

Arkansas Department of Transportation  
Highway Commission Review and Advisory Subcommittee  
**I-40 Mississippi River Bridge/Hernando Desoto Bridge**

Status Update

May 18, 2021

**May 11** – A significant fracture in a steel beam that is crucial to the structural integrity of the I-40 Mississippi River Bridge between West Memphis and Memphis was discovered. The bridge was immediately closed to traffic

**May 14** - A picture from a drone video showing that the fracture was visible in 2019 was circulating through social media. ARDOT verified the photo as authentic on Friday, May 14. I have included a picture of the 2019 picture in your handout. This picture was extracted from a 5-hour drone video shot by Michael Baker.

The I-40 bridge is inspected annually in 3 phases:

- Underwater inspection of the foundation/piers - Consultant
- **Inspection of bridge deck and beam structure – ARDOT**
- Inspection of the arches and cables - Consultant

**May 17** - From our investigation we have determined that the same ARDOT employee who conducted the inspection on the deck and beams in both 2019 and 2020 failed to carry out his responsibilities correctly. This is unacceptable and this employee was terminated. We are in the process of referring this matter to the proper Federal authorities for their determination if further investigation, criminal or otherwise, is warranted.

However, this is not about the failure of one employee. It is about the failure in the inspection process that allowed this to happen.

The Federal Highway Administration will be conducting a comprehensive assessment of ARDOT's bridge inspection program. The assessment will ensure the appropriate policies, programs and people are in place to meet this responsibility. We welcome this assessment as we move forward to make sure this never happens again.

We have started reviewing our processes and we are taking action now. We are already adding additional checks and balances along with redundancy. We recently purchased a drone to review bridges. This will be in addition to hands on inspections using the snooper.

We have requested that Tennessee DOT perform a drone review of the I-55 bridge over the MS River, to give confidence to the public that it has been done correctly. This is on-going.

All fracture critical bridge inspections that were performed by the terminated employee will be re-inspected beginning this week.

In order to regain the public trust and confidence, we will need to be transparent and accountable and we are committed to doing so. We will correct this problem and we will become better for it.

### **Bridge Repair/Reopening Information**

The Coast Guard released barge traffic on Friday at 9:00 am

A Structural Team has been formed with includes TDOT bridge engineers, ARDOT bridge engineers, FHWA, Michael Baker Int'l and HNTB. Each member of this team is committed to getting this bridge back open to the public at the earliest possibility, while ensuring its safety.

This team has developed a design to provide additional stability to the fractured member/bridge. The same group along with the selected contractor – Kiewit - is refining the design for the permanent repair.

A timeline for repair is being developed.

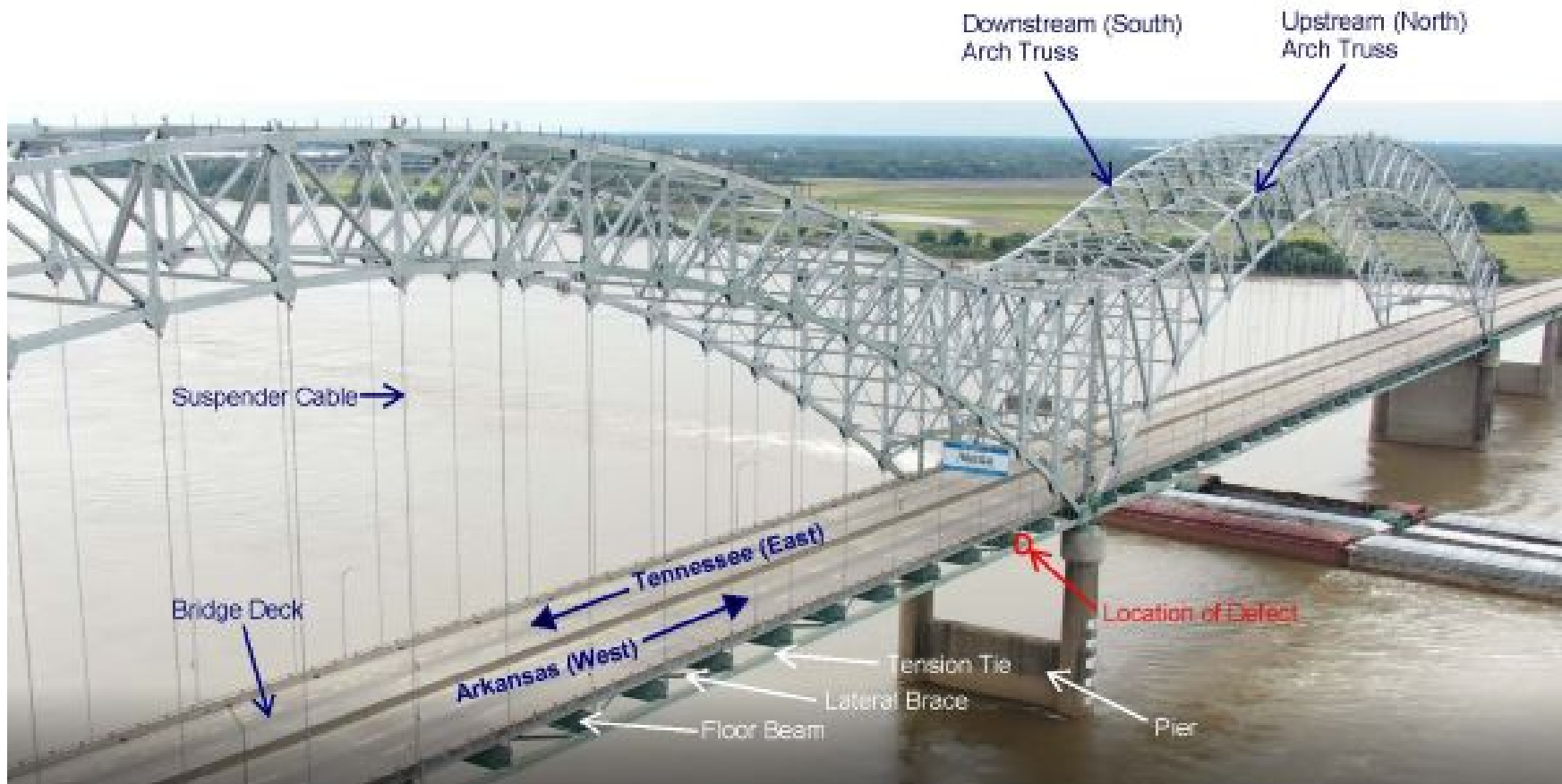
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**I-40 Mississippi River Bridge**

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**Hernando Desoto Bridge**



**Bridge Components**



**Recent 2021 Photo of Fracture**



**2019 Photo – Extracted from Michael Baker 5-Hour Drone Video of Arches**



Snooper

## I-40 Bridge

- Date completed: 1973 (1966 - 1973)
- Avg. daily traffic: 41,000
- What percentage are trucks? 30%
- What year retrofitted for earthquakes? Series of TDOT Projects 2006 - 2018
- Length: Total Length= 9,431ft. | Arch Spans - 900 ft. each

## I-55 Bridge

- Date completed: 1949
- Avg. daily traffic: 46,000
- What percentage are trucks? 35%
- Length: Total Length: 5,222 ft. | Main Span - 790 ft.
- Most recent inspection date: August 24, 2020
- Next inspection date: Scheduled 5/12/2021 (Special Element - In Progress), Fracture Critical - Element 8/3/2021, Routine & Fracture Critical - Element 8/1/2022