

House Appropriations Transportation Subcommittee

FEBRUARY 21, 2017

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21st Century Infrastructure Commission

IMPROVING OUR INFRASTRUCTURE AND STRENGTHENING OUR ECONOMY

• Enhancing Our Quality of Life •

CONNECTED TRAILS

MODERNIZED AND DEPENDABLE ELECTRIC GRID

RELIABILITY OF SOO LOCKS

IMPROVED CONNECTIVITY

HEALTHY AND CLEAN LAKES, STREAMS, AND RIVERS

STRUCTURALLY SOUND BRIDGES

SAFE AND HEALTHY COMMUNITIES

ALTERNATIVE ENERGY SOURCES

SAFE AND CLEAN WATER

MORE AND BETTER-PAYING JOBS FOR MICHIGANDERS

SAFER ROADS AND EMERGING TECHNOLOGIES

VISION STATEMENT:

Michigan will lead the nation in creating 21st Century infrastructure systems that will include innovative technology, sustainable funding solutions, sound economic principles, and a collaborative and integrated asset management and investment approach that will enhance Michiganders' quality of life and build strong communities for the future.

21st Century Infrastructure Commission's Transportation Recommendations

- Road & Bridge Condition – MIC to work with Legislature to identify sufficient & sustainable funding sources
- Bridges & Culverts
 - Design stream crossings for future watershed conditions
 - Use new bridge materials to reduce life-cycle costs
 - Encourage locals to inspect culverts greater than 5' in diameter
 - MDOT to undertake a culvert inspection pilot project in one county to assess costs of culvert inspection
- Seasonal Weight Restrictions
 - MDOT to work with local agencies to improve regional consistency
 - MDOT & locals work together to prioritize development of all-season roads

21st Century Infrastructure Commission's Transportation Recommendations

- Transit, Passenger & Freight Rail
 - Identify alternative sources of transit funding or increase CTF funding
 - Transit agencies should make greater use of technology
 - MDOT to work with private sector to continue to develop the DIFT
 - Update State Rail & Freight Plans
- Soo Locks – Urge the federal government to fund construction of a new large lock
- Port Authority Landside Improvements – need legislation that allows port authorities to form partnerships for the purpose of improving adjacent land infrastructure
- Port Maintenance
 - Encourage Congress to fully fund dredging needs
 - Work with Great Lakes Governors & Premiers Maritime Task Force to identify Great Lakes dredging needs
 - MDOT should work with local agencies to improve “last mile” land infrastructure connecting ports to highway networks

Funding Possibilities

(Total \$4.2 B/Year)

Potential Revenue Sources	Asset Type	Example Scenario	Estimated Annual Revenue Generation Potential
Dedicated sales tax for infrastructure	All infrastructure	1 percent increase	\$1.5 billion
Dedicated statewide property tax	All infrastructure	1 mill increase	\$325 million
Broadband service surcharge	Communications	\$1.54 per month surcharge on 2.7 million broadband service bills	\$50 million
METRO fee	Communications	11 cents per linear foot increase	\$50 million
Fuel tax	Transportation	10 cent per gallon increase	\$500 million
Local revenue generation options	Transportation	Up to \$40 county-wide registration fee or 10 cent county-wide gas tax	\$400-500 million
Mileage-based user fee	Transportation	1 cent per mile based on current average miles driven statewide	\$970 million
Nonmotorized transportation registration fee	Transportation	\$10 per year, for two million bikes, kayaks, canoes	\$20 million
Tolling	Transportation	5 cents per mile on 360 miles of US-23	\$138 million
Vehicle registration fee	Transportation	20 percent increase	\$200 million
Water infrastructure user fee	Water	\$1 per 10,000 gallons based on the state's annual water withdrawal	\$36 million

Innovation Snapshots



Data Access

Mapping traffic volumes now takes far less time thanks to Web-based tools



Winter Road Maintenance

MDOT uses snowplow location and sensor data to clear roads faster using less salt



Sign Maintenance

Mobile data collection and online mapping bolster MDOT's graffiti cleanup strategy



Contracting

Performance-based contracts for highway rest area maintenance save costs by giving contractors more flexibility in how they meet MDOT standards.



Bridge Repair

MDOT employees' floating invention helps the Bay Region make big repairs in small spaces under bridges and culverts



Stringless Paving

Profile lines & grade fine-turning completed in 3D

Measuring Performance

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

Michigan Infrastructure Dashboard


Economic Growth			
	Prior	Current	Progress
Commercial vehicle traffic in billions of miles	5.4	5.9	👍
Rail freight traffic in millions of tons	57.9	54.5	👎
Percentage of households with broadband	n/a	67%	--
Percentage of U.S. trucking trade traffic through Michigan international borders	45.7	47.0	👍

Safety			
	Prior	Current	Progress
Individuals fatally or seriously injured in traffic accidents	5,785	5,828	👎
Work zone injuries and fatalities	92	84	👍
Monitored beaches with no closures or unsafe advisories	75%	82%	👍

Accountability			
	Prior	Current	Progress
Percentage of road construction projects completed:			
On time or ahead of schedule	93.9%	93.6%	=
Within 5% of budget or less	88.1%	83.8%	👎

👍 Performance improving
 = Performance staying about the same
 👎 Performance declining

Revision 2/7/2017



Mobility			
	Prior	Current	Progress
Percentage of traffic incidents cleared in less than 2 hours	94.4%	92.7%	👎
Passenger air service in and out of Michigan in millions of passengers	37.3	38.4	👍
Percentage change in passenger rail ridership	-4.4%	-3.5%	👍
Percentage change in bus ridership	-7.8%	-1.21%	👍

Conditions			
	Prior	Current	Progress
Percentage of structurally deficient bridges	11.7%	11.72%	=
Percentage of roads in good or fair condition in the paved federal aid system	62%	61.1%	👎
Number of dam failures	0	3	👎
Raw sewage discharge in billions of gallons	12.6	5.2	👍

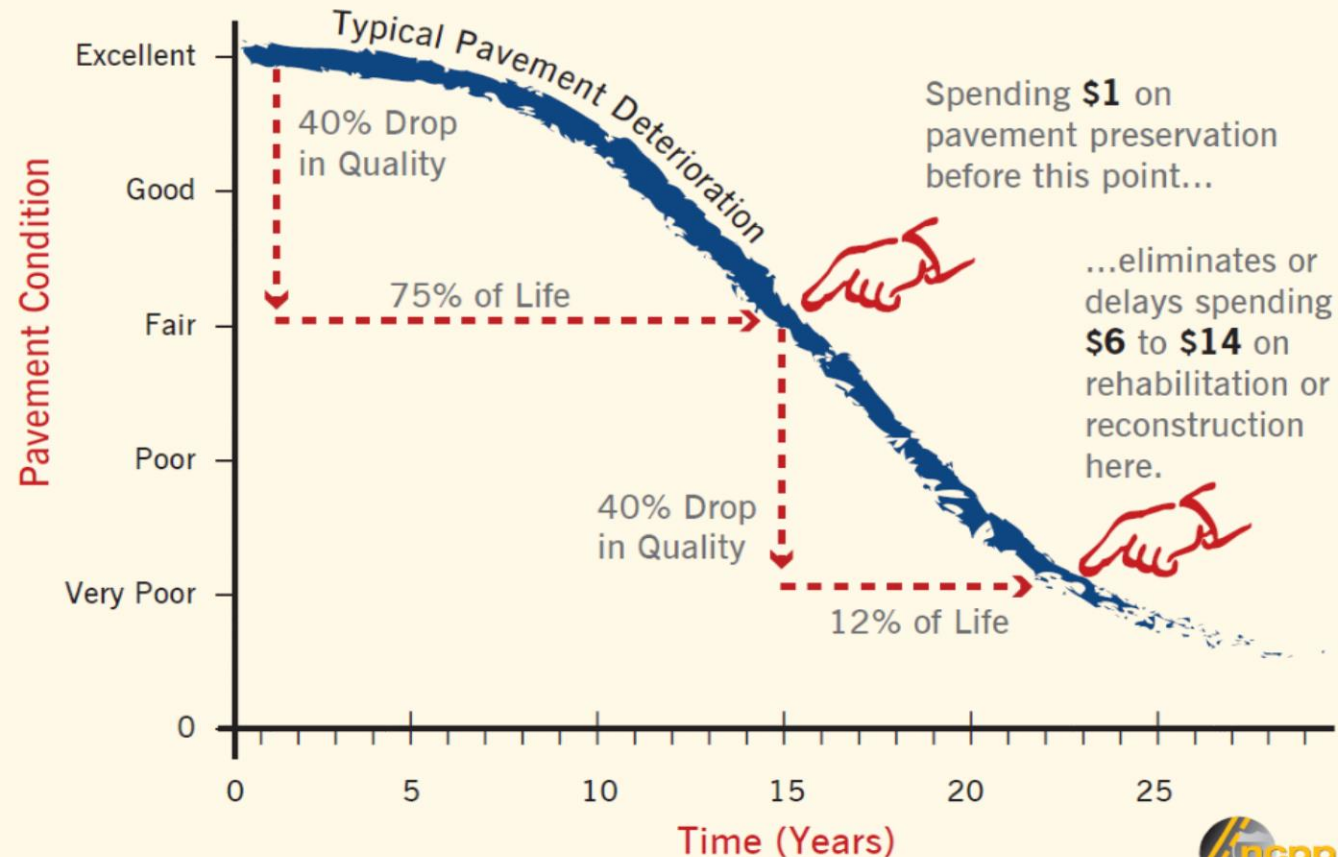
For More Information:

www.michigan.gov/midashboard

www.michigan.gov/mdot

Michigan is a Pioneer in Asset Management

PAVEMENT PRESERVATION IS COST EFFECTIVE



Asset Management Inventory Program Investments

- This Project is for a proposed Lidar data collection effort to be done in conjunction with the Pavement Condition Data Collection Project
- Includes the collection of a 3D Mobile Lidar scan and related 360 degree photography of the State Trunkline network including ramps
- Estimated budget for this project is up to \$3 million per year for five years
- The Request for Proposals process is scheduled to begin in March with final RFP posting estimated fall of 2017

Leaner & Smarter

- Leveraging Partnerships
 - Contractors/Consultants
 - University Research
 - Local Agencies
 - Other State Agencies
 - Other States/Provinces



Michigan is a Transportation Leader

- Nationally recognized
 - Asset management
 - Context-sensitive solutions process
 - Performance measurement
 - Received 37 national awards since 2010



Michigan is a Transportation Innovator

- Automotive mobility innovation
- Performance warranties
- e-Construction
- Accelerated Bridge Construction
- Carbon Fiber Reinforcement
- Diverging Diamond Interchanges
- Innovative Materials
- MiBridge Bridge Inspection/Management system



Local Collaboration

- Context Sensitive Solutions
- Nonmotorized trail network
- Local Complete Streets policies
 - MDOT facilitating community needs
 - CSS responding to community needs
- National Association of City Transportation Officials (NACTO) guidelines



Automotive Mobility Innovation



SENATE BILL No. 998

May 25, 2016. Introduced by Senators HORN, KOWALL, JONES, STAMAS, BRANDENBURG, WARREN, HERTZEL, SCHMIDT, MARLEAU and ANANICH and referred to the Committee on Economic Development and Infrastructural Investment.

A bill to amend 1961 PA 236, entitled "Revised judicature act of 1961," by amending section 2949b (MCL 600.2949b), as added by 2013 PA 251.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1 Sec. 2949b. (1) The manufacturer of a vehicle is not liable
 2 and shall ~~NOT~~ be dismissed from any action for alleged damage
 3 resulting from any of the following unless the defect from which
 4 the damage resulted was present in the vehicle when it was
 5 manufactured:
 6 (a) The conversion or attempted conversion of the vehicle into
 7 an automated motor vehicle by another person.
 8 (b) The installation of equipment in the vehicle by another

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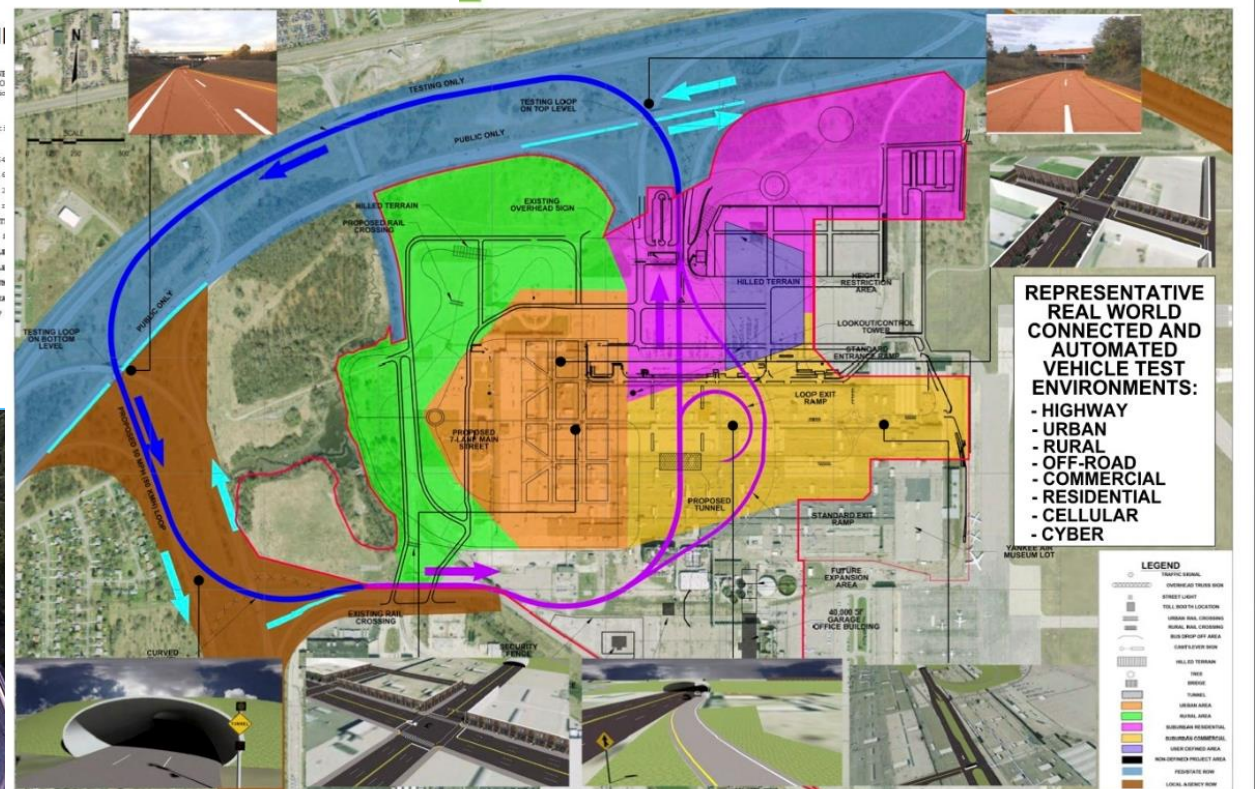
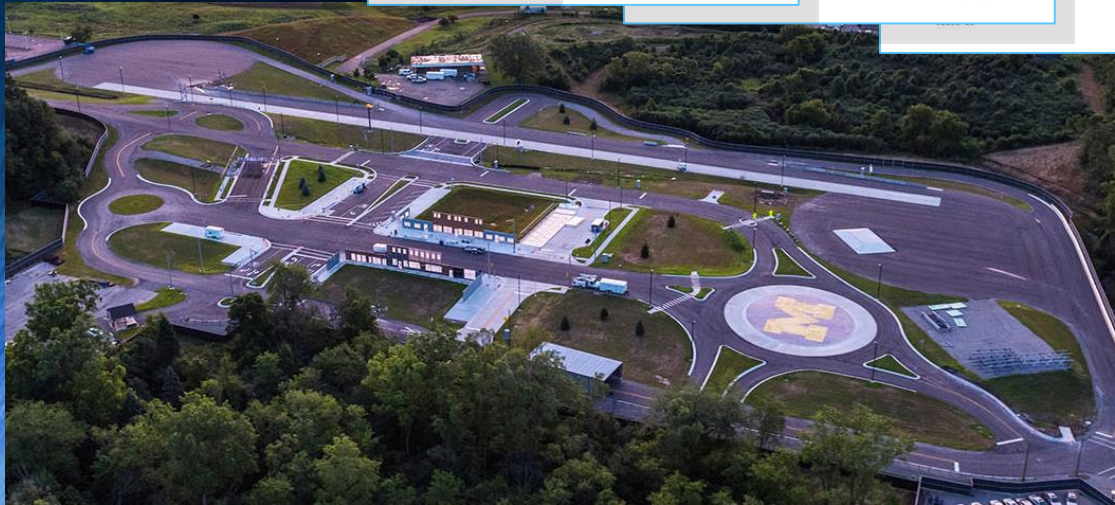
SENATE BILL No. 997

SENATE BILL No. 997

SENATE BILL No. 996

SENATE BILL No. 996

SENATE BILL No. 996



DRAFT SITE LAYOUT - AMERICAN CENTER FOR MOBILITY
 YPSILANTI TWP., MICHIGAN

American Center for Mobility
 CONNECTED. AUTOMATED. VALIDATED.

Mannik GROUP



New Revenue Package and Fixing America's Surface Transportation (FAST) Act



Fixing America's Surface Transportation (FAST) Act

- Five years of federal funding certainty
 - FY 2016-2020
- Largely avoids controversial new initiatives
- Fully paid for
- Continues & improves changes in MAP-21
 - Performance management
 - Freight planning
 - Program simplification
- Some issues remain on the horizon
 - Continues reliance on non-transportation revenue sources
 - Deficit between revenue and funding to approach \$20 billion/year



Federal Performance Measure Penalty Provision

- Requires State DOT's to establish a target level of performance for 17 specific measures
- DOT's are required to establish target level of performance after statewide targets are established
- Reporting requirements for non-attainment
- Include penalty provision for non-attainment

FAST Act Highway Funding to Michigan

(in millions)	MAP-21	FAST Act				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Apportioned Highway Program Funding	\$1,016	\$1,068	\$1,090	\$1,114	\$1,139	\$1,166
Increase from Prior Year	0.0%	5.1%	2.2%	2.2%	2.2%	2.4%

Federal Transit Funding

(in millions)	MAP-21	FAST Act				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Apportioned Transit Program Funding	\$131.6	\$133.7	\$136.4	\$139.4	\$142.6	\$145.7
Increase from Prior Year	0.2%	1.6%	2.1%	2.2%	2.3%	2.2%

Most of Transit funding is formula based

Rail Funding

(in millions)	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Amtrak – NEC		\$450	\$474	\$515	\$557	\$600
Amtrak – National Network		\$1,000	\$1,026	\$1,085	\$1,143	\$1,200
Total Amtrak	\$1,390	\$1,450	\$1,500	\$1,600	\$1,700	\$1,800
Consolidated Rail Grants		\$98	\$190	\$230	\$255	\$330
Good Repair Grants		\$82	\$140	\$175	\$300	\$300
Restoration/ Enhancement Grants		\$20	\$20	\$20	\$20	\$20
Amtrak IG		\$20	\$20	\$21	\$21	\$22
Rail Total	\$1,390	\$1,670	\$1,870	\$2,046	\$2,296	\$2,472

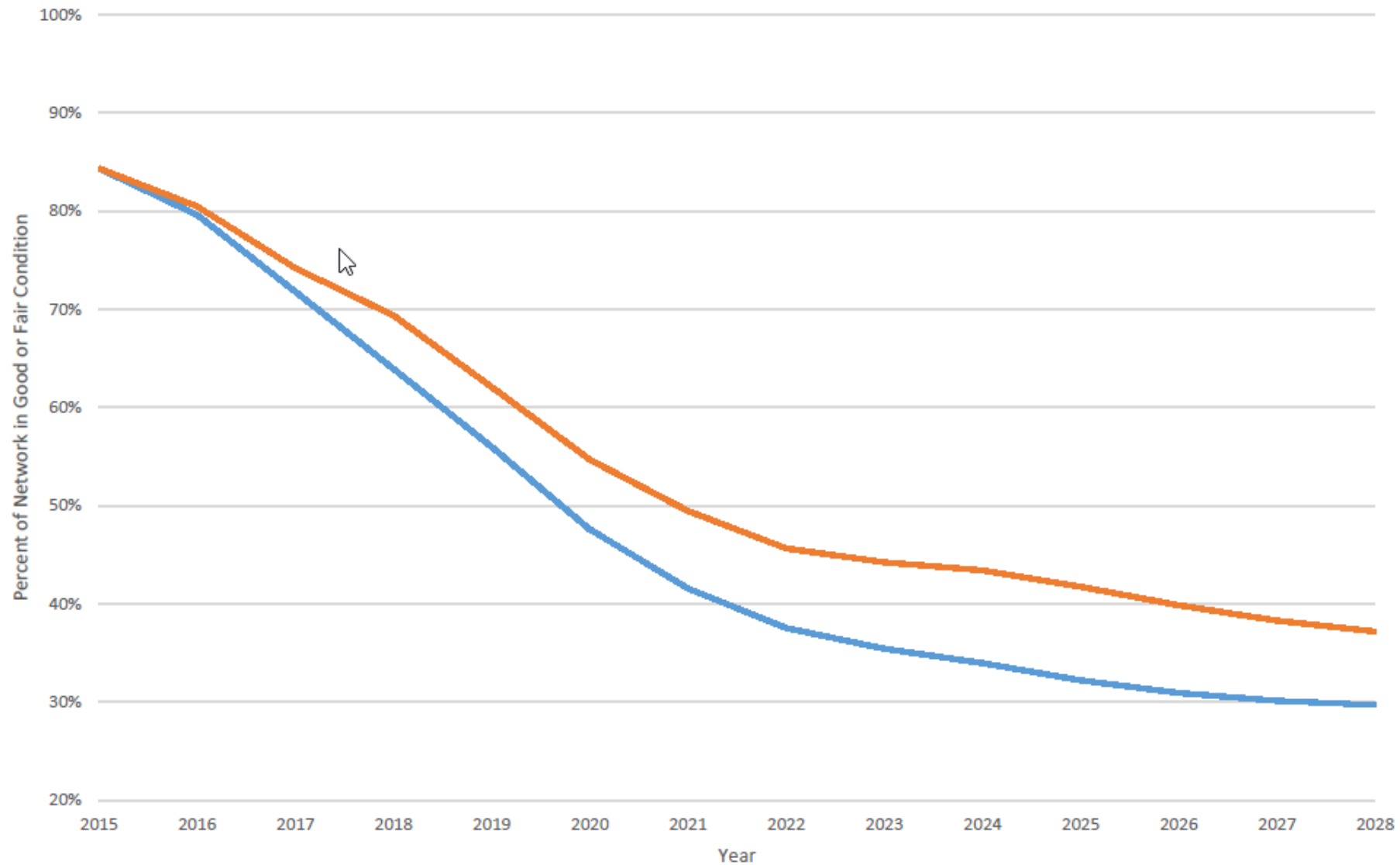
New State Revenue Package

- Beginning in January 2017:
 - \$428 M in additional fuel tax revenues annually
 - Tax on gasoline & diesel fuel rises to 26.3¢ & provides for diesel parity
 - 20% increase in vehicle registration fees totaling \$195 M annually
- General Funds transferred to transportation & distributed through 3-way Act 51 formula for road agencies:
 - 2019: \$150 M
 - 2020: \$325 M
 - 2021 (thereafter): \$600 M
- Beginning in 2022, gas tax will be indexed, rising in proportion to increases in Consumer Price Index, or 5%, whichever is less

Next Steps

- Funding phased in to allow construction industry time to prepare
- Now is the time to focus efforts on asset management process
- Decisions to be made about how to invest CTF funds for rail and transit
- Work with local agencies, MPO's, regional planning agencies and transit providers going forward
- MDOT already at work on the study of long-lived pavement designs

MDOT Trunkline RSL Pavement Condition Forecast at Various Investment Levels Investment Prior to New Revenues vs Current Investment with New Revenues



Source: MDOT, BTP, SSMS, as of 11/3/2016

— Previous Investment — Current Investment

*based on Remaining Service Life

Transportation Bonding

- Constitution allows pledging MTF revenue for bonds – not general obligation of the state
- State Transportation Commission authorizes each bond issue with notice to legislature
- Bonding can only be used for capital projects on the bond project list
- Debt service based restricted transportation revenue is limited to:
 - 50% based on the Constitution and 25% based on Commission Policy

Transportation Bonding

- Outstanding Debt is \$1.578B
 - CTF - \$115M
 - STF – \$846M
 - GARVEE - \$617M
- FY 17 Debt Service is \$238M

FY 2018

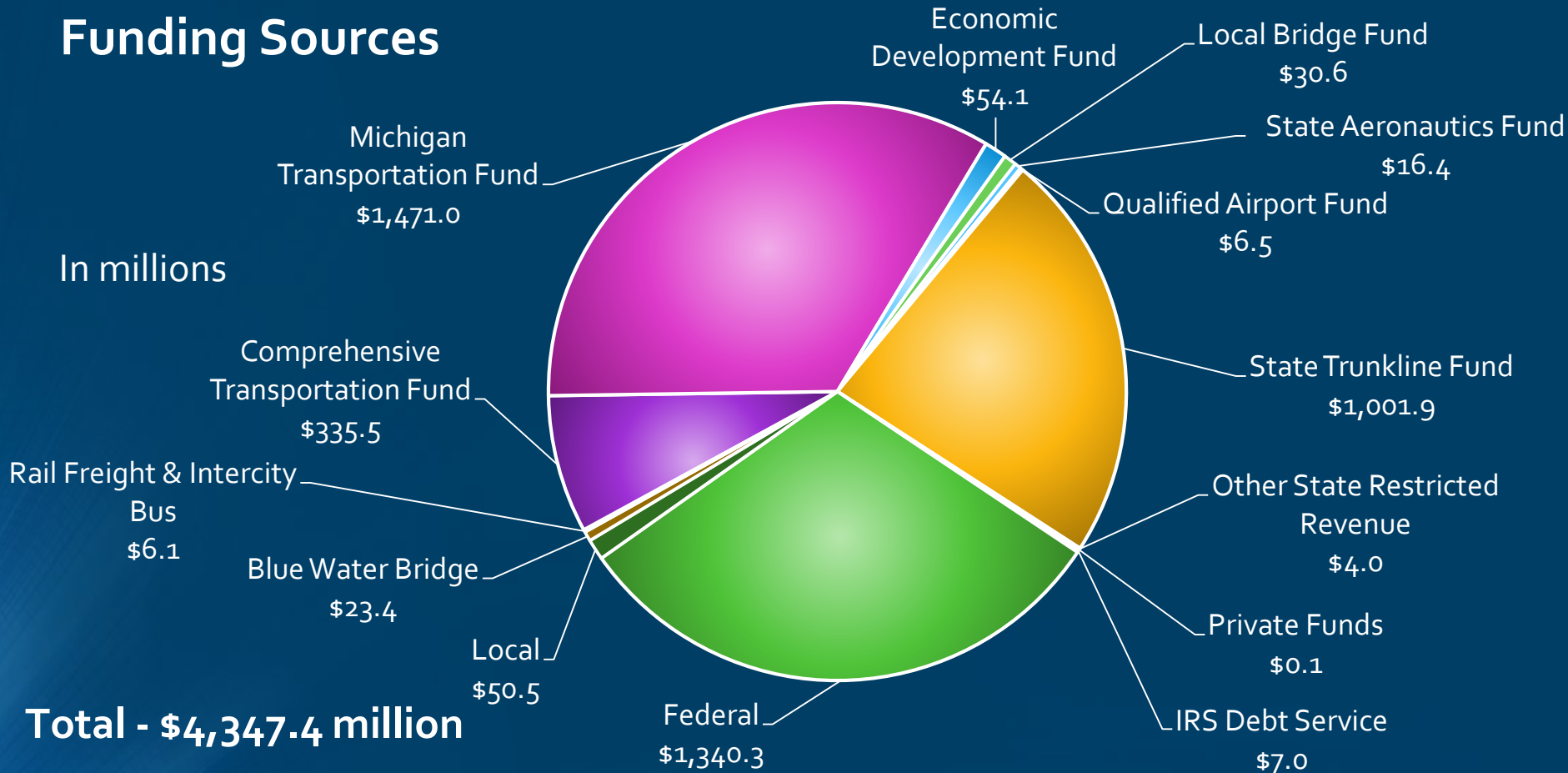
Governor's Recommended Budget



FY 2018 Governor's Recommended Budget

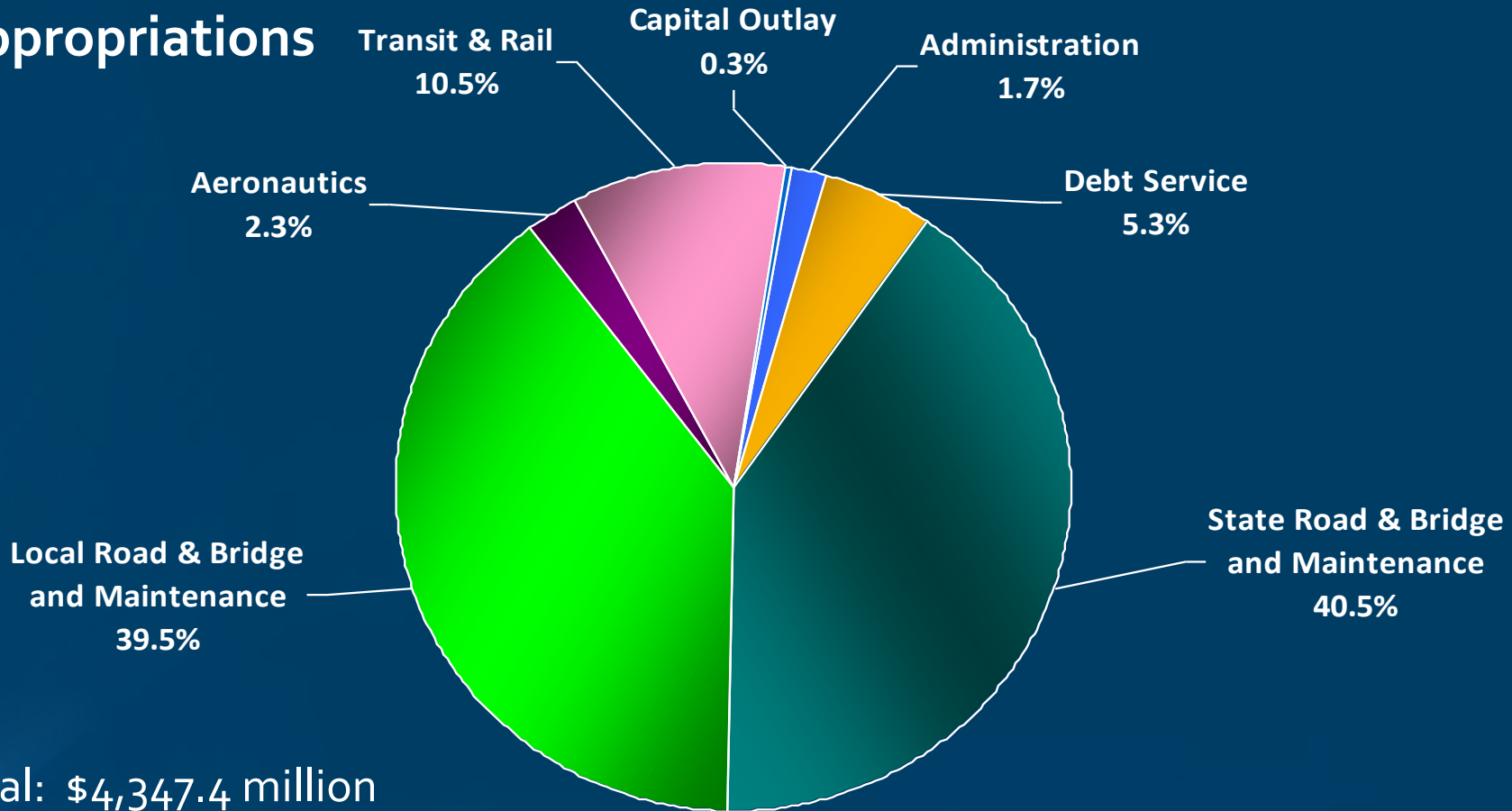
Funding Sources

In millions



FY 2018 Governor's Recommended Budget

Appropriations



Total: \$4,347.4 million

FY 2018 Governor's Recommended Budget

Aeronautics Highlights

- Sales and Use Tax Revenues deposited into the State Aeronautics Fund and Qualified Airport Fund are coming in lower than the projected Treasury estimates.
 - The SAF impact is a reduction of \$1.9M in 2017 and \$1.2M in 2018
 - The QAF impact is a reduction of \$3.5M in 2017 and \$2.3M in 2018
- Aviation Services program is essentially a continuation budget, which was reduced by \$52,700
- The Air Service Program is funded at 2017 levels
- The Airport Improvement Program is reduced by \$3.9 million
- The Detroit Metro Wayne County Airport is reduced by \$2.3 million



FY 2018 Governor's Recommended Budget

Rail Highlights

- Rail operations/Infrastructure Increase (State) - \$15.8 M
- Preserve passenger rail operations (Amtrak) on three Michigan services
- Continue to invest in the build-out of Michigan's accelerated rail program
- Accommodate statewide rail-related economic development opportunities
- Continue to invest in crossing safety through upgrades to motorist warning devices & reconstruction of crossing surfaces



FY 2018 Governor's Recommended Budget

Transit Highlights

- Transit Capital and Intercity Increase (State) - \$6.9 M
 - Preserve existing rural intercity bus services
 - Provide match for anticipated federal capital funds
 - Address infrastructure needs to maintain safety and efficiency
- Continuation funding will preserve local transit services



FY 2018 Governor's Recommended Budget

Road and Bridge Program Highlights

- State and Local Road and Bridge - \$547.3M increase
- Moveable Bridge Program - \$5.1M
- Local Wetland Mitigation Fund - \$2.0M



FY 2018 Governor's Recommended Budget

State Trunkline Highlights

Significant Construction Projects for FY 2018

Region	County	Route	Work Description	Total In millions
Bay	Genesse	I-475	Reconstruction	\$39.2M
Bay	Midland	M-20	Bridge Replacement	\$24.3M
Grand	Kent	US-131	Concrete Reconstruction	\$38.4M
Grand	Kent	I-96	Bridge Replacement	\$12.2M
Metro	Wayne	I-75	Deck Replacement	\$20.0M
Metro	Oakland	M-59	Mill, Resurface and Reconstruct	\$14.9M
Metro	Oakland	I-75	Modernization and Reconstruction	\$83.8M
Metro	Wayne	I-94	Bridge Replacement (4 Locations)	\$58.6M
North	Iosco	US-23	HMA Reconstruction	\$11.4M
Southwest	Berrien	I-196	Mill and Multiple Course HMA Overlay	\$17.6M
University	Jackson	I-94	Road Reconstruction and Rehabilitation Realign and Replace Structures	\$75.3M

Maintenance – FY 2018

- Requested increase allows:
 - Flooding and Drainage Mitigation - \$8.5M
- Funding will support the following critical work activities:
 - Winter Maintenance
 - Non-winter/Deferred Maintenance
 - Asset management approach to required Road & Bridge maintenance



FY 2018 Governor's Recommended Budget

- Includes a new State Revenue Package
- Includes new Federal Reauthorization Revenue - FAST
- Innovative within resources available
- Matches all Federal Aid

