

METRO 2050



TRANSPORTATION • MOVING • AHEAD



Fargo-Moorhead Metropolitan Council of Governments

2050 Fargo-Moorhead Metropolitan Transportation Plan

Adopted September 26, 2024

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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Table of Contents

- Chapter 1: Overview and Process 01

- Chapter 2: F-M Region and Transportation in 2045 18

- Chapter 3: Goals and Objective 52

- Chapter 4: 2050 System Needs and Strategies 74

- Chapter 5: Future Transportation System 83



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.

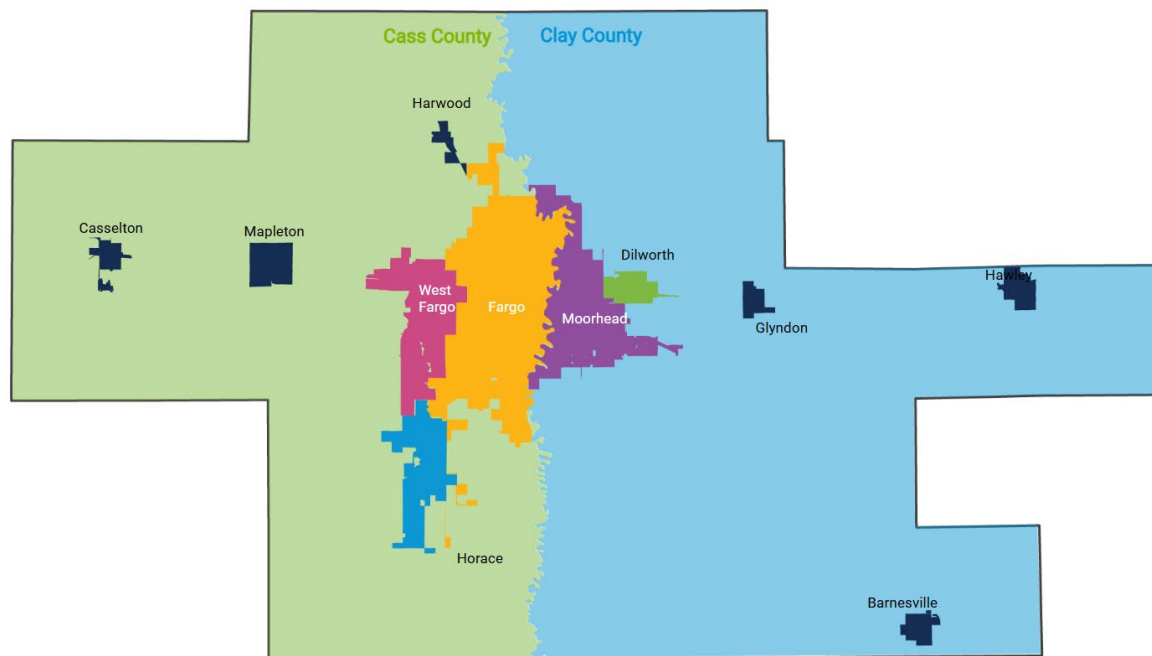
WHAT IS METRO COG?

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) is the Metropolitan Planning Organization (MPO) for the Fargo-Moorhead area. An MPO is a transportation policy-making organization made up of representatives from local government 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 was to employ a comprehensive, cooperative, and continuing planning process

for transportation expenditures in a region. Federal funding for transportation projects and programs is channeled through this 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).

Figure 1. Metro COG Planning Area



The geographic boundary for the Metro COG planning area is shown in **Figure 1**. Metro COG serves a bi-state area with a planning 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

- Cass County
- Clay County
- Fargo
- Moorhead
- West Fargo
- Horace
- Dilworth

Associate Jurisdictions:

- Barnesville
- Casselton
- Glyndon
- Harwood
- Hawley
- Kindred
- Mapleton



METRO COG COMMITTEES

Metro COG is governed by two committees. **The first is the Policy Board.** The Policy Board is the executive body of Metro COG. The Policy Board is Metro COG's decision-making arm 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. The committee is made up of planning and engineering from local jurisdictions, transit agencies, and representatives from MATBUS, MnDOT and NDDOT. Metro COG also operates four committees:

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

Metro COG staff also participate in two other regional committees:

- Metro Area Transit Coordinating Board
- Cass Clay Food Commission



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). The plan is required to have at least a 20-year planning horizon and should support the following Federal metropolitan transportation planning factors¹:

- 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



¹ [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 allows us to evaluate 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 and carried through into this document has established 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. This performance-based 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. More on the 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 a population of 249,648 for the Fargo-Moorhead Metropolitan Statistical Area (MSA), making Metro COG eligible for designation as a Transportation Management Area (TMA). This TMA designation changes how federal transportation funds flow to the Fargo Moorhead region. This allows Metro COG and local jurisdictions more responsibility in prioritizing and selecting transportation projects for federal funding. Metro 2050 will reflect 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 system, with the development of a Congestion Management Plan (CMP).
- Continue to receive a majority of planning funds through distribution from the NDDOT.
- Receive an annual direct sub-allocation, also called a "sub-allocation" of some Federal dollars, meaning that they

receive a consistent funding level for FHWA Surface Transportation Block Group (STBG) and Federal Transit Administration (FTA) Urban Formula Section 5311 funds. The City of Fargo receives FTA Urban Formula Section 5307, 5310, and 5339 funds for the TMA.

- Have additional requirements related to policy board membership, including local elected officials, appropriate state officials, and officials of major modes of transportation like MATBUS. While MATBUS is currently part of the Cities of Fargo and Moorhead, a study of potential to transition to a regional transit authority is

nearing completion. Regardless of structure, it will be necessary to designate one MATBUS representative for the policy board.

- Select projects for implementation from the Transportation Improvement Program (TIP) to program TA, CRP, STBG and PROTECT funds, with consultation with the States and MATBUS as relevant.
- Need to have their transportation planning process certified by FHWA and FTA once every four years (23 CFR 450.336(b)).



METRO 2050 PROCESS

The development of the 2050 MTP 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 then informed the development of transportation goals and objectives that will 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 all of its plans. The Metro 2050 plan 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. In order 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 which can be seen at:

www.fmmetrocog.org/resources/public-participation-plan.

To gather feedback to inform the planning process, three phases of engagement were used to align with key technical milestones. Additionally, the project website and online communications were used throughout the planning process.



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 the Metro COG 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 were made throughout the planning process to provide updates and ways to engage. The following elements were hosted within the website:

- Informational videos about the plan 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 its process, and learning about the transportation **experiences** of the community. This phase included education opportunities for the community and stakeholders to learn about the MTP, its purpose, and the overall process. Additionally, Phase 1 created an opportunity to learn about the community’s existing and desired experience with the regional 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, the SS4A project was gathering similar safety specific input during a similar timeline and that specific input 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 network?

Phase 1 Pop-up Events

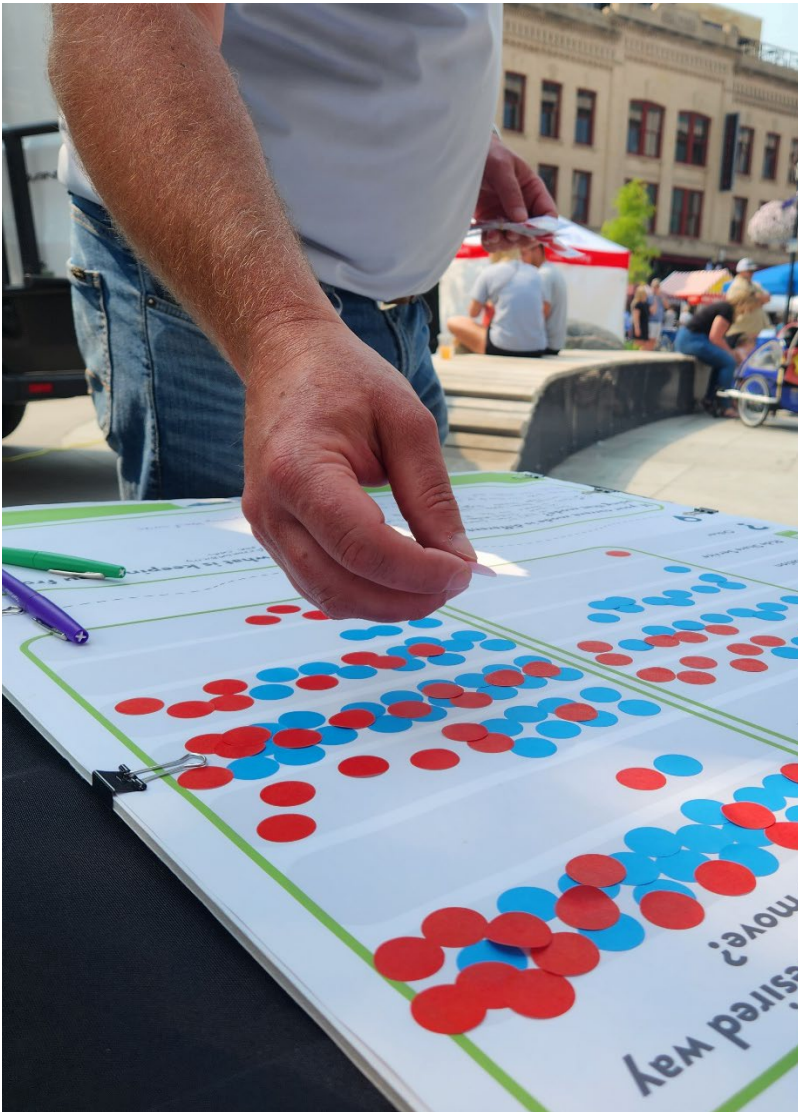
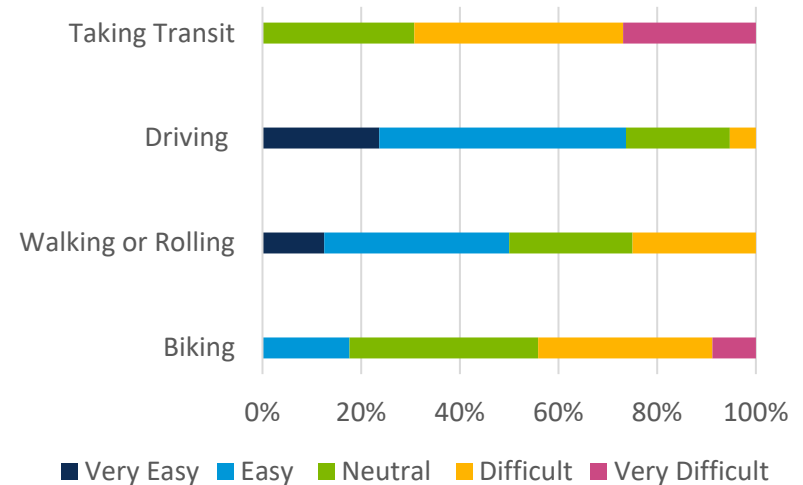
Three pop-up events were held by Metro COG to learn about current transportation experiences of community members. This engagement looked to explore priorities for future investment. The three events included:

- 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 its 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 easy to very difficult.

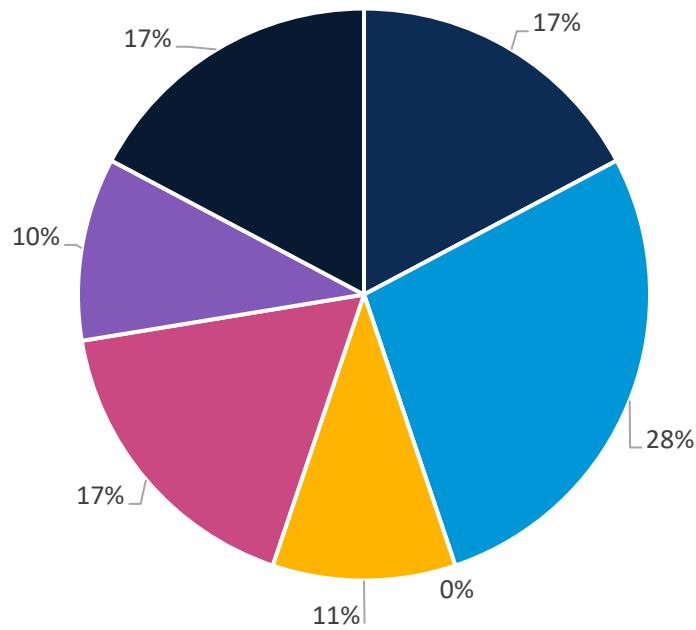


Share the challenges you experience moving by different modes:

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

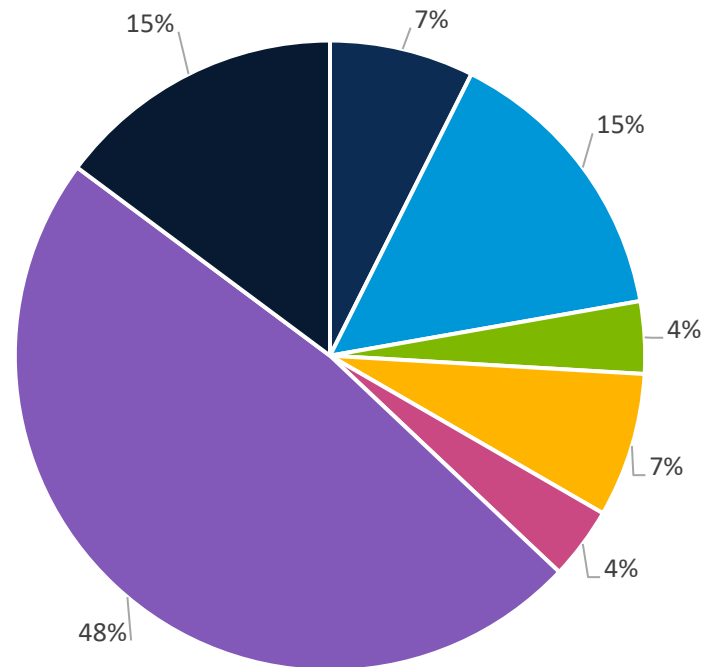
Biking Challenges

- Feeling unsafe
- It takes too long to travel
- Lack of bike facilities
- Other
- Lack of connections
- Distance is too long
- Lack of parking or facilities



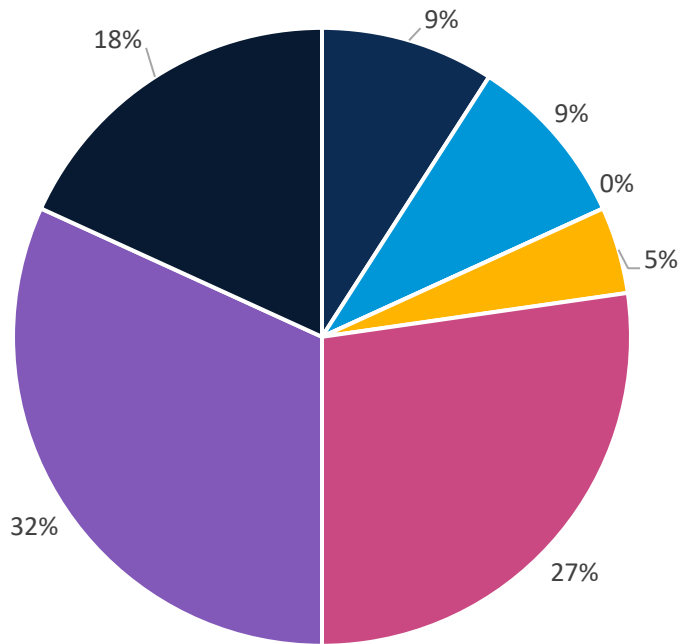
Walking or Rolling Challenges

- Feeling unsafe
- It takes too long to travel
- Lack of walking facilities
- Other
- Lack of connections
- Distance is too long
- Seasonal challenges (snow)



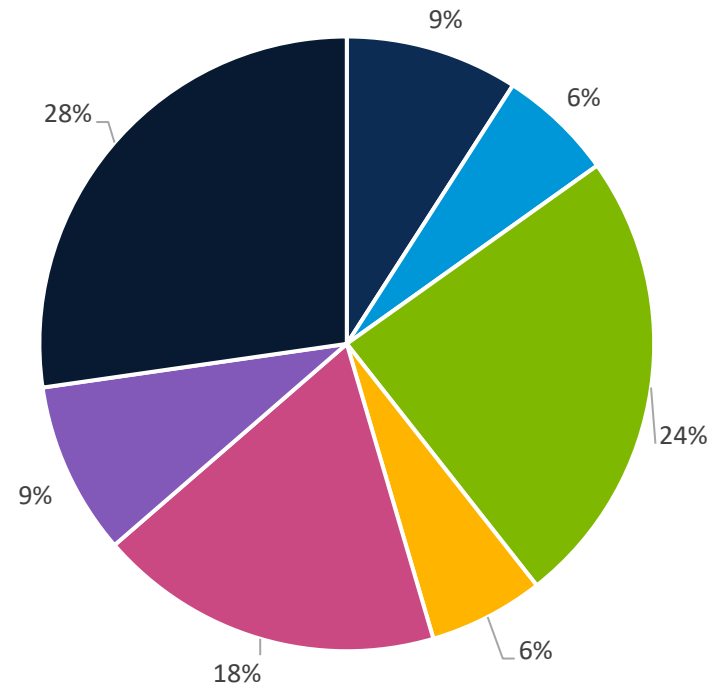
Driving Challenges

- Feeling unsafe
- Lack of connections
- It takes too long to travel
- Distance is too long
- Traffic backups
- Operating/maintenance costs
- Other



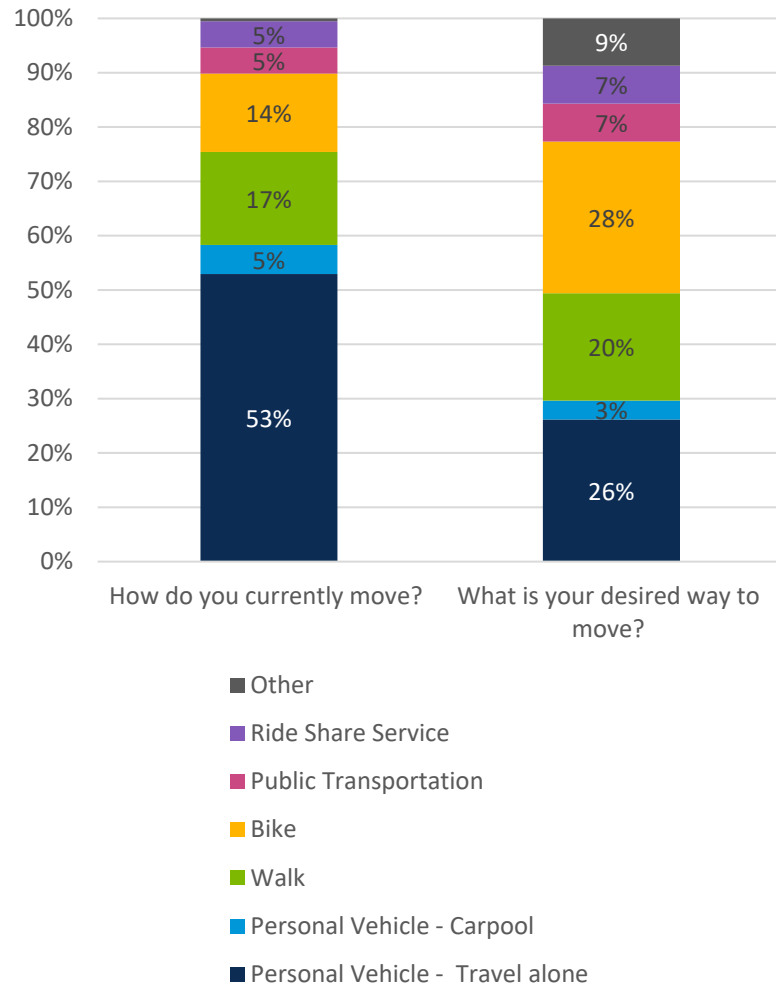
Transit Challenges

- Feeling unsafe
- Lack of route connections
- It takes too long to travel
- Distance is too long
- Bus frequency
- Bus stop locations
- Other



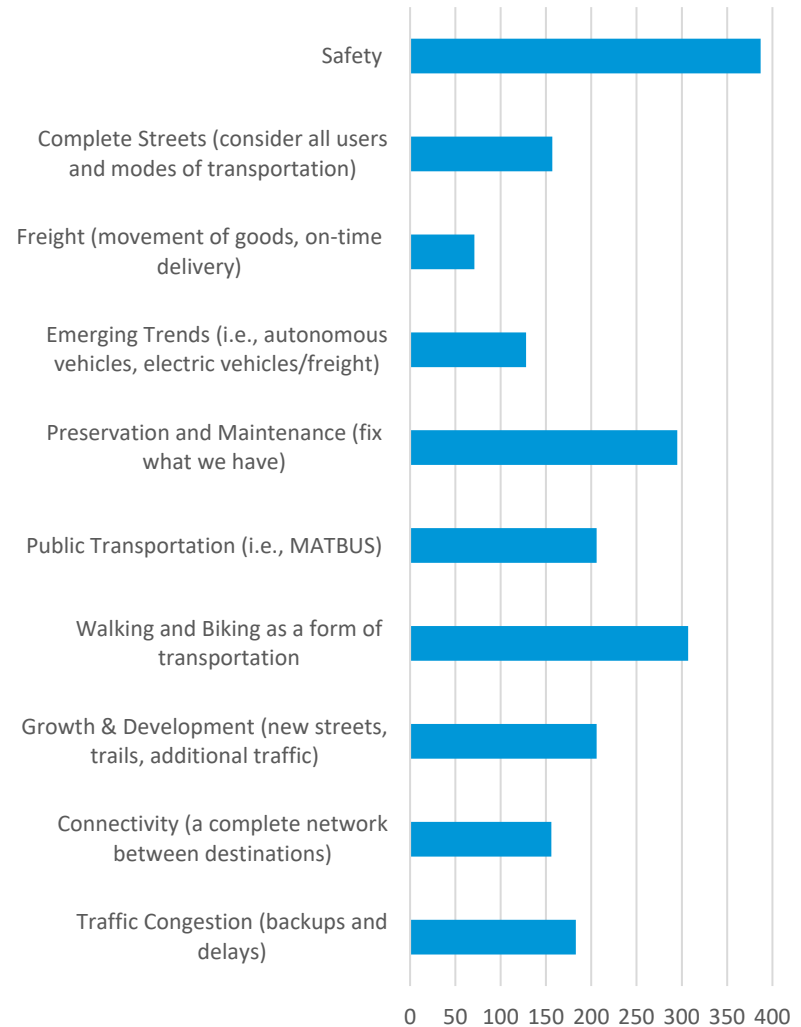
Share how you move or want to move:

Respondents were asked how they move a majority 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.



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. 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 and **test ideas** with the community. Through this phase, key outcomes of the existing conditions analysis and future conditions exploration were shared, along with the identified regional transportation goals. Additionally, this phase provided the opportunity to begin to test future projects and actions with the community to learn their priorities.

<p>What was shared in Phase 2?</p>	<ul style="list-style-type: none"> • What are the opportunities and issues from existing conditions analysis and future conditions? • Regional transportation goals and objectives • Project pipeline framework and initial projects
<p>What were the goals of Phase 2?</p>	<ul style="list-style-type: none"> • What is the community's perception of the goals and implementation concepts? • What are the investment priorities?



Phase 2 Pop-up Events & Open House

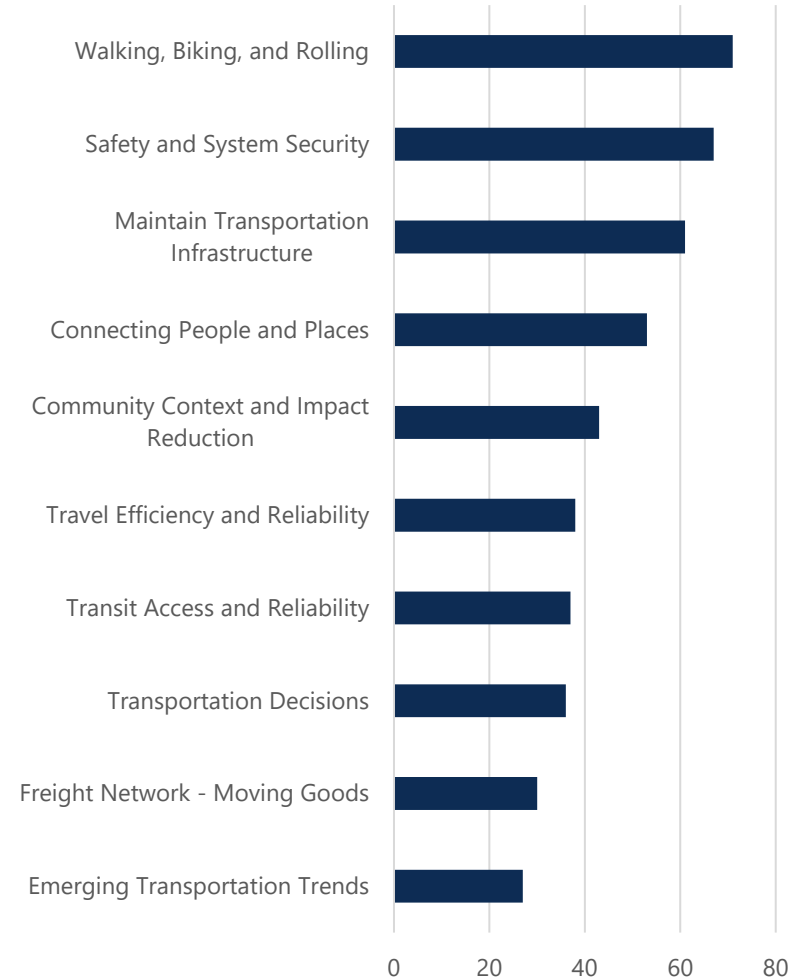
(Metro COG’s Metropolitan Transportation Plan (MTP) team staffed two pop-up events in the summer of 2024. The first was a pop-up at the West Fargo Cruise Night on June 20, 2024, and the second pop-up took place at the Downtown Fargo Street Fair from July 18-20, 2024. An Open House was held on July 24,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

These events provided the public with updates of the MTP process, including a presentation of the plan’s goals and priorities. Participants were invited to participate in two activities to confirm their priorities and their desired use of transportation spending.



What are your transportation priorities:

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

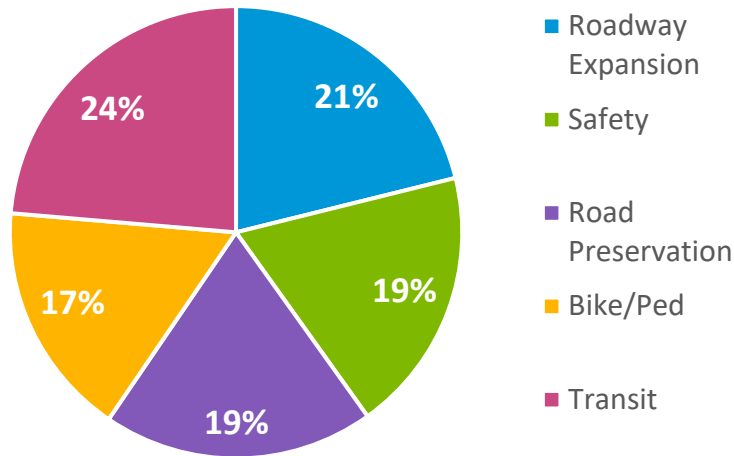


How would you prioritize your transportation funding

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 this phase of engagement to facilitate conversations about modal and locational priorities within the region. Two focus groups focused on multimodal transportation were scheduled from 2:30 p.m. – 4:00 p.m. on July 23, 2024, and 10:00 a.m. – 11:30 a.m. on July 24, 2024. Two focus groups focused on core neighborhoods were scheduled from 4:30 – 6:00 p.m. on July 23, 2024, and from 8:00 a.m. – 9:30 a.m. on July 24, 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 optional demographic questions. Question 12 of the survey and a budget activity replicated the in-person activities at the 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. This phase provided an opportunity to share where the process has been and how input has informed current outcomes were shared. Refined goals and outcomes will be shared to connect the community with how the draft alternatives will support the region’s 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?

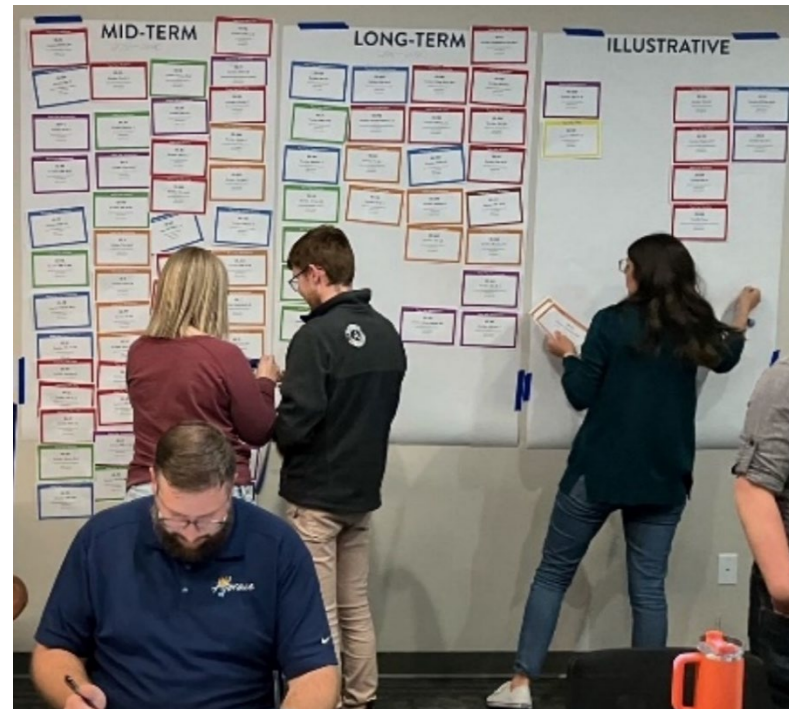
- Confirm priorities and concepts
- What did we miss

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 the project, 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.

Additionally, consultation of State and local transportation and resource 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 to reflect statewide priorities.



Fargo-Moorhead Region & Transportation in 2024

A review of the existing conditions within the region, including both demographic changes and transportation needs, was an initial step of the planning process. This work focused on exploring how various elements of the multimodal transportation system currently operate and ties this assessment to Metro COG's performance measurement requirements.

REGIONAL POPULATION TRENDS

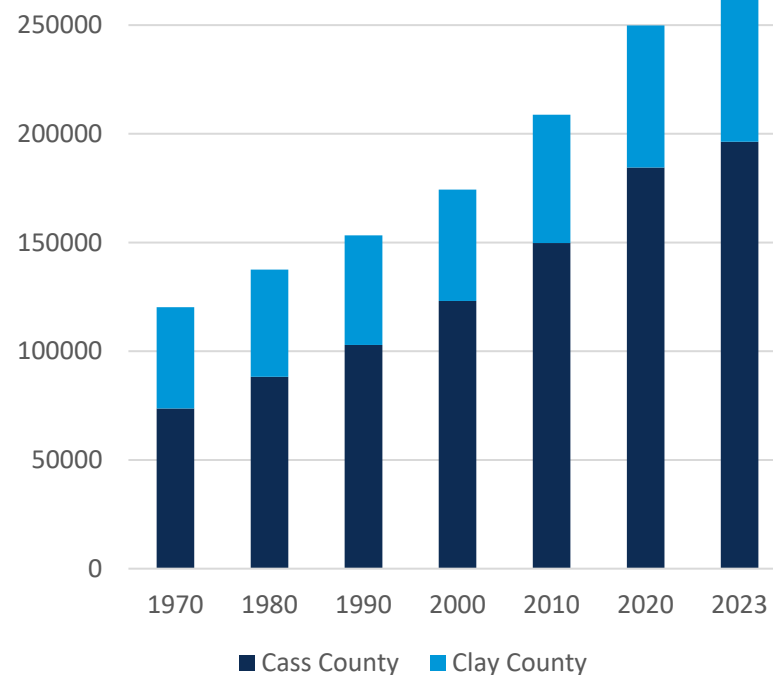
POPULATION TRENDS

The total population of the Fargo-Moorhead Metropolitan Statistical Area (MSA) was recorded at 248,591 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, representing a nearly 4 percent increase in two-years.

All jurisdictions are estimated to experience growth over the same period, with higher growth rates calculated for North Dakota jurisdictions. The City of Horace is estimated to see the largest growth rate (82.9%) from 2020 to 2023 with an estimate of 5,643 residents. The cities of Fargo, West Fargo, and Dilworth were estimated to have grown between 3 and 6 percent. Moorhead's growth rate is assumed to have slowed significantly to 0.8 percent over the three years.

Both Cass and Clay Counties have experienced growth over the last 50 years. However, on average, Cass County has experienced an annual growth rate that is two 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: American Community Survey, 2022

INCOME AND EMPLOYMENT

The Fargo-Moorhead 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 unemployment rate in the Fargo-Moorhead region in July of 2024 according to the Bureau of Labor Statistics.

Income levels for the region grew between 9 and 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: American Community Survey, 2023, 2018

HOUSING

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

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

The American Community Survey estimated that 55.1 percent 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 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 2 or more vehicles in 2023. The American Community Survey estimates that 2.5 percent 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: 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 of commuters traveling less than 20 minutes each day, see [Table 3](#). The average commute time has been maintained over the last five

years and is nearly ten 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 State of Minnesota with an average commute time of 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: American Community Survey, 2018, 2023

The mode of transportation used to travel to work has 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 carpooled in 2023. Of all the commuting trips in the region, 69.9 percent are less than 10 miles in length. This shorter trip

distance provides opportunities for a shift modal shift to walking or biking due to the trip length.

According to the same statistics from American Community Survey, based on a sample from 2018 to 2023, walking is the region’s second most popular mode of transportation (at nearly 4 percent of all trips) to work and less than a half percent of workers are using public transportation for their 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 – carpoled	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: American Community Survey, 2023

Commuting Patterns

The Fargo-Moorhead area is a regional center, attracting employees from a broader area into its communities for work on a daily basis. The region retains 88 percent of its working residents in the community each day for work, with 12 percent traveling outside of the region for work, see **Table 5**. Nearly 70 percent of the region’s employees travel 10 miles or less for work.

Table 5. Commuting Patterns

Commuting Pattern	Count	Share
Employed and Living in the Fargo ND-MN Metro Area	88,210	--
Employed in the Fargo ND-MN Area but living outside	26,270	24.4%
Living in the Fargo ND-MN Metro Area 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



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 has a *Title VI Non-Discrimination and Limited English Proficiency Plan*, which 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*, MetroCOG'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 POPULATIONS

As part of the Title VI program, Metro COG tracks data that indicates the spatial distribution of Environmental Justice populations in the metropolitan area. Environmental Justice (EJ) is the 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 is to achieve an equitable distribution of benefits and burdens.

Environmental Justice Assessment

The roadway and bicycle and pedestrian projects were evaluated in relationship to Metro COG's identified environmental justice populations. The projects included Metro 2050 area at a planning level and the full potential benefits and impacts of the included transportation projects are not fully known. From a project perspective, there are two different ways to consider the potential effects of transportation investment decisions on environmental justice (EJ) populations:

- **Benefits:** Transportation projects provide enhanced access and mobility to system users. This analysis looked at whether the plan-identified projects were directly accessible to EJ populations.
- **Impacts:** Some transportation projects can cause environmental and social impacts to adjacent populations. This analysis identified the project types that had the most potential to have impacts and see if these project types are disproportionately placed adjacent to EJ populations.

PERFORMANCE-BASED PLANNING

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

The 2050 MTP carries forward this approach in analyzing Metro COG's multimodal transportation system's baseline performance. While the 2045 MTP 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, this MTP follows these Federal guidelines established for reporting multimodal transportation performance on the region's Interstate and non-Interstate National Highway System (NHS).

PERFORMANCE MEASURE TARGETS

The Metro COG region is located within both North Dakota and Minnesota, which requires coordination between both North Dakota Department of Transportation (NDDOT) and Minnesota Department of Transportation (MnDOT) when developing performance measure targets. Federal regulations

permit Metro COG to establish targets through one of three approaches:

- A. Agreeing to plan and program projects that contribute to progress made towards each state's DOT safety target for that performance measure; or
- B. Committing to a quantifiable target specific to the Metropolitan Planning Area (MPA) for that performance measure; or
- C. A combination of A and B.

PM targets established by Metro COG for the period 2021 through 2024 are shown in [Table 6](#) through [Table 8](#).

Historically, Metro COG has established targets using approach A identified above – contribute to progress toward each DOT target. The targets highlighted in the following pages were established using this methodology. Due to the bi-state nature of the Metro COG region, signed agreements with both state DOTs are required when setting each performance measure.¹

The Metro COG baseline data for each of these the 2021 through 2024 periods 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.

¹Metro COG, [2024-2027 Transportation Improvement Program](#).

Table 6. Annual Safety PM 1 Targets for Metro COG

Target	2021		2022		2023		Recent Metric (2022)
	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	MnDOT Targets	NDDOT Targets	Fargo-Moorhead Region
Number of Fatalities	352.4	102	352.4	96.4	352.4	99.2	12
Rate of Fatalities (per 100M VMT)	0.582	1.103	0.582	1.094	0.582	1.080	0.507
Number of Serious Injuries	1579.8	382.1	1463.4	359.7	1,463.4	397.1	62
Rate of Serious Injuries (per 100M VMT)	2.606	4.046	2.470	4.089	2.470	4.201	2.619
Number of Non-Motorized Fatalities & Non-Motorized Serious Injuries	281.2	30.4	258.4	29.8	258.4	33.5	11

Source: Federal Highway Administration, *State Performance Dashboards*

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*

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*

THE METRO COG REGION TODAY

STREET AND HIGHWAY NETWORK

This section summarizes Metro COG’s streets and highways network, including the federal, state, and local classifications of the various streets and highways and the role they play in the region.

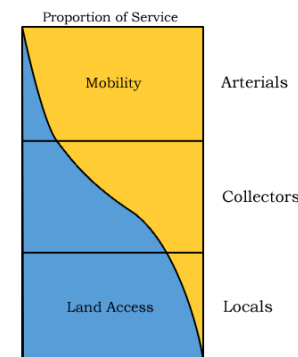
Functional Classifications

Streets and highways within the Metro COG region are classified based on their functional characteristics using a system referred to as functional classifications. Functional classes are defined based on criteria established by the Federal Highway Administration (FHWA) and seek to provide an appropriate balance between each roadway’s ability to facilitate mobility and accessibility for users as described by **Figure 3**. FHWA updated the **Functional Classification Guidelines** 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.

Table 9 details the various functional classifications within the Metro COG region while **Figure 4** shows the functionally classified roads within the region.

Figure 3. Mobility and Accessibility Characteristics of Functionally Classified Roads



Source: Federal Highway Administration

Figure 4. Metro COG Functional Classification

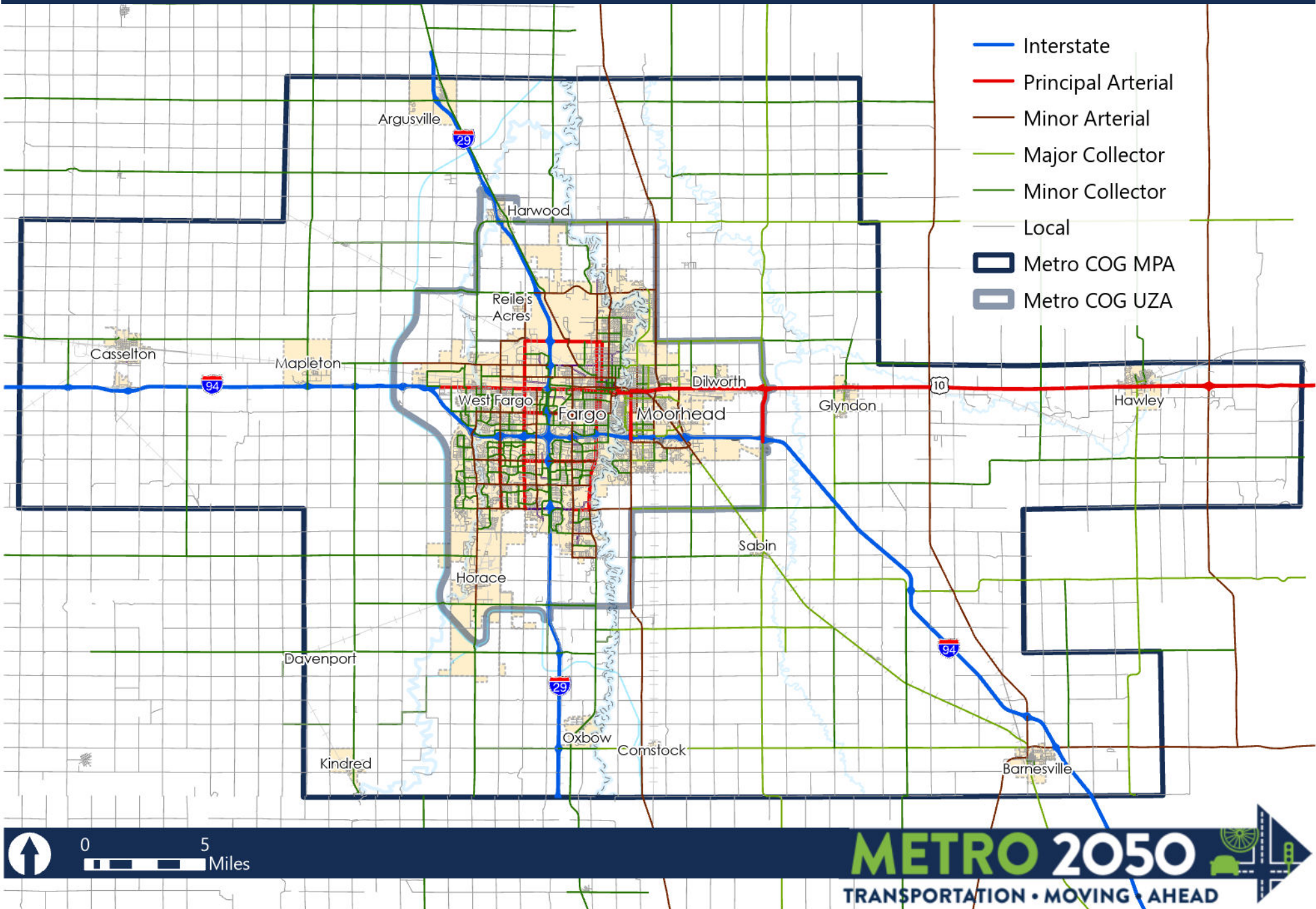


Table 9. Functional Classification Descriptions

Functional Classification	Description
Interstate	Provide the highest degree of mobility and travel speeds over long distances via limited access facilities that connect major urban areas.
Principal and Minor Arterials	Provide high degree of mobility and travel speeds between urbanized areas, cities, and industrial centers via access-constrained facilities that limit access to adjacent land uses.
Major and Minor Collectors	Provide a 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 a high degree of access by directly serving adjacent land uses. 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 roadways that are most critical in supporting the nation’s economy, defense, and mobility needs.

The NHS is comprised of several subsystems, including:²

- **Interstate:** The Eisenhower Interstate System of highways
- **Other Principal Arterials:** Highways in rural and urban areas which provide 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, and provide defense access, continuity, and emergency capabilities for defense purposes.
- **Intermodal Connectors:** Highways providing access between major intermodal facilities and the other four subsystems described above.

Roadway Jurisdiction

Roadway jurisdiction refers to the primary agency charged with maintaining and operating a roadway. Within the Metro COG region, the agencies responsible for maintaining and operating the area’s roadways include state, county, township, and local agencies including:

- **State Agencies:** North Dakota Department of Transportation (NDDOT), and Minnesota Department of Transportation (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)

² Federal Highway Administration, [National Highway System](#).

REGIONAL TRANSPORTATION IN 2024

An analysis of the current transportation conditions in 2024 was completed early in the planning process to establish the foundation for the plan to be built upon. This analysis would not only identify the needs to be addressed with future investments but also supported the refinement of regional transportation goals. This section reviews 2024 system conditions in the six 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



Bike and Pedestrian System



Transit System





SYSTEM SAFETY

Safety conditions of the multimodal transportation system were reviewed based on historic crash data from NDDOT and MnDOT to identify key safety issues and trends within the Metro COG region.

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

- Systemwide crash trends, including annual crashes, crash severities, manner of crashes, and timing of crashes.
- Location-based crash trends, including top intersection crash frequency and top intersection crash rate locations.
- Bicycle and pedestrian-involved crash trends.

The crash data provided by the state DOTs was for the years 2018 through 2022.

Systemwide Crash Trends

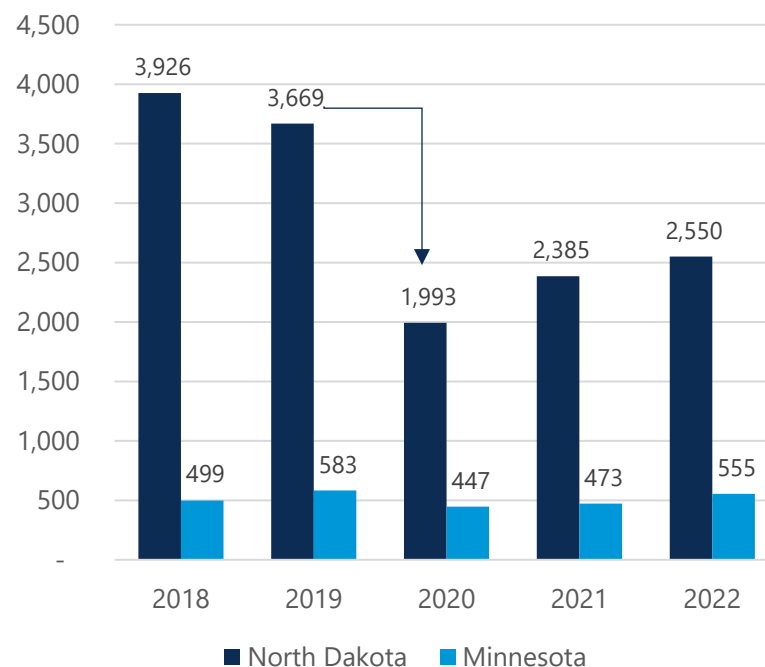
Annual crashes that occurred within the Metro COG region between 2018 and 2022 are shown in **Figure 5**. As **Figure 5** illustrates, crashes within the MPA peaked in 2018 before declining through 2020. This decline can be attributed to two influences:

- In 2019, NDDOT revised the threshold for classification of a Property Damage Only crash from \$1,000 in damage to \$4,000 in damage. This change removed many minor crashes in succeeding years that were previously reported.

- In 2020, the COVID-19 public health 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 crashes, it was widely observed that the severity of crashes occurring increased during this period.

After 2020, crashes within the Metro COG region began trending towards pre-COVID-19 levels.

Figure 5. Annual Crashes in the Metro COG Region, 2018 - 2022



Location-Based Crash Trends

The top 30 crash frequency intersections within the Metro COG 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 their urban and rural high crash intersection lists; crashes within 250 feet of an intersection are 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 calculated 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 highlighted, and total crashes highlighted. Intersections highlighted in orange were 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 LINK 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

*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 system safety. This review looked 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 Metro COG region, 31 bicycle crashes occurred in 2018 and saw a decrease through 2020 before rising to 27 crashes in 2021. The year 2022 saw the number of bicycle-involved crashes peak at 33. Pedestrian-involved crashes increased between 2018 and 2019 before declining in 2020. The years 2021 and 2022 saw pedestrian-involved crashes increase over 2018 levels.

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

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

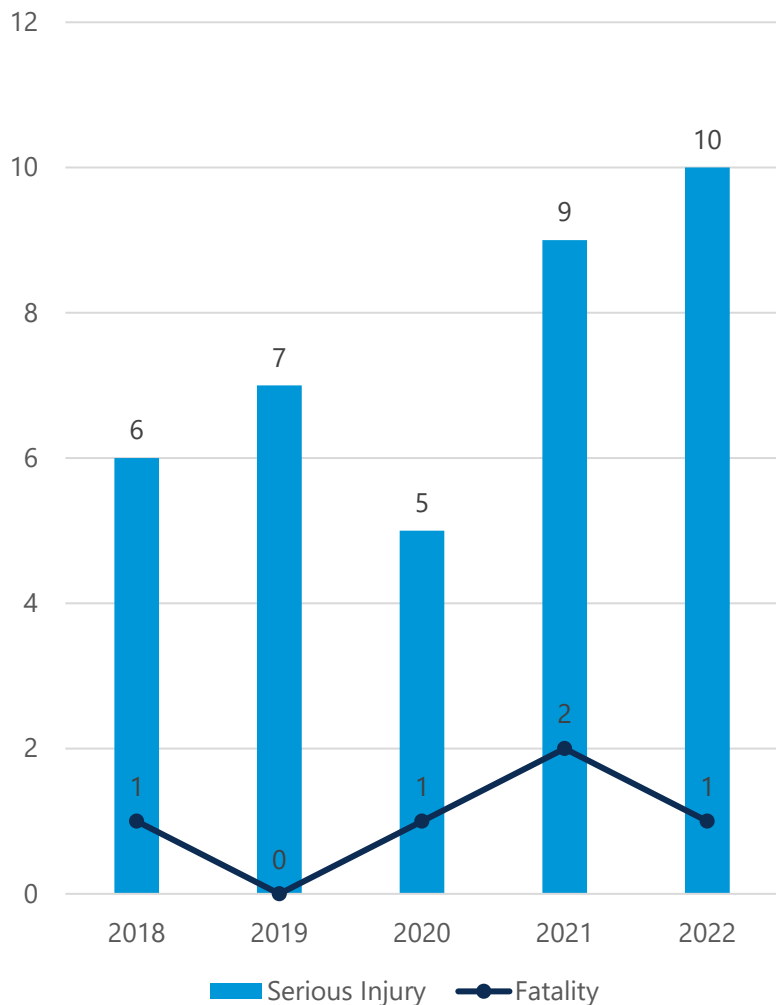
Type	2018	2019	2020	2021	2022	Total
North Dakota						
Bicycle	31	29	22	27	33	142
Pedestrian	21	26	18	30	27	122
Minnesota						
Bicycle	0	2	5	3	2	12
Pedestrian	3	1	3	3	4	14

Fatal and Serious Injury Bicycle- and Pedestrian-Involved Crashes

Annual Fatal and Serious Injury crashes that involved a bicyclist or pedestrian are shown in **Figure 6**. Fatal bicycle- and pedestrian-involved crashes peaked in 2021 with 2, while each year typically saw one fatal bicycle- or pedestrian-involved Fatal crash.

Serious Injury crashes involving a bicycle or pedestrian saw an overall increase between 2018 and 2022. The year 2020 saw the lowest number of bicycle- or pedestrian-involved crashes with 5 while the year 2022 saw the highest number of bicycle- and pedestrian-involved crashes with 10.

Figure 6. Bicycle- and Pedestrian-Involved Fatal and Serious Injury Crashes, 2018 - 2022



SYSTEM PAVEMENT AND BRIDGE CONDITION

Assessing the condition of our current roads and bridges is an integral element of understanding how our current transportation system functions, and what future transportation system investments might be required. There are two primary performance measures that Metro COG and the states of Minnesota and North Dakota are required to apply in evaluating their system:

- Percentage of pavements in “good” or “poor” condition
- Percentage of bridges in “good” or “poor” condition

Pavement Condition

Pavement condition data provides information related to existing conditions and can be 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 but use different measurements to determine conditions. Minnesota only tracks County State Aid Highway pavements while North Dakota tracks County Road.

Metro COG’s member jurisdiction’s track pavement conditions differently, through various indices:

- Pavement Condition Index (PCI)
- Ride Quality (RQI)

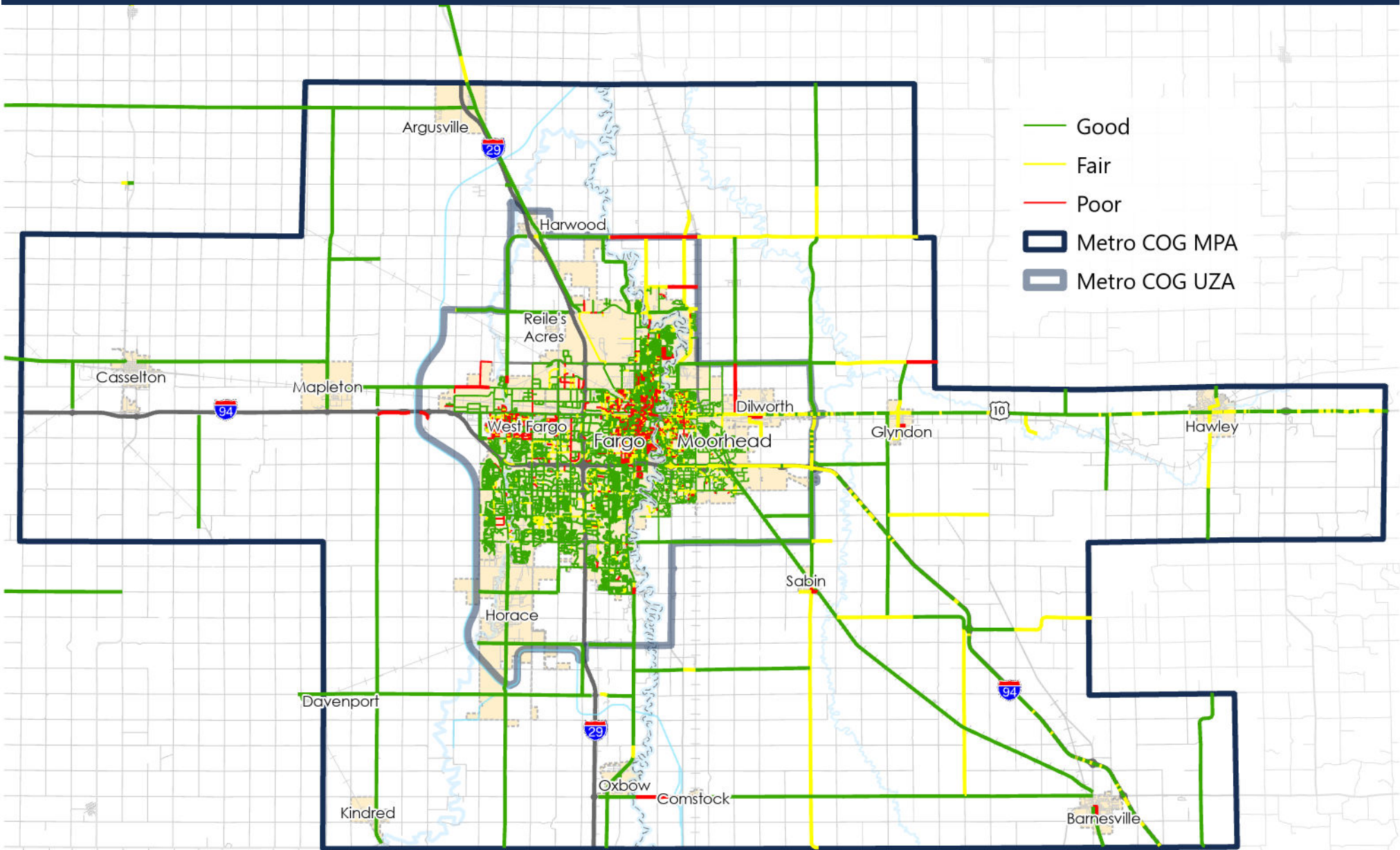
Comparison of Regional Pavement Conditions

Because of the different measurement techniques and uncoordinated pavement condition data collection, it is difficult to cohesively determine the pavement condition of the entire roadway system in the region. Furthermore, PCI and RQI are incompatible pavement condition ratings, meaning each index rating cannot be converted from one to the other. Some indices can be converted to others, for example, RQI can be converted to IRI and vice versa. However, the incompatibility of RQI and PCI does not mean pavement conditions are incomparable, as rating scales are similar. **Figure 7** provides a composite regional pavement condition map which reflects the various pavement conditions in a unified scale as described above.

However, of the 494 miles of comparable data, road conditions are in acceptable condition with over 95% of the 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.



Figure 7. Pavement Condition



0 5 Miles



BRIDGE CONDITION

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

Overall, the structures in the Fargo-Moorhead area are in relatively good condition. There are 383 bridges and culverts in the MPA Boundary with 95% of them being in good or fair condition. All structures with an anticipated future AADT of over 10,000 are in fair or good condition. However, for structures on the National Highway System, Minnesota structures are not meeting MnDOT Targets with fewer good condition structures and more poor condition structures targeted for as seen in [Table 12](#).

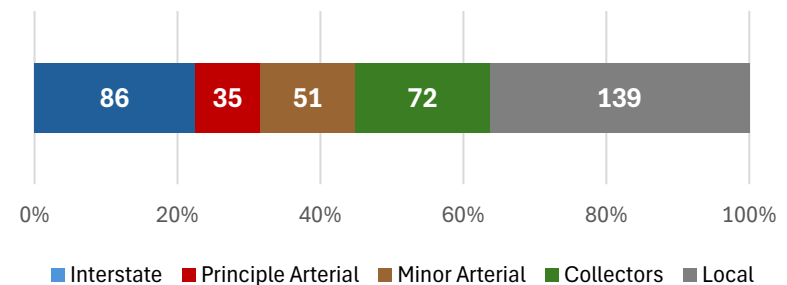
Table 12. Structure Condition PM 2 Targets for Metro COG compared to Current Condition

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



Eighty-six (22%) of the structures are on the interstate system, while the rest are on roads classified as principal arterial, minor arterial, collector or local. [Figure 8](#) shows the number and percentage of bridges on each functional classification in the region.

Figure 8. Bridges by Functional Classification



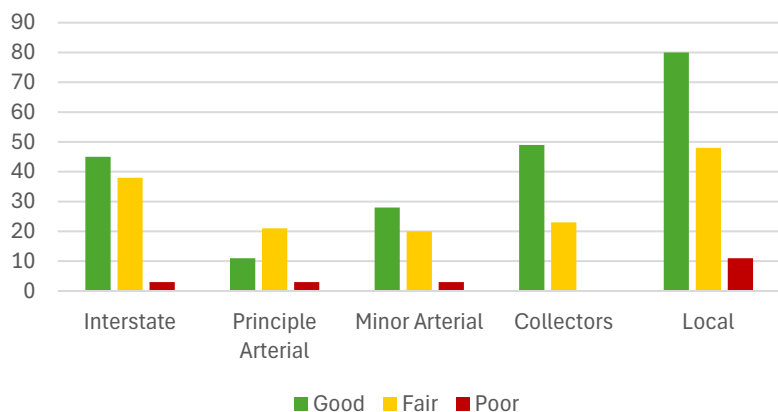
Of the 145 North Dakota structures not on the interstate system 81(56%) are in good condition, 57 (39%) in fair condition, and 7 (5%) were rated poor.

For the 152 structures in Minnesota not on the interstate system, 87 (57%) are in good condition, 55 fair (36%), and 10 poor (7%). **Table 13** and **Figure 9** show the state’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 9. Structure Condition by Functional Class



³ Metro COG, [Metro Grow 2045](#).



SYSTEM OPERATIONS

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

Traffic Operations

Traffic operations refers to 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 of transportation system performance.

The purpose of analyzing traffic operations is to understand congestion patterns and how the system operates. Metro COG’s 2045 MTP, Metro Grow 2045, 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.³ This 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 region today.

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 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 that information pertaining to the locations and speeds at which individuals traveled. This robust database provides valuable insights into traffic operations on a corridor-by-corridor basis within the Metro COG region.

The probe data used in the travel delay analysis was sourced from UrbanSDK, which collects connected vehicle data to monitor roadway networks and allows for the analysis of traffic patterns related to speeding, safety, and congestion.

This data was analyzed to evaluate the daily variation in travel times so that an understanding of when and where travel delays occurred 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 Metro COG region. 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% below free flow speed levels. The highest reductions in speeds during both peak periods occur at intersections due to conflicting traffic flows at controlled intersections.

Planning Level-of-Service

A second approach to analyzing baseline traffic operations performance was used as a supplement to the travel delay analysis discussed above. This approach, referred to as a planning level-of-service (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 that is used to classify the approximated 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 that represents gridlock traffic conditions.

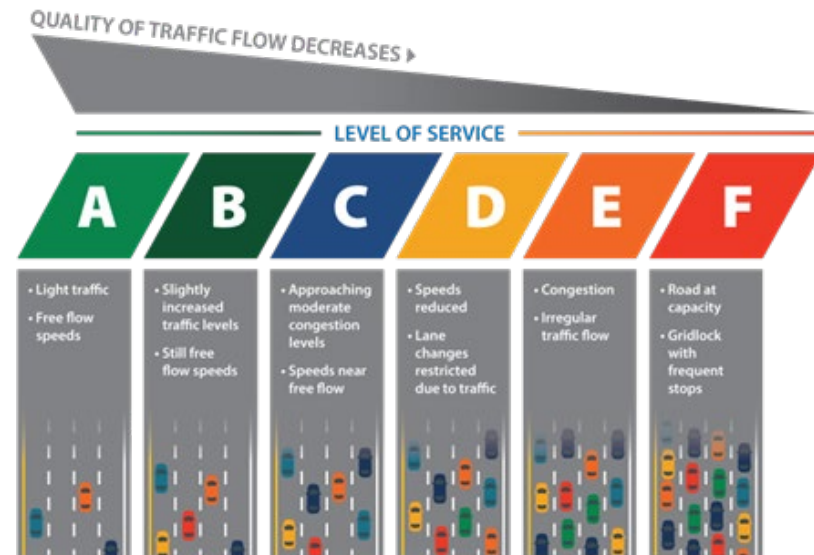
Figure 10 summarizes the LOS classifications.

The LOS analysis conducted for the Metro COG region is shown in **Figure 11**. As these figures 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.

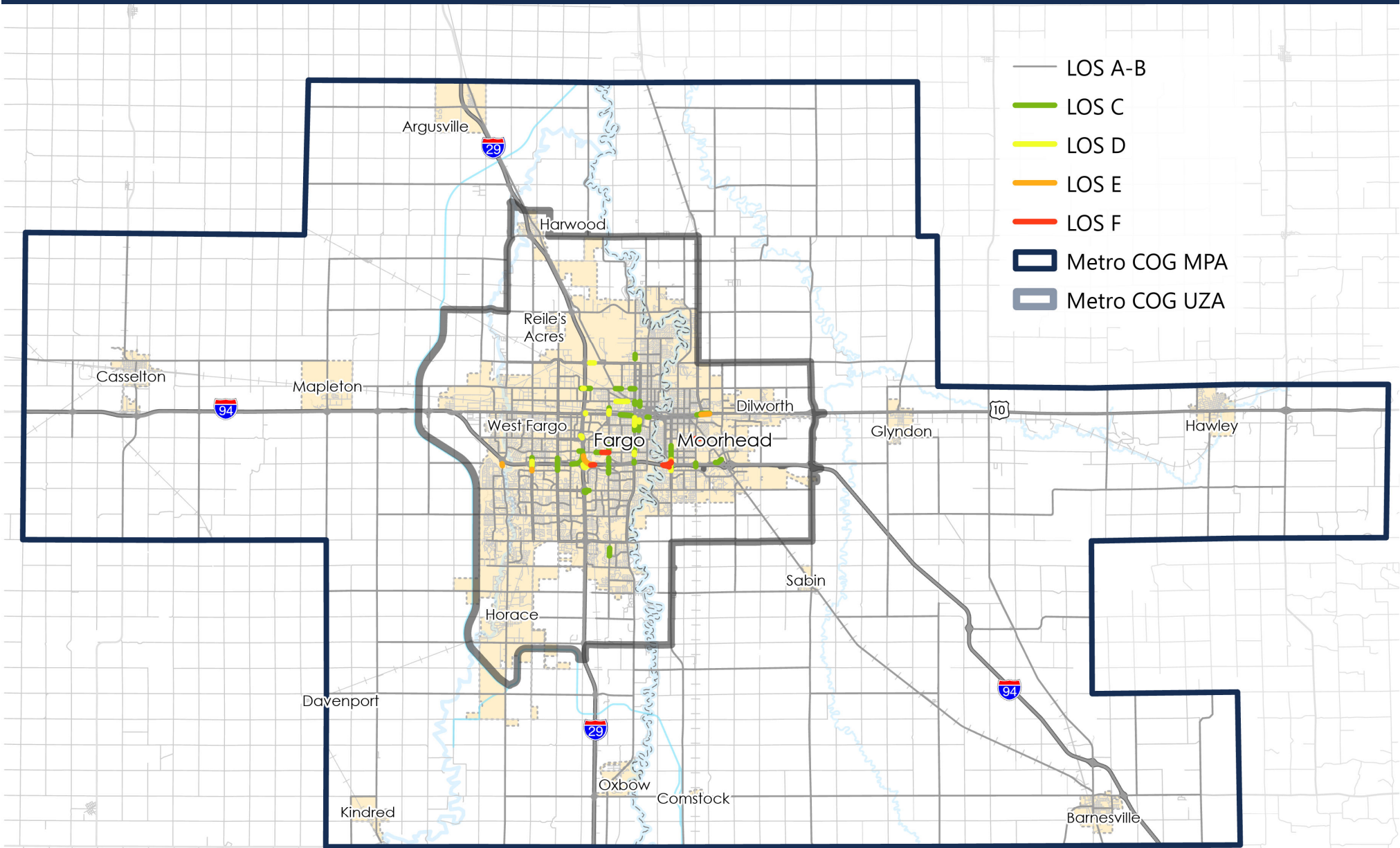
Metro COG and its partner agencies recognize that peak period travel delays are just one of many perspectives from which to evaluate system performance. While some peak period travel delays do occur in the region, these travel delays are for relatively short periods of time, and travel conditions are not congested for the vast majority of the day.

Figure 10. Level of Service Classifications



Source: Valley News Live

Figure 11. Estimated Level-of-Service



Travel Reliability

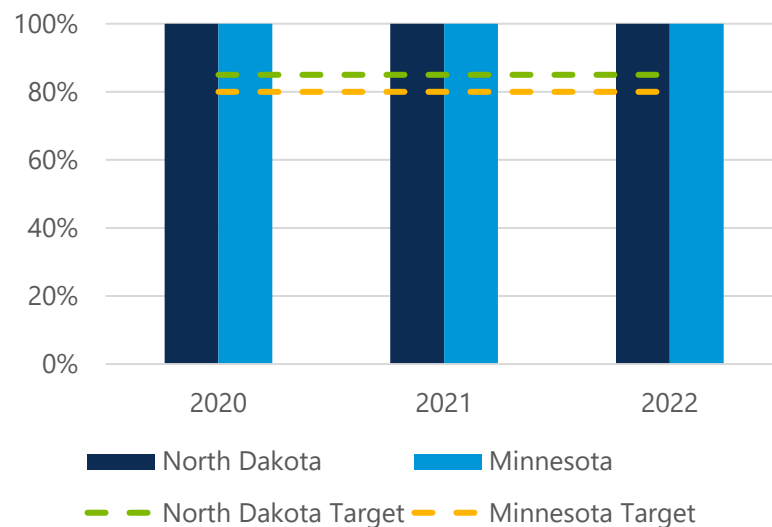
Travel reliability is a measure used by Metro COG to assess the reliability, or predictability, of travel times for passenger and freight vehicles across a corridor or an entire roadway network. Federal performance measures (PM 3) are concerned with travel reliability conditions and Metro COG reports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

Figure 12 through Figure 14 show historic performance made towards Metro COG’s reliability targets based on the percent 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 Metro COG region.

For passenger reliability, the assumed targets were 85% of person-miles traveled on the Interstate for the North Dakota portion of the MPA and 80% for the Minnesota portion; the non-Interstate NHS reliability target for the North Dakota portion of the MPA was 85% while the target for the Minnesota portion was 90%. Reliability for Metro COG’s freight system is reported using the Truck Travel Time Reliability Index (TTTR) and the target for the Metro COG 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 11. As the figure illustrates, reliability on the region’s Interstate system exceeded both the North Dakota and Minnesota targets each year. The percent of person-miles considered reliable was consistently 100% each year for the North Dakota and Minnesota portions of the Metro COG MPA and indicates that 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 their travel.

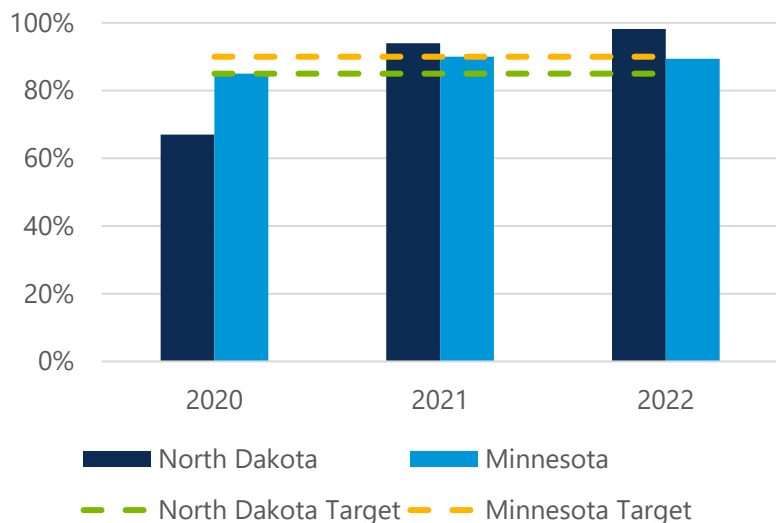
Figure 12. Annual Percent of Person-Miles Traveled on the Interstate that are Reliable for the Metro COG Area, 2020 - 2022



Source: Metro COG

Reliability performance of Metro COG’s non-Interstate NHS system for the years 2020 through 2022 is shown in **Figure 13**. As the figure indicates, reliability performance for the non-Interstate NHS fluctuated between 2020 and 2022, with 67% of person-miles traveled on the non-Interstate NHS within the North Dakota side of the Metro COG region considered reliable in 2020. After 2020, reliability performance rose to 94% in 2021 and 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 13. Annual Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable for the Metro COG Area, 2020 - 2022

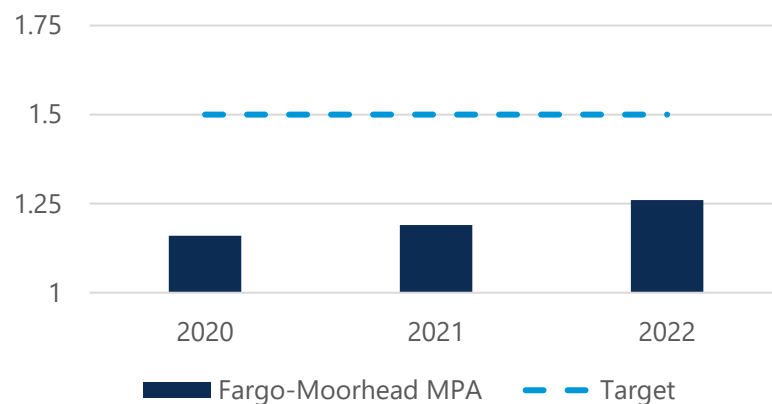


Source: Metro COG



Freight reliability performance of Metro COG’s Interstate system for the years 2020 through 2022 is shown in **Figure 14**. As the figure indicates, the TTTR target for the Interstate was met each year between 2020 and 2022 while reported TTTR saw a slight increase towards 1.5 annually. The general trend observed for TTTR which 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 14. Annual Interstate TTTR for the Metro COG Area, 2020 - 2022



Source: Metro COG

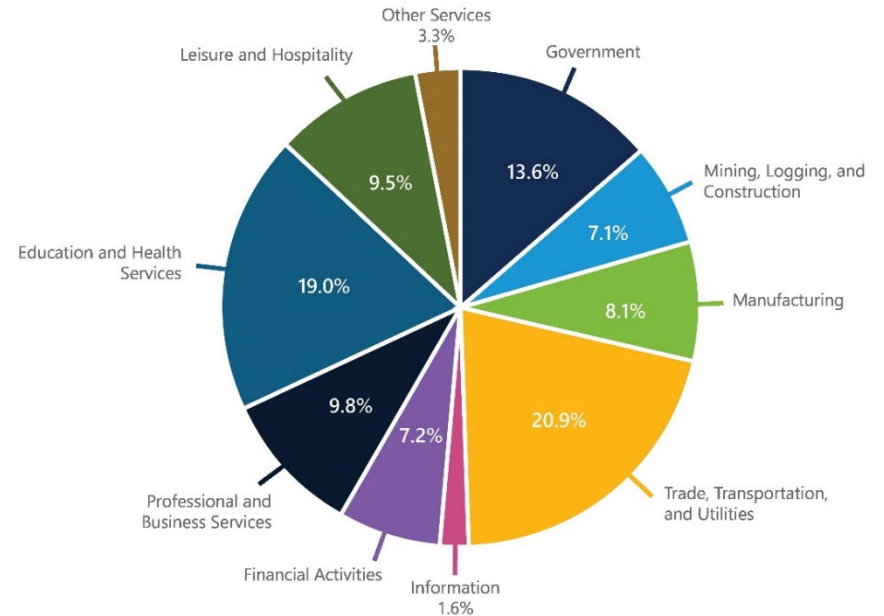


FREIGHT SYSTEM

Freight has historically been a central component of Metro COG’s regional economy. Beginning with the construction of the Great Northern Railroad in 1871, the Fargo-Moorhead region has been an important gateway for freight traveling across the United States. Today the Fargo-Moorhead region is the cross-roads of I-94 and I-29 and several BNSF rail lines including the Jamestown, 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 of metro area non-farm employment as of October 2023, the highest employment for a sector in the region.⁴ **Figure 15** summarizes the employment data sourced from the Bureau of Labor Statistics.



Figure 15. 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 Metro COG region have been designated for freight usage by local agencies. Metro COG’s [Regional Freight Plan](#), published in 2017, highlights a series of routes within the Cities of Fargo and West Fargo that are intended to encourage truck travel. Local freight routes designated by the City of Fargo involve seasonal weight

⁴ United States Bureau of Labor Statistics, [Fargo, ND – MN](#).

restrictions that close certain routes to heavy truck traffic during the spring.

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 DOT has a 105,500 pound weight limit on these routes:

- I-94 west of Main Ave
- Main Ave
- 52nd Avenue S from I-19 to University
- University from 52nd Avenue S to Main Ave⁵

Minnesota DOT has an 80,000 pound weight limit (or 10-tons per axle) on most state routes, including I-94, US 10, and MN 336⁶. Both states have some seasonal load restrictions as well. The City of Fargo also maintains a truck route system with seasonal load restrictions and height restrictions⁷.

The City of Moorehead 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 DOT each time a proposed truck route utilizes a state route.⁸

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. FAF 5 also forecasts multimodal freight and commodity flows through 2050, using 2017 as the baseline forecast year.

Daily truck trips were obtained from FAF 5 to understand current highway freight usage within the Metro COG region. **Figure 16** illustrates daily truck trips for the region. As **Figure 16** indicates, I-29 and I-94 carry the highest proportions of daily truck trips in the Metro COG region at 1,001 or more daily trips. MN 9 and U.S. 75 east of Moorhead are additional highway demonstrating a high demand for truck traffic as both of these corridors recorded 501 or more daily truck trips based on the FAF5 data.



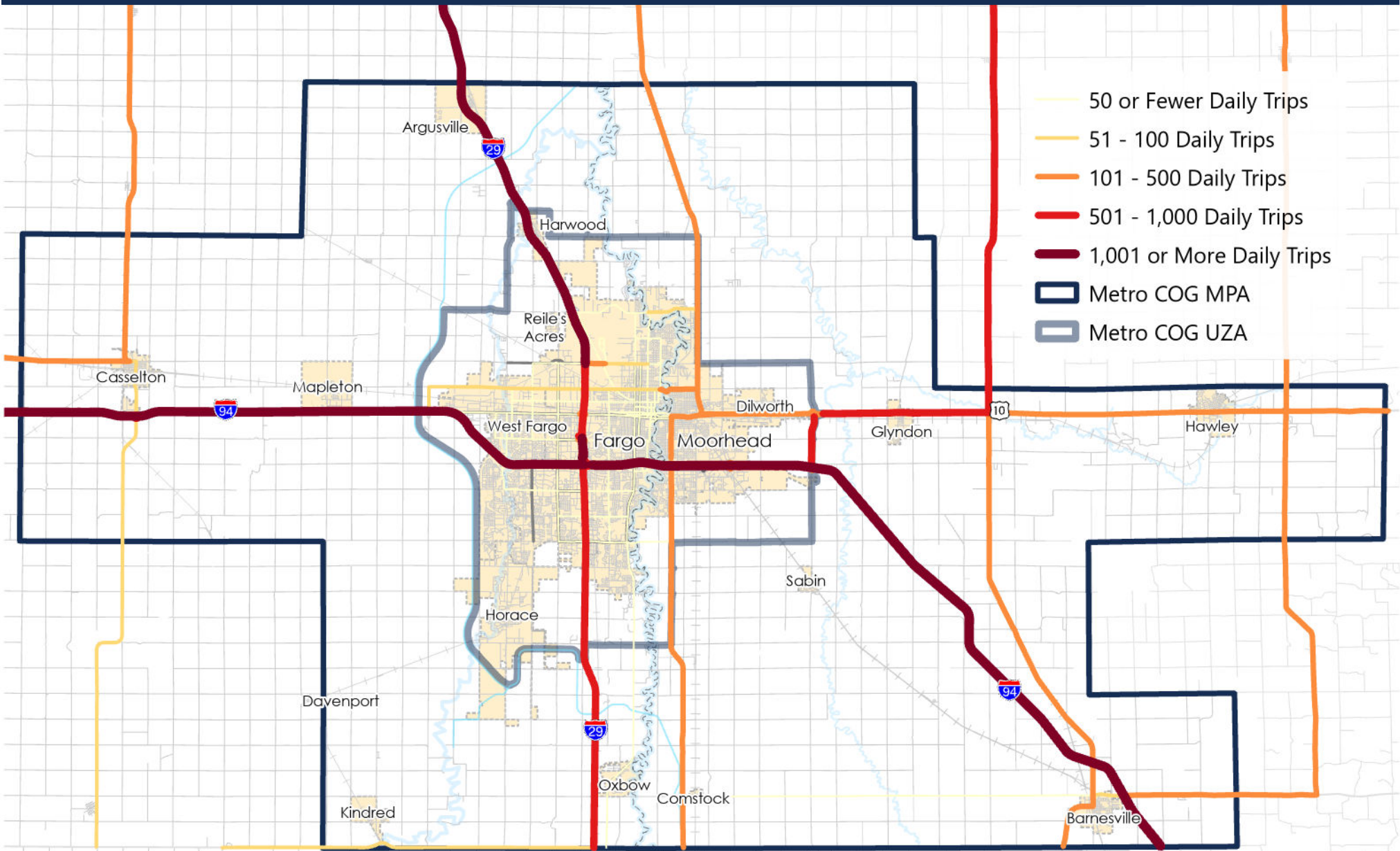
⁵ North Dakota Department of Transportation, [Weight Limitations for Vehicles on North Dakota Highways](#).

⁶ Minnesota Department of Transportation, [2024 Minnesota Truck Book](#).

⁷ City of Fargo, [City of Fargo Truck Route Map](#).

⁸ Fargo-Moorhead Metro COG, [Regional Freight Plan](#).

Figure 16. Daily Truck Trips for the Fargo-Moorhead Area, 2017



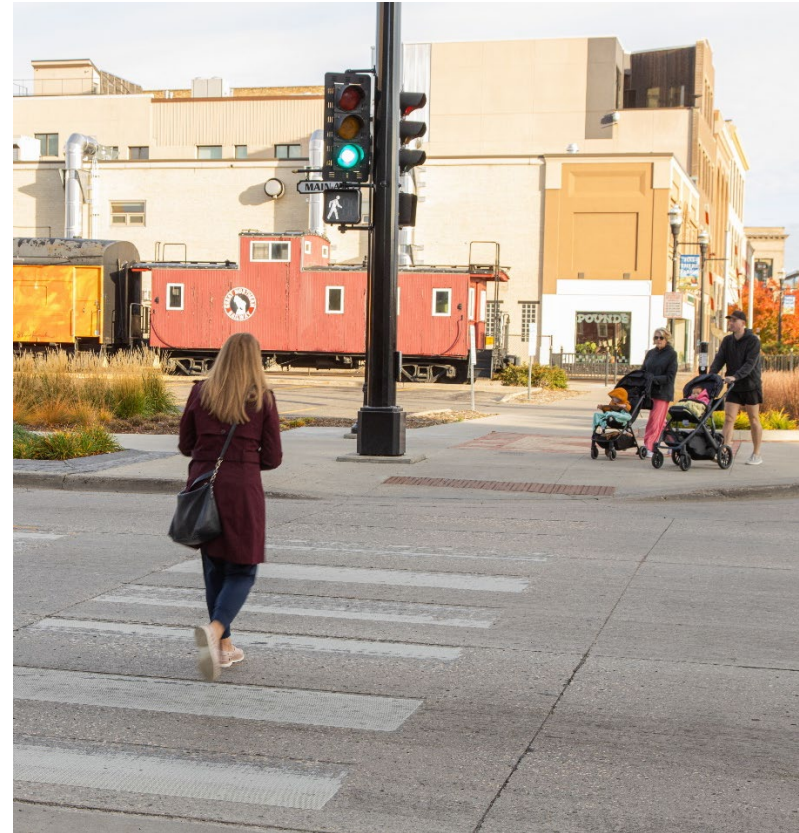


BIKE AND PEDESTRIAN

A complete bicycle and pedestrian network in the Metro COG area can encourage more active transportation, as well as a better connectivity for all modes of transportation. The existing bike and pedestrian network was analyzed for connectivity, active trip potential, collisions, level of traffic stress, equity, 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.

Connectivity

Connectivity was 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, interstate highways, and along the Red River and Sheyenne River in West Fargo. Implementing more bicycle and pedestrian-friendly infrastructure to connect users across these barriers could help improve connectivity to the rest of the region.



Active Trip Potential

Where a concentration of shorter trips occur is important to identifying how these trips could be replaced by walking or biking, and what infrastructure would be needed to support these types of trips. A large volume of trips that were under three miles were concentrated around North Dakota State University, Concordia College, Minnesota State University Moorhead, downtown Fargo, downtown Moorhead, and the West Acres shopping center. It was found that half of the

almost one million daily trips made in the Metro COG 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

An analysis of collisions in the Metro COG area from 2016 to 2020 was conducted to locate common areas that collisions occur and could be a higher risk to pedestrians and bicyclists. The street segments with five 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 2022 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.

Level of Traffic Stress

Level of Traffic Stress for pedestrians and bicyclists was calculated to understand where active transportation users may face the most challenges in travel in the Metro COG area.

Roadways were evaluated based on number of lanes, speed limit, number of lanes, 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 most likely not common in the area. Improvements to rural areas may help to increase bicycle tourism, by supporting recreational routes throughout the region.



Equity

An analysis of community equity explores variables such as low-income population, population without access to a vehicle, percent of minority population, percent of population with a disability, proximity to traffic, and pollution. The analysis identified the highest priority block groups for disadvantaged

groups are in the core urban area, with most located in downtown Fargo. Creating more investment and bike and pedestrian-friendly policies to target these areas could better address equity concerns in the Metro COG area.



TRANSIT SYSTEM

Transit in the Fargo-Moorhead area is provided by Metro Area Transit (MATBUS). MATBUS is collectively operated by the Cities of Fargo and

Moorhead to provide fixed-route and paratransit service for Fargo, West Fargo, Moorhead, and Dilworth. MATBUS operates Monday through Saturday in Fargo, Moorhead, Dilworth, and West Fargo.

Fixed-Route Service

MATBUS operates a series of fixed routes throughout the Metro COG region, Monday through Friday from 6:15 AM to 10:15 PM and Saturdays from 7:15 AM to 10:15 PM. Seven of these routes operate in Moorhead and Dilworth, of these five operate solely in Moorhead, and three extend east into Dilworth. Several routes including Routes 31, 32 (E and W), 33, 34, and TapRide, a demand-response service, directly serve North Dakota State University (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 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.) are able to 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 which is 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 region's workers. 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 how it should be organized and administered. A Transit Development Plan (TDP) is also developed every five years to inform MATBUS actions.

Large Urban Area Designation – With the urbanized area crossing the 200,000 population to a Transportation Management Area (TMA), the area's Federal 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 other 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 routes and days.

REGIONAL CONNECTIONS

The regional multimodal transportation system facilitates travel within the Metro COG area. Supporting this multimodal system is a network of transportation modes that provide connectivity to destinations outside of the Metro COG region. These transportation options include aviation, rail, and bus modes.

Air Travel

Several facilities found within the Metro COG region provide aviation services. Air travel services include commercial and general service, as well as air freight services. The key aviation facilities within the region are:

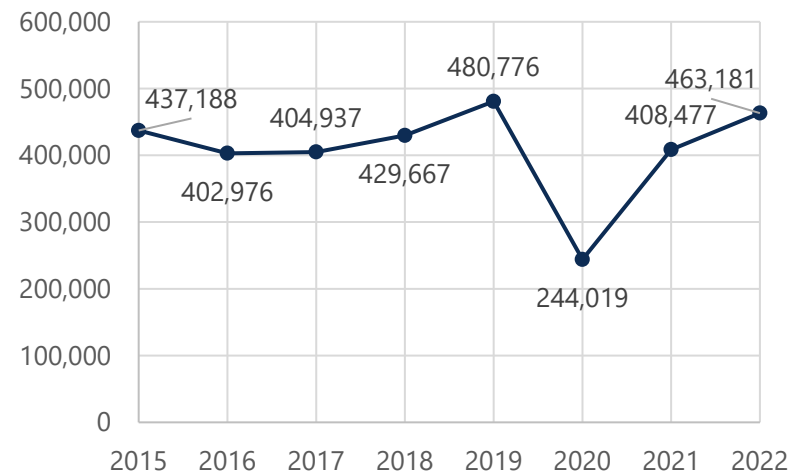
- Hector International Airport, located in Fargo, North Dakota, offers commercial, general aviation, and air freight services.
- Moorhead Municipal Airport, located in Moorhead, Minnesota, offers general aviation services.
- Hawley Municipal Airport, located in Hawley, Minnesota, offers general aviation 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 Metro COG region and attracts passengers from across eastern North

Dakota, northeastern South Dakota, and northwest Minnesota. The importance of this facility in meeting the region’s commercial aviation needs is exemplified by historic enplanement data, which is summarized by year in **Figure 17**.

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

Figure 17. 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, Orland-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 within the Metro COG region is operated by Jefferson Lines. Users of Jefferson Lines are able to access the service at the bus stops from the Ground Transportation Center and 1201 University Drive in Fargo, as well as the stop at 615 14th Street S in Moorhead. These stops provide access to four Jefferson Line routes:

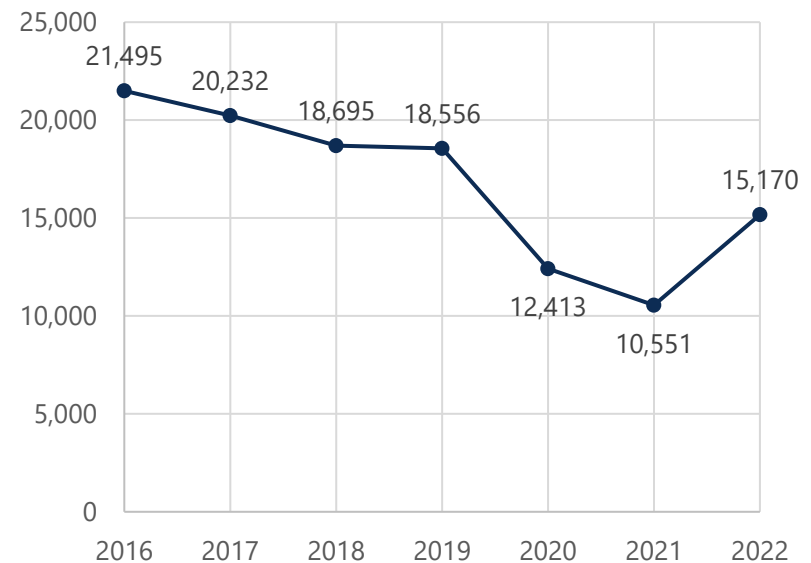
- Service north to Grand Forks, North Dakota via I-94. Service continues into Minnesota via Highway 2.
- Service west to Valley City, Jamestown, Bismarck, and Dickinson via I-94. Service continues into Montana.
- Service east into Minnesota via Highway 10 to Detroit Lakes.
- Service east via I-94 to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

Intercity Rail

Intercity rail service within the Metro COG 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 the old REA building adjacent to the former Great Northern Railway Depot in Fargo. Annual departure statistics for passengers using the Fargo Amtrak station are shown in **Figure 18**.

Figure 18. 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 one of the key service measures used to evaluate the performance of intercity rail service. The performance of Amtrak lines is compared to the FRA's On-Time Performance Standard target of 80% of passengers arriving on time.

Intercity Rail Initiatives

Several intercity rail initiatives are being explored which could increase passenger rail service to the Fargo-Moorhead 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 1979.⁹ Today, efforts being led by the Big Sky Passenger Rail Authority to reinstate the North Coast Hiawatha service 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.¹⁰

Reinstatement of the North Coast Hiawatha service would provide Fargo-Moorhead region additional intercity passenger rail service that complements the existing Empire Builder service. This service would offer intercity passenger rail service would connect Fargo with St. Paul to the east and Helena to the west; planning studies for the route have also identified

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 to strengthen relations between these groups and citizens of the region.

As part of their advocacy activities, All Aboard Northwest is participating in the [Amtrak Daily Long-Distance Service Study](#) led 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.¹¹ The study began in 2022 and a final document had not yet been released at the time of this plan.

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 Metro COG region through the incorporation of the North Coast Hiawatha line that adds

⁹ Amtrak, [North Coast Hiawatha Passenger Rail Study](#).

¹⁰ KFVR TV, [Old North Coast Hiawatha rail route takes giant step towards reinstatement](#).

¹¹ Federal Rail Administration, [Amtrak Daily Long-Distance Service Study](#).

additional service between the cities of Fargo and St. Paul, Minnesota.

Transportation Network Companies

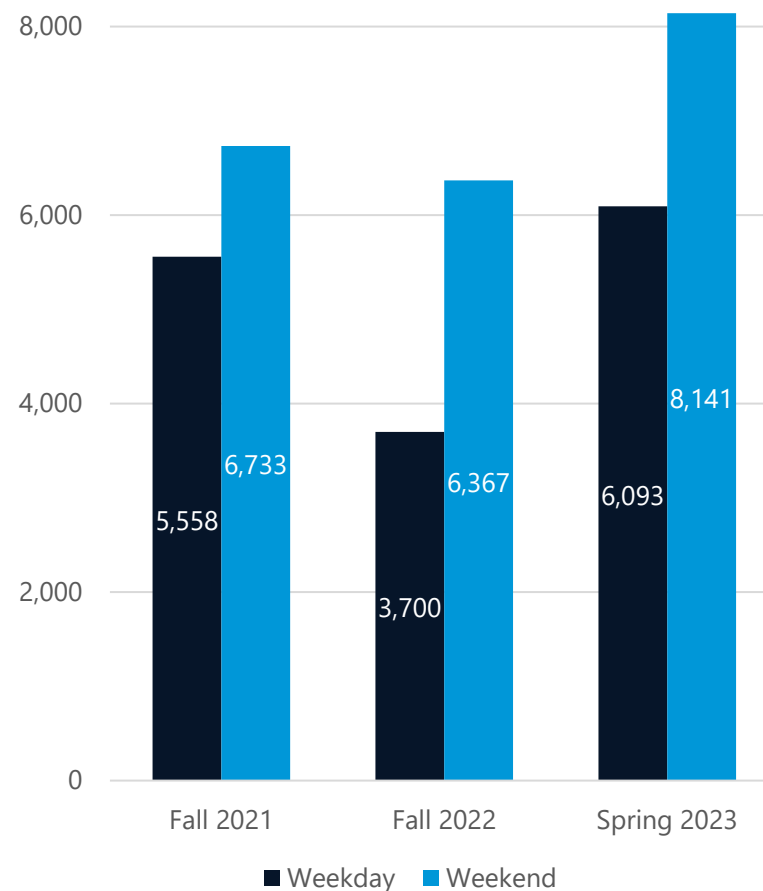
An additional option for mobility within the Metro COG region is provided by the Transportation Network Companies (TNCs) Uber and Lyft. TNCs are private companies that provide users with on-demand transportation that can be booked via app-based platforms. These services offer users high levels of flexibility 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 19** 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.

Figure 19 details the total number of trips taken using TNCs and taxicabs on both typical weekdays and weekends in Fall 2021, Fall 2022, and Spring 2023. 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 19. Total Trips Taken by TNC/Taxicab, 2021 - 2023



Source: Replica HQ

TRANSPORTATION GOALS & OBJECTIVES

The vision for how the Fargo-Moorhead system should perform was based on first establishing plan goals. The purpose of setting plan goals is to translate the values that the Fargo-Moorhead community places on transportation and to summarize them into a set of guiding principles. These goals are the framework through which the Metro 2050 plan has been developed and measured. The goals were developed to reflect:

- National priorities, including the national planning factors outlined in CFR 450.306
- 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 ten plan goals highlight the focus areas for 2050 and plan direction. The 2045 plan included eight goal areas that were reviewed as an initial step of the goal development process. These eight topical areas are still present within the 2050 goal framework, with revisions to respond to current needs. Additionally, the Connecting People and Places and Transportation Decision are new goals. These ten statements are identified on the following page.




METRO 2050 TRANSPORTATION GOALS



Safety & System Security

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




Community Context And Impact Reduction

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




Travel Efficiency & Reliability

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




Transportation Decisions

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




Walking, Biking, & Rolling

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




Emerging Transportation Trends

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



Transit Access & Reliability

Support people's access to reliable transit service.



Connecting People And Places

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



Maintain Transportation Infrastructure

Sustain transportation infrastructure in a state of good repair.



Freight Network - Moving Goods

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

PLAN OBJECTIVES AND PRIORITIZATION METRICS

Objectives were established within each of the goal areas that created specific and measurable actions for the plan. One of the core applications of these goals and objectives was the establishment of prioritization metrics. The metrics were developed to directly tie national, state, and local priorities to the evaluation of potential strategies and projects. The metrics were also designed to support the regional performance measures that Metro COG must report on, reflected in [Chapter 2](#). This process thus ties regional vision to project implementation, and ultimately to regional transportation system performance.

Objectives and metrics were identified and applied if they had relevance to the community and ultimately supported the goals and performance vision for the region. This approach scored potential strategies and projects for the Metro 2050 Plan so that the highest priority projects would best reflect the community vision and ultimately support the performance measures and targets that the region set.

There are two subsets of objectives and metrics identified within the following table. **Policy Objectives** represent objective statements that respond 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 have alignment with **Congestion Management Process** (discussed in [Chapter 4](#)) are highlighted to indicate alignment between the MTP and CMP objectives.

The objectives and prioritization metrics for each goal area are shown in [Table 14](#).



Table 14. 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.	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.	Policy Objective. 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.	Policy Objective. 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).
	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).

TRAVEL EFFICIENCY & RELIABILITY

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

Objectives & Prioritization Metrics	OBJECTIVE	METRIC
	<p>Improve travel reliability on the NHS and arterial roadways.</p>	<p>Project would improve safety or system management in a corridor with reliability issues. <i>Congestion Management Process Alignment</i></p>
	<p>Limit recurring peak period delay on the NHS and arterial roadways.</p>	<p>Project would improve traffic operations / improve forecasted level-of-service (use LOS E/F as deficiency). <i>Congestion Management Process Alignment</i></p>
	<p>Improve the connectivity of the street and multimodal networks and promote a grid street pattern.</p>	<p>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.</p>
	<p>Support uninterrupted travel flow of all modes, including congestion reduction, incident response, and service reliability.</p>	<p>Project would create less 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.</p>
	<p>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).</p>	<p>Project would result in a reduction of congestion with travel demand management investments and/or reduction in vehicle miles traveled. <i>Congestion Management Process Alignment</i></p>

OBJECTIVE	METRIC
Policy Objective: Manage access to commercial corridors to promote multimodal mobility – emphasizing the connection of people and goods.	Policy objective, no project scoring (<i>Project increases multimodal access to commercial corridors</i>).
Policy Objective: Promote the development of alternative routes that allow for reliable mobility during incidents.	Policy objective, no project scoring (<i>Project includes new alternate routes for incidents along major roadways</i>).

WALKING, BIKING, & ROLLING

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

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.
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.
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.

Objectives & Prioritization Metrics

OBJECTIVE	METRIC
Policy Objective: Make bicycling more competitive with automobile travel in the region.	Policy objective, no project scoring (<i>Support projects that make bicycle connections between existing infrastructure and destinations</i>).
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 (<i>Support projects that include safety infrastructure for walkers, bikers, and rollers</i>).

TRANSIT ACCESS & RELIABILITY

Support people’s access to reliable transit service.

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.
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.
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.

Objectives & Prioritization Metrics

	OBJECTIVE	METRIC
	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.
<p>MAINTAIN TRANSPORTATION INFRASTRUCTURE</p>	<p>Sustain transportation infrastructure in a state of good repair.</p>	
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.
	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. <i>(The reserve categories identified within this plan include projects with other funding resources)</i>
	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 the multimodal options for environmental justice and Title VI communities.	Project will improve access (more service, improved connections) to EJ populations, and services are consistent with Title VI.
	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.
	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. <i>Congestion Management Process Alignment</i>
	Policy Objective: Ensure transportation system impacts do not disproportionately impact environmental justice and Title VI communities.	Evaluated at Plan level. Projects should not disproportionately impact EJ populations and services should not negatively 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 (<i>Future project consideration to explore the potential for impacts to environmental resources</i>).

FREIGHT NETWORK - MOVING GOODS

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

OBJECTIVE	METRIC
Improve freight reliability on the Interstate and NHS Systems to support regional and national commerce.	Project would improve freight safety or system management or Interstate system, per Federal performance measures.
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.
Policy Objective: Improve reliability and reduce delay for freight operations.	Policy objective, no project scoring.
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.

Objectives & Prioritization Metrics

**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.	
	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.	

TRANSPORTATION DECISIONS

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

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.
Policy Objective: Prioritize considerations and input from Title VI and Environmental Justice communities in the decision-making process.	Policy objective, no project scoring (<i>project receives support from Title VI and EJ communities</i>).
Policy Objective: Balance local and regional priorities.	Policy objective, no project scoring (<i>project identified within local study or plan</i>).
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 (<i>project supports regional connections that are adaptable</i>).
Policy Objective: Utilize a system approach for decision making that utilizes a high-level regional consideration.	Policy objective, no project scoring (<i>project provides regional benefit and is supported by a broad audience</i>).
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 (<i>projects are spaced throughout the region to provide benefits across different areas</i>).

Objectives & Prioritization Metrics

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.
	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.
	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 (<i>project supports access to healthy lifestyle infrastructure</i>).
	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.

OBJECTIVE	METRIC
Utilize local land use and growth management strategies to inform maintenance, expansion, and new roadway priorities.	Project supports local growth management strategies.
Policy Objective: Promote development that provides connections and encourages multimodal trips to access destinations.	Policy objective, no project scoring (<i>project improves connections with multimodal infrastructure</i>).



EMERGING TRANSPORTATION TRENDS & TECHNOLOGY

Our transportation system and travel options are in a time of flux. Several emerging trends and technologies have the potential to impact how we travel. The opportunities and disruption to existing travel options presented by these new transportation approaches are anticipated to accelerate over the life of the Metro Grow plan. The plan recognizes the need to prepare for these changes and has identified the goal to “incorporate transportation trends and new technologies in regional transportation plans”. This chapter discusses how these trends and technologies could potentially impact the transportation system and wider community, and potential policies and planning activities for Metro COG and its member jurisdictions to consider.

There are generally two categories of these trends and technologies that are re-shaping our transportation options: new “shared mobility” options and emerging transportation technologies. The remainder of this chapter describes these technologies and their potential impacts.

NEW SHARED MOBILITY OPTIONS

New technologies have enabled several transportation trends to emerge that are changing how we travel. 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

Microtransit:

Mobility using a passenger vehicle providing on-demand service

Micromobility:

Mobility using an assisted or people powered vehicle, including bikes, scooters, wheelchairs and mobility scooters

Ride-Hailing Services

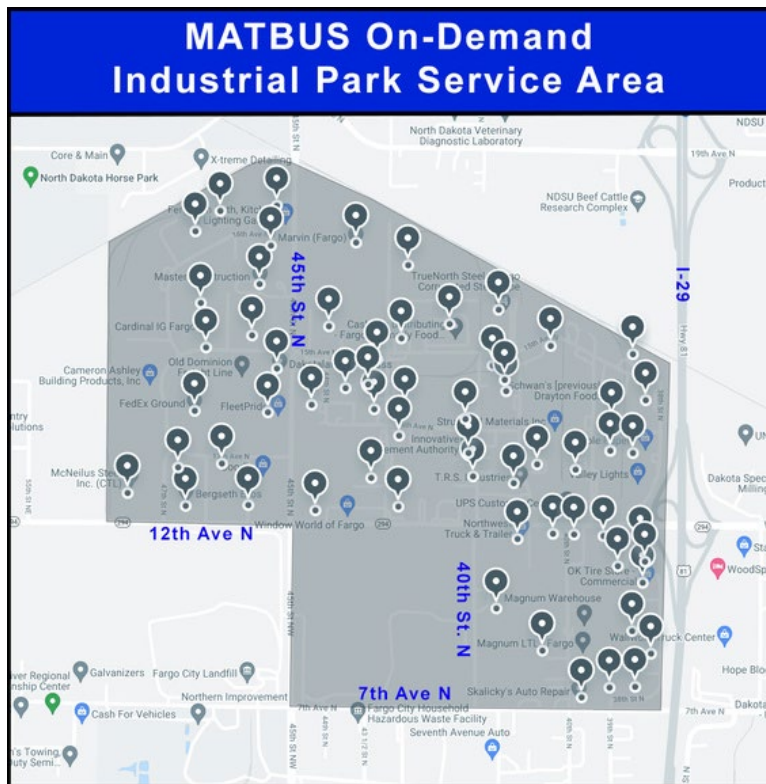
The emergence of smart phones has allowed transportation network companies (TNCs) such as Uber or Lyft to offer private, for-profit personal transportation via ride-hailing apps. Typically, these services are offered by private citizens in their own personal vehicles.

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 offered throughout the country that provide small-

scale, on-demand public transit service through various programs and solutions.

MATBUS launch On-Demand, a free on-demand transit service in March of 2023. This microtransit service serves two areas, the Fargo Industrial Park and NDSU, providing personalized rides for up to five passengers. On-demand service is available within these service areas, with connections to existing fixed route 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 transit lines.

Companies such as Bird, Lime, Uber and Lyft offer traditional and electricassist bicycles and e-scooters through both docking and dockless systems. The rental of these devices occurs through a phone app. These privately sourced services have emerged in dozens of urban areas around the country. Great Rides Bike Share was a service in operation in the FM region provided by NDSU. This service was discontinued by NDSU and no new services provided in the region.

Metro COG researched best practices and lessons learned from communities with dockless bikeshare programs and e-scooters. Guidelines were explored in 2018 for use by local jurisdictions if dockless bikeshare programs, e-scooters, or similar micromobility options emerge in the region. Use and deployment of micromobility services have continued for regions throughout the Midwest that may supplement this guidance. For example, the City of Minneapolis ran a scooter pilot for seven months in 2019 that deployed 2,500 scooters in the community. The pilot resulted in over 150,000 users taking over 1 million trips. Scooter service continues to be offered, with over 1.2 million trips recorded in 2024¹.

¹ [Minneapolis Shared Bike and Scooter Dashboard](#), December 2024

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. 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 these apps provide a single payment account that allows a seamless transaction for both traveler and provider.

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

Transportation System Implications

Decreased demand for traditional taxi services

Particularly in large cities, the more heavily regulated taxi industry has experienced lost ridership and revenue to ride-hailing services.

Mixed impacts to public transit ridership.

In some cities, ride-hailing services have negatively impacted transit ridership. In some situations, the micromobility services can bolster major transit lines by enhancing the first mile, last mile connections that are required. 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 having empty vehicles circulating in search of new passengers.

Safety concerns with some micromobility options.

Some micromobility options, such as electric scooters, have safety concerns associated with them. 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.

EMERGING TECHNOLOGIES

In addition to emerging and expanding trends in transportation, there are several transportation technologies that have continued to develop and have the potential to change how we travel and live. 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 its residents. In terms of transportation elements in a smart city, it 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 smart city needs have 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** 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, first responders, 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.

Advancing Transportation Infrastructure

The Advanced Research Project Agency – Infrastructure (ARPA-I) was established as an agency by Congress to support the development of science and technology solutions for transportation infrastructure throughout the country. This new agency will continue 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 our infrastructure systems. Current research activities include predictive analytics, low-carbon material use, and autonomous freight technologies. Continued monitoring of these study efforts may inform future opportunities for the region.



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 (CAV), or Automated Vehicles, have received extensive attention, investment, and testing by private companies. CAV represents a confluence of technology innovations and a collision of 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 the CAV realm, efforts focused on personal vehicle CVA has 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 CAV research.

Along with CAVs, safety is touted as the main benefit of freight CAVs. An additional business advantage of autonomous freight vehicles is what is driving the development of this transportation technology: freight CAVs might eventually not

require a driver. Vehicles without drivers means that the operating costs for highway freight companies could potentially be reduced and thus, the total cost of shipping goods diminishes. Freight vehicles can “platoon” with two 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 cost that is comparable to visiting a retail location for the same item. Thus, future transportation networks may need to account for increased freight activities on both their highways and local roads.

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 to the FM region. Continuing to monitor expanding and emerging trends that can be applied to the region creates the opportunity to advance the

region's network. To support this effort, the establishment of a multi-disciplinary "Transportation Trends and Technology Working Group" could be explored. Other regions have established similar working groups, as a round table of transportation, engineering, planning and technology professionals to identify opportunities to promote beneficial technologies. Upon establishment, this group can define trends and pilots that can 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 an orderly and efficient use of this valuable 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 – paint. Certain curb space in the city is designated as an exclusive zone for a certain parking purpose and monitored to ensure compliance.

An additional low-cost means of developing a curbside management program is to implement a "flex zone" program that takes existing commercial loading zones and expands their use to mobility providers such as Uber and Lyft. The idea behind this concept is that the loading zones are permitted to be used for commercial deliveries at mandated times of the

day and when they are not in use for this purpose, shared mobility providers are allowed access to these curb spaces for their operations.

DATA SHARING

Data sharing can greatly improve the ability of cities to understand and plan for shifting travel patterns of residents, mobility providers are often reluctant to share their data. In order to engage these private firms in data sharing agreements, cities must usually offer an incentive. The types of incentives vary, with some of the more common examples being exemptions from fees or permitting process to operate within the city, or the awarding of dedicated right of way for the providers' exclusive use for their own operations.

A consideration for cities who wish to design data sharing agreements with mobility providers is to review state enabling legislation surrounding the matter. State laws regarding data sharing vary widely, with some states being much 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 cities to adopt any regulations inconsistent with that code. North Dakota Century Code currently requires TNCs to report where they operate, the number of crashes that occur, and number of traffic violations reported. Both Minnesota and North Dakota have laws that require insurance coverages and certain information be provided to passengers.

EQUITY CONSIDERATIONS

As these technologies evolve, the community should continue monitoring the implications of equity and its impact on the mobility of all citizens. Public transportation should be maintained, and where possible these emerging transportation options should be oriented to support and benefit existing transit services and lines. As needed, the municipalities should remove barriers to these new mobility options for low-income populations so that the benefits can be equally shared.

MAAS APPLICATIONS

Incorporating the range of shared mobility services into a region-wide transportation application could be a good investment for the region. The MaaS application allows users to plan and pay for trips across the metropolitan area with a range of modal options (such as transit, bikeshare, ride hailing, micromobility, etc.).



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 Fargo-Moorhead region had around 900 registered EVs (within Cass and Clay Counties) with a projection of up to 1,800 registered EVs by 2035.

In 2023, Metro COG completed the EV Readiness Study to create actionable recommendations for developing an effective EV planning process. This process looked to establish sustainability practices, grid readiness, regional connectivity, and equitable access within the region for this growing trend. A number of strategies were recommended as part of this study, including high-priority strategies and longer-term strategies that enhance support for residents and businesses adopting EVs.

Next steps to continue to advance the region's readiness for EVs were identified within the plan including the completion of a Phase 2 EV Readiness study , incorporation of EV infrastructure into utility master planning with partner jurisdictions, and additional studies with agency partners and member jurisdictions to understand needs.

High-Priority EV Readiness Strategies

- Update Zoning Codes/Permitted Use Tables to include EVSE
- Develop Building Code Requirements and Update Parking Minimums
- Develop EV 101 Education Materials for the Community
- Track EV Registrations and EVSE Installations
- Define Required Uptime and Reliability Standards for Charging Stations
- Develop Charging Site Standards and Share them with Charging Providers
- Create a Density Bonus to Multifamily Developers Adding Charging Stations to Parking
- Coordinate with Utilities on Ideal Charging Site Locations

Longer-Term Strategies

- Develop Net Metering Programs and Share EV Information with Utility Customers
- Encourage Utility-Providers Charging Rate Enrollment for EV Users
- Develop Charging Accessibility Progress Measures and Define Required Uptime/Reliability Standards for Charing Standards
- Develop Municipal Fleet Transition Strategies and Develop Expedited Permitting Processes for EVSE

2050 System Needs & Strategies

The objective of Metro 2050 is to understand current performance of the region's transportation system, definition of goals, and identification of future needs and strategies. This chapter highlights the needs and strategies identified for the Fargo-Moorhead region for 2050.

REGIONAL GROWTH

A key element of Metro 2050 is looking towards the 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 15](#) summarizes the growth anticipated for the region in terms of population, households, and jobs. These growth estimates were then used as inputs to the travel demand model (TDM) to forecast future traffic operations for the Metro COG region.

As [Table 15](#) shows, the number of households within the region for the year 2021 totals 112,239. It is estimated that the number households within the region will grow at a rate of 0.8 percent per year, resulting in 143,179 households by the year 2050. Growth in the number of jobs 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. This marks an increase from 153,955 in 2021 to 234,618 in 2050.

Table 15. 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 20](#) shows the anticipated growth in the region's households through 2050, while [Figure 21](#) presents the anticipated growth in jobs for the region during this period.



Figure 20. Metro COG Regional Growth in Households, 2021 – 2050

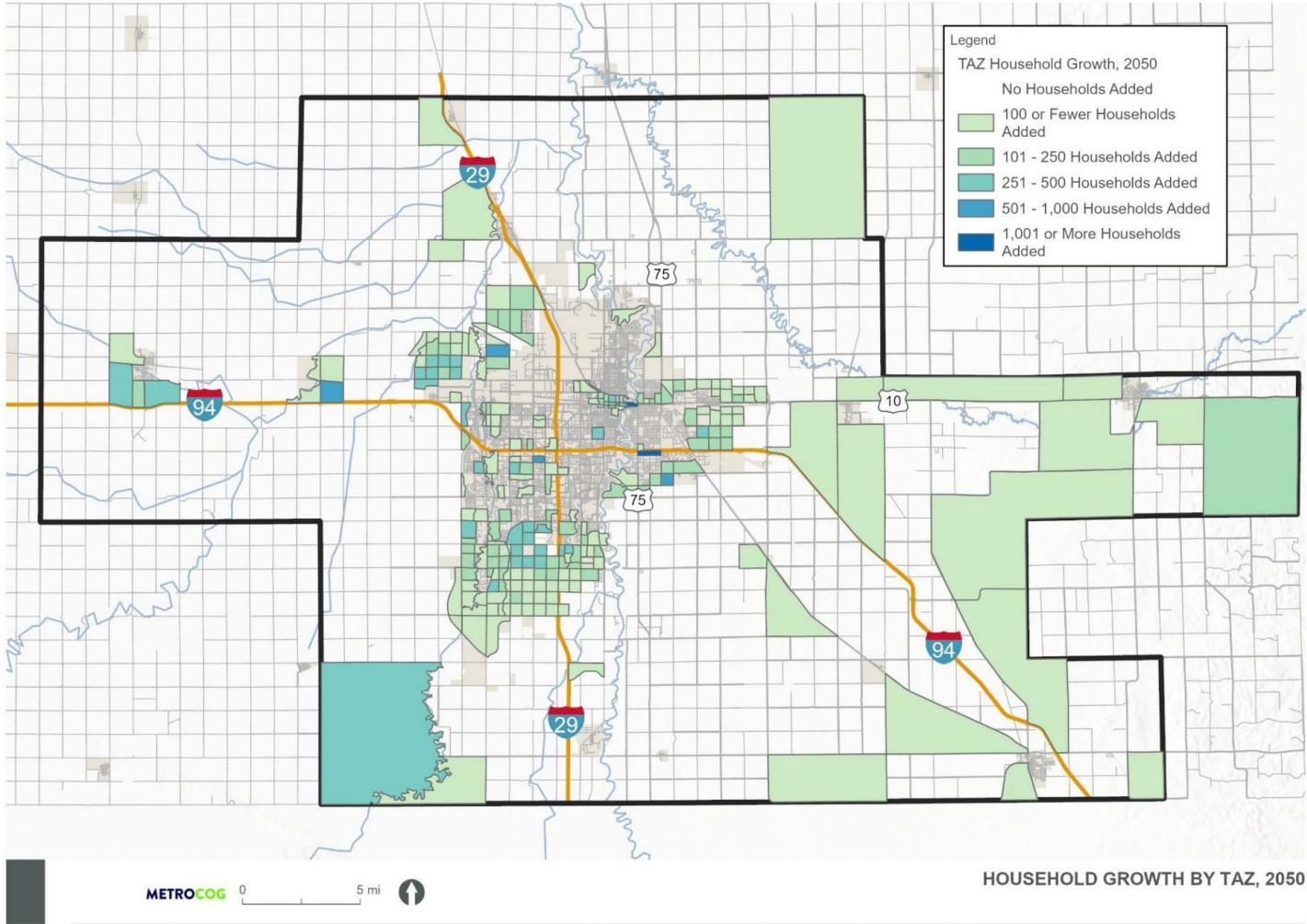
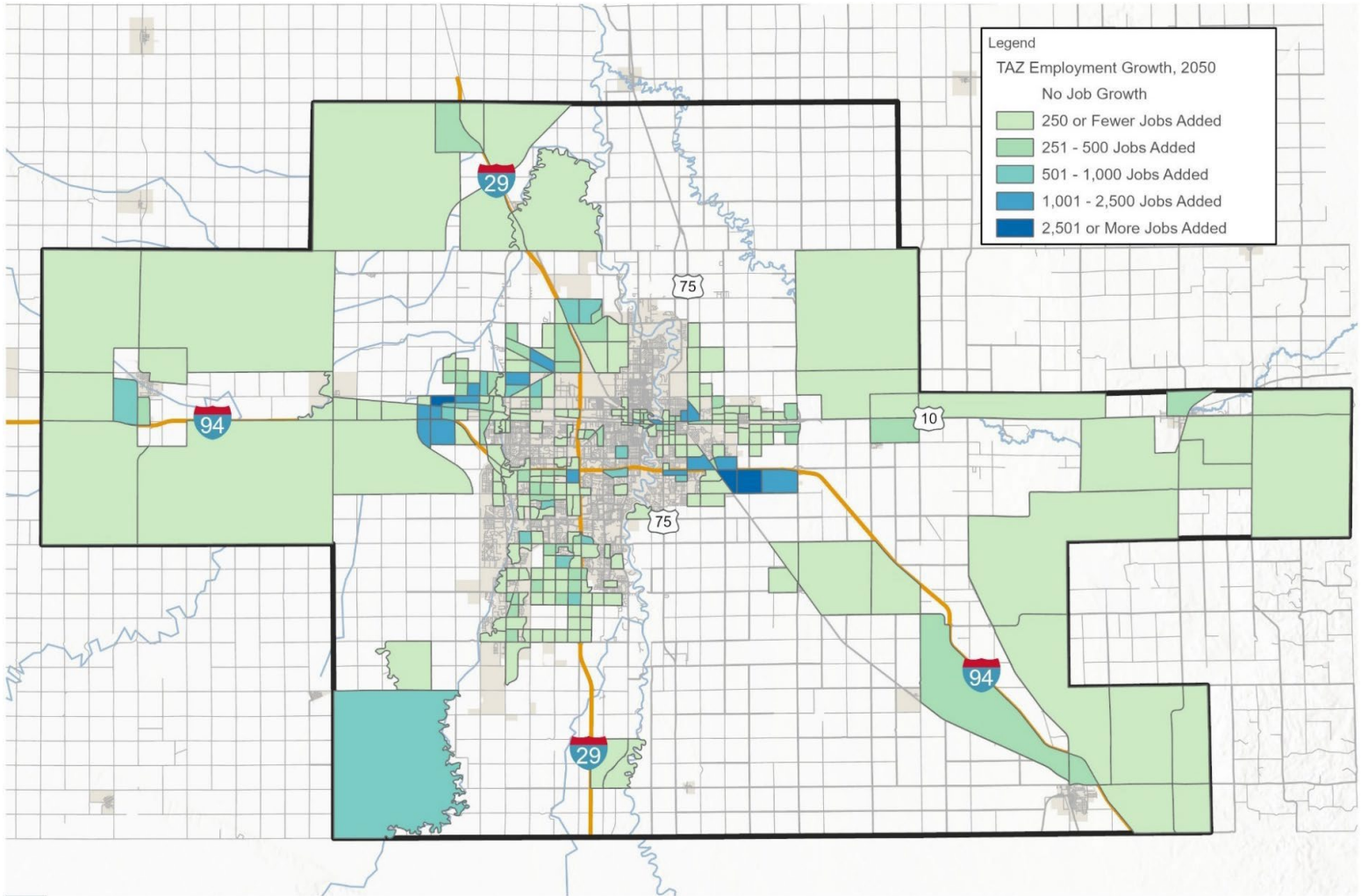


Figure 21. Metro COG Regional Growth in Employment, 2021 – 2050



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EMPLOYMENT GROWTH BY TAZ, 2050



TRAVEL DEMAND MODEL

Metro COG's regional TDM was updated as part of the development of Metro Grow 2050. The update to the TDM uses 2021 as a base year for forecasting future household and employment growth, and the commensurate changes in regional travel demand for the region's roadway system; given that the TDM is vehicular-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](#).

2050 EXISTING PLUS COMMITTED FUTURE BASELINE SCENARIO

Future year forecasts for travel demand within the Metro COG region are based on an "existing-plus-committed" (E+C) scenario in which the roadway network has no improvements beyond those currently programmed. Through the use of the E+C scenario, it is possible to identify future roadway needs that can be implemented to support future travel demand associated with growth in the region'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 roadway network.

FUTURE TRAFFIC OPERATIONS – E+C FUTURE BASELINE SCENARIO

Future year traffic volumes and operations for the E+C baseline scenario were developed for the year 2050 by incorporating the household and employment growth data shown in [Figure 20](#) and [Figure 21](#) into the TDM. [Figure 22](#) shows the resulting forecasted planning-level traffic operations for the region under the 2050 E+C baseline scenario while [Figure 23](#) shows forecasted traffic operations for the urbanized portion of the region.

Future year traffic operations estimates indicate that much of Metro COG's urban arterial network will operate at LOS C or worse by 2050 under the E+C baseline scenario. Several of the region's rural roadways are also anticipated to operate at this level of service. Urban fringe areas that are expected to see the highest levels of household and employment growth are served by corridors that are estimated to operate at LOS E or LOS F by 2050.

Figure 22. 2050 Existing plus Committed Forecasted Traffic Operations

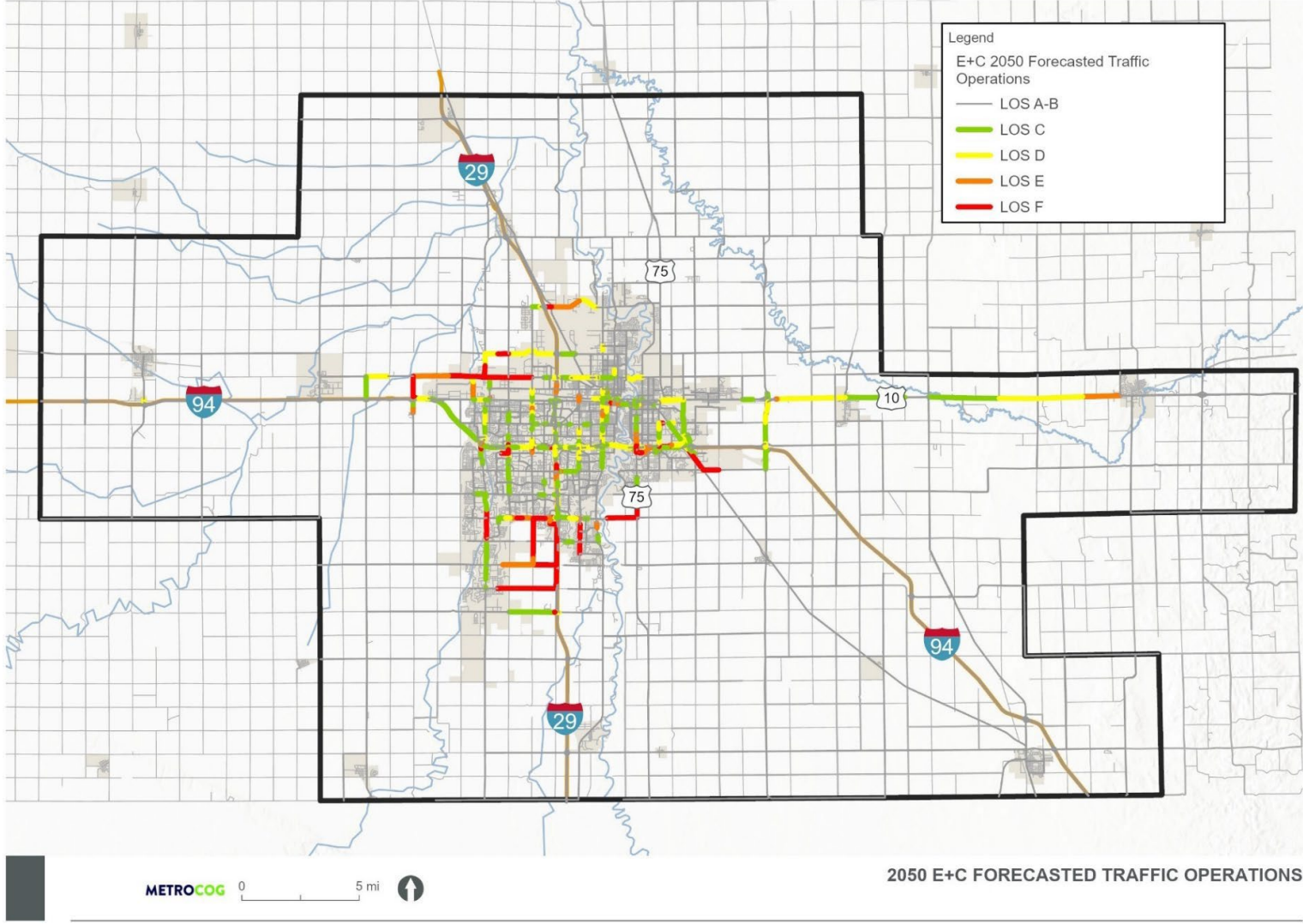
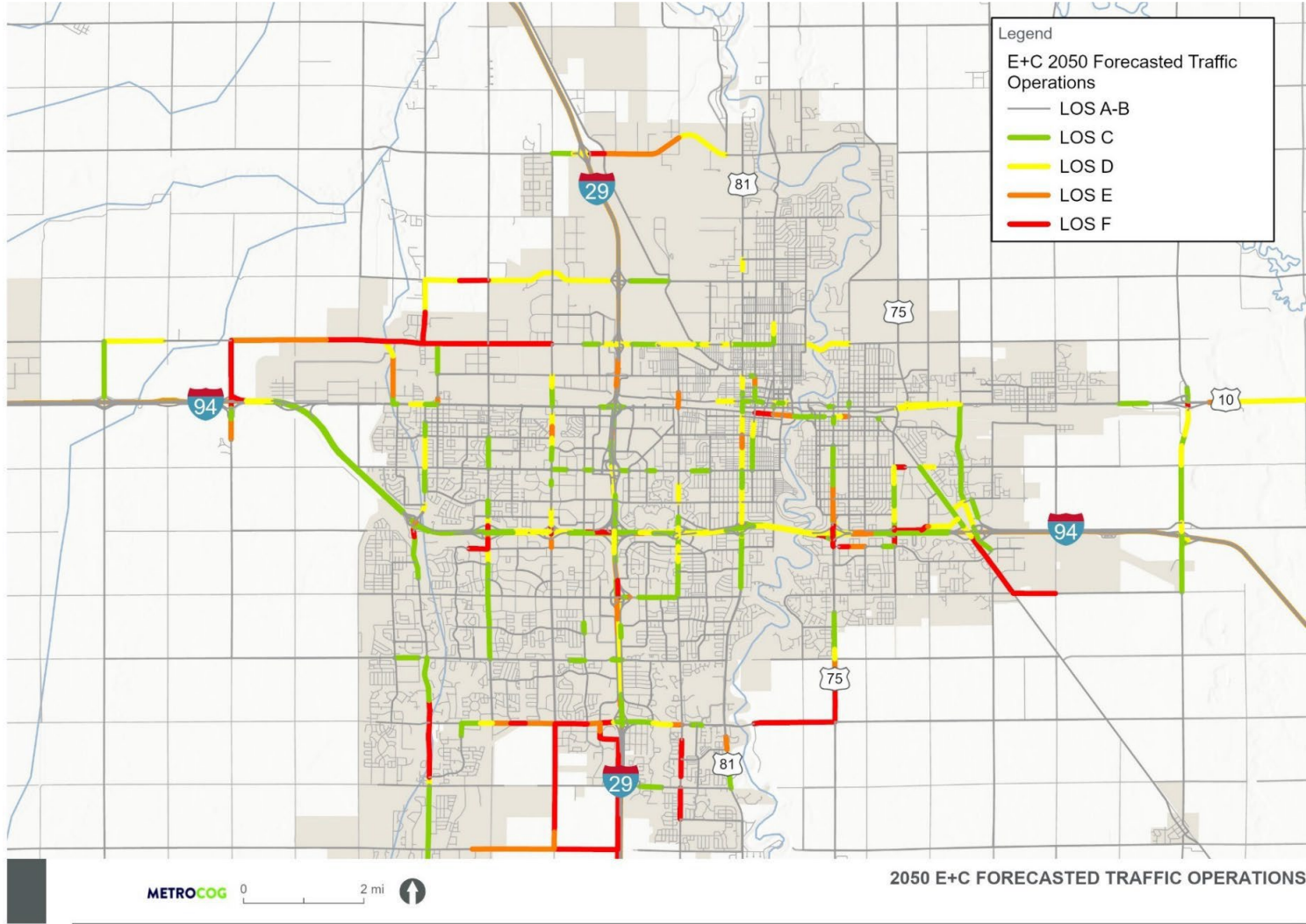


Figure 23. 2050 Existing plus Committed Forecasted Traffic Operations, Urbanized Area



FUTURE SYSTEM PERFORMANCE – E+C BASELINE SCENARIO

The performance of the future roadway network under the E+C baseline scenario was also analyzed from a system-wide perspective to better understand how travel demand could change between now and the year 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 Metro COG region.
- **Vehicle Miles Traveled (VMT) Growth:** VMT refers to the total distance traveled by people in the Metro COG 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 their vehicles during their 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 16 summarizes the results of the above metrics for daily vehicular travel for the base year of 2021 and the future year 2050 based on the E+C baseline scenario.

Based on the 2050 E+C baseline scenario, the number of daily trips in the Metro COG region is estimated to increase by 32 percent between 2021 and 2050, which would increase daily system VMT by 66 percent and daily system VHT by 78 percent.

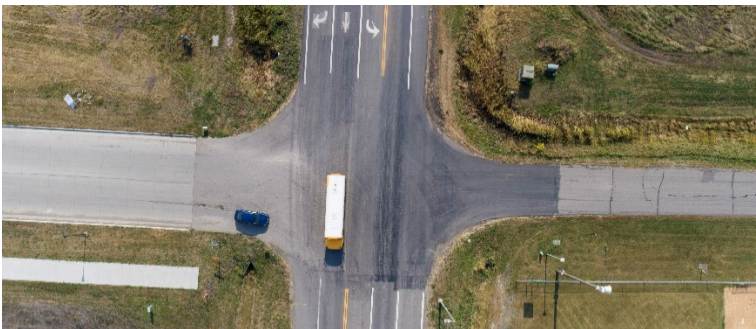
The key takeaway from the analysis of future conditions is that under the E+C baseline scenario, the average length of trips taken in 2050 will be longer which is an effect of the expanded urban area due to future growth. While trip lengths increase under the E+C baseline scenario, the average speeds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

Table 16. 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

A Congestion Management Process (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. A CMP is required in metropolitan areas with population exceeding 200,000, known as Transportation Management Areas (TMAs). The Fargo-Moorhead Metropolitan Planning Organization (MPO) was recently designated as a TMA in 2022 although a CMP was included in the previous 2045 Metro Grow plan in anticipation of the TMA designation occurring shortly after that plan was adopted. The MPO 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 MPO area.



THE MTP AND CMP COORDINATION

The CMP is a requirement of all TMAs as it provides a framework for responding to congestion in a consistent, coordinated fashion. The CMP should be incorporated as part of the metropolitan planning process and used/referred to during updates to the MTP, along with other MPO efforts (e.g., Transportation Improvement Program (TIP) and Unified Planning Work Program (UPWP)). There are no specific requirements for the frequency of updates to the CMP' however, its integration into the MTP process provides benefits to updating both documents simultaneously.

The **Congestion Management Process** was updated during the development of the Metropolitan Transportation Plan. 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 Objectives.

The CMP objectives were established following the development of the MTP goals, and support the key goal areas of Walking, Biking, and Rolling, and Maintaining Transportation Infrastructure. There are also CMP objectives identified in Chapter 3 of the MTP to reinforce the alignment of the two plans.

<p>Integration of Strategies</p>	<p>The CMP should identify strategies and plan for their implementation, including those identified within the MTP.</p> <p>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.</p>
<p>Exploring Project Alternatives</p>	<p>CMP performance measures can be used to compare plan alternatives in the development of the MTP.</p> <p>Multiple alternatives were explored through the modeling process of the MTP to understand the connected impact of various projects and support the rightsizing of projects to meet regional goals and congestion needs. As the alternatives were reviewed, congestion measures were used to refine the projects and build an understanding for an acceptable level of congestion.</p>
<p>Congestion Management Strategies</p>	<p>Regional-level implementation of congestion management strategies through inclusion in the fiscally-constrained MTP and TIP.</p> <p>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.</p>

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. The 2050 MTP goal focus areas from which the 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 drawn from the MTP goal focus areas are:



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.

Future Transportation System

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



FUTURE FUNDING ALLOCATIONS

Future funding allocation forecasts are detailed within [Appendix D](#), identifying the forecasted federal allocations for Metro COG through 2050. Specifically, these allocations explored the three federal funding sources in use at the time of the development of this MTP. The three federal funding sources used to create the fiscal constraint include:

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

STBG ALLOCATION

STBG funds are a flexible funding source that is eligible to be spent on a range of transportation improvements, including roadway, bicycle and pedestrian, and transit capital. For many years, the use of STBG funds in the Metro COG region has been for mainly roadway maintenance and improvement projects. Since the adoption of the 2045 Metro Grow MTP, some STBG funding had gone towards bus 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 have shifted focus to preservation for the entire region.

Metro Grow established an overall spending goal for the STBG allocation of 89% Street and Roadway projects, 5% Bike and Pedestrian projects, and 6% Transit capital projects. This overall goal was explored through the Metro 2050 process, with the intent of supporting the key goals of Maintaining Transportation Infrastructure and Walking, Biking, and Rolling. Funding allocations will move Metro COG closer to its performance, policy, and congestion management goals by providing a more extensive, connected, and safe bicycle and pedestrian system. At the same time, it will allow the region to continue meeting its system preservation targets as demonstrated in the [System Needs and Strategies Chapter](#), as the local jurisdictions have the financial resources to continue meeting the system preservation needs of the system.

The Metro 2050 process utilizes the overall spending framework, while advancing the region’s transportation goals of the MTP. The project review and refinement process utilized multiple screens to identify projects that advanced the goals of the plan, aligned with local proprieties and advanced the regional transportation system. This process supports the identification of projects that meet modal needs. This process included the following steps.

- Step 1** Identification of projects from local jurisdictions and system needs assessment.
- Step 2** Develop weighted project score using metrics established for each objective to provide alignment with 2050 goals.
- Step 3** Refine projects and alignment with regional needs, including assessment of existing and future volumes and AADT
- Step 4** Local coordination and review of project list for refinements within timeframes

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 TA allocation for both Minesota and North Dakota to support smaller-scale transportation projects such as pedestrian and 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

CRP was established in 2021 with the Infrastructure Investment and Jobs Act of 2021. Funding is allocated through both states to Metro COG to support projects designed to reduce transportation emissions. Eligible projects may include projects that provide an alternative to single-occupancy vehicle movement, 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 strategies¹:

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

¹ Carbon Reduction Program Implementation Guidance, FHWA, April 2022

MNDOT developed its first Carbon Reduction Strategy in 2023 to inform spending of CRP funds and reduce carbon from surface transportation in the State. The strategy identifies three key priority areas for reducing carbon emissions – Electrification, Travel Options, and Low Carbon Infrastructure and System Management.



METRO 2050 FUNDING ALLOCATIONS

Funding allocations were established for the MTP’s 2028-2050 periods identified below. The funding levels for each

- **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 17. 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 PLAN

The future roadway plan is a combination of STBG-Funded projects, TA-funded projects, and CRP-funded projects on Interstate and other National Highway System routes. The following pages summarize transportation investment priorities identified by member jurisdictions and the MTP process for implementation within the horizon of this plan. The identified projects were scored for their alignment with the ten transportation goals and associated objectives, as described in the [System Needs and Strategies](#) Chapter. This score was used as an initial screen to inform the fiscal constraint development.

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. These cost estimates include high level construction-based costs, including only those that are federally eligible within the funding sources identified within the plan. In most cases, project scopes in the MTP are general planning assumptions that will be developed over time, as project development progresses from identification in the MTP, to funding solicitation, to final design and implementation. Through Metro COG's metropolitan transportation planning

process, and as local jurisdictions pursue federal funds, project scopes will need to be further refined. Detailed information on the cost estimates is provided in [Appendix E](#).

FISCALLY CONSTRAINED PROJECTS

The three 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 15](#), [Table 17](#), and [Table 19](#) by implementation period.

RESERVE PROJECTS

Throughout the planning process, future project needs were identified beyond the funding allocations forecasted 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 are intended to highlight regional priorities that will be funded through another source or are outside of the fiscal constraint for that 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 16](#), [Table 18](#), and [Table 20](#) 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:

- A. Review of transportation investment priorities throughout the region
- B. Understanding of local and state projects funded through other sources
- C. Identify projects that are STBG, TA, and CRP eligible if conditions change for projects within the fiscal constraint (e.g., a fiscally constrained project received grant funding)
- D. Tracking of future investment needs that may warrant further study or exploration to increase alignment with identified goals
- E. Evaluating the system as it ages to respond to changing needs and conditions....

Table 15. Short-Term (2028-2030) 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	10th St 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	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	--

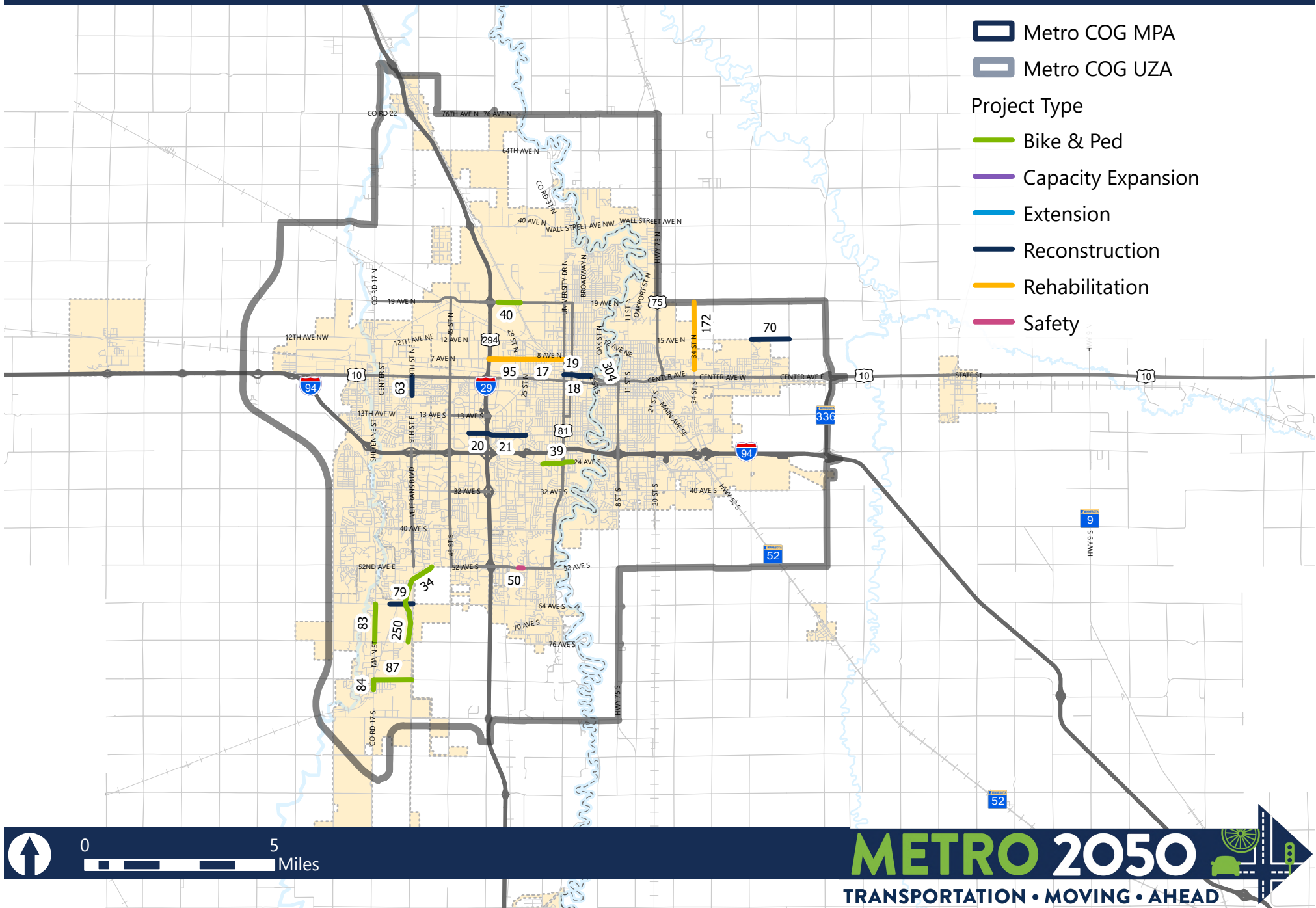
*Programmed for 2028 in the 2025-2028 Draft TIP

Table 16. Short-Term (2028-2030) Reserve Transportation Projects

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	MnDOT	\$-	\$-	\$-	4.1
300	Main Avenue/Hwy 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	21 st 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 12 th 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)	34th St (Dilworth)	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

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2029) Costs	Federal Funds (2029)	Weighted Score
213	MN 34	I-94	I-94	Rehabilitation	MnDOT	\$-	\$-	\$-	2.1
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	CR 17	57th St S	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

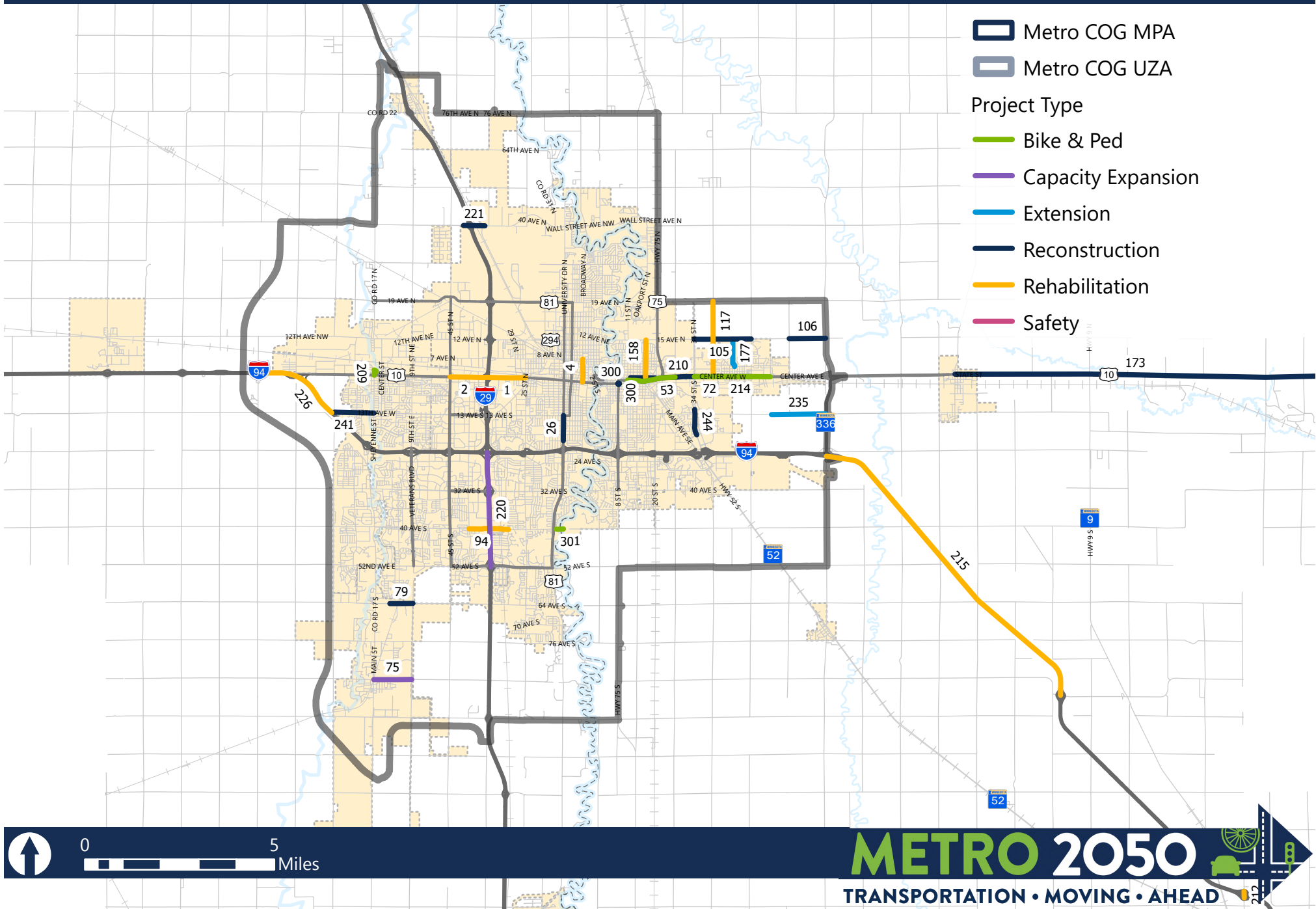


Table 17. Mid-Term (2031-2040) Transportation Projects by Funding Source

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	\$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	52nd Ave S	64th Ave S	Bike & Ped	Fargo	\$534,384	\$855,565	\$684,452	3.3
	85	CR 17	Park Dr	100th Ave S	Bike & Ped	Horace	\$392,925	\$629,085	\$503,268	3.2
	86	52nd Ave S	CR 17	9th St W	Bike & Ped	Horace	\$490,191	\$784,811	\$627,849	3.2
	80	Drain 27	88th Ave S	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	Main Ave	12th Ave NW	Reconstruction	West Fargo	\$3,367,830	\$5,392,005	\$4,313,604	3.2
	51	45th St S	I-94	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/Cass County	\$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
	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	81st St S	Reconstruction	Horace	\$5,596,828	\$8,960,702	\$7,168,561	2.4	

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
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	38th 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	4 th Ave N	8 th 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 18. 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	Broadway St NW	Hwy 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	4th 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	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

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
243	I-94	Sheyenne Street	I-29	Capacity Expansion	NDDOT	\$-	\$-	\$-	2.5
76	81st St S	CR 14	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	12 th 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	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	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	76th Ave S	88th Ave S	Extension	Horace/Fargo	\$4,578,411	\$7,330,183	\$5,864,146	1.6
111	Veterans Blvd	64th Ave S	76th Ave S	Extension	Horace/Fargo	\$4,561,914	\$7,303,772	\$5,843,017	1.6

Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Short Term (2036) Costs	Federal Funds (2036)	Weighted Score
249	78th St S	64th Ave S	76th Ave S	Extension	Horace	\$5,778,278	\$9,251,209	\$7,400,967	1.6
231	76th Ave S	81st St S	CR 17	Capacity Expansion	Horace	\$3,973,257	\$6,361,313	\$5,089,050	1.5
78	76th Ave S	CR 17	57th St S	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	--

Table 19. Long-Term (2041-2050) Transportation Projects by Funding Source

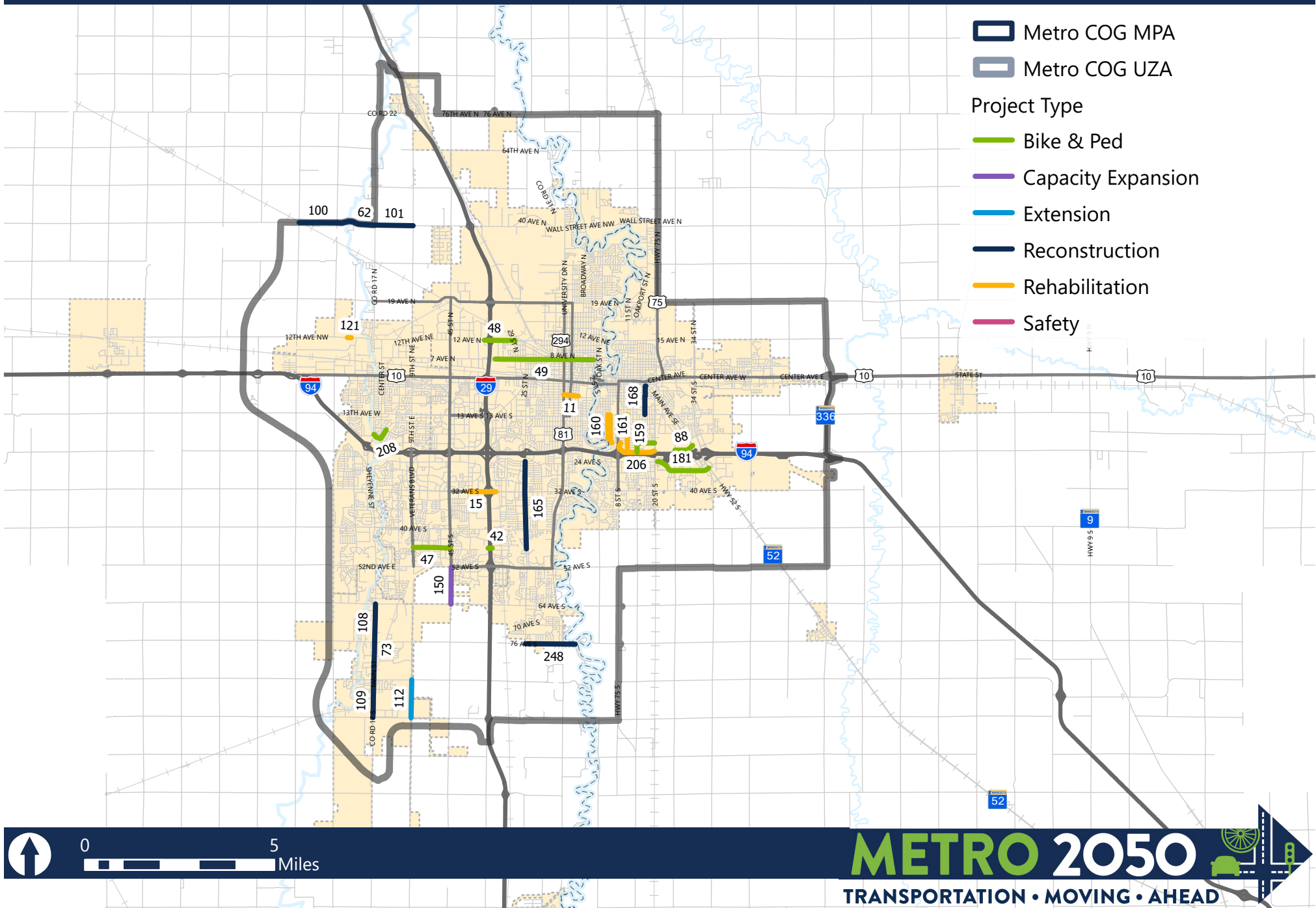
Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Long Term (2046) Costs	Federal Funds (2046)	Weighted Score
Minnesota Projects										
CRP/TA	88	27th Ave S	26th St S	SE Main Ave	Bike & Ped	Moorhead	\$271,893	\$435,309	\$348,247	3.7
	197	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	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	4th 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	Rehabilitation	Moorhead	\$331,383	\$785,352	\$102,254	2.5
	252	TBD - 14th Extension from Dillworth	12th Ave S	I-94	Extension	Moorhead	\$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
	49	7th Ave N	36th St N	6th 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

Funding Source	Project ID	Corridor	From	To	Project Type	Project Jurisdiction	Construction Cost Estimate (2024)	Long Term (2046) Costs	Federal Funds (2046)	Weighted Score
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	--

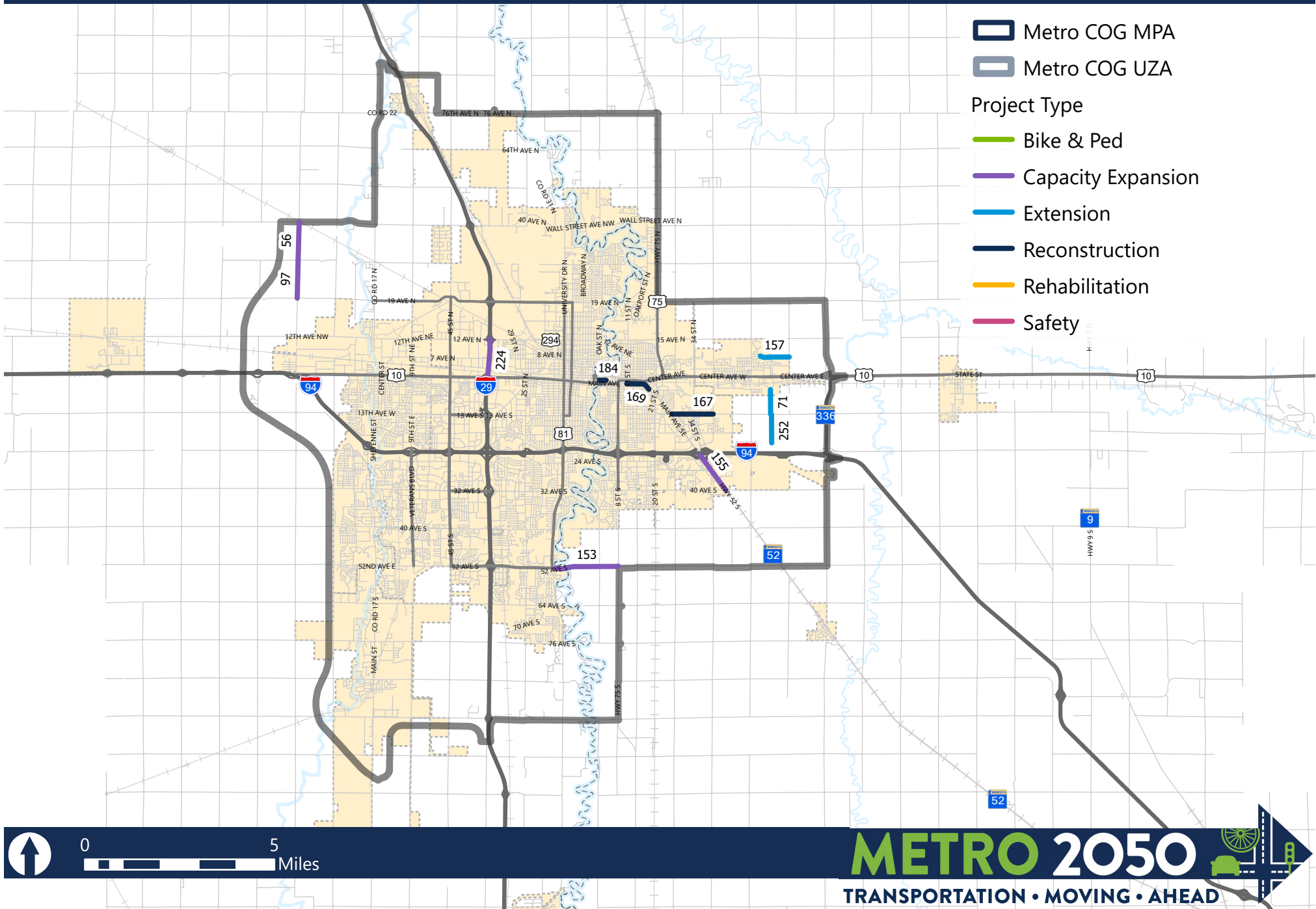
Table 20. Long-Term (2041-2050) Reserve Transportation Projects

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	11 th St S	3rd Ave S	Reconstruction	MnDOT	\$-	\$-	\$-	3.9
155	Hwy 52	I-94	40th Ave S	Capacity Expansion	Clay County	\$4,107,634	\$9,734,759	\$7,921,621	2.2
153	60th Ave S	University Ave S	Hwy 75	Capacity Expansion	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



0 5 Miles



COMPARISON OF PROJECT COSTS TO ALLOCATED FUNDING

This section provides an analysis and summary of the project costs and funding levels (documented in [Table 15](#) through [Table 20](#)). [Table 21](#) provides a summary of the costs from the projects, the federal funding levels, and the balance for each state by period. As noted in [Table 21](#), there may be a combination of STBG, TA, or CRP funding carried over from one period to another. This carryover is intended to provide two purposes, provide for flexibility in the TIP programming process as funding stacks are defined for project implementation. It also provides opportunities for revision with reserve projects as needed with changing priorities and conditions. A future MTP amendment may be required to include any new future projects.



Table 21. 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 investments that are eligible under certain funding sources. For example, MATBUS receives FTA allocations specifically for transit investments each year. Continued operations and capital support for the transit system are expected to come from two different funding sources:

- FTA funding sources discussed in the [System Needs and Strategies](#) chapter for both operations and capital expenditures of the MATBUS system.
- 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 Congest Management Process.

MATBUS maintains a list of operational and capital investments forecasted for implementation on an annual basis. These investments include bus replacements, transit shelter improvements, and other investments to support transit priorities identified in [Table 22](#). These strategies are also integrated within the regional Transit Development Plan that is updated on a 5-year cycle, with a 2025 update beginning at the conclusion of the development of this MTP. Additionally, these strategies should be considered in the implementation of other transportation investments. For example, roadway projects along an existing fixed route line should explore

opportunities to enhance access to transit supported infrastructure.

Table 22. Transit Strategies

Potential Transit 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	Support the maintenance of efficient transit infrastructure.
Micro transit considerations/features	Promote right-sized transit services to increase transit access throughout the region, including micromobility and fixed route services.
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.

Forecasted capital investment or infrastructure needs are identified in [Table 23](#). These projects have not been constrained as part of this MTP; however, this list may be used when opportunities arise to support transit investments during the TIP process.

Table 23. Forecasted Transit Investments

MTP 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
Long-Term (2041-2050)	Service Truck Purchase/Replacement		\$80,000
	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 other transportation projects that are important for the region, but do not fit within the fiscally constrained elements of the plan. 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 changes 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 outcomes and details that are needed to complete the project needs and details.

Example: The Heartland Trail (ID 164) is currently being studied outside of the MTP process to explore future alignments and project details. The determination of an alignment is needed for further consideration as a fiscally constrained project.

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

Example: The 12th Ave N/15th Ave 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 forecasted need with anticipated growth in the 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.



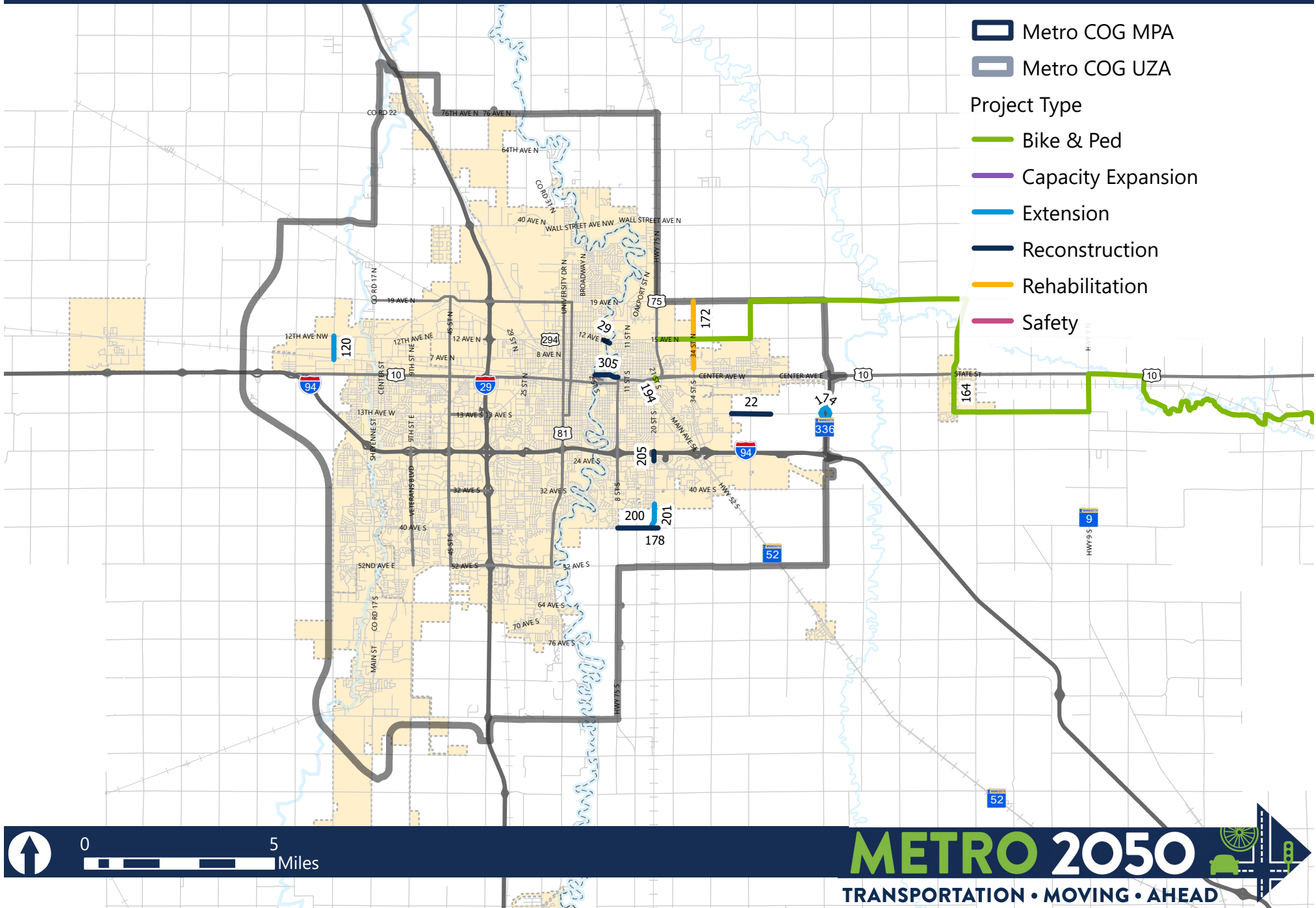
Table 24. Vision Plan (2050+) Transportation Projects

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	\$5,957,256.81
71	14th St	12th Ave S	Adams Ave	Grade Separation from Railroad	Location to be determined. Part of potential long-term corridor. Railroad grade separation option.	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	\$-
174	12th Ave S	MN 336	MN 336	Interchange	Required for 12th Ave and Hwy 336 connection.	Dilworth	\$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	\$2,000,000
194	21st St S	US 10	US 10	Bike & Ped	Expand sidewalk on eastern side of road to create a shared use path	Moorhead	\$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	\$-
201	20th St S	45th Ave S	50th Ave S	Extension	Future roadway extension to support future development.	Moorhead	\$2,313,570

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
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
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
305	I-94	Red River	MN 336	Safety/Capacity Expansion	Expansion to a 6-lane roadway section to provide additional capacity and improve safety along I-94.	MnDOT	\$-
307	I-94	at 55th St		Interchange	Location to be determined. Potential long-term project from Moorhead Growth Area Plan Study.	MnDOT	\$30,416,323
308	11th St	Main Ave	1st Ave N	Grade Separation from Railroad	Grade separation of Central Moorhead rail tracks to eliminate delays and access issues due to train crossings.	Moorhead	\$72,999,174
309	55th St	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
310	55th St	4th Ave	12th Ave S	New Street	Location to be determined. Part of potential long-term corridor. Arterial to support growth area.	Moorhead	\$6,113,681
311	SE Beltway Route	Hwy 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
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

Project ID	Corridor	From	To	Project Type	Description	Project Jurisdiction	Construction Cost Estimate (2024)
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	Horace	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
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



ADDITIONAL METRO 2050 RECOMMENDATIONS

Throughout the MTP process various topics and needs were discussed with member jurisdictions, project staff, and the regional community that warrant additional review and consideration outside the scope of the MTP. This section identifies recommendations for additional study or consideration as Metro COG and its partners continue to make decisions and investments that support the goals of this plan.

FUTURE CORRIDOR STUDIES

Corridor studies play an important role in the regional transportation planning system. These studies 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 process, but others may arise as additional needs are identified.

- **45th Street 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 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 growing area of the region. Since its adoption, the plan has guided decision making for both planning and investment for Metro COG and the cities of Fargo and West Fargo. Through conversations during the MTP, a desire to update this plan to respond to changing needs and trends was identified. Additionally, specific corridors may need additional study.

- **88th Avenue Study:** Jurisdictions identified desired improvements to 88th as a part of this planning process; however, the projects generally scored lower in comparison to other projects due to the limited development and use of the corridor. It is understood that as growth occurs, 88th Avenue will provide an important east/west condition within the region. Like the 76th Avenue Corridor Study completed in 2020, a future 88th Avenue Corridor Study will explore roadway needs in relationship to land use and development. The limits of this study could include County Road 17 to I-29 based on the projects discussed during the MTP planning process.
- **76th Avenue Bridge:** Study future crossing of Red River at the 76th Avenue alignment.
- **East Metro Perimeter Study:** Continue to study perimeter routes throughout the east metro to provide additional routes and congestion relief.
- **Implementation Studies of the Safety Action Plan:** The Regional Comprehensive Safety Action Plan was completed during the development of the MTP. The plan outlines

implementation studies throughout the region that can be completed to advance safety needs.

- **Phase 2 EV Readiness Study:** A Phase 2 EV Readiness Study was identified as a next step of the EV Readiness Study completed in 2024. The completion of this study within 3 to 5 years would continue to explore the region's readiness for EV, exploring regional conditions, funding opportunities, and market dynamics to support EVs.

REGIONAL STREET TYPOLOGY SYSTEM

Streets are traditionally classified according to FHWA's functional classification system. This hierarchy includes Interstates, arterials, collectors, and local streets of different levels, and evaluates the function of each street as a trade-off between vehicular mobility and land access. Through planning efforts over the last few years, Metro COG has explored a street typology system to serve as a more detailed connection of roadway use, public realm experiences, and surrounding uses. Continued development and refinement of this street typology system can be used in many formats, including the future refinement of corridor studies and future implementation with an overall goal of promoting livability and a complete streets approach for the region.

The Fargo Transportation Plan was completed in 2024 and identified a street typology system for the Fargo street network that can be explored and expanded to establish a regional street typology system.

LINKING TIP PROJECT SELECTION AND THE MTP

With the transition to a TMA in 2022, Metro COG has the opportunity to refine the project selection process for the TIP that is consistent with the goals of the MTP. There are many other TMAs that have implemented a TIP selection process linked to their MTP based upon a scoring process. The Portland Area Comprehensive Transportation System (PATs), the MPTO for the Portland, Maine area was identified as an example in the Metro Grow 2045 MTP, setting a foundation for the 2050 process to be built upon.

The Metro 2050 process utilized a scoring system that aligned with the goals and objectives of the plan. Each objective was aligned with a performance metric that could be ranked on a score of 1 to 5. Each identified project was scored across the objectives for each goal. These scores were then averaged to identify a score for each category and an overall performance score. These scores were then weighted to prioritize safety, maintain transportation infrastructure, and walking, biking, and rolling in alignment with public engagement and jurisdiction review. This weighted score was then used as the primary metric for fiscally constraining projects.

This overall process is intended to identify the projects that best respond to the region's identified goals and support future refinement with local priorities and needs. It is intended that this process will be used to directly identify the upcoming projects within the TIP process, modifying the need for the

previous solicitation process. It is understood that refinements will need to occur, but the project selection may follow this general process:

1. Identify the next prioritized projects for implementation based on the weighted score and future transportation plan within the MTP.
2. Align available federal funding with project needs, local matches, and other funding stacks.
3. Refine project outcomes as needed to be programmed within the TIP.
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 its partners undergo the next TIP process, this overall selection process will be tested and refined.

CONTINUED CONGESTION MANAGEMENT PROCESS REFINEMENT

The Congestion Management Process provides some specific recommendations. It is acknowledged that the CMP process will continue to evolve as Metro COG acts as a TMA. Committee structure changes have occurred since the adoption of the previous MTP as an example of early implementation. Future process and policy efforts will be needed to implement the recommendations of the CMP as identified in the plan.

CONNECTING PEOPLE AND PLACES

The Metro 2050 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 this 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 their own Comprehensive Plans to guide development decisions in alignment with respective State Statutes. These documents guide built form and development decisions that must connect to the regional transportation system. Continued coordination and support from Metro COG staff is encouraged with these local efforts.

ALIGNMENT WITH STATE AND REGIONAL PLANS

In addition to the planning efforts completed by Metro COG and its partner jurisdictions, state and regional plans are

produced that can inform action within the region. For example, both the NDDOT and MNDOT create state 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 throughout the state. The states also prepare modal plans that can be used by Metro COG to understand state 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. The Statewide Pedestrian and Bicycle Plan is another example.

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

