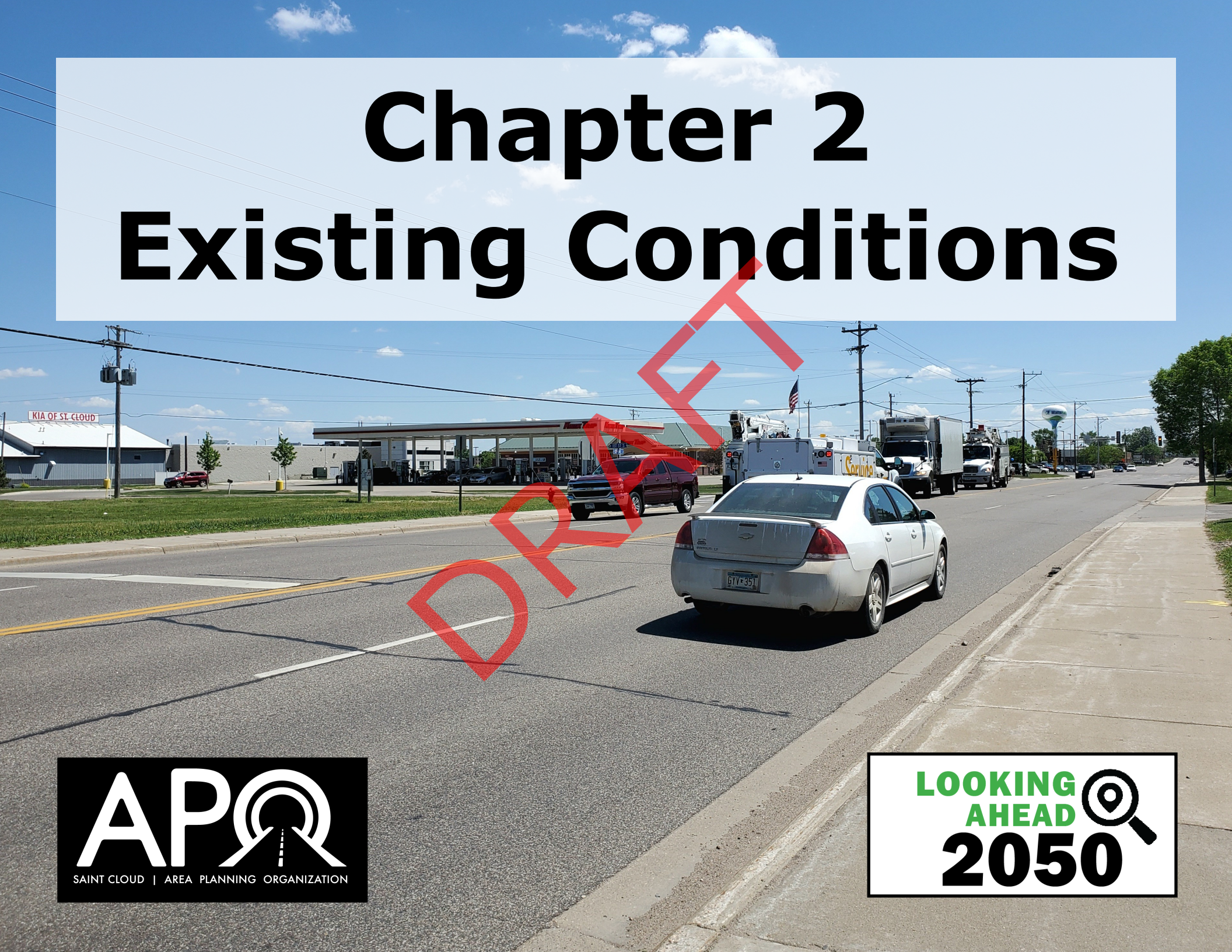
Chapter 2
Existing Conditions



APO
SAINT CLOUD | AREA PLANNING ORGANIZATION

LOOKING AHEAD 2050

Chapter 2: Existing Conditions Contents

Introduction

To plan for future needs, transportation planners must first have a basic understanding of the current system. One of the key steps in the transportation planning process is to gather information to develop a comprehensive look at the region. This is known as the Existing Conditions process.

The data/information contained in this section is taken from the most recent data sets available to APO staff at the drafting of this plan. While APO staff understand various data sources update -- some more frequently than others -- the purpose of this section is to provide a snapshot in time (this being our base year 2020) with the most accurate and up-to-date data available.

Throughout this chapter we will explore the unique qualities of the Saint Cloud MPA. Using the Five Ws and One H method (who, what, where, when, why, and how), this chapter utilizes a multifaceted approach to understand the characteristics of region as they were in our base year – 2020.

This section starts with a comprehensive look at ***who*** lives within the MPA. Through the exploration of various demographic characteristics, we start to lay the groundwork for the unique ways people may choose to get around in their communities.

From there, this chapter explores ***where*** people within the MPA travel. This section touches briefly on the relationship between land use (i.e., where specific things are located within a community) and transportation. In addition, this section looks at specific destinations people are typically traveling to within the MPA – work, dining, and shopping.

Finally, this section explores the locations of where people are starting their trips (i.e., where are people living).

Understanding ***when*** people are travelling is a key component to understanding transportation/travel behaviors. This short section explores peak travel times by trip types – when do people typically travel for work, or shopping, or dining. Seasonal travel patterns are also considered as core roadways such as US 10 and I-94 are typically used by people traveling through our region to get to the Twin Cities, Brainerd Lakes, or Alexandria during the summer months.

By far the largest portion of the existing conditions section addresses the ***what*** (our transportation system) and the ***how*** (modal choices) aspects. This portion of the chapter dives into the existing transportation infrastructure. This includes a comprehensive look at the surface transportation options in the region – roadways, urban transit, and active transportation – as well as transportation options not directly influenced by potential planning activities of the APO such as transportation network companies (i.e., Uber and Lyft), school buses, Tri-CAP (rural transit provider), Saint Cloud Regional Airport Authority, and Northstar Commuter Rail. As planners, it is vital to have a basic understanding each component of the transportation system. This includes looking at system conditions, safety, network performance/reliability, ridership numbers, and service routes.

While it's important to know how people use the region's various transportation networks, there is more to the transportation system than just moving people. The freight component of this chapter provides a brief overview of how goods move through the region – primarily via roadways, but also through rail and air as well.

Finally, we turn to the ***why***. Why is the transportation network important and why does it matter? The Transportation and Economic Development section seeks to provide some higher-level answers based upon discussions with regional economic experts. These local experts outline the importance of the transportation network in connecting workers to jobs, enticing businesses to relocate to the region, as well as discussing the impacts the transportation system has on tourism.

As we move through the transportation planning process into issues identification and proposing alternative solutions, understanding the strengths, weaknesses, opportunities, and threats to our starting point – our existing conditions – will only better equip our region's planning partners in making informed decisions as we Look Ahead to 2050.

Demographics

Between 2010 and 2020 the Saint Cloud MPA experienced a slight increase in its total population. According to the U.S. Census Bureau's Census 2020, the Saint Cloud MPA has a population of 139,645 – up 7.2% from the last decennial Census. Just under 50% of the region's population resides within the City of Saint Cloud.

However, while the bulk of the population lives in Saint Cloud, the city has lagged behind some of its neighbors in the rate of population growth over the past 10 years. While Saint Cloud experienced a 4.6% population growth between 2010 and 2020, Waite Park, on the other hand, experienced a near 25% increase in its population over the same time frame. Sartell has experienced tremendous growth – doubling its population over the last 20 years.

The more rural portions of the Saint Cloud MPA – particularly the townships within Stearns County (Brockway, LeSauk, Saint Joseph, and Saint Wendel) – have experienced stagnant or even declining population numbers. One possible explanation for this could be attributed to Orderly Annexation Agreements (OAAs) being executed between townships and municipalities.

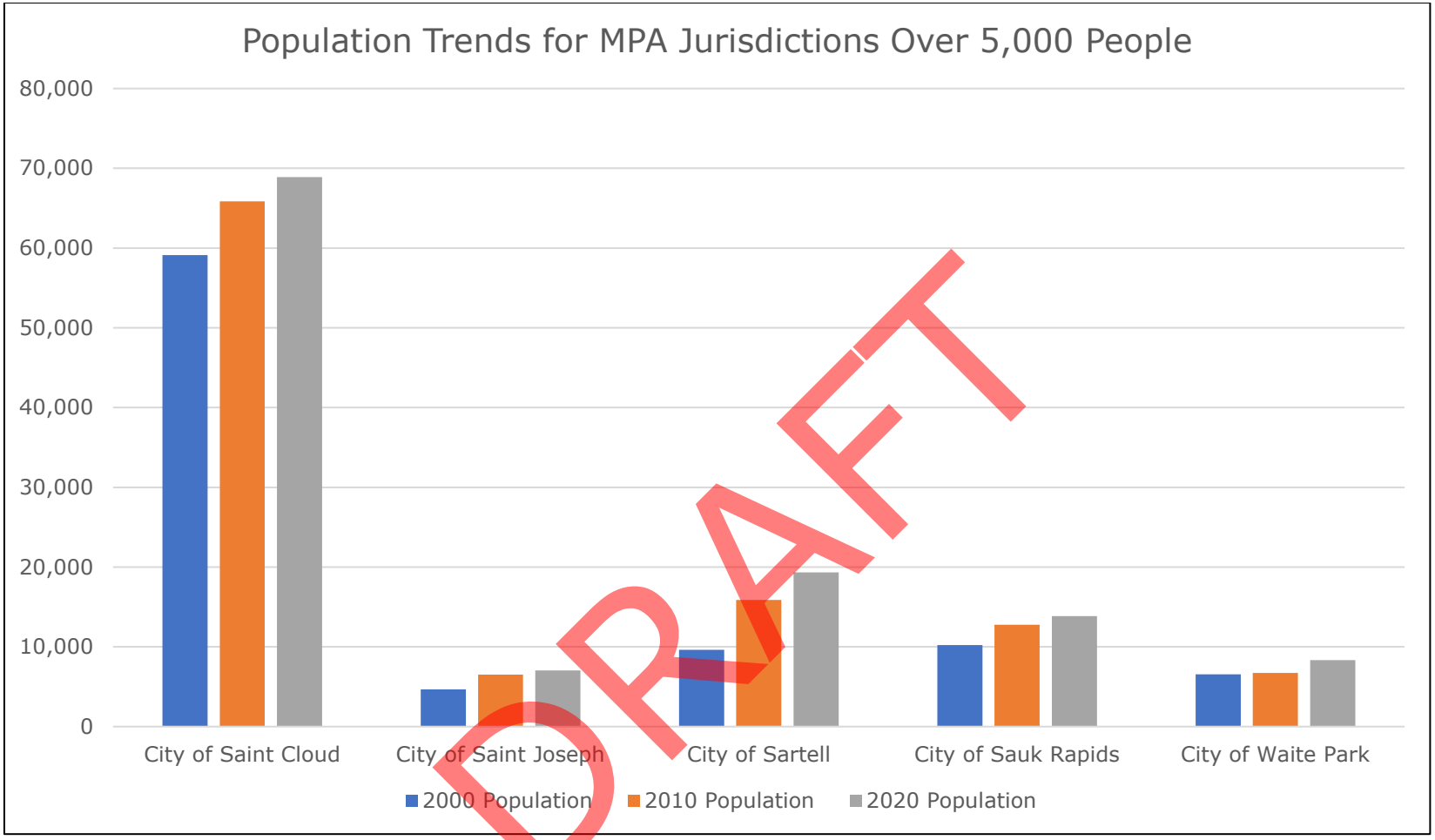


Figure 2.1: *Population trends for MPA jurisdictions with populations over 5,000.*
Data courtesy: U.S. Census Bureau, Census 2000; U.S. Census Bureau, Census 2010; U.S. Census Bureau, Census 2020.

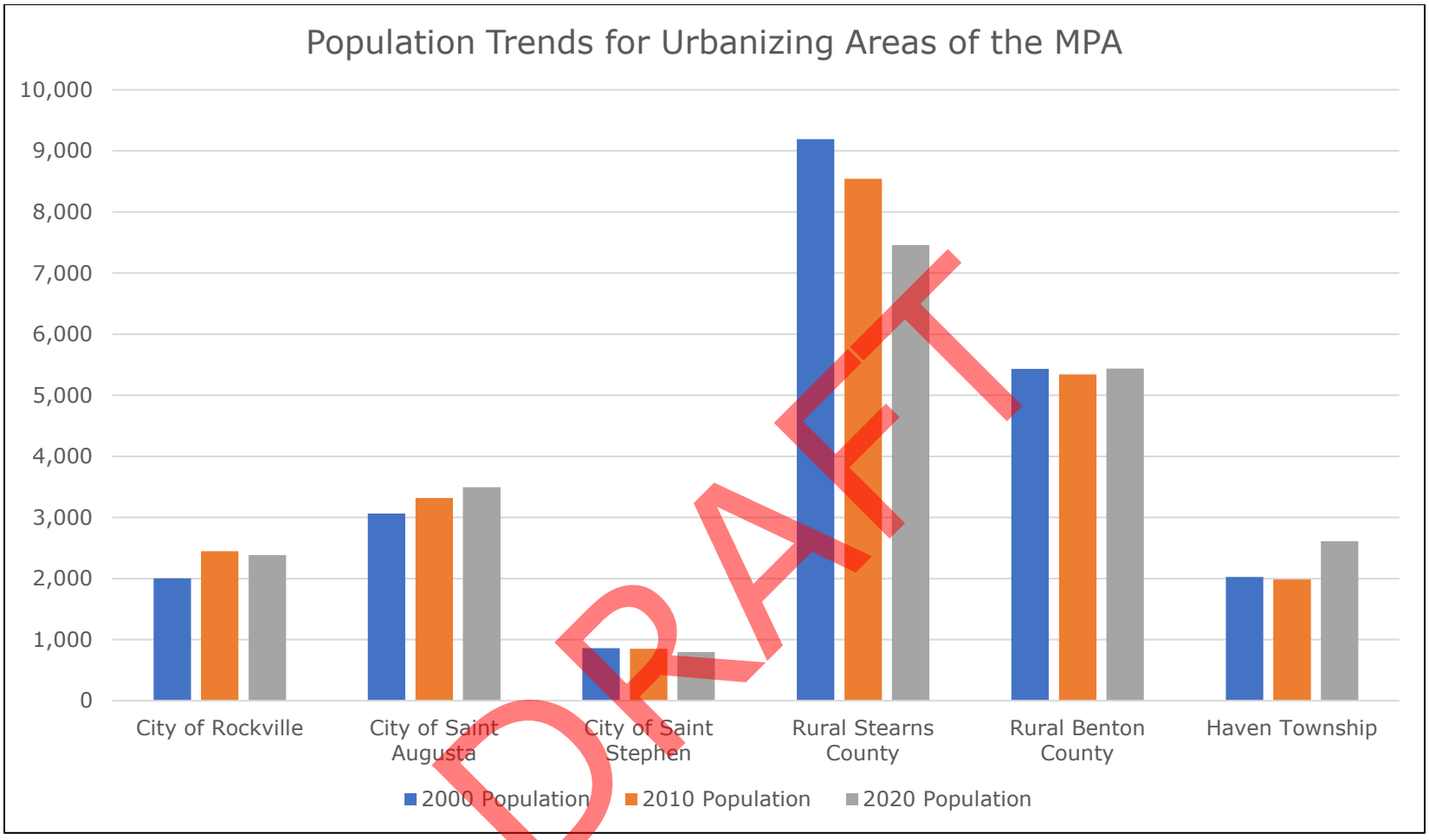


Figure 2.2: *Population trends for urbanizing portions of the Saint Cloud MPA.*
Data courtesy: U.S. Census Bureau, Census 2000; U.S. Census Bureau, Census 2010; U.S. Census Bureau, Census 2020.

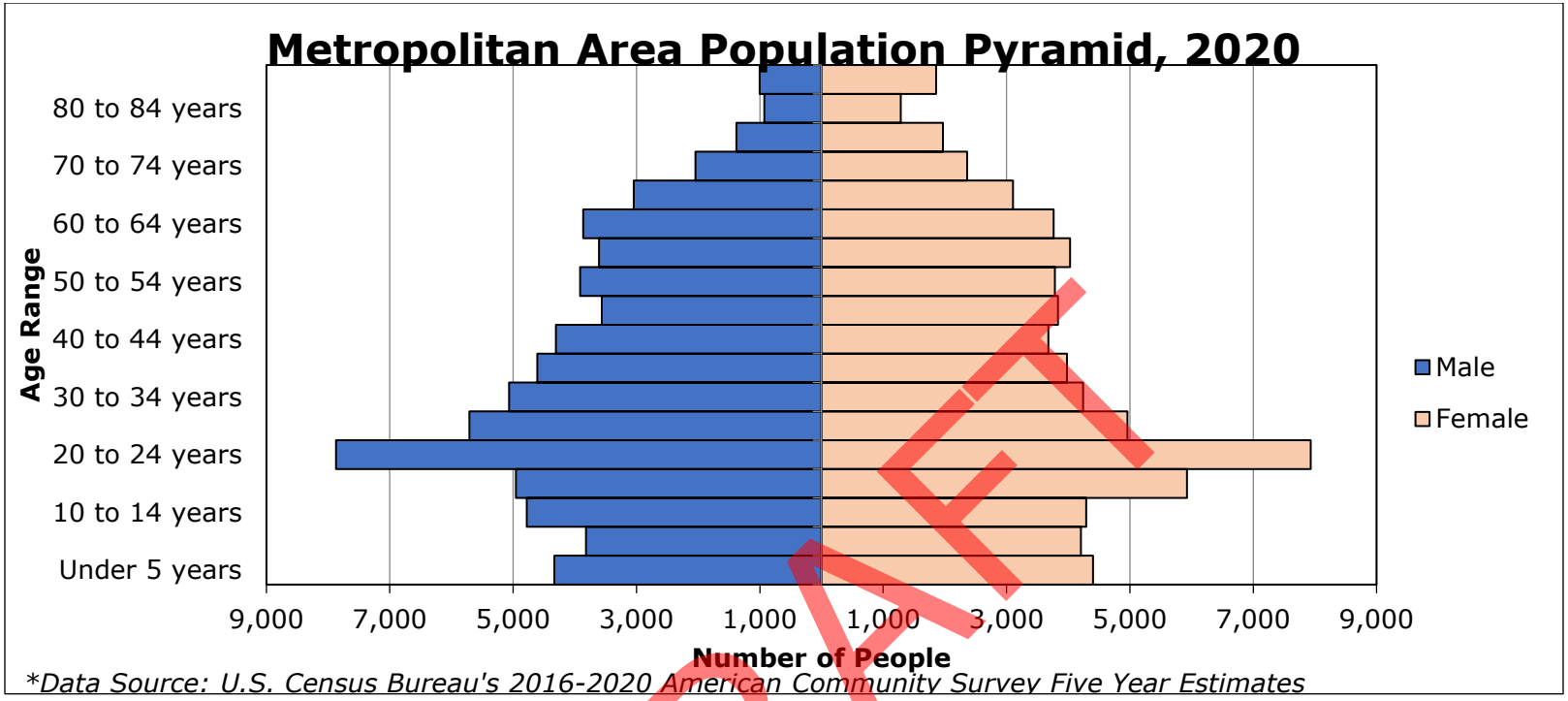


Figure 2.3: *Saint Cloud MPA population pyramid.*
Data courtesy: U.S. Census Bureau's 2016-2020 American Community Survey Five Year Estimates.

As shown in Figure 2.3, the MPA has roughly equal age bands – with one exception. The number of adults ages 20 to 24 is significantly higher than other population age brackets. This is likely due to the presence of several colleges and universities within the planning area (Saint Cloud State University and College of Saint Benedict's for example).

Population Breakdown

Diversity

According to the 2010 Census, approximately one in 10 individuals (11.8%) identified as being Black, Indigenous, or a Person-of-Color (BIPOC). By 2020, that number increased to approximately one in four (23.3%). Black/African American individuals comprise the lion's share of the region's BIPOC population at approximately 17,000 individuals within the metro identifying as such (12.1% of the total population).

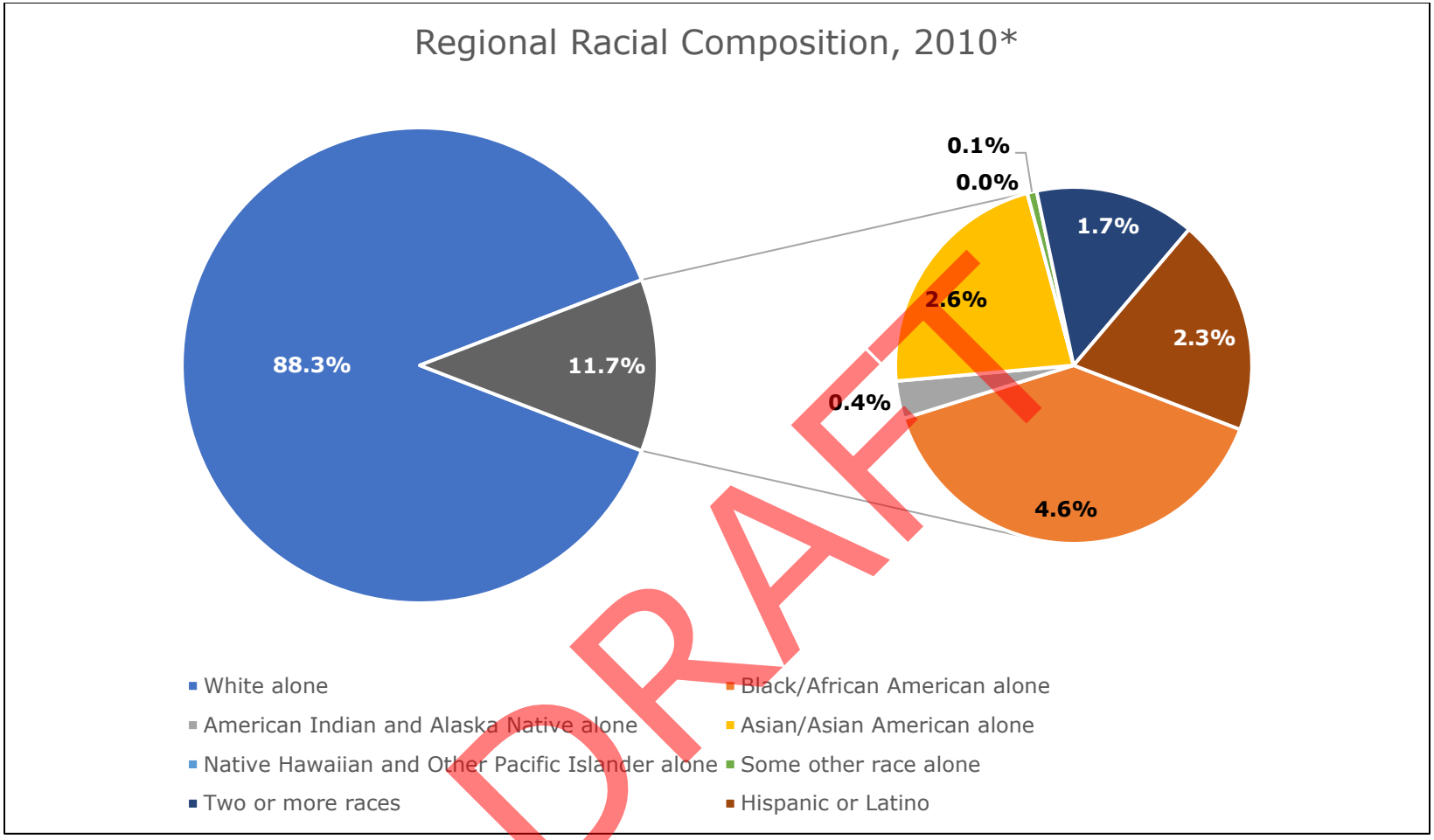


Figure 2.4: *2010 regional racial composition*
Data courtesy: U.S. Census Bureau, Census 2010.
**Note: Due to rounding of the breakout section, the percentage totals for the larger pie are one-tenth lower than the actual numbers.*

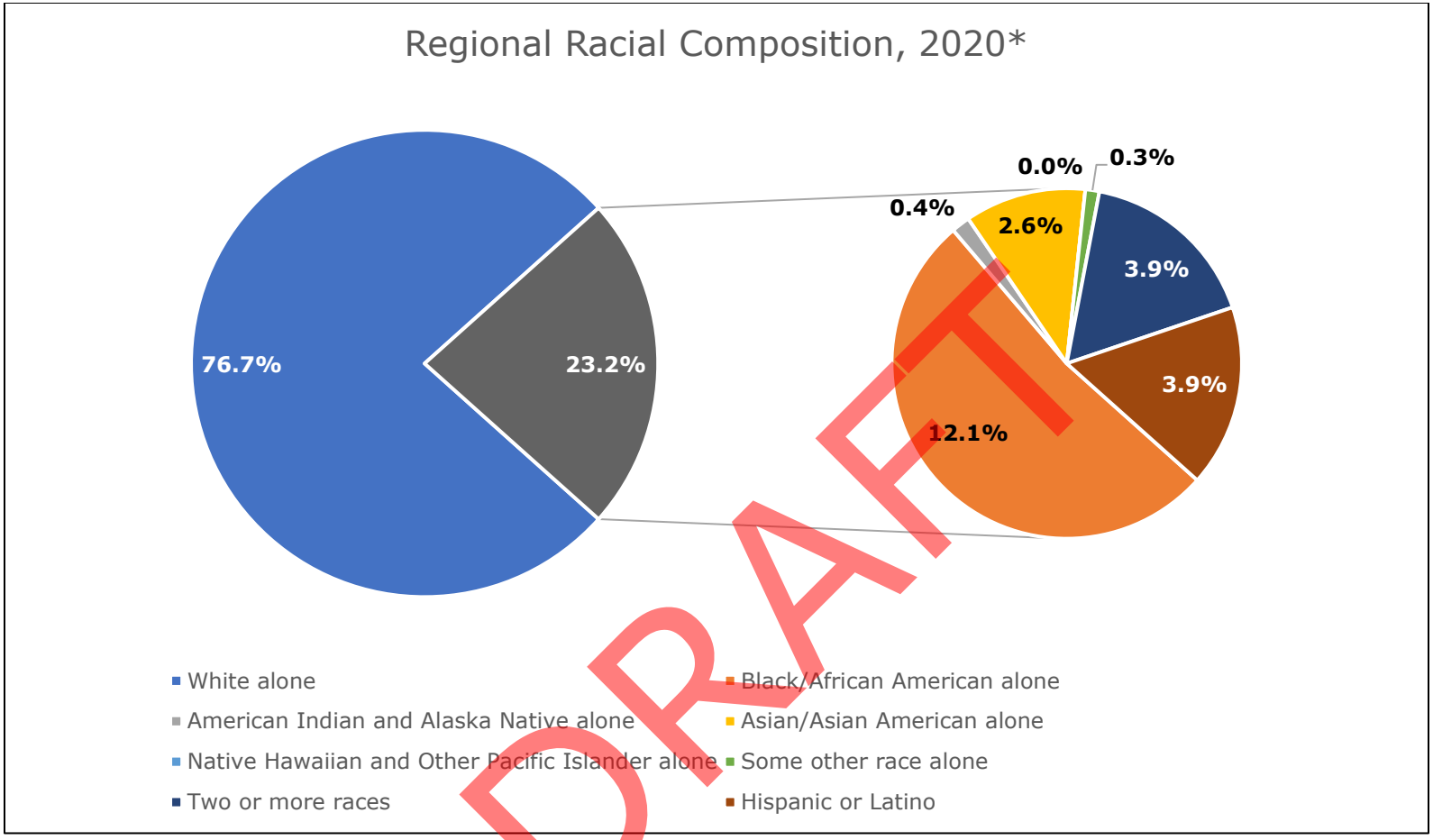


Figure 2.5: *2020 regional racial composition*
Data courtesy: U.S. Census Bureau, Census 2020.
**Note: Due to rounding of the breakout section, the percentage totals for the larger pie are one-tenth lower than the actual numbers.*

BIPOC populations are heavily concentrated in the cities of Waite Park and Saint Cloud where 42.3% and 32.3% of the respective populations are BIPOC.

Who counts as BIPOC?

According to the U.S. Census Bureau's Census 2020, 23.3% of the MPA's population identifies as Black, Indigenous, and People-of-Color (BIPOC). BIPOC populations include people identifying as one or more of the following:

- Black or African American
- American Indian and Alaska Native
- Asian or Asian American
- Native Hawaiian and Other Pacific Islander
- Some other race
- Two or more races

APO staff have also included individuals of Hispanic or Latino descent, regardless of race, under this definition as well.

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Figure 2.6: *The APO's definition of Black, Indigenous, and People-of-Color (BIPOC) populations.*

Within the Saint Cloud metro, areas with large concentrations of BIPOC populations include a good portion of Waite Park south of MN 23 and between MN 15 and I-94; areas of north Saint Cloud between Third Street N and Veterans Drive/Eighth Street N; areas surrounding the SCSU campus; and in east Saint Cloud near the MN 23/US 10 interchange.

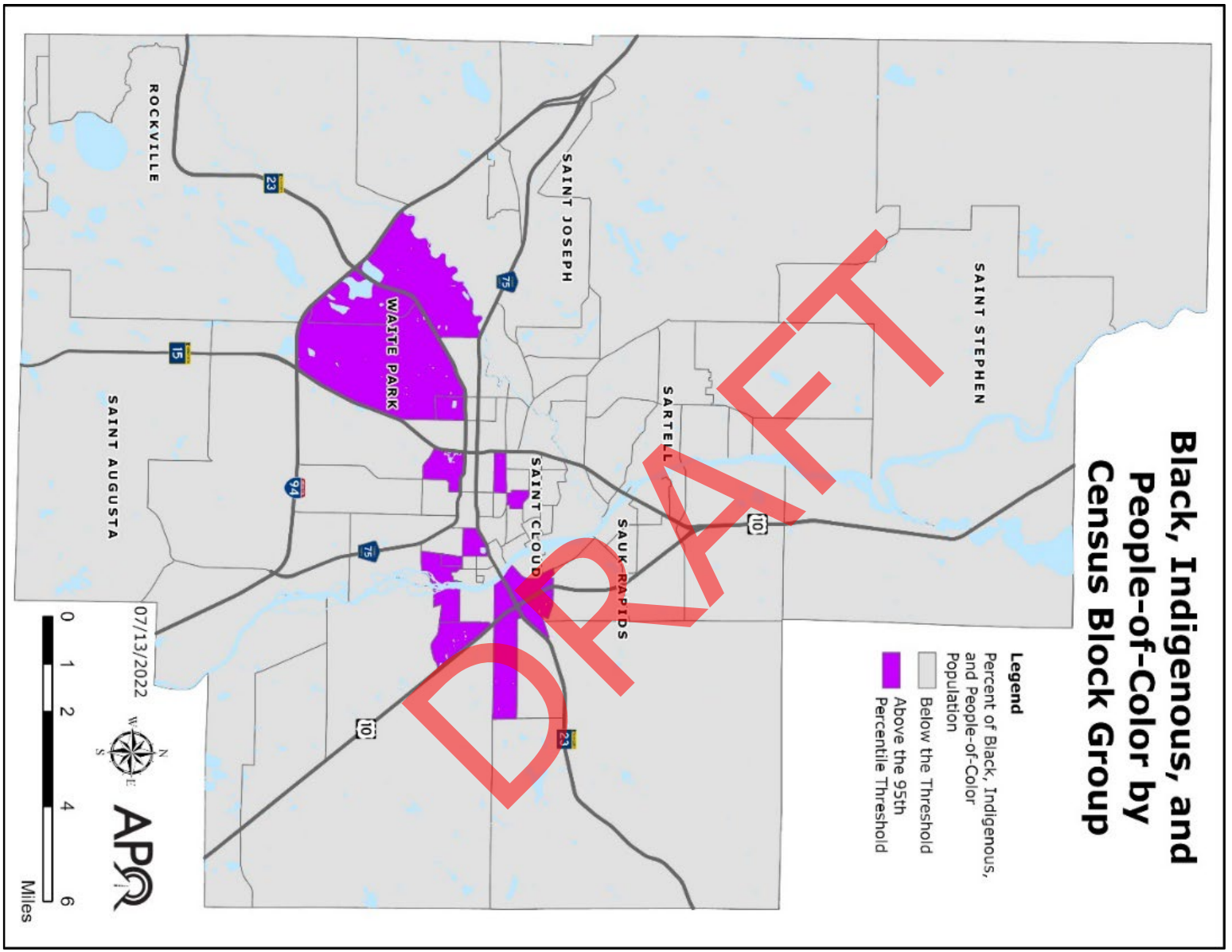

Figure 2.7: *Locations of Census block groups within the MPA with high concentrations of BIPOC populations. Data courtesy: U.S. Census Bureau, Census 2020.*

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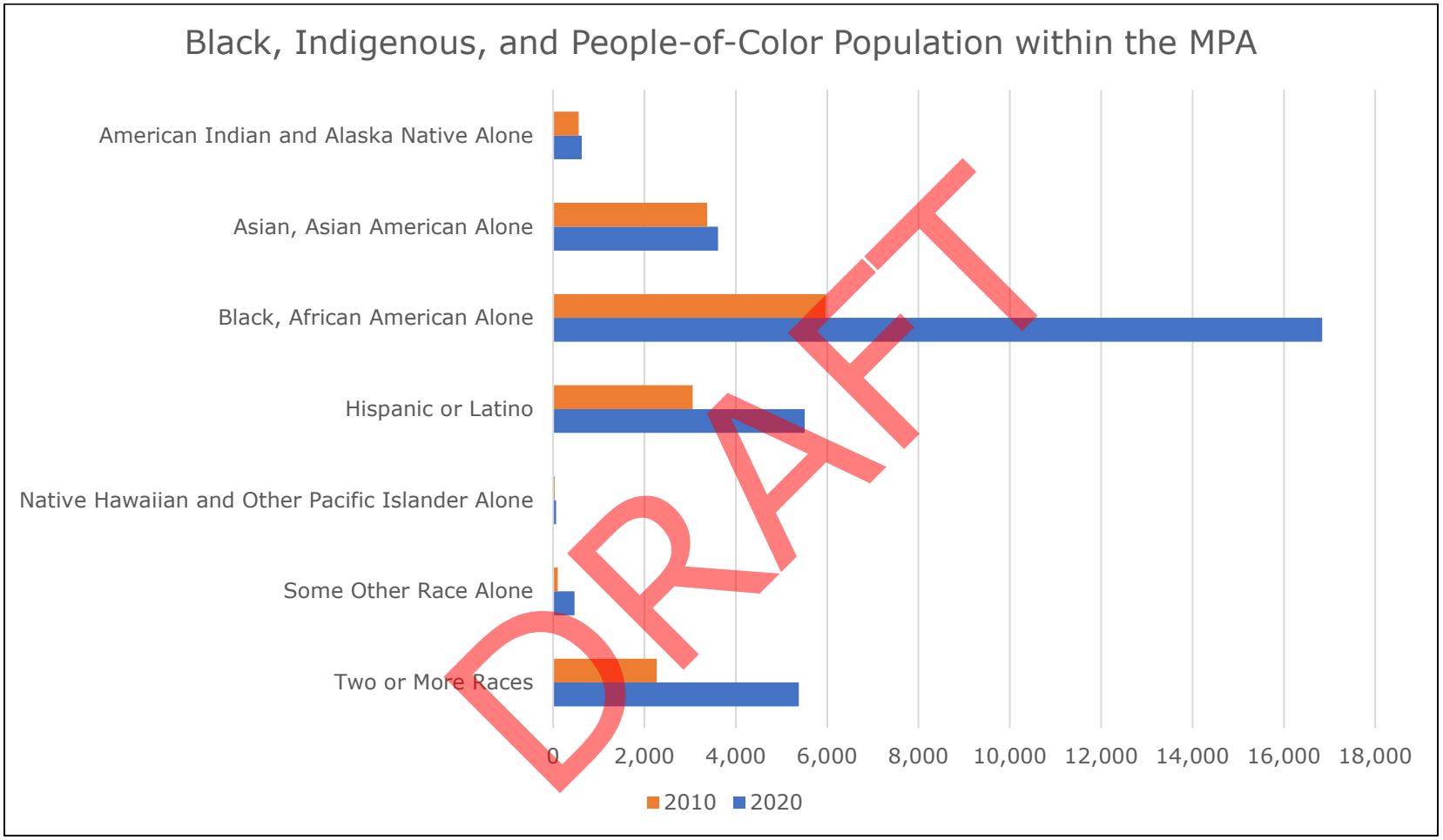

Figure 2.8: *Breakdown of BIPOC population within the Saint Cloud MPA from 2010 and 2020.*
Data courtesy: U.S. Census Bureau, Census 2010; U.S. Census Bureau, Census 2020.

A contributing factor to the increase in the MPA's BIPOC population – and overall population growth – stems from the influx of new immigrants to the Saint Cloud area. According to the 2011-2015 American Community Survey (ACS) Five Year Estimates,

approximately 6% of the MPA's population was born outside of the United States – with two in five individuals immigrating from Africa. Sizeable immigration from Asia (32.6%) and Latin America (15.9%) was also noted.

By 2020, approximately 8.3% of the MPA's population was considered foreign-born. However, the breakdown of immigration had shifted. Approximately three out of five foreign-born individuals within the MPA immigrated from Africa – a nearly 50% increase in the five-year time frame. Waite Park has the largest share of its population being immigrants (19%). However, approximately 70% of all foreign-born individuals, regardless of nationality, currently reside within Saint Cloud.

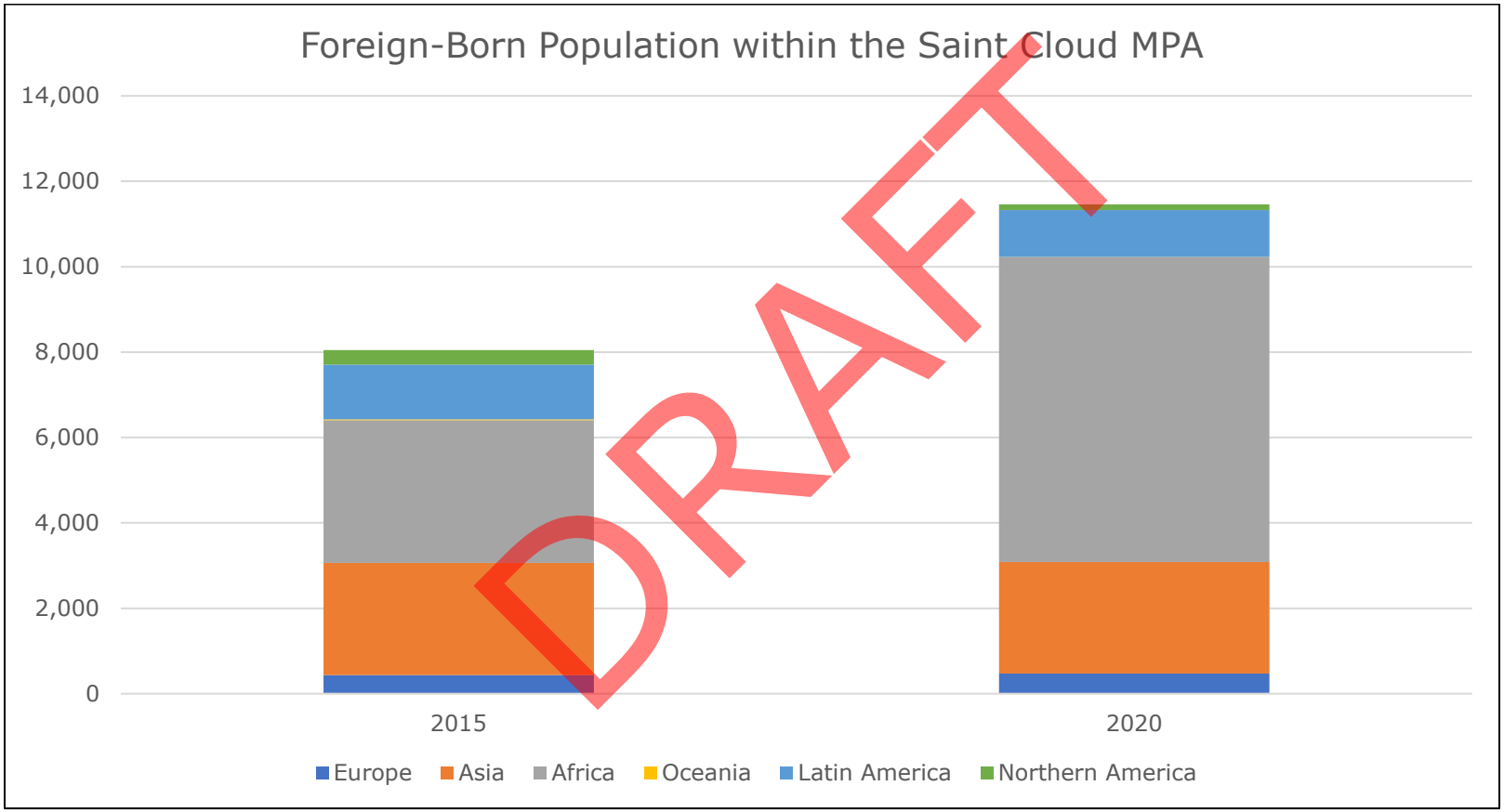

Figure 2.9: *Foreign-born population within the Saint Cloud MPA by continent of origin.*
Data courtesy: U.S. Census Bureau's 2011-2015 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

While immigration is a contributing factor to the increase in the BIPOC population – and the overall population – it should be noted that immigration is only part of the story. According to the 2016-2020 ACS Five Year Estimates, approximately two-thirds

of the BIPOC population within the MPA is due to people moving to the region from other areas (cities, counties, states) within the U.S.

As a result, over the past 10 years, the Saint Cloud MPA has gotten increasingly more diverse.

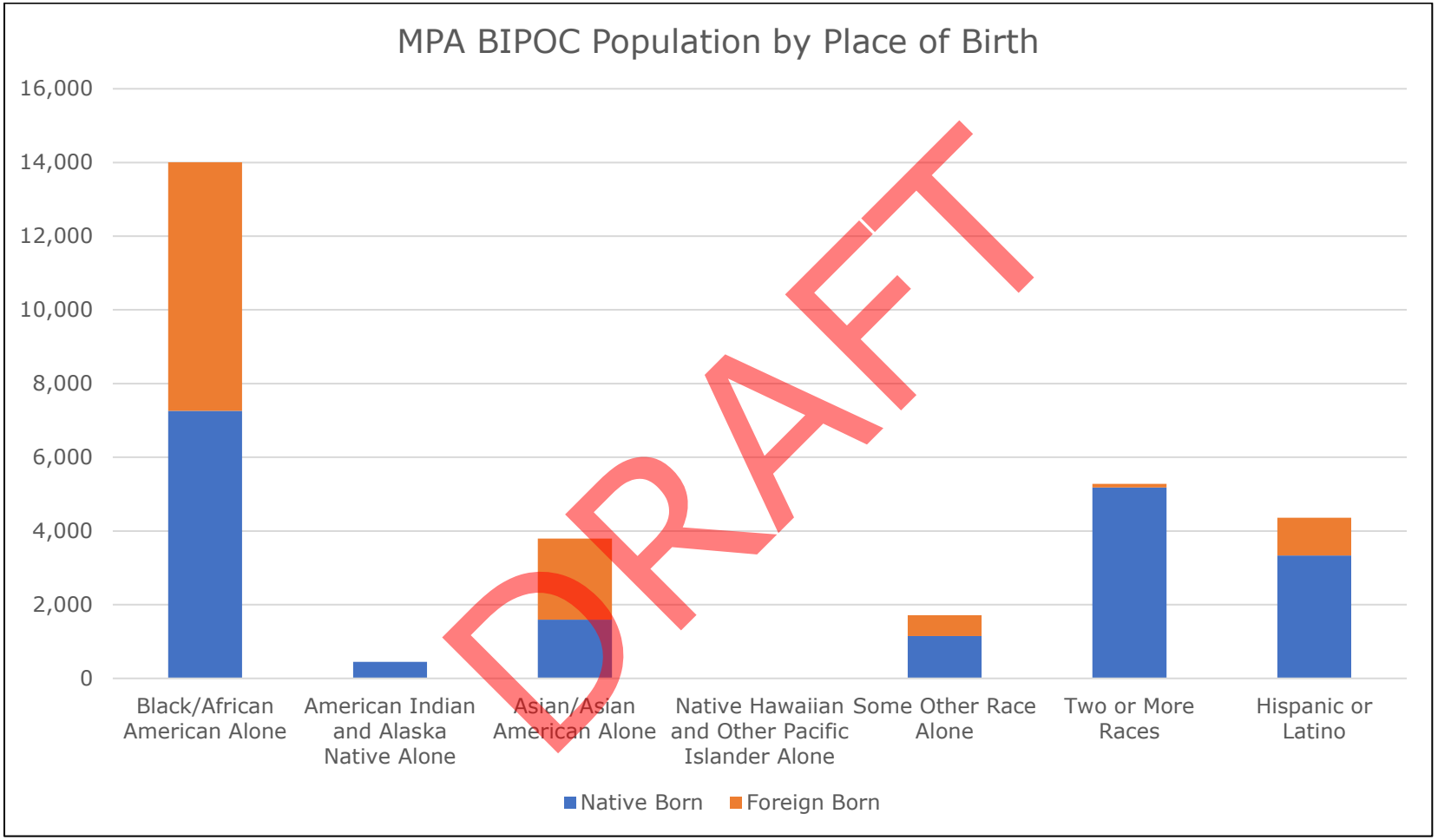

Figure 2.10: *MPA BIPOC population by place of birth.*
Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

Coupled with the increase in diversity comes the increase in the number of different languages spoken across the MPA. The 2016-2020 ACS Five Year Estimates indicate approximately 4.5% of the population over age 5 speaks English less than "very

well." Like BIPOC and foreign-born populations, a bulk of Limited English Proficient (LEP) populations are concentrated within the cities of Waite Park and Saint Cloud. According to the 2016-2020 ACS Five Year Estimates, the cities of Waite Park and Saint Cloud had 15.8% and 6.1% of their respective populations over the age of 5 with limited English-speaking skills.

Locations across the Saint Cloud metro where high concentrations of LEP populations live include the area surrounding Park Meadows Apartment Homes in Waite Park; the neighborhoods surrounding Heritage Park between MN 15 and Oak Grove Road; the areas adjacent to the SCSU campus; and the residential developments just east of US 10 along between Benton CSAH 8 and Sherburne CSAH 7.

Figure 2.11: *A photo of the La Cruz apartments near the SCSU campus. These apartments are located within a block group with a high concentration of LEP individuals.*
Photo courtesy of Saint Cloud APO.

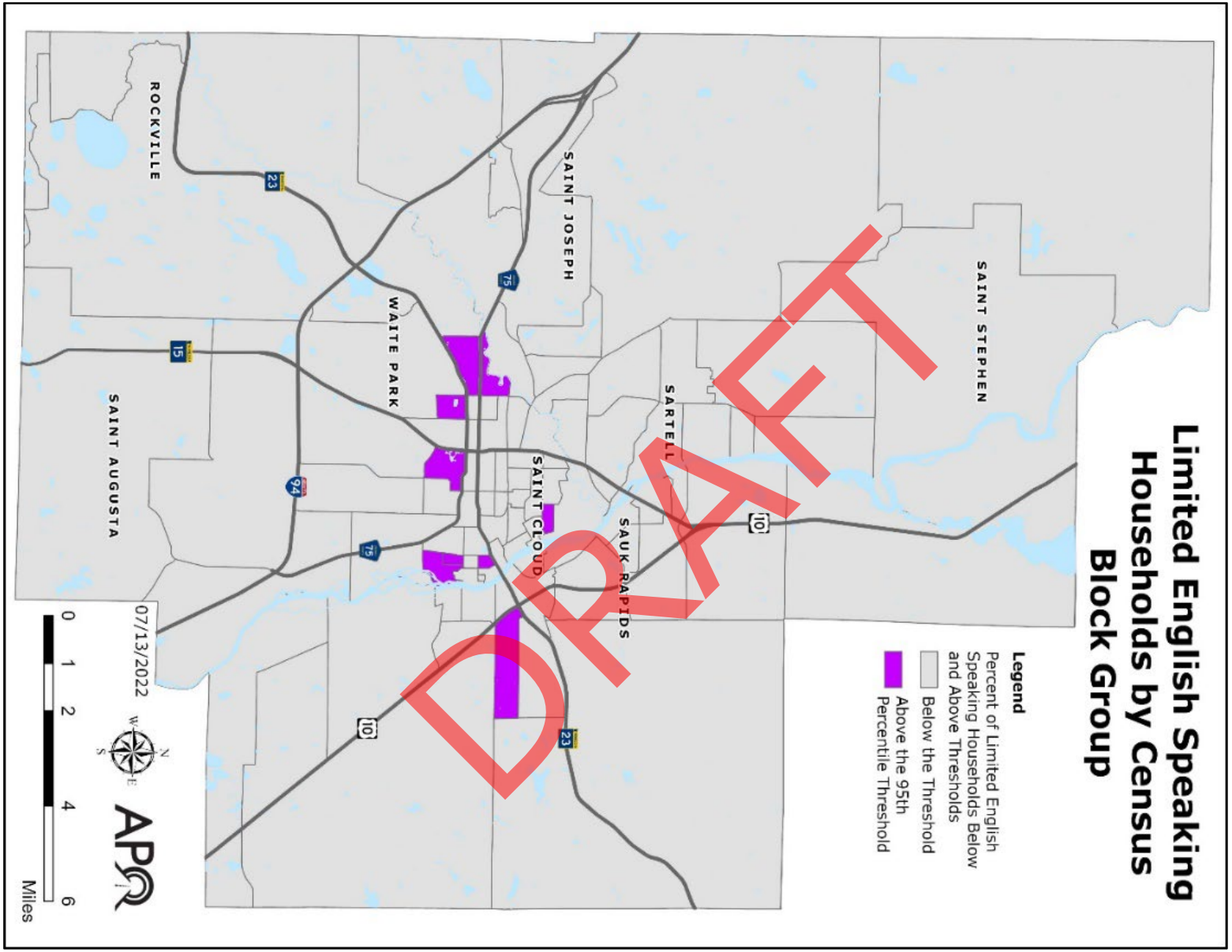

Figure 2.12: *Locations of Census block groups within the MPA with high concentrations of populations limited in English proficiency. Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

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The Minnesota Department of Education (https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=2) collects data on the number of students reported as of Oct. 1 of the academic year by languages spoken at home. While this method is not perfect in determining the exact number of individuals who speak certain languages within the MPA, it is one way to understand what some of the more common languages spoken are – aside from English. This data does not address the English proficient capabilities among students and/or their families.

Six public school districts can be found within the Saint Cloud APO's planning area: Holdingford, Kimball, ROCORI, Saint Cloud, Sartell-Saint Stephen, and Sauk Rapids-Rice. According to MDE, the most commonly spoken language within these districts during academic year 2019-2020 (aside from English) was Somali. A majority of Somali speakers are found within the St. Cloud Public School District. The next most commonly spoken language – Spanish – was found to have been spoken by students within the ROCORI Public School District at the western end of the MPA.

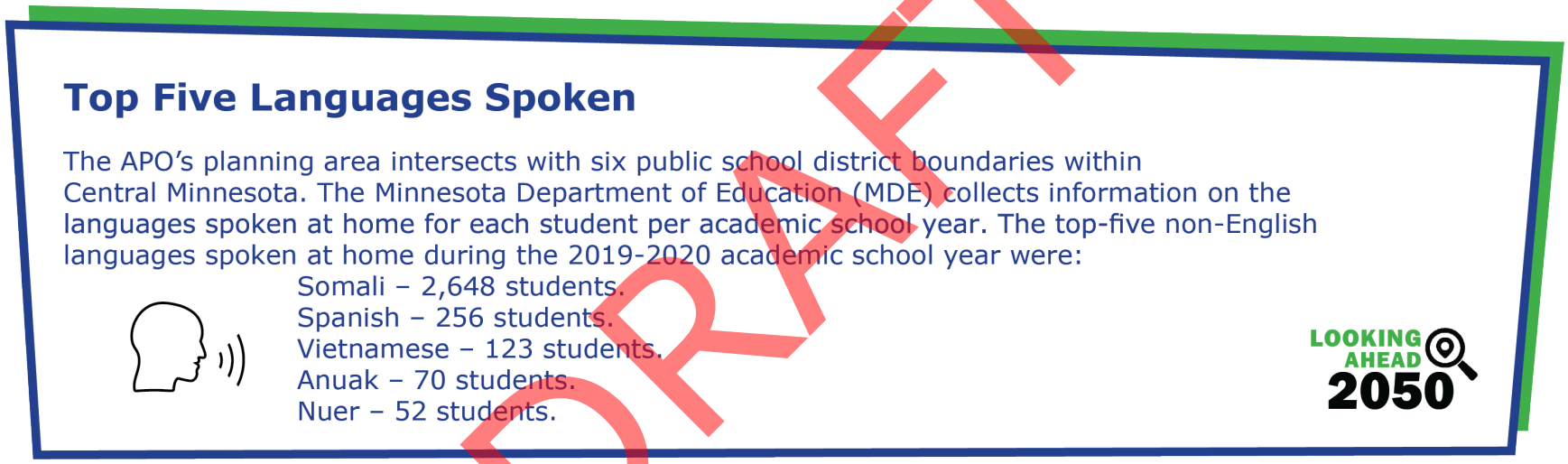

Figure 2.13: *A list of the top five languages spoken within the six public school districts found within the APO's MPA. Data courtesy: Minnesota Department of Education.*

People with Disabilities

In determining the population of people with disabilities, the U.S. Census Bureau excludes what they have defined as "institutionalized" populations. The U.S. Census Bureau defines institutionalized populations as persons living in military installations, correctional and penal institutions, dormitories of schools and universities, religious institutions, and hospitals.

That said, according to the 2016-2020 ACS Five Year Estimates the MPA has a non-institutionalized population of 135,988. Of that, approximately one in 10 residents within the Saint Cloud MPA have indicated they have a disability.

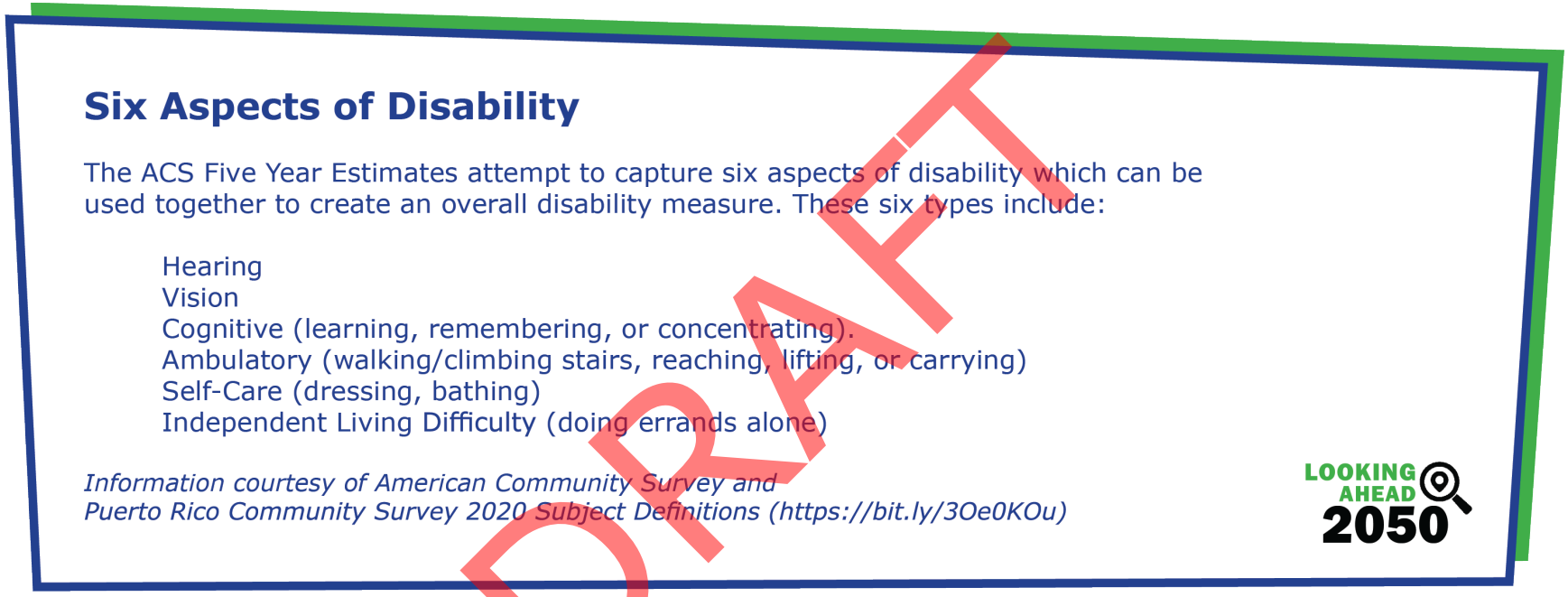

Figure 2.14: *The six aspects used by the U.S. Census Bureau to create the overall disability measure.*
Data courtesy: American Community Survey and Puerto Rico Community Survey 2020 Subject Definitions.

Waite Park has the largest percentage of its population having a disability at 15.9%, followed by the City of Saint Cloud at 12.4%. Large concentrations of persons with disabilities can be found in north Saint Cloud, in Waite Park south of MN 23 and between CR 137 and MN 15; and within Sauk Rapids Township near the juncture of MN 15 and US 10.

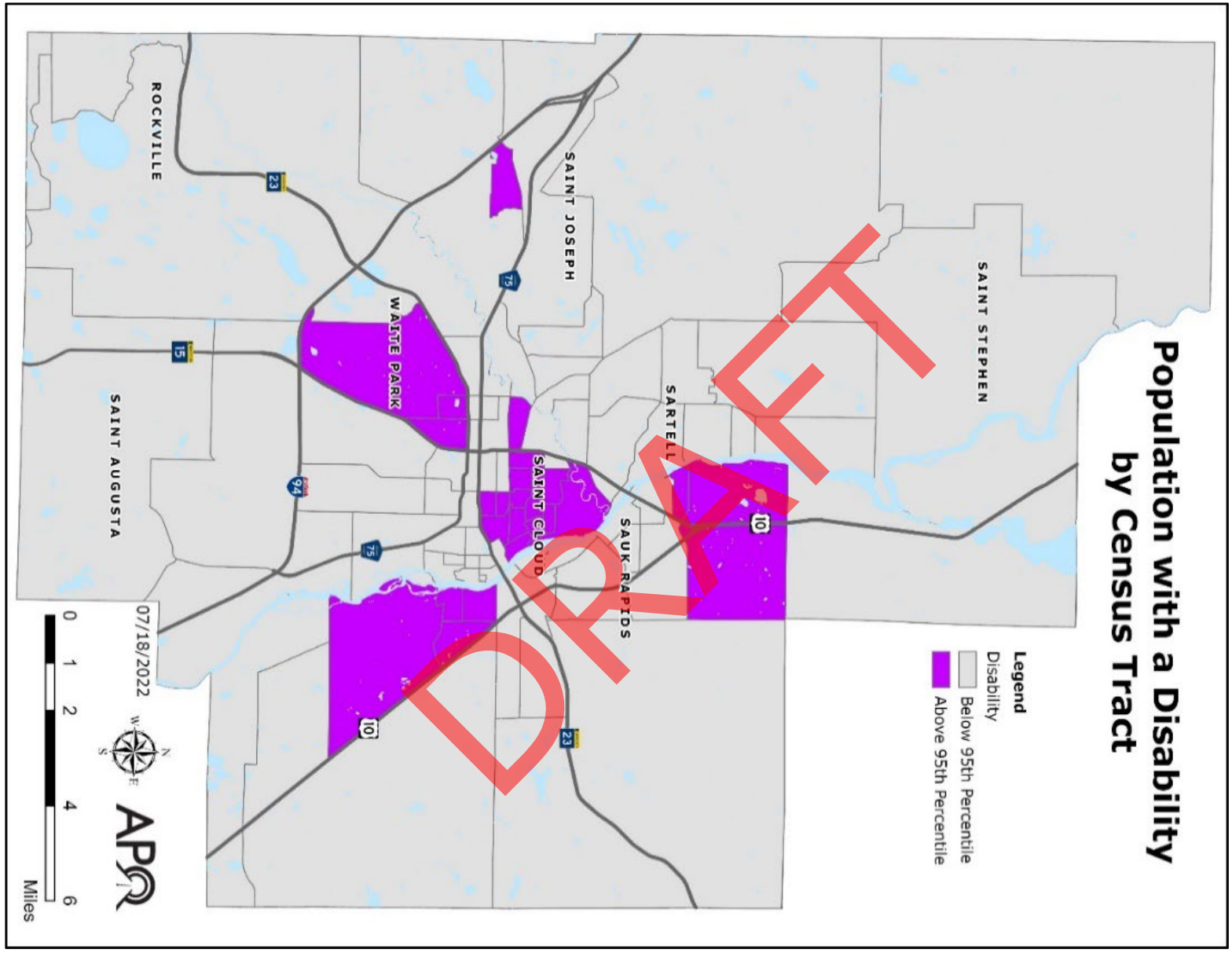

Figure 2.15: *Locations of Census tracts within the MPA with high concentrations of people with disabilities. Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

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Of the population with disabilities, more than half are between the ages of 18 and 64 (56.3%) – the typical working age. Taking a closer look at jurisdictions within the MPA, Saint Wendel Township has the largest percentage of its population with disabilities falling in this age bracket – with just over two out of three people with disabilities being between 18 and 64. Saint Cloud follows closely behind at 64.4% of its population of people with disabilities being adults ages 18-64. The City of Saint Stephen and Saint Joseph Township have the largest percentages of their populations with disabilities over age 65 at 63.5% and 63.4% respectively.

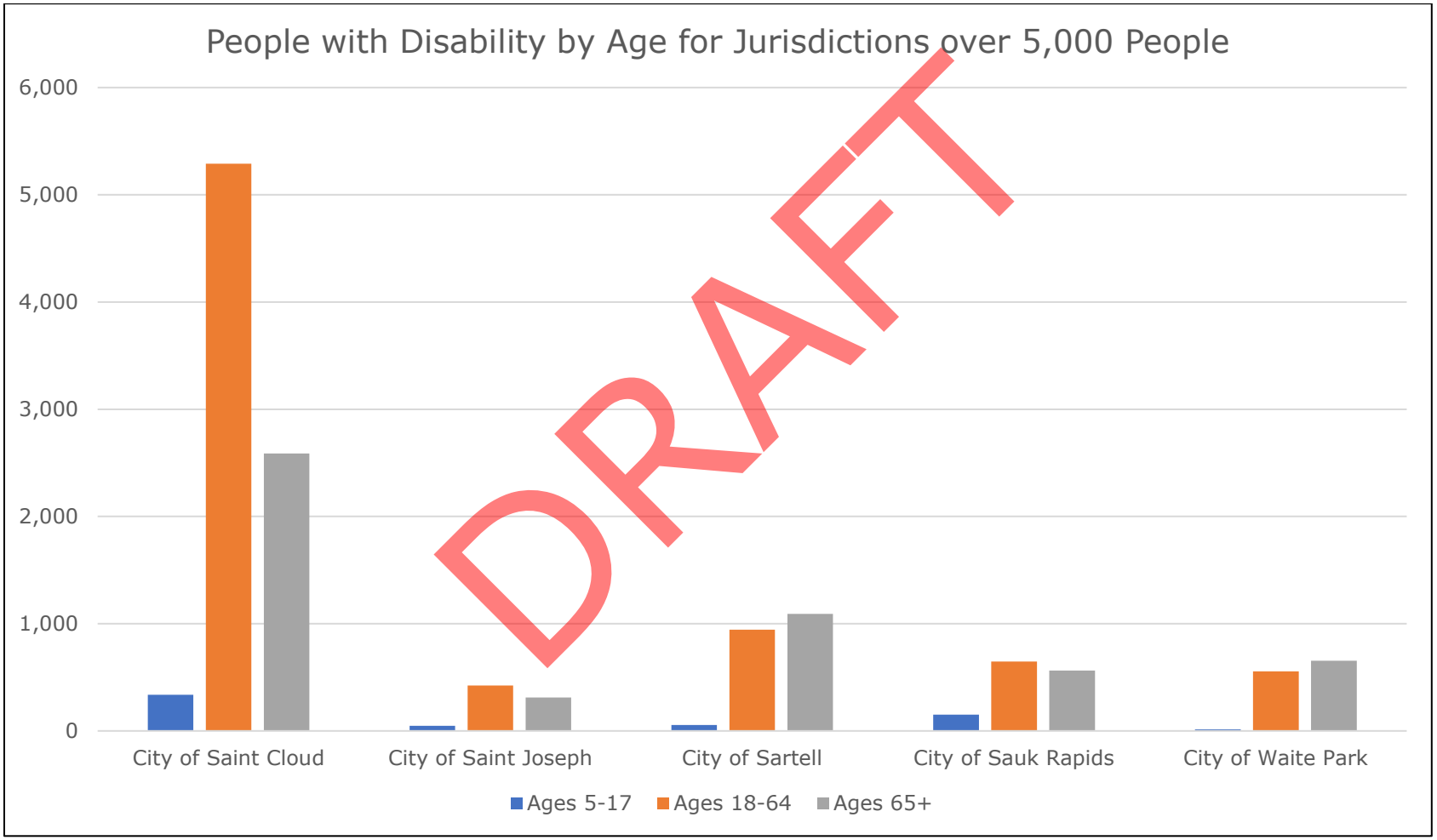


Figure 2.16: *People with disabilities by age for jurisdictions within the Saint Cloud MPA with populations over 5,000. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

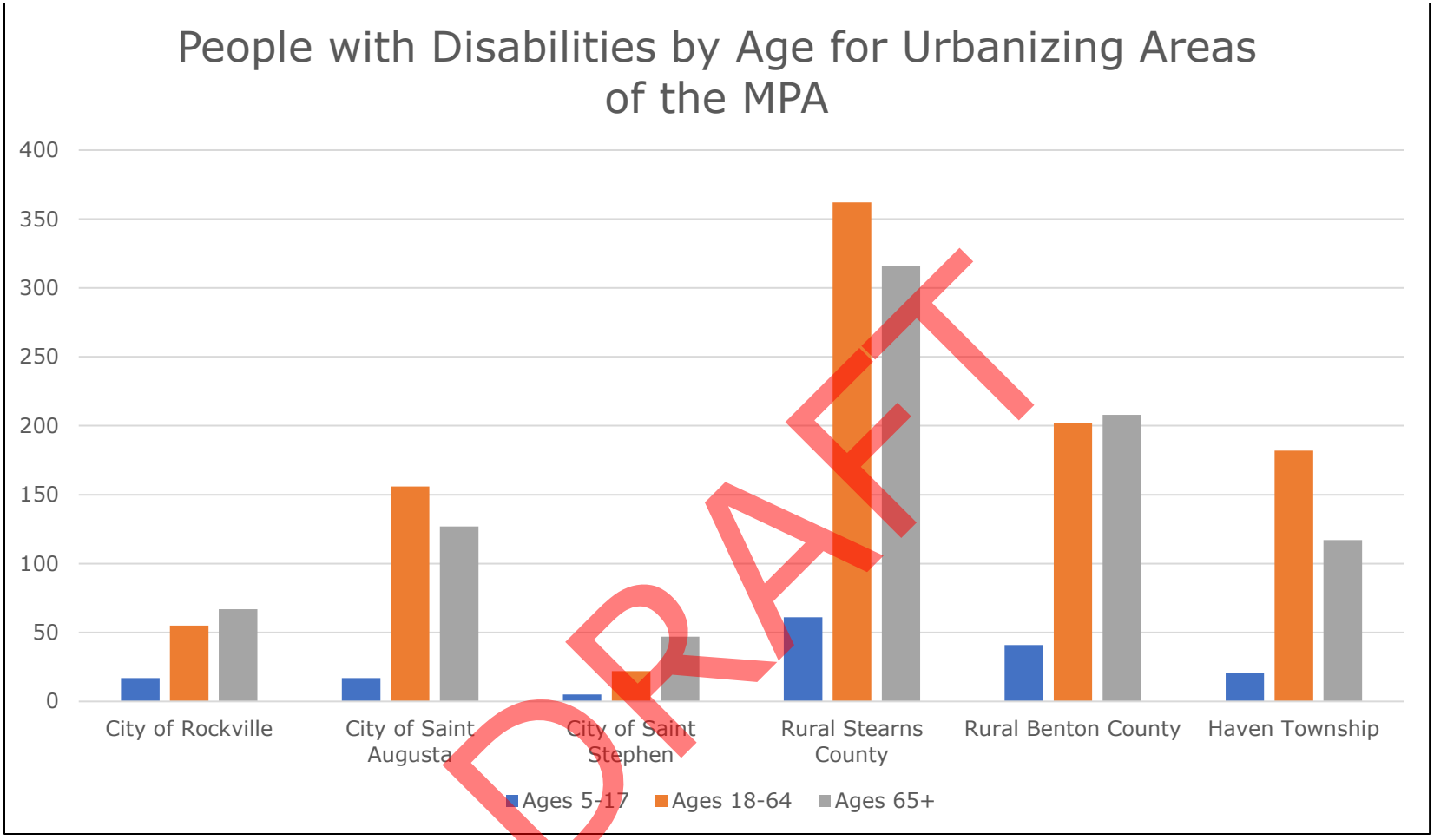


Figure 2.17: *People with disabilities by age for urbanizing areas within the Saint Cloud MPA. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

Household Characteristics

A household, as defined by the U.S. Census Bureau, consists of all people who occupy a housing unit (such as a single-family home or an apartment) – regardless of relation. Based on this definition, the 2016-2020 ACS Five Year Estimates reported 53,767 households are located within the MPA, an increase of 8.3% compared to the 2006-2010 ACS Five Year Estimates.

Based on population, it is again no surprise that half of the region's households are located within Saint Cloud. But while the city experienced modest gains in the number of households in the 10 years span (up 3.8% between 2010 and 2020), Sartell

and Saint Joseph experienced the highest rate of growth in household numbers – increasing by 32.4% and 26.7% respectively. Like total population, the number of households within rural areas experienced some of the largest decreases. Overall, rural Stearns County's total household population (i.e., that portion within the APO's planning area) dropped 6.1% between 2010 and 2020 with some of the largest decreases occurring specifically in LeSauk and Saint Joseph townships (down 25.1% and 37.8% respectively).

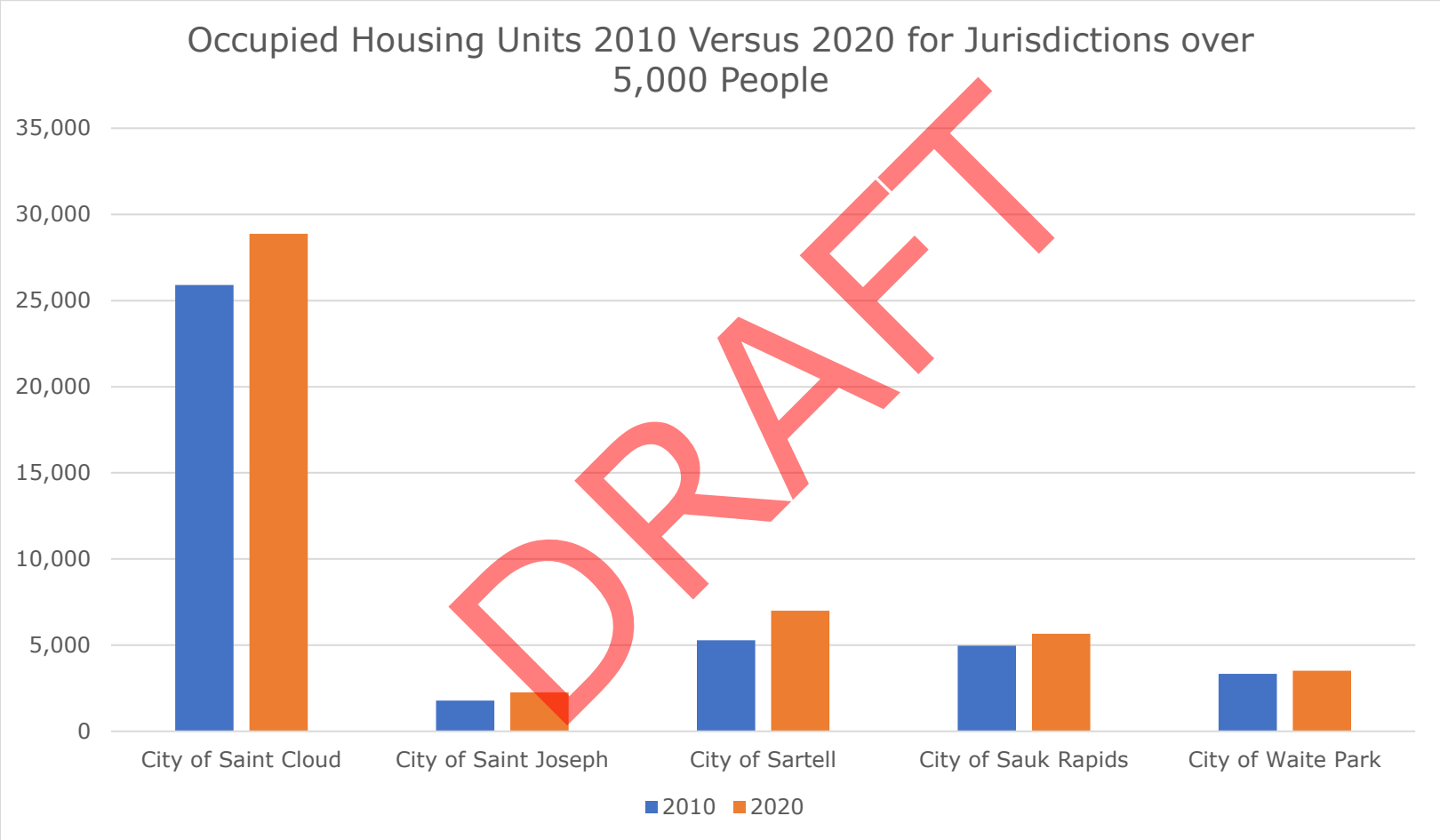


Figure 2.18: *Occupied housing units in 2010 versus 2020 for jurisdictions over 5,000 people.*
Data courtesy: U.S. Census Bureau's 2006-2010 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

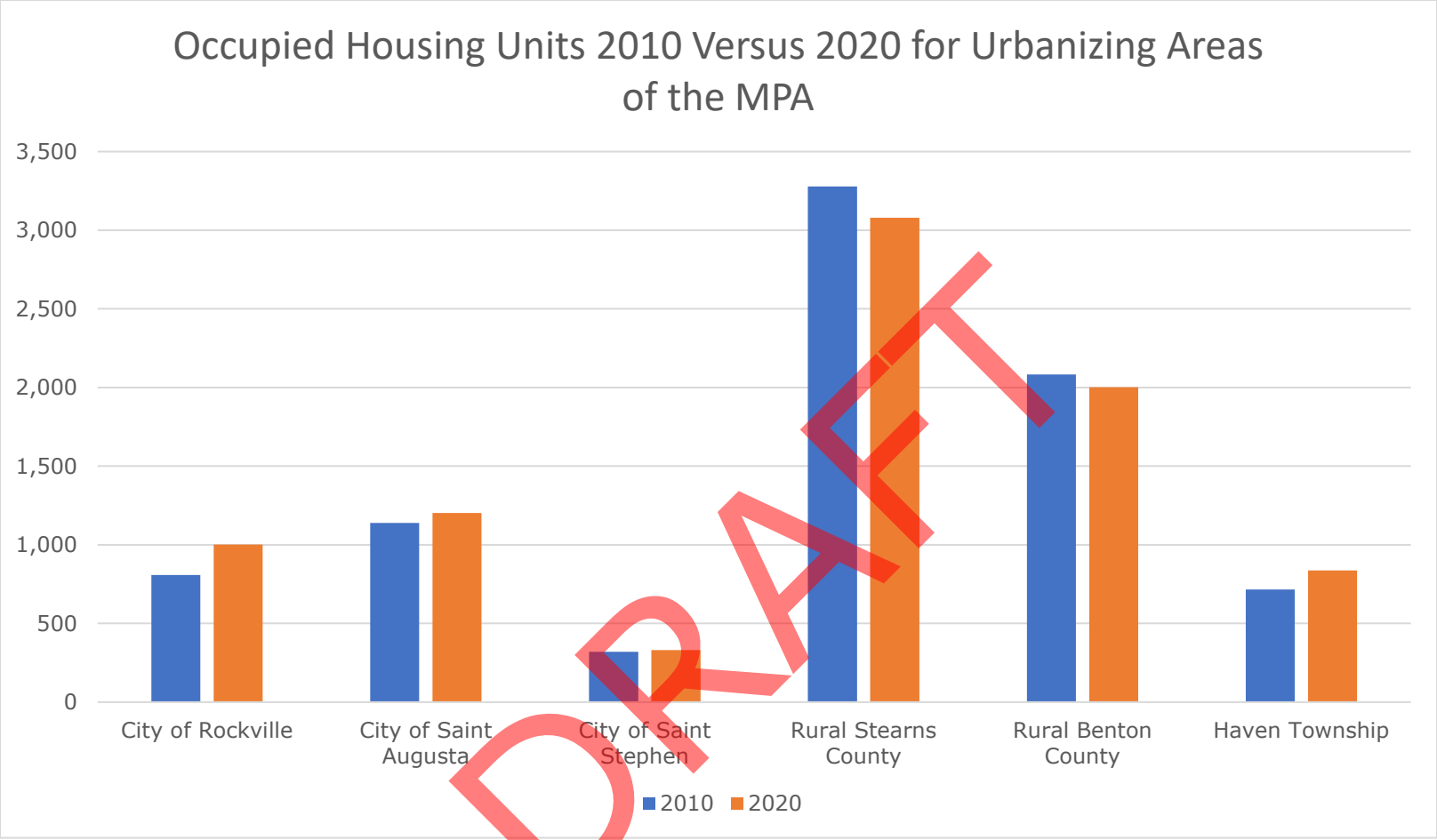


Figure 2.19: *Occupied housing units in 2010 versus 2020 for the urbanizing areas of the MPA.*
Data courtesy: U.S. Census Bureau's 2006-2010 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

Homeownership among all households within the MPA has dropped during this 10-year span as well. In 2010, 64.5% of all households were owner occupied. By 2020, the ACS Five Year Estimates report 59% of all households were owner occupied. While the number of owner-occupied households has remained constant, the number of rental owned households within the MPA has increased by just over 25%. The cities of Waite Park and Saint Cloud maintain the highest percentage of their household populations renting both in 2010 and 2020. However, rental growth has taken off in cities such as Sartell and Sauk Rapids, where according to the 2016-2020 ACS Five Year Estimates, approximately 40.9% and 38.9% of households are renter occupied up from 24.4% and 29.5% 2006-2010 ACS Five Year Estimates, respectively.

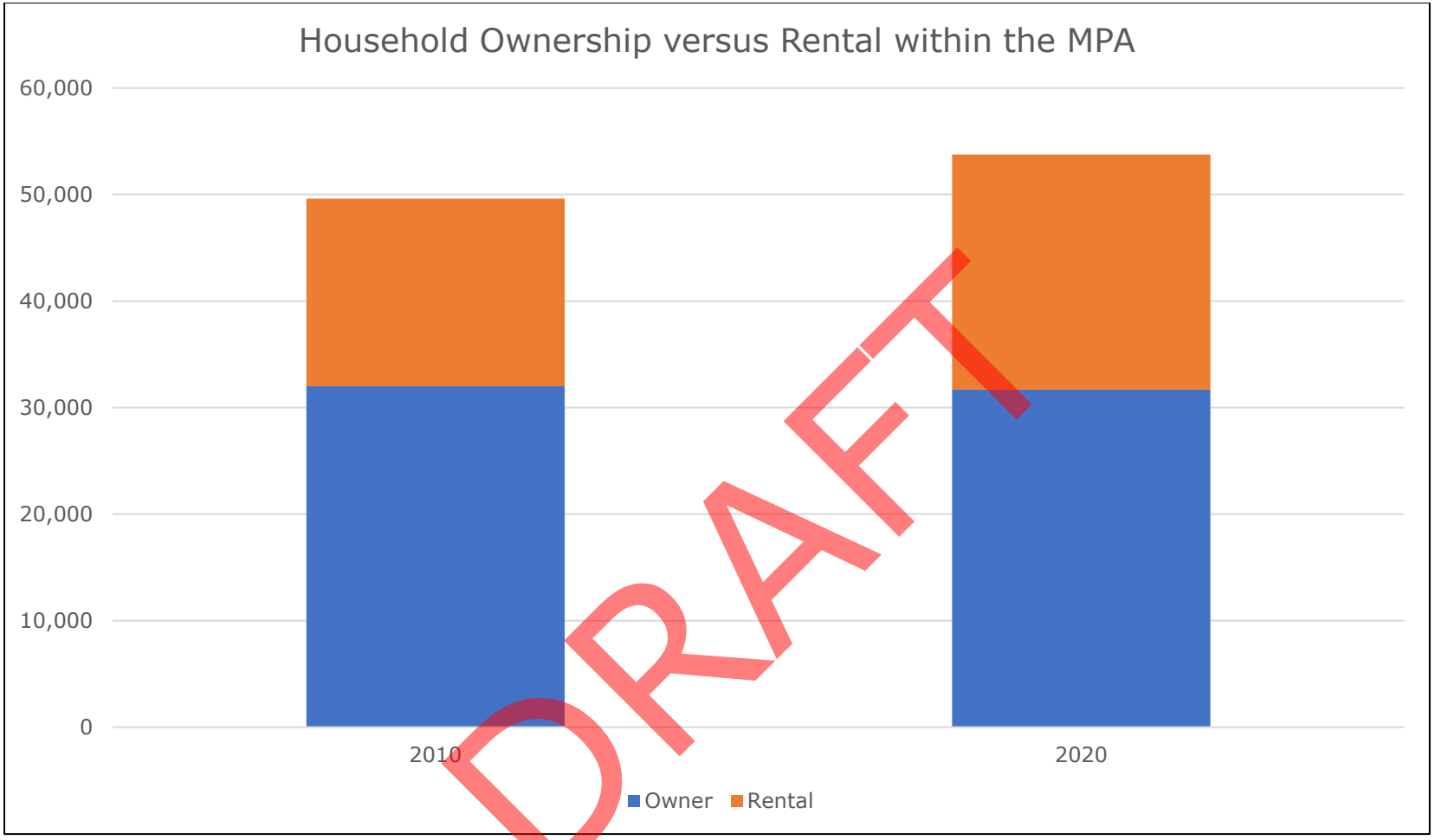


Figure 2.20: *Household ownership status in 2010 and 2020 within the Saint Cloud MPA.*
Data courtesy: U.S. Census Bureau's 2006-2010 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

Overall, household size across the MPA has been decreasing between 2010 and 2020 according to ACS Five Year Estimate data. Households with three people have experienced the largest decrease – dropping 9.2% between 2010 and 2020. One person households, on the other hand, have risen by 17.2% during this 10-year period.

In short, it appears the Saint Cloud MPA household population is trending toward individuals living by themselves in rental properties.

Income

Within the MPA, median household income varies significantly between the rural/urbanizing portions of the planning area compared to the major cities. For example, 2020 median household income in the City of Saint Augusta and Saint Wendel and Brockway townships was just under $100,000 according to the U.S. Census 2016-2020 ACS Five Year Estimates. However, median household incomes for the five major cities (Saint Cloud, Saint Joseph, Sartell, Sauk Rapids, and Waite Park) were considerably lower – with the City of Sartell reporting median household income at roughly $70,000 and the City of Waite Park reporting income roughly at $44,000.

Comparing this to 2010, median household income has largely increased except for the City of Sauk Rapids which saw a 5.3% decrease in median household income between 2010 and 2020. Again, the rural/urbanizing portions of the MPA experienced the highest gains. However, factoring in inflation tells a much different story. Accounting for inflation, the median household income across the planning area experienced a decrease in just under half of the jurisdictions within the MPA. Except for the City of Saint Cloud, households within the urban areas saw a decrease in their purchasing power – with some (like households in the City of Sauk Rapids) experiencing a reduction as high as 20%. Rural/urbanizing areas once again fared better, with some increasing their purchasing power by double digits (Saint Joseph Township, for instance, saw a 70.5% increase in median household income).

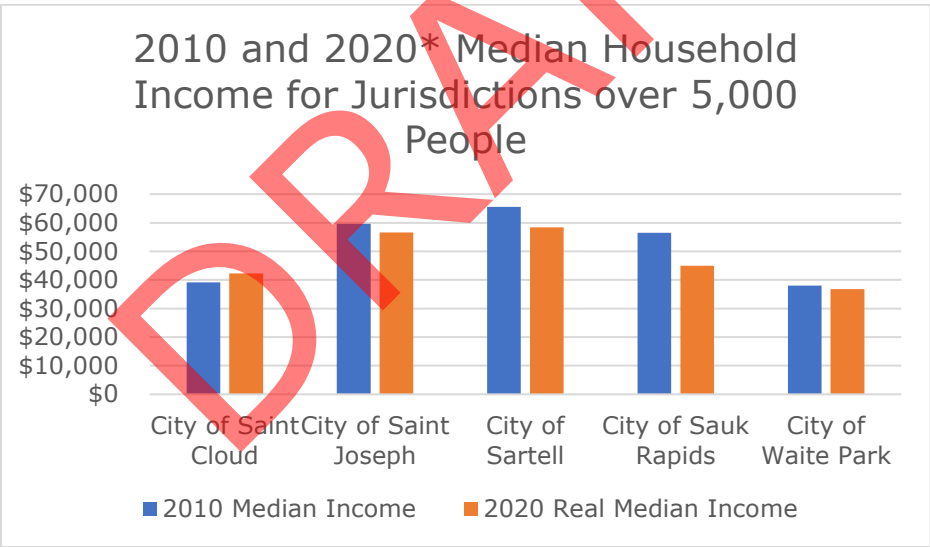


Figure 2.21: *2010 and 2020 median household incomes for MPA jurisdictions over 5,000 people.*
Data courtesy: U.S. Census Bureau's 2006-2010 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates; U.S. Bureau of Labor Statistics CPI Inflation Calculator.
**Note: 2020 Real Median Income has been adjusted to 2010 dollars to allow for a comparison of purchasing power.*

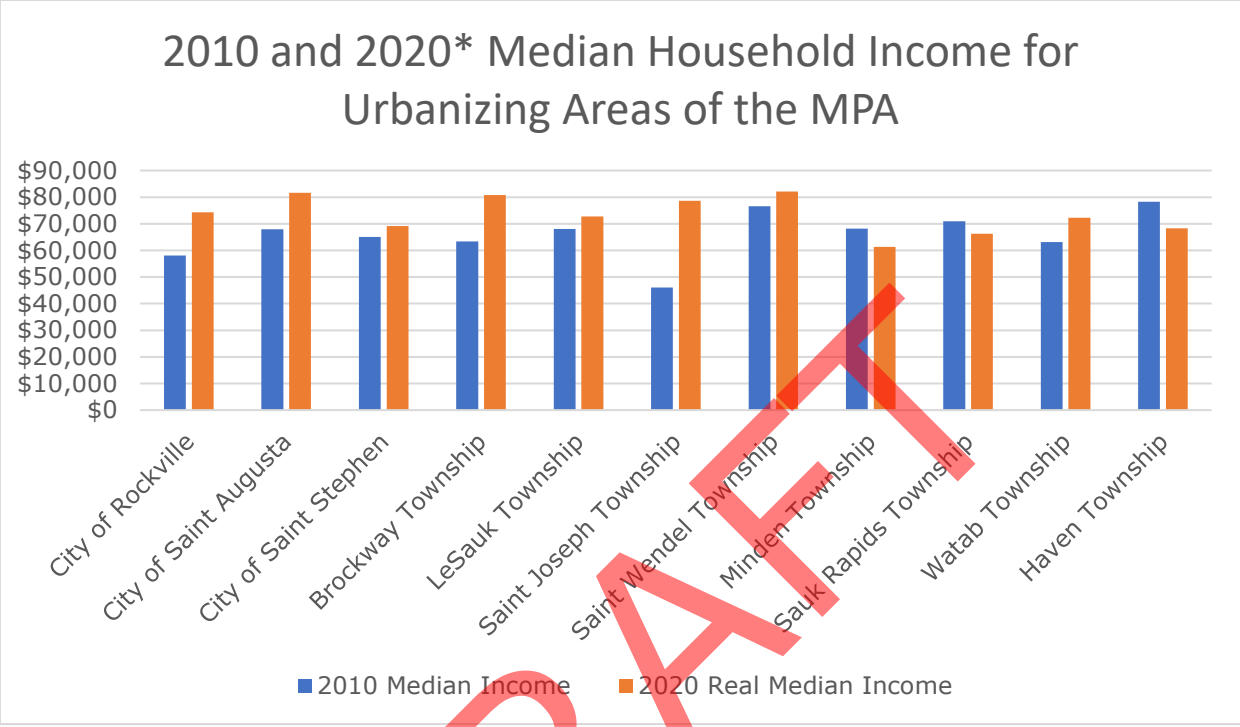


Figure 2.22: *2010 and 2020 median household incomes for urbanizing areas of the MPA.*
Data courtesy: U.S. Census Bureau's 2006-2010 ACS Five Year Estimates; U.S. Census Bureau's 2016-2020 ACS Five Year Estimates; U.S. Bureau of Labor Statistics CPI Inflation Calculator.
**Note: 2020 Real Median Income has been adjusted to 2010 dollars to allow for a comparison of purchasing power.*

Low-Income Households

The U.S. Census Bureau official poverty measure considers two primary factors in determining who is in poverty – family size/composition and income thresholds. Family size/composition assumes all people living at the same residence share income. Income is measured in terms of cash from sources such as wages, salaries, and Social Security. The Census then determines approximately how much money it would take to feed that family size/composition – a formula based off three times the cost of the minimum food diet in 1963 calculated in today's prices. If the family/size composition's total income is less than this threshold, the household is in poverty.

For example, a household comprised of two adults and one child would need to have a total 2020 income higher than $20,832 to be considered "above the poverty line." As the family size increases, more income will be needed to avoid the household falling into poverty.

According to the Census, the official poverty threshold is constant throughout the U.S. and does not account for geographic differences in housing costs. It is important to note that the poverty thresholds identified reflect some sense of a family's needs but should not be taken as the complete depiction of what people and households need to live.

Approximately 7,244 households within the Saint Cloud MPA are considered to have reported income below the poverty threshold equating to 13.5% of the MPA's household population according to the 2016-2020 ACS Five Year Estimates. Compared to the 2006-2010 ACS Five Year Estimates, the percentage of MPA households living in poverty has dropped 2.2 percentage points.

The cities of Saint Cloud and Waite Park have the largest percentage of their household population below the poverty threshold with nearly one in five households within each city below the poverty line. The City of Saint Joseph has the next largest percentage of their household population below the poverty threshold with one in 10 households in poverty.

Concentrations of households in poverty are located in St. Cloud along MN 23/US 10 interchange; the SCSU campus; the neighborhood surrounding Westwood Elementary School along Stearns CR 134 in Saint Cloud; and between Second Avenue S and MN 15 in Waite Park.

Figure 2.23: *A photo of the University Village Townhomes (UVTs) in southeast Saint Cloud. These apartments – primarily for student housing – are located within a block group with a large concentration of low-income households.*
Photo courtesy of Saint Cloud APO.

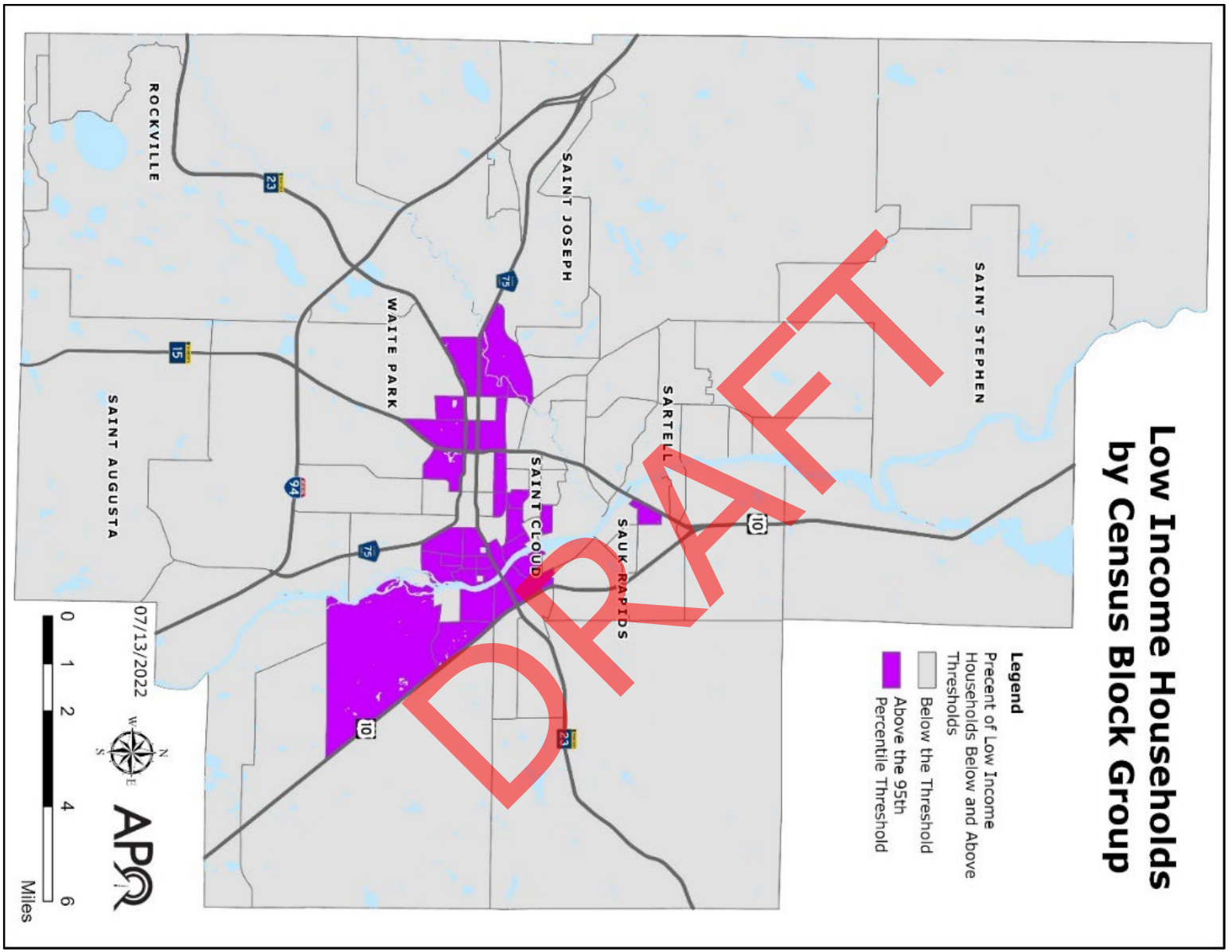


Figure 2.24: *Locations of Census block groups within the MPA with high concentrations of low-income households. Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

Zero Vehicle Households

Within the Saint Cloud MPA, approximately 6.7% of households (roughly 3,600) do not have access to a motor vehicle according to the 2016-2020 ACS Five Year Estimates. This percentage has remained relatively constant over the past 10 years with the 2006-2010 ACS Five Year Estimates indicating the MPA had approximately 6.9% of its household population without a vehicle.

However, the distribution of zero vehicle households has changed slightly over the past decade. Previously, Sauk Rapids Township and Waite Park had the largest percentage of their respective populations without access to a motor vehicle at 12.0% and 10.2% respectively. During the past 10 years, this has since shifted to Saint Cloud having the largest percentage of its population without vehicle access (nearly one in 10 households). Zero vehicle households within the metro are located in Saint Cloud's Seberger-Roosevelt neighborhood, around Heritage Park, throughout downtown, and areas in both the eastern and southern portions of the city. Additional zero vehicle household areas are also found in Waite Park just north of Discovery Community School and in Sauk Rapids between Benton CSAH 1 and Benton Drive.

Figure 2.25: *Homes within the Seberger-Roosevelt neighborhood in the City of Saint Cloud. This Saint Cloud neighborhood is within a block group with a high concentration of zero-vehicle households.*
Photo courtesy of Saint Cloud APO.

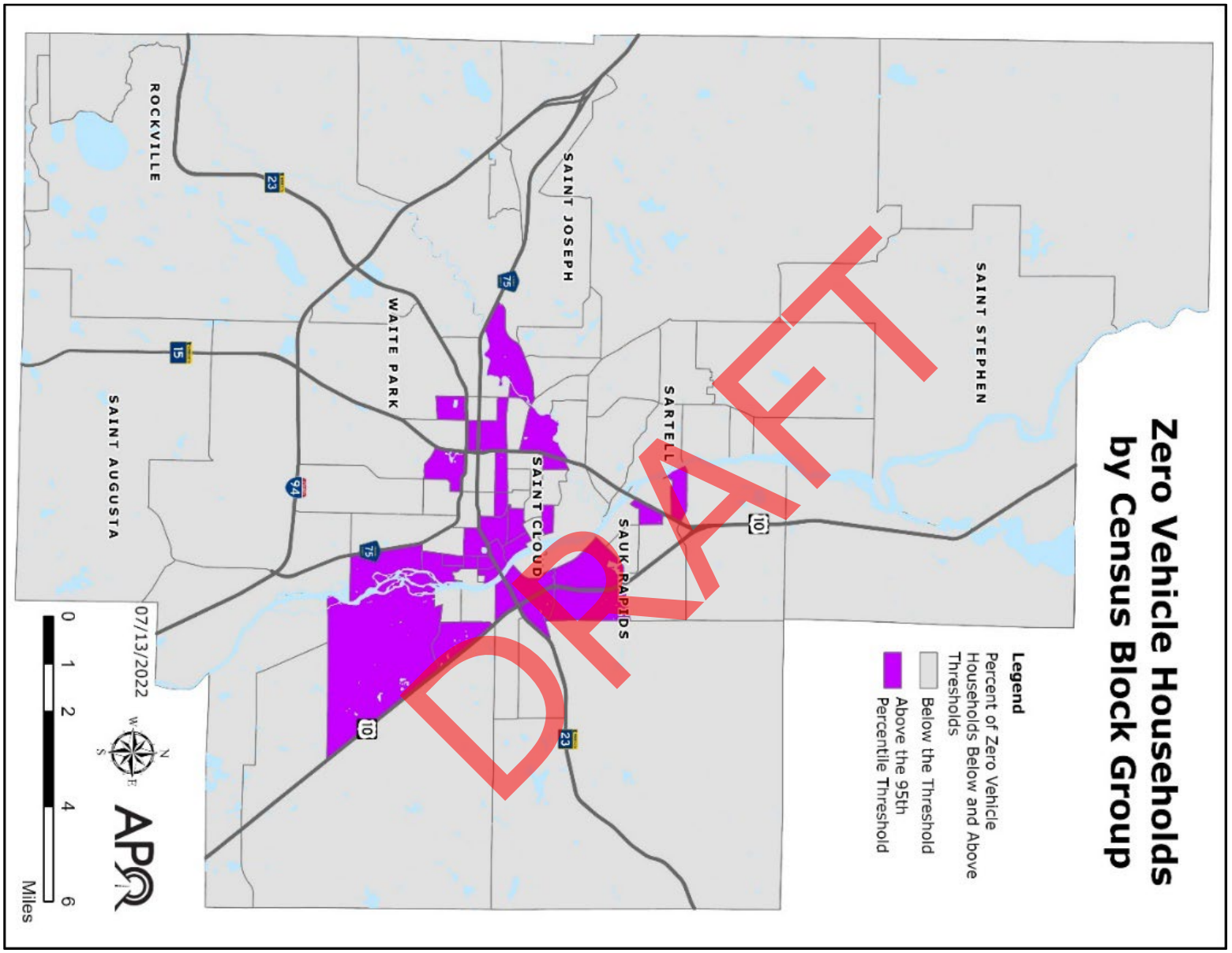


Figure 2.26: *Locations of Census block groups within the MPA with high concentrations of zero vehicle households. Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

APO

Within the Saint Cloud MPA, zero vehicle households are more likely to be renters as compared to homeowners. The 2016-2020 ACS Five Year Estimates indicate nearly 2% of all homeowners within the MPA do not have a motor vehicle as compared to nearly 14% of zero vehicle renter households.

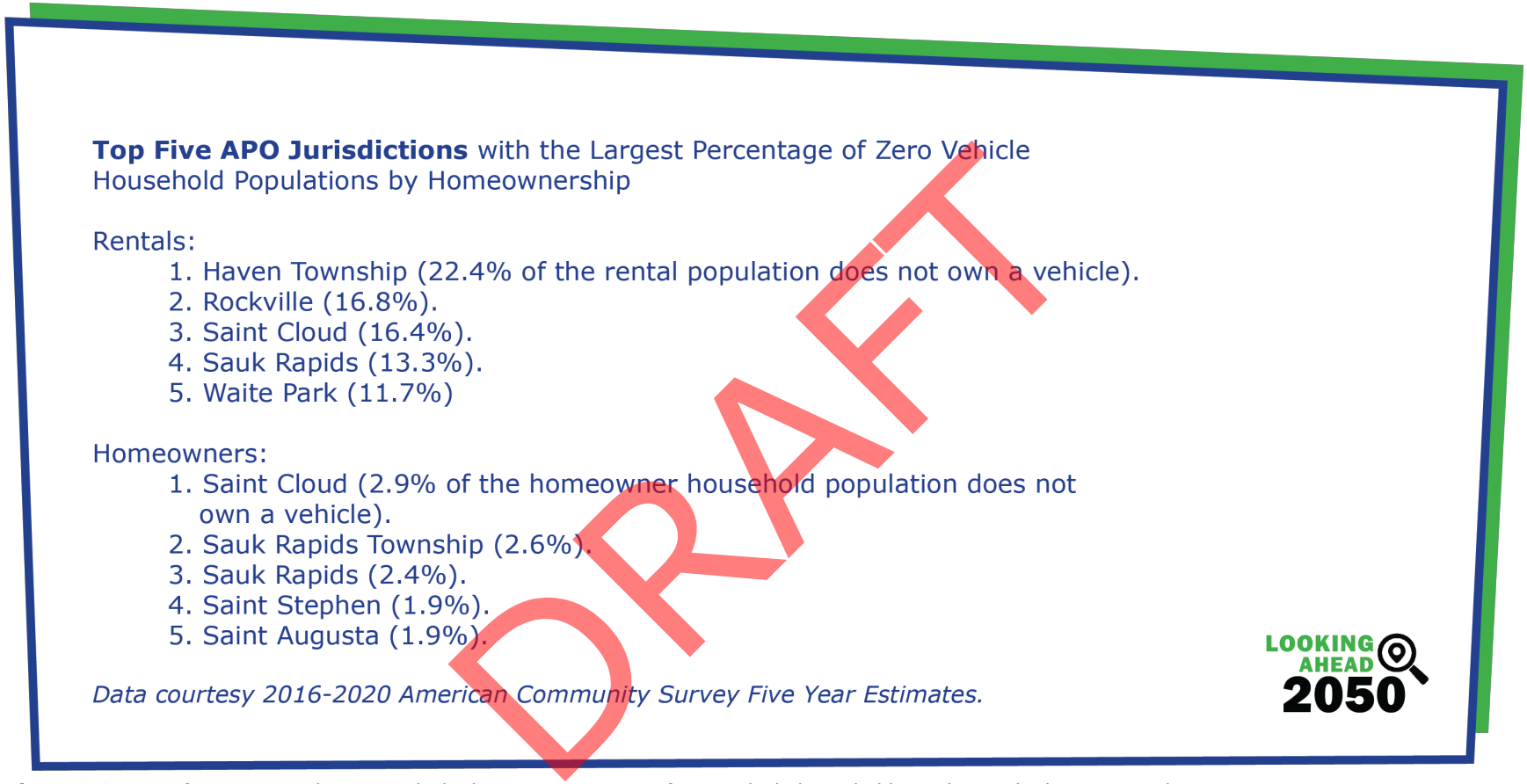


Figure 2.27: *Top five APO jurisdictions with the largest percentage of zero vehicle household populations by homeownership. Data courtesy: U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

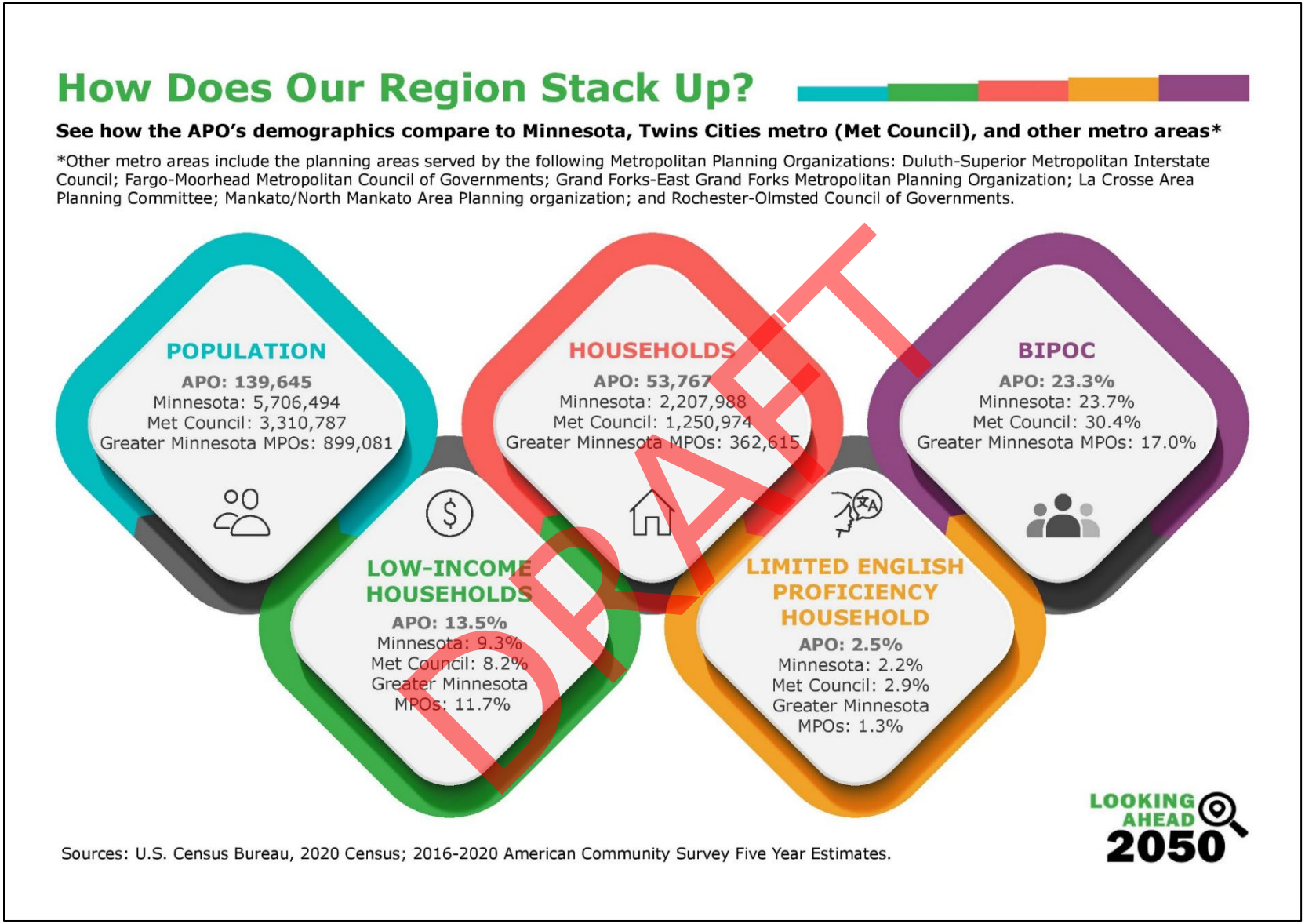


Figure 2.28: *A graphic displaying how the Saint Cloud APO compares to the other MPOs and the Met Council in terms of demographics.*

Historically underrepresented communities

In 1994, Presidential Executive Order (EO) 12898 mandated that every Federal agency incorporate environmental justice (EJ) in its mission by analyzing and addressing the effects of all programs, policies, and activities on minority (BIPOC) and low-income populations.

Drawing from the framework established by Title VI of the Civil Rights Act of 1964, as well as the 1969 National Environmental Policy Act (NEPA), the U.S. Department of Transportation set forth the following three principles to ensure non-discriminatory practices in its federally funded activities:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Historically underrepresented communities, including those protected under Federal legislation like EO 12898, Title VI, Americans with Disabilities Act (ADA), Title II of the ADA, Older Americans Act, and EO 13116 for limited English proficient populations must be considered in the APO planning process at the plan development, program, and project level. In the past, the impacts on these groups were often overlooked. The APO defines historically underrepresented communities as those with high concentrations of the following demographic population subsets:

- BIPOC.
- Low-income households.
- People with disabilities.
- Limited English proficient individuals.
- Zero vehicle households.
- Individuals over the age of 65.
- Individuals under the age of 18.

Understanding the location of these historically underrepresented communities is critically important. Often, individuals within these communities have a disproportionately high potential to be adversely impacted by transportation changes including roadway system preservation/maintenance activities as well as roadway expansion projects and even transit route changes. In addition, these communities typically have a higher-than-average likelihood of not having access to affordable and/or reliable transportation.

Based on demographic information assembled earlier, Figure 2.29 shows block groups within the MPA that have high concentrations of one or more historically underrepresented communities.

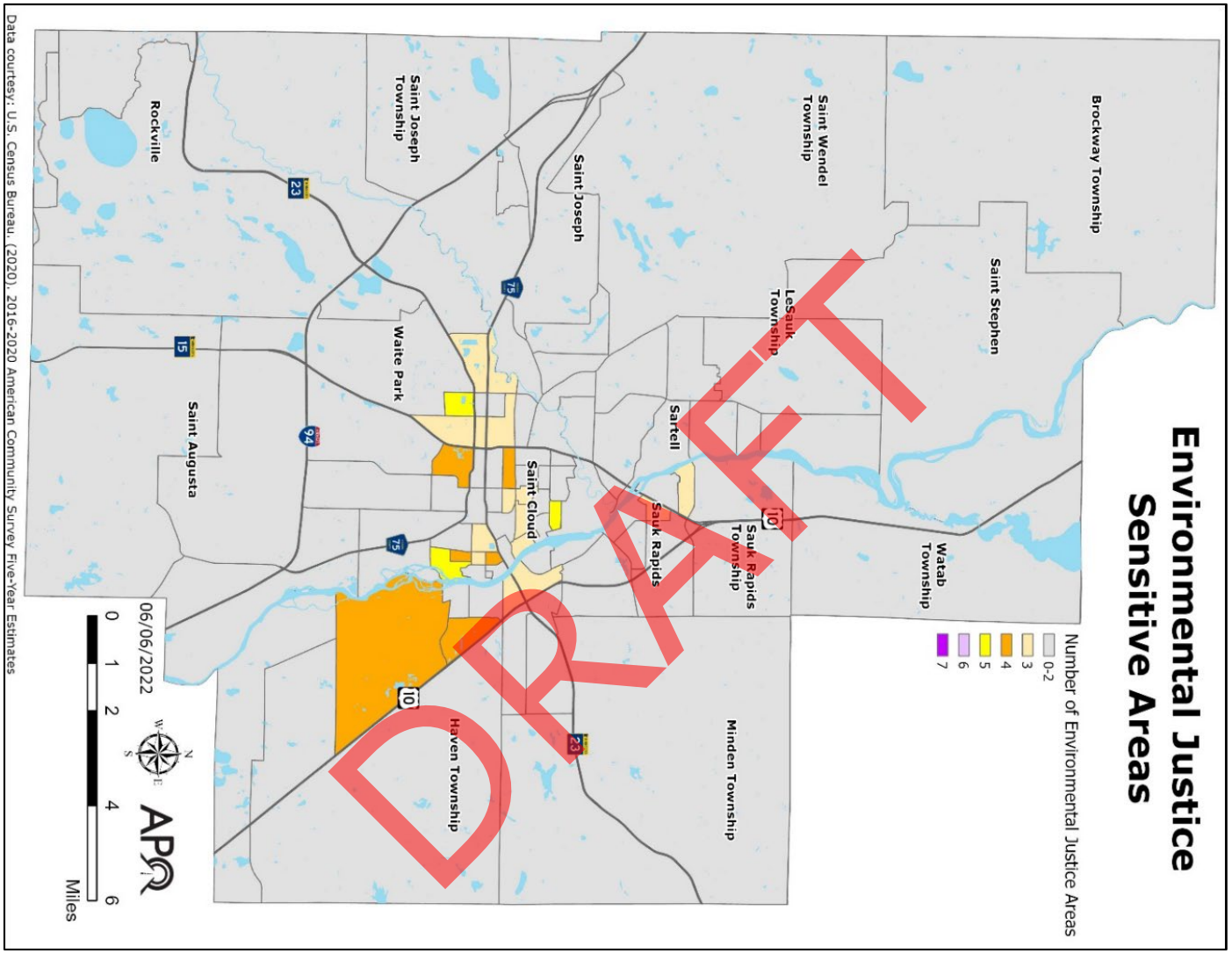


Figure 2.29: *A map of the APO's MPA highlighting block groups within the planning area that have high concentrations of historically underrepresented communities.*

As noted in Figure 2.29, three block groups within the APO's planning area have high concentrations of five of the seven demographic subsets. Figures 2.30 through 2.32 provide a closer look at these areas.

APO

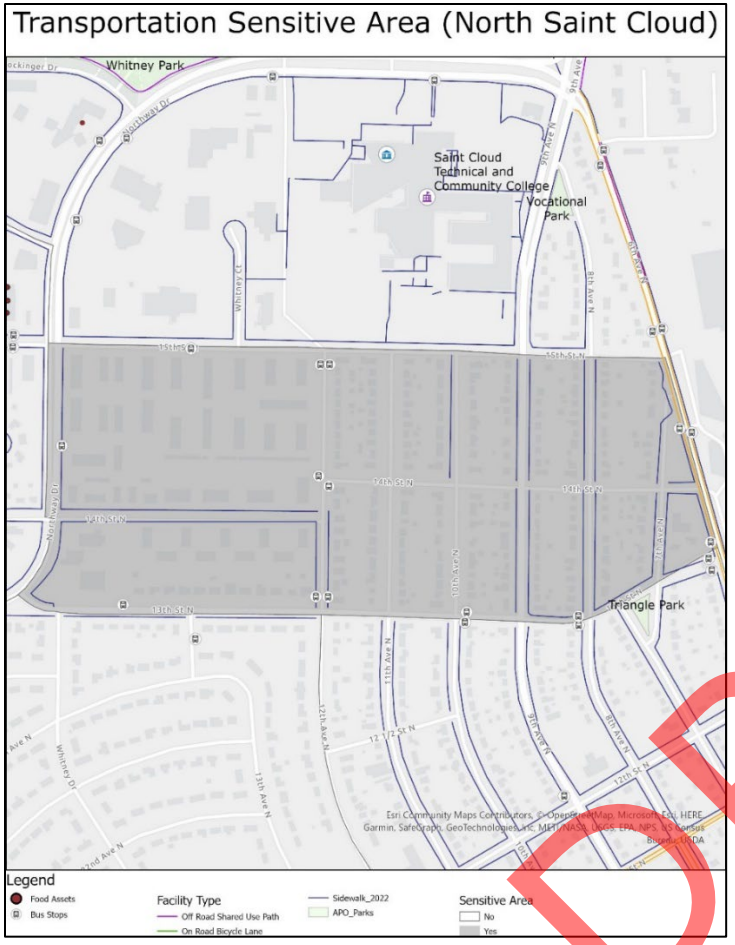


Figure 2.30: *A zoomed in map of the Census block group within north Saint Cloud that has high concentrations of five out of the seven historically underrepresented population subsets.*

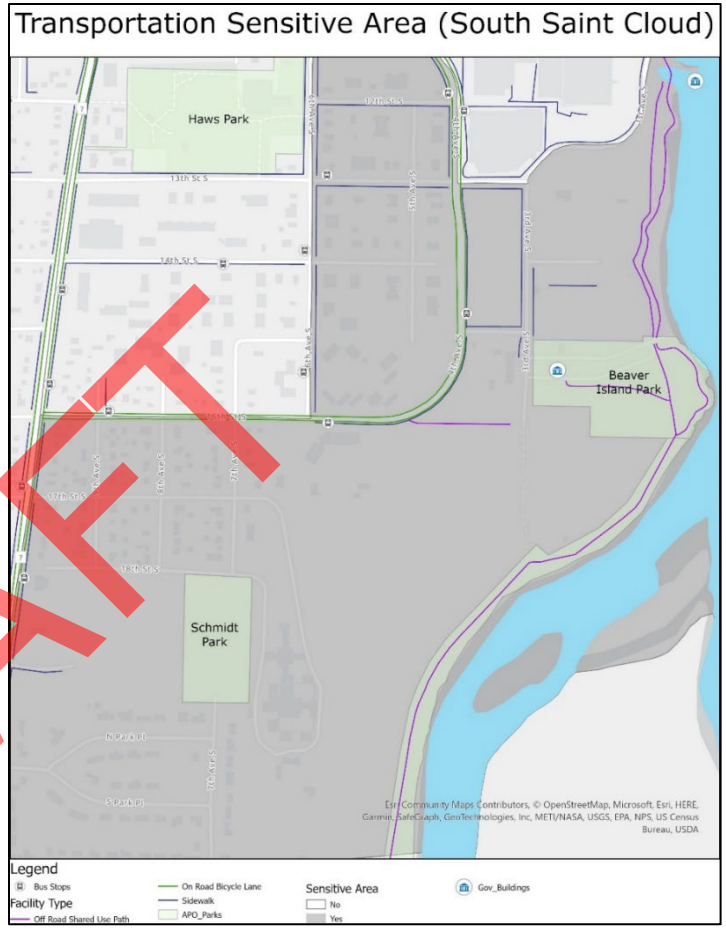


Figure 2.31: *A zoomed in map of the Census block group within south Saint Cloud that has high concentrations of five out of the seven historically underrepresented population subsets.*

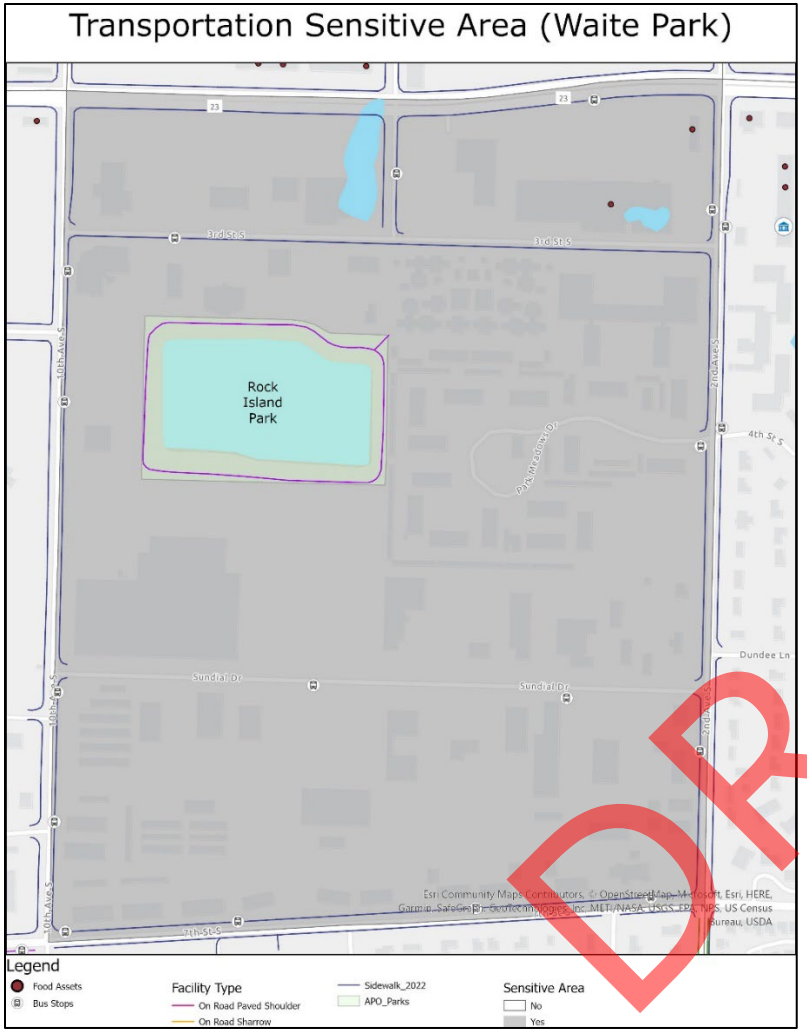


Figure 2.32: *A zoomed in map of the Census block group within Waite Park that has high concentrations of five out of the seven historically underrepresented population subsets.*

Broadband Access

While not directly related to roads, bridges, and sidewalks, access to quality broadband internet service has become an increasingly important tool in providing access to education, health care, and the ability for people to stay connected. As a nuanced way to envision transportation, access to broadband has shaped the way people conduct basic business.

In November 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA), the new transportation reauthorization act. As part of IIJA, funding was apportioned to investment in broadband infrastructure – especially in rural communities across the country.

Particularly true during the COVID-19 global pandemic, the presence of online shopping coupled with the increase in telework and online schooling options have influenced travel behavior. For instance, within the Saint Cloud MPA, on the average weekday (Monday through Thursday) about a quarter of residents have something delivered to them be it through the mail, online grocery orders, or food delivery services. In addition, businesses in the MPA which had offered limited telework options pre-COVID, have increased the frequency of allowing their employees to work from home.

However, it should be noted that not everyone within the MPA has equal broadband Internet access. Approximately 13.2% of households within the MPA do not have broadband Internet access according to the 2016-2020 ACS Five Year Estimates. Within the five major cities found within the MPA, the lack of access to broadband services is slightly higher than the regional average – 13.6% of households without Internet subscriptions. Waite Park has the largest proportion of its household population without access to broadband at 15.6%. Within the urbanizing areas of the MPA, the City of Rockville has the largest percentage of its household population not having broadband access (15.1%).

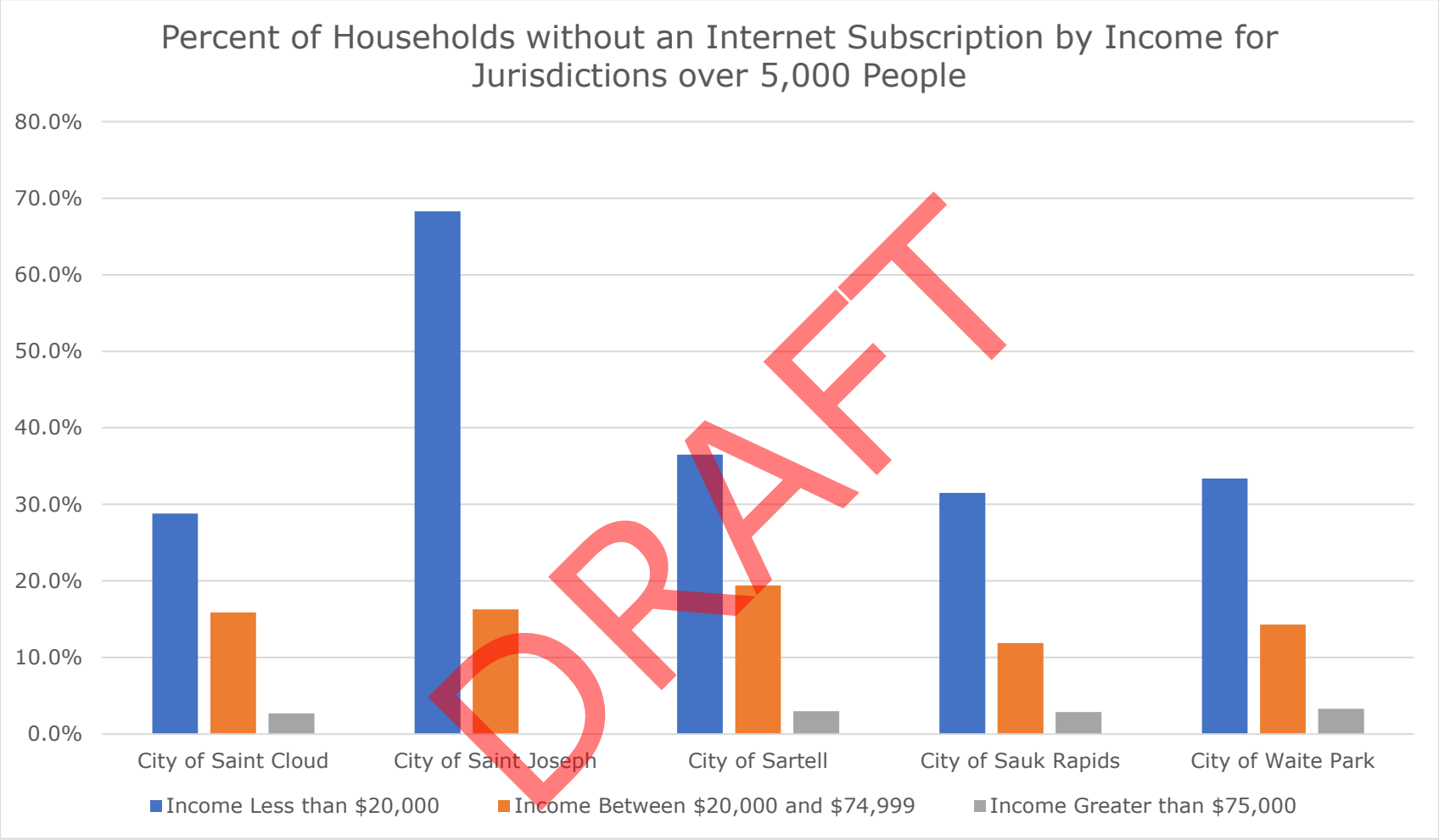


Figure 2.33: *Percent of households without an Internet subscription by income for jurisdictions over 5,000 people. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

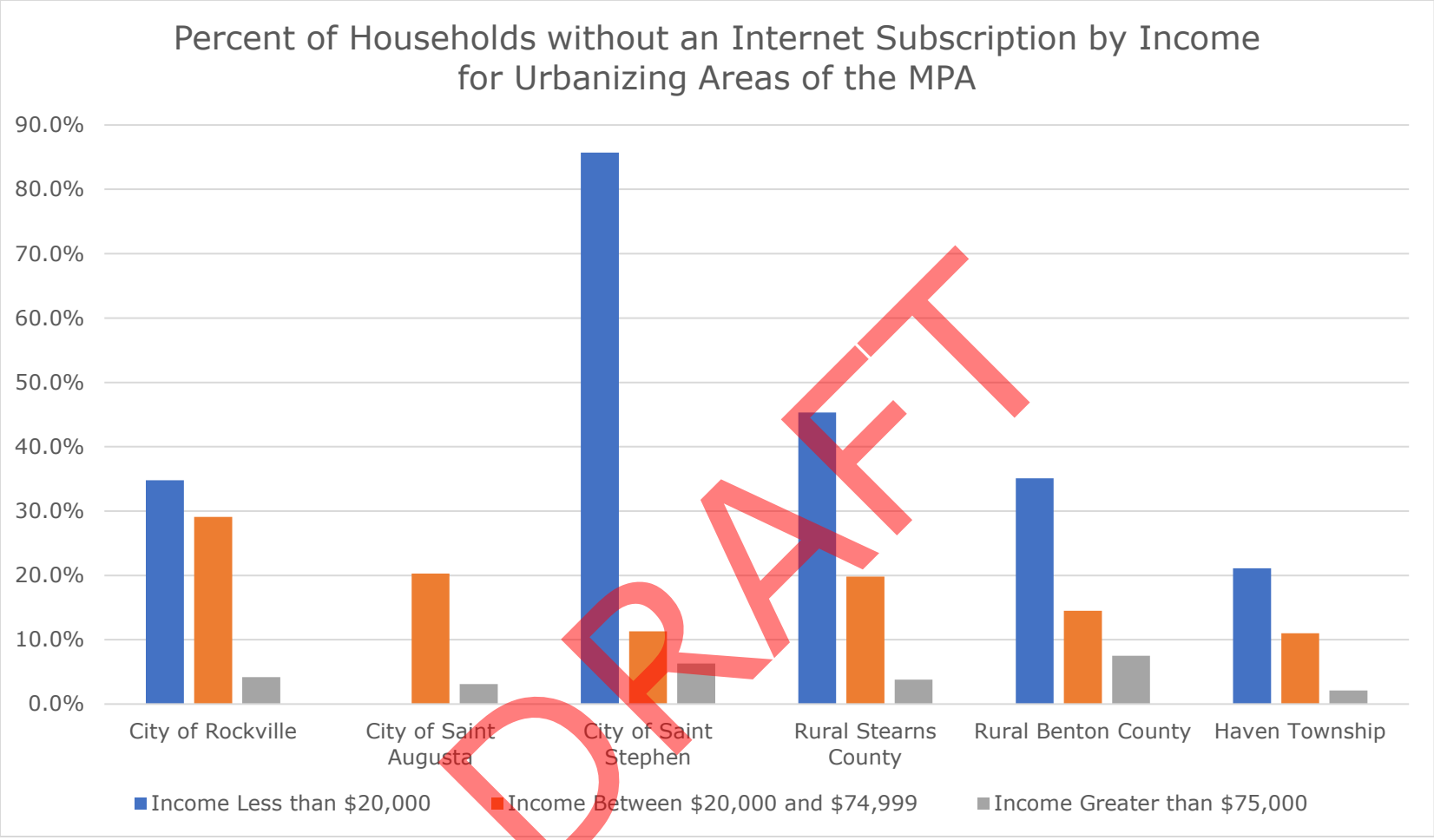


Figure 2.34: *Percent of households without an Internet subscription by income for urbanizing areas of the MPA. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

Education Attainment

According to the 2016-2020 ACS Five Year Estimates, over half of the MPA's population over the age of 25 does not have a post-secondary degree. About a quarter of the population has a regular high school diploma or equivalent, while another quarter of the population has some college education, but no degree.

The most common form of post-secondary educational degree within the planning area is a bachelor's degree with approximately one out of five individuals in the planning area having this level of education. About 13% of individuals hold an associate degree. Individuals with a master's/professional/doctorate degree make up approximately 10% of the MPA population over 25.

Educational Attainment	Percentage of MPA Population 25 Years and Older
No Schooling/K-12 No Diploma	8.0%
High School Diploma or Equivalent	24.9%
Some College, No Degree	23.6%
Associate Degree	13.2%
Bachelor's Degree	20.8%
Master's, Professional, and/or Doctorate Degree	9.5%

Figure 2.35: *Educational attainment for MPA population 25 years and older*
Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.

The 2016-2020 ACS Five Year Estimates shows a strong correlation between educational attainment and median earnings. Ranges for median earnings in the MPA over the last 12 months tend to increase with the more education an individual has. For instance, within the City of Saint Cloud, the median earnings for the population age 25 and older was $36,110. However, for those with a high school diploma (or equivalent) the median earnings were roughly $29,600. With a bachelor's degree, that earning potential increased to $43,800 and with a graduate degree median earnings jumped to $58,750.

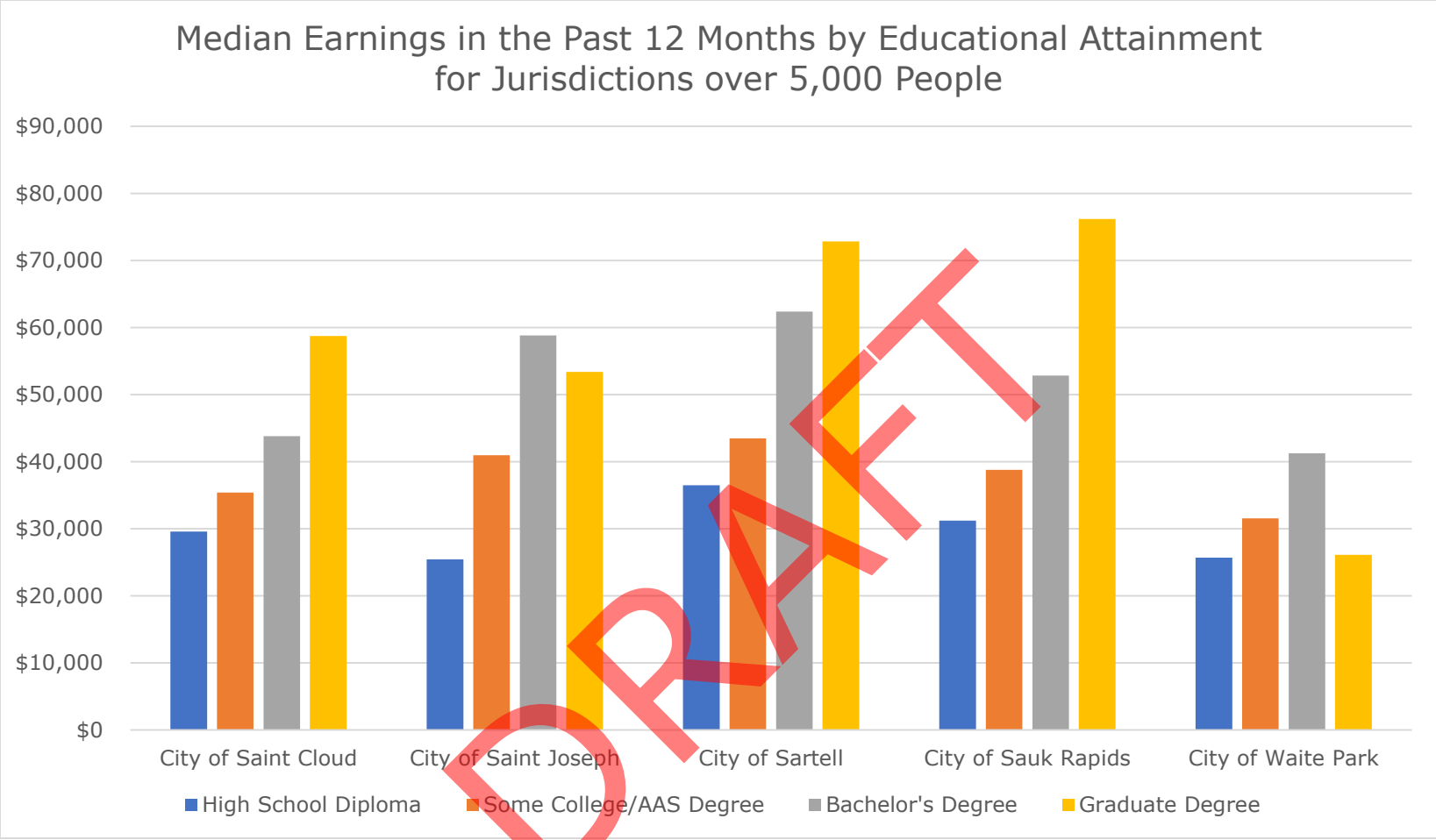


Figure 2.36: *Educational attainment for MPA population 25 years and older for jurisdictions over 5,000 people. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

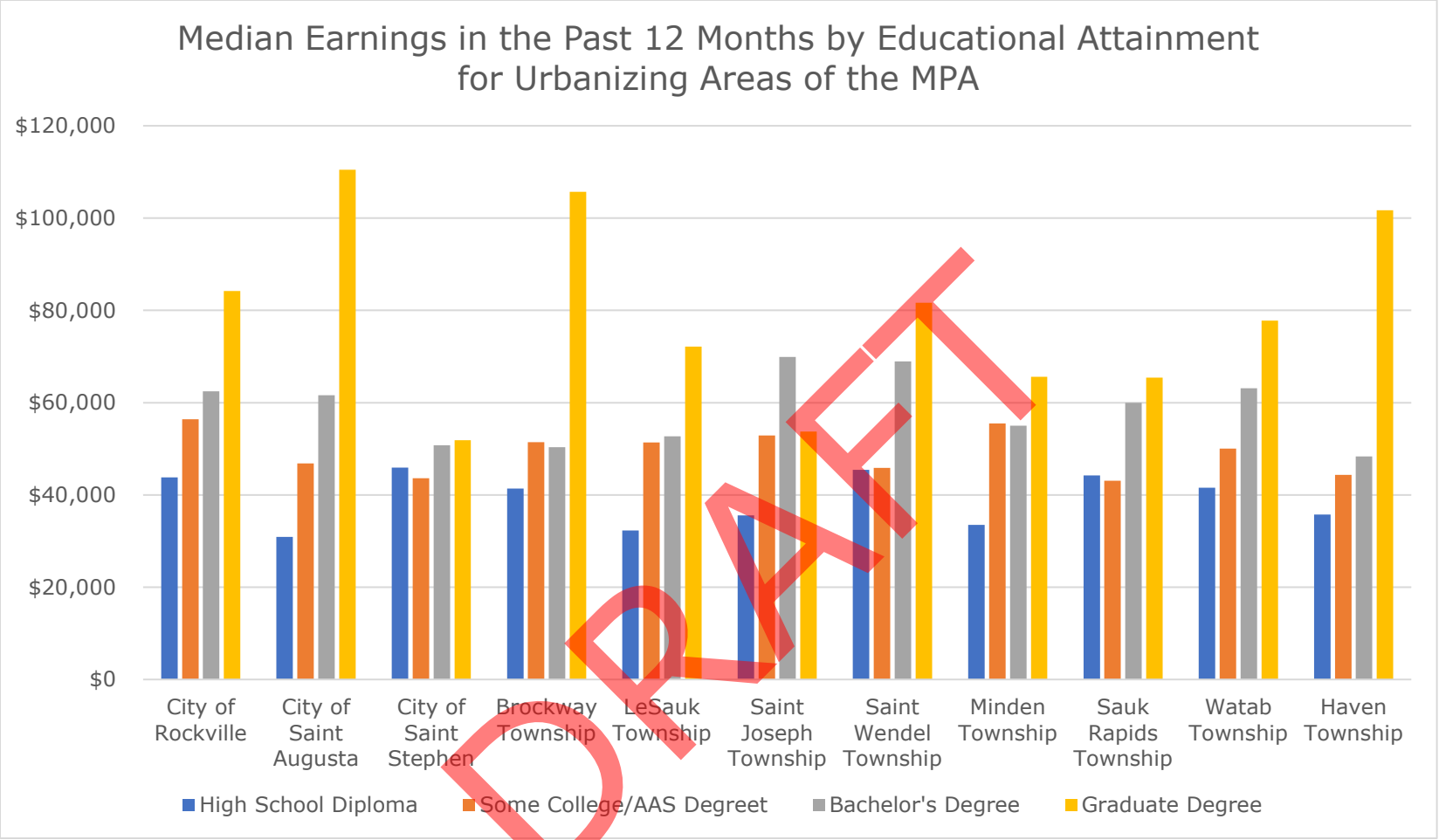


Figure 2.37: *Educational attainment for MPA population 25 years and older for urbanizing areas of the MPA. Data courtesy U.S. Census Bureau's 2016-2020 ACS Five Year Estimates.*

In addition to the higher earning potential, MPA residents with more education tend to have lower levels of unemployment. According to the 2016-2020 ACS Five Year Estimates, residents of employment age (25-64) with a high school diploma (or equivalent) have an unemployment rate of 6.3%. Whereas their counterparts with higher levels of education have much lower levels of unemployment (4.5% unemployment rate for those with some college or an associate degree and 1.3% unemployment rate for those with a bachelor's degree or higher).

Labor Market

Labor force, as defined by the U.S. Census Bureau, includes all people ages 16 and older that are both employed and unemployed. The Saint Cloud MPA has a total labor force of 110,623 according to the 2016-2020 ACS Five Year Estimates. Of that, approximately 70.7% are either working or actively looking for work within the MPA (labor force participation rate). This is on-par with the state's labor force participation rate and about 11.5% higher than the national labor force participation rate.

In looking at the unemployment rate for the region, the MPA currently has a 5.3% unemployment rate according to the 2016-2020 ACS Five Year Estimates – 0.1 percentage points under the national unemployment rate. However, planning area's unemployment rate remains 1.5 percentage points higher than the state.

Health care/social assistance is the number one industry for the Saint Cloud MPA, employing just under one out of every five people over the age of 16. Other major industries, according to the 2016-2020 ACS Five Year Estimates include retail trade, manufacturing, education, and food service/accommodation as shown in Figure 2.38. Taken together, these top five industries employ over half of the region's workforce population.

Top Five Employment Industries	Percent of MPA Population Employed
Health care and social assistance	18.3%
Retail trade	13.4%
Manufacturing	12.2%
Education	11.8%
Accommodation/Food Service	7.1%

Figure 2.38: *Top five employment industry sectors within the Saint Cloud MPA.*
Data courtesy 2016-2020 American Community Survey Five Year Estimates.

Some of the major employers within the region include Saint Cloud Hospital/CentraCare Health and Saint Cloud VA Health Care System, accounting for approximately 9,300 jobs. As self-reported to the Saint Cloud Area Chamber of Commerce and the City of Saint Cloud, other major employers within the region include the State of Minnesota (Saint Cloud State University, Saint Cloud Technical & Community College, Saint Cloud Correctional Facility, and Minnesota Department of Transportation) as well as the three major public school districts (Saint Cloud Area School District, Sauk Rapids-Rice School District, and Sartell-Saint Stephen School District); Stearns County; and manufacturers such as New Flyer of America, Essilor of America, and Grede.

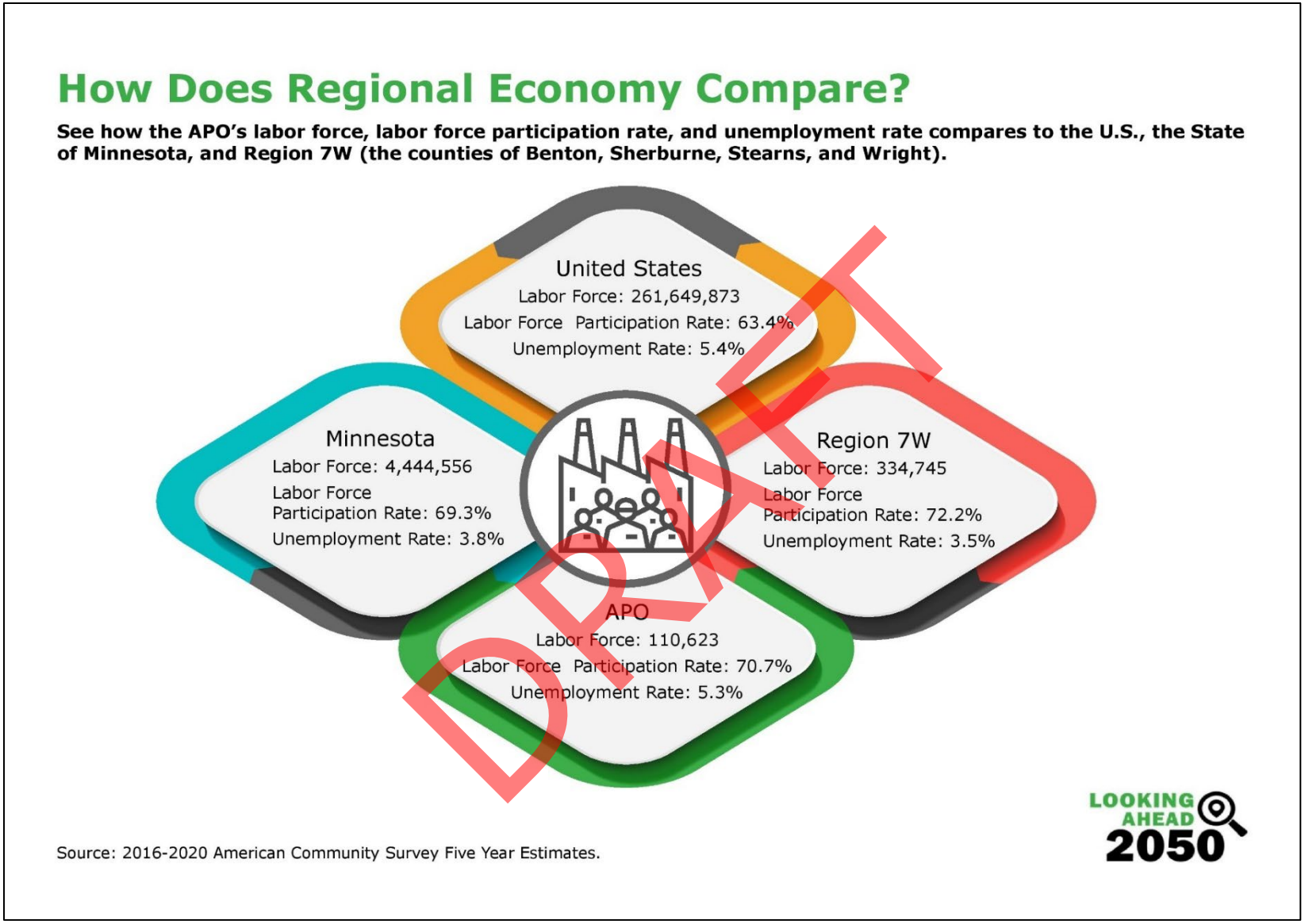


Figure 2.39: *A graphic explaining how the APO's labor force, labor force participation rate, and unemployment rate compared to that of the U.S., Minnesota, and Region 7W.*

Top 20* Employers in the Saint Cloud Area

***As self-reported to the Saint Cloud Area Chamber of Commerce/City of Saint Cloud in 2022**

1. Saint Cloud Hospital/CentraCare Health: 7,541 employees
2. Saint Cloud Veterans Administration Health Care System: 1,850 employees
3. State of Minnesota (including Saint Cloud State University, Saint Cloud Technical and Community College, Saint Cloud Correctional Facility, and the Minnesota Department of Transportation): 1,838 employees
4. Saint Cloud Area School District #742: 1,800 employees
5. Stearns County: 954 employees
6. Fulfillment Distribution Center: 900 employees
7. College of Saint Benedict/Saint John's University: 868 employees
8. Coborn's Inc.: 755 employees
9. New Flyer of America: 730 employees
10. Bernick's: 680 employees
11. Sauk Rapids-Rice School District #47: 675 employees
12. Capital One: 600 employees
13. Essilor of America: 550 employees
14. City of Saint Cloud: 532 employees
15. Wolters Kluwer Financial Services: 462 employees
16. Sartell-Saint Stephen School District #748: 425 employees
17. Woodcraft Industries: 397 employees
18. Bluestem Fulfillment, Inc.: 393 employees
19. Grede: 375 employees
20. Anderson Trucking Service, Inc.: 372 employees

Figure 2.40: *A list of the Top 20 employers in the Saint Cloud area.*
Data courtesy of Saint Cloud Area Chamber of Commerce/City of Saint Cloud.

Where Do People Travel?

To understand the transportation network, transportation planners must also have a general understanding of the region's current land use practices. As Kevin Krizek and David Levinson stated in their paper "Teaching Integrated Land Use-Transportation Planning: Topics, Readings, and Strategies," (https://tinyurl.com/bdjwhstp) the act of travel occurs because someone wants to do something somewhere. "Thus, an individual's location vis-à-vis the distribution of sites of potential activity is an important determinant of travel behavior and location decisions."

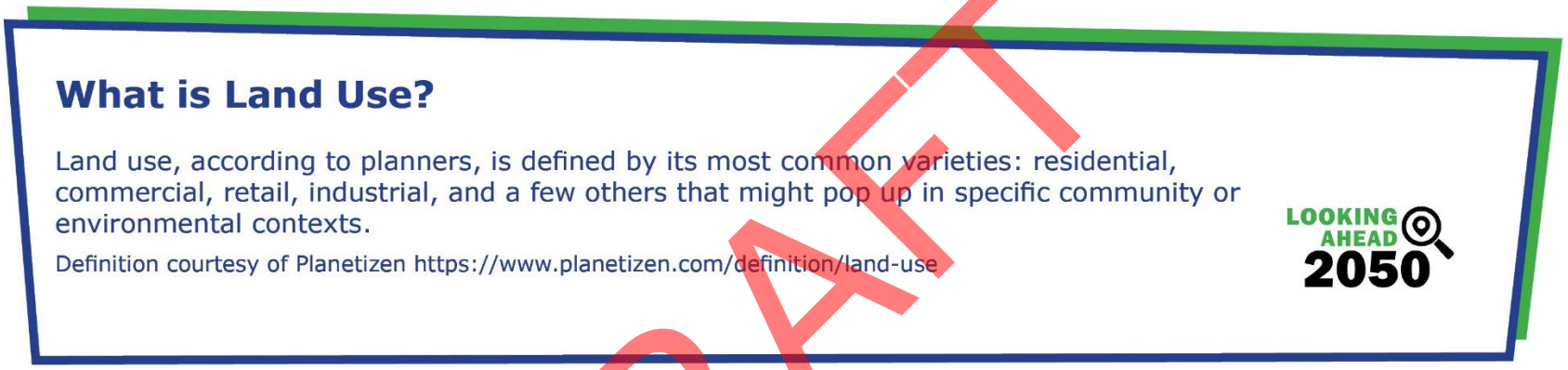


Figure 2.41: *Definition of land use.*

Simply put – land use determines where things are located; and the transportation network determines how people can access them. As such, land use has a significant impact on the work transportation planners do as well as the transportation network itself.

For starters, land use decisions have a direct impact on the location of trip generators. Where municipalities locate both residential developments (single family and/or multifamily dwellings) in comparison to trip attractors like retail shops, commercial/office space, and industrial businesses (for both workers and consumers) plays a huge factor in the amount of travel a certain area can anticipate. A cluster of single-family homes may not see as much traffic as a large shopping complex. Multifamily dwellings are probably not going to see nearly as much heavy-duty truck traffic as say an industrial manufacturing plant. By having a general understanding of land use, transportation planners can estimate the amount of travel demand a certain area is likely to have.

Not only does land use impact the location of trip generators, but it also plays a major role in determining modal choice. Certain land use characteristics tend to lend themselves better to modal options such as walking/biking (active transportation) or

transit in addition to motor vehicles. Mixed use developments – combining different types of land uses either in the same building or same general area – tend to be more walkable/bikeable and accessible to transit as opposed to low-density residential developments located away from the commercial/retail centers. While sprawling development can be walkable/bikeable or on transit lines, the distances and time it takes for people to travel to access things like grocery stores, shopping centers, or places of employment tends to make it more attractive to rely on personal vehicles.

While the APO does not have a regional land use map to assist in better understanding local land use decisions and their impact on the regional transportation network, staff relies on Traffic Analysis Zones (TAZs) to provide a generalized understanding of land uses within the planning area.

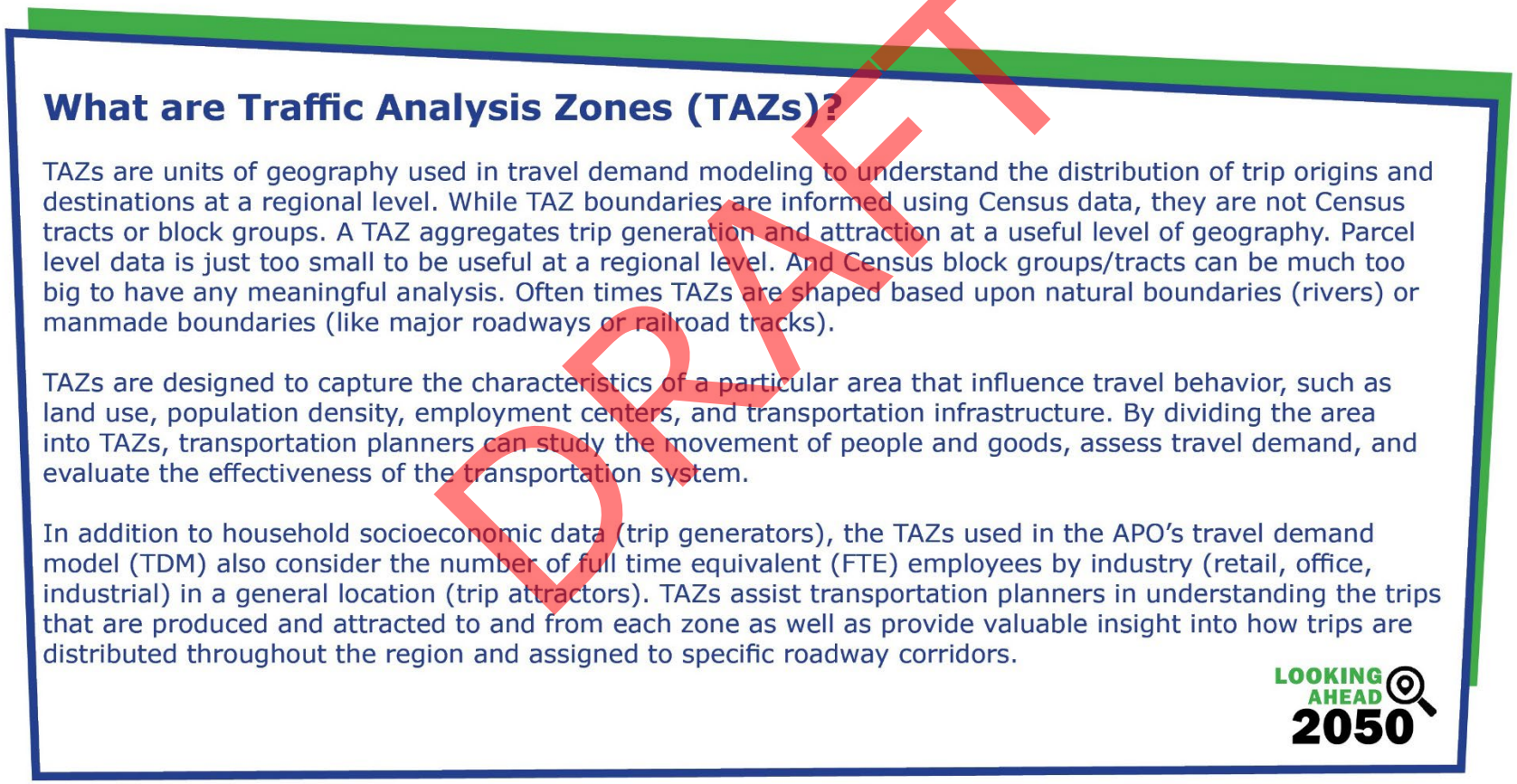


Figure 2.42: *Definition of Traffic Analysis Zones (TAZs).*

Each TAZ is populated with a variety of information including number of households, household size, number of vehicles per household, and workers per household. While not a perfect system, at its most basic level, TAZs can provide a regional perspective on land use (households, retail, office, industrial) – and assist transportation planners with an understanding of where people are going – destinations – and where they are coming from – origins.

Where are People Going?

Work and Work Commute

According to the U.S. Census Bureau's OnTheMap Application (2019), 80,832 were employed within the planning area. Of that, half of the population lives and works within the planning area. However, a significant portion of the population employed within the MPA lives outside of the planning area boundaries (45.3%). This means nearly half of the MPA workforce currently travels into the planning area for work.

A majority of those who reside outside of the planning area boundaries and commute in reside either in Stearns or Benton counties (65.1%). However, approximately 5.3% of the workforce population comes from the seven-county Twin Cities metro (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties).

2019 Worker Totals and Flows	Population Count	Population Percentage
Employed in the MPA but Living Outside MPA	36,602	45.3%
Employed and Living in the MPA	44,230	54.7%
Employed in the MPA	**80,832**	**100%**

Figure 2.43: *Inflow/outflow counts of where workers within the MPA live.*
Data courtesy U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

On the other side of the coin, the MPA (according to the U.S. Census Bureau's 2019 OnTheMap Application) is home to roughly 66,869 working age individuals. Of that, nearly two-thirds live and work within the planning area. But one-third of the population living within the MPA travels outside the planning area for work.

Again, a large percentage of working age individuals who leave the planning area for employment are employed nearby in Stearns and Benton counties (71.8%). But a growing segment of individuals living in the MPA are traveling to the seven-county Twin Cities metro for work (12.1%).

2019 Worker Totals and Flows	Population Count	Population Percentage
Living in the MPA but Employed Outside MPA	22,639	33.9%
Living and Employed in the MPA	44,230	66.1%
Living in the Selection Area	**66,689**	**100%**

Figure 2.44: *Inflow/outflow counts of where people who living within the MPA work.*
Data courtesy U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

Since the last iteration of the APO's MTP, minimal change has occurred for both those living and working in the MPA and those who live elsewhere but commute into the planning area. However, there has been significant growth in the number of people who chose to live in the MPA but commute to other areas of the region/state for work.

Worker Status	2015	2019	Percent Change 2015-2019
Live and Work in the MPA	45,765	44,230	**-3.4%**
Live in MPA, Work Elsewhere	19,671	22,639	15.1%
Live Elsewhere, Work in MPA	36,500	36,602	0.3%

Figure 2.45: *MPA worker commute inflow/outflow 2015-2019 comparison.*
Data courtesy U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2015 and 2019.

Figure 2.46: *Vehicles traveling along Interstate 94 near Saint Cloud.*
Photo courtesy of Saint Cloud APO.

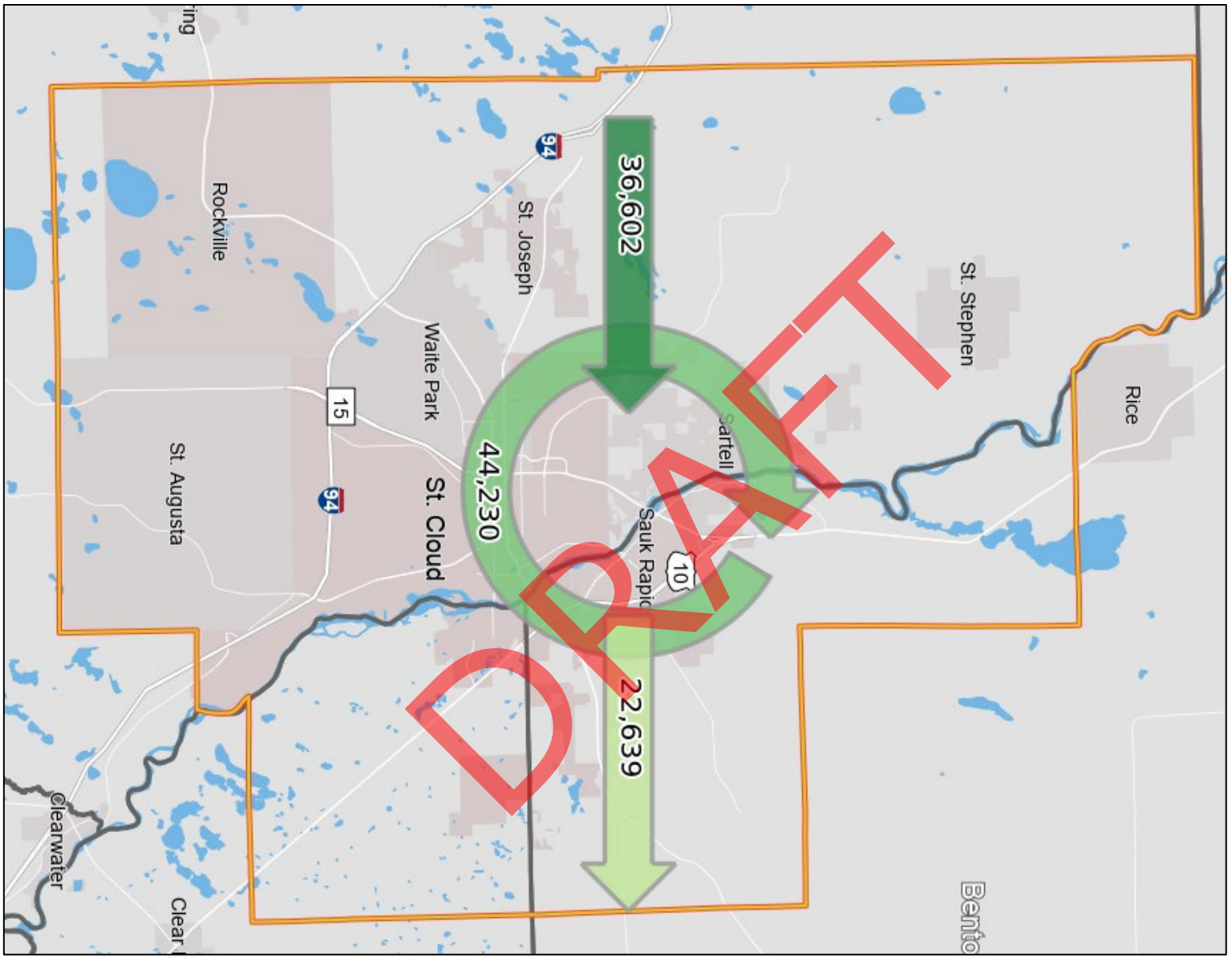


Figure 2.47: *Commuting inflow/outflow analysis of primary jobs within the MPA.*
Data courtesy U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2019.

APO

For those living in the MPA, the average commuting distance to work is less than 10 miles with just under two-thirds of MPA residents reporting this. However, comparing this to the last MTP, the percentage of people living within close proximity to their workplace has dipped. Longer commutes (both between 10 and 24 miles and those over 50 miles) both saw sizeable upticks as shown in Figure 2.48.

Home to Work	2015 Count	2015 Percentage	2019 Count	2019 Percentage	2015-2019 Percentage Change
Less than 10 miles	44,397	67.8%	42,871	64.1%	**-5.5%**
10 to 24 miles	6,136	9.4%	7,176	10.7%	13.8%
25 to 50 miles	4,183	6.4%	4,394	6.6%	3.1%
Greater than 50 miles	10,720	16.4%	12,428	18.6%	13.4%

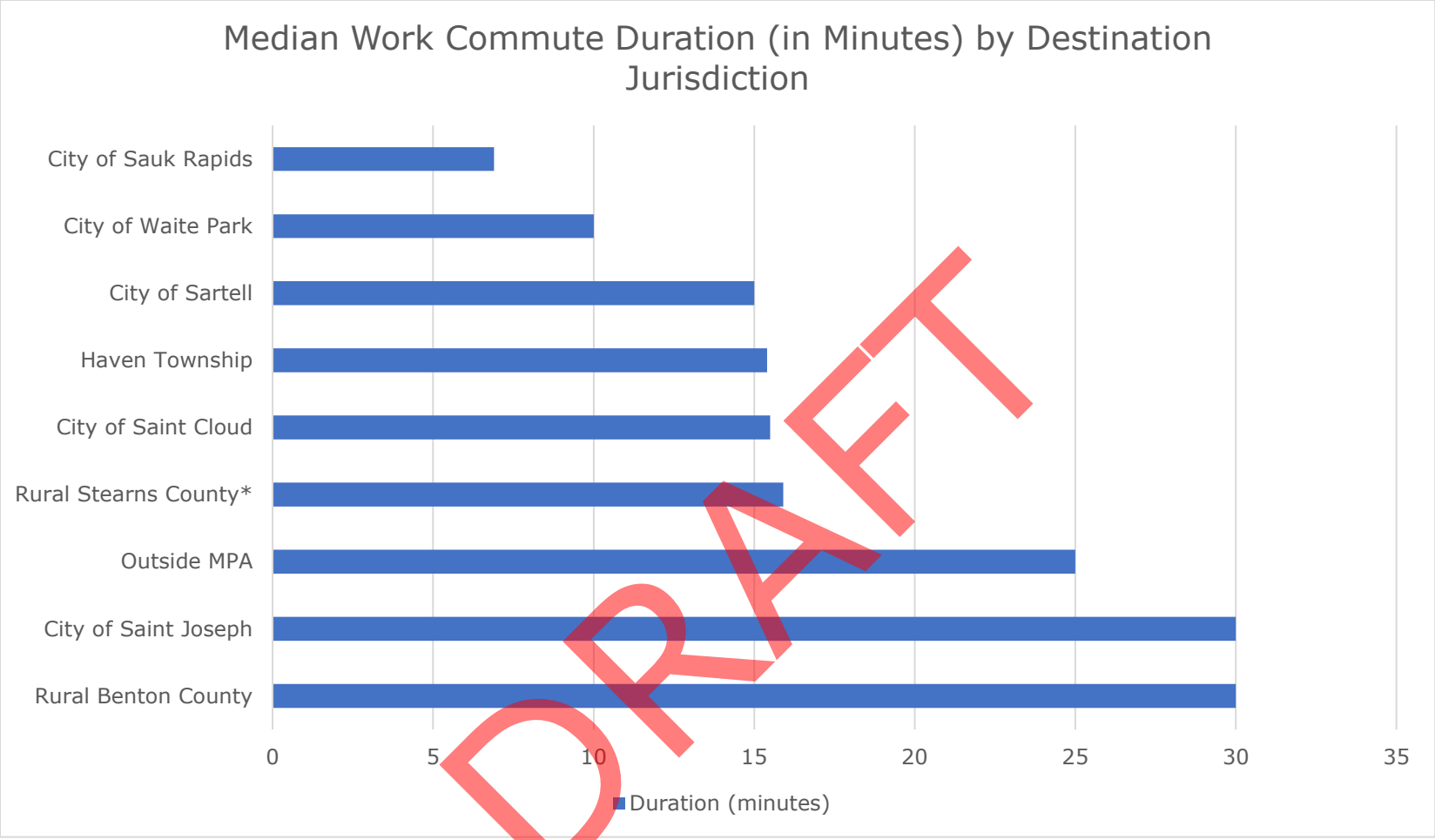
Figure 2.48: *Distance to jobs for residents of the MPA.*
Data courtesy U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2015 and 2019.

Commutes that typically are over 50 miles are predominately made by those heading down the I-94 corridor toward the Twin Cities metro. In addition, about 15.9% of job holders employed within the MPA with commutes greater than 50 miles are typically heading up the I-94 corridor.

A closer look at MPA resident commuting travel patterns indicate the median distance between home and work varies based upon the city/township where people work. In 2021, the Saint Cloud APO conducted a Regional Household Travel Survey (RHTS). This survey asked residents to maintain a travel diary for either one week (through a smartphone application) or one day (through a phone or online survey) of their travel patterns and trip purposes. Because this survey was conducted roughly 18 months after the start of the COVID-19 pandemic, travel patterns recorded during this survey may not have been considered "typical" for some users (i.e., more people working from home versus commuting to work as a result of the pandemic). The RTHS does address this through a series of questions designed to understand pre- and during-/post-pandemic travel behaviors of survey respondents. However, for the purposes of work commutes, no noticeable change in travel patterns as a result of the COVID-19 pandemic was documented. As a result, the RHTS found employees working in communities on the fringes of the core metro (rural Benton County, rural Stearns County, and the City of Saint Joseph) had a median travel distance higher than those employees who live in communities such as Saint Cloud, Waite Park, or Sauk Rapids.

**Note: Rural Stearns County, in addition to containing the four townships, includes the cities of Rockville, Saint Augusta, and Saint Stephen.*
Figure 2.49: *Median work commute distance by destination jurisdiction.*
Data courtesy 2021 Saint Cloud APO RHTS.

On average, it takes workers who live within the MPA between 10 and 20 minutes to travel to their place of employment according to the 2016-2020 ACS Five Year Estimates. However, much like distance, the median travel time to work locations on the fringes of the planning area is much greater than to those work locations closer to the center of the MPA.



**Note: Rural Stearns County, in addition to containing the four townships, includes the cities of Rockville, Saint Augusta, and Saint Stephen.*
Figure 2.50: *Median work commute duration by destination jurisdiction.*
Data courtesy 2021 Saint Cloud APO RHTS.

It should be noted that workers with household incomes under $50,000 have the shortest median work commute distances in the region, but workers with household incomes under $25,000 have the second longest median work commute duration according to data compiled during the 2021 Saint Cloud APO RHTS.

Work Locations

Also, according to the 2021 RHTS, approximately 16% of all trips made by residents within the MPA are work or work-related in nature.

Unsurprisingly, a vast majority of work trips were taken to the area's major employers such as Saint Cloud State University, Saint Cloud Hospital/CentraCare Health Plaza, Saint Cloud Veterans Administration Medical Center, Stearns County's downtown Saint Cloud government buildings, and various K-12 schools.

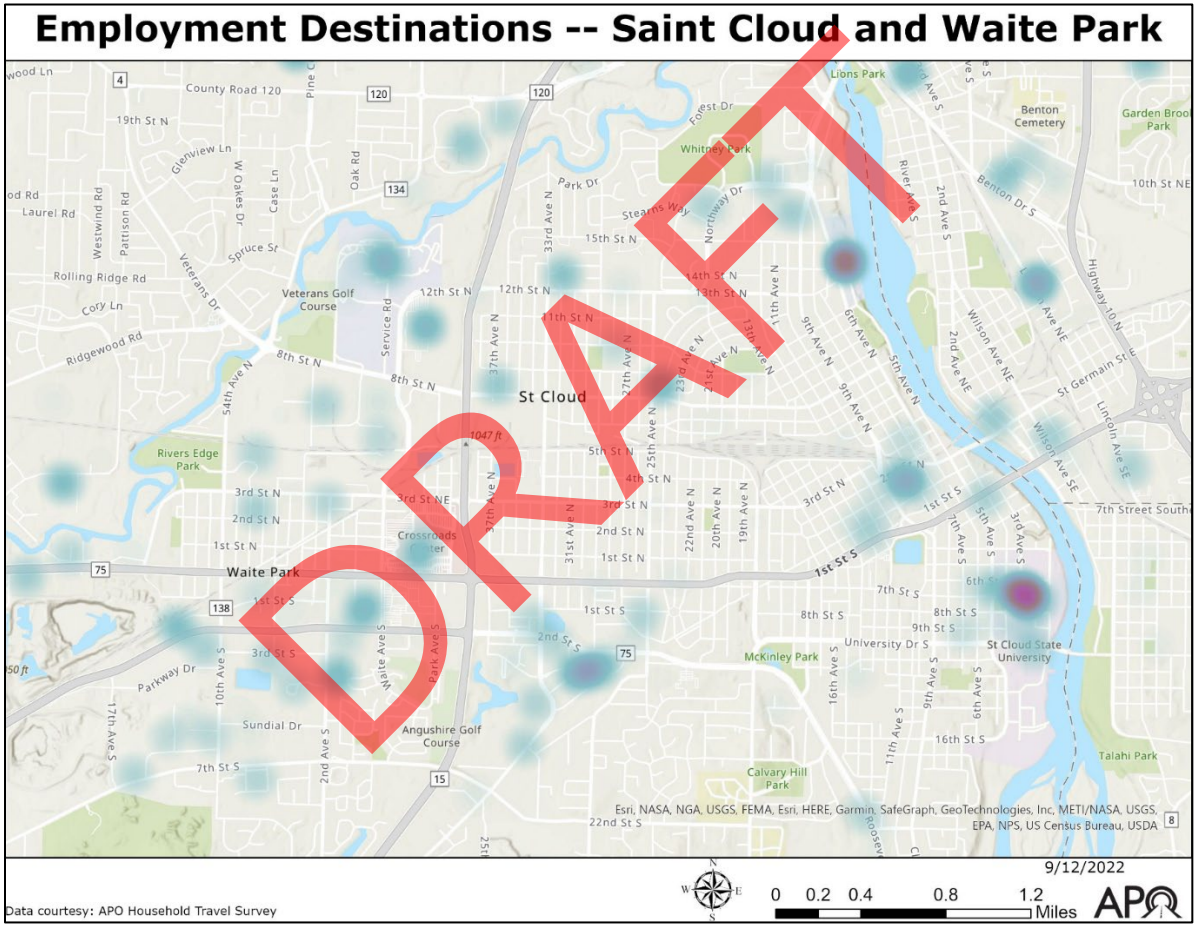


Figure 2.51: *Heat map of popular employment destinations within the cities of Saint Cloud and Waite Park.*

In addition to these destinations, businesses within proximity to MN 23/CSAH 75 (Division Street) were common workplace destinations for many in the MPA – such as Crossroads Center. Other roadway corridors with major employers include Lincoln Avenue, West Saint Germain Street, and Veterans Drive (Eighth Street N/CSAH 4).

While driving remains the most common way for MPA residents to commute, according to the 2021 RHTS, other modes of transportation such as walking, biking, transit, and Transportation Network Companies (TNCs – such as Uber and Lyft) are also used to get people to their jobs or other work-related activities (attending off-site meetings, heading to various job sites, etc.).

Trip Mode	Total Number of Weighted Trips	Percentage of Weighted Trips for Work or Work-Related Activities
Car (Driving)	403,440	16%
Walking	35,898	10%
Biking	13,636	8%
Transit	3,058	9%
TNC	280	28%

Figure 2.52: *Trip mode split for work or work-related trips.*
Data courtesy 2021 Saint Cloud APO RHTS.

Other Reasons for Travel

Commuting to and from work is a very important aspect of day-to-day living. However, it is not the only reason people utilize the transportation system. The 2021 Saint Cloud APO Regional Household Travel Survey asked participants to document all trips made either during a one-week period using a smartphone app or one-day using a website or call center. In addition to work commutes, participants were also asked to document the following trip purposes:

- Meals (dining out, getting coffee, or picking up take-out).
- Grocery shopping.
- Other routine shopping (including trips to department stores, hardware stores, etc.).
- Social activities (such as visiting friends, going to a museum or movie theater).

Other activities such as running errands (like getting a haircut or going to the post office), heading to school (either preK-12 or post-secondary), and medical appointments were also recorded, however, the sample size for these trips was much too small, and travel was rather infrequent to draw any definitive conclusions.

Overall, the average resident within the MPA completes approximately 3.6 daily trips during the week (Monday through Thursday).

Similar to work or work-related trips, the household travel survey also broke these trip purposes out by mode. The following section looks at where common destinations are located for the four most reported trip purposes and details the trip mode split for each. Out of all trips recorded as part of the RHTS, 86% were completed using a car.

Meals

According to the RHTS, approximately 6% of all trips made throughout the Saint Cloud metro involve dining out, getting coffee, or picking up take-out.

Given the abundance of restaurant and dining options along the MN 23/CSAH 75 (Division Street) corridor, it is no surprise that large concentrations of meal-related trips ended along this stretch. In particular, clusters of dining-related trips can be found in Waite Park along both CSAH 75 (Division Street) and MN 23 (Second Street N) from 10th Avenue to MN 15. As MN 23 becomes Division Street through Saint Cloud, restaurants and other dining options are present essentially as far east as Cooper Avenue.

Figure 2.53: *Popular dining locations found within the cities of Sartell and Sauk Rapids.*

Other dining/meal clusters can be found in Sauk Rapids along Benton Drive, in Sartell along Pinecone Road and Second Street S, and in Saint Joseph along College Avenue.

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Again, while driving remains the preferred mode of travel, nearly one in four transit trips were taken specifically to access food or dining.

Trip Mode	Total Number of Weighted Trips	Percentage of Weighted Trips for Meals/Dining
Car (Driving)	403,440	7%
Walking	35,898	1%
Biking	13,636	1%
Transit	3,058	23%
TNC	280	0%

Figure 2.54: *Trip mode split for meals/dining trips.*
Data courtesy 2021 Saint Cloud APO RHTS.

Shopping

Aside from work- or work-related trips (and excluding those trips destined for home), shopping serves as the second most frequent reason people travel in the Saint Cloud metro. Approximately 14% of all trips taken within the metro involve some type of shopping.

The 2021 Saint Cloud APO RHTS has broken down the broad category of "shopping" into two – grocery shopping and other routine shopping.

Grocery Shopping

Given the concentration of grocery stores along the stretch of MN 23 from Second Avenue S to Waite Avenue S in Waite Park, it is no surprise that a majority of these shopping trips are located along this corridor. Other locations include the Walmart/Costco area of Saint Cloud, the Target/Cash Wise area in east Saint Cloud, the Walmart/Sam's Club area in Sartell, downtown Sauk Rapids, and along both Pinecone Road and Seventh Avenue in Sartell.

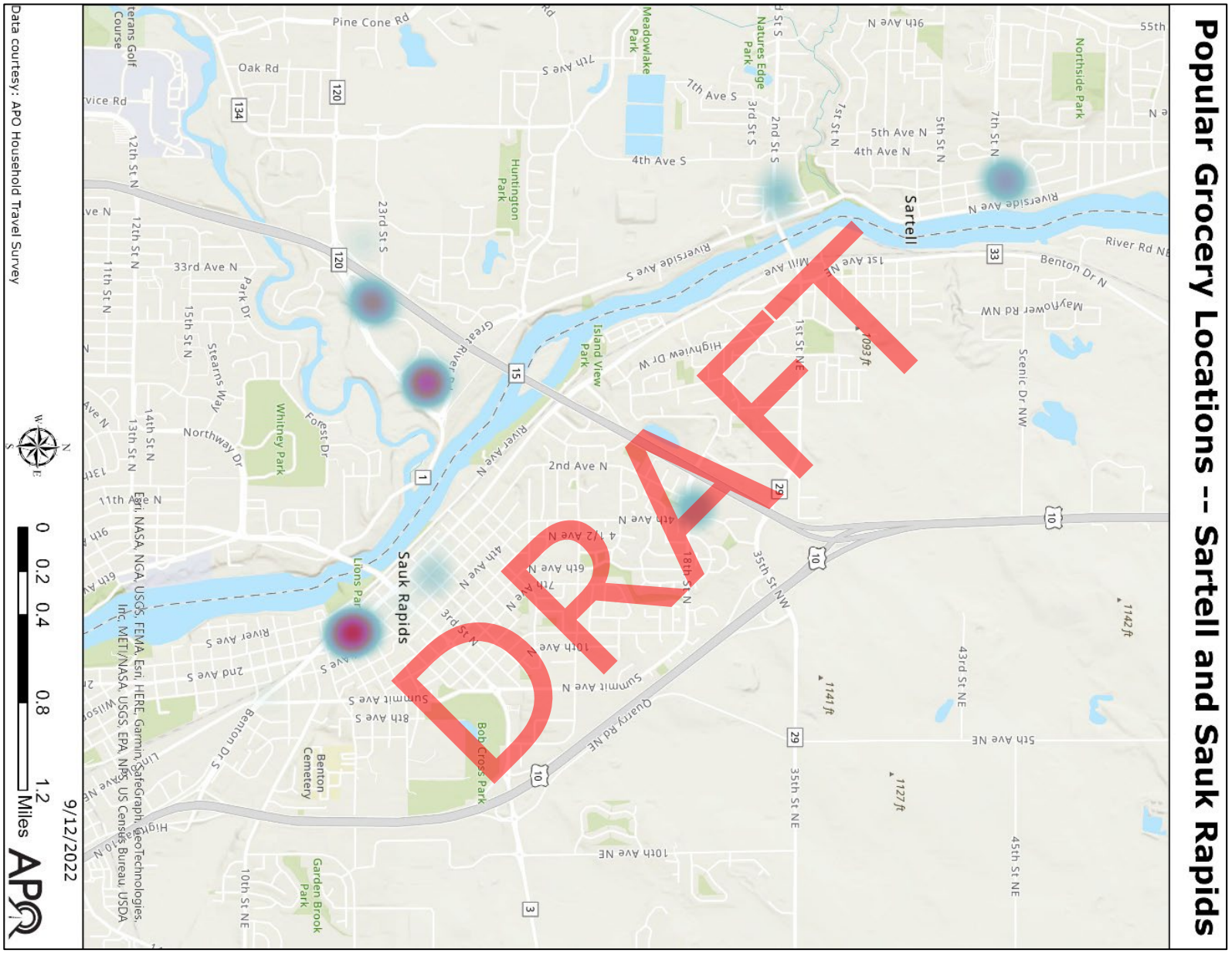

Figure 2.55: *Grocery locations within the cities of Sartell and Sauk Rapids.*

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Other Routine Shopping

Other Routine Shopping can be classified as trips taken to places like the hardware store, department store, or other retail outlets. Based on the number and types of businesses along the MN 23/CSAH 75 (Division Street) corridor, many routine shopping trips occur along this stretch of roadway. Specific destinations include places like Crossroads Center, Saint Cloud Walmart, Target in east Saint Cloud, and the Walmart/Sam's Club area of Sartell.

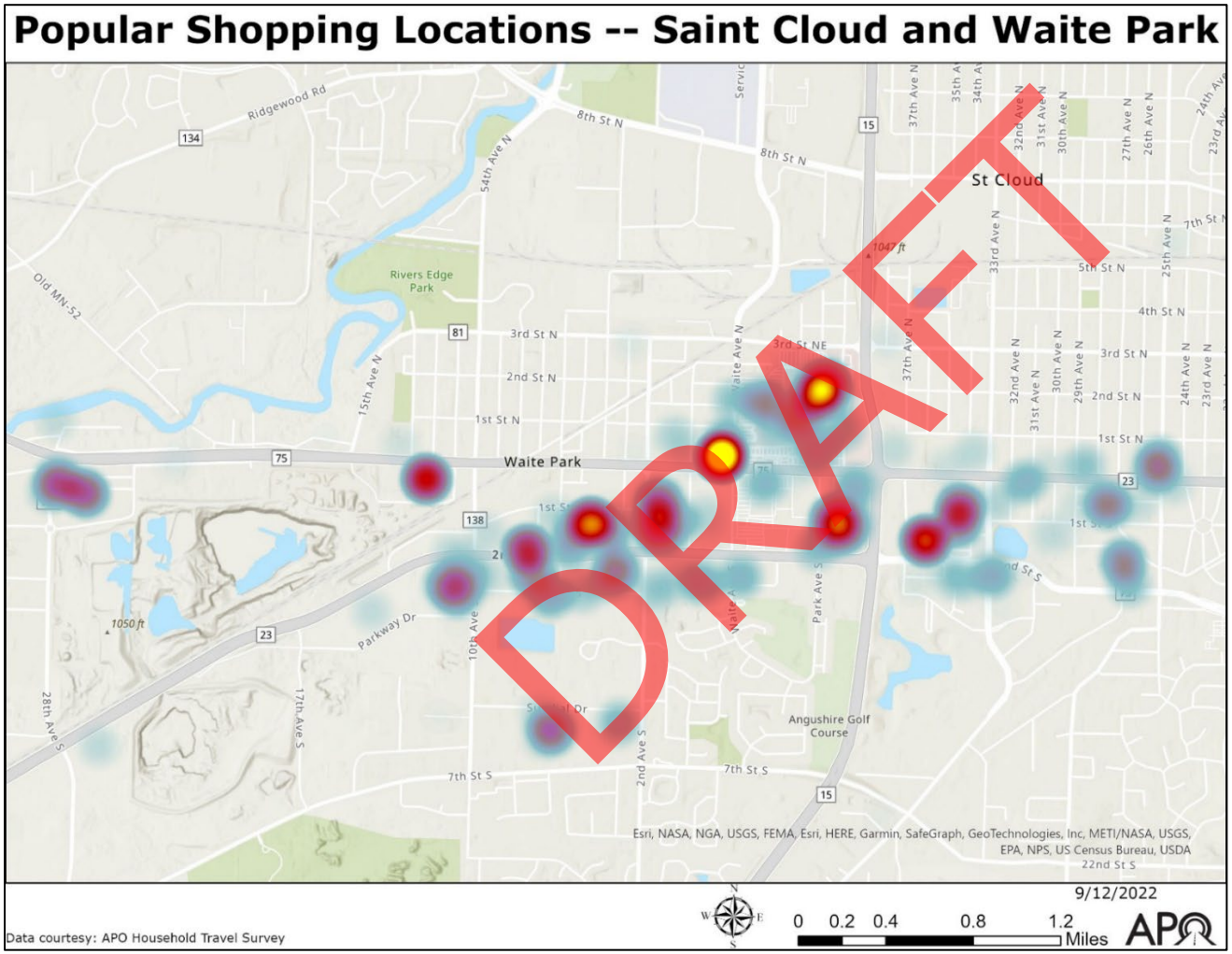

Figure 2.56: *Popular "other" shopping locations within the cities of Saint Cloud and Waite Park.*

Figure 2.57 provides a mode breakdown of shopping trips that combines both grocery and other routine shopping.

Trip Mode	Total Number of Weighted Trips	Percentage of Weighted Trips for Shopping (Grocery and Routine)
Car (Driving)	403,440	15%
Walking	35,898	7%
Biking	13,636	8%
Transit	3,058	13%
TNC	280	0%

Figure 2.57: *Trip mode split for shopping (grocery and routine) trips.*
Data courtesy 2021 Saint Cloud APO RHTS.

Social Activities

Out of all the different categories of trips classified as part of the 2021 Saint Cloud APO RHTS (excluding trips headed for home), social activity trips had the largest frequency of trip destinations within residential areas. These types of trips could range from visiting friends and neighbors to walking/biking around the neighborhood. Aside from residential areas, social activity trips were also recorded at places such as Marcus Parkwood Cinema, Crossroads Center, the Saint Cloud branch of the Great River Regional Library, and at different venues along the MN 23/CSAH 75 (Division Street) corridor.

Walking, biking, and TNC modes were popular choices among residents partaking in social trips.

Trip Mode	Total Number of Weighted Trips	Percentage of Weighted Trips for Social Activities
Car (Driving)	403,440	11%
Walking	35,898	30%
Biking	13,636	20%
Transit	3,058	7%
TNC	280	28%

Figure 2.58: *Trip mode split for social activity trips.*
Data courtesy 2021 Saint Cloud APO RHTS.

Where are People Coming From?

The RHTS was able to shed light on where people were travelling to – i.e., destinations. However, that is only one part of the journey. To understand the community's transportation needs more fully, transportation planners also need to consider where many of these trips originate from.

People live in all areas of the MPA. However, those locations are not evenly distributed. To have a more generalized understanding of trip origins and subsequent destinations, the APO utilizes TAZs. While not a perfect system, at its most basic level, TAZs can provide a more regional perspective on where individual households clustered in the absence of a regional land

use map – which can provide more insight as to the types of residential developments (single family versus multifamily for example).

Large concentrations of households per square mile within the planning area can be found in Saint Cloud near Saint Cloud State University; along West Saint Germain Street near 22nd Street S and Oak Grove Road SW/County Road 136; south of the Saint Cloud Area Family YMCA and east of the Saint Cloud Technical & Community College; and near the US 10/MN 23 interchange. Additional locations throughout the metro include in Sartell between Pinecone Road N and Riverside Drive/CSAH 1 and Seventh Street N and 12th Street N; in Sauk Rapids in the area surrounding Good Shepherd Community; and in Waite Park between Second Avenue S; MN 23/Second Street S; and MN 15. It is important to note that most of these areas contain several apartment complexes (multifamily residential dwelling units).

Figure 2.59: *Apartment complex located in a Sauk Rapids household-dense TAZ.*
Photo courtesy of Saint Cloud APO.

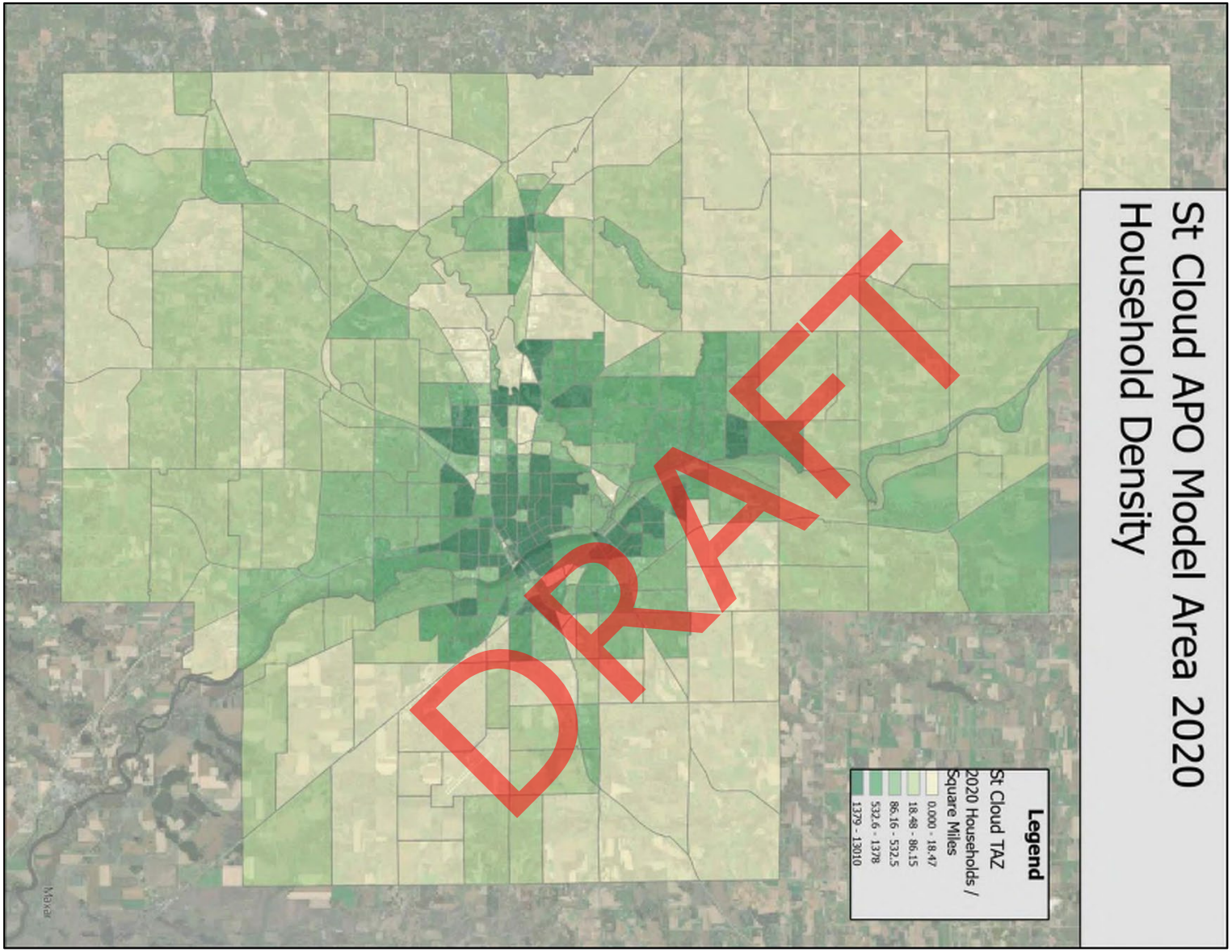

Figure 2.60: *Saint Cloud MPA's 2020 Household Density by TAZ.*
Data courtesy of SRF and Metro Analytics.

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When do People Travel?

With a variety of destinations to go to, it is no surprise that people utilize a variety of transportation modes to travel. However, when an abundance of people are traveling at the same time using the same roadway corridors, congestion is a likely outcome. Rush hours – known as peak hours – are parts of the day during which traffic congestion is highest. Most common peak hours are commonly associated with work commutes – a morning (or a.m.) peak and an afternoon/evening (p.m.) peak. For those traveling during these peak times of day in particular, it tends to take longer for people to reach their destination.

The 2021 Saint Cloud APO RHTS asked participants to record their trips not only by destination, but when they were traveling along the transportation network. Given the lack of information available by mode, the following section is a summation of all similar trip related travel regardless of mode. It is understood that most of these trips are taken using a motor vehicle. However, this should not diminish the importance of other travel modes such as walking, biking, transit, or the use of TNCs.

Traveling to Work

As one of the main trip generators, work commutes tend to be the most predictable in terms of travel times on regional roadways. However, because of their nature and the abundance of people traveling around the same time to and from work, work trips can place the most pressure (a.k.a. congestion) on the region's transportation network.

According to the 2021 Saint Cloud APO RHTS, work trips typically have two main "peaks": morning and afternoon. Within the APO's planning area, morning (a.m.) peak typically begins around 6:30 a.m. and concludes somewhere around 8:30 a.m. The heaviest travel period occurs between 7-7:30 a.m.

Afternoon or early evening (p.m.) peak within the Saint Cloud metro is not as confined as the morning a.m. peak. The 2021 Saint Cloud APO RHTS indicates p.m. peak to begin around 2:30 p.m. and conclude around 6 p.m.

A notable spike in work travel time traffic also includes a brief lunch period spike (between 11:30 a.m. and 12:30 p.m.).

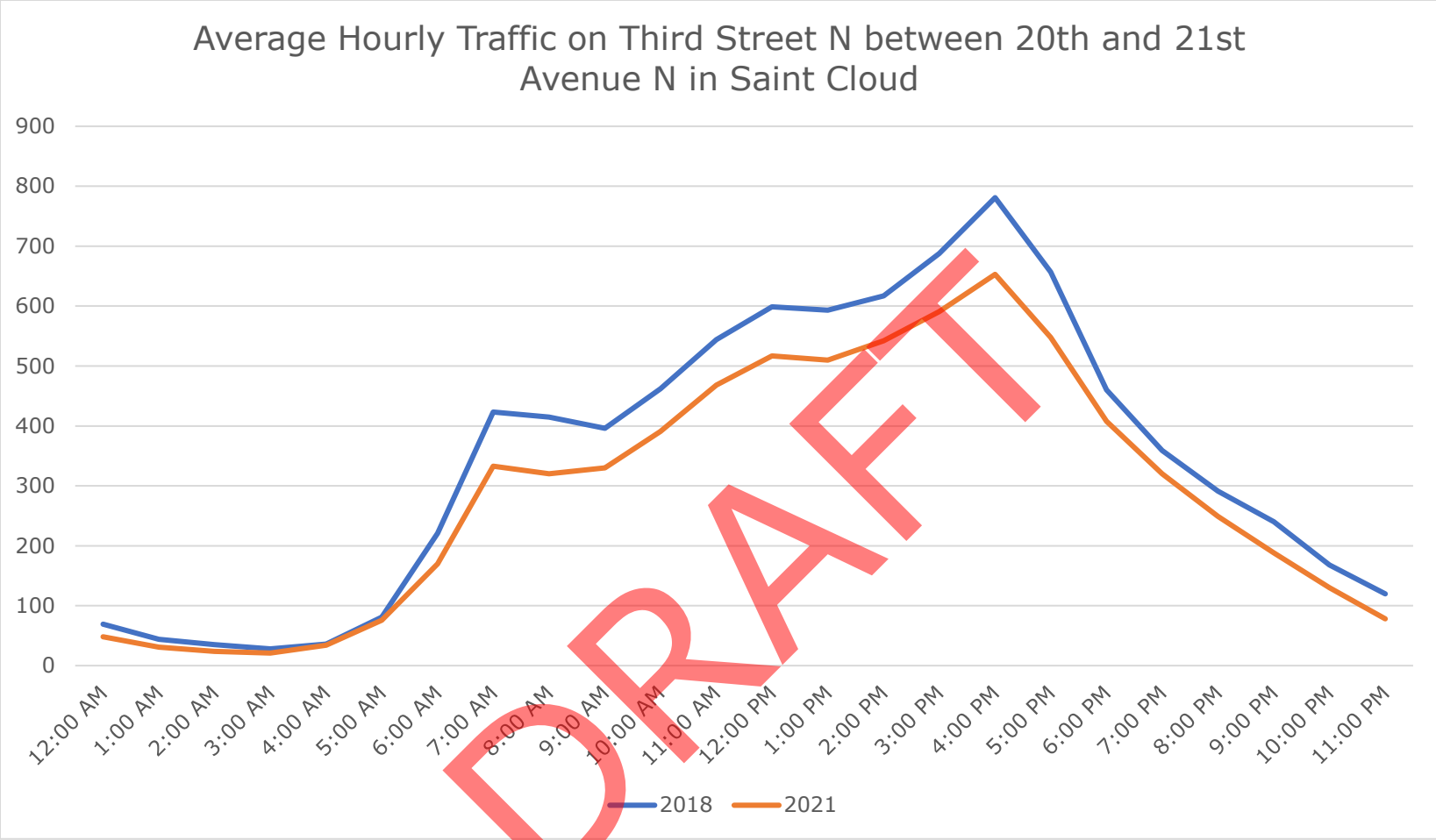

Figure 2.61: *Average hourly traffic on Third Street N between 20th and 21st Avenue N in Saint Cloud for 2018 and 2021. Data courtesy MnDOT Automatic Traffic Recorder 28.*

Other Trip Purpose Travel Times

As noted earlier, the 2021 Saint Cloud APO RHTS had asked participants to provide records of all trips made during their determined travel period. This included the four main categories discussed previously: meals, grocery shopping, other routine shopping, and social activities. Due to the differing reasons these types of trips are made, the time of day that each of these trips occurs varies.

Meals

It should come as no surprise that trips related to meals and dining occur at three different times during the average weekday. The first main "peak" occurs between 7:30-9 a.m. with a hefty spike in travel around 8:30 a.m.

The lunch rush "peak" typically begins around 10:30 a.m. and concludes around 1:30 p.m. Large spikes in travel can be found around 11 a.m., noon, and 1 p.m.

The last major mealtime travel "peak" occurs between 4:30-7:30 p.m. with travel spikes at 5 p.m.

Grocery Shopping

Grocery shopping within the Saint Cloud metro occurs during two main timeframes according to the 2021 Saint Cloud APO RHTS. The first main travel time occurs mid-morning between 10-11 a.m. The other weekday travel time occurs between 5:30-6:30 p.m. – typically at the tail end of the work commute.

Other Routine Shopping

Similar to grocery trips, other routine shopping has two main "peaks." Typically, the first major spike in weekday travel time occurs during the lunch period – between 11 a.m. and 12:30 p.m. The second "peak" follows shortly after with mid-afternoon being popular times for routine shopping trips. This spike occurs between 1-4:30 p.m. with large travel activities occurring around 3 p.m. according to the 2021 Saint Cloud APO RHTS.

Social Activities

Because of the nature of social activities, there is really no discernible peak for this type of trip purpose. Social activities travel according to the 2021 Saint Cloud APO RHTS tend to be evenly spread out throughout out the day.

Seasonal Travel

The Saint Cloud region experiences an increase in traffic particularly during the summer months due to its connections to US 10 and I-94, providing access between the Brainerd Lakes and Alexandria area and the Minneapolis/Saint Paul metro area.

According to transportation analytics resource StreetLight Data, the major throughfares within the APO's planning area (I-94, US 10, MN 15, and MN 23) experience a near doubling of through traffic on weekends (Saturdays and Sundays) as compared to weekday travel during the summer – Memorial Day through Labor Day 2019.

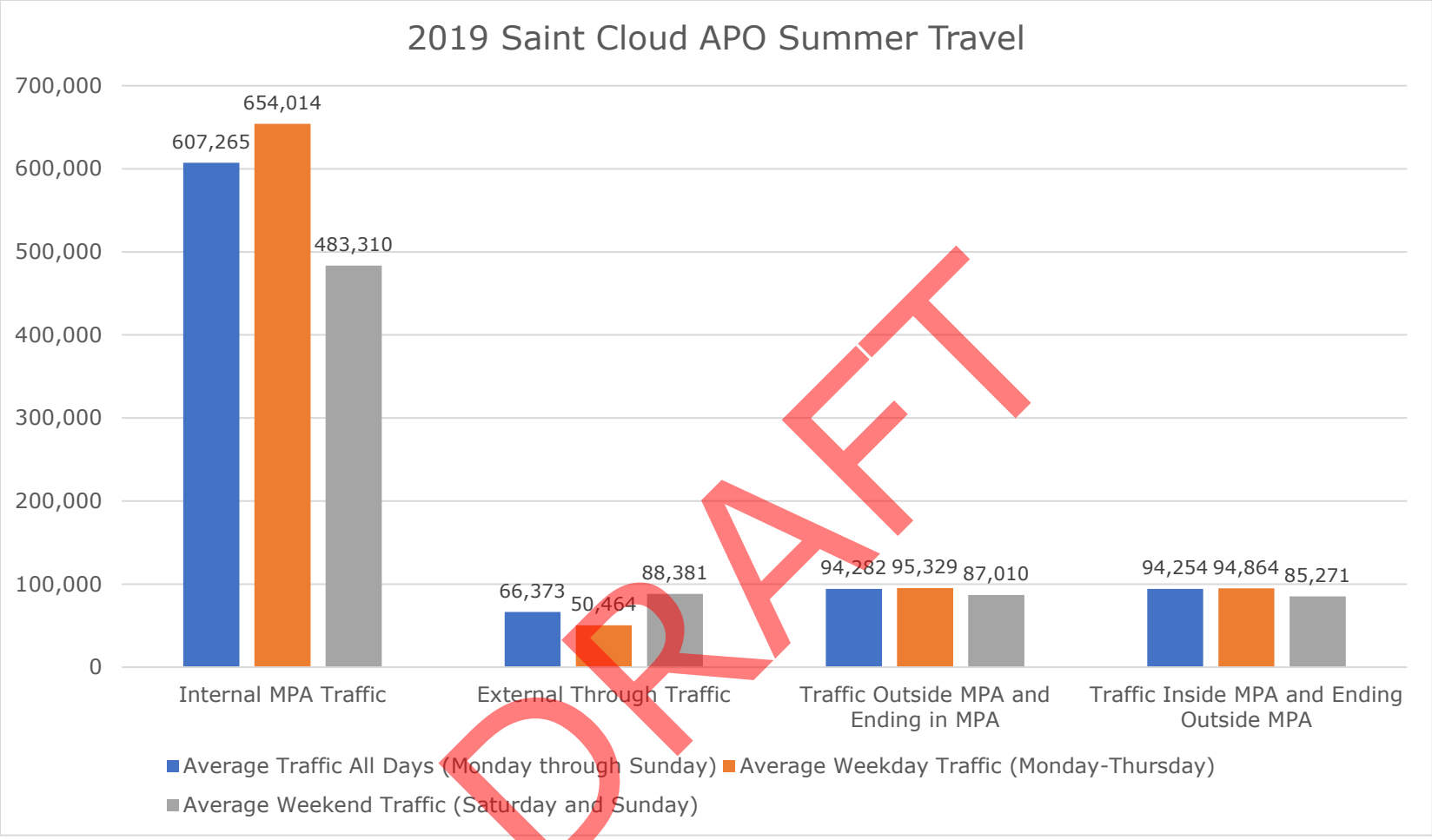

Figure 2.62: *2019 Summer traffic (Memorial through Labor Day) on major roadways within the APO's planning area by origin/destination. Data courtesy of StreetLight Data, Inc.*

For the most part, I-94 serves as the preferred route for summer through traffic. StreetLight Data estimates weekday summer through travel (Mondays through Thursdays) to range between 12,000 and 15,000 vehicles per day. However, on summer weekends (Saturday and Sunday) those numbers spike to between 19,000 (heading west on I-94) and 29,000 (heading southeast on I-94).

Except for westbound MN 23 (which pulls traffic from westbound I-94) most drivers do not deviate from the roadway they are on while traveling through the metro.

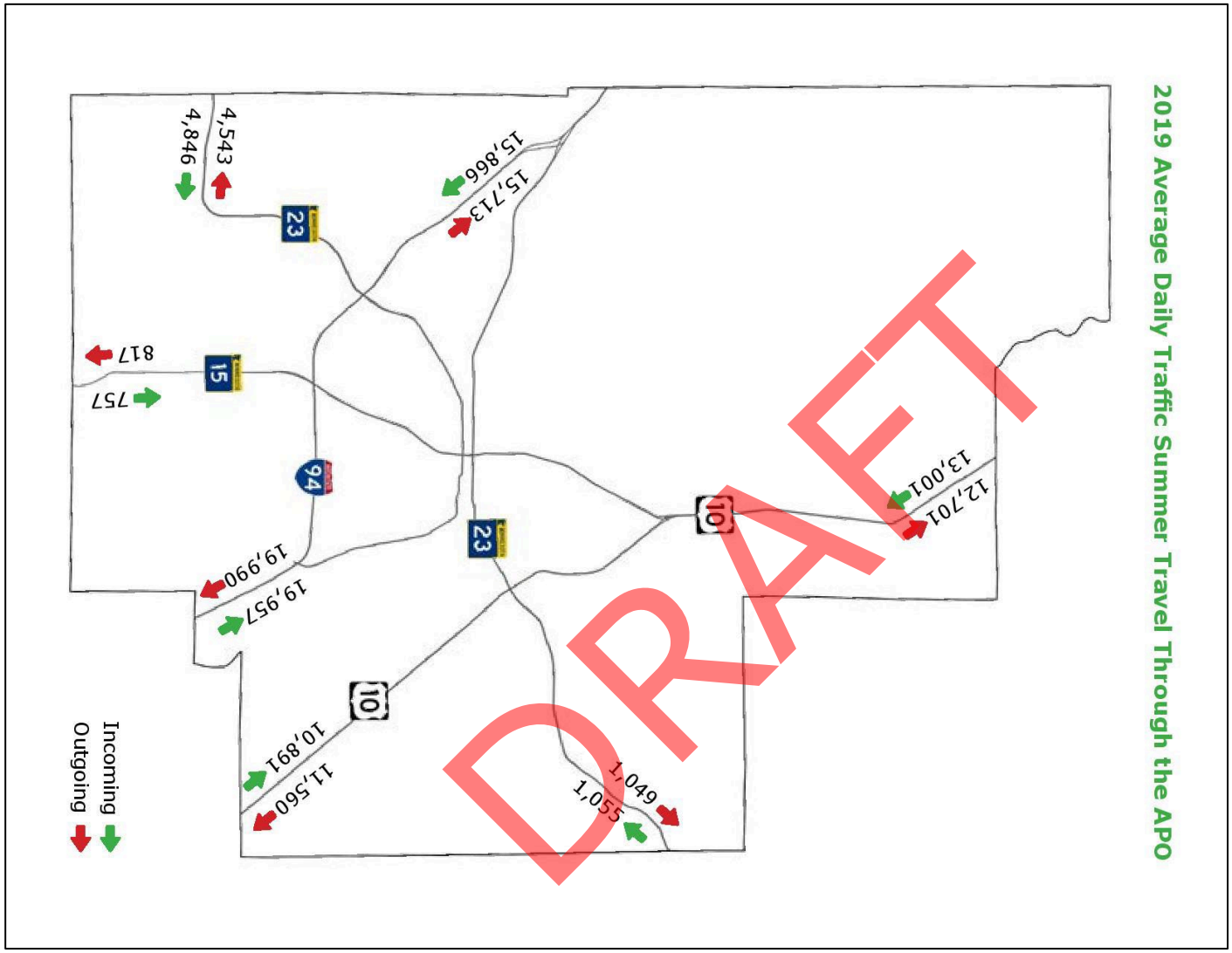

Figure 2.63: *2019 average daily traffic summer travel through the APO.*
Data courtesy of Streetlight Data, Inc.

Existing Infrastructure

So far, we have explored who lives in the planning area, where they are going, and what times of day they typically travel. Next, we will turn to the methods (or modes) of travel found within the APO's planning area and the condition of the existing transportation network.

In order to effectively plan for transportation, it is important to understand the investment that has been made in the transportation system to date along with how it is utilized.

The following sections will detail the existing conditions of the primary transportation modes that serve the Saint Cloud MPA, including the roadway network; transit; and pedestrian and bicycle infrastructure. Other supplementary modes – such as regional air travel, intercity bus, rail, and TNCs – will also be addressed.

Taken together, providing quality transportation infrastructure is critical to the success of the local economy and, ultimately, the quality of life for residents within and surrounding the MPA.

Roadways

One of the primary responsibilities of MPOs, like the Saint Cloud APO, pertains to surface transportation planning. So, it comes as no surprise that MPOs have a vested interest in a region's roadway network – the largest (and often most expensive) contributor to surface transportation.

The APO's planning area contains approximately 2,554.17 centerline miles. These roadways can be classified based on their function.

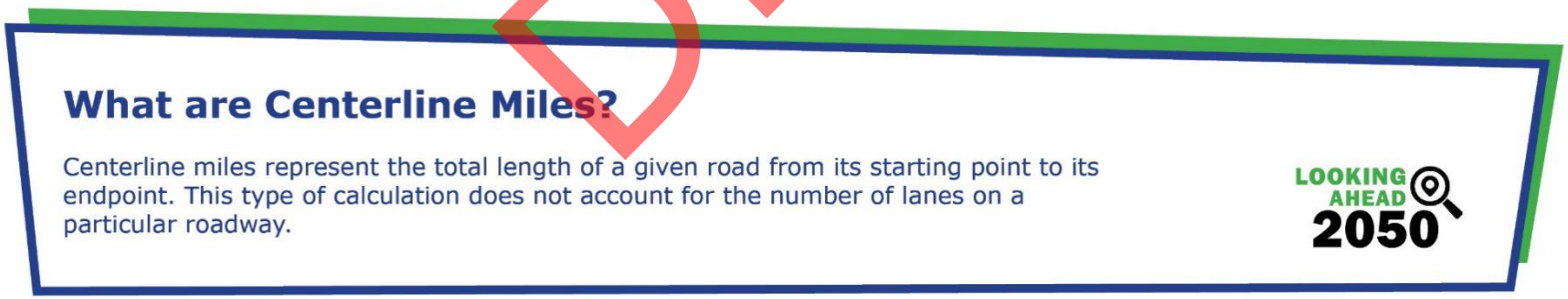

Figure 2.64: *Definition of centerline miles.*

Functional Classification

According to the Federal Highway Administration (FHWA) publication "Highway Functional Classification Concepts, Criteria, and Procedures" (https://bit.ly/3SW6xLU), roadways are designed to serve two main functions: providing access and ensuring mobility. Depending on how roadways function – favoring access over mobility, for example – determines how the traveling public utilizes the infrastructure. Roadways with a high number of access points for vehicles to enter and exit the roadway are typically considered local roadways. These roadways are not intended for long-distance travel, but rather serve to connect travelers to the more extensive transportation network and to the adjacent parcels of land.

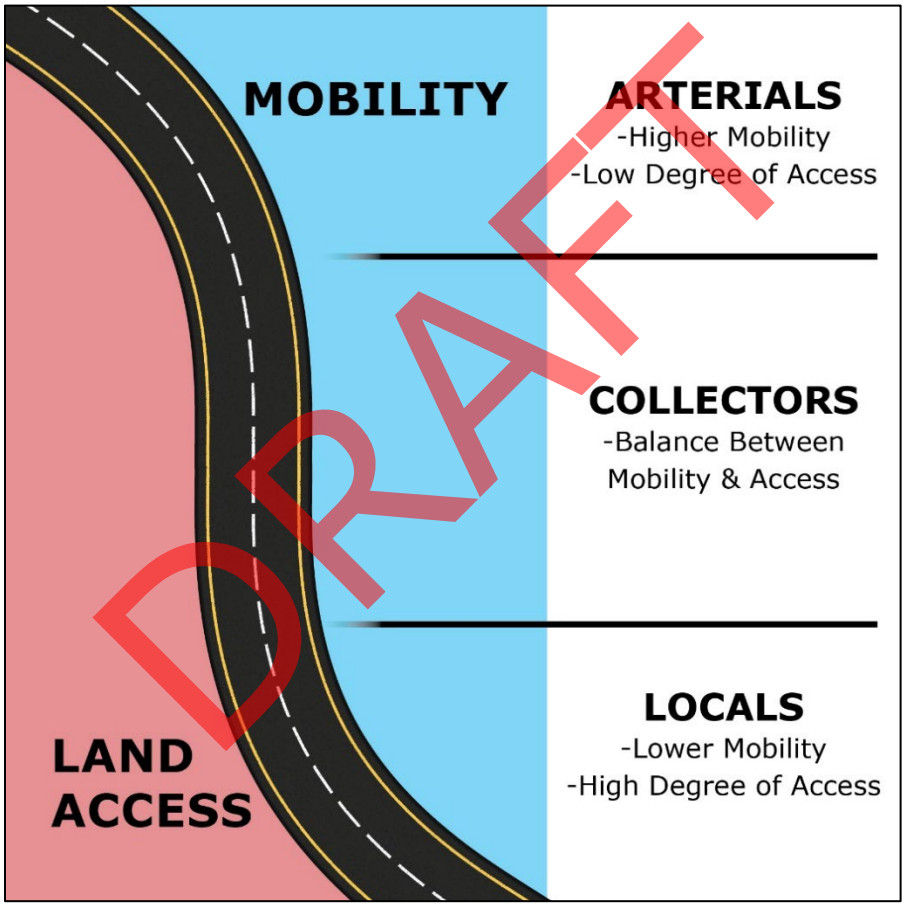

Figure 2.65: *The correlation between mobility and land access and the function of roadways.*

On the other hand, roadways that provide the highest level of mobility are classified as arterials (Interstate, principal, or minor). These roadways tend to limit entrances and exits – especially in the case of Interstates – and carry a large number of vehicles over longer distances at higher speeds.

Roadways that provide a more balanced blend of access and mobility are classified as collectors.

It is important to note that only collectors and arterial roadways are eligible to receive Federal funding.

About two-thirds of the roadway network within the APO's planning area is on the local system, primarily providing access to and from adjacent land-uses areas across the metro. This is shown in Figure 2.66 below.

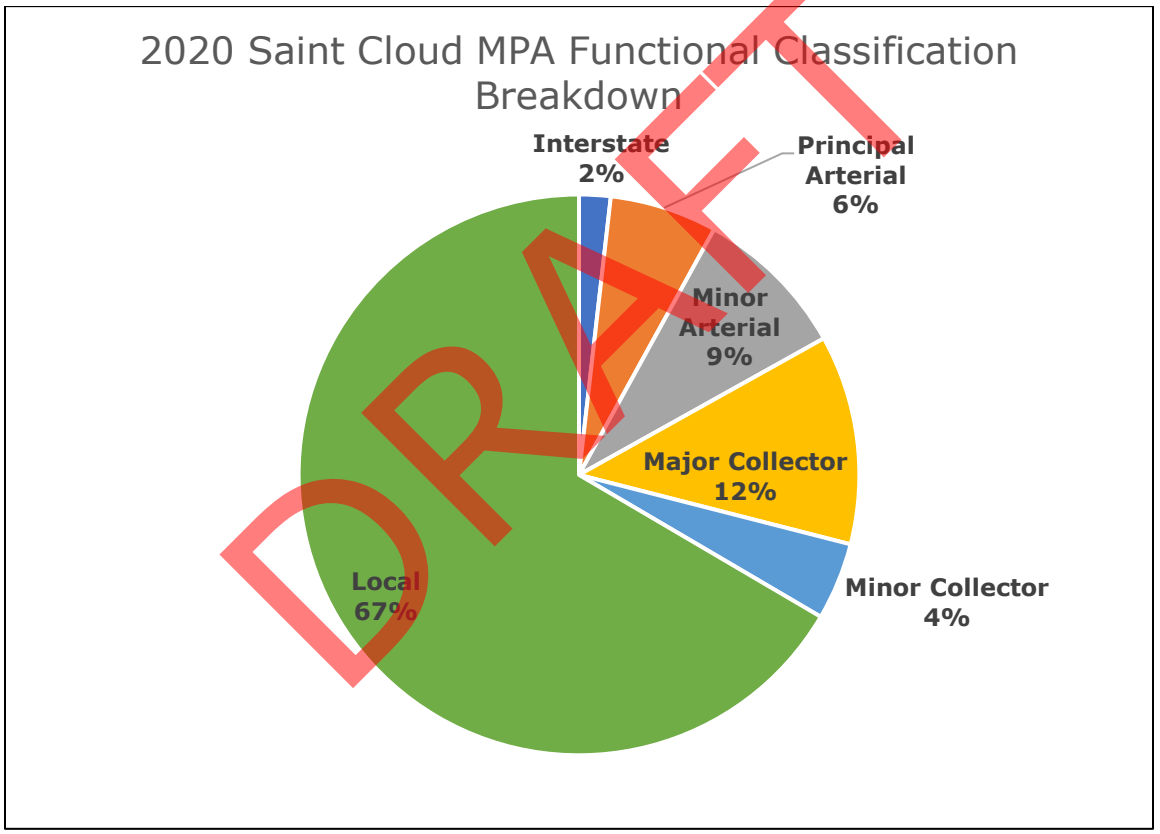

Figure 2.66: *2020 Functional Classification of roadways within the Saint Cloud MPA. Data courtesy Minnesota Department of Transportation (MnDOT).*

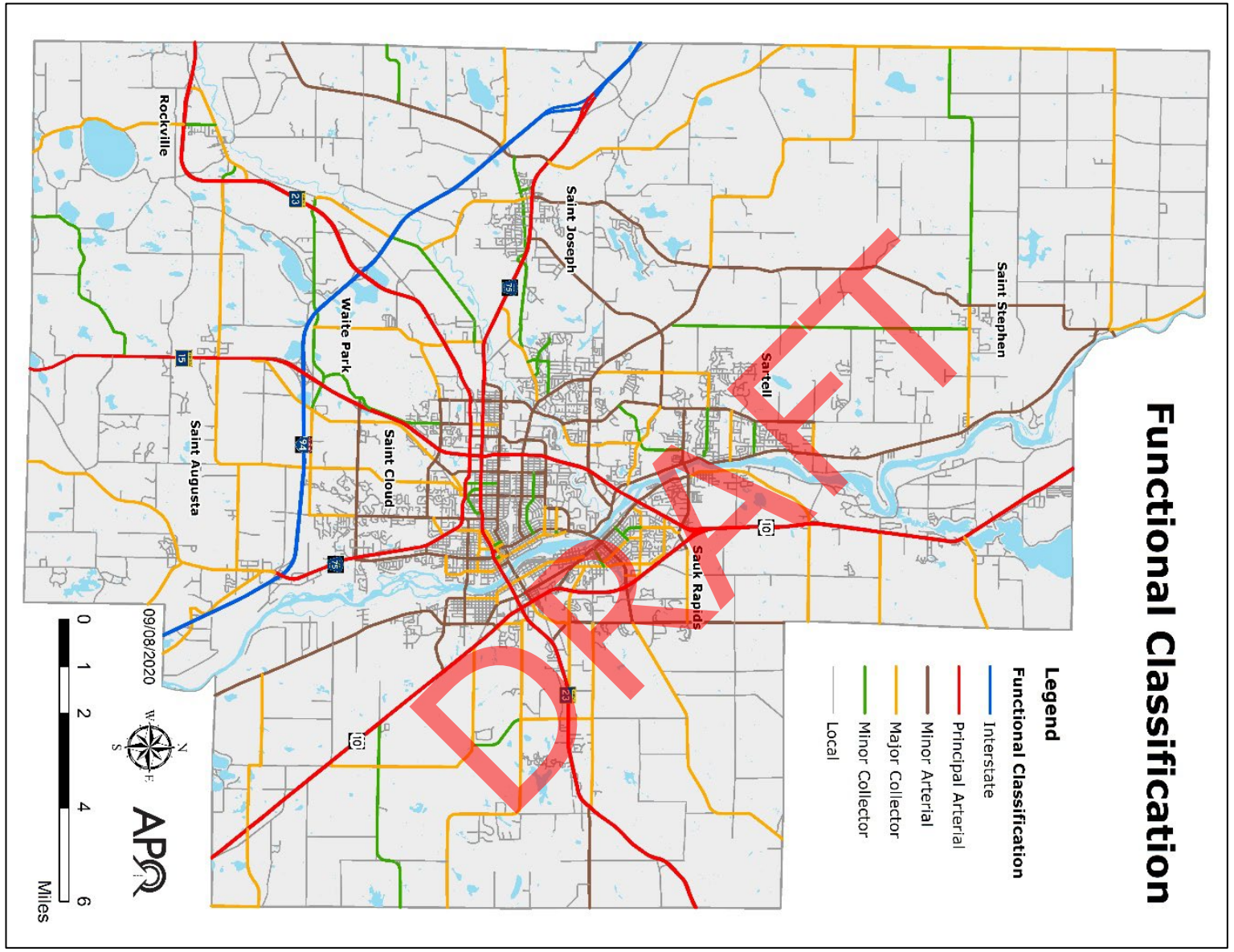

Figure 2.67: *Map of the APO's functionally classified roadway network.*
Data courtesy MnDOT.

Functional Classification	Percentage of 2020 Average Annual Daily Traffic (AADT)	Percentage of the MPA Roadway Network
Interstate	50.7%	2%
Principal Arterial	31.5%	6%
Minor Arterial	9.9%	9%
Major Collector	4.0%	12%
Minor Collector	2.2%	4%
Local	1.7%	67%
Total	**100%**	**100%**

Figure 2.68: *2020 Average Annual Daily Traffic (AADT) by functional classification of roadways within the Saint Cloud MPA. Data courtesy MnDOT.*

Vehicle Miles Traveled (VMT)

Vehicle miles traveled (VMT) measures the amount of travel for all vehicles in a geographic region over a one-year period. During the last iteration of the APO's MTP, VMT throughout the region was fairly stagnant particularly during the time frame between 2008 and 2015. VMT during this "flattening" period hovered between 1.076 and 1.098 billion miles.

Figure 2.69: *Traffic traveling on MN 15 in Saint Cloud. Photo courtesy Saint Cloud APO.*

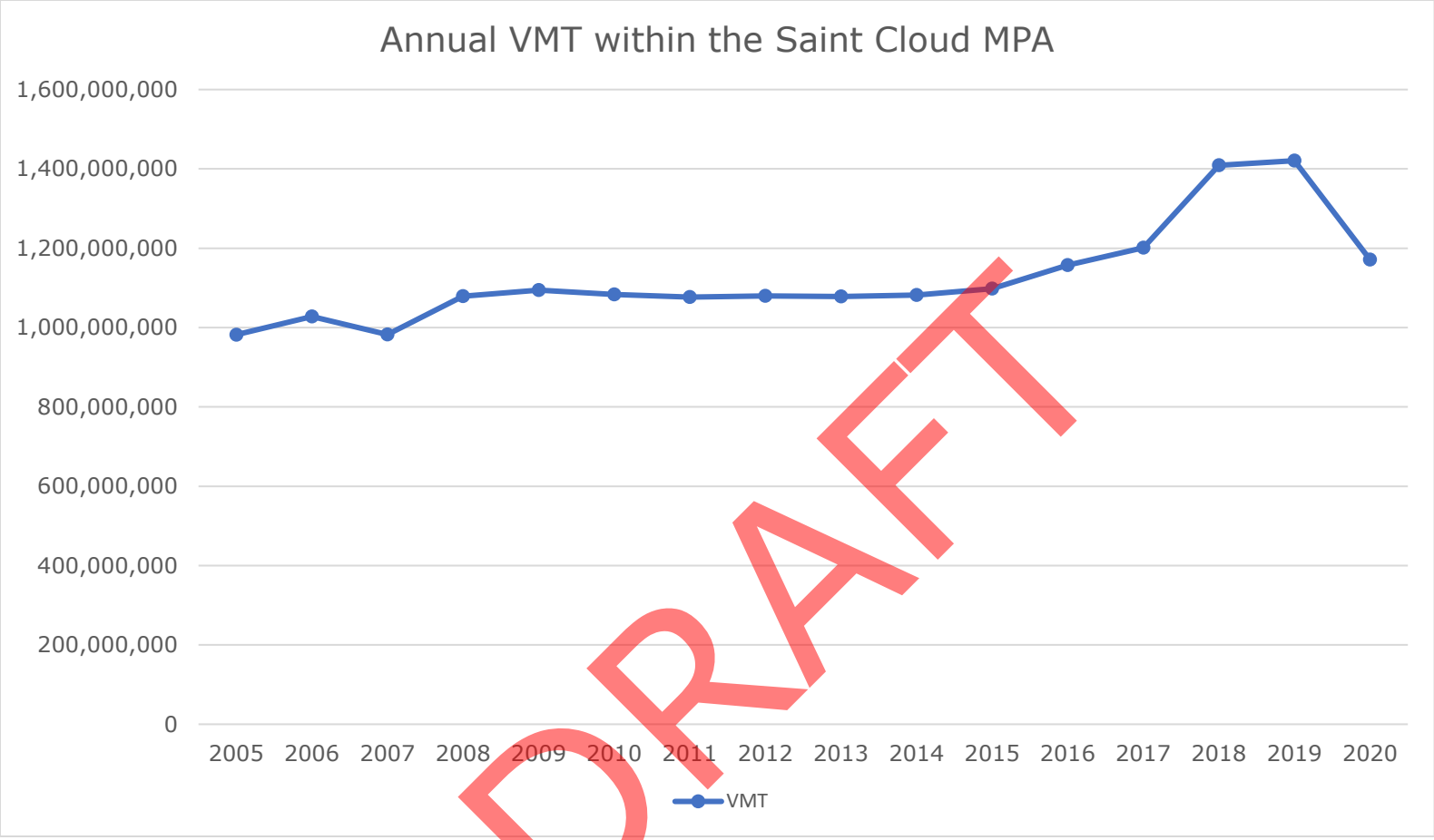

Figure 2.70: *Annual Vehicle Miles Traveled within the Saint Cloud MPA.*
Data courtesy MnDOT.

However, between 2015 and 2019, VMT throughout the planning area began to climb – jumping nearly 30%. In 2020, as expected given the travel restrictions imposed because of the COVID-19 global pandemic (including, but not limited to stay at home orders, business closures, and work from home mandates) VMT dropped by 17.5% from the previous year. That being said, VMT reported in 2020 did not drop to levels experienced during the "stagnant" period of VMT.

Another way to look at VMT is on a per capita basis – on average, how many miles are individual people traveling each year. As depicted in Figure 2.71, between 2010 and 2017 despite more people living in the region, travel on our roadways was not

experiencing an equivalent increase. However, in 2018 and 2019, VMT per capita exploded – with the average person traveling approximately 10,400 miles per year as compared to 8,700 to 8,900 miles in previous years.

Travel restrictions imposed because of the COVID-19 pandemic caused VMT per capita to drop dramatically between 2019 and 2020 (by approximately 19%). But, like overall VMT, 2020 levels did not drop to levels experienced during the "stagnant" period of VMT.

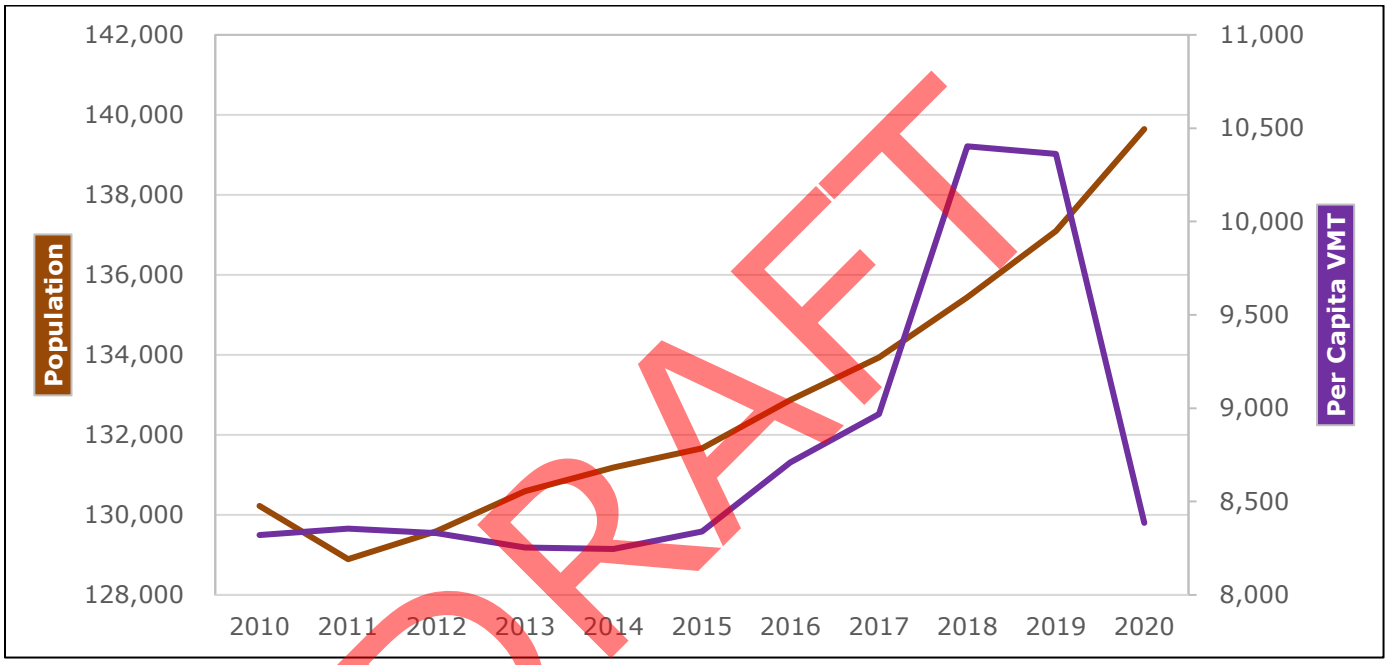

Figure 2.71: *Per capita vehicle miles traveled within the MPA. Data courtesy of U.S. Census Bureau and MnDOT.*

In the year following the onset of COVID-19, VMT and per capita VMT made a steady comeback. While not quite returning to pre-COVID (2019) levels, both VMT and per capita VMT surpassed their respective 2017 levels. Based on this data, it is likely 2020 was more of an anomaly rather than the establishment of a new "normal."

Year	VMT	VMT per capita
2020	1,171,158,196	8,387
2021	1,325,434,322	9,472
Percent Change	**13.2%**	**12.9%**

Figure 2.72: *Year-over-year comparison of the APO's VMT and per capita VMT as reported in 2020 and 2021. Data courtesy of MnDOT, U.S. Census Bureau, and 2017-2021 ACS Five Year Estimates.*

Average Annual Daily Traffic (AADT)

Annual average daily traffic (AADT) is the total volume of vehicle traffic on a road over a year divided by 365 days. It is generally calculated by measuring traffic over a 48-hour period and then applying a series of seasonal and day-of-the-week adjustment factors. AADT is a useful and simple measurement of how busy a specific road is.

In comparing AADT reporting periods ending in 2015 to those ending in 2020, notable growth in vehicular traffic can be found along certain corridors as displayed in Figure 2.74. It should be noted that AADT is collected over a several year time frame and not just in the specified year. AADT denoted as 2015 includes all the most recent AADT through 2015. Similarly, AADT data for the reporting period ending in 2020 includes the most recently available data through the end of 2020. For example, 33rd Street S between Oak Grove Road and CR 74 in Saint Cloud was one of the top 10 roadway corridors to experience growth in traffic. This is due, in part, to the opening of the new Saint Cloud Technical High School and the conversion of this former two-lane roadway to a four-lane. Other growth areas include CR 139 between Rockville and Saint Joseph Township and CR 120 between MN 15 and the loop around Walmart and Sam's Club.

The most notable areas of decreased AADT include CR 1 between CR 120 and MN 15 and 12th Street N between Riverside Drive and Pinecone Road (both in Sartell) as well as I-94 between CSAH 75 (McStop) and where the roadway exits the planning area to the southeast.

A jurisdictional comparison of AADT during this time frame can be found in Appendix D.

Figure 2.73: *Traffic traveling along Pinecone Road at Grouse Court in Saint Cloud.*
Photo courtesy Saint Cloud APO.

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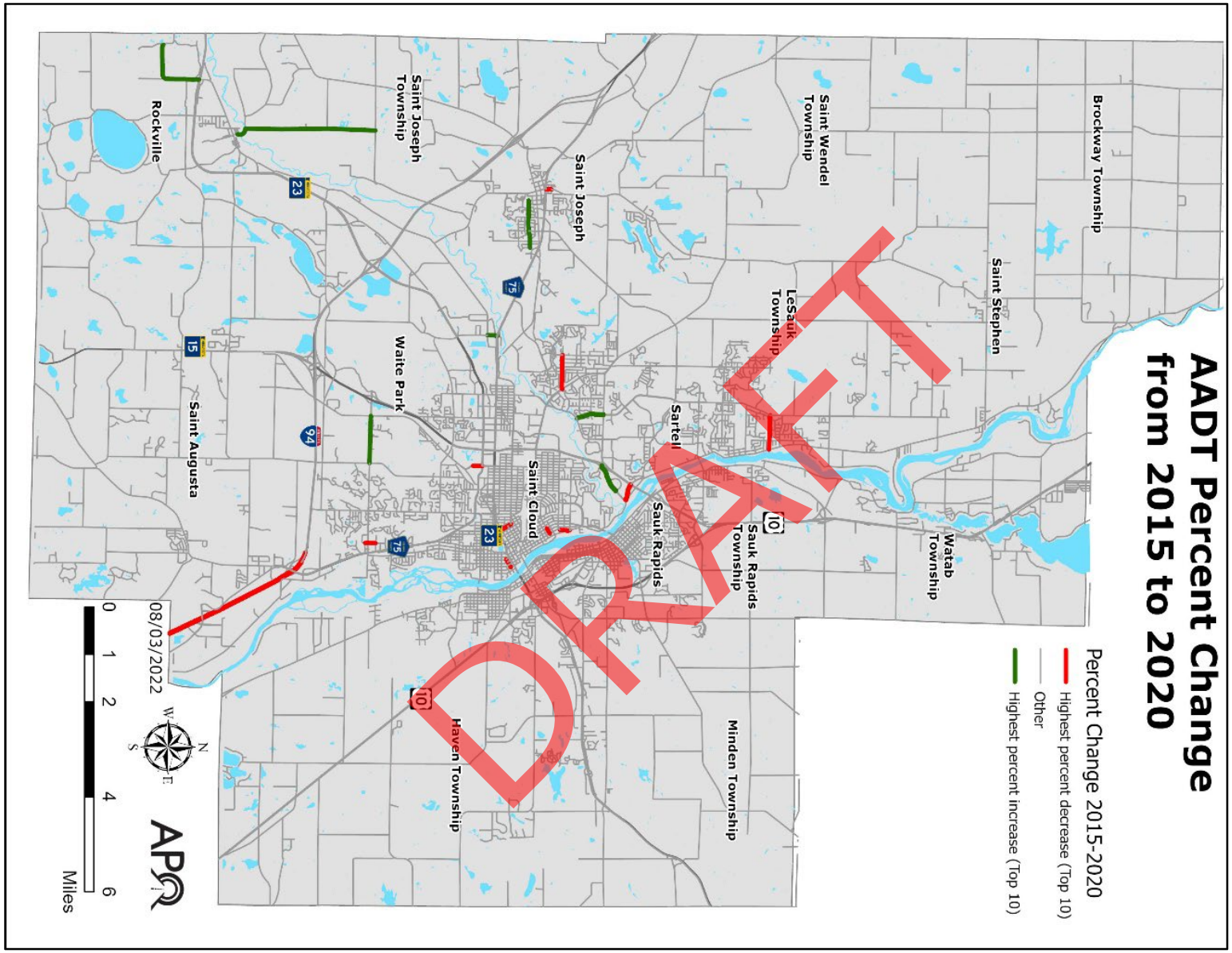


Figure 2.74: *Average Annual Daily Traffic (AADT) count comparisons between 2015 and 2020. Data courtesy of MnDOT.*

System Performance

Performance-Based Planning Approach

It's one thing to understand the extent of the surface transportation system within the region (i.e., number of miles, types of roadways, and how well traveled they are). However, starting in 2012, the federal government through the passage of MAP-21 required the US Department of Transportation (USDOT) to establish performance measures based on national transportation goals for safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. Over the next six years, USDOT (through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)) worked to determine the extent of these performance measures, how they would be calculated, and the standards and timelines for incorporating performance measures within state departments of transportation (DOTs) as well as MPOs.

The Performance-Based Planning and Programming (PBPP) approach is designed to assist organizations like the APO in allocating its limited financial resources to areas of greatest concern. Using the APO's goals, objectives, and strategies – as identified in Chapter Four – PBPP relies heavily on existing conditions data metrics to establish system performance targets that will ultimately prioritize investment decisions needed to achieve the region's long-term transportation vision.

The Federal government has outlined three performance-based metrics all state departments of transportation (DOTs) and MPOs – like the APO – must consult to establish performance targets:

- PM1: Transportation Safety.
- PM2: Infrastructure (pavement and bridge condition).
- PM3: System Performance (system reliability).

These federally required performance measures and targets primarily apply to roadways on the National Highway System (NHS). The APO keeps track of additional transportation performance measures and indicators as part of its annual Transportation Performance Monitoring Report (TPMR) (https://tinyurl.com/h2755jcs).

State DOTs – such as the Minnesota Department of Transportation (MnDOT) are required to develop statewide performance targets. MPOs, like the APO have the option to either 1) support all or some of MnDOT's performance targets for each performance measure, or 2) set all or some of its own regional target(s). The APO has opted to set its own targets for each of the federally required performance measures. Overall, the targets established by MnDOT have been determined to be of limited value to the APO, especially when compared with the existing conditions and priorities of the APO. Therefore, by adopting different targets from the state, the APO can focus on localized issues within the region and target funding that will work toward the goals of the APO.

State DOTs and MPOs began establishing and reporting on system performance between 2017 and 2018. As part of this new requirement, these targets at the MPO level also needed to be reflected in both the MTP and the Transportation Improvement Program (TIP). As a result, the APO's 2019 MTP – Metropolitan Area Planning and Programming: An Innovative Network Guide (MAPPING 2045) – was the first MTP adopted by the APO to include the PBPP approach.

The following sections provide an in-depth look at each of the federally required performance measures as well as a

review of the initial performance targets established by the APO in 2019.

PM1: Transportation Safety

The safety performance measure (PM1) incorporates the following five key targets:

1. Number of fatalities.
2. Rate of fatalities per 100 million VMT.
3. Number of serious injuries.
4. Rate of serious injuries per 100 million VMT.
5. Number of non-motorized fatalities and serious injuries.

Each of these individual targets is based upon a five-year rolling average. Thus, 2019 targets were based on the totals for 2014, 2015, 2016, 2017, and 2018 then divided by five. Subsequently, 2020 targets are based on the total of 2015, 2016, 2017, 2018, and 2019 then divided by five. Hence with each year, the average can change based on new data.

The APO receives its VMT data from MnDOT.

Figure 2.75 outlines the specific safety performance measure, the MnDOT targets for that measurement, the APO's baseline measurement, and the APO's adopted targets.

PM1 Performance Measure	MnDOT's 2024 Target	2022 APO Baseline Measurement	APO's 2024 Target
Number of fatalities	352.4	8.2	8.0
Rate of fatalities (per 100 million VMT)	0.582	0.629	0.626
Number of serious injuries	1,463.4	28.4	23.0
Rate of serious injuries (per 100 million VMT)	2.470	2.169	1.946
Number of non-motorized fatalities and serious injuries	258.4	6.2	6.2

Figure 2.75: *A list of incorporated PM1 performance measures and the performance targets for those performance measures.*

In comparing the 2022 baseline measurement against the baseline measurements from 2017 used in the development of the APO's previous MTP, three out of the five metrics saw improvement as reflected in Figure 2.76.

PM1 Performance Measure	2017 APO Baseline Measurement	2022 APO Baseline Measurement	2017-2022 Baseline Measurement Improvement?
Number of fatalities	8.6	8.2	Yes
Rate of fatalities (per 100 million VMT)	0.769	0.629	Yes
Number of serious injuries	23.6	28.4	**No**

PM1 Performance Measure	2017 APO Baseline Measurement	2022 APO Baseline Measurement	2017-2022 Baseline Measurement Improvement?
Rate of serious injuries (per 100 million VMT)	2.088	2.169	**No**
Number of non-motorized fatalities and serious injuries	7.8	6.2	Yes

Figure 2.76: *A comparison of PM1 baseline performance measurements between the 2017 and 2022 results.*

The two metrics that reported 2022 baseline measurements above those reported in 2017 were the number of serious injuries – which saw a 20.3% increase – and the rate of serious injuries (per 100 million VMT) – which saw an increase of 3.9%. In looking closer at the data, the number of serious injuries recorded within the MPA has been trending upward over the decade between 2013 and 2022. But, as reflected in Figure 2.77, the rate of serious injuries had remained rather flat between 2013 and 2017 – an indication that while serious injury crashes were on the rise, the level of which they were occurring in comparison to the number of vehicle miles traveled within the MPA was relatively stable. In comparison, over the next five years (2018 through 2022), not only did VMT increase (as noted in Figure 2.70) but the number of serious injuries reported during this time frame also spiked. This is an indication that as more vehicles are traveling on the roadways within the MPA, serious injury crashes are occurring more frequently than in the previous five years.

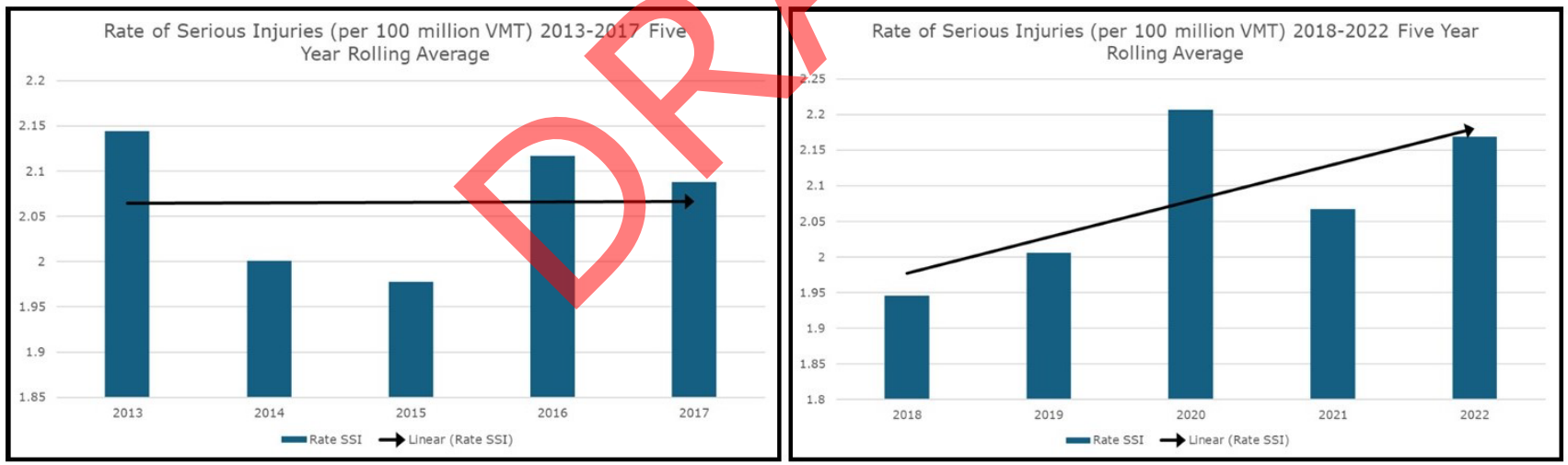


Figure 2.77: *Rate of serious injuries comparison between 2013-2017 five year rolling averages and 2018-2022 five year rolling averages.*

It should be noted that prior to 2018, APO staff was responsible for calculating VMT in the planning area. After 2018, MnDOT provided all VMT information to the APO. As such, VMT reported prior to 2018 may have been higher than originally reported.

While answers as to why the increases in both the number and rate of serious injury crashes have been occurring can only be speculated at this point (this is a trend also experienced at the state level), it is a trend the APO will continue to monitor and would like to see reversed over the next five years – and certainly over the duration of this planning horizon.

That said, the transportation network within the Saint Cloud metro remains is relatively safe. When crashes do occur, a vast majority only result in property damage (76.5%, according to the 2020 five-year rolling average). However, fatal and injury-related crashes do happen.

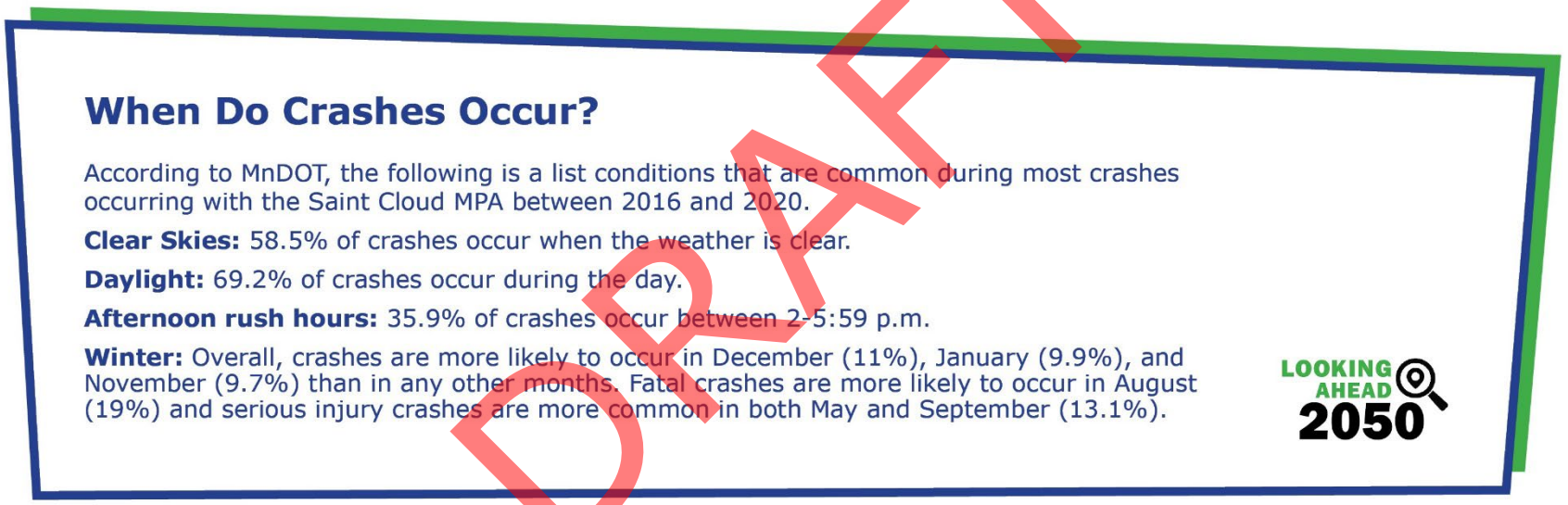


Figure 2.78: *Information on when crashes occur within the Saint Cloud MPA between 2016 and 2020.*

According to the Minnesota Department of Public Safety (DPS) Office of Traffic Safety's (OTS's) Minnesota Motor Vehicle Crash Facts – 2020 (https://bit.ly/3TKNyEi), male drivers ages 20-29 are statistically involved in more crashes than any other age bracket by gender. Out of all crashes involving males, this age cohort is involved in nearly a quarter of all crashes statewide and approximately 15% of all crashes regardless of age and gender, even though they are only 6.7% of the state population according to the 2016-2020 ACS Five Year Estimates. When it comes to fatal crashes on a statewide level, male drivers ages 20-29 are involved in 14% of all fatal crashes regardless of gender and age. While this exact breakdown of data is not available

at the MPA level, it can be inferred based upon available data (number of drivers and non-motorists involved in crashes – available to MPOs) that this trend is applicable in the Saint Cloud metro.

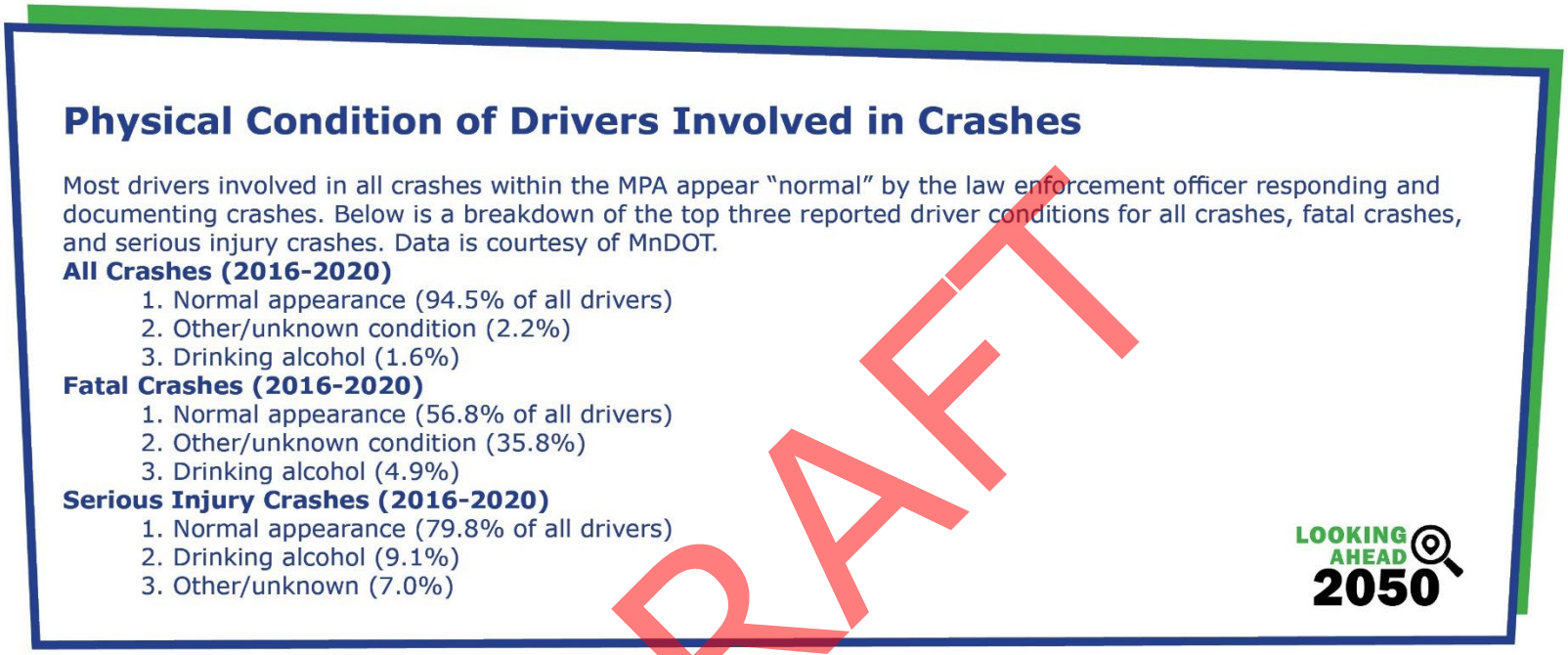


Figure 2.79: *Infographic on the physical condition of drivers involved in crashes.*

Within the MPA, approximately three-quarters of crashes – regardless of severity – occur when moving vehicles collide with one another. Crashing into fixed objects (such as traffic signs, construction barriers, trees, etc.) are the next most common type of collision. It is notable to mention that pedestrian-involved collisions between 2016 and 2020 accounted for just 0.8% of all crashes, however, pedestrian-involved collisions accounted for just over a quarter (26.2%) of all fatal crashes and 11.7% of all serious injury crashes. While pedestrians make up a small portion of all crashes, these vulnerable road users account for a disproportionately high number of deaths and serious injuries.

While many factors can and often are associated with crashes, one thing transportation planning agencies such as the APO can do is evaluate areas where crashes are occurring most often and determine if an engineering deficiency may be a contributing factor.

The Observed Crash Rate (OCR) is the number of crashes that occur per 1 million vehicles entering a particular intersection. The Critical Crash Rate (CCR) looks at data from similarly designed intersections and determines what a typical observed crash rate SHOULD be based on traffic volumes, intersection control type, and environment (rural versus urban). The Critical Crash Index measures how likely crashes are to occur at a particular intersection in comparison to other similarly designed intersections.

Any intersection with a Critical Crash Rate Index above 1.0 is considered to have an abnormally high crash rate, thus warranting further study and possible mitigation activities.

For example, 40th Street S and County Road 74 (as found in Figure 2.80) has an OCR of 2.63. Based on similar intersections statewide, the OCR should be closer to 0.86 (this is the CCR). As a result, a vehicle traveling through this intersection would be 3.05 times more likely to get into a crash than at a similarly designed intersection. To put this into perspective, while the critical crash index is high, the overall likelihood of crashes in general is statistically low.

It is important to note that while certain intersections may have a high observed crash rate and critical crash index (for example, the County Road 115 and County Road 136 intersection which has an observed crash rate of 2.14 and a critical crash index of 3.45), the number of daily entering vehicles is rather low (2,300).

For purposes of this analysis, APO staff performed these calculations only at intersections involving two federal-aid roadways.

Intersection Location	Intersection Control Type	2016-2020 Crash Count	Average Daily Entering Vehicular Traffic	Observed Crash Rate (OCR) per 1 Million Entering Vehicles	Critical Crash Rate (CCR)	Critical Crash Index (OCR/CCR)
40th Street S at County Road 74	Stop sign for 40th Street S only	6	1,250	2.63	0.86	3.05
Little Rock Road at 15th Avenue NE	Stop sign for 15th Avenue NE only	4	930	2.36	1.02	2.31
Second Street S at MN 15	Signalized intersection	208	53,050	2.15	0.80	2.68
County Road 115 at County Road 136	Stop sign for County Road 115 only	9	2,300	2.14	0.62	3.45
University Drive at Ninth Avenue S	Signalized intersection	125	31,950	2.14	0.76	2.82

Intersection Location	Intersection Control Type	2016-2020 Crash Count	Average Daily Entering Vehicular Traffic	Observed Crash Rate (OCR) per 1 Million Entering Vehicles	Critical Crash Rate (CCR)	Critical Crash Index (OCR/CCR)
Third Street NE at MN 15	Signalized intersection	154	47,900	1.76	0.81	2.17
Division Street at MN 15	Signalized intersection	193	62,250	1.70	0.78	2.18
Third Street N at 33rd Avenue N	Signalized intersection	60	21,200	1.55	0.82	1.89
Second Street S at 33rd Avenue S	Signalized intersection	93	33,650	1.51	0.85	1.78
County Road 3 at 45th Avenue SE	Stop sign for 45th Avenue SE only	5	1,885	1.45	0.68	2.14

Figure 2.80: *Top 10 observed crash rate intersections within the APO's planning area and the critical crash rate and critical crash index for them. Data courtesy MnDOT's Minnesota Crash Mapping Analysis Tool (MnCMAT2) as of Oct. 7, 2022.*

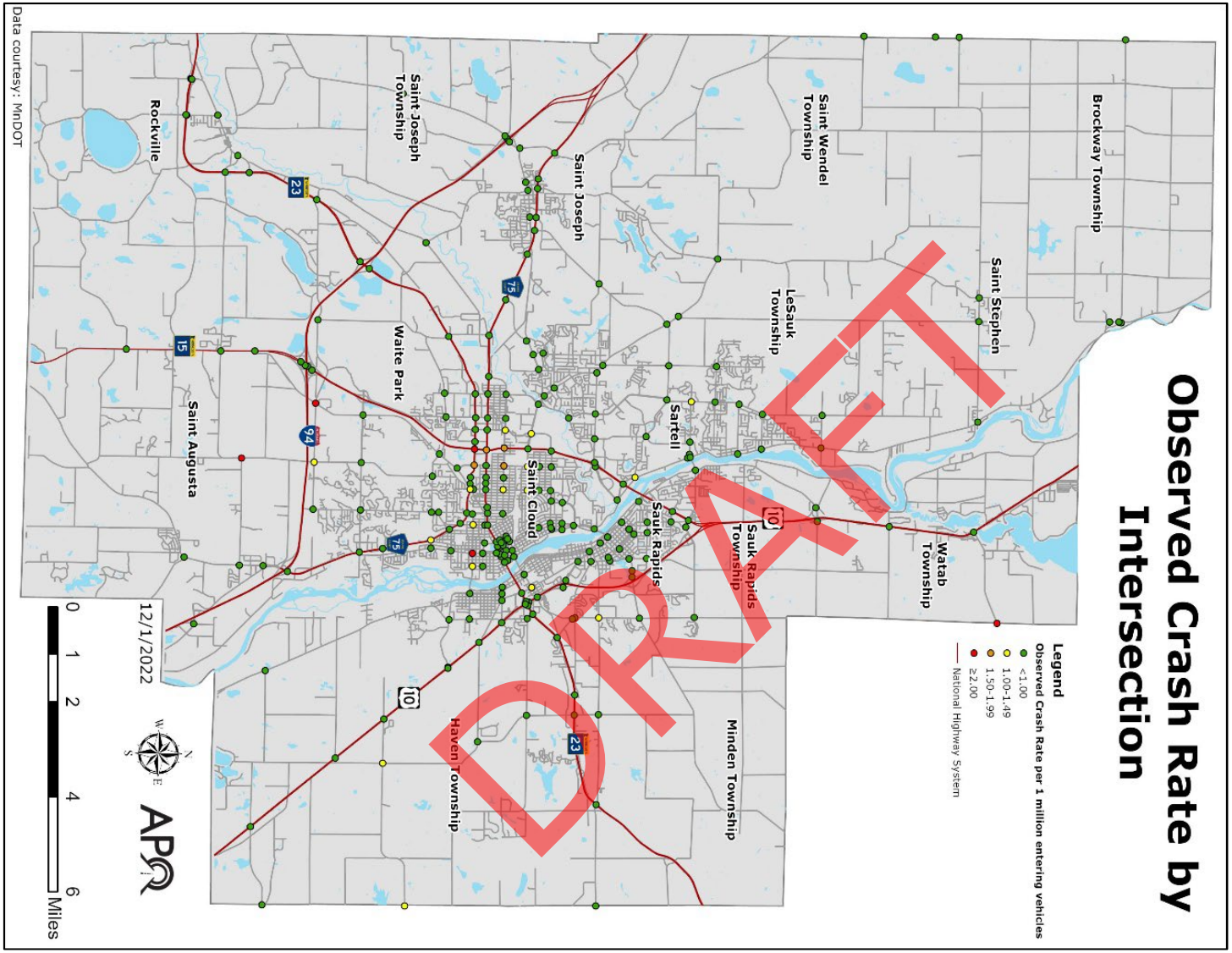


Figure 2.81: *2016-2020 observed crash rate by intersection for functionally classified roadways within the APO's planning area. Data courtesy MnDOT's Minnesota Crash Mapping Analysis Tool (MnCMAT2) as of Oct. 7, 2022.*

Intersection Location	Intersection Control Type	2016-2020 Crash Count	Average Daily Entering Vehicular Traffic	Observed Crash Rate (OCR) per 1 Million Entering Vehicles	Critical Crash Rate (CCR)	Critical Crash Index (OCR/CCR)
Second Street S at MN 15	Signalized intersection	208	53,050	2.15	0.80	2.68
University Drive at Ninth Avenue S	Signalized intersection	125	31,950	2.14	0.76	2.82
Third Street NE at MN 15	Signalized intersection	154	47,900	1.76	0.81	2.17
Division Street at MN 15	Signalized intersection	193	62,250	1.70	0.78	2.18
Third Street NE at 33rd Avenue N	Signalized intersection	60	21,200	1.55	0.82	1.89
Second Street S at 33rd Avenue S	Signalized intersection	93	33,650	1.51	0.85	1.78
Eighth Street N/Veterans Drive at 25th Avenue N	Signalized intersection	50	19,150	1.43	0.83	1.72
Heritage Drive at CSAH 1	Roundabout	38	15,400	1.35	1.43	0.94
Eighth Street N/Veterans Drive at 33rd Avenue N	Signalized intersection	44	17,950	1.34	0.84	1.60
County Road 133 at Pinecone Road	Roundabout	26	11,350	1.25	1.52	0.83

Figure 2.82: *Top 10 observed crash rate intersections for roadways classified as a minor arterial, principal arterial, or Interstate within the APO's planning area as well as the critical crash rate and critical crash index for them.*
Data courtesy MnDOT's Minnesota Crash Mapping Analysis Tool (MnCMAT2) as of Oct. 7, 2022.

PM2: Infrastructure

Assessing the condition of our current roads and bridges is an integral element of understanding how our current transportation system functions and what future transportation system investments might be required.

The infrastructure performance measure (PM2) incorporates the following two key target categories:

1. Interstate System and non-Interstate NHS pavement conditions.
2. Non-Interstate NHS bridge conditions.

For the pavement condition targets, each pavement segment is assessed annually by its jurisdiction. Pavement condition targets are only set every four years, with the option to update them every two. The jurisdictions assess each roadway segment based on a variety of factors to calculate the overall pavement condition. Then, those assessments are combined, and an output of a standard Pavement Condition Index (PCI) is produced. The following are PCI ratings and their associated range of scores:

- Excellent: 86-100.
- Good: 71-85.
- Fair: 56-70.
- Poor: 0-55.

For bridge condition targets, each bridge on the National Highway System (NHS) is assessed annually and the score is entered into the National Bridge Inventory (NBI). The score is based on the inspection rating of the bridge's deck, superstructure, and substructure. Each bridge is given an overall rating based on the lowest score of the three elements. The scores are based on the following ranges:

- Good: 7-9.
- Fair: 5-6.
- Poor: 0-4.

Figure 2.83 outlines the specific infrastructure performance measure, the MnDOT targets for that measurement, the APO's 2022 baseline measurement, and the APO's adopted targets.

PM2 Performance Measure	MnDOT's 2023 Target (2 Year)	MnDOT's 2025 Target (4 Year)	2022 APO Baseline Measurement	APO's 2023 Target (2 Year)	APO's 2025 Target (4 Year)
Percentage of pavements of the Interstate System in Good condition	60.0%	60.0%	91.6%	90.0%	90.0%
Percentage of pavements of the Interstate System in Poor condition	2.0%	2.0%	0.0%	1.0%	1.0%
Percentage of pavements of the non-Interstate NHS in Good condition	55.0%	55.0%	63.1%	65.0%	65.0%
Percentage of pavements of the non-Interstate NHS in Poor condition	2.0%	2.0%	0.3%	1.0%	1.0%
Percent of NHS bridges classified as in Good condition	30.0%	35.0%	22.0%	60.0%	60.0%
Percentage of NHS bridges classified as in Poor condition	5.0%	5.0%	0%	1.0%	1.0%

Figure 2.83: *A list of incorporated PM2 performance measures and the performance targets for those measures.*

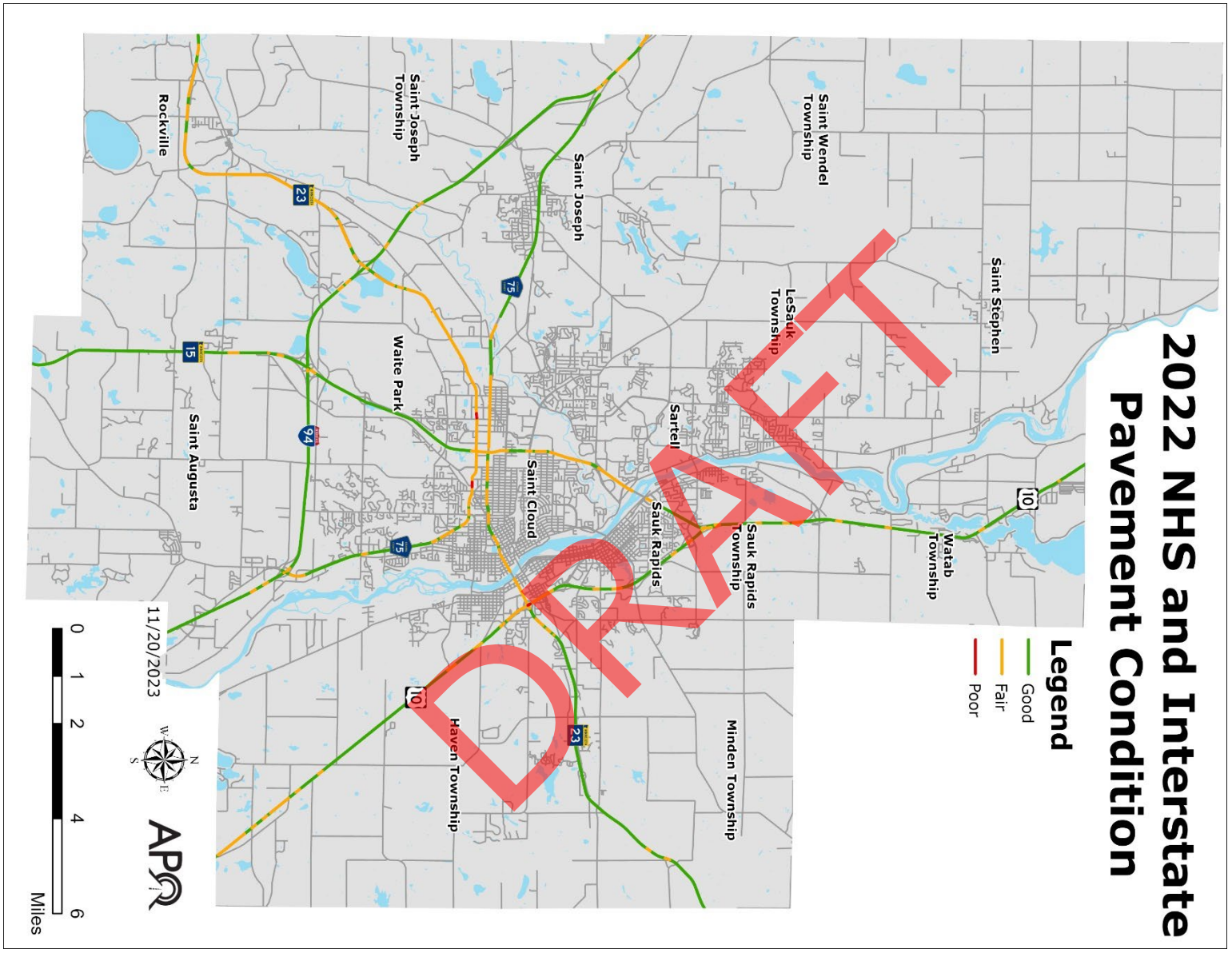


Figure 2.84: *Map of the Interstate and NHS pavement condition within the APO's planning area. Note, data for Stearns CSAH 75 was replaced with 2021 data as pavement condition data was not collected in 2022.*
Data courtesy of MnDOT.

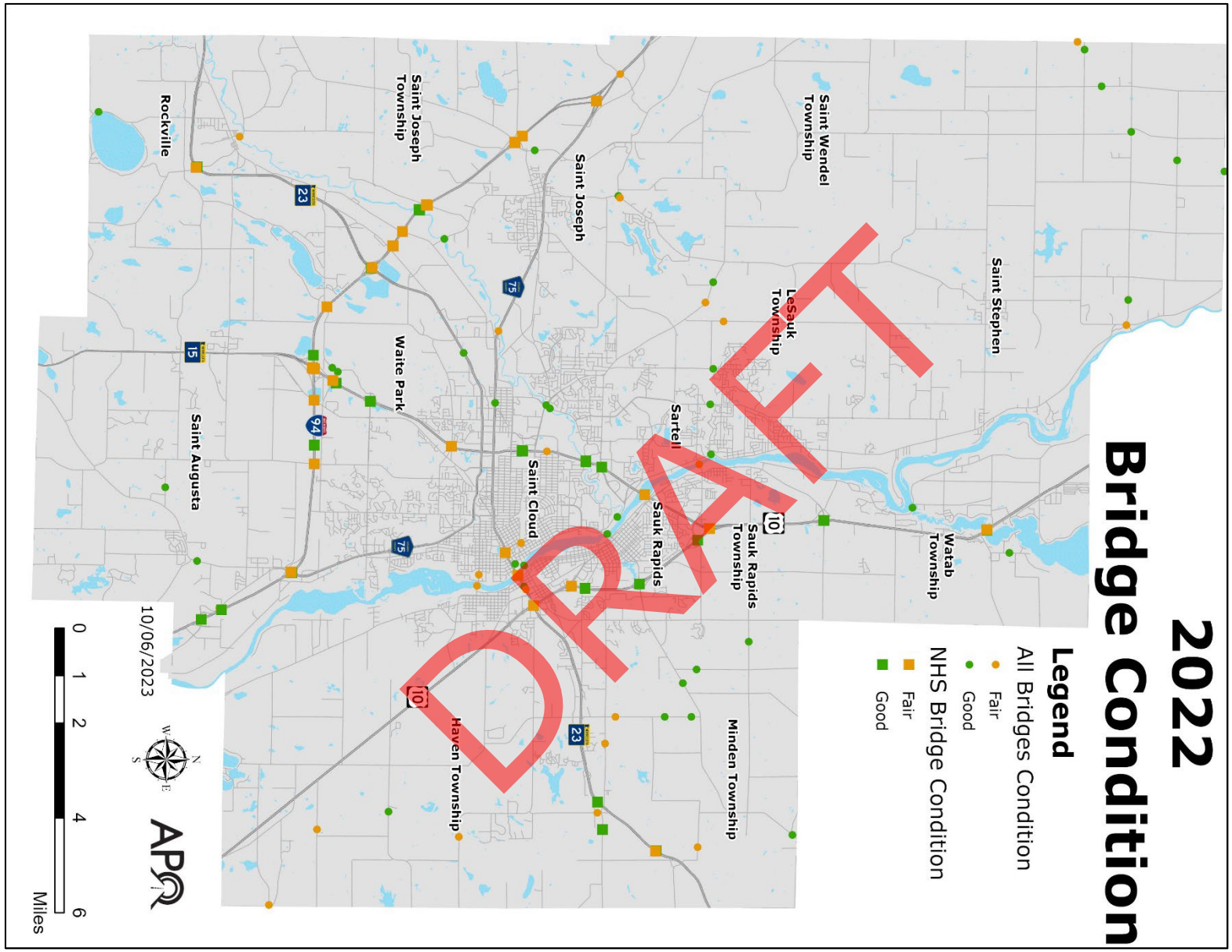


Figure 2.85: *A map of bridge conditions of all bridges located within the APO's planning area. Note, NHS bridge conditions are denoted by a square symbol. Data courtesy of MnDOT.*

Comparing the 2022 baseline measurement against the baseline measurements from 2017 used in the development of the APO's previous MTP, four out of the six metrics saw either an improvement or maintained the existing condition as reflected in Figure 2.86.

PM 2 Performance Measure	2017 APO Baseline Measurement	2022 APO Baseline Measurement	2017-2022 Baseline Measurement Improvement?
Percentage of pavements of the Interstate System in Good condition	90.3%	91.6%	Yes
Percentage of pavements of the Interstate System in Poor condition	0.0%	0.0%	Maintained
Percentage of pavements of non-Interstate NHS in Good condition	59.0%	63.1%	Yes
Percentage of pavements of the non-Interstate NHS in Poor condition	0.2%	0.3%	**No**
Percent of NHS bridges classified as in Good condition	64.2%	22.0%	**No**
Percentage of NHS bridges classified as in Poor condition	0.0%	0.0%	Maintained

Figure 2.86: *A comparison of PM2 baseline performance measurements between 2017 and 2022.*

Two metrics – percentage of pavements of non-Interstate NHS in Good condition and percent of NHS bridges classified in Good condition – saw a decline in performance between 2017 and 2022. In reviewing pavement condition for non-Interstate NHS, pavement in poor condition was found at the following locations:

- The interchange of MN 23 and US 10. This interchange has been slated to be under construction between 2023 and 2024.
- CSAH 75 between 33rd Avenue N and 25th Avenue S. This corridor was slated for construction in 2023.
- MN 23 between Second Avenue S and 10th Avenue S.

However, of the three locations identified as having pavement in poor condition, two locations – the interchange of MN 23 and US 10 and Stearns CSAH 75 between 33rd Avenue N and 25th Avenue S – were slated for system preservation work to begin in 2023 (the year after the pavement condition data was collected).

The metric experiencing the most significant change in the MPA pertains to the percentage of NHS bridges classified as in Good condition. This metric experienced a 42.2 percentage point drop in good condition between 2017 and 2022. While these bridges are no longer considered in "good" condition, they are by no means in a failing state – with most bridges just entering the "fair" condition category versus approaching "poor" conditions category.

However, with a significant number of bridges in fair condition, additional preservation practices will need to be prioritized to ensure these bridges remain in operation. As of the drafting of this plan, three NHS bridges are either in the process of or have been replaced: Stearns CSAH 75 bridge over the Sauk River, MN 23 northbound bridge over US 10, and MN 23 southbound bridge over US 10. Additionally, several NHS bridges within the APO's planning area have undergone or are anticipated to undergo preservation work – pavement preservation on the drivable portion of the bridge (bridge deck) – over the next few years. But the bridge deck is only one of three components that would impact a bridge's condition. Bridge superstructure (the portion of the bridge that supports the deck as well as the load applied to it) and bridge substructure (the portion of the bridge which includes all the elements to support the superstructure) factor into the overall bridge condition rating. However, these components are often the costliest components of the overall bridge. The APO will continue working with local jurisdictions and agencies to monitor bridge conditions to prioritize proactive preservation practices to ensure bridges remain operational.

In addition to looking strictly at the Interstate and non-Interstate NHS system, the APO keeps tabs on the pavement condition of nearly all functionally classified roadways within the planning area as well as all bridges within the MPA. This data is used to monitor the performance of the APO's entire roadway network as well as identifying areas in which pavement condition is in most need of repair. By effectively understanding and managing pavement conditions, cost-effective treatments can be applied to extend the life of the pavement – preventing the immediate need to spend a significant amount of time and resources to reconstruct/rebuild existing roadways.

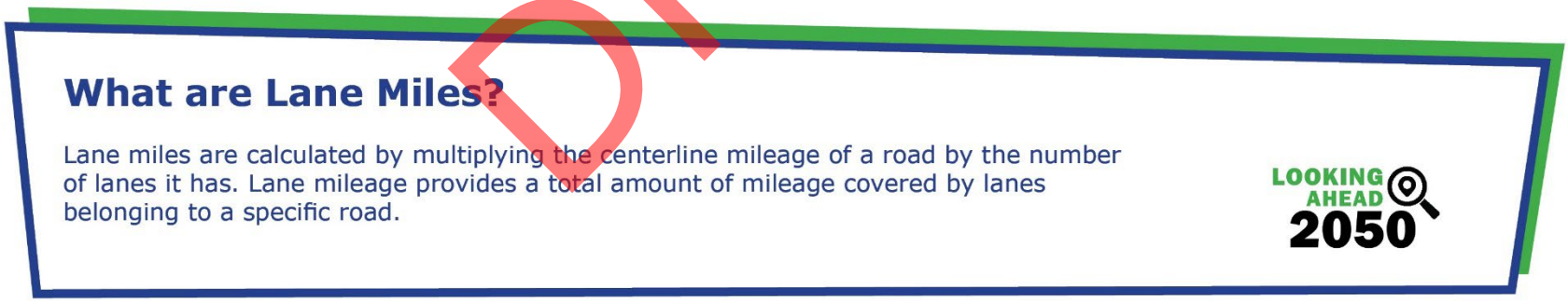


Figure 2.87: *Definition of lane miles.*

The most recently available pavement condition data was collected from two sources: MnDOT and GoodPointe Technology. MnDOT annually collects pavement conditions for the NHS in addition to surveying the pavement condition for most of the county-owned roadway network approximately every two years. Consulting firm GoodPointe Technology was contracted by the APO in 2019 to survey portions of the roadway network not collected by MnDOT, such as the functionally classified county and municipal roads along with local roads identified as part of the APO's local freight network.

As listed within the APO's Roadway Pavement Condition Report (2019) (https://bit.ly/3pWmCUw), 50% of the roadway network is in good condition. However, nearly one out of every five miles of functionally classified roadway within the planning area was deemed to be in poor condition.

Condition	Number of Functionally Classified Lane Miles	Percentage
Good	**518.9 lane miles**	**50.0%**
Fair	**322.6 lane miles**	**31.1%**
Poor	**196.5 lane miles**	**18.9%**

Figure 2.88: *The number and percentage of functionally classified lane miles within the MPA by condition. Data courtesy of MnDOT and GoodPointe Technology.*

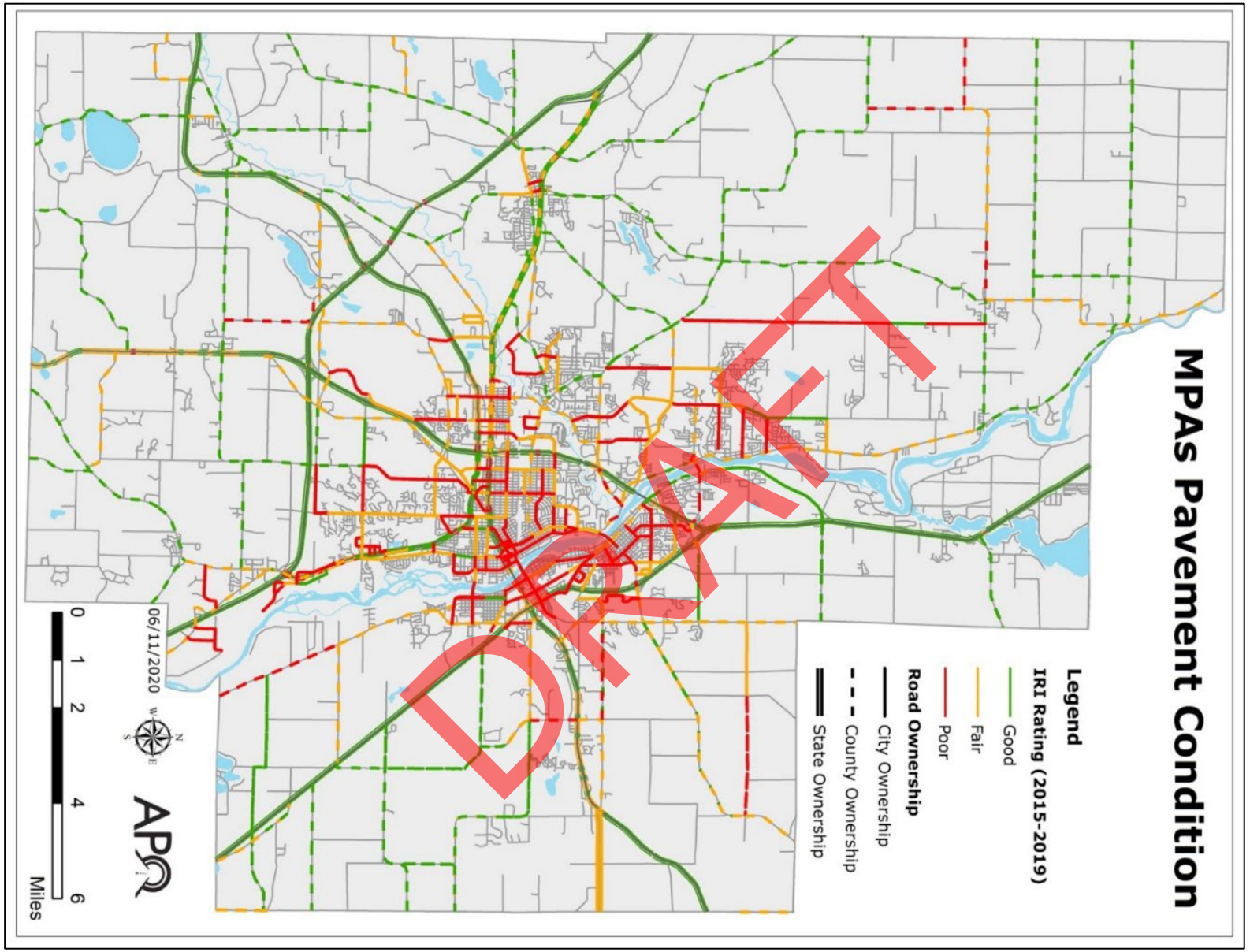


Figure 2.89: *Pavement condition map of nearly all functionally classified roadways within the APO's planning boundaries. Data courtesy of MnDOT and GoodPointe Technology.*

APO

Of the 112 bridges in the APO's planning area, 61 are rated in good condition and 51 are in fair condition as reflected in Figure 2.85. These numbers include the bridges on the NHS system as well.

Figure 2.90: *I-94 bridge near Saint Joseph.*
Photo courtesy Saint Cloud APO.

Travel Time Reliability

The system performance measure (PM3) incorporates the following three key targets:

1. Annual percent of person-miles traveled on the Interstate that are reliable.
2. Annual percent of person-miles traveled on the non-Interstate NHS that are reliable.
3. Truck Travel Time Reliability (TTTR) index.

Each of these individual targets are established every four years, but State DOTs are required to report on each target biennially. These three performance measures can be broken into two categories: travel time reliability and freight movement reliability. Reliability is defined by the consistency or dependability of travel times from day to day or across different times of the day.

For the travel time reliability targets, FHWA provides access to the National Performance Management Research Data Set (NPMRDS) to calculate the travel reliability for each roadway segment. NPMRDS uses passive travel data (probe data) to anonymously track how people travel and at what speed the vehicle travels. The NPMRDS provides a monthly archive of probe data that includes average travel times that are reported every five minutes when data is available on the NHS.

Using the NPMRDS, the Level of Travel Time Reliability (LOTTR) can be calculated for four analysis periods using the following ratio:

Longer travel times (80th percentile of travel times)

To

Normal travel times (50th percentile of travel times)

The analysis periods are:

- Morning weekday (6-10 a.m.).
- Midday weekday (10 a.m. – 4 p.m.).
- Afternoon weekday (4-8 p.m.).
- Weekends (6 a.m. – 8 p.m.).

Reliable segments of roadway are considered to have a ratio of 1.5 or less, whereas segments of roadway with a ratio above 1.5 are considered unreliable. In other words, 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 the length of that roadway segment when normally it would take 1 minute.

MnDOT provides data to the APO regarding non-Interstate NHS reliability data.

For the freight reliability targets, FHWA also requires the use of NPMRDS data to calculate the truck travel time reliability index for each roadway segment. NPMRDS uses passive travel data (probe data) to anonymously track how people travel and at what speed the vehicle travels. The NPMRDS provides truck travel times on the Interstate system in 15-minute increments.

Using the NPMRDS, the Level of Travel Time Reliability (LOTTR) can be calculated for four analysis periods using the following ratio:

Longer travel times (95th percentile of travel times)

To

Normal travel times (50th percentile of travel times)

The analysis periods are:

- Morning weekday (6-10 a.m.).
- Midday weekday (10 a.m. – 4 p.m.).
- Afternoon weekday (4-8 p.m.).
- Weekends (6 a.m. – 8 p.m.).
- Overnights (8 p.m. – 6 a.m. all days).

It is important to note that the lower the Reliability Index the more reliable a roadway segment is.

Figure 2.91 outlines the specific system performance measures, the MnDOT targets for that measurement, the APO's baseline measurement, and the APO's adopted targets.

PM3 Performance Measure	MnDOT's 2023 Target (2 Year)	MnDOT's 2025 Target (4 Year)	2022 APO Baseline Measurement	APO's 2023 Target (2 Year)	APO's 2025 Target (4 Year)
Percent of person-miles traveled on the Interstate that are reliable	82.0%	82.0%	100.0%	100.0%	100.0%
Percent of person-miles traveled on the non-Interstate NHS that are reliable	90.0%	90.0%	99.8%	91.0%	91.0%

PM3 Performance Measure	MnDOT's 2023 Target (2 Year)	MnDOT's 2025 Target (4 Year)	2022 APO Baseline Measurement	APO's 2023 Target (2 Year)	APO's 2025 Target (4 Year)
Truck Travel Time Reliability (TTTR) Index (minutes)	1.4	1.4	1.14	1.22	1.22

Figure 2.91: *A list of incorporated PM3 performance measures and the performance targets for those measures.*

Comparing the 2022 baseline measurement against the baseline measurements from 2017 used in the development of the APO's previous MTP, two out of the three metrics saw either an improvement or maintained the existing condition as reflected in Figure 2.92.

PM3 Performance Measure	2017 APO Baseline Measurement	2022 APO Baseline Measurement	2017-2022 Baseline Measurement Improvement?
Percent of person-miles traveled on the Interstate that are reliable	100.0%	100.0%	Maintained
Percent of person-miles traveled on the non-Interstate NHS that are reliable	97.0%	99.8%	Yes
Truck Travel Time Reliability (TTTR) Index (minutes)	1.10	1.14	**No**

Figure 2.92: *A comparison of PM3 baseline performance measurements between 2017 and 2022.*

In looking at the PM3 measures, the only measurement not demonstrating improvement is the Truck Travel Time Reliability (TTTR) index on I-94. Between 2017 and 2022, this metric saw 0.03 of a minute decrease in reliability within the APO's planning area. While both the 2017 and 2022 baseline measurements indicate "fair" reliability (less than 1.5 minutes) TTTR on the eastbound I-94 lanes at interchange with the southern junction of Stearns CSAH 75 (near McStop), the 2022 baseline measurement acknowledged an additional "fair" reliability reporting on the westbound lanes of I-94 at the interchange with MN 23 near Rockville. While the exact reasons for this change may be unclear, some possible contributing factors include the redesign of the interchange configuration (from a traditional diamond interchange to an S-curve to improve safety) during the 2019/2020 construction season as well as the opening of the Love's Travel Stop in April 2022.

While a majority of the Interstate and non-Interstate NHS are reliable according to the LOTTR index, there are several sections – particularly on the NHS – that can be classified as unreliable. As shown in Figure 2.93, those sections include, but are not

limited to: the intersection of Division Street and Highway 15; the intersection of Second Street S and MN 15/MN 23; and the intersection of 33rd Street and CSAH 75.

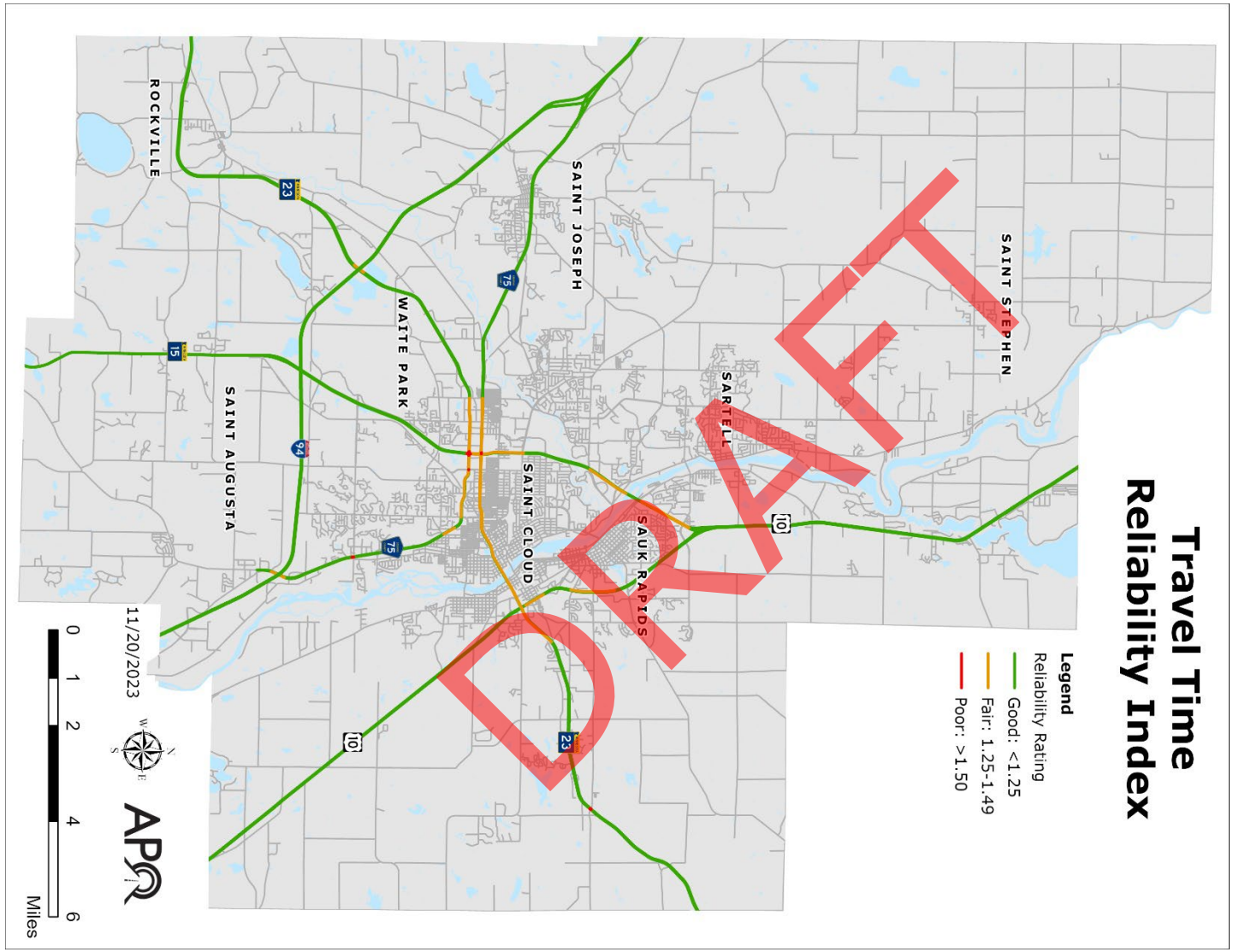


Figure 2.93: *Level of Travel Time Reliability (LOTTR) for the Interstate and NHS system within the APO's planning area. Data courtesy of National Performance Management Research Data Set (NPMRDS).*

As far as the TTTR index is concerned, two sections of I-94 around the CSAH 75 interchange at McStop and the MN 23 interchange have a rating below "good." Aside from this stretch, the Interstate throughout the MPA is operating within normal capacity as shown in Figure 2.94.

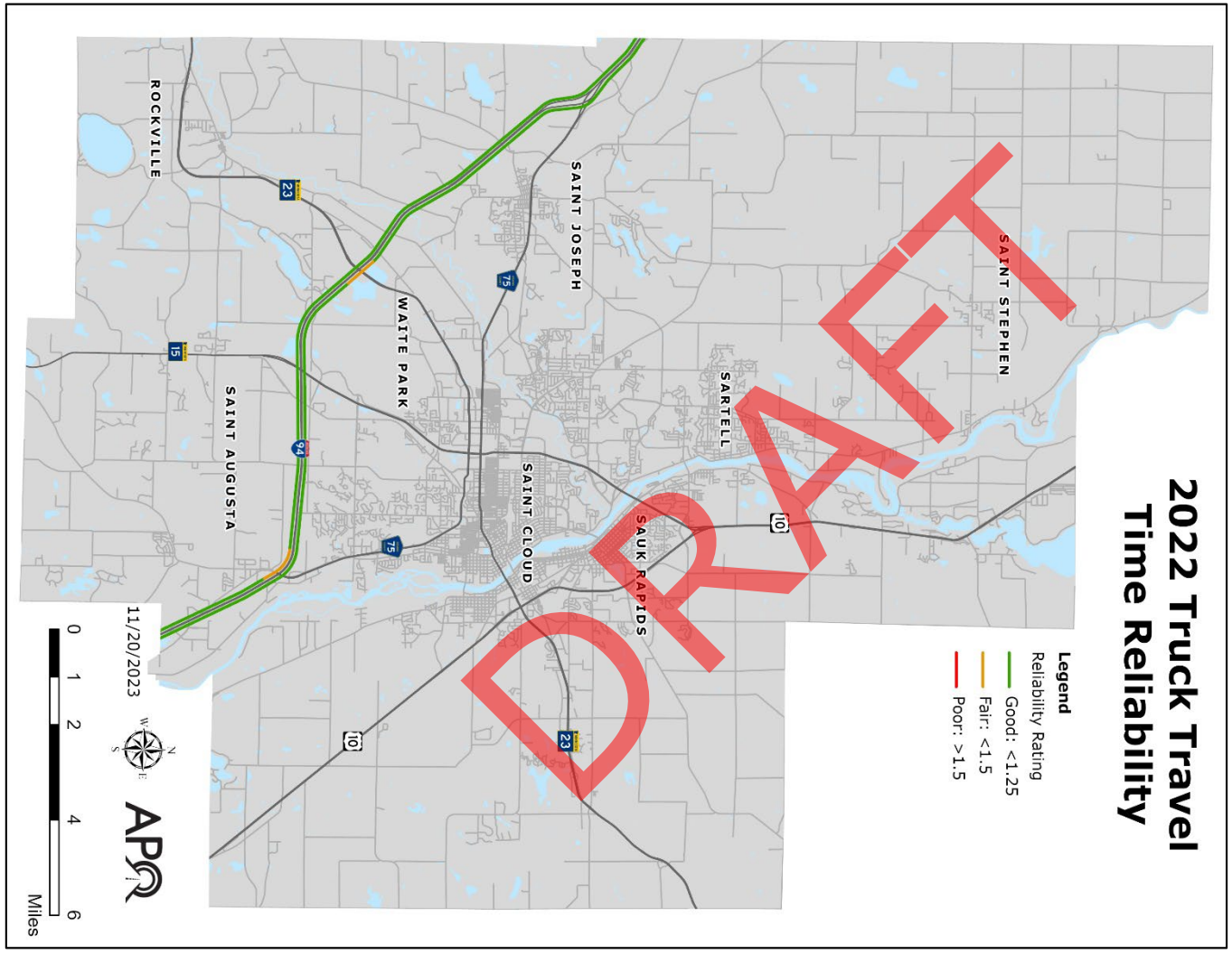


Figure 2.94: *Truck Travel Time Reliability (TTTR) for I-94 within the APO's planning area.*
Data courtesy of NPMRDS.

Overall Network Performance

The use of federally-required performance measures serves as a great way to review and report on the functionality of the major roadway corridors – NHS – within the planning area. However, while the NHS does move a large share of traffic through our region, those corridors are clearly not the only ones within the planning area.

To dive deeper into the overall network performance, the APO relies on the Travel Demand Model (TDM) to provide insight into how the rest of the functionally classified network is operating. The TDM utilizes trip generation and attraction information (as discussed under the land use section) to distribute travel on the existing network. This results in assigning trips to specific roadway corridors.

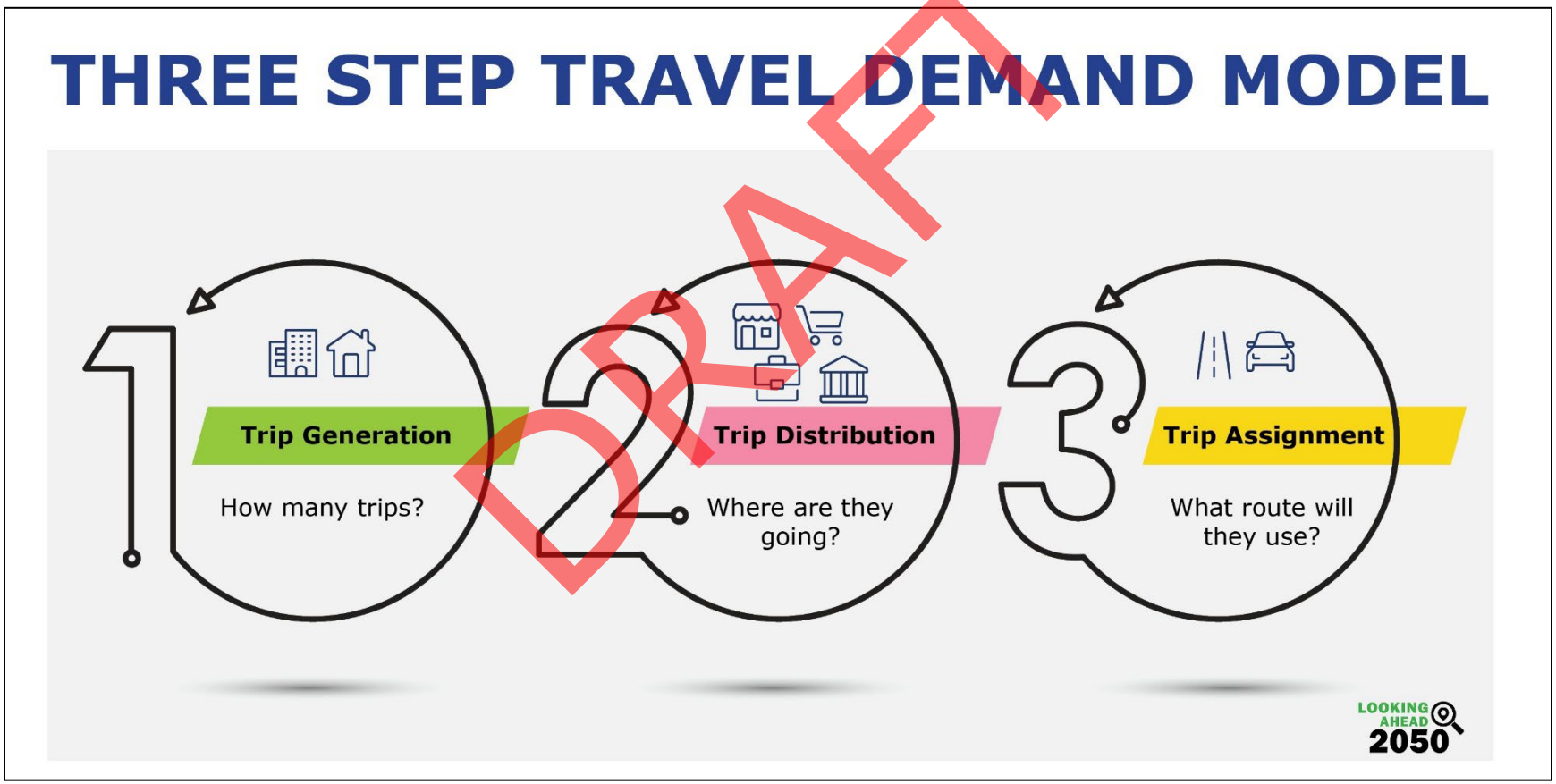


Figure 2.95: *A simplified graphic of the three step Travel Demand Model (TDM) process.*

Some TDMs used by transportation planning agencies can account for modal choice (i.e., dividing trips between vehicles, transit, and active transportation). However, given the relatively small number of transit and active transportation trips generated within the APO's planning area, the APO's TDM does not factor in a modal split.

More information on the TDM and its calibration can be found in Chapter Five and in Appendix E.

The number of trips assigned to each roadway corridor ultimately impacts its efficiency. It is important to note that not all roadways are built to handle the same level of traffic. For instance, I-94 (Interstate) can handle significantly more vehicles (based upon its design) compared to Pinecone Road (minor arterial) in Sartell or Oak Grove Road SW/County Road 136 (major collector) in Saint Cloud. The amount of traffic on a given roadway relative to the amount of traffic the roadway was designed to accommodate is known as the volume to capacity (V/C) ratio.

To assist in understanding/interpreting the V/C ratio calculation, transportation planners utilize a very similar method known as Level of Service (LOS).

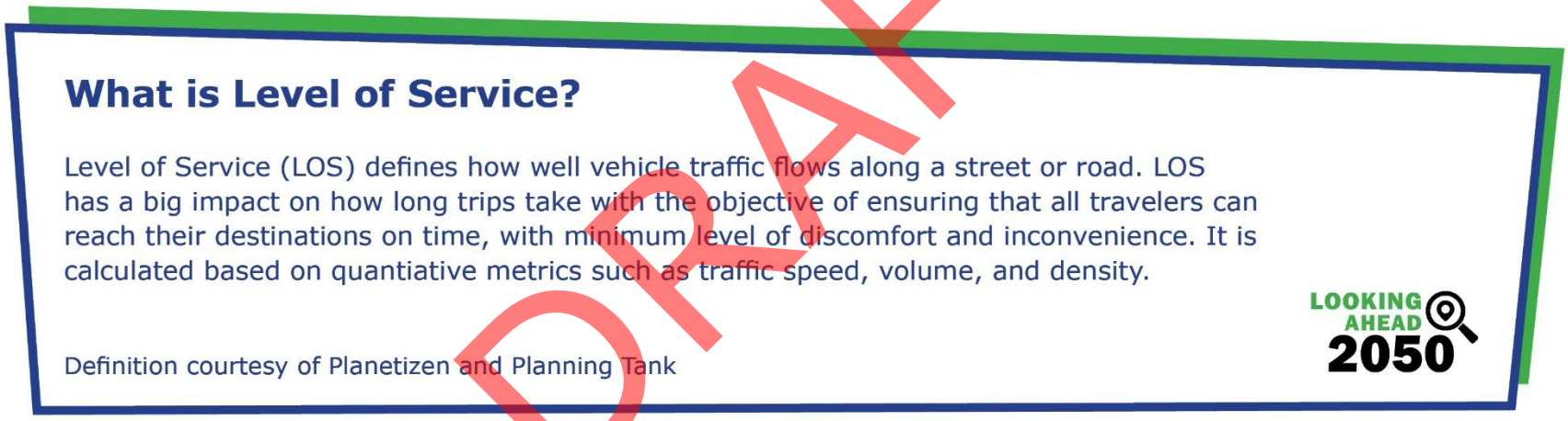


Figure 2.96: *Definition of Level of Service.*

LOS uses a seven-point rating system which allows planners to reasonably gauge if a roadway is under capacity, approaching capacity, or at/overcapacity.

LOS Ranking	Capacity	V/C Ratio	Definition
A	Under Capacity	Less than 0.3	Free flowing with low volumes and high speeds.
B	Under Capacity	0.3-0.52	Reasonably free flow, but speeds beginning to be restricted by traffic conditions.
C	Under Capacity	0.52-0.72	Stable flow, but most drivers are restricted in the freedom to select their own speeds.
D	Approaching Capacity	0.72-0.88	Approaching unstable flow; drivers have little freedom to select their own speeds.
E	Approaching Capacity	0.88-1.0	Unstable flow; may be short stoppages.
F	At/Overcapacity	Greater than 1.0	Forced or breakdown flow; unacceptable congestion; stop-and-go.

Figure 2.97: *Level of service and Volume to capacity ratio definitions.*
V/C ratios courtesy of KLJ. Definitions courtesy of Planetizen.

Based upon the initial base year (2020) TDM calibrations, the APO's functionally classified roadway network is operating well within normal – with most (96%) of lane miles operating under capacity (LOS A-C).

LOS Ranking	2020 Base Year Lane Miles	Percent of Lane Miles by LOS Ranking
A	993.3	62.8%
B	263.4	16.6%
C	261.8	16.6%
D	48.3	3.1%
E	11.0	0.7%
F	3.1	0.2%
Total	1,581	100%

Figure 2.98: *The number and percentage of lane miles by LOS ranking.*
Data courtesy of KLJ.

However, while the overall percentage of lane miles either approaching or at/overcapacity is relatively low (4%), the lane miles that fall into these categories are primarily on the region's NHS. In particular, stretches of MN 15 (the north/south principal arterial) and MN 23 (the east/west principal arterial) seem to have the greatest share of lane miles that are either at/overcapacity or approaching it.

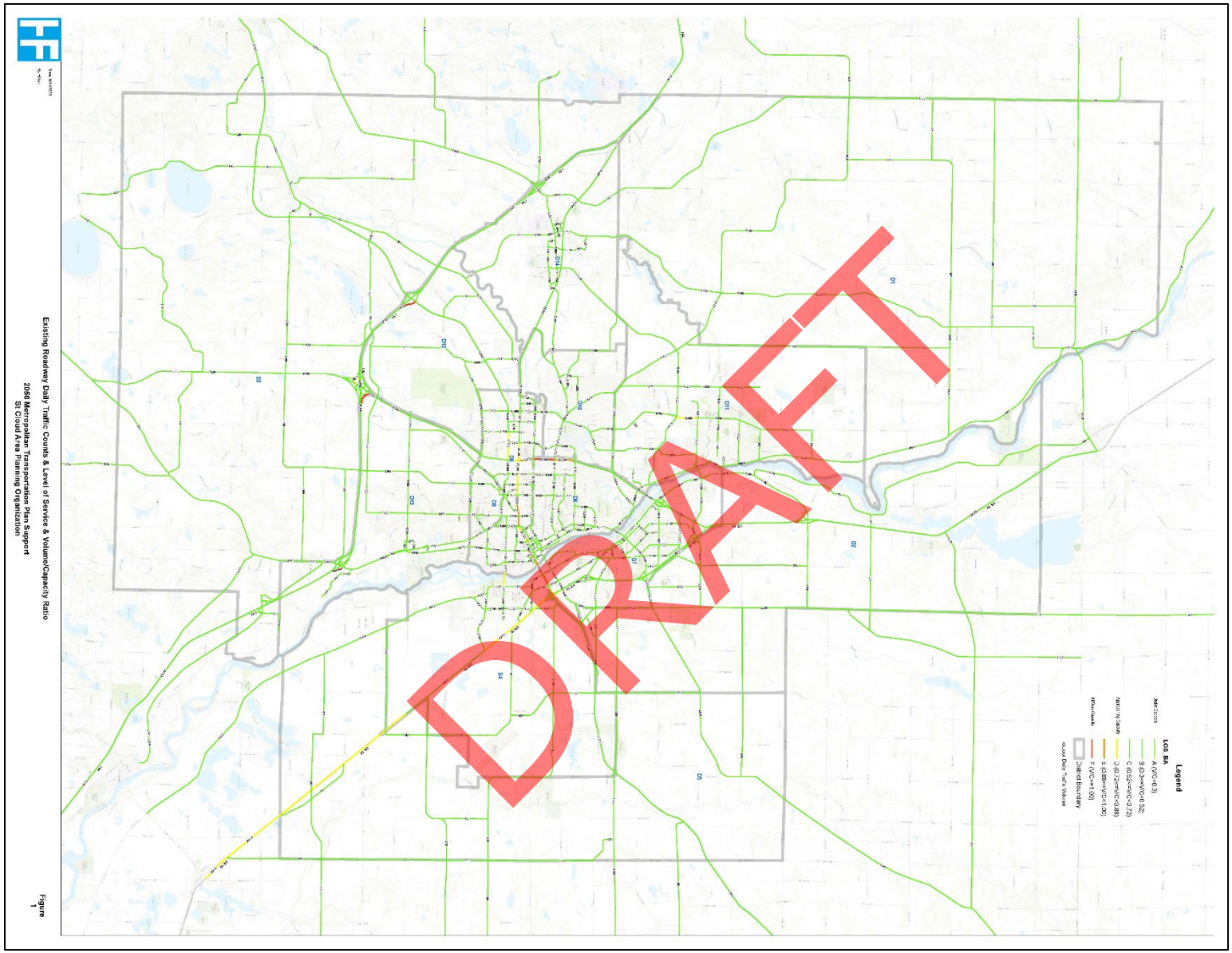


Figure 2.99: *LOS map of the MPA.*
Data courtesy of KLJ.

Roadway	Termini	LOS	Agency/Jurisdiction
MN 15	Third Street N to Veterans Drive (Eighth Street N/CSAH 4)	F	MnDOT
MN 15	Veterans Drive (Eighth Street N/CSAH 4) to 12th Street N	E	MnDOT
MN 15	Third Street N to Division Street (CSAH 75)	E	MnDOT
MN 23	25th Avenue N to Washington Memorial Drive	E	MnDOT
MN 23	Mid-block between 12th Avenue S and 10th Avenue S to Lincoln Avenue SE	E	MnDOT
Pinecone Road	Heritage Drive to Second Street S (CSAH 133)	D	City of Sartell
MN 23	Second Avenue S to MN 15	D	MnDOT
CSAH 75	Waite Avenue to MN 15	D	Stearns County
MN 15	MN 23 to CSAH 75	D	MnDOT
MN 23	MN 15 to 25th Avenue N	D	MnDOT
MN 23	Washington Memorial Drive to 12th Avenue S	D	MnDOT
University Drive	Fifth Avenue S to Kilian Boulevard (University Bridge)	D	City of Saint Cloud
US 10	MN 301 to East Saint Germain Street	D	MnDOT

Figure 2.100: *Roadway segments within the MPA either approaching or at/overcapacity. Data courtesy of KLJ.*

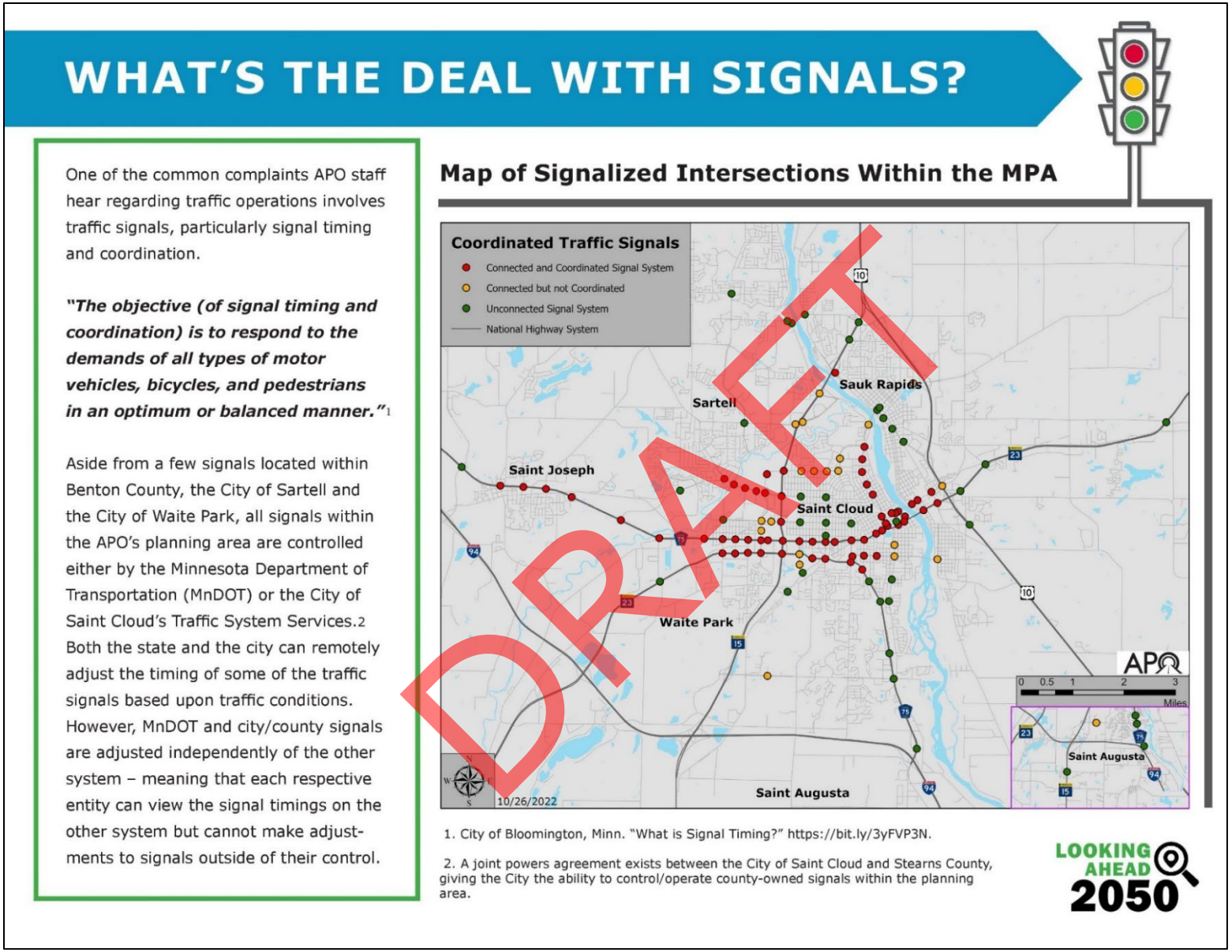


Figure 2.101: *Infographic on traffic signals*

APO

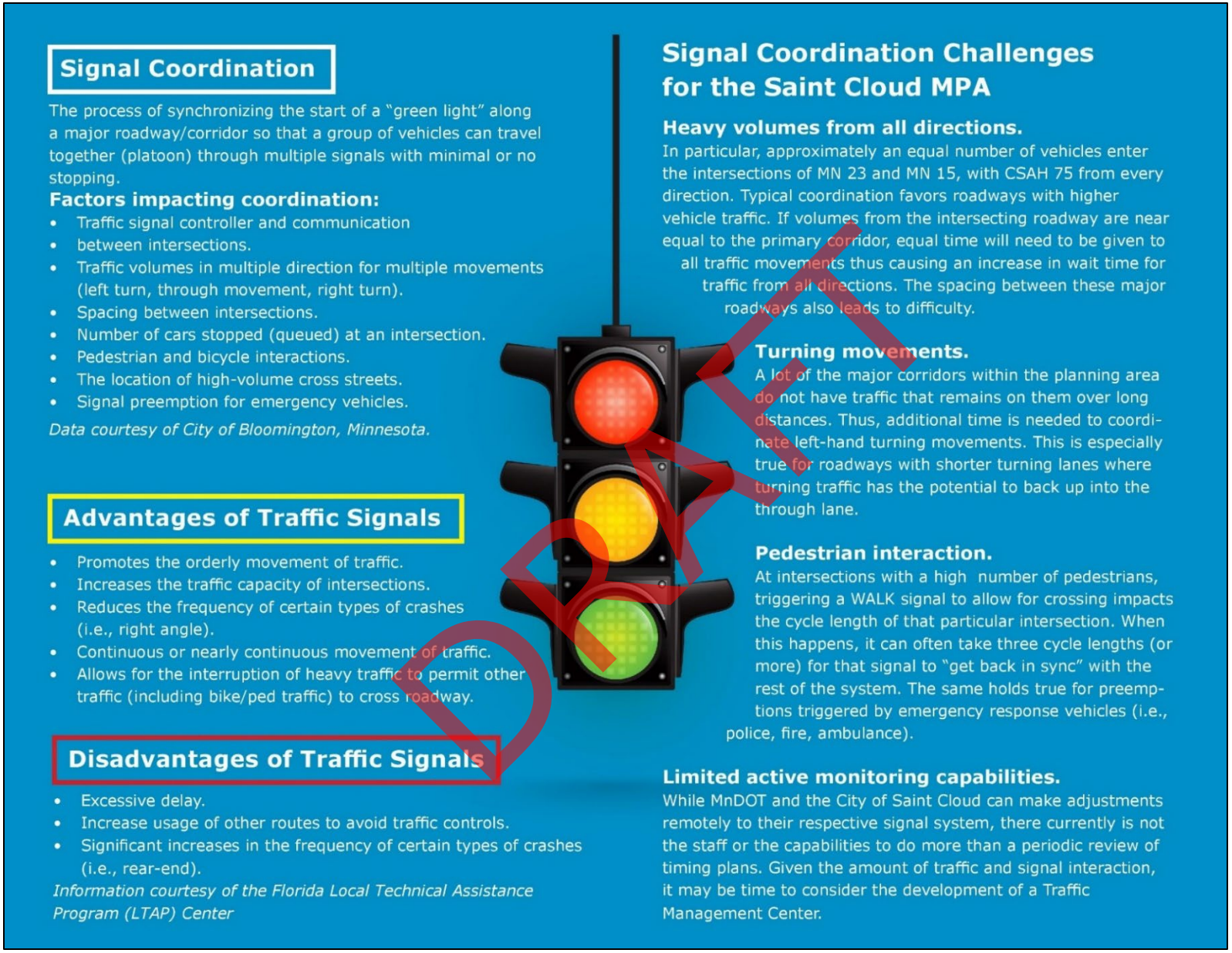


Figure 2.102: *Infographic on traffic signals.*

APO

Urban Transit

Single occupancy vehicles (SOVs) remain the most popular form of transportation for MPA residents. However, the motor vehicle is not the only way residents can travel around the Saint Cloud metro.

The Saint Cloud Metropolitan Transit Commission (more commonly referred to as Metro Bus) was created by the Minnesota Legislature in 1969 to operate as a Transit Authority. Metro Bus is responsible for the daily management, operation, and maintenance of both Fixed Route (FR) and Dial-a-Ride (DAR) paratransit services within the communities of Saint Cloud, Sartell, Sauk Rapids, and Waite Park. Metro Bus – in coordination with the Metropolitan Council's Metro Transit – also operates a commuter bus system which is primarily used to service the Northstar Commuter Rail. More information on Northstar and the Northstar Commuter Bus will be addressed in the Other Transportation Options section later in this chapter.

Fixed Route System

Prior to the start of the COVID-19 global pandemic, Metro Bus operated 16 regular routes throughout its service area. Service for all but two routes (routes 10 and 33) start and end at the downtown Saint Cloud transit center – 510 First St. S. Based on the transit route hub and spoke system structure, the downtown transit center serves as the primary transfer point for riders wishing to reach other destinations within the Metro Bus service area.

Figure 2.103: *A Saint Cloud Metro Bus parked at the downtown transit center. Photo courtesy Saint Cloud APO.*

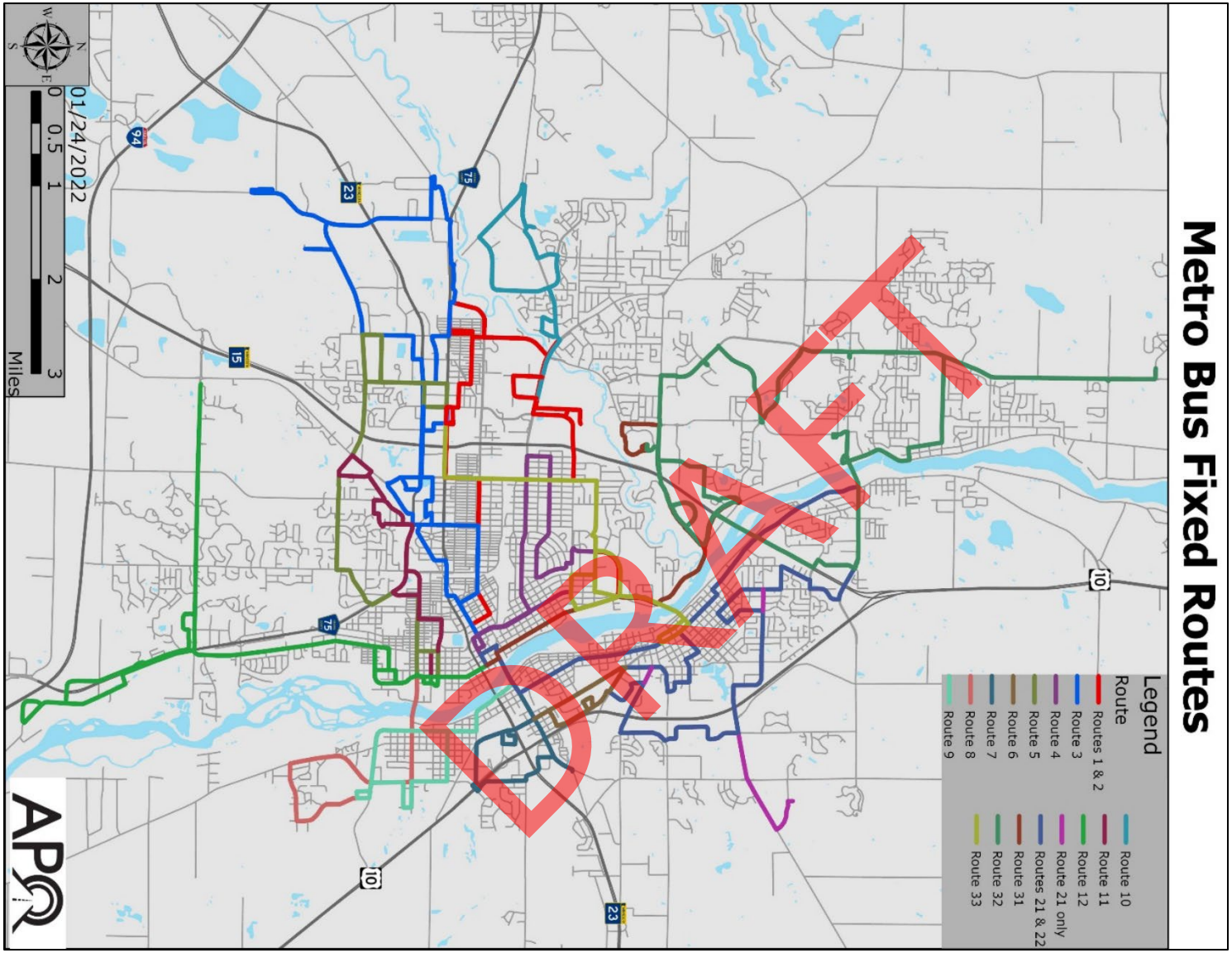


Figure 2.104: *Map of Saint Cloud Metro Bus fixed routes as of May 2023. Of note, Route 7, while depicted in this image, has been suspended indefinitely due to the impact of COVID-19 on staffing and ridership.*
Routes courtesy of Saint Cloud Metro Bus.

Routes 10 and 33 (which hub out of Encore Capital Group – 760 McLeland Road in Saint Cloud – and Crossroads Center shopping mall respectively) are also circular routes with their "hubs" serving as transfer points to connect to other routes within the Metro Bus service area. In addition to these two subsidiary hubs, Metro Bus also has two other fixed route transfer points:

- James W. Miller Learning Resources Center at SCSU: 400 Sixth St. S, Saint Cloud.
- Walmart at the Epic Shopping Center: 21 County Road 120, Sartell.

Over 850 signed bus stops throughout the Metro Bus service area allow riders the ability to access the FR system. Additional transit infrastructure includes benches at signed stops (approximately a dozen) and full bus shelters (approximately 70). On average, FR bus stops are spaced every other block in the downtown Saint Cloud core. Outer lying stops are placed roughly four to five stops per mile. According to the 2016 Saint Cloud Metro Bus Long Range Transit Plan, the bus stop spacing guidelines can differ to accommodate popular rider destination areas such as shopping malls, hospitals, or educational campuses. In total, approximately 60% of all bus stops are accessible by existing sidewalk and/or shared use paths.

In addition to the regular FR system, Metro Bus had piloted a new FR service model within the City of Sartell. Known as ConneX, this on-demand service provided riders within the city two options for serve. The first option was point-to-point within the City of Sartell – which covers all roads within three-quarters of a mile of the original FR (the previous Route 32) within the city. The second option for those riders within the City of Sartell needing to access destinations outside of the city were two connection points – Walmart or Country Manor – that allowed riders the ability to access the remaining Metro Bus routes. ConneX users had to call into the Metro Bus dispatch center to schedule their same day rides. This curb-to-curb service debuted in January 2019 and ended in May 2023.

Fixed Route Services

While Metro Bus provides FR service seven days a week, the number of routes and duration of those routes vary. As such, Metro Bus's FR services can be broken down into three categories: Weekdays, Saturdays, and Sundays.

Weekday Fixed Route Service

On weekdays (Monday through Friday), Metro Bus service typically begins between 5 and 6 a.m. with most routes completing their last trip between 9 and 11 p.m. There are some exceptions to this including Route 22 (service begins at 5:45 p.m.), Route 10 (service ends at 7:38 p.m.), and Route 21 (service ends at 6:12 p.m.). All fixed route buses run on an hourly basis except Route 10 which runs every 30 minutes.

Saturday Fixed Route Service

Most FR buses begin Saturday service between 7:45 and 9 a.m. and complete their last trip between 6 and 7:15 p.m. Route 32 is the primary exception to this with Saturday service ending at 4:53 p.m. It should be noted that Route 21 does not operate on Saturdays.

Like weekday service, all fixed route buses run on an hourly basis except Route 10 which runs every 30 minutes.

Sunday Fixed Route Service

On Sundays, Metro Bus FR service typically begins between 8:45 and 9:15 a.m. and wraps up between 5:45 and 6:15 p.m. Exceptions to this include Route 31 (service begins at 10:15 a.m.) and Route 32 (service ends at 4:53 p.m.). Routes 10 and 21 do not run on Sundays.

All Sunday routes operate on an hourly basis.

Dial-a-Ride System

Dial-a-Ride (DAR) serves as Metro Bus's paratransit option for riders unable to use the FR system due to a combination of a disability and physical barrier (i.e., distance to the bus stop, difficult terrain, etc.). This shared ride bus service requires passengers to be screened for eligibility prior to qualifying for the service. Once qualified, riders call into a dispatch center to schedule their rides – with a minimum notice given by 5 p.m. the day before a scheduled trip but up to seven days in advance. DAR riders are also allowed to have a Personal Care Attendant (PCA) or a companion accompany them on their ride – PCAs can ride at no charge while companions are required to pay a fare.

Metro Bus's DAR system operates within a three-quarter mile buffer of the entire FR system.

Figure 2.105: *Dial-a-Ride bus parked at the Metro Bus Operations Center. Photo courtesy Saint Cloud Metro Bus.*

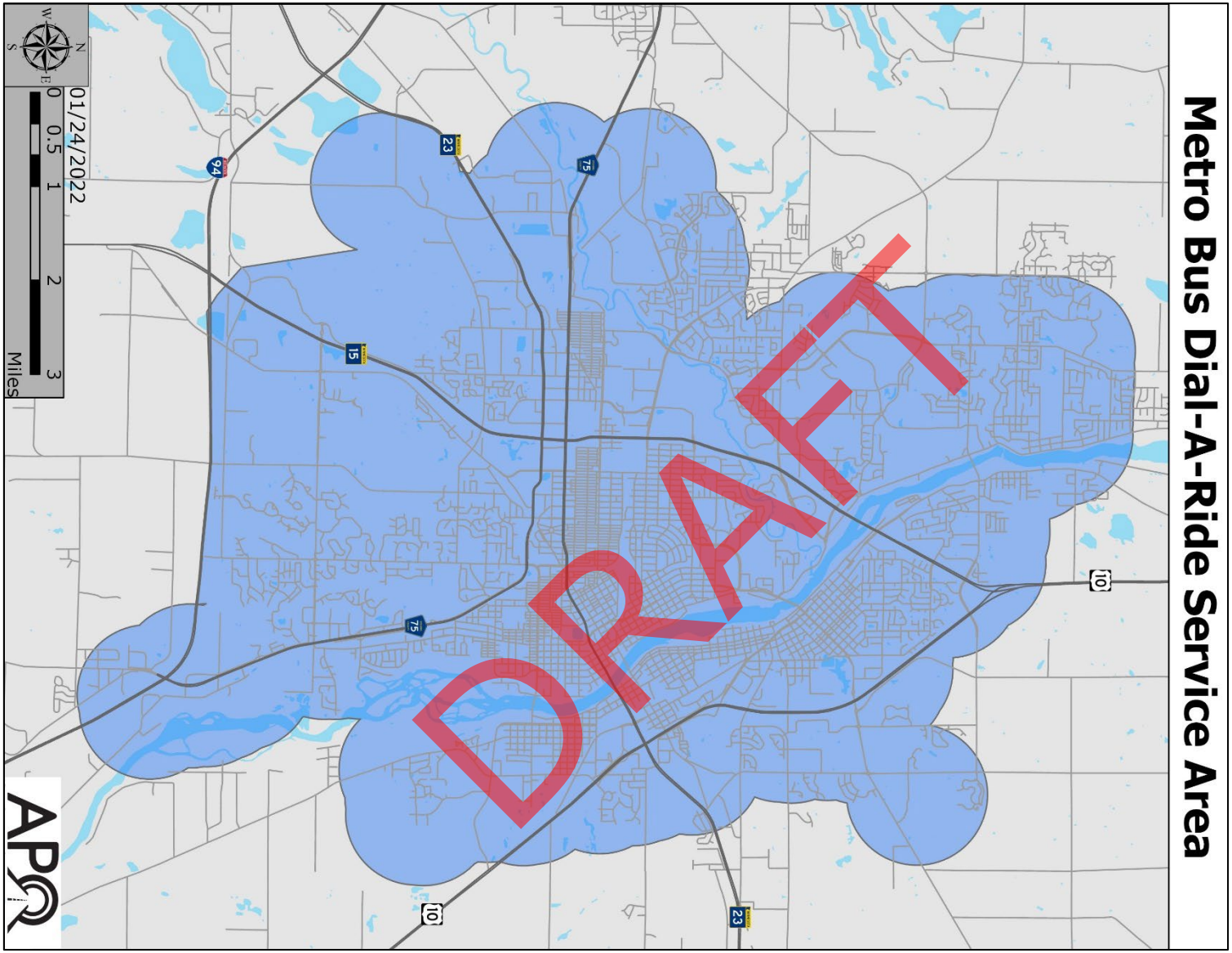


Figure 2.106: *Map of Saint Cloud Metro Bus Dial-a-Ride Service area.*
Service area courtesy of Saint Cloud Metro Bus.

APO

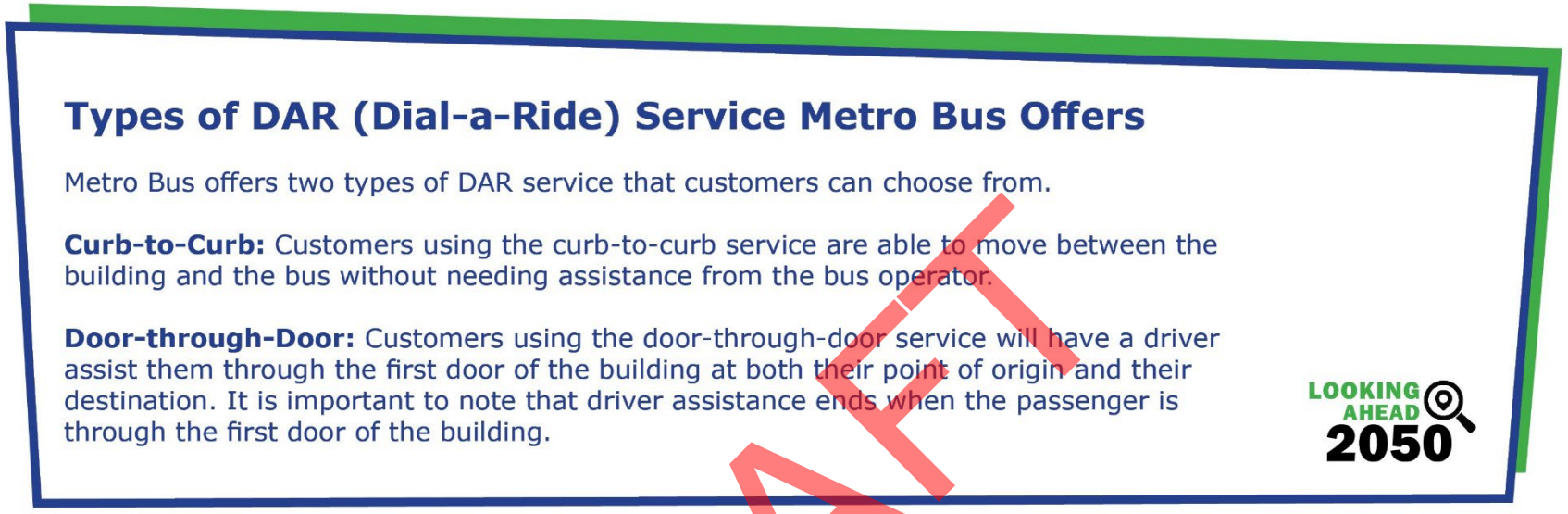


Figure 2.107: *Types of Dial-a-Ride services Metro Bus offers.*

Impacts of COVID-19 on Transit

At the onset of the COVID-19 global pandemic within the United States, public transit fixed route bus ridership nationwide experienced a dramatic downturn. According to the U.S. Department of Transportation's Bureau of Transportation Statistics, ridership in February 2020 (prior to national declarations of emergency) was at 365 million unlinked passenger trips (https://bit.ly/3CmuZ0V). By March, that number dipped to 261 million (a 28.5% decrease). By April, transit fixed route bus ridership bottomed out at 111 million unlinked trips – the lowest reported nationwide public transit fixed route bus ridership numbers since data was made available in 2002. While ridership nationwide slowly increased throughout the rest of 2020, the highest ridership 2020 experienced (during the pandemic) was 191 million unlinked passenger trips (October 2020) – significantly below numbers reported pre-pandemic.

Locally, fixed route bus ridership experienced dramatic drop-offs as well. Like other fixed route bus services nationwide, Metro Bus ridership experienced a significant decline in unlinked passenger trips between February and March 2020 (-38.4%) before ultimately bottoming out in April 2020 at 29,815. As a result, year over year ridership numbers for 2020 were down 35.5% compared to 2019.

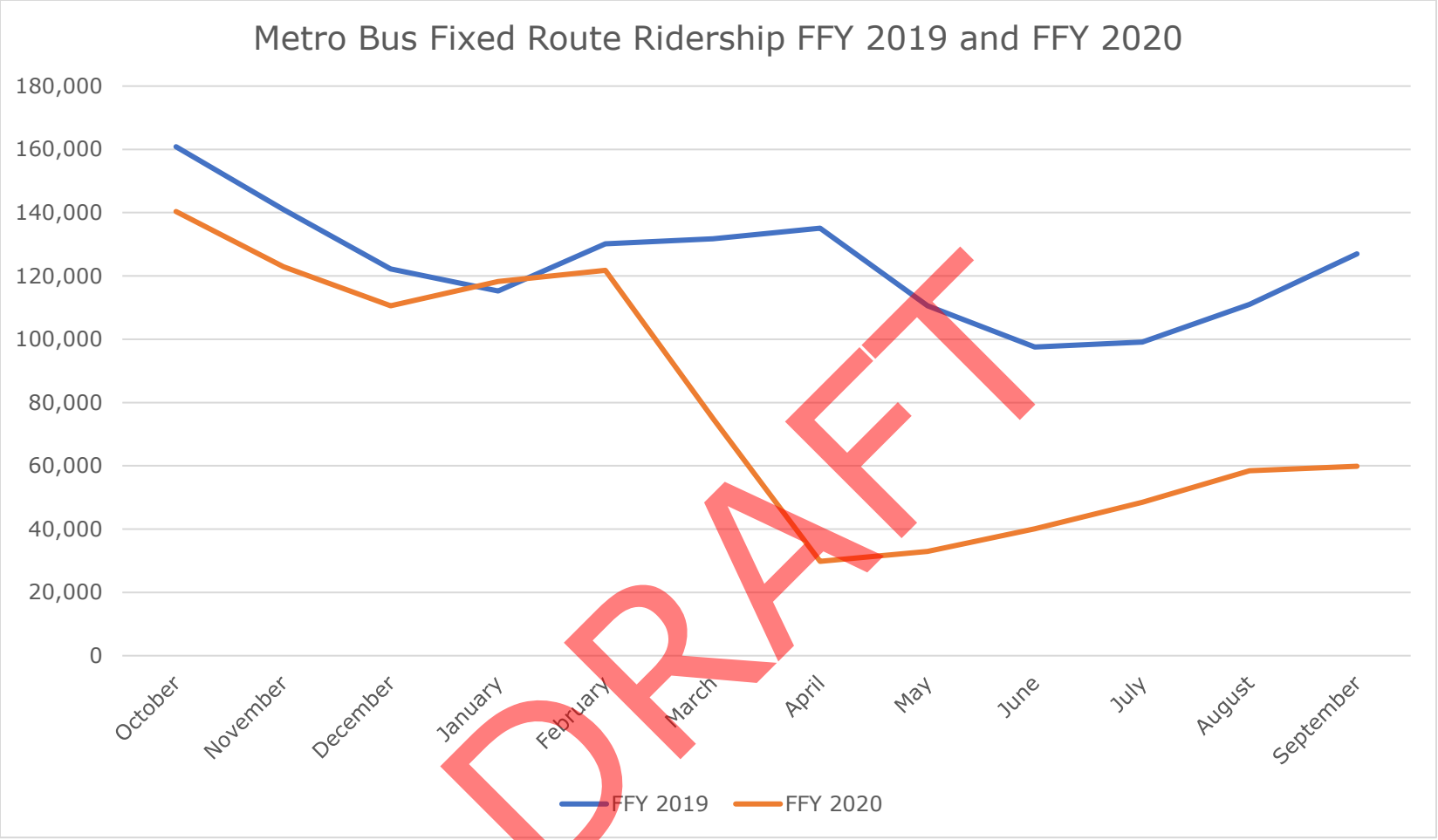


Figure 2.108: *Fixed Route ridership numbers for Metro Bus for Federal fiscal years 2019 and 2020. Data courtesy of Saint Cloud Metro Bus.*

Due to schools being canceled, social activities being shuttered, and non-emergency medical appointments being postponed, along with the state mandated state at home orders, Metro Bus, like many transit providers, cut service. During the height of the pandemic, Metro Bus had reduced weekday fixed route service to mirror weekend schedules and ultimately suspended service on one of its routes (Route 7). As of the fall 2022 this route has been suspended indefinitely due to operator shortages.

In addition, Metro Bus opted to cease fare collection due to high unemployment among its primary ridership. This move was also a response to the social distancing requirements and lack of appropriate personal protective equipment (PPE) on board

vehicles to protect operators. With a lack of fare revenue Metro Bus turned to funding subsidies from the Federal government through the Coronavirus Aid, Relief, and Economic Security (CARES) Act to pay for basic operational expenses. Fare collection resumed in fall 2021.

In the years following, problems that had begun to plague transit providers such as Metro Bus prior to the pandemic – such as staffing shortages for operators, dispatch, office support, and management – were only made worse. Because of worker shortages, Metro Bus has had a difficult time transitioning back to full pre-pandemic service. New challenges such as rising inflation and supply chain issues have also made it difficult to conduct basic business operations such as maintaining their current fleet.

System Ridership

As mentioned in the COVID-19 section above, systemwide ridership fell dramatically in 2020 as a result of the pandemic. However, Metro Bus FR ridership had been on the steady decline since 2011. While an exact answer/answers as to why FR transit ridership has decreased over the past decade is unknown, several possible factors have been identified that could help explain the steady drop in ridership.

- **Declining enrollment at SCSU.** According to the University's Department of Analytics and Institutional Research (https://tinyurl.com/bdd6wrn6), 17,231 students were enrolled at SCSU in 2011. By fall 2023, that number had dropped to 10,063 – a 41.6% decrease in the number of students in attendance. Coupled with the decline in overall student enrollment, the number of students living on campus has experienced a steady drop. The SCSU Department of Analytics and Institutional Research found that in fall 2014 (data was only available back to 2014), approximately 2,080 students lived in residence halls. By fall 2023, 977 students lived on campus – a 53% decrease in student on-campus residency. With fewer students attending SCSU as well as those who choose to attend the university commuting to campus as opposed to living in the residence halls could have an impact on the overall FR ridership numbers.
- **Reconfiguration of Metro Bus routes.** Ridership for Metro Bus is calculated based on unlinked passenger trips. This means if a rider needs to transfer buses to reach their final destination, this would be counted as two rides (one time for each bus they used), despite this only representing one person and one completed trip. In 2016, Metro Bus underwent a route restructuring process that decreased the number of transfers needed to complete some trips. As a result, while the data may reflect a decrease in ridership, it could very well be the same number of people are using the service, but simply taking fewer buses. While this is much more efficient for the passenger, it could have a negative effect on the number of rides recorded by Metro Bus.
- **Availability of alternative transportation options.** As of the late 2010s, Transportation Network Companies (TNCs) such as Uber and Lyft were introduced to the Saint Cloud area. Discussed later in this chapter (see Other Transportation Options), these ride-hailing services provide an additional alternative to public transportation – often operating at outside of the Metro Bus service hours (early morning and late night) and offering direct, on-demand trips to more destinations currently not serviced by Metro Bus's FR system.

As for DAR, ridership was holding relatively steady between 2011 and 2018 before peaking at just over 152,000 rides in 2019. Ridership for DAR fell (as expected) in 2020.

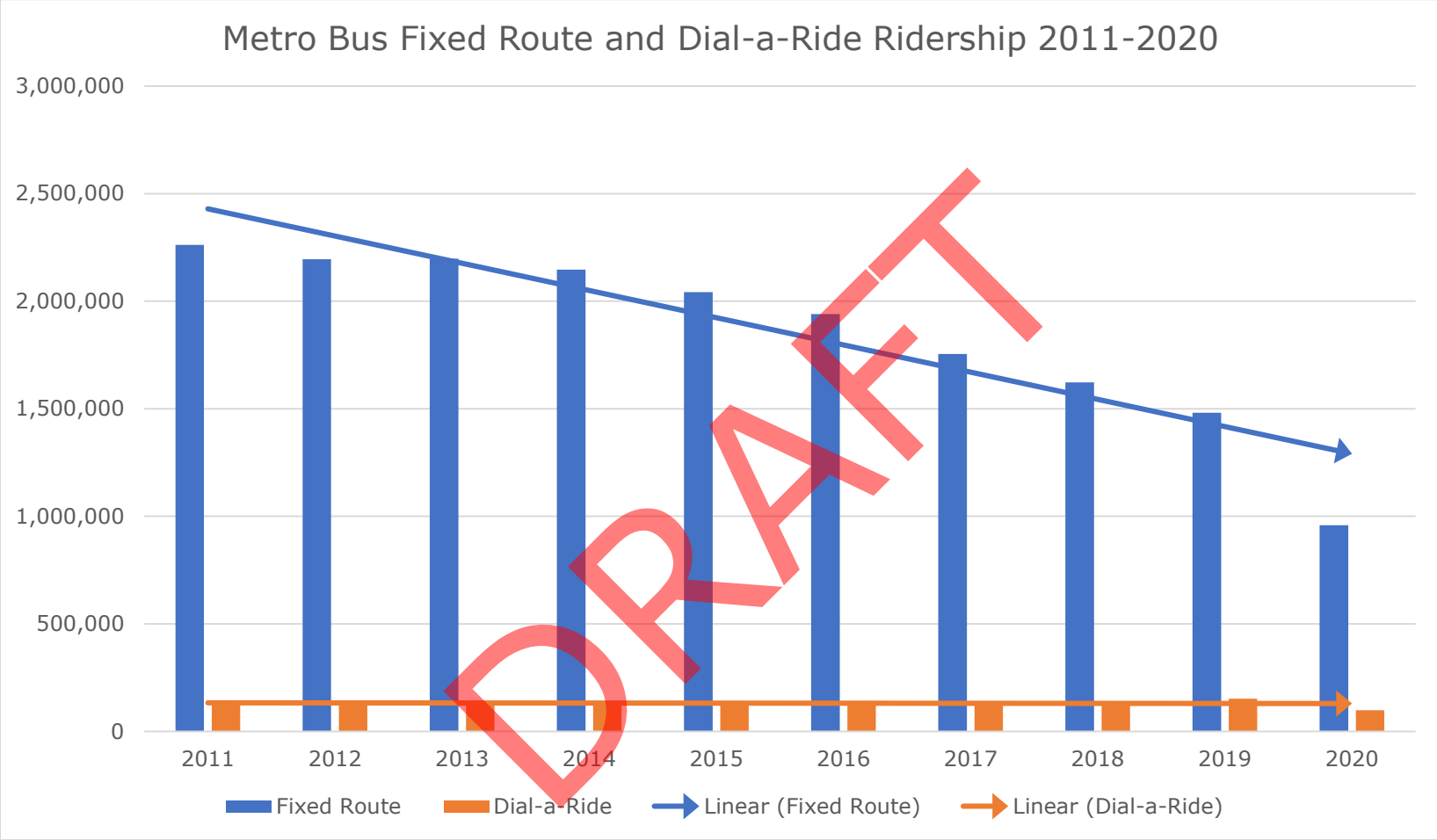


Figure 2.109: *Fixed route and Dial-a-Ride ridership numbers from 2011 to 2020.*
Data courtesy of Metro Bus.

Unlike VMT and per capita VMT discussed in the previous section, transit ridership (in particular, FR ridership) has not rebounded after the dramatic drop off experienced in 2020 resulting from the pandemic. As shown in Figure 2.110, FR ridership continued its downward trend, bottoming out at 598,396 riders during federal fiscal year 2022 – a drop of nearly 37.6%

compared to FFY 2020. And while FFY 2023 had 26,209 more passengers than the previous year, FR ridership still remains 334,043 riders below FFY 2020 levels (34.8%).

On the DAR side, however, ridership recovery has been quite the opposite. While DAR service did bottom out in FFY 2020, riders have largely returned to the service. While not quite at the FFY 2019 ridership level (152,239), DAR ridership numbers for FFY 2023 were at 138,321 passengers – on par with DAR ridership numbers reported for FFYs 2016-2018.

Service	FFY 2020 Ridership	FFY 2021 Ridership	FFY 2022 Ridership	FFY 2023 Ridership	Percent Change (FFY 2020 to FFY 2023)
Fixed Route	958,648	677,354	598,396	624,605	**-34.8%**
Dial-a-Ride	98,687	101,125	117,617	138,321	**40.2%**

Figure 2.110: *Year-over-year comparison of ridership numbers between FFY 2020 and FFY 2023 for FR and DAR service. Data courtesy of Metro Bus.*

Revenue Hours and Miles

In the years preceding the pandemic, Metro Bus was in the process of slowly increasing the number of revenue hours and revenue miles for both its FR and DAR systems. Like ridership numbers, revenue miles and hours dropped in 2020 as a result of the COVID-19 pandemic.

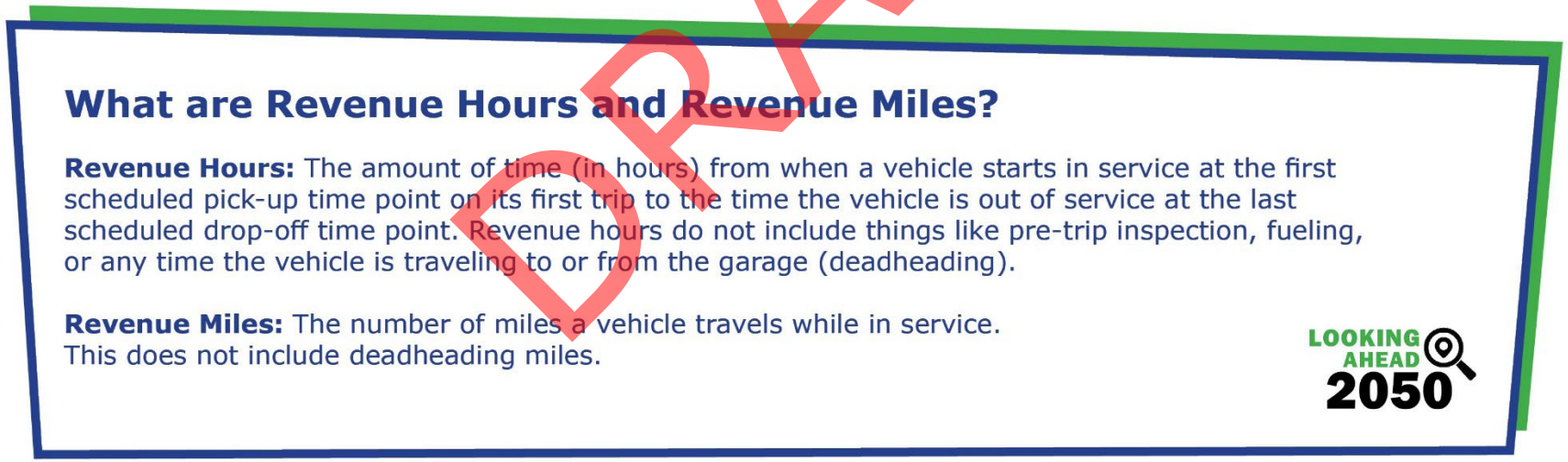


Figure 2.111: *Definition of revenue hours and revenue miles*

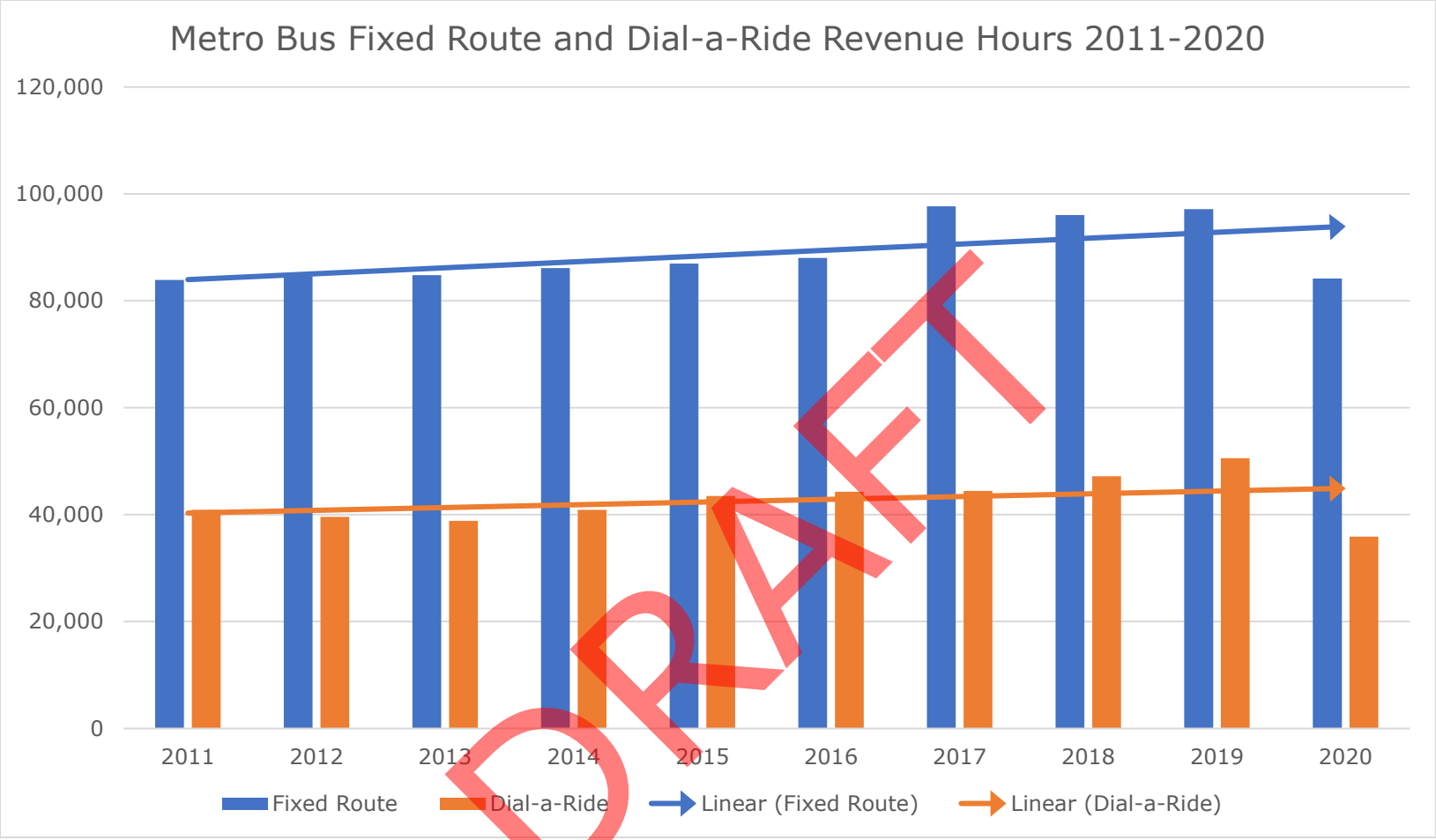


Figure 2.112: *Fixed Route and Dial-a-Ride revenue hours between 2011 and 2020.*
Data courtesy of Metro Bus and the National Transit Database (NTD).

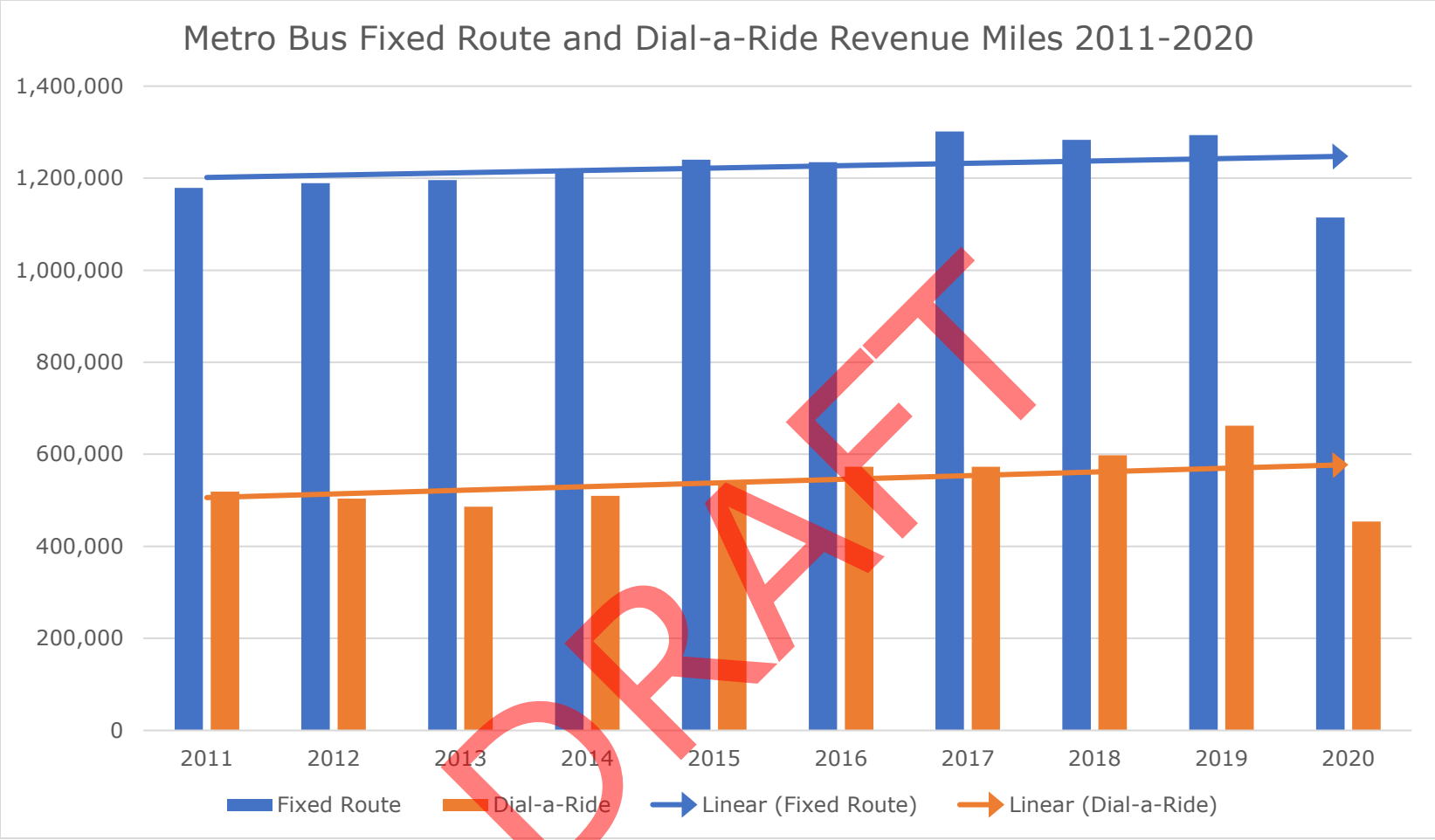


Figure 2.113: *Fixed Route and Dial-a-Ride revenue miles between 2011 and 2020. Data courtesy of Metro Bus and NTD.*

Service Productivity

As stated in Chapter 1, as of the drafting of this plan, Saint Cloud Metro Bus was in the process of conducting a review of its current service area to optimize existing routes as well as effectively and strategically plan for future changes to the service. Known as Metro Bus Forward, this planning initiative provides a comprehensive review of the current Metro Bus system using a variety of metrics to understand how well the existing services provided meet the demands and needs of the community.

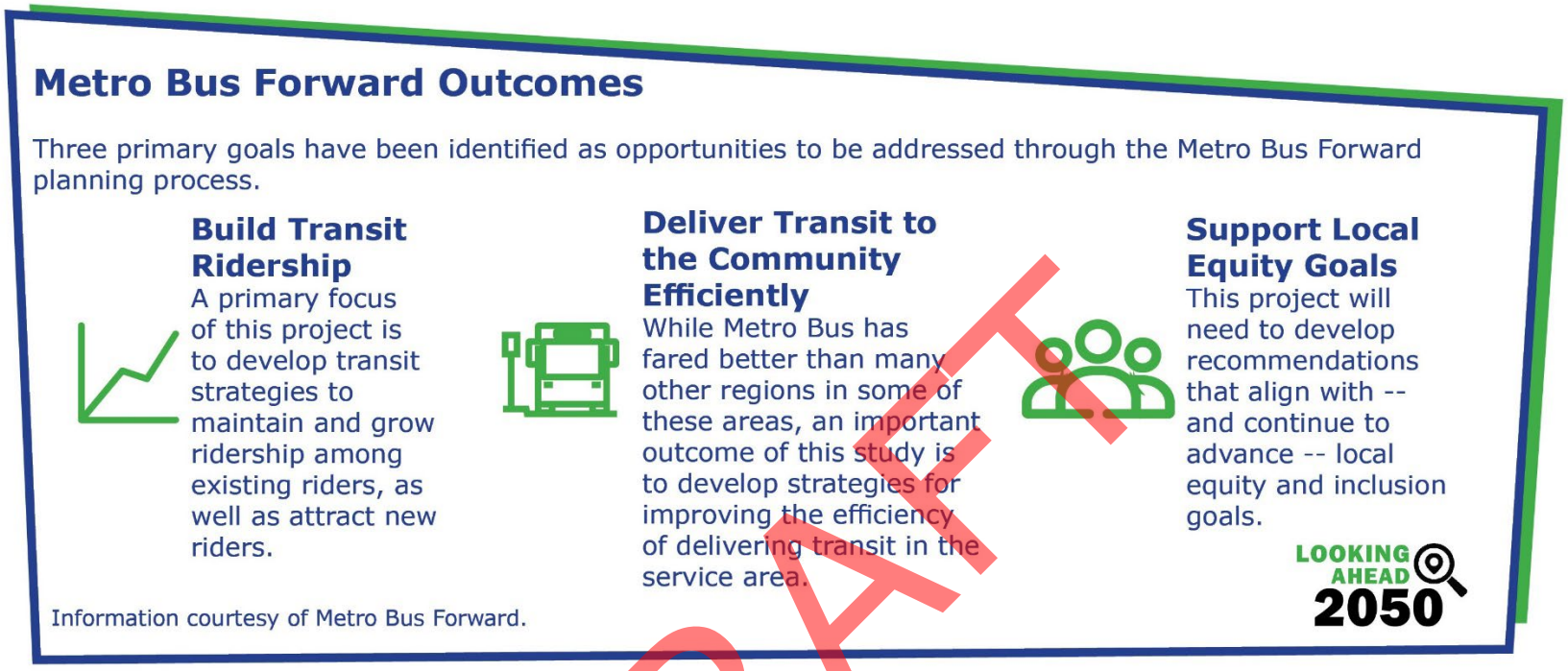


Figure 2.114: *Infographic on the goals/outcomes for the Metro Bus Forward planning initiative. Information courtesy of Saint Cloud Metro Bus.*

While the plan has not been finalized (anticipated completion and adoption in mid-October 2024), Metro Bus's consulting firms Nelson\Nygaard Consulting Associates and SRF Consulting published a "State of the System" report in December 2023. As part of this review, the consultants provided an overview of the productivity of the current transit service.

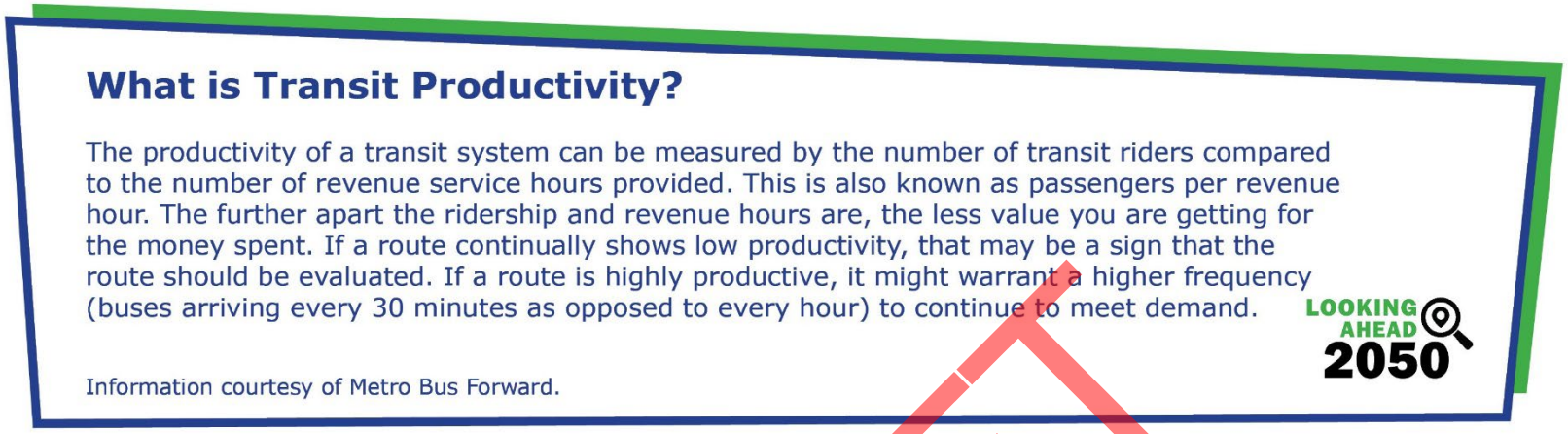


Figure 2.115: *Infographic defining transit productivity. Information courtesy of Metro Bus Forward.*

Similar to the ridership trends, the transit productivity for both FR and DAR services seems to be heading in opposite directions. While FR transit services are experiencing rapid drop in the number of passengers using transit per hour, DAR has been slowly been increasing its transit productivity levels by providing service for an increasing (albeit small) number of passengers per hour.

Upon a closer examination of the various fixed routes provided by Metro Bus, Nelson\Nygaard consultants found the most productive routes within the Metro Bus system to be Routes 1, 5, 6, 21, 2, and 4. The least productive routes noted in the State of the System report include Routes 10 and 12.

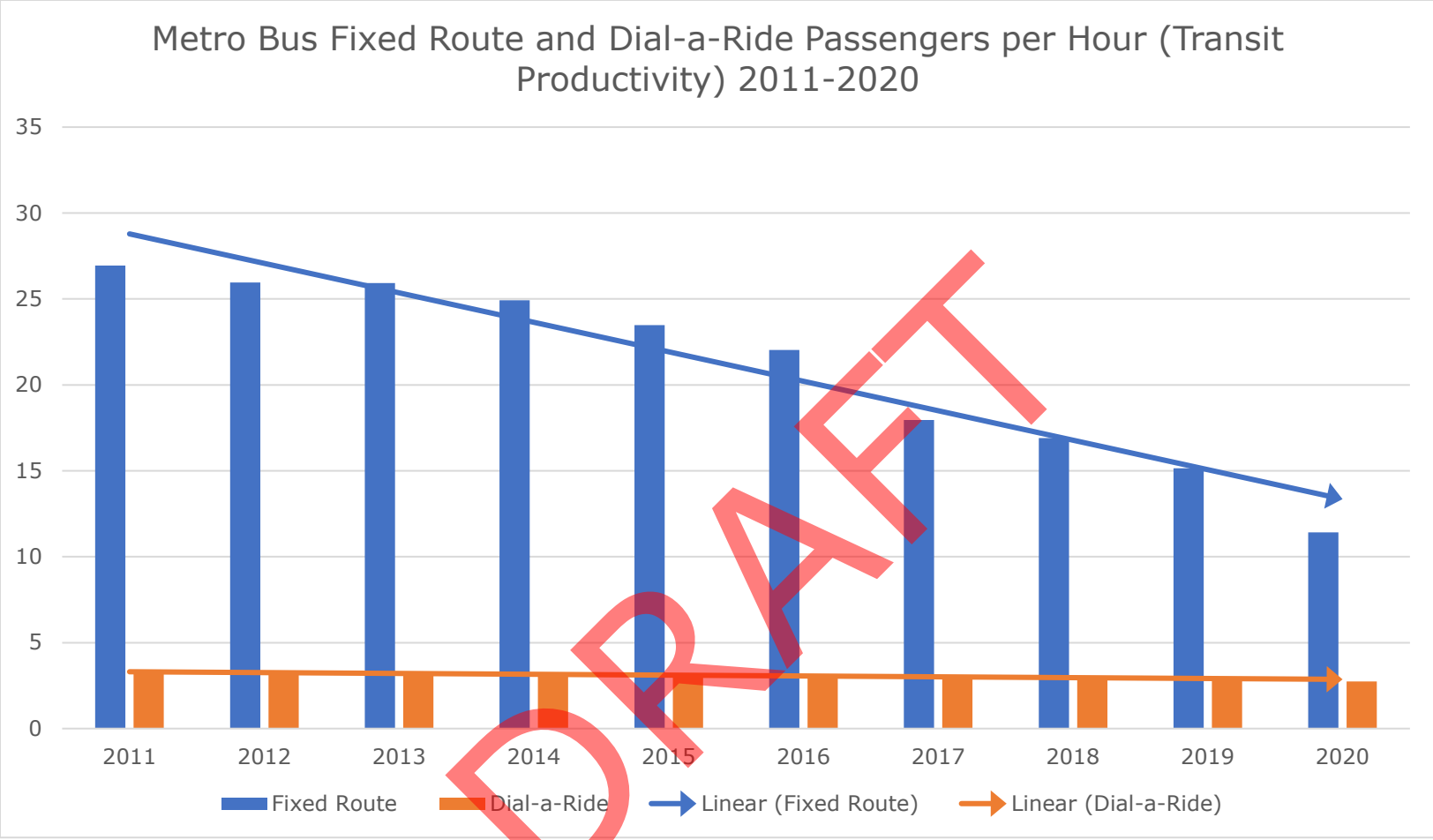


Figure 2.116: *Fixed Route and Dial-a-Ride passengers per hour (transit productivity) between 2011 and 2020. Data courtesy of Metro Bus and NTD.*

Vehicle Fleet

Metro Bus maintains and operates a fleet of 80 revenue vehicles. This fleet is split into four categories: Class 700 (large buses); Class 400 (small buses); commuter buses (used for Northstar Commuter Bus operations); and a trolley (used primarily for special events such as Summertime by George!). All vehicles are Americans with Disabilities Act (ADA) compliant and except for the seasonal trolley are outfitted with exterior bicycle racks for passenger use.

To maintain a state of good repair, buses are replaced on a fairly regular schedule – at approximately the 12-year mark for Class 700/Commuter buses and about every seven years for Class 400 buses. As noted in the COVID impact section, due to supply chain issues and rising inflation, buses may ultimately remain in service longer than their useful life. This in turn could result in added maintenance costs as Metro Bus heads into the near future.

In 2014, Metro Bus was a recipient of a grant to convert a large portion of its fleet from diesel to compressed natural gas (CNG). This move to a cleaner energy resulted in an ongoing effort from Metro Bus to work to fully convert the entirety of the Class 700 and Class 400 fleet to CNG as existing buses need replacement. As shown in Figure 2.117, nearly 82% of the Class 700 fleet (data current as of summer 2021) are CNG and just over 50% of Class 400 buses are as well.

Vehicle type	Number of vehicles	Standard useful life cycle	Number of CNG vehicles	Percent of CNG vehicles
Class 700	38	12 years	31	81.6%
Class 400	36	7 years	19	52.8%
Commuter	5	12 years	0	0%
Trolley	1	N/A	0	0%
Total Fleet	80	N/A	50	62.5%

Figure 2.117: *Metro Bus 2021 vehicle fleet information including useful life cycle and number of CNG buses. Data courtesy of Metro Bus.*

Transit Performance Measures

Transit Asset Management (TAM)

Similar to the roadway network, Federal regulations require transit agencies such as Metro Bus to develop a system to monitor and manage public transportation assets as a way to improve safety and increase reliability and performance. The resulting Transit Asset Management (TAM) plan also includes performance measures that help transit agencies maintain a state of good repair (SGR) for the following:

1. Equipment: Non-revenue support-service and maintenance vehicles.
2. Rolling Stock: Revenue vehicles by mode.
3. Infrastructure: Only rail-fixed guideway, track, signals, and systems.
4. Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities. Facilities are measured on the Transit Economic Requirements Model (TERM) scale which assigns a numerical rating (1-5) based on conditions.

The SGR must align the expected lifecycle of the capital asset or the acceptable period of use in service (also known as the Useful Life Benchmark or ULB).

Transit Asset Management SGR	Metro Bus 2023 Targets for Assets Meeting or Exceeding ULB	2023 Metro Bus Baseline Measurement for Assets Meeting or Exceeding ULB	2023 Performance Percentage Point Difference	Metro Bus 2024 Targets for Assets Meeting or Exceeding ULB
Equipment (non-revenue service vehicles)	0.00%	0.00%	0.00	0.00%
Rolling Stock (revenue vehicles) – Class 700 buses	13.89%	20.51%	-6.62	8.00%
Rolling Stock (revenue vehicles) – Class 400 buses	16.67%	37.14%	-20.47	0.00%
Rolling Stock (revenue vehicles) – MCI buses	0.00%	0.00%	0.00	0.00%
Infrastructure (rail, fixed guideway, track signals, and systems)	N/A	N/A	N/A	N/A
Facilities (passenger and parking facilities)	0.00%	0.00%	0.00	0.00%
Facilities (administrative and maintenance facilities)	33.33%	33.33%	0.00	33.33%

Figure 2.115: *A list of the incorporated SGR performance measures and performance targets. Data courtesy of Metro Bus.*

Staff at Saint Cloud Metro Bus and the APO worked together to establish both transit asset management State of Good Repair targets and the Transit Economic Requirements Model (TERM) scale targets for facilities.

Currently, Saint Cloud Metro Bus is not meeting its SGR targets for both the Rolling Stock (revenue vehicles) – Class 700 buses and the Rolling Stock (revenue vehicles) – Class 400 buses (with baseline measurements 6.62 and 20.47 percentage points over the anticipated 2023 target, respectively).

According to Saint Cloud Metro Bus's Chief Operations Officer, securing replacement FR and DAR buses has been an ongoing issue over the past number of years – an issue FTA's National Transit Database (NTD) analysts have also been made aware. For starters, due to the supply chain issues caused because of the COVID-19 global pandemic in 2020, buses that were slated to be purchased were delayed due to issues related to bus manufacturers.

Additionally, federal funding for vehicle replacements in Minnesota is distributed by MnDOT's Office of Transit and Active Transportation (OTAT). During this process, all urban transit systems receiving 5307 FTA funding (See Chapter Six for more details) within the state must provide OTAT with a complete list of all vehicle conditions within their current fleet every two years. Once OTAT has received this from all urban transit agencies, the limited federal highway funds allocated by the state for the purchase of replacement transit vehicles are distributed to transit agencies based on individual vehicle condition. Vehicles in most need of replacement across the state are then prioritized for federal funding assistance. As a result, federal funds distributed to Metro Bus for vehicle replacement through this process is dependent upon several factors: the vehicle condition of the Metro Bus fleet, the vehicle condition of the Metro Bus fleet in comparison to fleets of other urban transit agencies across the state, and the amount of federal highway funds available from OTAT to replace vehicles. This means Metro Bus vehicles in need of replacing due to reaching the end of their ULB (or exceeding their ULB) may not receive federal funding assistance to be replaced in a timely manner.

Figure 2.116 provides a comparison of TAM baseline measurements from 2017 to 2023. As noted earlier, rolling revenue stock for both the Class 700 and Class 400 buses have not improved over this time frame due to ongoing issues acquiring replacement vehicles in a timely manner.

Transit Asset Management SGR	2017 Metro Bus Baseline Measurement for Assets Meeting or Exceeding ULB	2023 Metro Bus Baseline Measurements for Assets Meeting or Exceeding ULB	2017-2023 Baseline Measurement Improvement?
Equipment (non-revenue service vehicles)	78.00%	0.00%	Yes
Rolling Stock (revenue vehicles) – Class 700	13.00%	20.51%	**No**
Rolling Stock (revenue vehicles) – Class 400	18.00%	34.14%	**No**
Rolling Stock (revenue vehicles) – MCI buses	0.00%	0.00%	Maintained
Infrastructure (rail, fixed guideway, track signals, and systems)	N/A	N/A	N/A
Facilities (passenger and parking facilities)	17.00%	0.00%	Yes

Transit Asset Management SGR	2017 Metro Bus Baseline Measurement for Assets Meeting or Exceeding ULB	2023 Metro Bus Baseline Measurements for Assets Meeting or Exceeding ULB	2017-2023 Baseline Measurement Improvement?
Facilities (administrative and maintenance facilities)	39.66%	33.33%	Yes

Figure 2.116: *A comparison of TAM baseline performance measurements between 2017 and 2023.*

Public Transportation Agency Safety Plan (PTSAP)

Besides the TAM plan, Metro Bus is federally required to develop a safety plan. The Public Transportation Agency Safety Plan (PTASP) must include the following components:

- Safety Management Policy.
- Safety Risk Management.
- Safety Assurance.
- Safety Promotion.

Additionally, the PTSAP must outline safety performance targets that will help agencies like Metro Bus identify and address safety concerns or hazardous conditions while evaluating processes to mitigate those risks with the least amount of impact on employees, passengers, and equipment. The following are a list of transit safety performance measures that are required to be included in the Metro Bus PTSAP:

1. Fatalities: Death confirmed within 30 days excluding trespassing and suicide-related fatalities.
2. Fatalities per 65,000 Vehicle Revenue Miles (VRM): Total number of fatalities per total VRM by mode.
3. Injuries: Harm to a person requiring immediate medical attention away from the scene excluding injuries resulting from assaults and other crimes.
4. Safety Events: All events reported on the Safety & Security (S&S-40) form for the NTD such as major safety events excluding major security events.
5. Safety Events per 65,000 VRM: Total number of safety events per total VRM by mode.
6. System Reliability (VRM/Failures): Mean distance between major mechanical failures as defined by NTD – a failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns.

Metro Bus must update the PTSAP on an annual basis. The APO is mandated to adopt the transit safety targets every four years – to coincide with the development of the new PTSAP. Metro Bus's most recently adopted PTSAP (https://bit.ly/3eReVx4) can be found on their website. Figures 2.117 through 2.123 contains a list of Metro Bus's most up-to-date safety targets broken down by category.

Based upon the most recent reportable data – for federal fiscal year 2023 – Saint Cloud Metro Bus has met all safety targets except for total safety events for the fixed route bus service (see Figure 2.121). It is unclear if these injuries occurred because of an error of the bus operator or passenger or if these were a result of a mechanical failure of the vehicle itself (i.e., a wheelchair securement breaking or a ramp deployment issue). Regardless, Saint Cloud Metro Bus's Chief Safety Officer (CSO) has stated the transit commission is committed to addressing safety concerns systemwide. This includes annual training to address operator conduct in bus maneuvering and defensive driving to proactively curb any incidents which would impact the targets established in the PTSAP. In the event the injuries were the result of human error, the CSO stated a thorough review of the incident is conducted and an appropriate course of action is taken.

Mode of Transit Service	2023 Metro Bus Targets for Total Fatalities	2023 Metro Bus Baseline Measurements for Total Fatalities	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Total Fatalities
Fixed Route Bus	0	0	Yes	0
Paratransit Bus	0	0	Yes	0
Commuter Bus	0	0	Yes	0

Figure 2.117: *A list of the incorporated PTASP fatalities safety performance measure and the performance targets for those measures. Data courtesy of Saint Cloud Metro Bus.*

Mode of Transit Service	2023 Metro Bus Targets for Fatalities per 65,000 VRM	2023 Metro Bus Baseline Measurements for Fatalities per 65,000 VRM	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Fatalities per 65,000 VRM
Fixed Route Bus	0	0	Yes	0
Paratransit Bus	0	0	Yes	0
Commuter Bus	0	0	Yes	0

Figure 2.118: *A list of the incorporated PTASP fatalities per 65,000 VRM safety performance measure and the performance targets for those measures. Data courtesy of Metro Bus.*

Mode of Transit Service	2023 Metro Bus Targets for Total Injuries	2023 Metro Bus Baseline Measurements for Total Injuries	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Total Injuries
Fixed Route Bus	2	1	Yes	2
Paratransit Bus	2	1	Yes	2
Commuter Bus	0	0	Yes	0

Figure 2.119: *A list of the incorporated PTASP injuries safety performance measure and the performance targets for those measures. Data courtesy of Metro Bus.*

Mode of Transit Service	2023 Metro Bus Targets for Total Injuries per 65,000 VRM	2023 Metro Bus Baseline Measurements for Total Injuries per 65,000 VRM	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Total Injuries per 65,000 VRM
Fixed Route Bus	0.20	0.07	Yes	0.20
Paratransit Bus	0.10	0.10	Yes	0.10
Commuter Bus	0.10	0.00	Yes	0.10

Figure 2.120: *A list of the incorporated PTASP total injuries per 65,000 VRM safety performance measure and the performance targets for those measures.*
Data courtesy of Metro Bus.

Mode of Transit Service	2023 Metro Bus Targets for Total Safety Events	2023 Metro Bus Baseline Measurements for Total Safety Events	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Total Safety Events
Fixed Route Bus	2	3	**No**	2
Paratransit Bus	3	1	Yes	3
Commuter Bus	0	0	Yes	0

Figure 2.121: *A list of the incorporated PTASP total safety events safety performance measure and the performance targets for those measures.*
Data courtesy of Metro Bus.

Mode of Transit Service	2023 Metro Bus Targets for Total Safety Events per 65,000 VRM	2023 Metro Bus Baseline Measurements for Total Safety Events per 65,000 VRM	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for Total Safety Events per 65,000 VRM
Fixed Route Bus	0.25	0.20	Yes	0.25
Paratransit Bus	0.15	0.10	Yes	0.15
Commuter Bus	0.10	0.00	Yes	0.10

Figure 2.122: *A list of the incorporated PTASP total safety events per 65,000 VRM safety performance measure and the performance targets for those measures.*
Data courtesy of Metro Bus.

Mode of Transit Service	2023 Metro Bus Targets for System Reliability (65,000 VRM/failure)	2023 Metro Bus Baseline Measurements for System Reliability	Performance Target Achieved (Yes/No)	Metro Bus 2024 Targets for System Reliability
Fixed Route Bus	<3	2.21	Yes	<3
Paratransit Bus	<3	1.20	Yes	<3
Commuter Bus	<3	0.00	Yes	<3

Figure 2.123: *A list of the incorporated PTASP system reliability (65,000 VRM/failure) safety performance measure and the performance targets for those measures.*
Data courtesy of Metro Bus.

In comparing the various PTASP baseline measurements from 2017 through 2023, four metrics did not experience improvement: total injuries for fixed route service; total safety events per 65,000 VRM for fixed route service; and system reliability for both fixed route and paratransit bus services. While it is unclear whether the injuries reported under the fixed route service are a direct result of unsafe practices by the operator and/or passenger or if they are related to unsafe conditions with the vehicle, Metro Bus's CSO has stated Metro Bus is committed to providing a safe service for all users and promptly investigates all incidences of injury. As to the remaining metrics that did not see improvement, while an exact cause may not be determined, one contributing factor to the increase in safety events per VRM on fixed route as well as the decrease in system reliability would the age of the vehicles in the Metro Bus fleet – a topic that has been addressed under the Transit Asset Management section.

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Total Fatalities	2023 Metro Bus Baseline Measurements for Total Fatalities	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	0	0	Maintained
Paratransit Bus	0	0	Maintained
Commuter Bus	0	0	Maintained

Figure 2.124: *A comparison of PTASP baseline performance measurements for total fatalities between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Fatalities per 65,000 VRM	2023 Metro Bus Baseline Measurements for Fatalities per 65,000 VRM	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	0	0	Maintained
Paratransit Bus	0	0	Maintained
Commuter Bus	0	0	Maintained

Figure 2.125: *A comparison of PTASP baseline performance measurements for fatalities per 65,000 VRM between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Total Injuries	2023 Metro Bus Baseline Measurements for Total Injuries	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	0	3	**No**
Paratransit Bus	1	1	Maintained
Commuter Bus	0	0	Maintained

Figure 2.126: *A comparison of PTASP baseline performance measurements for total injuries between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Total Injuries per 65,000 VRM	2023 Metro Bus Baseline Measurements for Total Injuries per 65,000 VRM	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	0.15	0.07	Yes
Paratransit Bus	0.11	0.10	Yes
Commuter Bus	0.00	0.00	Maintained

Figure 2.127: *A comparison of PTASP baseline performance measurements for injuries per 65,000 VRM between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Total Safety Events	2023 Metro Bus Baseline Measurements for Total Safety Events	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	3	3	Maintained
Paratransit Bus	1	1	Maintained
Commuter Bus	0	0	Maintained

Figure 2.128: *A comparison of PTASP baseline performance measurements for total safety events between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for Total Safety Events per 65,000 VRM	2023 Metro Bus Baseline Measurements for Total Safety Events per 65,000 VRM	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	0.15	0.20	**No**
Paratransit Bus	0.11	0.10	Yes
Commuter Bus	0.00	0.00	Maintained

Figure 2.129: *A comparison of PTASP baseline performance measurements for total safety events per 65,000 VRM between 2017 and 2023.*

Mode of Transit Service	2017 Metro Bus Baseline Measurements for System Reliability	2023 Metro Bus Baseline Measurements System Reliability	2017-2023 Baseline Measurement Improvement?
Fixed Route Bus	1.70	2.21	**No**
Paratransit Bus	0.91	1.20	**No**
Commuter Bus	4.11	0.00	Yes

Figure 2.130: *A comparison of PTASP baseline performance measurements for system reliability between 2017 and 2023.*

Active Transportation

The Saint Cloud MPA has an ever-expanding active transportation network. Made up of a combination of on-road (facilities integrated into the roadway network such as bike lanes) and off-road facilities (separated from the roadway such as shared us paths and sidewalks), these types of facilities are often used by those who chose to exercise or participate in some sort of outdoor recreation.

However, a growing number of MPA residents have embraced active transportation as a means to supplement motor vehicle usage. Walking and biking have become increasingly more common as more individuals utilize this form of transportation to go to work/school, to dine out, or to do other routine shopping activities.

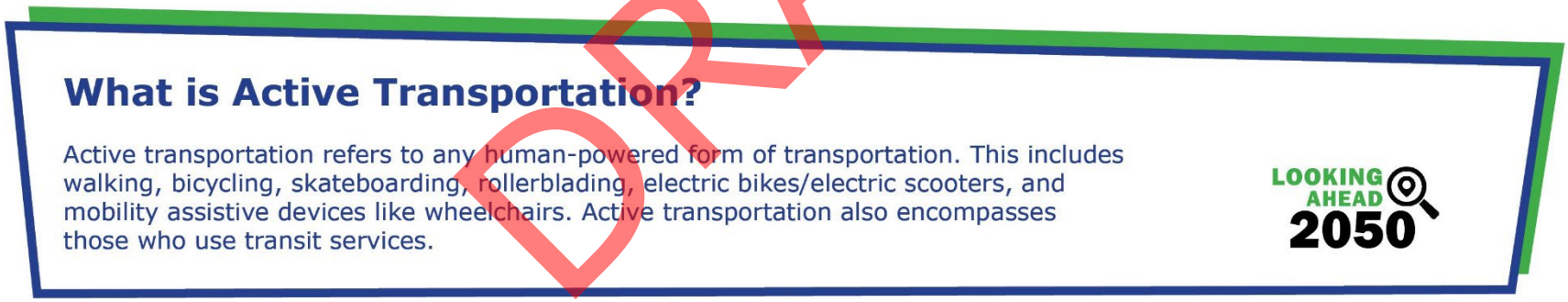


Figure 2.131: *Definition of active transportation.*

Infrastructure

There are just under 600 miles of active transportation infrastructure within the APO's planning area as of June 2022.

Similar to the roadway network, active transportation mileage is determined using a combination of lane miles (for on-road bicycle facilities) and centerline miles (reserved for sidewalk and shared use paths).

Active Transportation Infrastructure Facility Type	Mileage
Bike Lane	21.5
Shared Lane	40.3
Paved Shoulder	24.2
Paved Shared Use Paths	110.6
Unpaved Shared Use Paths	53.7
Sidewalks	342.1
Total	**592.4**

Figure 2.132: *Mileage breakdown of active transportation facilities within the MPA by type.*

On-Road Facilities

On-road facilities allow active transportation users – primarily people who cycle – the ability to travel at higher speeds given the fact users are traveling directly alongside motor vehicle traffic and interaction with slower pedestrian traffic is minimized. The most common type of on-road facility found within the MPA are shared lanes. Typically located on low-volume and low-speed streets, this type of facility requires motor vehicles and bicycles to share the roadway.

Figure 2.133: *Buffered on-road bicycle lane along Oak Grove Road/County Road 136 in Saint Cloud. Photo courtesy Saint Cloud APO.*

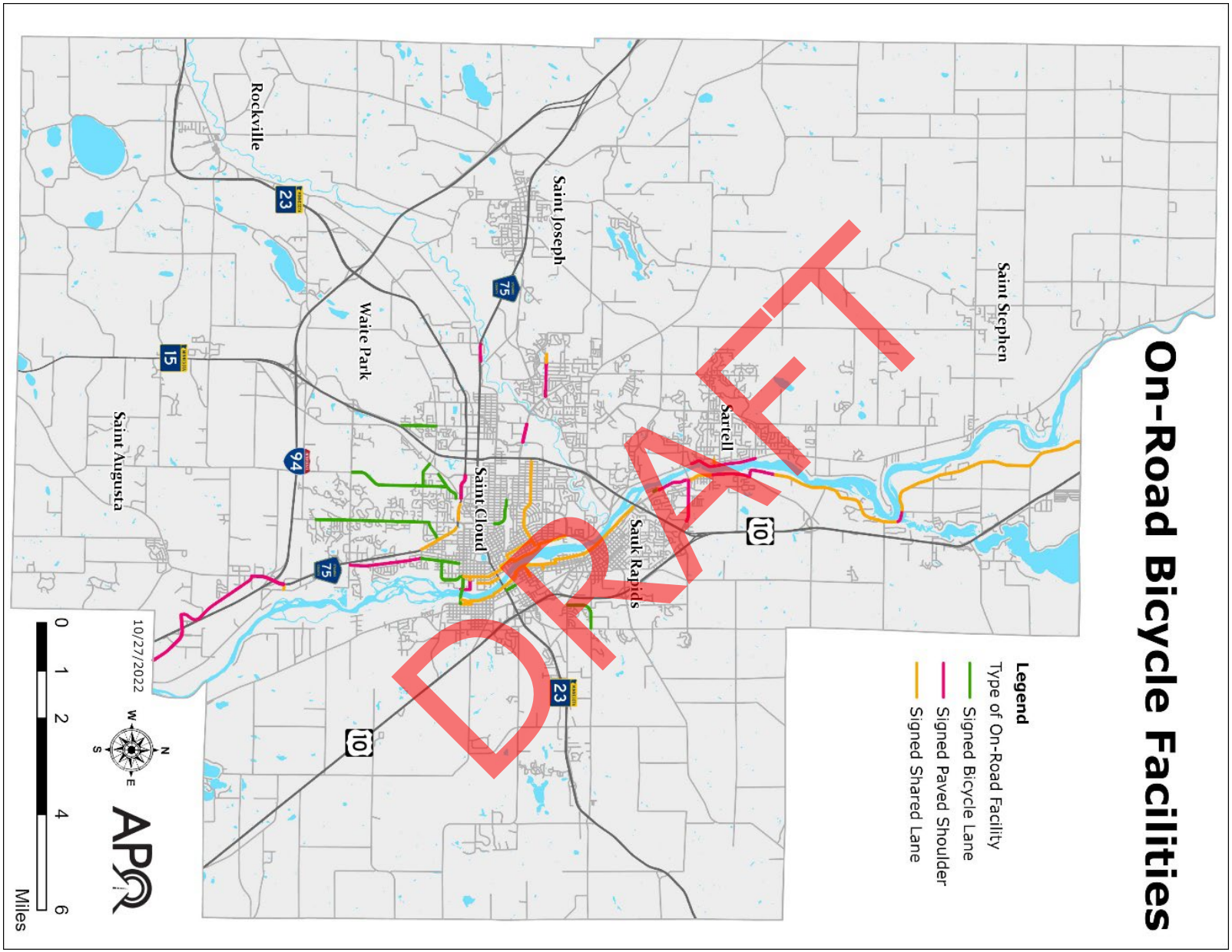


Figure 2.134: *The location of on-road bicycle facilities within the MPA as of June 2022.*

Within the MPA, shared lanes and paved shoulders (the next largest percentage of on-road facilities) are generally found along the Mississippi River as part of the U.S. Bicycle Route 45 – more commonly referred to as the Mississippi River Trail (MRT).

In addition to bicycle infrastructure, on-road facilities also include pedestrian crossing infrastructure such as marked crosswalks, Pedestrian-Hybrid Beacons (PHBs) and Pedestrian Rectangular Rapid Flashing Beacons (RRFBs).

Figure 2.135: *Definition of pedestrian-hybrid beacons (PHBs) and pedestrian rectangular rapid flashing beacons (RRFBs).*

Off-Road Facilities

In comparison to on-road facilities, off-road infrastructure caters to more users – both people who cycle and pedestrians. The two types of off-road facilities found within the MPA are sidewalks and shared use paths.

By far, the region's sidewalk network makes up the largest share of the active transportation network's mileage. Sidewalks are primarily located in areas with denser development and a grid roadway network – such as in several older/core neighborhoods within the City of Saint Cloud. However, sidewalks have begun to become more common place, especially in newer residential developments, as many cities within the MPA have begun to require developers to install them. Cities within the MPA strictly reserve the right of sidewalk usage to pedestrians.

Figure 2.136: *Windy sidewalk along Stearns County Road 78 in Sartell.*
Photo courtesy Saint Cloud APO.

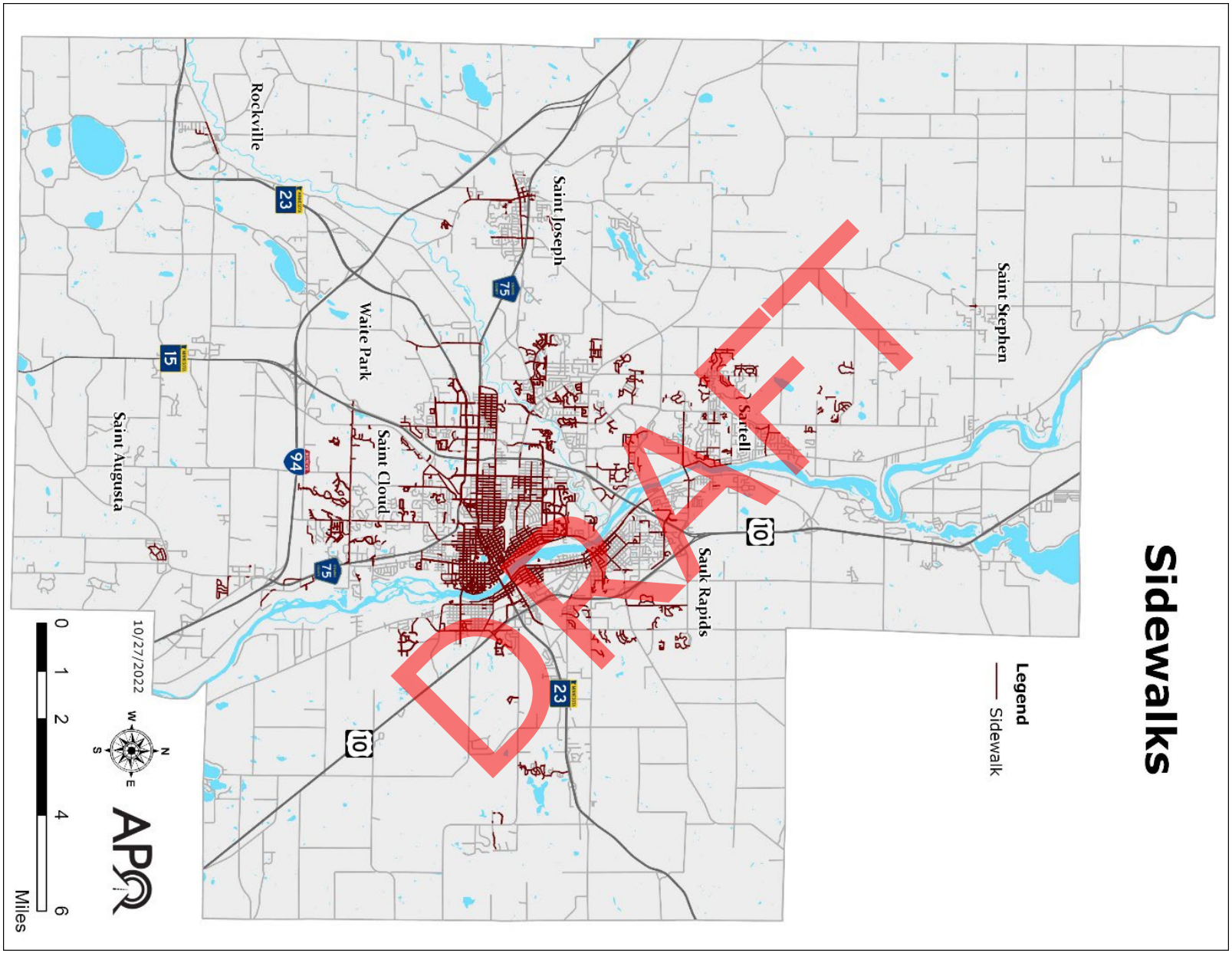


Figure 2.137: *The location of sidewalks within the Saint Cloud MPA as of June 2022.*

APO

Shared use paths (also known as trails, multi-use trails, or bike paths) are often paved facilities that are designed to accommodate pedestrians, bicycles, and other nonmotorized traffic. Shared use paths are typically designed to allow for two-way travel. Most of the shared use paths within the metro area are paved with unpaved paths typically found within either county or municipal parks.

Within the MPA, two major shared use paths serve as connections between the Saint Cloud area and surrounding communities: the Beaver Island Trail and the Lake Wobegon Trail (part of the larger Prairie Lakes Bicycle Route/U.S. Bike Route 20). A third, largely incomplete facility – the ROCORI Trail – will act as another regional connector route in the future.

Supporting several of these off-road facilities are bike racks/bike parking stations and wayfinding signage.

Figure 2.138: *Shared use path along West Minnesota Street in Saint Joseph.*
Photo courtesy Saint Cloud APO.

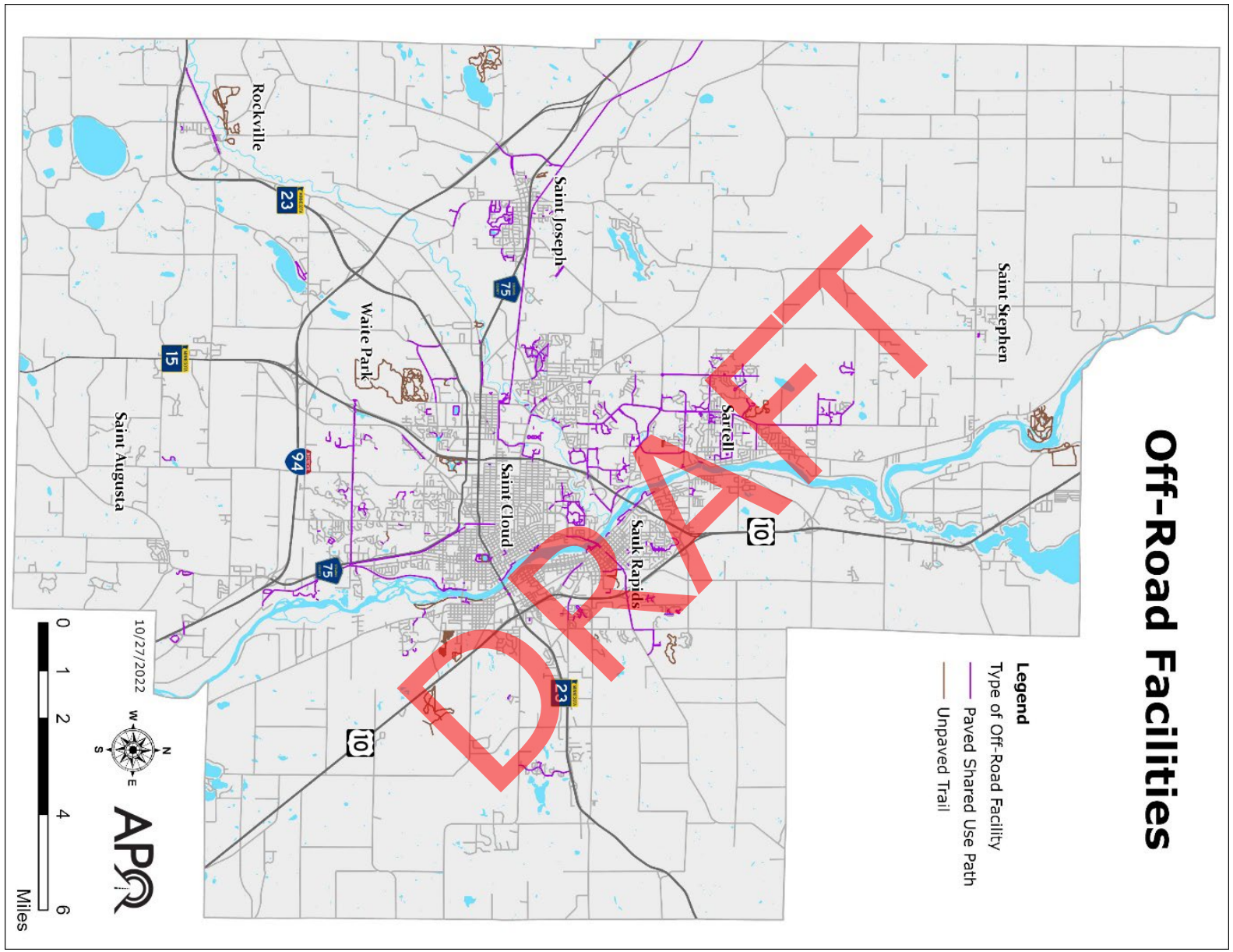


Figure 2.139: *The location of off-road facilities within the MPA as of June 2022.*

Regional Active Transportation Connections

Most active transportation trips tend to be short and typically occur within and between neighborhoods in specific cities. However, longer, more continuous connections also serve as nice complements to the local system – providing opportunities for longer-distance travel for either commuting or recreational purposes.

As mentioned earlier, the MPA is home to several longer regional active transportation routes that specifically serve to connect cities within the MPA to other local cities and to other areas of the state.

Mississippi River Trail (MRT)

The MRT is a planned network of bicycle facilities that winds through 10 states to encompass the length of the Mississippi River. The portion of this facility that lies within the Saint Cloud MPA is primarily an on-road route.

Coming down from the north, the MRT enters the MPA along the Greater River Road Scenic Byway – Stearns CSAH 1 (Riverside Avenue N)/Benton CSAH 33 (North Benton Drive) through the cities of Sartell and Sauk Rapids. The MRT splits at the intersection of North Benton Drive and Benton CSAH 3 (Second Street N). One section of the MRT crosses the Mississippi River and continues along Ninth Avenue N into Saint Cloud. The other section follows the eastern portion of the river along River Avenue S in Sauk Rapids/Riverside Drive in Saint Cloud. The MRT then reconnects around SCSU and continues south along portions of the Beaver Island Trail shared use path and Stearns CSAH 75 as it winds its way south to the City of Clearwater.

Beaver Island Trail

Formerly an active rail corridor, the Beaver Island Trail begins south of SCSU and proceeds in that direction mainly following the Mississippi River wherever possible. Portions of this off-road facility also double as part of the MRT.

Both the City of Saint Cloud and Stearns County have expressed interest in further developing this facility south to the City of Clearwater – something that is slated to be completed shortly after the adoption of this plan.

Lake Wobegon Trail/Prairie Lakes Bicycle Route

Perhaps one of the most well-known shared use path facilities in central Minnesota, the Lake Wobegon Trail begins in Osakis and primarily follows I-94 south throughout most of western Stearns County. The Wobegon Trail enters the MPA northwest of Saint Joseph and continues through to Waite Park. Once in Waite Park, the off-road facility connects with the Healthy Living Trail (along Third Street N) and continues north to Apollo High School in Saint Cloud. Future plans have been made to connect this facility to the Beaver Island Trail through a series of on-road bicycle lanes.

Figure 2.140: *The Lake Wobegon Trailhead facility in the City of Saint Joseph. Photo courtesy of Saint Cloud APO.*

ROCORI Trail

As it currently stands, the ROCORI Trail provides a connection between the cities of Richmond and Cold Spring (outside of the planning area) to the City of Rockville (located on the western end of the planning area). Future plans indicate a possible extension of this facility to the City of Waite Park's Lake Wobegon Trailhead located at Rivers Edge Park. A feasibility study (https://bit.ly/3ziGaaK) was conducted in 2007 which recommended a possible alignment for this connection to occur along Stearns County Road 138 and CSAH 75 however, as of the drafting of this plan, no steps to complete this connection have been taken.

Pavement Condition

It's one thing to have an abundance of active transportation infrastructure. However, if the condition of that infrastructure is poor or ill-equipped for the end user, using the system can quickly become either unsafe or inconvenient. Just like with roadways, assessing the condition of active transportation infrastructure is critical to understanding how the current system is functioning and can assist in determining where future investments might be needed.

It should be noted that there currently is no pavement condition report for sidewalks. According to MPA cities, poor sidewalk conditions are handled on a complaint-based process – meaning if someone complains about the facility, city officials will do spot treatments/fixes as appropriate. Other major sidewalk fixes can also be incorporated into adjacent major roadway reconstruction projects.

On-Road Facilities

In 2019 the APO contracted with consulting firm GoodPointe Technology to conduct a pavement condition survey of the roadway network. In addition, GoodPointe also collected the pavement condition on most of the existing signed on-road active transportation facilities. According to this study, just over 60% of the region's signed on-road bicycle facilities were in good condition.

Pavement Condition	2019 Lane Miles of On-Road Facilities	Percentage of On-Road Facilities
Good	49.4	60.7%
Satisfactory	18.6	22.9%
Fair	5.4	6.6%
Poor	3.0	3.7%
Not Surveyed	5.0	6.1%
Total	**81.4**	**100%**

Figure 2.141: *2019 pavement condition of on-road active transportation facilities within the MPA. Data courtesy of GoodPointe Technology.*

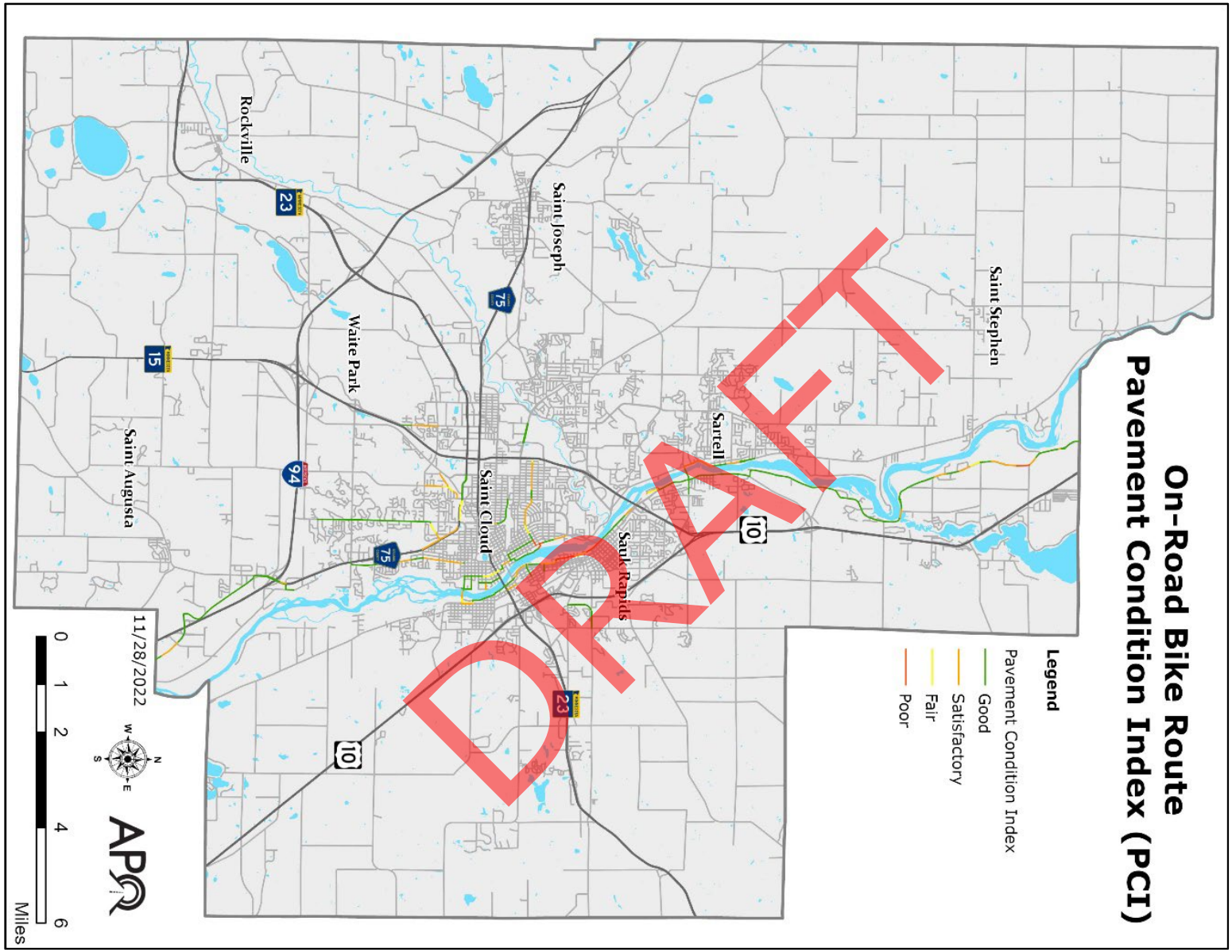


Figure 2.142: *2019 on-road bicycle facilities pavement condition.*
Data courtesy of GoodPointe Technology.

In addition to pavement condition, GoodPointe Technology also conducted a visual survey of the condition of all signed on-road facility pavement markings. Since some bicycle routes did not have striping, a "none" category was created. Overall, the study concluded that about one-third of the on-road network's striping was in good condition, another third in fair condition, and another third did not have striping.

Striping Condition	2019 Lane Miles of On-Road Facilities	Percentage of On-Road Facilities
Good	23.8	29.2%
Fair	20.2	24.8%
Poor	9.0	11.1%
None	23.4	28.7%
Not Surveyed	5.0	6.1%
Total	**81.4**	**100%**

Figure 2.143: *2019 striping condition of on-road active transportation facilities within the MPA. Data courtesy of GoodPointe Technology.*

Figure 2.144: *The symbol for bike lanes painted on a roadway in Sauk Rapids. Photo courtesy Saint Cloud APO.*

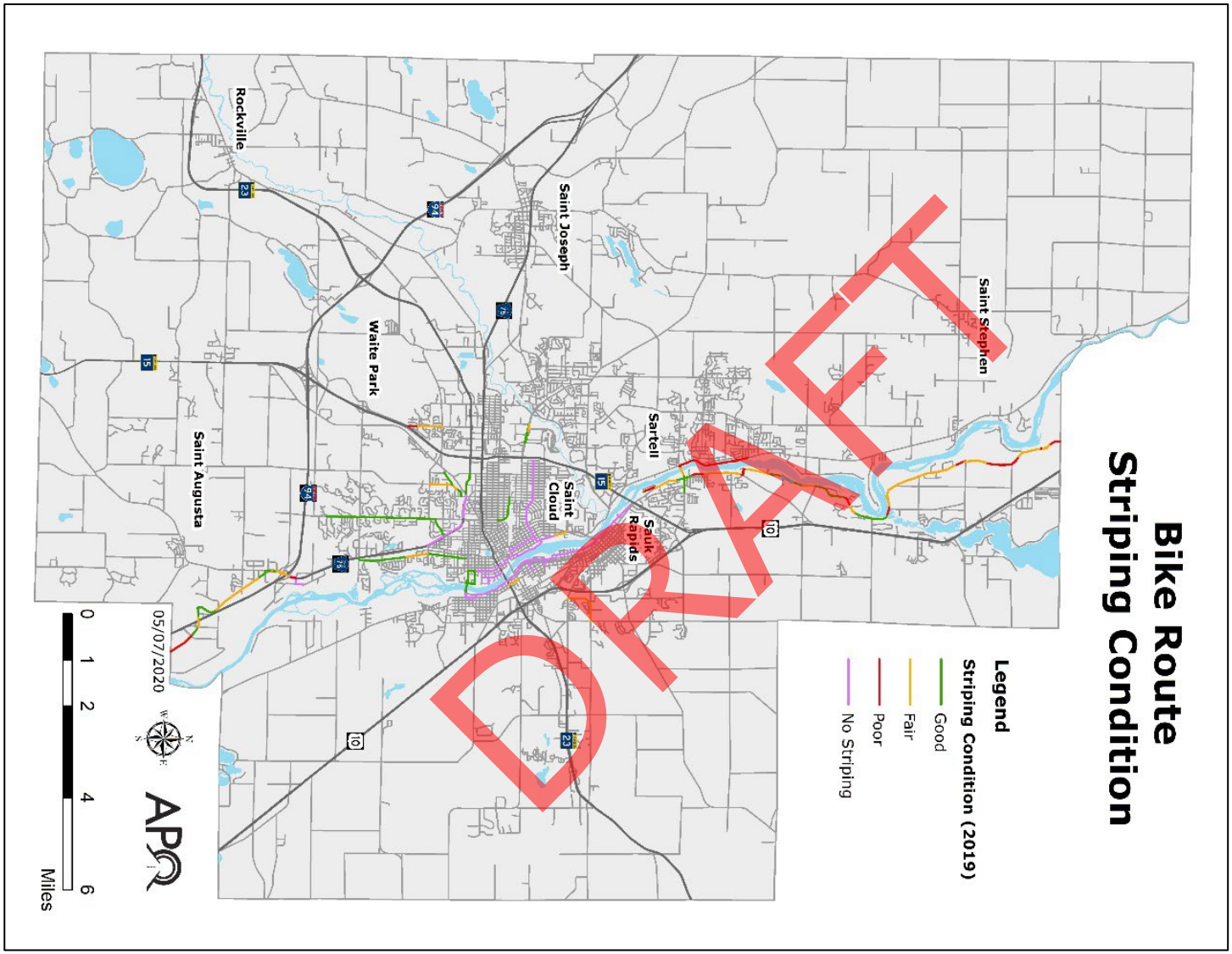


Figure 2.145: *2019 on-road bicycle facility pavement striping condition for facilities within the APO's planning area. Data courtesy of GoodPointe Technology.*

APO

Off-Road Facilities

In 2020, the APO hired the Parks & Trails Council of Minnesota to conduct a pavement condition survey of most of the region's paved shared use paths. According to the survey's findings, just over 60% of the region's paved shared use paths were found to be either in "very smooth" or "smooth" condition.

Paved Shared Use Path Pavement Condition	2020 Miles	Percentage of Shared Use Paths
Very Smooth	38.3	36.2%
Smooth	26.0	24.6%
Fair	19.9	18.8%
Rough	8.1	7.7%
Very Rough	11.1	10.5%
Not Rated	2.3	2.2%
Total	**105.7**	**100%**

Figure 2.146: *2020 paved shared use path pavement condition for facilities within the MPA. Data courtesy of the Parks & Trails Council.*

It is important to note that the Parks & Trails Council did not survey the paving stone shared use path around Lake George in Saint Cloud. This was because the natural crevasses in the paving stones would not allow for a smooth ride regardless of condition.

Figure 2.147 *Pavement cracking on the Westwood Parkway Trail in Saint Cloud. Photo courtesy Saint Cloud APO.*

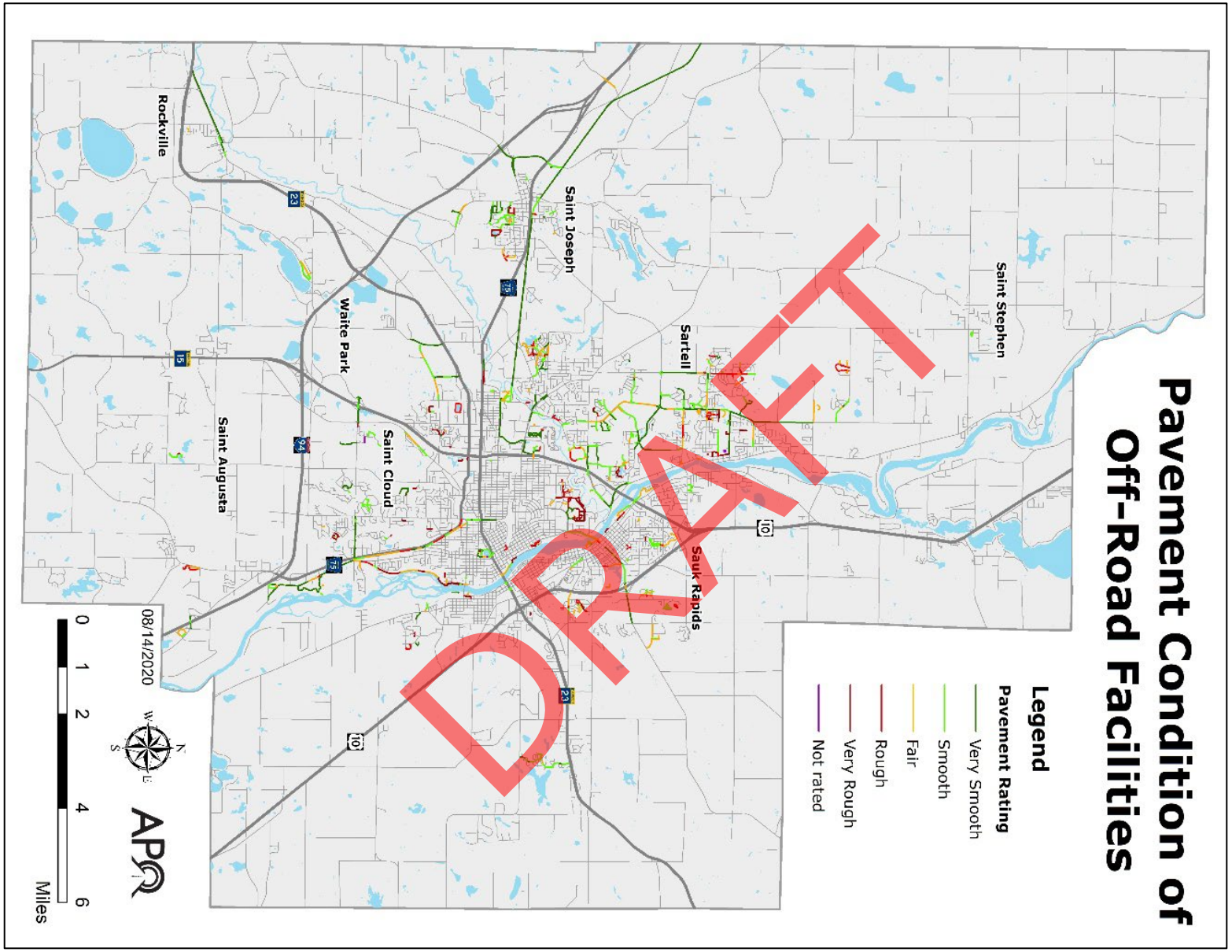


Figure 2.148: *2020 off-road pavement condition for paved shared use paths within the MPA. Data courtesy of the Parks and Trails Council of Minnesota.*

System Usage

In order to understand the extent to which existing active transportation infrastructure is used, APO staff have developed a counting program using two types of portable counters (one for bicycles and one for pedestrians) deployed simultaneously at 18 shared-use path locations throughout the MPA. However, this program, which was developed in 2019, is still relatively new as of the drafting of this plan. In addition, prior to 2021, the APO only had access to one set of portable counters which were owned by MnDOT and which could be loaned out and used by any requesting jurisdiction. As a result, there was some difficulty in collecting consistent data at all the identified sites. Going forward, APO staff hope to build a more robust active transportation user data set.

Figure 2.149: *Infographic on how APO staff count active transportation users.*

Beaver Island Trail Permanent Counter

In 2016, MnDOT installed two permanent counters on the Beaver Island Trail south of the SCSU campus. The ReCycled Post Counter utilizes infrared technology to measure the body heat of people who pass in front of its sensors. The ZELT Range – incorporated into the pavement in a diamond zig-zag pattern – is designed to measure the number of bicyclists.

Figure 2.150: *The permanent counter installed on the Beaver Island Trail.*
Photo courtesy of Saint Cloud APO.

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

Due to factors such as weather condition, count data will fluctuate by time of day and time of year. As shown in Figure 2.151, peak usage of the Beaver Island Trail occurs during the warmer months – especially during the summer months of June through August. Average daily counts tend to drop off in cooler months. But it should be noted that even in the winter, the facility still gets some usage.

Figure 2.151 also indicates that 2020 appears to be an outlier in terms of the number of active transportation users of the Beaver Island Trail. As shown, numbers began to significantly outpace previous years at the onset of the pandemic in March (due to several factors including stay at home orders and the need to social distance). Abnormally high usage continued throughout the remainder of 2020. Figure 2.151 indicates that while 2021 began with record shared use path usage, the number of active transportation users quickly returned to pre-pandemic levels.

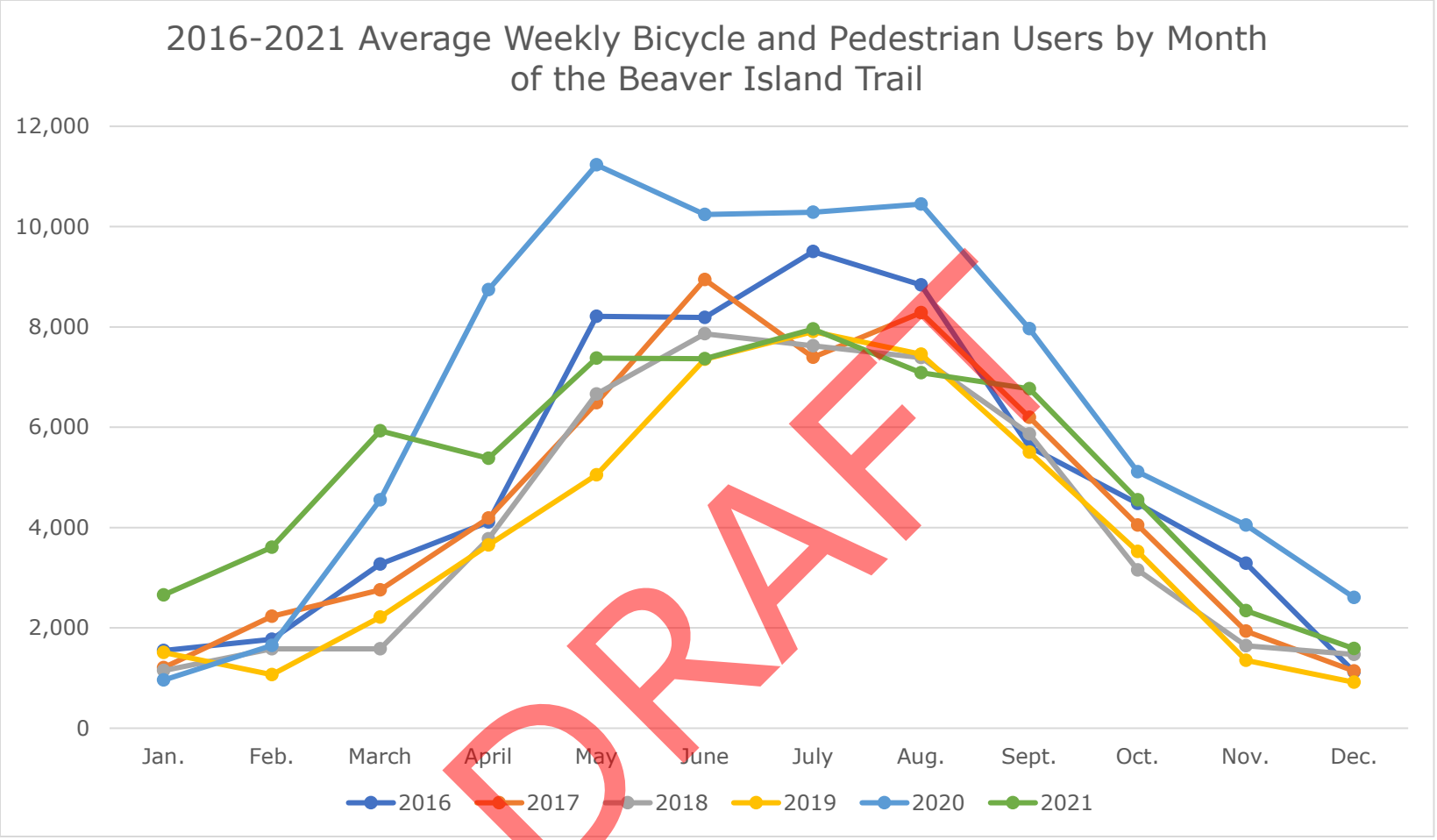


Figure 2.151: *Average weekly bicycle and pedestrian users by month at the Beaver Island Trail permanent count station between 2016 and 2021.*

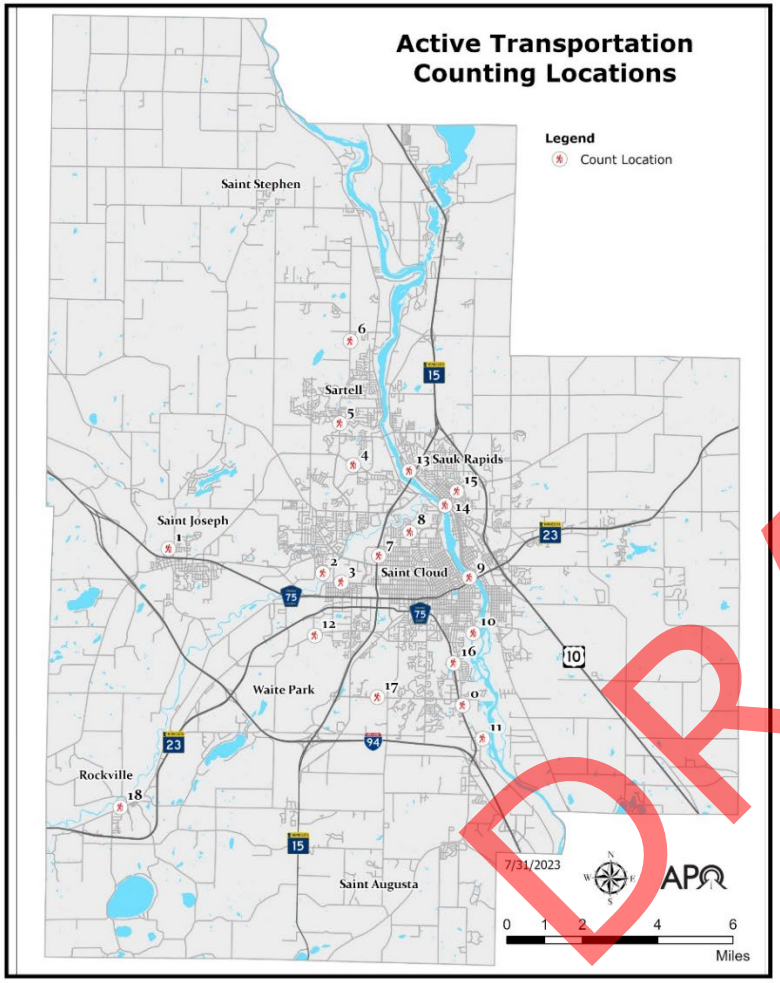
Saint Cloud APO Active Transportation Counting Program

As stated above, APO staff initiated a counting program to further explore the system usage of shared use paths across the metro. Beginning in 2019, APO staff focused solely on usage during the summer months (June, July, and August) at 18 different locations along shared used facilities across the MPA. This program was later expanded to include both summer and winter counts (the months of December, January, and February) in 2020. By 2021, APO staff initiated a four-season counting program including the spring months (March, April, and May) as well as the fall months (September, October, and November). This four-season counting program was still in place at the time this plan was drafted.

As part of the short-term counting program, APO staffers can deploy two types of counters – the pneumatic TUBE counters to count bicycle usage and the PYRO-Box counter to track pedestrians – depending on the season. Typically, the pneumatic TUBE counters are not deployed in the winter and spring months due to the likelihood that these types of counters would interfere with snow removal. The counters are typically deployed for a minimum of one week at each site to provide a snapshot of system usage. While still in its early stages as of the drafting of this plan, the short-term seasonal counting program has already collected a significant amount of usage data.

It is hoped that as this program is refined and additional years of data are collected, APO staffers will have a more accurate picture of active transportation facility usage throughout the metro area.

Figure 2.152: *Photo of two women pushing strollers over the pneumatic TUBE counters deployed at the Lake Wobegon Trailhead short-term counting location in Waite Park.*
Photo courtesy of Saint Cloud APO.



Saint Cloud APO Short-Term Active Transportation Counting Locations

Summer 2023 Seasonal Counts

ID	Jurisdiction	Location	Average Weekday (Pedestrian)	Average Weekend (Pedestrian)	Average Weekday Bicycle	Average Weekend Bicycle
1	Saint Joseph	Lake Wobegon Trailhead	150	186	206	251
2	Waite Park	Lake Wobegon Trailhead	82	73	108	144
3	Waite Park	Healthy Living Trail	56	32	51	57
4	Sartell	Heritage Drive	54	44	38	31
5	Sartell	Pinecone Road Trail #1 (South)	89	97	105	88
6	Sartell	Pinecone Road Trail #2 (North)	73	50	85	60
7	Saint Cloud	MN 15 Apollo Pedestrian Bridge	49	42	46	45
8	Saint Cloud	Greenway Trail	81	64	13	9
9	Saint Cloud	Mississippi River Walk	73	75	54	64
10*	Saint Cloud	Beaver Island Trail (North)	N/A	N/A	N/A	N/A
11*	Saint Cloud	Beaver Island Trail (South)	N/A	N/A	N/A	N/A
12	Waite Park	County Road 137	33	36	27	33
13	Sauk Rapids	Oxcart Trail	71	80	61	98
14	Sauk Rapids	Helix Spiral	98	94	66	52
15	Sauk Rapids	Second Street N	30	25	21	14
16*	Saint Cloud	CSAH 75/Roosevelt Road	N/A	N/A	N/A	N/A
17	Saint Cloud	33rd Street S	19	16	21	20
18	Rockville	ROCORI Trail	33	30	29	25

*Due to construction, summer 2023 counts were not completed.
Location "0" on the map is the Beaver Island Trail permanent counter.

Figure 2.153: *The Saint Cloud APO's short-term active transportation counting locations map as well as summer 2023 seasonal count data separated by weekday and weekend usage for both pedestrians and bicyclists.*

APO

Other Transportation Options

Up until this point, the primary focus on the MPA's existing transportation system has been centered on the three primary components of surface transportation directly impacted by MPO planning activities – roadways, transit, and active transportation. However, complementing these three modes is a wide variety of transportation options for MPA residents to complete trips both within the MPA and to other areas across both the state and the country.

Intraregional Connections

Transportation Network Companies

During the latter half of the 2010s, the Saint Cloud MPA added Transportation Network Companies (TNCs) Uber and Lyft to the mix of transportation options for residents.

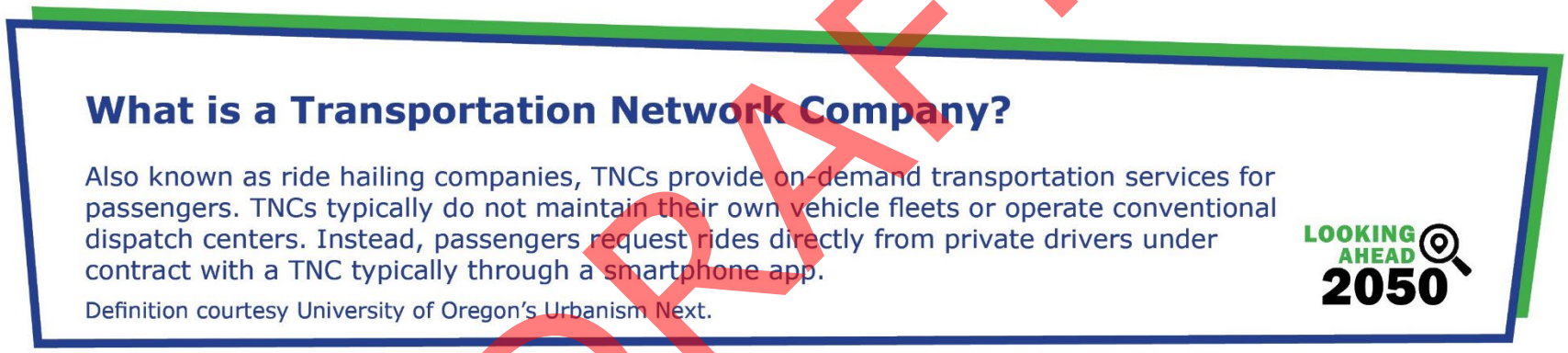


Figure 2.154: *Definition of a Transportation Network Company (TNC).*

Initially confined primarily to areas surrounding urban centers, Uber has since expanded its coverage area significantly since arriving in the Saint Cloud metro in March 2017. In addition to ride-hailing, Uber has since expanded its footprint into the food delivery market through its Uber Eats program – allowing businesses and restaurants to contract out delivery services to Uber drivers.

Lyft, which started providing services in the Saint Cloud metro in February 2017, has also expanded its coverage area since arriving in the region. Like Uber, Lyft also provides a variety of different delivery options for several industries including food; auto (parts delivery); health care (prescriptions/medical supply delivery); and retail.

Since both TNCs are private companies, they do not typically share operations data. However, the Regional Household Travel Survey of 2021 showed that 0.1% of all trips within the region are taken by TNC. This equates to about 468 trips per day. About 28% of all TNC trips are work commute trips.

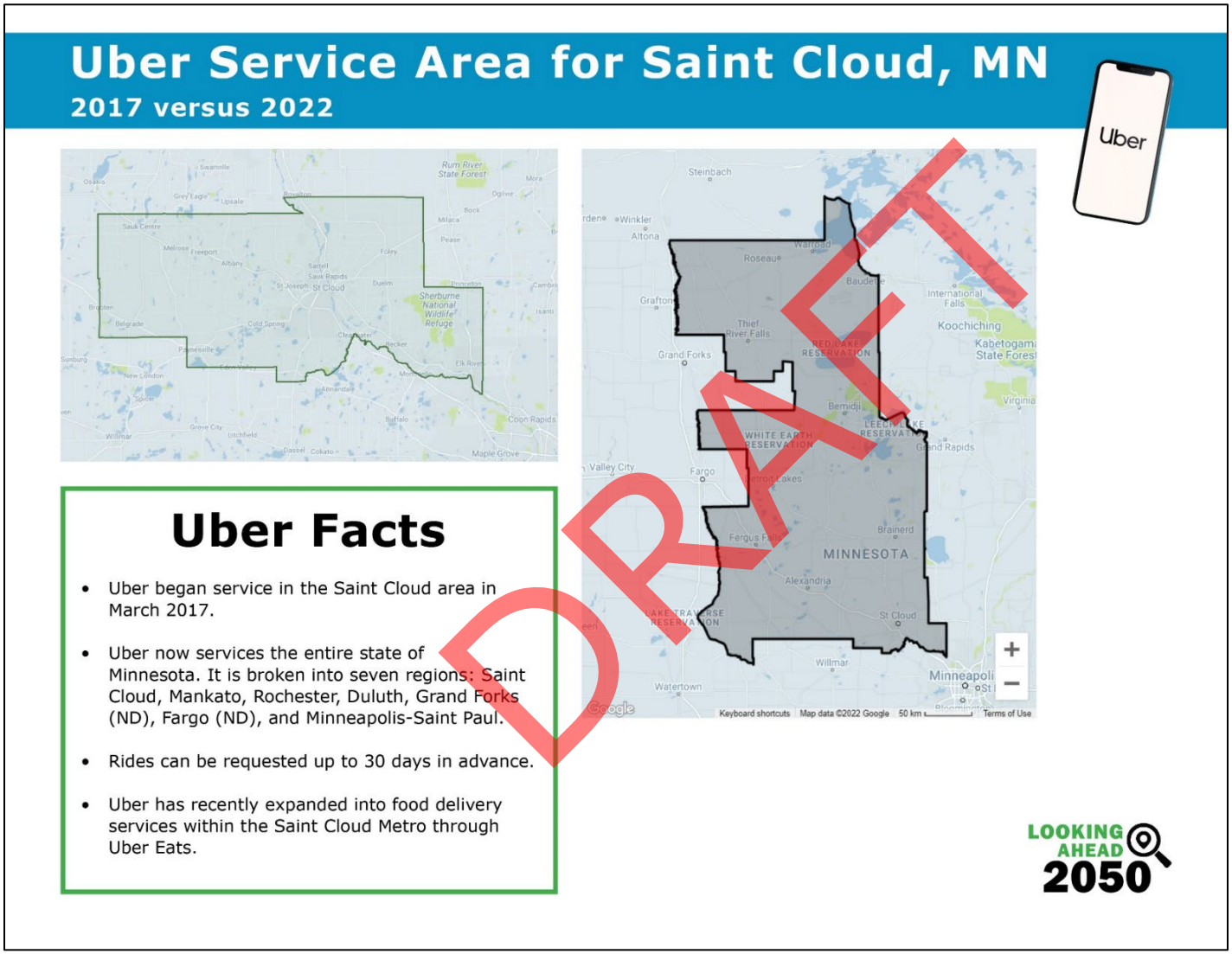
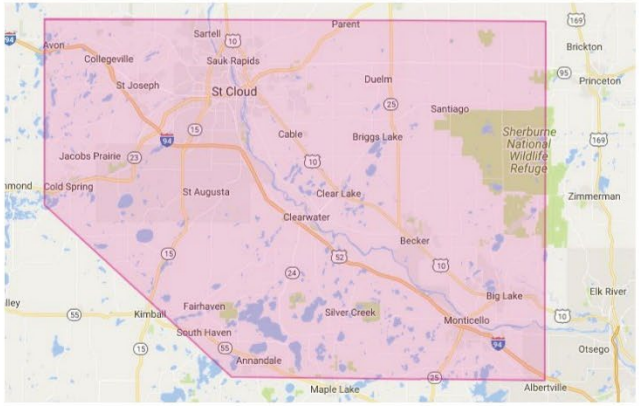
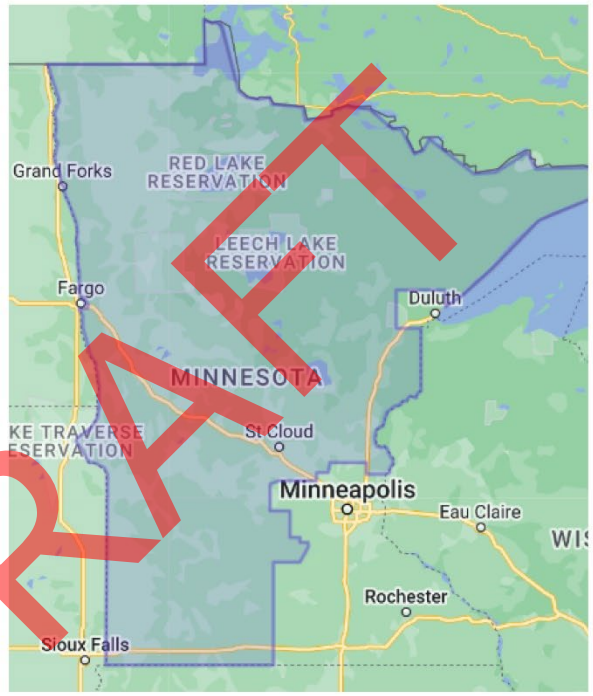


Figure 2.155: *Comparison of the Uber Service area between 2017 and 2022.*

Lyft Service Area for Saint Cloud, MN

2017 versus 2022





Lyft Facts

- Lyft began service in the Saint Cloud metro in February 2017.
- Lyft now services the entire state of Minnesota. It is broken into three regions: Greater Minnesota (which includes Saint Cloud); Rochester; and Minneapolis-Saint Paul.
- Lyft also provides a variety of services including delivery for specific industries such as food, retail, healthcare, and auto.

LOOKING AHEAD 2050

Figure 2.156: *Comparison of the Lyft service area between 2017 and 2022.*

APO

Taxi and Limousine Services

The Saint Cloud metro is serviced by several taxi companies and limousine providers. The following is a list of several prominent companies in the area. Please note that this list is not all-encompassing. Given that these companies are private, some may be inadvertently missed.

- Care Cab: 2600 Seventh St. N, Saint Cloud, MN 56303.
- St. Cloud Taxi Service: 626-11th St. S, Saint Cloud, MN 56301.
- Patron Companies, LLC: 6975 Saukview Drive, Suite 100, Saint Cloud, MN 56303.
- Greater MN Transportation, LLC: 1001 Ninth Ave. S, Saint Cloud, MN 56301.
- SamSam Transportation, LLC: 1700-12th Ave. SE, Saint Cloud, MN 56301.
- NOGOB Transportation: 44-28th Ave. N, Suite L103, Saint Cloud, MN 56303.
- Elite Transport, Inc.: 14 Seventh Ave. N, Suite 35, Saint Cloud, MN 56303.
- St. Cloud Party Bus, LLC: 539-27th Ave. N, Saint Cloud, MN 56303.
- Pearl Limousine: 1310 Sunridge Drive, Saint Cloud, MN 56301.
- St. Cloud Limos & Party Bus: 4000 Clearwater Road, Suite 206, Saint Cloud, MN 56301.

Medical Transportation Service Providers

In addition to TNCs and taxi companies, the Saint Cloud MPA is home to several transportation providers whose sole purpose is to provide residents with non-emergency medical transportation (NEMT) services. Typically, these NEMT trips are reserved for older adults or people with disabilities, including military veterans. Below is a list of several NEMT companies within the MPA. Again, given the private nature of these businesses, some companies may inadvertently be missed from this list.

- Care Cab: 2600 Seventh St. N, Saint Cloud, MN 56306.
- National Home Health Care Transportation, Inc: 1411 West Saint Germain St., Suite 6, Saint Cloud, MN 56301.
- Country Care-a-Van: 520 First St. NE, Sartell, MN 56377.
- Patron Companies, LLC: 6975 Saukview Drive, Suite 100, Saint Cloud, MN 56303.
- KAAH Transportation Service, Inc: 110 Second St. S, Suite 111B, Waite Park, MN 56387.

School Bus Transportation Providers

As stated in an earlier section, the Saint Cloud MPA is part of six different school districts. However, a majority of pre-K through 12th grade students are enrolled at the three major school districts: Saint Cloud, Sauk Rapids-Rice, and Sartell-Saint Stephen.

The following bus companies provide transportation to school-aged students enrolled at the three major school districts in the region:

- Spanier Bus Service: 1310 Sunridge Drive, Saint Cloud, MN 56301.
- Saint Cloud Area School District 742: 1000-44th Ave. N, Saint Cloud, MN 56303.
- Palmer Bus Service, Inc.: 3690-30th St. SE, Saint Cloud, MN 56304.
- Trobec's Bus Service, Inc: 413 County Road 2 S, Saint Stephen, MN 56375

- Voigt's Bus Service: 2779 Highway 10 S, St. Cloud, MN 56301.

Figure 2.157: *School buses leaving Lincoln Elementary School in Saint Cloud.*
Photo courtesy of Saint Cloud APO.

Interregional Connections

Tri-CAP

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 of service: Basic Needs, Self-Sufficiency, and Building Stability.

Tri-CAP's transportation program provides rural curb-to-curb bus service to portions of Stearns, Benton, Sherburne, Morrison, and Mille Lacs. This DAR model service does not have any age or income requirements, with trips generally scheduled at least 24 hours in advance. Rides within the city of origin are $1.25 one-way. Rides outside of the city of origin are $3 one-way. Same day reservations can occasionally be accommodated; however, one-way fares typically cost an extra $0.75.

Figure 2.158: *Tri-CAP bus.*
Photo courtesy of Saint Cloud APO.

Tri-CAP's service within the MPA is limited to residents living outside the Saint Cloud Metro Bus service area. While Tri-CAP vehicles do operate within the Saint Cloud Metro Bus service area (within a 15-mile radius of the Waite Park facility), customers utilizing the service must reside outside the Metro Bus FR and DAR service area or have destinations that are outside of the Metro Bus service area.

In addition to the DAR style service, Tri-CAP also provides contracted routes with numerous central Minnesota employers. These routes are pre-determined and are typically provided specifically for employees of those companies. Tri-CAP will also deviate from those pre-determined routes to pick up customers within a half-mile of the contracted routes.

Tri-CAP Transit Connection hubs out of five locations within its service area: Little Falls, Elk River, Sauk Centre, Waite Park, and Milaca. Services include:

- Benton County
  - Providing DAR service 7 a.m. to 4 p.m. Monday through Friday within a 15-mile radius of the Tri-CAP facilities in Waite Park.
- Morrison County
  - Providing DAR service 8 a.m. to 4 p.m. Monday through Friday within a 10-mile radius of the Little Falls Government Center.
  - Providing DAR service 6 a.m. to 6 p.m. Monday through Friday within the City of Little Falls.
  - Providing a pre-determined route to the City of Saint Cloud on the second and fourth Mondays of the month. Outbound trips leave Little Falls between 8:15 and 8:40 a.m. with a stop in Royalton before arriving in Saint Cloud around 9:30 a.m. Return trips depart Saint Cloud at 2:45 p.m. with a stop in Royalton before returning to Little Falls by 4 p.m.
- Sherburne County
  - Providing DAR service 9:30 a.m. to 2:15 p.m. Monday through Friday within the City of Big Lake.
  - Providing DAR service 6 a.m. to 6 p.m. Monday through Friday within the City of Elk River.
  - Providing a pre-determined route to the City of Elk River Monday through Friday. Outbound trips leave the City of Saint Cloud at 7:30 a.m. with a stop in Big Lake before arriving in Elk River by 9:45 a.m. Return trips depart Elk River between 2:15 and 2:30 p.m., stopping in Big Lake, before returning to Saint Cloud by 3:45-4:15 p.m.
  - Providing a pre-determined route to the City of Monticello Monday through Friday EXCEPT the second and fourth Tuesdays. Outbound trips leave Becker at 9:25 a.m. with a stop in Big Lake before arriving in Monticello by 10 a.m. Return trips leave Monticello either at 11:15 a.m. or 1 p.m., again stopping in Big Lake, before arriving in Becker either at 11:50 a.m. or 1:35 p.m.
  - Providing a pre-determined route to the City of Elk River Monday through Friday. Outbound trips leave the City of Princeton at 7:45 a.m. with stops in both Zimmerman and Big Lake before arriving in Elk River around 9:45 a.m. Return trips depart Elk River at 2 p.m. with stops again in both Big Lake and Zimmerman before arriving in Princeton by 4 p.m.

    - Providing a pre-determined route to the City of Elk River on the second and fourth Tuesdays. Outbound trips leave the City of Becker around 9:25 a.m. with a stop in Big Lake before arriving in Elk River by 10 a.m. Return trips leave Elk River either at 11:15 a.m. or 1 p.m., again stopping in Big Lake, before arriving in Becker either at 11:50 a.m. or 1:35 p.m.
    - Providing a pre-determined route to the City of Saint Cloud on the first and third Thursdays. Outbound trips leave the City of Elk River at 9:15 a.m., with stops in Big Lake, Becker, and Clear Lake, before reaching Crossroads Center in Saint Cloud by 10:15 a.m. Return trips leave Crossroads Center by 1 p.m., again with stops in Clear Lake, Becker, and Big Lake, before arriving in Elk River by 2 p.m.
- Stearns County
    - Providing DAR service 7 a.m. to 4 p.m. Monday through Friday within a 15-mile radius of the Tri-CAP facility in Waite Park. This also includes both the cities of Saint Joseph and Cold Spring.
    - Providing DAR service 9:30 a.m. to 1 p.m. on Tuesdays within the City of Albany.
    - Providing DAR service 7:30 a.m. to 3:45 p.m. Monday through Friday within the City of Melrose.
    - Providing DAR service 6 a.m. to 6 p.m. Monday through Friday within both the City of Sauk Centre and Sauk Centre Township.
    - Providing a pre-determined route to the City of Saint Cloud on Thursdays. Outbound trips leave the City of Sauk Centre at 7:55 a.m. with stops in Melrose, Freeport, Albany, Avon, Saint Joseph, the Saint Cloud VA/CentraCare Health Plaza, and Crossroads Center, before arriving in downtown Saint Cloud between 9:50 and 10:15 a.m. Return trips depart downtown Saint Cloud at 2 p.m. and arrive back in Sauk Centre by 3:40 p.m.
    - Providing DAR service 9:30 a.m. to 12:30 p.m. Monday through Friday within the City of Paynesville.
- Mille Lacs County
    - Providing DAR service 9 a.m. to 2:45 p.m. Monday through Friday within a 10-mile radius of the City of Milaca, including Foreston.
    - Providing DAR service for other portions of Mille Lacs County 7:45 to 9 a.m. and 2:45 to 3:45 p.m. Monday through Friday – this includes the cities of Milaca and Princeton.
    - Providing DAR service 9 a.m. to 2:45 p.m. Monday through Friday within the City of Princeton as well as a five-mile radius around the city.
    - Providing shopping route service from the cities of Isle, Wahkon, Onamia, Bock, Milaca, and Pease to the City of Princeton. This service departs Isle at 9:25 a.m. and arrives in Princeton by 11:15. The return trip leaves Princeton at 1:45 p.m. and arrives back in Isle around 3:30 p.m. This special route is provided two Mondays a month and must have a minimum of three passengers in order to run. Cost for this route is $6 round trip.

In addition to bus service, Tri-CAP also provides rides via its volunteer driver program. This program assigns clients to

volunteer drivers who then take passengers to medical appointments or other destinations using personal vehicles. Volunteer drivers are reimbursed at the Federal IRS rate and can also be eligible for some meal reimbursements as well.

In the last few years, the Tri-CAP transportation program has recently expanded its options by providing a donated vehicle program. Delivering Reliable Independent Vehicle Empowerment (D.R.I.V.E.) Personal Transportation sells low-cost vehicles to income eligible residents within Benton, Sherburne, and Stearns counties. Applicants must be at least 18 years old, have a valid driver's license and auto insurance, and must provide payment in full for the vehicle at the time of purchase.

Impacts of COVID-19 on Tri-CAP

Similar to Metro Bus, the 2020 COVID-19 global pandemic caused significant disruption to Tri-CAP's transportation program. With schools canceled, social activities being discouraged, and non-emergency medical appointments postponed – coupled with state mandated stay at home orders – Tri-CAP (like many transit providers) took drastic action to continue to provide employment for their staff as well as rides and access to critical services for the communities they serve.

During the height of the pandemic, many of Tri-CAP's contracted or city routes either needed to be altered or suspended due to staffing shortages and low ridership. While not providing nearly as many trips as pre-pandemic, Tri-CAP drivers and vehicles were enlisted to assist with several food security initiatives – delivering food for organizations such as Catholic Charities directly to those most in need.

In the years following the global health crisis, Tri-CAP (like many transit providers) has struggled to return to pre-pandemic service levels. Staffing shortages, low ridership, and budgetary concerns have caused the rural transit provider to eliminate several pre-determined routes as of October 2022 including:

- Sauk Centre to Alexandria.
- Little Falls to Royalton.
- Milaca to Onamia.
- Saint Cloud to Foley.

- A reduction in the number of pre-determined routes from Milaca to Princeton. This route used to run every Monday but has been reduced to two Mondays each month.

It is unclear as of the drafting of this plan how quickly these issues can or will be resolved.

In addition, temporary changes to several routes were announced as well and will remain in effect until further notice. These changes include:

- The suspension of Saturday service in Sauk Centre and Little Falls.

System Ridership

After years of steady growth and systemwide expansion (including the addition of Mille Lacs County in 2019), Tri-CAP ridership fell considerably because of the COVID-19 pandemic. In 2019, the rural transit provider completed 161,572 total trips – one-way public transit and volunteer driver trips combined – the most provided in the past 10 years. However, the effects of COVID seemingly wiped away that growth. Between 2019 and 2020, total ridership fell by nearly 51% as shown in Figures 2.159 and 2.160.

Service	2019 Ridership	2020 Ridership	Percent Change
One-way public transit trips	140,285	68,040	**-51.5%**
One-way volunteer driver trips	21,287	11,279	**-47.0%**
Total Tri-CAP trips	**161,572**	**79,319**	**-50.9%**

Figure 2.159: *Year-over-year comparison of ridership numbers between 2019 and 2020 for public transit and volunteer driver trips. Data courtesy of Tri-CAP.*

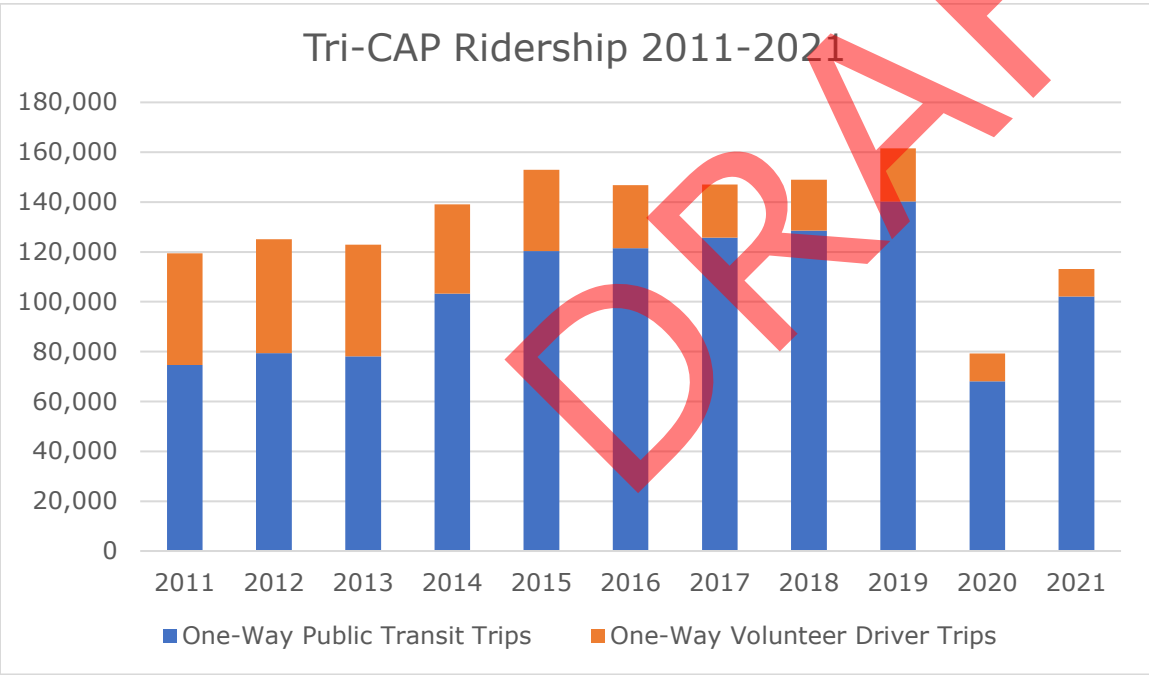


Figure 2.160: *Public transit and volunteer driver trips completed between 2011 and 2021. Data courtesy of Tri-CAP.*

In the year immediately following the onset of the pandemic, Tri-CAP ridership has started to make a comeback. As shown in Figure 2.161 below, just over 102,000 one-way public transit trips were completed in 2021, up about 50% from 2020 and nearly on-par with public transit trips completed in 2014. Volunteer driver trips, on the other hand, have not recovered as quickly – and even lost about 2% more trips in 2021 as compared to 2020.

Service	2020 Ridership	2021 Ridership	Percent Change
One-way public transit trips	68,040	102,144	50.1%
One-way volunteer driver trips	11,279	11,016	**-2.3%**
Total Tri-CAP trips	**79,319**	**113,160**	**42.7%**

Figure 2.161: *Year-over-year comparison of ridership numbers between 2020 and 2021 for public transit and volunteer driver* trips.
Data courtesy of Tri-CAP.

Saint Cloud Regional Airport Authority

The Saint Cloud Regional Airport Authority (STC), located at 1550-45th Ave. SE in Saint Cloud, is the only publicly operated air facility within the MPA. STC was originally owned and operated by the City of Saint Cloud. However, starting in 2022, the Federal Aviation Administration (FAA) approved a new governance structure which allowed for the creation of an airport authority.

Figure 2.162: *A Chinook helicopter departing from the Saint Cloud Regional Airport.*
Photo courtesy of Saint Cloud APO.

Formed through a joint resolution between the City of Saint Cloud, Benton County, Sherburne County, and Stearns County, the authority was developed with the intent to expand the airport's impact on the tri-county area.

Approximately 100 general aviation planes are based at STC. The airport owns 66 individual airplane hangars and contracts directly with plane owners. As of December 2022, all hangars were occupied, with the airport having additional people on a waiting list.

Commercial air service out of the Saint Cloud Regional Airport is primarily provided by Allegiant Airlines, which began service in December 2012. Allegiant flights service two destinations – Phoenix-Mesa Gateway Airport in Mesa, Arizona, and Punta Gorda Airport (Fort Meyers) in Punta Gorda Florida. Trips to Mesa, Arizona are provided year-round, while flights to Punta Gorda are provided seasonally – during the winter months.

Since 2003, Sun Country Airlines has been providing the occasional chartered flight service out of STC to destinations such as Laughlin/Bullhead International Airport in Laughlin, Nevada. An on-demand chartered flight service is also provided by Fixed Base Operator (FBO) St. Cloud Aviation that will provide service to just about anywhere.

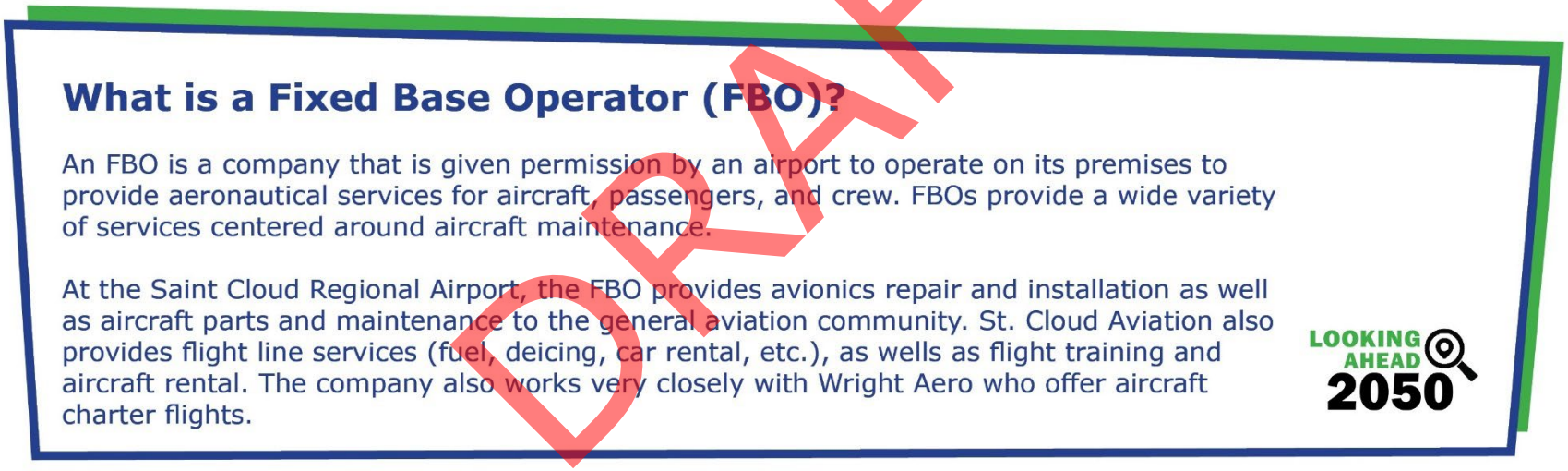


Figure 2.163: *Definition of a fixed base operator.*

As of 2009, the Saint Cloud Regional Airport also provides space for the Minnesota Air National Guard which operates both a Blackhawk and Chinook maintenance base for approximately 12 helicopters.

In addition to providing transportation and aircraft maintenance services, Saint Cloud Regional Airport also provides limited freight chartering services for several local businesses. Companies can contract with a small cargo operator to deliver or pick up freight from the airport. However, this service occurs rather infrequently.

Passengers

Since data has been made available (2013), passenger enplanements and deplanements peaked shortly after Allegiant Airlines service began at STC – with 59,705 total passengers utilizing the airport in 2014. In the years since, total passengers at the airport have remained consistent.

However, the impacts of the COVID-19 can once again be noticed when looking at total passenger numbers in 2020. As shown in Figure 2.164, year over year ridership comparisons between 2019 and 2020 show a nearly 30% drop in total enplanements and deplanements.

Ridership	2019	2020	Percent Change
Total Passengers	42,912	31,196	**-27.3%**

Figure 2.164: *Year over year ridership comparisons between 2019 and 2020 for total passengers served by Saint Cloud Regional Airport. Data courtesy Saint Cloud Regional Airport Authority.*

Figure 2.165: *Entrance to the Saint Cloud Regional Airport. Photo courtesy of Saint Cloud APO.*

APO

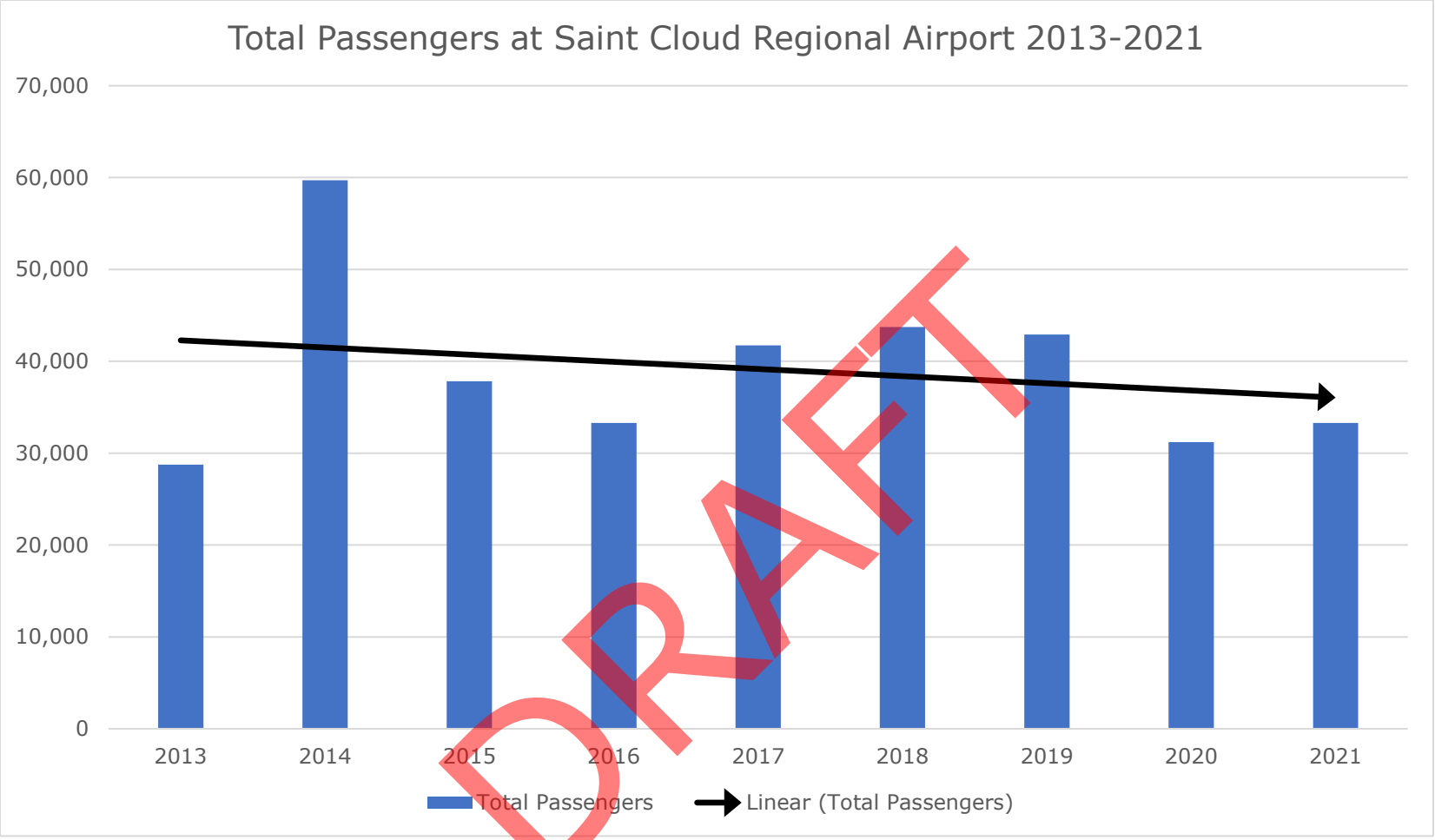


Figure 2.166: *Total passengers at the Saint Cloud Regional Airport between 2013 and 2021. Data courtesy of Saint Cloud Regional Airport Authority.*

Air travel has made a slow comeback in the year immediately following the initial outbreak of COVID. According to the Saint Cloud Regional Airport Authority, total passengers using the airport was approximately 33,300 in 2021, up 6.7% from 2020.

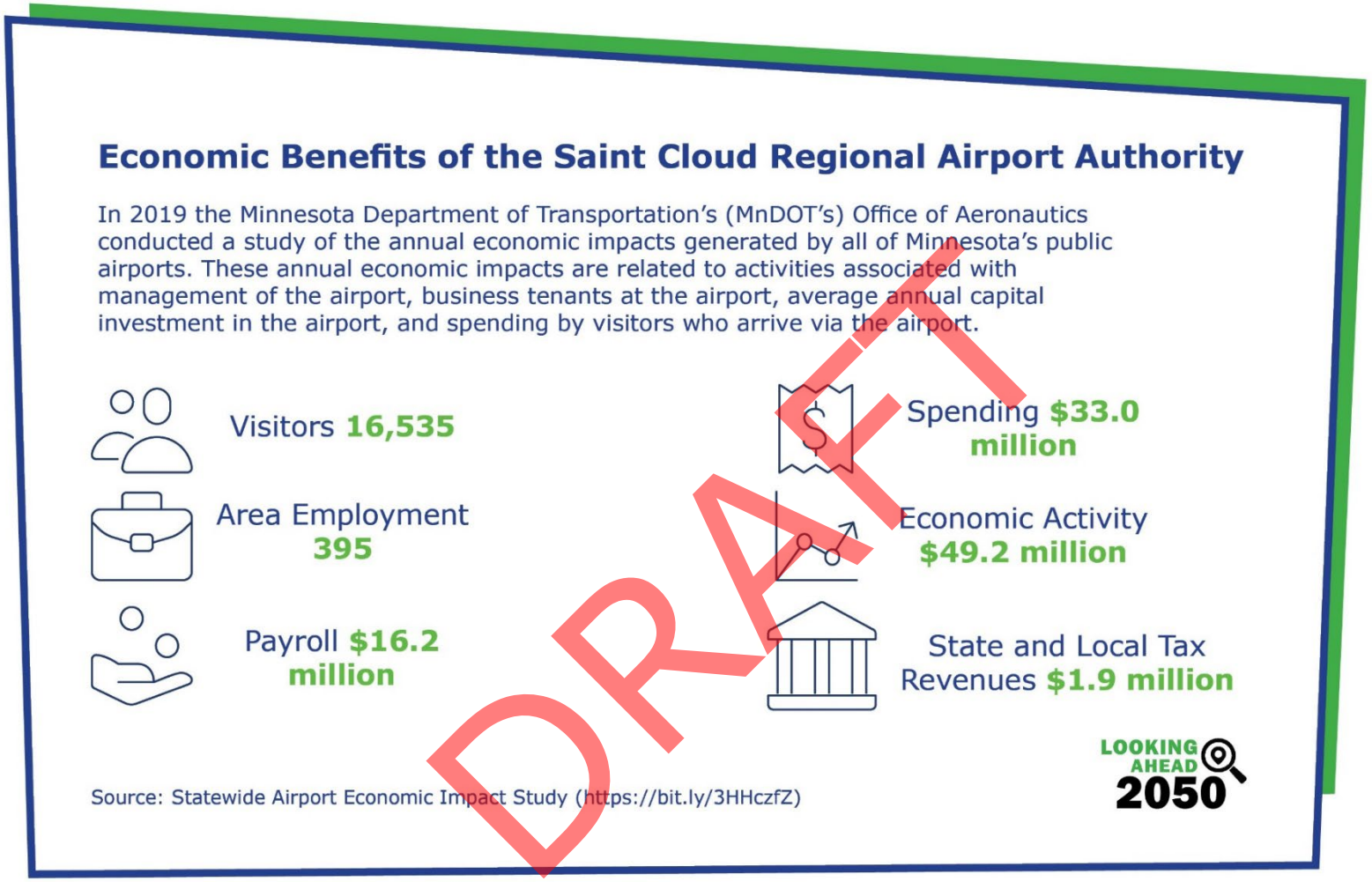


Figure 2.167: *Infographic on the economic benefits of the Saint Cloud Regional Airport Authority.*

Amtrak

Amtrak provides intercity passenger rail service twice daily from Saint Cloud at its depot, 555 East Saint Germain St. This station is serviced by the Empire Builder line which connects passengers west to Seattle/Portland or south to Chicago via the Twin Cities.

The Saint Cloud Amtrak station is only open between 10 p.m. and 7 a.m. to accommodate arrivals/departures from the station. Given these hours, limited features are available for the public (for example, no ticket office or baggage service is available at this station).

During the overnight hours, trains 7 or 27 travel through Saint Cloud around 1 a.m. on the way to Seattle/Portland. Around 6:30 a.m. trains 8 or 28 depart Saint Cloud for Chicago.

Figure 2.168: *Sign for Saint Cloud's Amtrak station.*
Photo courtesy of Saint Cloud APO.

Amtrak Ridership

As shown in Figure 2.169, passengers boarding and/or alighting at the Saint Cloud station have been steadily decreasing over the past decade, with the sharpest decline in ridership experienced in 2020 most likely due to COVID-19.

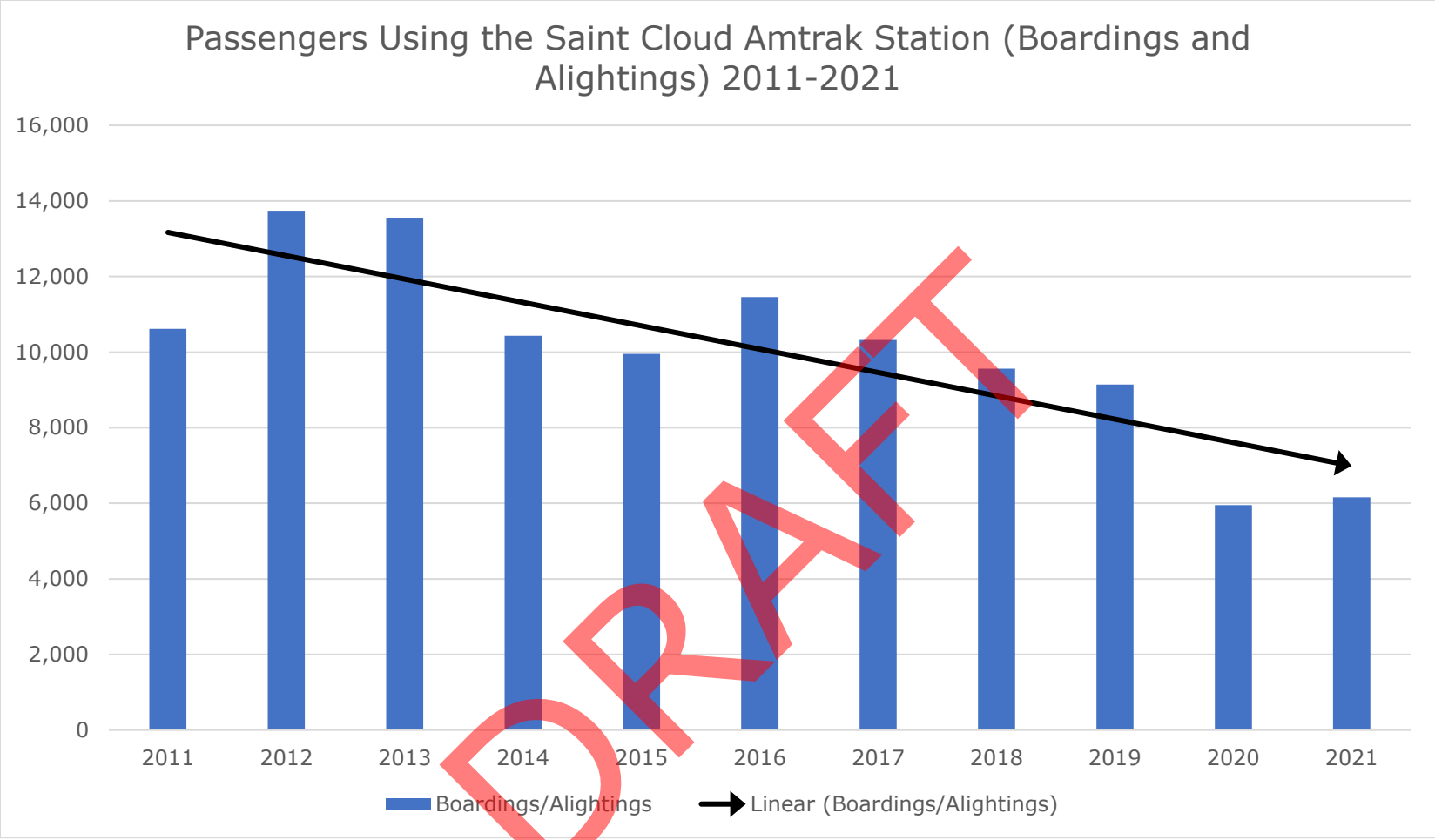


Figure 2.169: *Amtrak annual boardings and alightings at the Saint Cloud station 2011-2021. Data courtesy Rail Passengers Association.*

Much like air travel, Amtrak numbers have been slow to return to normal. In 2021, boarding/alighting data out of Saint Cloud was only 3.4% more than that experienced at the height of the pandemic.

Boarding/Alighting Data	2020	2021	Percent Change
Saint Cloud Amtrak Station	5,953	6,156	3.4%

Figure 2.170: *Year over year boarding/alighting data for 2020 and 2021 for the Saint Cloud Amtrak station. Data courtesy Rail Passengers Association.*

Jefferson Lines

Jefferson Lines – a family owned and operated long-distance bus company – has been providing intercity bus travel since 1919 across much of the Midwest and upper Midwest portions of the U.S. Jefferson Lines runs through 14 states: Arkansas, Oklahoma, Missouri, Kansas, Nebraska, Iowa, Wisconsin, Minnesota, North Dakota, South Dakota, Wyoming, Montana, Idaho, and Washington.

Figure 2.171: *Jefferson Lines buses parked near the Saint Cloud Metro Bus downtown transit center. Photo courtesy of Saint Cloud APO.*

Several routes crisscross the state of Minnesota servicing communities as far north as Virginia (on the Iron Range) and as far south as Worthington. Most routes tend to follow major roadway corridors including I-94, I-35, I-90, US 10, and MN 23.

Jefferson Lines has three stops within the Saint Cloud MPA served seven days a week:

1. Saint Cloud Metro Bus's downtown transit center: 510 First St. S, Saint Cloud.
2. Roadrunner Travel Center: 4325 Clearwater Road, Saint Cloud.
3. Saint Cloud State University's Atwood Center: 651 First Ave. S, Saint Cloud.

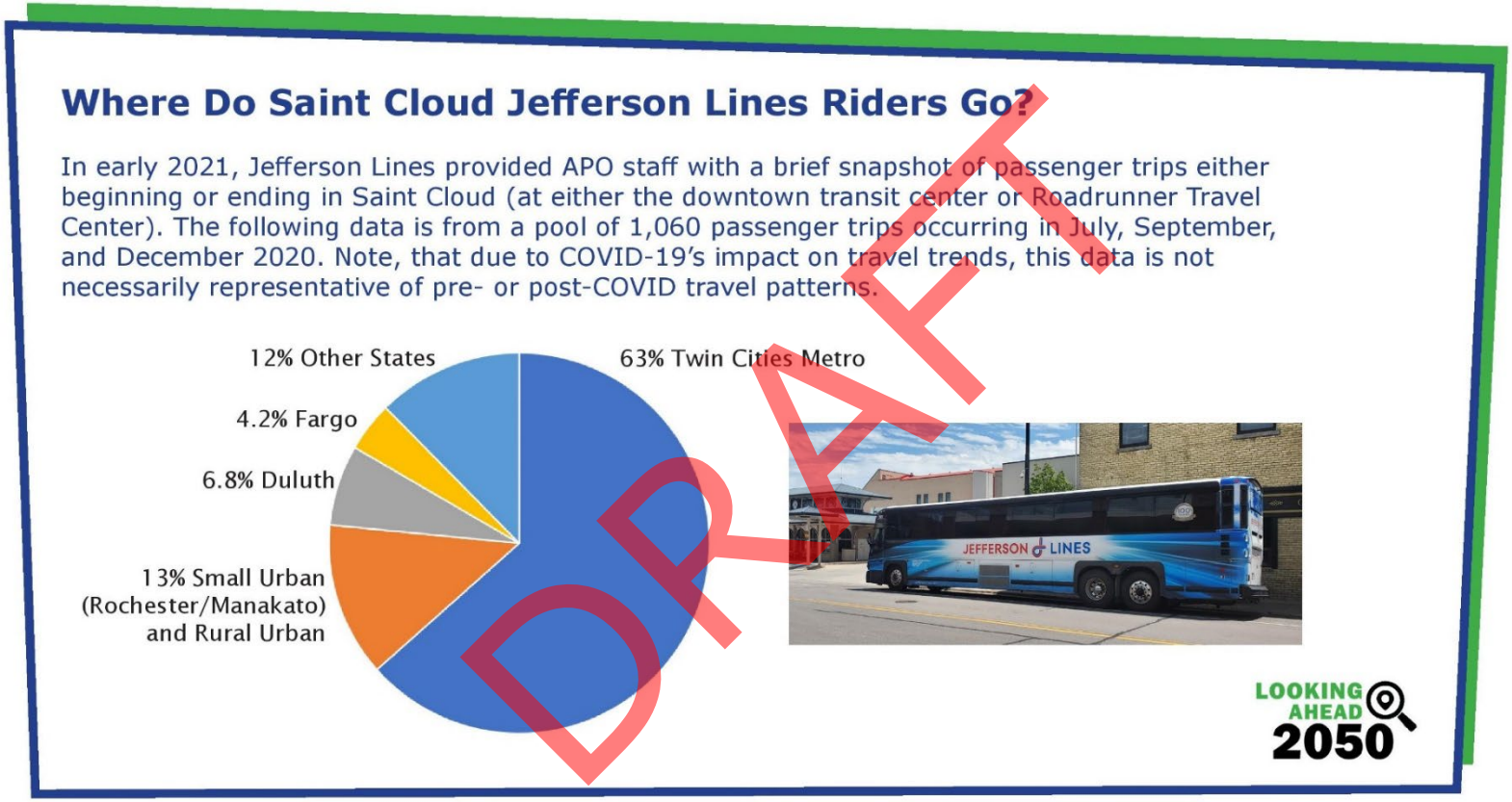


Figure 2.172: *Infographic on where Jefferson Lines riders travel.*

Northstar

Since debuting in November 2009, the Northstar system has played a major role in providing alternate (non-single occupancy vehicle) transportation between Saint Cloud and the Twin Cities metro. The Northstar system is composed of two components – the Northstar Link Commuter Bus and the Northstar Commuter Rail. The entire system is overseen by Metro Transit – the transit provider for the Twin Cities. However, the bus component of Northstar is done in conjunction with Saint Cloud Metro Bus.

Northstar Link Commuter Bus

The Northstar Link Commuter Bus provides a connection between passengers living in and around Saint Cloud to the Northstar Commuter Rail station in Big Lake.

Trips depart from the Downtown Transit Center Monday through Friday at either 4:45 or 6:15 a.m. before making stops at SCSU's Miller Center and the Park and Ride in East Saint Cloud along US 10 within the APO's planning area. An additional bus stop is made in Becker (at the corner of First Street NE and Willow Street) before arriving in Big Lake to meet the southbound train. On its return trip to Saint Cloud, the Link will make stops to pick up/drop off passengers at Becker and the Park and Ride, as well as dropping off passengers at the Downtown Transit Center and the Miller Center.

To meet the northbound afternoon/evening train, the Northstar Link will leave the Downtown Transit Center at either 3:55 or 5:15 p.m. before arriving at the Big Like station at 4:55 or 6:10 p.m. respectively.

Fares from Saint Cloud to Big Lake are $2 one way. Fares from Saint Cloud to Becker are $1 each way.

Northstar Commuter Rail

Once in Big Lake, passengers can take the Northstar Commuter Rail down to Minneapolis. Stops are made in Elk River, Ramsey, Anoka, Coon Rapids-Riverdale, and Fridley before ultimately reaching the Target Field station. From there, passengers can connect to the Metro Transit's light rail system to travel throughout the Twin Cities metro.

The Northstar Commuter Rail runs two southbound trains Monday through Friday mornings, departing Big Lake at either 5:48 or 7:18 a.m. and arriving at Target Field at either 6:40 or 8:10 a.m. The train runs two northbound trains in the afternoons departing the Target Field station at either 4:27 or 5:30 p.m. and arriving in Big Lake by 5:19 or 6:22 p.m., respectively.

One-way fares from the Big Lake station to Minneapolis are $6.25. For persons with disabilities, this drops to $2. Northstar Commuter Rail fares decrease slightly by station as the train gets closer to Minneapolis (i.e., fares from Elk River to Minneapolis run $4.75 one way and from Ramsey to Minneapolis trips cost $3.75).

Figure 2.173: *Northstar Commuter Rail train parked outside of the Big Lake station. Photo courtesy of MnDOT.*

Impacts of COVID-19 on Northstar

Prior to the onset of COVID-19 in March 2020, the Northstar system was operating five southbound runs from Saint Cloud/Big Lake to Minneapolis with train departures beginning at 5 a.m. during the week. In addition, there was also one northbound train departing from Minneapolis and arriving in Big Lake just after 7 a.m. On weekday evenings, five northbound runs from Minneapolis to Big Lake/Saint Cloud and one southbound run back to Minneapolis would facilitate commuter travel.

Northstar provided limited weekend service as well. Saturday service would include one southbound/northbound trip in the morning as well as two southbound/northbound trips in the afternoon. Sunday service two morning southbound and one morning northbound trip as well as one southbound and two northbound afternoon trips.

The Northstar system would also provide special service to all home Minnesota Twins and Minnesota Vikings games.

However, much like transit in general, Northstar ridership did not escape the negative impacts of COVID-19. Due to a significant decrease in passengers, all weekend service has been suspended. In addition, drastic cuts to weekday service have been made – with only two southbound morning trips and two northbound afternoon trips being conducted Mondays through Fridays.

Due to ongoing funding issues with Northstar partner agencies, special trips to Minnesota Twins and Vikings games were also suspended – occurring in early 2022.

At the drafting of this plan, it is unclear what the long-term effects of COVID-19 will have on the future of Northstar and the connection it will continue to play between Saint Cloud and the Twin Cities metro.

Northstar Ridership

As mentioned in the previous section, ridership on both the Northstar Link Commuter Bus and the Northstar Commuter Rail dropped off dramatically between 2019 and 2020. Up until the onset of COVID, ridership on the overall Northstar system was holding rather steady with average annual ridership on the Northstar Link at approximately 50,921 trips and the Northstar Commuter Rail averaging 101,990 boarding at the Big Lake station annually.

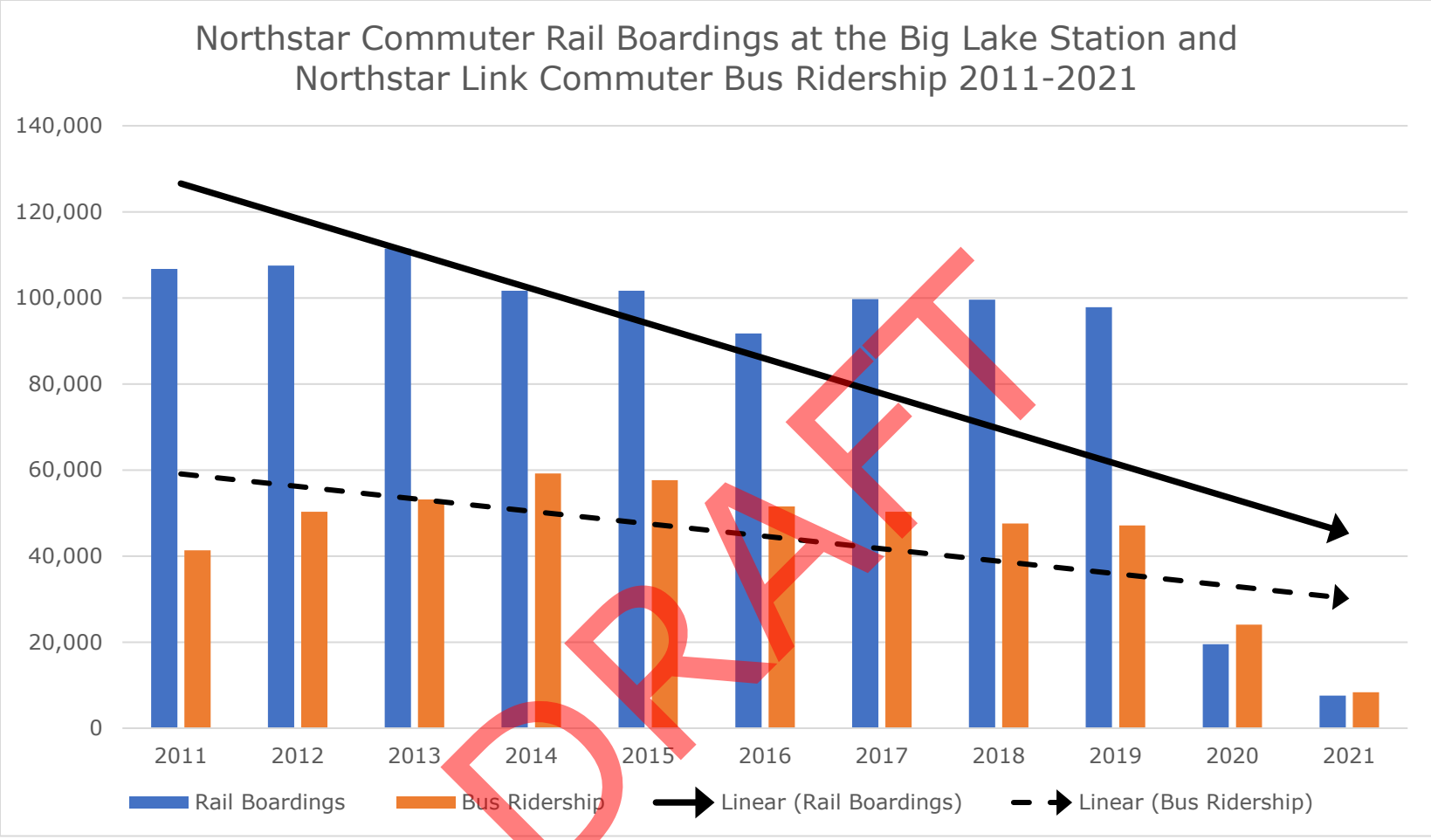


Figure 2.174: *Northstar Commuter Rail boardings at the Big Lake station and Northstar Link Commuter Bus ridership from 2011 to 2021. Data courtesy Metro Transit and Metro Bus.*

Similar to Metro Bus and other transit providers, Northstar systemwide ridership has not been able to rebound in the year immediately following the onset of the pandemic. Ridership numbers during Federal fiscal year 2021 continue to show a steady decline for both the Northstar Link and the Northstar Commuter Rail service – with ridership experiencing a year-over-year drop of 65.4% and 61.3% respectively.

Service	FFY 2020 Ridership	FFY 2021 Ridership	Percent Change
Northstar Link Commuter Bus	24,088	8,330	**-65.4%**
Northstar Commuter Rail	19,497	7,547	**-61.3%**

Figure 2.175: *Year-over-year comparison of boarding numbers (train) and ridership numbers (bus) between FFY 2020 and FFY 2021 for the Northstar Link Commuter Bus and the Northstar Commuter Rail.*
Data courtesy Metro Transit and Metro Bus.

Figure 2.176: *Northstar Link bus parked outside the Saint Cloud Metro Bus downtown transit center.*
Photo courtesy of Saint Cloud Metro Bus.

Shuttle Service

Groome Transportation – a privately held company – has been providing shuttle services daily between Saint Cloud and the Minneapolis/Saint Paul International Airport. After acquiring Executive Express in 2019, Groome has continued the Executive Express's business model of providing 18 daily trips between the Saint Cloud and the Twin Cities.

Groome operates similar to a hub and spoke system with routes from areas such as Alexandria and Brainerd coming into a central location in Saint Cloud before departing to MSP. That central location is the Groome Park and Ride located at 3105 County Road 138 in Waite Park.

Additional Saint Cloud MPA stop locations for Groome include St. John's University/College of Saint Benedict campuses as well as SCSU.

One-way trips originating from the Waite Park location (or ending there from MSP) typically run about $45 for adults and $26 for children 12 and under.

Freight

Thus far, we have been looking at transportation in terms of moving people. However, the transportation system does more than moving just people from point A to point B.

The network also plays a major role in the movement of goods to, from, and through our region. As a result, the fast and efficient movement of freight is an important part of our economy.

Manufacturers and agricultural processors need raw materials as inputs and the resulting products need to reach customers. Slow, inefficient, or unreliable freight transportation adds cost to those products, which is ultimately paid for by the consumer.

Safe and efficient transportation systems can help keep the region attractive to businesses, manufacturers, and processors as well as keeping the residential cost-of-living low.

The geographic location of the MPA in central Minnesota also means that a high volume of freight passes through the region without stopping here. But the region still has a responsibility to facilitate the efficient and safe movement of that pass-through freight.

Freight Modes

Freight moves through the MPA by different modes.

Trucks are probably the most visible mode of freight. More freight flows by truck – both in terms of value and weight – than any other mode. We can count the number of heavy commercial trucks that travel on our roadways and develop an annual average daily vehicle count for them (abbreviated as "HCAADT").

Unsurprisingly, major roads like I-94, US 10, MN 15, and MN 23 tend to carry the most trucks. Stearns County CSAH 75 also tends to carry significant freight traffic.

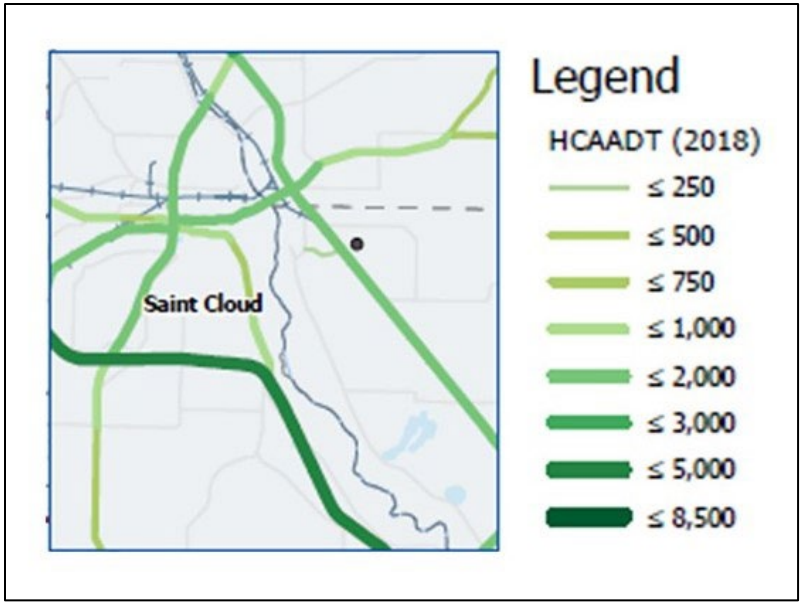


Figure 2.177: *Heavy Commercial Annual Average Daily Traffic (HCAADT) in the MPA.*
Data courtesy of MnDOT District 3 Freight Plan (2020) (https://tinyurl.com/3ujh8rcy)

Rail is also a major mode for freight movement in the region. In the MPA, the Burlington Northern Santa Fe (BNSF) Railroad owns and operates trains on the Staples subdivision, one of the busiest rail lines in the state carrying 40-50 trains every day. The Staples subdivision rail line roughly parallels US 10.

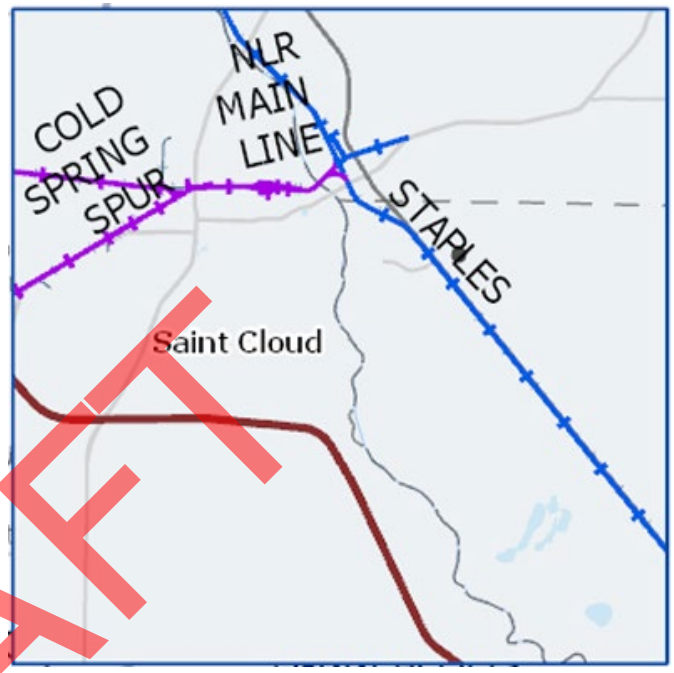


Figure 2.178: *Location of major rail lines within the Saint Cloud MPA. Data courtesy of MnDOT District 3 Freight Plan (2020).*

The only other railroad within the MPA is a smaller short-line railroad called the Northern Lines Railway (NLR).

Freight shipped by rail tends to be heavy, bulky and/or of relatively low value. Examples of goods typically shipped by rail include grain, coal, petroleum, aggregate (i.e., rocks, gravel, sand, etc.) lumber, and paper.

And finally, freight does sometimes move by airplane. Air is a relatively expensive mode for freight, so goods moved by air tend to be lighter, of higher value, and/or time sensitive. Examples of goods typically shipped by air freight include consumer electronics, fresh fish, exotic cut flowers, medical equipment, pharmaceuticals, textiles, and clothes.

Because the MPA is relatively close to the Minneapolis-St. Paul International Airport (MSP), most air cargo is trucked to or from MSP. The St. Cloud Regional Airport does not have scheduled air cargo service but does receive and ship a small amount of on-demand cargo annually.

Freight Types

Freight-dependent businesses are usually defined to include:

- Retail and Wholesale Trade.
- Manufacturing.
- Construction.
- Transportation, Warehousing, and Utilities.
- Agriculture, Forestry, Fishing, and Mining.

For central Minnesota the most common freight commodities by weight are nonmetallic minerals (which includes granite, aggregate, sand, and gravel), farm and food products, cut stone, and paper products. Top commodities by truck tonnage include cereal grains, gravel, and gasoline.

Freight Road Networks

Some roadways are part of a freight network. There are three tiers of freight networks.

Tier 1: National Highway Freight Network

The National Highway Freight Network (NHFN) is a network of major highways. In the Saint Cloud APO area, the NHFN consists of I-94 through the southwestern portion of the MPA. Truck volumes on this part of I-94 range from 4,000 to 6,500 heavy trucks per day.

Tier 2: Minnesota Principal Freight Network

The Minnesota Principal Freight Network (PFN) was identified during the development of the Minnesota Statewide Freight Plan update in 2015. The purpose of the Minnesota PFN was to identify the roads most critical to the movement of freight in Minnesota. In the MPA, this network consists of most of the major state and US highways in the area, including US 10, Minnesota Highways 15 and 23, and Stearns CSAH 75.

Tier 3: Regional Freight Network

In 2017, the APO identified major freight corridors at a regional level. These roadways basically serve as first-mile or last-mile connections between major freight generators or attractors and the other freight networks. The corridors were largely identified based on their proximity to major freight generating land uses.

Figure 2.179 on the following page also shows an estimated number of daily freight trips to or from neighborhoods based on the number and type of freight generators/receivers located there.

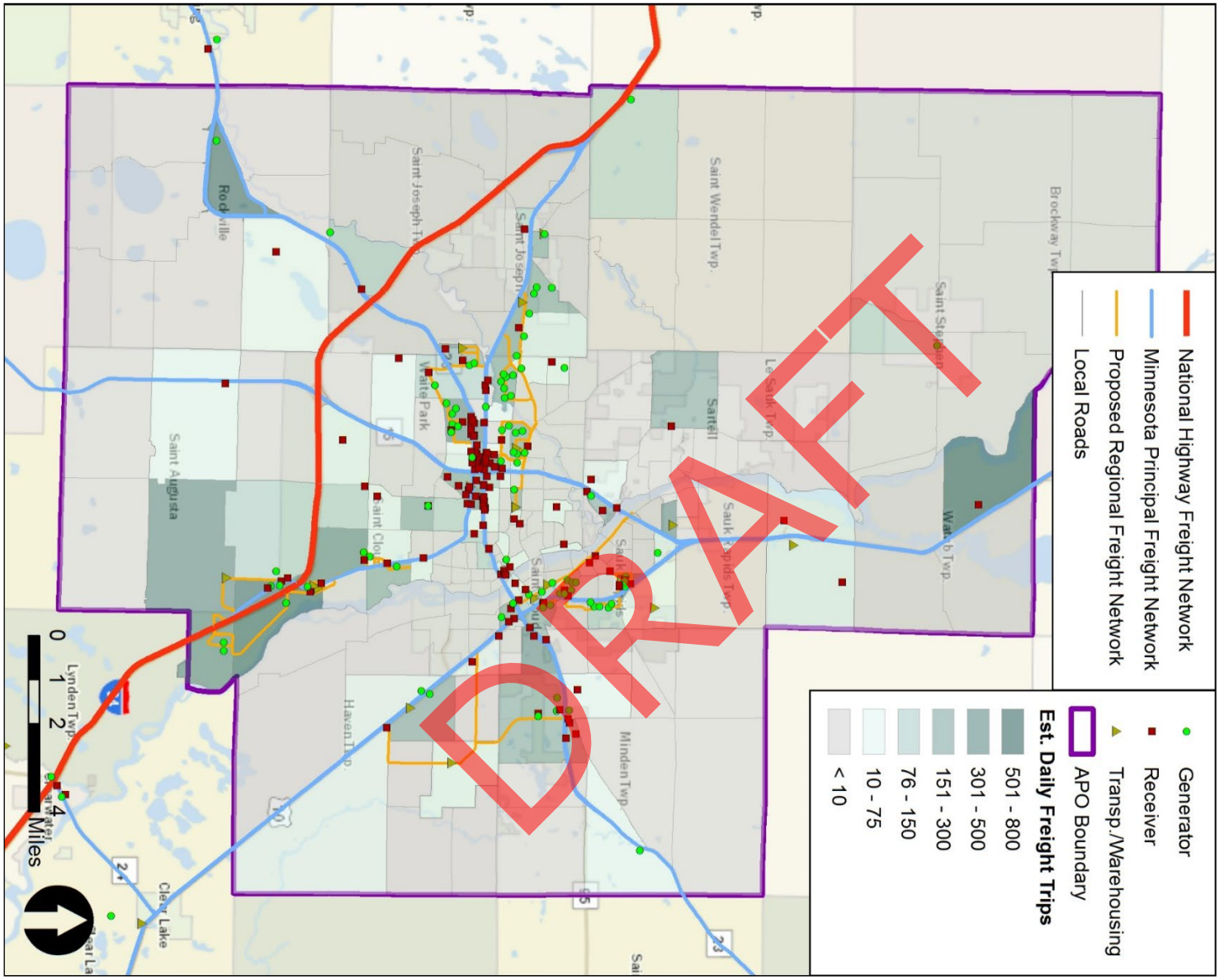


Figure 2.179: *National, state, and regional freight networks. Of note, the regional freight network was adopted by the APO's Policy Board in 2017/2018 as part of the development of the 2045 MTP.*

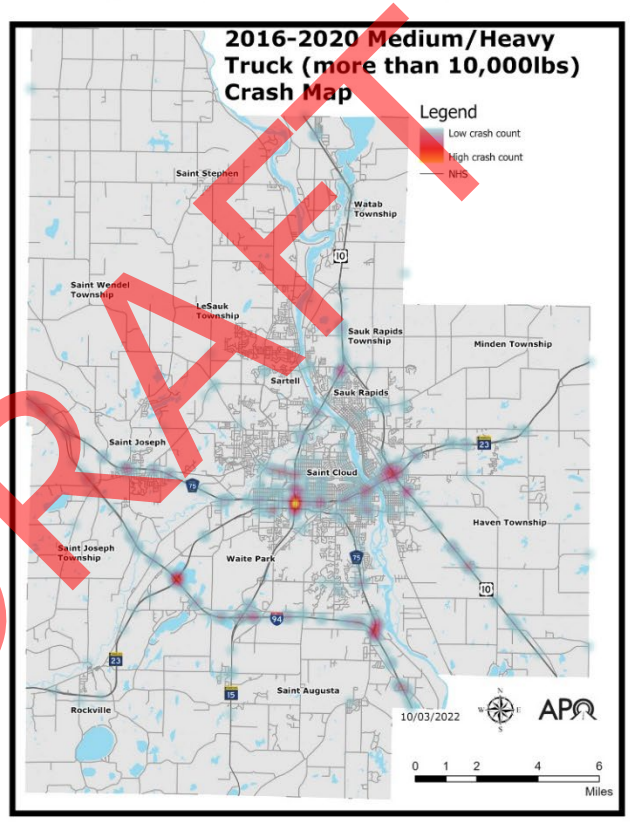
FREIGHT SAFETY IN THE MPA

Crashes involving freight trucks are not only dangerous to the safety and well-being of residents, but they also delay and add cost to the transportation of goods.

Unsurprisingly, most of the higher crash locations are on corridors that carry relatively high numbers of freight trucks every day.

Safety is also a consideration at railway crossings -- which are somewhat infrequent. Between 2014 and 2018, 25 rail crossing crashes occurred in all of MnDOT District 3. However, the heaviest concentration of those crashes occurred within the MPA.

2016-2020 Heatmap of Crash Locations for Trucks Weighing more than 10,000 lbs.



LOOKING AHEAD 2050

Figure 2.180: *Infographic on freight safety within the MPA.*

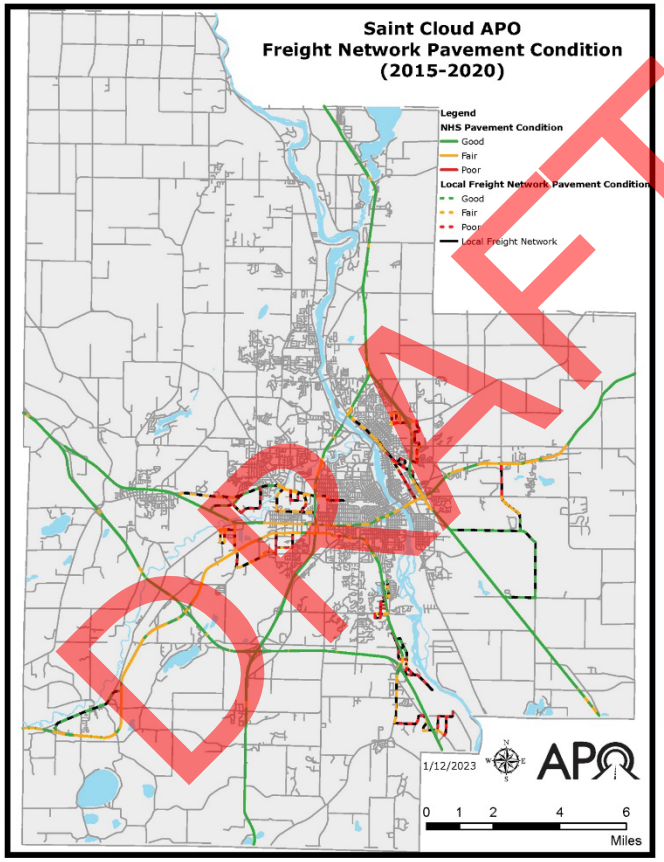
APO

FREIGHT NETWORK CONDITION

PAVEMENT

Pavement condition on the Tier 1 and Tier 2 freight networks are quite good, with less than half a percent being in poor condition. The poorest pavement conditions are on US 10 near the MN 23 interchange which is scheduled to be rebuilt starting in 2023.

Pavement quality on the Tier 3 freight network is not as good. Based on a 2019 measurement of pavement condition, about 28% of pavement is in good condition and one-third is in poor condition.



BRIDGE

About half of the bridges on the NHS (Tier 1 and Tier 2 network) are in good condition. The other half are in fair condition.

There are only two bridges on the Tier 3 freight network. One is in good condition. The other -- the CSAH 75 bridge over Johnson Creek in Saint Augusta -- is in fair condition. The Johnson Creek bridge is load posted at 32 tons for a two-axle vehicle and 40 tons for vehicles with more than two axles.

LOOKING AHEAD 2050

Figure 2.181: *Infographic on freight pavement condition in the MPA.*

APO

Transportation and Economic Development

Thus far we have discussed several important facets of the APO's transportation network.

We've addressed who lives and works within the planning area (demographics); what they are traveling on (roadways); where people are living and traveling (demographics); when people are traveling (demographics); and how people are traveling (roadways, active transportation, transit, other transportation options). We've also looked at how goods are moving throughout the region (freight). But the one major question – alluded to in the previous sections – that has not truly been addressed is why. Why do people travel and why does it matter?

While that answer is as unique as the residents living within the MPA, the overarching theme can be traced back to the basics – economics.

According to the U.S. Department of Transportation's (U.S. DOT's) Bureau of Transportation Statistics, transportation has a direct impact on the economy. "…transportation plays a vital role in the economy, as measured by [Gross Domestic Product] GDP, by making economic activity possible. For example, transportation delivers the raw materials businesses need to produce goods and services."

Locally, transportation (both the access to and the overall network) serves as a major conduit for facilitating economic growth and vitality for the MPA.

In late 2022/early 2023, APO staff met with several individuals and organizations who specialize in understanding the economic development of our region. This included:

- Greater Saint Cloud Development Corporation (GSDC).
- Benton Economic Partnership (BEP).
- Sherburne County.
- Saint Cloud Area Chamber of Commerce.
- City of Saint Cloud Economic Development Authority.
- Minnesota Department of Employment and Economic Development (DEED).

Based upon these conversations, regional economic development experts identified two key pillars relating to the relationship between transportation and the local economy: attracting businesses and attracting/retaining talent (i.e., employees).

Attracting Businesses to the Region

In recent years, warehousing and distribution companies have taken a vested interest in locating their firms in the Saint Cloud MPA. Most notably, development in the southeastern portion of the MPA – along I-94 in the industrial business park – has seen tremendous growth with major firms such as Associated Wholesale Grocers (AWG) and Amazon opening sizable facilities next to major manufacturing companies like New Flyer and Arctic Cat and logistics companies such as ATS and FedEx.

Figure 2.182: *Entrance sign to Associated Wholesale Grocers (AWG) located in the I-94 Business Park.*
Photo courtesy of Saint Cloud APO.

Key selling points for these businesses according to Saint Cloud EDA Economic Development Director Cathy Mehelich and former GSDC President Patti Gartland is the easy on/off access to a major interregional corridor – I-94. The interstate highway is the premiere corridor for economic development in the region according to local experts. Due to its limited access, high speed, and direct connection to the Twin Cities Metro, preservation of the I-94 corridor will be critical to sustain and further economic development in the region.

And with warehousing, distribution, and even industrial/manufacturing industries looking to expand their footprint in the Saint Cloud metro, Mehelich said plans are already in the works to build out the I-94 Business Park to the western side of the interstate in the hopes of attracting additional businesses.

BEP Executive Director Amanda Othoudt and Sherburne County Economic Development Coordinator Jessica Barthel – who work for counties with no direct access to I-94 – also reiterated the importance of this long-distance corridor for facilitating economic growth in the region. Both Othoudt and Barthel stated improving connectivity to I-94 from corridors such as US 10 would only bolster economic growth and attract more businesses to the region.

Attracting and Retaining Talent

Major corridors don't just serve as a means to attract businesses to the region. They serve to attract workers as well.

According to DEED Regional Analyst Luke Greiner, most of the Saint Cloud area's business growth is concentrated along the I-94 corridor heading eastward toward the Twin Cities.

For new businesses moving to the region, it is crucial to understand where their employees come from and which roadways/corridors they are more likely to use. I-94, as indicated earlier in this section, serves as a major corridor for commuter traffic. For the business community, this means easier access to the Twin Cities labor market.

"Access to the Twin Cities labor market is a major driver of (economic development)," Greiner said. "Even though the pandemic created substantial changes in population movement, it's not known if these past few years are the

start of a trend of rural communities growing while our Twin Cities metro communities slowed or lost population."

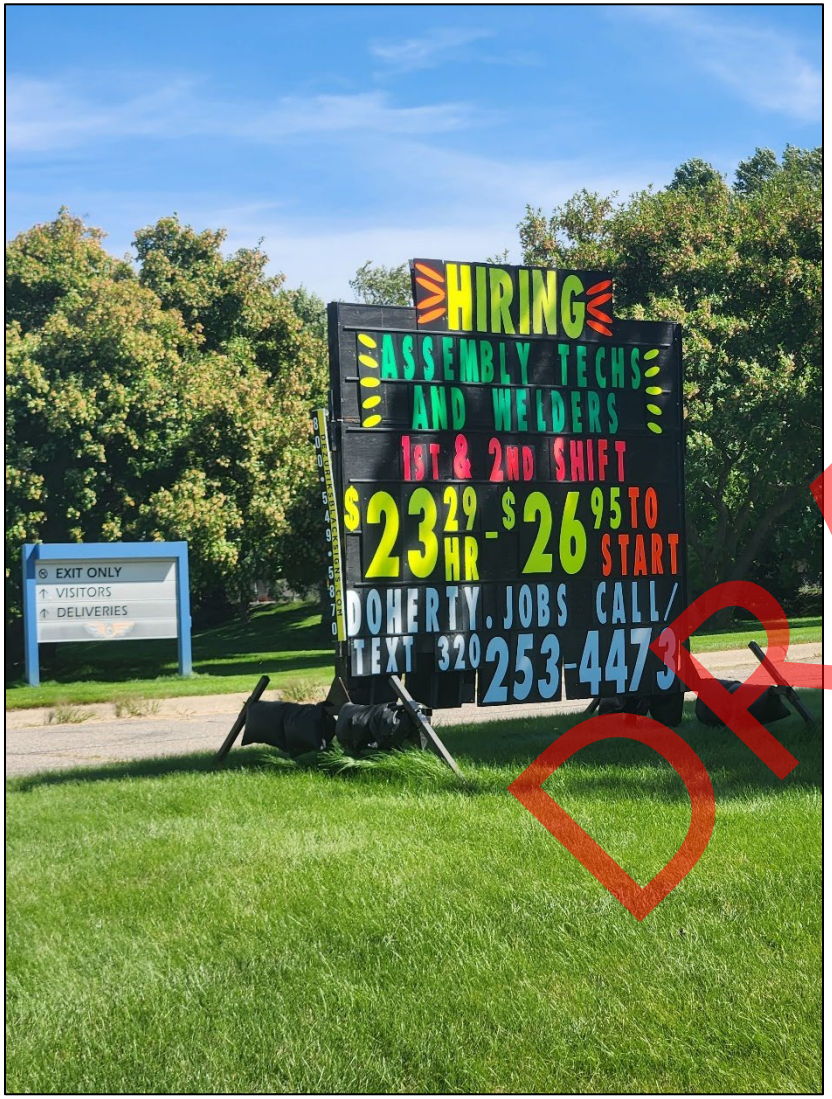


Figure 2.183: *A recruitment sign outside of New Flyer Industries. Photo courtesy of Saint Cloud APO.*

Othoudt stated other major corridors such as US 10, MN 23, and MN 25 (outside of the MPA) allow for workers from outside of the region (i.e., Foley, Zimmerman, Little Falls) easier access to jobs within the MPA.

Economic developers for the region are also mindful that even with new businesses coming and creating job openings, the current labor market is extremely tight. According to the GSDC, employers in the region face three big challenges when it comes to retaining (and even attracting) employees: housing, childcare, and transportation.

Focusing solely on transportation, access to reliable public transportation continues to plague many firms – including those growing industries of distribution and warehousing. For example, Gartland indicated that AWG's development within the I-94 Business Park had created approximately 400 new jobs – mostly low skill/entry level work. Many of the employees that would typically fill these positions would rely on public transportation. However, there is currently no regular public transportation to the business park, limiting the company's pool of potential employees.

Elsewhere in the region, similar issues due to a lack of reliable worker transportation have continued to negatively impact economic development. In Sauk Rapids, Othoudt indicated several employers along Industrial Drive are struggling with entry level employees who have no access to transportation.

Greiner also indicated that the lack or even reduction of public transportation services has also impacted more office-style businesses. For firms with employees that live quite a distance from their office (either living in the MPA and commuting to the Twin Cities or vis-versa) reliance on transportation options such as Northstar may be increasingly more difficult.

"There is no guarantee that those workers will need transportation into the Twin Cities like we have seen in the past," Greiner said. "At this point, infrequent hybrid work-from-home looks to be reasonable to expect for many workers moving forward. Yet the unpredictability of when people will work from the office means providing transit for those workers could be much more difficult and less cost effective than in the past. Not to mention potentially less desirable for workers."

Relocating employees closer to their place of business by eliminating the need for long commute times is something economic developers and the business community are also trying to address as a more long-term solution. In the short-term, access to broadband has taken center stage – allowing for greater remote work/school/business actions to take place in the region.

The Economic Impact of Travel and Tourism

In addition to attracting new businesses and industries to the region (along with their employees), local experts agree that tourism plays a huge role in the local economy.

According to the Saint Cloud Area Chamber of Commerce President Julie Lunning and Director of Marketing and Communications Emily Bertram, youth and amateur athletics bring thousands of people to the region every year. Lunning said for any given youth sporting tournament in the region, facilities across the area are used – from each of the area's high schools to community sporting complexes, to facilities at SCSU and CSB/SJU. These individuals – who are traveling from across the state and even the upper Midwest – can fill up to 1,800 local hotel rooms during a weekend event.

The MPA is also home to two convention centers – River's Edge Convention Center in downtown Saint Cloud and The Park Event Center in Waite Park – which draw in conferences and other special events. Additionally, The Ledge Amphitheater in Waite Park can host approximately 6,000 people for outdoor concerts and theater productions – for which 65% of attendees do not live in the MPA according to Chamber staff.

For many out-of-towners or those who would rely on GPS, congestion on major roadways (like MN 23 or MN 15) as well as a lack of wayfinding signage have the potential to make visiting other amenities in the region challenging. Lunning and Bertram also stated guests who visit the region for an extended period rarely choose to use the existing public transportation services and instead opt for driving or using services such as Uber or Lyft.

For Chamber staff as well as staff at Visit Greater Saint Cloud (the convention and visitors bureau), understanding the transportation needs and challenges of these infrequent visitors to the region is crucial to economic development – especially for local small businesses.

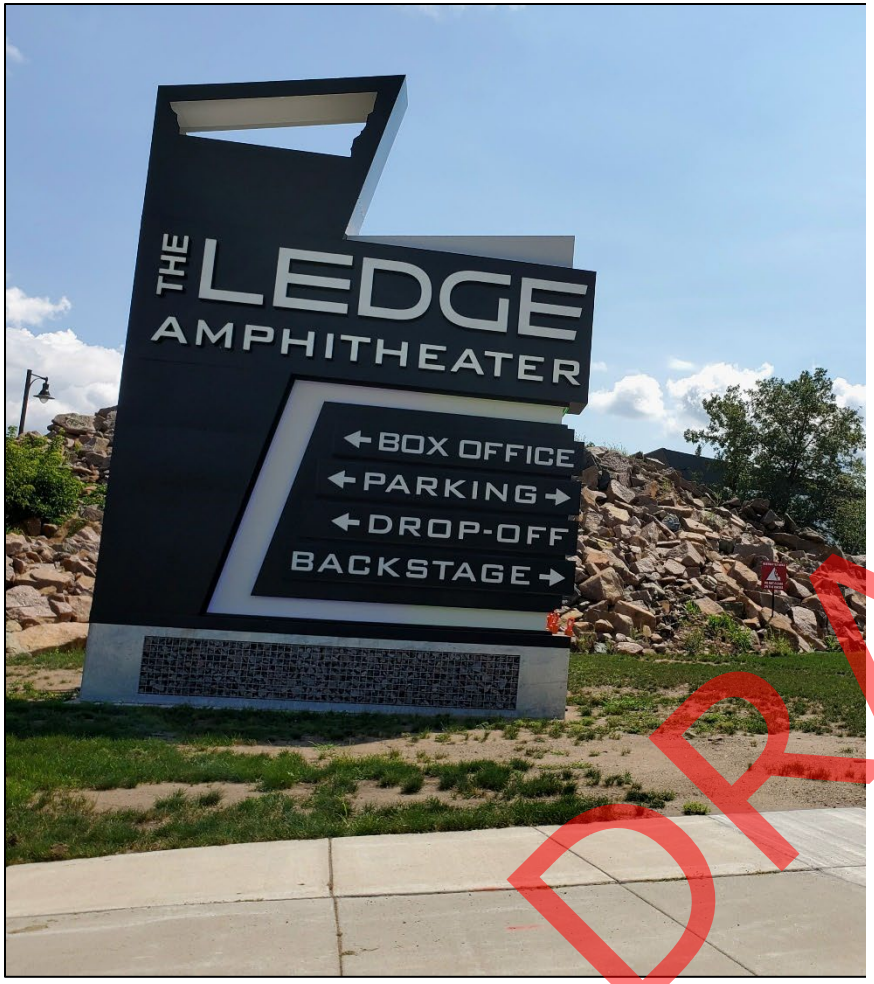


Figure 2.184: *The entrance to The Ledge Amphitheater in Waite Park. Photo courtesy of Saint Cloud APO.*

Transportation Challenges to Economic Development

As much as transportation can assist in bolstering a region's economic vitality, inefficient transportation networks can and do have the opposite effect.

In his opening remarks at the U.S. DOT's Volpe Center (https://tinyurl.com/5365af57), U.S. DOT Assistant Secretary for Research and Technology Gregory D. Winfree stated, "A community that doesn't have the infrastructure and services needed to connect businesses to supply chains; people to jobs, housing, and essential needs and do so in a way that is sustainable and equitable will struggle to adapt, to modernize, and to be resilient."

Regional economic development experts agree the issue that could hinder economic development in the MPA would be the choke points/bottlenecks in the transportation network, particularly the lack of connection between US 10 and I-94 in the southeastern portion of the MPA.

"The feedback I receive from businesses in our area on transportation mostly involves the river crossing bottlenecks to the east of Saint Cloud," Greiner said. "Workers to the north of the Mississippi River and east of Saint Cloud are less likely to cross the river to work for companies on the other side of the river. In order to open up the larger St. Cloud economy to the growing labor force to the east, choke points from the Mississippi River that make access to the west side of the river more difficult is an important consideration."

Other traffic congestion issues – primarily concentrated on the region's major freight corridors (i.e., the NHS) – were found by local experts to also be of concern. To them, strategic work done on the region's freight corridors would be beneficial to sustain and grow the economy. Additionally, embracing other forms of transportation such as air and rail (for both travel and movement of goods) were options local leaders were willing to explore in order to make the regional more economically competitive.

Concluding Remarks

Gregory D. Winfree said, "The ability to move goods and people safely and efficiently and to do so while maintaining the capacity to adapt to a changing world is the cornerstone of prosperity, social equity, and quality of life."

The existing conditions section of Looking Ahead 2050 is designed to provide a holistic snapshot of the Saint Cloud MPA to gain an understanding of where the region is now. For transportation planners and policy makers to plan for the future, we need to understand the present in terms of both strengths and weaknesses. The transportation network is not developed in a bubble. It has far reaching implications to not only those who live, work, and do business here but to how our region connects to others on a state, national, and global level. Plans and decisions made will have a domino effect. In the next section we will turn to another very important component of our existing conditions – the environment. Taken together, these two sections will ultimately assist planners and policymakers in designing and planning a future transportation network that will benefit the lives of Central Minnesota businesses and ensure continued growth and prosperity for our region.