

MINUTES

SCDOT – PCI Joint Committee Meeting

SCDOT Office of Materials and Research

May 4, 2017 – 1:30 PM

Dr. Castrodale welcomed attendees and called the meeting to order at 1:35 PM. A sign-in sheet was circulated.

The following members (or representatives) were present:

SCDOT

John Caver	Structural Engineer RPG 4
Terry Koon	Structural Design Support, Co-Chair
Rodrick Tucker	Bridge Maintenance
Chad Hawkins	Office of Materials and Research
Aly Hussein	Office of Materials and Research

PCI

Reid Castrodale	Castrodale Engineering Consultants, Co-Chair
Peter Finsen	Georgia/Carolinas PCI
Jeff White	Prestress of the Carolinas
Richard Potts	Standard Concrete Products
J. R. Parimuha	Florence Concrete Products
Steve Lambert	Prestress of the Carolinas

Academia

Paul Ziehl	USC
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FHWA

Ken Johnson	Structural Engineer
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Minutes of Last Meeting

The minutes of the November 22, 2016 meeting were approved as submitted (motion by Jeff White, 2nd by Peter Finsen).

Old Business

01-6 SCDOT Bridge Design Manual

Terry Koon stated that the focus is more on seismic specification, besides doing some other stuff. No progress at this time.

09-1 *Accelerated Bridge Construction (ABC) Project – A Precast Alternate for Flat Slab Spans*

Terry Koon shared some photos that were taken at Tekna in Charleston and on the Hanging Rock Creek Bridge site. The bridge consists of one end span with the Modified Next D Beam (40 ft.), one end span with solid slab units and modified shear keys (40 ft.), and two interior spans with standard cored slab units (70 ft.). UHPC cubes (2x2 inches) were made and were tested by Clemson Univ. at 3 and 28 days, with compressive strengths of >20 ksi and >30 ksi, respectively. The required compressive strength was 21 ksi.

The target date for the live load testing was set for June 13-15, 2017. For the UHPC joints, the contractor used the Ductal product by Lafarge, which did not require any prequalified testing. The bridge will be overlaid with asphalt. Peter mentioned that GDOT specification for UHPC is online and on the Georgia/Carolinas website.

Terry thought that he could have a more complete presentation about the project for the next meeting.

12-1 *Tentative Letting List*

Terry Koon and John Caver brought a copy of a tentative letting list for the period of June 2017 to June 2018. The SCDOT project managers are not populating the fields. The Director of Preconstruction, Ladd Gibson, has not sent a directive out yet regarding the subject, but he thinks it's a great idea.

12-2 *Electronic Shop Drawings*

Terry Koon did not have a chance to discuss the subject with Mark Anthony so had nothing new to report. Most of the RPGs are still using hard copies according to the policy. ProjectWise is not in general use yet, except for very large projects. There is not yet a uniform system for filing electronic shop drawings.

16-1 *Issues with Using Cement Sources with High Alkali > 0.6%*

Chad Hawkins gave an update about using high alkali cement in SCDOT projects, which is intended to open up the cement supply to address increased project activity. High alkali cement can be used in RC pipes and precast items as QPL 6 and 714 Specifications have been revised to include this change. High alkali cement can be used with adding 15% to 20% fly ash as in NCDOT. It is up to the producer to decide if they want to use the high alkali cement or not. He expected that use of high alkali cement will be allowed for prestressed concrete.

16-2 *UA Bars in BT'*

Terry is going to put a disclaimer note regarding draped strands. Most BTs are designed with draped strands. Terry stated that if strands are not draped, there may be a conflict with the UA bars. Terry will look at details from other states to come up with something to work with SCDOT. They are also looking at the studs on the base plates. UA bars often conflict and the large size makes them very difficult to move them to be clear. If the girder lines have an angle change over the bent, it is even more difficult to get the bars to fit up. Designers need to look at the details to make sure they will work. Jeff White will email NCDOT details to Terry.

New Business

For Information

Post-Tensioning Tendons in Wando River Bridge

Ken Johnson reported that a ruptured external post-tensioning tendon had been discovered on the Wando River Bridge about a month ago. The bridge was constructed in about 1989. The tendon was not grouted, and had filled with water and corroded. Also, the tendon placement did not match the plans. It was expected that the cost of inspecting the remaining tendons in the bridge would be about \$3M.

Redundancy for Sampling

Chad Hawkins requested the industry to let him know if there's any redundancy in sampling for concrete and steel. For example, SCDOT can look for the heat numbers instead of sampling reinforcing bars, which will help to expedite the process. J.R. reported that Florence Concrete does already double tag in case of 2 projects. Chad is looking to help expedite process, so let him know if there are issues. This is more of an issue with field construction. No need to show on next agenda.

GDOT Design Seminar

G/C PCI conducted a prestressed bridge design seminar for GDOT on April 19, 2017. There were 107 participants, 25 from GDOT, with many others from consultants and contractors. Dr. Castrodale provided most of the presentations, along with Glenn Myers and William Nickas. The seminar was similar to NCDOT's seminar, but customized for GDOT. The seminar included a panel discussion, which covered lateral stability, fabrication, construction and design issues. There were a lot of questions from the attendees. The seminar was a success. G/C PCI offered to provide a similar seminar, in concert with the instructional seminars Clemson was conducting for SCDOT. G/C PCI would develop and manage the seminar, in partnership with SCDOT. Terry will try to discuss it again, although his supervisor has just retired.

Terry Koon is planning to attend the ACEC meeting in a few weeks and will gauge their interest in participating in the seminar. Terry mentioned that Jamie Kendall has retired from the SCDOT. Terry will try to get others from the RPGs to attend.

Terry and Peter will coordinate to arrange for the next PCEF meeting on August 17th

Next Meeting

The next meetings are scheduled for Thursday, November 9, 2017; May 3, 2018; and November 8, 2018 at 1:30 p.m. at the OMR Conference Room.

The next PCEF Committee Meeting is scheduled for Thursday, August 17, 2017 at SCDOT, Columbia, S.C.

The meeting was adjourned at 3:25 P.M.