

APPENDIX A: FEDERAL METROPOLITAN PLANNING FACTORS

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. MAP-21 is the federal legislation that outlines the requirements for the transportation planning process, including the designation of metropolitan planning organizations (MPOs) to oversee the process in metropolitan areas. MAP-21 introduced a new focus on performance measures and reinforced the eight areas that MPOs and states should consider when developing their long-range transportation plans. The eight MAP-21 planning factors are listed below, along with details about how MARC and *Transportation Outlook 2040* are meeting the goals established under this legislation for MPO transportation planning.

1. *Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.*

The plan's economic vitality policy goal, "Support an innovative, competitive 21st-century economy," addresses this planning factor. The policy framework includes key objectives and strategies for each policy goal. Improving and continuing to market the region's connection to local, national and international markets for goods and services is one of the plan's key economic vitality objectives. The economic vitality strategies focus on ensuring that the transportation system is well maintained and enhancing congestion and traffic-management strategies.

Additionally, relevant plan chapters include discussion of how each element supports the economic vitality goal. Among others, the streets and highways, public transportation, intercity travel, and goods movement chapters identify specific strategies for achieving the economic vitality goal.

2. *Increase the safety of the transportation system for motorized and non-motorized users.*

The plan's safety and security policy goal, "Improve safety and security for all transportation users," addresses this planning factor. The key safety objectives in the policy framework are to decrease the rate of serious injury and fatality crashes, per federal goals, and to decrease the rate of pedestrian- and bicycle-related crashes, also per federal goals. Destination Safe has identified key implementation strategies for priority areas working within the 4 E's (engineering, education, enforcement and emergency response).

Additionally, a specific plan chapter is devoted to safety. The chapter includes relevant strategies identified in the *Kansas City Regional Transportation Safety Blueprint*, such as continuing to support the Destination Safe Coalition, disseminating best practices and monitoring data. Other relevant plan chapters, including streets and highways, public health and active transportation, each address how that particular element supports the safety goal.

3. *Increase the security of the transportation system for motorized and non-motorized users.*

The plan's safety and security policy goal, "Improve safety and security for all transportation users," addresses this planning factor. The key objective is to improve transportation security within the

region. Developing incident-management plans and maintaining partnerships between the two states and regional enforcement entities are key security strategies.

Additionally, a specific plan chapter is devoted to security. This chapter includes references to other regional security planning efforts, such as the Regional Incident Management Plan, Hazardous Materials Plan, and Regional Metropolitan Medical Response Plan. Other relevant plan chapters, including streets and highways, active transportation, and environmental integration, include discussions of how each particular element supports the security goal.

4. *Increase the accessibility and mobility of people and for freight.*

The plan's accessibility policy goal, "Maximize mobility and access to opportunities for all area residents," addresses this planning factor. The key accessibility objectives include improving access to jobs, educational centers, shopping and entertainment; improving connectivity between activity centers and existing transportation resources; and supporting context-sensitive transportation solutions (e.g., integration of land-use, environmental and social considerations into project development). Preserving and expanding transit service, developing regional bicycle/pedestrian plans and networks, and integrating context-sensitive solutions into the region's planning and programming processes are among the key accessibility strategies.

Additionally, several relevant plan chapters include a discussion of how each particular element supports the accessibility goal. The streets and highways, public transportation, active transportation, and environmental integration chapters each identify specific strategies for improving accessibility.

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.*

Several policy goals address this planning factor, including climate change and energy use, environment, place making and public health. Key objectives listed in the policy framework include reducing regional transportation-related greenhouse gas emissions; reducing regional transportation-related energy use derived from fossil fuels; safeguarding and restoring high-value natural resources, and protecting air and water quality. Including climate change and energy considerations in transportation planning and programming processes, reducing vehicle miles travelled, integrating bicycle and pedestrian improvements into roadway and development projects, and implementing a nodes-and-corridors concept are key strategies for this factor.

Additionally, other relevant plan chapters include support the goals noted here. The streets and highways, public transportation, active transportation, land use, environmental integration and transportation management chapters all identify specific strategies to protect the environment, improve quality of life, and promote the integration of land use and transportation planning.

A Federal Highway Administration grant awarded in 2008 allowed MARC to work with stakeholders to develop a Linking Environmental and Transportation Planning Action Plan, which included recommendations for better links among the natural environment, transportation planning, and

land-use planning. Main recommendations from the action plan are included in *Transportation Outlook 2040's* environmental integration chapter.

6. *Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.*

The plan has several goals, objectives and strategies that address this factor. Two key strategies related to this planning factor are requiring transportation investments to consider and include accommodations for all appropriate users, including bicycle, pedestrian and transit users; and working with MARC transportation committees and local stakeholders to create a policy for multimodal design considerations to support MARC's planning and programming processes.

Additionally, the accessibility policy goal includes several applicable objectives and strategies. These strategies address improving access to jobs, educational centers, shopping and entertainment; improving connectivity between activity centers and existing transportation resources; increasing transit service; improving the mobility of the region's aging population with expanded, coordinated and accessible transportation services; and expanding and improving bicycle and pedestrian facilities and networks. The streets and highways, public transportation, active transportation, goods movement and intercity travel chapters also include related strategies.

7. *Promote efficient system management and operation.*

The plan's system performance policy goal, "Manage the system to achieve reliable and efficient performance," addresses this planning factor. The system performance objectives and strategies outlined in the policy framework focus on increasing use of alternate modes of transportation (e.g., bicycle, pedestrian, transit and ridesharing) and using system management techniques to optimize the use of existing roadways.

Additional relevant plan chapters also address system performance. Among others, the streets and highways, public transportation, active transportation, land use integration, environmental integration and transportation management chapters reference specific strategies for efficient system performance.

8. *Emphasize the preservation of the existing transportation system.*

The plan's system condition policy goal, "Ensure transportation system is maintained in good condition," addresses this planning factor. The policy framework objectives related to this factor focus on maintaining in good condition the infrastructure needed for all modes of transportation, as well as intelligent transportation systems. Key strategies include development of investment strategies to ensure maintenance activities are adequately funded and development of a system to track the condition of the regional transportation system.

Additionally, relevant plan chapters include a discussion of how each particular element supports the system condition goal. The streets and highways, public transportation, active transportation, and transportation management chapters all identify specific strategies for improving system condition.

Additional recommendations from 2013 certification review

In addition to the planning factors required by MAP-21, FHWA and FTA provided two recommendations for this update to the Metropolitan Transportation Plan in their 2013 Certification Review of the Kansas City metropolitan planning process. These recommendations and MARC’s responses to them are detailed below.

Recommendation	MARC review/action
<p>Recommendation #1: Metropolitan Transportation Plan</p> <p>During MARC’s next MTP update, the review team recommends that MARC demonstrate the use of a rational planning process by more thoroughly documenting...</p> <ul style="list-style-type: none"> • The analysis of regional transportation needs. • The anticipated impacts of transportation investments over the life of the plan, particularly as they relate to the CMP. • The process used to set priorities and make investment decisions. • The modeling and other analytical methods used to support the plan. <p>The use of visualizations towards these ends is strongly encouraged.</p>	<ul style="list-style-type: none"> • Chapter 3, Performance Measures, reports the most current status of 29 performance measures related to 10 policy goals in <i>Transportation Outlook 2040</i>. A more detailed, historical trend analysis of these performance measures is presented in Appendix F, Performance Measures Report. • Chapters 4–17 each include a Needs Analysis section with qualitative and quantitative assessments of regional transportation needs. • Chapter 4, Streets and Highways, and Chapter 7, Transportation Management, describe and explain the processes used to anticipate impacts of transportation investments advanced in the MTP, particularly as they relate to the CMP. • Appendix C, Project Solicitation and Evaluation, provides a summary of the process used to prioritize and select projects for inclusion in the MTP. • Chapter 4, Streets and Highways, provides a brief overview of travel demand forecasting (TDM) methodology and a detailed summary of TDM results with maps, tables and charts. Appendix B, Land Use and Travel Forecast Methodologies, offers a detailed documentation of modeling and analytical methods used to develop the plan.

Recommendation	MARC review/action
<p><i>Recommendation #2: Metropolitan Transportation Plan</i></p> <p>During MARC’s next MTP update, the review team recommends that MARC make improvements to the financial analysis and the project listings to provide more clarity in the methods for cost and revenue estimation, and provide more specificity in project scope and implementation timeframes.</p>	<ul style="list-style-type: none"> • The detailed project lists in Appendix D include project descriptions provided by sponsors. • The project lists and financial capacity analysis are divided into three time bands in Appendices D and E. The first band covers six years (2015 to 2020) and the second two bands cover 10 years (2021 to 2030 and 2031 to 2040). • The assumptions and methodology used to develop revenue forecasts are clearly explained and documented in Appendix E. • Appendix E includes a simple explanation of the process used to demonstrate financial capacity, followed by detailed tables and charts documenting the financial constraint of roadway and transit projects over the life of the plan.