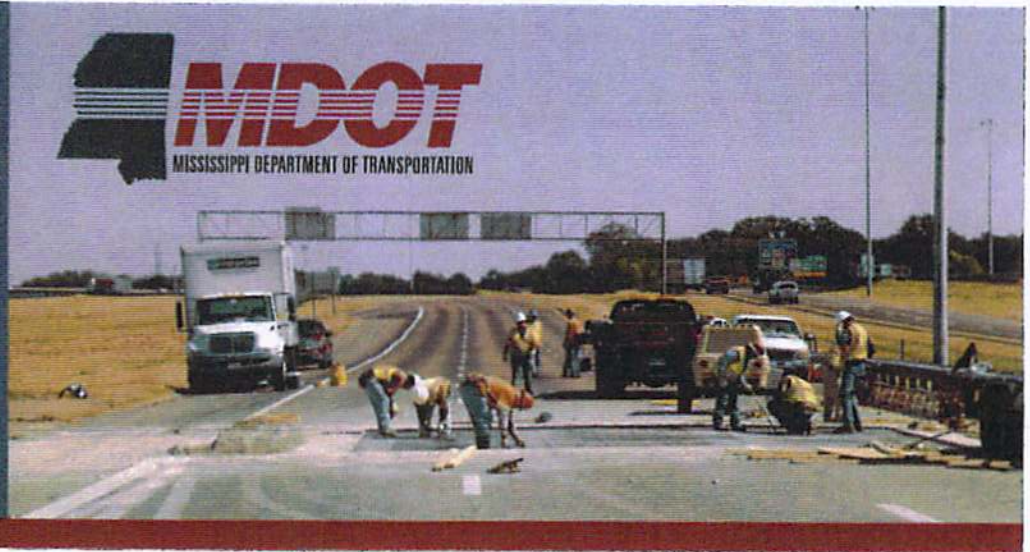


Transportation:

*The Driving Force
of a Strong Economy*



The State of the State's Roads and Bridges

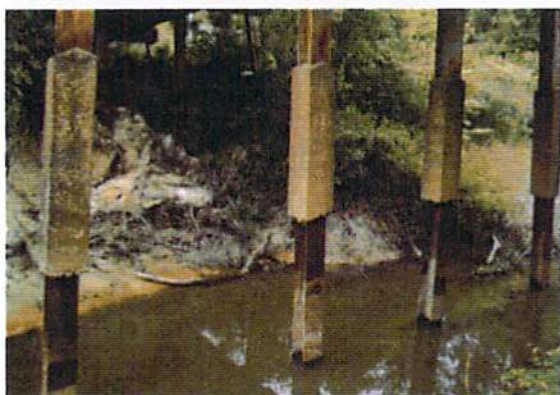
August 25, 2017

State of Roads and Bridges



State Infrastructure Needs

Bridges



Paving



Capacity



State of Roads and Bridges



Update on 2015 Deficient Bridge Bond Program

- In 2015, the Mississippi legislature passed a \$180 million bond bill.
- With these bond funds, MDOT focused exclusively on the posted and structurally deficient bridges and this provided for the replacement of 38 bridges.
- Of that, \$85 million is being spent on SR 6 to fix 13 bridges between Clarksdale and Marks and \$36 million to fix 13 bridges on SR 32 in Tallahatchie County. These bridges were in such disrepair that MDOT law enforcement had to enforce weight limits 24 hours a day to ensure public safety. The posted bridges were having a detrimental impact on the local agriculture industry and commerce.

State of Roads and Bridges



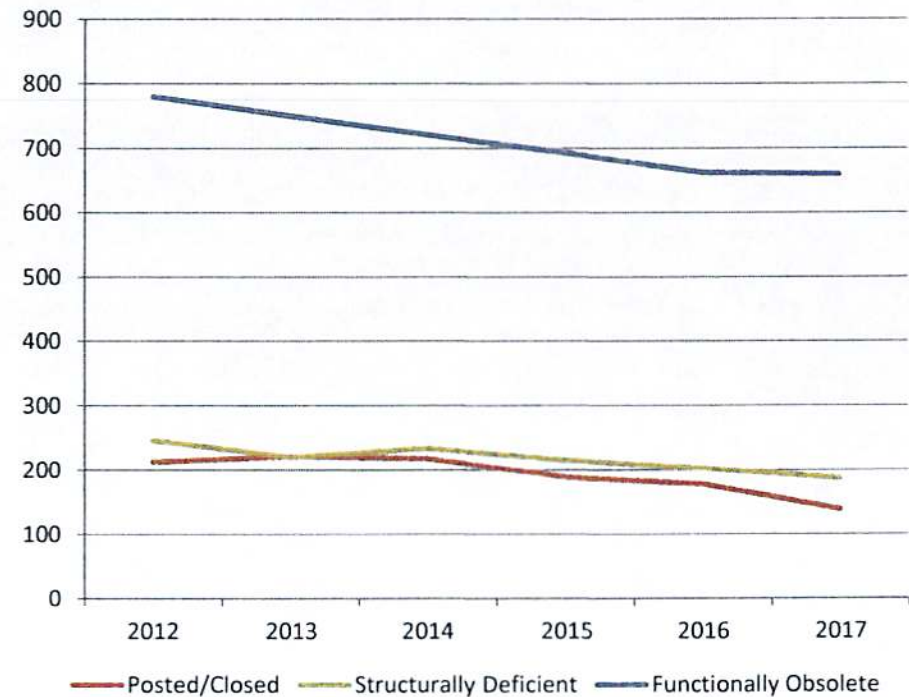
Bridge Condition Data: 2012 to 2017

Year	Posted/ Closed	Structurally Deficient	Functionally Obsolete	Total Deficient
2012	213	246	780	1050
2013	221	220	750	1003
2014	218	234	721	977
2015	189	215	693	922
2016	178	203	663	881
2017	139	187	660	861

A bridge cannot be classified as both Structurally Deficient and Functionally Obsolete. If it meets the criteria for both, it is classified as Structurally Deficient only.

Total Number of Deficient Bridges is the sum of the Posted Bridges, and those SD and FO bridges that are not already included by their posting status.

MDOT is responsible for 5,775 state-owned bridges



State of Roads and Bridges



Bridge Replacement Needs

The design of the bridge is determined by the classification of the roadway.

Bridges located on the National Highway System are designed and constructed to the federal interstate standard to support continuity of the national freight network and safety of the traveling public.

I-20 over US 51/I-55 South
Hinds County
Letting Date: 6/2018
Cost: \$30M
ADT: 33,000

I-55 over Hickahala Creek & Relief
Tate County
Letting Date: 1/2019
Cost: \$50M
ADT: 14,500

Bridges on the 2-Lane rural State Highway System that carry a lower volume of freight and passenger vehicles are designed and constructed to match the existing roadway geometry and safely handle the volume and weights on each route.

SR 487 from Tuscola to SR 35 [3 Bridges]
Leake Co.
Letting Date: 11/1/2018
Cost: \$10M
ADT: 1100

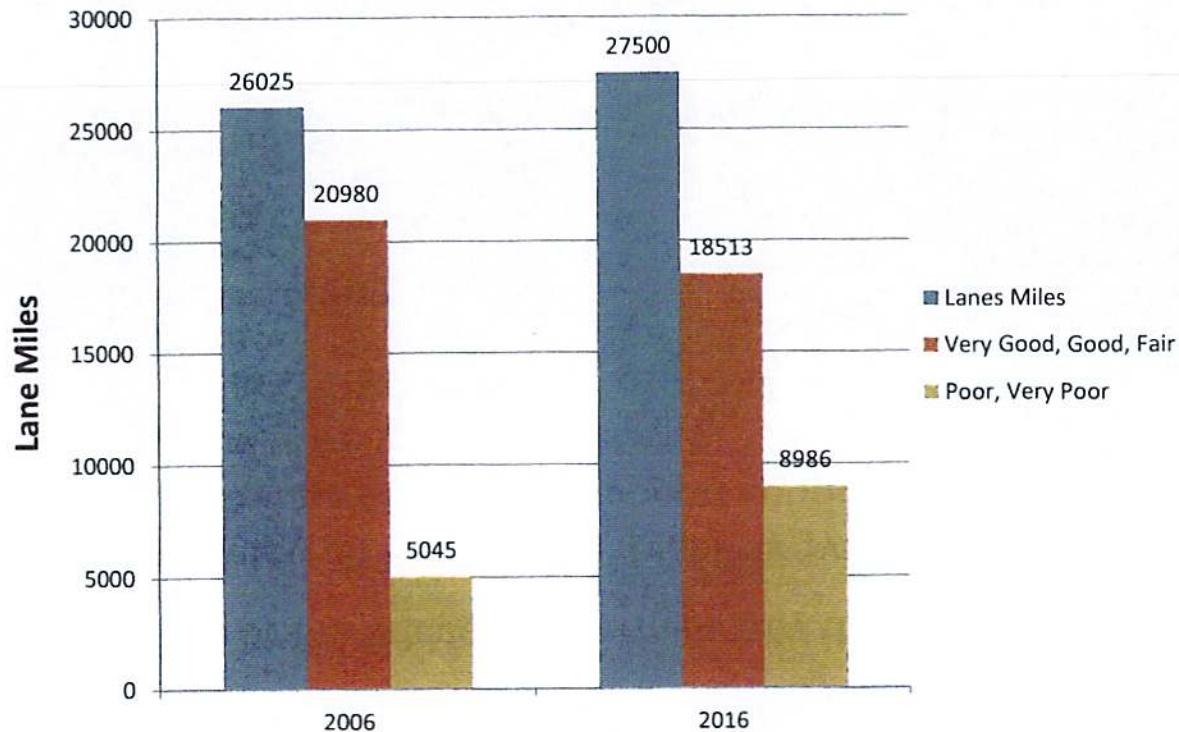
SR571 between LA Line SR 584 [2 Bridges]
Amite Co.
Letting Date: 4/1/2018
Cost: \$1.3M
ADT: 170

State of Roads and Bridges



Trends in Pavement Condition: 2006 to 2016

Lane-Miles and Condition 2006 to 2016



Source of Data - MDOT Pavement Condition Survey 2006 and 2016



Very Good



Fair



Very Poor

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Trends in Pavement Condition: 2006 to 2016

- Lane Miles by the Numbers
 - Fair or Better **Decreased by 2,467 Miles**
 - Poor or Very Poor **Increased by 3,940 Miles**
- Funding
 - **394** additional Poor Lane Miles per Year
 - Approximately **1,600** Lane Miles are repaired a year of the **9,000** Lane Miles currently in Poor Condition

State of Roads and Bridges



Pavement: Present Funding

System	Total Miles	# Miles Needing Repair	Miles Repaired Annually	Current Annual Expenditures
Interstate	2,886	1,798	116	\$80 M
Four-Lane	7,934	2,244	500	\$85 M
Two-Lane	16,428	7,534	1,000	\$65 M
Totals	27,248	11,576	1,616	\$225 M

Ramps and frontage roads are not included in total miles

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Pavement: Cost of Delaying Improvements



Improvements neglected beyond the 10th year will increase the repair costs 6 to 14 times.

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The Effect of Pavement Condition on Safety

*“An empirical Bayes analysis found that compared with **deficient** pavements, good pavement can reduce fatal and injury crashes by **26%**.”*

“Estimation of the Safety Effect of Pavement Condition on Rural, Two-Lane Highways,” Transportation Research Record 2435, Transportation Research Board.

State of Roads and Bridges



System Preservation Focus

- Safety of the traveling public and preserving the State's existing highways and bridges is MDOT's first priority.
- For the past few years, MDOT has shifted all efforts and expenditures towards repairing/replacing deficient bridges and highways in poor condition.
- As a result, many other necessary projects have been put on hold:
 - ❖ I-55 County Line Rd to Old Agency
 - ❖ I-20 from MS River through Vicksburg
 - ❖ I-10 Hancock County Line to Wolf River
 - ❖ Canal Road Connector
 - ❖ I-55 Desoto County Goodman Rd. To Hernando 6 lanes
 - ❖ Philadelphia Bypass, Hwy. 19 4 lane
 - ❖ US 82 Greenville bypass
 - ❖ Hwy 18 4 lane in Brandon
 - ❖ US 278 Amory Bypass
 - ❖ Hwy 57 4 lane from I-10 to Vancleave
 - ❖ Hwy 15 New Albany Bypass
 - ❖ Hwy 15 4 lane from Pontotoc to New Albany
 - ❖ Hwy. 7 in Oxford 4 lane
 - ❖ I-20 east of Brandon 4 lane
 - ❖ US 90 4 lane between Ocean Springs and Gautier
 - ❖ I-10 6 lane from Vancleave to Franklin Creek Rd

State of Roads and Bridges



Additional Funding Needed to Restore and Preserve the State Owned System in a State of Good Repair

The State system supports:
90% of all commerce traffic
60% of statewide traffic

*Goal: Bring state's
infrastructure up to a
satisfactory level over the
next 10 to 15 years and
maintain going forward*

Needs Category	Annual Additional Funding
Pavement	\$225 M
Bridge	\$75 M
Capacity	\$100 M
Total	\$400 M

State of Roads and Bridges



National Bridge Inspection Program

- FHWA is responsible for the National Bridge Inspection Program in accordance with 23 U.S.C. 151
- Minnesota Bridge collapse in 2007 resulted in a strengthening of federal regulations in the National Bridge Inspection Program
- Includes all bridges on public roads
- County and City owned Bridges (10,821) - State Aid
- State owned (5,775) – MDOT
- FHWA performs an annual review on both State Aid's and MDOT's programs

Result of Non-compliance: Sanction

State of Roads and Bridges



Bridge Inspection Program Guidelines

- 23 CFR 650 Subpart C, National Bridge Inspection Standards
 - Inspection, rating, posting, and closing of all public bridges must be done according to NBI standards.
 - Federal regulations dictate applicability, qualifications of personnel, inspection frequency, inspection procedures, and inventory requirements
- AASHTO Manual for Bridge Evaluation
- Inspection of Fracture Critical Bridge Members, Report No. FHWA-IP-86-26
- Bridge Inspector's Reference Manual, Publication No. FHWA NHI 12-049
- AASHTO Movable Bridge Inspection, Evaluation, and Maintenance Manual
- AASHTO Manual for Bridge Element Inspection
- MDOT Bridge Safety Inspection Policy and Procedure Manual

MDOT has 31 bridge inspectors statewide that inspect 3,400 MDOT bridges annually in compliance with the Code of Federal Regulations