

NCDOT – PCI Joint Meeting Minutes
March 17th, 2011, 1:30 PM

The meeting started with self introductions. The following were in attendance: Reid Castrodale, Owen Cordle, Jack Cowsert, Peter Finsen, Neal Galehouse, Brian Hanks, Chip Harris, Tom Koch, Paul Lambert, Mike Means, Gichuru Muchane, Trudy Mullins, J. R. Parimuha, Greg Perfetti, Allen Raynor, Mike Robinson, Gary Shrieves, Paul Sprouse and Jeff White.

The minutes of the November 18th, 2010 meeting were reviewed and approved with comments and discussion shown under Old Business below.

Technical Committee

There was no report from the Technical Committee, as no meeting was held since the full committee last met.

Old Business

1. Submission of complete working drawings: It was stated that the wording of the Special Provision requiring submission of complete working drawings has been modified to include only “prestressed girders” in lieu of “prestressed members”.
2. Research Report by Dr. Zia: Industry stated that they had not received Dr. Zia’s Research Report. It was determined that the report is currently available on line, and no action was necessary.
3. Drilled holes through top flange for falsework: It was clarified that the wording suggested by the industry concerning drilling should have read “from the top down” in lieu of “from the bottom up”. Further discussion resulted in asking the Technical Committee to expand the provision to require the use of core drills when drilling flanges, and to write an acceptable repair procedure for spalling when it occurs.
4. Rebar dimensioning for 0.6” strand: It was discussed and agreed to that the 10 ½ inch dimension should remain the same because the difference between the 0.6” and 0.5” strands is insignificant, and can be ignored.
5. Diaphragm holes: It was requested that the 1 ½” holes for the K-frames do not provide enough tolerance because the K-frames are subject to warping during galvanization. Industry requested the holes be increased to 3”. Structure Design Unit (SDU) will investigate and respond. A comment was made that installations for grade separation should require burring of threads to secure the fasteners above traffic.
6. Stability of girders: It was stated that regardless of the girder depth, stability should be considered for all long girders.

New Business

1. Precast caps: SDU handed out a drawing detailing several sizes of prestressed caps, and asked for Industry comments. Comments were as follows:

- a. Standardizing cap sizes to three or fewer profiles would result in more economic production. Differing cap widths and differing sizes of voids result in cost increases.
 - b. Domed voids help eliminate air pockets. A design with tapered sides and cone shaped top is effective. One alternate mentioned for grouting was to place a single large hole in the middle in lieu of two smaller holes on each side.
 - c. Leveling screws can make the construction process easier
 - d. 9" pile embedment was used in Ocracoke - SDU stated the embedment shown was required to account for moment.
 - e. Consider precast vs. prestressed sections. - SDU stated that precast sections would be much heavier, but could be fabricated in two sections. - Industry stated that 48,000 lbs. was the maximum load allowed without a permit.
 - f. Use of the same height for all sections is good.
 - g. Larger voids to be filled with grout when standard oversized voids are used with small piles could create issues.
 - h. The Federal Highway Administration is promoting rapid construction under the "Every Day Counts" campaign.
 - i. If there is an incentive to complete projects quickly, this is a good option.
2. Shop drawing submittals: Industry inquired whether submittals for interior girders could be made separately on rush jobs so that fabrication could begin while details were being worked out for exterior girders, hangers, etc. SDU responded that this was not a problem. SDU also emphasized that electronic submittals are preferred.
 3. Utilization of precast bridge rail: Bridge Management Unit (BMU) has a rail that is approved for 45mph, but there were reports that the precast rail was not being approved. There was discussion on whether FHWA allows use of precast rails. Mention was made of a letter from Tom Drda of FHWA approving the use of BMU's precast rail, but SDU stated that due to a few recent grout bed failures, the approval may have been rescinded. It was recommended that BMU bring this up with the new FHWA Division Structural Engineer (Earl Dubin), and, after confirming their stance, write a policy letter to the Divisions. SDU committed to discuss use of precast bridge rail with FHWA in an upcoming meeting as an accelerated construction issue. Industry stated that there are other states that have an approved precast barrier rail.
 4. State-Specific PCI Certification: The PCI certification program is working with State Dot's to identify specific State requirements that may not be in the PCI requirements. Then, State-specific requirements could be included in the producer's QSM, and PCI Certification inspections would verify that the producer is meeting those requirements, as a value-added service. The Industry asked that the Department look at the current PCI-MNL16 (and the Illinois State-Specific QSM example) to determine what North Carolina requirements are not included. The Materials and Tests Unit will review the document and work with Dean Frank of PCI to accomplish this. One eventual goal would be to create a Regional Certification if the three states can agree on the requirements.

5. Bonner Bridge PCI requirement: A discussion occurred as to why there is no requirement for PCI certification in the Bonner Bridge documents. The Department responded that while bidding documents may not address specific requirements, the Standard Specification and appropriate Special Provisions will apply to the contract. Industry was concerned whether D/B proposers would understand those requirements, since it requires lots of digging on the NCDOT website, and the requirement for PCI Certification is not in the 2006 Standard Specifications, but only in the SDU Special Provisions.

Future Projects

1. Goldsboro Bypass – Design/Build; Tentative let on 11/15/2011.
2. Gallant's Channel in Beaufort County – Tentative let in 2012.
3. Wilmington Bypass, South of Cape Fear; Two sections will be let as one; Let in October 2013.
4. Durham Freeway Connector (US70); Let in May 2013.
5. Monroe Bypass; Awarded, some issues remain to be resolved.
6. Greensboro Bypass – Design by Private Firm; Let in 2013 or 2014.
7. Multiple Division let projects which can be found on the DOT website by clicking on the individual Divisions on the map.

Future Meetings

1. It was mentioned that Earl Dubin, the new FHWA Division Structural Engineer, should be invited to future meetings, and also Rodger Rochelle of the Transportation Management Unit.
2. The next PCF meeting will be in Columbia, SC on August 11, 2011.
3. Remaining dates this year for the NCDOT- PCI Joint Meetings are as follows:
July 21, 2011
November 17, 2011