

MINUTES

SCDOT – PCI Joint Committee Meeting

SCDOT Office of Materials and Research, Columbia SC

May 5, 2011 -1:30 PM

Dr. Castrodale welcomed attendees and called the meeting to order at 1:30 PM. A sign-in sheet was circulated. All attendees introduced themselves.

The following members (or representatives) were present:

SCDOT

Barry Bowers	Pre-Construction Support
Jim McCabe	Office of Materials and Research
Aly Hussein	Office of Materials and Research

PCI

Peter Finsen	Executive Director, Georgia/Carolinas PCI
Reid Castrodale	Carolina Stalite Company, Co-Chair
J.R. Parimuha	Florence Concrete Products (FCP)
Jeff White	Prestress of the Carolinas
Eric Deierlein	Tekna Corporation
Richard Potts	Standard Concrete Products (SCP)

USC

Paul Ziehl	Associate Professor
Aaron Larosche	PhD student

FHWA

Ken Johnson	Division Structural Engineer
-------------	------------------------------

The meeting started with a power point presentation by Mr. Aaron Larosche, a PhD graduate student from USC, about the research project “The Connection Behavior of Precast Prestressed Concrete Piles to PC Caps.” Piles and caps were cast at Florence Concrete Products (FCP). The research project report is due end of this month. Industry requested a pdf copy for review, as well as a copy of the presentation.

The minutes of the December 9, 2010 meeting were reviewed. They were approved with revisions to Item 06-1 by removing PCI and adding PCEF. Aly will make the revision and redistribute the minutes.

Old Business

92-13 *Strand Slippage in Prestressed Piles*

FCP will pour some 16” piles next week. SCP may try for a GADOT 18” pile project Procedure was emailed to both producers, but if needed, email Aly.

00-1 *PCI Bridge Design Manual*

Peter Finsen stated that the Manual was due in April of this year, but there have been some delays in revisions and should be out soon! FHWA contract will provide a copy to all DOTs. Barry Bowers will provide a list on who has copies from SCDOT. The Manual will include new design examples.

01-6 *SCDOT Bridge Design Manual*

There has been no activity relevant to this committee.

02-2 *Prefabrication of Bridge Elements for Rapid Construction*

Bener Amado could not attend the meeting – not sure whether any Deck Bulb Tee projects are being considered.

The goal for SCDOT’s Every Day Counts (EDC) committee is 20 percent of the projects will include at least one prefabricated element by start of next year. Cored slabs can be used as that element. They are also looking at identifying some elements that are currently cast-in-place but that can be prefabricated. Prefabricated element options might include:

1. PC caps – depends on seismic demand, even with steel piles
2. Steel Diaphragms – in-lieu of Cast-In-Place diaphragms and allow stability will end up with a design memo
3. PC end walls/ wing walls/ approach spans, etc.

Dr. Castrodale noted that there had been an EDC webinar series on prefabricated bridge elements and systems (PBES), but the Department was not aware of it. He will check the EDC webinars archives and let the committee members know by next meeting if the webinars are available to view on the EDC website.

02-3 *Self-Compacting Concrete (SCC)*

SCC Special Provisions have been reviewed internally by SCDOT and sent to PCI members for review and comments. Comments should be returned to Aly. The SCDOT Special Provisions are pretty similar to NCDOT and GDOT specifications. J.R. posed the question of waiving creep and shrinkage requirements. Aly indicated that there is no plan for implementation since the use of SCC is currently optional.

It was noted that the producers have less reason to pursue SCC now than when SCC was first proposed because the Department now allows higher slumps.

06-1 *Reinforcement Details for Continuous for Live Load Designs*

SCDOT is waiting for input from G/C PCEF on this issue (see Item 6e of G/C PCEF Agenda). It was acknowledged that contractors like hair pins because of safety – caps are not required as they are for bent up bars. However, Jeff White reported that he had not heard that contractors on NC projects have asked NCDOT to use the SCDOT details. Barry Bowers agreed to bring this up at their next meeting with the AGC. Barry also thought that he had already sent the website link for their detail to Richard Potts. Hair pins are not forgiving and can't be bent out of way; therefore, SCDOT is not opposed to looking at other alternatives/details.

06-2 *Regional Standardization - PCEF*

Peter will provide copies of PCI Quality Control Manual (MNL-116) and the Quality System Manual (QSM) template to NCDOT, GADOT, and SCDOT for review – each state may want to add their own specifics! Jim and Aly will be looking at the PCI documents to identify possible areas where SCDOT may like to add requirements to the QSMs. They will provide their comments to PCI.

The issue of fabricating girders from contract plans was discussed. Barry Bowers had presented the idea to the RPGs and Jim McCabe a year or so ago. The consensus then was to leave the process as is. Shop drawings, especially for beams, vary between consultants, which make it inconvenient and challenging for fabricators. Inspectors and fabricators will do better with consistent shop drawings. Pros and cons of shop drawings were discussed and the industry will provide Barry with their comments. SCDOT will try to enforce their standard more consistently. Jeff White proposed that PCI needs to identify the pros and cons for the idea and provide a summary to SCDOT to support the concept.

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

Barry Bowers gave an update about Clemson University research project:

- They will analyze the connection between beams (at the slab) with Finite Element Modelling, and may then perform some physical testing.
- They are going to look at Ultra High Performance Concrete (UHPC) for the connection between beams
- They are considering the NEXT beam developed by PCI Northeast
- They are going to examine different details
- Completion of the research project is scheduled for the end of 2013
- Barry Bowers will ask Dr. Nielson, PI of the research project, if he is interested in coming to the next meeting to give an update

New Business

None.

Informational Items

- SCDOT provided a brief summary of upcoming work. There is a steel bridge coming out in June. There are also some D/B projects in the pipe line
- It was suggested that the letting system should provide more information about the projects to identify the type of structure. Perhaps there could be 2 lists, one for bridges and one for other types of projects.

Next Meeting

The next meeting was scheduled for Thursday, November 3, 2011 at 1:30 PM.

The meeting was adjourned at about 3:45 PM.