Joint Infrastructure Committee

Efficiencies & Innovations at MDOT

February 12, 2013

MDOT

REALITY

- State fuel tax revenue declining since 2004
- Annual revenue down $233M since 2004, while outside costs for materials & supplies increased
- State collects same amount of transportation revenue in 2012 as it did in 1998
- Short-term solutions to match federal funds
- MDOT has undertaken numerous efforts to operate more efficiently and effectively

HOW HAS MDOT RESPONDED?

- $71M in one-time savings by bonding and process improvements
- Major reorganization & innovative cost-saving measures saved $55M in 2011
- Numerous efficiencies in 2012 & 2013 saved $26M
- MDOT has 27% fewer staff now than the last time the fuel tax was raised in 1997 and 15% less than 2010

MDOT'S MISSION

"Providing the highest quality integrated transportation services for economic benefit and improved quality of life."

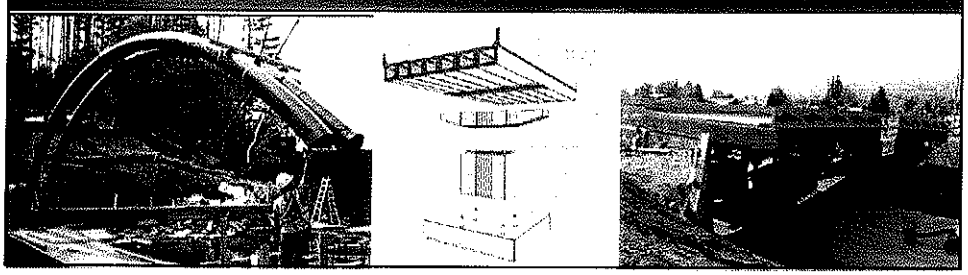
Better, Faster, Cheaper, Safer, Smarter

...BETTER...

- Recognized leader in Asset Management
  - Utilized to achieve 90% good /fair condition goal for bridges and trunkline pavement
- Recycled concrete/asphalt provides savings of more than $1M without sacrificing quality
- Recognized nationally for community-based design solutions; increases cost-effectiveness & customer benefits
- Value Engineering seeks better solutions to deliver projects; resulted in $27M in savings over past 3 years
- Partnerships with industry associations improves the quality of construction products and services
- Warm Mix Asphalt on projects provides durable & longer lasting pavement, reduces costs & emissions

...FASTER...

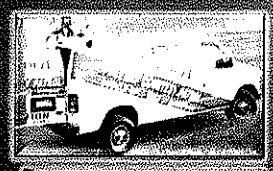
- Using prefabricated bridge elements minimizes traffic disruptions and reduces costs by reducing construction time
- Reduced auditing time on small contracts 70%
- Automated environmental classification to double speed of project classification over the course of implementation
- Saving $8M in staff time annually through process improvements made in recent years
- Bridge in a backpack saved time and money

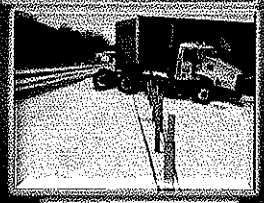


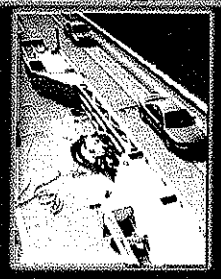
...CHEAPER...

- Saving $4M/yr with electronic or energy-efficient technology
- Simplified accounting processes provide $100,000/yr savings for MDOT, save time & money for contractors
- Winter Maintenance Tow Plow operates more effectively & costs substantially less
- Partnered with Meijer Stores to provide high quality low cost carpool parking lots

...SAFER...



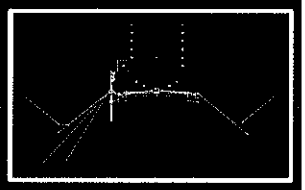




- Technology & incentives to address traffic incidents & improve motorist safety/ mobility
  - Courtesy Patrol is a free service to motorists that improves motorist safety & reduces travel time
  - Installation of Cable Guardrail reduces severity of crashes and is cost-effective safety measure
- Work Zone Tools
  - Mobile barriers improve safety & traffic flow
  - Stopped/Slow Traffic Advisory System reduces rear end crashes & improves traffic flow & safety
- Nationally recognized for SR2S Program
  - Improves safety and provides healthy walking options for over 35,000 students in 81 schools

...SMARTER...

- 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

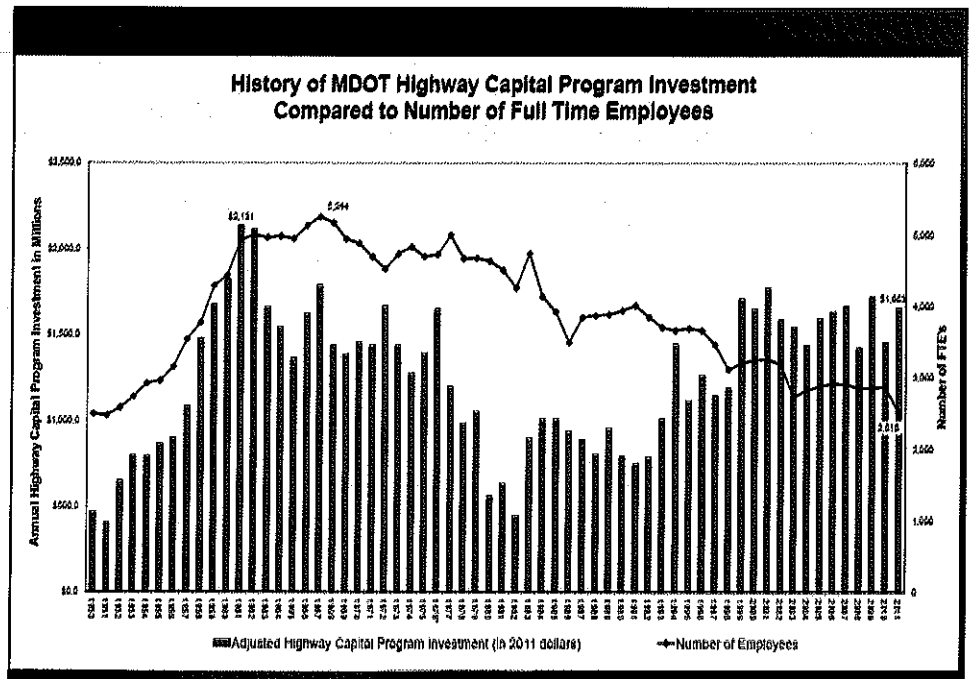


MDOT IS A NATIONAL TRANSPORTATION LEADER

- Asset management
- Capital Preventive Maintenance
- Construction Quality Partnership Training
- Road Quality Forecasting System
- Context-sensitive design solutions
- Performance measurement
- Performance warranties
- Trailway development
- Local Complete Streets policies

CONSTRUCTION PROGRAM MANAGEMENT

Six Year Summary of MDOT Projects			
Calendar Year	Original Contract Cost	Final Contract Cost	Percent Difference
2007	$777,582,980.29	$810,428,814.94	4.22%
2008	$967,285,996.11	$983,915,828.12	1.72%
2009	$726,981,046.84	$750,956,601.62	3.30%
2010	$615,818,269.64	$615,142,561.83	-0.11%
2011	$833,072,906.02	$842,999,015.92	1.19%
2012	$771,130,483.23	$768,530,401.94	-0.34%



TRANSPARENCY & ACCOUNTABILITY

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

Accountability	Prior	Current	Progress
Percentage of road construction projects completed:			
- On time or ahead of schedule	97.2% (2009)	99.6% (2010)	
- Within 5% of budget or less	72.7% (2009)	77.8% (2010)	

Safety	Prior	Current	Progress
Individuals fatally or seriously injured in traffic accidents	6,917 (2010)	6,595 (2011)	
Work zone injuries and fatalities	108 (2010)	106 (2011)	
Monitored beaches with no closures or unsafe advisories	72% (Fy 2011)	76% (Fy 2012)	

www.michigan.gov/midashboard
www.michigan.gov/mdot

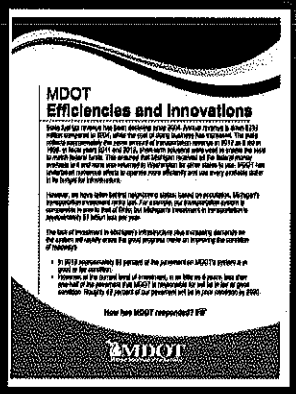
MOVING FORWARD

MDOT's mission remains:

"Providing the highest quality integrated transportation services for economic benefit and improved quality of life."

Better, Faster, Cheaper, Safer, Smarter

Questions?



MDOT

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