



## **MDOT STATE LONG-RANGE TRANSPORTATION PLAN**

# **MM2045 Federal Compliance Matrices**

Final – November 5, 2021





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# 1. Introduction

Michigan’s State Long-Range Transportation Plan (MM2045) is an essential element of Michigan’s transportation planning and program development process. A state long-range transportation plan (SLRTP) defines the long-term direction for the future of a state’s transportation network for all users. MM2045 provides that direction for Michigan with an aspirational multimodal vision, comprehensive goals/objectives, and actionable strategies to achieve that vision.

Federal legislation requires that Michigan create and regularly update a SLRTP, a state rail plan, and a state freight plan. The Michigan Department of Transportation (MDOT) has fully integrated these plans, and more, into one multimodal effort (see Figure 1). MM2045 is the first SLRTP in the country to integrate all current federal requirements for the national planning factors, SLRTP, state freight plan, and state rail plan into a unified document to move all modes of transportation towards a shared vision. In addition, Michigan also developed its first statewide active transportation plan and a statewide transit strategy as part of this effort.

**Figure 1. MM2045 Plan Integration**



Table 1 through Table 4 describe where each national planning factor, SLRTP requirement, state freight plan requirement, and state rail plan requirement (by typical rail plan chapter) can be found in the MM2045 family of documents, demonstrating compliance with all federal requirements.

**Table 1. National Planning Factors Compliance Matrix**

<b>Required National Planning Factors for State Long-Range Transportation Plans (23 CFR §450.206)</b>	<b>MM2045 CHAPTER</b>
(1) Support the economic vitality of the United States, the States, metropolitan areas, and nonmetropolitan areas, especially by enabling global competitiveness, productivity, and efficiency	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios Chapter 6: Mobility and Accessibility Chapter 9: Network and System Preservation Chapter 10: Network Capacity/Right-sizing Chapter 12: Network Management and Operations Chapter 13: Network Accessibility and Connectivity
(2) Increase the safety of the transportation system for motorized and non-motorized users	Chapter 6: Mobility and Accessibility Chapter 11: Transportation Safety and Security Chapter 13: Network Accessibility and Connectivity
(3) Increase the security of the transportation system for motorized and non-motorized users	Chapter 11: Transportation Safety and Security Chapter 14: Network Resiliency
(4) Increase accessibility and mobility of people and freight	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios Chapter 6: Mobility and Accessibility Chapter 13: Network Accessibility and Connectivity
(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	Chapter 5: Partnerships Chapter 7: Community, Environment, and Health Chapter 13: Network Accessibility and Connectivity
(6) Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios Chapter 5: Partnerships Chapter 6: Mobility and Accessibility Chapter 13: Network Accessibility and Connectivity
(7) Promote efficient system management and operations	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios Chapter 12: Network Management and Operations
(8) Emphasize the preservation of the existing transportation system;	Chapter 9: Network and System Preservation
(9) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation	Chapter 7: Community, Environment, and Health Chapter 12: Network Management and Operations Chapter 13: Network Resiliency
(10) Enhance travel and tourism	Chapter 5: Partnerships Chapter 6: Mobility and Accessibility

**Table 2. SLRTP Compliance Matrix**

<b>State Long-Range Transportation Plan Requirements (23 CFR §450.216)</b>	<b>MM2045 Chapter</b>
(a) Develop a plan with a minimum 20-year forecast period at the time of adoption that provides for the development and implementation of the multimodal transportation Network for the State. Consider and include, as applicable, elements and connections between public transportation, non-motorized modes, rail, commercial motor vehicle, waterway, and aviation	All

<p>facilities, particularly with respect to intercity travel.</p>	
<p>(b) Include capital, operations and management strategies, investments, procedures, and other measures to ensure the preservation and most efficient use of the existing transportation Network including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus Networks, including Networks that are privately owned and operated. May consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the State's transportation Network.</p>	<p>Chapter 3: Revenue Forecast          Chapter 6: Mobility and Accessibility          Chapter 7: Community, Environment, and Health          Chapter 9: Network and System Preservation          Chapter 10: Network Capacity/Right-sizing          Chapter 12: Network Management and Operations          Chapter 15: Recommended Strategies</p>
<p>(c) Reference, summarize, or contain any applicable short-range planning studies; strategic planning and/or policy studies; transportation needs studies; management Networks reports; emergency relief and disaster preparedness plans; and any statements of policies, goals, and objectives on issues (e.g., transportation, safety, economic development, social and environmental effects, or energy), as appropriate, that were relevant to the development of the long-range statewide transportation plan.</p>	<p>All</p>
<p>(d) Integrate the priorities, goals, countermeasures, strategies, or projects contained in the HSIP, including the SHSP, required under 23 U.S.C. 148, the Public Transportation Agency Safety Plan required under 49 U.S.C. 5329(d), or an Interim Agency Safety Plan in accordance with 49 CFR part 659, as in effect until completion of the Public Transportation Agency Safety Plan.</p>	<p>Chapter 11: Transportation Safety and Security</p>
<p>(e) Include a security element that incorporates or summarizes the priorities, goals, or projects set forth in other transit safety and security planning and review processes, plans, and programs, as appropriate.</p>	<p>Chapter 11: Transportation Safety and Security</p>
<p>(f) Include:          (1) A description of the performance measures and performance targets used in assessing the performance of the transportation Network in accordance with §450.206(c); and          (2) A Network performance report and subsequent updates evaluating the condition and performance of the transportation Network with respect to the performance targets described in §450.206(c), including progress achieved by the MPO(s) in meeting the performance targets in comparison with Network performance recorded in previous reports</p>	<p>Chapter 8: Multimodal Network Performance          System Performance Report          Strategic Multimodal Corridors Report</p>
<p>(g) Within each metropolitan area of the State, develop the long-range statewide transportation plan in cooperation with the affected MPOs.</p>	<p>Chapter 5: Partnerships          Public and Stakeholder Participation Report</p>
<p>(h) For nonmetropolitan areas, develop the long-range statewide transportation plan in cooperation with affected nonmetropolitan local officials with responsibility for transportation or, if applicable, through RTPOs described in §450.210(d) using the State's cooperative process(es) established under §450.210(b).</p>	<p>Chapter 5: Partnerships          Public and Stakeholder Participation Report</p>

(i) For each area of the State under the jurisdiction of an Indian Tribal government, develop the plan in consultation with the Tribal government and the Secretary of the Interior consistent with §450.210(c).	Chapter 5: Partnerships Public and Stakeholder Participation Report
(j) Develop the plan, as appropriate, in consultation with State, Tribal, and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. This consultation shall involve comparison of transportation plans to State and Tribal conservation plans or maps, if available, and comparison of transportation plans to inventories of natural or historic resources, if available.	Chapter 5: Partnerships Chapter 7: Community, Environment, and Health Chapter 14: Network Resiliency
(k) Discussion of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The State shall develop the discussion 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	Chapter 5: Partnerships Chapter 7: Community, Environment, and Health Chapter 14: Network Resiliency

**Table 3. State Freight Plan Compliance Matrix**

<b>State Freight Plan Requirements (49 USC §70202)</b>	<b>MM2045 Chapter</b>
1. An identification of significant freight system trends, needs, and issues with respect to the State;	Chapter 2: Socioeconomic & Technology Trends, Forecasts & Scenarios Chapter 5: Partnerships Chapter 7: Community, Environment, and Health Chapters 9 through 14
2. A description of the freight policies, strategies, and performance measures that will guide the freight-related transportation investment decisions of the State;	Chapter 4: Vision, Guiding Principles, Goals, and Objectives Chapter 8: Multimodal Network Performance Chapter 15: Recommended Strategies Chapter 17: Freight and Rail Service Investment Plans
3. When applicable, a listing of—  --multimodal critical rural freight facilities and corridors designated within the State under section 70103 of title 49 (National Multimodal Freight Network); --critical rural and urban freight corridors designated within the State under section 167 of title 23 (National Highway Freight Program);	Chapter 17: Freight and Rail Service Investment Plans
4. A description of how the plan will improve the ability of the State to meet the national multimodal freight policy goals described in section 70101(b) of title 49, United States Code and the national highway freight program goals described in section 167 of title 23;	Chapter 4: Vision, Guiding Principles, Goals, and Objectives Chapter 17: Freight and Rail Service Investment Plans



5. A description of how innovative technologies and operational strategies, including freight intelligent transportation systems, that improve the safety and efficiency of the freight movement, were considered;	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios Chapter 11: Transportation Safety and Security Chapter 12: Network Management and Operations
6. In the case of roadways on which travel by heavy vehicles (including mining, agricultural, energy cargo or equipment, and timber vehicles) is projected to substantially deteriorate the condition of the roadways, a description of improvements that may be required to reduce or impede the deterioration;	Chapter 9: Network and System Preservation
7. An inventory of facilities with freight mobility issues, such as bottlenecks, within the State, and for those facilities that are State owned or operated, a description of the strategies the State is employing to address those freight mobility issues;	Chapter 8: Multimodal Network Performance Chapter 17: Freight and Rail Service Investment Plans
8. Consideration of any significant congestion or delay caused by freight movements and any strategies to mitigate that congestion or delay;	Chapter 8: Multimodal Network Performance Chapter 15: Recommended Strategies Chapter 17: Freight and Rail Service Investment Plans
9. A freight investment plan that, subject to 49 U.S.C. 70202(c), includes a list of priority projects and describes how funds made available to carry out 23 U.S.C. 167 would be invested and matched; and	Chapter 3: Revenue Forecast Chapter 17: Freight and Rail Service Investment Plans
10. Consultation with the State Freight Advisory Committee, if applicable.	Chapter 5: Partnerships Public and Stakeholder Participation Report

**Table 4. State Rail Plan Compliance Matrix**

State Rail Plan Chapter	Requirement	MM2045 Chapter	State Rail Plan Supplement Section
Chapter 1	Percentage of Freight Shipped by Rail over 500 Miles		Section 1
Chapter 1	Freight Rail Tonnage by Commodity/Direction		Section 3
Chapter 1	Total Freight Tonnage by Commodity/Direction	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios	
Chapter 1	Intercity Passenger Rail Mode Share		Section 4
Chapter 1	Commuter Rail Mode Share	Not Applicable	Not Applicable
Chapter 1	Passenger Rail Accessibility		Section 1
Chapter 1	Governance/Institutions		Section 2
Chapter 2	STB Railroad Classification	Chapter 8: Multimodal Network Performance	Section 3; Appendix B
Chapter 2	Signal Type		Appendix B
Chapter 2	Clearance and Weight Restrictions	Chapter 10: Network Capacity/Right-sizing	Section 3; Appendix B
Chapter 2	Route Miles: Track Classification		Section 3
Chapter 2	Rail Banked Lines		Section 3
Chapter 2	Passenger Rail Statistics		Section 4

Chapter 2	Passenger Rail Intermodal Facilities	Chapter 8: Multimodal Network Performance	Section 4; Appendix A
Chapter 2	Freight Rail Intermodal Facilities	Chapter 13: Network Accessibility and Connectivity	Section 3; Appendix B
Chapter 2	STRACNET Rail Corridor	Chapter 11: Transportation Safety and Security	Section 3
Chapter 2	Station Inventory and Connectivity	Chapter 17: Freight and Rail Service Investment Plans	Appendix A
Chapter 2	Passenger Rail Performance		Section 4
Chapter 2	Passenger Rail Ridership		Section 4
Chapter 2	Passenger Rail Financials		Section 4
Chapter 2	Public Funding Sources	Chapter 17: Freight and Rail Service Investment Plans	Section 7
Chapter 2	Demographic Trends	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios	
Chapter 2	Economic Trends	Chapter 2: Socioeconomic and Technology Trends, Forecasts, and Scenarios	
Chapter 3	Rail Needs: Freight	Chapter 13: Network Accessibility and Connectivity	Section 5
Chapter 4	Rail Needs: Passenger	Chapter 13: Network Accessibility and Connectivity	Section 6
Chapter 5	Investment Benefits	Chapter 17: Freight and Rail Service Investment Plans	Section 7
Chapter 5	Rail Investments	Chapter 17: Freight and Rail Service Investment Plans	Section 7
Chapter 6	Public and Stakeholder Participation	Public and Stakeholder Participation Report	