



2003-2007

Five Year

Road & Bridge

Program

Volume V

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Executive Summary

Since 2000, the Michigan Department of Transportation has completed more than 93 percent of the road and bridge preservation projects promised in each edition of the Five Year Road & Bridge Program. We have improved more than 1,100 miles of state roadway -- building nearly 60 miles of passing relief lanes, and upgrading approximately 850 bridges. In addition to the vital preservation work of rebuilding and repairing pavement and bridges in poor condition, MDOT has also focused on protecting taxpayer investments with a Capital Preventive Maintenance (CPM) program that has helped keep good roads and bridges in good condition -- saving money while extending the life of nearly 4,500 roadway miles. Since 2000, MDOT has invested more than \$3.3 billion in our capital and maintenance road and bridge program. The Department's goal, as adopted by the State Transportation Commission, is to have 95 percent of freeways and 85 percent of non-freeways under MDOT's jurisdiction in good condition by 2007.

Focusing on the condition goal has meant noticeable improvements for drivers, businesses, and communities in Michigan. The percentage of all roadway surfaces in good condition has improved from 64 percent in 1996 to 75 percent in 2002. Improvements notwithstanding, the most recent data indicate that the regions of the state with the highest volume of traffic also have the highest percentage of roads in poor condition, with a profound effect on economic strength, quality of life and public perception throughout Michigan. Notably, 27 percent of the poor condition freeway lane miles statewide, are in the Metro Region and 21 percent are in the Bay Region. Viewed more broadly from the statewide perspective, the previous rate of improvement in road quality will not be sufficient to meet the goal of 90 percent of roads and bridges in good condition by 2007.

Current road quality data and road funding projections make it clear that if we are going to meet the Transportation Commission's goal, the balance of resources committed to preservation and capacity improvement projects must emphasize preservation. The Governor's *Preserve First* Initiative, in which MDOT accelerated \$180 million dollars in preservation projects originally scheduled for 2004 and deferred a number of capacity improvement projects scheduled for 2003, is the method of continuing progress toward our goal.

We have revised our bonding strategy, allowing us to implement the *Preserve First* initiative and resume work on 17 capacity improvements projects. This strategy entails the issuance of up to \$460 million in new bonds. It is anticipated that approximately \$260 million in new bonds will be issued in order to fund *Preserve First*. Another \$200 million in new bonds will be issued in order to fund the resumption of 17 capacity improvements projects. In July 2001, \$240 million in bonds were issued to be spent on Capacity Improvement and New Road projects.

The 2003-2007 Five Year Road and Bridge Program invests \$400 million in additional *Preserve First* road and bridge preservation projects, as well as, an additional \$104 million in our Safety, Bridge, Enhancement and Noise Walls programs.

MDOT is committed to responsible investment strategies that couple sound asset management principles with extensive customer feedback and collaboration with our partners. These core values support our approach to the following critical elements of this Five Year Program:

Modernization of the Freeway System

The modernization of our aging freeway system is a key goal of the department, and much of *Preserve First* is targeted toward our urban freeways. This includes projects designed to implement current freeway safety standards and, where appropriate, project components such as the lengthening of freeway on-ramps and the use of state-of-the-art materials. Meeting modern standards is an important part of freeway preservation work.

Safety

Safety is an over-riding theme in the management of our road system. MDOT's comprehensive Safety Program has implemented many projects over the past several years to improve safety and reduce crashes on our highways. MDOT routinely replaces signs, signals, lighting, pavement markings and guardrails as a part of system management. In addition, every year, intersections and high-crash locations are redesigned and reconstructed to improve safety. Every project MDOT undertakes is reviewed for safety.

Road Condition

MDOT constantly evaluates pavement condition based on surface condition, ride quality, safety, friction, rutting, base condition, and drainage. MDOT uses a three-tier approach of reconstruction, rehabilitation, and preventive maintenance -- allowing us to address the worst roadways through reconstruction, improve poor highways by rehabilitation, and extend the life of good pavement through preventive maintenance.

We also incorporate an asset management philosophy by developing programs that prioritize projects based on such factors as traffic volume, cost/benefit, ride quality, pavement condition, safety, user savings, maintenance savings, and condition of bridges in a given corridor.

Accountability is critical to our roadway investment strategy, and renewed emphasis is being placed on ensuring the long-term quality of highway construction. Warranties for materials and workmanship are used routinely for many construction contracts. We are also moving forward in developing a strategy for implementing meaningful warranties, ensuring that the investments we make on behalf of Michigan taxpayers are as responsible as possible, and provide the highest quality service to the traveling public. At the end of 2003, eighty-eight percent (88%) of Michigan freeway vehicle miles of travel (VMT) will be on good pavement.

Bridges

The Governor's *Preserve First* initiative will also increase the amount of bridge preservation work. MDOT bridge work also is based on an investment strategy that integrates rehabilitation, replacement, Capital Scheduled Maintenance and Capital Preventive Maintenance. More than ever, we are placing emphasis on scheduled and preventive maintenance.

Computer technology allows MDOT to predict trends in future bridge network conditions based on existing conditions, average deterioration rates, and investment strategies. By rehabilitating bridges in major corridors in conjunction with road work, we assure our customers that we are providing maximum service with minimal inconvenience.

Capacity Improvements

Over the past two decades, vehicle travel on Michigan's trunkline roads and bridges has increased significantly. In response, the Department has initiated projects to ensure the mobility of people and goods in key corridors. These projects include the rehabilitation and widening of urban area freeways, infrastructure improvements at our international borders, interchange improvements to ensure access to our freeway system in areas with increasing population and economic growth, and finally, improvements to trunklines that accommodate recreational traffic to the vast resources of northern Michigan and Upper Peninsula.

The need to provide additional funding for road and bridge preservation will affect progress on our capacity improvement projects as some of our projects that increase capacity are being deferred to a future five year program. However, the need for these projects remain strong and project activities such as environmental clearance, design and right-of-way acquisition for the majority of these projects will continue, if currently underway.

This decision will help protect our ability to implement these vital projects when we are confident we can meet and sustain our system condition goal and when funding becomes available.

Border Crossings

Michigan's international border crossings are among the busiest and most important in the nation. The Ambassador Bridge in Detroit is the busiest commercial border crossing in North America, and the Blue Water Bridge in Port Huron is the third busiest. The Detroit-Windsor Tunnel carries the most passengers of any crossing on the U.S./Canada border. A feasibility study of a new international crossing between Southeast Michigan and Ontario is currently under way.

To protect the competitive advantage of Michigan businesses and industries, and the mobility of Michigan residents, MDOT has prepared a comprehensive border crossing strategy.

We have focused on reducing delays at the borders by improving the infrastructure and using the latest technology – helping to protect our economic strength and make our borders safer.

Intelligent Transportation Systems (ITS)

Nationally, MDOT has long been at the forefront in planning, developing, and deploying innovative ITS technology to meet transportation and safety challenges. ITS includes the use of computers, telecommunications, and other advanced technology to reduce traffic congestion, improve safety, expedite travel, and enhance security.

Public Involvement/Outreach

As a result of the intense interest in the development of this volume of the Five Year Road & Bridge Program, the preliminary draft of the 2003-2007 program was posted on MDOT's web site on June 2, 2003, for a thirty-day public comment period. MDOT also initiated statewide listening sessions to receive feedback from our customers and stakeholders throughout the state regarding this program. There were eleven public listening sessions conducted during a two-week period from June 11 through June 19, 2003. Each of the listening sessions were held at our MDOT Region offices throughout the state. One session was held in each region with the exception of the Metro Region which hosted four meetings and serves Wayne, Oakland, Macomb, and St. Clair counties, and our University Region which held two meetings. Nearly 300 concerned citizens and stakeholders including county road commissioners, city and village officials, metropolitan planning organizations, many area chambers of commerce, private industry and special interest groups attended these sessions statewide. MDOT also received over 100 written responses via e-mail, faxes, letters and forms turned in at the meetings. Verbal comments were also noted and documented in summary form.

Approximately half of those commenting in the listening sessions favored the Governor's *Preserve First Initiative*. Freeway and Bridge projects were frequently mentioned. While the listening sessions focused mainly on our roads and bridge program, other comments related to safety, strengthening the state's economy, intermodalism and land use coordination were also discussed.

In an effort to continue the valuable input regarding our transportation system from stakeholders and concerned citizens, MDOT is planning to host a Transportation Summit in December 2003. Transportation industry partners, citizens, members of the legislature, academia and the federal government will be invited to help MDOT create a vision and a set of action plans for the future of transportation in Michigan. The focus of the Transportation Summit will be to determine our collective vision for transportation in our state that will address important issues like the economy, protecting our environment and improving the quality of life for our citizens.

Environmental Stewardship

MDOT works closely with state and federal environmental agencies to ensure that our projects are environmentally sound and cause a minimum of disruption to existing ecosystems.

In the area of wetland mitigation, any impacts our work might have on wetlands is offset with the creation of additional wetland areas.

The 2003 – 2007 Five Year Road and Bridge Program is estimated to impact approximately 100 acres of wetlands. We will mitigate at a rate greater than one-for-one in the replacement of these valuable resources.

In addition, our proactive pre-mitigation program provides the basis for ongoing mitigation opportunities that are implemented as they become available rather than at the last minute. This not only saves money, but also brings potential wetland sites on-line earlier than ever before. MDOT policies typically result in an environmental improvement for many areas where we work. Almost \$5 million dollars have been used in the construction of 126 total acres of wetlands, including 63 wetland acres for use on future projects.

Supporting Programs

MDOT recognizes that the road system isn't just about lanes for cars and trucks. That's why two important components in our strategy are non-motorized transportation and the Car Pool Parking Lot Program. We will continue to work with communities to identify appropriate locations where non-motorized paths will enhance pedestrian and bicycle mobility and safety. In order to encourage and facilitate ride-sharing, MDOT will promote the environmental benefits of such programs and provide safe and convenient parking lots for this activity.

Fiscal Responsibility

To make our partnerships even stronger and more accountable to taxpayers, we've changed the way we do business.

We have decentralized our department -- moving closer to the communities and customers we serve through Transportation Service Centers (TSCs). We've also streamlined processes to improve efficiency and increase our level of customer service.

MDOT has achieved further efficiencies with reduced staff by streamlining operations, and cutting back on discretionary spending. As a consequence we now oversee a road and bridge program three times larger than that of the early 1990s, with a staff that is half the size.

Our award-winning commitment to new technology and innovation not only makes it possible to combine long-term program goals with current condition data, it allows us to more effectively balance the mix of fixes and investments in this Five Year Road and Bridge Plan. Our funding assumptions for expected revenue over the next five years is

explained on page 28 and further indicates our need to continue to be fiscally responsible as we strive to achieve our goals for improving our roads and bridges. Through an unwavering commitment to leveraging best-technology practices, we are constantly discovering new ways to protect our transportation investment and save taxpayer dollars.

Final Note

In Michigan, our roads are the backbone of our mobility and the heart of our economy. It has been estimated that for every \$100,000 spent on highway construction, one job in the construction sector is created and one job in retail trade, services, manufacturing, and supplier industries is created. We estimate that a total of approximately 99,000 jobs will be created with the implementation of the 2003-2007 Five Year Road and Bridge Program (approximately 49,500 jobs in the construction sector and 49,500 jobs in the retail trade, services, manufacturing, and supplier industries sector).

Efficient and effective systems of mobility create economic strength. Every penny spent improving the roads measurably benefits the population as a whole, and wise transportation investments add value for citizens, communities and businesses.

