

Massena Lateral Bridge Slide Post-Construction Review

Date: November 14, 2013 1:00 pm to 2:30 pm

Attendance:

Dean Herberger, Dennis Herberger, and Curt Brown – Herberger Construction Company, Inc.

Jim Tometich and Ted Hoeger – Tometich Engineering, Inc.

Lee Shepard, Jim Norris, David Evans, Scott Nixon, Ahmad Abu-Hawash, and Jim Nelson – Iowa DOT

Joe Jurasic and Tyler Wilson – Iowa FHWA

Notes:

Iowa DOT and FHWA personnel met with the Contractor and Contractor's Engineer to discuss the Massena Lateral Bridge Slide Project and identify potential improvements for future projects. Both the Iowa DOT and Herberger Construction consider the project a successful project. The project was completed on an accelerated schedule in the specified nine day critical closure. The project demonstrated that the lateral bridge slide methodology is a feasible ABC concept for Iowa DOT projects. The following is a summary of comments from the discussion. Designers, contractors and construction contract administrators of future ABC lateral bridge slide projects should evaluate these comments for applicability to their specific projects.

1. It was felt that there was much more risk of going over nine days on the project than likelihood of completing in less than nine days. To complete in nine days everything had to go smoothly.
2. Size of the piling (HP 14 x 117) was problematic because of handling and welding which require welders to be certified on 1" thick plate. More small piling would be preferred to fewer large piling. The contractor was able to obtain a larger pile driving hammer from United Contractors for the project.
3. There was friction during the slide from binding that increased due to the channel warping. Would use a heavier channel or a steel bearing plate under the channel for future projects.
4. Discussed reuse of the neoprene bearing. The contractor felt the neoprene on top of the rollers was a stress reliever which was positive. If the neoprene is not allowed to be reused for the roller system it should not be allowed to be reused for the Teflon system as well.
5. Coordination of subs is a major issue for the project. Sub contracts are too small to hold them accountable. Painting, guardrail, and longitudinal grooving may be small contracts of a few thousand dollars so it is hard to hold a \$10,000 disincentive against them as they will just walk away from the job.
6. Piling on the falsework system was an issue. Used ENR formula and would've preferred a WEAP analysis by DOT. Driving a test pile prior to the critical closure would be something to consider

as well. Would like the DOT to either let the contractor and contractor's engineer to take responsibility for the falsework or have the DOT design the falsework in the plans. "Either the DOT does it or the DOT stays out of it."

7. Due to pile pocket connection did not feel the precast abutment footing detail was worth including in the plans. Would just go with CIP. Need a connection detail that doesn't require concrete placement in order to use the precast footing.
8. Needed more storage on the project. Would prefer the DOT did more to address storage and access ahead of the letting.
9. Floodable backfill – would like to be able to substitute modified backfill instead of the floodable backfill on projects like this with short beams. There are only a couple a couple feet of the floodable.
10. Consider a separate bid item for the falsework from the prefabricated bridge superstructure move bid item. Significant investment in the falsework and there is no guarantee of partial payment.
11. Consider incorporating the temporary support transition into the design (corbel that the falsework bears on).
12. Three days for the approach paving is the minimum.
13. There were no issues with installing the neoprene water stop although it isn't a completely waterproof detail. There was seepage during the flooding of the floodable backfill.
14. Contractor wouldn't change the move system except for heavier channel or steel bearing plate. They liked the pulling system and the rollers. Did not feel the test move was necessary for their comfort level because they had previous experience with the rollers but it was good for people to observe who hadn't had that previous experience.
15. Would like pile acceptance to be for design bearing instead of full penetration or practical refusal.