NCDOT - G/C PCI Joint Meeting
Thursday, November 19, 2015; 1:30pm
Final Minutes

1. Self-introductions were made.

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2. RFID/Barcode Tag Update – Jeff Pollock explained that Idencia is a tracking service that NCDOT is using to download precast/prestress production information into HiCAMS as part of a Field Inspection Report (FIR). The Idencia tracking service replaces paper reports with electronic versions that are entered via a computer/tablet. Once the data is entered, it is stored and can be accessed at any time in the future. Idencia will follow-up with all of the producers individually in the next couple of weeks for the purchase of the software (at a discounted subscription price) and the price of the tags. At that time, training will also be scheduled for the producer. Idencia will upload all of the producer's paper reports (concrete tests, QC reports, etc.) into their system so that the producer will see the same information on their computer/tablet. The training will focus on how to use the tablet and how it works within the context of the NCDOT system. If a producer is using Titan software, there will be no subscription fee to download the Idencia software. After the training, producers should be able to be up and running within two (2) weeks. Producers need to purchase the software by the end of May so that they can get familiar with the system by the end of June. Training will be conducted on a first come, first serve basis. Idencia will come to the producer's facility for the training and there is a lot of training information that can be shared online. The online training will allow the producer to start using the software before the formal training at the producer's facility. Training for NCDOT prestress inspectors at the producer's facility will occur at the same time the producer's personnel are trained.

   A meeting was held on March 24, 2016 before the Joint Meeting to discuss the location of the RFID/Barcode tags for the different types of prestressed members produced for NCDOT projects. The results of the meeting are as follows:

   Piles (Square, Cylinder, Sheet) – 5 feet from marked end of the member on the top surface.

   Partial-Depth Deck Panels – Top surface of the member.

Cored Slabs and Box Beams – Between the dowel holes on either end of the member.

AASHTO & Modified Bulb Tee Girders – 5 feet from the marked end of the member either the side or top.

Segmental Box Girders – Inside vertical wall of the void.

Bent Caps – End of the member.

3. Approval of Minutes – November 19, 2015 Meeting – The minutes were approved.

4. Technical Committee Report – It was noted that there has not been a Technical Committee Meeting since the last Joint Meeting back in November. Some of the topics for the next Technical Committee Meeting are as follows:

    a. Top Strand Debonding

    b. Lateral Stability

    c. Stressing Strands in Draped Position

    d. Topics for another Bridge Design Seminar

5. Old Business:

    a. *Top Strand Debonding*

    SMU still has concerns about the contractor's personnel not following proper procedures in cutting the strands in the field since cutting of the strands is a critical process. It was suggested that the Contractor contact MTU when they were ready to cut the first strands on a project and MTU would send an inspector to witness and/or qualify the Contractor's personnel to cut the strands correctly. MTU could possibly commit to this for short term duration, but due to resources it may not be a viable long term solution. MTU will look further into this. SMU does not expect a large amount of projects that will have top strand debonding in the girders. There was a discussion about if the strands could be cut prior to setting the girders on the substructure to allow easier access for the Contractor, but it was mentioned that by doing this, the lateral stability of the girder may be affected when the Contractor sets the girder on the substructure. Notes should be placed on the plans to inform the Contractor that the top strands have to be cut in the field. This topic will be discussed further at the next NCDOT – PCI Joint Technical Committee Meeting in July.

    b. Standard Detensioning Sequences

    SMU is still in the process of reviewing the submittals and the reviews will continue as the workload allows. SMU reminded the producers that they do not need casting drawings for cored slabs and box beams.

    c. Standard for SIP Form Clips

    A draft of a new Project Special Provision (PSP) for the embedded clips was distributed for review. Please see attachment for more information. SMU requested that any comments/questions be sent to them. SMU plans to have the new PSP in the contracts in 3 or 4 months. It was noted that the SIP form suppliers need to be made aware of the new PSP.

d. Daily Quality Control

MTU reminded producers that their QC personnel needed to perform their QC duties on a daily basis. There are a lot of projects going on right now and it appears that the workload will increase in the future. NCODT needs quality members produced on a daily basis.

6. New Business:

a. Update on NCRs

A handout concerning update on Non-Conformance Reports (NCRs) was distributed and review. Please see the handout for more information. As covered in the previous Joint Meeting, from October 21, 2014 thru October 9, 2015, there were 202 NCRs. From October 9, 2015 thru March 22, 2016, there were 141 NCRs. Therefore, at the current rate, we will exceed 202 NCRs by October 9, 2015. The top four (4) NCR categories with the highest numbers are vertical cracking, poor consolidation, forming errors and miscellaneous cracking. MTU requested that the producers focus on the areas to help decrease the number of NCRs.

MTU also discussed that project delivery is a huge point of emphasis at NCDOT. Good quality control helps get the prestressed members to the project faster. Also, if there are any issues with NCDOT inspection personnel, MTU should be informed immediately. At MTU, the most important part of our mission is ensuring quality materials for the State of North Carolina and MTU takes that very seriously. MTU will help the producers be successful in project delivery and quality materials.

Issues of confidentiality (disclosure to other producers) and CEI firm attraction of producer's personnel for employment to perform QA prestress inspection were also discussed. Producers spend a lot of money training their personnel and then have CEI firms seeking them for employment to perform QA prestress inspections. The NCDOT's third party inspection personnel can result in the producer's proprietary information being passed to others. The NCDOT is currently working on a policy to address the recruitment of contract/producer's personnel by third party inspection firms. The producers were informed that if they have proprietary information, they should let MTU know because unless it is made known, it is considered public information.

Everyone was reminded that PCI certification training (Level I, II & III) will be offered in Charlotte the week of May 9th.

b. *Internal/External Void Hold-Down Procedures for Cored Slabs & Box Beams*

Some producers are using wood products to prevent the styrofoam from crushing/moving during the placement of concrete. Producers need to re-submit hold-down procedures eliminating the wood products that will be left in the concrete. Metal or plastic materials can be used to protect the styrofoam void in lieu of wood products.

c. Low Acceptance (28 Day) Strengths

Over the last few months, there have been several situations where low acceptance strengths were found and there were no cylinders remaining to break. This issue seems to occur primarily during winter months. This usually results in the producer requesting to core the member(s) to determine acceptance strength. How can coring of the member(s) be eliminated? Can additional cylinders be made to help ensure there are an adequate number of cylinders to determine acceptance strength? Producers were

asked to consider alternative actions to eliminate coring of any member to determine acceptance strength.

7. Project Updates:

    a. B-2500B in Rodanthe is scheduled to be let in May 2016. The project will be Design-Build and the bridge will be at least a mile in length.

    b. U-20278 (I-40 Business project in Winston-Salem) is scheduled for let in July 2016. This project will be Design-Build.

    c. R-4060 in Alleghany County is scheduled to be let in July 2016. This bridge will have 72" Modified Bulb Tee Girders.

    d. U-2707 in Forsyth County is scheduled to be let in April 2016. There will be 700 feet of 54" prestressed girders.

    e. Asheboro Bypass (Randolph County) was let last year and construction is scheduled to begin in a couple of months.

    f. U-3308 (Durham County – Alston Avenue) is scheduled to be let in June 2016. There is one (1) bridge on this project.

    g. U-2524D (Section of the Greensboro Outer Loop) is scheduled to be let in September 2016.

    h. U-3440 in Kannapolis is scheduled to be let in October 2016.

    i. B-4929 (Pender County) is scheduled to be let in August 2016. The bridge is 3700 feet in length.

    j. There will be many bridge replacement projects let across the state. Some of these will be let by the Divisions.

    k. The Central Construction Unit has posted the 24 month letting list. The link to the list is https://connect.ncdot.gov/resources/Structures/Documents/12_Month_Letting.pdf.

8. Other Topics:

    a. It was noted that Article 1078 - 4 (G) of the 2012 Standard Specifications state that for prestressed concrete with CNI, the acceptance of the concrete will be based on C-21.0 Test (Litmus Test) and if this test result is not passing, the acceptance will based on the results of the C20.0 Test (Hardened Test). MTU agreed that is what the specification states, but the C-21.0 Test (Litmus Test) is not accurate enough to reject/accept concrete. This test only determines if any CNI is in the concrete. The test will not determine the quantity of CNI in the concrete. C-22.0 Test (Field Spot Test) is more accurate than C21.0 Test, but the test will not determine the quantity of CNI in the concrete. Therefore, C-20.0 Test (Hardened Test) is used for acceptance/rejection of the concrete since the results of this test give an exact quantity of CNI in the concrete. The standard specifications will be corrected in the next re-write.

    b. SMU stated that they are receiving advanced copies of prestressed girders submittals, but they never receive the official submittal from the Contractor/Resident Engineer which is required. In accordance with the Submittal of Working Drawings special provision, the official submittal should be submitted by the

Contractor. SMU requested that if advance copies of girder submittals are submitted, the producer should remind the Contactor to submit the official girder submittal. The Contractor can submit the official girder submittal to SMU as long as the copy the Resident Engineer.

c. There was a discussion about having another bridge design seminar. PCI would like to conduct another seminar since the first seminar was held in 2014. PCI expressed their desire to focus the next design seminar on fabrication issues. PCI and SMU will discuss this further.

9. Action Items:

   a. Further discussion of top strand debonding at the next NCDOT – PCI Joint Technical Committee Meeting in July.

   b. Everyone is to review the draft special provision – Embedded Clips for Prestressed Concrete Girders and provide any comment to SMU as soon as they can.

   c. Producers will focus on NCRs concerning vertical cracking, poor consolidation, forming errors and miscellaneous to try and reduce these problems.

   d. Producers will submit internal/external hold-down procedures that do not utilize wood products (that will remain in the concrete) for review and approval by SMU.

   e. Producers will consider alternative actions to eliminate coring of any member to determine acceptance strength.

10. Future Meetings:

    a. NCDOT – G/C PCI Joint Committee Meeting – November 17, 2016 (1:30 pm) at NCDOT-MTU

    b. NCDOT – PCI Technical Committee – July 14, 2016 at NCDOT – SMU

    c. G/C PCEF Meeting – August 18, 2016 - Hosted by GDOT (10:00 – 4:00)

11. Meeting Adjourned - 3:35 pm