



PCI Gulf South
Transportation Committee Meeting
June 11, 2020, 9:00 am to 12 Noon
Location: Alabama Department of Transportation (ALDOT), Montgomery, AL

MEETING AGENDA

1. Opening Remarks - Dan Eckenrode (PCI Gulf South), William (Tim) Colquett (ALDOT Bridge Engineer), David Tomley Chair (Thompson Engineering), and Mike Spruill Co-Chair (Gulf Coast Prestress)
2. Anti-Trust & Code of Conduct - Dan Eckenrode (back of Agenda)
3. Introductions
 - a. Sign in sheet
 - b. Transportation Committee members
 - c. How to become a member of the Transportation Committee
4. Precast/Prestressed Concrete Products (Transportation)-Dave Tomley
 - a. Piles
 - b. AASHTO Girders & Modified AASHTO Girders
 - c. Bulb-T Beams (PCI, LG Girders, FL Bulb-T)
 - d. Double-Tee/NEXT beams (FORTERRA)
 - e. Box Beams
 - f. U-beams
 - g. Slabs and Deck Panels
 - h. Spliced-Girders
 - i. Precast Paving Slabs and/or Bridge End Slabs
 - i. ALDOT Project TIDP-IM-1165(302) – Installation of Precast Concrete Pavement System on I-165 SB Service Road Left Turn Lanes Just West of Bay Bridge Road on SR-16 (US-90)-**Follow-up**
 - j. Precast Substructures
 - k. Sound Walls/Noise Barriers
 - l. Traffic Barriers
5. Project Profiles (PCI Gulf South Region)
 - a. ALDOT – Dunlap Rd Mobile Co.
 - b. Baldwin Co. Project (NEXT Beam) Update – Dave Tomley
6. Fabrication - Dave Tomley
 - a. Skewed beam ends
 - b. End embed plates
 - c. Wire mesh reinforcement
 - d. Self-consolidating concrete (SCC)
 - e. Beam design and fabrication standardization
 - f. Cosmetic requirements



7. Materials/Specifications/Testing/Inspections – Dave Tomley
 - a. Controlled Density Concrete/options for bridge replacement
 - b. UHPC specs & testing requirements
 - c. Modified/updates to DOT materials and/or specifications
 - d. Self-consolidating concrete (SCC)
8. Constructability
 - a. Coordination items between producer members and contractors
 - i. Camber
9. Research
 - a. University Transportation Center for Alabama (UTCA)
<http://utca.eng.ua.edu/>
 - b. Auburn University Highway Research Center (AUHRC)-Ongoing Research
<http://www.eng.auburn.edu/research/centers/hrc/>
10. FHWA Every Day Counts - <https://www.fhwa.dot.gov/innovation/everydaycounts/>
 - EDC is currently on its 5th round (2019-2020)
https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/index.cfm
Project Bundling included as one of the innovations
 - 4th round included Ultra-High-Performance Concrete (UHPC) Connections together with Precast Bridge Elements (PBEs).
11. Industry Events -Dan Eckenrode
 - a. ALDOT Industry Events
 - i. 2020 Alabama Transportation Conference-Anton Schindler
 - b. National PCI -Committee Days and National Bridge Conference, September 23rd – 26th, 2020
 - c. National PCI Convention, New Orleans, LA February 23rd-27th, 2021
 - d. PCI Gulf South Summer Convention, July 9-11, 2020
12. PCI Gulf South Website/Transportation - Dan Eckenrode (PCI Gulf South)
 - a. Current and future changes
 - b. Members
 - c. PCI Publication Resources
 - i. ASPIRE-The concrete bridge magazine-current issue-Spring 2020 I-59 and I-20 reconstruction
<http://www.aspirebridge.com/magazine/2020Spring/>
13. Presentations –
 1. Birmingham -59/I 20- Atsuhiko Ishikawa “AJ”, Splice Sleeve
 2. Bridge Preservation – Dave Tomley, Thompson Engineering



14. New Business

1. Future Bridge Design Seminar??

15. Action Items

PCI Gulf South Anti-Trust Policy:

The purpose of this meeting is to promote the precast/prestressed concrete industry. During this meeting and any of the remaining functions of the PCI Gulf South Association, the Board of Directors fully support and intend to comply with all applicable federal and state anti-trust laws and shall not engage in any anti-competitive efforts including but not limited to the following:
Discussion of or efforts to directly or indirectly fix, peg, raise, lower, control, recommend or suggest precast/prestressed concrete prices.

June 11, 2020

ALDOT Meeting, Training Room, Montgomery, AL

9:00 am-noon

Tim Colquett (ALDOT Bridge Bureau) and Dan Eckenrode (PCI Gulf South) welcomed everyone to the meeting; David Tomley (Thompson) gave a brief overview of the purpose/mission of the Transportation Committee meeting and read National PCI Bridges Committee and Bridge Producers Committee mission statements.

The Anti-Trust Policy and Code of Conduct was discussed.

A sign in sheet was passed around.

David Tomley provided an overview to PCI's e-Learning modules and opened PCI's website and logged in and opened the Extending Spans module and played the introductory slide. PDH units are offered.

1. Precast/Prestressed Concrete Products (Transportation)

- Dan gave an overview to a new webinar being developed at PCI focusing on Piles
- AASHTO Girders, modified AASHTO Girders, and PCI Bulb-T girders being used primarily for design. The FL Bulb-T is under consideration on several projects. Further discussion followed related to safety considerations when using straight strands vs. draped strands. FL Bulb-T girders have a strand located in the center of the beam and that FLDOT primarily uses straight strands; whereas the LG Girders have two strand locations in the web that can be draped.
- Box beams are not being used in Alabama and can be removed from the products list.
- Sound walls and noise walls are not being used in Alabama and can be removed from the products list.
- U-beams are not being considered on future projects; they were on the Mobile River Bridge project.
- Slabs and Deck panels are not being used. TXDOT has standard details for deck panels and uses deck panels quite frequently.
- Three spliced-girder bridges have been construction in Alabama. Side discussion clarified that typically the longitudinal post-tensioning is full-length and can be stressed in two stages. The sections between the precast/prestressed concrete girders are construction with a cast-in-place concrete closure pour. These bridges are performing well. There are no current spliced-girder design projects under design. MDOT recently designed their first spliced-girder bridge that was construction in 2019. Span ranges can range from 200-300+ feet.
- Dan visited the ALDOT precast concrete paving system used on the I-165 SB service road and mentioned how well the system is performing.
- Several projects have been constructed using precast columns in Alabama with several more under design; one project is under construction using precast arches. Side discussion on the benefits to having an option in the plans for precast columns on larger projects where the size of the project and repetition can save time and/or cost.
- ALDOT currently has a precast traffic barrier that is crash-tested to TL-3 criteria. There is interest in using a precast barrier mounted on top of a precast member designed to TL-4 crash-

testing level. Dan to follow up with other PCI Regions to obtain additional information on whether a precast barrier system has been crash tested to meet TL-4 criteria.

4. Project Profiles (PCI Gulf South Region)

David provided an update to three NEXT beam projects in Alabama and discussed considerations related to the NEXT beams. NEXT beam projects include; Brookhaven Drainage Project for the City of Tuscaloosa constructed in 2019, Dunlap Drive Bridge over Pinto Pass located in Mobile that is currently under construction designed by ALDOT's Bridge Bureau, and the Baldwin County Retrofit bridges project which is an Accelerated Innovation Deployment (AID) demonstration project that is currently under design and being reviewed by ALDOT's Bridge Bureau. There was interest to visit the site during the girder erection on the Dunlap Drive bridge scheduled in July.

5. Fabrication

- Skewed beam ends are not recommended
- FORTERRA recommended using Wire mesh reinforcement in the top flanges of the NEXT beam to facilitate fabrication.
- Self-consolidating concrete (SCC) is allowed by ALDOT's Spec but SCC is not currently being used by producer members. Factors to consider include consistency, learning-curve, and changes to typical fabrication production processes and/or current mix-designs.
- There are obvious benefits to standardizing the design and detailing of precast/prestressed concrete bridge products which leads to ease of fabrication.
- Internal curing was brought up. Andrea Moore with M2 Solutions discussed a potential pilot project that LADOTD is looking at using internal curing. LADOTD is developing an internal curing specification.
- No issues with cosmetic requirements; remove from agenda.

6. Materials/Specifications/Testing/Inspections

- Discussion related to coordinating with the Industry on any changes or modifications to current DOT materials and/or specifications.
- UHPC testing being done at the University of Alabama. No testing information available yet on UHPC on the Dunlap Road NEXT beam bridge project.

7. Constructability

- No known issues between Contractors and Producer Members.
- For estimating camber, ALDOT is using expected concrete strength rather than specified design concrete strength to estimate camber. Future camber estimates may include an aggregate modification factor that is contained in the AASHTO LRFD BDS. ALDOT is considering removing the camber diagram from the plans; GDOT does not include camber estimates in the plans. Contractors are required to coordinate camber with the producer members. Dave recommended that producer members maintain historical camber information. The Transportation Committee will be meeting with LADOTD June 19 and will

obtain feedback on how LADODT's specification requirements on measuring camber have been going.

8. Research & Industry Events

Dr. Barnes provided an update on several research projects on-going at Auburn University that focus on camber, braking loads to bents, long-term creep & shrinkage material testing on the concrete from the ALDOT CBD project. Dr. Barnes also mentioned the new testing facility at Auburn University which has the capacity for geotechnical testing.

9. FHWA Every Day Counts

Project Bundling included as one of the innovations on FHWA's EDC 5th Round. ALDOT has one project under design that utilizes multiple projects combined into a single project letting.

10. Industry Events

- a. It was mentioned that due to the Coronavirus the National PCI Committee Days in person meeting, in Chicago has been cancelled and will now be virtual.
- b. National PCI Convention will be held in New Orleans, LA February 23rd-27th, 2021
- c. PCI Gulf South Summer Convention is still scheduled for July 9-11, 2020
- e. Dave shared topics discussed in the PCI Committee on Bridges from the PCI Convention held in Fort Worth, TX March/2020 and from PCI Committee Days held in Rosemont, IL September/2019.

11. PCI Gulf South Website/Transportation - Dan Eckenrode (PCI Gulf South)

- a. Dan noted two articles in the Spring 2020 ASPIRE Magazine; the first on "Alabama's Largest Transportation Project" and the second on "Time-Saving Construction Techniques-I-59/I-20 Bridge Reconstruction" under Concrete Bridge Technology

12. Presentations

- a. Birmingham -59/I 20- Atsuhiko Ishikawa "AJ", Splice Sleeve
- b. Bridge Preservation – David Tomley, Thompson Engineering

13. New Business

Group expressed an interest for a Future Bridge Design Seminar in the Spring/2021 similar to the PCI Georgia/C Carolinas Region with GDOT last Fall/2019. Dan will follow up with other regions to see how they have set up their design seminars and schedule this for next year.

14. Action Items

- a. Dan to follow up with other PCI Regions to obtain additional information on whether a precast barrier system has been crash tested to meet TL-4 criteria.

**Meeting adjourned at noon

Attendees:

Dan Eckenrode, Executive Director PCI Gulf South

Dave Tomley, Thompson Engineering (Chair)

Tim Colquett (ALDOT)

Andrea Moore (M2 Solutions)

Dwain Hamby (FORTERRA)

Johnnie Hayes (FORTERRA)

AJ Ishikawa Splice Sleeve

Tony Bradshaw (ALDOT)

Rebecca Davis (ALDOT)

Brooke Prince (ALDOT)

Jessie Hamilton (ALDOT)

Paul Froede (ALDOT)

Jeffery Huner (ALDOT)

Anna Golden (ALDOT)

Joseph Palmer (ALDOT)

Nathan Boswell (ALDOT)

Berhaau Woldemichael (ALDOT)

Robbie Barnes Auburn University

Ramy Abdulla (ALDOT)