

AGENDA
Senate Highways & Transportation Committee Meeting
August 24th & 25th, 2017
Room 216
3:00 pm & 9:00 am

Thursday August 24, 2017

3:00 p.m.

Call to order and Opening Statement

Senator Willie Simmons, Chairman, Highways & Transportation Chairman

3:10 p.m.

Transportation Infrastructure Impact on the Economy

Scott Waller, Executive Director Mississippi Economic Council

3:45 p.m.

Ways & Means and the Impact on the Taxpayers if the Legislature Raised an Additional \$330,000,000.00 Annually for Transportation Infrastructure,

Kathy Waterbury, Department of Revenue

4:30 p.m.

Local Bridges Status

American Council of Engineering Companies

Friday August 25, 2017

9:00 a.m.

MDOT – Melinda McGrath, Executive Director

Status of State Bridges

Posted State Bridges by County

Condition of Highways

Resources needed to repair and maintain State highways and bridges

10:00 a.m.

State Aid – Carey Webb, Executive Director

Funding

Status of Local Bridges

Federal Government Bridge Closing and Inspections

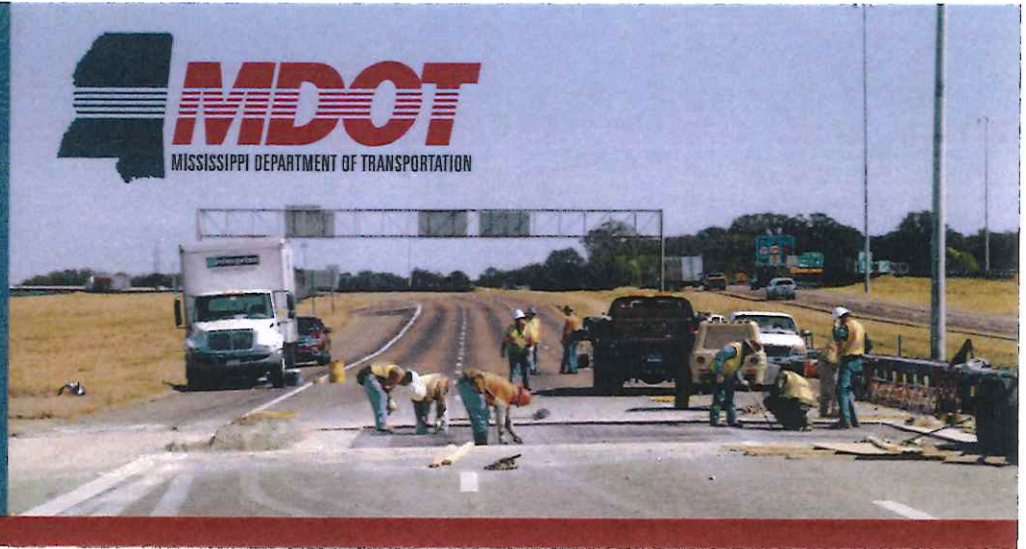
10:30 a.m.

The impact State funding is having on the local Transportation Infrastructure and possible solutions, Mississippi Supervisors Associations

Adjournment

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



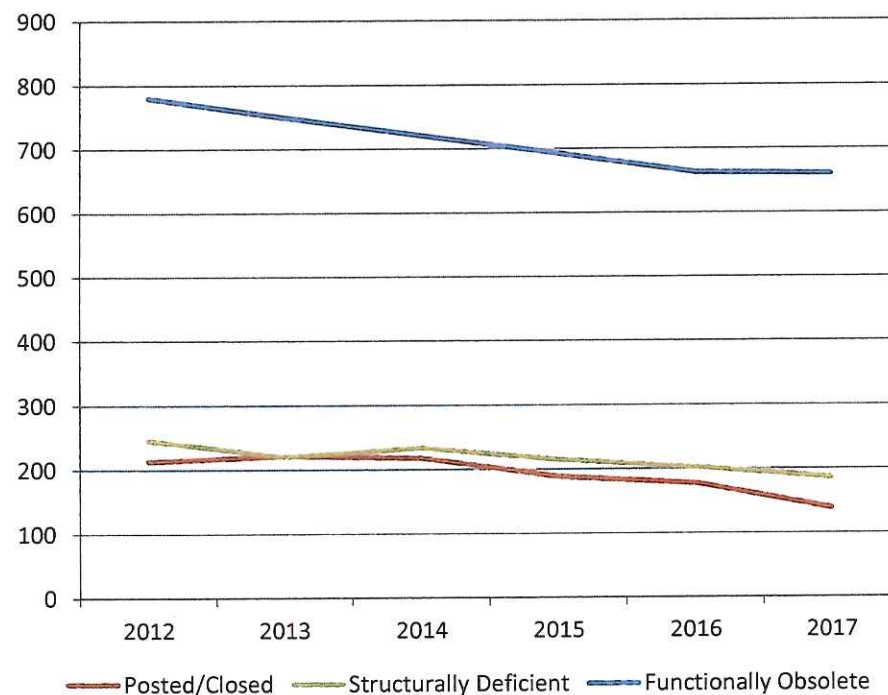
Bridge Condition Data: 2012 to 2017

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.

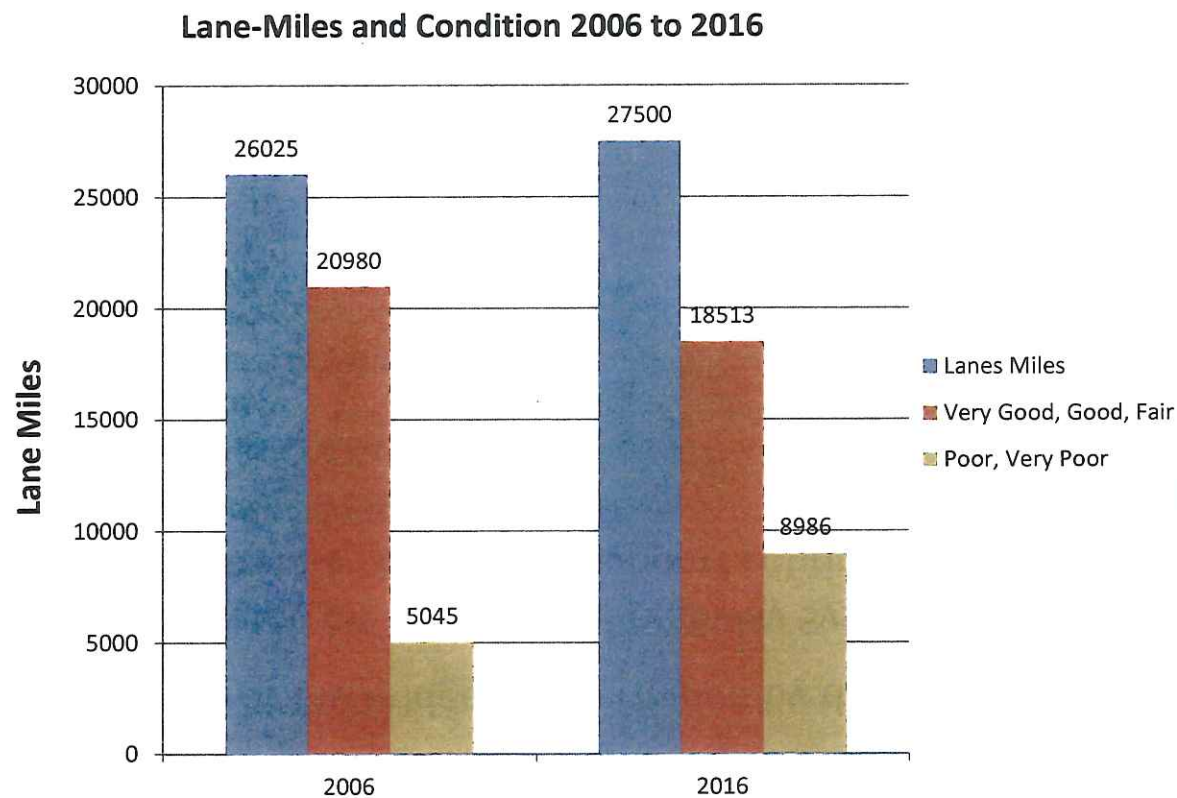
SR 487 from Tuscola to SR 35 [3 Bridges]
Leake Co.
Letting Date: 11/1/2018
Cost: \$10M
ADT: 1100

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



Source of Data - MDOT Pavement Condition Survey 2006 and 2016



Very Good



Fair



Very Poor

State of Roads and Bridges



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

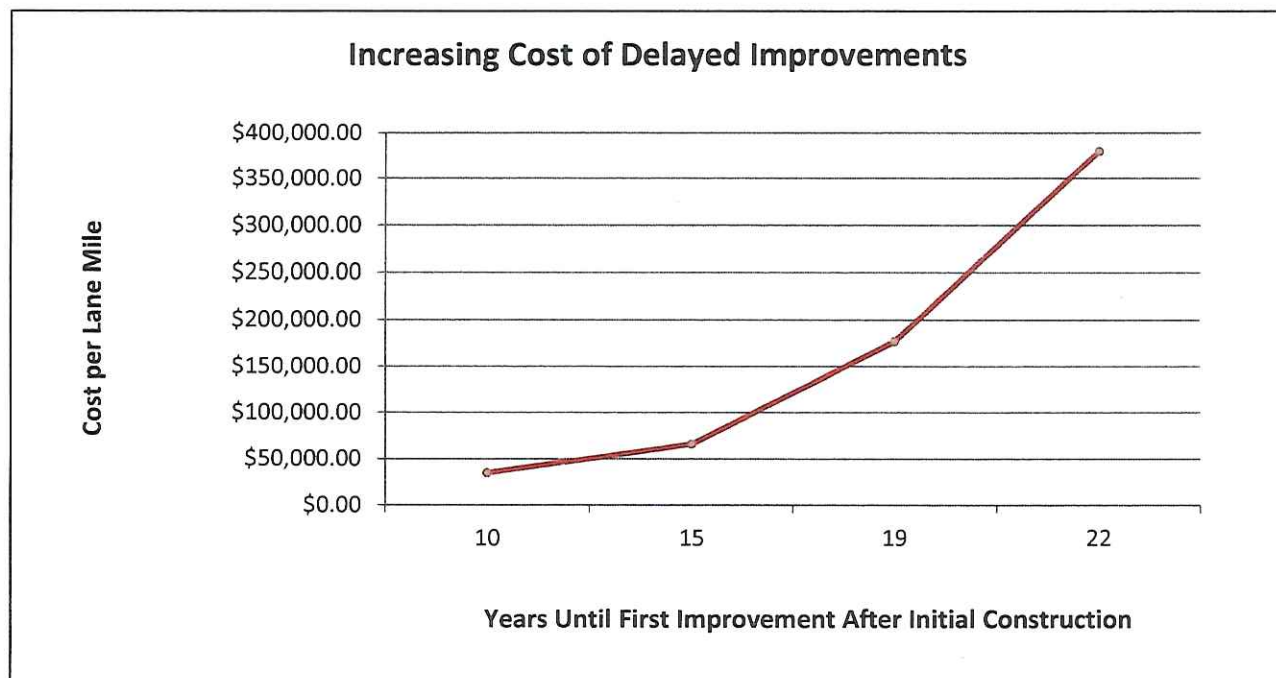
System	Total Miles	# Miles Needing Repair	Miles Repaired Annually	Current Annual Expenditures
Interstate	2,886	1,798	116	\$80 M
Four-Lane	7,934	2,244	500	\$85 M
Two-Lane	16,428	7,534	1,000	\$65 M
Totals	27,248	11,576	1,616	\$225 M

Ramps and frontage roads are not included in total miles

State of Roads and Bridges



Pavement: Cost of Delaying Improvements



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

State of Roads and Bridges



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



U.S. Department
of Transportation
**Federal Highway
Administration**

MISSISSIPPI DIVISION

100 West Capitol Street, Suite 1062
Jackson, Mississippi 39269

March 7, 2017

Ms. Melinda L. McGrath
Executive Director
Mississippi Department of Transportation (MDOT)
P. O. Box 1850
Jackson, Mississippi 39215-1850

Mr. H. Carey Webb
State Aid Engineer
Office of State Aid Road Construction
P. O. Box 1850
Jackson, Mississippi 39215-1850

The Federal Highway Administration (FHWA) recently initiated an effort to verify that Mississippi's locally owned bridges that were rated in critical condition are now safe to remain open to traffic. It has been determined that many locally owned bridges are not safe to remain open. We are concerned that locally owned bridges deemed unsafe are not being closed in accordance with the National Bridge Inspection Standards (NBIS).

Based on the March 2016 National Bridge Inventory (NBI) data and actions taken by local agencies since this NBI data submission, FHWA identified approximately 120 bridges with a superstructure or substructure component condition rating of 2 (critical condition) that were open to traffic. The FHWA's initial plan was to immediately conduct field reviews of a random sample of these 120 bridges with the Office of State Aid Road Construction (State Aid) and the respective County Engineers to assess the current condition of these bridges. However, of the first six field reviews conducted, all parties agreed that four bridges were deemed in need of either immediate closing or repair to safely remain open. Rather than continue with the planned sample of field reviews, upon our request, State Aid issued a letter to each affected County Engineer requesting immediate bridge inspections and written documentation attesting that each of the remaining bridges were safe to remain open. The County Engineers had until January 15, 2017 to respond. In total, approximately 114 of the 120 bridges were identified by the County Engineers as safe to remain open to traffic or the County Engineer response failed to clearly address the issue. Teams consisting of FHWA, State Aid, MDOT, and County Engineers have re-inspected all of the 114 bridges, which resulted in the recommendation that 72 bridges be immediately repaired or partially or fully closed. All parties participating in the inspections agreed that these immediate repairs or closures were necessary to ensure the safety of the traveling public.

Additionally, FHWA is concerned that State Aid is not adequately ensuring the prompt closure of unsafe locally owned bridges in accordance with the National Bridge Inspection Standards.

Pursuant to 23 U.S.C. § 144 and 23 C.F.R. Part 650, Subpart C, the State of Mississippi is ultimately responsible for meeting the requirements of the NBIS. Moreover, Federal law mandates that the State must have adequate powers to discharge the duties required under the Federal-aid highway program. 23 U.S.C. § 302; 23 CFR 1.3. This authority includes the power to effect emergency closures of unsafe bridges.

Given the unique organizational structure in Mississippi in which State Aid and the Mississippi Department of Transportation operate independently, the FHWA is not imposing sanctions at this time. Rather, we are requesting that the state, including both transportation agencies, promptly develop an action plan to address the issues of non-compliance. *See* 23 C.F.R. § 1.36. Specifically, the plan should address:

- The management and implementation of the NBIS program for the locally owned bridges.
- The State's authority to ensure the locally owned bridges are properly inspected and physically posted or closed to ensure compliance with the NBIS.

The action plan must be submitted within 45 days of the date of this letter due to the seriousness of this issue. While the FHWA is not imposing sanctions at this time, failure to satisfactorily address these issues in a timely manner could result in various sanctions, including withholding project approvals or Federal-aid highway funds from Mississippi. The FHWA shares Mississippi's obligation to the safety of the traveling public and is committed to working with Mississippi in the development and implementation of the action plan.

Sincerely yours,



Andrew H. Hughes
Division Administrator

Action Plan – Mississippi Local NBIS Program

Immediate Actions to Ensure Bridges are Safe

- Recently completed 114 field reviews:
 - Within 14 days, State Aid will follow up on the 72 bridges that required immediate actions as a result of the recent field reviews and provide documentation to FHWA to demonstrate that the agreed upon full or partial closures are in place or repairs have been made.
- New field reviews:
 - State Aid will identify all local bridges with the following criteria based upon State Aid's current data which includes the most recent inspections.
 - Serious or worse condition (NBI Items 59, 60, or 62 equal to 3 or less);
 - Open to the traveling public (NBI Item 41 equals A, B, P, or R); and
 - Not temporarily shored (NBI Item 103 is null)
 - Within 180 days, a State Engineering Team, including qualified bridge inspection staff, will field review all bridges which meet the criteria above (excluding the 114 bridge recently reviewed) to verify the bridges are safe to remain open.
 - State Aid will monitor any new recommended closures and immediate repairs to ensure they were addressed within the required timeframes and will provide documentation to FHWA within 14 days of the completion of the field review.

Longer Term Actions to Improve NBIS Program for Local Bridges

- State Aid will select consultants and manage the consultant contracts to inspect and load rate all bridges with timber substructures within 2 years.
 - The inspection and load rating results will be reported by the consultant directly to State Aid.
 - State Aid will deal directly with the County to ensure repairs, postings, and closures are timely completed.
- Within 90 days, State Aid will review and update the critical findings process in its National Bridge Inspection Program Local System Manual to define a critical finding as any bridge with a component in serious or worse condition (NBI Items 58, 59, 60, or 62 equal to 3 or less). In addition, the language in this section will be modified to be inclusive of this broader definition of a critical finding, not just bridge closures.
- Upon completion of the next FHWA Annual NBIS Review, State Aid, in coordination with FHWA, will update the National Bridge Inspection Program Local System Manual as needed to ensure the local bridge program is in compliance with the NBIS. Specifically under Quality Assurance, the Manual will need to be revised to ensure each county is visited by State Aid once every five years, to discuss results, findings, and recommendations of QA reviews with all inspection team leaders and County Engineers as part of the periodic refresher training requirement in the NBIS. In addition, revisions needed in other areas of the Manual may be identified as a result of the next annual NBIS review conducted by FHWA.

The Mississippi Department of Transportation (MDOT) and the Office of State Aid Road Construction (OSARC) are pleased to submit the enclosed Action Plan as requested by the March 7, 2017 letter from the Federal Highway Administration. The Action Plan outlines actions that the State will take, along with corresponding timeframes, to satisfactorily address the recently identified issues with the National Bridge Inspection Standards (NBIS) for the locally owned bridges. As depicted in the Action Plan, the State is committed to taking the necessary actions to ensure the safety of the traveling public and that the local bridge program is in compliance with the NBIS. While there has been considerable discussion regarding the State's ability to ensure locally owned bridges are properly posted and closed, rest assured, the State has the necessary tools in place to effectively cause the bridges to be posted and closed as warranted through the bridge inspection process.

Upon your approval of the enclosed Action Plan, MDOT and OSARC will immediately begin implementing the plan and coordinating these efforts with FHWA. The State appreciates the opportunity to address the identified issues and looks forward to working with FHWA to timely implement the plan.

Melinda L. McGrath
Executive Director
Mississippi Department of Transportation

H. Carey Webb
State Aid Engineer
Office of State Aid Road Construction



U.S. Department of Transportation
Federal Highway Administration

Bridge Inspection Program

County Engineer Meeting

June 14, 2017

Bridge Inspection Program

MISSISSIPPI'S INFORMATION SOURCE

The Clarion-Ledger



Fletcher making impact at Murrah

Pastor and coach serving community spiritually and athletically. **Sports, 1C**

SATURDAY, MARCH 4, 2017 CLARIONLEDGER.COM PART OF THE USA TODAY NETWORK

Feds close bridges in Miss

More than 100 structures affected following inspections

BRACEY HARRIS
THE CLARION-LEDGER

The chairman of the Senate Highways and Transportation Committee says inspections by the Federal Highway Administration have led to the closure of more than 100 crumbling bridges in the past week.

Sen. Willie Simmons, D-Cleveland, warned his colleagues Friday that they might get some calls over the weekend about the closures.

Lt. Gov. Tate Reeves responded: "Thank you, Sen. Simmons. Random timing, I'm sure."

Simmons' announcement comes after the death of a House bill that would have created an internet sales tax for online retailers with sales of more than \$250,000 a year or more in Mississippi. House Bill 480, which had House Speaker Philip Gunn's backing, would have designated the funds for transportation work.

Projections for the proposal showed that the collections could have generated an annual revenue of between \$50 million and \$175 million for needed repairs. Reeves on Monday announced that the Senate would let the legislation die on deadline, expressing concerns that it was unconstitutional. He pointed out that Alabama and other states have been embroiled in litigation due to similar legislation.

A House bond bill that would allow the state to borrow \$50 million for needed repairs

MEC vows to continue road funding push.
clarionledger.com

See Bridges, Page 4A

Bridge Inspection Program

- FHWA is responsible for the National Bridge Inspection Program in accordance with 23 U.S.C. 151
- Includes all bridges on public roads
- County and City owned Bridges (10,739) - State Aid
- State owned (5,723) - MDOT
- FHWA performs an annual review on both programs
- FHWA monitors data and performs detailed reviews as needed

Bridge Inspection Program

- November 2016 - Mississippi has more bridges than any other state with component condition rating of 2 and still open and not temporarily shored
- 120 Bridges identified
 - All are Locally owned
 - All have Timber Piles
- Initially - randomly sampled the 120 to select 17 for field reviews to verify safe to remain open

Bridge Inspection Program

- Out of the first 6, 4 required closing
- Abandoned random sample process
 - State Aid issued letter to each affected County Engineer requesting immediate inspection to verify the bridges are safe to remain open or documentation showing what action has been taken to safe up the bridge.
- 114 bridges remained open
- Notable Quotes:
 - “Safe because it is programmed to be replaced”
 - Safe, but inspection report submitted with letter stated “Due to the weight of the deck alone, failure is probable”
 - “Not closing because we have opened bids for new bridge”

Bridge Inspection Program

- The 114 bridges were quickly field reviewed by FHWA, State Aid, MDOT, and County
- 65 were deemed unsafe and recommended for full closure
- 5 partial closures
- 2 required immediate repairs to remain open

Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



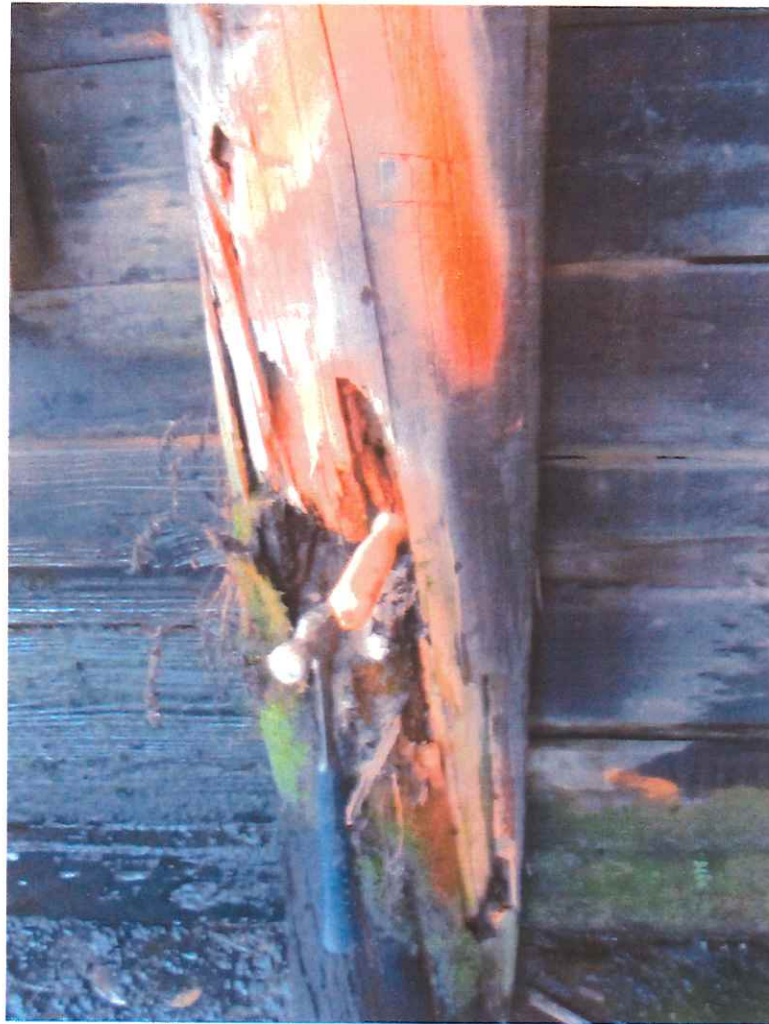
Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program



Bridge Inspection Program

Conclusion:

- Unsafe bridges are not being closed in accordance with the National Bridge Inspection Standards (NBIS)
- State is not effectively administering the NBIS as it pertains to locally owned bridges
- FHWA holds the “State” responsible – any sanctions for non-compliance will directly impact MDOT and State Aid
- State Aid, MDOT, and FHWA agreed to an Action Plan
 - Immediate Actions
 - Longer Term Actions

Bridge Inspection Program

Immediate Actions:

- State Aid followed up on the 72 bridges that required immediate actions to ensure appropriate actions taken
 - For the most part – appropriate actions taken
 - Exceptions:
 - One County Engineer informed FHWA that required repairs were completed. Upon a follow up site review, no work even started and bridge remained open to traffic
 - Discovered one closed bridge was reopened to traffic without any repair work
 - Must ensure appropriate actions taken!

Bridge Inspection Program

Immediate Actions:

- State Aid identified all local bridges with component condition rating of 3 or less, open to traffic, not temporarily shored - that were not already reviewed
- State Aid, MDOT, & FHWA will conduct field reviews to ensure all are safe
 - Field reviews underway
 - Currently approximately 50% deemed not safe to remain open

Bridge Inspection Program

Longer Term Actions:

- New Process for inspection of Timber Bridges
 - State Aid and MDOT will select consultants and manage the consultant contracts to inspect and load rate all bridges with timber substructures (approx. 2200) within 2 years.
 - Consultants will report inspection and load rating results directly to State Aid
 - State Aid will work with the County to ensure appropriate actions are taken – post, close, repair, etc.

Bridge Inspection Program

Longer Term Actions:

- State Aid will review and update the critical findings process in its National Bridge Inspection Program Local System Manual
- State Aid will strengthen its QA program for the Bridge Inspection Program

Questions?