

MINUTES OF AGC-DOT JOINT BRIDGE SUBCOMMITTEE MEETING

(Approved: October 13, 2021)

The AGC-DOT Joint Bridge Subcommittee met in person with a virtual component on August 11th, 2021. Those in attendance were:

Todd Whittington	State Materials Engineer
Wiley Jones	Assistant State Construction Engineer
Brian Hunter	State Laboratory Operations Manager
Gichuru Muchane	Assistant State Structures Engineer
Jay Boyd	Balfour Beatty Infrastructure, Inc.
Lee Bradley	Blythe Construction, Inc.
Chris Britton	Buckeye Bridge, LLC
Patrick Buckley	Crowser Construction Company
Adam Holcomb	Dane Construction, Inc
Jake Linn	Dellinger, Inc.
Chas Hummel	Flatiron Construction Corporation
David Yates	Fred Smith Company
Tom Meador	Lane Construction Company
Mark Newman	NHM Constructors, LLC
Erick Frazier	S. T. Wooten Corporation
Chris Brown	Sanford Contractors, Inc.
Brian Weathersby	Sloan Construction Company
Seth Rowney	Thalle Construction Company
Larry Cagle	Thompson-Arthur Div., APAC-Atlantic, Inc.
Aaron Earwood	Construction Unit – Regional Bridge Construction Engineer
Scott Hidden	Geotechnical Unit – Support Services Supervisor
Cabell Garbee	Materials & Tests Unit – Manufactured Products Engineer
Trey Carroll	Structures Management Unit – Project Engineer
Nicholas Pierce	Structures Management Unit – Team Leader
Beth Quinn	Structures Management Unit – Team Leader

During the review of the June 9th, 2021 meeting minutes, the following items were discussed:

1. SHPO Approval – Waste/Borrow Pits for Small Bridge Projects

Mr. Carroll stated that the EAU Unit is discussing with SHPO potential options for improving the review process.

2. Contract Times

Mr. Hanks and Mr. Fischer met with Division Bridge Program Managers to discuss contract guidelines and the importance of using the same guidelines for both Central and Division managed projects. Mr. Earwood noted that the Construction Unit is reviewing the contract guidelines and Mr. Ken Kennedy is developing training for Divisions.

3. Asbestos Inspections

Mr. Earwood stated that SMU and Construction Unit have met to discuss the asbestos program. Mr. Earwood has collected data regarding the inspections and asbestos findings and

plans to share this information with DHHS and discuss if there can be improvements to the process. The Department is investigating taking over the program.

4. Proving Bearing on Piles

Mr. Earwood shared that he is developing pile restrrike guidance for inspectors and engineers.

5. MSE Walls and End Bent Wings

Mr. Carroll shared that SMU is still reviewing details and potential policy updates.

6. Material Availability

Contractors stated that material availability is not improving. Another issue is delays in receiving materials due to trucking availability. Contractors noted that a floating start date can help alleviate some material availability issues. Mr. Garbee noted that M&T is working to approve new suppliers for bearing plates. Mr. Earwood shared that he is meeting with Mr. Kennedy and M&T later this month to discuss material issues. For projects with material delays, contractors should provide justification for time extensions and will be reviewed on a case-by-case basis.

The minutes of the June 9th, 2021, meeting were approved.

The following items of new business were discussed:

1. Rip Rap for Slope Protection with Integral End Bents – Safety Concern with Form Removal and Pointing/Patching

Mr. Holcomb shared that during a recent safety audit a potential tripping hazard from the Class II rip rap was noted for workers performing form removal and patching work at integral end bents. It was suggested to incorporate smaller class stone on top of the Class II rip rap around the end bents to improve safety. Mr. Frazier stated that Division 6 used to fill in the Class II rip rap with Class B rip rap. Mr. Earwood noted that smaller stone can cause a hydraulic concern if it can wash away.

Action Item:

Construction and Structures Management Unit to investigate use of Class B rip rap on top of Class II rip rap for 10 feet from the abutment and around wing walls.

2. Closed End Pipe Piles

Mr. Frazier stated that they have had issues with driving closed end pipe piles, specifically with the 24-inch and larger piles. He noted that driving closed-end pipe piles requires larger capacity hammers, which can cause issues that include bouncing and shifting of the pipe piles during driving, cushion material being fractured and ruptured piles. Mr. Frazier suggested that the closed end is not reducing the pile length significantly. Contractors agreed that removing the plate and driving open end pipe piles is preferred and usually does not result in noticeably longer pile lengths.

Mr. Hidden stated that there is a difference between driving 14-inch and 30-inch pipe piles and that driving the smaller closed end pipe piles should not be an issue. Mr. Earwood noted that they are not seeing large overruns when driving the larger open end piles, but that there

are instances when a closed end is needed. Mr. Frazier suggested to start with an open end and if the pile is going too long to utilize a conical pile point or plate on the remaining piles. Mr. Holcomb suggested to include the plate as an option and to work with the Resident Engineer to determine if it is needed. Mr. Earwood noted concerns with adding plates after crane and hammer size have been established for open end piles.

Action Item:

Construction Unit and Geotechnical Engineering Unit to discuss allowing an option to use a plate if needed.

3. Precast Approach Slabs

Mr. Hummel shared that precast approach slabs were discussed during a recent Design-Build committee meeting; however, he did not have many details and suggested to table this topic until the next meeting. Mr. Brown noted that there will be similar settlement issues with precast approach slabs if the subgrade is in poor condition. Mr. Boyd stated that setting the correct grade would be very important and he noted that precast approach slabs typically require a grout bed be poured prior to placement.

Mr. Cagle asked whether any decisions have been made regarding mitigating approach fill settlement. Mr. Earwood stated that the State Construction Engineer distributed a memo requiring geotextile fabric one foot below the approach slab. For existing contracts, this will be handled through a supplemental agreement. Standard drawings will be updated to include this new requirement. Mr. Hidden noted that GEU has some ideas for limiting settlement and suggested forming a work group.

Action Item:

Mr. Hidden to form work group to investigate the approach fill settlement.

4. Other

- i. Mr. Boyd stated that when 12 inch prestressed concrete piles were the standard, there was an option to allow HP 12x53 steel piles in lieu of concrete piles in the end bents. Mr. Boyd asked if there could be an option added now to allow use of concrete piles in lieu of the HP 12x53 steel piles, which are now the standard, due to steel prices and availability. Mr. Boyd noted that the HP 12x53 steel piles are 35 percent more expensive than one year ago. Mr. Cagle noted that using concrete piles in the Piedmont and Mountains would be difficult. Mr. Boyd suggested that it could be an option for Divisions where it is feasible. Mr. Frazier agreed that with the current volatile market, allowing options is key. Mr. Boyd stated that when the previous option was allowed, it was a one-to-one replacement.

Action Item:

Geotechnical Engineering Unit will investigate adding an option to use prestress concrete piles in lieu of steel piles at end bents.

- ii. Mr. Meador shared that they have prepaid for coil material to lock in the price. He asked if there was a process that could be used to lock in lower prices and be compensated similar to stored materials. Mr. Boyd stated that this was an option for carbon fiber

prestressing strand and Mr. Garbee explained that this was allowed since it is for a demonstration project.

Action Item:

None

- iii. Mr. Brown asked if there was discussion of a steel price index. Mr. Earwood responded that they have committed to forming a work group with the Chief Engineer's office, Construction Unit and M&T to consider the options for an index.

Action Item:

Construction Unit, M&T and Chief Engineer's Office to form group to discuss steel index.

- iv. Mr. Boyd asked about having the option for precast box culverts and noted that a proposal to use one on a recent design build project was rejected. Mr. Cagle agreed that many Divisions do not allow an option for a precast box culvert and Mr. Brown asked what the concerns are. Mr. Garbee stated that in the past there were issues with the precast units fit-up and finishing issues at the plants. Mr. Earwood added that there are concerns with differential settlement. Mr. Boyd stated that Pennsylvania DOT also had issues with differential settlement until they utilized post-tensioning. Mr. Earwood asked if there is criteria for when precast box culverts are allowed and Mr. Carroll noted that there is criteria in the Design Manual. Mr. Earwood stated that if the criteria from the Design Manual is met, the decision is up to the Divisions. Mr. Boyd stated that using precast box culverts can reduce time and environmental impacts. Mr. Earwood stated that contractors can ask if precast box culverts may be used if it is not specified in the contract.

Action Item:

None

The next meeting is scheduled for October 13th, 2021.