METRO 2050

TRANSPORTATION • MOVING • AHEAD

Fargo-Moorhead Metropolitan Council of Governments

2050 Fargo-Moorhead Metropolitan Transportation Plan

Updated Draft - March 2025

Acronyms

ACS: American Community Survey
ATAC: Advanced Traffic Analysis Center
CAV: Connected and Autonomous Vehicles
CE: Categorical Exclusions
CFR: Code of Federal Regulations
CIP: Capital Improvement Program
CMP: Congestion Management Process
CPG: Consolidated Planning Grant
DTA: Dynamic Traffic Assignment
EA: Environmental Assessments
E+C: Existing-plus-committed
EIS: Environmental Impact Statements
EJ: Environmental Justice
FAST Act: Fixing America's Surface Transportation (FAST) Act
FHWA: Federal Highway Administration
FTA: Federal Transit Administration
HSIP: Highway Safety Improvement Program
LOS: Level of Service
LOTTR: Level of Travel Time Reliability
LWCF: Land and Water Conservation Fund
MaaS: Mobility-as-a-service
Metro COG: Fargo-Moorhead Metropolitan Council of Governments
MVMT: Million Vehicle Miles Traveled
MnDOT: Minnesota Department of Transportation
MPA: Metropolitan Planning Area
MPO: Metropolitan Planning Organization
MSA: Metropolitan Statistical Area
MTP: Metropolitan Transportation Plan
NDSU: North Dakota State University
NHPP: National Highway Performance Program
NHS: National Highway System
NPMRDS: National Performance Management Research Data Set
NWI: National Wetlands Inventory
O&M: Operations and Maintenance
PCI: Pavement Condition Index
PHED: peak hour excessive delay
PM: Performance Measure
NDDOT: North Dakota Department of Transportation
RTP: Recreational Trails Program
SOV: Single-Occupant Travel
SHPO: State Historic Preservation Office
STBG or STBGP: Surface Transportation Block Grant Program
STBG-TA: Surface Transportation Block Grant Program funding for transportation alternatives
STSAC: Surface Transportation Security Advisory Committee (STSAC)
TA: Transportation Alternatives Program
TAZ: Transportation analysis zone
TDM: Travel Demand Management or Travel Demand Model
TIM: Traffic Incident Management
TIP: Transportation Improvement Program
TMA: Transportation Management Area
TMC: Transportation Management Center
TNC: Transportation Network Company
TSMO: Transportation System Management and Operations
TTC: Transportation Technical Committee
TTTR: Truck Travel Time Reliability
USACE: United States Corps of Engineers
USFWS: U.S. Fish and Wildlife Service
UZA: Urbanized Area
V2I: Vehicle-to-Infrastructure
V2V: Vehicle-to-Vehicle
VHT: Vehicle Hours Traveled
VMT: Vehicle Miles Traveled

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Aerial of Main Avenue in Fargo, North Dakota

PLAN OVERVIEW

The 2050 Metropolitan Transportation Plan establishes a vision and goals that informed the development of future system recommendations between 2028 and 2050. This planning process is the result of collaboration between the Fargo-Moorhead Metropolitan Council of Governments, its member jurisdictions and the region's community members. The metropolitan transportation plan is called Metro 2050 and identifies ten transportation goals built from collaboration with community members. Performance based planning was used to explore system needs and evaluate solutions that aligned with the identified goals to build future system priorities that are constrained within anticipated transportation funding through 2050.

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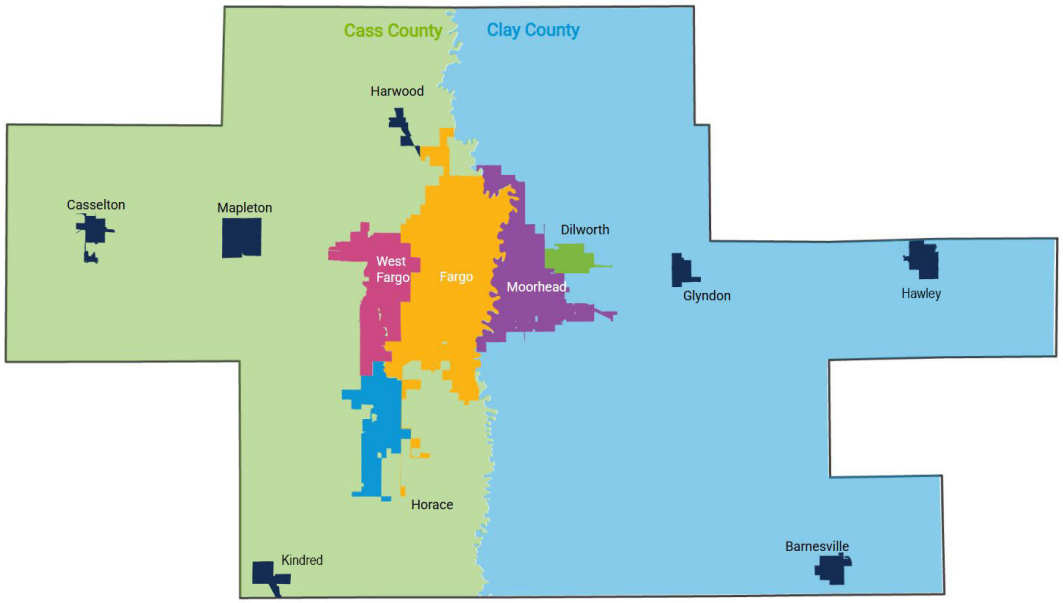
WHAT IS METRO COG?

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) is the Metropolitan Planning Organization (MPO) for the Fargo-Moorhead area (FM Area or FM Region). An MPO is a transportation policy-making organization made up of representatives from local governments and transportation authorities. The Federal Surface Transportation Assistance Act of 1973 required that urban areas with a population greater than 50,000 form an MPO. The basis of MPOs' creation is to employ a comprehensive, cooperative, and continuing planning process for transportation expenditures in a region.

Figure 1. Metro COG Planning Area



Federal funding for transportation projects and programs is channeled through this metropolitan transportation planning process.

Metro COG was formed in 1963, to create a comprehensive growth plan and traffic study for the cities of the region. Over time, the mission of Metro COG has evolved to address the transportation planning requirements of the region, in coordination with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Minnesota Department of Transportation (MnDOT), and North Dakota Department of Transportation (NDDOT).

Metro COG Boundaries

Metro 2050 frequently refers to two important geographical boundaries:

Metropolitan Planning Area (MPA) – region defined by each State (ND & MN) in collaboration with Metro COG. Includes existing urbanized area and surrounding areas expected to become urbanized in the next 20 years. Defines where metropolitan transportation activities must be carried out by Metro COG. Also referred to as the FM Area and FM Region.

Urbanized Area (UZA) – designated by the U.S. Census Bureau for densely populated core areas with surrounding settlements, containing a population of at least 50,000 people. Generally includes jurisdictional boundaries of Fargo, Moorhead, West Fargo, Dilworth, Horace, and Harwood.

Metro COG's planning area or MPA is shown in **Figure 1**. Metro COG serves a bi-state area that covers 14 townships in Cass County, North Dakota and 16 townships in Clay County, Minnesota. There are seven (7) member jurisdictions and seven (7) associate jurisdictions. Additional member agencies also include FHWA, MnDOT, and NDDOT.

Member Jurisdictions	Associate Jurisdictions:
• Cass County • Clay County • Fargo • Moorhead • West Fargo • Horace • Dilworth	• Barnesville • Casselton • Glyndon • Harwood • Hawley • Kindred • Mapleton

Aerial of the Red River Trail & Boat Launch Looking North

METRO COG COMMITTEES

Metro COG is governed by two (2) committees. **The first is the Policy Board.** The Policy Board is the executive body and decision-making arm of Metro COG, comprised of 16 voting members who represent the metropolitan planning area. The Policy Board consists of at least three-quarters elected officials, and each jurisdiction's voting power is based on its approximate share of the area's population. The current representation from each jurisdiction is:

- Fargo - 7 members
- Moorhead - 3 members
- West Fargo - 2 members
- Dilworth - 1 member
- Horace – 1 member
- Clay County - 1 member
- Cass County - 1 member

The second is the Transportation Technical Committee (TTC). The TTC advises the Policy Board on technical matters related to transportation planning in the region. TTC is made up of planning and engineering from local jurisdictions, transit agencies, and representatives from MATBUS, MnDOT and NDDOT. Metro COG also operates four subcommittees:

- Metropolitan Bicycle and Pedestrian Committee
- Traffic Operations Working Group
- GIS Committee
- Freight Advisory Committee.

Metro COG staff also participate in two other regional subcommittees:

- MATBUS Coordination Committee
- Cass Clay Food Commission

Aerial of the I-94 & 20th Street Interchange in Moorhead, MN

WHAT IS A METROPOLITAN TRANSPORTATION PLAN?

The Metropolitan Transportation Plan (MTP) is a document that MPOs are required to update every five years (or every four years if region is in non-attainment[1]). The MTP is required to have at least a 20-year planning horizon and supports the following Federal metropolitan transportation planning factors[2]:

1	Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
2	Increase the safety of the transportation system for motorized and non-motorized users
3	Increase the security of the transportation system for motorized and non-motorized users
4	Increase accessibility and mobility of people and freight
5	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
7	Promote efficient system management and operation
8	Emphasize the preservation of the existing transportation system
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
10	Enhance travel and tourism

Pedestrian Hybrid Beacon on Main Avenue in Fargo, ND

[1] Non-attainment areas are defined in the Clean Air Act as areas that do not meet national air quality standards for one or more pollutants. These pollutants include ozone, particulate matter, lead, carbon monoxide, sulfur oxides, and nitrogen oxides.

[2] 23 CFR §450.306

PERFORMANCE-BASED TRANSPORTATION PLANNING APPROACH

The MTP is a performance-based document that supports Metro COG's ongoing system performance goals and targets. Performance-based planning is the application of performance management techniques to transportation planning. FHWA defines Transportation Performance Management (TPM) as a strategic approach that uses system information to make investment and policy decisions towards national performance goals. Part of an effective performance-based planning and programming approach is monitoring, an ongoing activity conducted by Metro COG that has been integrated into this MTP. This performance-based approach evaluates how well the planning activities, programs, and projects implemented in the Metro COG region are meeting metropolitan, state, and federal performance goals. The performance-based approach applied by Metro COG in the MTP establishes a link between regional vision and Federal performance requirements, system data and evaluation, policy, and investment decisions. This top-down approach to performance-based planning provides a regional vision that reflects locally established priorities, which are consistent with Federal transportation goals, tied to performance measures and project prioritization metrics. The TPM approach allows Metro COG to continually monitor progress towards its transportation vision, and identify the actions, policies, and projects that will best promote regional performance goals. Goals, objectives, and performance measures for the MTP are provided in **Chapter 3**.

TRANSITION TO A TRANSPORTATION MANAGEMENT AREA

Population growth has been a common experience for the Fargo-Moorhead region for decades. The 2020 US Census recorded an Urbanized Area (UZA) population of 216,214 for the FM Region. Furthermore, the UZA population crossed the 200,000 population threshold, making Metro COG eligible for designation as a Transportation Management Area (TMA). TMA designation changes how federal transportation funds flow to the Fargo Moorhead region, allowing Metro COG and local jurisdictions more responsibility in prioritizing and selecting transportation projects for federal funding. Metro 2050 reflects this new responsibility and changes to financial projections associated with the TMA designation. Continued regional growth presents both challenges and opportunities for the multimodal transportation system, as the region's population is forecast to reach 357,322 residents by 2050.

With the designation as a TMA, Metro COG will:

- Maintain and utilize a Congestion Management Process (CMP) to consider mitigation of congestion.
- Receive an annual direct sub-allocation of three (3) Federal funding sources: Surface Transportation Block Grant (STBG), Transportation Alternative (TA), Carbon Reduction Program (CRP).
- MATBUS consolidation of direct-recipient status from the City of Moorhead and the City of Fargo, to solely the City

of Fargo. Thus, the City of Fargo receives FTA Urban Formula Section 5307, 5310, and 5339 funds for the TMA.

- Require additional consideration for those representing major transportation modes to be represented on the Policy Board
- In 2025, MATBUS transitioned to a consolidated, regional transit agency, with one transit representative for the Policy Board.
- Responsibility to program projects utilizing directly sub-allocated funding sources in the Transportation Improvement Program (TIP).
- Need to have the transportation planning process certified by FHWA and FTA once every four (4) years (23 CFR 450.336(b)).

Aerial of I-94 in Moorhead, MN

METRO 2050 PROCESS

The development of Metro 2050 occurred over a 14-month process, concluding in September of 2024. Activities began with an exploration of current conditions and needs in the summer of 2023 to understand the transportation conditions of today's system. Early analysis and engagement informed the development of transportation goals and objectives that guide future implementation and the final analysis process. The Spring and Summer of 2024 focused on the development and refinement of future transportation projects to inform a fiscally constrained project list.

PUBLIC AND STAKEHOLDER ENGAGEMENT

Metro COG strives to engage regional citizens in the transportation planning process and aims for a transparent and understandable engagement strategy in the organization's metropolitan planning process. The MTP was developed with Public and stakeholder engagement at its core. The goals of the engagement strategy were to include educational opportunities to build an understanding of the process and to provide a range of relevant and meaningful ways for the public to provide input on plan development. To guide the transportation planning and decision-making process, the study team sought public input to develop a community vision for the future transportation system. The public engagement program was conducted in accordance with Metro COG's Public Participation Plan (PPP) which can be seen at: www.fmmetrocog.org/resources/public-participation-plan.

To gather feedback to inform the planning process, three (3) phases of engagement were aligned with key technical milestones. Additionally, the Metro 2050 website and online communications were used throughout the planning process.

Metro 2050 Engagement Pop-Up at the 2023 Downtown Fargo Street Fair

Social Media and Email

Metro COG's existing social media feed and an email list of interested residents, which grew over the course of the plan,

were primary means of alerting the public to upcoming input opportunities and open houses. These supplemented the traditional approaches such as press releases, the public legal notice in The Forum newspaper, and posting of events on Metro COG's website.

Metro 2050 Website

The project website, fmmetrocog.org/Metro2050, was a primary source of information and updates for the community during the development of the plan. Updates to the website were made throughout the planning process to provide milestone and background information about the MTP, and ways to engage. The following elements were hosted within the website:

- Informational videos about the MTP and overall process
- Links to online surveys and engagement activities
- Summaries of public input received
- Initial deliverables for public review, including draft goals.

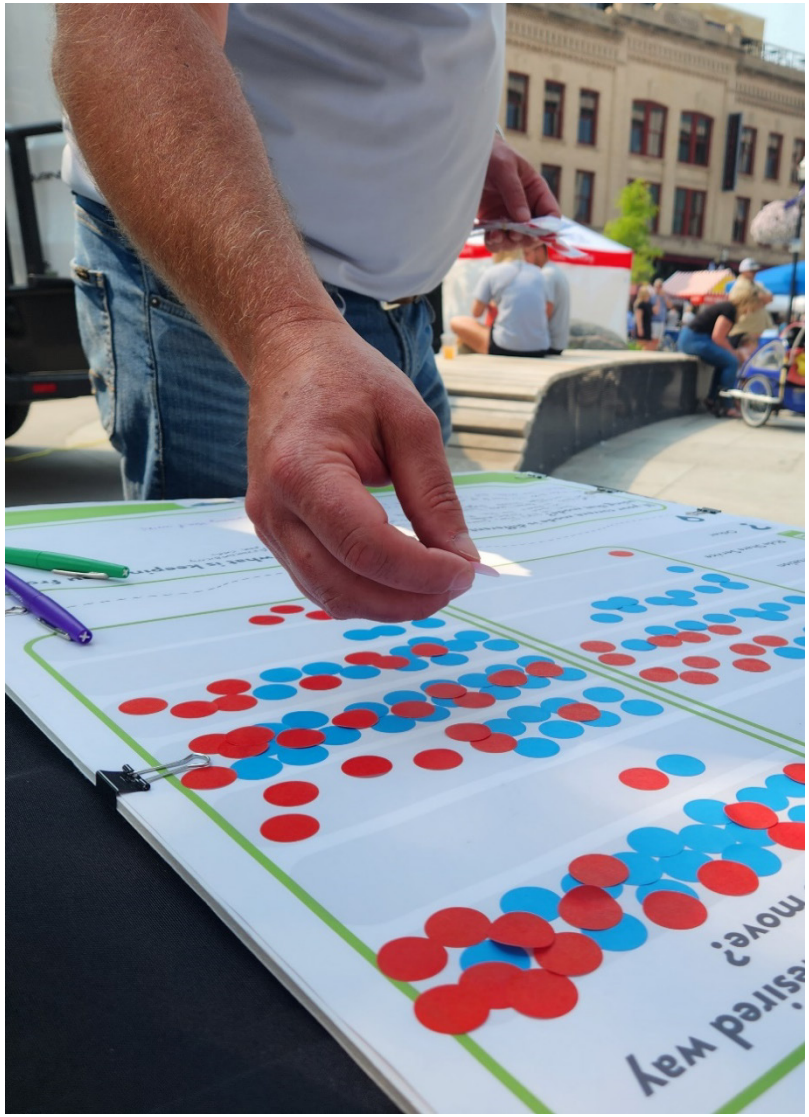
Any comments received through the project website are included in **Appendix A: Public Engagement Summary**.

Phase 1: Plan Foundation – Education & Experiences

The first phase of engagement focused on **education** of the MTP and update process, and learning about the transportation **experiences** of the regional community. This phase included education opportunities for members of the public and stakeholders to learn about the MTP, its purpose, and the overall process. Additionally, Phase 1 created an opportunity to learn about the regional community's existing and desired experience with the transportation network to inform goals and potential projects. Early engagement activities for other on-going Metro COG projects also provided key input during this phase. For example, Metro COG's Regional Comprehensive Safety Action Plan (CSAP) gathered safety-specific input during a similar timeline, the results of which was used to inform the MTP.

What was shared in Phase 1?	• What is the Metropolitan Transportation Plan? • What does it mean for me? • Why is it important?
What were the goals of Phase 1?	• What are the existing experiences with the regional network? • What are peoples' desired experiences with the regional transportation network?

Person Votes with Stickers at Metro 2050 Pop-Up Booth 2023



Phase 1 Pop-up Events

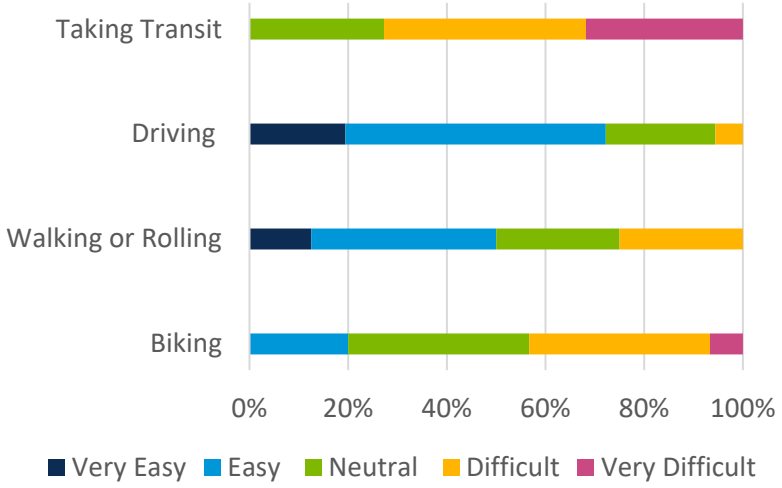
Three (3) pop-up events were held by Metro COG to learn about current transportation experiences of regional community members. This engagement looked to explore priorities for future investment. The three (3) events included:

- July 14 to 15: Fargo Downtown Street Fair
- October 14: Boo at the Zoo at the Red River Valley Zoo
- October 28: Red River Market at West Acres

The pop-ups provided information about the MTP, including the plan's purpose, alignment to future implementation, and broader Metro COG functions. The following activities were used to gather feedback that informed the goals of the plan:

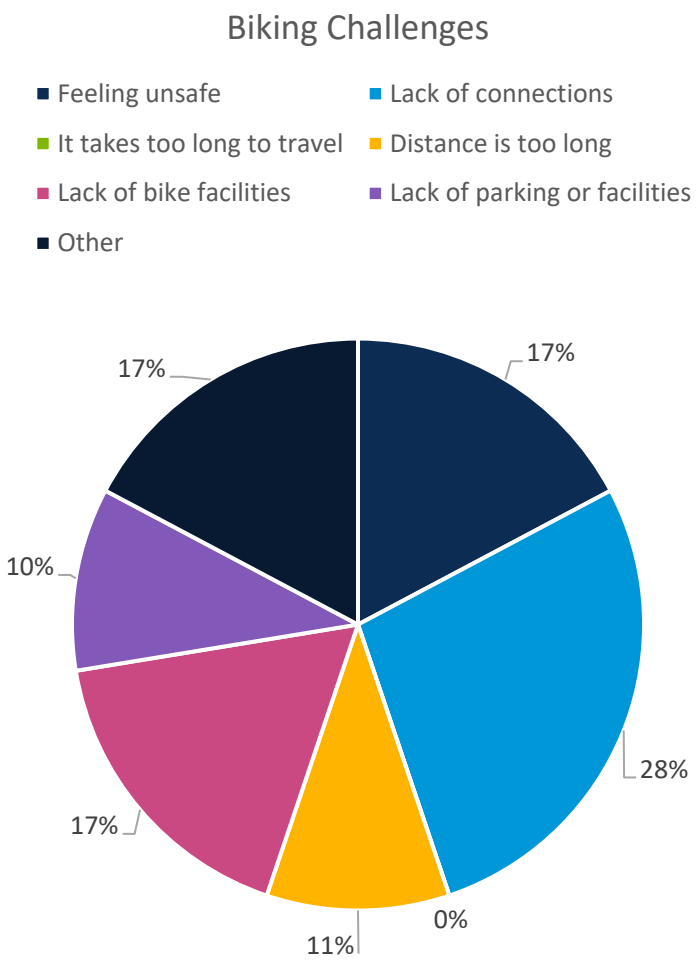
Tell us about your transportation experience:

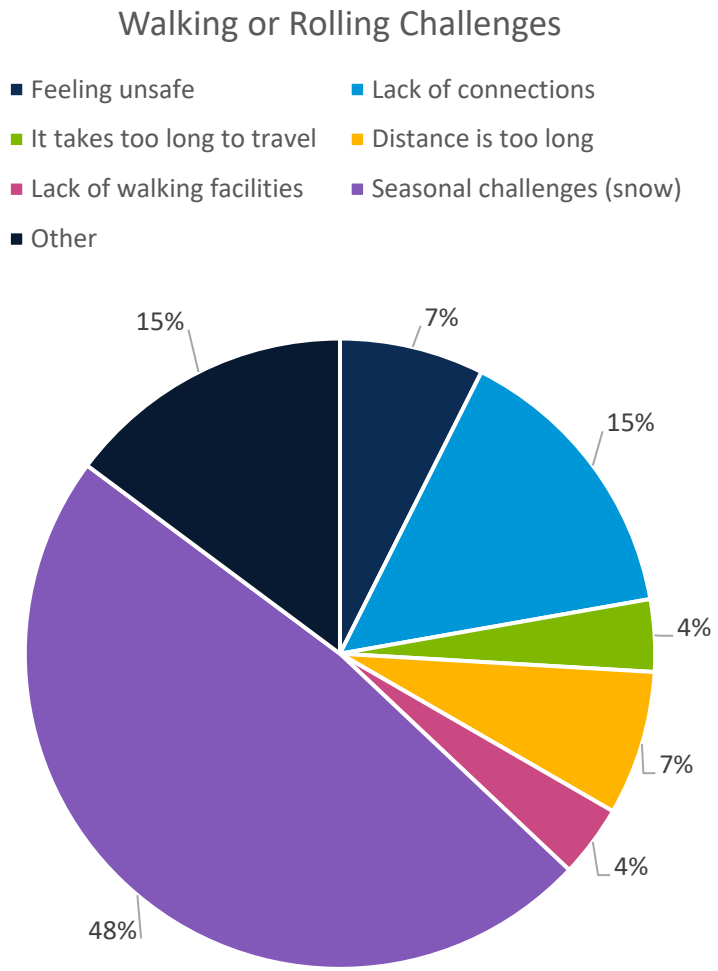
Participants were asked to identify their overall experience traveling by various modes from very east to very difficult.



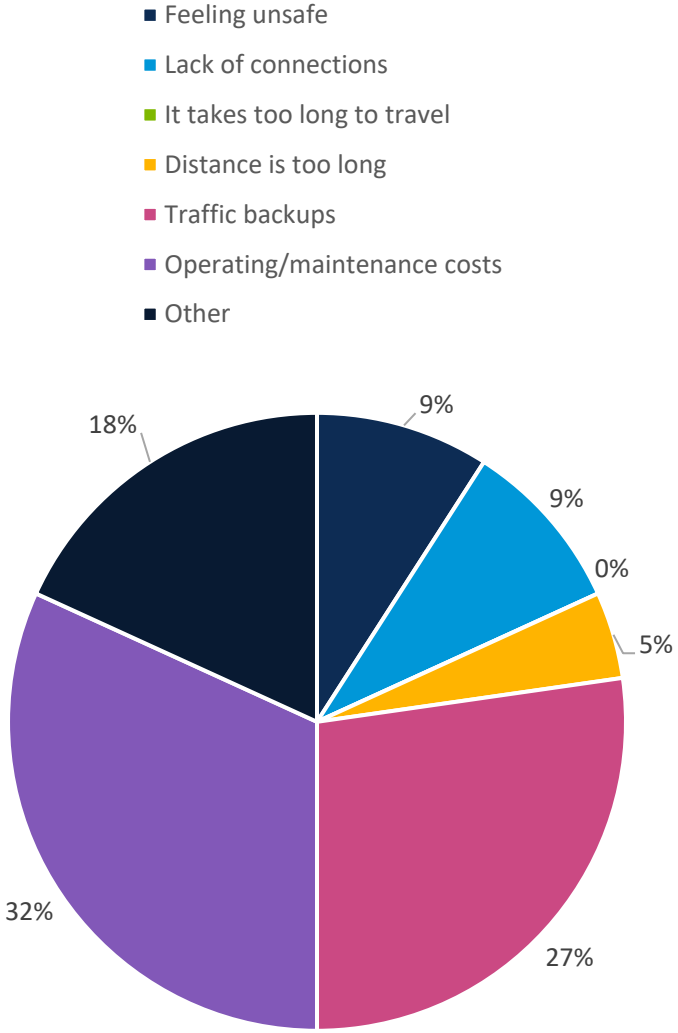
Share the challenges you experience moving by different modes:

Respondents were asked to identify the challenges they experience while walking, biking, driving, and taking transit.

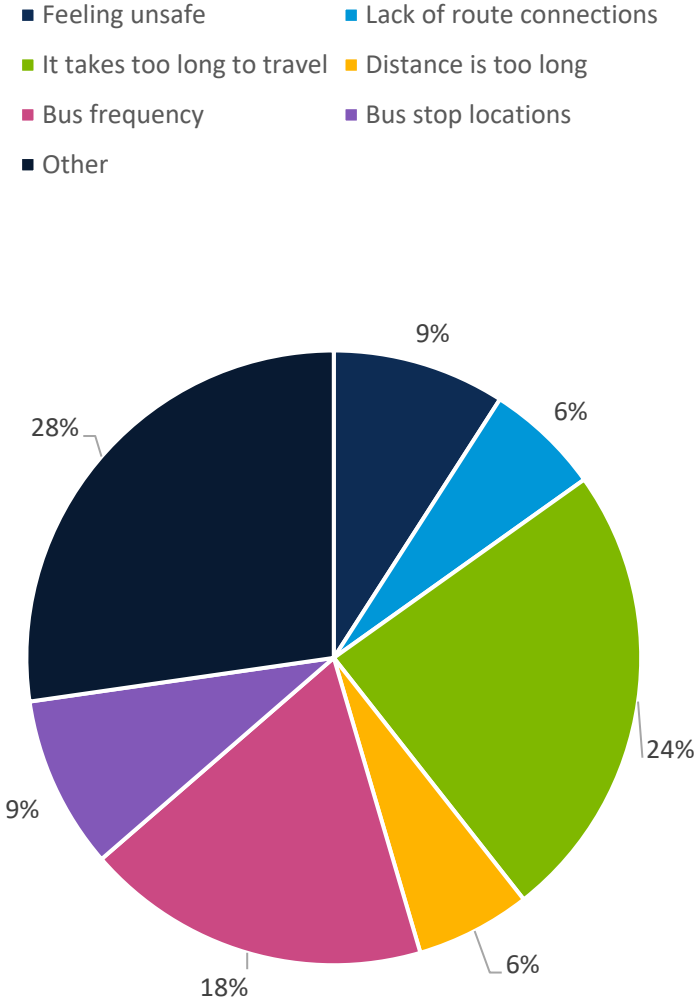




Driving Challenges

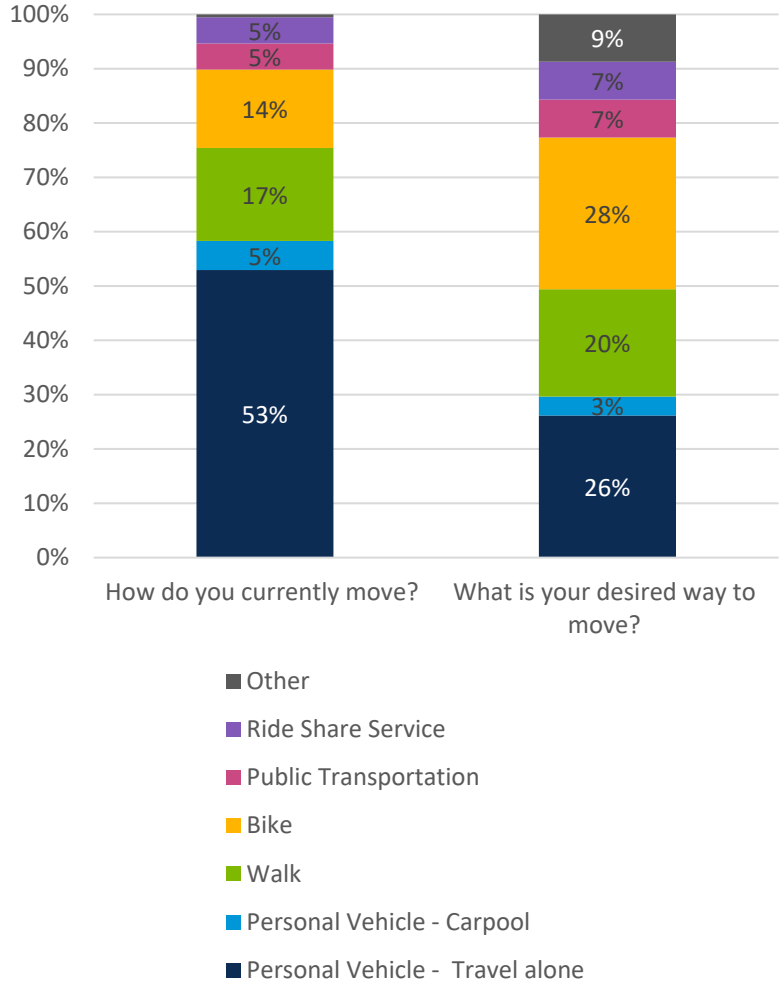


Transit Challenges



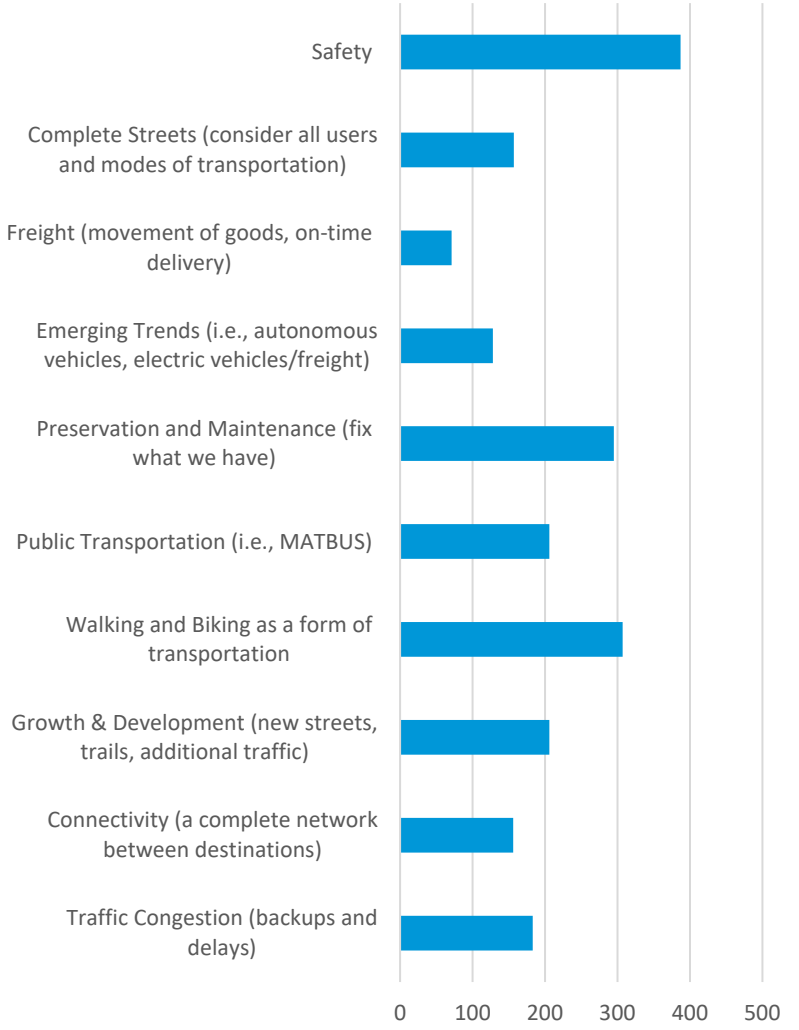
Share how you move or want to move:

Respondents were asked how they move most of the time and what mode they'd rather use. Those wanting to shift modes shared detailed feedback about what keeps them from moving by that mode.



What transportation challenges are most important to you:

Respondents were asked to prioritize the challenges they experience within the Fargo-Moorhead Region.



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Phase 1 Online Engagement

A survey was developed for the first phase of engagement with the goal of gathering similar information to the in-person events. The survey was open from October 23rd through December 11th, 2023. The feedback gathered in the survey was similar to the in-person outcomes. More details can be found in **Appendix A**.

Phase 2: Plan Analysis – Test Ideas

The second phase of engagement provided an opportunity to share what the project team had learned in phase 1 and test ideas with the regional community. Through this phase, key outcomes of the existing conditions analysis and future conditions exploration were shared, along with the identified regional transportation goals. This phase also provided the opportunity to test future projects and actions with the regional community to learn about priorities.

What was shared in Phase 2?	• What are the opportunities and issues from existing conditions analysis and future conditions? • Regional transportation goals and objectives • Project pipeline framework and initial projects
What were the goals of Phase 2?	• What is the community's perception of the goals and implementation concepts? • What are the investment priorities?

Person Votes with Stickers at Metro 2050 Pop-Up Booth 2024

Phase 2 Pop-up Events & Open House

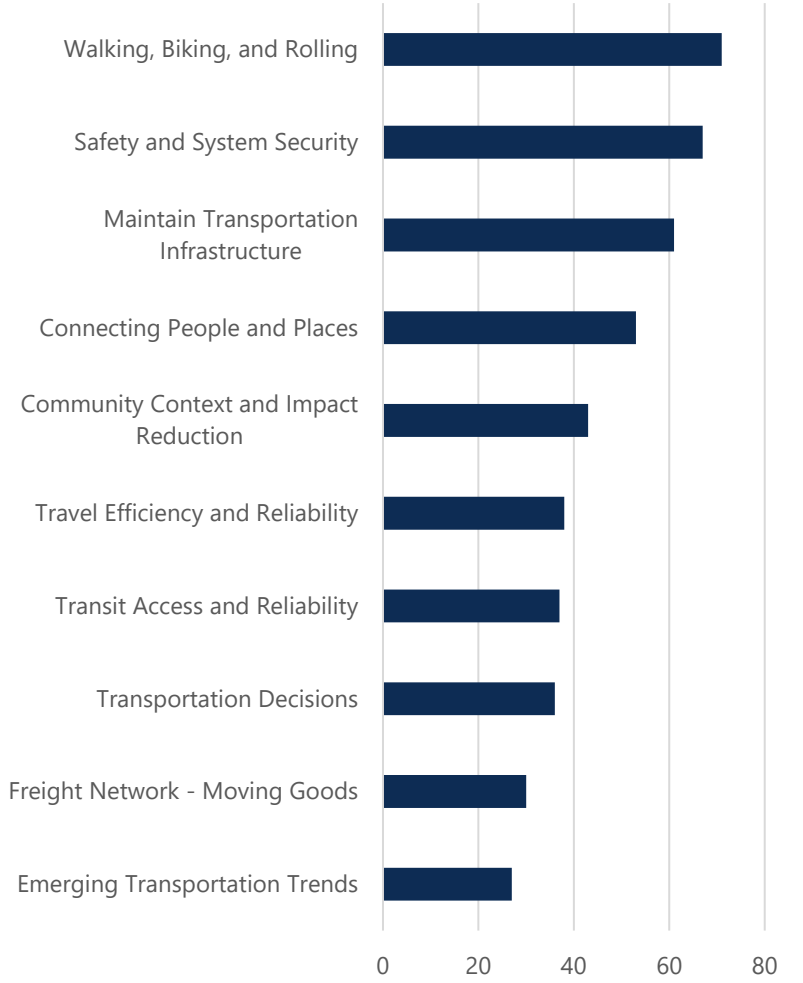
Metro COG's Metropolitan Transportation Plan (MTP) team staffed two (2) pop-up events in the Summer of 2024. The first was a pop-up at the West Fargo Cruise Night on June 20th, 2024, and the second pop-up took place at the Downtown Fargo Street Fair from July 18-20th, 2024. An Open House was also held on July 24th, 2024, at Brewhalla in Fargo.

Phase 2 events provided the public with updates on the MTP process, including a presentation of the goals and priorities. Attendees were invited to participate in two (2) activities to confirm their priorities and their desired use of transportation spending.

Children Learn More about the MTP at West Fargo Cruise Night 2024

What are your transportation priorities:

Respondents were asked to identify their top transportation goals and priorities for future investment. This activity used the ten (10) established goals to understand priorities.



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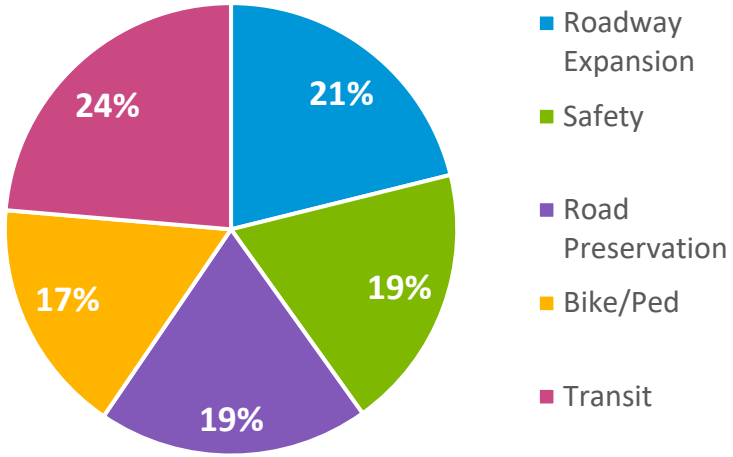
How would you prioritize your transportation funding:

In this activity, people were asked to draw their own pie chart to reflect how transportation funding should be spent across the following project types:

- Roadway Expansion or Extension Projects
- Safety Improvement Projects
- Roadway Preservation
- Biked & Pedestrian Projects
- Transit System Improvements

Put another way, we asked each community member who participated in this activity, "How would you allocate the transportation budget if you were mayor for the day?" To give an example, there was a display board presenting the 2024 funding targets for these project types, accounting for almost $58 million in federal revenue.



Phase 2 Focus Groups

Focus groups were gathered during phase 2 of engagement to facilitate conversations about modal and geographic (locations) priorities within the region. Two (2) multimodal transportation focus groups were scheduled from 2:30 p.m. – 4:00 p.m. on July 23rd, 2024, and 10:00 a.m. – 11:30 a.m. on July 24th, 2024. Two (2) core neighborhoods focus groups were scheduled from 4:30 – 6:00 p.m. on July 23rd, 2024, and from 8:00 a.m. – 9:30 a.m. on July 24th, 2024.

Phase 2 Online Engagement

A survey was available during the second phase of engagement with similar goals to the in-person events. The project team developed 13 questions related to transportation experiences and investment priorities and six (6) optional demographic questions. Question 12 of the survey and a budget activity replicated the in-person activities at the phase 2 pop-up events.

Phase 3: Evaluate Candidate Projects and Implementation – Explore Solutions

The third phase of engagement engaged the community with the evaluation process by **exploring solutions** for the regional transportation system. Phase 3 provided an opportunity to share the MTP's planning process to-date, and how input informed outcomes. Refined goals and outcomes were shared to connect the regional community with how the draft alternatives support the region's transportation needs. Activities were focused on sharing concepts with the community and gathering input and reactions.

What will be shared in Phase 3?	• Finalized goals and objectives • Refined documentation • Initial concepts
What do we want to learn in Phase 3?	• Confirm priorities and concepts • What did we miss

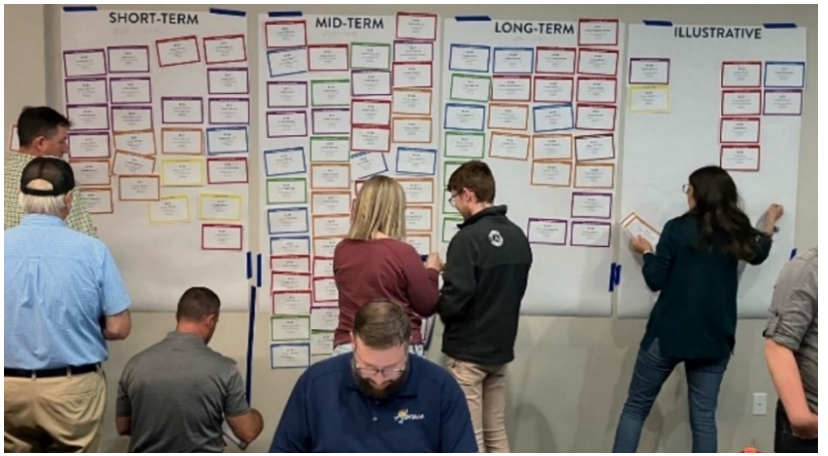
CONSULTATION WITH AGENCIES

Federal guidelines encourage ongoing consultation with applicable agencies for major planning activities, such as the MTP. Engagement occurred with agencies throughout all phases of Metro 2050, with active collaboration over the summer months of 2024 as the project list was developed and refined. A combination of in-person and online collaboration sessions were used to review information and discuss outcomes. Consultation included the following agencies:

- City of Fargo
- City of Moorhead
- City of West Fargo
- City of Dilworth
- City of Horace
- North Dakota Department of Transportation (NDDOT)
- Minnesota Department of Transportation (MnDOT)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)

Additionally, consultation of State and local transportation and policy plans were reviewed for incorporation into the MTP development process. For example, this included the review of the Fargo Transportation Plan to understand local resources and transportation priorities, and Transportation Connection, NDDOT's statewide transportation plan and MnDOT's Statewide Multimodal Transportation Plan to consider statewide priorities and programmed State projects.

Metro 2050 Study Review Committee Meeting in June 2024



Fargo-Moorhead Region & Transportation in 2024

A review of the existing conditions within the region, including both demographic changes and transportation needs, is a critical initial step of the planning process. Current or existing conditions focuses on exploring how various elements of the multimodal transportation system currently operate and assesses Metro COG's performance measurement requirements.

REGIONAL POPULATION TRENDS

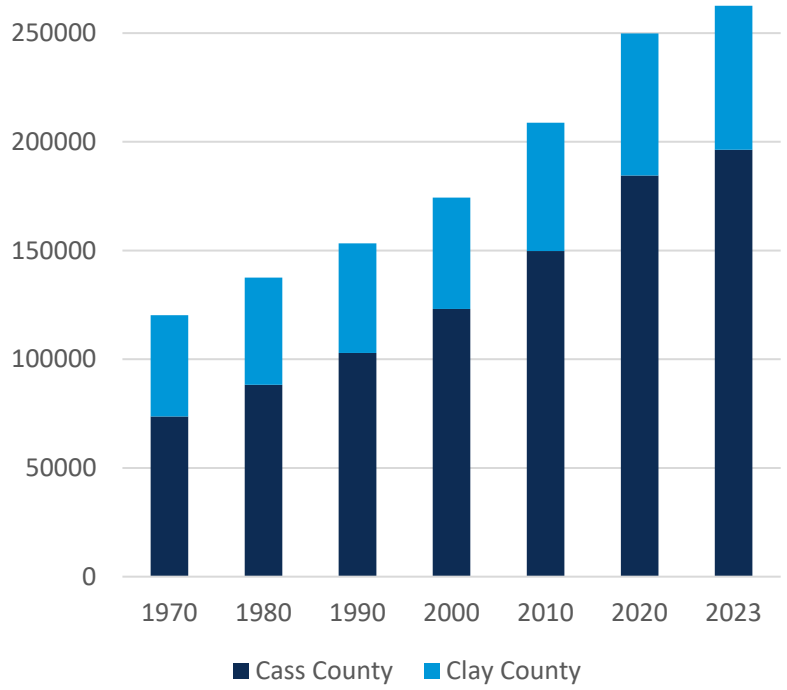
POPULATION TRENDS

The total population of the Fargo-Moorhead Metropolitan Statistical Area (MSA) was recorded at 249,843 in the 2020 Census, representing a nearly 20 percent increase from the 2010 Census. Continued growth in the region is represented in the 2022 American Community Survey estimate of 258,663 residents, representing a nearly four percent (4%) increase in two (2) years.

All jurisdictions within the MPA are estimated to experience growth over the same period, with higher growth rates calculated for North Dakota jurisdictions. The City of Horace saw the largest growth rate (82.9%) from 2020 to 2023 with a current estimate of 5,643 residents. Fargo, West Fargo, and Dilworth are estimated to have grown between three (3%) and six (6%) percent. Moorhead's growth rate has slowed to 0.8 percent (0.8%) over the three (3) years.

Both Cass and Clay Counites (also known as MSA) have experienced growth over the last 50 years. However, on average, Cass County has experienced an annual growth rate that is two (2) times the growth rate for Clay County.

Figure 2. County Population, 1970 to 2023



Source: US Census, 1970-2020, American Community Survey, 2023

CURRENT DEMOGRAPHICS

A few highlights of current regional demographics include:

33.3 **Median age**

13.4% **People over the age of 65**

22.4% **People under the age of 18**

87.4% **People identify as white non-Hispanic**

Source: US Census, American Community Survey, 2022

INCOME AND EMPLOYMENT

The FM Region is a center for employment activities throughout the Midwest. From July 2023 to July 2024, education and health services experienced the largest increase in employment, while financial activities and professional and business services experienced a decline. Unemployment rates for the region are well below the national average with a 2.3 percent (2.3%) unemployment rate in the FM Region in July of 2024 according to the Bureau of Labor Statistics.

Income levels for the region grew between nine (9%) and 16 (16'%) percent between 2018 and 2023:

Table 1. Median and Per Capita Income

Income	2018 Value	2023 Value	Growth Rate
Median Household* Income	$90,720	$99,180	9.3%
Median Family** Income	$119,386	$133,971	12.2%
Per Capita Personal Income	$36,926	$43,126	16.8%

**Household as defined by the ACS includes all people occupying a housing unit*

***Family as defined by the ACS includes the family householder and all other people in the housing unit who are related by birth, marriage, or adoption.*

Source: US Census, American Community Survey, 2023, 2018

HOUSING

The region has experienced a housing growth rate of seven percent (7%) from 2018 (110,709 units) to 2023 (118,743 units). This five (5) year growth rate is half of the growth rate from the five (5) prior years (2013-2018), which saw an increase of 14 percent (14%), according to the U.S. Census Bureau.

The median value of owner-occupied units was $287,200 in 2023, representing a 30 percent (30%) increase from 2018. Monthly rent increased by 19 percent (19%) over the same five years from $831 in 2018 to $989 in 2023.

In 2023, the American Community Survey (ACS) estimated that 55.1 percent (55.1%) of household units in the region were owner-occupied with an average household size of 2.60 people per unit. Renter-occupied units comprise 44.9 percent (44.9%) of the units with an average household size of 1.86 people per unit.

Nearly half of all households within the region have access to two (2) or more vehicles in 2023. The ACS estimates 2.5 percent (2.5%) of households do not have access to a vehicle.

Table 2. Vehicle Access

Vehicle Access	2018 Percent	2023 Percent	Growth Rate
No vehicle available	2.4	2.5	4%
1 vehicle available	18.5	22.6	22%
2 vehicles available	49.6	46.1	-7%
3+ vehicles available	29.5	28.8	-2%

Source: US Census, American Community Survey, 2018, 2023

JOURNEY-TO-WORK

The mean travel time to work throughout the region was nearly 18 minutes in 2023, with 72 percent (72%) of commuters traveling less than 20 minutes each day, see **Table 3**. The average commute time has been maintained over the last five (5) years and is nearly 10 minutes shorter than the national average of 26.8 minutes. The region's commute time is similar to the average of North Dakota at 18 minutes, and lower than the average of Minnesota at 23 minutes.

Table 3. Travel Time to Work

	2018 Percent	2023 Percent	2018 to 2023 Percent Change
Less than 10 minutes	17.2%	18.4%	7.0%
10 to 14 minutes	25.5%	24.4%	-4.3%
15 to 19 minutes	26.5%	29.9%	12.8%
20 to 24 minutes	11.8%	12%	1.7%
25 to 29 minutes	4.9%	3.8%	-22.4%
30 to 34 minutes	7.1%	4.4%	-38.0%
35 to 44 minutes	2.2%	1.6%	-27.3%
45 to 59 minutes	2.2%	2.4%	9.1%
60 or more minutes	2.6%	3.1%	19.2%

Source: US Census, American Community Survey, 2018, 2023

The mode of transportation used to travel to work experienced small shifts between 2018 and 2023. While most workers in the region continue to drive to work alone, the number of people walking to work has increased. Of the nearly 125,000 employees who drive to work, only 6.8 percent (6.8%) carpooled in 2023. Of all the commuting trips in the region, 69.9 percent (69.9%) are less than 10 miles in length. Shorter trip distances provide opportunities for modal shift to walking or biking due to the trip length.

According to the same statistics from ACS, based on a sample from 2018 to 2023, walking is the region's second most popular mode of transportation at nearly four percent (4%) of all trips to work. Less than a half percent (<0.5%) of workers are using public transportation to commute.

Table 4. Means of Transportation to Work

Mode	2023 Estimate	2023 Percent
Car, truck or van – drove alone	114,324	78.3%
Worked from home	14,929	10.2%
Car, truck or van – carpooled	8,468	5.8%
Walked	5,712	3.9%
Taxicab, motorcycle or bicycle	2,165	1.5%
Public transportation (excluding taxicab)	450	0.3%

Source: US Census, American Community Survey, 2023

Commuting Patterns

The FM Area is a regional center, attracting employees from a broader area for work on a daily basis. The MPA retains 88 percent (88%) of its working residents in the region each day for work, with 12 percent (12%) traveling outside of the MPA for work, see **Table 5**. Nearly 70 percent (70%) of the MPA's employees travel 10 miles or less for work.

Table 5. Commuting Patterns

Commuting Pattern	Count	Share
Employed and Living in the MPA	88,210	--
Employed in the MPA but living outside	26,270	24.4%
Living in the MPA but employed outside	11,956	11.9%
Less than 10-mile commute	79,472	69.4%
10-to-24-mile commute	7,519	6.6%
25-to-50-mile commute	5,795	5.1%
Over 50-mile commute	21,694	19.0%

Source: US Census, On The Map, 2021

Aerial of Sheyenne Street over the Sheyenne River in West Fargo, ND

TITLE VI PROGRAM

Title VI of the Civil Rights Act of 1964 protects people from discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance. Metro COG's *Title VI Non-Discrimination and Limited English Proficiency Plan* was

approved by the Policy Board in 2023. Metro COG is committed to compliance with Title VI of the Civil Rights Act of 1964, 49 CFR, part 2, the Civil Rights Restoration Act of 1987, and all related regulations and directives.

As outlined in the *Title VI Non-Discrimination and Limited English Proficiency Plan,* Metro *COG's* commitment to the Title VI program assures that no person or groups(s) of persons shall, on the grounds of race, color, national origin, sex, age, disability/handicap, and income status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by the Agency, regardless of whether those programs and activities are federally funded or not. Metro COG also assures that every effort will be made to prevent discrimination through the impacts of its programs, policies, and activities on minority and low-income populations.

ENVIRONMENTAL JUSTICE[1] POPULATIONS

As part of the Title VI program, Metro COG tracks data that indicates the spatial distribution of Environmental Justice (EJ) populations in the metropolitan area. Environmental Justice is an approach to identifying and addressing potential disproportionately high and adverse effects of transportation programs, policies, and activities on minority populations and low-income populations. The goal of (EJ) is to achieve an equitable distribution of benefits and burdens.

Environmental Justice Assessment

Projects were evaluated in relationship to Metro COG's identified environmental justice populations within the MPA. The projects included in Metro 2050, are developed with planning-level scopes, and the full potential benefits and impacts of the included transportation projects are not fully known. However, from a project perspective, there are two (2) different ways to consider the potential effects of regional transportation investment decisions on EJ populations in the MPA:

- *Benefits*: Transportation projects provide enhanced access and mobility to system users. This analysis looked at whether Metro 2050's identified

Federal Policy Change

With the new Federal Executive Administration Change on January 20, 2025, Environmental Justice (EJ) related Executive Orders have been rescinded. One of the now rescinded Executive Orders, EO 12898, signed by President Clinton in 1994, guided Metro COG policy to identify EJ populations and to consider potential transportation system impacts to said populations in the FM Region. Metro 2050 references to EJ have not been completely removed from this document, because Metro COG followed the Federal policy in place through most of the MTP's development. However, Metro COG has limited reference to EJ as feasible in other areas of the plan, to align with the latest Federal policy and guidance.

[1] See callout box. The White House. (2025). *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*. January 21, 2025.

projects were directly accessible to EJ populations. For example, projects including bicycle and pedestrian accessibility and/or mobility improvements, and/or transit accessibility and mobility improvements may be considered a benefit to EJ areas as these populations are more susceptible to modal shift caused by socio-economic circumstances.

- *Impacts*: Some transportation projects can cause environmental and social impacts to adjacent populations. This analysis identified the project types that have the most potential to have impacts and see if these project types are disproportionately placed adjacent to EJ populations. For example, projects including expansion or major reconstruction activities may require right-of-way (ROW) acquisition, which may be considered an impact to EJ areas as ROW acquisition can sometimes include long-term impacts, relocation, and/or short- or long-term accessibility and mobility changes.

PERFORMANCE-BASED PLANNING

Metro COG's 2045 Metropolitan Transportation Plan (MTP), *Metro Grow,* employed a performance-based framework identifying key multimodal transportation issues and prioritized decisions that align with Federal and regional transportation goals.

Metro 2050 carries forward this approach in analyzing Metro COG's multimodal transportation system's baseline performance. While *Metro Grow* was informed through performance measurement guidance enacted in Fixing America's Transportation Surface Transportation (FAST) Act of 2015,the recent Bipartisan Infrastructure Law (BIL), signed into law as the Infrastructure Investment and Jobs Act (IIJA) in 2021, carried forward performance measure requirements established in the FAST Act. As such, Metro 2050 follows Federal guidelines established for reporting multimodal transportation performance on the region's Interstate and non-Interstate National Highway System (NHS).

PERFORMANCE MEASURE TARGETS

Metro COG's MPA, also known as the FM Region, is located in both North Dakota and Minnesota, which requires coordination with both the North Dakota Department of Transportation (NDDOT) and the Minnesota Department of Transportation (MnDOT) when developing performance measure targets. Federal regulations allow Metro COG to establish targets through one (1) of three (3) approaches:

1. Agree to plan and program projects that contribute to progress made towards each State's target for that performance measure; or
2. Commit to a quantifiable target specific to the Metropolitan Planning Area (MPA) for that performance measure; or
3. A combination of 1 and 2.

Performance measure (PM) targets established by Metro COG for the period 2021 through 2024 are shown in **Table 6**, **Table 7**, and **Table 8**. Historically, Metro COG has established targets using approach one (1) identified above – contributing to progress toward each State's target. The targets highlighted in the following pages were established using this methodology. Due to the bi-state nature of the MPA, signed agreements with both NDDOT and MnDOT are required when setting each PM.

As applicable, the Metro COG baseline data for each PM from 2021 to 2024 period is summarized throughout this chapter and detailed in **Appendix B**. Additionally, the most relevant data for each target area are highlighted in the following tables.

Table 6. Annual Safety PM 1 Targets for Metro COG

Target	Baseline[2]		2021		2022		2023		Recent Metric (2022)
	MN	ND	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	Fargo-Moorhead Region
Number of Fatalities	397.0	104.4	352.4	102	352.4	96.4	352.4	99.2	12
Rate of Fatalities (per 100M VMT)	0.695	1.102	0.582	1.103	0.582	1.094	0.582	1.080	0.507
Number of Serious Injuries	1664.0	405.2	1579.8	382.1	1463.4	359.7	1,463.4	397.1	62
Rate of Serious Injuries (per 100M VMT)	2.908	4.335	2.606	4.046	2.470	4.089	2.470	4.201	2.619
Number of Non-Motorized Fatalities & Non-Motorized Serious Injuries	280.8	34.2	281.2	30.4	258.4	29.8	258.4	33.5	11

Source: Federal Highway Administration, *State Performance Dashboards*

Historically, Metro COG has met safety (PM 1) targets, which have been consistently set for each side of the MPA, to reflect both North Dakota and Minnesota targets. **Figure 3** and **Figure 4** show the five-year rolling average for number of fatalities, number of serious injuries, and number of non-motorized fatalities and serious injuries. For each category described, the proportion to population of each state's side of the MPA is calculated. Proportionality targets are set based on the proportion of each side of the MPA's population to each respective state's total population (e.g. MN MPA pop. as proportion of MN statewide pop.). If the proportion or percentage of fatalities, serious injuries, and non-motorized fatalities and serious injuries is less than the state proportion target, Metro COG met the target. For **Figure 5**, if the Metro COG rate is lower than the state rate, the target is considered met. As shown in **Figure 3, Figure 4,** and **Figure 5**, the North Dakota side and the Minnesota side of the MPA have met PM 1 targets for:

- 2018 (2013-2017 performance)
- 2019 (2014-2018 performance)
- 2020 (2015-2019 performance)
- 2021 (2016-2020 performance)
- 2022 (2017-2021 performance)
- 2023 (2018-2022 performance)
- 2024 (2019-2023 performance)

On the Minnesota side of the MPA, as shown in **Figure 5**, the Minnesota side of the MPA did not meet the fatality rate target for:

- 2024 (2019-2023 performance)

Although Metro COG has met PM 1 targets set for the MPA, long-term trends show an increase in fatal crashes, non-motorized severe (fatal and serious) crashes, and fatality rate. Serious injury crashes and serious injury rate have trended upward for the ND side and downward for the MN side of the MPA.

Multimodal safety continues to be a core tenant of Metro COG's metropolitan transportation planning program, and the organization will continue monitoring performance and trends on an annual basis.

[2] Baseline performance is derived from 5-year rolling average (2017-2021)

Figure 3. ND MPA PM 1 Safety

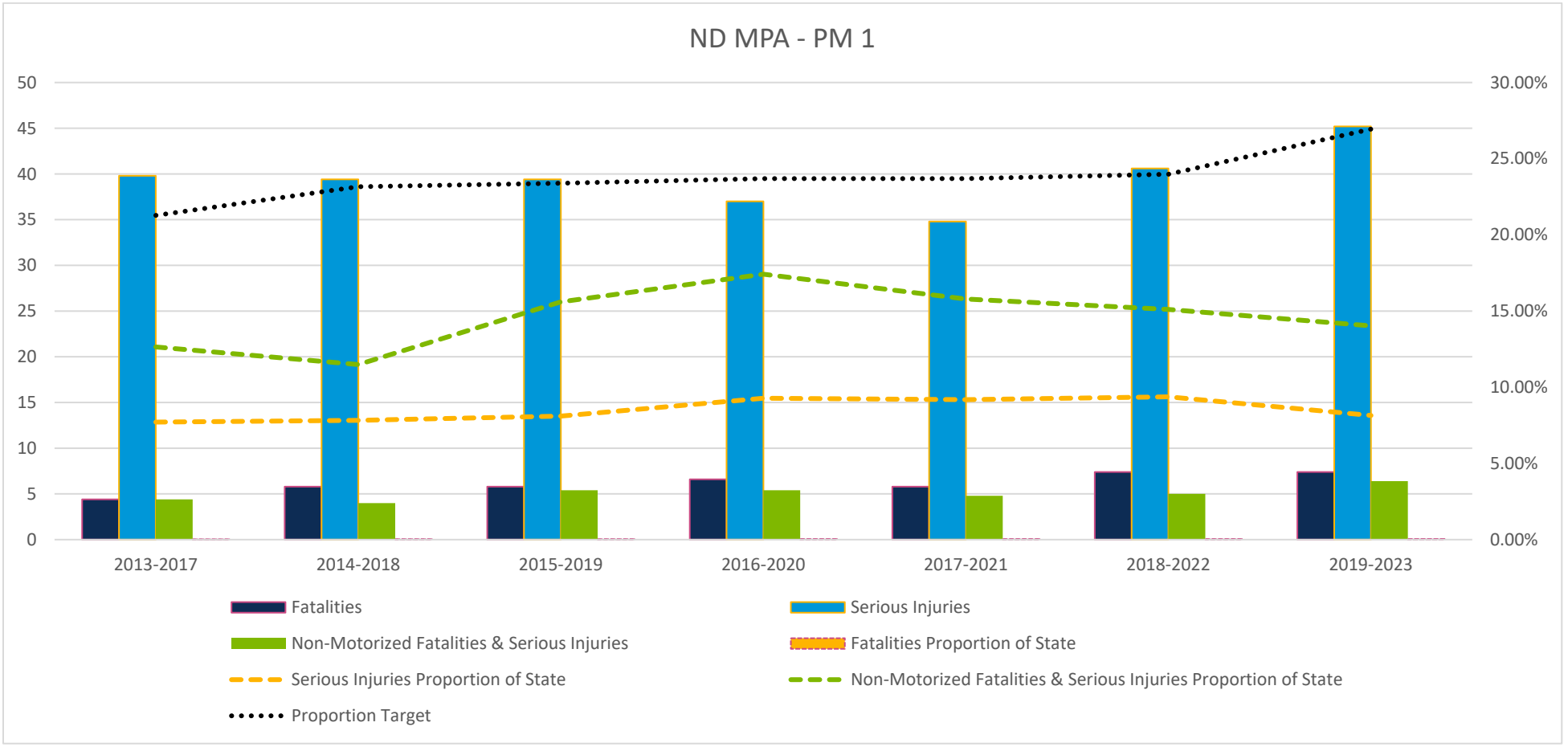


Figure 4. MN MPA PM 1 Safety

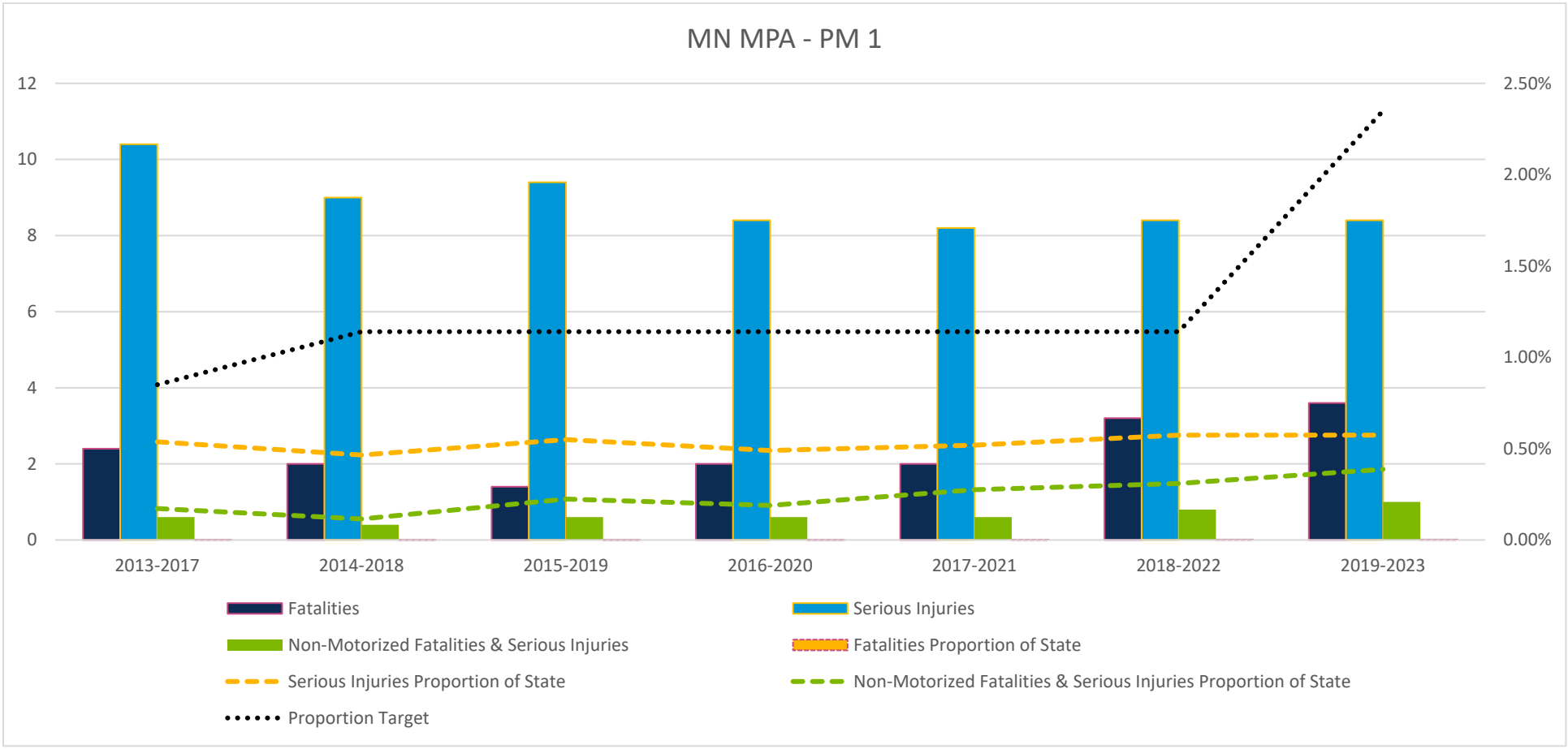


Figure 5. Severe Crash Rates and Targets

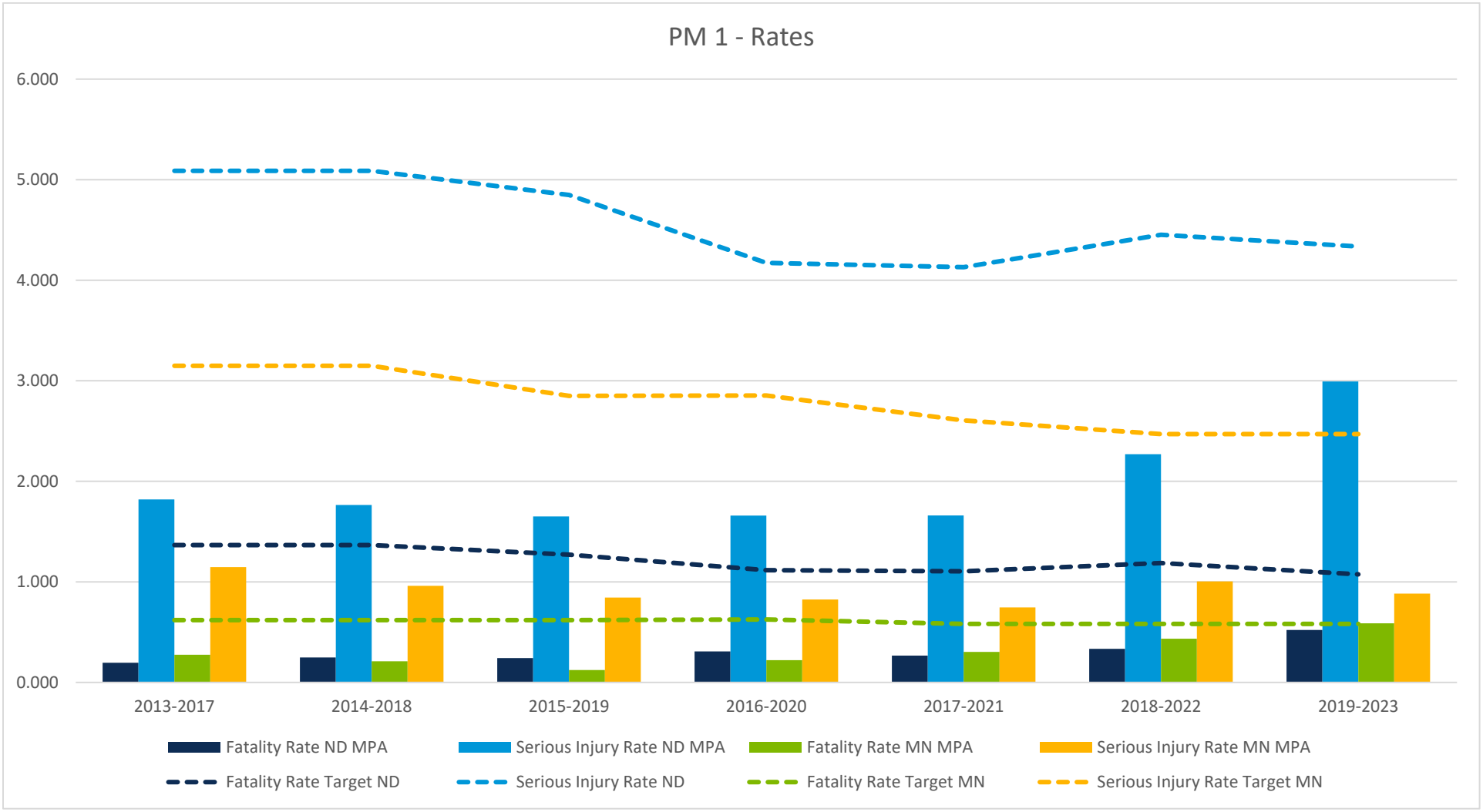


Table 7. Biennial Pavement and Bridge Condition PM 2 Targets for Metro COG

Target	2021-2022		2023-2024		Recent Metric (2023)	
	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	MN Data	ND Data
Percentage of Interstate Pavement in Good Condition	55%	75.6%	60%	75.6%	86%	85%
Percentage of Interstate Pavement in Poor Condition	2%	3%	2%	3%	0%	1%
Percentage of Non-Interstate Pavement in Good Condition	50%	58.30%	55%	58.3%	83%	92%
Percentage of Non-Interstate Pavement in Poor Condition	4%	3%	2%	3%	5%	4%
Percentage of NHS Bridges in Good Condition	35%	60%	30%	50%	26%	60%
Percentage of NHS Bridges in Poor Condition	4%	4%	5%	10%	10%	2%

Source: Federal Highway Administration, *State Performance Dashboards*

Metro COG has mostly met infrastructure condition (PM 2) targets, which have been consistently set for each side of the MPA, to reflect both North Dakota and Minnesota targets. **Figure 6** and **Figure 7** show, within the MPA, the percentage of Interstate pavement in Good and Poor condition, percentage of Non-Interstate NHS pavement in Good and Poor condition, and percentage of NHS bridges in Good and Poor condition. For each category described, the respective State targets are shown. For Good condition, if the MPA percentage is above the target percentage, the target is met. For Poor condition, if the MPA percentage is below the target percentage, the target is met. As shown in **Figure 6** and **Figure 7**, the Minnesota side and the North Dakota side of the MPA have met PM 2 targets for:

- 2021 (reporting period)
- 2023 (reporting period)
- 2025 (reporting period)

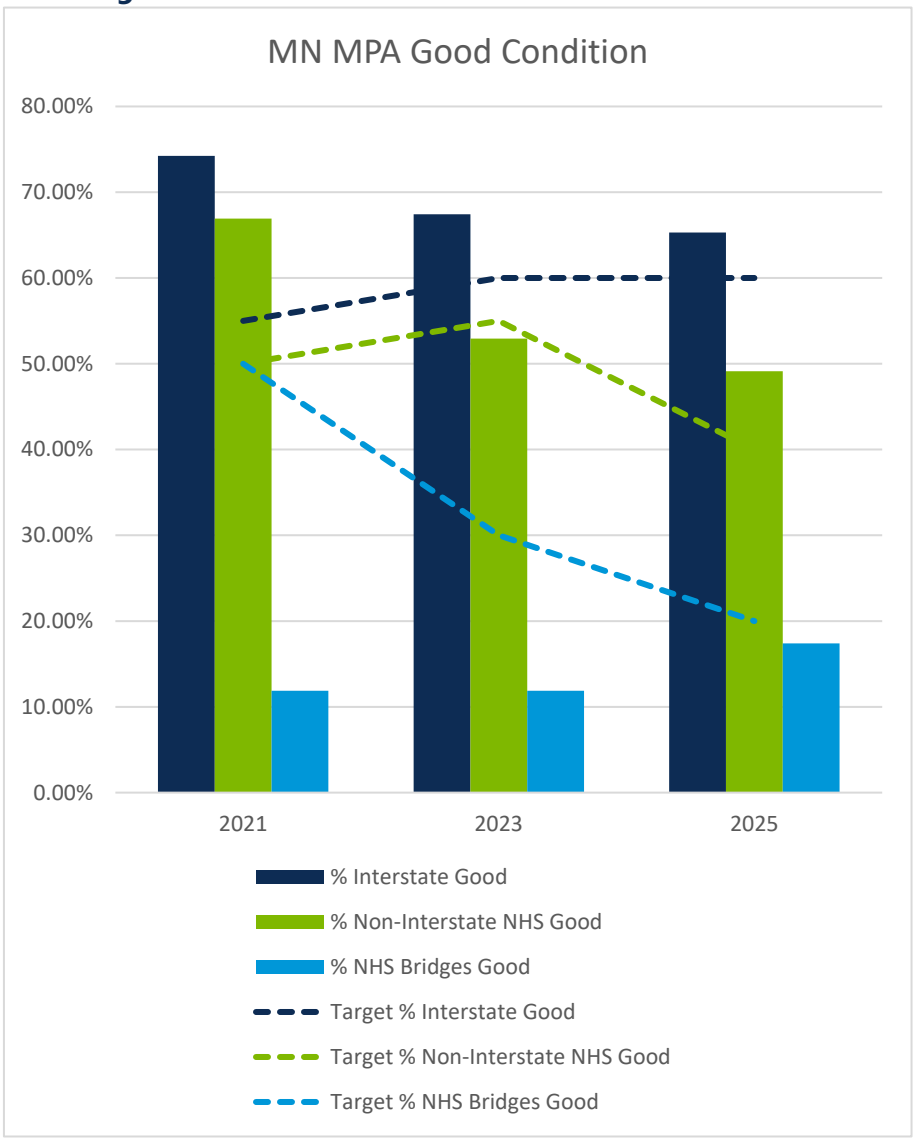
As shown in **Figure 6**, the Minnesota side of the MPA did not meet the target for percentage of Non-Interstate NHS pavement in Good condition in reporting period 2023. The MN side of the MPA has also never met targets for percentage of NHS bridges in Good and Poor condition for every reporting period. The percentage of NHS bridges in Good condition on the Minnesota side of the MPA has been increasing.

As shown in **Figure 7**, the North Dakota side of the MPA has never met the target for percentage of Non-Interstate NHS pavement in Good condition. The percentage of Non-Interstate NHS pavement in Good condition on the North Dakota side of the MPA has been increasing.

Although Metro COG has met most of the PM 2 targets set for the MPA, there are a couple of targets that have never been met. However, trends show the FM Region's preservation and rehabilitation investments are having an impact, with an increasing percentage of Good condition infrastructure in key target areas.

The condition of critical regional transportation infrastructure in the FM Region has been a key priority and focus area of Metro COG and partner jurisdictions. Metro COG will continue monitoring performance and trends on a biannual basis and through the organization's annual Transportation Improvement Program (TIP) development.

Figure 6. MN MPA PM 2 Performance



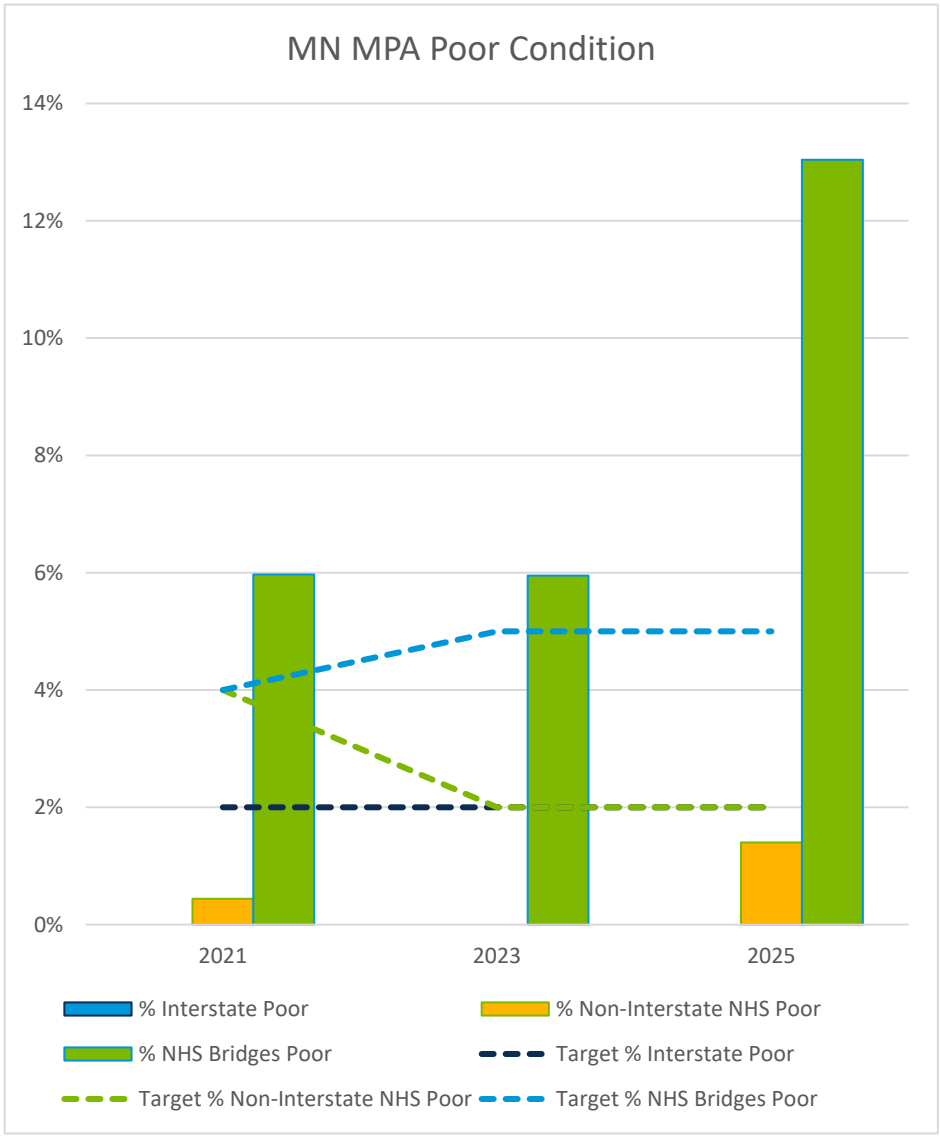
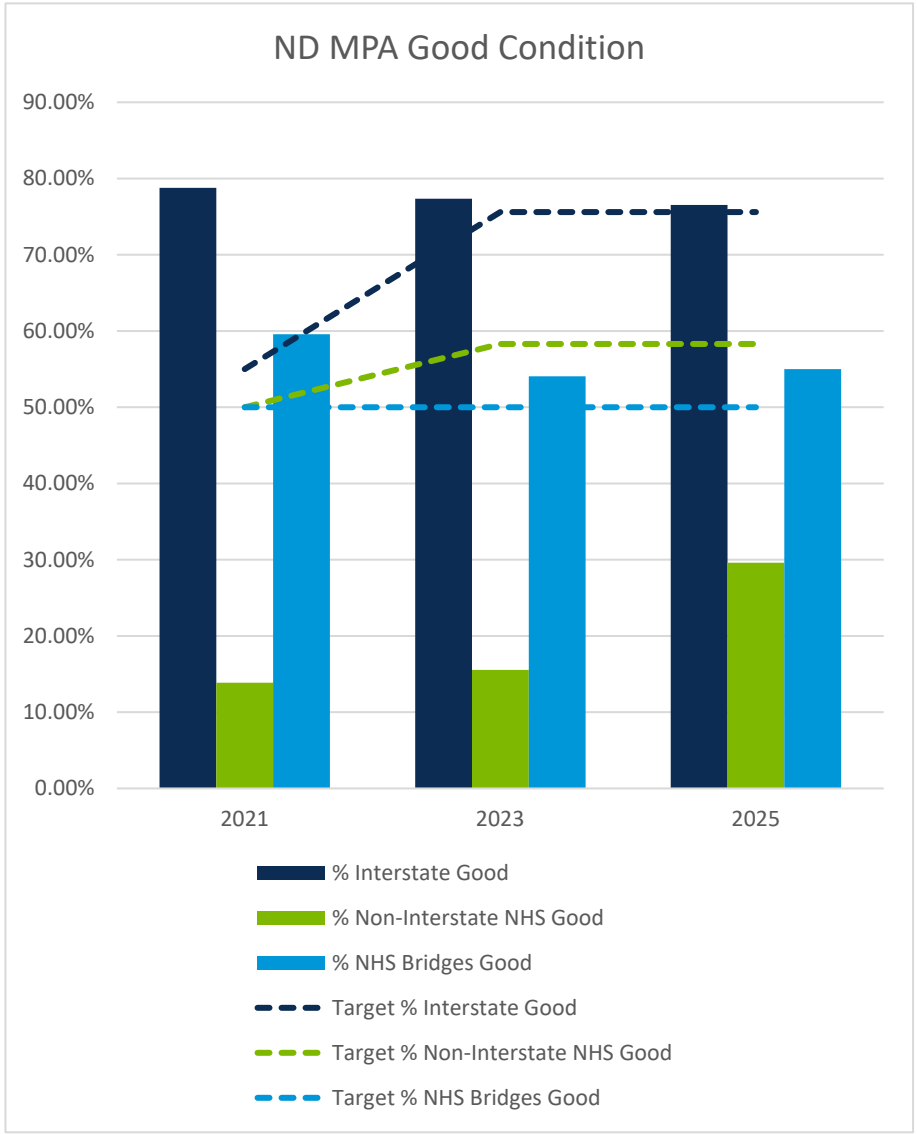


Figure 7. ND MPA PM 2 Performance



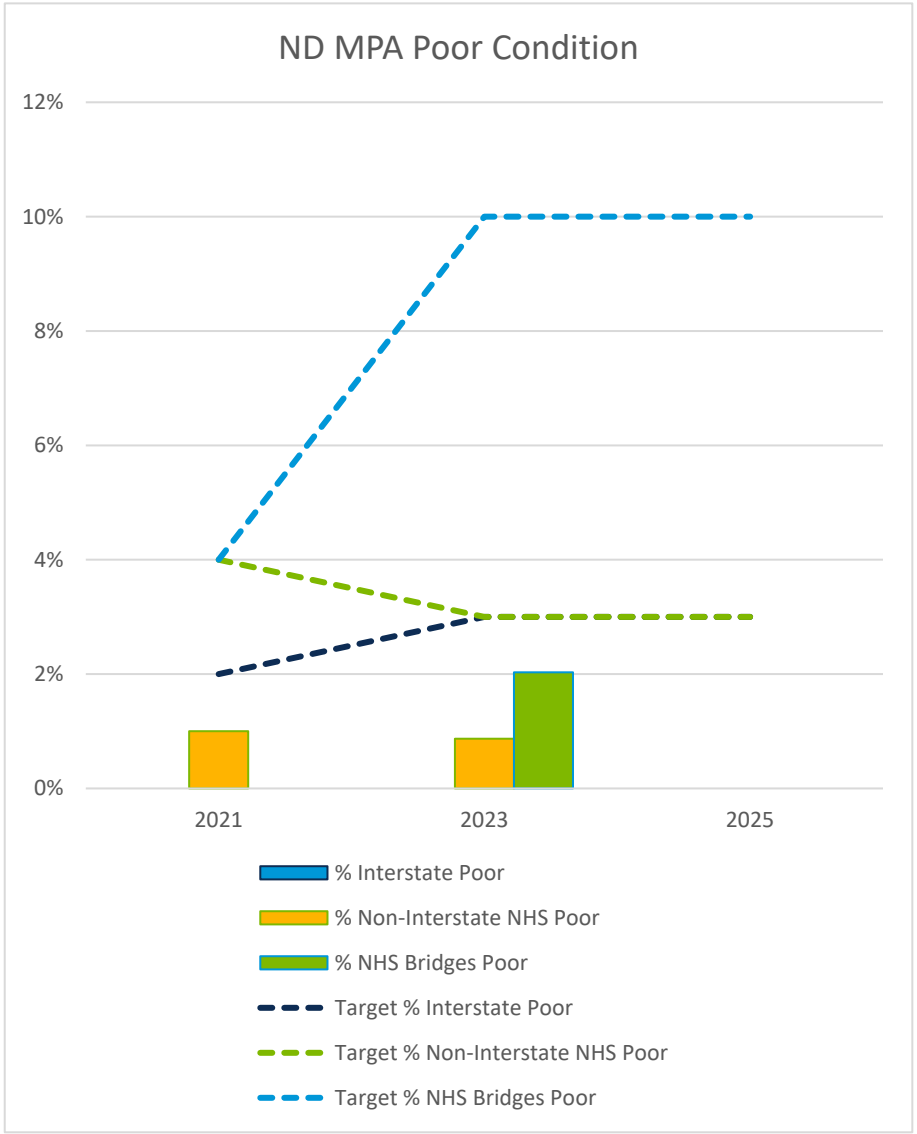


Table 8. Biennial System Reliability PM 3 Targets for Metro COG

Target	2021-2022		2023-2024		Recent Metric (2022)	
	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	MN Data	ND Data
Percentage of Person Miles Traveled on the Interstate that are Reliable	80%	85%	82%	85.5%	100%	100%
Percentage of Person Miles Traveled on the Non-Interstate NHS that are Reliable	90%	85%	90%	85%	84.4%	98.2%
Truck Travel Time Reliability Index	1.5	3.0	1.4	2.0	1.26	1.26

Source: Federal Highway Administration, *State Performance Dashboards*

Metro COG has mostly met reliability (PM 3) targets, which have been consistently set for each side of the MPA, to reflect both North Dakota and Minnesota targets. **Figure 8** shows, within the MPA, the percentage of reliable person miles on the Interstate, percentage of reliable person miles on the Non-Interstate NHS, and Truck Travel Time Reliability Index (TTTRI). For each category described, the respective State targets are shown. For reliability of the Interstate and Non-Interstate NHS, if the MPA percentage is above the target percentage, the target is met. For TTRI, if the MPA percentage is below the target percentage, the target is met. As shown in **Figure 8**, the Minnesota and North Dakota sides of the MPA have met PM 3 targets for:

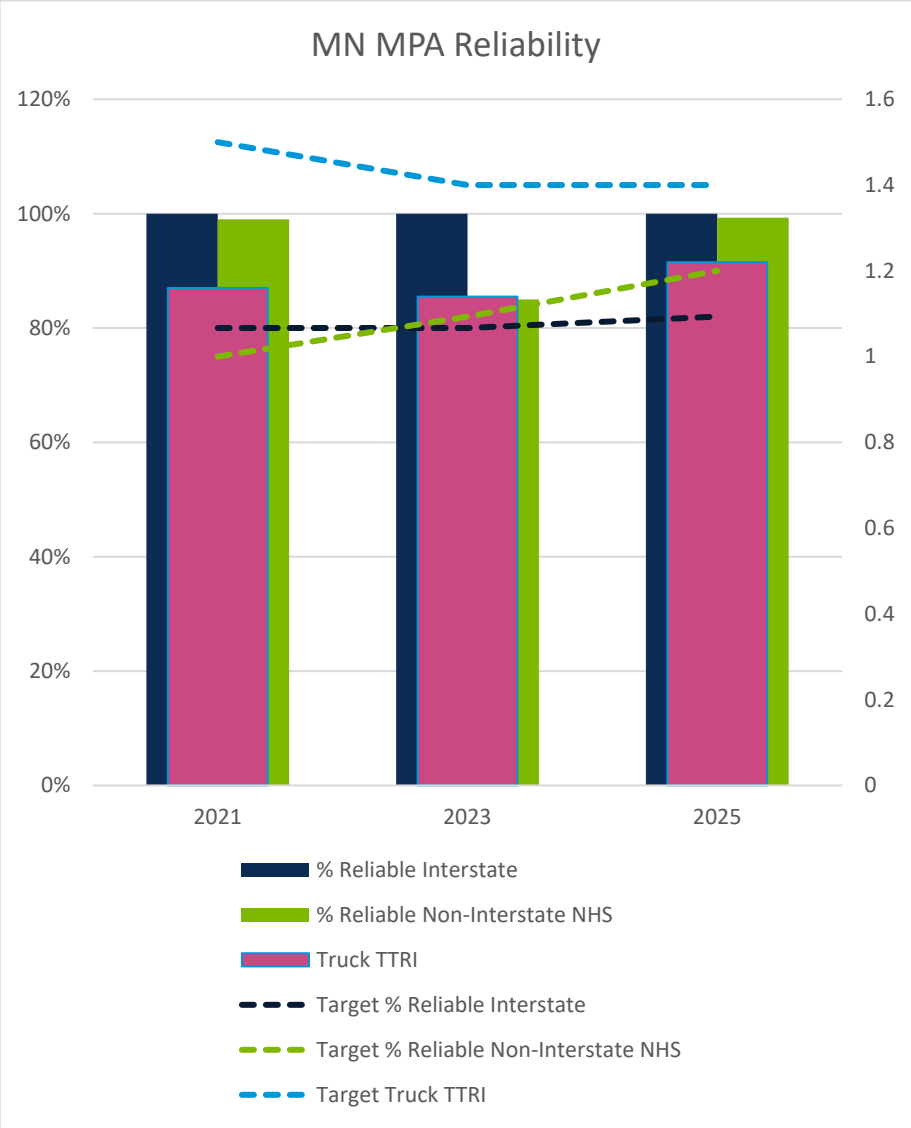
- 2021 (reporting period)
- 2023 (reporting period)
- 2025 (reporting period)

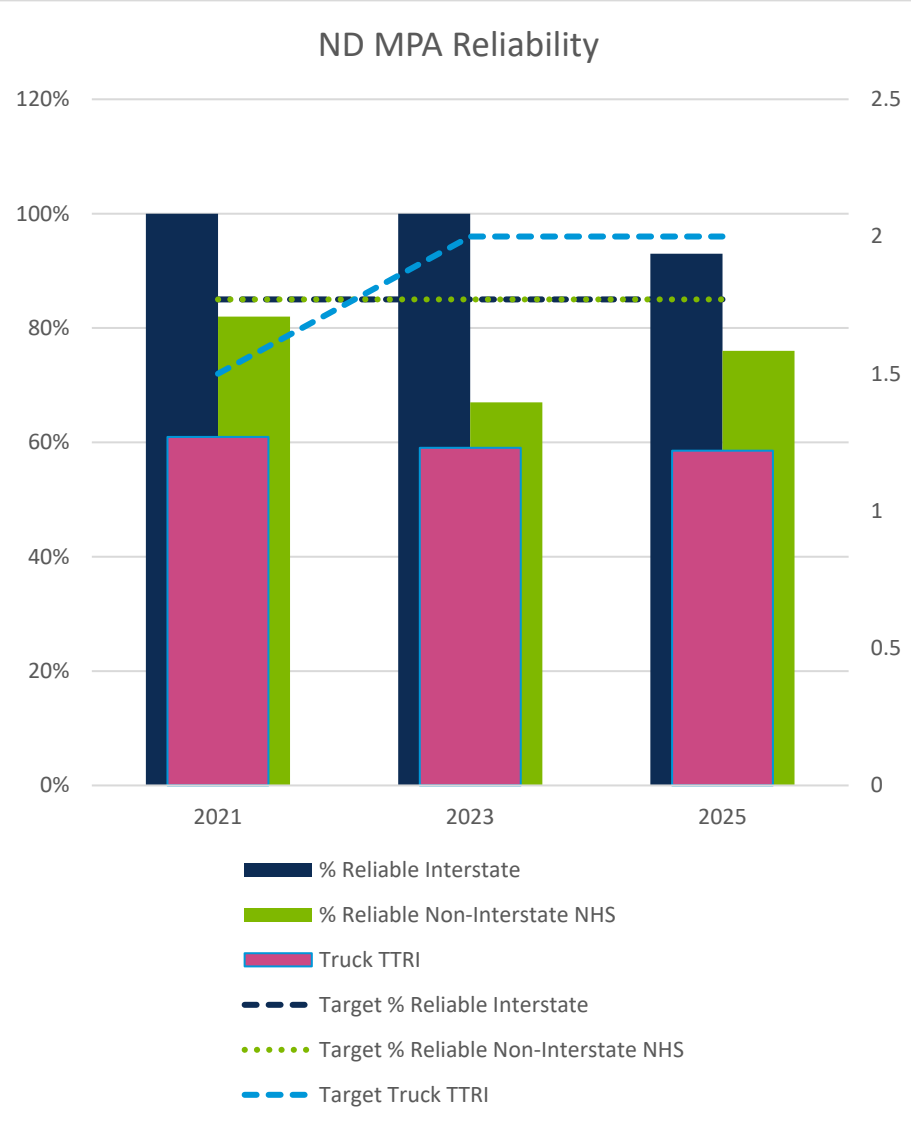
As shown in **Figure 8**, the Minnesota side of the MPA has met all the reliability performance targets. The North Dakota side of the MPA however, has never met the target for percentage of reliable person miles on the Non-Interstate NHS.

Although Metro COG has met most of the PM 3 targets set for the MPA, there is one target component that has never been met on the North Dakota side of the MPA (Non-Interstate NHS reliability). In 2024, Metro COG completed an Interstate Operations Study which recommended Transportation Systems Management and Operations (TSMO) strategies to increase reliability of the Non-Interstate NHS system, especially in proximity or interchange with the Interstate system.

Metro 2050 carries forward reliability as a key metric in assessing the regional transportation infrastructure in the FM Region. Metro COG will continue monitoring performance and trends on a biannual basis and through the organization's annual TIP development.

Figure 8. PM 3 Reliability Performance





THE METRO COG REGION TODAY

STREET AND HIGHWAY NETWORK

This section summarizes Metro COG's street and highway network, including federal, state, and local classifications, and the role of the regional transportation system in the MPA.

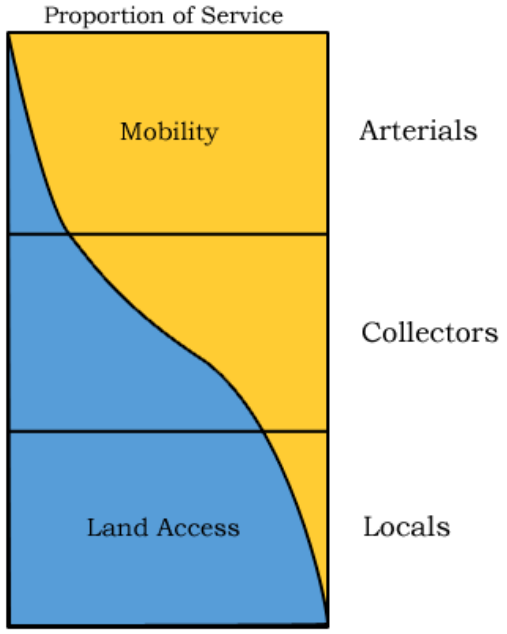
Functional Classification

Streets and highways within the Metro COG region are classified based on their functional characteristics using a system referred to as functional classification. Functional class is defined based on criteria established by the Federal Highway Administration (FHWA) and defines an appropriate balance between a roadway's ability to facilitate mobility (speed of service and conflict points such as intersections or other conflict points) and accessibility (degree of access from adjacent private property/conflict points) for users as described by **Figure 9**. FHWA updated **Functional Classification Guidelines** in 2013 and made minor updates in 2023 to reflect current transportation needs and goals. The functional classification system is also used by state transportation agencies to organize administrative, budgetary, operations, and maintenance activities; several federal and state funding programs provide funds only for a region's functionally classified system of Collector, Arterial, and Interstate roadways.

Metro COG recently (2022) updated the regional functional classification designation. The update was the first since 2007. Metro COG made another update to functional classification in 2024 to correspond with change in UZA boundary. Moving forward, Metro COG will update functional classification on an annual or biennial basis, due to growth and change in the FM region.

Table 9 describes each functional classification, and **Figure 10** shows the functionally classified roads within the MPA.

Figure 9. Mobility and Accessibility Characteristics of Functionally Classified Roads



Source: Federal Highway Administration

Table 9. Functional Classification Descriptions

Functional Classification	Description
Interstate	Provide highest degree of mobility and travel speeds over long distances via very-limited access facilities that connect major urban areas.
Principal Arterial and Minor Arterial	Provide high degree of mobility and travel speeds between urbanized areas, cities, and industrial centers via access-constrained facilities.
Collector	Provide balance between mobility and accessibility through connecting local roads to the arterial network by facilitating short and medium distance trips at lower speeds compared to arterials.
Local	Provide high degree of access by directly serving adjacent properties. Facilitate short distance trips at low speeds.

National Highway System

The National Highway System (NHS) is a system of roads identified by FHWA as the roadway network most critical in supporting the nation's economy, defense, and mobility needs. The NHS is comprised of several subsystems, including:[3]

- **Interstate**: The Eisenhower Interstate System of highways
- **Other Principal Arterials**: Highways in rural and urban areas providing access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
- **Strategic Highway Network (STRAHNET)**: Network of highways important to the nation's strategic defense policy, providing defense access, continuity, and emergency capabilities for defense purposes.
- **Intermodal Connectors**: Highways providing access between major intermodal (truck to rail freight, etc.) facilities and the other four subsystems described above.

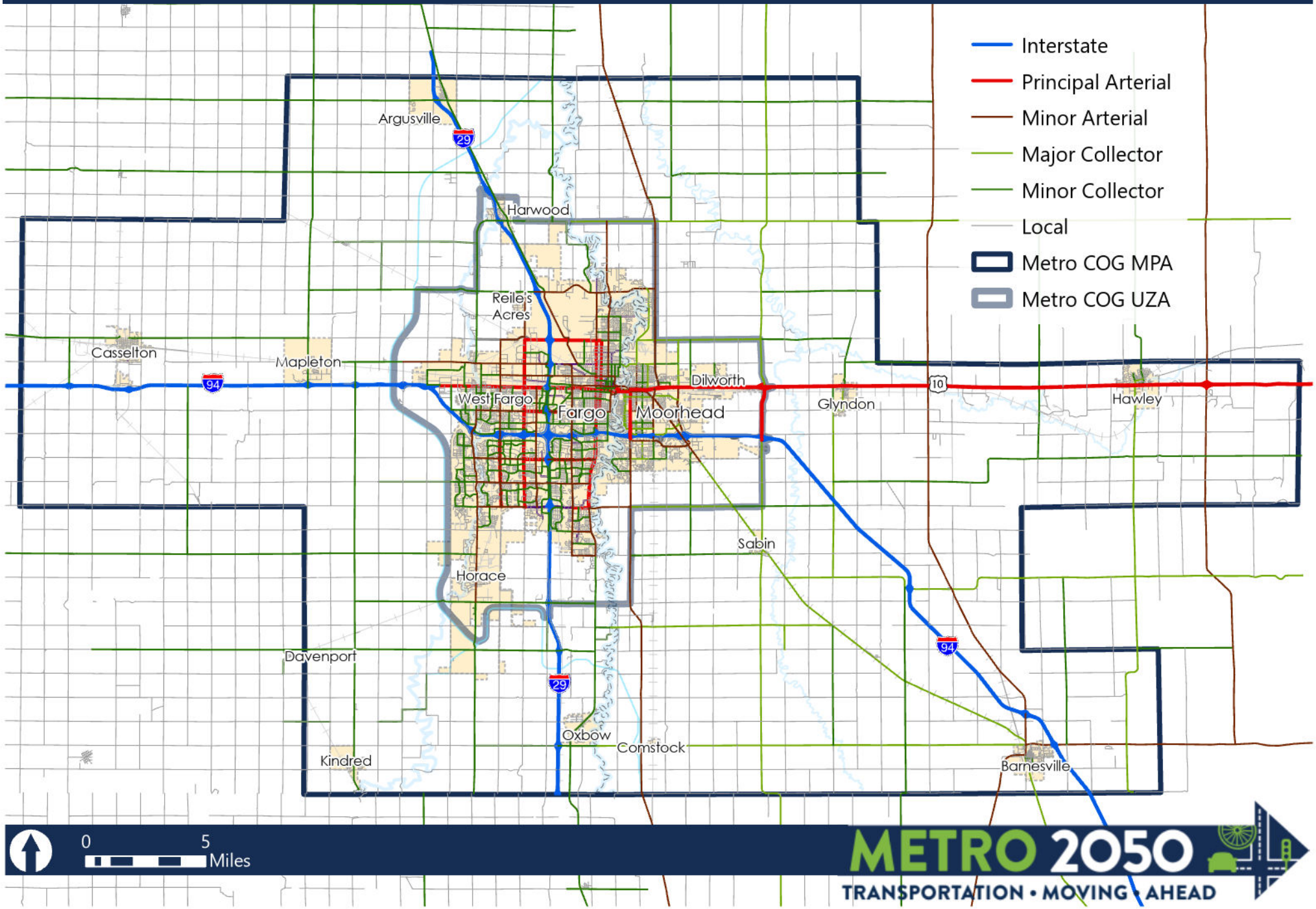
Roadway Jurisdiction

Roadway jurisdiction refers to the primary agency maintaining and operating a roadway. Within the MPA, the agencies responsible for maintaining and operating roadways include:

- **State Agencies**: NDDOT and MnDOT
- **County Agencies**: Cass County (North Dakota) and Clay County (Minnesota)
- **Township Agencies**: Berlin, Harwood, Casselton, Harmony, Raymond, Reed, Everest, Durbin, Mapleton, Barnes, Warren, Stanley, Normanna, Pleasant (North Dakota); Kragnes, Morken, Oakport, Moland, Moorhead, Glyndon, Riverton, Hawley, Eglon, Kurtz, Elmwood, Elkton, Holy Cross, Alliance, Barnesville, Humboldt (Minnesota)
- **Local Agencies**: Fargo, West Fargo, Horace (North Dakota); Moorhead and Dilworth (Minnesota)

[3] Federal Highway Administration, *National Highway System.*

Figure 10. Metro COG Functional Classification



REGIONAL TRANSPORTATION IN 2024

An analysis on the current transportation conditions in the six (6) categories listed below was completed early in the planning process to establish the foundation for Metro 2050 to be built upon. The analysis not only identifies what needs to be addressed with future investments but also supports the refinement of regional transportation goals. This section reviews 2024 system conditions in the six (6) following categories. The **Baseline System Performance Summary** provides greater detail and is available in **Appendix B**.

- **System Safety**
- **System Pavement & Bridge Condition**
- **System Operations**
- **Freight System**
- **Bicycle and Pedestrian System**
- **Transit System**

Pedestrian Zone at the Intersection of Main Ave and 7th St S in Fargo

SYSTEM SAFETY

Safety of the multimodal transportation system was reviewed based on historic crash data from NDDOT and MnDOT to identify key safety issues and trends within the FM Region.

The baseline safety performance analysis looks at both systemwide and location-based safety trends observed in the MPA, including:

- Systemwide crash trends, including total annual crashes, crash severity, manner of crash, and timing of crash.
- Location-based crash trends, including location of highest intersection crash frequency and crash rates.
- Bicycle and pedestrian-involved crash trends.

The crash data, provided by NDDOT and MnDOT includes years 2018 through 2022.

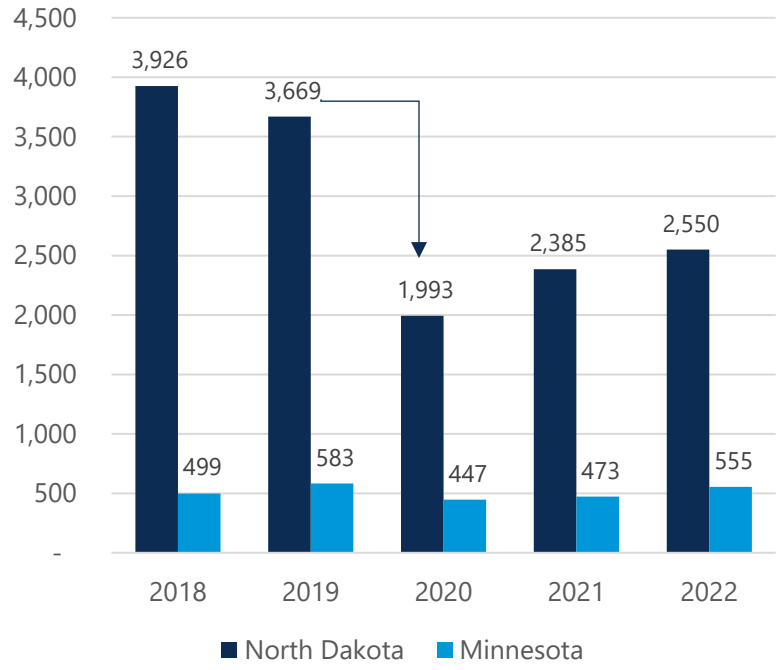
Systemwide Crash Trends

Annual crashes in the MPA between 2018 and 2022 are shown in **Figure 11**. Within the five-year analysis period, crashes within the MPA peaked in 2018 before declining in 2020. This stark decline is attributed to two (2) influences:

- In 2019, NDDOT revised the threshold for classification of a Property Damage Only (reportable) crash from $1,000 in damage to $4,000 in damage. This change removed many minor crashes in succeeding years that were previously reported prior to 2020.
- In 2020, the COVID-19 pandemic resulted in significantly reduced travel, resulting in a reduction of vehicle miles traveled (VMT). While this reduction in travel saw a nationwide reduction in overall crashes, the severity of crashes increased during this period.

After 2020, total crashes within the MPA increased as the FM Region experienced more stable post-pandemic traffic patterns, likely similar to pre-COVID-19 patterns.

Figure 11. Annual Crashes in the Metro COG Region, 2018 - 2022



Location-Based Crash Trends

The top 30 crash frequency intersections within the FM Region were identified using historic crash data from the years 2018 through 2022. The method used to identify the top 30 crash intersections followed the method used by NDDOT to develop North Dakota's urban and rural high crash intersection lists; crashes within 250-feet of an intersection are considered an 'intersection-related crash' and are counted. Polygons developed by NDDOT for urban intersection locations were used to associate rear-end crashes that occurred within 1,000-feet of an intersection location and added to the crash count for that location.

The complete list of the top 30 crash frequency locations is highlighted in **Appendix B**, which also details the crash rate per million entering vehicles (MEV) and the entering volumes used to calculate the crash rates per MEV for each intersection. **Table 10** highlights the top 10 crash frequency intersections with the entering volume, crash rate (per MEV), and total crashes highlighted. The top 10 crash frequency intersections are all located within the UZA in North Dakota. Intersections highlighted in orange were also identified by NDDOT as urban high crash locations based on historic crash data for the years 2019 through 2021.

Table 10. Top Crash Frequency Intersections by Total Crashes

Rank	Intersection	Entering Volume	Crash Rate (per MEV*)	Total Crashes
1	13th Ave S & 45th St	44,900	1.42	116
2	Veterans Blvd & 23rd Ave E	37,600	1.35	93
3	13th Ave S & 25th St	31,800	1.55	90
4	45th St & 17th Ave S	39,800	1.22	89
5	45th St & 23rd Ave S	39,600	1.22	88
6	45th St & 19th Ave S	41,000	1.10	82
7	45th St & I-94 WB Ramps	33,300	1.29	78
8	19th Ave N & University Dr	25,800	1.63	77
8	University Dr south of 19th Ave N	25,800	1.63	77
10	13th Ave S & 36th St / I-29 NB Ramps	41,200	0.93	70
10	13th Ave S & 42nd St	36,400	1.05	70

Orange highlights inclusion on NDDOT's high urban crash locations list.

**Million Entering Vehicles*

Source: NDDOT, MnDOT

Bicycle and Pedestrian Crashes

A review of crash trends involving a bicyclist and/or pedestrian was conducted to gain a multimodal perspective on transportation system safety. This review looks at annual bicycle- and pedestrian-involved crashes and bicycle- and pedestrian-involved Fatal and Serious Injury crashes.

Annual Bicycle- and Pedestrian-Involved Crashes

Crashes involving a bicycle and/or pedestrian by year are shown in **Table 11**. For the North Dakota side of the MPA, 31 bicycle crashes occurred in 2018, with a decrease through 2020 before rising to 27 crashes in 2021. In 2022, the number of bicycle-involved crashes occurring within the five-year analysis period peaks at 33. Pedestrian-involved crashes increased between 2018 and 2019 before declining in 2020. Years 2021 and 2022 saw pedestrian-involved crashes increase over 2018 levels.

On the Minnesota side of the MPA, bicycle-involved crashes increased each year between 2018 and 2020 before declining in both 2021 and 2022. Annual pedestrian-involved crashes were mostly consistent between 2018 and 2021 and peaked in 2022 with a total of four (4) pedestrian-involved crashes.

Table 11. Annual Bicycle- and Pedestrian-Involved Crashes, 2018 - 2022

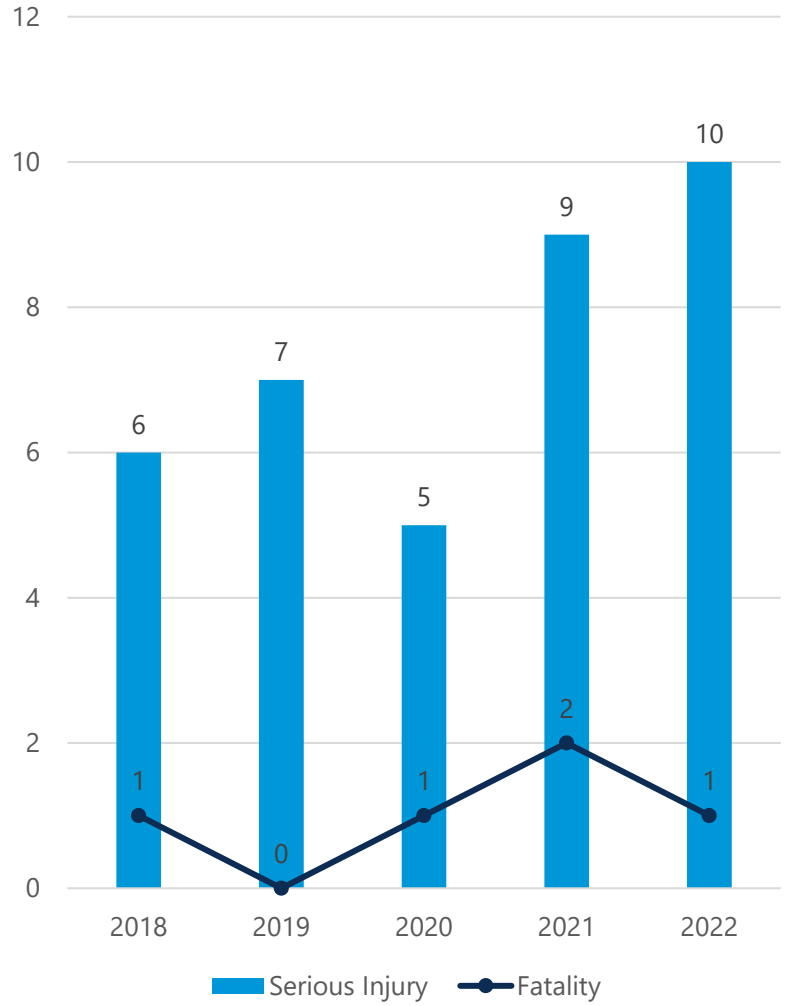
Type	2018	2019	2020	2021	2022	Total
MPA - North Dakota						
Bicycle	31	29	22	27	33	**142**
Pedestrian	21	26	18	30	27	**122**
MPA - Minnesota						
Bicycle	0	2	5	3	2	**12**
Pedestrian	3	1	3	3	4	**14**

Fatal and Serious Injury Bicycle- and Pedestrian-Involved Crashes

Annual Fatal and Serious Injury crashes that involved a bicyclist or pedestrian in the MPA are shown in **Figure 12**. Fatal bicycle- and pedestrian-involved crashes peaked in 2021 with two (2), while each year typically saw one (1) fatal bicycle- or pedestrian-involved Fatal crash (on average).

Serious Injury crashes involving a bicyclist or pedestrian increased between 2018 and 2022. Year 2020 had the lowest number of bicycle- or pedestrian-involved crashes with five (5), while year 2022 had the highest number of bicycle- and pedestrian-involved crashes with 10.

Figure 12. Bicycle- and Pedestrian-Involved Fatal and Serious Injury Crashes, 2018 - 2022



SYSTEM PAVEMENT AND BRIDGE CONDITION

Assessing the condition of current roads and bridges is an integral element of understanding how current transportation system functions, and what future investments might be required. There are two (2) primary performance measures that Metro COG and the States are required to evaluate on the Interstate and NHS:

- Percentage of pavements in "good" or "poor" condition
- Percentage of bridges in "good" or "poor" condition

Pavement Condition

Pavement condition data provides information is used to project future conditions and to identify maintenance and rehabilitation needs. Pavement condition data is inconsistent across Metro COG's member jurisdictions. Both North Dakota and Minnesota track pavement conditions differently, using different measurements to determine conditions. On the local system, Minnesota only tracks County State Aid Highway pavements while North Dakota tracks County Roads.

Metro COG's member jurisdiction's track pavement condition through the following indices:

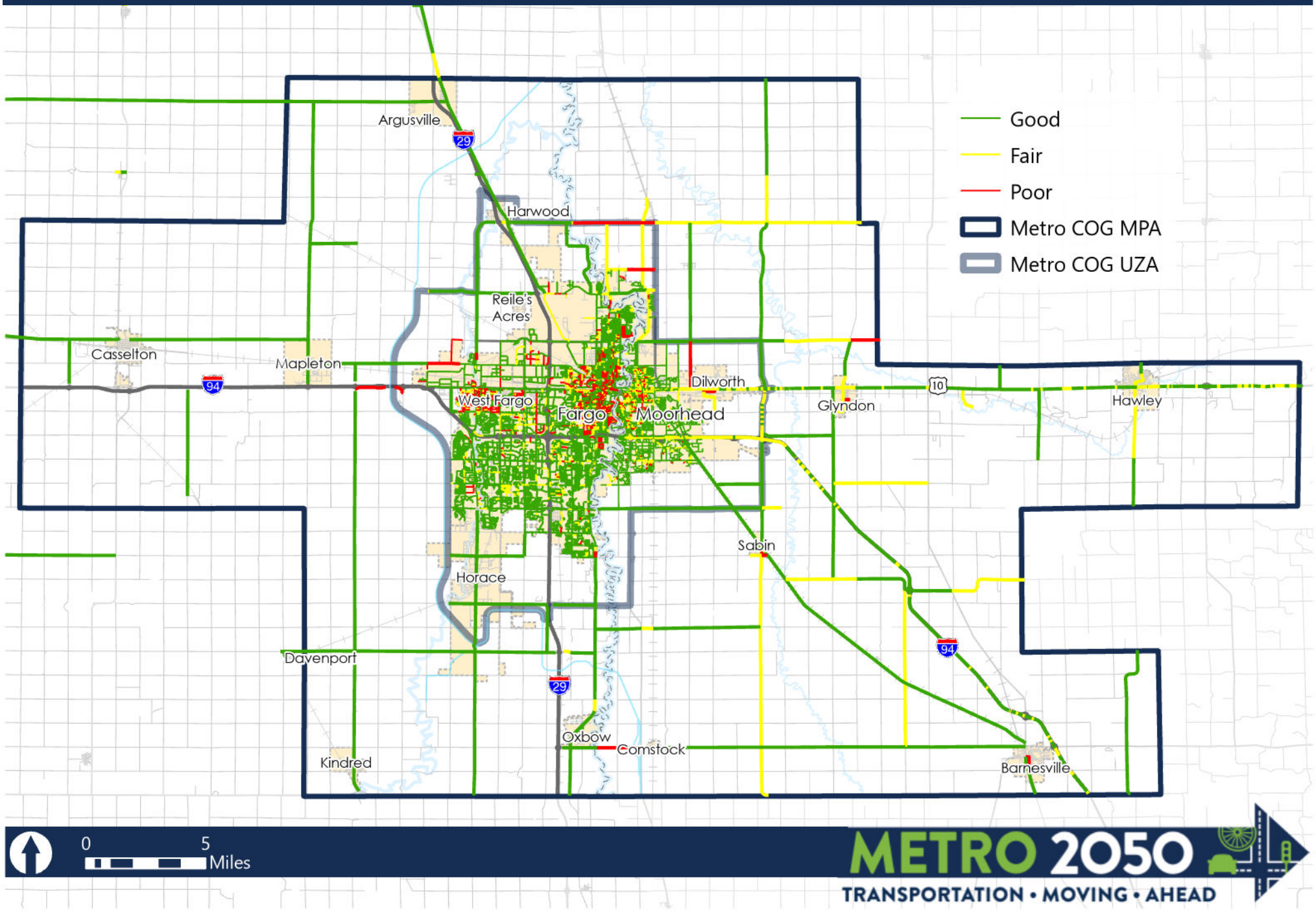
- Pavement Condition Index (PCI)
- Ride Quality Index (RQI)
- International Roughness Index (IRI)

Comparison of Regional Pavement Conditions

Figure 13 provides a composite regional pavement condition map which reflects the various pavement conditions in a unified scale as described above.

Road conditions are in acceptable condition with over 95 percent (95%) of roadway miles being in good or fair condition. Minnesota has more roads in fair or poor conditions compared to North Dakota, but that difference could be attributed to different measurement methods. Overall, both states have few roads that were measured in poor condition in the MPA.

Figure 13. Pavement Condition, 2023



BRIDGE CONDITION

The National Bridge Inventory (NBI) tracks and reports structure conditions for bridges and culverts (structures) throughout the United States. There are several components which contribute to bridge condition ratings including the deck, superstructure, and substructure condition. Culverts include several other components which contribute to condition ratings. Using the lowest condition rating of the associated components, structures are categorized as good, fair, and poor.

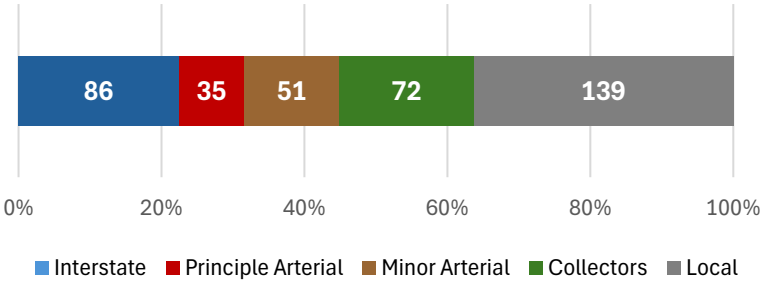
Overall, the structures in the Fargo-Moorhead area are in good condition. There are 383 bridges and culverts in the MPA with 95 percent (95%) of them being in good or fair condition. All structures with an anticipated future traffic volume of over 10,000 vehicles-per-day (VPD) are in fair or good condition. However, for structures on the NHS, Minnesota structures in the MPA are not meeting MnDOT targets with fewer good condition structures and more poor condition structures as seen in **Table 12**.

Table 12. Structure Condition PM 2 Targets for Metro COG compared to Current Condition

Target		MnDOT Targets	MnDOT Current	NDDOT Targets	NDDOT Current
NHS Bridges	% in Good Condition	30%	26%	50%	60%
	% in Poor Condition	5%	10%	10%	2%

Eighty-six (or 22% of structures in the MPA) of the structures are on the interstate system, while the rest are on roads classified as principal arterial, minor arterial, collector, or local. **Figure 14** shows the number and percentage of bridges by functional classification in the FM Region.

Figure 14. MPA Bridges by Functional Classification



Of the 145 North Dakota structures not on the Interstate, 81 (or 56% of ND structures in the MPA) are in good condition, 57 (or 39% of ND structures in the MPA) are in fair condition, and

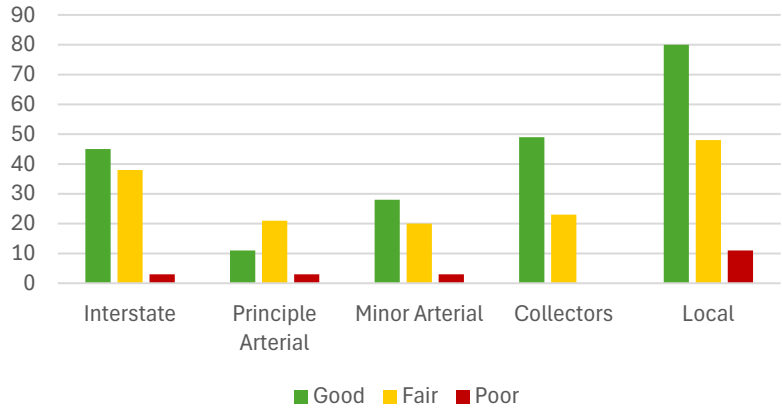
7 (or 5% of ND structures in the MPA) are rated poor condition.

For the 152 structures in Minnesota not on the interstate system, 87 (or 57% of MN structures in the MPA) are in good condition, 55 (or 36% of MN structures in the MPA) are in fair condition, and 10 (or 7% of MN structures in the MPA) are rated poor condition. **Table 13** and **Figure 15** show Metro COG's combined condition by functional classification.

Table 13. Structure Condition by Functional Classification

Functional Class	Good Condition	Fair Condition	Poor Condition
Interstate	45	38	3
Principle Arterial	11	21	3
Minor Arterial	28	20	3
Collector	49	23	0
Local	80	48	11

Figure 15. Structure Condition by Functional Class



SYSTEM OPERATIONS

Regional system operations were analyzed using several approaches that are consistent with Federal performance measure guidelines.

Traffic Operations

Traffic operations refers to the flow of vehicular traffic. Peak period vehicular travel times observed for the Metro COG region are reported in this section, but it is important to note that this represents just one perspective on how the multimodal system operates. Metro COG recognizes that peak hour traffic operations is just one consideration or component of transportation system performance.

The purpose of analyzing traffic operations is to understand congestion patterns and how the system performs to accommodate demand. *Metro Grow* identified the need for the

region to assess and address roadway capacity and congestion through balancing peak hour traffic volumes, daily traffic levels, travel times, travel demand, and levels of investment in the transportation network.[4] A holistic view of the multimodal transportation system is reflected in Metro COG's established methodologies to evaluate traffic operations on a 24-hour basis that de-emphasizes the limited recurring peak hour congestion that occurs in the MPA today.

Metro COG needs to understand how traffic manifests in the region therefore, 24-hour traffic operations analysis provides a more wholistic picture of traffic movements within the FM Region. A prime example of the benefits of this analysis could be seen in the post-pandemic traffic realignment, where morning peak periods shifted to Noon peak periods.

To evaluate the systemwide traffic operations occurring today, two approaches were used. The first approach analyzed probe data travel delays, while the second approach estimated daily congestion using a planning level-of-service (LOS) approach.

Probe Data Travel Delays

Probe data refers to passively collected location data sourced from mobile devices or in-vehicle navigation systems. This data is anonymized and aggregated so information resulting in reasonable assumptions about the locations and speeds at which vehicles traveled (including freight, and to a lesser degree, transit, bicycles, and pedestrians. This robust dataset provides valuable insights into traffic operations on a corridor-by-corridor basis within the FM Region.

The probe data used in the travel delay analysis was sourced from UrbanSDK software, which collects connected vehicle and mobile-device location-based data to monitor roadway networks. The software allows for analysis of traffic patterns related to speeding, safety, and congestion based upon said location-based data and points in time.

This data was analyzed to evaluate the daily variation in travel times to understand when and where travel delays occurred, and where efficiencies can be gained. Through this understanding, Metro COG can better address congestion and mobility issues through consideration of factors such as land use, availability of other transportation modes, and transportation costs.

Travel delay conditions, in terms of travel speed reductions, were analyzed for the morning (AM) and evening (PM) peak hour travel periods for the Interstate and NHS corridors within the MPA. The analysis compared the average peak hour travel times for both periods to free flow speeds, which resulted in the calculation of the percent reduction in travel times for each corridor.

The travel delay analysis showed that Metro COG's arterial network experiences declines during AM and PM peak hours that see reductions in speeds up to 40 percent (40%) below

[4] Metro COG, *Metro Grow 2045.*

free flow speed levels. The highest reductions in speeds during both peak periods occur at controlled intersections due to conflicting traffic movements.

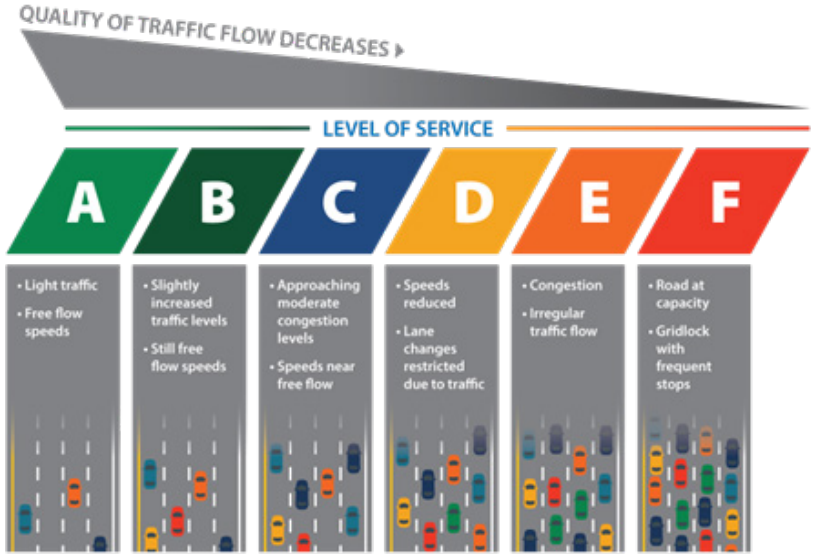
Planning Level-of-Service

The second approach to analyzing baseline traffic operations performance supplements the travel delay analysis discussed above. This approach, known as a planning LOS analysis, compares the daily traffic volume for a roadway to its design capacity, which results in the estimation of a volume-to-capacity (V/C) ratio. The V/C ratio is used to classify the estimated peak hour traffic operations of the roadway. The classifications reflect a grading scheme that ranges from LOS A, representing complete free flow traffic, to LOS F, representing gridlock traffic conditions. **Figure 16** summarizes the LOS classifications.

The LOS analysis conducted for the MPA is shown in **Figure 17**. As both **Figures 16 and 17** indicate, most roadways within the Metro COG region operate at LOS B or better during peak travel hours. There are several arterial roadway segments that operate at LOS C and D, while several portions of the region's Interstate system exhibit congestion that registers as LOS E and F during peak hour travel conditions.

Metro COG and partner agencies recognize that peak period travel delays are just one of many perspectives from which to evaluate system performance. While some peak period travel delays do occur in the FM Region, travel delays are for relatively short periods of time, and travel conditions are not congested more than what is typical in a growing metropolitan area.

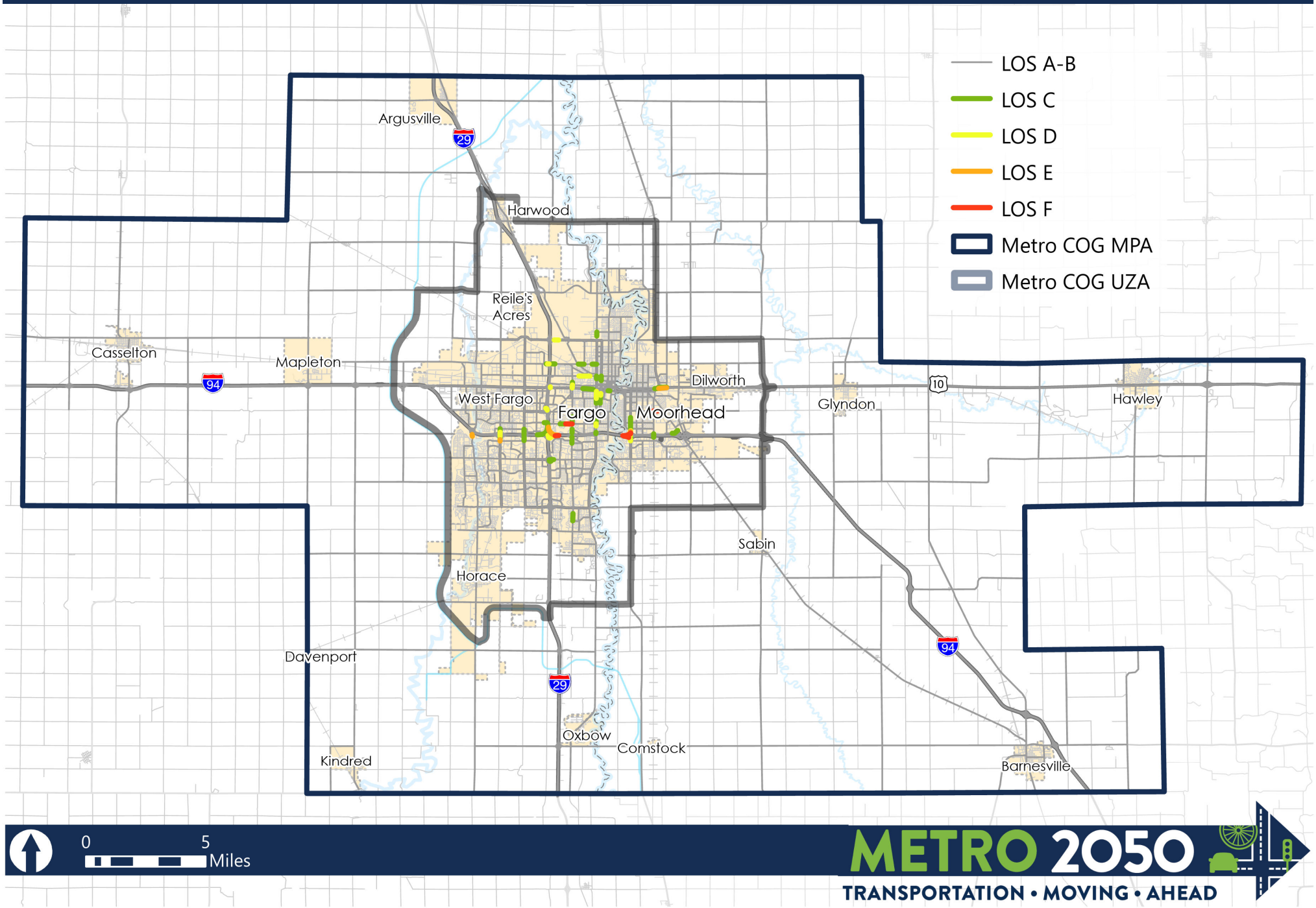
Figure 16. Level of Service Classifications



Traffic congestion along I-94 in Fargo

Source: Valley News Live

Figure 17. Estimated Level-of-Service For the FM Region



Travel Reliability

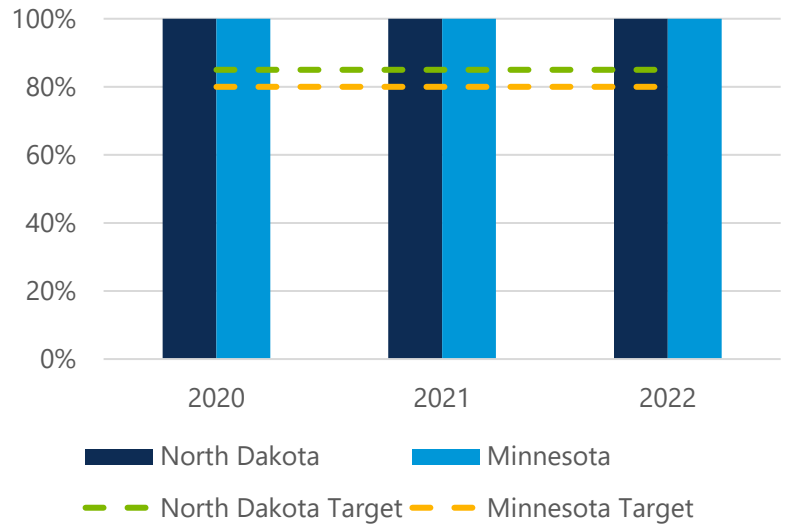
Travel reliability is a measure used by Metro COG to assess the reliability, or predictability, of travel times for passenger and freight vehicles across a corridor or an entire roadway network. Federal performance measure three (PM 3) deals with travel reliability conditions. Metro COG reports reliability performance to FHWA on an annual basis.

Figure 18 through **Figure 20** show historic performance made towards Metro COG's reliability targets based on the percentage of person-miles traveled on the Interstate and non-Interstate NHS considered reliable for the years 2020 through 2022. Reliability performance is reported for both the North Dakota and Minnesota portions of the MPA.

For passenger reliability, the assumed targets were 85 percent (85%) of person-miles traveled on the Interstate for the North Dakota portion and 80 percent (80%) for the Minnesota portion of the MPA; the non-Interstate NHS reliability target for the North Dakota portion was 85 percent (85%) and 90 percent (90%) for the Minnesota portion of the MPA. Reliability for Metro COG's freight system is reported using the Truck Travel Time Reliability Index (TTTR) and the target for the MPA was 1.5 for each year between 2020 and 2022.

Reliability performance of Metro COG's Interstate system for the years 2020 through 2022 is shown in **Figure 18**. Reliability on the FM Region's Interstate system exceeded both the North Dakota and Minnesota targets each year. The percentage of person-miles considered reliable was consistently 100% each year for the North Dakota and Minnesota portions of the MPA which indicates passenger traffic on I-29 and I-94 has historically been predictable, allowing for users to accurately plan around potential recurring congestion that could impact Interstate travel.

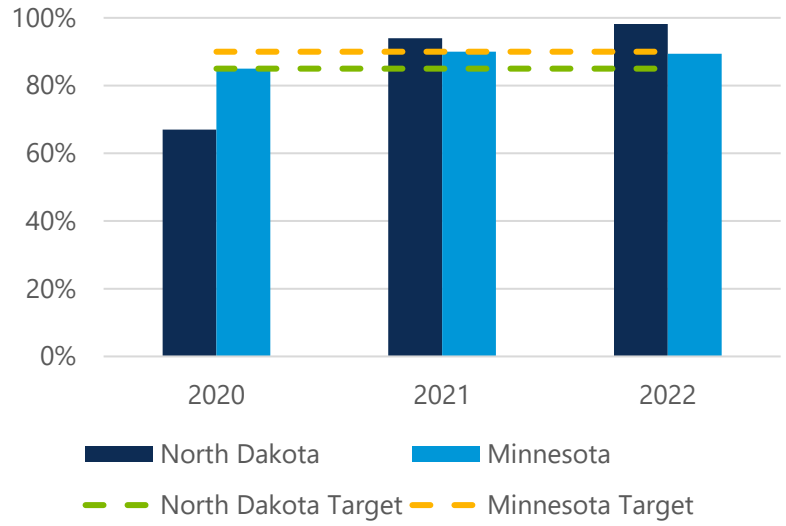
Figure 18. Annual Percent of Person-Miles Traveled on the Interstate that are Reliable for the Metro COG Area, 2020 - 2022



Source: Metro COG

Reliability performance of Metro COG's non-Interstate NHS system for the years 2020 through 2022 is shown in **Figure 19**. Reliability performance for the non-Interstate NHS fluctuated between 2020 and 2022, with 67 percent (67%) of person-miles traveled on the non-Interstate NHS within the North Dakota side of the MPA considered reliable in 2020. After 2020, reliability performance rose to 94 percent (94%) in 2021 and 98.2 percent (98.2%) in 2022. Despite the reduced percentage of reliable person-miles traveled on the North Dakota side in 2020, the targets for both the North Dakota and Minnesota portions of the MPA were met in 2021 and 2022.

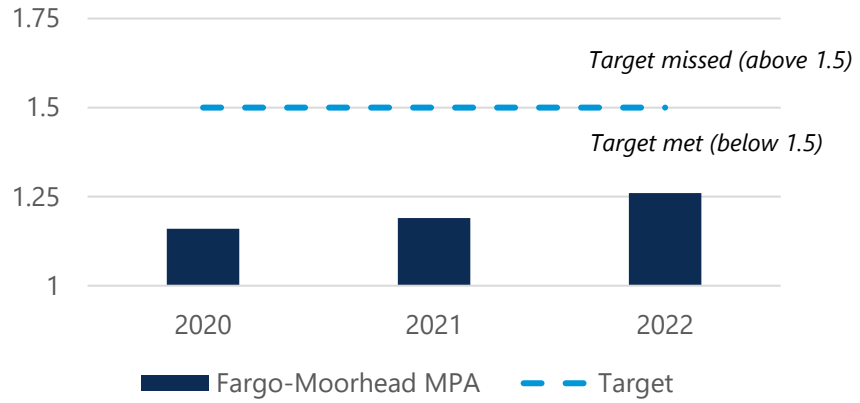
Figure 19. Annual Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable for the Metro COG Area, 2020 - 2022



Source: Metro COG

Freight reliability performance of Metro COG's Interstate system for the years 2020 through 2022 is shown in **Figure 20**. The TTTR target for Interstate was met each year between 2020 and 2022 while reported TTTR saw a slight increase towards 1.5 annually (must be 1.5 or less to meet target). The general trend observed for TTTR reflects the historic trend seen by the reliability of passenger traffic on the Interstate system during this same period in which the performance target was met each year.

Figure 20. Annual Interstate TTTR for the Metro COG Area, 2020 - 2022



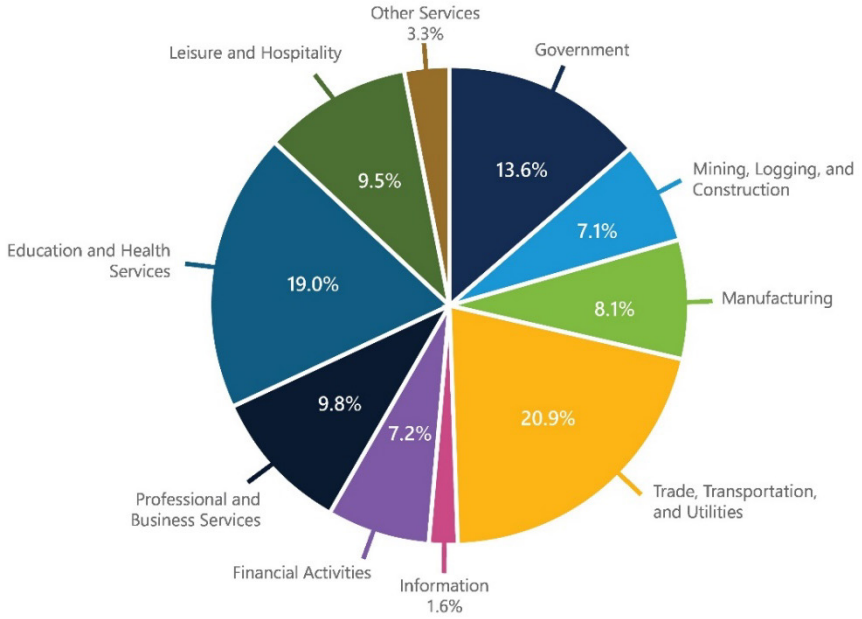
Source: Metro COG

FREIGHT SYSTEM

Freight has historically been a central component of the FM Area's regional economy. Beginning with the construction of the Great Northern Railroad in 1871, the Fargo-Moorhead region has been a critical gateway for freight traveling across the United States. Today the FM Region is the cross-roads of I-94 and I-29 and several BNSF rail lines including the Jamestown, Kansas & Oklahoma (KO), Hillsboro, Moorhead, and Staples subdivisions. Freight is a key sector of the regional economy as Trade, Transportation, and Utilities sector jobs represent 21 percent (21%) of MSA Non-Farm employment, which as of October 2023, is the highest employment sector in the region.[5] **Figure 21** summarizes the employment data sourced from the Bureau of Labor Statistics.

Aerial of BNSF Intermodal Railyard in Dilworth, MN

Figure 21. Employment by Industry in the Fargo-Moorhead Metropolitan Statistical Area



Source: United States Bureau of Labor Statistics

Locally Designated Freight Routes

Several corridors within the MPA have been designated for freight usage by local agencies. Metro COG's **Regional Freight Plan**, published in 2017, highlights a series of routes within Fargo and West Fargo that are intended to encourage truck travel. Local freight routes designated by the City of Fargo involve seasonal weight restrictions that close certain routes to

[5] United States Bureau of Labor Statistics, *Fargo, ND – MN.*

heavy truck traffic during the Spring, when roadways are most susceptible to damage caused by heavy freight.

Both Minnesota and North Dakota have regulations on how heavy commercial vehicle weight is distributed according to number of axles on the truck. North Dakota has a 105,500 pound weight limit on these routes:

- I-94 west of Main Avenue
- Main Avenue
- 52nd Avenue S from I-29 to University Drive
- University Drive from 52nd Avenue S to Main Avenue[6]

Minnesota has an 80,000 pound weight limit (or 10-tons per axle) on most State routes, including I-94, US 10, and MN 336[7]. Minnesota has seasonal load restrictions as well. The City of Fargo also maintains a truck route system with seasonal load restrictions and height restrictions[8].

The City of Moorhead does not have a designated truck route system, owing mainly to concerns regarding enforcement, increased maintenance costs, and administrative requirements from MnDOT requiring local agencies to petition the State each time a proposed truck route utilizes a State route.[9]

Daily Truck Trips

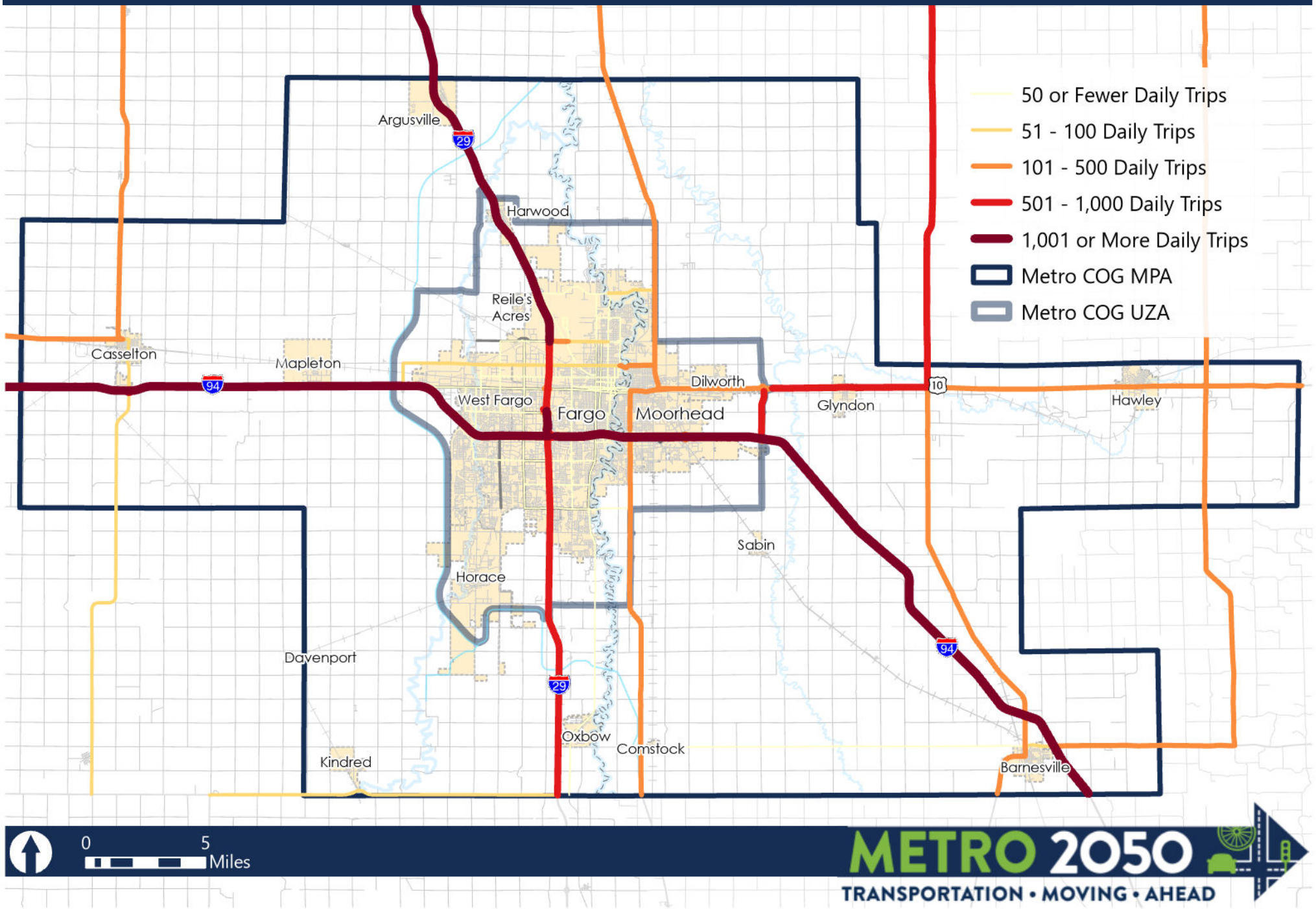
Data on daily truck trips for the Metro COG region was sourced from FHWA's **Freight Analysis Framework 5** (FAF5), which is a national freight model that leverages a range of data sources to estimate multimodal freight and commodity flows. FAF5 also forecasts multimodal freight and commodity flows through 2050, using 2017 as the baseline forecast year.

Daily truck trips were obtained from FAF5 to understand current highway freight usage within the MPA. **Figure 22** illustrates daily truck trips for the region. Interstate 29 (I-29) and I-94 carry the highest proportions of daily truck trips in the FM Region at 1,001 or more daily trips. MN 9 and US 75 east of Moorhead are additional highways demonstrating a high demand for truck traffic; both corridors recorded 501 or more daily truck trips based on the FAF5 data.

Aerial of railroad spur south of 19th Ave N in Fargo, ND

[6] North Dakota Department of Transportation, *Weight Limitations for Vehicles on Nort Dakota Highways.*
[7] Minnesota Department of Transportation, *2024 Minnesota Truck Book.*
[8] City of Fargo, *City of Fargo Truck Route Map.*
[9] Fargo-Moorhead Metro COG, *Regional Freight Plan.*

Figure 22. Daily Truck Trips for the MPA, 2017



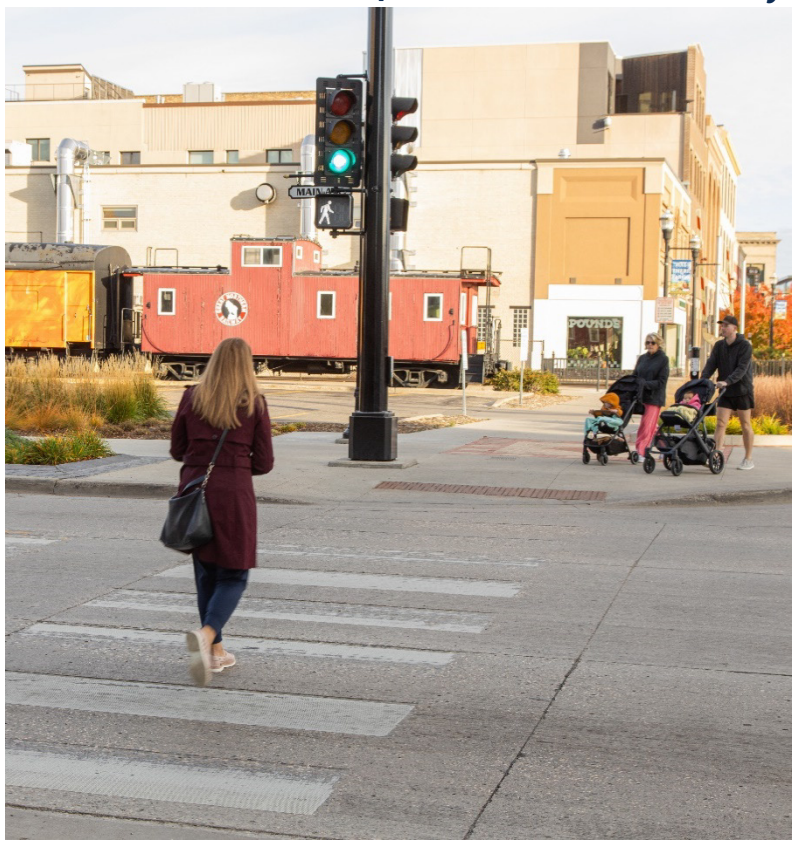
BICYCLE AND PEDESTRIAN

A complete bicycle and pedestrian network in the FM Region encourages active transportation, improves access, mobility, and connectivity for all modes of transportation. The existing bicycle and pedestrian network was analyzed for connectivity, active trip potential, collisions, level of traffic stress, and priority investments as part of the ***2022 Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan***. This section of the Baseline System Performance report summarizes the existing conditions analysis conducted as part of the Bicycle and Pedestrian Plan, a core policy plan for Metro COG. As such, some components may not align with analysis timeframes already covered in the MTP (e.g. collisions analysis below vs. previously covered safety performance analysis).

Connectivity

Connectivity is determined through the percentage of the network a person could travel to within a 10-minute walk, or 15-minute bicycle ride. The downtown areas of Fargo and Moorhead were found to have the highest connectivity ratios, as well as certain areas in west/southwest Fargo, and eastern West Fargo. Additionally, bicycle and pedestrian connectivity decreased around railroad tracks, the Interstates, regional drains or stormwater channels, along the Red River, and along the Sheyenne River. Implementing more bicycle and pedestrian-friendly infrastructure to connect users across known barriers will improve connectivity across the MPA.

Crosswalk at intersection of Main Avenue and Broadway



Active Trip Potential

Locating where concentrations of shorter trips occur is important to identify how trips could be replaced by walking or biking, and what infrastructure may be needed to support these types of trips. A large volume of trips under three miles are concentrated around North Dakota State University (NDSU), Concordia College, Minnesota State University Moorhead (MSUM), downtown Fargo, downtown Moorhead,

and the West Acres shopping center. Half of the almost one million daily trips made in the FM Region were three miles or less, but only a small percentage of them were made by walking or biking. If more bicycle and pedestrian facilities are provided, more of these trips have the potential to be made using active transportation.

Collisions

In the *Bicycle and Pedestrian Plan* (2022), an analysis of collisions in the Metro COG area from 2016 to 2020 was conducted to locate common areas where collisions occur and could be a higher risk to pedestrians and bicyclists. The street segments with five (5) or more "very high" weighted scores for collisions are all located in Fargo, and include:

- North University Drive
- 25th Street South
- South University Drive

The street segment with the highest weighted crash score was 25th Street South at the intersection of 32nd Avenue South in Fargo. Street segments with extremely high weighted collision scores were at intersections of multi-lane roadways. The segments of concern found in the Bicycle and Pedestrian Plan align with the safety analysis conducted as part of this baseline system performance analysis which identifies downtown Fargo as an area of frequent bicycle- and pedestrian-involved crashes. This is also consistent with findings of Metro COG's *Regional Comprehensive Safety Action Plan*.

Level of Traffic Stress

Level of Traffic Stress for pedestrians and bicyclists was calculated to understand where active transportation users may face the most travel challenges in the MPA. Roadways were evaluated based on number of lanes, speed limit, and sidewalk presence/completeness. Pedestrians were found to have a comfortable level based on posted speed limits and number of travel lanes on most roads in the network. Most roads outside of urban areas ranked high for bicycle stress, however these trips are less common in the area. Improvements to rural areas may help to increase bicycle tourism, by supporting recreational and longer routes throughout the FM Region.

?

Transit System

Transit in the FM Region is provided by the Cities of Fargo and Moorhead (known as MATBUS). MATBUS is collectively to provide fixed-route and paratransit service for Fargo, West Fargo, Moorhead, and Dilworth. Transit service is provided Monday through Saturday in Fargo, Moorhead, Dilworth, and West Fargo.

Fixed-Route Service

MATBUS operates a series of fixed-routes primarily in Metro COG's UZA, Monday through Friday from 6:15 AM to 10:15 PM and Saturdays from 7:15 AM to 10:15 PM. Seven (7) routes operate in Moorhead and Dilworth, of these, five (5) operate solely in Moorhead, and three (3) extend east into Dilworth. Several routes including Routes 31, 32 (E and W), 33, 34, and MATBUS On-Demand, a demand-response service, directly serve NDSU; these routes operate weekdays only, and Routes 31, 32, and 33 operate only during the Fall and Spring academic semesters.

MATBUS also operates LinkFM, which is a free circulator route providing service across the Red River, between the downtowns of Fargo and Moorhead. As of January 1, 2020, LinkFM only operates during community-sponsored events.

A single ride for MATBUS' fixed-route system is $1.50 and sponsoring agencies (e.g. hospitals, service providers, etc.) can purchase a pack of 20 rides for $30.00. Unlimited ride passes are also available, starting at $5.00 for a one-day pass, $60.00 for a 120-day college semester pass offered as a promotional fare to faculty and staff at U-Pass participating colleges and to students of colleges not participating in the U-Pass program, and a 31-day business pass for the regional workforce. All rates noted are subject to change.

Transit in Transition

There is a significant level of activity around the Fargo-Moorhead transit system in 2024.

Transit System Structure – A 2024 study explored the future structure of **MATBUS** and defined considerations of organization and administration. A Transit Development Plan (TDP) is also developed every five years to inform MATBUS actions. The **2026-2030 TDP** is currently in development.

Large Urban Area Designation – With the UZA population crossing 200,000 and designated a Transportation Management Area (TMA), the FTA funding source is changing to the large urban program. Fleet maintenance needs and funding sources are being evaluated currently.

Post-Pandemic Ridership and Service Levels - Like many transit agencies, service frequency greatly decreased following the 2020 pandemic and driver shortage. Some ridership segments have rebounded to 2019 levels and driver availability has impacted service levels on some specific routes and specific days.

REGIONAL CONNECTIONS

The regional multimodal transportation system facilitates alternative modes of travel within the MPA. The multimodal system is a network of transportation modes that provide connectivity to destinations outside of the FM Region. These transportation options include air travel, intercity rail, and intercity bus modes.

Air Travel

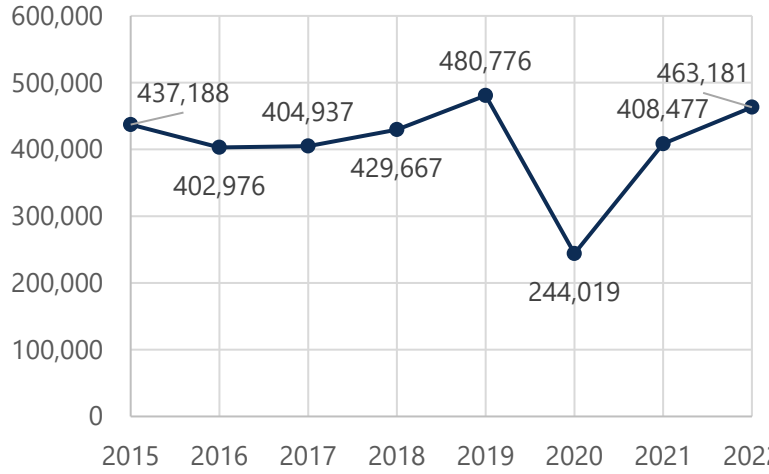
Several facilities in the FM Region provide aviation or air travel services. Air travel services include commercial and general service, as well as air freight services. The key aviation facilities within the region are:

- Hector International Airport, located in Fargo, North Dakota, offers commercial, general aviation, and air freight services.
- Moorhead Municipal Airport, located in Moorhead, Minnesota, offers general aviation services.
- Hawley Municipal Airport, located in Hawley, Minnesota, offers general aviation services.
- West Fargo Municipal Airport, located in West Fargo, North Dakota, offers general aviation services.
- Robert Odegaard Field, located in Kindred, North Dakota, offers general aviation services.
- Casselton Robert Miller Regional Airport, in Casselton, North Dakota, offers general aviation services.

Hector International Airport is the largest airport in the MPA and attracts passengers from across eastern North Dakota, northeastern South Dakota, and northwest Minnesota. The importance of this facility in meeting the FM Region's commercial aviation needs is exemplified by historic enplanement (boarding) data, which is summarized by year in **Figure 23**.

Total commercial enplanements for the year 2015 exceeded 430,000. The following year (2016) saw a decline to 403,000 enplanements, after which annual enplanements increased each year until 2019. Year 2020 saw a decline in commercial enplanements owing to the COVID-19 pandemic. After 2020, commercial enplanements began trending towards pre-pandemic levels.

Figure 23. Historic Commercial Enplanements at Hector International Airport, 2015 - 2022



Source: Federal Aviation Administration, *Passenger Boarding and All-Cargo Data for U.S. Airports*

The current airlines offering commercial service through Hector International Airport include:

- Allegiant, with service to Las Vegas, Nevada; Mesa, Arizona; St. Pete-Clearwater, Florida; Orlando-Sanford, Florida; and Nashville, Tennessee.
- American Airlines, with service to Phoenix, Arizona; Dallas, Texas; and Chicago, Illinois.
- Delta, with service to Minneapolis-St. Paul, Minnesota.
- Frontier, with service to Denver, Colorado; and Orlando, Florida.
- United, with service to Denver, Colorado; and Chicago, Illinois.

Intercity Bus

Intercity bus service through the MPA is operated by Jefferson Lines. Passengers of Jefferson Lines can access the service from the MATBUS Ground Transportation Center (GTC),1201 University Drive in Fargo, as well as the stop at 615 14th Street S in Moorhead. These stops provide access to four (4) Jefferson Line routes:

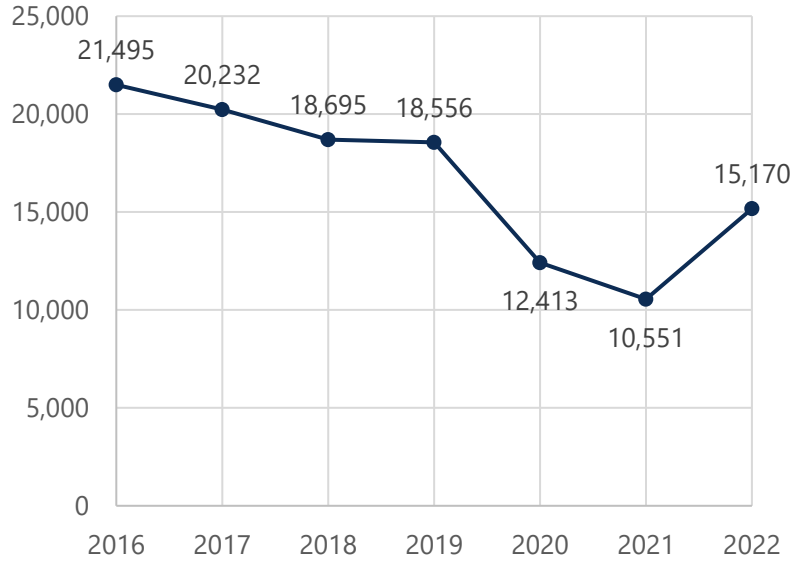
- Service north to Grand Forks, North Dakota via I-29. Service continues east into Minnesota via US 2.
- Service west to Valley City, Jamestown, Bismarck, and Dickinson via I-94. Service continues west into Montana.
- Service east into Minnesota via US 10 to Detroit Lakes.
- Service east via I-94 to St. Cloud, Minnesota; and Minneapolis, Minnesota.

Intercity Rail

Intercity rail service through the FM Region is operated by Amtrak via the Empire Builder Line that connects Chicago, Illinois with Spokane, Washington; the line then serves the cities of Seattle, Washington and Portland, Oregon.

Amtrak users can board the Empire Builder Line at the Amtrak station located at the old REA building adjacent to the former Great Northern Railway Depot in Fargo (420 4th Street N, Fargo). Annual departure statistics for passengers using the Fargo Amtrak station are shown in **Figure 24**.

Figure 24. Amtrak Arrivals and Departures for the Fargo Station, 2016 - 2022



Source: Rail Passengers Association, Amtrak Service in Fargo, ND

On-time performance of Amtrak service is a key service measure used to evaluate the performance of intercity rail service. The performance of Amtrak lines is compared to the Federal Railroad Administration's (FRA's) On-Time Performance Standard target of 80 percent (80%) of passengers arriving on time. The route level of on-time performance for the Empire Builder, as listed in the Federal Railroad Administration's third quarter 2024 *Report on the Performance and Service Quality of Intercity Passenger Train Operations*, is 52 percent (52%) meaning that about half of all trips arrive within 15 minutes of their scheduled time.

Intercity Rail Initiatives

Several intercity rail initiatives are currently being explored, which could increase passenger rail service to the FM Region.

North Coast Hiawatha Service

The North Coast Hiawatha line was a tri-weekly section of the Empire Builder line that was operated between Minneapolis/St. Paul, Minnesota and Spokane, Washington via southern Montana from 1971 to 1979.[10] Today, efforts are being led by the Big Sky Passenger Rail Authority to reinstate the North Coast Hiawatha service, which has resulted in the route selected for Corridor ID funding, which is an early step in the process of developing the route as a long-term passenger rail project.[11]

Reinstatement of the North Coast Hiawatha service would provide the FM Region additional intercity passenger rail service that complements the existing Empire Builder service. This service would offer intercity passenger rail service connecting Fargo with St. Paul, Minnesota to the east and Helena, Montana to the west; planning studies for the route have also identified other potential stops in North Dakota, including Valley City, Jamestown, and Mandan.

All Aboard Northwest

All Aboard Northwest is a 501 (c) (4) nonprofit organization created in 2021 to bring economic, environmental, and equity benefits to communities within the Greater Northwest. The organization advocates for the regional needs of rail passengers and coordinates with transportation organizations, such as Metro COG to strengthen relations between these groups and citizens of the region.

As part of advocacy activities, All Aboard Northwest is participating in the **Amtrak Daily Long-Distance Service Study**, led by FRA and authorized under Section 22214 of the Bipartisan Infrastructure Law. The purpose of this study is to evaluate the restoration of daily long-distance intercity passenger rail service and the potential for new Amtrak long-distance routes.[12] The study began in 2022 and a final

[10] Amtrak, *North Coast Hiawatha Passenger Rail Study.*
[11] KFYR TV, *Old North Coast Hiawatha rail route takes giant step towards reinstatement.*
[12] Federal Rail Administration, *Amtrak Daily Long-Distance Service Study.*

document had not yet been released at the time of writing Metro 2050.

All Aboard Northwest has been able to work with FRA and regional stakeholders to establish a vision for the future of intercity passenger rail service in the Greater Northwest. This vision touches the FM Region through the incorporation of the North Coast Hiawatha line that adds additional service between the cities of Fargo, North Dakota and St. Paul, Minnesota.

Empire Builder

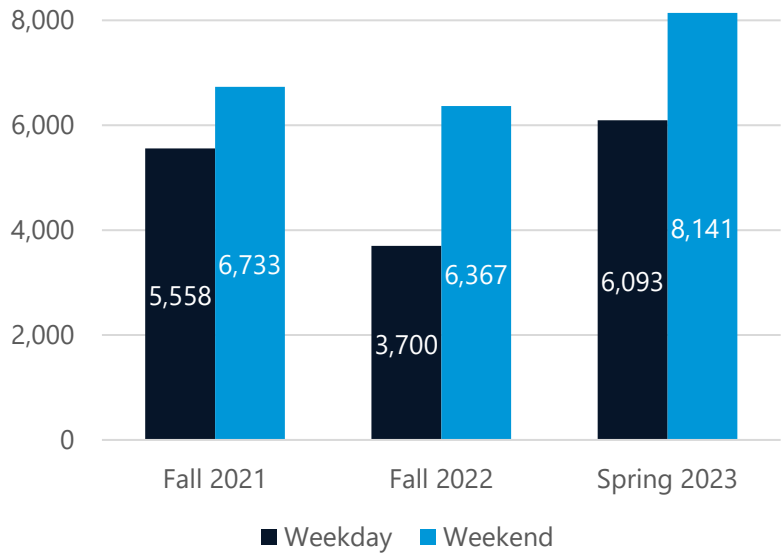
Under BIL and additional funding for intercity rail, Amtrack is pursuing funding for replacement of locomotives and cars. In replacing the Amtrak fleet, there is opportunity for expansion of service. Metro COG has been involved in conversations to add an additional train to the Empire Builder service, bringing the service to two (2) westbound trains and two (2) eastbound trains daily. Metro COG will continue to coordinate with Amtrak and the working group on this expansion of service.

Transportation Network Companies

An additional option for mobility within the MPA is provided by the Transportation Network Companies (TNCs) Uber and Lyft. TNCs are private companies that provide users with on-demand transportation that can be booked via app-based platforms. These services offer users high levels of flexibility and convenience but typically require a web-enabled mobile device in order to book a trip. Traditional taxicab services are also available in the Metro COG region.

To understand the total usage of TNCs in the Metro COG region, data sourced from Replica HQ was utilized to show total trips taken using TNC services, trip purpose, and time of departure. Data shown in **Figure 25** represents a typical weekday or weekend in Fall 2021, Fall 2022, and Spring 2023. Weekday and weekend travel data is shown separately as travel behavior normally changes from typical commutes on weekdays, and TNC demand will typically increase. Weekends trips in Fall 2021 exceeded weekday trips by 1,175. In Fall 2022, trips taken on a weekday drastically decreased, and weekend trips stayed constant, leading to a wider margin of 2,667 trips between weekdays and weekends. By Spring 2023, weekday trips taken using TNCs increased to 6,093, however still did not outpace weekend trips, which were at 8,141.

Figure 25. Total Trips Taken by TNC/Taxicab, 2021 – 2023



Source: Replica HQ

TRANSPORTATION GOALS & OBJECTIVES

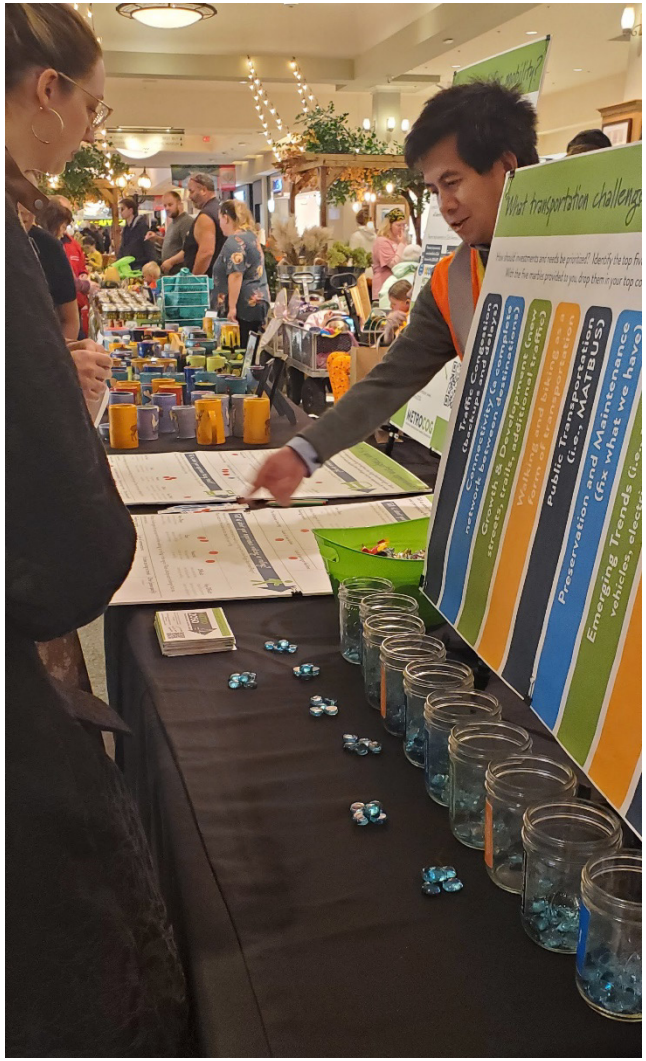
The vision for how the Fargo-Moorhead regional transportation system should perform in the future was based on first establishing plan goals. The purpose of setting plan goals is to translate the values that the FM Region places on transportation as derived from regional community engagement and setting up comprehensive guiding principles. Goals provide the framework through which Metro 2050 has been developed and measured. The goals were developed to reflect:

- National priorities, including the national planning factors outlined in CFR §450.306(b)
- State goals outlined in state transportation plans for North Dakota and Minnesota
- Public input received through the various engagement efforts outlined in **Appendix A**.

TRANSPORTATION GOALS

The 10 plan goals highlight the focus areas for 2050 and provide critical MTP direction. *Metro Grow* included eight (8) goal areas that were reviewed as an initial step in the goal development process. The eight (8) topical areas are still present within Metro 2050's goal framework, with revisions to respond to current needs. Additionally, the Connecting People and Places and Transportation Decision are two (2) new goals. The 10 goal statements are identified on the following page.

Metro 2050 Pop-Up Booth at Red River Market 2023



METRO 2050 TRANSPORTATION GOALS

METRO 2050
TRANSPORTATION • MOVING • AHEAD

Table 14. National Planning Factors and Metro 2050 Goals

How does Metro 2050 address National Planning Factors? National Planning Factors	Metro 2050 Transportation Goals									
	Safety and system security	Travel efficiency and reliability	Walking, biking, and rolling	Transit access and reliability	Maintain transportation	Community context and impact	Freight network – Moving Goods	Emerging transportation	Transportation decisions	Connecting people and places
1. Support the economic vitality of the metropolitan area, especially enabling global competitiveness, productivity, and efficiency.										
2. Increase safety of the transportation system for motorized and non-motorized users.										
3. Increase security of the transportation system for motorized and non-motorized users.										
4. Increase accessibility and mobility of people and freight.										
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.										

How does Metro 2050 address National Planning Factors? National Planning Factors	Metro 2050 Transportation Goals									
	Safety and system security	Travel efficiency and reliability	Walking, biking, and rolling	Transit access and reliability	Maintain transportation	Community context and impact	Freight network – Moving Goods	Emerging transportation	Transportation decisions	Connecting people and places
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.		✓	✓	✓			✓		✓	✓
7. Promote efficient system management and operation.	✓	✓		✓	✓			✓	✓	
8. Emphasize the preservation of the existing transportation system.					✓	✓			✓	✓
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	✓	✓		✓		✓		✓		
10. Enhance travel and tourism.	✓	✓	✓	✓	✓					✓

The foundation of Metro 2050's transportation goal areas, subsequential project list, and implementation strategies address all 10 of the planning factors of CFR §450.306(b). As shown in **Table 14**, there is comprehensive coverage from each Metro 2050 goal area to address the variety of implementation project and/or strategy as included in Metro COG's MTP.

PLAN OBJECTIVES AND PRIORITIZATION METRICS

Objectives were established within each of the goal areas and create specific, measurable actions for the MTP. One of the core applications of these goals and objectives is the establishment of prioritization metrics. The metrics directly tie national, state, and local priorities to the evaluation of potential strategies and projects. The metrics also support the regional performance measures that Metro COG reports on, as reflected in **Chapter 2**. This process ties the regional vision to project implementation, and ultimately to regional transportation system performance, to be tracked or evaluated over time.

Objectives and metrics are identified and applied for relevance to the community and how each supports the vision, goals, and performance of the regional transportation system. This approach, as refined from *Metro Grow*, the 2045 MTP, scored potential strategies and projects for Metro 2050 so that the highest priority projects best reflect the regional community's vision and ultimately support the performance measures and targets that Metro COG set.

There are two subsets of objectives and metrics identified within the following table. **Policy Objectives** represent objective statements that respond to future implementation action or project refinement. In many cases, these objectives will be relevant as projects are refined for inclusion in the TIP and more detail is known. These objectives will be helpful through each TIP development process. Metrics that align with the **Congestion Management Process (CMP),** discussed in **Chapter 4**, are highlighted with ***CMP*** to indicate alignment between the MTP and CMP objectives. Additionally, **System Performance Metrics** are identified as those directly associated with Metro COG's performance measures.

The objectives and prioritization metrics for each goal area are shown in **Table 15**.

Table 15. Objectives and Prioritization Metrics

SAFETY & SYSTEM SECURITY	Provide a transportation network that prioritizes safety for all modes and is adaptable to environmental and social change.

Objectives & Prioritization Metrics	OBJECTIVE	METRIC
	Reduce the number and severity of crashes.	**System Performance Metric:** Review crash modification factors to determine potential project impact on these individual safety categories.
	Eliminate all traffic-related death and severe injuries in the region.	
	Reduce the severity of bicycle and pedestrian crashes.	
	Reduce the number of transit-involved crashes.	Project has potential to reduce bus-involved crashes along an existing bus route.
	Support strategies to make transportation infrastructure more adaptive and responsive to environmental, social, and economic change.	Project has the potential to reduce flooding or other hazard risk or improves the region's response to change (i.e., alternate routes).
	Policy Objective: Improve the multimodal transportation experience by increasing the safety and security for users.	Support the inclusion of security features within design. *(i.e., project includes securing infrastructure)*
	Policy Objective: Support programs and multimodal roadway designs that reduce or eliminate safety issues.	Utilize roadway typologies to inform consistent multimodal treatments and safety improvements. *(i.e., the project includes multimodal and safety improvements that align with the roadway typology).* ***CMP***

OBJECTIVE	METRIC
Policy Objective: Support programs and design strategies that allow efficient and effective incident response.	Policy Objective. No project scoring *(Support projects that would improve incident responses).* ***CMP***

TRAVEL EFFICIENCY & RELIABILITY

Improve mobility across the region that allows efficient and reliable movement of goods and people.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Improve travel reliability on the NHS and arterial roadways.	Project would improve safety or system management in a corridor with reliability issues. ***CMP***
Limit recurring peak period delay on the NHS and arterial roadways.	Project would improve traffic operations / improve forecasted level-of-service (use LOS E/F as deficiency). ***CMP***
Improve the connectivity of the street and multimodal networks and promote a grid street pattern.	Project would complete a street system connection where one does not currently exist, has the potential to reduce out-of-direction travel, and is context sensitive. ***CMP***

OBJECTIVE	METRIC
Support uninterrupted travel flow of all modes, including congestion reduction, incident response, and service reliability.	Project would reduce starting and stopping of traffic. Project features may include innovative intersections, reduced number of traffic signals, adaptive signals, freeway and arterial management technologies, and innovative street treatments. ***CMP***
Prioritize system investments that improve efficiency of the system and consider invests in transportation demand management and improvements that reduce emissions and vehicle miles traveled (VMT).	Project would result in a reduction of congestion with travel demand management investments and/or reduction in VMT. ***CMP***
Policy Objective: Manage access to commercial corridors to promote multimodal mobility – emphasizing the connection of people and goods.	Policy objective, no project scoring *(Project increases multimodal access to commercial corridors)*. ***CMP***
Policy Objective: Promote the development of alternative routes that allow for reliable mobility during incidents.	Policy objective, no project scoring *(Project includes new alternate routes for incidents along major roadways)*. ***CMP***

WALKING, BIKING, & ROLLING

Empower people to walk, bike, and roll more often as a mode of transportation

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Improve walking and biking connections and reduce network gaps.	Project would improve network connectivity by completing an identified gap or improving measures including intersection density, walk scores, etc. *CMP*
Support facility design that provides a comfortable and safe environment for walking, biking, and rolling.	Project includes design features to improve safety and comfort for users, identified using a qualitative assessment of project elements using a rating scale.
Provide bicycle and pedestrian corridors that connect community destinations and conducive land uses.	Project will connect community destination, identified using a qualitative assessment of connections.
Policy Objective: Increase mode share for travel.	Project would increase non-single-occupant vehicle travel. Examples include bike and pedestrian projects, transit improvements, travel demand management programs and strategies. *CMP*
Policy Objective: Make bicycling more competitive with automobile travel in the region.	Policy objective, no project scoring *(Support projects that make bicycle connections between existing infrastructure and destinations).*
Policy Objective: Support the inclusion of infrastructure to enhance the security of walkers, bikers, and rollers within the transportation infrastructure (e.g., lighting, refuge).	Policy objective, no project scoring *(Support projects that include safety infrastructure for walkers, bikers, and rollers).*

TRANSIT ACCESS & RELIABILITY

Support people's access to reliable transit service.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Improve pedestrian and bicycle connection to transit corridors.	Project includes bicycle and pedestrian features that improve or create connections to transit corridors and destinations. *CMP*
Support transit connections to other regional centers, including bus and rail services.	Project includes new or improved transit service with connections to regional transit offerings. *CMP*
Support the maintenance of efficient transit infrastructure, including the transit fleet.	Project includes improvements to transit infrastructure, including fleet, station facilities, and bus enhancements.
Promote right-sized transit services to increase transit access throughout the region, including micromobility and fixed route services.	Project includes transit service that is scaled to the service area, with assessment based upon a qualitative assessment of land uses and connections.
Develop transit-intensive corridors with supportive infrastructure to enhance service reliability and connections to development that encourages making trips by public transit.	Project includes transit infrastructure or advantages on existing or planned transit routes or supports micromobility options. *CMP*

MAINTAIN TRANSPORTATION INFRASTRUCTURE

Sustain transportation infrastructure in a state of good repair.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Continue to maintain NHS routes in good condition and minimize NHS routes in poor condition.	**System Performance Metric:** Use pavement and bridge investment models to estimate asset management investment needs. Maintenance projects will be included in the project list. ***CMP***
Continue to maintain the arterial system in good condition, prioritizing multimodal corridors.	
Policy Objective: Identify sufficient financial resources to maintain all Federal-Aid streets (e.g., streets that receive maintenance and improvement funding from the Federal government) in fair and good condition.	Policy Objective, no project scoring. *(The reserve categories identified within this plan include projects with other funding resources)*
Policy Objective: Support the maintenance of non-pavement infrastructure (e.g., technology, striping) on all multimodal infrastructure.	Project includes investments to improve non-pavement infrastructure, specifically for multimodal design features.

COMMUNITY CONTEXT & IMPACT REDUCTION

Strengthen equitable access to and support environmental considerations into transportation planning decisions.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Limit transportation impacts to natural resources.	Project minimizes and/or mitigates any impacts to known natural resources.
Provide transportation system that fits within its context and mitigate impacts to environmental and community features.	Project was assessed for its relationship to surrounding context, is consistent with adjacent land uses, and mitigates any impacts.
Improve access to multimodal options for all users.	Project will improve access (more service, improved bicycle, pedestrian, and/or transit connections) for FM Region populations.
Prioritize investments in transit, biking, and walking improvements that reduce greenhouse gas emissions and vehicle miles traveled (VMT)/vehicle hours traveled (VHT).	Evaluate project-level VMT/VHT for potential reduced energy and consider projects that promote transportation technology. Air Quality improvements are a secondary benefit. ***CMP***
Monitor regional air quality and implement practice to improve quality as needed (e.g., reduce transportation system energy consumption).	Evaluate project-level VMT/VHT and congestion changes to assess air quality impacts. ***CMP***
Policy Objective: Ensure transportation system impacts do not disproportionately impact specific populations such as Title VI communities.	Evaluated at planning level. Projects should not disproportionately impact Title VI communities.

OBJECTIVE	METRIC
Policy Objective: Support investments that include features to reduce environmental impacts of transportation improvements (e.g., stormwater/blue infrastructure).	Policy objective, no project scoring *(Future project consideration to explore the potential for impacts to environmental resources).*

FREIGHT NETWORK - MOVING GOODS

Accommodate freight movement to strengthen regional economic priorities and support efficient consumer mobility and delivery.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Improve freight reliability on the Interstate and NHS to support regional and national commerce.	**System Performance Metric:** Project would improve freight safety or system management or Interstate system, per Federal performance measures. ***CMP***
Provide improvements to the truck freight system, including movement from the origin/destination in the region and/or through the region.	Project includes design features that would improve freight movement and connections to regional freight destinations. Features may include an increase in corridor load limits or alternative truck routes. ***CMP***
Policy Objective: Improve reliability and reduce delay for freight operations.	Policy objective, no project scoring. ***CMP***
Policy Objective: Delineate and maintain a regional comprehensive freight network and prioritize investments for these regional connections.	Project includes freight improvements for infrastructure identified within the regional freight corridor.

EMERGING TRANSPORTATION TRENDS

Monitor transportation trends and new technologies shown to improve the way people travel and incorporate into regional transportation plans.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Policy Objective: Investigate technologies and strategies that need to be integrated into transportation infrastructure as part of maintenance/reconstruction activities.	Project has the potential or includes at least one emerging trend as part of its implementation.
Policy Objective: Identify intelligent transportation system technologies used in other regions that would promote other regional goals.	
Policy Objective: Investigate the creation of a regional transportation management center (TMC) to review and manage regional mobility. ***CMP***	
Policy Objective: Coordinate emerging technologies and policies across region, supporting universal use when applicable.	
Policy Objective: Investigate the potential for new technologies and micro-mobility infrastructure in Fargo-Moorhead area.	
Policy Objective: Continue to monitor new and evolving technologies that may be implemented within the region to support mobility and safety improvements. ***CMP***	

TRANSPORTATION DECISIONS

Make regional transportation decisions that tie local and regional priorities together, promote fiscal responsibility, and support the movement of goods and people.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Coordinate regional land use and transportation investment decisions.	Project reduces long-term operations and/or maintenance costs.
Balance maintenance and preservation needs with expansion activities to supporting infrastructure that is right-sized within the context and future needs.	Project includes improved connections to regional destinations. ***CMP***
Policy Objective: Prioritize considerations and input from Title VI populations in the decision-making process.	Policy objective, no project scoring *(project receives support from Title VI populations).*
Policy Objective: Balance local and regional priorities.	Policy objective, no project scoring *(project identified within local study or plan).*
Policy Objective: Promote financially sustainable transportation investments that can adapt to changes in travel patterns, modal distribution, and community growth.	Policy objective, no project scoring *(project supports regional connections that are adaptable).* ***CMP***
Policy Objective: Utilize a system approach for decision making that utilizes a high-level regional consideration.	Policy objective, no project scoring *(project provides regional benefit and is supported by a broad audience).*
Policy Objective: Balance the distribution of investments and resources in the region that includes consideration of need-based, population/destination hubs, roadway typologies, etc.	Policy objective, no project scoring *(projects are spaced throughout the region to provide benefits across different areas).*

Connecting People & Places **Consider where people live and work, and people's relationship to the built environment in regional long-term transportation decisions.**

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Create places people want to live, work, shop and recreate.	Project is consistent with or directly supports regional economic development goals.
Closely coordinate regional land use and transportation investment decisions.	Project includes improvements that support regional land use decisions.
Support the development of transit-intensive corridors that include development that encourages making trips by public transit and connections for walkers, bikers, and rollers.	Project would result in improvements that support investments in transit corridors and reduce VMT/VHT. ***CMP***
Support the development and investment that aligns land uses with regional roadway characteristics.	Project includes design features that align with the identified regional roadway characteristics. ***CMP***
Policy Objective: Coordinate the transportation and regional role of the multimodal transportation network in supporting access to a healthy lifestyle.	Policy objective, no project scoring *(project supports access to healthy lifestyle infrastructure).*
Promote complete streets improvements in corridors that would see economic benefit, ensuring that land uses are accessible by multiple modes.	Project improves walking or biking conditions in a defined commercial, industrial or mixed-use development area.
Balance multimodal connections to support transit-oriented development.	Project includes bicycle and pedestrian features that improve or create connections to transit corridors and destinations. ***CMP***

OBJECTIVE	METRIC
Policy Objective: Utilize local land use and growth management strategies to inform maintenance, expansion, and new roadway priorities.	Policy objective, no project scoring. Metro COG works with local jurisdictions to coordinate future land uses and transportation infrastructure. ***CMP***
Policy Objective: Promote development that provides connections and encourages multimodal trips to access destinations.	Policy objective, no project scoring *(project improves connections with multimodal infrastructure).* ***CMP***

Aerial of Kindred, North Dakota located in the Southwest Corner of the FM Region

EMERGING TRANSPORTATION TRENDS & TECHNOLOGY

The FM Region's transportation system and travel options are in a time of flux. Several emerging trends and technologies have the potential to impact how people travel. The opportunities and disruption to existing travel options presented by new transportation approaches are anticipated to accelerate over the life of Metro 2050. The MTP prepares for some of these potential changes by identifying the goal to "incorporate transportation trends and new technologies in regional transportation plans". This chapter summarizes how trends and technologies could potentially impact the regional

transportation system and wider community, and potential policies and planning activities for Metro COG and member jurisdictions to consider.

There are generally two (2) categories of trends and technologies that are re-shaping our transportation options: new "shared mobility" options and emerging transportation technologies. The remainder of this chapter describes technologies and potential impacts in the FM Region.

NEW SHARED MOBILITY OPTIONS

The emergence of smart phone technology has allowed some existing technologies to provide new types of flexible, on-demand shared mobility services that were not previously available. These new shared mobility options include ride-hailing services, microtransit, and micromobility services.

Ride-Hailing Services:	Mobility using a service that matches a driver of a personal vehicle to individual customers (i.e. Lyft, Uber, etc.)
Microtransit:	Mobility using a passenger vehicle providing on-demand transit service
Micromobility:	Mobility using electric-assisted or manually powered vehicle, including bikes, scooters, wheelchairs, and mobility scooters

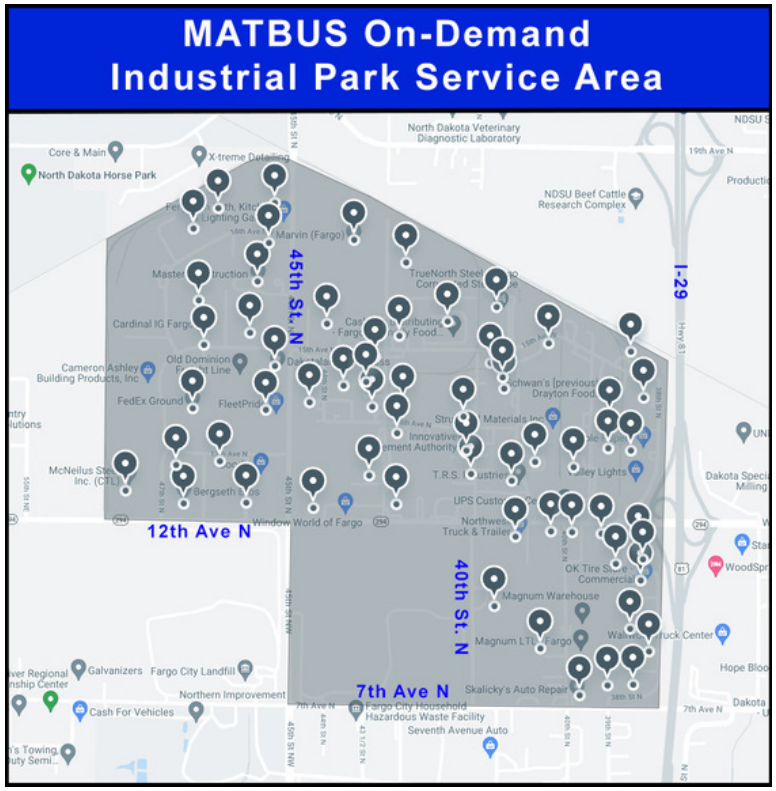
Ride-Hailing Services

Transportation network companies (TNCs) such as Uber or Lyft offer private, for-profit personal transportation via ride-hailing applications (e.g. mobile app). Typically, services are offered by private citizens in 'contracted' personal vehicles.

Microtransit

Microtransit includes shared transportation systems that can offer fixed routes and schedules as well as flexible routes and on-demand scheduling. Microtransit is ideally suited for paratransit and door-to-door services. Microtransit solutions are being deployed throughout the country to provide small-scale, on-demand public transit service through various programs and solutions.

MATBUS launched MATBUS On-Demand, a free on-demand transit service in March of 2023. The microtransit service operates in two areas, the Fargo Industrial Park and NDSU, providing personalized rides for up to five (5) passengers. On-demand service is available within these service areas, with connections to existing fixed route transit services offered by MATBUS.



Micromobility

Micromobility is a group of shared transportation modes, including bicycles (bike share), mopeds, and e-scooters. These transport devices can be used throughout a campus, city/town, or region and are often an effective means of providing a first/last-mile function for existing transit service.

Companies such as Bird, Lime, Uber and Lyft offer traditional and electric-assist bicycles and e-scooters through both docking and dockless systems. The rental of these devices occurs through a mobile app. These privately sourced services have emerged in dozens of urban areas with similar climates around the country. Before the COVID-19 pandemic, there was a bike-share service in operation in the FM Region provided by the non-profit, Great Rides. This service was discontinued in 2020, and no new or similar services have been provided in the region. Upon initial ridership data, Great Rides Bike Share was one of the most successful bike-share operations in the nation at the time, as a result of strategic partnership with NDSU & the MATBUS U-Pass program.

Metro COG researched best practices and lessons learned from communities with dockless bike-share programs and e-scooters. Guidelines were explored in 2018 for use by local jurisdictions if dockless bike-share programs, e-scooters, or similar micromobility options were to emerge in the region. Use and deployment of micromobility services have continued for regions throughout the Midwest that may supplement this guidance.

Mobility-as-a-Service

Mobility-as-a-service (MaaS) is the concept of a seamless system of transportation options that a person can access and pay for on demand through use of smartphone technology.

Transportation System Implications	
Decreased demand for traditional taxi services	More heavily regulated taxi industry has experienced lost ridership and revenue to ride-hailing services.
Mixed impacts to public transit ridership.	Ride-hailing services can negatively impact transit ridership. Micromobility services can also bolster major transit lines by enhancing first/last-mile connections. Additionally, there is some hope that partnerships that are being built between TNCs and transit agencies can work in tandem, with the ride-hailing service providing the "first mile, last mile" access to the transit stop, and the transit line providing the remainder of the trip.
Increases to overall vehicle travel.	Micromobility trips tend to be shorter, and usually just replace walking and biking trips. However, the ride-hailing services often lead to increased vehicle miles traveled (VMT) by increasing single passenger rides and empty vehicles searching for new passengers.
Safety concerns with some micromobility options.	Electric scooters can have safety concerns. With speeds up to 15 miles per hour, electric scooters operating characteristics make them inappropriate for sidewalks and many trails, but not necessarily fit for all city streets.

Users do not need to own a personal vehicle or know the bus schedule to travel. They can open an app and tell it where they want to go, and the MaaS provides them a menu of modal options, travel times, and costs from which they can select. Often MaaS apps provide a single payment account that allows seamless transaction for both traveler and the service provider.

The apps can offer a range of ride-hailing, microtransit, micromobility, traditional public transit, and bike sharing options.

EMERGING TECHNOLOGIES

In addition to emerging and expanding trends in transportation, there are several transportation technologies that continue to develop with potential. These technologies include: smart cities, advancing transportation infrastructure, and connected and autonomous vehicles.

Smart Cities

According to the National League of Cities, a "smart city" is one that has developed technological infrastructure that enables it to collect, aggregate, and analyze real-time data to improve the lives of residents. In terms of transportation elements in a smart city, this might involve smart logistics and freight, vehicle fleet communications, vehicle congestion and speed sensors, smart parking, smart streetlights, and self-driving cars.

Smart city projects can take many forms, and the focus of a smart city has evolved over the last few years. Beyond technologies and connected environments, the smart cities

movement emphasizes access to transportation, healthcare, housing, and economic opportunity. Smart city projects that may be applicable or considered within the FM Region include:

- **Streetlight Enhancements** using LED streetlights that are remote-controlled to minimize energy use.
- **Smart Road System and Timing** using adaptive signals to manage transportation movement through signal timing and navigation to reduce congestion.
- **Smart Parking** to reduce parking congestion and provide connected parking locations.
- **Connected Vehicle Environments** by deploying connected vehicle safety applications on buses, emergency vehicles, and public and private fleets.
- **Mobility Assistance** combining solutions for the community's social goals with transportation solutions.
- **Pavement and Asset Management** systems and technologies to monitor existing assets and the quality of those assets in real time.

Advancing Transportation Infrastructure

The Advanced Research Project Agency – Infrastructure (ARPA-I), established by Congress in 2021, is a federal agency supporting the development of science and technology solutions for transportation infrastructure throughout the country. The agency continues to explore and advance research around the maintenance and development of infrastructure in the following areas:

1. Safety
2. Advanced Construction Materials and Methods
3. Digital Infrastructure
4. Freight and Logistics Optimization
5. Climate and Resilience

The ARPA-I continues to explore and research needs and opportunities for transportation infrastructure systems. Current research activities include predictive analytics, low-carbon material use, and autonomous freight technologies. Continued monitoring of ARPA-I study efforts may inform future opportunities for the region.

Aerial of At-Grade Railroad Crossing, 16th Street N. Fargo, ND

Connected and Autonomous Vehicles

Connected vehicles are technology-enabled automobiles, trucks, and buses that can communicate with each other and infrastructure.

Automated vehicles are technology-enabled automobiles, trucks and buses where at least some vehicle movement and guidance functions are completed by the vehicle without human input.

Over the last decade, Connected and Autonomous Vehicles (CAVs) have received extensive attention, investment, and testing by private companies. CAVs represents a confluence of technological innovations across divers industries. Industries considered separate in the past – the automotive and high-tech industries – are now blurring into an overall automotive tech industry. As research has continued in CAVs, efforts focused on personal vehicle CAVs have slowed. Research and expansion on autonomous freight has continued.

Autonomous Freight

CAVs are not only predicted to impact the way individuals move through cities, but this technology is expected to change the way we move goods as well. The exploration of freight CAVs continues to be on the leading-edge of research.

Along with CAVs, safety is touted as the main benefit of freight CAVs. An additional business advantage of autonomous freight vehicles is pushing the development of this transportation technology: freight CAVs may eventually not require a driver. Vehicles without drivers could potentially reduce operating costs for highway freight companies, reducing the total cost of shipping goods (excluding long-haul labor, for example). Connected and autonomous freight vehicles can "platoon" with two (2) or more trucks coordinating cooperative adaptive cruise control, which allows for fuel savings, reduced congestion as following distances between vehicles is decreased, and improved safety as the freight vehicles are able to communicate to address potential collision risks. Lower costs could in turn induce more demand for highway freight services as shipping costs decline.

As shipping costs decline, local retail establishments may see significant additional competition as individuals might be able to purchase an item online and have it delivered within a matter of days at a cost comparable to visiting a retail location for the same item. Thus, future transportation networks may need to account for increased freight activities on both highways and local roads where freight vehicles are allowed to operate, as applicable.

Connected and Autonomous Vehicle (CAV) initiatives have not manifested in the way as thought in the last five years. The technology is still being developed for over-the-road freight systems but has not transcended into the private personal vehicle market as originally thought.

TRANSPORTATION TRENDS & TECHNOLOGY POLICIES TO CONSIDER

Transportation research and technology development will continue throughout the nation, creating new systems and technologies that can be applied in the MPA. Continuing to monitor expanding and emerging trends that can be applied in the FM Region creates the opportunity to advance the regional multimodal transportation network. To support this effort, the establishment of a multi-disciplinary "Transportation Trends and Technology Working Group" could be explored by Metro COG. Other MPOs have established similar working groups, as a round table of interested transportation, engineering, planning, and technology professionals identify opportunities to promote beneficial technologies, or trends and technologies to keep an eye on. Upon establishment, this group may define trends and pilots that could be deployed in the region and identify potential partnerships.

CURBSIDE

Curbside management is a policy for regulating shared modes (for transit, delivery service, ride hailing, etc.) in public right-of-way at the curb space for orderly and efficient use of valuable public space. Communities across the US are looking towards pick-up and drop-off management plans for companies like Uber and Lyft so that the congestion and safety issues associated with their operation can be addressed. For example, the city of San Francisco adopted a program named "Colored Curbs" that utilizes a low-cost means of allocating curb space for different uses. By painting curb spaces in the city the curbside policy designates exclusive zones for a variety of parking purposes and monitors activity to ensure compliance.

An additional low-cost way of developing a curbside management program is to implement a "flex zone" program that takes existing commercial loading zones and expands use to mobility providers such as Uber and Lyft or other ride-share and taxi service providers. In this concept, loading zones are permitted for commercial deliveries at mandated times of the day and outside of commercial delivery times, shared mobility providers are allowed access to loading zones.

DATA SHARING

Data sharing can greatly improve the ability of MPOs and local jurisdictions to understand and plan for shifting travel patterns of residents however, mobility providers are often reluctant to share their data. To engage private firms in data sharing agreements, cities must usually offer an incentive. The types of incentives vary. Common examples include exemptions from operational permitting fees, or awarding dedicated right-of-way for exclusive use in operations.

Local jurisdictions should review state enabling legislation regarding data sharing agreements with mobility partners. State laws regarding data sharing agreements can vary widely, with some states being less restrictive than others. For example, the State of Iowa adopted legislation that asserts a statewide uniform code for regulating TNCs and does not

allow local jurisdictions to adopt regulations inconsistent with state code. North Dakota Century Code currently requires TNCs to report operation locations, the number of crashes that occur, and number of traffic violations reported. Both Minnesota and North Dakota have state laws that require insurance coverage and rules about information which must be provided to passengers.

MAAS APPLICATIONS

Incorporating a range of shared mobility services into a region-wide transportation application may be a strategic investment for the region. The MaaS application allows users to plan and pay for trips across the MPA with a range of modal options (such as transit, bikeshare, ride hailing, micromobility, etc.). Given the current lack of micromobility options in the FM Region, Metro COG and local jurisdictions have the opportunity to be selective, considering how micromobility may integrate with existing MATBUS services and existing private ride-share operations. Future mobility thorugh MaaS application may be visionary, and the FM Region should be thoughtful about potential future implementation. Currently, there is great concern over the use of emerging mobility services within the FM Region.

ELECTRIC VEHICLES

Electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs) have continued to grow in popularity throughout the nation, providing vehicle options that use a battery instead of gasoline or a combination of electric and gasoline. The technology surrounding electric vehicles has continue to expand with over 50 EV and PHEV models on the market throughout the United States today. As of June of 2024, the MSA had around 900 registered EVs (within Cass and Clay Counties) with a projection of up to 1,800 registered EVs by 2035.

Mid-Block Crossing on 12th Avenue N. Fargo, ND

In 2023, Metro COG completed the *EV Readiness Study* to create actionable recommendations for developing an effective EV planning process. The process looked to establish grid readiness, regional connectivity, and access within the region for this growing trend. Several strategies were recommended as part of the Metro COG study, including high-priority strategies and longer-term strategies that enhance support for residents and businesses adopting EVs. Throughout coordination in development of the EV study, it was determined that the development of charging infrastructure would be completed by the private sector (i.e. energy providers). North Dakota EV fast charging stations are explicitly described as remaining private by NDDOT in programming and policy guidance[1].

Next steps in advancing the FM Region's readiness for EVs were identified within the study, including the completion of the Phase 2 EV Readiness Study, incorporation of EV infrastructure into utility master planning with coordinating partners, and additional studies with agency partners and member jurisdictions to understand needs.

On January 20, 2025, the Federal Executive Branch signed several Executive Orders (EOs) rescinding federal policy preference toward EVs[2]. Metro COG will continue to align with federal policy and will monitor EV market activity as may be applicable.

[1] NDDOT. (2024). *NDDOT releases notice of funding opportunity to support electric vehicle charging*. June 20, 2024.

[2] The White House. (2025). *Initial Rescissions of Harmful Executive Orders and Actions*. January 20, 2025.

2050 System Needs & Strategies

The objective of Metro 2050 is to understand current performance of the FM Region's transportation system, define goals, and identify future needs and strategies. This chapter highlights the needs and strategies identified for the FM Region in year 2050.

REGIONAL GROWTH

Metro 2050 looks towards the FM Region's future to understand how growth in population and employment levels could impact the multimodal transportation system. Based on future land use plans for the communities within the Metro COG region, future household and employment levels were forecasted through the year 2050; **Table 16** summarizes the growth anticipated for the region including population, households, and jobs. Growth estimates are used as inputs for the travel demand model (TDM) to reasonably forecast future traffic operations within Metro COG's MPA.

Table 16 shows the number of households within the MPA was 112,239 in 2021. It is estimated that the number households within the MPA will grow at a rate of 0.8 percent (0.8%) per year, resulting in 143,179 households by 2050. Employment growth is estimated to outpace growth in households, as the region is anticipated to gain over 80,600 jobs by 2050 at an annual growth rate of 1.5 percent (1.5%). Employment is forecast to increase from 153,955 jobs in 2021 to 234,618 jobs in 2050.

Table 16. Metro COG Regional House and Employment Growth, 2021 – 2050

Metric	2021	2050	Total Growth	Annual Growth
Population	251,527	338,898	87,371	1.0%
Households	112,239	143,179	30,940	0.8%
Employment	153,955	234,618	80,663	1.5%

Figure 26 shows anticipated growth in the region's households through 2050, while **Figure 27** presents the anticipated growth in jobs for the region during this period.

Figure 26. Metro COG Regional Growth in Households, 2021 – 2050

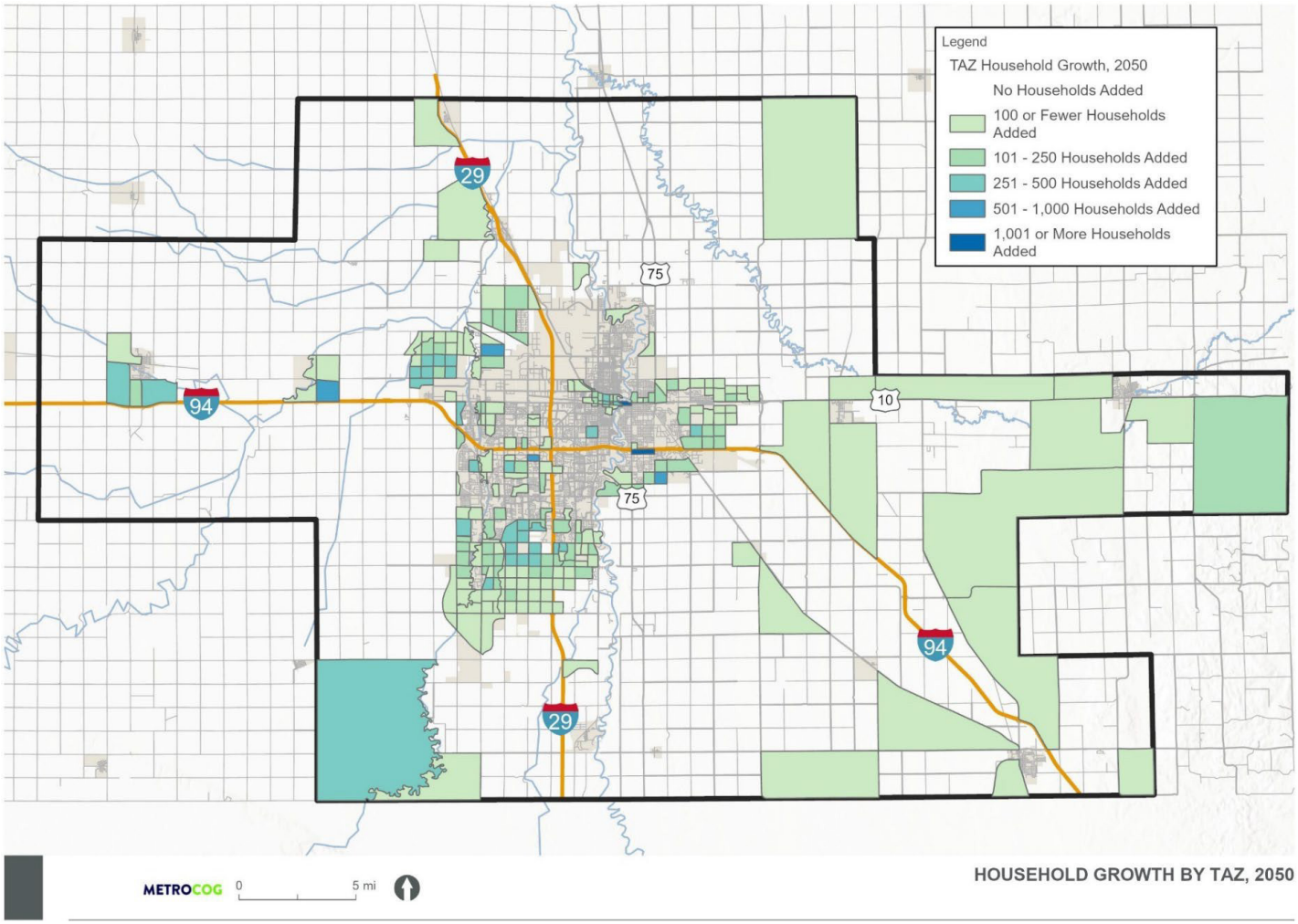
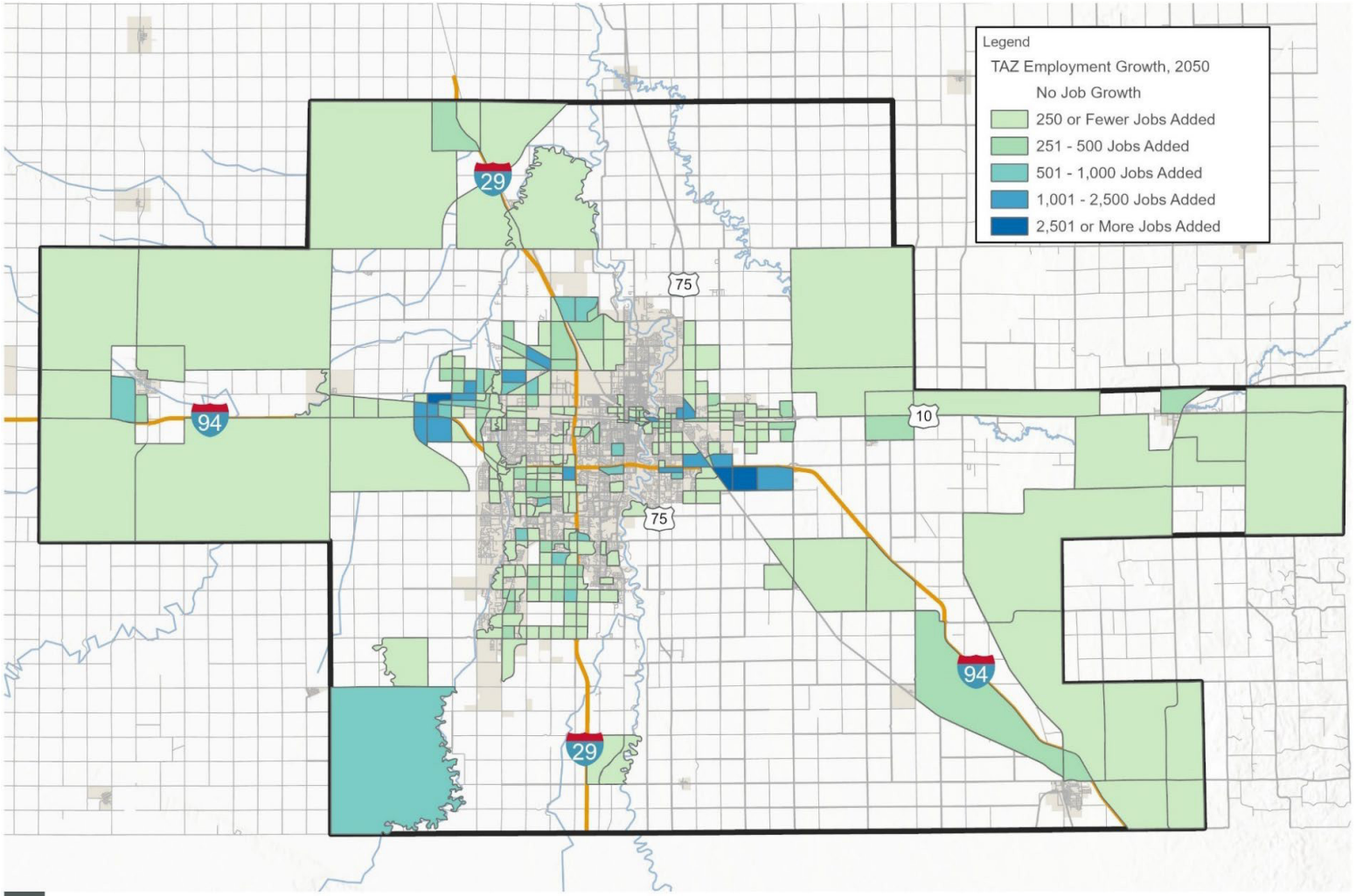


Figure 27. Metro COG Regional Growth in Employment, 2021 – 2050



TRAVEL DEMAND MODEL

Metro COG's TDM was updated as part of the development of Metro 2050. The update to the TDM uses 2021 as a base year for forecasting future household and employment growth, and to quantify changes in regional travel demand for the MPA's regional roadway system. Given that the TDM is vehicle-based, forecasts for bicycle, walking, and transit trips are not available. More information on the updates made to Metro COG's regional TDM is available in **Appendix C**.

Volume Over Capacity (V/C) Analysis

The TDM outputs forecast traffic volumes for the FM Region. Future congestion was calculated though a volume over capacity analysis which takes TDM volume outputs and divides them by roadway capacity volume. If V/C ratios are greater than 1.0, the roadway is considered over-capacity and was evaluated through the Congestion Management Process as one part of evaluating potential future projects for the FM Region.

EXISTING PLUS COMMITTED SCENARIO

Future year forecasts for travel demand within the FM Region are based on an "existing-plus-committed" (E+C) scenario in which the roadway network has no improvements beyond those which are currently programmed or committed. Using the E+C scenario as baseline, it is possible to identify future roadway needs that can be implemented to support future travel demand associated with growth in the MPA's household and employment levels.

Programmed improvements identified in Metro COG's current 2024-2027 Transportation Improvement Program (TIP) and the current Capital Improvement Programs (CIPs) for member agencies are considered committed and were integrated into the E+C scenario.

FUTURE TRAFFIC OPERATIONS – 2050 E+C SCENARIO

Future year traffic volumes and operations for the E+C scenario were developed for 2050 by incorporating the household and employment growth data shown in **Figure 26** and **Figure 27** into the TDM. **Figure 28** shows the forecasted planning-level traffic operations for the MPA under the 2050 E+C scenario, while **Figure 29** shows forecasted traffic operations for the UZA.

Estimates of future year traffic operations indicate that much of Metro COG's urban arterial network will operate at LOS C (yellow) or worse by 2050 under the E+C baseline scenario. Several of the FM Region's rural roadways are also anticipated to operate at LOS C (yellow). Urban fringe areas, or areas expected to see the highest levels of household and employment growth are served by corridors that are estimated to operate at LOS E (orange) or LOS F (red) by 2050.

Figure 28. 2050 Existing plus Committed Forecasted Traffic Operations

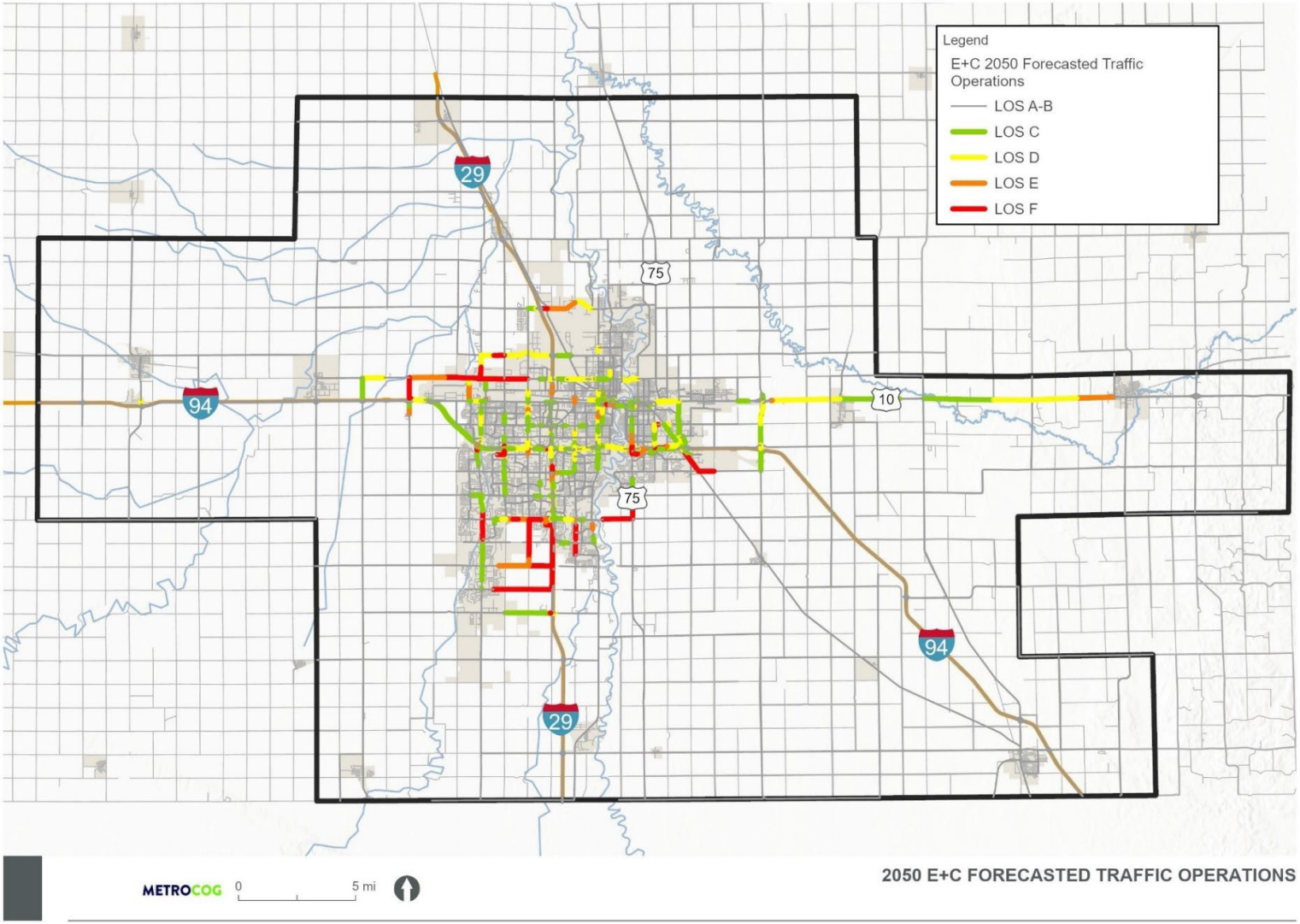
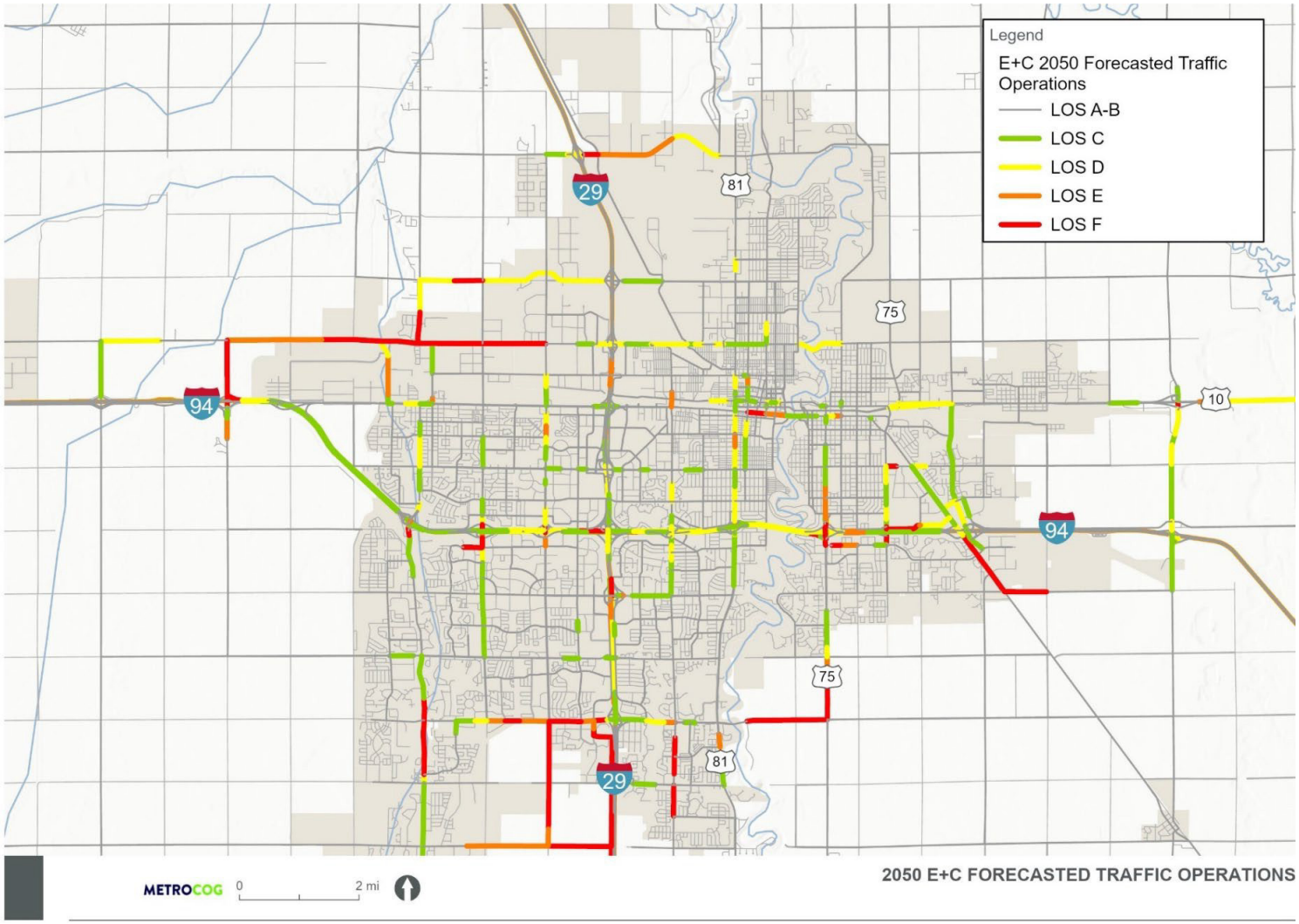


Figure 29. 2050 Existing plus Committed Forecasted Traffic Operations, Urbanized Area



FUTURE SYSTEM PERFORMANCE

The performance of the future roadway network under the E+C scenario was also analyzed from a system-wide perspective to better understand how travel demand in the FM Region could change between now and 2050. Several travel demand metrics based on the TDM results were analyzed for this purpose, including:

- **Trip Growth**: change in the number of vehicular trips made in the MPA.
- **Vehicle Miles Traveled (VMT) Growth**: VMT refers to the total distance traveled by people in the FM Region and is calculated by multiplying total trips by each trip's length in distance.
- **Vehicle Hours Traveled (VHT) Growth**: VHT refers to the total time individuals spent traveling in vehicles during trips and is calculated by summing every trip's travel time in the model.
- **Average Trip Length**: average trip length is calculated by dividing VMT by total trips.
- **Average Travel Speed**: average travel speed is calculated by dividing VMT by VHT.

Table 17 summarizes the results of the above metrics for daily vehicular travel for the base year 2021 and the future year 2050, based on the E+C scenario.

The number of daily trips in the FM Region is estimated to increase by 32 percent (32%) between 2021 and 2050, which would increase daily system VMT by 66 percent (66%) and daily system VHT by 78 percent (78%).

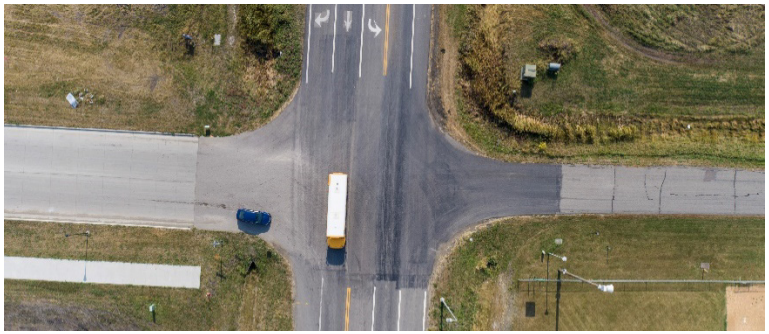
The key takeaway from the analysis of future conditions is that the average length in 2050 will be longer which is an effect of the expanded urban area due to anticipated future growth. While trip lengths increase under the E+C scenario, the average speeds at which these trips occur decrease due to more levels of daily congestion across the MPA.

Table 17. Future System Performance – E+C Scenario

Metric	2021	2050	Percent Change
Trips	1,654,637	2,191,943	32%
VMT	5,582,420	9,279,419	66%
VHT	140,961	251,069	78%
Average Trip Length (miles)	3.4	4.2	25%
Average Travel Speed (MPH)	39.6	37.0	-7%

CONGESTION MANAGEMENT

Metro COG's Congestion Management Process (CMP) lives within Metro 2050. The CMP is a systematic and regionally adopted approach for managing congestion that provides information on transportation system performance and assesses alternative strategies for congestion management that meet State and local needs. Through implementation strategies and policy guidance of the MTP, Metro COG will employ the adopted CMP. A CMP is required in UZAs with population exceeding 200,000, known as Transportation Management Areas (TMAs). Metro COG's UZA was recently designated as a TMA in 2022. Although a CMP was included in *Metro Grow,* in anticipation of the TMA, designation occurred shortly after the previous MTP was adopted. Metro COG has outlined a thoughtful and appropriate CMP for the region that considers the long-term network of CMP corridors, performance criteria, objectives that focus on congestion mitigation practices, strategies to advance projects that address current congestion or prevent future congestion, and recommendations to implement congestion mitigation projects that address current and future potential congestion issues in the MPA.



METRO 2050 AND CMP COORDINATION

The CMP is a requirement in all TMAs to provide a framework for responding to congestion in a consistent, and coordinated fashion. The CMP is incorporated as part of the metropolitan transportation planning process and is referenced during updates to the MTP, along with other core Metro COG activities including the Transportation Improvement Program (TIP) and Unified Planning Work Program (UPWP). There are no specific requirements for the frequency of updates to the CMP however, integration into the MTP process provides benefits to updating both documents simultaneously.

The **Congestion Management Process** (CMP) was updated during the development of Metro 2050 and can be found in **Appendix I**. The focus areas were developed to align with the goals and direction of this plan. There are a few key factors of the CMP that provide primary connection points between the CMP and the MTP. These include:

Goals and Objectives	**The CMP should draw upon the regional vision and goals of the MTP to establish CMP-specific goals and objectives.** The CMP objectives were established following the development of the MTP goals, and support the key Metro 2050 goal areas. There are also CMP objectives identified in Chapter 3 of the MTP to reinforce the alignment of Metro 2050 to the CMP.
Integration of Strategies	**The CMP should identify strategies and plan for implementation, including those identified within the MTP.** Coordination in the development of identified strategies and project outcomes occurred between the MTP and CMP. This included the integration of the CMP network into project scoring and the coordination of strategies and future planning needs identified in both plans.
Exploring Project Alternatives	**CMP performance measures can be used to compare plan alternatives in the development of the MTP.** Multiple alternatives were explored through the modeling process of the MTP to understand the connected impact of various projects and to support the rightsizing of projects that meet regional goals and congestion needs. As the alternatives were reviewed, V/C measures were used as a substitute for congestion. As CMP efforts are refined, metrics such as acceptable level of congestion will be instituted.
Congestion Management Strategies	**Regional-level implementation of congestion management strategies through inclusion in the fiscally-constrained MTP and TIP.** The project selection and evaluation process incorporated CMP objectives as part of the scoring process and included consideration for projects that supported the strategies identified within the CMP.

CMP FOCUS AREAS AND OBJECTIVES

The CMP objectives are built with the goals of the 2050 MTP in mind, zeroing in on the principles of congestion management in the major road network. Metro 2050 goal focus areas from which the CMP objectives were built are safety & system security, travel efficiency & reliability, walking, biking, & rolling, transit access & reliability, maintain transportation infrastructure, community context and impact reduction, freight network - moving goods, emerging transportation trends, transportation decisions, and community connection.

The resulting congestion management objectives are drawn from the MTP goal focus areas:

Promote projects that improve safety for all users of the transportation system.

Minimize congestion by building the efficiency of the transportation system through strategic investments.

Support operational and maintenance improvements that improve multimodal network connectivity.

Improve safety and system management in corridors with reliability issues.

Encourage transportation projects that provide improved access to destinations using a variety of modes.

ENVIRONMENTAL MITIGATION STRATEGIES

Metro 2050 includes a discussion of environmental mitigation activities pursuant to 23 CFR § 450.324 (f) (10). Given the broad regional scale and programmatic nature of the MTP, this section focuses on broad environmental topics and strategies. Projects identified in Metro 2050 may become programmed into Metro COG's TIP to receive federal funds, therefore, will be subject to National Environmental Policy Act (NEPA) requirements, as amended (42 U.S.C. 4321, et seq.).

NEPA requires federally funded projects to go through an environmental review process as part of pre-construction activities. Both North Dakota and Minnesota have similar but separate programmatic agreements with FHWA to guide the environmental review process and determine impacts and mitigation by project. Environmental review is one part of the process in reviewing and identifying preferred project alternatives.

WHAT IS MITIGATION?

Mitigation includes:

- Avoiding impacts by not taking action or part of the action,
- Minimizing impacts by decreasing the size of the action,
- Repairing, rehabilitating, or restoring the affected resource(s),

- Reducing or eliminating the impact by preservation and maintenance operations during the action,
- Replacing or providing substitute resources or environments

Understanding the mitigation approach for each project involves an ordered framework called sequencing:

1. Understanding the affected environment,
2. Assessing the effects on the environment during project development, and
3. Developing mitigation strategies as an integral part of alternative development and analysis.

IDENTIFYING SENSITIVE AREAS

There are numerous environmentally sensitive areas found throughout the FM Region. Clearly identifying and understanding sensitive areas is best performed through a project level analysis during the NEPA process however, Metro 2050 provides a high-level screening of potential impacts to assist in the project prioritization and scoping process. Some sensitive areas have yet to be identified and will only become known during a project level analysis during pre-construction activities for example: contaminated soils, wetlands, undocumented fill, etc.

When a project moves from Metro 2050, to the TIP, and to subsequent design and preliminary engineering phases, the project sponsor will conduct necessary environmental review processes as required by the applicable State and federal regulations. Environmental review typically occurs alongside preliminary engineering and design of the project to determine the type and location of environmentally sensitive areas within the project's study area.

In developing project lists for the MTP (**Chapter 5**), Metro COG conducted a high-level analysis to determine the need for future environmental mitigation. Metro COG analyzed common sensitive areas in the FM Region which include:

- Hydrology, **Figure 30**
- Flood Hazard Zones, **Figure 31**
- National Wetland Inventory, **Figure 32**

Additionally, through the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) tool, Metro COG identified the following endangered species in the FM Region:

- Gray Wolf
- Northern Long-Eared Bat
- Dakota Skipper
- Monarch Butterfly
- Suckley's Cuckoo Bumble Bee
- Western Regal Fritillary,
- Western Prairie Fringed Orchid

MITIGATION STRATEGIES

The FM Region is committed to minimizing and mitigating the negative effects of transportation projects on the natural and built environments to preserve quality of life. Metro COG

recognizes that not every project will require the same type or level of mitigation activities, and activities must be determined on a project by project basis as part of the environmental review process.

Environmental impacts were considered in planning-level project development in Metro 2050. For example, as part of project prioritization criteria and the project list development process, Metro COG scored projects based upon potential environmental impact. Some project scopes such as roadway expansion and roadway extension involve major construction activities with more significant disturbance to the built and natural environment. Therefore, expansion and extension projects scored the lowest under the environmental impact metrics.

The mitigation efforts used to determine the type of mitigation strategy should follow the three-step sequencing framework listed above, on a project-by-project basis. To the extent practical, high-level environmental mitigation strategies identified in the FM Region include the following but are not limited to:

- Minimizing off-site disturbance areas
- Identifying impacts air and water quality
- Limiting removal of trees and other natural vegetation
- Minimizing grading and other earth-moving disturbances
- Providing erosion and sediment control
- Reducing stormwater impacts and protecting floodplains and natural areas
- Limiting noise and vibration
- Mitigating pollutants and/or other hazardous materials as identified
- Considering temporary versus permanent impacts

Future federally funded projects will be required to go through the NEPA and environmental review process individually. During the environmental review process, environmental mitigation strategies will be considered, depending upon specific factors such as project location and project scope. Environmental review is a critical component of pre-construction scoping and project alternative development.

Figure 30: Hydrology

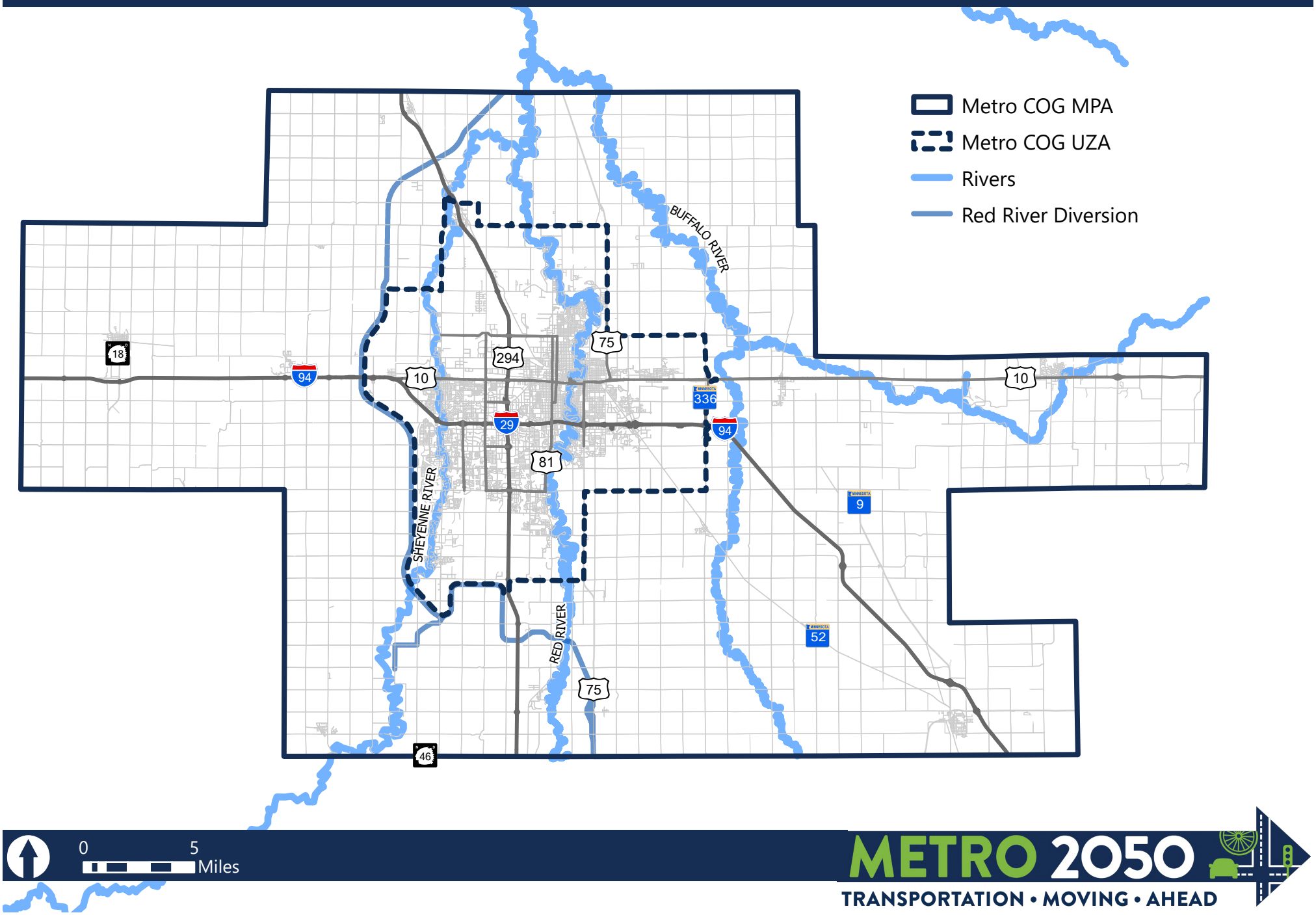


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Figure 31: Flood Hazard Zones

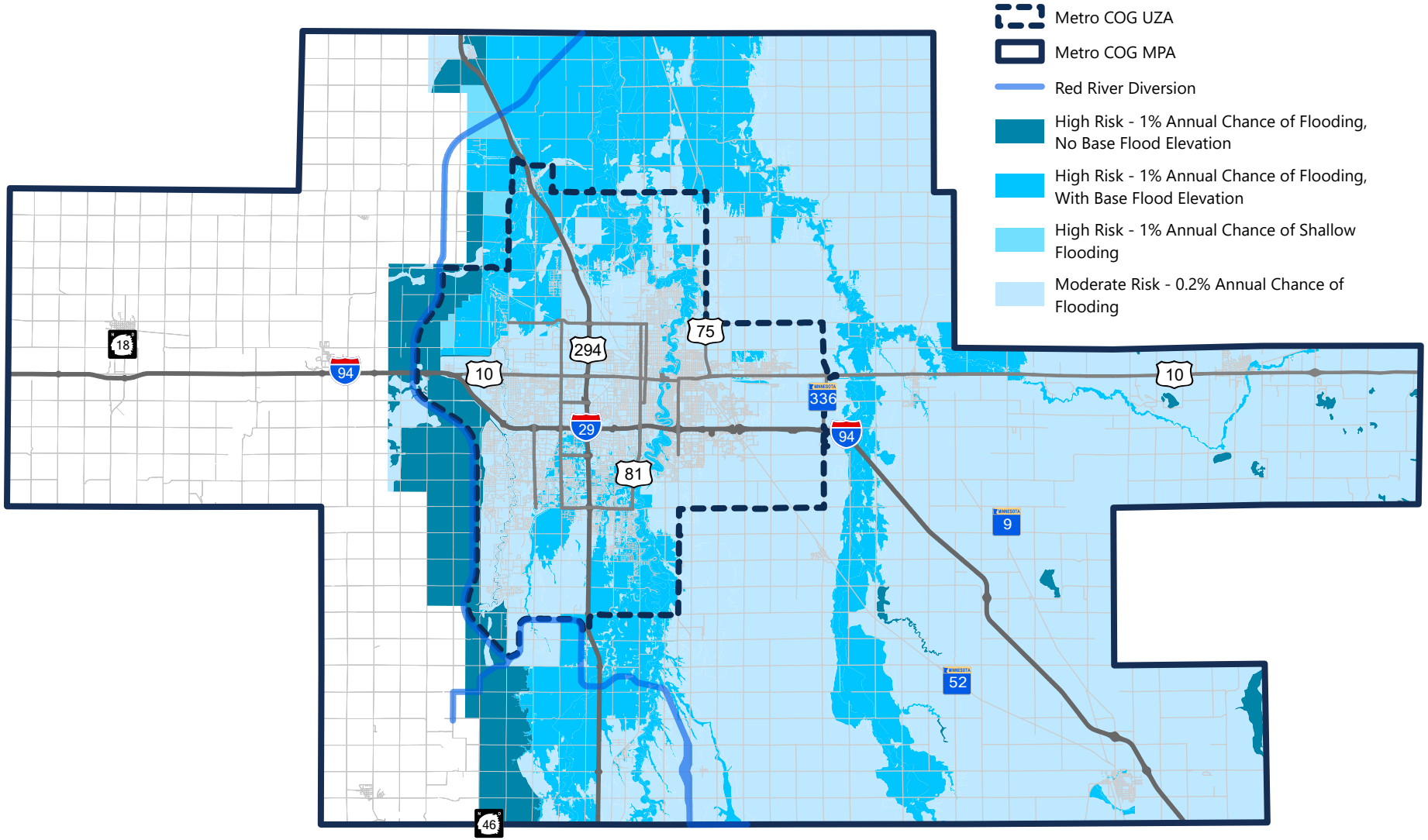

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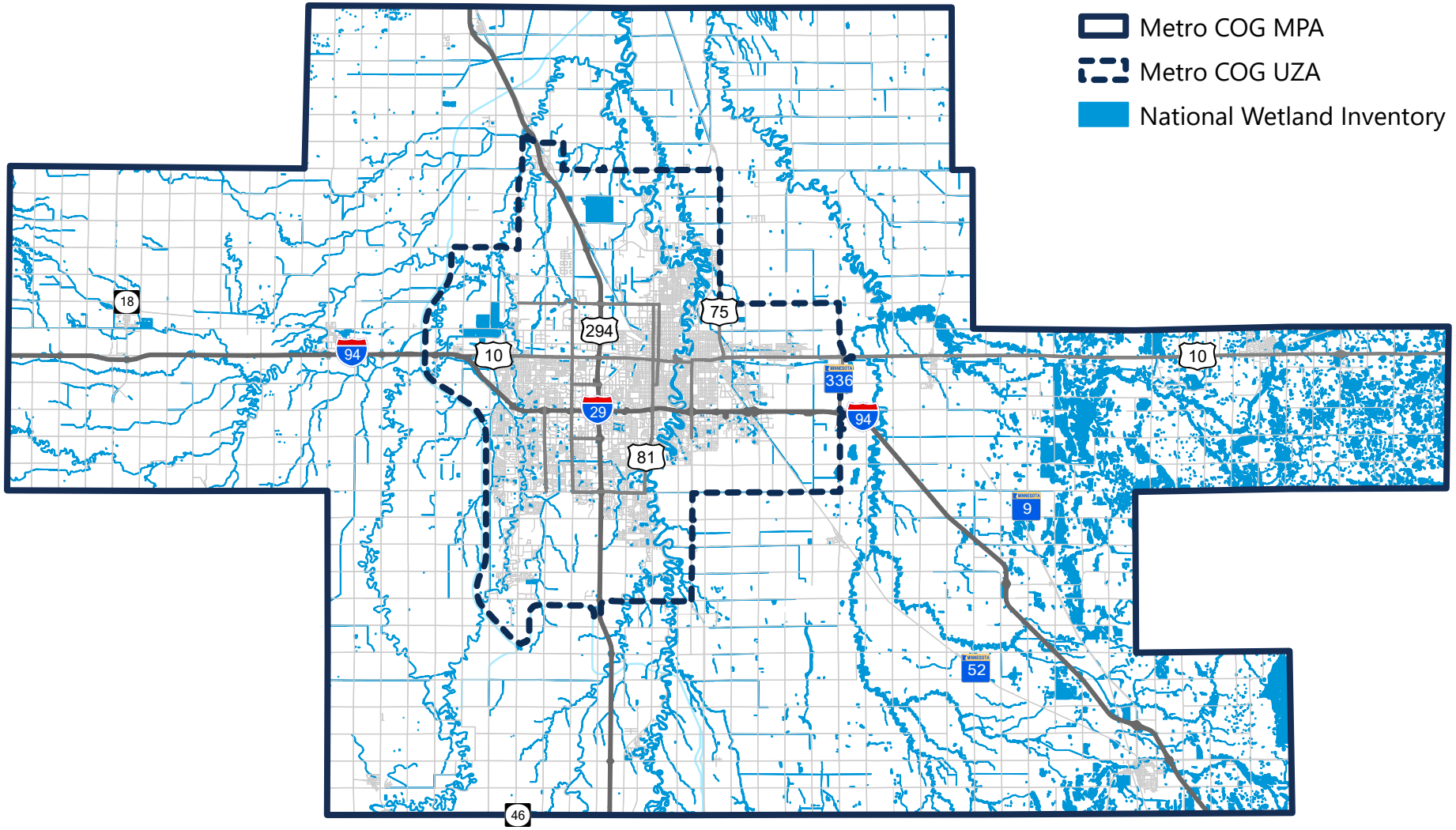
Figure 32: National Wetland Inventory



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Future Transportation System

A major purpose of Metro 2050's process is to explore long-term regional transportation needs and identify future solutions through a fiscally constrained project list. The project list aligns the future transportation needs with funding reasonably expected to be available to Metro COG to implement regional transportation improvements. This chapter reviews funding allocations and priority projects. The results will be reviewed regularly as funding decisions are made, specifically through Metro COG's programming process or annual development of the Transportation Improvement Program (TIP).

Aerial of Sheyenne Street in West Fargo Looking South

METRO COG'S PROJECT PIPELINE

The project pipeline is Metro COG's methodology to identify strategies and identify candidate federal-aid projects from conceptual ideas, shovel-ready pre-construction documentation (design and environmental clearance), to project delivery. Metro 2050 is integral to the project pipeline however; the starting point begins with Metro COG's continuous metropolitan transportation planning process. Metro COG's project pipeline includes the following components, as also illustrated in **Figure 33**.

METRO COG PLANNING PROCESS

Metro COG's metropolitan transportation planning and programming activities follow a cooperative, comprehensive, and continuing process also known as the 3C process. Through the 3C process, Metro COG's jurisdictional partners collaborate to prepare core metropolitan transportation planning and programming documents including the MTP, TIP, Unified Planning Work Program (UPWP), and PPP. The metropolitan transportation planning process is guided by federal law as referenced in the organization's self-certification process[1].

[1] Metro COG. (2023). *Final Draft 2025-2028 Transportation Improvement Program*. Pg 5.

Additionally, through the 3C process, Metro COG, works with jurisdictional partners to provide corridor and subarea studies resulting in comprehensive examination of the FM Region's multimodal transportation system. Recommendations, strategies, and policy guidance of corridor and subarea studies guided development of Metro 2050 and the project list.

METRO 2050 PROJECT LIST

The Metro 2050 project list provides a comprehensive set of implementation priorities, reflective of goals, objectives, and policy direction included in the MTP to guide the FM Region's multimodal transportation system. The fiscally constrained project list provided within this chapter provides a critical first-step toward project programming, funding, and identification.

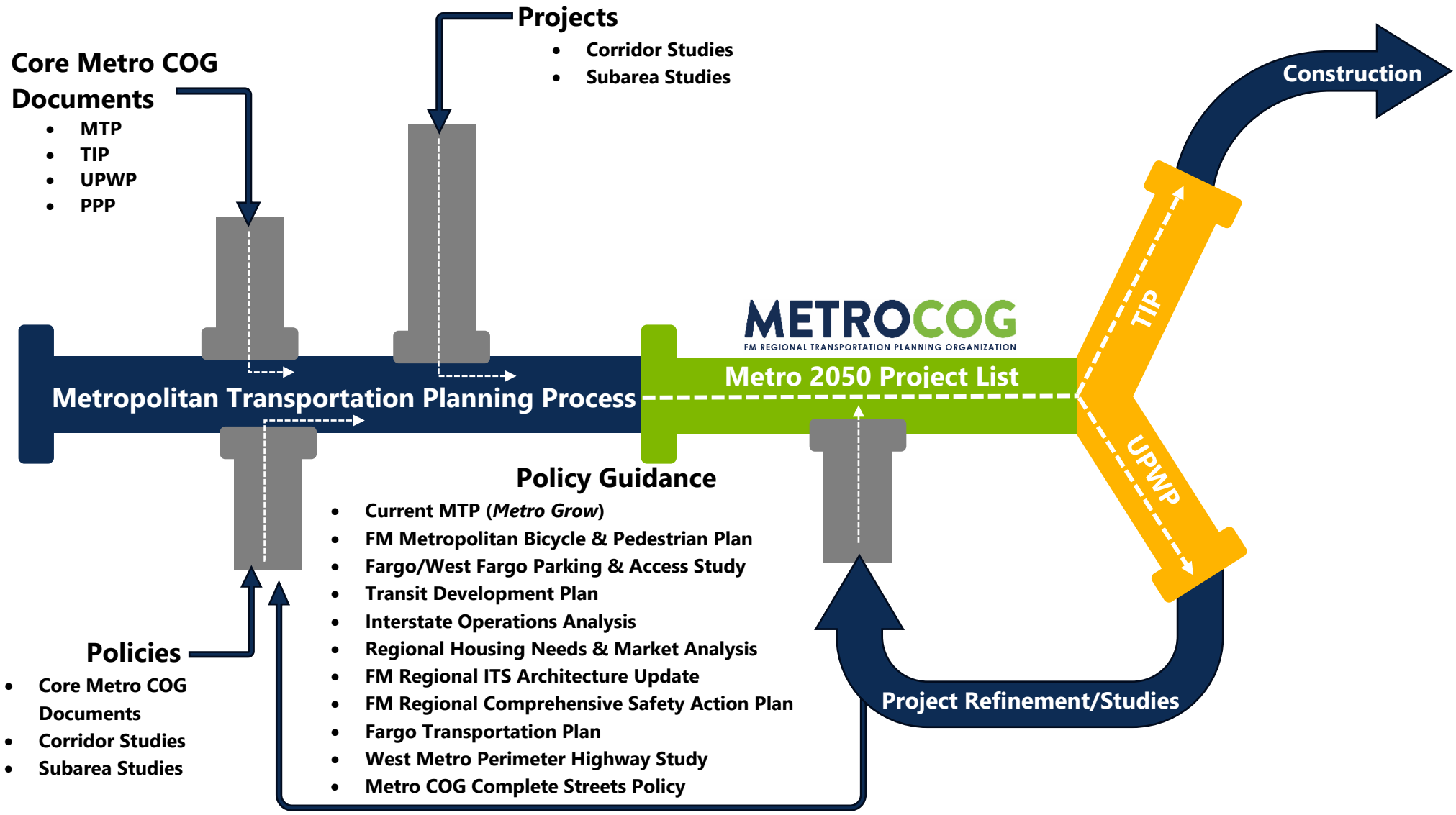
TRANSPORTATION IMPROVEMENT PROGRAM

Metro COG's TIP serves as the implementation arm of the MTP. To be programmed in the TIP, most projects must be listed in the MTP or in some cases, explicitly meet the goals, objectives, and policy direction of Metro 2050.

UNIFIED PLANNING WORK PROGRAM

The UPWP serves as Metro COG's planning arm and describes Metro COG's annual planning work to address ongoing and emerging transportation issues. The UPWP is required by USDOT and is the foundation for Metro COG's budget and for federal assistance for transportation planning activities. Metro 2050 considers potential future studies that may or may not be incorporated into the UPWP. Metro COG's future UPWP will forward the goals, objectives, and policies of Metro 2050.

Figure 33. Metro COG's Project Pipeline



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METRO 2050 POLICY GUIDANCE

Through Metro 2050's project pipeline approach, shown in **Figure 33**, the project team reviewed and consulted existing and ongoing regional planning efforts. This section outlines key takeaways, and identifies recommendations for additional study or consideration as Metro COG and jurisdictional partners continue to make decisions and investments that not only support the goals of the MTP, but also reflect regional policy recommendations which have been developed through the metropolitan transportation planning process. Key regional policy recommendations include regional and local planning efforts, which may have a broader benefit to regional transportation planning; things that have been studied and refined over time, which provide exciting policy opportunities for the FM Region's multimodal transportation system.

LINK TO LAND USE

Metro COG and local jurisdictional partners have studied and provided policy recommendations that provide a more direct link between the regional transportation system and land use. The impacts of land use on the transportation system, and vice versa, are understood more and more in the FM Region.

Parking & Access Management

Parking, both on-street and off-street, and property access are two (2) obvious links between transportation and land use. In 2018, Metro COG adopted the *Fargo/West Fargo Parking & Access Study*. The parking and access study provides

Street Typologies *(Fargo-West Fargo Parking & Access Requirement Study)*

Regional Arterial. Act as a secondary alternative and direct connection to the Interstate system, serving large traffic volumes with highly controlled/limited interruptions.

Commercial Arterial. Act as gateways, connecting people from Fargo, West Fargo, and the wider region to the area's major destinations.

Mixed Use Arterial. Act as cross-town links and business corridors where people live, shop, dine, and work while supplying parking to support economic activity.

Mixed Use Collector. Connect residents from their neighborhoods to commercial nodes and corridors and are critical in enabling economic activity

Residential Collector. Connect neighborhoods and link residents with important facilities like libraries, schools and parks.

Mixed Use Neighborhood. Prioritize pedestrian safety and comfort over the mobility of cars.

Residential Neighborhood. Connect residents to each other and serve as shared space for neighbors to socialize and play.

foundational policy guidance for Metro COG, applicable to the entire FM Region including:

- Inspire effective development patterns.
- Develop guidelines that respond to safety and multimodal experience (walking, biking, rolling, etc.).
- Reduce excess off-street parking for more efficient land use development and context sensitive solutions.
- Provide roadway and access guidelines and typologies that complement land use development, as opposed to traditional functional classification hierarchy

Recommendations of the parking and access study improve the efficiency of the regional transportation network and the connection to land use, enhance mobility and access, and encourage more sustainable development patterns. The plan considers the FM Region's historic growth, future growth, and provides recommendations to balance neighborhoods, land use, and transportation system needs.

The parking and access study introduces distinct Street Types which correspond to surrounding land uses, to create livable neighborhoods which enhance the FM Region's urban environment and guide long-term planning decisions. Development Prototypes Gare provided, showing how more effectively linking transportation and land use provides context sensitive, right-sized transportation solutions.

Regional Street Typology System

Streets are traditionally classified according to FHWA's functional classification system. As discussed in **Chapter 2**, the hierarchy includes Interstates, arterials, collectors, and local streets to define the function of each street as a trade-off or balance between mobility and land access. Built from the parking and access study and continued through planning efforts over the last few years, Metro COG has focused on regional policy for an updated street typology system that more clearly links:

- Traditional Roadway Classification
- Multimodal Transportation Mobility
- Land Use
- Livability and Quality of Life

Metro COG will continue development and refinement of a regional street typology system that more clearly assesses roadway functionality outside of traditional functional classification definitions, which can be very black and white (mobility and access). For example, regional street typology should assess and balance different modes of multimodal mobility such as vehicular, transit, freight, bicycle, and pedestrian.

The typologies should make direct linkages to land use and quality of life considerations promoting livability, quality of the built environment, and a complete streets approach. Metro COG considers the effort and typology approach a better classification policy, as the street typologies could advise on intensity or level of transportation infrastructure necessary (i.e. neighborhood residential streets need less bicycle and pedestrian separation than a commercial arterial). Jurisdictions and Metro COG could make context-sensitive decisions that

respond more directly to the FM Region's land use, housing, and economic development.

Refined Street Typologies *(Fargo Transportation Plan)*

Street Type	*Lane Number*	*Speed Limit*	*Right-of-Way Width*	*Street Width*	*Block Length*	*Bicycle Facilities*
Commercial/ Industrial Local Street	2	25 mph	80'	40'	300'-1320'	Consider 8' shared use path on one side
Residential Neighborhood Street	2	25 mph	62'-80'	28'-40'	300'-1320'	None
Mixed Use Neighborhood Street	2 or 3	25 mph	80'	36'-40'	300'-1320'	8' or 10' shared use path on at least one side
Residential Collector	2 or 3	25 mph	80'	30'-40'	300'-1320'	10' shared use path on one side
Mixed Use/ Commercial Collector	2 or 3	25-30 mph	80'-100'; up to 120' at arterial intersections	36'-40'	300'-1320'	10' shared use path on one side
Mixed Use Arterial	3 to 6	30-40 mph	200'	Varies	660'-1320'	10' shared use path on one side
Commercial Arterial	3 to 6	30-40 mph	200'	Varies	660'-1320'	10' shared use path on one side

The *Fargo Transportation Plan*, completed in 2024 identified a street typology system for Fargo's network that can be explored and expanded upon to establish a regional street typology system.

Circuity

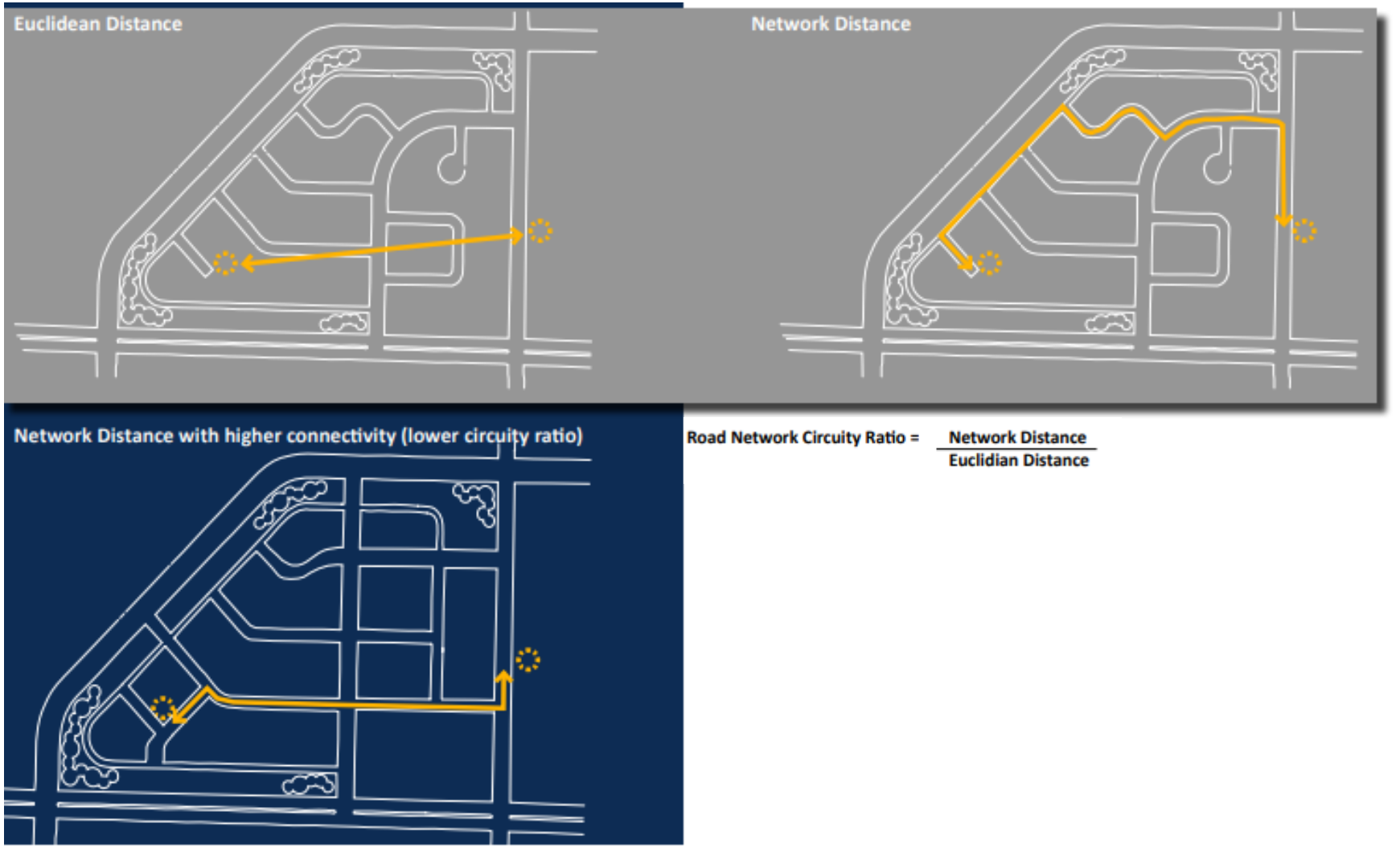
Regional policy guidance has also stemmed from local partner coordination. For example, in 2021 Metro COG completed, and West Fargo adopted the *West Fargo Traffic Calming Study*. West Fargo's traffic calming study provides an overview of traffic calming and a toolkit of strategies including traffic calming measures or projects and policy strategies.

One such policy strategy considered in the West Fargo traffic calming study revolves around roadway circuity. Network circuity is the ratio of network to Euclidian distances (as the crow flies) and is used to describe the directness of travel and efficiency of the regional multimodal transportation network. An inefficient network can lead to higher speeds, as people travel round-about or indirectly to get to most destinations, or where local streets may serve more as regional routes (see circuity graphic image). Alternatively, a traditional, grid street network provides redundancy and more efficient travel by providing more direct options to and from destinations.

The West Fargo Traffic Calming Study recommends policy guidance and evaluation of land use development regulations to help create more efficiencies in the transportation network. Circuity is another analysis tool which Metro COG and partner

jurisdictions can use to assess directness of travel and the relationship between land use and the multimodal transportation network.

Circuity Measurement of Directness of Travel *(West Fargo Traffic Calming Study)*



Transit-Intensive Corridors

Metro COG has continued to support more efficient transit-intensive corridors. Transit-intensive corridors are like transit oriented development (TOD), however, as the name suggests, employ a corridor approach. As Metro COG and local jurisdictional partners continue exploring the relationship between the regional transportation system and land use, transit supportive corridors will help forward many goals and objectives related to multimodal transportation and congestion management.

Transit-intensive corridors feature but are not limited to the following:

- Mixed use development, typically with higher-density housing typologies, within a 10-minute walk from corridor.
- Transit-related infrastructure as prominent feature.
- Connect to regional nodes and mix of land uses in proximity (office, residential, retail, civic).
- Pedestrian and bicyclist mobility priority along corridor.
- Multimodal (walkers, bikers, transit riders) priority over vehicular traffic.
- Reduced and managed parking inside priority pedestrian and bicyclist mobility zone (typ. within 10-minute walk of corridor).
- May include specialized retail experiences near prominent transit-related infrastructure like bus stops, transfer hubs, etc.

CONGESTION MANAGEMENT

Congestion management in the FM Region is an important policy direction to note. In the FM Region, the public perception of congestion widely varies from Metro COG and local jurisdiction technical staff, and a growing body of regional planning work has been completed to help both public and technical understanding of managing congestion in the MPA. Overall, in the FM Region, public perception of congestion is overestimated. See **Appendix I** for more information.

Through development of a formal Congestion Management Process (CMP), Metro COG and local jurisdictions will continue monitoring and evaluating congestion in the FM Region. With more information, evaluation techniques, and identified strategy deployment, Metro COG wants to continue pushing awareness of congestion in the FM Region.

Congestion Management Strategies

In 2023, Metro COG, NDDOT, and MnDOT completed the *Interstate Operations Study & Plan for Future Improvements*. Primarily focused on the Interstate system through the MPA, the study provides policy direction to prioritize improvements for safety, traffic operations, and mobility. Critical congestion management strategies identified in the study include:

- **Transportation Systems Management and Operations (TSMO):** An approach involving the integration of various transportation technologies, strategies, and services to improve the performance of

the regional multimodal transportation system by enhancing safety, reducing congestion, and increasing mobility.

- **Regional Traffic Operations Center (TOC):** Also known as a regional Traffic Management Center, the development of a TOC has been an identified congestion management strategy since Metro COG's first Interstate operations study, conducted in 2011. A TOC is a control center which coordinates regional transportation operations, collects data, and analyzes information to optimize traffic flow, manage incidents such crash response, provide real-time travel information, and improve the overall transportation system. Metro COG policy direction is to continue exploring the feasibility and timing of TOC development.
- **Intelligent Transportation Systems (ITS):** Metro COG ITS strategies are closely related to TSMO and include key examples such as *adaptive traffic signals* or *intelligent traffic control systems, dynamic message signs* and *traveler information systems*. Integration of ITS aims at using modern computing technologies and communications technologies to make travel smarter, safer, responsive, and more convenient. Metro COG's *Fargo-Moorhead Regional ITS Architecture Update* (2022) provides critical information about regional ITS infrastructure including stakeholders, inventory, operational concept, ITS standards, and planning aspects such as goals and objectives included in other regional policy plans.

CONNECTING PEOPLE AND PLACES

Metro 2050's engagement process identified a clear connection between land use and transportation planning activities and a desire to further emphasize a connected approach. A new Connecting People and Places goal was introduced into the MTP as a result. Further coordination between land use and transportation planning activities, such as urban form, land use, development patterns, access management and mobility considerations, may be expanded with Metro COG's regional planning approach. There are two considerations that should be built into the planning process:

- **Corridor Study Alignment:** Greater emphasis of the urban form and land use context as a part of a corridor study can be explored. This effort likely requires the early identification of land use policies and potential outcomes in the study process.
- **Regional Land Use Planning:** Local jurisdictions maintain Comprehensive Plans to guide development decisions in alignment with respective State Statutes. The documents guide built form and development decisions that should be linked to the regional transportation system. Continued coordination and support from Metro COG staff is encouraged with local efforts.
- **Regional Coordination:** Metro COG serves as a regional coordinating body for local jurisdictions of the FM Region. As part of the metropolitan transportation planning

process, regional coordination will continue for key transportation projects that will benefit from collaboration and partnership between jurisdictions. Metro COG and local jurisdictional partners should strongly consider future cross-lateral partnerships on studies and implementation strategies. For example, northwest and southwest growth areas will continue to experience enormous growth pressure, and partnership on studies/projects will ensure appropriate timing, identify local and regional needs, set anticipated outcomes, and provide a clearer understanding of individual jurisdictional responsibility near shared jurisdictional boundaries.

ALIGNMENT WITH STATE AND REGIONAL PLANS

In addition to the planning efforts completed by Metro COG and partner jurisdictions, state and regional plans are produced that can inform action within the region. For example, both the NDDOT and MnDOT have statewide transportation system plans to inform transportation policy and investment decisions. For example, the Minnesota Statewide Multimodal Transportation Plan serves as Minnesota's guiding policy document to support funding and policy decisions for all modes of transportation. The states also prepare modal plans that can be used by Metro COG to understand direction and policy guidance for modal investments. Both Minnesota and North Dakota have prepared State Freight Plans that can be used to inform freight route and policy decisions in the Fargo-Moorhead region. Each has a Statewide Pedestrian and Bicycle Plan, as another example.

Several other planning efforts and policy guidance are prepared by both states, many of which are referenced through this plan.

FUTURE CORRIDOR STUDIES

Corridor studies play an important role in the regional transportation planning system, to allow for further analysis of system needs and considerations to support project refinement and readiness. The following corridor studies were identified through the Metro 2050 development process, but others may arise as additional needs are identified.

- **45th Street South Safety Study:** The need for a detailed safety analysis near the I-94 interchange was identified through the planning process based on crash rates and overall operations. A capacity expansion project (ID 51) was identified within the Mid-Term project list, creating opportunities for project refinements to include safety enhancements along this key principal arterial corridor.
- **Northwest Metro Transportation Plan Update:** The *Northwest Metro Transportation Plan* was developed in 2020 to review existing conditions and explore infrastructure outcomes to support mobility and access within a long-term growth area of the region. Since adoption, the plan has served as a guide for decision making, planning, and investment for Metro COG, Fargo, and West Fargo. Through conversations during the MTP, a

desire to update the plan to respond to changing needs and trends was identified. Additionally, specific corridors may need additional study. As far as timing of an update, it is anticipated that the northwest growth area will see continued development pressure and private interest. Growth has the potential to become explosive after the Red River Diversion project and permanent flood protection is completed, currently estimated to be on track for delivery in 2027.

- **88th Avenue South Corridor Study:** Horace identified desired improvements to 88th Avenue South as a part of the MTP planning process; however, the projects generally scored lower in comparison to other projects due to the limited existing development and current use of the corridor. It is understood that as growth occurs, the road will provide a critical east/west condition within the southwest metro area. Like the *76th Avenue South Corridor Study* completed in 2020, a future 88th Avenue South Corridor Study will explore roadway needs in relationship to land use and development. The limits of this study could include from County Road 17 to I-29 with potential participation from Horace, Fargo, and Cass County.
- **76th Avenue South Bridge:** Study future crossing of the Red River at the 76th Avenue South alignment. Potential participation from Fargo and Clay County.
- **East Metro Perimeter Study:** Continue to study perimeter routes throughout the east metro to provide additional UZA perimeter routes, enhanced mobility, and congestion relief. Potential participation from Dilworth, Moorhead, and Clay County.
- **Implementation Studies of the Safety Action Plan:** The *Regional Comprehensive Safety Action Plan* (CSAP) was completed during the development of Metro 2050. The CSAP identifies a high-injury network (HIN) of corridors where the highest densities of severe crashes occur in the FM Region. Safety-focused corridor or subarea studies may be considered for specific corridors or locations such as 45th Street South (see above), 13th Avenue South, and/or Downtown Fargo (pedestrian HIN) however, the CSAP provides a toolbox of safety countermeasures intended to roll directly into project development and project delivery.

FUTURE FUNDING ALLOCATIONS

Future funding allocation forecasts are detailed within **Appendix D**, forecasting reasonably expected federal allocations for Metro COG through 2050. Specifically, these allocations explore the three (3) federal funding sources managed by Metro COG. The three (3) federal funding sources used to create the fiscal constraint include:

- **STBG:** Surface Transportation Block Grant
- **TA:** Transportation Alternatives
- **CRP:** Carbon Reduction Program

Fiscal constraint is shown for the three (3) Metro COG-managed programs listed above. There are other competitive/discretionary/formula funds managed by other agencies, which are not included in Metro 2050's fiscally constrained project list (i.e. HSIP, Transit Suballocation). Metro COG tracks funding sources in the TIP, while the MTP focuses on those which the organization controls.

STBG ALLOCATION

STBG funds are a flexible funding source eligible for a range of transportation improvements, including roadway, bicycle and pedestrian, and transit capital. For many years, STBG funds in the FM Region were used mainly for roadway maintenance and improvement projects. Since the adoption of *Metro Grow* in 2019, some STBG funding has gone towards capital purchases for MATBUS, with the allocation being split up to 94% roadway and 6% transit in some years. The use of STBG funds on the North Dakota side compared to the Minnesota side had historically differed in expansion versus preservation, respectively. However, the rate of development and the future Fargo-Moorhead Diversion has shifted more focus to preservation for the entire region.

Metro Grow established an overall spending goal for the STBG allocation of 89 percent (89%) Street and Roadway projects, five percent (5%) Bike and Pedestrian projects, and six percent (6%) Transit capital projects. This overall goal was explored through development of Metro 2050, to support key goals of Maintaining Transportation Infrastructure and Walking, Biking, and Rolling. Funding allocations will move Metro COG closer to system performance, policy, and congestion management goals by providing a more extensive, connected, and safe bicycle and pedestrian system. At the same time, funding allocations allow Metro COG to continue meeting system preservation targets as demonstrated in **Chapter 2**, with local jurisdictions having stable financial resources to meet system preservation needs and operate and maintain the system in a state of good repair.

Metro 2050's project review and refinement utilized screening processes to identify projects that advanced the goals of the MTP, aligned with local priorities, and advanced the regional transportation system. The process supports the identification of projects that meet modal needs and included the following steps.

TA AND CRP ALLOCATIONS

TA and CRP funds are two federal funding sources that support a combination of multimodal and safety improvement projects. Historically, allocations from both funding sources have been used to implement bicycle and pedestrian projects within the region.

Transportation Alternatives

Metro COG receives a Transportation Alternatives (TA) allocation for both Minesota and North Dakota to support multimodal transportation projects including bicycle facilities, recreational trails, safe routes to school projects, community improvements, and environmental mitigation. The funding program has been maintained through multiple federal transportation bills and is anticipated to remain through future administrations.

Carbon Reduction Program

The Carbon Reduction Program (CRP) was established in 2021 with the Infrastructure Investment and Jobs Act. Funding is allocated through both States to Metro COG to support projects that reduce transportation emissions. Eligible projects may include projects that provide an alternative to single-occupancy vehicle reliance, or those with advanced transportation and congestion management technologies, improved efficiency of infrastructure, and deployment of alternative fuel vehicles. CRP funds can be flexed for transit projects with encouragement from FHWA to include the following strategies[2]:

1. Improve infrastructure for nonmotorized travel, public transportation access, and increased public transportation service in underserved communities
2. Plan for the safety of all road users, particularly those on arterials, through infrastructure improvements and advanced speed management
3. Reduce single occupancy vehicle travel and associated air pollution in communities near high-volume corridors
4. Offer reduced public transportation fares as appropriate
5. Target demand response service towards communities with higher concentrations of older adults and those with poor access to essential services
6. Use equitable and sustainable practices while developing transit-oriented development

Currently, CRP's future as a federal transportation funding program is unknown given the change in administration at the federal level in 2025.

OTHER FEDERAL-AID PROGRAMS AND CONSIDERATION

Metro COG developed Metro 2050 to integrate the priorities and goals of other federal-aid programs however, fiscal constraint is only established for the agency's direct sub-allocations, as listed above. For example, Metro 2050's goals,

[2] Carbon Reduction Program Implementation Guidance, FHWA, April 2022

objectives, and policy direction reflect the Highway Safey Improvement Program (HSIP) and support both North Dakota and Minnesota Strategic Highway Safety Plans (SHSPs). Given the strong integration of priorities and goals of the HSIP and SHSPs, as specific safety projects and safety-specific project scopes get developed, funding may be pursued through each State's HSIP funding solicitation process. As such, given the close alignment between HSIP and Metro 2050, HSIP projects may be programmed in Metro COG's TIP, regardless of a project's explicit listing in Metro 2050. In this example, the onus to show fiscal constraint is put on the State, as HSIP funding and project selection is administered by each respective State.

There are numerous other competitive federal-aid funding sources listed in Metro COG's TIP which are administered by States or the Federal government. Other federal-aid funding sources will follow a similar process as described for HSIP funding. This is not to say other federal-aid program projects do not require listing in Metro 2050, and modification procedures should be followed as outlined by Metro COG's MTP modification policies and specific federal-aid program eligibility requirements (i.e. if the project is required to be listed in the MTP, as applicable).

METRO 2050 FUNDING ALLOCATIONS

Funding allocations were established for the MTP's 2028-2050 timeframes identified below and in **Table 18**:

- **Short-Term:** 2028 – 2030 (beyond the current 2023-2027 TIP)
  The development of the 2024-2028 TIP occurred during the Metro 2050 process and 2028 funded projects are included within the Short-Term project list.
- **Mid-Term:** 2031-2040
- **Long-Term:** 2041-2050

Table 18. 2050 Funding Allocations

North Dakota Allocation				
Source	**Short**	**Mid**	**Long**	**Total**
STBG	$32,996,326	$125,777,876	$153,322,529	$312,096,731
CRP	$3,407,941	$12,452,010	$15,178,930	$31,038,881
TA	$2,765,707	$10,691,119	$13,032,415	$26,489,241
Total	$39,169,974	$148,921,005	$181,533,874	$369,624,853
Minnesota Allocation				
Source	**Short**	**Mid**	**Long**	**Total**
STBG	$3,323,283	$12,577,788	$15,332,253	$31,233,324
CRP	$387,629	$1,509,335	$1,839,870	$3,736,834
TA	$751,805	$2,830,002	$3,449,757	$7,031,564
Total	$4,462,717	$16,917,124	$20,621,880	$42,001,722

FUTURE TRANSPORTATION INVESTMENT

The future roadway plan is a combination of STBG-Funded projects, TA-funded projects, and CRP-funded projects. The following pages summarize transportation investment priorities identified by member jurisdictions and the Metro 2050 process for implementation within the planning horizon year. The identified projects were scored for alignment with the 10 transportation goals and associated objectives, as described in **Chapter 3**. Project scores were used as an initial screen to develop a fiscally constrained project list.

TIP PROJECT SELECTION AND THE MTP

Metro Grow, set a foundation for the 2050 MTP update to build upon.

Metro 2050 utilizes a scoring system that aligns directly with goals and objectives of the plan. Each objective is aligned with a performance metric that could be ranked on a score of one (1) to five (5). Each identified project was scored across the objectives for each goal. Scores were then averaged for each goal area and an overall performance score. Weights were then applied to prioritize safety, maintain transportation infrastructure, and walking, biking, and rolling in alignment with public engagement and jurisdictional review. Weighted scores were used as the primary metric for establishing a fiscally constrained project list.

Overall, the scoring process identified the projects that best respond to the FM Region's identified goals and support future refinement with local priorities and needs. The process will be used to directly identify upcoming projects within the TIP process, building upon Metro COG's previous solicitation and project process. Moving forward, refinements will need to occur, but project selection may follow this general process:

Step 1	Identify the next prioritized projects for implementation based on the weighted score and future transportation system within the MTP.
Step 2	Align available federal funding with project needs, local match availability, and other funding stacks, as applicable.
Step 3	Refine project outcomes as needed to be programmed within the TIP.
Step 4	If refinements cannot be made to fit within the TIP or additional funding is available, the next project identified within the plan should be analyzed for inclusion in the TIP.

As Metro COG and jurisdictional partners undergo the next TIP process, this overall selection process should be tested and refined.

PLANNING LEVEL COST ESTIMATES

For each of the projects identified, planning level cost estimates were developed based on the project typology and

project scope as identified by jurisdictional partners. Cost estimates include high level construction-based assumptions, including only those that are federally eligible within the funding sources identified within the plan. In most cases, project scopes in Metro 2050 are general planning assumptions that must be developed over time, as project development progresses from identification in the MTP, to funding solicitation, to final design and project delivery.

Through Metro COG's metropolitan transportation planning process, and as local jurisdictions pursue federal funds, project scopes will need to be further refined. It is critical to refine and update project scopes and cost estimates on a frequent basis, especially with volatility of recent inflationary pressures and procurement delays. Detailed information on the cost estimates is provided in **Appendix E**.

FISCALLY CONSTRAINED PROJECTS

The three (3) funding sources explored within the MTP are the primary sources of Metro COG-controlled funding for the regional transportation network. Based on project prioritization, the highest need on Federally eligible roadway projects, and input from agency staff on project timing requirements, the fiscally constrained project plan was established. A summary of the constrained projects is provided in **Table 19**, **Table 21**, and **Table 23** by implementation period.

RESERVE PROJECTS

Throughout the planning process, future project needs were identified beyond the funding allocation forecasts for STBG, TA, and CRP. It is also understood that transportation projects may be funded through other state or local sources within the region. To recognize these projects, a reserve project list was developed for each implementation period. The identified reserve projects highlight regional priorities that will be funded through another source or are outside of the fiscal constraint for the given implementation period. Where applicable, the projects that did not fall within the fiscal constraint were considered in the next period if implementation timing was flexible. A summary of the reserve projects is provided in **Table 20**, **Table 22**, and **Table 24** by implementation period.

Projects identified in the Reserve Lists are assumed to move forward even if not programmed through STBG, CRP or TA funds. The Reserve Project List should be used for the following purposes:

- Review transportation investment.
- Understand local and state projects funded through other sources.
- Identify projects that are STBG, TA, and CRP eligible if conditions change for constrained listing.
- Track future investment needs that may warrant further study or exploration to increase alignment with identified goals.
- Evaluate the system as it ages to respond to changing needs and conditions.

Table 19. Short-Term (2028-2030) Constrained Transportation Projects by Funding Source

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2029) Costs	Federal Funds (2029)	Weighted Score
Minnesota Projects										
CRP/TA	**303**	CSAH 9	4th Ave NW	3rd Ave NW	Bike & Ped	Dilworth/Clay County	$790,524	$961,793	$769,434	4.4
STBG	**172***	34th St	28th Ave N	3rd Ave N	Rehabilitation	Moorhead/ Dilworth	$7,098,412	$1,835,701	$1,093,040	3.5
	70	15th Ave N	7th St NE	60th St N	Reconstruction	Dilworth/Clay County	$4,333,750	$2,572,669	$2,058,135	2.6
North Dakota Projects										
CRP	**39**	25th Ave S	University Dr S	University Dr S	Bike & Ped	Fargo	$422,879	$514,497	$411,597	3.8
	40	19th Ave N	I-29	Dakota Dr	Bike & Ped	Fargo	$1,132,771	$1,813,603	$484,957	3.5
	250	Drain 27	Deer Creek Connection	76th Ave S	Bike & Ped	Horace	$1,108,751	$1,348,965	$1,079,172	3.2
	304	Red River	Main Ave	NP Avenue	Bike & Ped	Fargo	$1,471,469	$1,790,268	$1,432,214	3.9
TA	**34**	Drain 27	52nd Ave S	59th Ave S	Bike & Ped	Fargo	$792,366	$964,035	$771,228	3.3
	87	Wall Ave/88th Ave S	CR 17	57th St	Bike & Ped	Horace	$821,398	$999,357	$799,485	3.3
	83	CR 17	64th Ave S	76th Ave S	Bike & Ped	Horace	$821,997	$1,000,085	$800,068	3.2
	84	Main St/CR 17	Wall Ave/88th Ave S	Park Dr	Bike & Ped	Horace	$210,032	$255,536	$204,429	3.1

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2029) Costs	Federal Funds (2029)	Weighted Score
STBG	**18***	1st Ave N	3rd St N	Roberts St N	Reconstruction	Fargo	$1,817,899	$9,502,531	$5,613,716	3.8
	19*	1st Ave N	Roberts St N	University Dr N	Reconstruction	Fargo	$2,223,546	$6,829,944	$5,080,178	3.8
	63	9th St E	Main Ave	7th Ave E	Reconstruction	West Fargo	$3,258,841	$3,171,903	$3,171,903	3.7
	95	7th Ave N	25th St N	I-29	Rehabilitation	Fargo	$1,699,319	$2,067,482	$1,653,985	3.7
	17	7th Ave N	University Dr	25th St N	Rehabilitation	Fargo	$1,768,351	$2,151,470	$1,721,176	3.5
	50	52nd Ave S	27th St S	27th St S	Safety	Fargo	$1,110,000	$1,350,485	$1,080,388	2.8
	79	64th Ave S	66th St S	57th St S/ Veterans Blvd	Reconstruction	Horace	$4,093,477	$4,980,340	$3,984,272	2.2
	21	17th Ave S	35th St S	25th St S	Reconstruction	Fargo	$5,417,845	$6,591,637	$5,273,310	3.7
	20	17th Ave S	42nd St S	38th St S	Reconstruction	Fargo	$2,199,479	$2,676,002	$2,140,802	3.5
Total								**$53,378,301**	**$39,623,489**	--
Minnesota								**$5,370,163**	**$3,920,609**	--
North Dakota								**$48,008,139**	**$35,702,880**	--

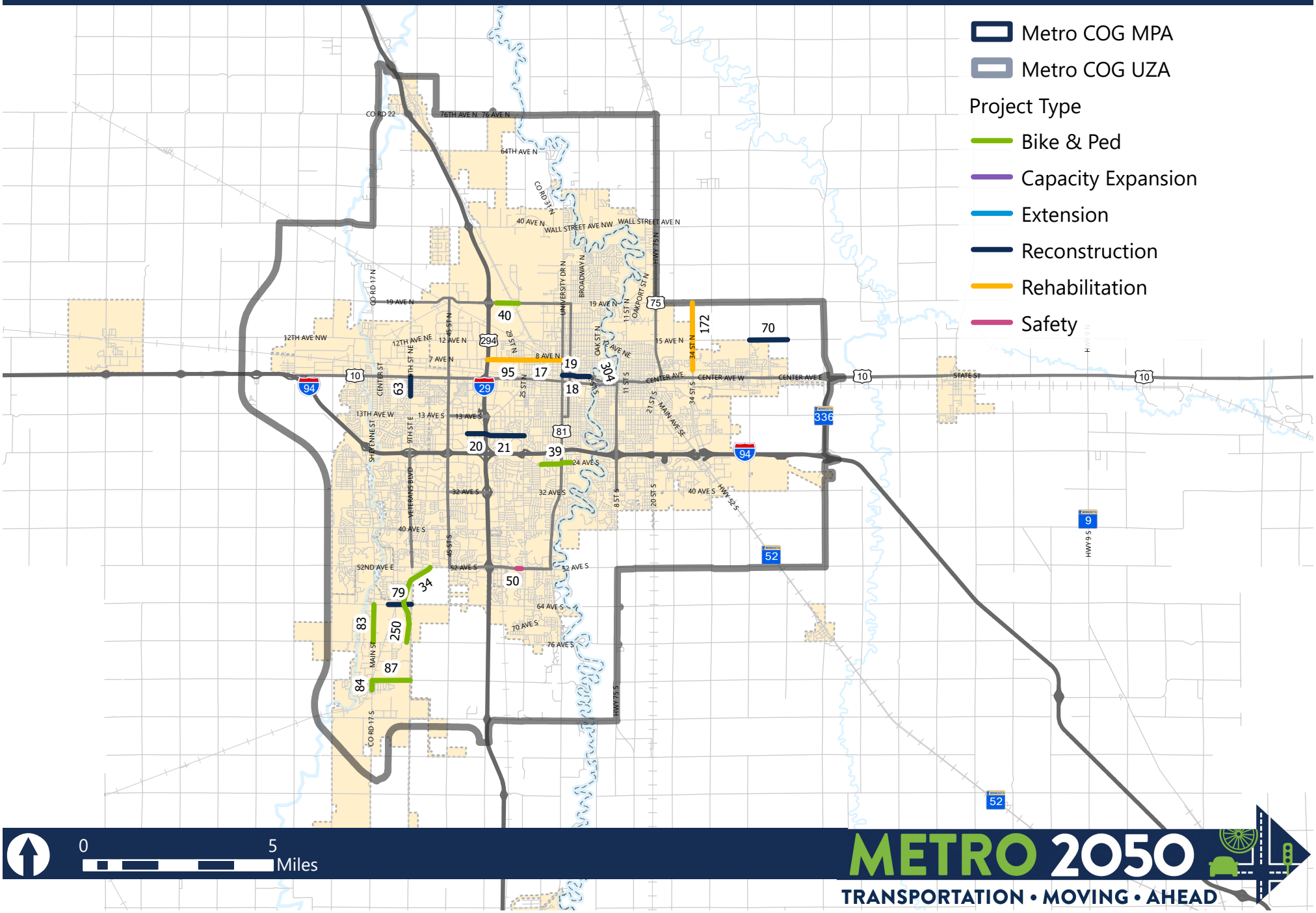
**Programmed for 2028 in the 2025-2028 Draft TIP*

Table 20. Short-Term (2028-2030) Reserve Transportation Projects by Funding Source

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2029) Costs	Federal Funds (2029)	Weighted Score
Minnesota Projects									
72	US 10/Center Ave	34th St	14th St	Bike & Ped	City of Dilworth/MnDOT	$-	$-	$-	4.1
300	Main Avenue/US 75	-	-	Reconstruction	MnDOT	$-	$-	$-	3.7
210	US 10	13th St	34th St	Reconstruction	MnDOT	$-	$-	$-	4.0
214	US 10	34th St	7th St	Reconstruction	MnDOT	$-	$-	$-	3.9
170	1st Ave N	Red River Bridge	21st St S	Reconstruction	Moorhead	$4,917,524	$5,982,920	$4,786,336	3.8
53	Center Ave	8th St N	26th St N	Bike & Ped	MnDOT	$-	$-	$-	3.8
244	34th St S	N of 12th Avenue S	I-94 W Ramp	Reconstruction	Moorhead	$4,276,386	$5,202,878	$4,162,302	3.4
301	Bluestem Moorhead	Bluestem	40th Ave S	Bike & Ped	Moorhead/Fargo	$5,000,025	$6,083,295	$4,866,636	3.4
173	US 10	10th St (Hawley)	Parke Ave (Glyndon)	Reconstruction	MnDOT	$-	$-	$-	3.2
158	17th St N	15th Ave N	1st Ave N	Rehabilitation	Moorhead	$317,117	$1,035,301	$828,241	3.2
117	40th St N/CSAH 9	28th Ave N	Hwy 10	Rehabilitation	Dilworth/Clay County	$1,202,994	$1,463,626	$1,170,900	2.9
105	15th Ave N	34th St N	7th St NE	Reconstruction	Dilworth	$6,544,432	$7,962,302	$6,369,842	2.9
215	I-94	MN 336	CSAH 10	Rehabilitation	MnDOT	$-	$-	$-	2.4
211	MN 9	Hwy 210 (Wilken Co)	6th St W (Barnesville)	Rehabilitation	MnDOT	$-	$-	$-	2.7
106	15th Ave N	60th St N	MN 336	Reconstruction	Dilworth	$4,178,213	$5,083,436	$4,066,748	2.2
212	MN 9	I-94	I-94	Rehabilitation	MnDOT	$-	$-	$-	2.1
213	MN 34	I-94	I-94	Rehabilitation	MnDOT	$-	$-	$-	2.1

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2029) Costs	Federal Funds (2029)	Weighted Score
235	12th Ave S	14th St SE	MN 336	Extension	Dilworth/ Moorhead	$8,244,350	$10,030,512	$8,024,410	2.1
177	Main St N	4th Ave NE	15th Ave NE	Extension	Dilworth	$2,834,632	$3,448,763	$2,759,011	1.8
North Dakota Projects									
26	University Dr S	13th Ave S	18th Ave S	Reconstruction	NDDOT	$-	$-	$-	3.7
16	40th Ave S	51st St S	42nd St S	Rehabilitation	Fargo	$2,505,168	$3,047,920	$2,438,336	3.4
2	Main Ave	I-29	45th St	Rehabilitation	NDDOT	$-	$-	$-	3.6
1	Main Ave	25th St	I-29	Rehabilitation	NDDOT	$-	$-	$-	3.5
4	Broadway Dr	Main Ave	7th Ave N	Rehabilitation	Fargo	$3,220,805	$3,918,602	$ 3,134,881	3.5
94	40th Ave S	42nd St S	32nd St S	Rehabilitation	Fargo	$1,809,550	$2,201,594	$1,761,275	3.1
209	Main Ave W	Armour Park		Bike & Ped	West Fargo	$2,107,333	$2,563,893	$2,051,115	3.4
241	13th Ave E	Prairie Pkwy	15th St	Reconstruction	West Fargo	$6,661,229	$7,316,325	$5,853,060	3.5
185	ND 46	163rd Ave SE	CR 81	Bike & Ped	NDDOT	$-	$-	$-	3.3
226	I-94	38th St NW	13th Ave W	Rehabilitation	NDDOT	$-	$-	$-	2.6
220	I-29	I-94	52nd Ave S	Capacity Expansion	NDDOT	$-	$-	$-	2.5
75	Wall Ave/88th Ave S	Main St/CR 17	57th St S/Veterans Blvd	Capacity Expansion	Horace	$5,215,483	$6,345,432	$5,076,346	1.5
Total							**$73,619,219**	**$58,895,375**	**--**
Minnesota							**$46,293,033**	**$37,034,426**	**--**
North Dakota							**$27,326,186**	**$21,860,949**	**--**

Short-Term (2028-2030) Constrained Project list



Short-Term (2028-2030) Reserve Project list

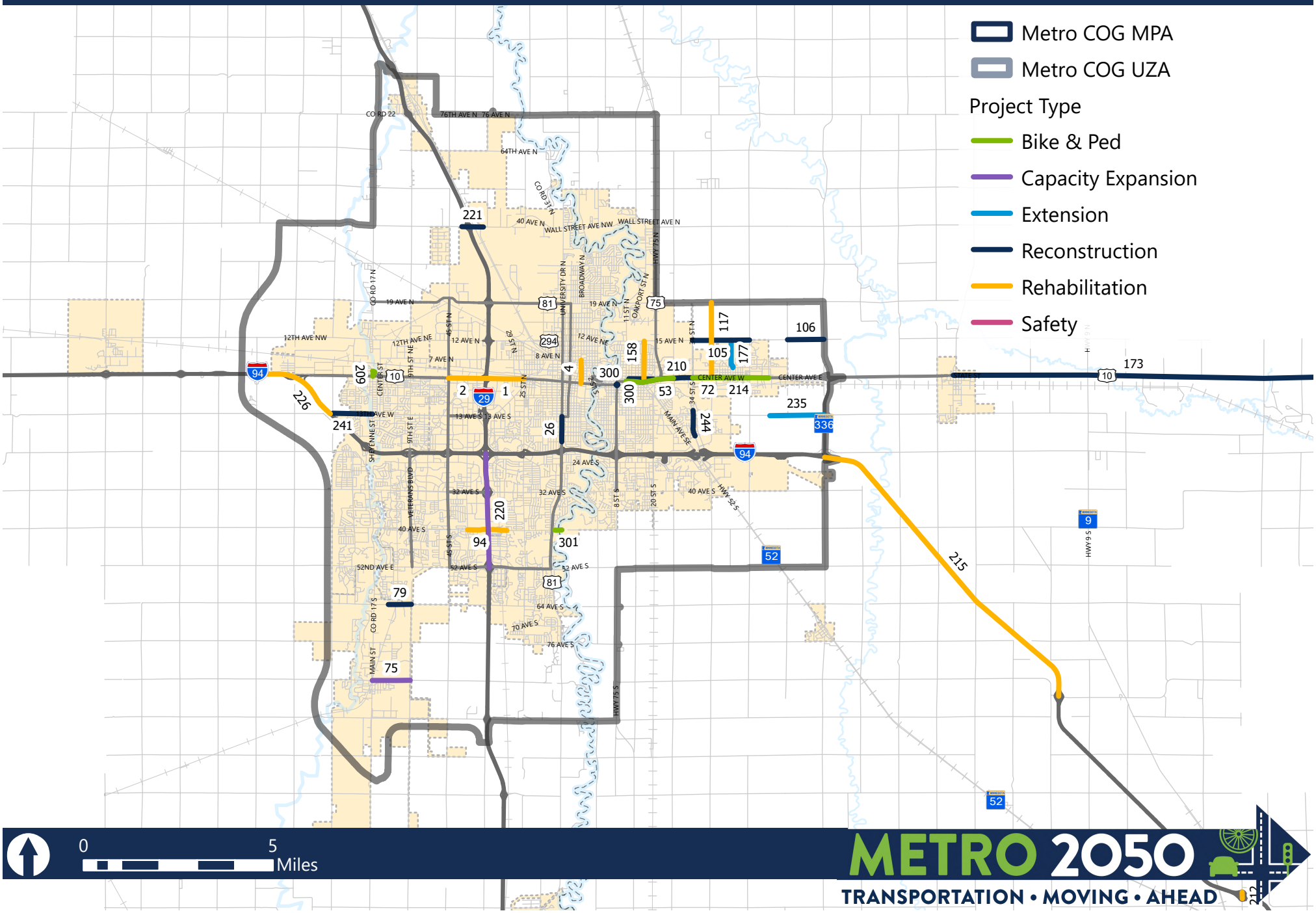


Table 21. Mid-Term (2031-2040) Constrained Transportation Projects by Funding Source

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
Minnesota Projects										
CRP/TA	**196**	11th St N	15th Ave N	28th Ave N	Bike & Ped	Moorhead	$820,617	$1,313,834	$1,051,067	3.5
	192	SE Main Ave	27th Ave S	Village Green Dr	Bike & Ped	Moorhead	$379,006	$898,214	$718,571	3.5
	193	12th Ave S	34th St S	34th St S	Bike & Ped	Moorhead	$2,030,791	$3,251,362	$2,601,089	3.5
STBG	**202**	14th St S	35th Ave S	40th Ave S	Reconstruction/ Bike & Ped	Moorhead	$1,360,362	$3,869,859	$3,095,887	3.1
	167	12th Ave S	40th St S	Appletree Ln	Reconstruction	Moorhead	$5,423,197	$9,419,693	$7,535,754	3.3
	183	11th St S	9th Ave S	12th Ave S	Reconstruction	Moorhead	$1,139,911	$1,825,034	$1,460,027	3.4
	207	24th Ave S	20th St S	8th St S	Rehabilitation	Moorhead	$310,070	$496,433	$397,146	3.2
	163	24th Ave S	Rivershore Dr	8th St S	Rehabilitation	Moorhead	$69,465	$111,216	$88,973	2.9
North Dakota Projects										
CRP	**186**	13th Ave S	21St St S	4th St S	Bike & Ped	Fargo	$719,394	$875,252	$921,418	4.0
	187	Broadway	7th Ave N	32nd Ave N	Bike & Ped	Fargo	$2,461,845	$3,941,494	$3,153,195	4.0
	69	Center St	Main Ave	12th Ave N	Bike & Ped	West Fargo	$785,471	$1,257,564	$1,006,051	3.7
	66	Sheyenne St	40th Ave W	52nd Ave W	Bike & Ped	West Fargo	$838,459	$1,342,401	$1,073,920	3.5
	68	52nd Ave W	Sheyenne St	9th St W	Bike & Ped	West Fargo/Horace	$498,249	$606,196	$638,170	3.3
TA	**36**	Drain 53	Prairie Farms Add.	Near 57th Ave S	Bike & Ped	Fargo	$3,046,511	$3,994,158	$3,195,326	3.2
	35	Drain 27	63rd St S	Drain 27	Bike & Ped	Fargo	$393,072	$629,321	$503,457	3.1
	37	Drain 53	64th Ave S	73rd Ave S	Bike & Ped	Fargo	$670,511	$1,073,510	$858,808	3.1

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
TA	82	CR 17/Main St	52nd Ave S	64th Ave S	Bike & Ped	Horace	$534,384	$855,565	$684,452	3.3
	85	CR 17/Main St	Park Dr	100th Ave S/CR 14	Bike & Ped	Horace	$392,925	$629,085	$503,268	3.2
	86	52nd Ave S	Sheyenne St	9th St W	Bike & Ped	Horace/West Fargo	$490,191	$784,811	$627,849	3.2
	80	Drain 27	88th Ave S	S of 100th Ave S	Bike & Ped	Horace	$1,076,761	$1,723,929	$1,379,144	3.1
	81	Red River Valley & Western RR	Wall Ave/88th Ave S	Red River Diversion	Bike & Ped	Horace	$1,602,369	$2,565,444	$2,052,355	3.1
STBG	119	42 St S	2 Ave S	30 Ave S	Rehabilitation	Fargo	$14,826,979	$16,377,416	$13,101,933	3.7
	59	Center St	BNSF RR	12th Ave NW	Reconstruction	West Fargo	$3,367,830	$5,392,005	$4,313,604	3.2
	51	45th St S	19th Ave S	I-94	Capacity Expansion	Fargo	$693,917	$1,752,275	$1,401,820	3.1
	58	Sheyenne St	40th Ave W	52nd Ave W	Reconstruction	West Fargo	$6,265,321	$10,030,981	$8,024,785	3.0
	248	76th Ave S	25th St S	Orchard Park Dr	Reconstruction	Fargo	$6,599,226	$10,565,573	$8,452,459	3.0
	28	Veterans Blvd	I-94	32nd Ave S	Capacity Expansion	Fargo/West Fargo	$9,534,338	$15,264,782	$12,211,825	2.9
	107	CR 17/Main St	52nd Ave S	64th Ave S	Reconstruction	Horace	$5,022,128	$8,040,589	$6,432,471	2.8
	171	15th St W	I-94	32nd Ave W	Reconstruction	West Fargo	$8,475,511	$13,569,566	$10,855,653	2.7
	176	52nd Ave S	Sheyenne St	9th St W	Reconstruction	West Fargo/Horace	$3,661,228	$4,454,443	$4,689,394	2.7
	122	Co Rd 17 N	Railroad	12th Ave NW	Rehabilitation	West Fargo	$2,151,656	$3,444,870	$2,755,896	2.6

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
	103	12th Ave NW	38th St NW	166th Ave SE	Reconstruction	West Fargo/Cass County	$4,349,390	$6,963,514	$5,570,811	2.6
	251	64th Ave S	CR 17/Main St	81st St S	Reconstruction	Horace	$5,596,828	$8,960,702	$7,168,561	2.4
STBG	**61**	CR 17	19th Ave NW	32nd Ave NW	Reconstruction	West Fargo	$4,496,781	$7,199,491	$5,759,593	2.3
	102	12th Ave NW	166th Ave SE	165th Ave SE	Reconstruction	West Fargo/Cass County	$4,332,203	$6,935,997	$5,548,798	2.3
	94	40th Ave S	42nd St S	32nd St S	Rehabilitation	Fargo	$1,809,550	$2,897,147	$2,317,717	3.1
	247	76th Ave S	I-29	25th St S	Extension	Fargo	$5,692,745	$9,114,269	$7,291,415	2.2
	99	CR 17	32nd Ave NW	40th Ave NW	Reconstruction	West Fargo	$4,190,237	$6,708,704	$5,366,964	2.2
	238	38th St W	I-94	48th St SE	Reconstruction	Cass County	$2,328,321	$3,727,717	$2,982,174	2.4
	96	26th St W	19th Ave NW	Sheyenne Diversion	Capacity Expansion	West Fargo	$7,284,072	$11,662,034	$9,329,627	2.1
	305	15th St W	4th Ave N	8th Ave N	Extension	West Fargo	$794,732	$1,272,391	$1,017,913	1.8
Total								**$205,208,581**	**$163,720,988**	**--**
Minnesota								**$21,185,644**	**$15,002,369**	**--**
North Dakota								**$184,022,937**	**$148,718,619**	**--**

Table 22. Mid-Term (2031-2040) Reserve Transportation Projects

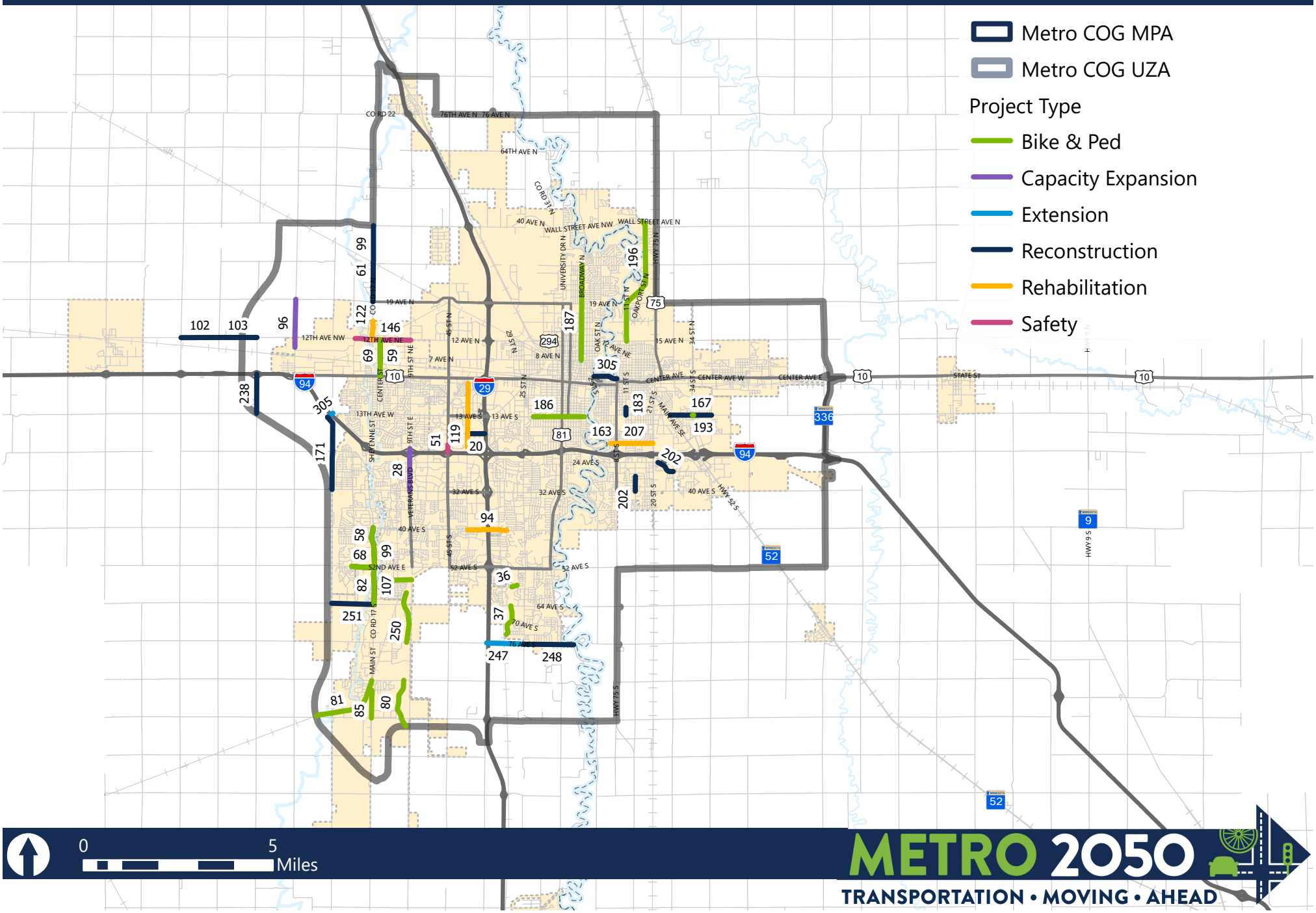
Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
Minnesota Projects									
179	US 75	50th Ave S	50th Ave S	Reconstruction	MnDOT	$-	$-	$-	2.4
216	I-94	MN 336	Red River	Reconstruction	MnDOT	$-	$-	$-	3.8
302	34th St N	8th St N	8th St N	Safety & CMP	Dilworth/Moorhead	$215,872	$345,617	$276,494	2.6
118	14th St S	Main Ave	9th Ave S	Rehabilitation	Moorhead	$3,108,844	$4,977,359	$3,981,887	3.1
229	I-94	Red River	Red River	Reconstruction	NDDOT/MnDOT	$-	$-	$-	3.0
218	US 10	Dilworth	Glyndon	Rehabilitation	MnDOT	$-	$-	$-	3.1
234	Main St S	2nd Ave SE	County Road 78	Reconstruction	Dilworth	$994,338	$1,591,967	$1,273,573	2.7
219	US 10	CSAH 31 Hawley	CSAH 5 Lake Park	Rehabilitation	MnDOT	$-	$-	$-	2.8
156	8th Ave NE	15th St NW	7th St NE	Extension	Dilworth	$7,664,554	$12,271,198	$9,816,959	2.2
203	28th St S	Village Green Blvd	40th Ave S	Rehabilitation	Moorhead	$164,981	$264,140	$211,312	2.5
217	US 10	Buffalo River	Buffalo River Hawley	Reconstruction	MnDOT	$-	$-	$-	2.3
237	14th St SE	I-94	I-94	Extension	MnDOT	$-	$-	$-	2.1
236	NE Ring Route	NE Ring Route	NE Ring Route	Capacity Expansion	Various	$32,369,257	$51,824,224	$41,459,379	2.2
116	70th Ave N	1st St N	US 75	Rehabilitation	Clay County	$7,038,863	$11,269,447	$9,015,557	2.0
175	14th St NE	15th Ave N	8th Ave N	Extension	Dilworth	$2,334,211	$3,737,147	$2,989,718	1.8

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
North Dakota Projects									
23	10th St N	NP Ave	8th Ave N	Reconstruction	Fargo	$4,385,617	$7,021,515	$5,617,212	4.1
25	University Dr N	1st Ave N	12th Ave N	Reconstruction	NDDOT	$4,093,934	$-	$-	4.0
9	University Dr S	I-94	32nd Ave S	Rehabilitation	NDDOT	$4,308,029	$-	$-	3.9
24	University Dr N	12th Ave N	19th Ave N	Reconstruction	NDDOT	$4,525,935	$-	$-	3.7
223	I-29	13th Ave S	I-94	Reconstruction	NDDOT	$-	$-	$-	3.7
230	I-29	40th Ave S	124th Ave S	Reconstruction	NDDOT	$-	$-	$-	3.6
27	19th Ave N	Dakota Dr	18th St N	Reconstruction	Fargo	$4,134,075	$6,618,787	$5,295,029	3.6
3	52nd Ave S	I-29	University Dr	Rehabilitation	Fargo	$5,172,163	$8,280,799	$6,624,640	3.4
64	9th St E/Veterans Blvd	14th Ave E	I-94	Reconstruction	West Fargo	$5,519,338	$8,836,638	$7,069,310	3.4
228	I-94	I-29	Red River	Rehabilitation	NDDOT	$-	$-	$-	3.3
93	University Dr S	32nd Ave S	40th Ave S	Rehabilitation	NDDOT/Fargo	$3,025,209		$-	3.3
225	I-29	I-94	I-94	Reconstruction	NDDOT	$-	$-	$-	3.3
7	University Dr N	19th Ave N	32nd Ave N	Rehabilitation	NDDOT/Fargo	$2,909,545	$-	$-	3.0
227	I-94	Sheyenne Street	I-29	Rehabilitation	NDDOT	$-	$-	$-	3.2
229	I-94	Red River	Red River	Reconstruction	NDDOT/MnDOT	$-	$-	$-	3.0
222	I-94	I-29	Red River	Capacity Expansion	NDDOT	$-	$-	$-	2.5
243	I-94	Sheyenne Street	I-29	Capacity Expansion	NDDOT	$-	$-	$-	2.5

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
76	81st St S	CR 14/100th Ave S	112th Ave S	Reconstruction	Horace	$6,178,992	$9,892,765	$7,914,212	2.0
65	12th Ave NW	9th St NW	26th St NW	Capacity Expansion	West Fargo	$7,957,673	$12,740,492	$10,192,393	1.9
98	CR 17	12th Avenue NW	19th Ave NW	Capacity Expansion	West Fargo	$3,670,692	$5,876,896	$4,701,517	1.9
148	76th Ave S	Veterans Blvd/57th St S	38th St S	Capacity Expansion	Fargo	$7,271,903	$11,642,550	$9,314,040	1.9
104	12th Ave NW	26th St NW	38th St NW	Capacity Expansion	West Fargo	$5,021,035	$8,038,839	$6,431,071	1.9
110	Veterans Blvd/57th St S	53rd Ave S	64th Ave S	Extension	Horace/Fargo	$3,664,691	$5,867,289	$4,693,831	1.8
144	38th St NW	I-94	12th Ave NW	Capacity Expansion	West Fargo	$5,888,513	$9,427,699	$7,542,159	1.8
91	26th St W	8th Ave NW/Sheyenne Diversion	Main Ave Service Dr	Capacity Expansion	West Fargo	$3,590,526	$5,748,548	$4,598,839	1.8
89	26th St W	Main Ave W	21st Ave W	Capacity Expansion	West Fargo	$10,198,614	$16,328,310	$13,062,648	1.8
92	26th St W	Main Ave Service Dr	Main Ave W	Capacity Expansion	West Fargo/NDDOT	$40,500,000	$-	$-	1.8
147	19th Ave N	CR 17	57th St N	Capacity Expansion	West Fargo	$5,035,114	$8,061,379	$6,449,103	1.8
57	13th Ave W	I-94	I-94	Capacity Expansion	West Fargo/NDDOT	$33,348,432	$-	$-	1.7
74	Veterans Blvd/57th St S	76th Ave S	88th Ave S	Extension	Horace/Fargo	$4,578,411	$7,330,183	$5,864,146	1.6
111	Veterans Blvd/57th St S	64th Ave S	76th Ave S	Extension	Horace/Fargo	$4,561,914	$7,303,772	$5,843,017	1.6
249	78th St S	64th Ave S	76th Ave S	Extension	Horace	$5,778,278	$9,251,209	$7,400,967	1.6

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
231	76th Ave S	81st St S	CR 17/Main St	Capacity Expansion	Horace	$3,973,257	$6,361,313	$5,089,050	1.5
78	76th Ave S	CR 17/Main St	57th St S/Veterans Blvd	Capacity Expansion	Horace	$1,783,272	$2,855,076	$2,284,061	1.4
151	45th St S	64th Ave S	76th Ave S	Capacity Expansion	Fargo	$4,204,867	$6,732,128	$5,385,702	1.4
90	26th St W	Sheyenne Diversion	Sheyenne Diversion	Capacity Expansion	West Fargo	$454,314	$727,372	$581,898	1.4
Total							**$281,665,245**	**$225,332,196**	**--**
Minnesota							**117,449,060**	**$93,959,248**	**--**
North Dakota							**$164,216,185**	**131,372,948**	**--**

Mid-Term (2031-2040) Constrained Project list



Mid-Term (2031-2040) Reserve Project list

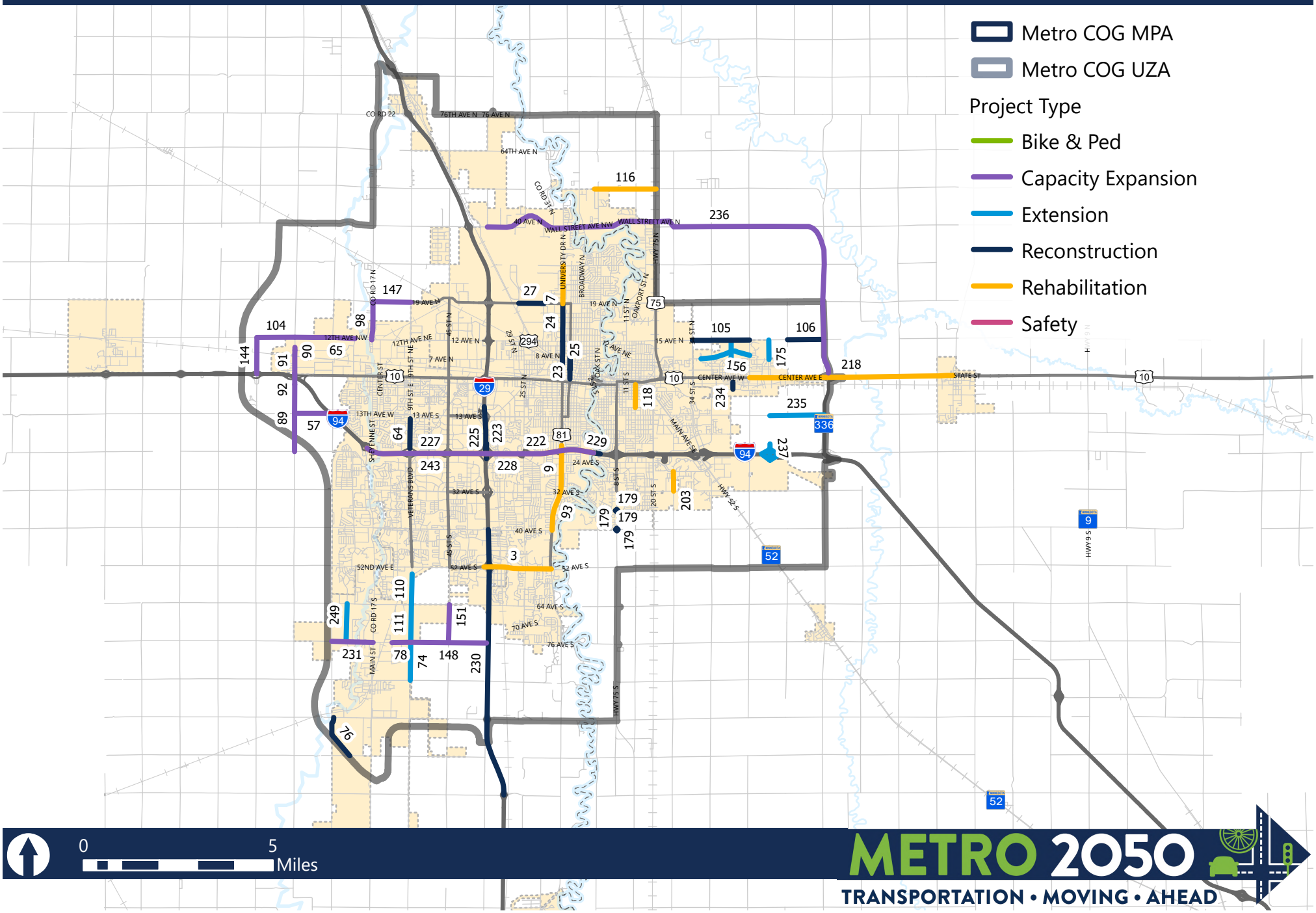


Table 23. Long-Term (2041-2050) Constrained Transportation Projects by Funding Source

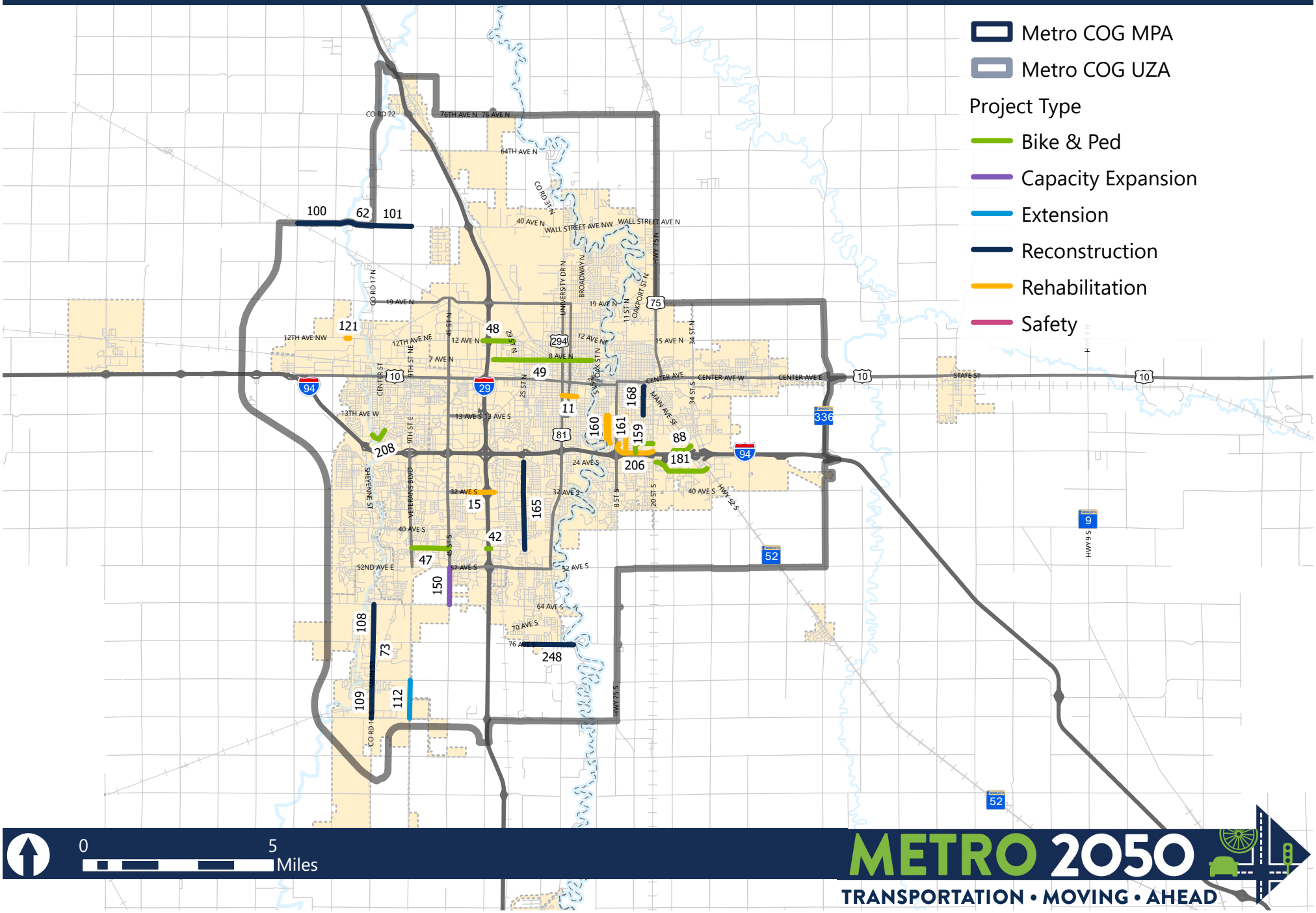
Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Long Term (2046) Costs	Federal Funds (2046)	Weighted Score
Minnesota Projects										
CRP/TA	88	27th Ave S	26th St S	SE Main Ave	Bike & Ped	Moorhead	$271,893	$435,309	$348,247	3.7
	197	14th St S & 24th Ave S	28th Ave S	20th St S	Bike & Ped	Moorhead	$376,439	$602,690	$482,152	3.6
	181	Village Green Blvd	20th St	CSAH 52	Bike & Ped	Moorhead	$778,119	$1,844,079	$1,475,263	3.4
STBG	168	17th St S	Main Ave	12th Ave S	Reconstruction	Moorhead	$2,741,902	$6,498,084	$5,198,467	3.2
	159	11th St S	12th Ave S	28th Ave S	Rehabilitation	Moorhead	$543,328	$1,287,643	$1,030,114	3.0
	206	28th Ave S/Holiday Dr	24th Ave S	20th St S	Rehabilitation	Moorhead	$616,496	$1,461,046	$1,168,837	2.9
	162	Rivershore Dr	4th St S	24th Ave S	Rehabilitation	Moorhead	$53,933	$127,818	$102,254	2.9
	161	5th St S	12th Ave S	Rivershore Dr	Rehabilitation	Moorhead	$358,864	$850,478	$680,383	2.8
	160	4th St S	12th Ave S	22nd Ave S/Rivershore Dr	Rehabilitation	Moorhead	$331,383	$785,352	$102,254	2.5
	252	TBD - 14th Extension from Dillworth	12th Ave S	I-94	Extension	Moorhead/ Dilworth	$3,389,318	$8,032,408	$6,425,927	1.9
North Dakota Projects										
CRP	45	Main Ave	25th St	45th St	Bike & Ped	Fargo	$4,496,781	$10,657,006	$8,525,605	3.9
	41	28th Ave S	I-29	I-29	Bike & Ped	Fargo	$3,574,580	$8,471,465	$6,777,172	3.6
TA	47	Just North of 47th Ave S	Veterans Blvd	45th St S	Bike & Ped	Fargo	$813,460	$1,927,833	$1,542,266	3.4
STBG	48	12th Ave N	I-29	29th St N	Bike & Ped	Fargo	$5,519,338	$13,080,382	$10,464,306	4.0

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Long Term (2046) Costs	Federal Funds (2046)	Weighted Score
	49	7th Ave N	36th St N	2nd St N	Bike & Ped	Fargo	$7,957,673	$18,859,040	$15,087,232	4.0
	15	32nd Ave S	42nd St S	I-29	Rehabilitation	Fargo	$2,499,305.44	$5,923,151	$4,738,521	3.8
STBG	**165**	25th St S	23rd Ave S	Rose Creek Coulee Bridge	Reconstruction	Fargo	$16,313,477	$38,661,616	$30,929,293	3.6
	42	47th Ave S	I-29	I-29	Bike & Ped	Fargo	$3,513,022	$8,325,577	$6,660,462	3.4
	11	5th Ave S	University Dr	7th St S	Rehabilitation	Fargo	$448,548	$1,063,022	$850,418	3.3
	109	CR 17/Main St	88th Ave S/Wall Ave	100th Ave S	Reconstruction	Horace	$4,982,734	$11,808,676	$9,446,941	2.7
	73	CR 17/Main St	76th Ave S	88th Ave S/Wall Ave	Reconstruction	Horace	$5,017,080	$11,890,073	$9,512,058	2.6
	108	CR 17/Main St	64th Ave S	76th Ave S	Reconstruction	Horace	$5,015,428	$11,886,157	$9,508,926	2.6
	101	40th Ave NW	9th St NW	CR 17	Reconstruction	West Fargo	$4,352,917	$10,316,060	$8,252,848	2.2
	62	40th Ave NW	CR 17	14th St NW	Reconstruction	West Fargo	$4,413,371	$10,459,331	$8,367,465	1.9
	121	12th Ave NW	Sheyenne Diversion	Sheyenne Diversion	Rehabilitation	West Fargo	$1,365,000	$3,234,939	$2,587,951	2.2
	100	40th Ave NW	14th St NW	26th St NW	Reconstruction	West Fargo	$4,342,491	$10,291,352	$8,233,081	2.1
Total								**$242,570,660**	**$193,530,501**	**--**
Minnesota								**$21,924,907**	**$17,013,898**	**--**
North Dakota								**$220,645,753**	**$176,516,603**	**--**

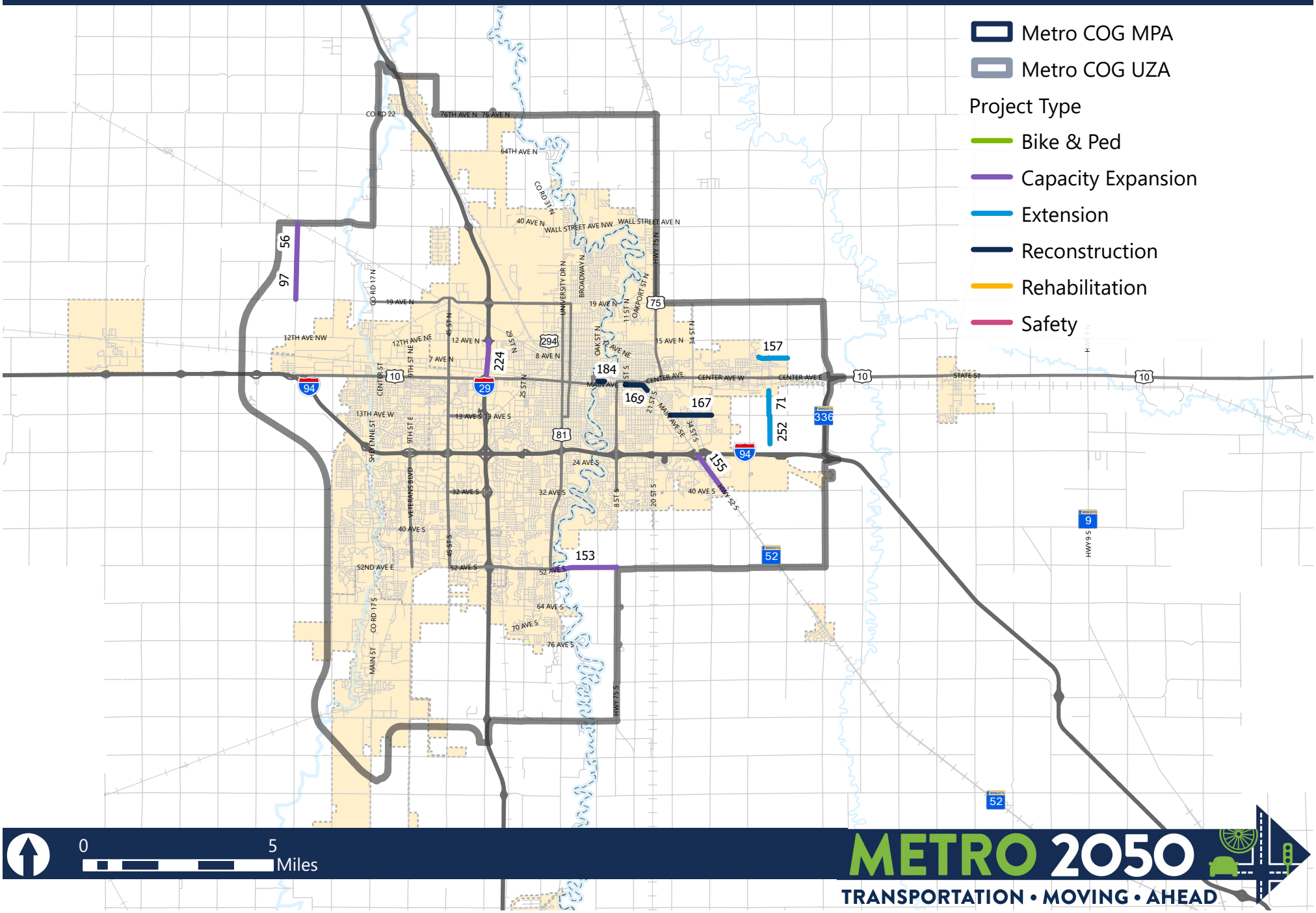
Table 24. Long-Term (2041-2050) Reserve Transportation Projects

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Long Term (2046) Costs	Federal Funds (2046)	Weighted Score
Minnesota Projects									
184	Center Ave/NP Ave	Red River	Red River	Reconstruction	Moorhead/Fargo	$18,453,600	$43,733,533	$34,986,827	3.8
169	Main Ave	11th St S	3rd Ave S	Reconstruction	MnDOT	$-	$-	$-	3.9
155	CSAH 52/SE Main Ave	I-94	40th Ave S	Capacity Expansion	Clay County/ Moorhead	$4,107,634	$9,734,759	$7,921,621	2.2
153	60th Ave S	University Ave S	Hwy 75	Capacity Expansion	Moorhead/ Clay County	$6,070,961	$14,387,686	$7,787,807	2.1
157	8th Ave NE	Woodbridge Dr	60th St N	Extension	Dilworth	$4,447,491	$10,540,192	$11,510,148	1.7
North Dakota Projects									
224	I-29	12th Ave N	Main Ave	Capacity Expansion	NDDOT	$-	$-	$-	2.1
56	26th St W	40th Ave NW	32nd Ave NW	Capacity Expansion	West Fargo	$5,048,492	$11,964,515	$9,571,612	1.4
97	26th St W	32nd Ave NW	19th Ave NW	Capacity Expansion	West Fargo	$5,010,951	$11,875,547	$9,500,438	1.4
Total							**$130,169,784**	**$106,404,773**	**--**
Minnesota							**$106,329,722**	**$87,332,723**	**--**
North Dakota							**$23,840,062**	**$19,072,050**	**--**

Long-Term (2041-2050) Constrained Project list



Long-Term (2041-2050) Reserve Project list



COMPARISON OF PROJECT COSTS TO ALLOCATED FUNDING

This section provides an analysis and summary of the project costs and funding levels (documented in **Table 19** through **Table 24**). **Table 25** provides a summary of the project costs, reasonably expected federal funding levels, and the balance for each state by period. As noted in **Table 25**, there may be a combination of STBG, TA, or CRP funding carried over from one period to another. Carryover is intended to provide two (2) purposes; first, to provide for flexibility in the TIP programming process as funding stacks, scopes, and cost estimates are refined for project implementation; second, to provide opportunities for revision with reserve projects as needed with changing priorities and conditions. A future MTP amendment may be required to include any unidentified future projects.

Table 25. Federal Fund Balances by Period

	Minnesota	North Dakota
Short Term (2028-2030) Federal Forecast	$4,462,717	$39,169,974
Short Term Costs	$3,920,609	$35,702,880
Short Term Carry Over to Next Period	$542,108	$3,467,094
Mid Term (2031-2040) Federal Forecast	$16,917,124	$148,921,005
Mid Term Costs	$15,002,369	$148,718,619
Mid Term Carry Over to Next Period	$1,914,755	$202,386
Long-Term (2041-2050) Federal Forecast	$20,621,880	$181,533,874
Long-Term Costs	$17,013,898	$176,516,603
Long-Term Balance	$3,607,982	$5,017,271

FUTURE TRANSIT SYSTEM PRIORITIES

Transit operations and capital support are eligible investments under certain funding sources. For example, MATBUS receives FTA allocations for transit investments each year. Continued operations and capital support for the MATBUS and the FM Regional transit system are expected to come from two (2) different funding sources:

- FTA funding sources discussed in **Chapter 1**.
- STBG dedicated transit funding, including the potential for future flex spending to support capital costs.

These funding sources can be applied towards maintaining the current system to support transit asset management and support of the CMP.

MATBUS maintains a list of operational and capital investments for implementation on an annual basis. Investments include bus replacements, transit shelter improvements, and other investments to support transit priorities identified in **Table 26**. These strategies are also integrated within the regional Transit Development Plan, updated on a 5-year cycle, with an updated plan anticipated in 2025. Additional transit-supportive strategies should be considered in the implementation of other transportation investments. For example, roadway projects along an existing transit fixed-route should explore opportunities to enhance access to, and mobility of, MATBUS services.

Table 26. Transit Strategies

Potential Transit Investment Strategy	Metro 2050 Objective
Maintaining an effective transit fleet	Support the maintenance of efficient transit infrastructure.
Upgrades to existing bus garage to facilitate fleet expansion	Support the maintenance of efficient transit infrastructure.
Development of transit hubs	Support transit connections to other regional centers.
Bus safety enhancement	Reduce the number of transit-involved crashes.
Micro transit considerations/features	Promote right-sized transit services to increase transit access throughout the region, including micromobility and fixed-route service.
Transit supported infrastructure as part of other transportation projects	Develop transit-intensive corridors with supportive infrastructure to enhance service reliability and connections to development that encourages making trips by public transit.

Future transit capital investment or infrastructure needs are identified in **Table 27**. Transit investments have not been constrained as part of Metro 2050 however, the list may be used as opportunities arise to support transit investments during the TIP process.

Table 27. Future Transit Investments

Metro 2050 Timeframe	Project Type	Project Details	Total Estimated Cost (2024)
Short-Term (2028-2030)	Fleet Replacements	23 vehicles	$10,905,000
	Shelter Replacement	18 shelters	$630,000
	Transit Garage Expansion		$20,000,000
	Marriott Transit Hub		$150,000
	Service Truck Purchase/Replacement		$55,000
Mid-Term (2031-2040)	Fleet Replacements	58 vehicles	$35,890,000
	Shelter Replacement	60 shelters	$2,100,000
	Farebox System Replacement		$1,500,000
	AVA/AVL System Replacement		$1,500,000
	Service Truck Purchase/Replacement		$170,000
	Service Truck Purchase/Replacement		$80,000
Long-Term (2041-2050)	Fleet Replacements	51 vehicles	$38,759,000
	Shelter Replacement	60 shelters	$2,100,000
	Service Truck Purchase/Replacement		$250,000
Total Short-Term Costs			**$31,740,000**
Total Mid-Term Costs			**$41,240,000**
Total Long-Term Costs			**$41,109,000**

Source: MATBUS

Source: MATBUS

VISION PLAN

There are numerous other transportation projects important to the FM Region, but do not fit within the fiscally constrained elements of the MTP. These projects fit within the "Vision" elements of the plan and represent illustrative priorities for the region between today and 2050. Illustrative projects can be funded as funding or needs change through an amendment to the MTP. Projects are identified as visionary due to one or more of the following reasons:

- **Additional Planning Needed:** Some projects need additional planning to define project needs and details.

  Example: The Heartland Trail (ID 164) is currently being studied by Metro COG to explore future alignment and feasibility. The determination of a feasible alignment and phasing is needed for further consideration as a fiscally constrained project.

- **Future Maintenance Needs:** Some roadway infrastructure has been identified to be replaced beyond the 2050 horizon of this plan.

  Example: The 12th Avenue N/15th Avenue N (ID 29) bridge over the Red River has been identified for replacement beyond 2050.

- **Future Needs:** Other projects were identified to support a future or forecast need with anticipated growth in the FM Region. Many of these projects are anticipated roadway extensions to serve new growth areas.

  Example: 20th Street S (ID 201) is a future roadway extension to serve new growth areas within Moorhead. Growth in the area is anticipated beyond 2050.

Illustrative projects should be carried forward, as applicable, and reevaluated during Metro COG's next MTP update process. For example, projects such as the 14th Street Grade Separation, West Fargo's US 10 and I-94 Interchange Reconfiguration, and the Diversion Recreation Plan may have a significant impact to travel in the FM Region, and should be reevaluated and refined over time. Projects included in the vision plan are of such large-scale nature that they would require assistance at the State or Federal level through discretionary grants in order to deliver. And such, illustrative projects exist outside of the timeframe and fiscal constraint of Metro 2050.

Table 28. Vision Plan (2050+) Transportation Projects

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
Minnesota Projects							
22	12th Ave S	45th St S	14th St NE	Extension	Arterial to support fringe area growth.	Moorhead/ Dilworth	$5,957,257
55	11th St N	Center Ave	15th Ave N	Bike & Ped	Bike & Ped Improvements	Moorhead	$524,253
71	14th St	12th Ave S	Adams Ave	Extension	Extend urban 2-lane with SUP and parking.	Dilworth	$25,000,000
129	12th Ave S	8th St S	8th St S	Safety	Identified as an intersection with needed safety improvements as a part of a future project.	Moorhead	$-
164	Heartland Trail - Varies	Clay County Eastern Boundary	US 75 Moorhead	Bike & Ped	Construction of the Heartland Trail. Future alignment of the trail being studied within the Heartland Trail Study (2024/2025).	Various	$-
166	40th Ave S	40th St S	9th St S	Reconstruction	Reconstruct 40th Ave S, 2-lane with parking and SUP.	Moorhead	$9,347,091
174	12th Ave S	MN 336	MN 336	Interchange	Required for 12th Ave and Hwy 336 connection.	Dilworth/ MnDOT	$6,388,500
178	50th Ave S	BNSF RR	BNSF RR	Reconstruction	Railroad grade separation identified to improve safety and rail/roadway congestion.	Moorhead/ Clay County	$-
180	US 75	46th Ave S	46th Ave S	Reconstruction	Long term rehabilitation project to support future roadway condition and operations needs.	Moorhead/ MnDOT	$2,000,000
182	Village Green Blvd	Westmoor Dr	CSAH 52	Rehabilitation	Mill and Overlay	Moorhead	$220,272
190	52nd Ave/60th Ave S/Red River	University Dr (Fargo)	Bluestem (Moorhead)	Bike & Ped	Shared use path across 52nd Ave S/60th Ave S and along Red River or similar alignment to Bluestem Amphitheater.	Moorhead	$1,360,145

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
194	21st St S	US 10	US 10	Bike & Ped	Expand sidewalk on eastern side of road to create a shared use path	Moorhead/ MnDOT	$40,523
195	Oakport St N	28th Ave N	MB Johnson Park	Bike & Ped	Recommendation from the Bicycle and Pedestrian Plan for a new or upgraded bike facility.	Moorhead	$425,022
199	6th St	Center Ave	24th Ave S	Bike & Ped	Recommendation from the Bicycle and Pedestrian Plan for a new or upgraded bike facility.	Moorhead	$867,149
200	50th Ave S	US 75	20th St S	Reconstruction	Long term rehabilitation project to support future roadway condition and operations needs.	Moorhead	$-
154	US 75	46th Ave S	60th Ave S	Capacity Expansion	Reconstruct to 3-lane urban cross-section with SUP and no parking. Timed with future long-term development	MnDOT	$7,506,957
201	20th St S	45th Ave S	50th Ave S	Extension	Future roadway extension to support future development.	Moorhead	$2,313,570
204	Village Green Blvd	22nd St S	28th St S	Rehabilitation	Mill & Overlay	Moorhead	$314,246
205	20th St S	28th Ave S	30th Ave S	Reconstruction	Long term rehabilitation project to support future roadway condition and operations needs.	Moorhead	$1,076,579
208	Sheyenne River	17th Ave E	Sheyenne St	Bike & Ped	Shared use path, bridge over the Sheyenne River	West Fargo	$2,564,640
233	14th St	US 10	Adams Ave	Grade Separation over BNSF RR	14th St NE Grade Separation over BNSF RR. Timed with development	Dilworth	$-
240	32nd Ave	165th Ave	Red River Diversion	Pave Gravel Road	Identified by Cass County as future gravel to black top project.	Cass County	$7,299,917
245	64th Ave S	New Interchange with I-29		Capacity Expansion	New interchange at 64th Ave S and I-29	NDDOT/Fargo	$-

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
246	76th Ave S	New Interchange with I-29		Capacity Expansion	New interchange at 76th Ave S and I-29	NDDOT/Fargo	$-
307	I-94	at 55th St S/14th St SE		Interchange	Location to be determined. Potential long-term project from Moorhead Growth Area Plan Study.	MnDOT	$30,416,323
309	55th St S/ 14th St SE	12th Ave	28th Ave S	New Street	Location to be determined. Part of potential long- term corridor to support growth area.	Moorhead	$6,843,673
311	SE Beltway Route	US 75	I-94	Expressway Route	Long term vision project for high-speed access around the metro area.	Clay County	$14,830,999
North Dakota Projects							
5	25th St N	1st Ave N	7th Ave N	Rehabilitation	Long term rehabilitation project to support future roadway condition and operations needs.	Fargo	$791,398
6	25th St S	53rd Ave S	58th Ave S	Rehabilitation	Long term rehabilitation project to support future roadway condition and operations needs.	Fargo	$1,230,641
29	12th Ave N/15th Ave N	Red River ND	Red River MN	Reconstruction	Reconstruction of the river crossing needed based on structure condition beyond the planning horizon.	Fargo/ Moorhead	$22,451,626
43	Old Hwy 81	Dakota Dr	40th Ave N	Bike & Ped	Paved shoulders along Old Hwy 81.	Fargo	$-
52	45th St S	Main Ave	I-94	Safety	Remove Negative Left-Turn Offsets.	Fargo	$7,254,685
67	Sheyenne St	13th Ave W	7th Ave W	Bike & Ped	Bike & Ped Improvements	West Fargo	$267,379
112	Veterans Blvd/57th St S	88th Ave S	100th Ave S	Extension	Extension of Veterans Blvd/57th St S	Fargo/Horace	$5,744,613
120	15th St NW	12th Ave NW	4th Ave NW	Extension	BNSF Underpass & Diversion Overpass to provide improved connection to Industry area.	West Fargo	$5,317,571
137	45th St S	Main Ave	I-94	Safety	Adaptive signals.	Fargo	$1,500,000
145	9th St NW	12th Ave NW	Main Ave W	Reconstruction	Reconstruct with Turn lanes and Intersection Control at 12th Ave NW	West Fargo	$4,966,712
146	12th Ave N	9th St NW	9th St NE	Safety	Intersection control and safety improvements	West Fargo	$2,569,067

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
149	88th Ave S	Veterans Blvd/57th St S	38th St S	Capacity Expansion	Expand 88th Ave S to a 3-lane cross section. Timed with development.	Fargo	$7,266,014
150	45th St S	52nd Ave S	64th Ave S	Capacity Expansion	Capacity expansion to 4-lane divided roadway. Timed with development	Fargo	$6,780,337
188	Red River	15th Ave N	32nd Ave N	Bike & Ped	Shared Use Path along the Red River	Fargo	$1,094,466
221	40th Ave N	Interchange with I-29		Reconstruction	Reconfiguration of the I-29 and 40th Ave N Interchange.	NDDOT	$-
232	17th Ave S	University Dr S	5th St S	Bike & Ped	Bike & Ped Improvements	Fargo	$-
242	9th St NE	BNSF RR		Grad Separation at BNSF RR	9th St NE Grade Separation at the BNSF RR.	West Fargo	$-
306	Beaton Drive W.	Sheyenne St	E of Sheyenne River	Bike & Ped	Recommendation from the Bicycle and Pedestrian Plan for a new or upgraded bike facility.	West Fargo	$-
312	76th Ave S	165th Ave	Memory Ln	Pave Gravel Road	Identified by Cass County as future gravel to black top project.	Cass County	$8,139,408
313	76th Ave S / 80th Ave S	Red River (Forest River Road)	US 75	Bridge over Red River	Project would construct Red River Bridge; fiscal constraint project acquires right-of-way. Would improve traffic operations on 52nd Ave bridge in long term.	Fargo / Clay County	$21,991,001
314	I-94	Sheyenne St (West Fargo)	34th St (Moorhead)	Interstate Operations	New Interstate operations study to refine recommendations. Implement improvements with reconstruction projects.	NDDOT / MnDOT	$23,155,338

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
315	I-29	Main Ave	52nd Ave S	Interstate Operations	New Interstate operations study to refine recommendations. Implement improvements with reconstruction projects.	NDDOT	$1,824,979
Total							**$284,574,590**
Minnesota							**$190,711,774**
North Dakota							**$93,862,817**

Illustrative Project list