

ACEC/NCDOT BRIDGE SUBCOMMITTEE  
Minutes of February 7, 2011 Meeting  
Structure Design Conference Room C, 10:30 am

**Attendees**

Joe Kelvington	Stantec
Jason Doughty	PB
Paul Barber	HNTB
Greg Perfetti	NCDOT Structure Design Unit - <b>Co-Chair</b>
Dan Holderman	NCDOT Bridge Management Unit
Lonnie Brooks	NCDOT Structure Design Unit
Allen Raynor	NCDOT Structure Design Unit
Paul Garrett	NCDOT Bridge Management Unit
Satrajit Das	URS

1) **Review of Minutes of the 11-1-10 Meeting** – reviewed, accepted, and will be posted on the SDU web page

2) **Bridge Design Workshop Series** –

a) Allen Raynor will contact Jim Barcomb about getting with Tia of ACEC to find a date at the Rural Center.

b) The survey of potential luncheon seminar topics indicated that the following rated as having the highest interest for future seminar topics:

- 1) Design Build Effects on Span Length and Girder Spacing
- 2) Bridge Hydraulic Sizing and Scour
- 3) Hydrodemolition

3) **Training Opportunities** – Greg Perfetti mentioned the possibility of a Steel Bridge Forum and is working with NSBA to develop a program. Greg will forward an online survey from NSBA to help develop the topics. Time and date will depend on the availability of NSBA.

4) **Policy Memos** –

a) *Revision to Design Manual Figures* (11/1/10) – Revised figures 6-106 – 6-108 Added top chord to steel cross frames to increase stiffness/stability, revised misc. weld details to be consistent with other diaphragm details. Added Figure 6-135 showing drip bead details;

b) *Point of Minimum Vertical Clearance* (11/1/10) – required point of MVC to be shown in plan view for bridges constructed over existing pavement, it should be the controlling

point used to set minimum vertical clearance (show station, offset and elevation of existing pavement.)

c) *Prestressed Concrete Piles* (11/30/10) - increased allowable strength from 5000 psi to 7500 psi. Allows higher driving stresses and allows prestressed concrete piles to be used in areas not previously possible. Allows the option of ½” or 0.6” low relaxation strand giving producers more flexibility.

d) *Armored Evazote Joints* – Disallows further use of armored evazote joints due to high maintenance problems. Use Expansion Joint Seals on all Interstates, US Routes, NC Routes (ADT ≥ 10,000), and NC Routes ADTT ≥ 500. Detail unarmored evazote joints in accordance with the Design Manual (with elastomeric concrete headers).

e. *Revisions to Special Provisions* – “*Construction, Maintenance, and Removal of Temporary Structures*” (PSP # 3 & 4) – added the requirement of minimum horizontal clearance of 25’ for temporary detour bridges over railroads; “*Evazote Joint Seals*” (PSP # 21) revised material requirements for evazote joint material and adhesives, removed armored joint installation requirements; “*Construction of Superstructure*” and “*Construction of Substructure*” (PSP # 35 & 36) - deleted the special provisions for lump sum construction of superstructure and substructure.

5) **Anticipated PEF Advertisements** – R-4047 – Haywood Co. (5/11) RR Underpass; U-0071 – Durham Co (6/11) GS; U-2524C – Guilford Co. (10/11) GS/SX; R-2707 – Cleveland Co. (1/12) GS

6) **Technical Discussions** - Use of Prefabricated Bridge Elements as related to the *PBES Initiative* was discussed with the mention that Structure Design and Bridge Management are continuing to work with PDEA to find ways to expand the usage of NCDOT’s experiences with prefabricated bridge elements and make them part of our normal business process. Use of SPMT’s was discussed with the conclusion that NC has not found an economically suitable site to date to employ their use.

7) **Other Topics** - A request was made to have future meeting agendas circulated in advance to allow time to add items for Technical Discussion

8) **Next Meeting** – (Monday) May 2, 2011 – **10:00 a.m.** – Structure Design Conference Room - C