Challenges and Opportunities

March 27, 2013

Kirk T. Steudle, P.E.
Director

Customer Survey: www.mi.gov/mdot
Governor Snyder’s State of State

January 16, 2013
http://www.michigan.gov/snyder
PERFORMANCE & ACCOUNTABILITY

- Michigan Dashboard
- Infrastructure Dashboard
- MDOT’s Scorecard
- MDOT System Measures
- Asset Management Council
- FHWA Stewardship Agreement
- Good Government in Action

www.michigan.gov/midashboard
www.michigan.gov/mdot
SAVING MONEY

- Major reorganization and innovative cost-saving measures saved $55 million in 2011 and $16 million in 2012
  - Asset management
  - Energy efficiency
  - Performance measures
  - Construction warranties
  - Innovative contracts
  - Innovative finance
  - New technologies
  - Partnerships
NEW INITIATIVES

- E-Construction Pilot Contracts using Technology
  - 3D Modeling allows contractors to use GPS for machine grading
  - Electronic bidding saves time & money, reduces errors, eliminates 10,000 pieces of paper per bid
  - I-96 / Latson Road estimates $100,000 in savings
  - E-Sign technology eliminates 7.4 million sheets of paper & saves $4M a year
- Strongly embraced performance measures as a tool to drive daily business decisions
## Six Year Summary of MDOT Projects

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Original Contract Cost</th>
<th>Final Contract Cost</th>
<th>Percent Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>$777,582,980.29</td>
<td>$810,428,814.94</td>
<td>4.22%</td>
</tr>
<tr>
<td>2008</td>
<td>$967,285,996.11</td>
<td>$983,915,828.12</td>
<td>1.72%</td>
</tr>
<tr>
<td>2009</td>
<td>$726,981,046.84</td>
<td>$750,956,601.62</td>
<td>3.30%</td>
</tr>
<tr>
<td>2010</td>
<td>$615,818,269.64</td>
<td>$615,142,561.83</td>
<td>-0.11%</td>
</tr>
<tr>
<td>2011</td>
<td>$833,072,906.02</td>
<td>$842,999,015.92</td>
<td>1.19%</td>
</tr>
<tr>
<td>2012</td>
<td>$771,130,483.23</td>
<td>$768,530,401.94</td>
<td>-0.34%</td>
</tr>
</tbody>
</table>
ASSET MANAGEMENT

PAVEMENT PRESERVATION IS COST EFFECTIVE

Pavement Condition:
- Excellent
- Good
- Fair
- Poor
- Very Poor

Time (Years):
0 5 10 15 20 25

Typical Pavement Deterioration

- 40% Drop in Quality
- 75% of Life
- 12% of Life

Spending $1 on pavement preservation before this point...

...eliminates or delays spending $6 to $14 on rehabilitation or reconstruction here.
This is our goal...

US-31 bridge in Beulah

I-75 in Saginaw

M-55 bridge over US-131 as it joins the Cadillac bypass

US-41 roundabout in Marquette
This is our reality...

Plywood Under I-375 Bridge

Michigan pothole

Crumbling Five Mile Road bridge over I-275 in Livonia

Congestion at I-96 & US-23
What is the Condition of Michigan’s Roads?
How does Michigan compare?
### REGIONAL COMPARISON

<table>
<thead>
<tr>
<th>STATE</th>
<th>STATE PROFILE (thousands)</th>
<th>STATE INVESTMENT ALLOCATION (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>Registered Vehicles</td>
</tr>
<tr>
<td>MICHIGAN</td>
<td>9,834</td>
<td>7,822</td>
</tr>
<tr>
<td>Illinois</td>
<td>12,831</td>
<td>10,789</td>
</tr>
<tr>
<td>Indiana</td>
<td>6,484</td>
<td>5,698</td>
</tr>
<tr>
<td>Minnesota</td>
<td>5,304</td>
<td>4,848</td>
</tr>
<tr>
<td>Ohio</td>
<td>11,537</td>
<td>9,800</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5,687</td>
<td>4,968</td>
</tr>
</tbody>
</table>
Every other state invests more per person than Michigan.
System Size, Traffic, & Dollars Invested

MI system size & traffic are like OH and IL, but fewer dollars are invested per lane.
State Transportation Investment Allocation (thousands)

- Michigan
- Illinois
- Indiana
- Minnesota
- Ohio
- Wisconsin

- Highway $: Navy
- Transit $: Red
State Comparison of Vehicle Repair Costs

- Michigan: $357
- Illinois: $292
- Indiana: $225
- Minnesota: $250
- Ohio: $315
- Wisconsin: $281

- Annual Cost (billions)
- Annual Driver Cost
MDOT needs to invest an average of $917M more each year to preserve pavement condition at 90% good or fair.
Pay Now or Pay Later

Trunkline Investment Scenarios

- Match All Federal Aid
- Match All Federal Aid + $917M/Year Additional Investment

% Good/Fair vs. Year:
- $3 B (2012)
- $5 B (2015)
- $6 B (2017)
- $8 B (2019)
- $10 B (2022)
- $12 B (2025)

Year:
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- 2025
Customer Service is Important
Please take our customer survey:
www.mi.gov/mdot