

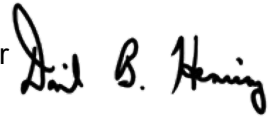


INTEROFFICE MEMORANDUM

June 11, 2026

TO: Mr. Rex Vines, P.E. – Chief Engineer – Operations 
Ms. Jessie X. Jones, P.E. – Chief Engineer – Preconstruction 

THROUGH: Mr. Chad Adams, P.E. – Assistant Chief Engineer – Construction

FROM: Mr. David B. Henning, P.E. – State Construction Engineer 

SUBJECT: Constructability Review Summary,
Job No. 110812
Hwy. 49 Mississippi River Bridge Rehab. (S)
Route 49, Section 11
Phillips County

A Constructability Review meeting was held for the subject project on November 20, 2025, with representatives from the Arkansas Department of Transportation (ARDOT), the Mississippi Department of Transportation (MDOT), Michael Baker International (MBI), Federal Highway Administration (FHWA), Arkansas Highway Police (AHP), Fish and Wildlife Services, the United States Army Corps of Engineers (USACE), and representatives of three construction industry firms with extensive bridge experience and knowledge. Fifty-five (55) individuals were present either in person or virtually. The purpose of the review was to share the project background, plans, and specifications with ARDOT, MDOT, and the bridge rehabilitation construction industry to utilize the knowledge and experience of the construction industry to develop a constructible and biddable plan package.

The 90% Design Plans and Special Provisions were reviewed as part of the meeting.

SPECIFIC QUESTIONS DISCUSSED:

- 1) Experience with pin-and-hanger and fracture-critical structures.
- 2) Approaches for floor beam repair or replacement.
- 3) Use of barges or marine equipment in navigation channels.
- 4) Shoring and temporary support systems.
- 5) Accommodation of agricultural equipment and heavy traffic.
- 6) Feasibility of temporary structures or maintenance of traffic (MOT) alternatives.
- 7) Lane-closure timeframes and seasonal restrictions.
- 8) Risks associated with rehabilitation work.
- 9) Opportunities to reduce construction duration.

SUMMARY OF ITEMS DISCUSSED:

A. Traffic Control, Phasing, and MOT Challenges

- Seasonal agricultural peaks during planting (March 15–May 15) and harvest (August 15–November 15) significantly affect lane availability and queueing.
- Oversized farm equipment and heavy crop-hauling trucks frequently require escorted crossings, sometimes daily.
- Contractors emphasized that oversized agricultural loads create major impacts on construction phasing, lane-closure durations, and crew productivity.
- Use of a temporary ferry was discussed; contractors stated DOTs must operate it if utilized.
 - ✓ A temporary ferry was reviewed and determined not to be an option.
- Traffic strategies such as portable signals, pilot cars, MAP assistance, and reduced work-zone speed were reviewed.
 - ✓ Portable signals with countdown timers, MAP assistance, wrecker service, and reduced work-zone speeds will be utilized.
- Seasonal lane-closure cycles were also considered.
 - ✓ Seasonal lane closures will not be utilized.
 - ✓ Site Use (A+B+C) is being considered where B is the time the bridge will be reduced to one lane.
- Alternative barrier wall system with smaller footprint being considered.
 - ✓ ReBLOC 2 system is MASH compliant and accepted for use on this project.

B. Contracting Method, Risk, and Schedule

- Contractors indicated high risk due to MOT, staging, and structural constraints.
- CMGC was recommended to reduce risk, improve constructability, and reduce costs.
 - ✓ CMGC will not be used on this project.
- Material procurement challenges: Shop drawings may require 6 months; steel procurement up to 12 months.
 - ✓ There will be a 180-day Flexible Begin Work Special Provision included to allow for field verification of existing bridge measurements, shop drawings and procurement. The original shop drawings are faded and not reliable for ordering replacement materials – plus there could have been measurement adjustments during the original construction and again in the widening project.
- Three-year duration feasible; four years may be more realistic.
 - ✓ The contractor will bid the time.
- Recommend considering mobilization/demobilization pay items to offset cost impacts associated with repeatedly clearing the bridge for agricultural traffic or emergency access.
 - ✓ Not necessary since the lane closure will stay in place until the work is complete.
 - ✓ If Site Use (A+B+C) bidding is utilized, may need to revisit this item.
- See E. below for additional risk considerations.

C. Utility Coordination

- Two electrical line crossings may need burial and require Entergy coordination.
 - ✓ A “Coordination of Work” Special Provision with Entergy contact information will be included.
- Contractors must maintain access for Poinsett Rice & Grain on both sides of the river.

D. Marine Equipment, Permitting, and Environmental Constraints

- A Section 408 review may be required for west abutment backwall work near the levee; USACE recommends early initiation.
 - ✓ The Contractor is responsible for initiating the review with the USACE and for providing required documents and notifications before ANY work for the backwall repair begins.
- Minimal barge use is expected; vertical clearance below the bridge is adequate.
- Bird nesting restrictions apply March–August.

E. Bridge and Structural Repair Constructability

- Contractors preferred full floor-beam replacement; partial repairs increase risk and labor.
 - ✓ Full floor-beam replacement is not constructible without a long-term bridge closure, and one lane must be maintained at all times except for short 15 minute intervals where closure is permitted for certain work .
- Temporary structural supports/shoring design is a major pre-bid cost and bid stipends to offset the high pre-bid cost of preparing designs were suggested.
 - ✓ Pre-bid stipends will not be offered.
- Cross-beam replacement poses installation and clearance issues.
 - ✓ Repair Type H: Cross Beam Replacement was redesigned per concerns expressed in the ARDOT Constructability Review meeting.
- Alternative deck systems were discussed but not recommended.
- Rail modifications to decorative features needed to allow slip-forming.
 - ✓ A detail was added to the plans to allow this request following the Constructability Review.

OVERALL SUMMARY:

The project is constructable, but MOT, agricultural, and structural concerns must be addressed to reduce contractor risk and control costs. MOT for the motorists, businesses, and Emergency Medical Responders has been addressed. Normal agricultural truck traffic will be able to cross during the closures, but the bridge will be wide load restricted during construction. Remote controlled portable message boards, countdown timers, upgraded Portable Traffic Signals, MAP, addition of pay items (Traffic Control Supervisor, additional pavement markings, additional reflectors, etc.) have all been included as examples to address concerns and reduce Contractor risk.