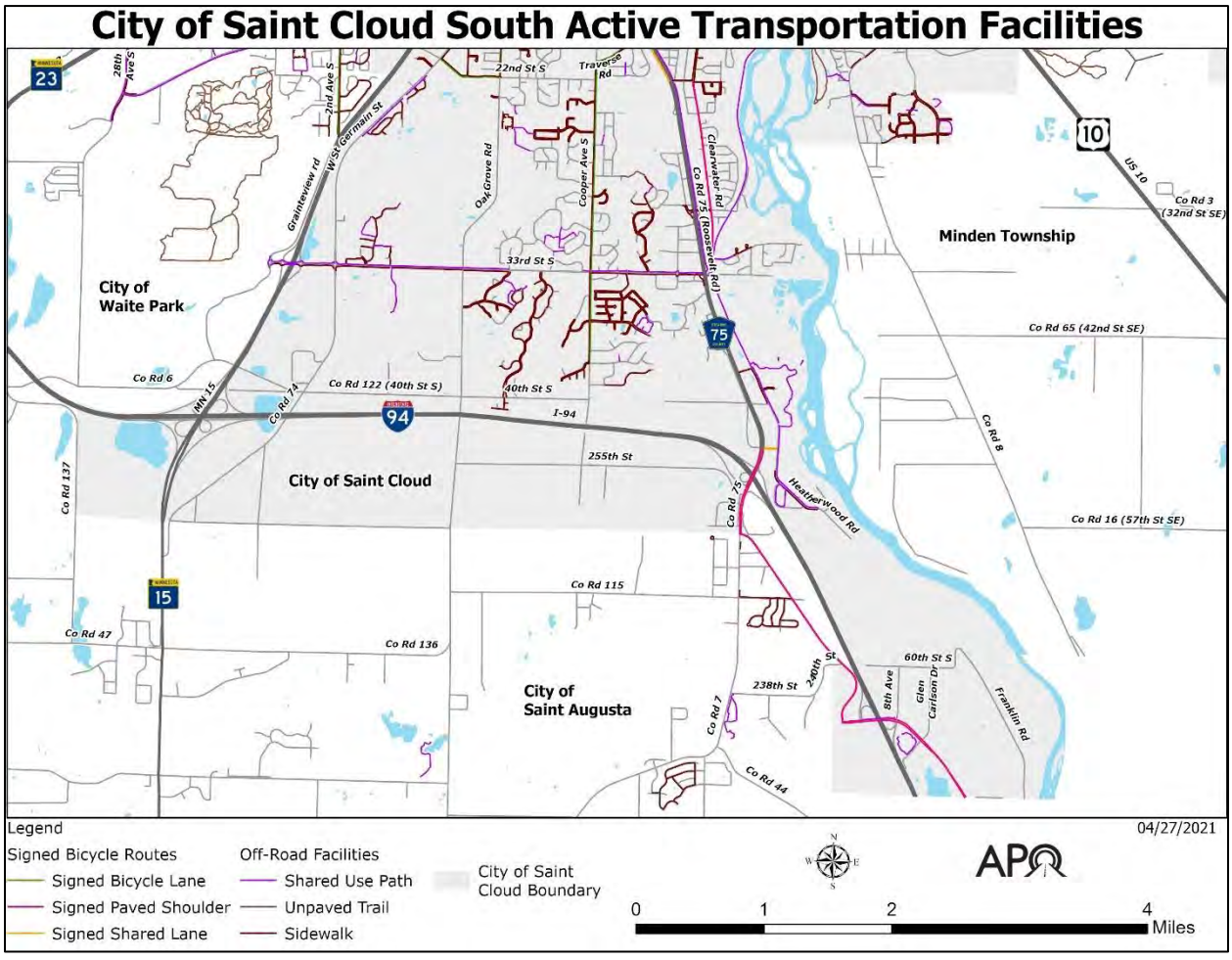


FIGURE E.11 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN SOUTH SAINT CLOUD BY TYPE AND LOCATION.

EAST SAINT CLOUD

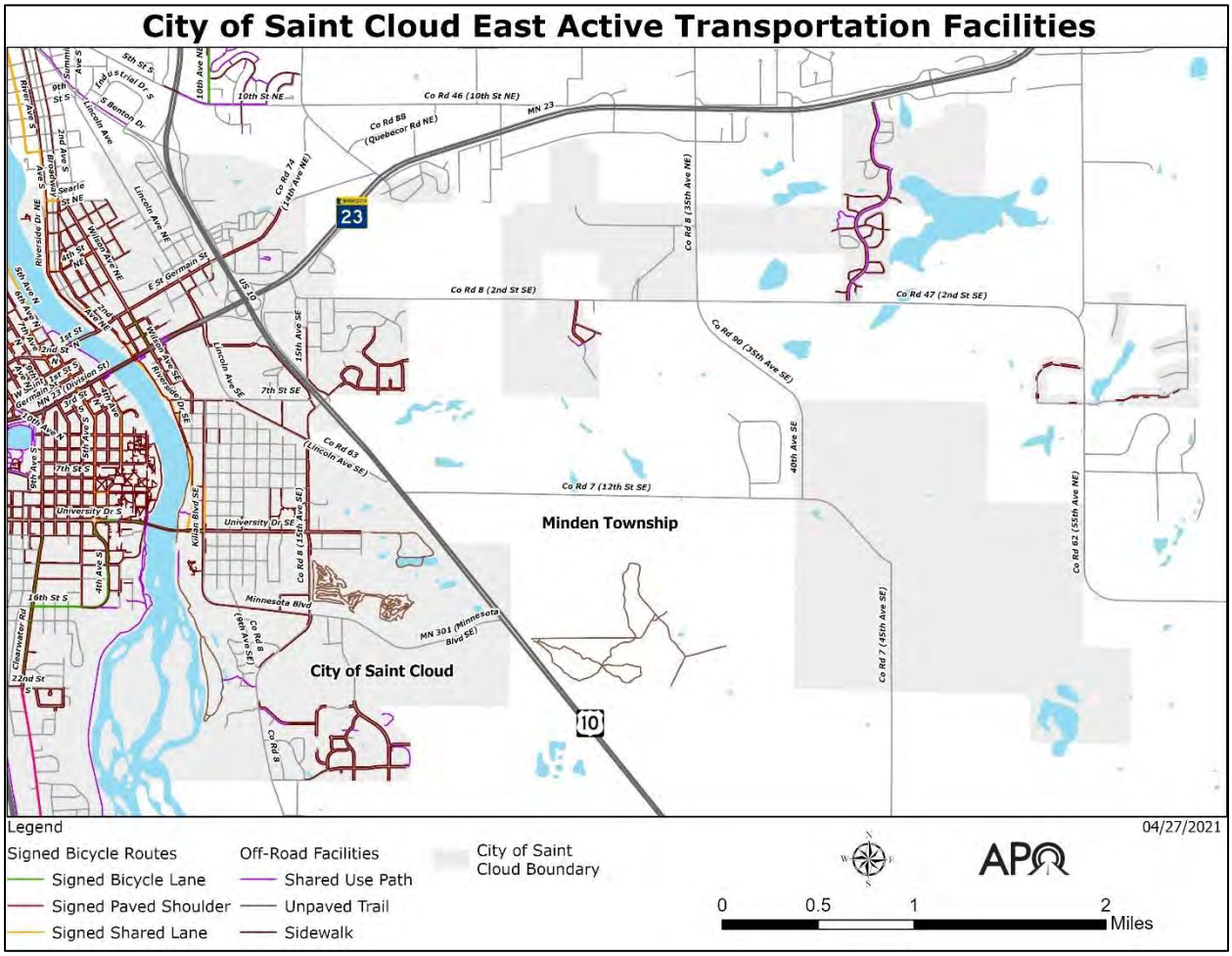


FIGURE E.12 – ON- AND OFF-ROAD ACTIVE TRANSPORTATION FACILITIES IN EAST SAINT CLOUD BY TYPE AND LOCATION.

In general, much of the east side of Saint Cloud lacks active transportation facilities. However, despite the lack of facilities, the east side's three Mississippi River crossings do allow for active transportation users to access the city's downtown CBD.

The MRT serves as this sections only on-road facility with the route following Riverside Drive NE, jogging slightly to Kilian Boulevard SE before crossing the Mississippi at University Bridge. It should be noted that facilities on University Bridge are under-designed for bicycles.

Off-road facilities (primarily sidewalks) are found in residential developments near Wilson Park along the Mississippi River. However, much of the area south of MN 23 and west of US 10 is lacking any active transportation facilities.

Unpaved trails are located in Riverside Park and George Friedrich Park. This section of the city also is home to the Jail Trail near the Saint Cloud Department of Corrections facility.

TRANSIT SERVICES AND INFRASTRUCTURE

As the urban public transit provider, Saint Cloud Metro Bus is responsible for the daily management, operation, and maintenance of Fixed Route (FR) and Dial-a-Ride (DAR) systems within Saint Cloud, Waite Park, Sartell, and Sauk Rapids.

FIXED ROUTE SERVICE

Metro Bus currently operates on a hub and spoke system. This means, for the most part, all FR buses start and end in the same location traveling in a circular type loop around the metro. Except for the ConneX on demand FR service in Sartell, all Metro Bus routes provide service to Saint Cloud. The majority of FR service hubs out of the downtown transit center (510 First Street S). Other hubs include the Crossroads Center (Route 33) and Encore Capital Group on McLeland Road (Route 10).

Routes 4, 6, 7, 8, 9, 10, 11, and 12 provide exclusive service to the City of Saint Cloud. Route 4 primarily serves north Saint Cloud via Veterans Drive/Eighth Street N and Ninth Avenue N. Routes 6 and 7 provide bi-directional service to east Saint Cloud neighborhoods both north and south of the MN 23/US 10 interchange. Routes 8 and 9 cover similar areas with service around the University Drive area. Route 10 (the only exclusive Saint Cloud route not based out of the transit center) primarily provides service to industrial areas of northwest Saint Cloud along CSAH 4 and Ridgewood Road. Portions of west central Saint Cloud are serviced by Route 11 following roadways such as University Drive, Roosevelt Road, and Maine Prairie Road. The Route 12 is the southernmost Metro Bus route providing along Clearwater Road to McStop near I-94. The route also deviates to Tech High School on 33rd Street S three times a day while school is in session.

Routes 1, 2, 3, and 5 provide varying degrees of service to the City of Waite Park. However, since these are based out of the transit center, several stops do occur within the City of Saint Cloud.

This is also like the services provided by routes 21, 22, and 33 (which provide transit access to Sauk Rapids) and the Route 31 (with access to Sartell).

It should be noted that the route patterns listed here were in place prior to the beginning of the COVID-19 global pandemic. Due to several changes (including the need to social distance on buses, decline in ridership, and staffing issues) Metro Bus has made several temporary changes to its service including suspending Route 7. It is anticipated that service will be returned to normal at some point in the future.

Figure E.13 shows the full location of each of these routes within the City of Saint Cloud.

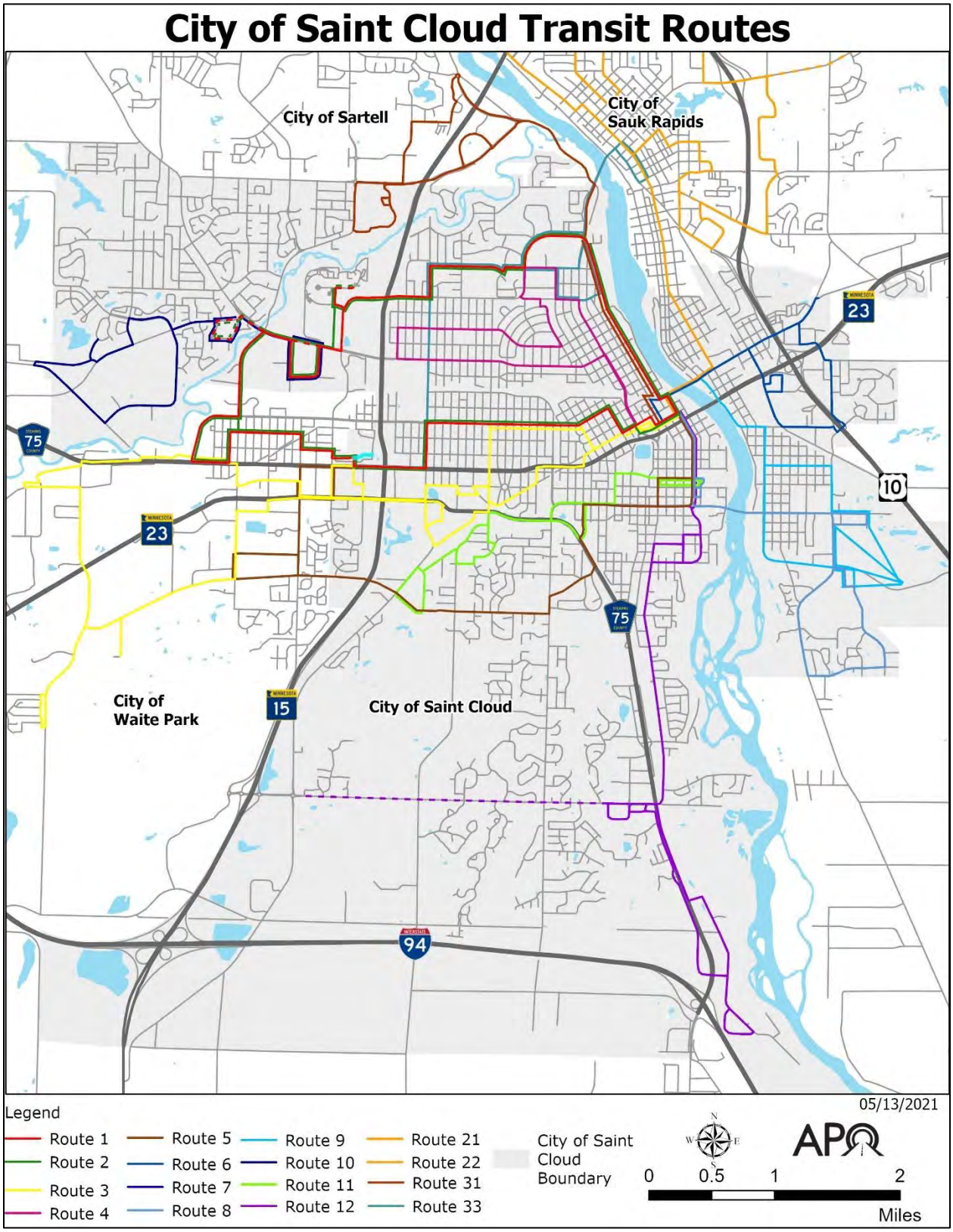


FIGURE E.13 – METRO BUS FIXED ROUTE SERVICE.

All fixed route transit stops within the Metro Bus system are signed. Several stops, particularly those with a large number of people boarding and alighting tend to have benches and shelters.

Figures E.14 – E.16 show the location of transit stops in north, south, and east Saint Cloud (respectively) and their proximity to active transportation infrastructure. shows the location of transit stops in north Saint Cloud and how close they are to active transportation infrastructure. For the most part, stops within north Saint Cloud particularly in the CBD and SCSU area, have some active transportation facility access. As routes move further away from the downtown, access to active transportation greatly diminishes.

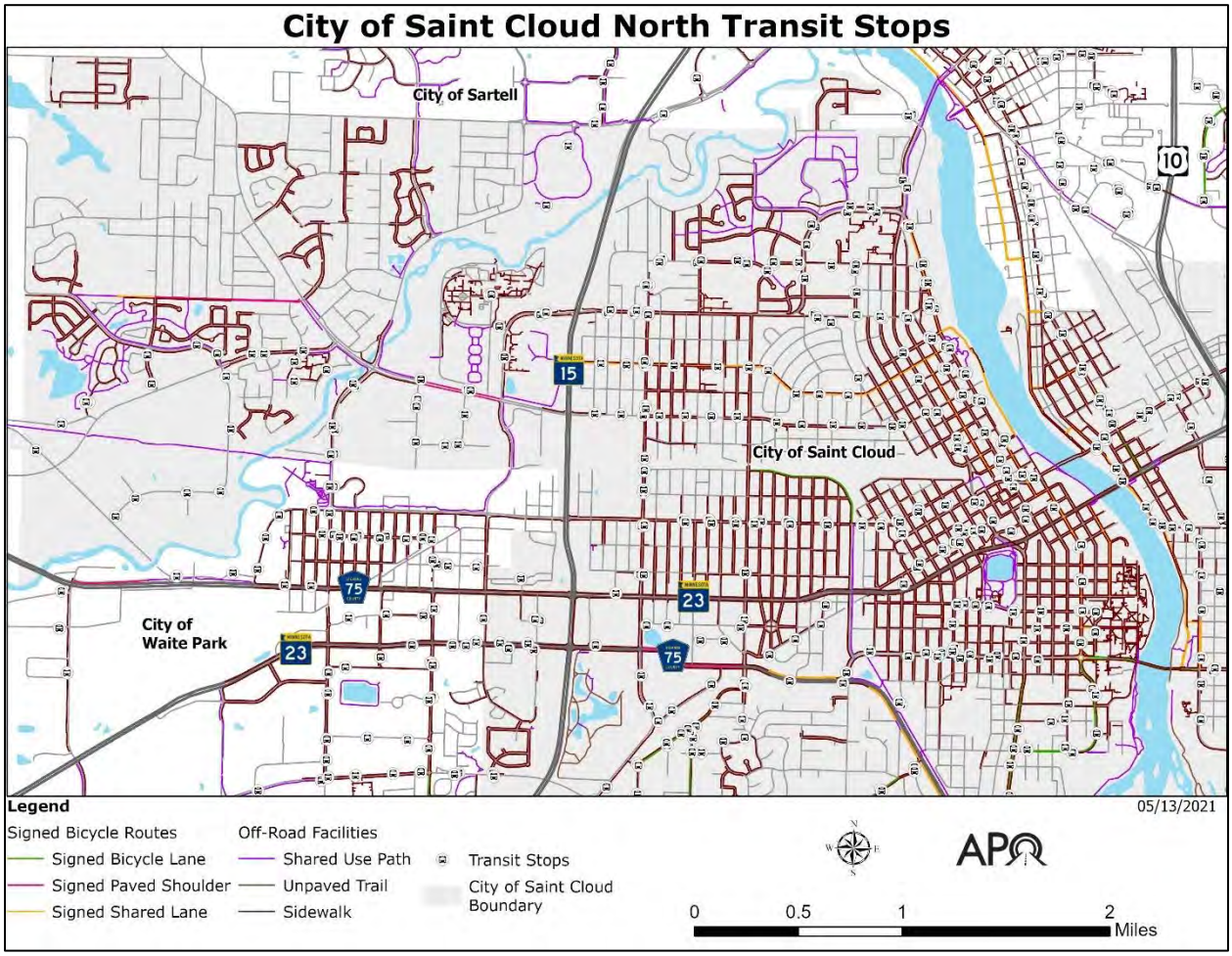


FIGURE E.14 – TRANSIT STOPS RELATIVE TO THE ACTIVE TRANSPORTATION SYSTEM IN NORTH SAINT CLOUD.

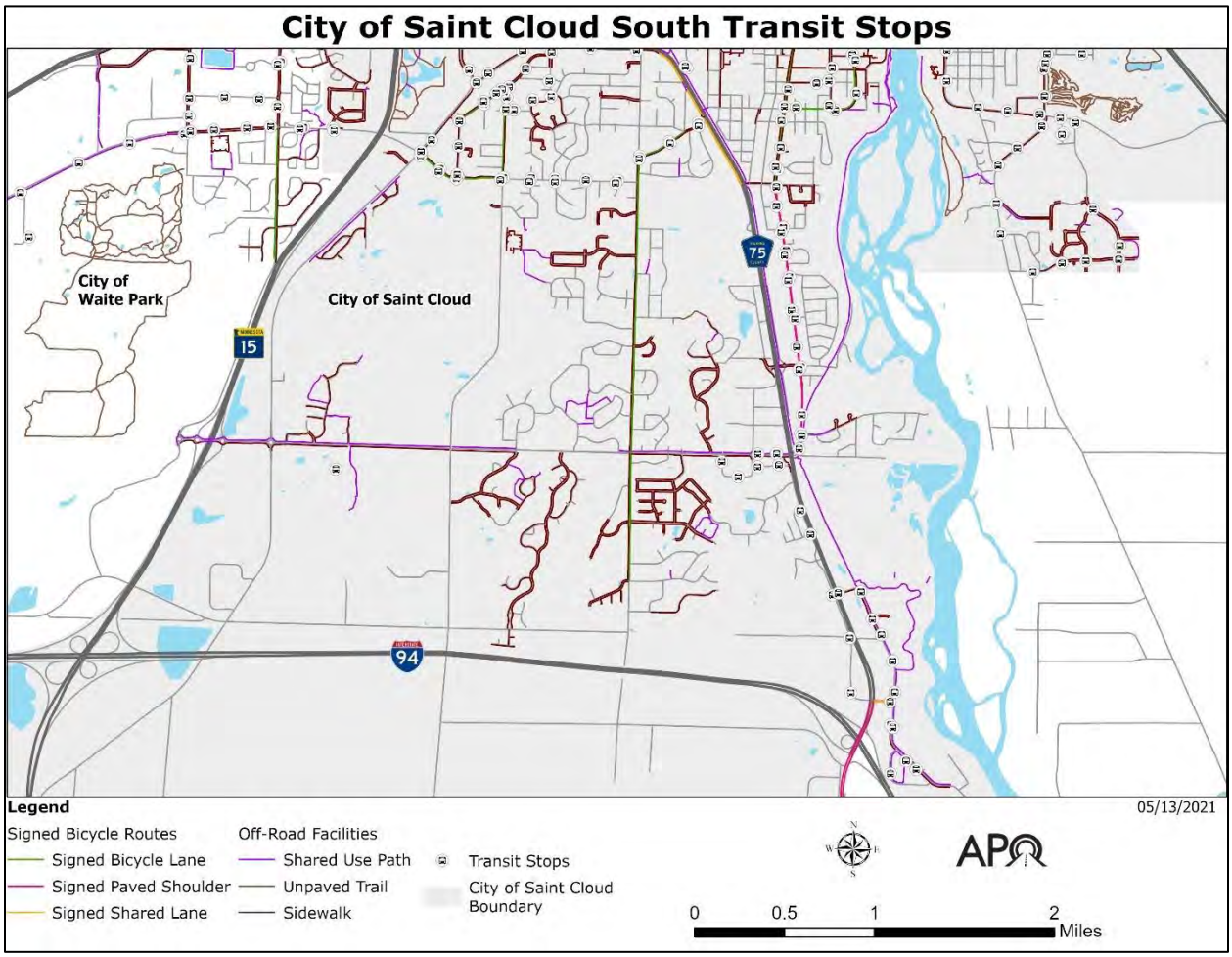


FIGURE E.15 – TRANSIT STOPS RELATIVE TO THE ACTIVE TRANSPORTATION SYSTEM IN SOUTH SAINT CLOUD.

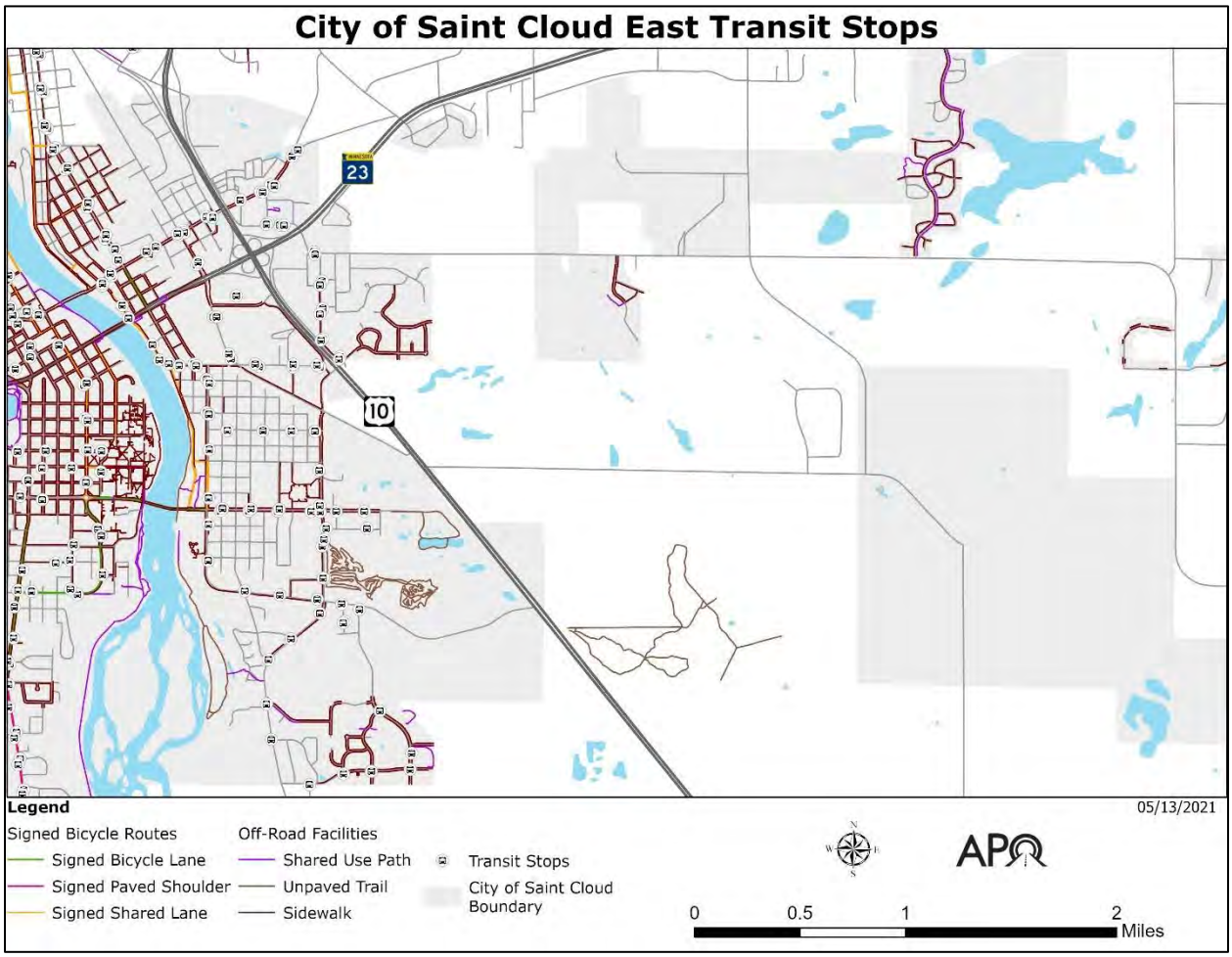


FIGURE E.16 – TRANSIT STOPS IN RELATION TO THE ACTIVE TRANSPORTATION SYSTEM IN EAST SAINT CLOUD.

OTHER TRANSIT SERVICES

In addition to its FR system, Metro Bus provides paratransit services to Saint Cloud residents. Dial-a-Ride (DAR) is an operator-assisted paratransit service provided for those unable to use fixed routes. The DAR service area is approximately a three-quarter mile buffer around the FR system.

CONDITION OF ACTIVE TRANSPORTATION INFRASTRUCTURE

If the existing active transportation infrastructure is in poor condition, it may cause safety issues, inconvenience for the user, or result in the underutilization of the facility. Keeping the system in good condition assures safety and a comfortable experience.

Data on the current pavement conditions for on-road and off-road active transportation facilities within the City of Saint Cloud was collected from areawide surveys performed for the APO, as discussed in Chapter 2.

ON-ROAD FACILITIES

Pavement Condition and Striping

In 2019 GoodPointe Technology collected pavement and striping condition data on the existing on-road bicycle routes in Saint Cloud.

Pavement condition was evaluated using a Digital Inspection Vehicle (DIV) – a specialized vehicle equipped with cameras and laser sensors to detect pavement distress and roughness. As shown in Figures E.17 and E.18, of the 20.9 total lane miles designated as signed shared bicycle facilities most are in good or satisfactory condition.

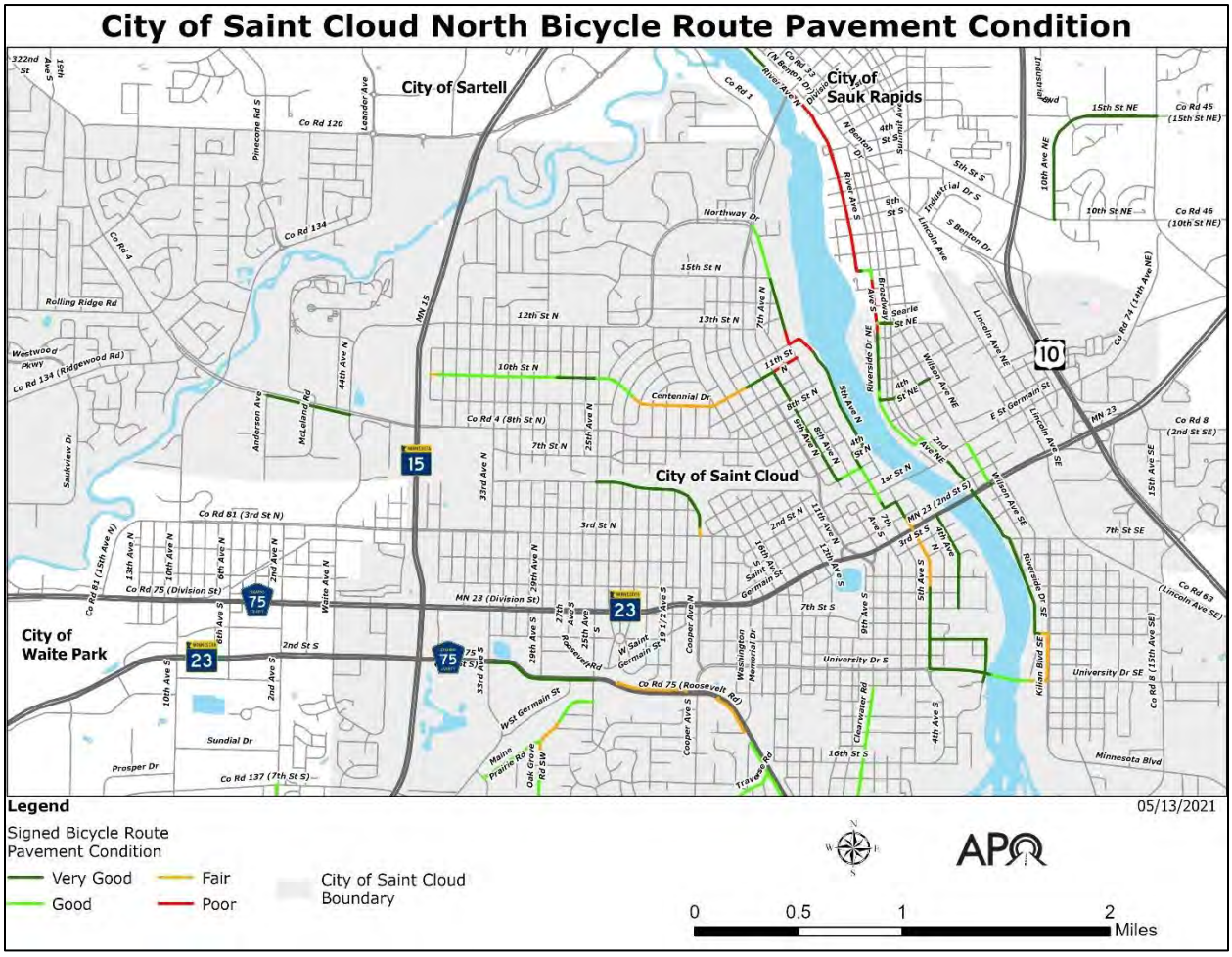


FIGURE E.17 – CONDITION OF PAVEMENTS SIGNED AS BICYCLE ROUTES IN NORTH AND EAST SAINT CLOUD.

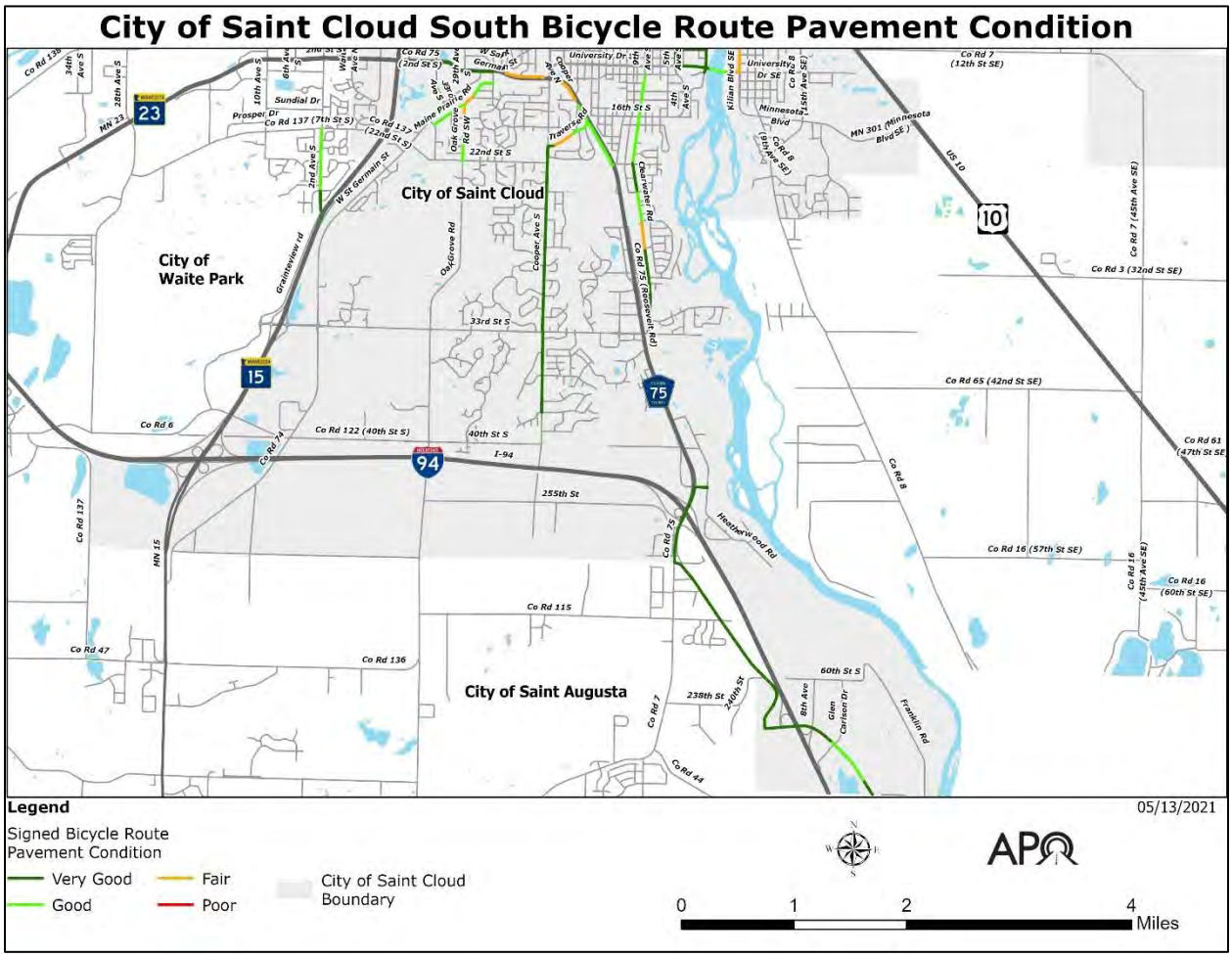


FIGURE E.18 – CONDITION OF PAVEMENTS SIGNED AS BICYCLE ROUTES IN SOUTH SAINT CLOUD.

Striping conditions of on-road facilities were rated from a visual inspection. A majority of on-road facilities are not designated by pavement markings. For those lane miles that were striped, a majority appear to be in good to fair condition. See Figures E.19 and E.21 for more details.

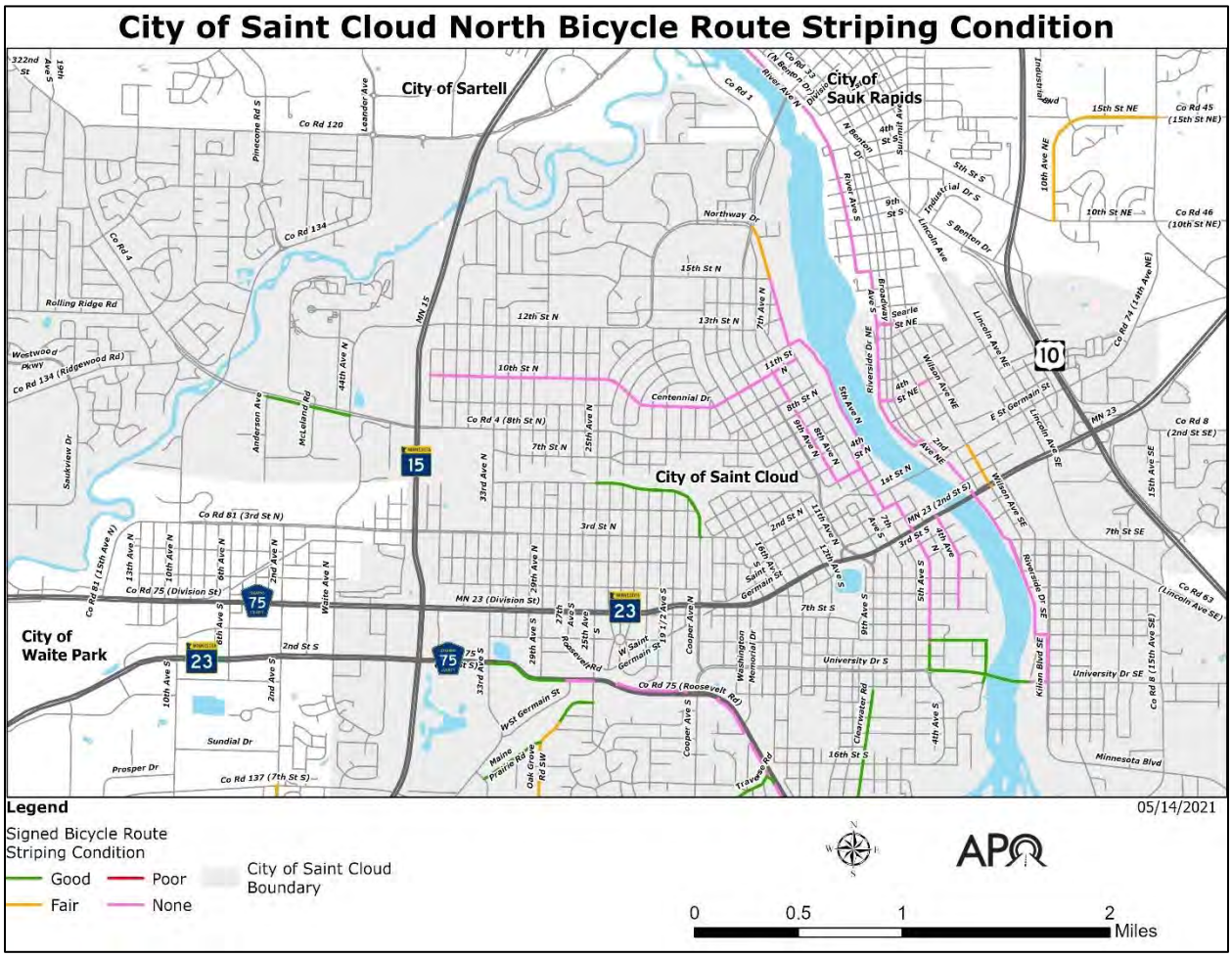


FIGURE E.19 - STRIPING CONDITION OF SIGNED BICYCLE ROUTES IN NORTH AND EAST SAINT CLOUD.

FIGURE E.20 – BUFFERED BIKE LANE ON OAK GROVE ROAD IN SAINT CLOUD.

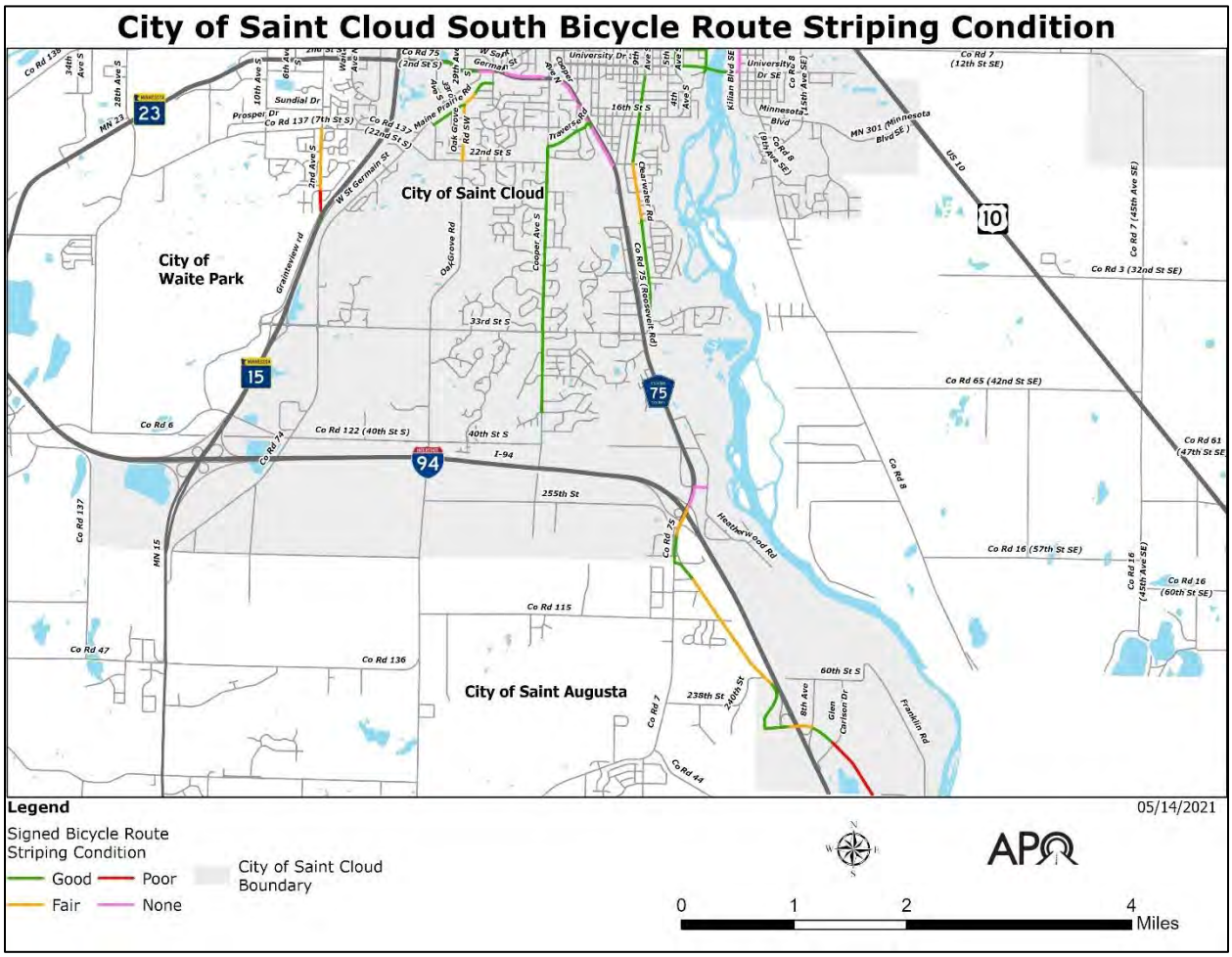


FIGURE E.21 - STRIPING CONDITION OF SIGNED BICYCLE ROUTES IN SOUTH SAINT CLOUD.

OFF-ROAD FACILITIES

Condition of Off-Road Shared Use Paths

The Parks & Trails Council of Minnesota conducted a pavement condition assessment of most shared use paths within the APO in 2020. The Council used a specially equipped electronic bicycle with instruments aboard to record the "bumpiness" of the pavement throughout the MPA.

The study concluded much of the City's facilities are in good or "smooth" condition, however, some areas in parks or neighborhoods need improvement. Approximately 28% of all shared use paths in Saint Cloud were identified as "rough" or "very rough" conditions. Examples of these can be found in the facilities around Whitney Park and along the Beaver Island Trail. See Figures E.22 – E.24 for more details.

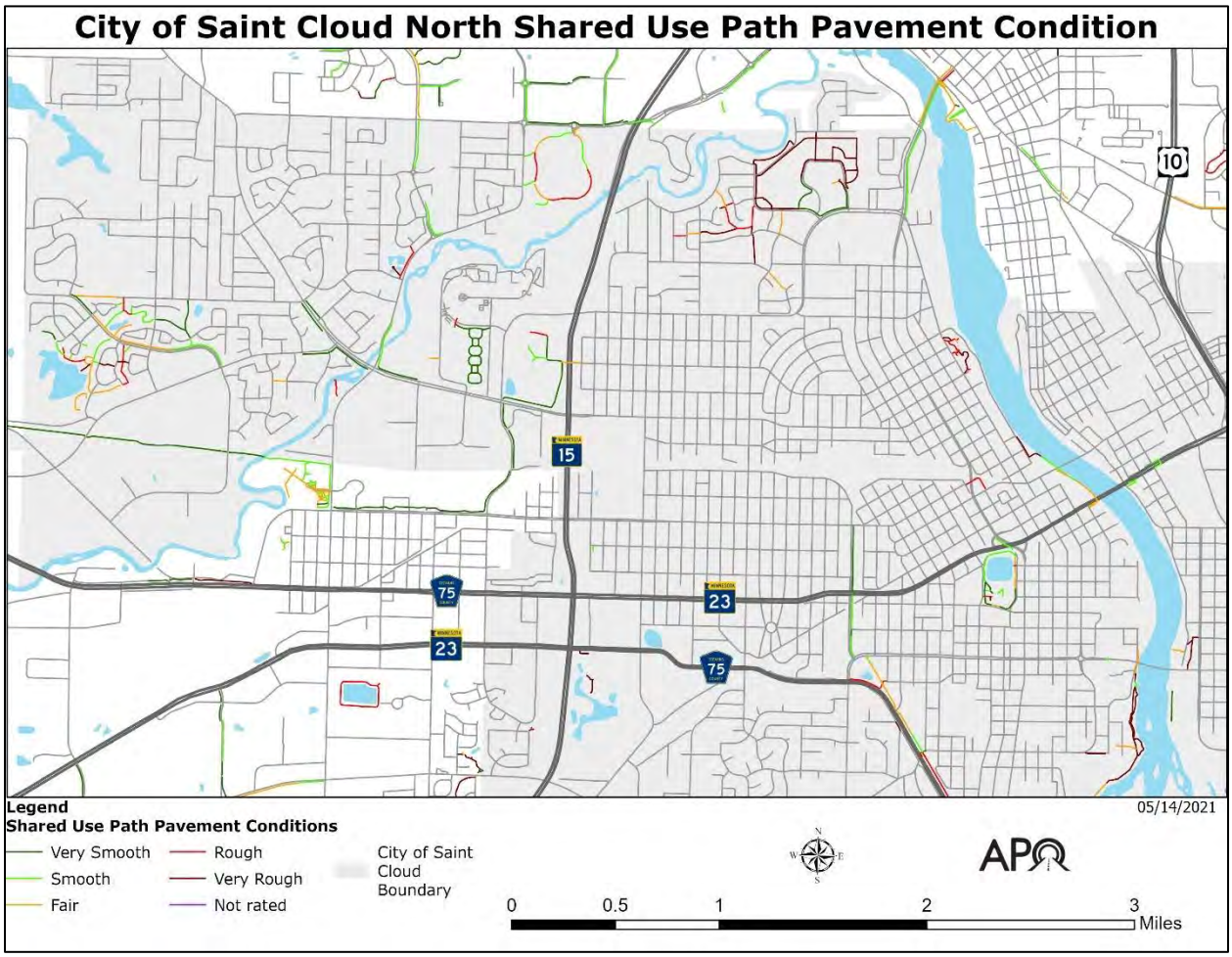


FIGURE E.22 – CONDITION OF PAVEMENTS ON SHARED USE PATHS IN NORTH SAINT CLOUD.

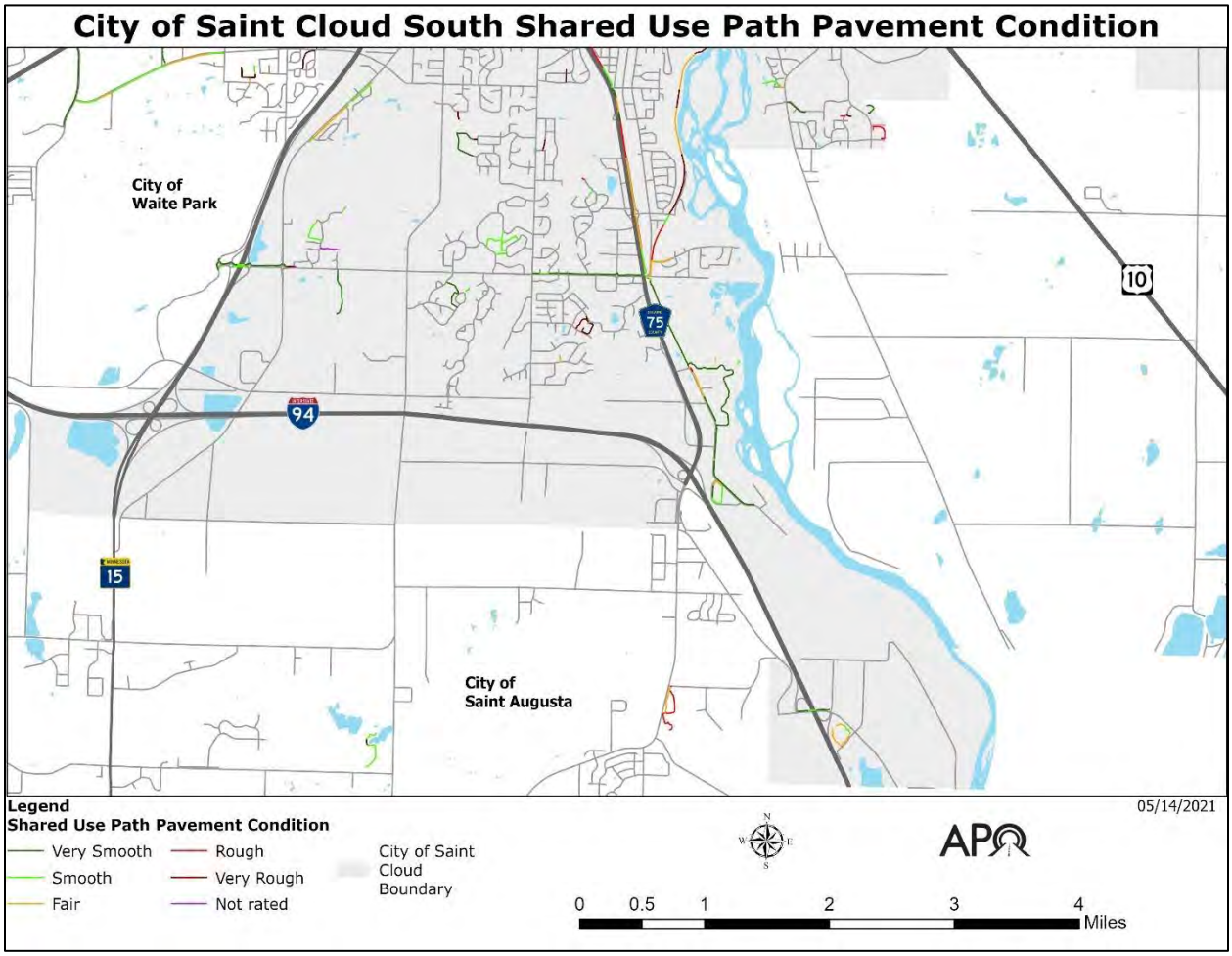


FIGURE E.23 – CONDITION OF PAVEMENTS ON SHARED USE PATHS IN SOUTH SAINT CLOUD.

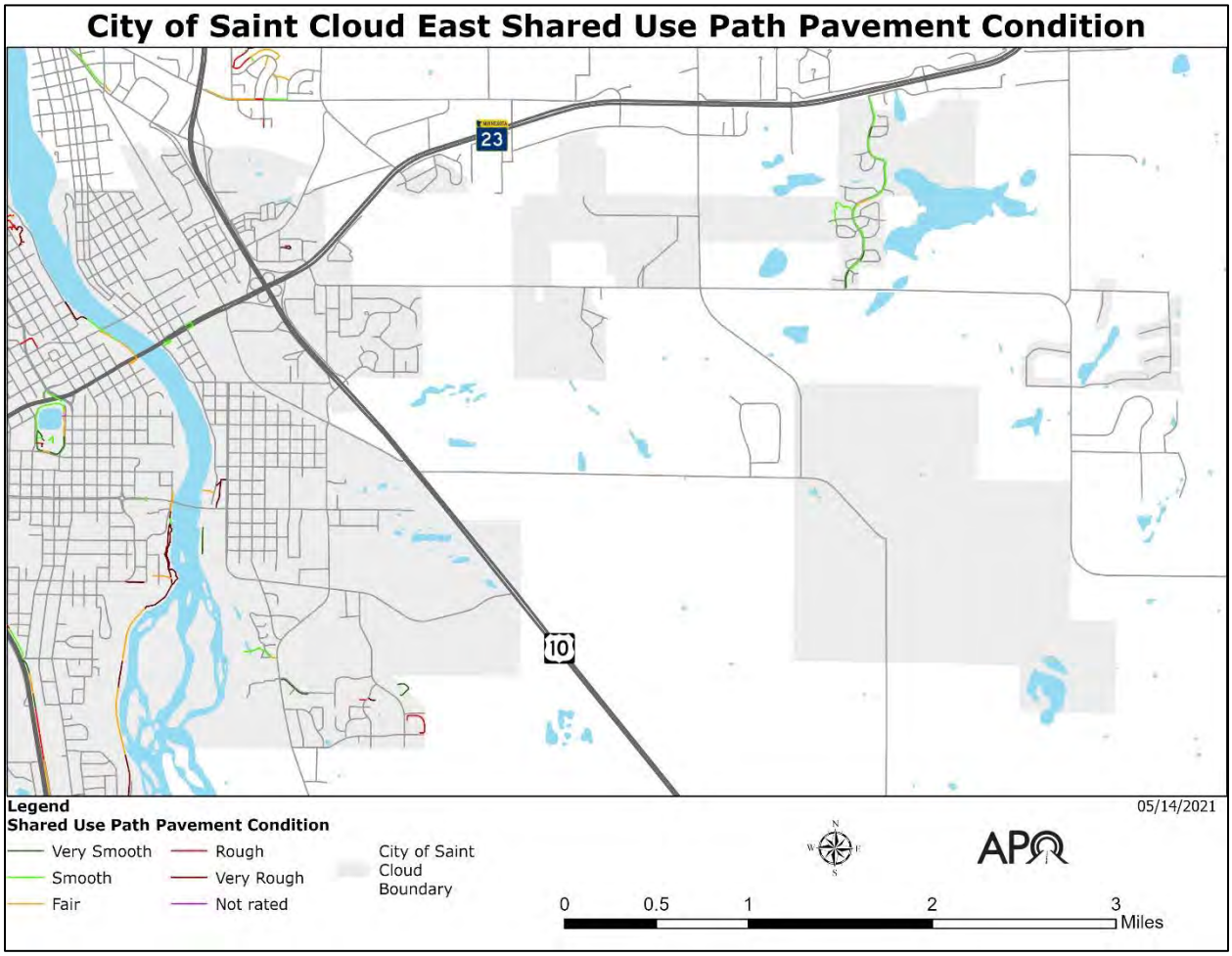


FIGURE E.24 – CONDITION OF PAVEMENTS ON SHARED USE PATHS IN EAST SAINT CLOUD.

SAINT CLOUD PLANS FOR ACTIVE TRANSPORTATION

The 2015 Comprehensive Plan (https://bit.ly/3h6dIR1), adopted in 2016 and the supplementary East End Vision Small Area Plan (https://bit.ly/3qNpVxa) approved in 2019, provide the current planning framework for transportation in Saint Cloud.

Saint Cloud has also made a commitment to improving active transportation within its boundaries. This has included the adoption of a Complete Streets policy and the city's recent designation as a Bicycle Friendly Community (BFC).

Finally, several of the city's major roadway networks (MN 23, MN 15, US 10, and CSAH 75) have been studied not only in terms of motor vehicle traffic, but for active transportation users as well.

2015 COMPREHENSIVE PLAN

As stated in the 2015 Comprehensive Plan, Saint Cloud seeks to create a highly connected transportation network that facilitates access and mobility to accommodate all users

regardless of age and ability. Saint Cloud's plan includes strategies to recognize and address bicycle and pedestrian barriers by investing in projects that improve connections. The city will improve and expand its transportation network with bicycle and pedestrian-friendly designs.

Active Transportation Needs as Identified in the Comprehensive Plan

In addressing the comprehensive plan's commitment to improving facility connections and addressing barriers, the city seeks an improved response to meeting the transportation access needs of underserved areas. Priority will be given to providing active transportation infrastructure in areas around schools and destinations often used by youth and senior citizens. The plan prioritizes improved connections between core neighborhoods and other districts. It also emphasizes that care should be given in the placement and design of facilities and crossings along major roadway corridors.

A primary objective from the 2015 Comprehensive Plan is to provide safe, non-motorized access to local and regional park facilities. Among the city's objectives are to maintain and improve the existing parks as well as expand both the park system and active transportation facilities serving them as opportunities arise. The city also seeks to improve usage and access to the Mississippi River.

Saint Cloud's 2019 East End Vision Plan outlines goals and strategies for redeveloping east Saint Cloud. This includes constructing transit-oriented development (TOD) features around the Amtrak station. The City's Vision Plan objective is to create a walkable urban environment with streetscape designs that address access and safety needs for active transportation users. The plan also calls for expansion of the bicycle network and additions to bus routes.

2011 COMPLETE STREETS

In 2011, the City of Saint Cloud became the first community in the region to adopt a Complete Streets Policy. In implementing this policy, the City seeks to achieve equity for its transportation system, balancing the needs of all ages and abilities. With its commitment to Complete Streets, the city aims to ensure safe travel for pedestrians, bicyclists, transit users, and others. The city considers the access needs for all users as it improves roadway networks to serve new development. Road designs will close gaps and address deficiencies consistent with the land use context. As it develops projects, the city will anticipate and respond to future demand for walking, bicycling, and transit usage.

2017 BICYCLE FRIENDLY COMMUNITY

For its work in promoting active modes, Saint Cloud received its designation as a Bronze level Bicycle Friendly Community (BFC) in 2017 from the League of American Bicyclists. The League cited the city's continued efforts to accommodate and encourage safe and convenient bicycling as the reason for its current designation.

TRANSPORTATION STUDIES

Recent studies of relevance in defining transportation issues and planning solutions for the City of Saint Cloud are the 2020 TH 15 Corridor Study (https://bit.ly/3t3Hf3K), the 2016 US-10 Pedestrian Crossing Report (https://bit.ly/3G5XaCC), and the 2007 TH 23 and CSAH

75 Corridor Study (https://bit.ly/3HB2GgG). These planning studies analyzed current and future traffic and facility conditions for critical corridors with reference to bicycle and pedestrian access needs.

CITY ORDINANCES

Along with various citywide planning efforts, Saint Cloud City Code (https://bit.ly/2Rx6cUu) has established several ordinances pertaining to the active transportation system and its users. The city also follows Minnesota Statutes (https://bit.ly/2QNegkf) regarding enforcing the operation of bicycles within the city.

Article 19 of the Land Development Code outlines provisions for active transportation with new street construction or reconstruction. With building or rebuilding urban collector and arterial streets, the city ordinance calls for the addition of 5-foot sidewalks on both sides of the street. Any missing segments shall be brought into compliance with current codes. At the time of reconstruction, sidewalks shall be built on at least one side of all other roadways. If there is already an existing off-road pedestrian facility (such as a shared use path), consideration may be given to foregoing the sidewalk on one side of the roadway. The minimum width of sidewalks adjacent to residential properties is 5-feet and 6-feet for commercial or industrial properties. Properties will be assessed for the full cost of installation (City Code Section 19.4). All construction is supervised by the city engineer and must meet the city engineer's standards (City Code Section 640).

Sidewalk maintenance is the responsibility of the owner or occupant of the property abutting the sidewalk. Snow and ice removal must occur within 24 hours of the snow or ice event. If the persons responsible do not comply, the city may assess the costs of removal (City Code Section 680). No one shall leave obstructions that would prevent the use of sidewalks or crossings (City Code Section 600). The city may provide notice to property owners that defective sidewalks must be repaired at the owner's expense. If the owner does not comply, the city may make repairs and assess the owner for costs (City Code Section 650).

The city ordinances place restrictions on the use of sidewalks within the Saint Cloud CBD. Sidewalk usage in the CBD is limited to pedestrians. Bicycles are not allowed, nor are skates or skateboards (City Ordinance 635).

In addition, city ordinances do not allow vehicle parking on a sidewalk or within 20 feet of a crosswalk (City Ordinance 700).

SYSTEM USAGE

Understanding bicycling and walking behavior on the active transportation network within the City of Saint Cloud can help in a couple of ways. The purpose of collecting system usage data is to measure the change in usage over time, prioritize the investment of new and existing infrastructure, and assist in planning and designing future facilities. It is essential to know how well current facilities address the user's needs.

BICYCLE AND PEDESTRIAN COUNTS

APO staff regularly place a MnDOT-owned portable bicycle and pedestrian counter along shared use path locations throughout the MPA, including several locations within the City of Saint Cloud. In addition, counts are taken at a location on the Beaver Island Trail where MnDOT has placed a permanent counter.

Portable Counting Program

The MnDOT counter uses two different types of counters simultaneously. The Pneumatic TUBE counter uses two sets of tubes placed perpendicular to traffic. When a cyclist passes over the tubes, this counter can record that cyclist and determine which direction that person was heading. Meanwhile, the PYRO-Box utilizes infrared technology to measure people's body heat who pass in front of its sensor. This counter, much like the TUBE counter, can identify travel directions. While the PYRO-Box can detect bicyclists and pedestrians, it cannot definitively distinguish between the two. When used in conjunction with the TUBE counter, APO staff can calculate pedestrian traffic from the PYRO-Box by subtracting the bicyclists from the total count.

The APO regularly deploys the counter at six counting locations throughout the city:

1. The pedestrian bridge over MN 15 at Apollo High School.
2. The Greenway Trail by North Junior High School.
3. The Mississippi River Walk behind the River's Edge Convention Center.
4. Beaver Island Trail #1 (south of SCSU).
5. Beaver Island Trail #2 (behind Toppan Merrill).
6. CSAH 75/Roosevelt Road trail (near Oak Ridge Lane).

After the completion of the 33rd Street S facility, APO staff plan on adding this location to the Saint Cloud active transportation count program.

Location	Dates Counted (2019)	*Weekday Total	*Weekday Average	*Weekend Total	*Weekend Average
Apollo Ped Bridge	07/01 – 07/07	338	68	157	79
Greenway Trail	06/24 – 06/30	365	73	120	60
Mississippi River Walk	05/27 – 06/02	706	141	300	150
Beaver Island Trail #1	09/03 – 09/09	940	188	371	186
Beaver Island Trail #2	06/10 – 06/16	657	131	196	98
CSAH 75/ Roosevelt Rd	08/27 – 09/02	481	96	144	72

FIGURE E.25 – 2019 PEDESTRIAN COUNTS FROM THE SAINT CLOUD LOCATIONS.

*DUE TO INACCURACIES WITH THE PORTABLE TUBE COUNTER DATA, APO STAFF WERE ONLY ABLE TO CALCULATE PEDESTRIAN USAGE.

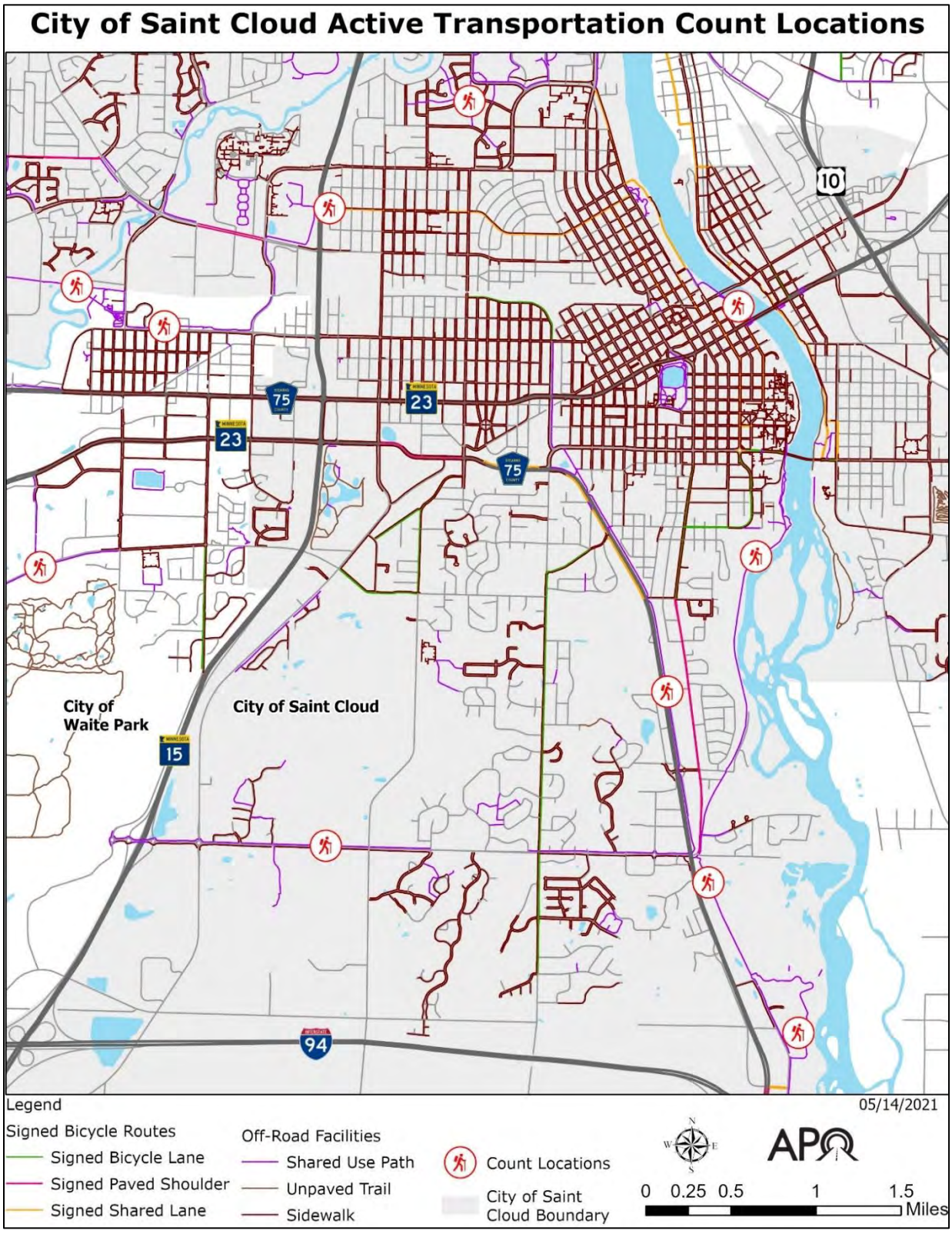


FIGURE E.26 – LOCATIONS WHERE THE APO REGULARLY DEPLOYS AUTOMATIC BICYCLE/PEDESTRIAN COUNTERS.
OF NOTE, 33RD STREET S WAS NOT ADDED TO THE APO'S COUNTING PROGRAM UNTIL 2021.

With these portable counters, APO staff monitors the daily usage of shared use paths for one-week intervals at these specific locations. However, the portable counters are owned by MnDOT. As a result, various agencies and jurisdictions can (and have) utilized the counters throughout the year, impacting the consistency in obtaining data. As a result, one of the six locations were not counted in 2020.

Location	Dates Counted (2020)	Weekday Average Bike	Weekday Average Pedestrian	Weekend Average Bike	Weekend Average Pedestrian
Greenway Trail	06/02 – 06/08	3	108	3	74
Mississippi River Walk*	07/29 – 08/10	N/A	172	N/A	157
Beaver Island Trail #1	06/09 – 06/15	8	413	20	575
Beaver Island Trail #2	07/22 – 07/28	N/A	199	N/A	152
CSAH 75/Roosevelt Road	07/08 – 07/14	14	85	28	103

FIGURE E.27: 2020 BICYCLE AND PEDESTRIAN COUNTS FROM THE SAINT CLOUD LOCATIONS.
*THE MISSISSIPPI RIVER WALK HAD THE COUNTER DEPLOYED FOR LONGER THAN ONE WEEK. ON DAYS THAT WERE COUNTED TWICE, APO STAFF CALCULATED A DAILY AVERAGE.

The Beaver Island Trail #1 location is one of a handful of sites throughout the MPA that has counts done seasonally – winter, spring, summer, and fall. Due to weather conditions, these seasonal counts are done using only the PYRO-Box counter. This counting program is relatively new (beginning in 2020), so limited data is available.

Figure E.28 shows counts at the Beaver Island Trail #1 taken at different times of the year. It is evident that usage of the facility varies depending on the seasons.

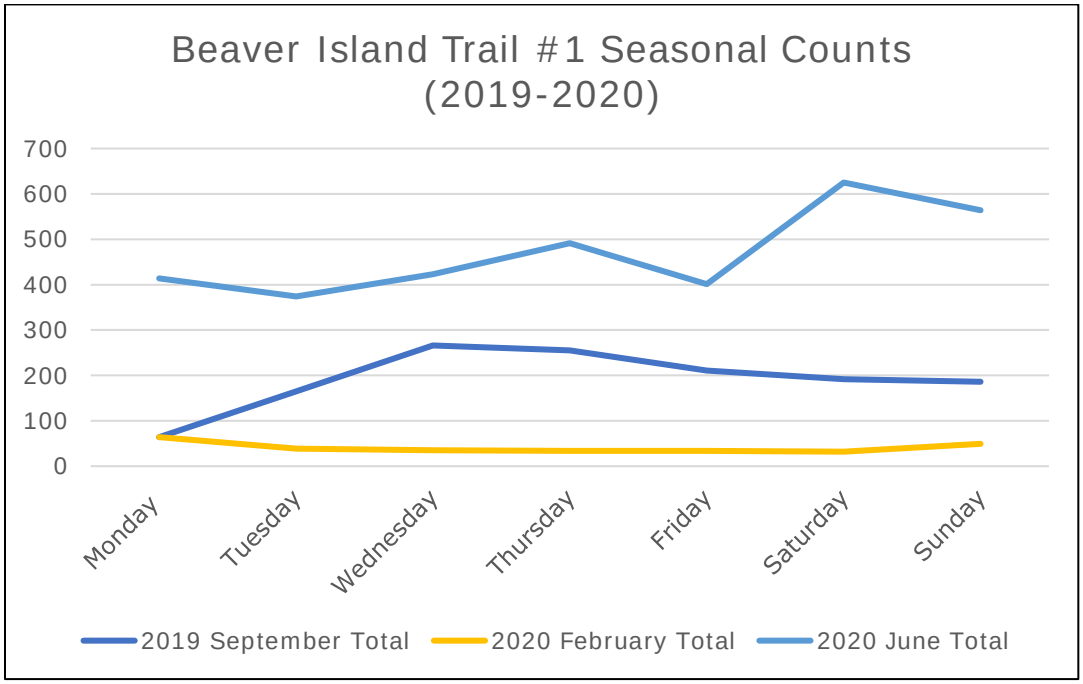


FIGURE E.28 – BEAVER ISLAND TRAIL #1 SEASONAL COUNT DATA BY DAY OF WEEK AND TIME OF YEAR.

Beaver Island Trail Permanent Counter

In 2016 MnDOT installed two permanent counters on the Beaver Island Trail south of SCSU.

The ReCycled Post Counter – much like the PYRO-Box counter – utilizes infrared technology to measure the body heat of people who pass in front of its sensors.

The ZELT Range – like the TUBE counters – is designed to measure the number of bicyclists. However, this style of counter is incorporated into the pavement in a diamond zig-zag pattern.

Since these counters have been in place since 2016, they provide the best available data set to track active transportation trends within the Saint Cloud MPA.

Due to weather conditions and other factors, count data will fluctuate by time of day and time of year. Averaging monthly day of week counts from four years of data provides a reasonable indication of how the Beaver Island Trail is utilized.

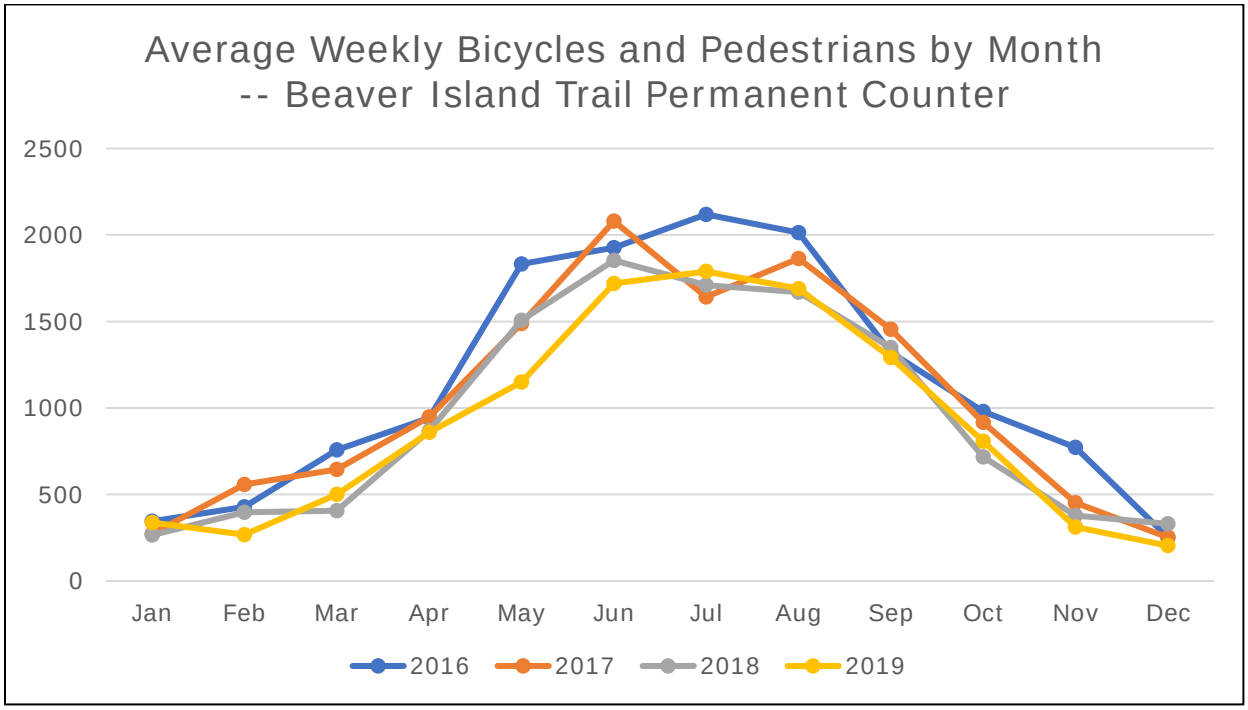


FIGURE E.29 – AVERAGE WEEKLY BICYCLES AND PEDESTRIANS BY MONTH AT THE BEAVER ISLAND TRAIL PERMANENT COUNT STATION.

As expected, a pronounced seasonal variation is consistently shown from year to year. Usage is relatively low in the winter months. It increases steadily as the weather improves in the spring, with peak usage in the summer from June through August. Average daily counts drop off in the cooler months of September and October.

Figure E.30 shows annual average counts by day of the week for bicycles and pedestrians. Adding the average daily counts shown below together results in a weekly average count of about 1,000. However, as Figure E.29 states, actual counts on the Beaver Island Trail can be double that number in the summer months, and in the winter months, they can be half that number or less.

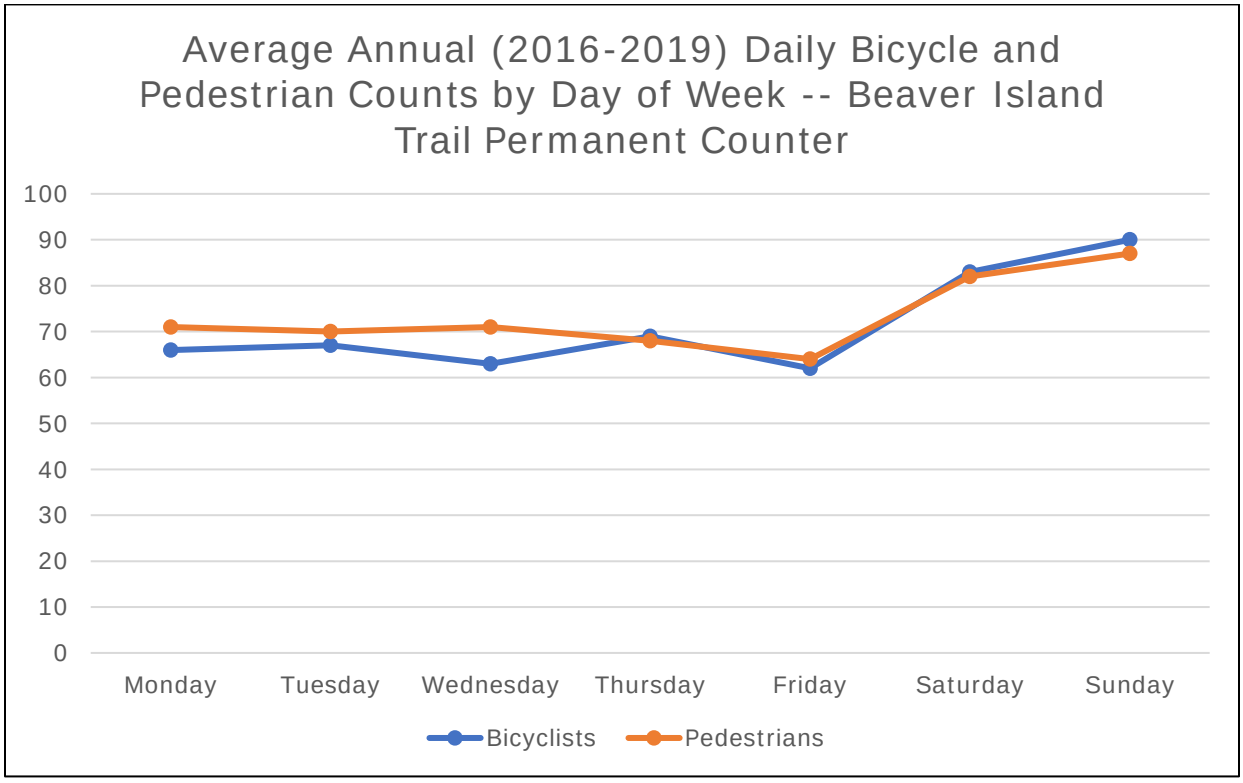


FIGURE E.30 – AVERAGE (2016-2019) DAILY BICYCLE AND PEDESTRIAN COUNT BY DAY OF THE WEEK AT THE BEAVER ISLAND TRAIL PERMANENT COUNTING STATION.

DESTINATIONS

Common destinations for active transportation users include schools, food assets, large employers, and parks. Food assets are grocery stores/supermarkets, specialty food stores, meat markets, convenience stores, and non-profit community food services. Employers listed have 100 or more full- and/or part-time employees. A closer look at these destinations are shown in Figures E.33 through E.38.

Schools

Schools and colleges within Saint Cloud are among the City's largest employers. Chief among the city's centers for higher learning is SCSU and Saint Cloud Technical and Community College (SCTCC). Saint Cloud District #742 operates nine public schools within the city limits. These schools, listed in Figure E.31, are scattered throughout the city.

Name	Address	Grades Served	Approximate Number of Students Served
Apollo High School	1000 44th Ave N	9-12	1,441
Lincoln Elementary	336 5th Ave SE	3-5	449
Madison Elementary	2805 9th St N	PK-5	710
North Junior High	1212 29th Ave N	6-8	904
Oak Hill Community School	2600 County Rd 136	PK-5	838
South Junior High	1120 15th Ave S	6-8	1,072
Talahi Community School	1321 University Dr SE	PK-2	554
Tech High School	4200 33rd St S	9-12	1,651
Westwood Elementary	5800 Ridgewood Rd	PK-5	415

FIGURE E.31 – THE NINE SAINT CLOUD SCHOOL DISTRICT PUBLIC SCHOOLS LOCATED WITHIN THE CITY OF SAINT CLOUD.

Each of the schools and colleges within Saint Cloud has some degree of access to active transportation facilities and is served by Metro Bus. A mix of sidewalks and shared use paths has expanded over time to improve access and safety for students who bike or walk to each school, though gaps remain in some areas. Safe Routes to School plans have been prepared or are in the process of being developed for many District 742 schools to address areas of need.

Food Assets

Grocery stores and other food destinations are found throughout Saint Cloud, though primarily found in the downtown CBD and along the city's primary commercial corridors – Division Street, Second Street S, and US 10. Because these corridors carry a high volume of vehicular traffic, access to these destinations can be difficult for active transportation users to reach.

While many food assets in Saint Cloud are typically along some active transportation facility – either a sidewalk, shared use path, or transit stop – people who walk or cycle often need to cross roadways with many fast-moving cars to get to these destinations.

Large Employers

Saint Cloud is home to many of the region's largest employers. Among the highest employers are the health care networks of CentraCare and the Saint Cloud Veteran's Administration (VA) Center. The State of Minnesota, which includes SCSU, SCTCC, the Department of Corrections, and other regional services, is a major employer.

As with food assets, large employers are often situated along high-volume vehicular routes that are often a barrier to access for many active transportation users. The Mississippi River and the BNSF Railroad can present barriers to employment centers and other destinations as well.

Most large employers in Saint Cloud are located on or near Metro Bus fixed routes through access to sidewalks, and shared use paths vary.

Parks

The City of Saint Cloud has over 95 parks of varying size and function within the city limits. This includes 11 regional and seven semi-regional parks. As noted in the Comprehensive Plan, the city intends to provide park access within a half-mile of all homes. The city seeks to meet this need by providing an extensive network of shared use paths and on-road bicycle facilities that are well-connected to parks and greenways.

The larger parks within Saint Cloud are generally served with sidewalks or shared use paths. Residential areas near the City's core are more likely to have active transportation facilities to access the city's parks. It should be noted that many of Saint Cloud's smaller neighborhood parks, especially in outlying areas, have limited or no sidewalk access.

FIGURE E.32 – CLEMENS/MUNSINGER GARDENS IN SAINT CLOUD.

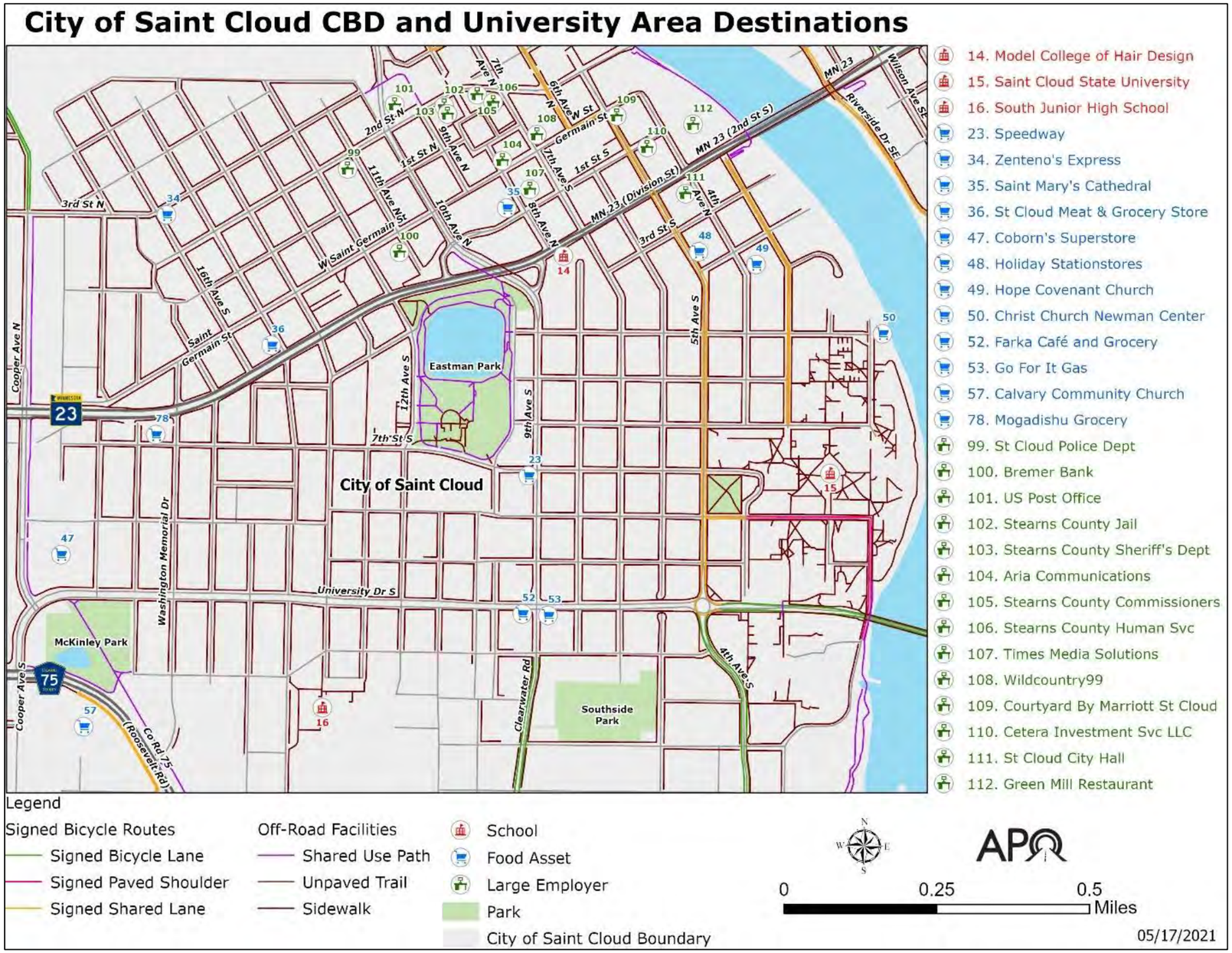


FIGURE E.33 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN THE CBD AND SCSU AREA.

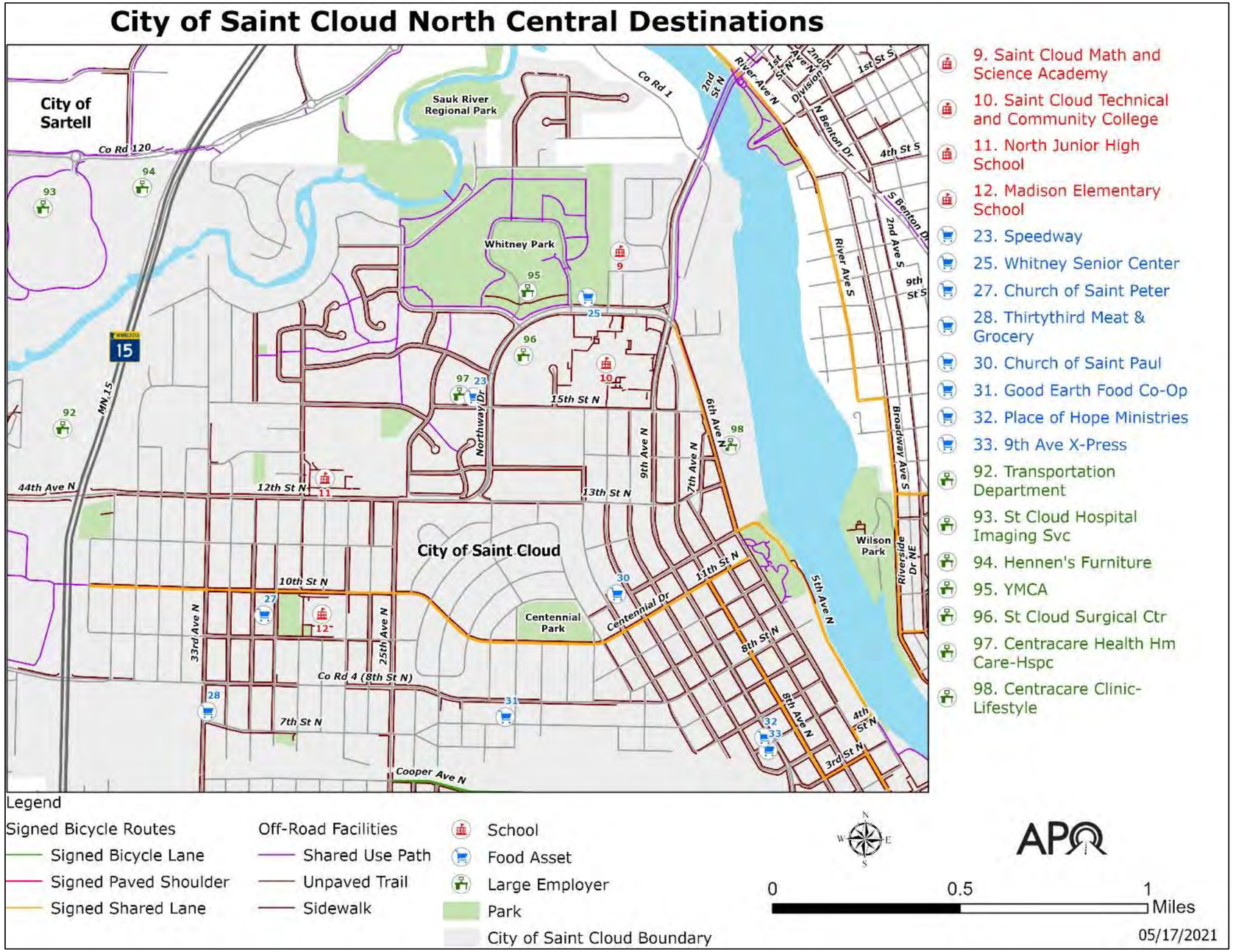


FIGURE E.34 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN THE NORTH CENTRAL AREA OF SAINT CLOUD.

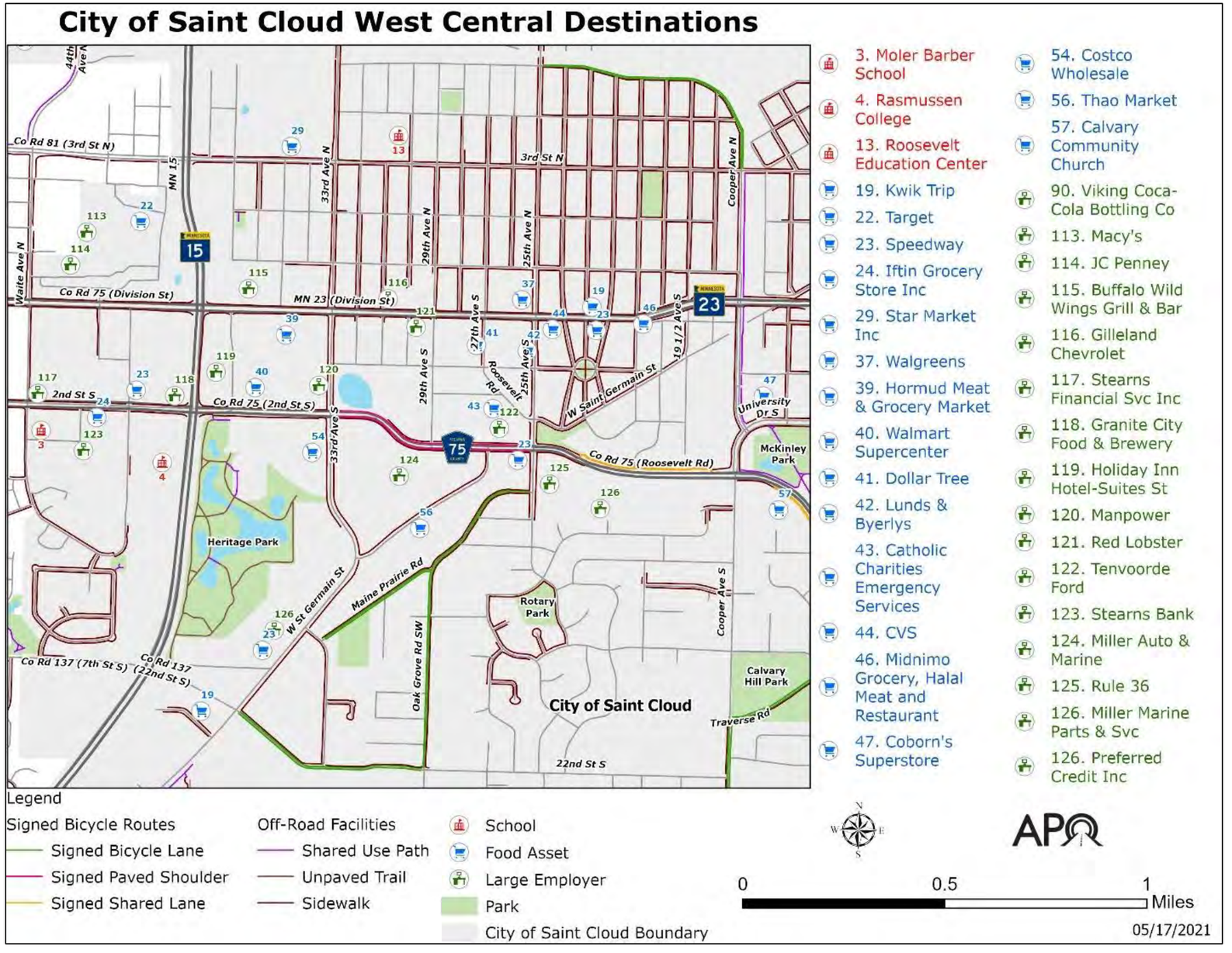


FIGURE E.35 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN THE WEST CENTRAL AREA OF SAINT CLOUD.

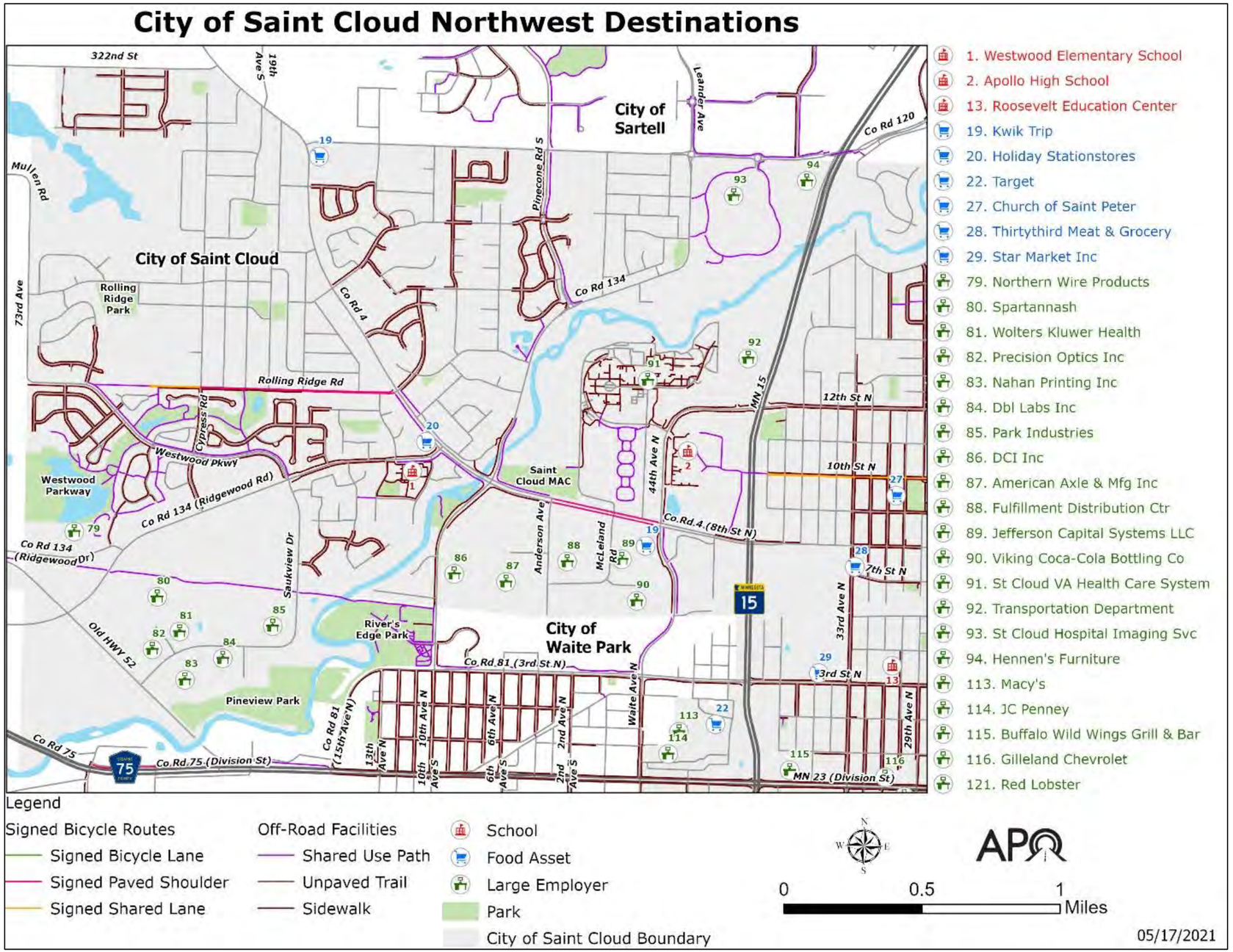


FIGURE E.36 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN THE NORTHWEST AREA OF SAINT CLOUD.

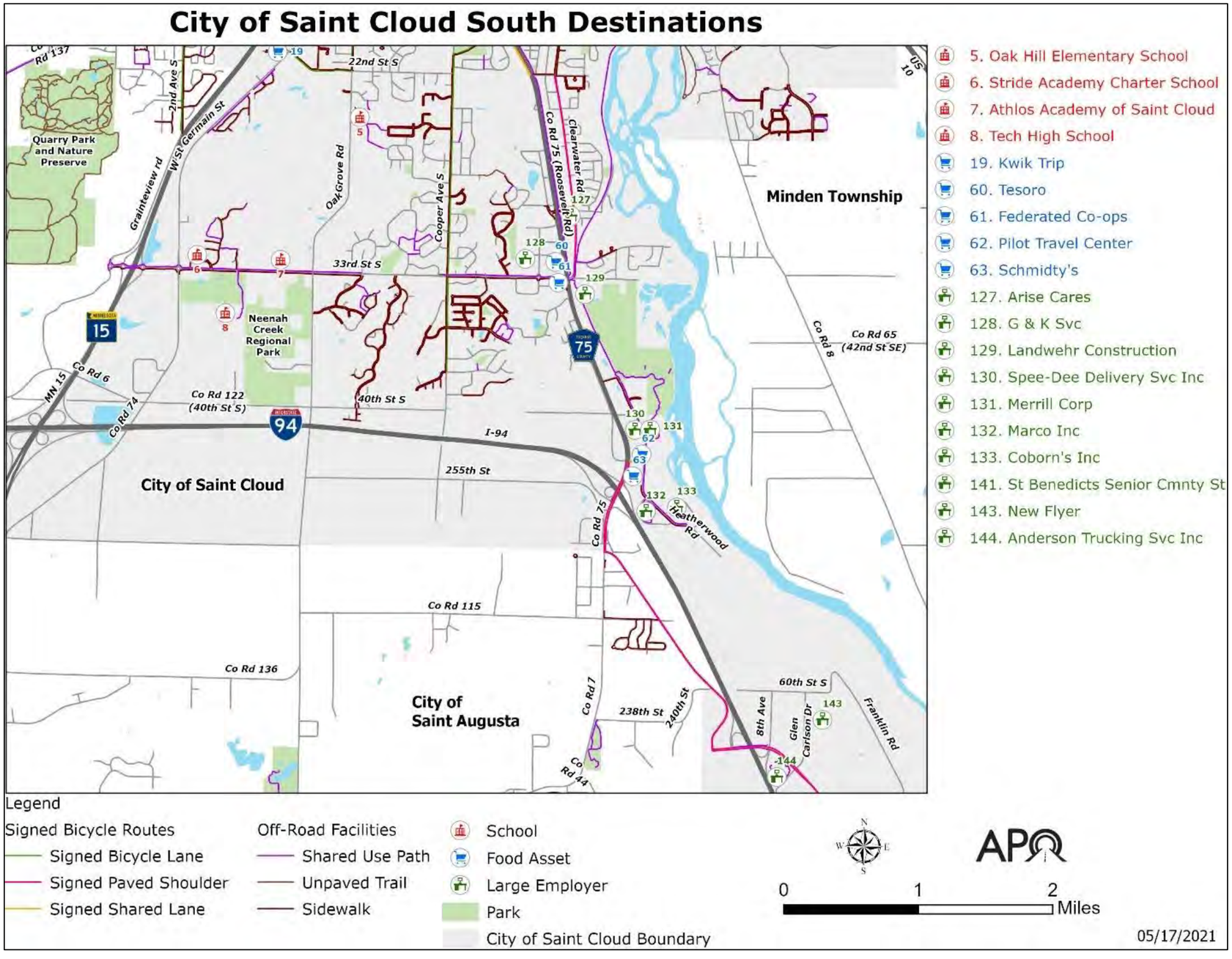


FIGURE E.37 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN SOUTH SAINT CLOUD.

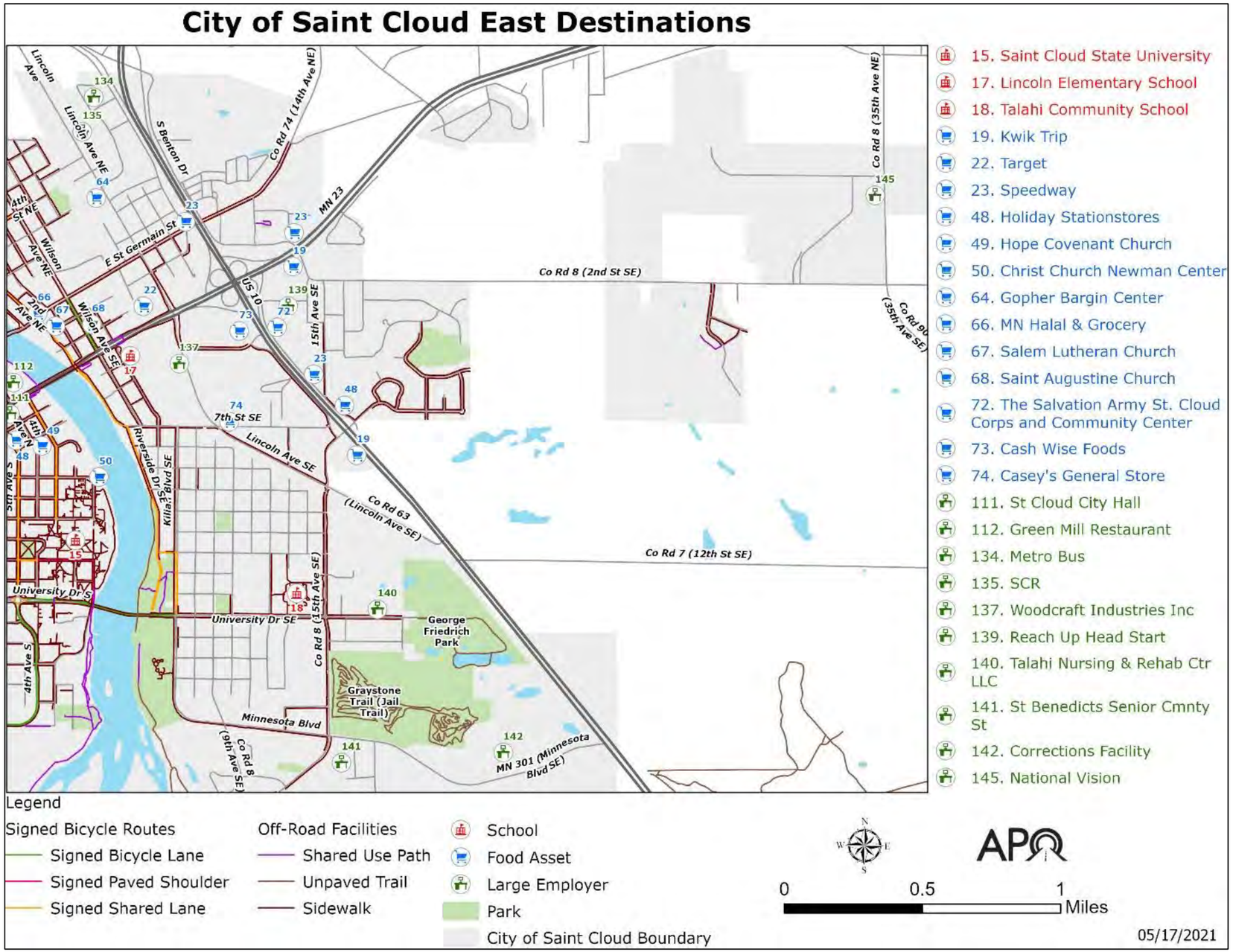


FIGURE E.38 - DESTINATIONS FOR ACTIVE TRANSPORTATION USERS IN EAST SAINT CLOUD.

SAFETY

According to the Minnesota Department of Public Safety (DPS), fatalities, serious injuries, and minor injuries involving bicyclists and pedestrians rose within the Saint Cloud MPA through 2019.

Within the City of Saint Cloud, DPS crash data shows 460 total crashes involving active transportation users and vehicles occurred in the 10 years between 2010 and 2019. Twelve of these crashes resulted in a pedestrian fatality – primarily located in the downtown and east side areas of the city.

City of Saint Cloud staff examined crashes within the city between 2010 and 2019 including those involving bicyclists and pedestrians. This review noted a high incidence of crashes on MN 23, US 10, Saint Germain Street, and Fifth Avenue, all corridors with high levels of active transportation users. The report identified possible deficiencies where these crashes occurred: limited visibility, poor lighting, crossings not within the proper signal interval, and inadequate walk and clearance times. The report concludes that crashes will tend to increase as traffic volumes increase.

Crash locations for the six subareas are indicated in Figures E.39 through E.44.

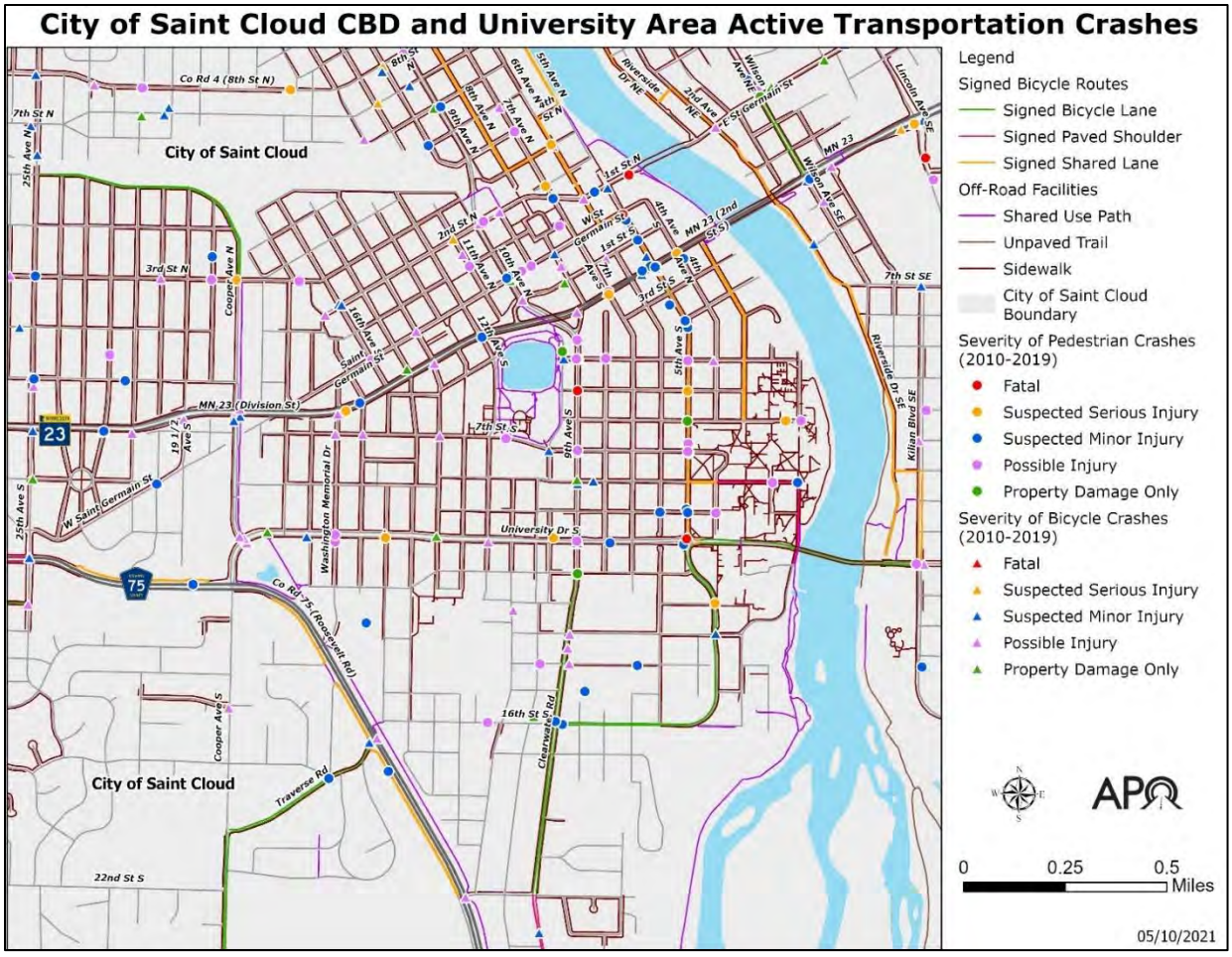


FIGURE E.39 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN THE CBD AND SCSU AREA OF SAINT CLOUD.

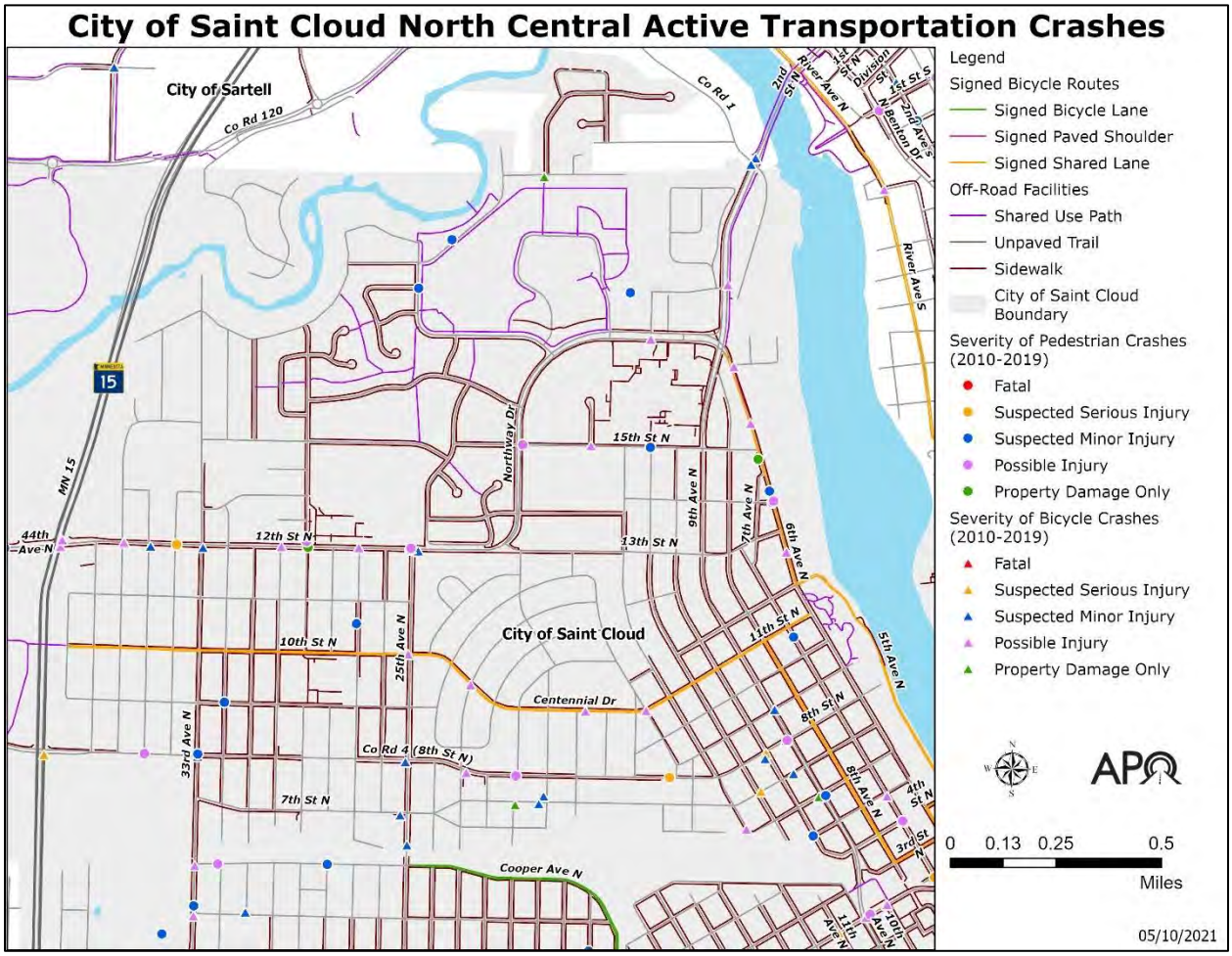


FIGURE E.40 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN THE NORTH CENTRAL AREA OF THE CITY OF SAINT CLOUD.

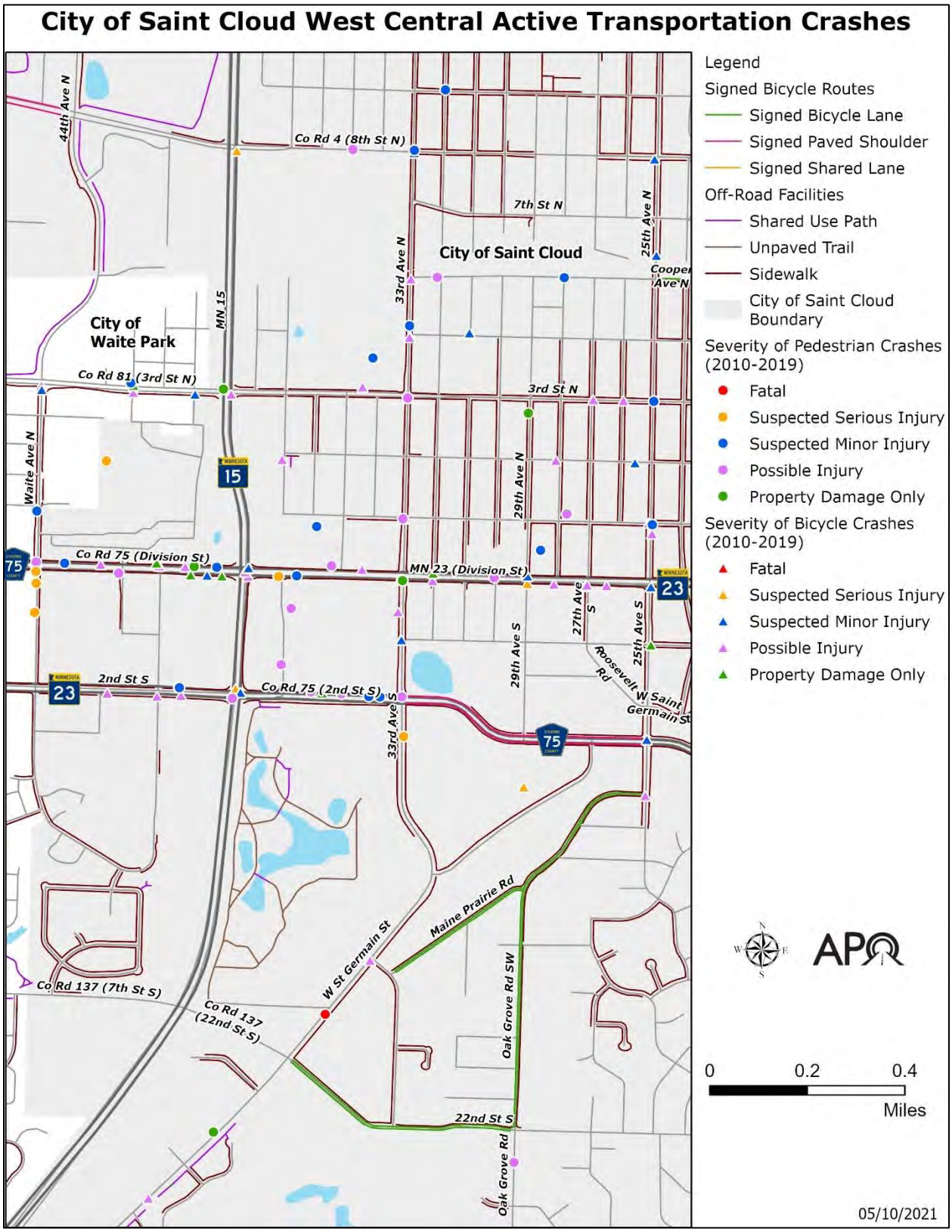


FIGURE E.41 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN THE WEST CENTRAL AREA OF THE CITY OF SAINT CLOUD.

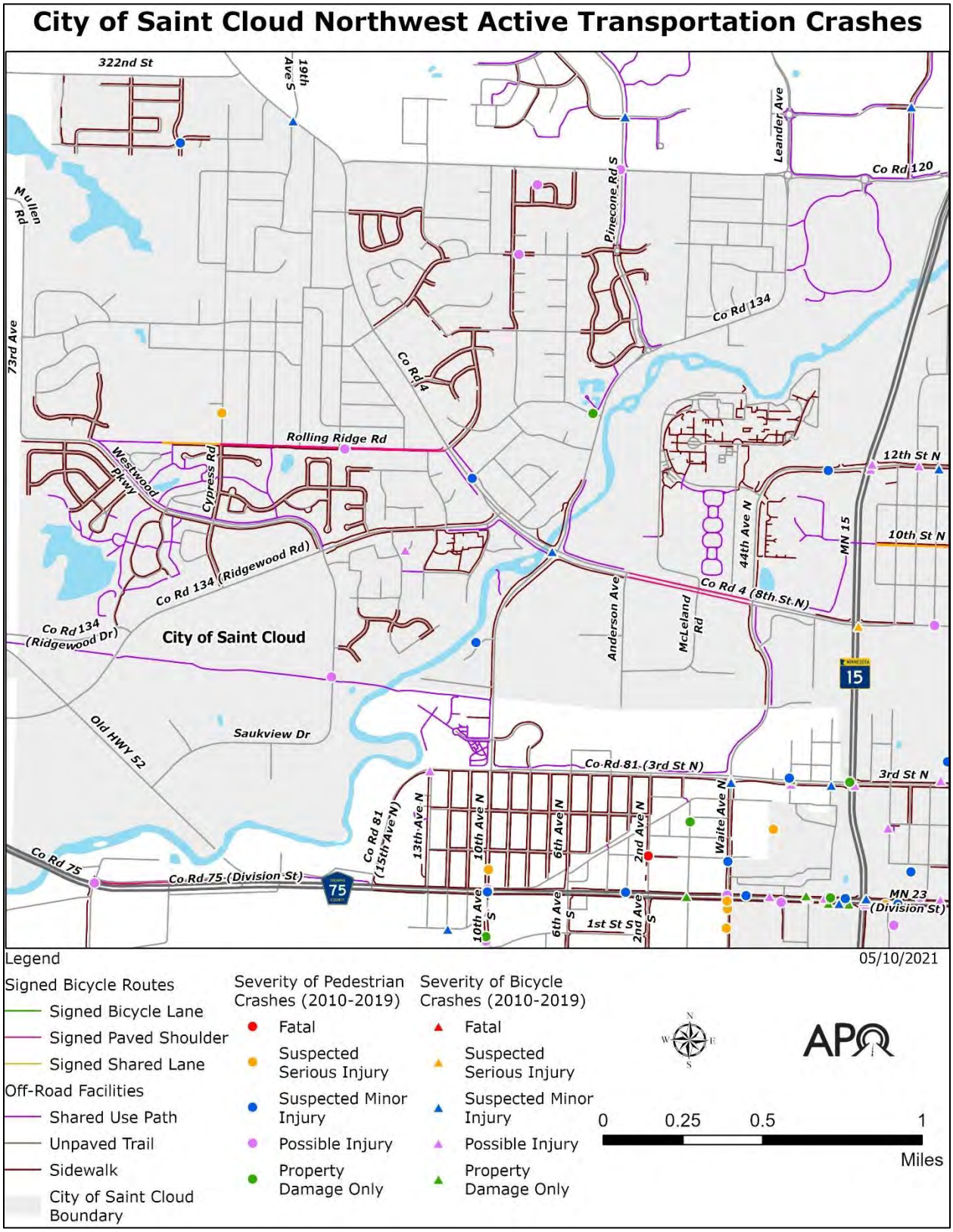


FIGURE E.42 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN THE NORTHWEST AREA OF THE CITY OF SAINT CLOUD.

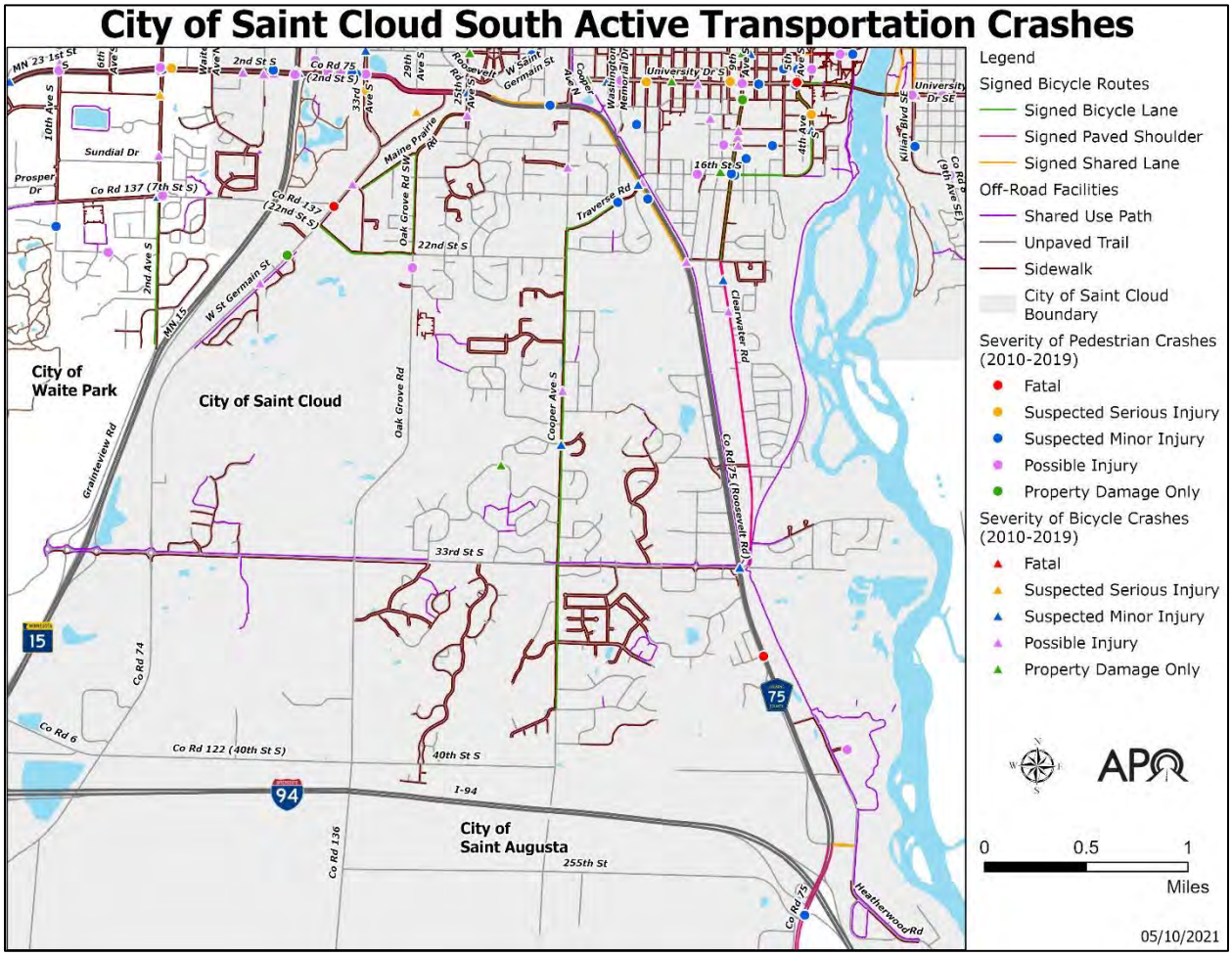


FIGURE E.43 - LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN SOUTH SAINT CLOUD.

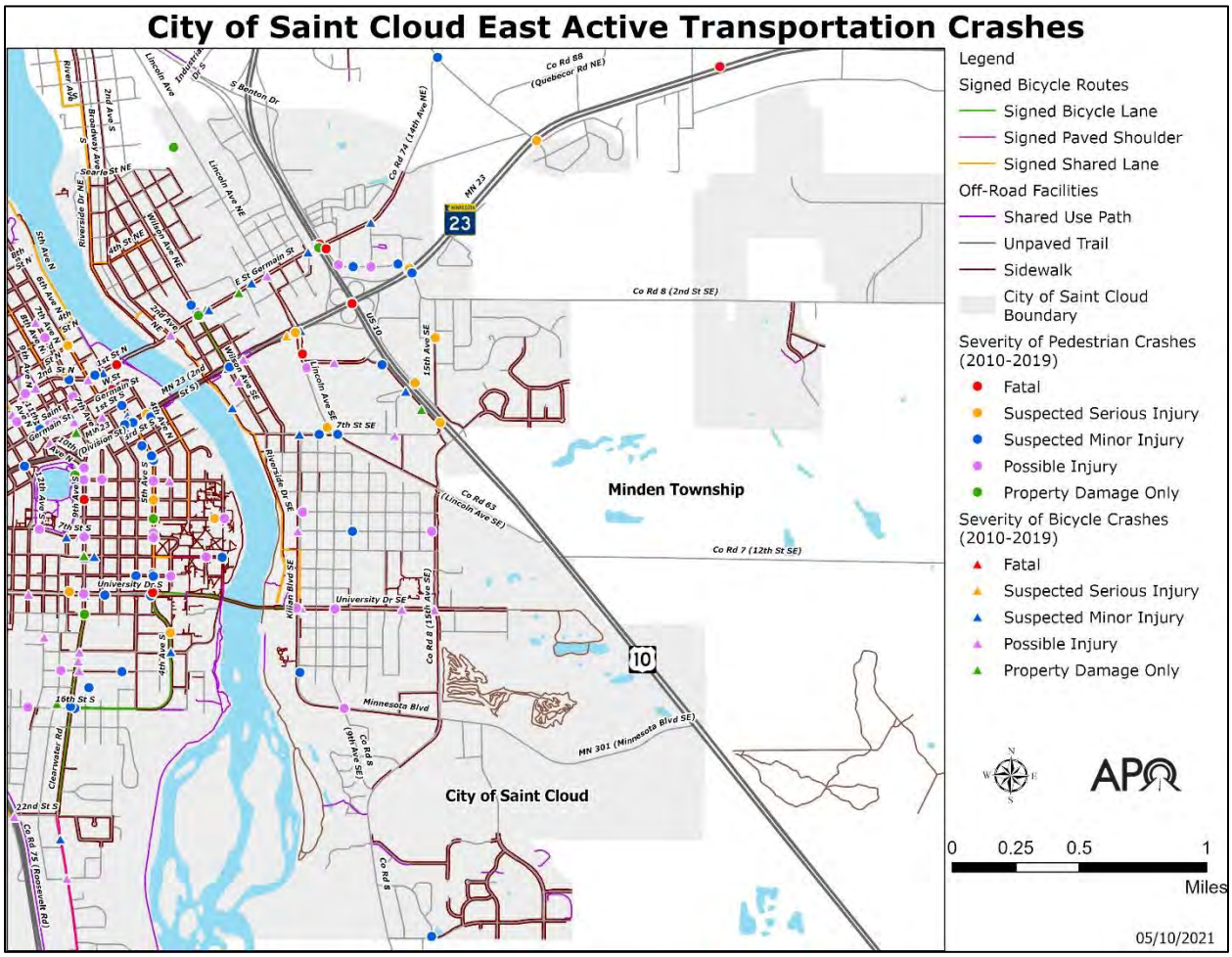


FIGURE E.44 – LOCATIONS WITH CRASHES INVOLVING BICYCLES AND PEDESTRIANS IN EAST SAINT CLOUD.

PROGRAMMED AND PLANNED IMPROVEMENTS

The City of Saint Cloud maintains a Capital Improvement Program (CIP), which identifies short-term projects and long-range concepts designed to improve active transportation facilities. The CIP also indicates anticipated future revenues that may be available to implement such projects.

Following its policy on Complete Streets and consistent with the City's Americans with Disabilities (ADA) Transition Plan, Saint Cloud has proactively identified and addressed issues and concerns for those who use the active transportation network.

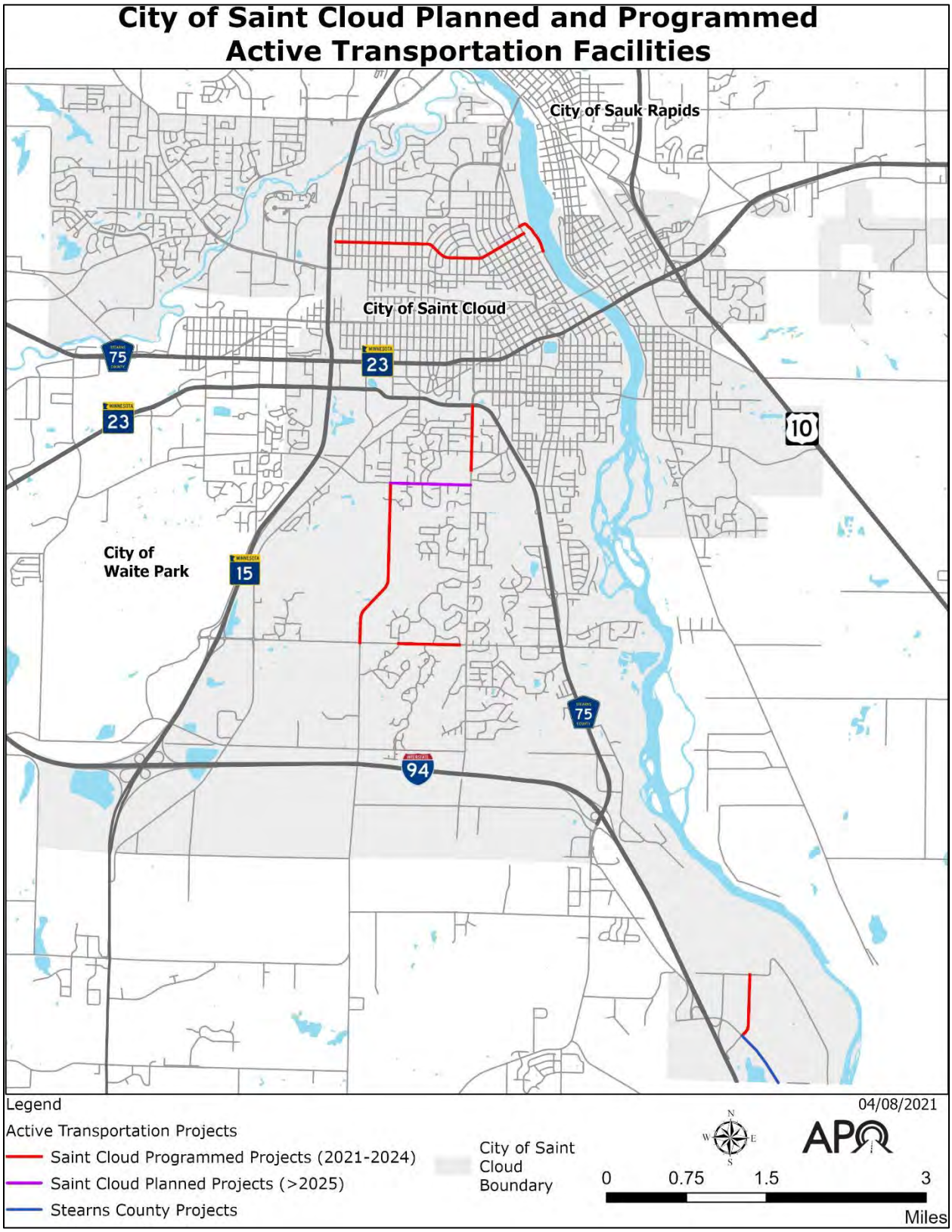


FIGURE E.45 – PLANNED AND PROGRAMMED ACTIVE TRANSPORTATION PROJECTS FOR THE CITY OF SAINT CLOUD.

The City of Saint Cloud has programmed funding to complete the following projects:

- Construct a new shared use path to follow Fifth Avenue N along the Mississippi River to connect the Beaver Island Trail.
- Reconstruct 33rd Street S from 26th Avenue S to Cooper Avenue S with a sidewalk on the south side and a paved shared use path on the north side.
- Reconstruct County Road 136 (Oak Grove Road) from 22nd Street S to 33rd Street S with the addition of bike lanes.
- Reconstruct Cooper Avenue S from CSAH 75 to Traverse Road to include new bicycle lanes and sidewalks.
- Construct the Beaver Island Trail connection from the existing trail at Saint Cloud's Wastewater Treatment Facility to the city's southern border.
- Extend the Lake Wobegon Trail with bicycle lanes along the 10th Street N/Centennial Drive/11th Street N corridor.

In addition to the projects above led by the city, MnDOT has programmed funding to reconstruct the MN 23 and US 10 interchange to include multimodal access improvements.

Longer-term (though currently unfunded) goals for the City's active transportation network include completing the remaining network gap along 22nd Street S with the planned connection from Oak Grove Road to Cooper Avenue.

Figure E.45 shows the locations for the City's programmed and planned projects.

ACTIVE TRANSPORTATION NEEDS ASSESSMENT

APO staff performed a citywide analysis of facility and other needs for active transportation users to supplement and inform current city planning efforts. The intent of this assessment, conducted in coordination with City staff and representatives, was to identify active transportation needs within the city and assist in prioritizing those needs in the event funding becomes available.

GOALS AND OBJECTIVES FOR ACTIVE TRANSPORTATION

The regional goals and objectives for active transportation as adopted by the APO provide a starting point for the Saint Cloud needs assessment.

Those goals were:

1. Improve bicycle and pedestrian safety and comfort.
2. Improve active transportation connections to desired destinations.
3. Improve the condition of active transportation infrastructure.
4. Provide equitable access to active transportation facilities for all people of all abilities.
5. Promote an interconnected regional active transportation network.

The evaluation factors were equally applied for assessing needs within each city and across the MPA. The goals, objectives, and factors used to evaluate services and needs relative to each objective are detailed in Chapter 4. Performance ratings from the evaluation of factors for Saint Cloud are shown in Figure E.46.

Saint Cloud			2019
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average			*4.2*
Percentage miles of arterials & collectors that have a sidewalk or shared use path (SUP) on at least one side			*52.9%*
Percent of destinations that fall within distance categories	Schools	0 Ft (Asset Served by AT Facility)	*83.3%*
		1-310 ft (One block or less)	*5.6%*
		311-930 ft (Two to three blocks)	*11.1%*
		> 931 ft (Four or more blocks)	*0.0%*
	Food Assets	0 Ft (Asset Served by AT Facility)	*78.3%*
		1-310 ft (One block or less)	*6.7%*
		311-930 ft (Two to three blocks)	*6.7%*
		> 931 ft (Four or more blocks)	*8.3%*
	Large Employers	0 Ft (Asset Served by AT Facility)	*58.8%*
		1-310 ft (One block or less)	*8.8%*
		311-930 ft (Two to three blocks)	*10.3%*
		> 931 ft (Four or more blocks)	*22.1%*
	Parks	0 Ft (Asset Served by AT Facility)	*64.8%*
		1-310 ft (One block or less)	*7.4%*
		311-930 ft (Two to three blocks)	*13.0%*
		> 931 ft (Four or more blocks)	*14.8%*
	Transit Stops	0 Ft (Asset Served by AT Facility)	*64.3%*
		1-310 ft (One block or less)	*19.2%*
		311-930 ft (Two to three blocks)	*9.3%*
		> 931 ft (Four or more blocks)	*7.2%*
Percent of street crossings that do not meet full ADA standards			*58.6%*

Saint Cloud	2019
Miles of Active Transportation facilities per 1,000 residents in EJ/Title VI Sensitive Areas in comparison to non-sensitive areas	*12.3:2.5*
Percent mileage of Regional Priority bicycle facilities that do NOT exist	*44.7%*
Percent of on-road bicycle facilities with poor pavement	*1.9%*
Percent of SUP with rough/very rough pavement	*27.9%*

FIGURE E.46 – SAINT CLOUD PERFORMANCE REPORT CARD (2019).

NEEDS ASSESSMENT METHODOLOGY

From the goals and objectives framework, APO staff, in coordination with Saint Cloud city staff and community volunteers, developed the following methodology to address critical gaps in the current active transportation system. It should be noted that while this process does not account for every gap or need in the network, it does focus on addressing gaps utilizing existing data as it relates to the region's active transportation goals and objectives.

The APO's active transportation needs assessment methodology was broken into three phases. Beginning with an in-depth analysis of transportation networks, APO staff identified issues and needs within individual communities across the region. This cursory review led to a more detailed analysis of active transportation needs for focus areas identified within each city and ultimately the identification of jurisdictional-level project recommendations – Phase 2. In the final phase, local and regional needs identified in the previous phases were prioritized according to the degree goals and objectives would be addressed.

Phase 1: Evaluating Needs for the City of Saint Cloud

In order to begin this evaluation, APO staff reviewed needs and service area gaps relative to the factors listed under goals 1-4. APO staff compiled a series of maps and data that detailed the city's existing active transportation conditions. Utilizing the objectives and applying factors (as identified in Chapter 4), staff began to dive into the existing conditions data to look for network gaps or areas of concern (i.e., high crash locations, locations of under-designed on-road/off-road facilities).

Figures E.47 through E.49 summarize the findings for the north, south, and east areas of Saint Cloud.

Considered along with the factors were the comments from the APO's initial public input along with comments from city staff. Areas where multiple issues were revealed when the factors were applied became the focus of further review and analysis.

Analysis of Areas of Need - North Saint Cloud

	Safety & Comfort Factors						Connectivity Factors			Facility Condition			Equity Factors			Issues	Potential Treatments
		1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern		1 Access to Destinations	2 Access to Transit Needs		1 On Road Conditions	2 Off Road Conditions		1 Underserved Demographic	2 ADA Compliance		
5th Avenue North		x	x	x				x				x		x		High volume minor arterial, concentration of crashes, below standards (speed, volume, destinations (employers, food assets), poor sidewalk pavements, vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
5th Avenue South		x	x	x		x		x			x			x		High usage collector, concentration of crashes, below standards (speed, volume), destinations (SCSU, food assets), poor bike lane pavements, vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
University Drive		x	x	x		x		x						x		High volume collector, concentration of crashes, underdesigned for traffic volume, destinations (SCSU, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
9th Avenue South		x	x			x		x						x		Minor arterial, concentration of crashes, fatalities, destinations (park, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
East Division (Cooper Ave to 5th Ave N)		x	x			x		x						x		Principal arterial, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
2nd Street N/1st Street N		x	x			x		x						x		Minor arterial, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
MN 15 (3rd St N to 2nd St S)		x	x			x		x						x		Principal arterial, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities.
2nd Street South/CR 75 (Waite Ave to Cooper)		x	x	x		x		x						x	x	Principal arterial, concentration of crashes, crossing safety concerns, below design standards (speed, volume, shoulders), destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design, add facilities, bring intersections to ADA standards.
West Division (Waite Ave to Cooper)		x	x			x		x						x		Principal arterial, concentration of crashes, crossing safety concerns, destinations (employers, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
12th Street N/ Northway Drive			x					x						x		Minor arterial, concentration of crashes, destinations (schools, park, employers), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
6th Ave N			x					x				x		x		Major collector, concentration of crashes, destinations (schools, park, employers), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
CR 134/Ridgewood Rd					x			x						x		Major collector, lacks facilities, destinations (industrial park), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
Veterans Dr (CR 4)				x	x			x						x	x	Minor arterial, underdesigned for volume, lacks facilities, destinations (food assets, industrial park), vulnerable populations.	Pedestrian and bicycle crossing improvements, upgrade facility design, add facilities, bring intersections to ADA standards.

FIGURE E.47 – NORTH SAINT CLOUD NEEDS ANALYSIS.

Analysis of Areas of Need - South Saint Cloud

	Safety & Comfort Factors						Connectivity Factors			Facility Condition			Equity Factors			Issues	Potential Treatments
	1 High Number of Fatalities		2 High Number of Injuries		3 Under Design Guidelines		4 No Adjacent P/B Facilities		5 Cited as Safety Concern	1 Access to Destinations		2 Access to Transit Needs	1 On Road Conditions		2 Off Road Conditions	1 Underserved Demographic	2 ADA Compliance		
Roosevelt Rd (CR 75)				X								X		X	X	Principal arterial, below standards (speed, volume), poor path pavements, vulnerable populations, ADA intersection compliance.	Upgrade bicycle facilities, improve on and off-road pavement conditions, bring intersections to ADA standards.
Traverse Rd			X								X			X	X	Minor collector, crashes, poor bike lane pavements, vulnerable populations, ADA intersection compliance.	Pedestrian and bicycle crossing improvements, improve on-road pavement conditions, bring intersections to ADA standards.
Clearwater Rd			X	X							X			X		High volume minor arterial, concentration of crashes, below standards (volume), destinations (employers, food assets), poor bike lane pavements, vulnerable populations.	Pedestrian and bicycle crossing improvements, traffic calming, improve on-road pavement conditions.

FIGURE E.48 – SOUTH SAINT CLOUD NEEDS ANALYSIS.

Analysis of Areas of Need - East Saint Cloud

	Safety & Comfort Factors						Connectivity Factors			Facility Condition			Equity Factors			Issues	Potential Treatments
		1 High Number of Fatalities	2 High Number of Injuries	3 Under Design Guidelines	4 No Adjacent P/B Facilities	5 Cited as Safety Concern		1 Access to Destinations	2 Access to Transit Needs		1 On Road Conditions	2 Off Road Conditions		1 Underserved Demographic	2 ADA Compliance		
East St Germain		x	x			x		x						x		Minor arterial, concentration of crashes, crossing safety concerns, destinations (food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
Division St E/14th Ave SE		x	x			x		x						x		Partial collector, concentration of crashes, crossing safety concerns, destinations (food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, improved access for vulnerable and underserved groups.
MN 23 (East of Riverside Dr)			x			x		x						x		Principal arterial, concentration of crashes, crossing safety concerns, destinations (school, food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design options, add facilities, traffic calming.
US 10 (S of E St Germain)			x			x		x			x			x		Principal arterial, concentration of crashes, crossing safety concerns, destinations (food assets), vulnerable populations.	Pedestrian and bicycle crossing improvements, facility design, improve pavements, access to destinations.
Lincoln Ave SE			x		x			x				x		x	x	Minor arterial, concentration of crashes, destinations (food assets, employers), vulnerable populations, ADA intersection compliance.	Pedestrian and bicycle crossing improvements, added facilities, traffic calming, bring intersections to ADA standards.
Killian Boulevard				x				x			x	x		x		Major collector, under design standards (speed, volume), destinations (schools, park), poor pavement conditions, vulnerable populations.	Upgrade bicycle facilities, improve on and off-road pavement conditions.

FIGURE E.49 –EAST SAINT CLOUD NEEDS ANALYSIS.

Phase 2: Analysis of Saint Cloud Focus Areas

From the process described for the review of needs and gaps for the City of Saint Cloud, the following areas have been identified as priority areas for improvements.

- West Division area.
- Second Street S area.
- University Drive area.
- East Division Street area.
- US 10/Lincoln Avenue area.

These focus areas have similar characteristics in common. All include high volume minor arterials or collectors, which active transportation users often cross. As a result, each of these four areas are high crash locations for bicyclists and pedestrians. In addition, each of these areas have several destinations of interest for active transportation users.

Being able to assure that pedestrians and bicyclists can safely cross roadways like CSAH 75, MN 23, MN 15, and US 10 (all with heavy vehicle traffic) have been identified in the City's plans and regional transportation studies as an ongoing challenge. Given the growing vehicle traffic in Saint Cloud, these safety issues have increased significantly. The history of crashes with the potential for more dangerous conflicts between vehicle traffic and active transportation users, coupled with the need to improve access, led to identifying these focus areas.

Each of these areas has many destinations active transportation users seek. While there may be connecting facilities within these areas to reach these destinations, people's ability to safely cross main thoroughfares within these focus areas has been an ongoing concern.

APO staff working in conjunction with city staff for each focus area further analyzed needs and issues and worked to identify possible solutions.

West Division Area

The West Division focus area includes the length of Division Street from 41st Avenue S to Cooper Avenue S, as shown in Figure E.50. In the City's Comprehensive Plan, this area is identified as a retail and employment hub and a gateway into Saint Cloud that transitions toward the Downtown Area.

West Division Street has been identified as a focus area due to its high level of activity from all transportation modes, the number of crashes involving pedestrians or bicyclists, crossing safety concerns, and the presence of several destinations.

NEEDS AND ISSUES

Division Street is the primary east/west transportation corridor for the Saint Cloud region. The high level of traffic congestion on roadway has often been cited in local and regional plans as a significant issue. This area of Saint Cloud, which includes Crossroads and other large retail centers, is also a primarily commercial area for the city and a regional attraction.

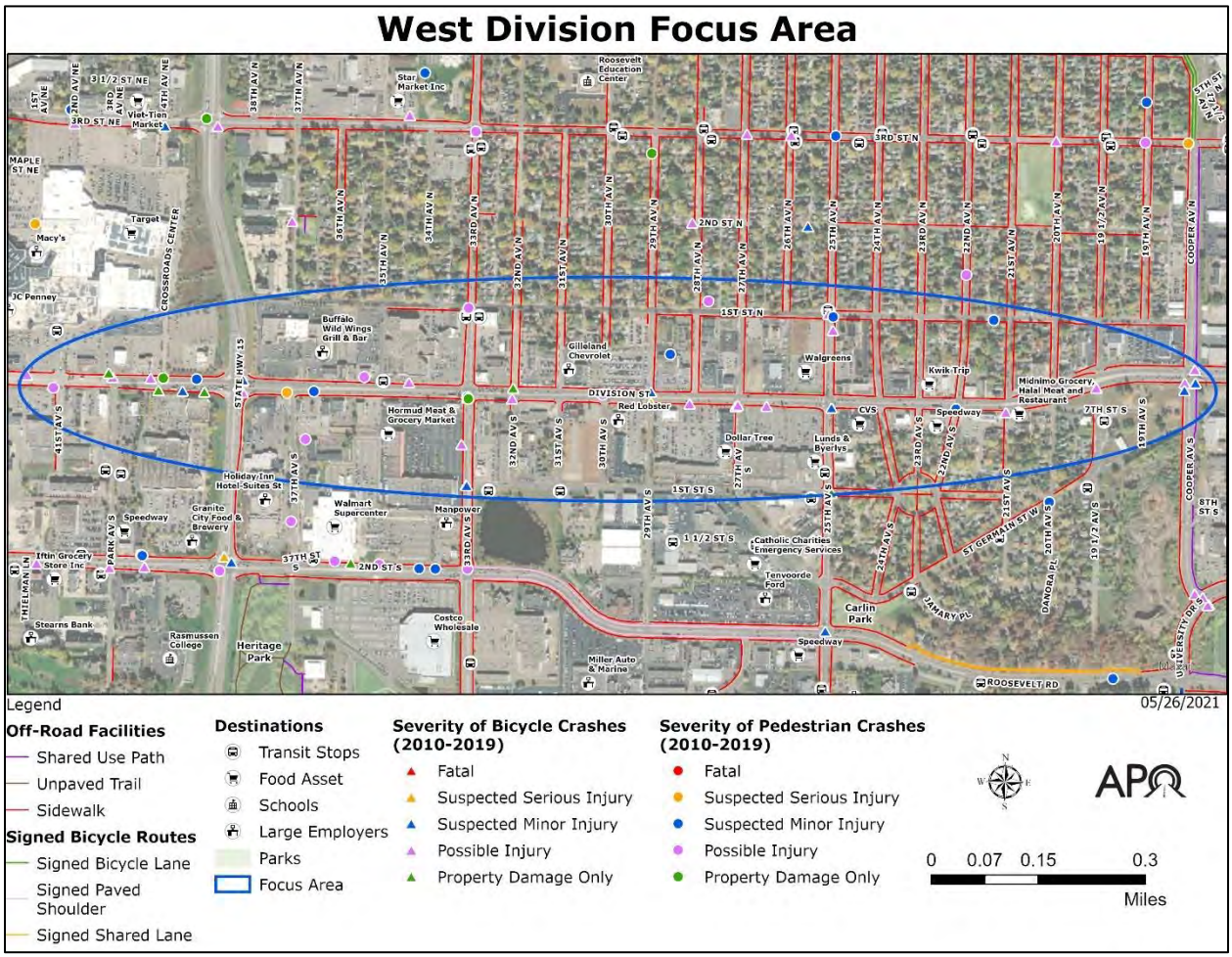


FIGURE E.50 – WEST DIVISION STREET FOCUS AREA IN SAINT CLOUD.

The average daily traffic on this section of Division Street ranges from 14,250 to 17,000 vehicles. The posted speed is 35 mph. The volume of vehicle turning movements at full access intersections is very high. The high traffic volume and the large number of active transportation users crossing Division Street to reach their destinations contribute to the high incidence of crashes.

Within the area along the West Division Street corridor shown in Figure E.50, there have been over 30 crashes reported involving pedestrians and bicyclists between 2010 and 2019. Many of these crashes occurred at signalized intersections, with multiple crashes at Cooper Avenue, 33rd Avenue, and MN 15. In addition, several crashes recorded were in mid-block areas of Division Street.

The City's Comprehensive Plan states Division Street is a prime mobility corridor. As such, priority must continue to be given to vehicle movements while safely accommodating other users. Along both sides of Division Street, there are sidewalks with signal-controlled intersections and crosswalks for active transportation users at regularly spaced intervals. The City's plan recommended eliminating many driveways or parking curb cuts along the corridor to reduce conflict points that may result in safety issues.

Long distances for pedestrians to cross Division were identified in the Comprehensive Plan as problematic for safe crossings. Extending medians, providing pedestrian refuge areas and

bump-outs to shorten crossing distances, and controlling vehicle speeds are recommendations from the Comprehensive Plan to improve crossing safety on west Division.

The APO's MN 15 corridor study also reviewed the performance of Division Street intersections within the area between 33rd Avenue and Waite Avenue in Waite Park relative to the comfort of pedestrians and bicyclists. While pedestrian volumes that cross at the intersection of Highway 15 and Division are minimal, the volume of vehicle traffic presents a significant safety issue for those who choose to do so. The MN 15 study notes that marked crosswalks used with other safety strategies such as refuge islands, curb extensions, and appropriate signage will improve pedestrian safety along Division Street.

While the Comprehensive Plan identifies the need to accommodate all modes, no signed bicycle routes are within the West Division area of focus. The City's plan does include a concept for a future bicycle route that would follow 33rd Avenue and cross Division Street.

RECOMMENDATIONS

This plan reiterates many of the recommendations from the Comprehensive Plan to make crossing Division Street safer. Recommended improvements are as follows:

- At the signalized intersections on Division Street, consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time.
- Consider adding curb extensions (bump-outs) at intersections on Division Street to reduce the crossing distance for pedestrians.
- Consider fencing or barriers along Division Street to discourage mid-block crossings.
- Add a north/south bicycle facility connection to cross Division Street at 25th Avenue or 33rd Avenue.

Second Street S Area

The Second Street S focus area encompasses the roadway from Thielman Lane (abutting the City of Waite Park) to just east of 25th Avenue S. This focus area – as illustrated in Figure E.51 – includes several retail and office parks and serves as a significant retail and employment corridor for the City of Saint Cloud.

Crossing concerns, the presence of many destinations, facility designs below MnDOT guidelines, and the number of crashes involving pedestrians or bicyclists elevated this corridor to be a focus area.

NEEDS AND ISSUES

The 2020 MN 15 corridor study identified the intersections of Second Street S and both MN 15 and 33rd Avenue as hot spots for crashes. High traffic volumes and speeds from MN 15 along the Second Street S corridor often create conflicts that contribute to crashes – including those involving active transportation users.

The average daily traffic on Second Street S east of MN 15 ranges from 10,900 to 12,500. West of MN 15, traffic volumes increase to an average of 15,000 vehicles per day. The posted speed on Second Street S is 40 mph. In addition to the traffic volumes and speeds, this stretch of roadway experiences a high volume of turning movements at the intersections of MN 15, 33rd Avenue S, and 25th Avenue S. Vehicle traffic levels and desires of active transportation users to reach their destinations are likely factors in the high incidence of crashes.

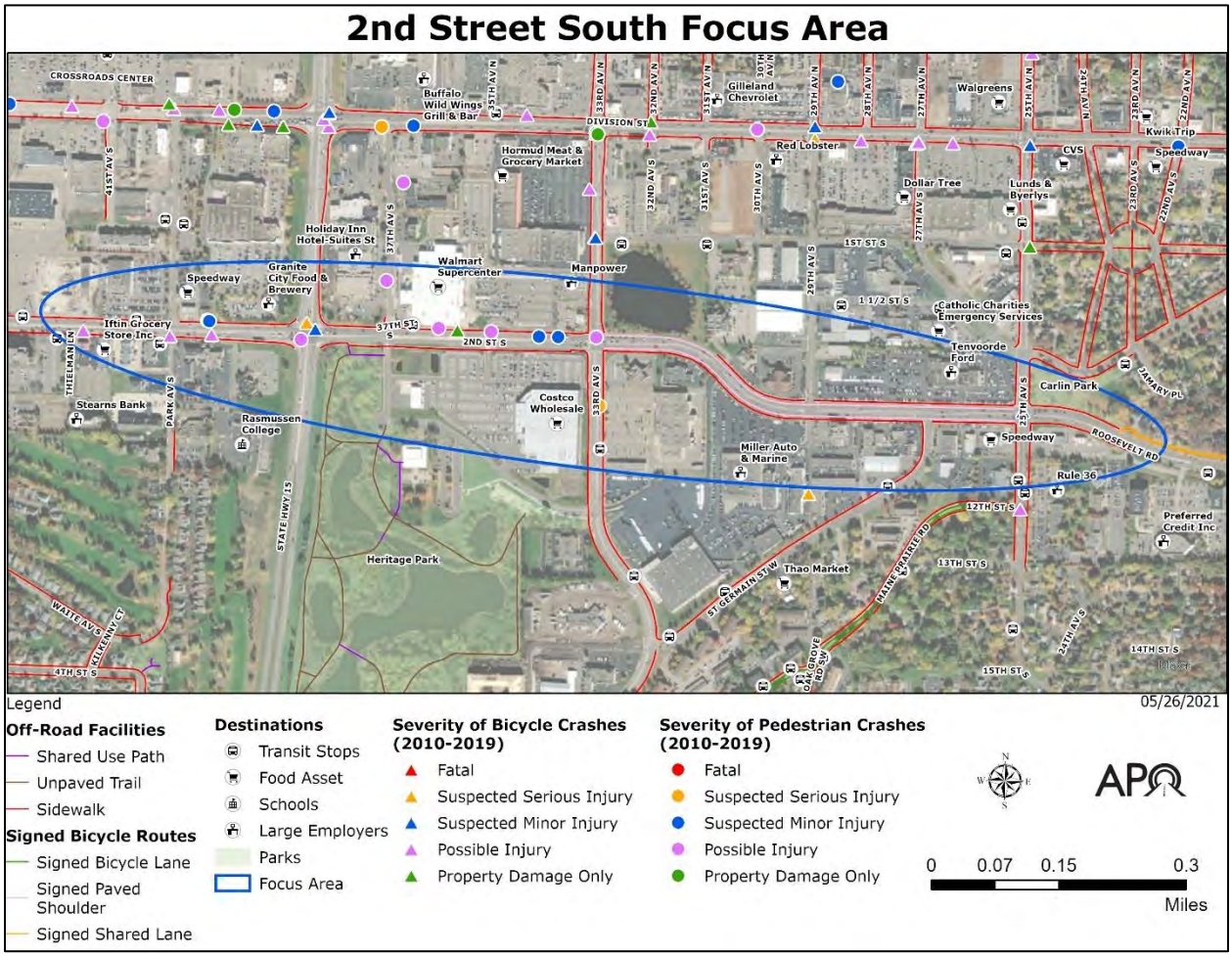


FIGURE E.51 – SECOND STREET S AREA OF FOCUS IN THE CITY OF SAINT CLOUD.

Between 2010 and 2019, 15 active transportation related crashes have occurred in this area mainly between Thielman Lane and 33rd Avenue S. Most of these crashes occur mid-block involving active transportation users who are not using the signalized crosswalks.

Second Street S does have an on-road bicycle facility within this focus area. A signed bicycle lane runs east of 33rd Avenue S and continues through the rest of the focus area. However, this facility does not meet current MnDOT design guidelines for vehicle traffic volume and shoulder width. The 2020 MN 15 study noted this area in particular due to the lack of appropriate dedicated bicycle facilities. The study notes the existing paved shoulders do not provide a comfortable bicycle experience except for the most confident users.

In addition, the MN 15 corridor study examined the crossing experience for pedestrians and bicycles based on levels of service scores. The study suggests measures could be implemented to improve the comfort level for pedestrians at signalized intersections. The MN 15 study recommends signals and marked crosswalks associated with other safety strategies such as refuge islands, curb extensions, and appropriate signage. New streetscape and crossing improvements ensure that sightlines are not obstructed. The corridor study also suggests adding more sidewalks and a separated shared use path along this focus area.

RECOMMENDATIONS

- Consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time at the signalized intersections.
- To improve safety at pedestrian crossings, consider adding curb extensions (bump-outs) at intersections on Second Street S to reduce the crossing distance for pedestrians.
- Consider adding fencing or barriers along Second Street S to discourage mid-block crossings.
- To improve comfort and safety for cyclists, remove the bicycle lanes on Second Street S and replace them with a shared use path along the south side of Second Street S.
- Complete sidewalk gaps on Second Street S and add sidewalks along the Park Avenue and 29th Avenue S connections to Second Street S.

University Drive Area

The University Drive focus area encompasses University Drive from Cooper Avenue S to Killian Boulevard east of the Mississippi River. Several major cross streets such as Ninth Avenue S and Fifth Avenue S are also included in this area. This focus area provides access to SCSU and South Junior High School along with other destinations such as Coborn's, and several parks.

This area was selected due to usage from a variety of transportation modes, the number of crashes involving active transportation users, under-designed facilities, and the presence of a variety of destinations.

NEEDS AND ISSUES

As well as being the primary access for SCSU, University Drive is a high-volume east/west minor arterial. The traffic volume on University Drive ranges from 17,400 to 19,500 vehicles per day. The posted speed on this road is 30 mph. University Drive was designed primarily to provide for vehicle mobility – thus the current four lane roadway with a raised median.

However, given its proximity to SCSU and an abundance of multifamily dwellings, this corridor experiences a heavy amount of active transportation traffic. In particular, the intersection of University Drive and Fifth Avenue S is a major conflict point between vehicles and active transportation users.

Nearly a dozen crashes along this corridor between active transportation users and vehicles have been reported between 2010 and 2019. This includes one fatality.

In addition, the on-road bicycle lane facilities on University Drive – between Fifth Avenue S and Kilian Boulevard – do not meet MnDOT design guidelines given the amount of traffic on this corridor.

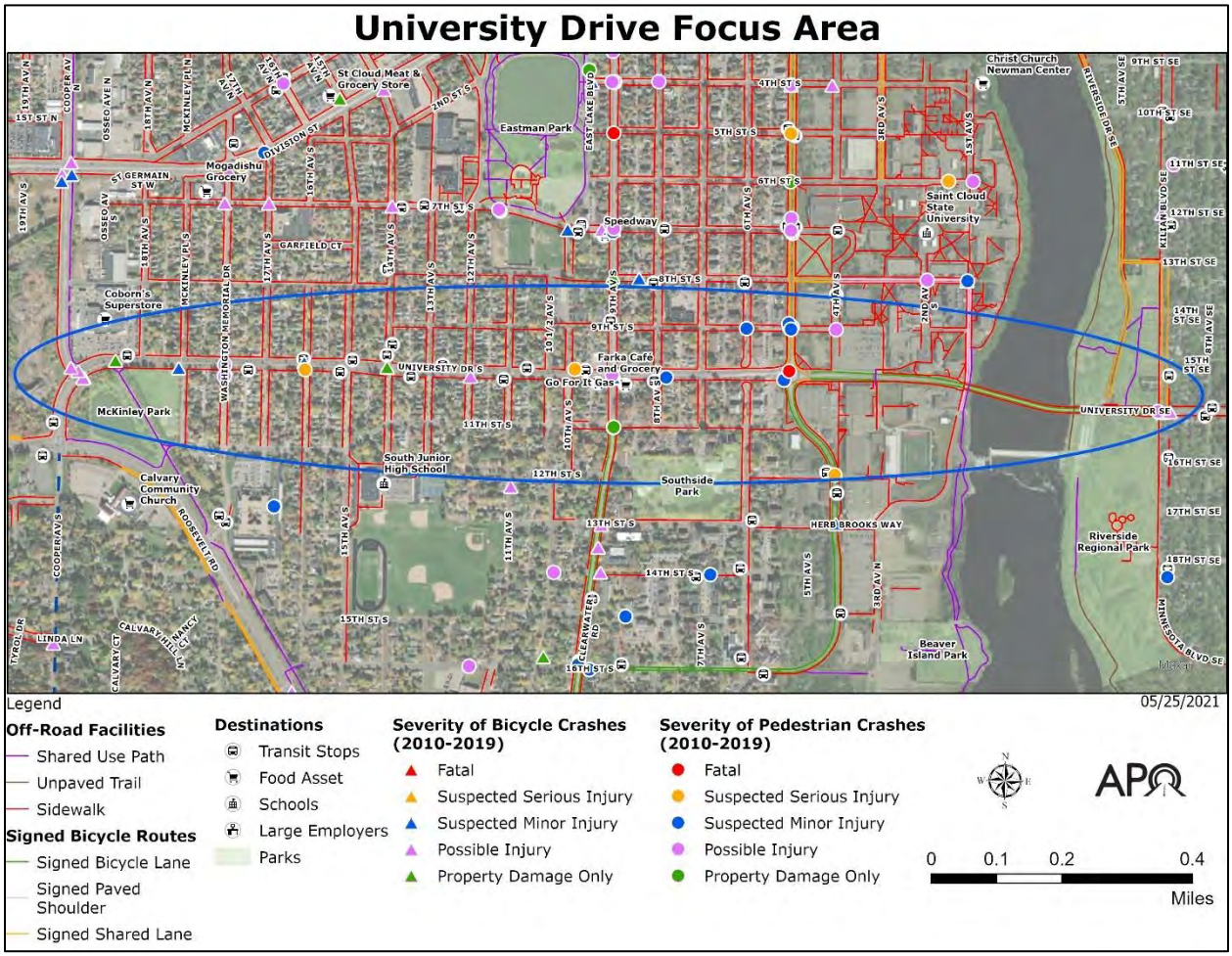


FIGURE E.52 – UNIVERSITY DRIVE FOCUS AREA IN SAINT CLOUD.

RECOMMENDATIONS

- To improve safety at pedestrian crossings, consider adding curb extensions (bump-outs) at intersections on Fifth Avenue S and University Drive to reduce the crossing distance for pedestrians.
- At appropriate locations, implement crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time at the signalized intersections.
- Along the northwest edge of McKinley Park, adjacent to University Drive/Cooper Avenue S, widen the sidewalk to create a 10-foot wide shared use path, closing a gap in the bicycle facility network.
- Add a high visibility marked crosswalk at the 12th Avenue S intersection with University Drive.
- Improve the University Drive intersection with Ninth Avenue S by modifying driveway curb cuts to adjacent businesses, providing more spacing and fewer conflict points.
- To improve comfort and safety for cyclists, add buffer separation or rumble strips to the bicycle lanes on University Drive.

- Consider adding a raised crosswalk or other safety improvements at the Fifth Avenue S roundabout.

East Division Street Area

The East Division Street focus area includes much of the Saint Cloud CBD along with two Mississippi River crossings. This corridor was selected for further analysis due to its multimodal usage, the number of active transportation related crashes, crossing concerns, under designed facilities, and the access this area provides to underrepresented populations.

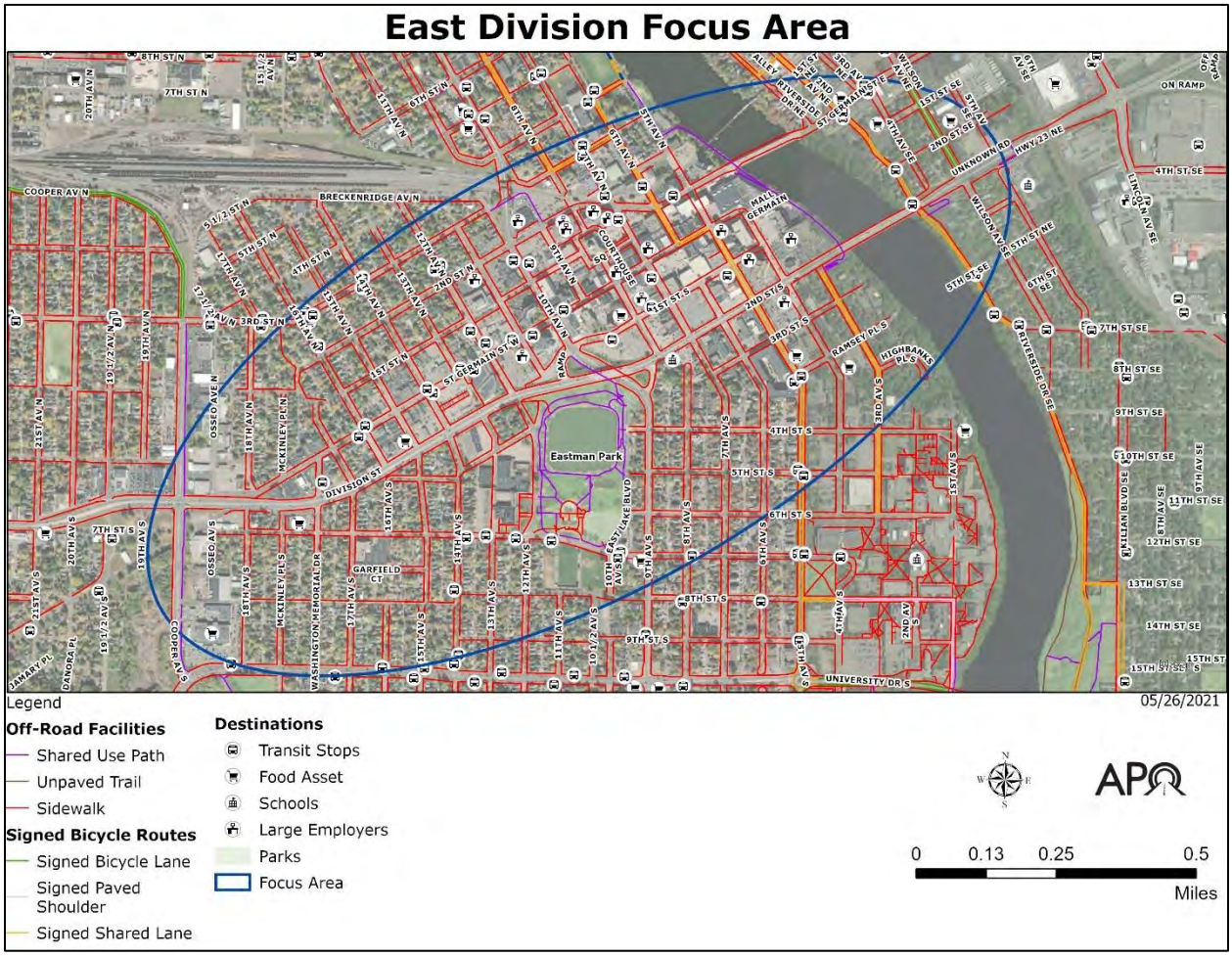


FIGURE E.53 – EAST DIVISION STREET FOCUS AREA AND DESTINATIONS WITHIN THIS CORRIDOR.

NEEDS AND ISSUES

As identified in the Comprehensive Plan, Saint Cloud's goal for the downtown area is to improve the comfort level for pedestrians. More public spaces and gathering areas should be available downtown as walking destinations. The Comprehensive Plan includes strategies to address barriers to pedestrian usage. Among the recommended facility safety improvements in the CBD are adding pedestrian refuge islands along Division Street, crossing enhancements such as signal timing improvements, and the use of safety technologies for pedestrians at signalized crosswalks.

The Comprehensive Plan seeks to make downtown Saint Cloud a "bike-friendly and bike accessible district." Other goals from the Comprehensive Plan are to provide greater connectivity for all transportation modes, improve transportation connections beyond the downtown area, and add facilities to underserved areas.

As earlier noted, Division Street, a four-lane divided highway with a raised median, is the City's primary retail and employment corridor area and a principal transportation route. The many retail, entertainment, and employment destinations within the downtown area attract all transportation modes.

The average daily traffic along East Division Street ranges from 15,000 to 17,000 vehicles. The posted speed is 35 mph. The Comprehensive Plan notes that the traffic volumes and speeds along Division are barriers to crossings. As with West Division Street, high traffic levels coupled with the number of active transportation users who cross Division Street to reach their destinations are likely factors in the frequency of crashes.

Over 20 crashes have been reported involving pedestrians and bicyclists from 2010 to 2019 along this corridor. Crashes also occur along high-volume routes leading into and through downtown Saint Cloud – Fifth Avenue, Ninth Avenue S/10th Avenue S, West Saint Germain Street, and Second Street N. Many of these crashes resulted in serious injuries and fatalities to pedestrians. These crashes occur both at intersections and mid-block locations. Crash locations within focus area and their severity are shown in Figure E.54.

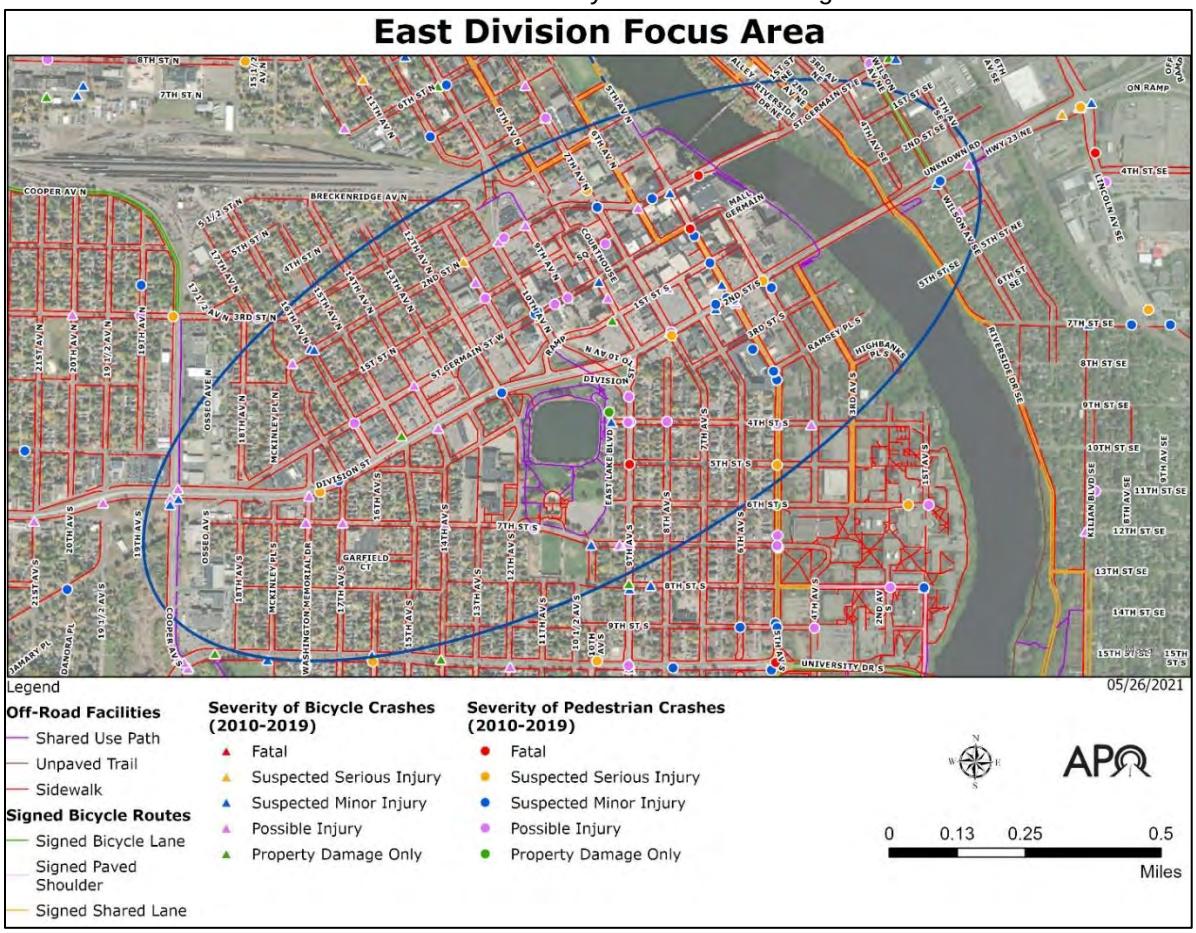


FIGURE E.54 – LOCATION OF CRASHES BY TYPE AND SEVERITY WITHIN THE EAST DIVISION FOCUS AREA.

RECOMMENDATIONS

- To improve safety at pedestrian crossings, consider adding curb extensions (bump-outs) at intersections on Fifth Avenue, Seventh Avenue, and 10th Avenue to control speeds and reduce the crossing distance for pedestrians.
- Implement crossing devices that assist pedestrians by increasing driver awareness, such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time at the signalized intersections.
- To improve comfort and safety for cyclists, consider removing the bicycle lanes on Fifth Avenue and replace with a shared use path.
- Widen sidewalks and remove parking from the north side of West Saint Germain Street to provide more space for pedestrians.
- Add on-road bicycle facilities or a shared use path on Seventh Street S to connect the SCSU campus area to Lake George.

US 10/Lincoln Avenue Area

The US 10/Lincoln Avenue focus area encompasses several major roadways including MN 23 and East Saint Germain Street. This east-end gateway to Saint Cloud has several large retail and employment sites making it a very attractive area for multimodal users.

As such, further analysis was completed on this area due to several factors: high traffic volumes, its multimodal nature, crash history, crossing concerns, and its abundance of destinations.

NEEDS AND ISSUES

Several high vehicle traffic roadways converge in this focus area and have been identified in many local and regional plans as significant barriers to active transportation users.

Main north/south roadways in this area include US 10 and Lincoln Avenue. US 10 is a four-lane divided highway with a raised median. Average daily traffic along this stretch of US 10 ranges from 12,500 to 13,250 vehicles with a posted speed of 50 mph. Lincoln Avenue is classified as a minor arterial. North of East Saint Germain Street, this roadway has two-lanes and carries approximately 6,400 vehicles a day. South of East Saint Germain Street, Lincoln Avenue widens to a four-lane roadway which includes a center median and dedicated turn lanes. Traffic volumes increase in this section of Lincoln Avenue to between 6,200 and 8,000 vehicles per day. Lincoln Avenue then narrows to a three-lane roadway south of Fourth Street SE as vehicle traffic volumes decrease to 2,550 vehicles per day.

In addition to these two roadways, two large east/west roadways also traverse this area. MN 23 within the focus area has an average daily traffic reporting between 11,950 and 15,500 vehicles. East Saint Germain Street through the focus area currently carries between 9,200 and 9,600 vehicles per day.

The active transportation network is severely lacking within this focus area. There are no bicycle facilities and much of the area lacks sidewalks which prevent many active transportation users from safely reaching their destinations. The 2019 East End Vision Plan proposes additions and improvements to bicycle and pedestrian networks on the east side, which could occur with the proposed redevelopment of the east side commercial district.

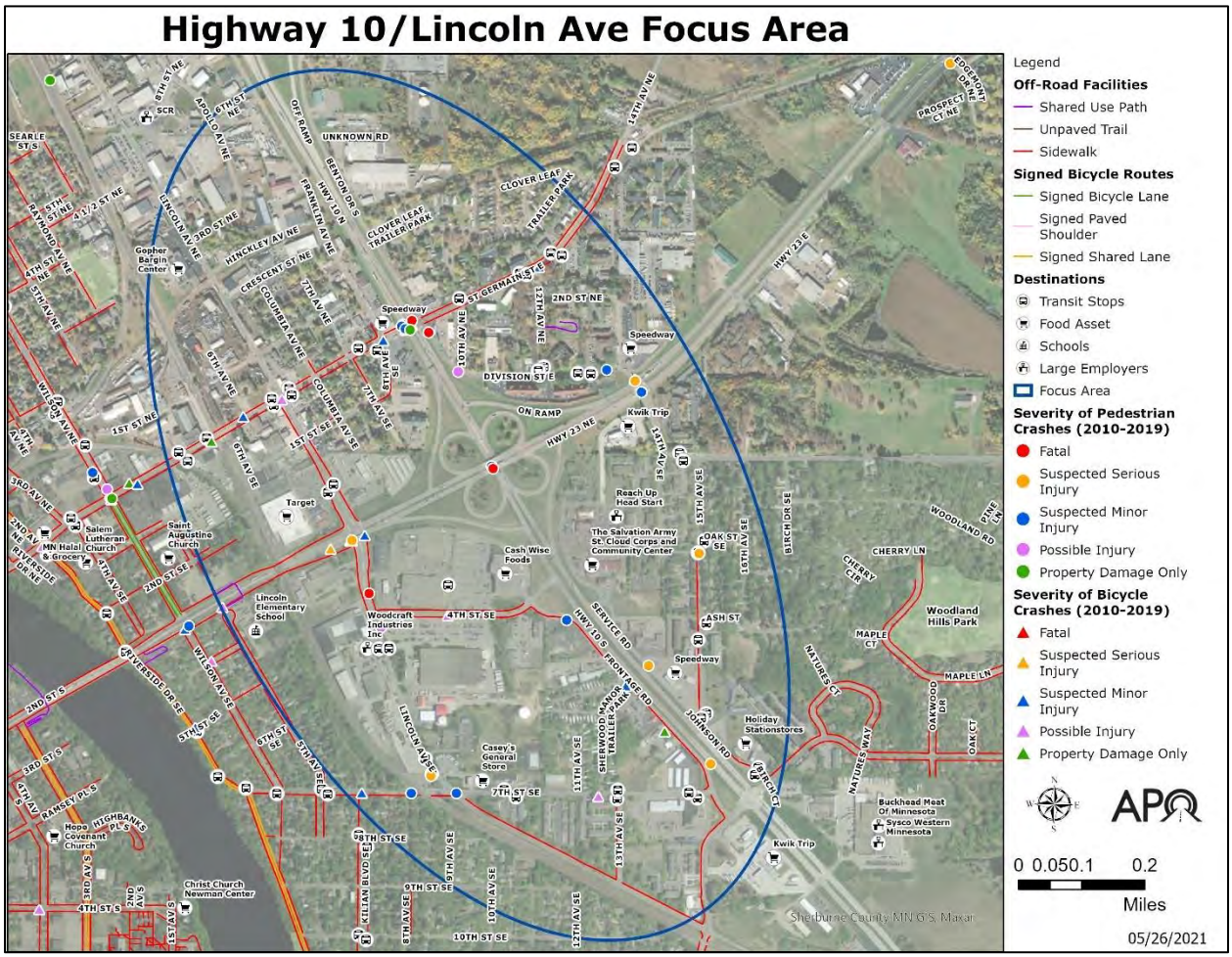


FIGURE E.55 – HIGHWAY 10/LINCOLN AVENUE FOCUS AREA IN SAINT CLOUD.

This focus area has a high number of fatal and serious crashes involving active transportation users. US 10's intersections with both MN 23 and East Saint Germain have reported pedestrian fatalities occurring between 2010 and 2019. Additionally, this area also has several crashes located at or near the intersection of Lincoln Avenue and MN 23.

Saint Cloud city staff's review of crashes during this time period described several deficiencies within east Saint Cloud. Staff's review recommended crosswalk improvements, advance warning devices, adjusted signal timings, and lowing of speed limits to try and mitigate crashes in this focus area.

To assist in addressing some of these conflict points, as part of the programmed MN 23/US 10 interchange reconstruction project, MnDOT, Benton County, and the City of Saint Cloud have planned to incorporate active transportation design elements into the project. This includes adding a shared use path along MN 23 between Lincoln Avenue and 14th Avenue SE as well as a new Fourth Street SE roadway overpass outfitted with active transportation facilities.

RECOMMENDATIONS

- Add a shared use path and other safety improvements for pedestrians and bicyclists with the reconstruction of the US 10/MN 23 interchange.

- Complete the proposed redesign of Lincoln Avenue N as identified in the 2019 East End Vision − Small Area Plan, adding a center turn lane and sidewalks.
- Reconfigure Lincoln Avenue S with a three-lane design and wider separated sidewalks or shared use paths.
- Reconfigure East Saint Germain Street as a three-lane roadway with center turn lanes and the addition of dedicated bicycle lanes.
- If four-lane configurations are retained, implement crossing devices such as Rectangular Regular Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs).
- Consider adding a leading pedestrian interval (LPI) to improve visibility and increase crossing time at the signalized intersections.

Phase 3: Evaluating Needs for the Region

The final phase of the needs analysis was to identify improvements to the regional facility network within the City of Saint Cloud. These projects would assist in achieving an interconnected active transportation network that satisfies regional needs.

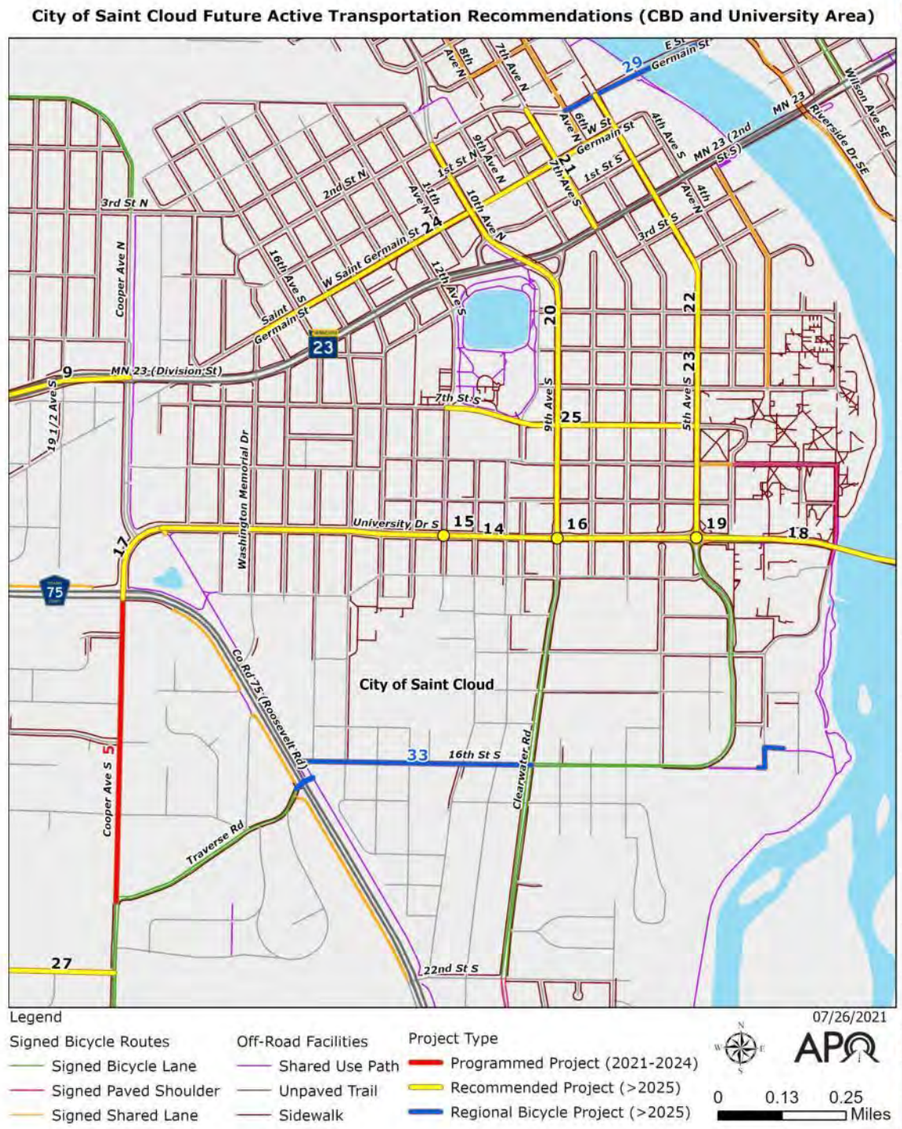
Regional bicycle facilities will logically connect cities and other parts of the planning area outside of Saint Cloud and include potential links to areas outside the planning region. Projects that connect the area regionally will provide an approximate spacing of two miles between facilities. In structuring a regional system, the preference is to complete gaps with shared use paths over on-road facilities.

Recommended regional facilities to extend the existing bicycle network within Saint Cloud and to other communities are as follows:

- In north Saint Cloud, build regional connections that follow 25th Avenue, Northway Drive, County Road 134, and County Road 120.
- Complete connections on 16th Street S, 22nd Street S/County Road 137, West Saint Germain Street /County Road 74, and Cooper Avenue in south Saint Cloud.
- In east Saint Cloud, connect Killian/Minnesota Boulevard to the east and County Road 8 to the south.
- Build connecting bicycle facilities along East Saint Germain Street and 14th Avenue SE.
- Add bicycle facilities that follow the proposed Southwest Beltway alignment.
- Add connecting links from local routes to regional bicycle facilities using shared use paths along Ridgewood Road/County Road 134 and along 40th Street S/County Road 122.

Map Number and Project Description	
5	Reconstruct Cooper Avenue S from Stearns CSAH 75 to Traverse Road to include new bicycle lanes and sidewalks.
6	Reconstruct Stearns County Road 136 (Oak Grove Road) from 22nd Street S to 33rd Street S with the addition of bike lanes.
9	At appropriate locations along MN 23/Stearns CSAH 75/ Division Street add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted. Consider adding fencing or barriers along route to discourage mid-block crossings.
10	Add a north/south bicycle facility connection to cross Division at 25th Avenue or 33rd Avenue.
11	Add sidewalks along the Park Avenue and 29th Avenue S connections to 2nd Street S.
12	At appropriate locations along MN 23/Stearns CSAH 75/2nd Street S add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted. Consider adding fencing or barriers along route to discourage mid-block crossings.
13	Remove the bicycle lanes on 2nd Street S (Stearns CSAH 75) and replace with a shared use path
14	At appropriate locations along University Drive add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted. Consider adding fencing or barriers along route to discourage mid-block crossings.
17	Along the northwest edge of McKinley Park adjacent to University Drive/Cooper Avenue widen sidewalk to create a 10 ft shared use path.
27	Add regional bicycle lanes along 22nd Street S.
28	Add a regional shared use path along 25th Avenue N.
31	Add regional bicycle lanes along 7th Street S/22nd St S (Stearns CSAH 137).
32	Add a regional shared use path along West Saint Germain Street (Stearns County Road 74).

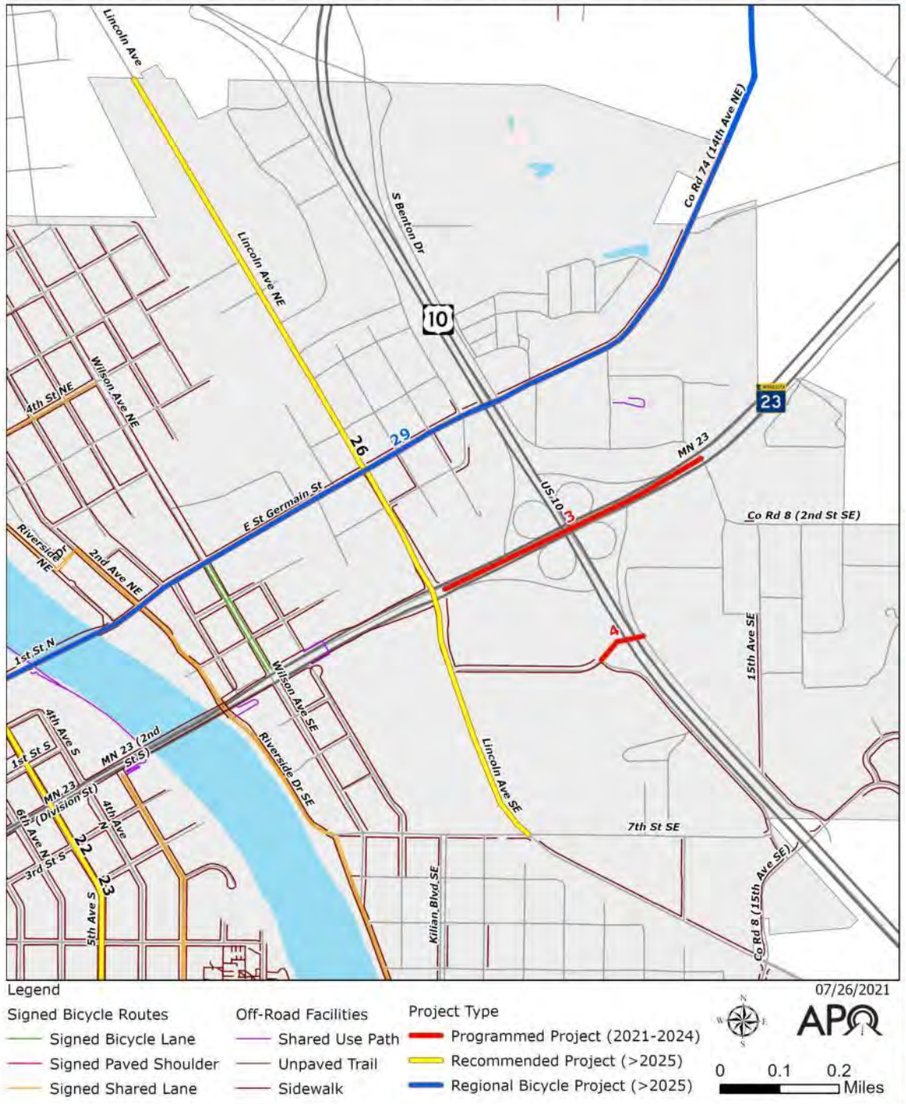
FIGURE E.56 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE EAST DIVISION STREET AREA WITHIN THE CITY OF SAINT CLOUD.



Map Number and Description	
5	Reconstruct Cooper Avenue S from Stearns CSAH 75 to Traverse Road to include new bicycle lanes and sidewalks.
14	At appropriate locations along University Drive add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted. Consider adding fencing or barriers along route to discourage mid-block crossings.
15	Add a high-visibility marked crosswalk at the 12th Avenue South intersection with University Avenue.
16	Improve the University Drive intersection with 9th Avenue South by modifying driveway curb cuts to adjacent businesses, providing more spacing and fewer conflict points.
17	Along the northwest edge of McKinley Park adjacent to University Drive/Cooper Avenue widen sidewalk to create a 10 ft shared use path.
18	Add buffer separation or rumble strips to the bicycle lanes on University Drive.
19	Adding a raised crosswalk or other safety improvements at the 5th Avenue South roundabout.
20	At appropriate locations along 9th Avenue S/10th Avenue S add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted.
21	At appropriate locations along 7th Avenue S add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted.
22	At appropriate locations along 5th Avenue S add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted.
23	Remove the signed shared bicycle lane on 5th Avenue and replace with a shared use path.
24	Widen sidewalks and remove parking from the north side of West St Germain to provide more space for pedestrians.
25	Add on-road bicycle facilities or a shared use path on 7th Street to connect the SCSU campus area to Lake George.
27	Add a regional bicycle lane along 22nd Street S.
29	Add regional bicycle lanes along Saint Germain Street.
33	Add a regional shared use path along 16th Street S.

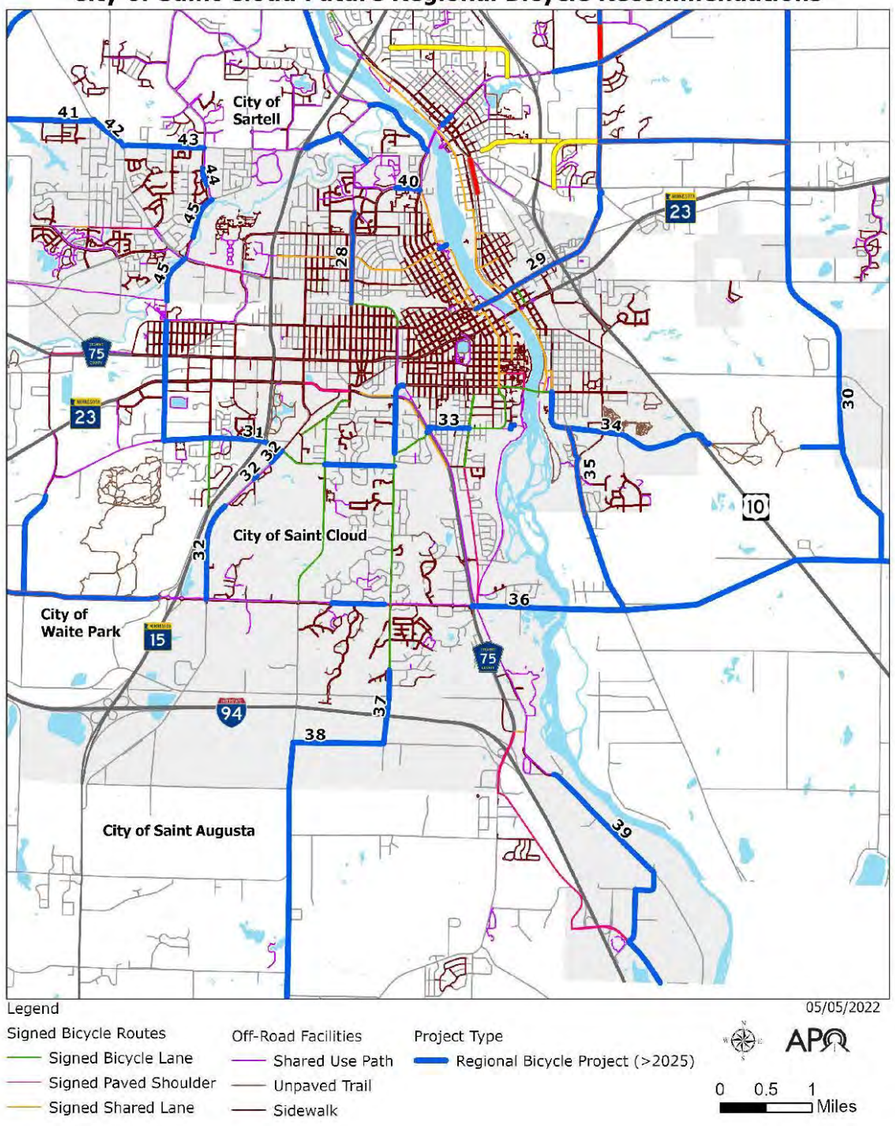
FIGURE E.57 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE CBD AND SCSU AREA OF THE CITY OF SAINT CLOUD.

City of Saint Cloud Future Active Transportation Recommendations (Lincoln Avenue NE Area)



Map Number and Description	
3	Build active transportation facilities around new US 10 and MN 23 interchange.
4	Construct active transportation facilities on new 4th Street SE bridge spanning US 10.
22	At appropriate locations along 5th Avenue add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted.
23	Remove the signed shared bicycle lane on 5th Avenue and replace with a shared use path.
26	At appropriate locations along Lincoln Avenue add a leading pedestrian interval (LPI) at signalized intersections, curb extensions (bumpouts) at intersections, Rectangular Regular Flashing Beacons (RRFBs), or Pedestrian Hybrid Beacons (PHB) as warranted.
29	Add regional bicycle lanes along Saint Germain Street.

FIGURE E.58 – PROGRAMMED AND RECOMMENDED PROJECTS FOR THE US 10/LINCOLN AVENUE AREA OF THE CITY OF SAINT CLOUD.



Map Number and Description	
28	Add a regional shared use path along 25th Avenue North.
29	Add regional bicycle lanes along Saint Germain Street.
30	Add a regional shared use path along future north/ south beltline.
31	Add regional bicycle lanes along 7th Street S (Stearns CSAH 137).
32	Add a regional shared use path along West Saint Germain Street (Stearns County Road 74).
33	Add a regional shared use path along 16th Street South.
34	Add a regional shared use path along Killian Boulevard/Minnesota Boulevard/MN 301.
35	Add a regional shared use path along Sherburne CSAH 8.
36	Add a regional shared use path along future west/ east beltline.
37	Add regional bicycle lanes along Cooper Avenue South.
38	Add a regional shared use path along 255th Street and Stearns CSAH 136.
39	Add a regional shared use path along future Heatherwood Road.
40	Add a regional shared use path along Northway Drive.
41	Add a regional shared use path along 322nd Street.
42	Add a regional shared use path along Stearns CSAH 4.
43	Add a regional shared use path along Stearns CSAH 120.
44	Add a regional shared use path along Pinecone Road S.
45	Add a regional shared use path along Stearns CSAH 134.

FIGURE E.59 ***– CITY OF SAINT CLOUD'S RECOMMENDED ACTIVE TRANSPORTATION PROJECTS TO ASSIST IN THE DEVELOPMENT OF A REGIONAL NETWORK.***

SAINT CLOUD | AREA PLANNING ORGANIZATION

1040 County Road 4, Saint Cloud, MN 56303-0643

T. 320.252.7568 *F.* 320.252.6557

TO: Saint Cloud Area Planning Organization Policy Board
FROM: Vicki Johnson, Senior Transportation Planner
RE: Highway Safety Improvement Program prioritization
DATE: May 27, 2022

As a comprehensive, intergovernmental transportation planning agency for the Saint Cloud Metropolitan Planning Area (MPA), the Saint Cloud Area Planning Organization (APO) works with member agencies and jurisdictions to facilitate local, state, and Federal funds for programs and surface transportation improvement programs. In order to accomplish this, the APO is tasked with prioritizing projects that align with its long-range transportation vision for the region.

The Metropolitan Transportation Plan (MTP) is a long-range, multimodal, surface transportation plan that identifies a regional vision for transportation and the steps necessary to achieve that vision. Part of those steps includes the identification of various transportation improvement projects within the Metropolitan Planning Area (MPA).

In order to carry out the vision of the MTP, the APO develops and maintains a Transportation Improvement Program (TIP). The TIP is a short-range (four year) programming document that reports on how the various agencies and jurisdictions within the Saint Cloud MPA have prioritized their use of limited Federal highway and transit funding. This document is updated on an annual basis.

Projects contained within the TIP must either be identified within the MTP or align closely with the goals and objectives of the MTP. In addition, these projects are funded in part by the Federal Government or are projects sponsored specifically by the Minnesota Department of Transportation (MnDOT).

One of the sources of transportation funding the Federal Government uses is the Highway Safety Improvement Program (HSIP). The goal of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads and roads on tribal lands. This funding source requires a 10% local match (though some qualifying projects may not require any match) with a maximum cap for a project being $500,000 per location.

In 2021, MnDOT's Office of Traffic Engineering (OTE) altered the solicitation process to further involve Metropolitan Planning Organizations (MPOs) in project selection. This change required MPOs to review and prioritize HSIP applications within their planning area. Those priorities – which would ultimately include a ranking – would be submitted to OTE for their incorporation into the selection process.

Last year, without an understanding of the OTE selection process, the APO opted to rank all projects equally.

As a result, APO staff committed to further research/clarify the HSIP scoring process utilized by MnDOT's Central Office to help inform the local prioritization discussion at the APO in the future.

In November, APO staff reached out to MnDOT Traffic Safety Engineer Derek Leuer and MnDOT Research Analysist Specialist Eric DeVoe to learn more about their scoring criteria. APO staff also participated in an HSIP presentation at the February MPO Director's meeting. It was determined that MnDOT employs the following process when evaluating HSIP

projects:

1. Projects are separated into proactive versus reactive project categories for initial scoring. Weighting is then factored in so that all projects (regardless of type) can be ranked and ultimately selected for funding.
    a. Proactive/Data Driven projects (which make up approximately 70% of all funded HSIP projects):
        i. Based on crash data for fatalities and serious injuries.
        ii. Deployed system wide (or across much of the system).
        iii. Typically rural in location.
        iv. Typically lower in cost.
        v. Focused on prevention.
    b. Reactive projects
        i. Needs to be based on crash data (across all crash severities) and must have a fatal or severe crash with a need for a fatal and severe crash history.
        ii. Typically higher volume intersections.
        iii. Deployed at a single location.
        iv. Typically higher in cost with a benefit-to-cost ratio greater than 1.00.
2. OTE utilizes five factors in its scoring process.

Factor	Criteria Considered
Screening Criteria	Site has a sustained fatal and serious injury crash history OR has a systemic risk of fatal and serious injury crashes.
Coverage	Wide deployment, partnerships with other agencies.
Expected Impact	Cost effective, i.e., benefit cost > 1.00 (for crashes ONLY)
Planning	Site identified in a safety plan (e.g., District or County Safety Plan, Road Safety Audit, other safety plan)
Alignment with HSIP Goals	Other considerations including project readiness, local support, effectiveness of strategy, etc. This can also include unique project factors.

During this last solicitation cycle, MPOs from across the state opted to assign equal ranking for their projects. Per discussions held at the February MPO Director's meeting, OTE is still in the process of determining exactly how MPO rankings will factor into the final scoring process. It is believed at this time that rankings from MPOs will serve more as a tiebreaker or a "tipping point" in comparing two very similar project (similar in nature and technical scoring).

With this information, APO staff in conjunction with representatives from the APO's Technical Advisory Committee (TAC) are recommending the APO**'s Policy Board** adopt the following procedure when prioritizing future HSIP projects.

Given the stark differences between reactive and proactive/data driven projects, the APO would separate these two types of projects regardless of which fiscal year the applicant would be requesting funding. This would result in two separate prioritization lists being considered by OTE. However, given the nature of these two types of projects and limited

understanding of OTE's weighting process, this would ensure that both high crash areas and systemic risks areas are being appropriately considered for funding.

For proactive/data driven projects, the APO would recommend an equal prioritization/ranking for all submitted projects. The TAC felt this would be the best option given that all proactive/data driven projects are currently identified by a third party as part of a county safety plan indicating the potential for crashes at specific locations.

For reactive projects, rather than developing a scoring criteria – especially given the limited input this would have on the final decision – the APO would approach this process much like the current approach to assigning regional significance points for the Transportation Alternatives Program. TAC representatives would hear brief presentations from project sponsors and develop a flexible "discussion based" recommended ranking to reflect the most pressing local needs. This recommended ranking will be brought to the Policy Board for the final decision.

If approved, this new ranking/prioritization guidance for HSIP projects will be enacted at the start of the next HSIP solicitation in late summer/early fall 2022.

Suggested Action: Approval.

SAINT CLOUD | AREA PLANNING ORGANIZATION

1040 County Road 4, Saint Cloud, MN 56303-0643

T. *320.252.7568* *F.* *320.252.6557*

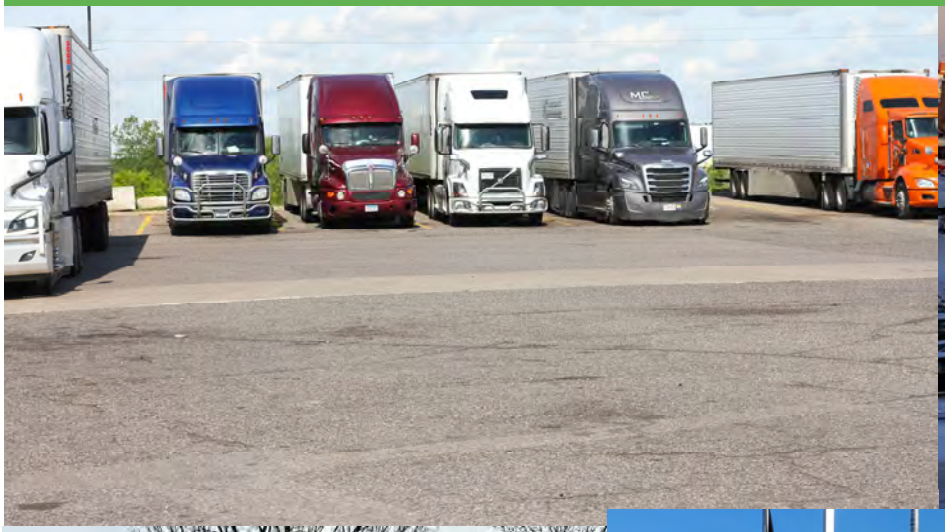
TO: Saint Cloud Area Planning Organization Policy Board
FROM: James Stapfer, Planning Technician
RE: 2020 Transportation Performance Monitoring Report
DATE: June 09, 2022

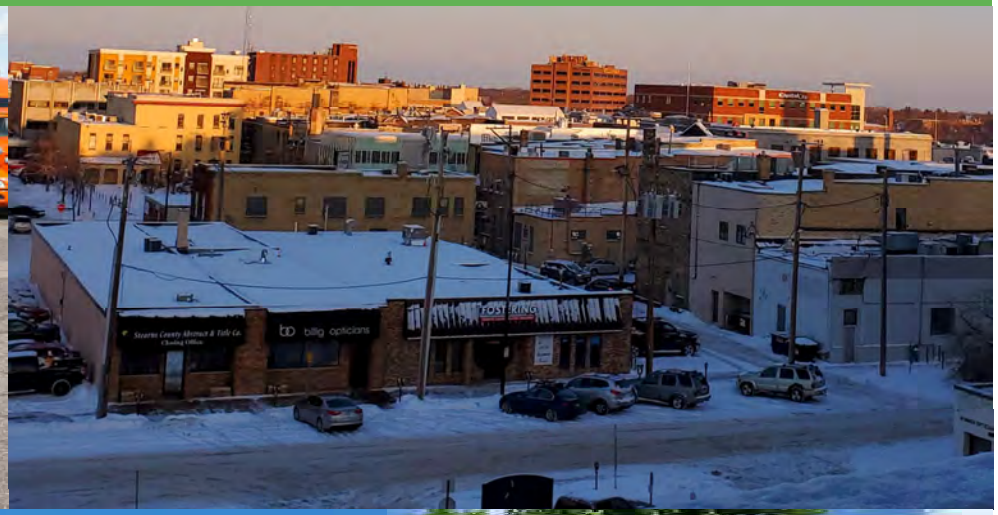
The Transportation Performance Monitoring Report includes a set of performance measures that will track the regions progress towards achievement of transportation goals. Performance measures are designed to serve as a benchmark to evaluate and quantify progress. This performance-based approach is meant to improve accountability of Federal transportation investments, assess risks related to different performance levels, and increase transparency. The report serves as an annual snapshot of the region to help the APO and its planning partners better understand current and anticipated performance of the transportation system and how well it is moving towards achieving the goals stated in the MTP.

Attached is the full 2020 Transportation Performance Monitoring Report

Suggested Action: Accept.

Saint Cloud Area Planning Organization
Transportation Performance Monitoring Report





2020

Photos courtesy of APO

DISCLAIMER AND TITLE VI ASSURANCE

DISCLAIMER

The preparation of this document was funded in part by the United States Department of Transportation with funding administered through the Minnesota Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration. Additional funding was provided locally by the member jurisdictions of the Saint Cloud Area Planning Organization: Benton County, Sherburne County, Stearns County, City of Sartell, City of Sauk Rapids, City of Saint Cloud, City of Saint Joseph, City of Waite Park, LeSauk Township, and Saint Cloud Metropolitan Transit Commission. The United States Government and the State of Minnesota assume no liability for the contents or use thereof.

This document does not constitute a standard, specification, or regulation. The United States Government, the State of Minnesota, and the Saint Cloud Area Planning Organization does not endorse products or manufacturers. Trade or manufacturers' names may appear therein only because they are considered essential to the objective of this document.

The contents of this document reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the policies of the State and Federal departments of transportation.

TITLE VI ASSURANCE

The Saint Cloud Area Planning Organization (APO) hereby gives public notice that it is the policy of the APO to fully comply with Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice, and related statutes and regulations in all programs and activities. Title VI assures that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any program or activity for which the APO receives Federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice by the APO has a right to file a formal complaint with the APO, MnDOT or the U.S. DOT. Any such complaint must be in writing and filed with the APO's Title VI Compliance Manager within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discrimination Complaint Form, please see the Saint Cloud APO website (www.stcloudapo.org) or you can view a copy at our offices at 1040 County Road 4, Saint Cloud, MN 56303.

CIWAANKA VI EE XAQIIJINTA

Ururka Qorsheynta Deegaanka ee Cloud Cloud (APO) wuxuu halkan ku siinayaa ogeysiis dadweyne in ay tahay sharciga APO in ay si buuxda u hoggaansanto Cinwaanka VI ee Xuquuqda Madaniga ee 1964 iyo Sharciga Soo-celinta Xuquuqda Madaniga ee 1987, Amarka Fulinta 12898 ee ku saabsan Cadaaladda Deegaanka, Iyo qaynuunada iyo qawaaniinta la xiriira barnaamijyada iyo nashaadaadka. Cinwaanka VI wuxuu xaqiijinayaa in qofna, sabab asal, midab, ama asal qaran ah, laga reebi doonin kaqeybgalka, loo diidi doonin faa'iidooyinka, ama haddii kale lagula takoorin barnaamij kasta ama waxqabad ee APO ay ku hesho kaalmada maaliyadeed ee Federaalka . Qof kasta oo aaminsan inuu ka xanaaqay fal sharci darro ah oo takoor ay ku sameysay APO wuxuu xaq u leeyahay inuu dacwad rasmi ah u gudbiyo APO, MnDOT ama US DOT. Cabasho kasta oo kale waa inay ahaataa mid qoraal ah lagana xaraystaa maareeyaha u hoggaansamida cinwaankeeda ee 'APO' VI VI waa boqol iyo siddeetan (180) maalmood gudahood taarikhda dhacday markii la sheegay in ay dhacday midabtakoor. Macluumaad dheeri ah, ama si aad u hesho Foomka Cabashada Kala-Takoorida Cinwaan ee 'VI kalasooc Foom', fadlan ka eeg bogga internetka ee 'Cloud Cloud APO' (www.stcloudapo.org) ama waxaad ka arki kartaa nuqul xafiiskayaga 1040 County Road 4, Saint Cloud, MN 56303.

TITLE VI ASSURANCE AND TITLE II ASSURANCE

GARANTÍA DEL TÍTULO VI

La Organización de Planificación del Área de Saint Cloud (APO en inglés) da un aviso público con la presente de que es política de la APO el cumplir plenamente con el Título VI de la Ley de Derechos Civiles de 1964 y de la Ley de Restauración de Derechos Civiles de 1987, de la Orden Ejecutiva 12898 sobre la Justicia Ambiental, y los estatutos y reglamentos relacionados en todos los programas y actividades. El Título VI asegura que ninguna persona, por motivos de raza, color o nacionalidad, podrá quedar excluida de la participación en, se le podrán negar los beneficios de, o de algún modo podrá ser objeto de discriminación en virtud de cualquier programa o actividad por la cual la APO recibe asistencia financiera Federal. Cualquier persona que cree que ha sido perjudicada por una práctica discriminatoria ilegal por la APO 2 SAINT CLOUD AREA PLANNING ORGANIZATION TRANSPORTATION PERFORMANCE MONITORING REPORT 2019 tiene el derecho de presentar un reclamo formal con la APO MnDOT o U.S. DOT. Cualquiera de estos reclamos debe ser por escrito y debe ser presentado ante el Gerente de Cumplimiento del Título VI de la APO dentro de los ciento ochenta (180) días naturales siguientes a la fecha en que la presunta ocurrencia discriminatoria. Para obtener más información, o para obtener un Formulario de Reclamo por Discriminación del Título VI, por favor, dirígete al Sitio web de la APO de Saint Cloud (www.stcloudapo.org) o puedes ver una copia en nuestra oficina en 1040 County Road 4, Saint Cloud, MN 56303.

TITLE II ASSURANCE

The Saint Cloud Area Planning Organization (APO) herby gives public notice that it is the policy of the APO to fully comply with the Americans with Disabilities Act of 1990 (ADA) and the Rehabilitation Act of 1973 (Rehabilitation Act) and related statutes and regulations in all programs and activities. Title II of the Americans with Disabilities Act (ADA) requires all state and local government agencies to take appropriate steps to ensure that communications with applicants, participants, and members of the public with disabilities are as effective as communications with others. Any person who believes they have been aggrieved by an unlawful discriminatory practice by the APO has a right to file a formal complaint with the APO, MnDOT, or the U.S. DOT. Any such complaint should be in writing and contain information about the alleged discrimination such as name, address, phone number of complainant, and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available as a reasonable modification for persons with disabilities upon request. Complaints should be submitted by the complainant and/or his/her/their designee as soon as possible but no later than sixty (60) calendar days after the alleged discriminatory occurrence and should be filed with the APO's Executive Director. For more information, or to obtain a Discrimination Complaint Form, please see the Saint Cloud APO website (www.stcloudapo.org) or you can view a copy at our offices at 1040 County Road 4, Saint Cloud, MN 56303.

TITLE II ASSURANCE

CIWAANKA II EE XAQIIJINTA

Hay'adda Qorsheynta ee Saint Cloud Area Organisation (APO) waxay siisaa ogeysiis dadweyne inay tahay siyaasada APO inay si buuxda ugu hoggaansanto Sharciga Naafada Mareykanka ee 1990 (ADA) iyo Sharciga Baxnaaninta 1973 (Sharciga Baxnaaninta) iyo qawaaniinta iyo qawaaniinta la xiriira Dhammaan barnaamijyada iyo nashaadaadka. Qodobka II ee Sharciga Naafada Mareykanka (ADA) wuxuu u baahan yahay dhammaan hay'adaha gobolka iyo kuwa maxalliga ah inay qaadaan tillaabooyinka ku habboon si loo hubiyo in xiriirka lala yeesho codsadayaasha, ka qeybgalayaasha, iyo xubnaha bulshada naafada ah ay u la mid yihiin sida xiriirka lala yeesho kuwa kale. Qof kasta oo aaminsan inuu ka xanaaqay fal sharci darro ah oo takooris ah oo ay sameysay APO wuxuu xaq u leeyahay inuu dacwad rasmi ah u gudbiyo APO, MnDOT, ama US DOT. Cabasho kasta oo noocan oo kale ahi waa inay ahaataa mid qoraal ah oo ay kujirto macluumaad ku saabsan takoorida la soo sheegay sida magaca, cinwaanka, taleefan lambarka cabashada, iyo goobta, taariikhda, iyo faahfaahinta dhibaatada. Hab kale oo lagu xareeyo cabashada, sida wareysiyada shaqsiyeed ama cajalad duuban cabashada, ayaa loo heli doonaa sidii wax looga badali karo macquul ahaan dadka naafada ah markii la codsado. Ashtakooyinka waa in ay soo gudbiyaan cabashada iyo / ama wakiilkiisa / wakiilkiisa sida ugu dhakhsaha badan 3 SAINT CLOUD AREA PLANNING ORGANIZATION TRANSPORTATION PERFORMANCE MONITORING REPORT 2019 ee suurtogalka ah laakiin aan ka dambayn lixdan (60) maalmood taariikhi ah ka dib dhacdada la xiriirta midab kala sooca waana in lagu fayl gareeyaa Agaasimaha Fulinta APO. Macluumaad dheeri ah, ama si aad u hesho Foomka Cabashada Kala-Takoorida, fadlan eeg bogga internetka ee 'Cloud Cloud APO' (www.stcloudapo.org) ama waxaad ka arki kartaa nuqul xafiiskayaga 1040 County Road 4, Saint Cloud, MN 56303.

GARANTÍA DEL TÍTULO II

La Organización de Planificación del Área de Saint Cloud (APO en inglés) da un aviso público con la presente de que es política de la APO el cumplir plenamente con la Ley sobre los Estadounidenses con Discapacidad de 1990 (ADA en inglés) y con la Ley de Rehabilitación de 1973 (Ley de Rehabilitación) y con los estatutos y reglamentos en todos los programas y actividades. El Título II de la Ley sobre los Estadounidenses con Discapacidad de 1990 (ADA en inglés) requiere que todas las agencias de gobierno estatales y locales tomen las medidas adecuadas para asegurar que la comunicación con los aplicantes, participantes y miembros del público con discapacidades sea tan efectiva como la comunicación con otros. Cualquier persona que cree que Cualquier persona que cree que ha sido perjudicada por una práctica discriminatoria ilegal por la APO tiene el derecho de presentar un reclamo formal con la APO MnDOT o U.S. DOT. Cualquiera de estos reclamos debe ser por escrito y debe contener información sobre la presunta discriminación tales como el nombre, la dirección, el número de teléfono del denunciante, y la ubicación, la fecha y la descripción del problema. Los medios alternativos de presentar un reclamo, tales como una entrevista personal o una grabación de audio del reclamo, estarán disponibles como una modificación razonable para las personas con discapacidades a petición. Los reclamos deben ser presentados por el denunciante y/o su persona designada tan pronto como sea posible pero no más tarde de sesenta (60) días naturales después de la presunta ocurrencia discriminatoria y deben ser presentados ante el Director Ejecutivo de la APO. Para obtener más información, o para obtener un Formulario de Reclamo por Discriminación, por favor, dirígete al Sitio web de la APO de Saint Cloud (www.stcloudapo.org) o puedes ver una copia en nuestra oficina e 1040 County Road 4, Saint Cloud, MN 56303.

Table of Contents

Common Acronyms

ADT: Average Daily Traffic.

APO: Saint Cloud Area Planning Organization.

AQI: Air Quality Index.

ATAC: Active Transportation Advisory Committee.

CNG: Compressed Natural Gas.

DOT: Department of Transportation.

CR: County Road.

CSAH: County State-Aid Highway.

D3: Minnesota Department of Transportation District 3.

DAR: Dial-a-Ride.

DEED: Minnesota Department of Employment and Economic Development.

DIV: Digital Inspection Vehicle.

EDR: Economic Development Region.

FAST Act: Fixing America's Surface Transportation Act.

FHWA: Federal Highway Administration.

FR: Fixed Route.

FTA: Federal Transit Administration.

GPS: Global Positioning System.

HPMS: Highway Performance Monitoring System.

HSIP: Highway Safety Improvement Program.

IRI: International Roughness Index.

MAP-21: Moving Ahead for Progress in the 21st Century Act.

MN: Minnesota.

MnDOT: Minnesota Department of Transportation.

MPCA: Minnesota Pollution Control Agency.

MPO: Metropolitan Planning Organization.

MTC: Saint Cloud Metropolitan Transit Commission (Saint Cloud Metro Bus).

MTP: Metropolitan Transportation Plan.

NCB: Northstar Commuter Bus.

NHS: National Highway System.

NHTSA: National Highway Traffic Safety Administration.

NPMRDS: National Performance Management Research Data Set.

NTD: National Transit Database.

PBP: Performance-Based Planning.

SEP: Stakeholder Engagement Plan.

SGR: State of Good Repair.

SOV: Single-Occupancy Vehicle.

STC: Saint Cloud Regional Airport.

STIP: Statewide Transportation Improvement Program.

TAC: Saint Cloud APO's Technical Advisory Committee.

TERM: Transit Economic Requirements Model.

TH: Trunk Highway.

TIP: Transportation Improvement Program.

TPMR: Transportation Performance Management Report.

Tri-CAP: Tri-County Action Program.

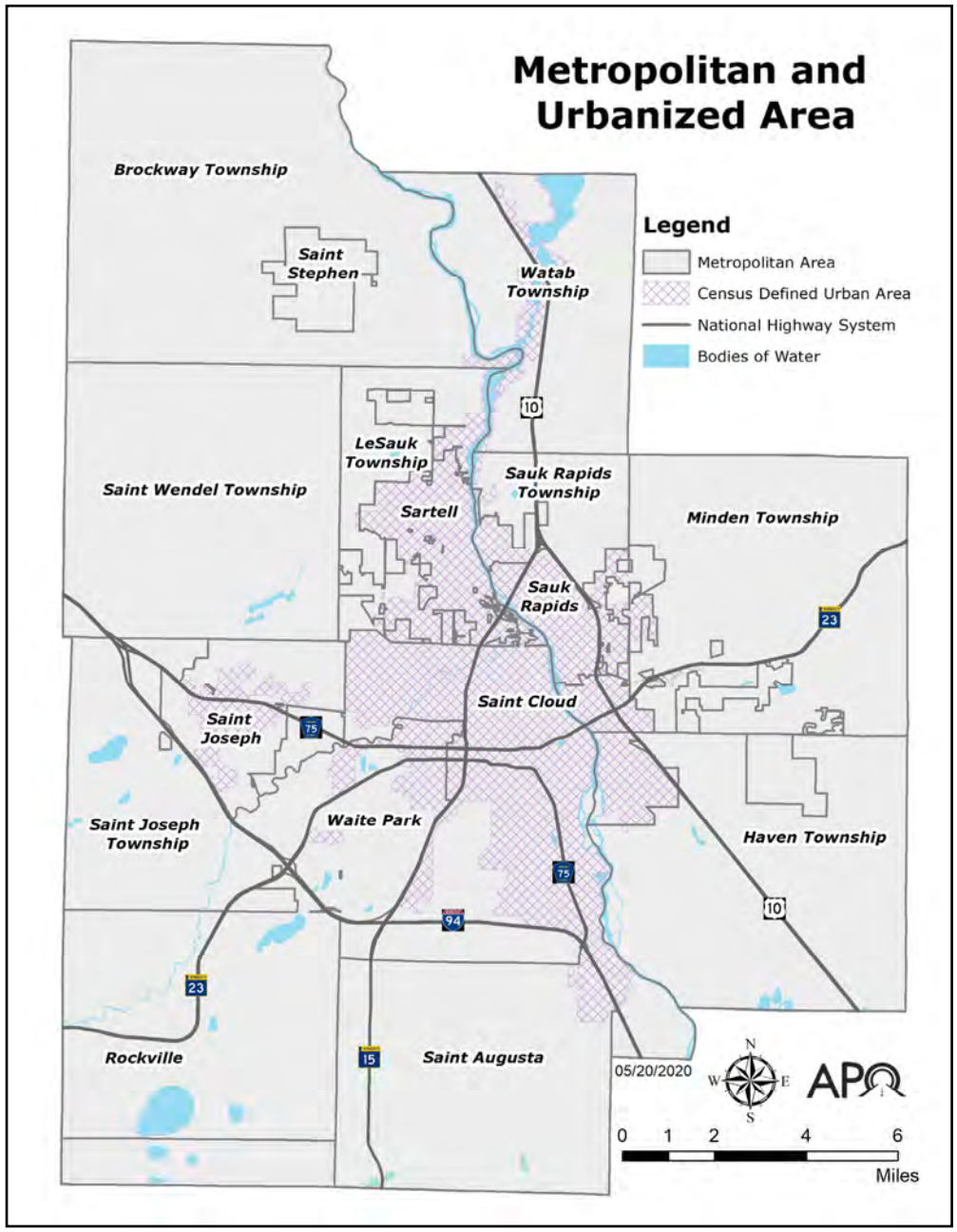
TSM: Transportation System Management.

TTTR: Truck Travel Time Reliability.

VMT: Vehicle Miles Traveled.

Introduction

APO Planning Area



The Saint Cloud Area Planning Organization (APO) is an independent, regional body responsible for transportation planning for the Saint Cloud metropolitan area. The APO serves as the region's Metropolitan Planning Organization (MPO) - an organizational body created under the Federal Aid Highway Acts of 1962 and 1973 designed in part to coordinate transportation planning efforts for urban areas with a population of at least 50,000. MPOs, like the APO, assist local officials in collaboratively deciding how federal transportation funds will be allocated within the planning area.

The APO Urbanized Area is designated by the U.S. Census Bureau every census year. Criteria for defining this area includes population density and density of development. The APO approves a 20-year planning boundary that not only includes the Census-defined Urbanized Area, but also considers expected urbanized growth within that time period.

The APO is comprised of member jurisdictions: Stearns County, Benton County, Sherburne County, City of Saint Cloud, City of Sartell, City of Sauk Rapids, City of Waite Park, City of Saint Joseph, LeSauk Township, and Saint Cloud Metropolitan Transit Commission (MTC). The cities of Rockville, Saint Stephen, and Saint Augusta, along with Brockway Township, Haven Township, Minden Township, Sauk Rapids Township, Saint Wendel Township, Saint Joseph Township, and Watab Township are located within the designated APO planning boundary but are not formal member agencies. Instead they are represented through their respective counties. The APO works cooperatively with Minnesota Department of Transportation (MnDOT) in planning related activities in the region.

1966	137,093
Year the APO was incorporated.	Estimated population in the Saint Cloud APO planning area in 2019.

Data Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

Introduction

Performance Measures

The APO and Performance Measures

This Transportation Performance Monitoring Report (TPMR) includes a set of performance measures that will track the region's progress toward achievement of transportation goals as defined in the APO's Metropolitan Transportation Plan (MTP). (https://bit.ly/35Ct7FH). Performance measures are designed to serve as a benchmark to evaluate and quantify progress. This performance-based approach is meant to improve accountability of Federal transportation investments, assess risks related to different performance levels, and increase transparency. This progress report serves as an annual snapshot of the region to help the APO and its planning partners better understand current and anticipated performance of the transportation system and how well it is moving towards achieving the goals stated in the APO's MTP.

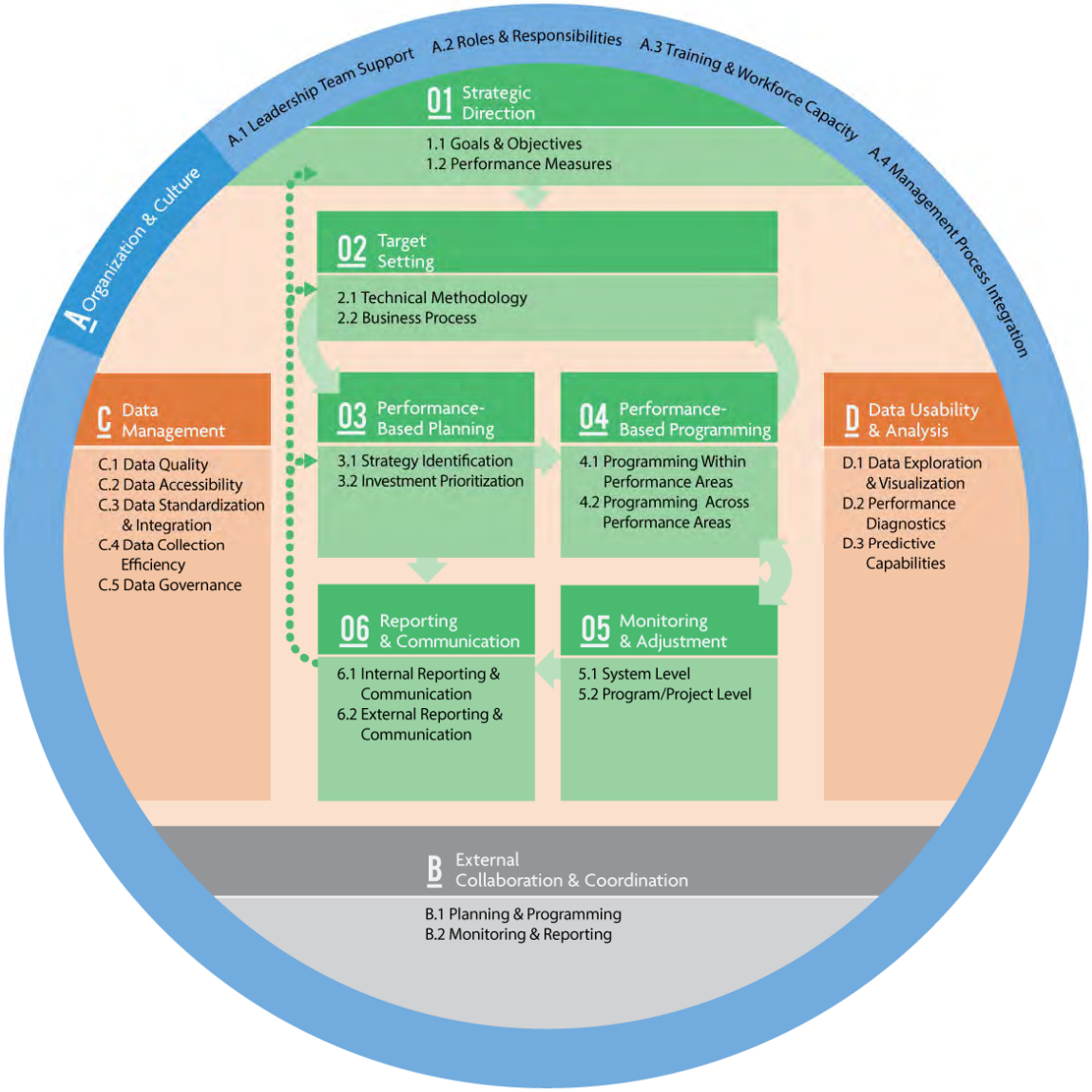
The APO approved its 2045 MTP in October 2019. During that process, staff incorporated federally mandated performance measures into the MTP including but not limited to, those found within this report. In addition, APO staff have been working to develop a variety of other performance measures to assist in future planning and project implementation. The intent is to use the identified performance measures to further align current and future projects with the overall goals and objectives of the MTP.

Based on the Transportation Performance Management (TPM) (https://bit.ly/3MIOV2P) assessment tool, the APO is currently working towards a maturity level two, the developing phase. Work is underway to strengthen transportation performance management in the APO. A transportation performance management framework is being defined to provide alignment across the organization and across different planning and programming functions. Modifications to data collection and management processes and analysis tools are being planned in order to better support the performance framework. Organizational roles are being defined and a strategy for training and workforce development in support of transportation performance management is being developed.

Photo of roadway pavement in poor condition. Photo courtesy of Saint Cloud APO.

Introduction

Performance Measures



Graphic courtesy of tpmtools.org

Strategic Direction

•The APO is developing a collaborative process to set goals and objectives with linkages between agency functions and broader societal concerns still being clarified.

Target Setting

•The APO is collaboratively developing a methodology to understand baselines and set targets within agreed-upon performance areas.

Performance-Based Planning

•The APO is defining a data-driven process for understanding current and future performance to identify and develop strategies.

Performance-Based Programming

•The APO is developing a performance-based programming methodology and process that will: enable project selection to reflect agency goals; determine priorities in planning documents; and identify funding constraints, risk factors, and relative needs across performance areas.

Monitoring and Adjustment

•The APO is developing a plan for system and program/ project monitoring tied to its strategic direction. This will include: a definition of output, outcome measures, frequency of data collection, external influencing factors and users.

Reporting and Communication

•The APO is defining requirements for internal reports to ensure consistency, alignment with strategic direction, and provision of actionable information.

Introduction

Performance Measures

What are Performance Measures?

Performance measures are indicators of progress toward attaining a goal, objective, or target (a desired level of future performance).

What is Transportation Performance Management?

Transportation Performance Management (TPM) is a strategic approach that uses system information such as performance measures to assist decision-makers in order to achieve performance goals.

What is Performance-Based Planning?

Performance-Based Planning (PBP) is the use of agency goals, objectives, and performance trends to drive the development of strategies and priorities in long-range planning documents like the MTP. The resulting documents, such as the Transportation Improvement Program (TIP), have become the blueprint for how an agency intends to achieve its desired performance outcomes.

How does the APO use performance measures?

Because the APO's transportation system improvement needs exceed available funding, resources are invested in the most strategic, effective, and efficient way possible. Performance measures provide useful "feedback" and are integrated into the APO's planning practice on three levels as indicated in the adjacent graphic.

Strategic Level

Performance measures help to establish and inform goals, objectives, and strategies as well as monitoring the APO's mission attainment. Performance measures also communicate progress toward achieving goals in transportation plans and programs such as the MTP and TIP.

Decision Making Level

Performance measures are used to inform the allocation of funds among programs such as highway preservation, system expansion, public transportation, multimodal trails, etc. These programs are defined in the TIP. Decision makers also consider various trends impacting transportation system performance.

Project Delivery Level

After projects are selected, performance measures help to monitor the efficiency and effectiveness of projects and services. Performance measures also support organizational and operational improvements.

Introduction

Performance Measures

Why does the APO use Performance Measures?

- To assess how well the APO's multimodal transportation system is functioning—including feedback from and collaboration with key stakeholder organizations.
- To provide information to support and inform decision-making.
- To assess how effectively and efficiently transportation programs, projects, and services are being delivered.
- To demonstrate transparency and accountability to the APO's citizens and to foster collaboration between the transportation systems of APO member jurisdictions.

Why set targets?

Federal regulations require the APO to either 1) Support MnDOT's performance targets for each performance measure, or 2) Set its own regional target(s). The APO has decided to set its own targets for each of the performance measures.

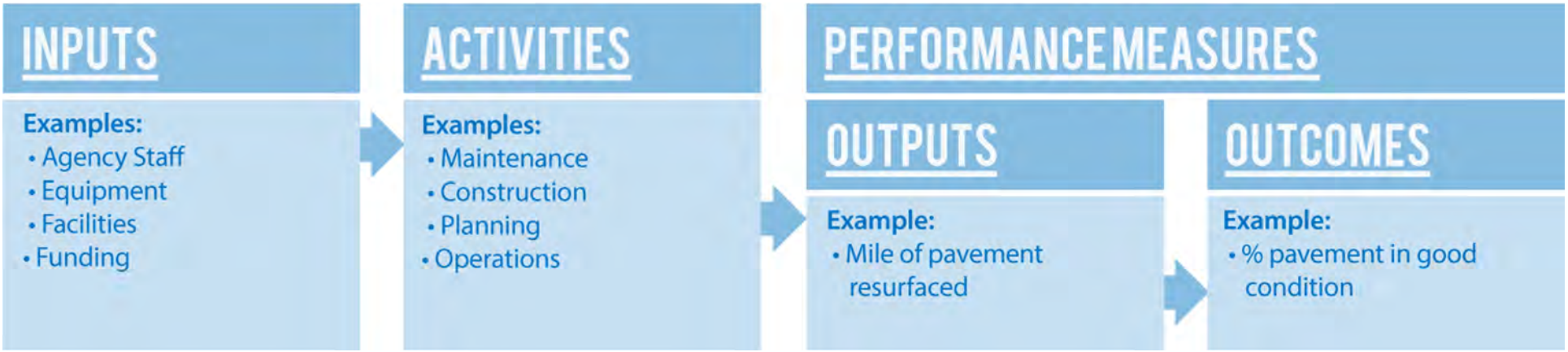
Overall, the targets established by MnDOT have been determined to be of limited value to the APO, especially when compared with the APO's existing conditions and priorities. By adopting its own targets, the APO can focus on localized issues and target funding that will work toward achieving the goals established in the MTP.

Who sets the targets?

APO staff, along with planning partners, the APO's Technical Advisory Committee (TAC), the APO's Policy Board, and MTC have collaborated to establish these targets.

What are the desired characteristics of performance measures?

- *Measurable data*—Data is quantifiable and able to be tracked year after year.
- *Forecastable*—Enables data-driven target setting based on future conditions.
- *Clear to the public and policymakers*—Allows performance storytelling to citizens and policymakers.
- *Agency has influence over results*—Measure agency activities rather than impact of external factors.



Introduction

Performance Measures

Federal Performance Measures.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in 2012, included several provisions that collectively are transforming the Federal surface transportation program to be focused on the achievement of performance outcomes.

The Fixing America's Surface Transportation (FAST) Act, signed in 2015, built on the MAP-21 changes and provided long-term funding certainty for surface transportation infrastructure planning and investment.

The graphic below contains the list of federally required performance measures:

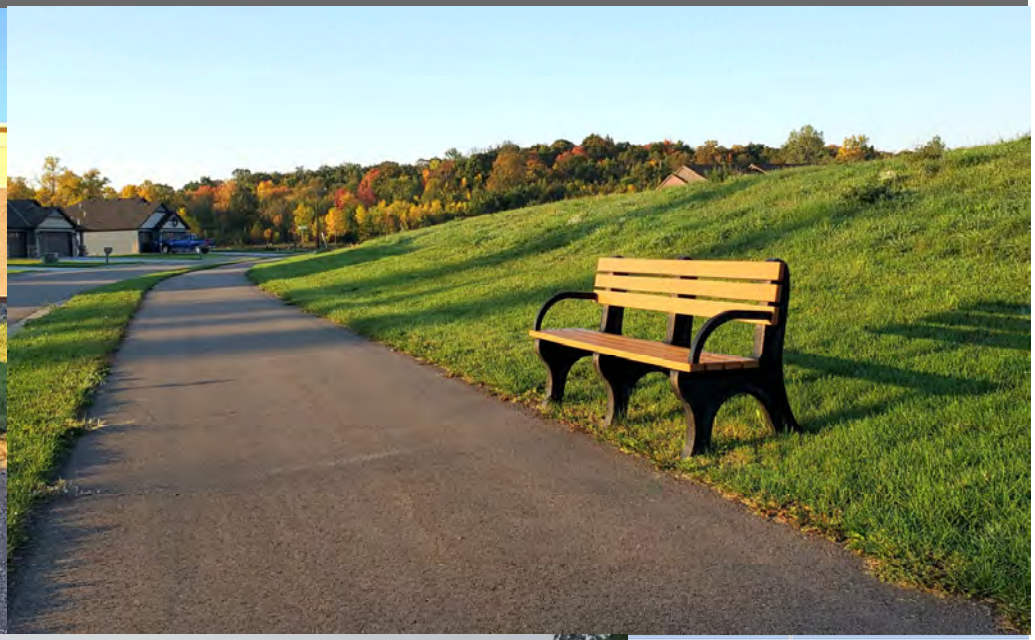
The first federally required performance period began Jan. 1, 2018, and ends on Dec. 31, 2021. Exceptions to this time frame include roadway safety, transit management, and state of good repair which have an annual calendar year reporting period.

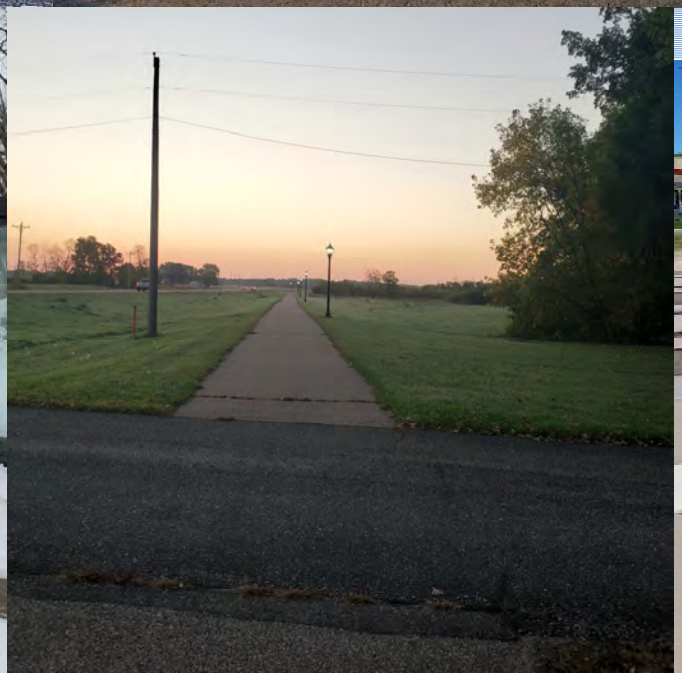
Targets established should be reasonable and based on the analysis of trends and projections of future efforts. These efforts include projects identified in the TIP, MTP, and general maintenance of existing infrastructure completed by the counties, municipalities, and townships in the APO planning area. Targets established in accordance with Federal Highway Administrations (FHWA's) performance measure rules should be considered as interim condition/performance levels that lead toward the accomplishment of longer-term performance expectations in transportation plans developed by state departments of transportation (DOTs) and MPOs.

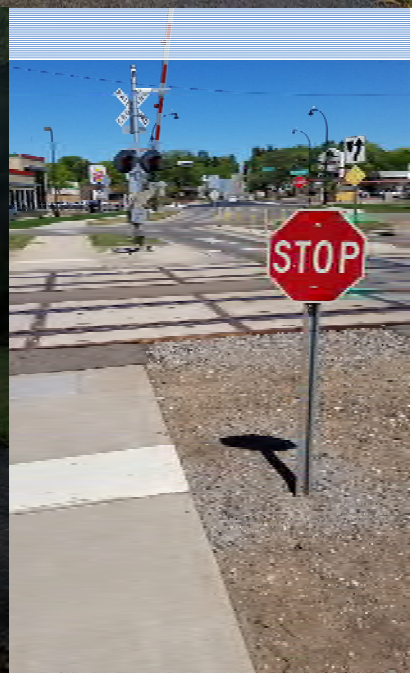
Roadway Safety	Roadway Accessibility, Mobility, and Connectivity	Roadway Management and Preservation	Roadway Metropolitan Vitality and Economic Development
♦ Number of fatalities. ♦ Rate of fatalities per 100 million vehicle miles travelled (VMT). ♦ Number of serious injuries. ♦ Rate of serious injuries per 100 million VMT. ♦ Number of non-motorized fatalities and serious injuries.	♦ Annual percent of person-miles traveled on the Interstate and non-Interstate National Highway System that are reliable. ♦ State of Good Repair for equipment, facilities, and rolling stock. ♦ Transit Economic Requirements Model (TERM) scale for transit.	♦ Interstate system pavement conditions. ♦ Non-Interstate NHS pavement conditions. ♦ Bridge conditions. ♦ Transit Mechanical Failures.	♦ Truck Travel Time Reliability Index.

Goal 1: Maintain and Enhance Transportation Safety

Develop and maintain a transportation system that is safe for all users.







Photos courtesy of APO

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Analysis

Unprecedented. The year 2020 started off rather typical, but it's finish was anything but. When the COVID-19 global pandemic set in during March 2020, a myriad of changes to day-to-day life ensued. From school closures and working from home to travel bans and business shut downs, the COVID-19 global pandemic not only impacted public health, but greatly affected travel patterns both on a national scale and within the Saint Cloud MPA.

Due in part to government shutdowns and stay-at-home orders which began in March, vehicle miles traveled (VMT) within the MPA experienced a 20% year-over-year decrease in comparison to 2019.

While a reduction in the number of miles people traveled did lead to fewer crashes (2016-2020 crash rate five year rolling average), the severity of those crashes has been a mixed bag.

When crashes occur, vehicles and property get damaged and people get injured. Frequently, the number of crashes differs from the number of injuries. The highest level of injury suffered by a person involved in a crash is what defines the crash severity.

Crashes are broken down into three main categories: fatal crashes, injury crashes, and property damage only crashes. Injury crashes are further broken down into serious, minor, or possible injury crashes.

Fatal crashes within the MPA did experience a slight dip – 2.1% (2016-2020 fatality rate five year rolling average). However, during this same time frame, suspected serious injury (SSI) crashes rose by 8.9%.

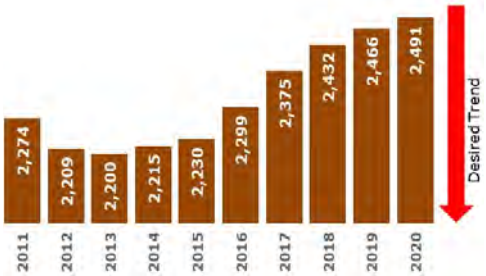
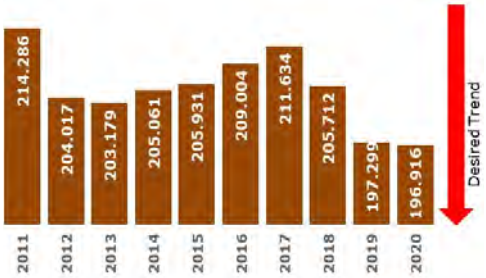
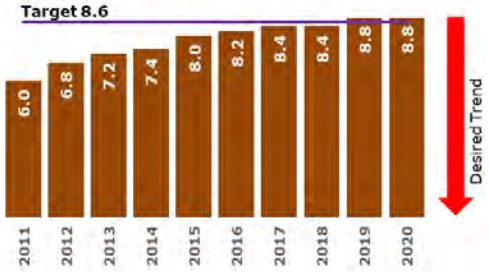
A closer look at both fatal and SSI crashes within the MPA reveal that nearly one-third of fatalities and one-fifth of SSI crashes involve an active transportation user (someone walking and/or biking). While these types of crashes represent a rather small percentage of overall crashes with in the MPA – only 2.2% -- these vulnerable road users account for a significant share of both fatal and serious injuries.

Intersections, particularly along arterial corridors (MN 23, US 10, MN 15, I-94, CSAH 75) tend to be where some of the most severe crashes occur within the MPA. Right angle crashes tend to be the most common type of crash associated with a fatal or SSI.

It remains to be seen the extent to which 2020 will change overall VMT and the associated safety of the MPA's transportation network in the long run. But it is one thing APO staff will continue to observe and analyze in future iterations of this report.

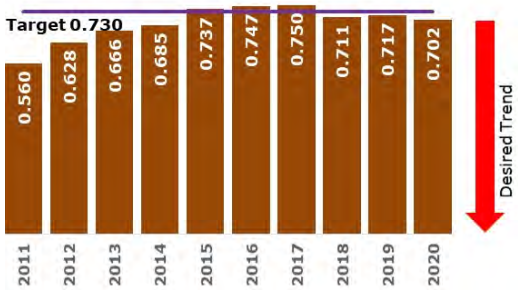
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Number of Crashes Five Year Rolling Average: Number of crashes for five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the nearest whole number.		The five year rolling average for number of crashes in 2020 was 2,491. This is a 1% increase from the 2019 five year rolling average of 2,466 and a 13.2% increase from the 10-year low of 2,200 in 2013. The APO desires the total number of crashes to decrease.
Rate of Crashes Five Year Rolling Average: Number of crashes per 100 million vehicle miles traveled (VMT) for five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the thousandth decimal place.		The five year rolling average for total crash rate in 2020 was at 196.916. This is an 8.1% decrease from the 10-year high of 214.286 in 2011. This follows the more recent trend of decreasing rates over time. The APO desires the total crash rate to decrease.
Number of Fatalities Five Year Rolling Average: Number of fatalities for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.		The five year rolling average for fatalities in 2020 was 8.8. This is an increase of 2.8 fatalities per year from the 10-year low of 6.0 in 2011 and is tied with 2019 as a 10-year high. The APO had set a 2020 target of less than 8.6 fatalities.

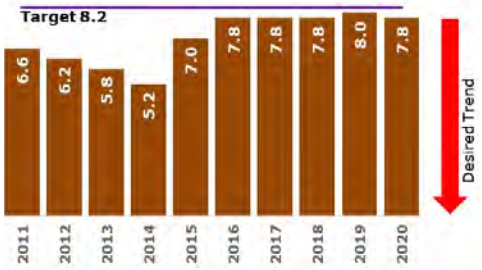
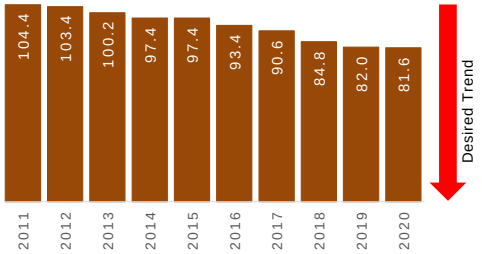
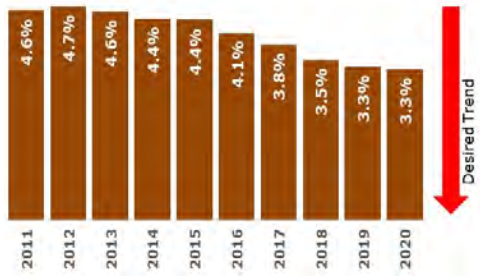
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Rate of Fatalities Five Year Rolling Average: Calculation of the number of fatalities per 100 million VMT (100M VMT) for each of the most recent five consecutive years (i.e., 2016-2020), adding the results, dividing by five, and rounding to the thousandth decimal place.		The 2020 five year rolling average for fatality rate was 0.702. This is a 2.1% decrease from the 2019 five year rolling average and an increase of 0.142 from the 10 year low of 0.560 in 2011. The APO set a 2020 fatality rate target of less than 0.730.
Number of Suspected Serious Injuries Five Year Rolling Average: Addition of the number of suspected serious injuries for each of the most recent five consecutive years (i.e., 2016 -2020), dividing by five, and rounding to the tenth decimal place.		The five year rolling average for suspected serious injuries in 2020 was 26.2. This is a 9.2% increase from the five year rolling average of 24.0 in 2019. The 2020 five year rolling average still remains below the 10 year high of 29 reported in 2011. The APO had set a 2020 target of less than 23.0 serious injuries.
Rate of Suspected Serious Injuries Five Year Rolling Average: Calculation of the number of suspected serious injuries per 100 million VMT for each of the most recent five consecutive years (i.e., 2016-2020), adding the results, dividing by five, and rounding to the thousandth decimal place.		The five year rolling average for the suspected serious injury rate in 2020 was 2.113. While this is an increase from the 2019 five year rolling average, the 2020 numbers remain below the 10 year high of 2.763 reported in 2011. While the rate of fatalities has fallen slightly, the rate of suspected serious injuries has increased. The APO had set a serious injury rate 2020 target less than 1.946.

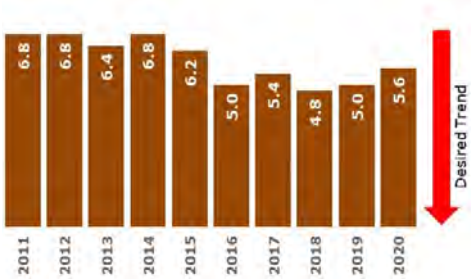
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Number of Non-Motorized Fatalities and Suspected Serious Injuries Five Year Rolling Average: Addition of the number of non-motorized fatalities and suspected serious injuries for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.		The five year rolling average for non-motorized fatalities and suspected serious injuries in 2020 was 7.8. This is a 2.5% decrease from the 10-year high recorded in 2019. The APO had set a 2020 target of less than 8.2 fatalities and suspected serious injuries.
Number of Chemical Impairment Crashes Five Year Rolling Average: Addition of the number of crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.		The five year average for number of chemical impairment crashes in 2020 was at 81.6. This is a 21.8% decrease from the five year rolling average reported in 2011 of 104.4 (the 10 year high). The APO desires the number of chemical impairment crashes to decrease.
Percent of Chemical Impairment Crashes Five Year Rolling Average: Addition of the number of chemical impairment crashes divided by the total number of crashes for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place, expressed as a percent.		The percent of chemical impairment crashes for the five year period ending in 2020 was 3.3%. This is a 1.4 percentage point decrease from the 10 year high of 4.7% in 2012. The APO desires the percent of chemical impairment crashes to decrease.

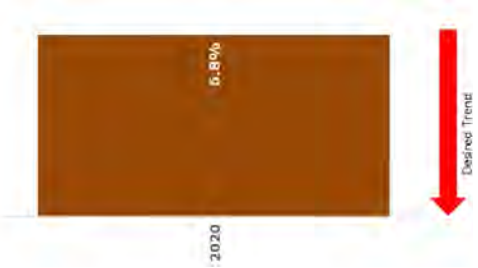
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Number of Fatal and Suspected Serious Injury Chemical Impairment Crashes Five Year Rolling Average: Addition of the number of fatal and suspected serious injury crashes wherein the driver had been drinking or taking drugs for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.		The five year average for number of fatal and suspected serious injury chemical impairment crashes in 2020 was 5.6. This is a decrease of 1.2 from the five year rolling average of 6.8 reported in 2011, 2012, and 2014. But, there is a slight increase from the previous 4 averages. The APO desires fatal and suspected serious injury chemical impairment crashes to decrease.
Percent of Fatal and Suspected Serious Injury Chemical Impairment Crashes Five Year Rolling Average: Addition of the number of fatal and suspected serious injury chemical impairment crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place, expressed as a percent.		The percent of fatal and suspected serious injury chemical impairment crashes for the five year period ending in 2020 was 16.8%. While the number of impairment crashes has slowly been declining in recent years, the level of severity has remained constant. Thus the percent of fatal and suspected serious injury crashes remains virtually unchanged. The APO desires the percent of fatal and suspected serious injury chemical impairment crashes to decrease.
Distracted Driving Crashes Five Year Rolling Average: Addition of the number of crashes of all types involving distracted driving for each of the most recent five consecutive years (i.e., 2016-2020), dividing by five, and rounding to the tenth decimal place.		The five year average for the number of distracted driving crashes in 2020 was 172.4. The way in which distracted driving was reported changed between 2015 and 2016. Data from prior years is no longer comparable to data from after the change. The APO desires the number of distracted driving crashes to decrease.

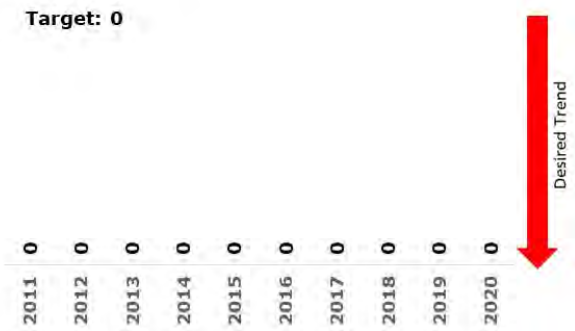
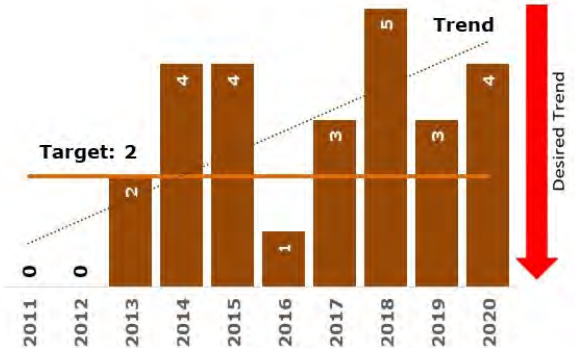
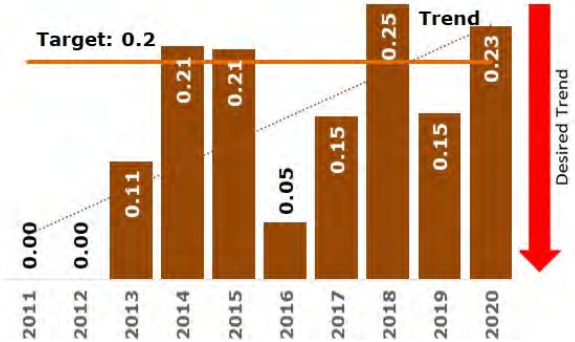
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Percent of Distracted Driving Crashes Five Year Rolling Average: Addition of the number of crashes of all types involving distracted driving divided by the total number of crashes for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place, expressed as a percent.		The percent of distracted driving crashes for the five year period ending in 2020 was 6.8%. The APO desires the percent of distracted driving crashes to decrease.
Number of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average: Addition of the number of fatal and suspected serious injury crashes of all types involving distracted driving for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place.		The number of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2020 was 2.2. The APO desires the number of fatal and suspected serious injury distracted driving crashes to decrease.
Percent of Fatal and Suspected Serious Injury Distracted Driving Crashes Five Year Rolling Average: Addition of the number of fatal and suspected serious injury distracted driving crashes divided by the total number of fatal and suspected serious injury crashes for each of the most recent five consecutive years (i.e., 2016-2020), and rounding to the tenth decimal place, expressed as a percent.		The percent of fatal and suspected serious injury distracted driving crashes for the five year period ending in 2020 was 7%. The APO desires the percent of fatal and suspected serious injury distracted driving crashes to decrease.

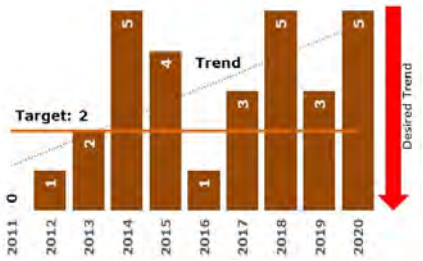
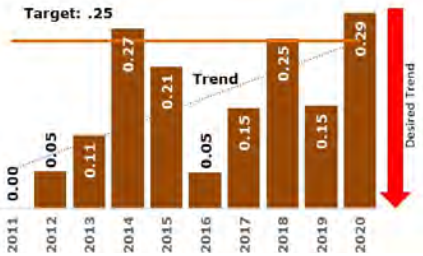
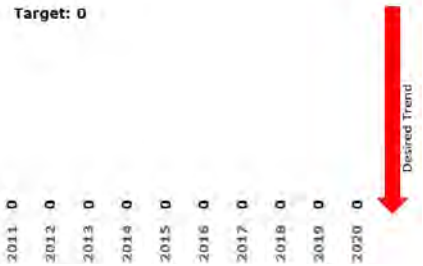
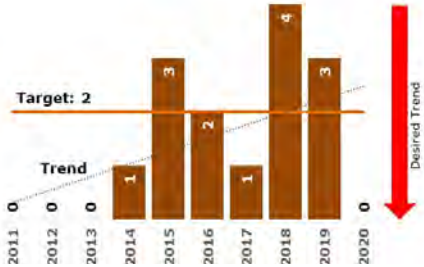
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Number of Fixed Route (FR) Fatalities: Total number of reportable FR fatalities.		No reportable fixed route fatalities have occurred over the past 10 years. The APO desires this trend to continue.
Number of FR Injuries: Total number of reportable FR injuries.		Four reportable FR injuries occurred in 2020, one more than 2019. The APO desires the number of FR injuries to decrease.
Rate of Injuries (FR): Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The rate of reportable FR injuries per 65,000 vehicle revenue miles was 0.23 in 2020. This is an increase of 0.08 from 0.15 in 2019. The APO desires the rate of FR injuries to decrease.

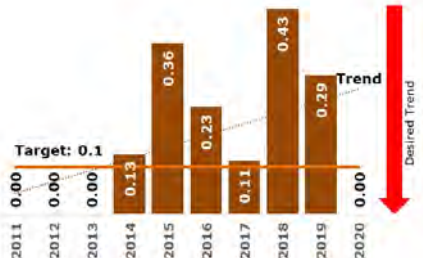
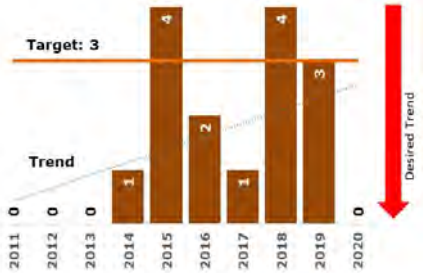
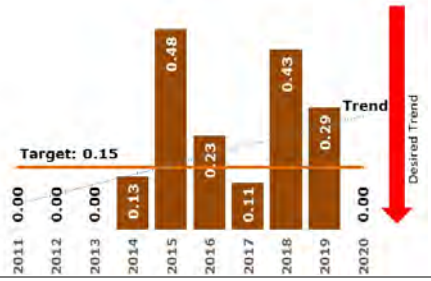
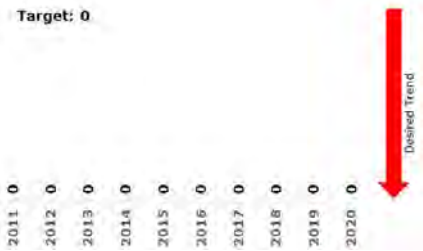
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Number of FR Safety Events: Total number of reportable FR safety events.		Five safety events were reported in 2020. This is two more safety events that what was reported in 2019. The APO desires the number of FR safety events to decrease.
Safety Event Rate (FR): Number of fixed route safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The 2020 FR reportable safety event rate per 65,000 vehicle revenue miles was 0.29. This is an increase of 0.14 from the 0.15 in 2019. The APO desires the rate of FR safety events to decrease.
Number of Dial-a-Ride (DAR) Fatalities: Total number of reportable DAR fatalities.		No reportable DAR fatalities have occurred over the past 10 years. The APO desires this trend to continue.
Number of DAR Injuries: Total number of reportable DAR injuries.		There were no reportable DAR injuries in 2020. The APO desires the number of DAR injuries to remain at zero.

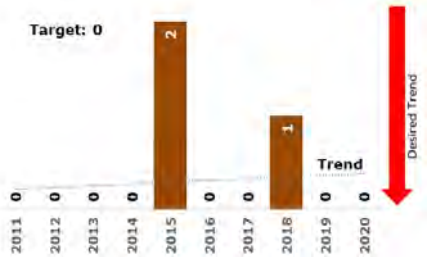
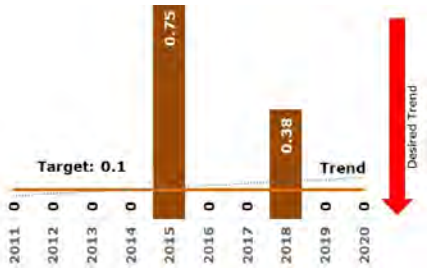
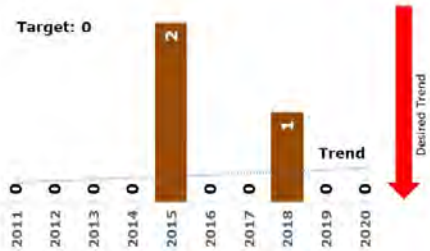
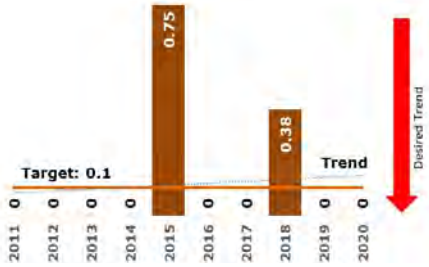
Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Rate of Injury (DAR): Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The rate of reportable DAR injuries per 65,000 vehicle revenue miles decreased from 0.29 in 2019 to zero in 2020. The APO desires the rate of DAR injuries to remain at zero.
Number of DAR Safety Events: Total number of reportable DAR safety events.		No DAR safety events were reported in 2020, down from the three that were reported in 2019. The APO desires the number of DAR safety events to remain at zero.
Safety Event Rate (DAR): Number of safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The rate of reportable DAR safety events per 65,000 vehicle revenue miles decreased from 0.29 in 2019 to zero in 2020. The APO desires the rate of DAR safety events to remain at zero.
Number of Northstar Commuter Bus (NCB) Fatalities: Total number of reportable NCB fatalities.		No fatalities have been reported since the NCB service began in 2011. The APO desires the number of NCB fatalities to stay at zero.

Goal 1: Maintain and Enhance Transportation Safety

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Number of NCB Injuries: Total number of reportable NCB injuries.		No NCB injuries were reported in 2020. This is down from the two injuries reported in 2015 and one reported in 2018. The APO desires the number of NCB injuries to stay at zero.
Rate of Injuries (NCB): Number of injuries divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The rate of reportable NCB injuries per 65,000 vehicle revenue miles was at 0.00 in 2020. This is down from the reported injury rates of 0.75 in 2015 and 0.38 in 2018. The APO desires the rate of NCB injury rate to remain at zero.
Number of NCB Safety Events: Total number of reportable NCB safety events.		There were no reportable safety events in 2020. This was down from the two safety event reported in 2015 and one in 2018. The APO desires the number of NCB safety events to remain at zero.
Safety Event Rate (NCB): Number of safety events divided by total vehicle revenue miles expressed per 65,000 vehicle revenue miles.		The rate of reportable NCB safety events per 65,000 vehicle revenue miles was at 0.00 in 2020. This was down from the safety event rate of 0.75 in 2015 and 0.38 in 2018. The APO desires the NCB safety events to remain at zero.

Goal 1: Maintain and Enhance Transportation Safety

Fatalities

Number of fatalities for the most recent 10 consecutive years.

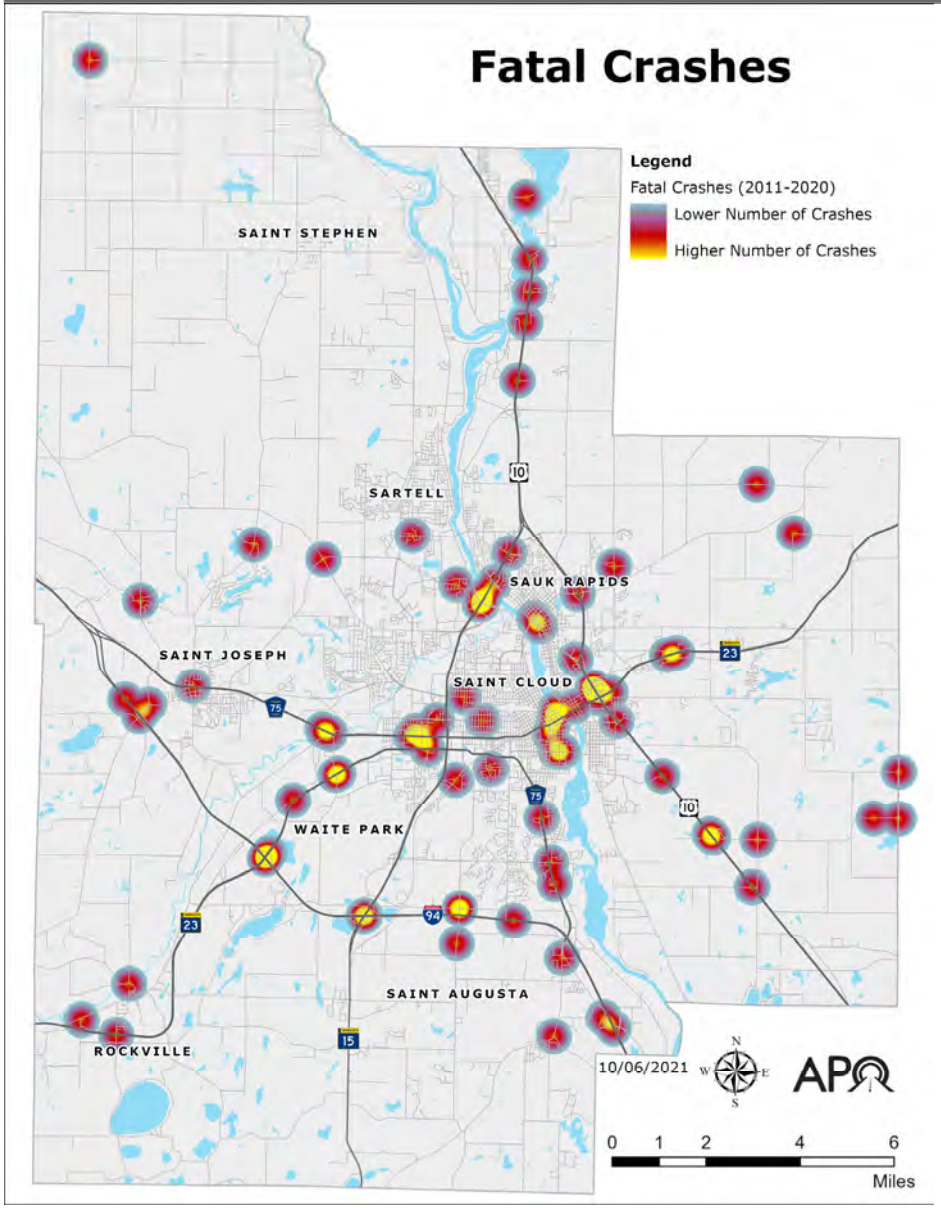


Figure 1.1-Fatal Crashes *Data Source: MnDOT.*

Fatal Crashes

Displayed in Figure 1.1 are traffic fatalities and their locations within the APO planning area from 2011 to 2020. The majority of these crashes occurred on the National Highway System (NHS), which typically has a higher annual average daily traffic (AADT) count.

- *Nearly 29% of fatal crashes involve an active transportation user.*
- *The percent of fatal crashes in which an active transportation user was involved increased from 25% in 2011-15 to 32.6% in 2016-20.*
- *Single vehicle crashes account for nearly 22% of fatal crashes.*
- *Right angle crashes are most common, accounting for 26.5% of all fatal crashes, and half of all fatal crashes occur at an intersection.*
- *Crashes in which someone is under the influence account for 5.1% of crash fatalities.*
- *Nearly 70% of fatal crashes included at least one male driver, even though males make up about 49.7% of the areas population.*
- *Forty-one percent of crashes that occur when it is dark out result in a fatality.*

Seriousness of Crash	
Fatal crash	Any crash in which a death has occurred as a result of the crash.
Suspected Serious Injury	Includes injuries serious enough to prevent normal activity for at least one day, such as massive blood loss, broken bones, etc.
Suspected Minor Injury	Injuries that are evident at the scene, but not serious enough to prevent normal activity, such as cuts, bruises, limping, etc.
Possible injury	Non-visible injuries but there are complaints of pain or momentary unconsciousness, such as headaches, etc.
Property Damage	No injuries as a result of the crash.

Goal 1: Maintain and Enhance Transportation Safety

Suspected Serious Injuries

Number of suspected serious injuries for the most recent 10 consecutive years.

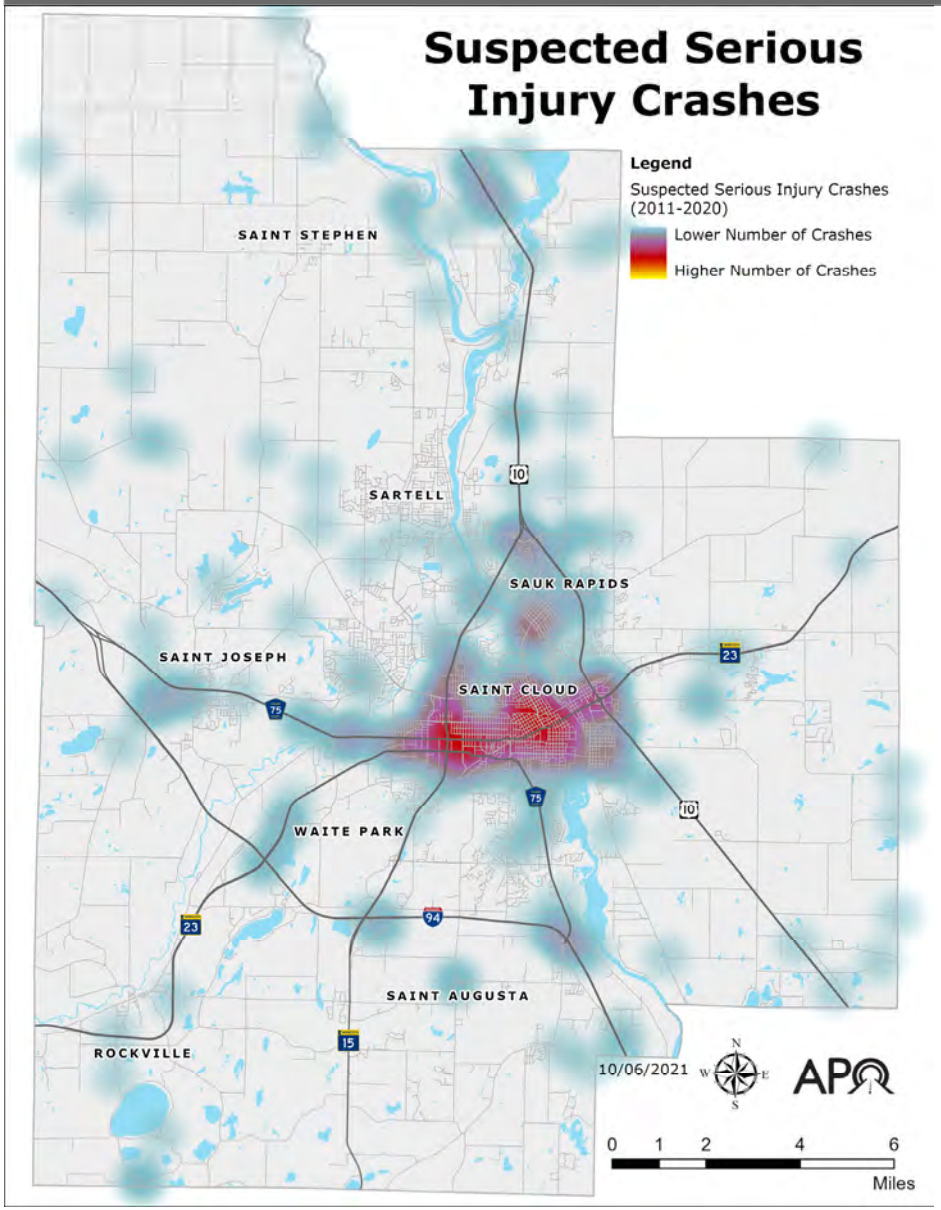


Figure 1.2-Suspected Serious Injury Crashes *Data Source: MnDOT.*

Suspected Serious Injury Crashes

Figure 1.2 illustrates suspected serious injury crashes and their locations within the APO planning area from 2011 to 2020.

- *Active transportation users are involved in 21% of suspected serious injury crashes.*
- *Single-vehicle crashes account for 28.6% of suspected serious injury crashes.*
- *Right-Angle crashes make up 21% of suspected serious injury crashes.*
- *Intersections account for 48.3% of suspected serious injury crashes.*
- *Crashes in which a driver was under the influence account for 12.4% of suspected serious injury crashes.*
- *Nearly 66% of suspected serious injury crashes involve at least one male driver, even though males make up about 49.7% of the areas population.*
- *Approximately 34.1% of suspected serious injury crashes occur when it is dark outside.*

The average cost per crash was developed in 2021 by U.S. Department of Transportation on a per crash basis for use in calculating benefit/cost comparisons. The costs include economic cost factors and a measure of the value of lost quality of life that society is willing to pay to prevent deaths and injuries associated with motor vehicle crashes. For more information about the cost analysis visit the *Benefit-Cost Analysis Guidance for Discretionary Grant Programs guide (https://bit.ly/3MFq53N).*

Average Cost Per Crash	(2019 Dollars)
Fatal	$10,900,000
Suspected Serious Injury	$521,300
Suspected Minor Injury	$142,000
Possible Injury	$72,500
Property Damage	$3,700

Goal 1: Maintain and Enhance Transportation Safety

Non-Motorized Fatalities and Suspected Serious Injuries

The number of active transportation fatalities and non-motorized suspected serious injuries for each of the most recent 10 consecutive years.

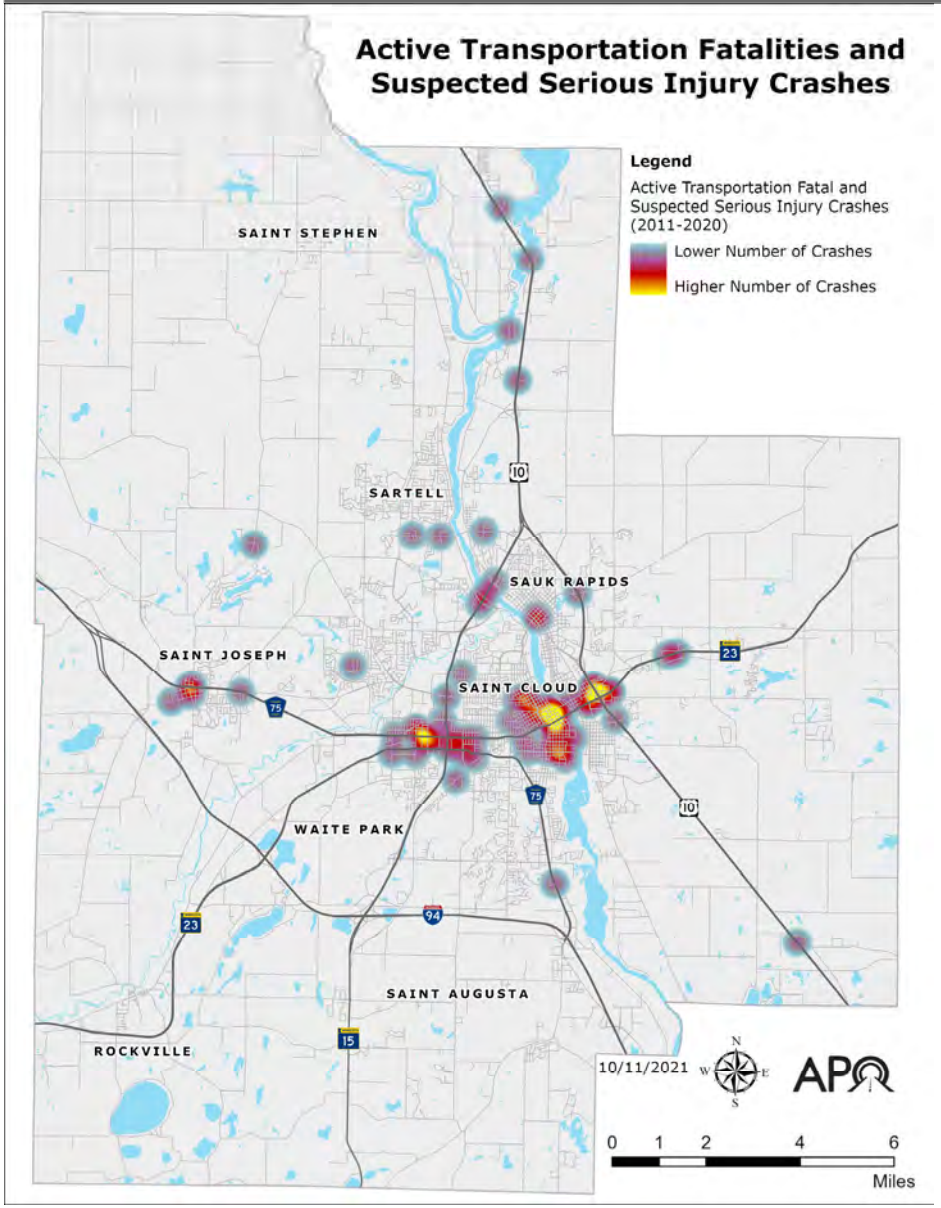


Figure 1.3– Active Transportation Fatalities and Suspected Serious Injuries
Data Source: MnDOT.

Active Transportation Fatalities and Suspected Serious Injury Crashes

Figure 1.3 illustrates active transportation fatalities and suspected serious injury crashes and their locations within the APO planning area from 2011 to 2020. Active transportation involves any non-motorized user, such as a person or walks or cycles.

- Approximately 60% of drivers were males in active transportation fatality and suspected serious injury crashes.
- Also, approximately 60% of active transportation users involved in fatal and suspected serious injury crashes were males.
- Four-way intersections make up 47.1% of these crashes locations, while 37.1% do not occur at an intersection.
- Chemical impairment is responsible for 10.6% of active transportation fatality and suspected serious injury crashes.
- A majority, 58.5%, of these crashes occur when it is dark outside.
- Clear weather conditions accounted for 74.3% of these crashes.

Safe Speeds Save Lives

Risk to pedestrians increases as driver speed increases.

- "13% of pedestrians will die or suffer a severe injury hit by a vehicle a ***20 mph.***"
- "40% of pedestrians will die or suffer a severe injury hit by a vehicle a ***30 mph.***"
- "73% of pedestrians will die or suffer a severe injury hit by a vehicle a ***40 mph.***"

Data Source: National Highway Traffic Safety Administration (NHTSA)— National Pedestrian Safety Month 2021 Resource Guide.

Goal 1: Maintain and Enhance Transportation Safety

Chemical Impairment Crashes

The number of crashes wherein the driver had been drinking or taking drugs.

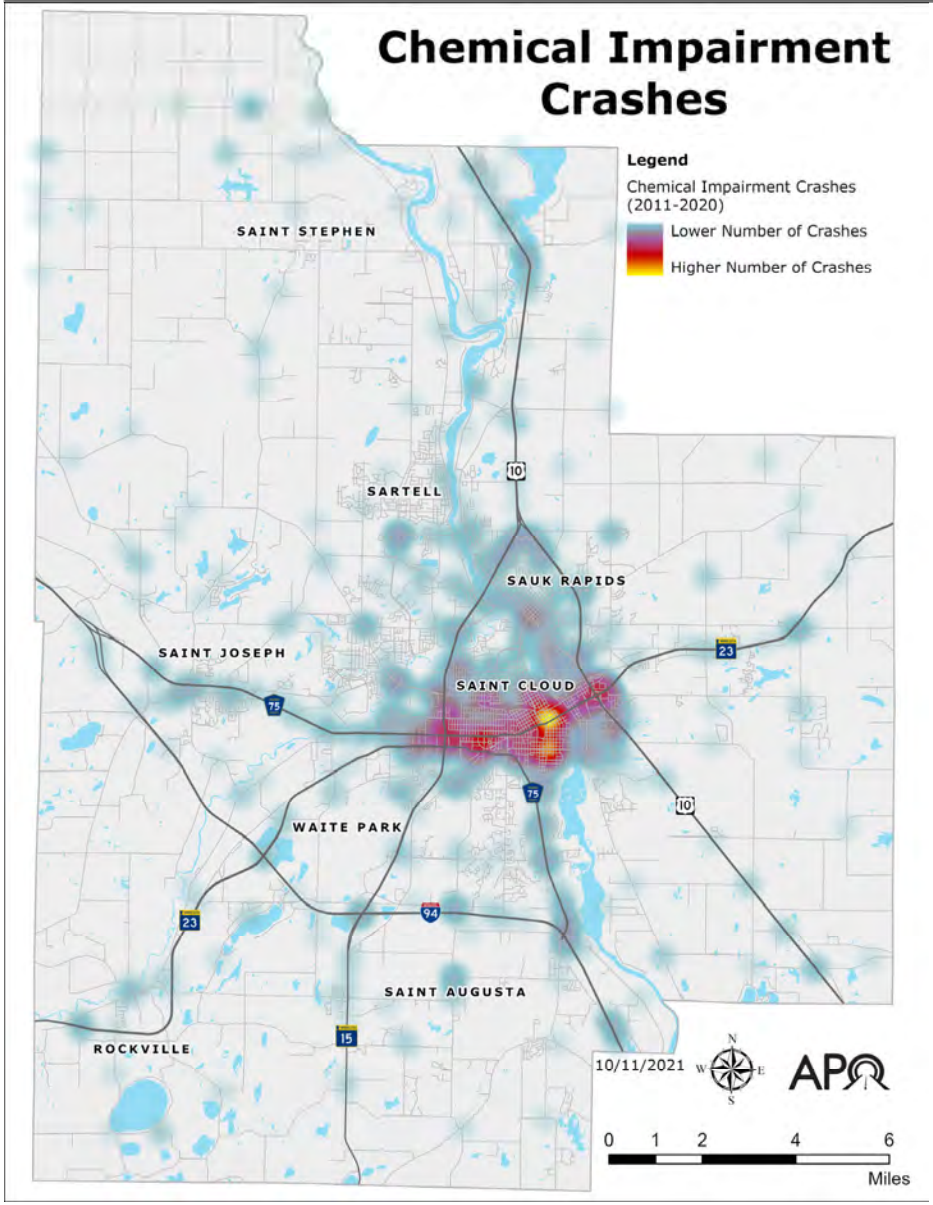


Figure 1.4-Chemical Impairment Crashes *Data Source: MnDOT.*

Chemical Impairment Crashes

Figure 1.4 displays the locations where chemical impairment crashes occurred in the APO planning area from 2011 to 2020.

- *Property damage only crashes account for 58.9% of chemical impairment crashes.*
- *Crashes involving a single vehicle account for 48.7% of chemical impairment crashes.*
- *Rear end crashes account for 16.9% of chemical impairment crashes.*
- *Males between the ages of 21 and 34 account for 49.2% of chemical impairment crashes, while only making up about 8% of the areas population.*
- *Approximately 61.4% of chemical impairment crashes occur when it is dark outside.*

Why Driving After Drinking is Dangerous

"Driving impaired by any substance—alcohol or other drugs, whether legal or illegal—is against the law in all 50 states and the District of Columbia. Even in states where marijuana laws have changed, it is still illegal to drive under the influence of the drug.

"Approximately one-third of all traffic crash fatalities in the United States involve drunk drivers (with BACs of .08 g/dL or higher). In 2019, there were 10,142 people killed in these preventable crashes. In fact, on average over the 10-year period from 2010-2019, more than 10,000 people died every year in drunk-driving crashes."

Data Source: NHTSA.

Goal 1: Maintain and Enhance Transportation Safety

Distracted Crashes

Number of crashes involving distracted drivers.

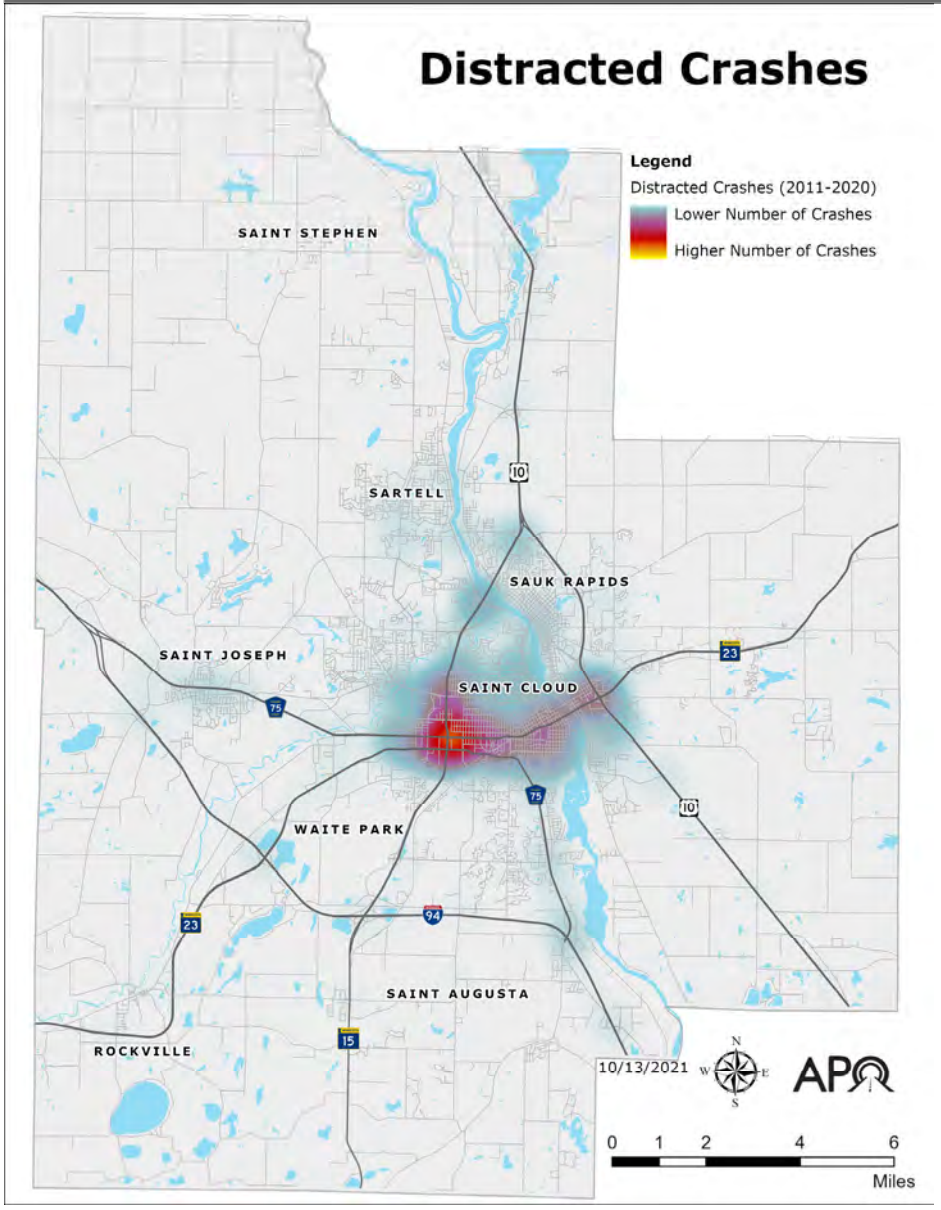


Figure 1.5-Distracted Crashes *Data Source: MnDOT.*

Distracted Crashes

Figure 1.5 displays the locations where distracted crashes occurred in the APO planning area from 2011 to 2020.

- *Property damage only crashes account for 66.9% of distracted crashes.*
- *Rear ended crashes resulted in 72.5% of distracted crashes.*
- *Intersections account for 59.2% of distracted crashes locations.*
- *Approximately 79.6% of distracted crashes occur during daylight hours.*
- *Drivers of ages 21-29 are involved in nearly 25% of distracted crashes.*

What Is Distracted Driving?

"Distracted or inattentive driving is when a driver engages in any activity that might distract them from the primary task of driving — and increases their risk of crashing."

"It is illegal for drivers of all ages to compose, read, or send electronic messages or access the Internet on a wireless device when the vehicle is in motion or part of traffic. This includes being stopped in traffic or at a light."

"You cannot drive safely unless the task of driving has your full attention. Any non-driving activity you engage in is a potential distraction and increases your risk of crashing."

Data Source: NHTSA.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Increase the accessibility and mobility options for people and freight across and between all modes for all users

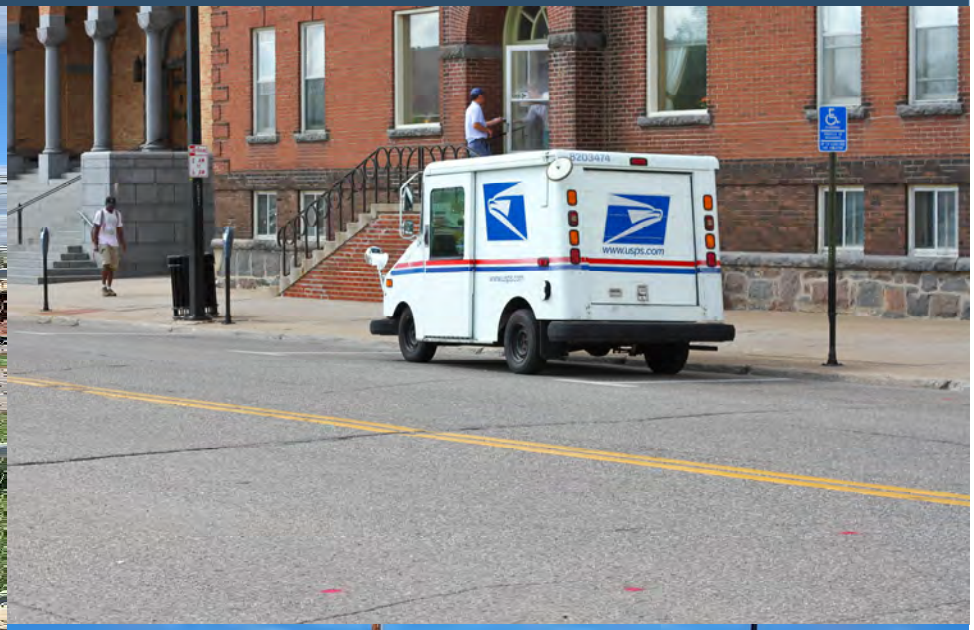
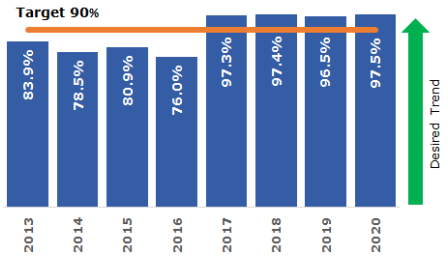
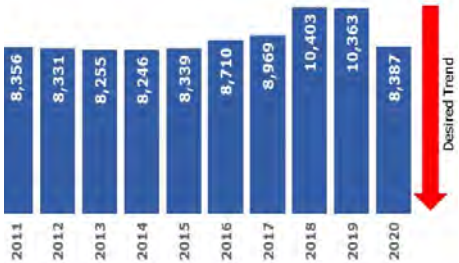


Photo courtesy of Saint Cloud APO and Metro Bus.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Trend	Analysis
Non-Interstate NHS Reliability: Annual percent of person-miles traveled that are reliable.		The non-Interstate NHS has continued to operate reliably over the last four years. The APO has set a 2021 target of at least 90% reliability.
Interstate Reliability: Annual percent of person-miles traveled that are reliable.		I-94 continues to operate extremely well with no reliability issues in the last 10 years. The APO has set a 2021 target of at least 100% reliability.
Vehicle Miles Traveled (VMT): Number of miles traveled by motor vehicle expressed in billions.		VMT has decreased 17.5% from 1.420 billion miles in 2019 to 1.171 billion miles in 2020. This decrease is likely due to the many shutdowns due to the COVID-19 pandemic. The APO does not have a set target.
VMT Per Capita: Number of miles traveled by motor vehicle divided by population.		VMT per capita decreased 19.1% from 10,363 in 2019 to 8,387 in 2020. This decrease is likely due to the reduction in VMT associated with the COVID-19 shutdowns. The APO does not have a set target but desires VMT per capita to decrease.

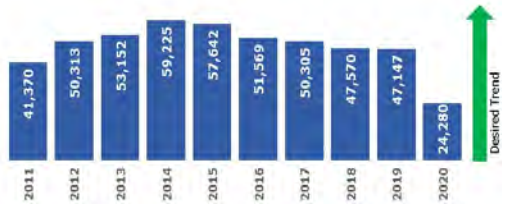
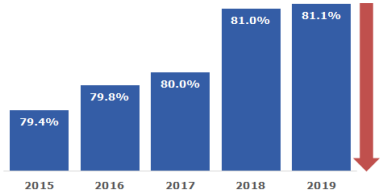
Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Number of Annual Fixed Route (FR) Transit Riders: Annual number of transit riders by FR (in millions).		Due in part to the COVID-19 pandemic, the number of annual FR transit riders has decreased by 35.1% from the 2019 number of 1.48 million to 0.96 million in 2020. Since 2011, FR ridership has fallen nearly 58%. The APO desires the number of fixed route transit riders to increase.
Passengers Per Revenue Mile (FR): The number of passengers divided by the number of miles traveled by FR.		FR passengers per revenue mile has decreased by 0.3 from 1.16 in 2019 to 0.86 in 2020. The number of revenue miles has also been decreasing over the years. The APO desires FR passengers per revenue mile to increase.
Passengers Per Revenue Hour (FR): The number of passengers divided by the number of hours traveled by FR.		FR passengers per revenue hour has decreased by 3.8 from 15.2 in 2019 to 11.4 in 2020. The number of revenue hours dropped significantly The APO desires FR passengers per revenue hour to increase.
Number of Annual Dial-a-Ride (DAR) Transit Riders: Annual number of transit riders by DAR.		Due in part to the COVID-19 pandemic, the number of annual DAR transit riders has decreased by 35.2% from 152,239 in 2019 to 98,687 in 2020. The APO desires the number of DAR transit riders to increase.
Passengers Per Revenue Mile (DAR): The number of passengers divided by the number of miles traveled by DAR.		DAR passengers per revenue mile has decreased by 0.01 from 0.23 in 2019 to 0.22 in 2020. The number of revenue miles has been decreasing over the years. The APO desires DAR passengers per revenue mile to increase.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud APO Transportation Results Scorecard

Transit Measure	Multi-Year Trend	Analysis
Passengers Per Revenue Hour (DAR): The number of passengers divided by the number of hours traveled by DAR.		DAR passengers per revenue hour decreased by 0.26 from 3.01 in 2019 to 2.75 in 2020. Revenue hours had been increasing, however in 2020 they decrease significantly. The APO desires DAR passengers per revenue hour to increase.
Number of Annual Northstar Commuter Bus (NCB) Transit Riders: Annual number of transit riders on NCB.		Annual NCB transit riders has decreased by 49% from 47,147 in 2019 to 24,280 in 2020. Due to COVID-19 and a decline in ridership, Northstar rail use greatly decreased and due to that the bus use greatly decreased as well in 2020. The APO desires the NCB transit ridership to increase.
Passengers Per Revenue Mile (NCB): The number of passengers divided by the number of miles traveled by NCB.		Passengers per revenue mile have decreased by 0.05 from 0.27 in 2019 to 0.22 passengers per revenue mile in 2020. Revenue miles for NCB fell due to COVID-19. The APO desires NCB passengers per revenue mile to increase.
Passengers Per Revenue Hour (NCB): The number of passengers divided by the number of hours traveled by NCB.		Passengers per revenue hour have decreased by 1.69 from 8.01 in 2019 to 6.32 passenger per revenue hour in 2020. Revenue hours fell due to COVID-19. The APO desires NCB passengers per revenue hour to increase.
Percent of Single Occupancy Vehicle (SOV) Travel: Percent of travel alone in a motorized vehicle.		Updated information for 2020 was not available at the time of publication.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Level of Travel Time Reliability

Annual percent of person-miles traveled on the Interstate and non-Interstate National Highway System (NHS) that are reliable.

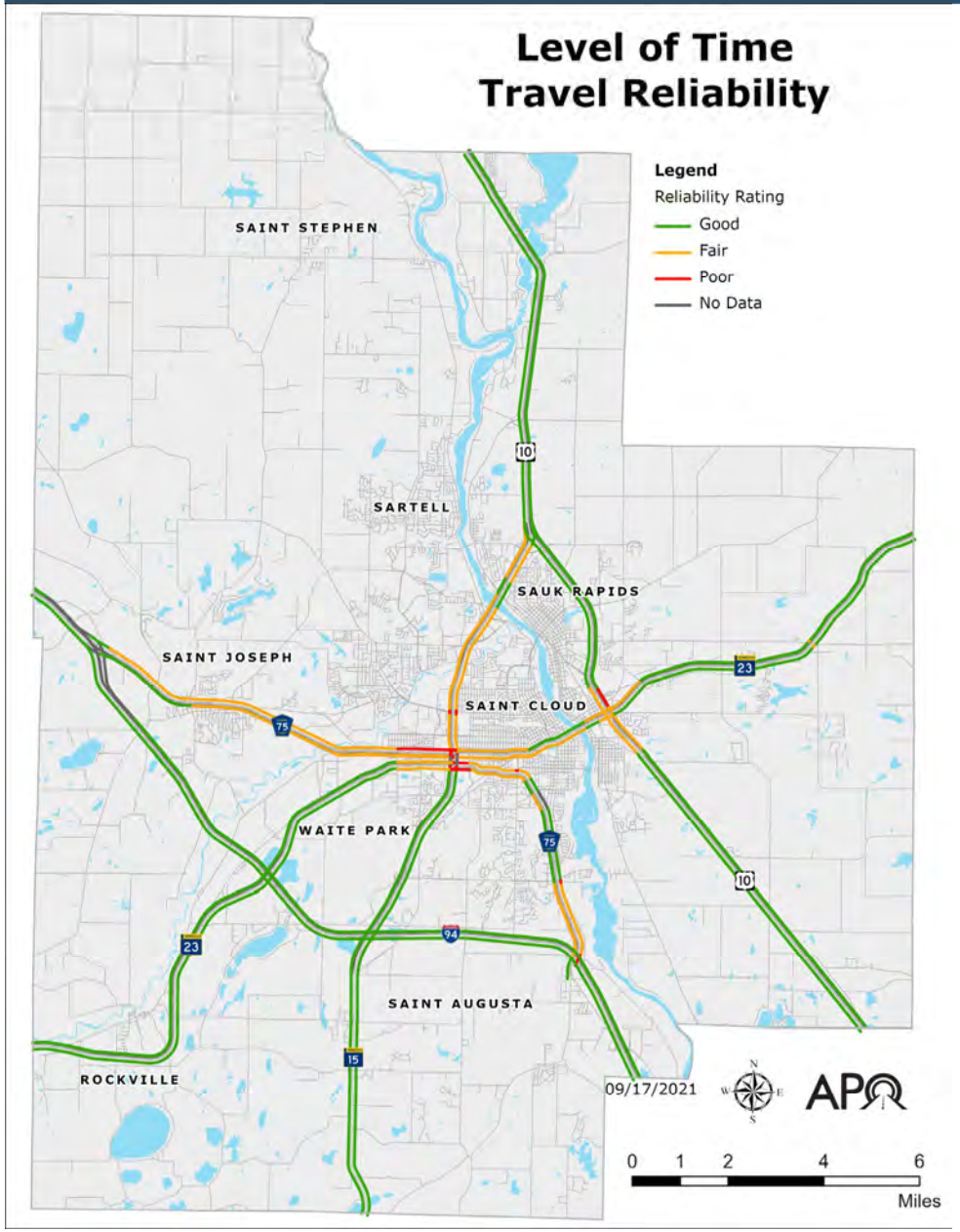


Figure 2.1-Time Travel Reliability *Data Source: NPMRDS.*

Level of Time Travel Reliability

Time travel reliability ratings consider the average amount of time it would take for a vehicle to travel at the 50th percentile speed or average on a stretch of roadway. For example, if a one mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

The areas within the APO planning boundaries which experience unreliable travel time above 1.5 include, but are not limited to: the westbound lane of Division Street from MN 15 to 10th Avenue N in Waite Park; both lanes of Second Street S from MN 15 to 33rd Avenue S; and northbound US 10 from the MN 23 exit north to the Benton Drive South exit.

⇒ Level of Travel Time Reliability (LOTTR) is defined as the ratio of the 80th percentile travel time of a reporting segment to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS).

⇒ INRIX was selected by FHWA to collect Global Positioning System (GPS) probe data from a wide array of commercial vehicle fleets, connected cars, and mobile apps to produce the NPMRDS travel time data.

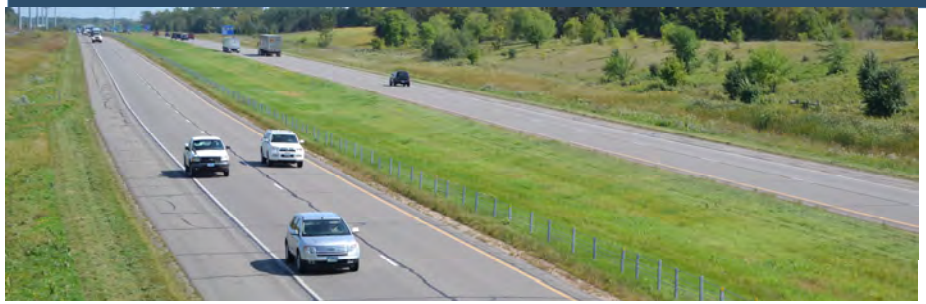
⇒ Data is collected in 15-minute segments for the following time periods:

- ◊ 6 - 10 a.m. weekdays
- ◊ 10 a.m. - 4 p.m. weekdays
- ◊ 4 - 8 p.m. weekdays
- ◊ 6 a.m. - 8. p.m. weekends

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) is a measure of all miles driving within an area within a specific period.



Interstate 94 in Saint Cloud. Photo courtesy of the APO.

What influences VMT?

VMT can be influenced by a multitude of factors including population growth, the health of the economy, fuel and parking costs, accessibility of public transit and other transportation alternatives, weather, mix of land uses, and more.

What Do Changes in VMT Mean?

VMT reflects the extent of motor vehicle operation on roadways. Increase in VMT typically correlates to a region's growth in population and economic development. However, increases in VMT also contribute to traffic congestion and air pollution. Since regional population is growing and the APO cannot feasibly reduce absolute VMT, it is important to target VMT by population (per capita VMT). Reductions in VMT per capita will improve air quality and congestion on the transportation system.

Municipality	Annual Vehicle Miles Traveled (2019)	Annual Vehicle Miles Traveled (2020)	Percent Change (2019-2020)
Saint Cloud	563,919,202	464,902,416	-17.6%
Sartell	82,326,235	68,010,746	-17.4%
Sauk Rapids	62,989,692	52,901,252	-16.0%
Waite Park	84,173,029	71,689,036	-14.8%
Saint Joseph	40,742,029	34,185,400	-16.1%
Saint Augusta	63,461,391	54,096,601	-14.8%
Rockville	60,929,312	54,306,336	-10.9%
Saint Stephen	3,831,863	3,541,016	-7.6%
Total	962,372,752	803,632,803	-16.5%

Data Source: MnDOT.

VMT Travel by Municipality

Vehicle miles traveled in 2020 was heavily impacted by the COVID-19 pandemic. Many businesses such as restaurants, bars and other entertainment related establishments were required to close and non-essential workers were required to work from their place of residence under Minnesota's Peace Time Emergency Order. In the APO region VMT in the municipalities dropped 16.5% from the previous year.

Strategies to Lower VMT:

- Complete Streets.
- Encourage and promote biking and walking.
- Expand public transportation.
- High-occupancy vehicle lanes.
- Promote connectivity.
- Ride-sharing programs.
- Safe Routes to School.
- Traffic calming.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Means of Transportation to Work

Percent of single-occupancy vehicle (SOV) travel.

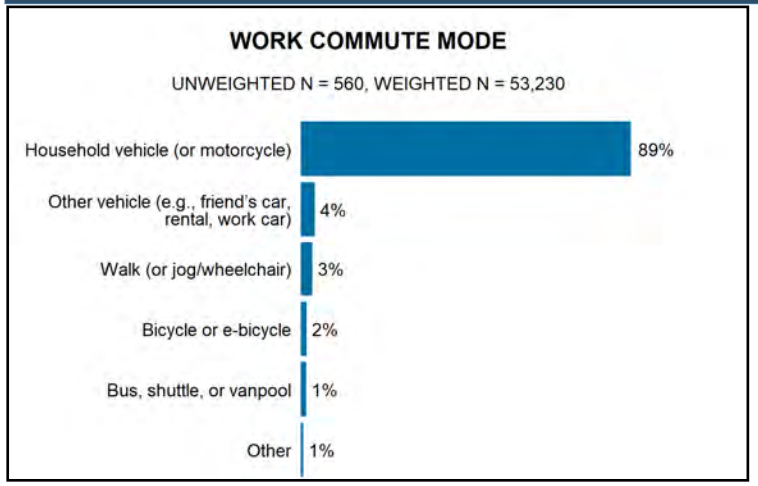


Figure 2.3-Means of Transportation to Work
Data Source: St. Cloud APO

Means of Transportation to Work

Depicted in Figure 2.3, of workers 15 years and older 89% (64,460) used a household car, truck, van, or motorcycle as their means of transportation to work.

The next most common forms of work commuting transportation include: using another vehicle such as a friend's car or a work car (4%), walking (3%), and biking (2%). Buses, taxis and other means are all at or below 1%.

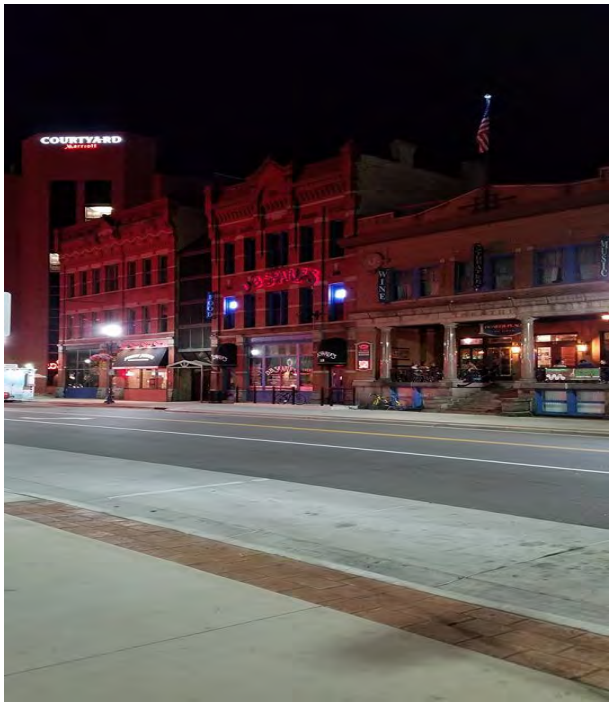
Compared with 2015-2019 ACS Five Year Estimates, means of transportation to work by all modes have remained fairly constant with public transportation decreasing slightly and bicycling increasing slightly.

Region's Top 10 Employers and the Number of Employees

- Saint Cloud Hospital/CentraCare - 7,541
- Saint Cloud VA Health Care System - 1,850
- State of Minnesota* - 1,838
- Saint Cloud Area School District 742 - 1,800
- Stearns County - 954
- Fulfillment Distribution Center - 900
- College Saint Benedict/Saint John's University - 868
- Coborn's, Inc - 755
- New Flyer of America - 730
- Bernick's - 680

**Includes Saint Cloud State University, Saint Cloud Technical and Community College, Saint Cloud Correctional Facility, and MnDOT.*

Data Source: Saint Cloud Area Chamber of Commerce.



Goal 2: Increase System Accessibility, Mobility, and Connectivity

Saint Cloud Metropolitan Transit Commission (MTC)

The Saint Cloud Metropolitan Transit Commission (MTC) was created by the Minnesota Legislature in 1969 to operate as a transit commission. The MTC – more commonly known as Saint Cloud Metro Bus or simply "Metro Bus" – is responsible for the daily management, operation, and maintenance of Fixed Route (FR), Dial-a-Ride (DAR), and Northstar Commuter Bus (NCB) systems. The transit commission provides service for the communities of Saint Cloud, Sartell, Sauk Rapids, and Waite Park.

The Metro Bus FR service operates seven days a week and includes 17 regular public routes as well as three routes servicing Saint Cloud State University (SCSU). However, the service with the SCSU routes was suspended at least since July 2020 due to contract negotiation issues. The system includes four transit hubs: the Downtown Saint Cloud Transit Center, Crossroads Center mall, the Miller Learning Resources Center at SCSU and Epic Shopping Center in Sartell. COVID-19 influenced the service of Metro Bus as seen through a regular route being dropped and several routes being changed from half-hour to hour service.

Metro Bus by the numbers:

- ⇒ ***People who ride the bus daily 5 or more days a week make up 77% of riders.***
- ⇒ ***About 31% of riders have been riding for 6+ years.***
- ⇒ ***While 44% of riders have been riding for under 2 years.***
- ⇒ ***Work is the most common trip purpose for riders with 46% of trips being for work.***
- ⇒ ***Although school is a close second with 39% of trips being for school purposes.***
- ⇒ ***There are 850+ signed bus stops throughout the four-city transit***
- ⇒ Of people who use the bus, 84% do not have a car available to them.
- ⇒ Most riders (48%) are aged 18-29.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Fixed Route Buses

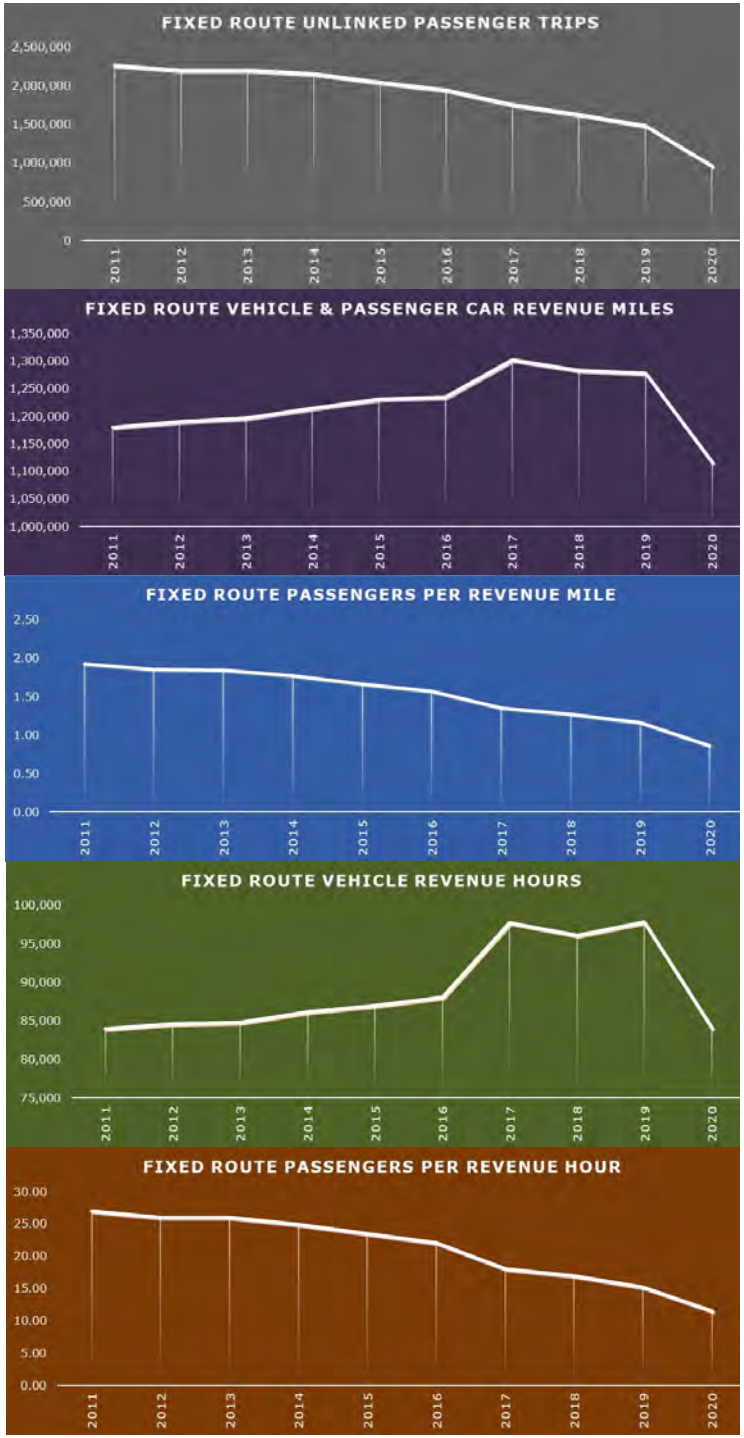
Photo courtesy of Saint Cloud MTC.

Fixed Route Buses

Fixed route passengers per revenue mile decreased by 0.76 from a peak of 1.92 in 2011 to a low of 1.16 in 2020. In addition, passengers per revenue hour also experienced a decline — down 1.06 between 2011 and 2020. While revenue hours had been increasing over time, there was a sharp decline due in part to COVID-19 shutdowns. Revenue miles has been on a steady decline.

FR has experienced a steady decline of passenger trips since its peak ridership numbers in 2011. This could be due to many factors such as gas prices or the growth of on-demand shared transportation sources such as Uber and Lyft that have entered the market. This decline is also due to COVID-19 shutdowns and the overall decrease in travel with some people now working from home and some concerned about their health on public transportation.

43	$8.25	6.7
Fixed route buses	Operating expense per vehicle revenue mile for fixed route buses	Average age of fixed route buses



Data Source: National Transit Database (NTD).

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Dial-a-Ride Buses

Photo courtesy of Saint Cloud MTC.

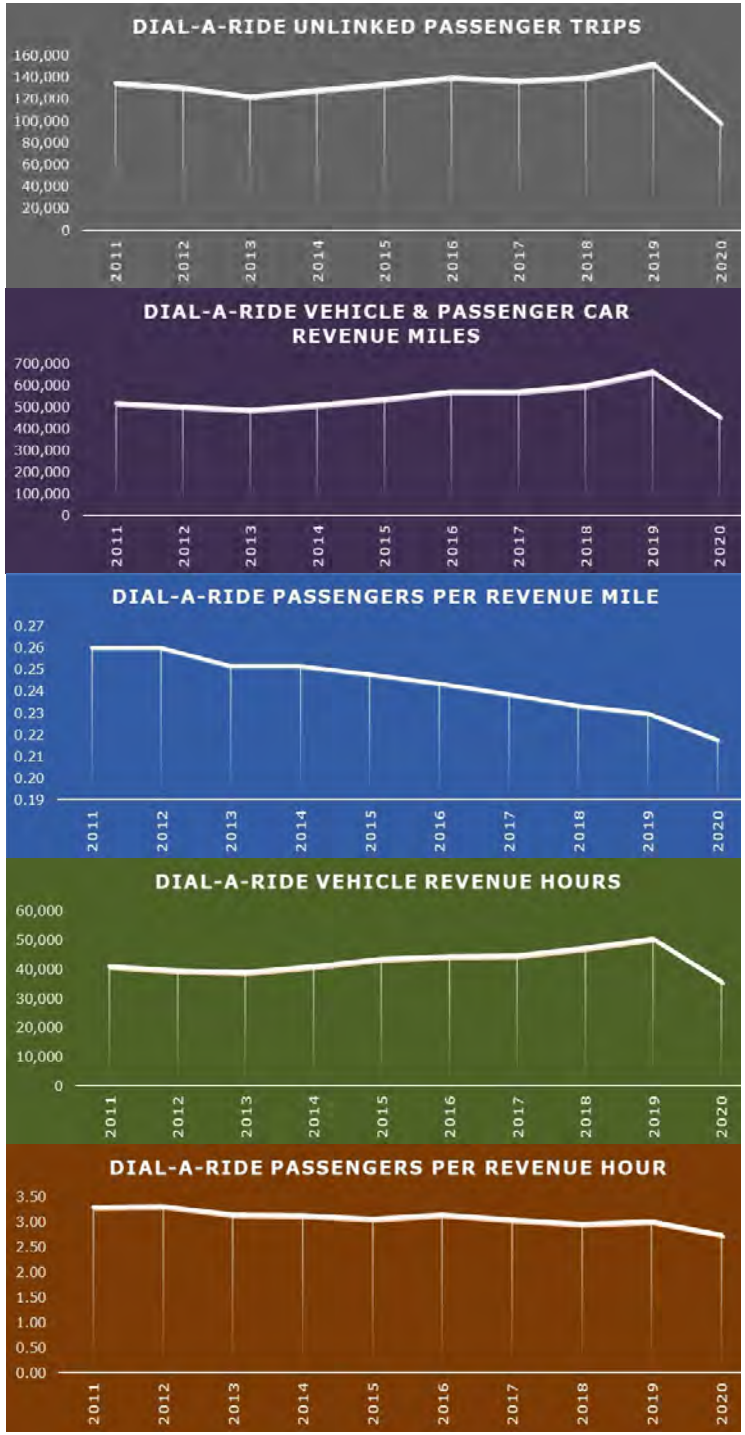
Dial-a-Ride Buses

Metro Bus Dial-a-Ride (DAR) is a shared ride service for individuals with disabilities who are unable to ride fixed route buses and require door-to-door, driver-assisted service.

Similar to FR service, DAR passengers per revenue mile (PPRM) and passengers per revenue hour (PPRH) have decreased between 2011 and 2020 — down 0.04 PPRM and 0.54 PPRH. From 2011-2019 both DAR revenue miles and vehicle revenue hours had increased, however due in part to COVID-19 shutdowns, these have both decreased to below 2011 levels in 2020. Despite these similar trends between DAR and FR, DAR ridership had been increasing until 2020 when there was a significant decline of 53,552 trips.

COVID-19 had differing magnitudes of effect for FR and DAR. Compared to FR, DAR experienced a similar level of decline relative to their normal ridership numbers. However, the change in PPRM seen by DAR is relatively negligible (.01) compared to the larger change noticed in FR (.3). FR PPRH has fallen to below half of 2011 levels while DAR has stayed close to previous levels despite the pandemic.

32	$9.75	$123.25
DAR buses	Operating expenses per passenger mile for DAR buses	Operating expenses per vehicle revenue hour for DAR buses



Data Source: NTD.

Goal 2: Increase System Accessibility, Mobility, and Connectivity

Northstar Commuter Buses

Photos courtesy of Saint Cloud MTC and MnDOT.

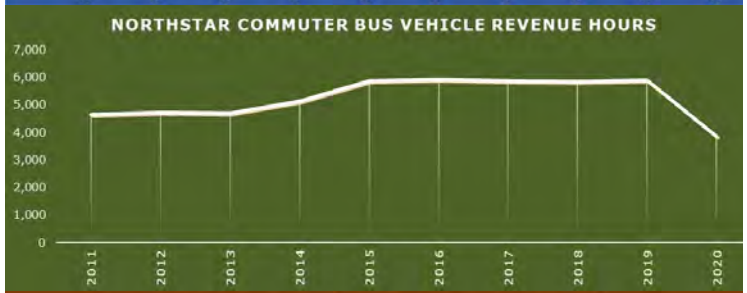
Northstar Commuter Bus

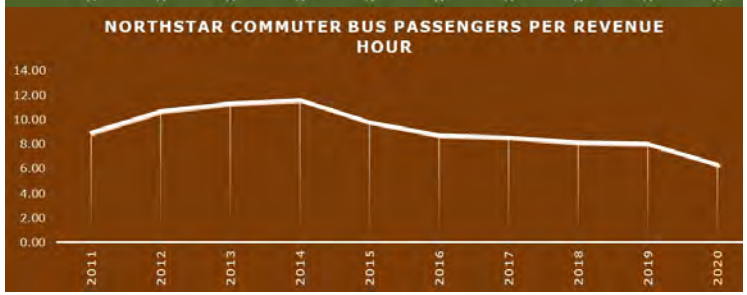
The Northstar Link provides bus service from the Downtown Transit Center in Saint Cloud, SCSU's Miller Center, and the east Saint Cloud park and ride direct to the Northstar Commuter Rail line station in Big Lake. From there, commuters can ride the rail from Big Lake to downtown Minneapolis. As part of the state's first commuter rail line, the Northstar Link and the Northstar Commuter Rail offer a fast, reliable, and safe alternative to workday commuters. Northstar Commuter Rail and Northstar Link are a service of the counties of Anoka, Hennepin, Sherburne, and Stearns in cooperation with the Metropolitan Council which operates Metro Transit. The bus service is operated by Saint Cloud MTC.

Northstar Commuter Bus (NCB) passengers per revenue mile decreased 0.08 from its peak in 2011 to 2020. Revenue miles also dropped by 61,230 to 112,717 from the average over the prior five years of 173,947. Passengers per revenue hour decreased by 2.4 from 2016 to 2020, while revenue hours also decreased by 34.9% from 5,900 in 2016 to 3,842 in 2020. Overall, NCB has experienced a 59.0% (34,945) decrease in passenger trips since its peak in 2014.

These decreases are due in part to the COVID-19 pandemic. Fewer rail trips were needed leading to less demand for rail. This in turn caused fewer buses to be needed because fewer people were using the rail transport, so as less buses were needed the number of revenue miles and revenue hours also decreased. The drops caused by the pandemic worse for NCB than FR in both passenger numbers and PPRH. Although, the degree of change for PPRM was somewhat worse for FR than NCB.

5	$188.52	10,368
Northstar Commuter Buses	Operating expense per vehicle revenues hour	Northstar Commuter Rail boarding's at Big Lake Station





Data Source: NTD.

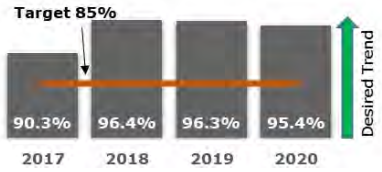
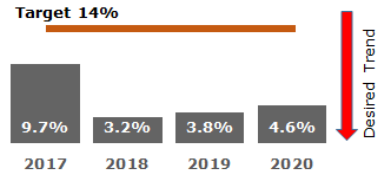
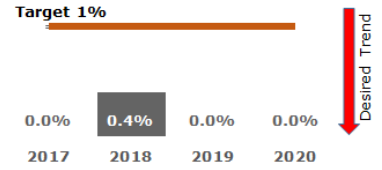
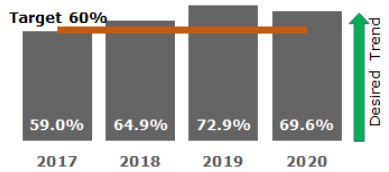
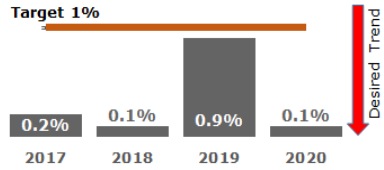
Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Develop a transportation system that is cost-feasible, maintains a state of good repair, and satisfies public transportation priorities.

Photos courtesy of MnDOT and APO

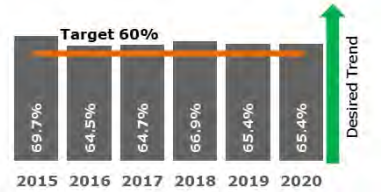
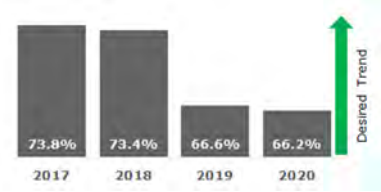
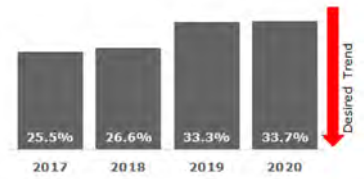
Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Measure	Multi-Year Data	Analysis
Interstate Pavement Condition: Percent of total lane miles that are rated in good, fair, and poor condition.		In 2020, 95.4% of the Interstate's pavement was rated in good condition. This is a 0.9 percentage point decrease from 96.3% in 2019. The APO has set a 2021 Interstate pavement condition target of at least 85% in good condition.
		In 2020, 4.6% of the Interstate's pavement was rated in fair condition. This is a 0.8 percentage point increase from 3.8% in 2019. The APO has set a 2021 Interstate pavement condition target of less than 14% in fair condition.
		No Interstate pavement within the MPA was rated in poor condition in 2020. The APO has set a 2021 Interstate pavement condition target of less than 1% in poor condition.
Non-Interstate NHS Pavement Condition: Percent of total lane miles that are rated in good, fair, and poor condition.		Non-Interstate NHS pavement in 2020 was rated at 69.6% in good condition. This is an 3.3 percentage point decrease from 72.9% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of at least 60% in good condition.
		Non-Interstate NHS pavement in 2020 was rated at 30.3% in fair condition. This is an four percentage point increase from 26.3% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of less than 39% in fair condition.
		Non-Interstate NHS pavement in 2020 was rated at 0.1% in poor condition. This is a 0.8 percentage point decrease from 0.9% in 2019. The APO has set a 2021 non-Interstate NHS pavement condition target of less than 1% in poor condition.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Measure	2021 Target	2020 Result	Multi-Year Data	Analysis
National Highway System (NHS) Bridge Condition: Percent of bridges by deck area classified in good, fair, and poor condition.	Target 60%			In 2020, 65.4% of NHS bridges were in good condition. This is the same as the previous year. The APO has set a 2021 NHS bridge condition target of at least 60% in good condition.
	Target 39%			In 2020, 33.7% of NHS bridges were in fair condition. This is the same as the previous year. The APO has set a 2021 NHS bridge condition target of less than 39% in fair condition.
	Target 1%			There were no NHS bridges rated in poor condition in any of the previous years. The APO has set a 2021 target of less than 1% in poor condition.
Condition of All Bridges: Percent of bridges, including NHS bridges by deck area classified in good, fair, and poor condition.				In 2020, 66.2% of all bridges in the MPA were rated in good condition. This remains relatively unchanged from 2019. The APO does not have a set target.
				In 2020, 33.7% of all bridges in the MPA were rated in fair condition. This remains relatively unchanged from 2019. The APO does not have a set target.
				In 2020, 0.1% of all bridges in the MPA were rated in poor condition. This remains relatively unchanged from 2019. The APO does not have a set target.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

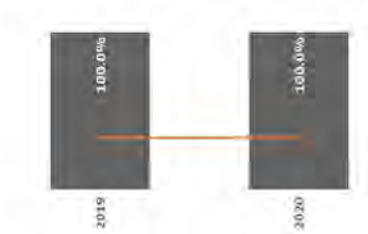
Transit Measure	Multi-Year Data	Analysis
Bridge Weight Restrictions: Number and condition of bridges with a capacity rating posting.		There was a total of six bridges with weight restrictions in the APO planning area in 2020. Four of these bridges are in fair condition, and two of these bridges are in poor condition. The APO has not set target.
Major Mechanical Failures (FR): Mean major mechanical failures for FR per 65,000 vehicle revenue miles.		The mean number of major mechanical failures per 65,000 vehicle revenue miles for FR in 2020 was 1.98. This is an increase of 1.22 from the 0.76 recorded in 2019. The age of FR buses is 6.7 years on average. The APO desires the number of FR mechanical failures to decrease.
Major Mechanical Failures (DAR): Mean major mechanical failures for DAR per 65,000 vehicle revenue miles.		The mean number of major mechanical failures per 65,000 vehicle revenue miles for DAR in 2020 was 3.29, an increase of 1.92 from the 1.37 recorded in 2020. The age of DAR buses is 5.6 years on average. The APO desires the number of DAR mechanical failures to decrease.
Major Mechanical Failures (NCB): Mean major mechanical failures for NCB per 65,000 vehicle revenue miles.		The mean number of major mechanical failures per 65,000 vehicle revenue miles for NCB in 2020 was 1.15. This is an increase of 0.4 from the 0.75 recorded in 2019. The average age of NCB buses is 2.6 years. The APO desires the number of NCB mechanical failures to decrease.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Transit State of Good Repair (SGR)

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): Measured by calculating the percentage of assets that have met or exceeded the useful life benchmark.

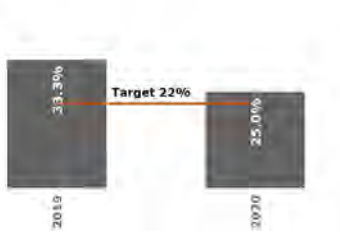
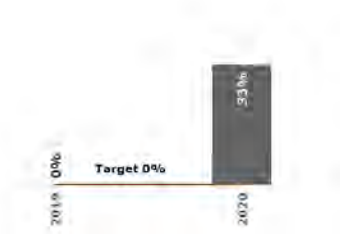
Asset	Multi-Year Data	Analysis
Fixed Route Buses		The percent of FR buses that have exceeded their useful life in 2020 was 10%. MTC set a 2020 target of less than 8% exceeding useful life.
Dial-a-Ride Buses		The percent of DAR buses that have exceeded their useful life in 2020 was 43.8%. MTC set a 2020 target of less than 8% exceeding useful life.
Northstar Commuter Buses		None of the Northstar commuter buses are past their useful life as they recently acquired five new buses. MTC set a 2020 target of less than 8% exceeding useful life.
Service Automobiles		All of Metro Bus' service automobiles continue to exceed their useful life in 2020. MTC set a 2020 target of less than 33% exceeding useful life.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud APO Transportation Results Scorecard

Transit State of Good Repair (SGR)

Saint Cloud Metropolitan Transit Commission (MTC) State of Good Repair (SGR): Measured by calculating the percentage of assets that have met or exceeded the useful life benchmark.

Asset	Data	Analysis
Trucks and Other Rubber Tire Vehicles		The percent of service trucks and other rubber tire vehicles that have exceeded their useful life in 2020 was 25%. MTC set a 2020 target of less than 22% exceeding useful life.
Administrative/Maintenance Facilities		There are 0% of administrative/maintenance facilities rated below three on the TERM scale. MTC set a 2020 target of 0% of facilities below three on the TERM scale.
Passenger/Parking Facilities		Thirty-three percent of Metro Bus passenger/parking facilities were rated below a three on the TERM scale in 2020. MTC set a 2020 target of 0% of facilities below three on the TERM scale.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Interstate and Non-Interstate National Highway System (NHS) Pavement Conditions

Interstate and non-Interstate NHS pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition



Photos courtesy of MnDOT.

How is Pavement Condition Calculated?

* Pavement condition is calculated using the International Roughness Index (IRI). IRI is a statistic used to estimate the amount of roughness on a roadway.

* IRI uses three types of pavement distress as measurements:

    1. Cracking.
    2. Rutting.
    3. Faulting.

Types of Distress	Example
Cracking – A visible line in the surface of the pavement due to a variety of environmental conditions and vehicle usage.	
Rutting - A surface depression located in the wheel path of the travel lane.	
Faulting – A difference in elevation between adjacent pavement due to environmental conditions and vehicle usage.	

Data and photos courtesy of MnDOT.

Data Collection Method

Pavement data is collected by MnDOT using a Digital Inspection Vehicle (DIV). The vehicle is driven over every mile of NHS annually, in both directions. This vehicle is equipped with two cameras to collect images for the video log. For pavement distress and rutting measurements, a scanning laser and a 3D laser/ camera system are used to produce images of the pavement surface, from which the type, severity, and amount of cracking can be determined. The vehicle is also equipped with laser height sensors that measure the longitudinal pavement profile from which pavement roughness is calculated.

Data Source: MnDOT.

Equipment Used	Example
MnDOT currently collects pavement condition data using a Pathway Services, Inc. Digital Inspection Vehicle (DIV).	

Data and photo courtesy of MnDOT.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Pavement Conditions

Pavement condition is based on the percent of total lane miles that are rated in good, fair, and poor condition

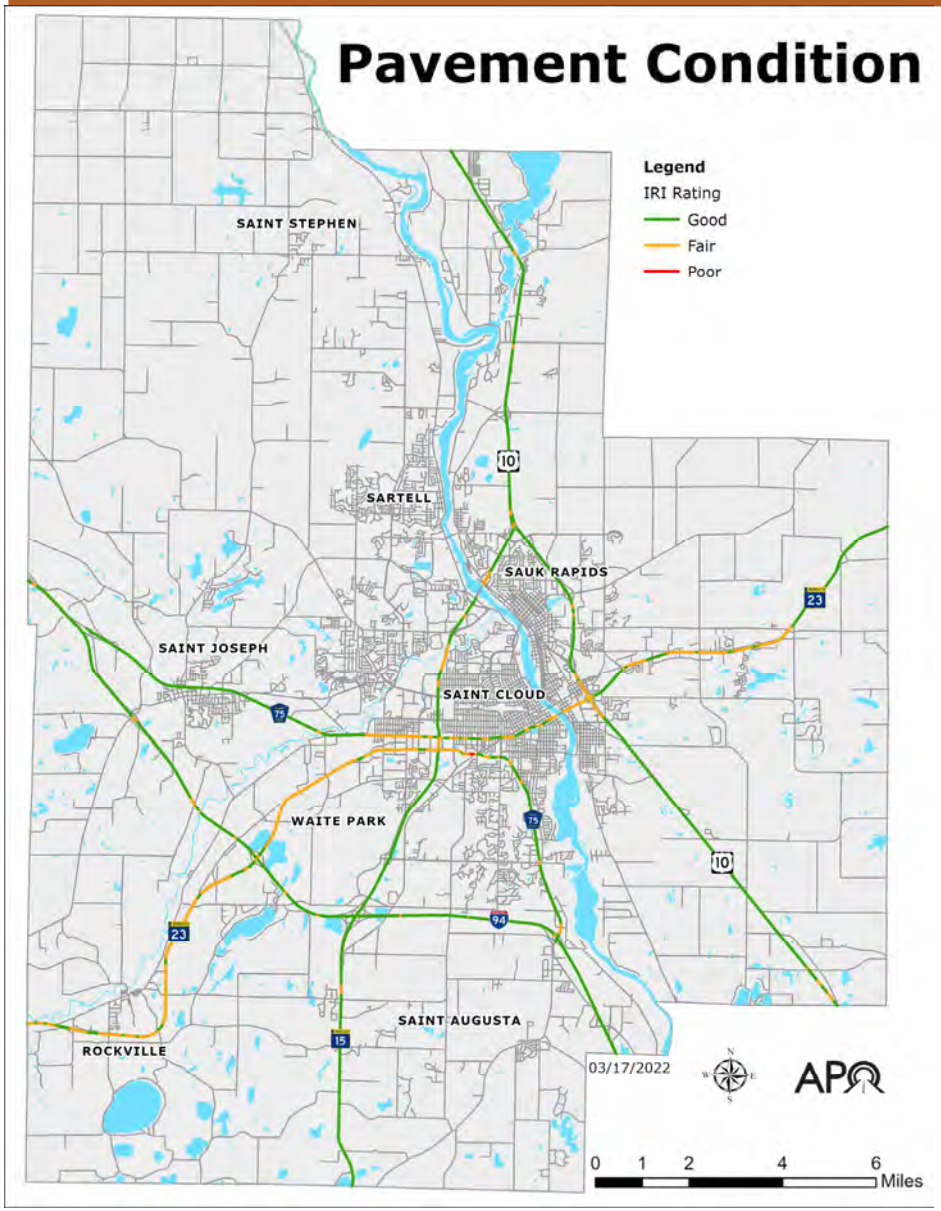


Figure 3.1-Pavement Condition Data Source: MnDOT

Pavement Condition

In 2020, 74.7% of Interstate and NHS pavement within the APO planning area was in good condition, 25.2% in fair condition, and 0.1% in poor condition as displayed in Figure 3.1. These percentages changed so much from 2019 because 2020 data was only collected for the above mentioned type of roads.

Pavement condition data is used to monitor the performance of the system, to aid in project selection, and to identify future pavement maintenance or rehabilitation needs. An effective pavement preservation program will address pavement while it is still in good condition and before serious damage occurs. By applying a cost-effective treatment at the right time, the pavement can be restored almost to its original condition: The right treatment to the right road at the right time.

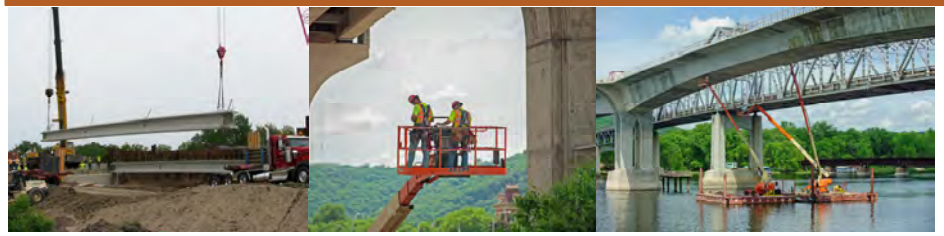
International Roughness Index (IRI)

IRI is a mathematical simulation used to estimate the amount of vertical movement a standard vehicle would experience if driven down the road. In the past, MnDOT has taken a rating panel of 30 to 40 people into the field and driven them over hundreds of test sections to get their perception of the smoothness of various pavement sections. Following right behind them was the digital inspection vehicle. This provides MnDOT with a direct correlation between the IRI, as measured by the van, and the perceived roughness, as felt by the rating panel.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition



Photos courtesy of MnDOT.

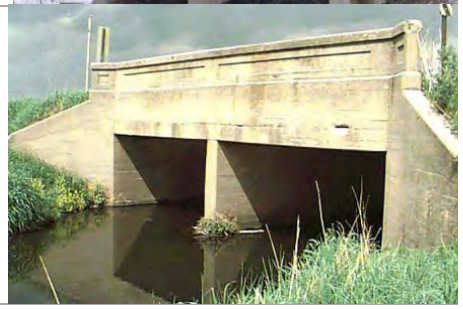
How is Bridge Condition Calculated?

Bridge condition is calculated using the National Bridge Inventory (NBI) ratings for deck, superstructure, substructure, and culvert that are in good, fair, and poor condition. The percentage of bridges in good or poor condition is based on the total deck area of the bridges, not the raw number of bridges in each category.

Routine Inspection

Regularly scheduled inspections of bridges occur every 24 months and consist of: observations and/or measurements to determine the condition of the bridge, identification of any changes from previously recorded conditions, and ensuring that the structure continues to satisfy service requirements.

Data Source: MnDOT.

Bridge Components	Example
Deck - The deck is designed to provide a smooth and safe riding surface for traffic utilizing the bridge.	
Superstructure - The superstructure supports the deck or riding surface of the bridge, as well as the load applied to the deck.	
Substructure - The substructure includes all the elements which support the superstructure.	
Culverts - Culverts transport water flow efficiently. Any culvert 20 feet or greater is defined as a bridge according to FHWA standards.	

Data and photos courtesy of MnDOT.

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Bridge Condition

Percent of bridges by deck area classified in good, fair, and poor condition

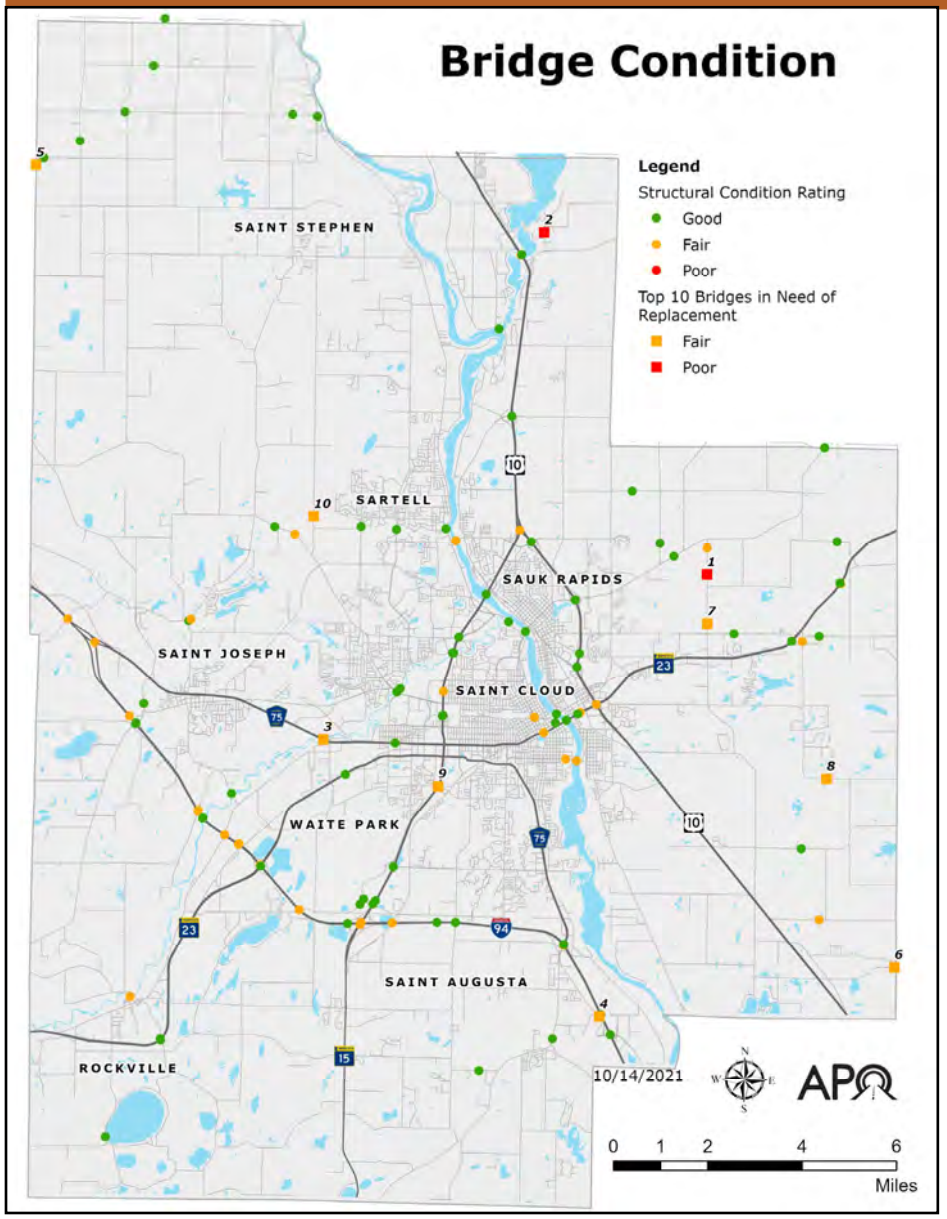


Figure 3.2-Bridge Condition *Data Source: MnDOT.*

Condition of All Bridges

Of the 112 bridges in the APO planning area, 68 are rated in good condition, 42 are in fair condition, and two were in poor condition as illustrated in Figure 3.2.

As bridges age and are in need of repair, the Local Bridge Planning Index (LPI) takes into account multiple factors and assigns a risk level score of the likelihood and consequences of a bridge being no longer in service. The LPI only assigns scores to bridges owned by local agencies to assist in replacement schedules. Below is the top 10 local bridges in the APO planning area in most need of replacement.

Rank	Location of Bridge	Owner
1	35th Avenue NE over Mayhew Creek	Benton County
2	Sucker Creek Road over Sucker Creek	Watab Township
3	CSAH 75 over Sauk River	Stearns County
4	CSAH 75 over Saint Augusta Creek	Stearns County
5	CSAH 3 over Spunk Creek	Stearns County
6	CSAH 16 over Elk River	Sherburne County
7	CR 80 over Mayhew Creek	Benton County
8	CR 62 over Elk River	Sherburne County
9	CSAH 137 (17th St S over MN 15)	State Highway
10	75th Avenue over Watab River	Le Sauk Township

Goal 3: Efficiently Manage Operations and Cost-Effectively Preserve the System

Saint Cloud Metropolitan Transit Commission (MTC) state of good repair (SGR)

Facilities are measured on the Transit Economic Requirements Model (TERM) Scale

TERM Rating	Condition	Description
Excellent	4.8-5.0	No visible defects, near-new condition.
Good	4.0-4.7	Some slightly defective or deteriorated components.
Adequate	3.0-3.9	Moderately defective or deteriorated components.
Marginal	2.0-2.9	Defective or deteriorated components in need of replacement.
Poor	1.0-1.9	Seriously damaged components in need of immediate repair.

Factors involved with TERM Scale rating:

- Substructure.
- Shell.
- Interiors.
- Plumbing.
- HVAC.
- Fire Protection.
- Electrical.
- Equipment.
- Fare Collection.
- Site.
- Conveyance (Elevators and Escalators).

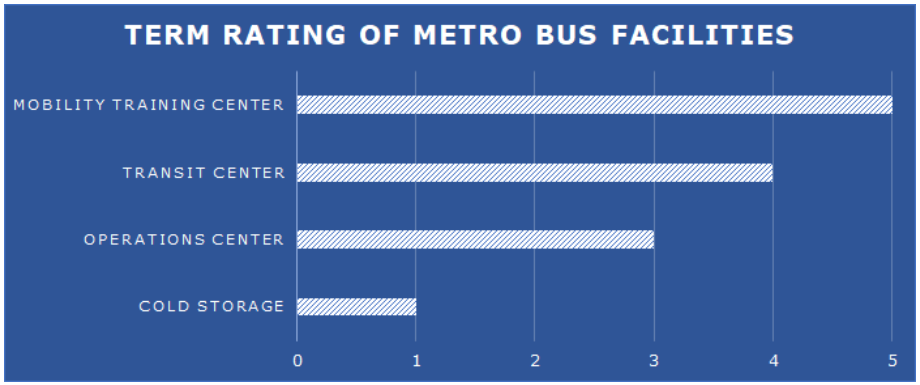


Figure 3.3 *Data Source: National Transit Database.*

Transit Economic Requirements Model (TERM) Rating

Operations Facility: This property houses the maintenance garage, employee break areas, paratransit call center, and administrative offices including finance, planning, procurement, information technology, marketing, operations, and human resources.

Transit Center: This property serves as a hub for fixed route buses and the customer service center.

The Mobility Training Center: This property houses outreach, travel training, and the safety departments.

Cold Storage: This property was purchased for future expansion and is currently used for cold storage.

Photos courtesy of Saint Cloud MTC and APO.

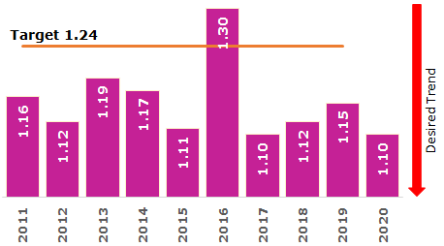
Goal 4: Support Metropolitan Vitality and Economic Development

Support the economic vitality of the APO area by enabling global competitiveness, productivity, and efficiency while enhancing travel and tourism.

Photos courtesy of the APO.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud APO Transportation Results Scorecard

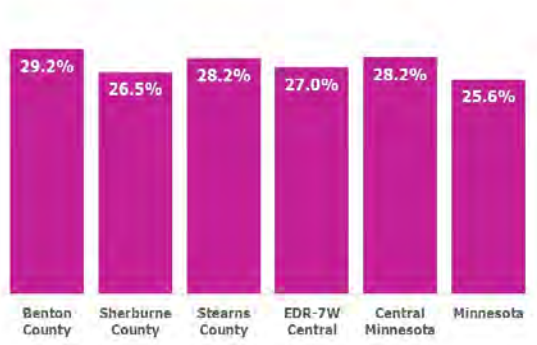
Measure	Multi-Year Trend	Analysis
Truck Travel Time Reliability (TTTR): Calculated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).		Truck Travel Time Reliability (TTTR) index has decreased by 0.05 from 1.15 in 2019 to 1.10 in 2020. Overall TTTR appears to be relatively constant. The APO has set a 2021 target of less than 1.24.
Air Passengers at Saint Cloud Regional Airport (STC): Annual number of customers served.		Air passengers at the STC have decreased 27.3% from 42,912 passengers in 2019 to 31,196 passengers in 2020 due to the COVID-19 pandemic. Otherwise the annual number of customers appears fairly constant. The APO does not have a set target.
Tri-CAP One-Way Transit Trips: Annual number of transit trips.		Tri-CAP one-way transit trips decreased 51% from 161,572 trips in 2019 to 79,319 trips in 2020. This is a 15-year low likely due to COVID-19. However, Tri-CAP numbers had been growing along with them adding Milaca in 2019 to their service area. The APO does not have a set target.
Amtrak Ridership: Annual passengers using the Saint Cloud Amtrak station.		Amtrak numbers decreased by 34.9% from 9,143 in 2019 to 5,953 in 2020. This decrease is due in part to the COVID shutdowns and more people working from home during those shutdowns and after. Although prior to the pandemic we were already seeing a downwards trend in ridership.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud APO Transportation Results Scorecard

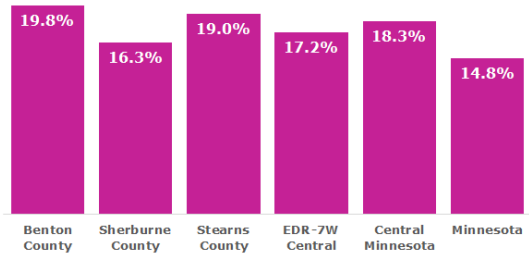
Measure	Target	2020 Result	Multi-Year Trend	Analysis

Percent of Monthly Household Budgets Spent on Transportation (One Working Adult, No Children):
Average percent of monthly budget spent on transportation.



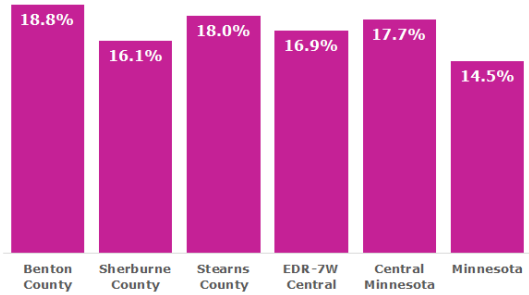
All are above the state's 25.6% of one adult, no children household budget spent on transportation. For these households the average salary in the counties was $15.49, which is $0.36 less than the state average of $15.85 and on average these families spend $44 more on transportation, $748 to the states average $704.

Percent of Monthly Household Budgets Spent on Transportation (One Working Adult, One Child):
Average percent of monthly budget spent on transportation.



All are above the state's 14.8% of one adult, one child household budget spent on transportation. For these households the average salary in the counties was $23.94, which is $3.67 less than the state average of $27.61, and on average these families pay $44 more for transportation, $753 to the states $709.

Percent of Monthly Household Budgets Spent on Transportation (Two Working Adults, One Child):
Average percent of monthly budget spent on transportation.



All are above the states 14.5% of two adults, one child household budget spent on transportation. The average wage for these households is $14.39 per adult, $1.86 less than the state average of $16.25. The transportation cost difference between the counties and the state is $54, with $873 and $819 respectively being the transportation costs.

Data Source: Minnesota Department Employment and Economic Development.

Goal 4: Support Metropolitan Vitality and Economic Development

Truck Travel Time Reliability (TTTR) Index

The TTTR Index is generated by dividing the ratio of the 95th percentile time by the normal time (50th percentile).

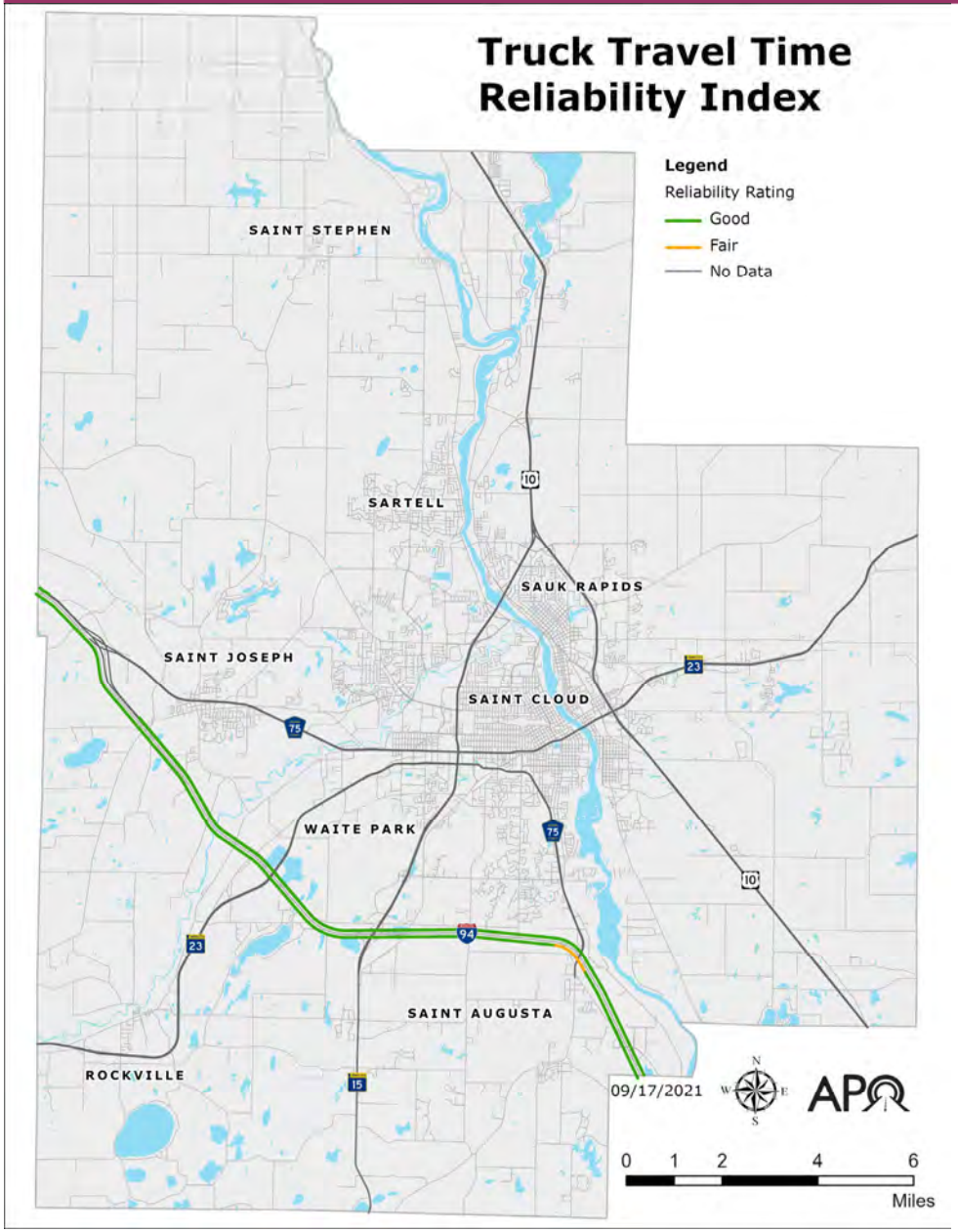


Figure 4.1-Truck Travel Time Reliability *Data Source: NPMRDS.*

Interstate Truck Travel Time Reliability

Truck travel time reliability ratings consider the average amount of time it would take for a truck to travel at an average speed (50th percentile) on a stretch of roadway. For example, if a one-mile stretch of roadway with a 60 mph average speed has a time travel reliability rating of 1.5 it would take the average vehicle 1 minute 30 seconds to travel that roadway when normally it would take 1 minute. A time travel reliability rating above 1.5 is deemed unreliable by Federal Highway Administration (FHWA) standards.

The section of Interstate 94 (I-94) that passes through the APO's MPA has a TTTR of either good or fair. Only a small stretch of I-94 around the CSAH 75 interchange has a rating below good. This means the system is operating within normal capacity as shown in Figure 4.1. Currently data consisting of truck travel time reliability is only available for the Interstate.

How is TTTR Measured?

⇒ Reporting of freight movement is divided into five periods:

- ◊ ***Morning peak (6-10 a.m.)*** weekdays.
- ◊ ***Midday (10 a.m.-4 p.m.)*** weekdays.
- ◊ ***Afternoon peak (4-8 p.m.)*** weekdays.
- ◊ ***(6 a.m.-8 p.m.)*** weekends.
- ◊ ***(8 p.m.-6 a.m.)*** Overnights for all days.

- The TTTR ratio is generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. Then, the TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

Goal 4: Support Metropolitan Vitality and Economic Development

Saint Cloud Regional Airport and Tri-County Action Program (Tri-CAP)

Annual number of customers served at the Saint Cloud Regional Airport and number of trips Tri-CAP provides annually

Photos courtesy of the APO.

Saint Cloud Regional Airport

The Saint Cloud Regional Airport (STC) was officially opened in 1970 at it current location 1550-45th Ave. SE in Saint Cloud. Up until Jan. 1, 2022, the City of Saint Cloud served as the airport's owner/operator. Ownership status has since switched to the Saint Cloud Regional Airport Authority -- a nine member board comprised of representatives from Benton, Sherburne, and Stearns counties; the City of Saint Cloud; and an aviation planner.

About 100 general aviation planes are based at STC. The airport owns 55 airplane hangars and contracts directly with plane owners.

Allegiant Airlines has a schedule of two destinations – Phoenix Mesa Gateway International Airport (IWA or AZA) and Punta Gorda, Florida (PGD) – which the airline flies to twice a week.

Sun Country Airlines charters two destinations - Laughlin, Nevada/Bullhead City, Arizona International Airport; and Don Laughlin's Riverside Resort Hotel and Casino in Nevada.

1,400	$20 Million
Number of acres the airport resides on.	Estimated annual impact on the local economy.

What is the Tri-County Action Program?

The Tri-County Action Program (Tri-CAP) is a non-profit organization based in Waite Park that provides a variety of services to "expand opportunities for the economic and social well-being of our residents and the development of our communities." Tri-CAP provides services under three different umbrellas: Basic Needs, Self-Sufficiency, and Building Stability. Tri-CAP also provides transportation services.

Tri-CAP Transit Connection hubs out of four locations within its service area: Little Falls, Elk River, Sauk Centre, and Waite Park. The majority of service provided by Tri-CAP for the Saint Cloud MPA is done out of the Waite Park hub. From this hub, residents living within a 15-mile radius of the Waite Park facility can receive transportation access to and from areas outside of the Saint Cloud Metro Bus service area.

Tri-CAP also provides a volunteer drivers program where drivers provide rides in their own vehicles to residents of Benton, Morrison, Mille Lacs, Sherburne, and Stearns counties. This service is externally funded and primarily used by health insurance providers to transport people to and from medical appointments.

Several of the Tri-CAP service counties will also utilize the volunteer driver service for Department of Human Services work primarily centered on foster care. That work is also funded externally. Drivers with this service are reimbursed the federal mileage rate and are provided a stipend for meals. They are initially given a $4 startup fee as well.

Goal 4: Support Metropolitan Vitality and Economic Development

Transportation Costs

Percent of monthly household budgets spent on transportation.

The percent of monthly household budgets spent on transportation in each chart assumes that the adult(s) are working full time. Average yearly costs of transportation is calculated as part of the Cost of Living data gathered by the Minnesota Department of Employment and Economic Development (DEED). The data is broken down by county; the economic development region (EDR) 7W Central (Benton Sherburne, Stearns, and Wright counties); Central Minnesota (Benton, Chisago, Isanti, Kanabec, Kandiyohi, McLeod, Mille Lacs, Meeker, Pine, Renville, Sherburne, Stearns, and Wright counties); and the state.

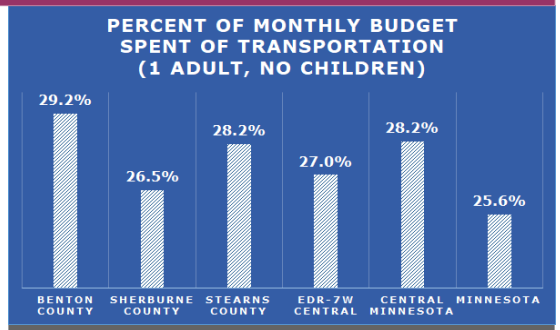
The average wage difference for households with two working adults and two children when compared to the state is $2.80, with those in the counties making $19.08 on average per adult and $21.88 on average in Minnesota. The transportation cost difference is $58.67 on average with those who live in these counties averaging $921.67 and in the state overall $863 on average. While the differences highlighted prior may seem small this roughly 6%-7% higher cost of transportation is seen throughout all households. These differences in costs can occur due to many economic factors such as gasoline price differences between regions and car maintenance/ repair cost discrepancies. However, access to other mobility options such as public transit (using buses/railways), which has been declining ,as well as using active transportation (walking, biking, etc.) can also play a role.

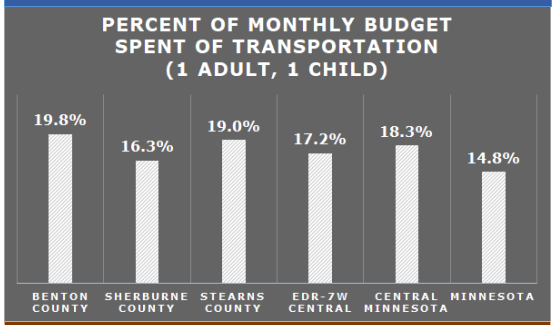
Methodology

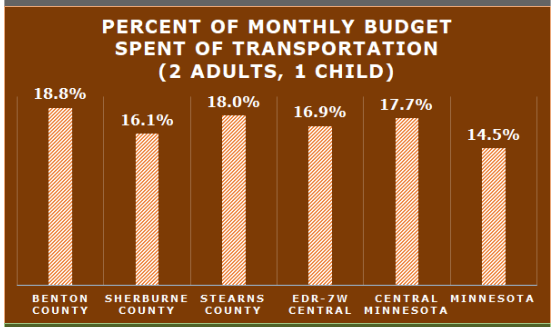
The cost of living study provides a yearly estimate of the basic needs cost of living in Minnesota for both individuals and families. Results are broken down by county, region, and statewide. The study examines monthly living costs in seven cost categories: food, housing, health care, transportation, child care, other necessities, and net taxes. Total costs are presented as yearly and hourly dollar amounts.

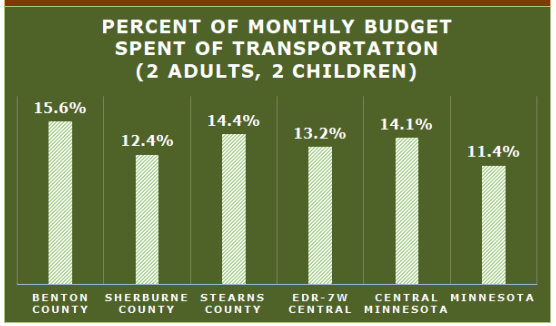
The Cost of Living represents neither a poverty-level living nor a middle-class living but rather a living that meets basic needs for health and safety.

Transportation figures are derived from the basic costs of owning and operating a car. These basic costs include those for commuting to work, conducting necessary family and personal business, and getting to and from school and place of worship. Costs for social and recreational uses are not included. Public transportation cost estimates are not used in the computations.









Data Source: Minnesota Department Employment and Economic Development.

Goal 5: Promote Energy and Environmental Conservation

Support transportation improvements that promote energy conservation and improve public health and quality of life, while sustaining and improving the resiliency and reliability of the transportation system.

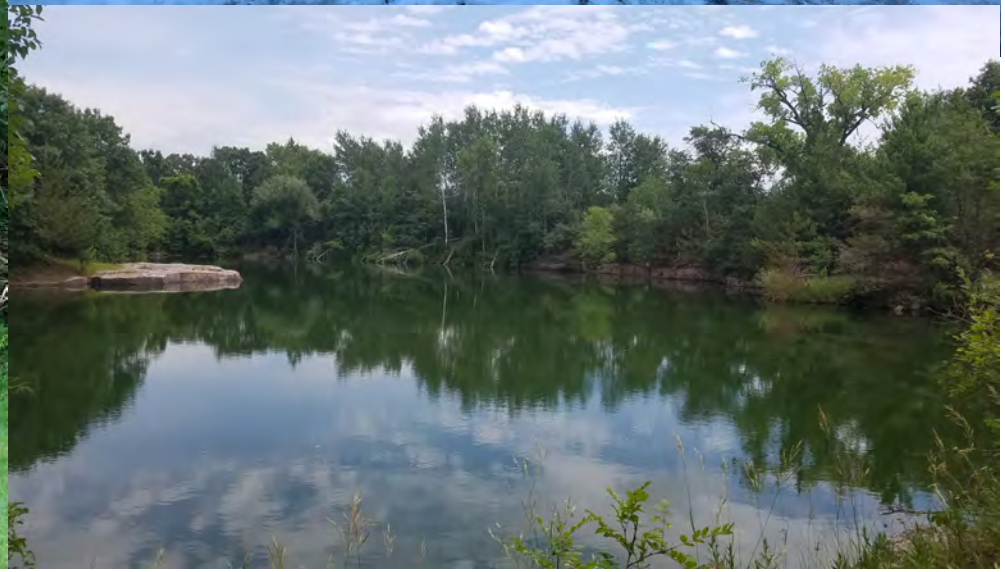
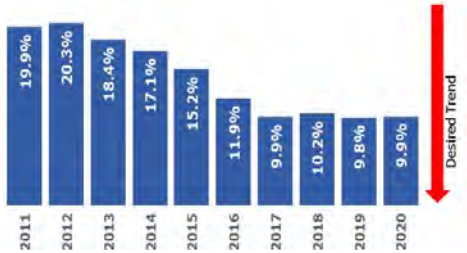
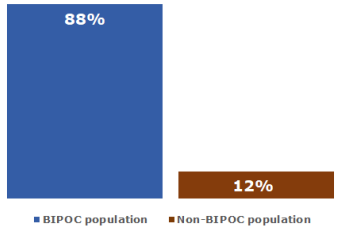
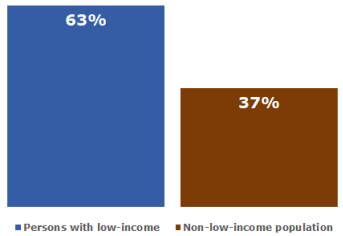


Photo courtesy of the APO.

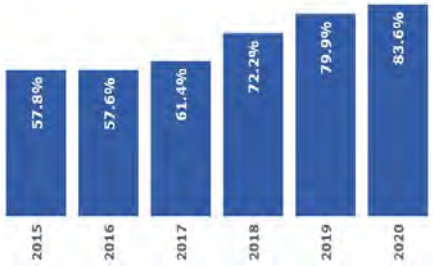
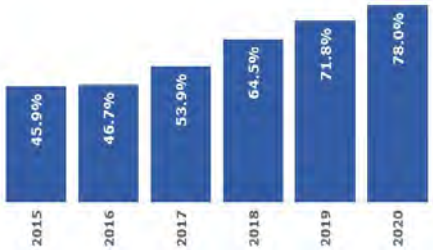
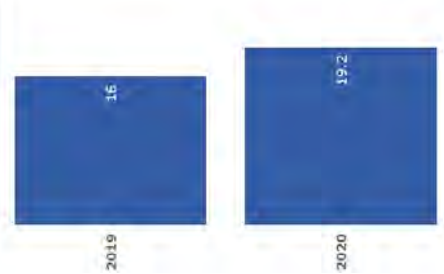
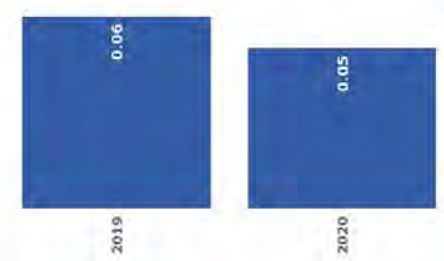
Goal 5: Promote Energy and Environmental Conservation

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2020 Result	Multi-Year Trend	Analysis
Air Quality Five Year Rolling Average - Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups, and unhealthy dividing by five, and rounding to the nearest tenth decimal place.				The five year rolling average percent of days with good air quality increased 10.7 percentage points since 2011, from 79.3% to 90% in 2020. Air quality will likely plateau although that could occur at a higher percentage of “Good” quality days. The APO desires the air quality of improve.
				The five year rolling average percent of days with moderate air quality decreased 10 percentage points since 2011, from 19.9% to 9.9% in 2020. Again there will likely be a plateau in air quality at some point though it could be at a percent with fewer “Moderate” days. The APO desires the air quality of improve.
Annual Percentage of Transportation Investments in Black, Indigenous, and People-of-Color (BIPOC) population Environmental Justice Census Blocks: The percentage of transportation investments in high BIPOC population census blocks.				Identified in the 2020-2023 Transportation Improvement Program (TIP), 88% of programmed projects intersect with census blocks with a high BIPOC population.
Annual Percentage of Transportation Investments in Low-income Environmental Justice Census Blocks: The percentage of transportation investments in census blocks with high concentrations of persons with low-income.				Identified in the 2020-2023 Transportation Improvement Program (TIP), 63% of programmed projects intersect with census blocks with a low-income population.

Goal 5: Promote Energy and Environmental Conservation

Saint Cloud APO Transportation Results Scorecard

Measure	Target	2020 Result	Multi-Year Trend	Analysis
Percent of Revenue Vehicles Using Compressed Natural Gas (CNG): Percent of CNG used by Metro Bus revenue vehicles versus all other fuel types.				The percent of CNG has increased 25.8 percentage points since 2015. However, CNG usage has decreased from 512,000 gallons in 2019 to 411,000 gallons in 2020.
Percent of VMT Using CNG by Revenue Vehicles: Percent of vehicle miles traveled using CNG by Metro Bus revenue vehicles versus all other fuel types.				The percent of vehicle miles traveled using CNG in 2020 has increased 32.1 percentage points since 2015.
Number of Electric Vehicles (EVs) Versus Number of Public Charging Station Outlets: Number of registered EVs divided by the number of public charging station outlets.				The number of EVs per number of public charging station outlets increased 20% from 16 in 2019 to 19 in 2020.
Number of Public Charging Stations Outlets Versus Number of Electric Vehicles (EVs): Number of public charging station outlets divided by the number of registered EVs.				The number of public charging station outlets per number of EVs decreased 20% from 0.06 in 2019 to 0.05 in 2020.

Goal 5: Promote Energy and Environmental Conservation

Air Quality

Annual count of days in each Air Quality Index (AQI) category; good, moderate, unhealthy for sensitive groups, and unhealthy dividing by five, and rounding to the nearest tenth decimal place.

Photos courtesy of the Saint Cloud APO.

Air Quality	
Good	Current air quality is considered satisfactory and poses little or no health risk.
Moderate	Air quality is acceptable; however individuals who are very sensitive to air pollution may experience adverse health effects.
Unhealthy for Sensitive Groups	People with lung or heart disease, older adults, children, and people participating in activities that require heavy or extended exertion may experience adverse health effects.
Unhealthy	Everyone may begin to experience adverse health effects and members of sensitive groups may experience more serious health effects.

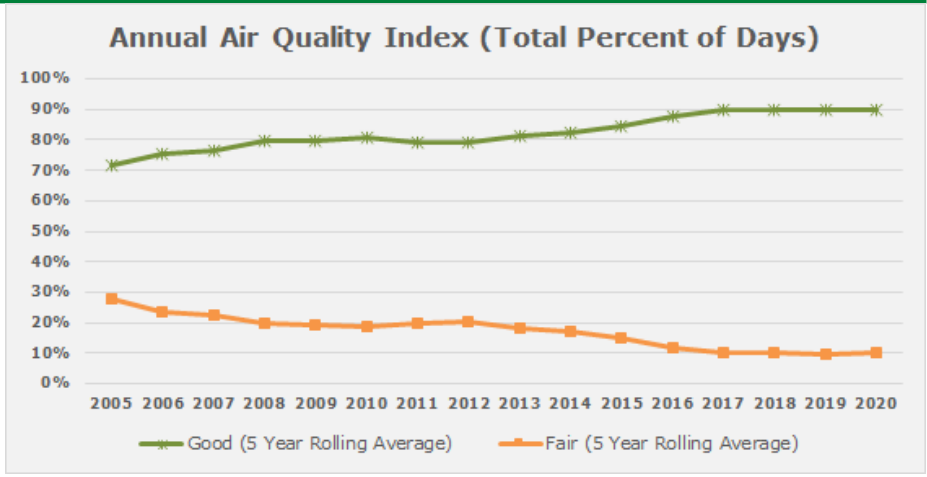


Figure 5.1-Annual Air Quality Index
Data Source: Minnesota Pollution Control Agency (MPCA)

Annual Air Quality Index (AQI)

The Saint Cloud area AQI five year average has seen the share of good air quality days increase 18.4 percentage points to 90% compared to 71.6% in 2005 as shown in Figure 5.1. Moderate AQI days five year average have also fallen significantly since 2005 — down to 9.9% as of 2020 compared to 27.7% in 2005. There has been 25 days with an AQI that was unhealthy for sensitive groups and three days that was unhealthy in general since 2001. Changes in technology such as fuel efficient vehicles and manufacturing innovations have helped keep air quality in good condition.

24%	20%
Air pollution caused by on-road vehicles.	Air pollution caused by off-road vehicles (construction and agricultural).

Data Source: MPCA.

Goal 5: Promote Energy and Environmental Conservation

Water Quality

Number of bodies of water that have not met water quality standards

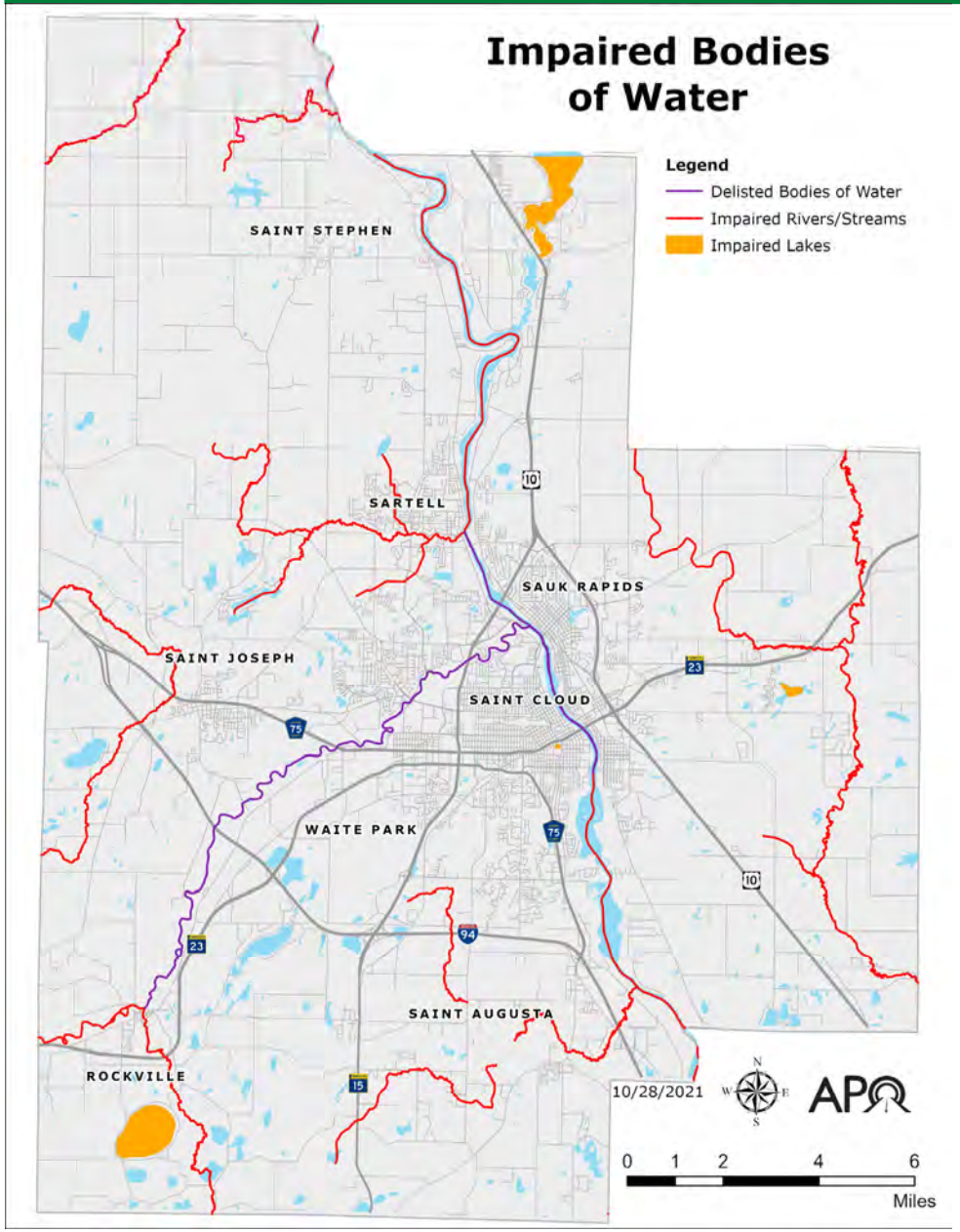


Figure 5.2-Water Quality *Data Source: MPCA.*

Water Quality

As displayed in Figure 5.2, there are a total of five lakes that are being monitored for pollution in the APO planning area: Donovan, Little Rock, Grand, Sagatagan, and Lake George.

There are 15 rivers or streams being monitored for pollution within the APO planning area: Elk River; Mill Creek; Spunk Creek; Watab River (North and South Fork); County ditch 12, 13, and 16; Mississippi River; Sauk River; Mayhew Creek; Luxemburg Creek; Johnson Creek (Meyer Creek); Plum Creek; and Robinson Hill Creek.

Part of the Mississippi River and Sauk River were previously listed as impaired but have since been delisted and meet current water quality standards.

The most common pollutants in the APO planning area are Escherichia Coli (E. Coli), mercury in fish tissue (Hg-F), and Fecal Coliform (FC).

Photo courtesy of the Saint Cloud APO.

Goal 5: Promote Energy and Environmental Conservation

Registered Electric Vehicles and Public Charging Stations

Percent of registered electric vehicles (EVs) divided by the number of public charging station outlets.
Number of public charging station outlets divided by the number of registered electric vehicles (EVs).

In 2020 there were 115 registered electric vehicles (EVs) in the Saint Cloud metro area compared to 96 in 2019. Of the 115 EVs 60 are in Saint Cloud, 28 in Sartell, 15 in Sauk Rapids, four in Saint Joseph, seven in Saint Augusta, and one is in Waite Park. Our region has a fraction of the 14,484 registered EVs across the State of Minnesota.

An increase in EVs will help our region and the State of Minnesota reduce greenhouse gas (GHG) emissions and provide an overall improvement in quality of life. MnDOT has designated I-94 as an alternative fuels corridor known as the Great Lakes Zero Emission Corridor. The goal of this type of alternative fuel corridor is to promote the electric vehicle charging infrastructure across Minnesota.

EV Registration by City	2019	2020
Saint Cloud	51	60
Sartell	21	28
Sauk Rapids	14	15
Saint Joseph	5	4
Saint Augusta	5	7
Waite Park	0	1
Total	96	115

Figure 5.3 - EV Registration data comes from the Minnesota Pollution Control Agency, Minnesota Department of Public Safety, and Atlas Public Policy, 2020.

Charging Terminology

Level 1: Charging a vehicle at "Level 1" means plugging into a standard 120-volt supply. On average, a Level 1 supply provides 2 to 5 miles of vehicle range per hour the vehicle is connected. The best use cases for a Level 1 charger is workplaces and homes.

Level 2: Charging a vehicle at "Level 2" means plugging into a 240-volt supply. On average, Level 2 stations provide 10 to 20 miles of range per hour the vehicle is connected. Locations where owners will be staying for two hours or more are great use cases for Level 2 chargers.

Direct Current Fast Charging (DCFC): Is only really available as an option for public charging, and are often installed along transportation corridors. DC Fast Chargers can deliver 60-80 miles of charge in only 20 minutes of the vehicle being connected. Locations where owners will be staying for about 20 minutes are great use cases for DCFC.

There are currently six public EV charging station outlets in the Saint Cloud metro area: four being level 2 and two being a DCFC. Two of the four Level 2 chargers are located at Miller Nissan (2930 Second St. in Saint Cloud). The remaining two Level 2 chargers and the two DCFC chargers are located at 504 First St. N in Saint Cloud.

Data Source: MnDOT and Drive Electric Minnesota

65%	95%	39 Months	1.9%
Percent reduction in greenhouse gas emissions EV's provide over gas powered vehicles	Percent of charging of EVs which occur at home.	Months of consecutive growth in sales for EVs.	Percent of Minnesota new car sales that were EV's in 2020.

Data Source: Drive Electric Minnesota and MNDoT