
APPENDIX E: PLANNING REQUIREMENTS

The 20-Year Minnesota State Highway Investment Plan (MnSHIP) update process is guided by federal and state requirements. The Minnesota Department of Transportation (MnDOT) also has policies and initiatives that inform the planning process. Below outlines where that guidance and requirements can be found in the 2023 MnSHIP.

FEDERAL REQUIREMENTS

Statewide long-range transportation plans are guided by requirements set out in the code of federal regulations (CFR). Title 23 part 450 subpart B covers the Statewide and Nonmetropolitan Transportation Planning and Programming.¹ The state must demonstrate how the requirements are met with the long-range transportation plan. MnDOT's family of plans, including MnSHIP, collectively address these requirements. Some requirements may be addressed fully or in part by the Statewide Multimodal Transportation Plan or another modal plan instead of MnSHIP. How MnSHIP meets the requirements are categorized by federal planning factors, performance-based planning, cooperation, coordination and consultation, environmental mitigation, Environmental Justice and Title VI.

PLANNING FACTORS

Minnesota must carry out a continuous, cooperative and comprehensive statewide transportation planning process. The process is used when considering and implementing projects, strategies and services that address 10 federal planning factors. The factors must be considered and reflected, as appropriate, in the statewide transportation planning process. **Table E-1** shows how federal planning factors for the transportation system influenced the development of the SMTP objectives and related MnSHIP investment categories.²

TABLE E-1: FEDERAL PLANNING FACTORS AND RELATED MNSHIP OBJECTIVES

FEDERAL PLANNING FACTOR	RELATED OBJECTIVE(S)
Support the economic vitality of the United States, the states, metropolitan areas, and non-metropolitan areas, especially by enabling global competitiveness, productivity and efficiency.	<ul style="list-style-type: none">• Critical Connections• Healthy Equitable Communities
Increase the safety of the transportation system for motorized and non-motorized users.	<ul style="list-style-type: none">• Transportation Safety

¹ 23. *Statewide and nonmetropolitan transportation planning*, U.S. Code § 135(f)(1), (f)(3), [https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.216](https://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim); Code of Federal Regulations, <i>Development and content of the long-range statewide transportation plan</i>, 23 CFR 450.216, <a href=).

² 23. *Statewide and nonmetropolitan transportation planning*, U.S. Code § 135(d)(1), [https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.206](https://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim); Code of Federal Regulations, <i>Scope of the statewide and nonmetropolitan transportation planning process</i>, 23 CFR 450.206(a), <a href=).

FEDERAL PLANNING FACTOR	RELATED OBJECTIVE(S)
Increase the security of the transportation system for motorized and non-motorized users.	<ul style="list-style-type: none"> • Transportation Safety
Increase accessibility and mobility of people and freight.	<ul style="list-style-type: none"> • System Stewardship • Critical Connections • Healthy Equitable Communities
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.	<ul style="list-style-type: none"> • System Stewardship • Climate Action • Critical Connections • Healthy Equitable Communities
Enhance the integration and connectivity of the transportation system, across and between modes throughout the state, for people and freight.	<ul style="list-style-type: none"> • Critical Connections • Healthy Equitable Communities
Promote efficient system management and operation.	<ul style="list-style-type: none"> • Transportation Safety • System Stewardship • Critical Connections
Emphasize the preservation of the existing transportation system.	<ul style="list-style-type: none"> • System Stewardship • Critical Connections
Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	<ul style="list-style-type: none"> • System Stewardship • Climate Action • Critical Connections
Enhance travel and tourism.	<ul style="list-style-type: none"> • Critical Connections • Healthy Equitable Communities

PERFORMANCE-BASED PLANNING

Statewide transportation plans must establish and use a performance-based approach to transportation decision making that supports the national goals as identified in **Figure E-1**.³

Federal performance measure target selection must be coordinated with metropolitan planning organizations (MPOs) to ensure consistency. In areas not represented by MPOs, the selection of public transportation performance measure targets must be coordinated with public transportation providers.

The statewide planning process must integrate, either directly or by reference, the goals, objectives, performance measures and targets developed to meet federal requirements. Details on how Minnesota considers these federal requirements when developing policies, programs and investment priorities can be found in the Statewide

³ 23. *Statewide and nonmetropolitan transportation planning*, U.S. Code § 135(d)(2), [https://uscode.house.gov/view.xhtml?req=\(title:23%20section:135%20edition:prelim\);](https://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim);) Code of Federal Regulations, *Scope of the statewide and nonmetropolitan transportation planning process*, 23 CFR 450.206(c),³ <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.206>; Code of Federal Regulations, Development and content of the long-range statewide transportation plan, 23 CFR 450.216(f), <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.216>.

Multimodal Transportation Plan (SMTP) – Appendix I. Performance targets related to state highway investment are discussed in in **Chapter 4**.

COOPERATION, COORDINATION AND CONSULTATION

Statewide transportation plans must be developed in coordination with MPOs, cooperation with nonmetropolitan officials, and in consultation with tribal governments and state, tribal and local agencies responsible for land use management, natural resources, environmental protection, conservation and historic preservation.⁴ Additionally, statewide transportation planning processes are required to develop and use a documented public involvement process that provides opportunities for public review and comment at key decision points.⁵ Information on how MnDOT coordinated, cooperated and consulted with transportation partners and the public can be found in **Chapter 5** with detailed information regarding the public engagement process found in **Appendix B – Engagement Summary**. MnDOT completed a review of plans from more than 100 transportation partners including peer agencies, MPOs, RDOs and others.

ENVIRONMENTAL MITIGATION

Statewide transportation plans must include a discussion of potential environmental mitigation activities and potential areas to carry out these activities. Further, the plans must include activities that may have the greatest potential to restore and maintain the environmental functions affected by the long-range statewide transportation plan. The discussion may focus on policies, programs or strategies, rather than at the project level. This must be developed in consultation with applicable federal, state, regional, local and Tribal land management, wildlife and regulatory agencies. The state may establish reasonable timeframes for performing this consultation.⁶⁷ MnSHIP has components of climate change mitigation and resiliency in the investment direction and strategies. System Stewardship includes practicing environmental stewardship to protect and improve natural resources.

ENVIRONMENTAL JUSTICE AND TITLE VI

Statewide transportation plans must identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations.⁸ Compliance is demonstrated through the public participation plan and an analysis of the plan’s recommendations.

The plan’s recommendations and public outreach activities cannot result in discriminatory efforts or disparate impacts on the basis of race, color and national origin, including the denial of meaningful access for limited

⁴ 23. *Statewide and nonmetropolitan transportation planning*, U.S. Code § 135(f)(2), [https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.208](https://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim); Code of Federal Regulations, <i>Coordination of planning process activities</i>, 23 CFR 450.208, <a href=).

⁵ Code of Federal Regulations, *Interested parties, public involvement, and consultation*, 23 CFR 450.210, <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.210>.

⁶ 23. *Statewide and nonmetropolitan transportation planning*, U.S. Code § 135(f)(4), [https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.214](https://uscode.house.gov/view.xhtml?req=(title:23%20section:135%20edition:prelim); Code of Federal Regulations, <i>Development of programmatic mitigation plans</i>, 23 CFR 450.214, <a href=).

⁷ Code of Federal Regulations, *Development and content of the long-range statewide transportation plan*, 23 CFR 450.216(k), <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-B#450.216>.

⁸ William J. Clinton, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income, February 16, 1994, United States Environmental Protection Agency, <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>; U.S. Department of Transportation, *Final DOT Environmental Justice Order 5610.2(a)*, May 12, 2012, <https://www.transportation.gov/transportation-policy/environmental-justice/department-transportation-order-56102a>; U.S. Department of Transportation, Federal Highway Administration, *FHWA Order 6640.23A*, June 14, 2012, <https://www.fhwa.dot.gov/legisregs/directives/orders/664023a.cfm>; U.S. Department of Transportation, Federal Transit Administration, *Environmental Justice Policy Guidance for Federal Transit Administration Recipients 4703.1*, July 17, 2012, <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/environmental-justice-policy-guidance-federal-transit>.

English proficient persons.⁹ Compliance is demonstrated through the public participation plan and the environmental justice analysis of the plan’s recommendations.

A summary of how MnDOT complied with Title VI and environmental justice requirements can be found in **Appendix D – Environmental Justice**. Details for the public engagement process are found in **Chapter 5 and Appendix B – Public Engagement Summary**.

STATE REQUIREMENTS

The State of Minnesota has established transportation goals for MnDOT as well as additional requirements for MnSHIP.

LEGISLATIVE GOALS FOR TRANSPORTATION

The Minnesota Legislature has identified 16 goals for transportation. These goals are listed in **Figure E-2**. The SMTP must also identify performance targets for measuring progress and achievement of the goals, objectives or policies.¹⁰

Figure E-2 outlines the state transportation goals and the related MnSHIP investment category support the goal. Further details on each of the objectives can be found in **Chapter 5**.

TABLE E-2: STATE TRANSPORTATION GOALS AND RELATED SMTP OBJECTIVES AND KEY STRATEGIES

STATE GOALS FOR THE TRANSPORTATION SYSTEM	RELATED INVESTMENT CATEGORY	INVESTMENT DIRECTION DESCRIPTION
Minimize the fatalities and injuries for transportation users throughout the state.	Transportation Safety	Increase investment to address locations with high crash rates and non-motorized safety issues
Provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community.	Pedestrian and Bicycle Local Partnerships	<ul style="list-style-type: none"> • Be substantially compliant with the Americans with Disabilities (ADA) act by 2037. • Improve pedestrian facilities on 100-150 miles of roadway and at 200-250 intersections • Add over 150 miles of bicycle lanes and 20 miles of separated bicycle facilities in urban areas • Support 10 arterial Bus Rapid Transit lines on state highways • Complete up to 100 livability projects that improve connections across state highways

⁹ 42. *The Public Health and Welfare*, U.S. Code § 2000d, <https://www.govinfo.gov/app/details/USCODE-2011-title42/USCODE-2011-title42-chap21-subchapV-sec2000d>; Code of Federal Regulations, *Part 200 – Title Vi Program and Related Statutes – Implementation and Review Procedures*, 23 CFR 200, 23 CFR §200 Title Vi Program And Related Statutes - Implementation And Review Procedures - Code of Federal Regulations (ecfr.io); Code of Federal Regulations, *Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964*, 49 CFR 21, <https://www.ecfr.gov/current/title-49/subtitle-A/part-21?toc=1>; William J. Clinton, Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, August 11, 2000, The U.S. Department of Justice, <https://www.justice.gov/crt/executive-order-13166>; U.S. Department of Transportation, Federal Transit Administration, *Title VI Requirements and Guidelines for Federal Transit Administration Recipients 4702.1B*, October 1, 2012, <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/title-vi-requirements-and-guidelines-federal-transit>.

¹⁰ Minnesota Statutes 2022, section 174.01, subdivision 2, <https://www.revisor.mn.gov/statutes/cite/174.01>; Minnesota Statutes 2022, 174.03, subdivisions 1a and 12, <https://www.revisor.mn.gov/statutes/cite/174.03>.

STATE GOALS FOR THE TRANSPORTATION SYSTEM	RELATED INVESTMENT CATEGORY	INVESTMENT DIRECTION DESCRIPTION
Provide a reasonable travel time for commuters.	Highway Mobility	<ul style="list-style-type: none"> • Build out the traffic management system • Support 10 arterial Bus Rapid Transit lines on state highways • Complete over 100 spot mobility improvements • Add E-ZPass lanes on four corridors
Enhance economic development and provide for the economical, efficient, and safe movement of goods to and from markets by rail, highway, and waterway.	Freight Local Partnerships	<ul style="list-style-type: none"> • Address 60-100 first/last mile freight connection issues or freight safety • Maintain weigh stations so that none become obsolete • Replace rail crossing signals at 3 locations per year and 1 passive crossing converted to active per year • Expanded truck parking at 8-10 existing locations and add 2-3 new truck parking locations on MnDOT right-of-way • Fund 40 large Transportation Economic Development projects or 350 smaller projects, which may support the creation and retention of an estimated 20,000 to 55,000 jobs throughout the state
Encourage tourism by providing appropriate transportation to Minnesota facilities designed to attract tourists and to enhance the appeal, through transportation investments, of tourist destinations across the state.	Rest Areas Small Programs	<ul style="list-style-type: none"> • Maintain building condition and address ADA compliance at all rest areas. • Maintain historic properties and roadside amenities on state highways
Provide transit services to all counties in the state to meet the needs of transit users.	N/A	N/A
Promote accountability through systematic management of system performance and productivity through the utilization of technological advancements.	Advancing Technology	<ul style="list-style-type: none"> • Expand Intelligent Transportation Systems to 200-250 miles of state highways and address immediate and medium needs for fiber network expansion
Maximize the long-term benefits received for each state transportation investment.	System Stewardship	MnSHIP includes strategies to stretch available revenue. These strategies are:

STATE GOALS FOR THE TRANSPORTATION SYSTEM	RELATED INVESTMENT CATEGORY	INVESTMENT DIRECTION DESCRIPTION
		<ul style="list-style-type: none"> • Implement asset management principles from the Transportation Asset Management Plan • Continue to employ high return-on-investment strategies that deliver the majority of benefits at reduced cost • Manage investments to achieve multiple objectives such as improving economic competitiveness, public health, equity and climate resilience
Provide for and prioritize funding of transportation investments that ensures that the state’s transportation infrastructure is maintained in a state of good repair.	Pavement Condition Bridge Condition Roadside Infrastructure Rest Areas	Over 60% of investment in MnSHIP is going towards maintaining the existing state highway system. End of planning period (2042) outcomes from this investment include: <ul style="list-style-type: none"> • Interstate pavements: 86% good and 2% poor • Other NHS pavements: 91% good and 6% poor • Non-NHS pavements: 89% good and 10% poor • NHS bridges: 53% good and 5% poor • Non-NHS bridges: 42% good and 10% poor
Ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state. ¹¹	Critical Connections Climate Action	The MnSHIP investment direction prioritizes multimodal access including increased investment for pedestrian infrastructure, bicycle infrastructure and transit-supportive investments. Highway Mobility investments are focused on spot mobility improvements. Highway capacity expansion is not funded in MnSHIP.
Promote and increase the use of high-occupancy vehicles and low-emission vehicles.	Highway Mobility	Highway mobility includes investments that promote or prioritize high-occupancy vehicles and transit, including: <ul style="list-style-type: none"> • Support 10 arterial Bus Rapid Transit lines on state highways • Add E-ZPass lanes on four corridors which can be for free by carpoolers and transit
Provide an air transportation system sufficient to encourage economic growth and allow all regions of the state the ability to participate in the global economy.	N/A	N/A
Increase use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost.	Highway Mobility	<ul style="list-style-type: none"> • Support 10 arterial Bus Rapid Transit lines on state highways • Add E-ZPass lanes on four corridors which can be for free by carpoolers and transit

¹¹ Minnesota Statutes 2021, section 216H.02, subdivision 1, <https://www.revisor.mn.gov/statutes/cite/216H.02#stat.216H.02.2>; Minnesota Statutes 2021, 216B.1691, subdivision 2a, <https://www.revisor.mn.gov/statutes/cite/216B.1691>.

STATE GOALS FOR THE TRANSPORTATION SYSTEM	RELATED INVESTMENT CATEGORY	INVESTMENT DIRECTION DESCRIPTION
Promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation.	Pedestrian and Bicycle	Increased investment in bicycle and pedestrian infrastructure including: <ul style="list-style-type: none"> • Becoming compliant with ADA by 2037 • Improve pedestrian facilities on 100-150 miles of roadway and at 200-250 intersections • Add over 150 miles of bicycle lanes and 20 miles of separated bicycle facilities in urban areas • Add 10-15 miles of improvements along US bicycle routes in rural areas
Reduce greenhouse gas emissions from the state’s transportation sector.	Highway Mobility Pedestrian and Bicycle	The MnSHIP investment direction includes several investments that promote non-polluting modes such as bicycling and walking as well as lower emissions modes such as carpooling (E-ZPass lanes) and transit
Accomplish these goals with minimal impact on the environment.	Climate Resilience	Majority of trees on construction projects replaced and 100-200 miles of roadway with new or improved green infrastructure

OLMSTEAD PLAN

The Minnesota Olmstead Plan states that “Transportation is a key aspect in an individual’s independence and quality of life. Transportation is also part of a community’s foundation and recognizes the importance, significance and context of place— not just as destinations, but also where people live, work, learn and enjoy life regardless of socioeconomic status or individual ability.”¹² The Olmstead Plan goes on to state that MnDOT in conjunction with Department of Human Services will integrate the Olmstead principles in the state’s transportation system. MnDOT can do this by continuing to provide accessibility improvements in the right-of-way and improving transit access and ridership. MnSHIP maintains MnDOT’s commitment to achieving substantial compliance with ADA including at rest areas. Additionally, Minnesota can ensure that transportation is as integrated as possible and that transportation allows people with disabilities to participate in their communities.

TRIBAL CONSULTATION

Beyond the federal requirement to consult with Tribes, Minnesota Executive Order 19-24 directs MnDOT to develop and maintain ongoing consultation with the 12 federally recognized sovereign governments located in Minnesota related to each area where MnDOT’s work intersects with Minnesota Tribal Nations.¹³ See later in this document section “MnDOT Policies & Initiatives” more about Tribal consultation.

¹² Minnesota Olmstead Implementation Office, “Putting the Promise of *Olmstead* into Practice: Minnesota’s 2013 Olmstead Plan, Olmstead Implementation Office, revised April 2021, https://mn.gov/olmstead/assets/2021-04-26-mn-olmstead-plan-revision_R_tcm1143-509266.pdf.

¹³ “Affirming the Government to Government Relationship between the State of Minnesota and Minnesota Tribal Nations: Providing for Consultation, Coordination, and Cooperation,” Executive Order 19-24, Tim Walz, Governor of the State of Minnesota, April 4, 2019, https://mn.gov/governor/assets/2019_04_04_EO_19-24_tcm1055-378654.pdf.

PLAIN LANGUAGE

All state agencies must communicate using plain language. Plain language is communication that an audience can understand the first time they read it or hear it. The goal of using plain language is to provide Minnesotans better state services by reducing confusion, saving time and improving customer satisfaction.¹⁴

In MnSHIP, MnDOT has attempted to use language commonly understood by the public. At times this is difficult as there is transportation terminology that cannot be easily replaced by common terms. Despite this challenge, MnDOT has tried to present information in a format that is easy-to-find and easy-to-understand.

MNSHIP LEGISLATIVE REQUIREMENTS

In addition to the over-arching state and federal long-range planning requirements, the Minnesota legislature has established specific requirements related to the content of MnSHIP (Minnesota statute 174.03, Subd. 1c). Within one year of completion of the SMTP, MnDOT is required to complete MnSHIP. The legislative requirements for MnSHIP and the respective location in the plan document are shown below in Figure E-3.

FIGURE E-3: MNSHIP LEGISLATIVE REQUIREMENTS

MINNESOTA STATUTES FOR MNSHIP (SECTION 174.03, SUBD. 1C)	LOCATION IN MNSHIP
<ul style="list-style-type: none"> Incorporates performance measures and targets for assessing progress and achievement of the state’s transportation goals, objectives and policies identified [in this statute] for the state trunk highway system and those goals, objectives and policies established in the Statewide Multimodal Transportation Plan. Performance targets must be based on objectively verifiable measures, and address, at a minimum, preservation and maintenance of the structural condition of state highway bridges and pavements, safety and mobility 	<ul style="list-style-type: none"> Chapter 2 Chapter 4
<ul style="list-style-type: none"> Summarizes trends and impacts for each performance target over the past five years. 	<ul style="list-style-type: none"> Chapter 2
<ul style="list-style-type: none"> Summarizes the amount and analyzes the impact of the department’s capital investments and priorities over the past five years on each performance target, including a comparison of prior plan projected costs with actual costs. 	<ul style="list-style-type: none"> Chapter 2 Appendix E
<ul style="list-style-type: none"> Identifies the investments required to meet the established performance targets over the next 20-year period. 	<ul style="list-style-type: none"> Chapter 4
<ul style="list-style-type: none"> Projects available state and federal funding over the 20-year period, including any unique, competitive, time-limited, or focused funding opportunities. 	<ul style="list-style-type: none"> Chapter 3 Appendix C
<ul style="list-style-type: none"> Identifies strategies to ensure the most efficient use of existing transportation infrastructure, and to maximize the performance benefits of projected available funding. 	<ul style="list-style-type: none"> Chapter 6 Chapter 8
<ul style="list-style-type: none"> Establishes investment priorities for projected funding which must: 	<ul style="list-style-type: none"> Chapter 6

¹⁴ “Implementing Plain Language in the Executive Branch,” Executive Order 14-07, Mark Dayton, Governor of the State of Minnesota, March 4th, 2014, <https://www.leg.mn.gov/archive/execorders/14-07.pdf>.

MINNESOTA STATUTES FOR MNSHIP (SECTION 174.03, SUBD. 1C)	LOCATION IN MNSHIP
<ul style="list-style-type: none"> ○ provide for cost-effective preservation, maintenance and repair to address the goal under section 174.01, subd. 2 (state of good repair) in a manner that aligns with other goals in that section ○ As appropriate, provide a schedule of major projects or improvement programs for the 20-year period ○ Identify resulting projected costs and impact on performance measures 	<ul style="list-style-type: none"> ● Capital Highway Investment Plan
<ul style="list-style-type: none"> ● Identifies those performance targets identified under clause (1) not expected to meet the target outcome over the 20-year period together with alternative strategies that could be implemented to meet targets. 	<ul style="list-style-type: none"> ● Chapter 7 ● Chapter 8

PREVIOUS FIVE-YEAR CAPITAL INVESTMENT ANALYSIS

As a part of state legislative requirements, MnSHIP must summarize the amount and analyze the impact of the department’s capital investments and priorities over the past five years on performance targets, including a comparison of prior plan projected costs with actual costs. The five-year investment lookback analysis covers fiscal years 2018-2022.

FISCAL YEARS 2018 THROUGH 2022

Starting with the 2013 Minnesota 20-Year State Highway Investment Plan, MnDOT has tracked spending on state road construction projects in ten investment categories. In 2017, MnDOT added four additional categories into the investment direction: facilities, jurisdictional transfer, freight and small programs. **Figure E-4** compares the planned investment by category in years 2018 to 2022 in the 2017 MnSHIP compared to the actual investment in those years.

FIGURE E-4: COMPARISON BETWEEN PLANNED AND ACTUAL INVESTMENT IN FISCAL YEARS 2018 TO 2022

Investment Category	Planned Investment	Actual Investment
Pavement Condition	\$1.84 B	\$1.87 B
Bridge Condition	\$680 M	\$760 M
Roadside Infrastructure	\$500 M	\$600 M
Jurisdictional Transfer	\$9 M	\$7 M
Facilities	\$6 M	\$16 M
Traveler Safety	\$220 M	\$350 M
Twin Cities Mobility	\$310 M	\$170 M
Greater Minnesota Mobility	\$13 M	<\$1 M
Freight	\$80 M	\$70 M
Bicycle Infrastructure	\$50 M	\$60 M

Investment Category	Planned Investment	Actual Investment
Accessible Pedestrian Infrastructure	\$110 M	\$130 M
Regional and Community Improvement Priorities	\$150 M	\$300 M
Project Delivery	\$720 M	\$1.0 B
Small Projects	\$60 M	\$30 M
Total	\$4.75 B	\$5.38 B

From 2018 to 2022, the total investment was higher than what was planned. This is due to additional funding from the legislature for the Corridors of Commerce program. The state legislature created the Corridors of Commerce program in 2013. In 2017 and 2018, MnDOT received substantial funding for this program after the completion of the 2017 MnSHIP. MnDOT delivered approximately \$800 million worth of Corridors of Commerce projects between 2018 and 2022. The additional funds were primarily spent on Bridge Condition, Roadside Infrastructure, Traveler Safety, Regional and Community Improvement Priorities and Project Delivery.

Project Delivery was the category that increased the most. Planned project delivery totals are based on an expected percentage of the entire construction program. This was set at 16% for planning purposes in the 2017 MnSHIP, but the actual number (18%) was higher than expected over this period. Over the last five years, MnDOT has incurred additional project delivery costs to deliver more complex projects, like the Twin Ports Interchange in Duluth and Corridors of Commerce projects, which required more project delivery expenses. In addition, the program itself was larger which required more funds to deliver the increased construction program.

The only categories that saw less investment than planned were Twin Cities Mobility and Greater Minnesota Mobility. Investments in Greater Minnesota Mobility were planned to begin in 2022. Investments in this category were delayed to 2023 and later. The additional investment in Corridors of Commerce projects balances out the reduced investment in mobility projects as they have similar project goals and outcomes.

PERFORMANCE ANALYSIS

PAVEMENT CONDITION MEASURES

A focus on pavement investment in the last two plans and an increase in funding has led to steadily improving condition on all pavement systems over the past five years. Current condition is meeting performance targets on all systems for percent good and percent poor.

FIGURE E-5: PAVEMENT IN POOR CONDITION FROM 2018-2022

Measures	Target	2018	2019	2020	2021	2022
Interstate Poor Ride Quality (RQI)	2%	1.2%	1.3%	0.3%	0.4%	0.5%
Other NHS Poor Ride Quality (RQI)	4%	1.7%	1.4%	0.6%	0.5%	0.5%
Non-NHS Poor Ride Quality (RQI)	8%	5.7%	6.2%	2.6%	2.0%	1.0%

FIGURE E-6: PAVEMENT IN GOOD CONDITION FROM 2018-2022

Measures	Target	2018	2019	2020	2021	2022
Interstate Good Ride Quality (RQI)	70%	82.8%	81.5%	87.0%	92.5%	92.2%
Other NHS Good Ride Quality (RQI)	65%	72.1%	73.8%	79.9%	82.2%	83.1%
Non-NHS Good Ride Quality (RQI)	60%	67.0%	65.4%	72.2%	77.2%	77.5%

BRIDGE CONDITION MEASURES

Over the past five years, bridge investments were higher than what was planned in the 2017 MnSHIP. Despite this increased investment, the number of bridges in poor condition on the NHS has increased and is not meeting its target. The percent of non-NHS bridges in poor condition has increased as well but is currently meeting its target.

FIGURE E-7: BRIDGES IN POOR CONDITION FROM 2018-2022

Measures	Targets	2018	2019	2020	2021	2022
NHS Bridges in Poor Condition	5%	1.0%	3.3%	3.1%	6.3%	6.3%
Non-NHS Bridges in Poor Condition	8%	3.9%	3.1%	3.8%	4.4%	4.2%

TRAVELER SAFETY MEASURES

While traffic fatalities have generally declined in recent years, variables like weather and driver behavior make it difficult to tie the outcome directly to the investment in new safety improvements. However, through engineering improvements and non-engineering strategies, traffic fatalities had been decreasing over time prior to the pandemic. MnDOT and the Department of Public Safety have invested in the Towards Zero Death program which includes investment in non-engineering strategies including education, enforcement, and emergency response. In 2020 and 2021, there was a sharp increase in traffic fatalities. Due to the COVID-19 pandemic, 2020 and 2021 are unique years, greatly reducing vehicles on our roadways and making it difficult to measure multiyear trends. However, this sharp increase in traffic fatalities indicates that much more still needs be done to accomplish the goal of zero traffic fatalities on Minnesota roads.

FIGURE E-8: TRAFFIC FATALITIES ON MINNESOTA ROADWAYS FROM 2018-2022

Measure	2018	2019	2020	2021	2022	2025 Target
All Traffic Fatalities	381	364	394	488	444	<225
Non-Motorized Traffic Fatalities	48	52	60	55	64	0

HIGHWAY MOBILITY

Investment in Twin Cities Highway Mobility has played a part in managing the growth of congestion on the state highway system. In 2018 and 2019, ongoing significant construction projects along Interstate 35W likely led to increases in congestion on the overall system. In 2020, the COVID-19 pandemic led to greatly reducing vehicles on our roadways and freeway congestion. Since 2020, congestion has increased but is still below pre-pandemic levels.

FIGURE E-9: CONGESTION ON TWIN CITIES FREEWAYS FROM 2018-2022

Measure	2018	2019	2020	2021	2022
Twin Cities Freeway Congestion	24.2%	24.4%	0.9%	5.8%	13.7%

MnDOT also tracks reliability on the NHS. Travel time reliability is important for the public and freight operators. For individual travelers, reliability may dictate what mode or travel route to use, or it may impact departure times. It is also a required federal measure. Figure x shows reliability on the Interstate and Other NHS since 2018. Due to the COVID-19 pandemic, reliability considerably improved in 2020 and has remained well above the target of 90% reliable.

FIGURE E-10: TRAVEL TIME RELIABILITY ON THE INTERSTATE AND NHS, 2018-2022

Measure	Target	2018	2019	2020	2021	2022
Interstate Reliability	90%	81.9%	81.0%	99.0%	94.4%	93.8%
Other NHS Reliability	90%	90.0%	88.8%	97.0%	96.1%	94.4%

FREIGHT MEASURES

Truck Travel Time Reliability Index (TTTRI) is a performance measure that MnDOT monitors and is a required federal performance measure. TTTRI measures the variation in commercial truck travel times on the Interstate system. An index value of 1 is the lowest possible score and indicates the highest level of travel reliability. MnDOT’s target is 1.5. In 2022, the most recent data available, Minnesota’s TTTRI was 1.32. The COVID-19 pandemic caused fewer people to be on the road and resulted in lower TTTRI for 2020 and 2021 before picking up in 2022. However, the 2022 TTTRI is still below pre-pandemic levels.

FIGURE E-11: TRUCK TRAVEL TIME RELIABILITY, 2018-2022

Measure	Target	2018	2019	2020	2021	2022
Truck Travel Time Reliability	1.5	1.44	1.48	1.21	1.24	1.32

ACCESSIBLE PEDESTRIAN MEASURES

Accessible Pedestrian Infrastructure investments have mainly targeted bringing existing pedestrian infrastructure into compliance with the Americans with Disabilities Act (ADA). Figure x shows the compliance rates of sidewalks, curb ramps, and accessible pedestrian signals. Increased investment from the last plan has steadily increased pedestrian infrastructure compliance with ADA. MnDOT is on track to meet its target of substantial compliance by 2037.

FIGURE E-12: PEDESTRIAN INFRASTRUCTURE COMPLIANCE WITH ADA, 2017-2021

Measures	Target	2017	2018	2019	2020	2021
Curb Ramp Compliance	100%	42.0%	51.7%	52.2%	57.0%	61.0%
Sidewalk Compliance	100%	56.0%	60.0%	62.0%	63.0%	66.0%
Signals Compliance	100%	59.0%	65.0%	70.0%	71.0%	76.0%

MNDOT POLICIES & INITIATIVES

MnDOT has adopted policies and initiatives that guide the direction of the agency. The Complete Streets and Tribal Nations Government-to-Government policies expand upon state and federal requirements to create a comprehensive approach to the development of MnSHIP.

COMPLETE STREETS

MnDOT's Complete Streets policy commits the department to addressing the safety and accessibility needs of users of all ages and abilities.¹⁵ MnDOT must follow a complete streets approach in all stages of planning, scoping, design, construction, operation and maintenance activities. Complete streets consider the needs of pedestrians, bicyclists, transit users, motorists, commercial vehicles and emergency vehicles moving along and across roads, intersections and crossings. The approach is sensitive to local context and recognizes that needs vary across urban, suburban and rural settings.

MnSHIP sets investment targets for multimodal project components necessary to achieve complete streets goals. The MnSHIP investment direction increased investment for pedestrian and bicycle infrastructure on state highways which should allow for more multimodal improvements on MnDOT projects. It also increased investment for safety improvements to address the safety of all highway users, including pedestrians and bicyclists.

TRIBAL CONSULTATION

MnDOT seeks to foster and facilitate positive government-to-government relations between MnDOT and all federally recognized Minnesota Tribal Nations. MnDOT requires that the principles of the *Minnesota Tribal Nations* policy are considered at all phases of planning and project development in the establishment, development, operation and maintenance of a comprehensive, integrated and connected multimodal transportation system.¹⁶

To be consistent with Minnesota Executive Order 19-24, MnDOT concentrates on three focus areas:

- Transportation System
- Employee Training and Outreach
- Additional Resources

Within the Transportation System focus area, planning is identified. Specifically, MnDOT must employ early, continuous and meaningful involvement of the public and the full range of affected stakeholders throughout its planning processes and must reach out to populations who may be under-represented or under-served by the transportation system. Additionally, Tribal Nation interests will be addressed using transparent, effective and project appropriate public involvement processes. Tribal engagement occurs through consultation, collaboration and coordination.

¹⁵ Minnesota Department of Transportation, "Complete Streets Policy OP004," Office of Transportation System Management, revised May 20, 2016, <http://www.dot.state.mn.us/policy/operations/op004.html>.

¹⁶ Minnesota Department of Transportation, "Minnesota Tribal Nations Government-to-Government Relationship with MnDOT AD005," Office of Government Affairs, effective February 25, 2014, <http://www.dot.state.mn.us/policy/admin/ad005.html#:~:text=Policy%20statement,-The%20Minnesota%20Department&text=MnDOT%20requires%20that%20the%20principles,and%20connected%20multimodal%20transportation%20system>.

- **Consultation** is government-to-government communication in a timely manner by all parties about a proposed or contemplated decision to secure meaningful tribal input and involvement in the decision-making process and to advise the tribe of the final decision and provide an explanation.
- **Collaboration** is when all parties involved in carrying out planning and project development work together in a timely manner to achieve a common goal or objective.
- **Coordination** is when each party shares and compares in a timely manner its transportation plans, programs, projects and schedules with the related plans, programs, projects and schedules of the other parties; and adjusts its plans, programs, projects and schedules to optimize the efficient and consistent delivery of transportation projects and services.

For this update of the MnSHIP, MnDOT engaged with Tribal Nations through a government-to-government process. Tribal Nations were asked to provide tribal transportation plans as part of the planning review process. To ensure Tribal Nations interests are included in these high-level decisions, Minnesota Indian Affairs Council helped to designate representatives to serve on plan advisory committees (see [Appendix A – Acknowledgments](#)). Three tribes participated in staff-to-staff coordination meetings: Bois Forte, Prairie Island Indian Community and White Earth Nation. Additionally, staff presented to the Advisory Council for Tribal Transportation a key decision points: project start, public launch, draft investment direction development and public comment period. More details about coordination and consultation with Tribal Nations can be found in [Appendix B – Engagement Summary](#).