

# NCDOT - G/C PCI Joint Meeting

## Wednesday, November 19, 2014; 1:30pm

### Minutes

1. Self-introductions were made.

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Brian Hunter	NCDOT – MTU	<a href="mailto:bhunter@ncdot.gov">bhunter@ncdot.gov</a>
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Paul Lambert	NCDOT – SMU	<a href="mailto:plambert@ncdot.gov">plambert@ncdot.gov</a>
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Ken Foster	Utility Precast, Inc.	<a href="mailto:kenfoster@outlook.com">kenfoster@outlook.com</a>
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Fletcher Smith	Standard Concrete Products	<a href="mailto:fletchersmith@standardconcrete.org">fletchersmith@standardconcrete.org</a>
J. P. Binard	Bayshore Concrete Products	<a href="mailto:jp.binard@skanska.com">jp.binard@skanska.com</a>
Andy Smith	Sika	<a href="mailto:smith.andy@us.sika.com">smith.andy@us.sika.com</a>

2. Randy Pace gave a presentation on the MTU's implementation of Barcodes/RFID Tags for precast & prestressed concrete members. The presentation covered the following:

- Embedment of the tag into precast & prestressed members. The goal is to eliminate the Piece Number and use the Tag Number.
- Information on how the tag will replace the information that is being painted on the members now.
- Application of the tags will link the different materials to be tracked from production to inspection on the projects.
- The tag will also allow QC/QA certification by allowing electronic documentation of the inspections that are performed as the member is fabricated.
- Cost can be assessed per tag or pay a monthly fee. The more pieces a producer makes a year, the cheaper the cost per tag.

3. Approval of Minutes – March 12, 2014 Meeting - The minutes were approved as distributed.

4. Technical Committee Report

The items listed below were discussed at the Technical Committee Meeting on July 17, 2014.

- Stressing Strands in Harped Position* – It was noted by fabricators that both safety and economy are improved when strands are tensioned in the final position. A summary from the PCI Manual and excerpts from the PCI Manual were provided on this topic. NCDOT agreed to review the information.

- b. *Debonding Top Strands* – The reasons for debonding the top strands were discussed. The reasons include control of end stresses at transfer of prestress, camber control, lower release strengths and improved lateral stability for shipping & handling. Also, top strands are helpful in keeping the top tensile stresses at release below 200 psi as required by NCDOT. Debonding should be kept as short as needed, as this will reduce the energy released when the strands are detensioned. Top strands are usually detensioned after erection so the Contractor's personnel will usually be detensioning the strands. Therefore, all field personnel should know the importance of detensioning procedures and NCDOT procedures should be utilized.
- c. *Deeper Girder Sections* – Several items were made available prior to the meeting. These items included FDOT Design Manual (indicating that FIB's and AASHTO Type II girders are standard shapes for FDOT), FDOT instructions for Design Standards related to FIB girder shapes and VDOT table of bulb-tee girder shapes. These larger shaped girder sections were discussed. Since there was not a clear consensus regarding these girders, it was agreed that this was an informational item and that no further action would be taken at this time.
- d. *Shipping of Girders* – There was some discussion about permits for shipping of large or long prestressed concrete girders. NCDOT Structures Management Unit advised that they are trying to speed up the permit process. No further action was required.
- e. *Prestressed Concrete Bridge Design Seminar* – The concept for and topics for a prestressed concrete bridge design seminar were discussed. The date of November 20<sup>th</sup> was selected for the seminar with the regular Joint Meeting was moved to November 19<sup>th</sup>.

## 5. Old Business

### a. *Top Strand Debonding*

(SMU) stated that they are waiting on design notes to be submitted so that they could be used as a guide.

### b. *Standard Elongation and Detensioning Sequences*

SMU stated that several producers have submitted their detensioning submittals for review & approval. SMU is currently in the process of reviewing the submittals. SMU hopes to complete the review of all submittals soon if workload allows.

### c. *Bearing Plates on Bulb Tee Girders*

The PCEF Committee has been working on standard details between 3 states. Georgia is trying to use the bearing plates that NC & SC use. NCDOT SMU stated they had researched on why NCDOT's standard calls for the bevel on the bearing plate. They could not find a definite reason the bevel was called for. Therefore, SMU stated that the bevel could be eliminated.

### d. *Cored Slabs - Exterior Slabs Rolling*

MTU advised of they had been advised of five (5) bridges with this issue since March of this year. CCU added that there were probably more projects with this issue where MTU was not notified. Per MTU, the issue of outside cored slabs does not appear to be a wide-spread problem. It was recommended that the producers do a thorough check of the cored slabs once they are removed from the bed to make sure that they meet the plan dimensions. Extra attention should be placed on checking the location of the dowel block outs and that the block outs are plumb. CCU added that they are taking steps in the field to address the issue before the excess strand is cut after post-tension.

## 6. New Business

### a. *NCDOT MTU Re-Organization*

MTU informed everyone that they recently did some reorganization for the prestressed section. The reorganization included the creation of two (2) Regional Supervisors and one (1) Regional Engineer. These positions will be training, assisting and assessing CEI personnel at the out-of-state producers.

### b. *Alternate ID's on Shipping Tickets*

MTU reminded the producers that Alternate ID's need to be listed on the shipping tickets in the same format that the number is marked on the piece member. This helps the Resident Engineer Office's personnel to understand exactly what the correct Alternate ID is so that the piece can be received.

### c. *SMU's Change in the Handling of NCR's*

SMU stated that Paul Lambert's group would be reviewing NCR's that are submitted from the field. It was also announced that Tom Koch was the new unit head for SMU.

### d. *Standard for SIP Form Clips*

The NCDOT standard for SIP form clips is 12 gauge clips at 12" spacing. Prestress of the Carolinas stated that they are seeing submittals from SIP form suppliers that call for 10 gauge clips at 12" spacing. This has happened on design-build projects, but may also be happening with other projects. No one knew why the change to 10 gauge clips was being called for. SMU stated that they would contact the SIP form suppliers to request that they supply more information regarding why 10 gauge clips are now required. Prestress of the Carolinas will also contact their SIP form suppliers and inform them that this is a topic of discussion.

## 7. Project Updates

- a. Monroe Bypass – Design work is progressing, but it is still unknown when construction will start.
- b. Bonner Bridge (B-2500) & Pea Island Bridge (B-2500A) – NCDOT is working with the environmental agencies to address environmental issues. It is unknown at this time when construction will be allowed to start on B-2500 and when construction will be allowed to resume on B-2500A.

## 8. Other Topics

- a. MTU stated that there was going to be a research project on internal curing of concrete. This will go through the full research project method whereby proposals will be submitted for NCDOT to review. The purpose of the research project is to evaluate the effects of internal curing using light-weight aggregate for cast-in-place slabs.
- b. Peter Finsen introduced a new PCI member (Chris Arca of Coastal Precast Systems – Wilmington Division).
- c. Peter Finsen announced that PCI President James G. Toscas, P.E. will be leaving PCI to be the President/CEO of the Portland Cement Association.

## 9. Action Items

- a. Producers to provide design notes (for top strand debonding) to SMU so that the notes can be used as a guide.

- b. SMU & Prestress of the Carolinas to obtain design calculations from Engineer of Record for requiring 10 gauge clips for Sip forms.

10. Future Meetings

- a. PCI/NCDOT Prestressed Concrete Bridge Design Seminar – November 20, 2014 (8:00 am) at Marriott Raleigh Crabtree Hotel
- b. NCDOT – G/C PCI Joint Committee Meetings for 2015 – March 26, 2015 (1:30 pm) at NCDOT - MTU  
November 19, 2015 (1:30 pm) at NCDOT – MTU
- c. NCDOT – PCI Technical Committee – July 16, 2015 at NCDOT – Structures Management Unit
- d. G/C PCEF Meetings for 2015 – February 19, 2015 - Hosted by Georgia (10:00 – 4:00)  
August 20, 2015 – Hosted by NC (10:00 – 4:00)

11. Meeting Adjourned - 3:00pm