

MEETING MINUTES

MANDATORY PRE-BID CONFERENCE and SHOWING

Project No: UPC 110674

Title: HRBT Beam Strengthening

Date: September 27, 2017, 10:00AM

Location: HRBT Training Center, 410 S. Curry St., Hampton, VA

Attendees:

Prospective Bidders – see attached Sign-In Sheet.

VDOT Staff – see attached Sign-In Sheets.

Introduction: Joe Ludwig, PE, VDOT Area Construction Engineer

- Reviewed the Sign-In Attendance Sheet by name and asked if all prospective bidders had signed and submitted the CII/SSI Security Release Form required.
- Introduced all VDOT staff attending the conference.
- Provided overview of the meeting Agenda.
- Reviewed Protocol for the Mandatory Project Showing:
 - Attendees must be signed in in order to submit a bid.
 - Attendees may represent multiple firms, but must sign for each firm represented.
 - The tour of project site is mandatory. Attendance will be confirmed.
 - Attendees will be transported on the project site tour by VDOT vans.
 - Any bidder's representative who leaves prior to conclusion will be stricken from the register and reason noted in meeting minutes.
 - Future questions and any unanswered questions shall be asked and responded to through the CABB system.
- Meeting Minutes will be distributed to attendees and posted on the CABB site.
- Q & A will be conducted at the conclusion of the tour.

Electronic Presentation: Rex Gilley, PE, WSP Design Project Manager

- Provided overview of the project site and scope of work.
- Showed photo examples of the concrete beam superstructure to be strengthened.
- Highlighted Time of Year Restrictions for construction activities.
- Highlighted unique technical requirements for external tendon construction and CFRP anchorage.
- Highlighted post-tensioning personnel qualifications required by the special provisions.

- Michael Sprinkel, PE, PhD, VTRC, reviewed general requirements for Mock-up Testing of external tendons.
- Reviewed requirements for providing the Engineer marine access to the work.

Note: The electronic presentation is attached.

Showing Tour:

- Bidders were transported by vans to the HRBT South Tunnel Island where they viewed two locations where existing prestressed concrete beams were stored. The southwest side contained 75ft long beams; the east side 50ft long beams.
- Bidders viewed a portion of the EB and WB South Approach Trestles from the South Island; then were transported across the EB Trestle to obtain a side view of the WB Trestle from the van; transported back across the WB Trestle to side view the EB Trestle; and returned to the Training Center meeting room.
- The planned boat tour to provide a water view under the south trestles was cancelled due to rough seas.

Q and A Session:

Q-1: What are the Pre-Qualifications for performing CFRP construction?

VDOT Response: Refer to the VDOT Road and Bridge Specifications, 2016. See Section 412.03 (s) for Qualifications of Contractor.

Q-2: What technical specifications are being used for CFRP materials and construction?

VDOT Response: VDOT Road and Bridge Specifications, 2016, Section 412-Widening, Repairing, and Reconstructing Existing Structures.

Addendum to Plans and Special Provisions:

VDOT will issue an addendum to address minor revisions to the plans and special provisions.

- A General Note will be added to alert the Contractor that coordination with another VDOT contractor completing concrete substrate repairs to a few of the beams on the WB Trestle will be required. Substrates of the EB Trestle beams, as well as the majority of the WB Trestle beams, are ready for strengthening.
- The Special Provision for Protection of Colonial Nesting Birds will be replaced to correct the TOYR for any work on the South Island from February 15 through August 31 to April 1 through August 31.
- The Special Provision for Limitations Governing the Movement of Barges or Flexifloats In Shallow Water will be replaced to eliminate the requirement for a permit authorization

or modification for placement of any structures to anchor the barge or flexifloats in place (i.e.-spudding).

- A second Mock-up Test will be required for 75ft long beams representing the EB Trestle. The plan estimated quantities and the Special Provision for Mock-up Testing will be revised. Four concrete beams total, two 50ft and two 75ft, will now need to be retrieved from the South Island stockpiles.

ATTACHMENTS

1. Attendance Sheets (3 each)
2. Electronic Presentation PDF (20 sheets)

DISTRIBUTION

Attendee e-mails listed on the Contractor Attendance Sheet

*** End of Minutes ***

Hampton Roads Bridge Tunnel

Beam Strengthening Project

Presented by:

Virginia Department of Transportation

September 27, 2017



Agenda

1. Protocol
2. Overview of Project Site
3. Scope of Work
4. Time of Year Restrictions
5. Unique Technical Requirements
6. PT Personnel Qualifications
7. Mock-up Testing
8. Marine Access to the Work
9. Field Visit
10. Question & Answer Period

Protocol

Mandatory Project Showing

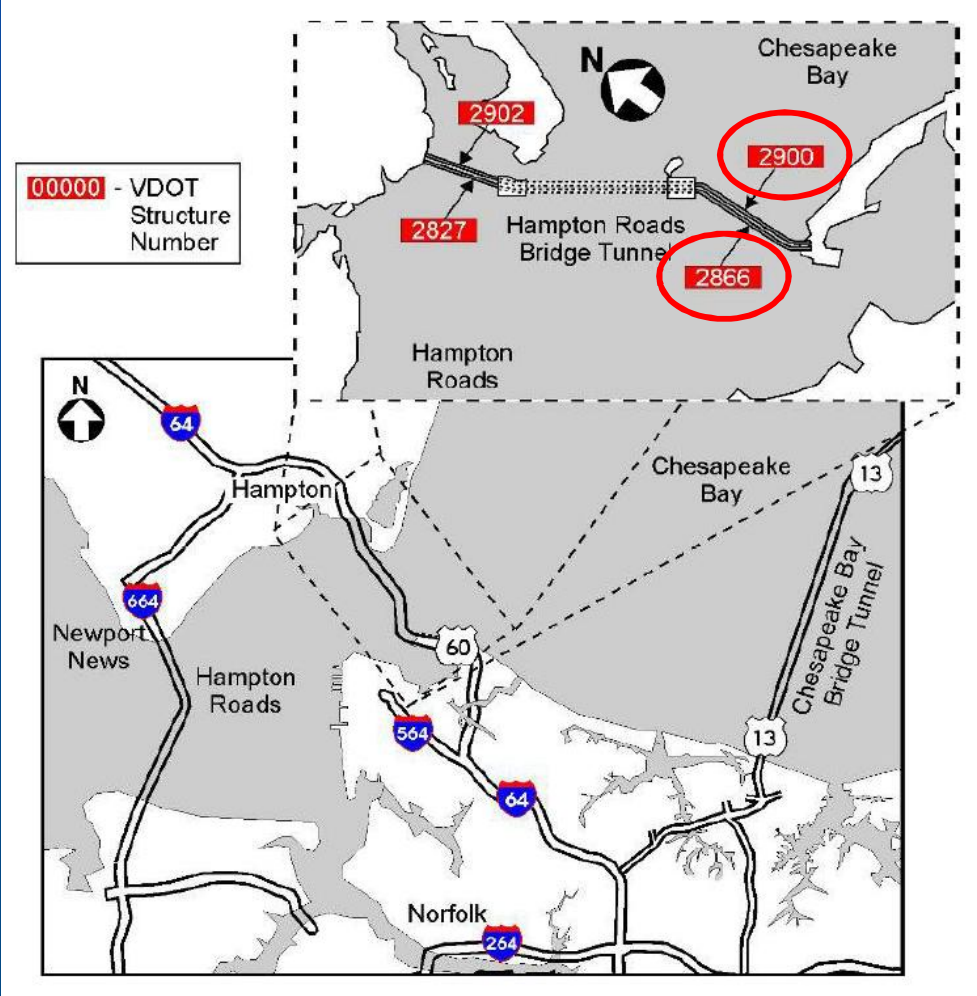
❖ Protocol

- Photo I.D. / Signed Release (CII/SSI) / Collect sign in sheet
- In order for Department to accept bid, the bidders representative must be present from beginning to the conclusion of showing
- The attendee can represent multiple firms, but must sign for each firm he or she represents
- The tour of the project site is mandatory. Attendance will be confirmed
- Any Bidders representative who leaves prior to conclusion will be stricken from the register and reason noted in meeting minutes.

❖ Q & A at conclusion

- Future questions and unanswered questions need to be asked on CABB System

Project Site



Bridge Location

Project Site



Str 2866 EBL

Str 2900 WBL

**Girders for
Mock-up Test**

**Marina at
Willoughby Spit**

Project Site



Str. 2900 - Elevation View

Scope of Work

Beam Strengthening:

- ❖ External Post-tensioning
 - Conventional 0.6" diameter strands
 - Wax filler
 - Grout filler
- ❖ Carbon Fiber Reinforced Polymer (CFRP) Wrap
- ❖ This project will be subject to increased scrutiny and site visits by VDOT representatives
- ❖ Fixed Completion Date of 6/28/19
- ❖ DBE requirement is 1%
- ❖ Predetermined Minimum Wage Rates
- ❖ Hampton Roads Bridge Tunnel Security Requirements

Structure 2866 EBL



Span 56, Beam 5 – Before Patching

Structure 2866 EBL



Span 56, Beam 5 – During Patching

Structure 2866 EBL



Span 56, Beam 5 – After Patching

Structure 2900 WBL



Span 31, Beam 8

Structure 2900 WBL



Span 34, Beam 4

Structure 2900 WBL

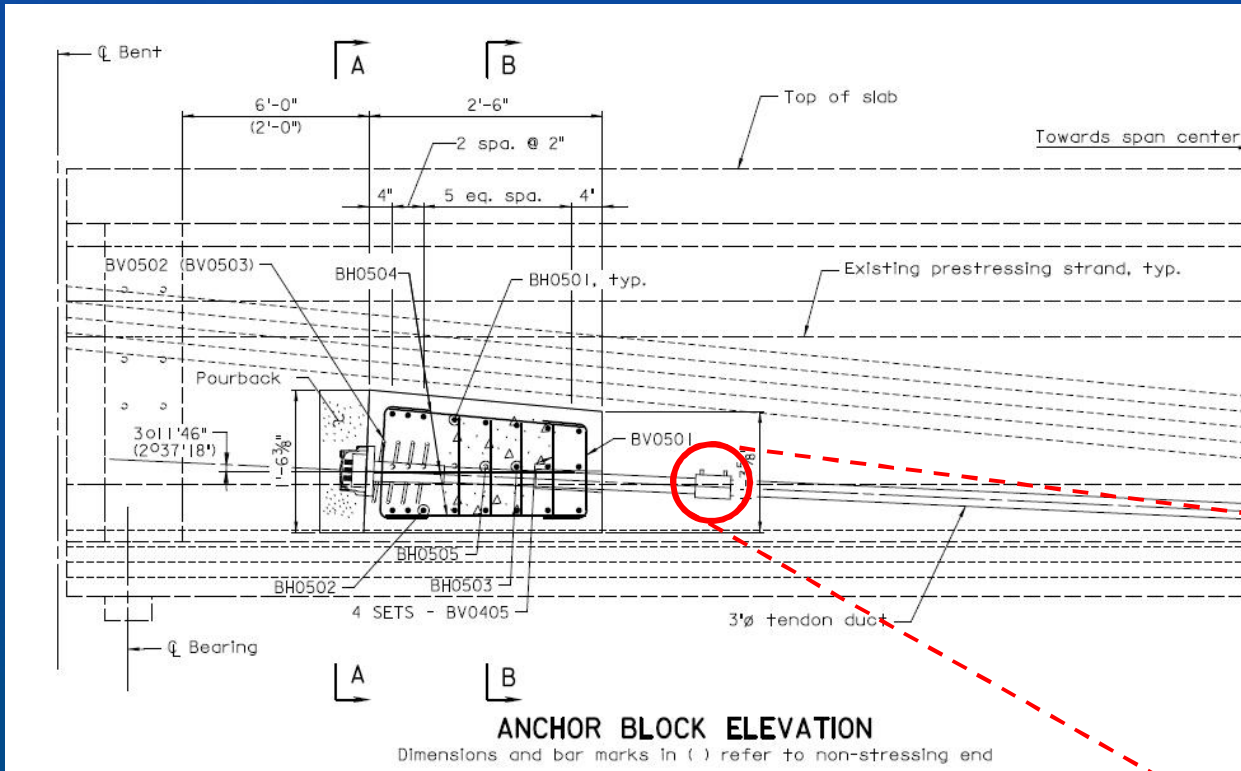


Span 39, Beam 8

Time of Year Restrictions

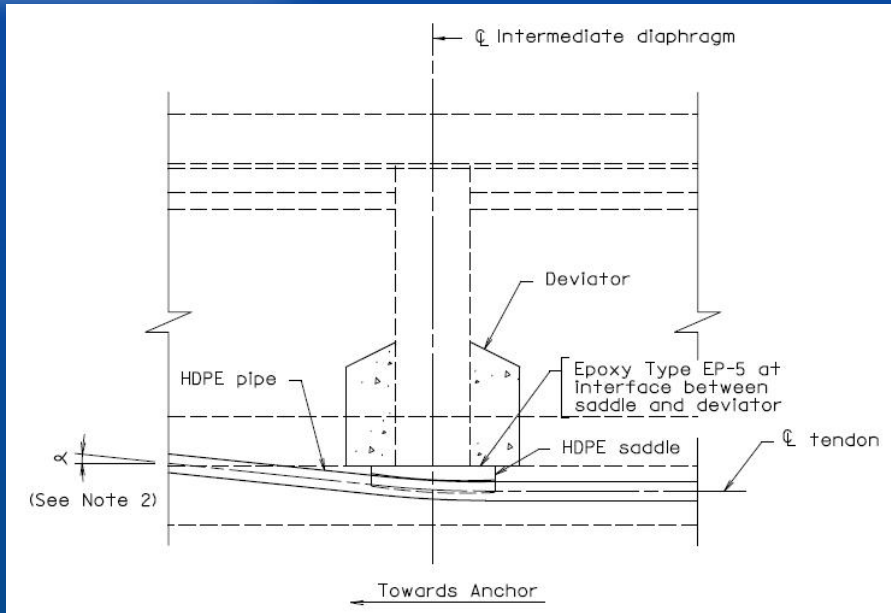
1. Construction activities within the bridge limits shall only be allowed between March 15th and October 31st unless permitted by the Engineer.
2. Other activities such as shop drawing submittals and mock-up testing are not restricted to the above time periods.

External Tendons

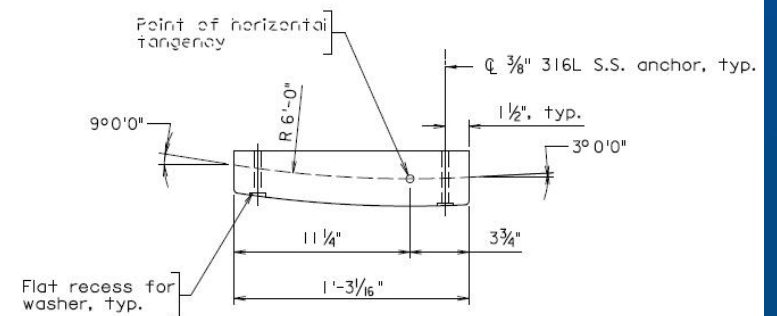
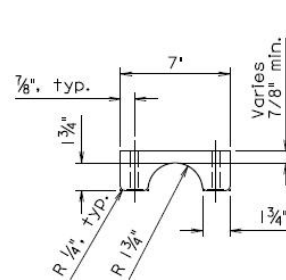


Electrofusion couplers

External Tendons

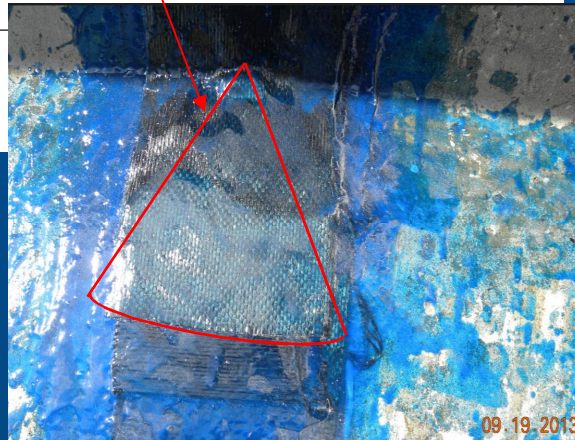
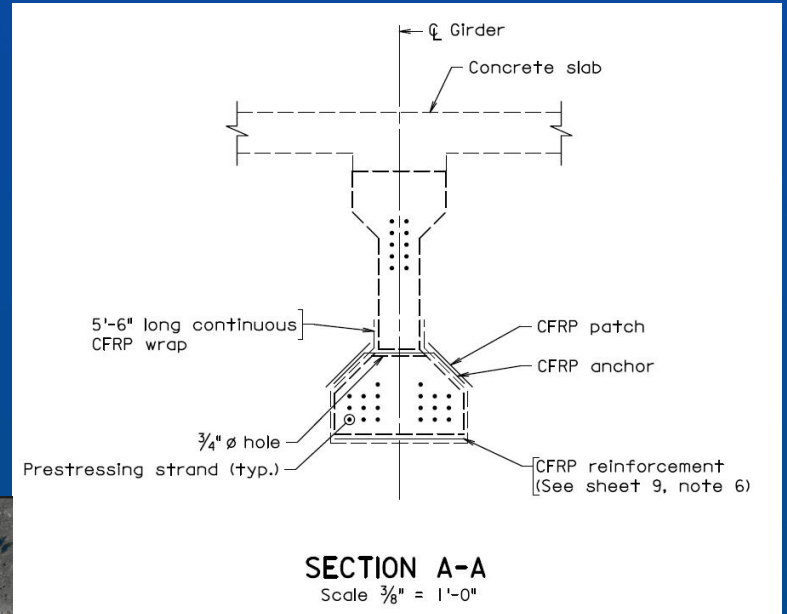
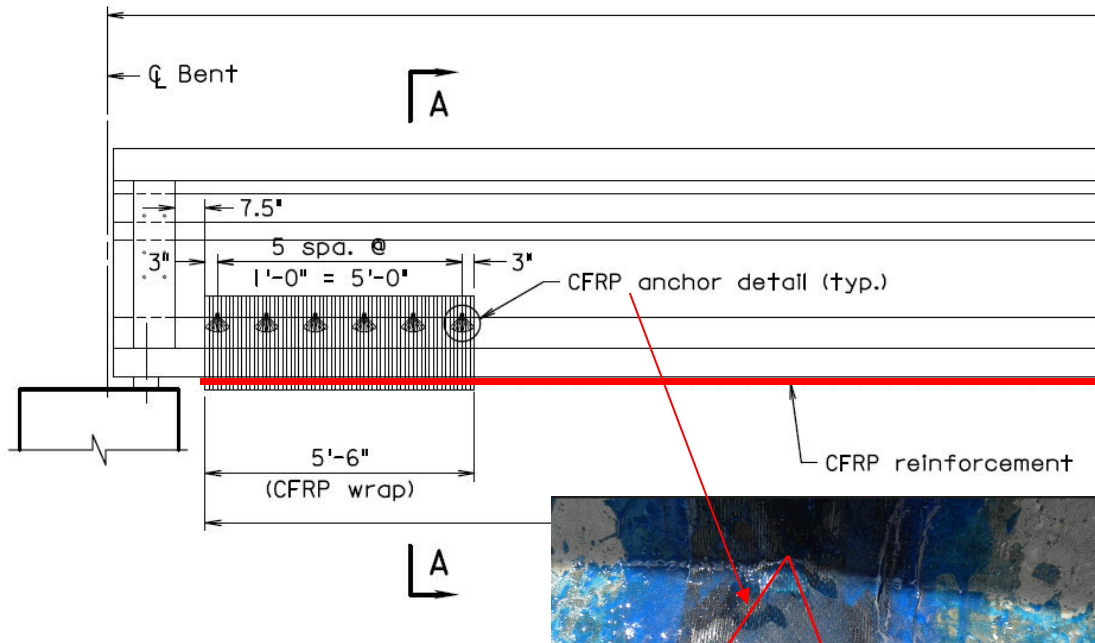


HDPE saddle (similar)



HDPE TENDON SADDLE DETAILS

CFRP



CFRP Anchor Fan

PT Personnel Qualifications

Requirements

- ❖ Submit experience records
- ❖ Various requirements based on position
 - One person may fill multiple roles
 - Direct supervisor on site shall have current PTI Level 2 Bonded PT Field Installation Specialist and ASBI grouting and flexible filler certifications
 - PT Work crew – 100% of members of the work crew shall have current PTI Level 1 Bonded PT Field Installation Specialist except that one member of the crew may be an uncertified trainee for up to 60 days prior to obtaining certification
 - Grouting Work crew – 100% of the grouting work crew shall be ASBI Certified Grouting Technicians except that one member of the crew may be an uncertified trainee for up to 60 days prior to obtaining certification

Mock-up Testing for External Tendons

Requirements

- ❖ Pick up 2 existing precast girders from HRBT south tunnel island
 - This location is a designated Colonial Nesting Birds site from April 1st through August 31st. Beam retrieval is not permitted within these months.
- ❖ Required to perform one successful mock-up test
 - Construct 4 ft wide deck slab with partial diaphragms including reinforcement similar to as-built condition
 - Demonstrate how anchor blocks and deviators will be constructed and demonstrate duct filling
 - One tendon with flexible filler and one with grout filler
 - Grouted tendon will be filled with grout followed by a 2nd time with grout containing red dye
 - Both grouts will be sampled and tested at the inlet and outlet ends

Marine Access to the Work

Requirements

- ❖ Provide boat with operator dedicated exclusively for the Engineer's use at all times construction activities are taking place
 - Center console with at least 24 feet length and minimum 150 hp motor
 - Provide and maintain suitable landing docks
 - Provide a minimum of four (4) parking spaces where the boat is docked

VIRGINIA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DIVISION

Mandatory Project Showing - CONTRACTOR -

JOB DES. HRBT Beam Str. PROJ. # 0064-114-325, B656, B657 Project Manager Charles Reid

ROUTE I-64 Const. Area: Peninsula COUNTY Hampton DATE Sept. 27, 2017 TIME 10:00am

NAME	E-Mail Address	COMPANY	PHONE #
✓ Kevin Pavuk	Kpavuk@gmail.com	✓ Structural Preservation Systems	✓ 410-456-2086
✓ Garrett Cashman	gcashman@vsi.net	✓ Structural Technologies, LLC	✓ 757-510-5247
✓ Nicholas Crigler	ncrigler@structuraltec.com	✓ Structural Technologies	✓ 443 621 9864
✓ Nick Wyatt	nwyatt@PCL.com	✓ PCL Construction	304-282-2322
✓ Justin Burleigh	jpb@burleighconstruction.com	✓ Burleigh Construction Co. Inc.	434-993-2214
✓ Douglas Kirby	dkirby@mcleancontracting.com	✓ Mclean Contracting	757-419-3606
✓ James Weale	Jweale@marksmanco.com	✓ M.D. Miller Company	✓ 443-848-0308
✓ Derek Elkins	DerekJWhitlockBrothers.com	✓ Whitlock Brothers	757-286-0360
✓ Hunter Hall	hunter@whitlockbrothers.com	✓ Whitlock Brothers	757-469-4336
✓ Sam Erwin	serwin@cormanconstruction.com	✓ Corman Construction	752-479-5202
✓ Bruce C Keener	bkeener@cormanconstruction.com	✓ Corman Construction	✓ 752 213 1562
✓ Kirill Gorin	K.gorin@curtiscontracting.net	✓ Curtis Contracting Inc.	✓ 804-229-9553
✓ BILL HOGGARD	BHOGGARD@WMSCHLOSSER.COM	✓ WM SCHLOSSER	✓ 757-312-0649
⊗ Derek Elkins & Hunter Hall	Hunter Hall of Whitlock Brothers	elected not to attend	the 9/27/17
field visit	because they said they were	suppliers only. (SM)	Joseph M Ludwig, PE VDOT-ACE

