



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

KIRK T. STEUDLE
DIRECTOR

February 26, 2010

The Honorable Bill Hardiman, Chair
Senate Appropriations Subcommittee
on Transportation
Michigan State Senate
P.O. Box 30036
Lansing, Michigan 48909-7536

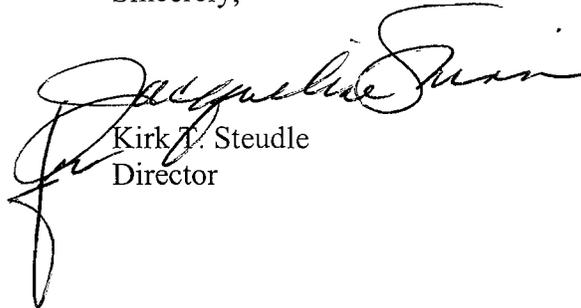
The Honorable Lee Gonzales, Chair
House Appropriations Subcommittee
on Transportation
Michigan House of Representatives
P.O. Box 30014
Lansing, Michigan 48909-7514

Dear Senator Hardiman and Representative Gonzales:

In accordance with Section 264 of Public Act 116 of 2009, enclosed is the Michigan Department of Transportation's report on the progress made toward increased efficiencies in our department programs.

If you have questions, please contact me or Myron Frierson, Bureau Director, Finance and Administration, at (517) 373-2117.

Sincerely,



Kirk T. Steudle
Director

Enclosure

cc: Senate and House Appropriations
Subcommittees on Transportation
B. Emerson, State Budget Director
D. Zinn, Senate Fiscal Agency
B. Hamilton, House Fiscal Agency

1. Weigh-In-Motion (WIM) - Wireless Sensors

Using existing WIM locations, we identify grossly overweight commercial vehicles. This enforcement will help to protect MDOT infrastructure (i.e., pavement/bridge conditions) by deterring overweight commercial vehicles. The WIM sites also serve Permanent Traffic Recorder (PTR) locations that are fundamental to measuring and analyzing traffic counts on MDOT roadways. (One low-traffic WIM wireless site generated 42 citations, resulting in \$83,352 in fines and identifying 633,600 pounds. There are 12 sites.)

2. PAVEMAPP and Road Quality Forecasting System (RQFS)

Processes and analyzes pavement condition observations and forecasts future pavement conditions under varying funding levels and pavement maintenance strategies. This software increases the efficiency of MDOT (by lowering costs and speeding results) and the effectiveness of the department by improving the condition forecasts themselves.

3. Continuously Operating Reference Stations (CORS)

This effort sets primary and secondary project control for the preliminary survey and subsequent construction of projects. This includes setting benchmarks for project evaluation; typically performed by conventional leveling with a level and rod and placing irons and monuments in the ground and compounding accurate X,Y coordinates. Future needs for projects are based on this preliminary survey control.

4. Trunkline Photo Log Images

MDOT implemented a photo log capability in FY 2008. The photo log allows users to “drive” the state trunkline system using their computers. It is actually a series of photographs taken at the same time as MDOT’s Pavement Condition Survey. This capability can be used by MDOT for many purposes, many of which directly relate to “visiting” a location via the photo log instead of taking a field trip and using staff time, fuel, vehicle miles, etc. Uses include environmental screening, intersection reviews, data collection and verification.

5. Transportation Asset Mapping Systems (TRAMS)

TRAMS is an Intranet-based mapping system that works in conjunction with various MDOT data sources to produce maps with or without reports of MDOT data. TRAMS also provide a selection of base-map options, including street, aerial, United States Geological Survey contours, plat and maintenance responsibility areas.

6. Bond Refinancing

In October, 2009, the department issued \$146.6 million in bonds to reduce overall debt service costs and provide near term cash for its capital program. The debt issue provides an additional \$4 million in state funds in FY 2010 to support the capital program. The \$4 million will allow the department to match \$16 million in federal aid.

7. Michigan Bridge Inspection System (MBIS)

Previously paper and client-server software-based bridge inspection process was rewritten for the Web environment. This has enabled MDOT and local agency staff to

execute the inspection process online, greatly reducing internal staff time in handling and reconciling erroneous paper inputs, resulting in better analysis of data.

8. Asset Management

MDOT is challenged with rising costs and limited resources. Asset management is a critical component in ensuring that MDOT is able to meet Michigan's transportation challenges of the future. The Asset Management Division developed a comprehensive training video designed to inform MDOT employees how asset management is employed in all facets of MDOT operations.

The activities of the Performance Excellence Division (PED) have assisted the department in identifying and implementing business process improvements. These improvement projects are identified in various ways. The trigger of the improvement efforts stem from new regulations, executive reviews, or external client/customer complaints. PED professionals utilize project management concepts and employ an adopted methodology to help MDOT program areas implement process improvement activities. PED professionals manage improvement efforts by executing many project management concepts. They include developing a work break down structure for the project, managing and making provisions for resources (people, equipment, facilities, and materials), developing schedules, analyzing and reviewing risks, developing communication plans, and developing project closure (implementation) plans.

PED professionals facilitate project teams through various activities to help others analyze and redesign their processes. There are several activities involved in this process, some of which are: conduct customer/client focus groups, develop high level process maps, develop a cost-time profile, identify problems and key issues, develop root cause analysis, facilitate redesign ideas, develop a new process design, develop a "to-be" cost time profile, develop recommendations, identify barriers/strategies, and finally develop an implementation (high level & detailed) plan.

Examples of process improvement efforts coordinated by PED professionals include:

Special Provisions

Special Provisions are the unique additions to the Standard and Supplemental Specifications which are applicable to an individual project. A process improvement intervention was conducted to modify the uniformity, document a statewide special provision process, and to improve internal consistency and eliminate duplication of effort.

Statewide Scoping

Documented a statewide scoping process for preservation projects and provide recommendations for change in existing procedures as the result of a review of: (a) existing best practices within the department, in particular those practices aimed at identifying impacts, needs and costs prior to programming; (b) emerging programs and initiatives such as Context Sensitive Solutions, Elderly Mobility, SR2S, and ITS; (c) industry input in the area of Constructability; and (d) maintaining traffic requirements.

This process improvement resulted in the development of comprehensive project scoping manual for state-wide use.

Consultant Payment

We improved the process, tools, and methods used to make payments to our Consultant partners by reducing some of the labor intensive tasks, creating documented standards, and developing an improved system with reporting/tracking mechanisms.

The Performance Excellence Division has helped MDOT program areas and its customers realize a reduction of process time, accountability, and uniformity in work activities, thus allowing MDOT the opportunity to answer challenges and build the capabilities needed to reach a higher level of performance.