

employment within a 20-mile geographic area around the corridor. Adding the numbers from all 19 corridors will produce a number higher than the statewide total.

3.4 Broad Policy-Based Corridor Strategies

MDOT will implement the recommendations contained within this transportation plan by developing and advancing a set of strategies, policies, programs, activities, and projects that achieve the preferred vision of *MI Transportation Plan*. The corridor element of this plan and the associated strategies will support the overall planning goals and vision established for the statewide transportation system while addressing and being sensitive to the unique and specific needs and objectives, opportunities, barriers or limitations of the corridor, region, or sub-area.

Specific corridor policy-based recommendations are presented for each National/International and Statewide Corridor of Significance in the *MI Corridors of High Significance Profile Summary – Executive Summary I* and in the *Economic Regions Corridor Summary-Executive Summary II*. The recommended strategies for each corridor address its unique character, performance-based needs, and objectives (as articulated during the public participation processes and “Attitudes and Perceptions of Transportation in Michigan: A Survey of Michigan Adults,” March 2006 conducted for *MI Transportation Plan*). The recommended corridor strategies also consider the opportunities, barriers or limitations within each corridor.

An alphabetical listing of the strategy groups used as the basis for the recommendations has also been included in the *MI Corridors of Highest Significance Profile Summary – Executive Summary I*. The strategy groups selected and presented are consistent with the goals, vision, objectives, and other input from Michigan stakeholders and are applicable to Michigan’s Corridors of Highest Significance. **Appendix D** presents and describes in detail the strategy groups and their respective policies, activities, projects, and programs.

Chapter 4. Performance Measures

This chapter identifies the goal areas and performance measures (PM) that will be used during the implementation phase of *MI Transportation Plan* to evaluate and track the performance of the Corridors of Highest Significance over time. These corridor goals and performance measures are based on, and consistent with, the goals and performance measures used for *MI Transportation Plan*. The measures evaluate the objectives and desired system characteristics which were articulated during the plan development process by the public workshops, the Economic Advisory Group (EAG), MDOT management, and MDOT staff. This evaluation will be one of the first steps of the implementation phase of *MI Transportation Plan*.

System performance measure goals consist of:

- Stewardship;
- Safety and Security;

- System Improvement; and
- Efficient and Effective Operations.

Additional performance measure goals for the Corridors of Highest Significance are:

- Modal Choice including access, system integration, and connectivity; and
- Freight Adequacy.

4.1 Performance Measures

Since Corridors of Highest Significance are, by definition, multi-modal, performance measures account for modal differences as well as evaluate system integration. **Table 4** shows which performance measures will be used to track progress towards achieving the goals of the MI Transportation Plan. The systemwide performance measures as well as the considerations and method of measurement can be found in the *MI Transportation Plan Goals, Objectives, and Performance Measures Report*, prepared as a guiding document for *MI Transportation Plan*.

Table 4: Performance Measures and Criteria

<i>Goal</i>	<i>Performance Measure</i>
Systemwide Performance Measures	
Stewardship	Percent of Bridges in Good/Fair Condition Percent of Pavement in Good/Fair Condition Percent of Runways in Good/Fair Condition Percent of Local Transit Vehicles Eligible for Replacement Percent of System Meeting Acceptable IRI Number of Jobs Supported by MDOT Customer/Stakeholder Satisfaction Rating
Safety and Security	Fatality rates Crash Rates <ul style="list-style-type: none"> • Annual Railroad Crossing Crashes • Annual Transit Crashes • Annual Highway Crashes • Annual Bike/Pedestrian Crashes • Annual Deer Related Incidences • Cost of Crashes Number of Airports with Emergency Service Plans Seatbelt Use
System Improvement	Number of Passenger Terminals Served by Two or More Modes Number of Intermodal Facilities with National Highway System (NHS) Connectors Hours of Delay Percent of System Meeting Acceptable Levels of Service (LOS) Number of Airports with All Weather Access Annual Cost of Delay

	Percent of System Served by Local Transit
Effective and Efficient Operations	Percent of System with Adopted Access Management Plans Percent of System with Adequate Shoulder Width for Non-Motorized Use Hours of Delay Percent of System with Acceptable Level of Service (LOS) Customer Stakeholder Satisfaction Rating
Corridor-specific Performance Measures	
Modal Choice	Number of Modes within Corridor per Mile Average Transfer Time at Intermodal Facility Percent of Population Served by Modes Facility and Station Condition Roadways with Seasonal Load Restrictions
Freight Adequacy	Safety <ul style="list-style-type: none"> • Roadway Crash History Roadway and Bridge Modernization/Design <ul style="list-style-type: none"> • Vertical Clearance • Weight Capacity • Lane Width Intermodal Issues

4.2 Goals, Objectives, and Performance Measure Rationale

The performance measures were determined using the systemwide goals and objectives and a set of selection criteria. The *Goals, Objectives, and Performance Measures Report*, presents the four systemwide goals, their associated objectives, and the 12 selection criteria (a rationale) used to develop the systemwide performance measures. Goals and objectives are the desired outcomes or changes to the transportation system determined through public workshops, Economic Advisory Group (EAG) meetings, and MDOT management direction. The systemwide objectives for each goal are grouped into three categories of Integration, Economic Benefit, and Quality of Life. These objectives apply to all system users and modes. The corridor-specific objectives and their rationale are explained in **Table 5**.

Table 5: Corridor-specific Goals, Objectives, and Rationale

<i>Goal</i>	<i>Objective</i>	<i>Rationale</i>
Modal Choice	Providing choices for user segments	Users can select the mode that provides the best service time, least cost and highest reliability
	Providing connectivity between modes	User segments are not prohibited or deterred from using a mode because of difficulty in transferring
	Connectivity between activity centers / Seamless transition between modes	Users can easily access or move to and between all activity centers within and outside of Michigan Transferring goods or people between rail, air, water, and roadways should take place with the least possible amount of delay and cost so that each segment can minimize the cost of travel
Freight Adequacy	Support for Michigan businesses and industry / freight shippers and haulers	The economic base of Michigan includes manufacturers, agricultures, forest products, and retailers each of who ship and receive goods traveling over Michigan’s transportation system. Businesses and industry should expect a system that is safe and designed and maintained to modern standards. Michigan is one of the leading states for nation and international trade. The nation depends on Michigan’s transportation system.
	Improve economic competitiveness	A safe, well designed system reduces a business or industry’s transportation cost.

4.3 Integrating Performance Measures and Strategies

The findings and evaluations resulting from these measures are the basis for identifying existing and future corridor conditions that may:

- Provide opportunities for economic growth; or
- Identify barriers that may hinder economic development such as missing or deficient links, and restrictions or barriers to movement.

Several key mode-specific and intermodal barriers and opportunities that could be addressed by applying the multi-modal, integrated strategies discussed in the *MI Corridors of Highest Significance Profile Summary – Executive Summary I* include:

Barriers:

- Congestion on all modes;

- Connectivity between modes;
- Unsafe roadways;
- Roadway designs below standard (vehicle clearances, other geometrics);
- Lack of freight rail service/commuter rail service;
- Lack of independent mobility for the elderly;
- Roadway quality; and
- Peninsulas – These create end points rather than through locations along corridors that could serve greater populations and industrial sectors.

Opportunities:

- Air freight growth;
- Emerging health care industry;
- Emerging technology centers and industries (products are not necessarily large volumes of heavy quantities and transportation may be electronic and outside the MDOT systems);
- Promoting access management to reduce congestion and improve safety;
- Sustainable land use to improve acceptance of transit Travel Demand and Transportation System Management alternatives;
- Attracting tourist by providing long-distance bicycle routes;
- Providing trucks safe places to rest; and
- Potential for short-haul rail freight.

Chapter 5. International Border Crossings and Issues

The world’s largest bilateral trade relationship exists between the United States and Canada, with Michigan positioned as a leader in international trade. Goods and people moving across Michigan’s borders significantly impact the economies of Michigan and Ontario, and the economies of the United States, Canada and other nations.

Michigan’s International Border Crossings are vital links for international commerce and are critical to the well-being of the local, state and national economies. Canada’s exports to the US constitute one-third of its GDP and 87 percent of its exports. US trade with Canada averages \$1.2 billion per day, more than US trade with the entire European Union. Over the past 30 years, US/Canada cross-border trade has grown faster than the GDP, at an annual rate of approximately 11 percent.

Two-thirds of the US/Canada trade moves by truck with the remaining trade moving by rail, water, and air. Most of the truck flows crossing the 4,000-mile US/Canadian border use 22