A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: February 15, 2011
Date of Addendum: February 4, 2011

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
014	78-0061-114	Bridge and Approaches - Other	Pottawattamie	BRF-006-1(114)--38-78	15feb014.a01

Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

Make the following change to the ESTIMATING PROPOSAL, PAGE 1:

Change the DBE Goal from 2.5 % to 0.0 %.

Make the following change to the BIDDING DOCUMENT, PAGE 1:

Change the DBE Goal from 2.50 % to 0.00 %.

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

For Line No. 0020 change the Item Number and Item Description from 2401-6745650 REMOVAL OF EXISTING STRUCTURES to **2401-6745625 REMOVAL OF EXISTING BRIDGE.**

The Item Quantity and Unit remain the same.

Attached is the 404 permit for this project.

Make the following change to the PLAN:

Add the following statement to the General Notes on Sheet 2:

Given the research nature of this project and the need to limit road closure to 14 days, Iowa DOT (and HNTB) will work closely with the contractor and the UHPC supplier to explore the most cost effective methods to meet the specified design.

IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE:	District 4	**DATE:**	May 10, 2010
ATTENTION:	George Feazell	**REF.:**	Pottawattamie County BRF-006-1(114)—38-78
FROM:	Mark Sloppy		05-78-006-020
OFFICE:	Location and Environment – Water Resources Section		
SUBJECT:	Clean Water Act Section 404 Permit		

Please find enclosed the Department of Army Section 404 Permit authorizing all work in conjunction with the replacement of the U.S. 6 bridge that spans Keg Creek, located approximately 5.9 miles east of Council Bluffs in Pottawattamie County.

PERMIT INFORMATION

404 Permit Number:	2010-368
Permit Type:	Nationwide Permit 14
Effective Date:	April 21, 2010
Expiration Date:	April 21, 2012
Standard Notes for Plans:	281-1, 213-1
General Specifications:	1105.14, 2547

PERMIT CONDITIONS

General and Special Conditions of the Permit:
Conditions specific to this project are in the attached permit. For Nationwide Permits, the general conditions listed in the Corps Fact Sheet No. 6(IA) must also be adhered to. The fact sheet can be found at:

W:\Highway\EnvServices\WaterResources\CommonFiles\404 Clearance Tool Box\Fact Sheet 6 – IA.pdf

Native Grass Seeding: Must be included for all disturbed areas.

Temporary Stream Crossings: Authorized and must be constructed according to Standard Road Plan RL-16 and General Specification 2547.

Dredging: Not authorized.

MITIGATION INFORMATION

There will be two types of mitigation required for the project impacts. To compensate for the wetland impacts, DOT will buy 0.36 acres of wetland credits at the G. William Coulthard Trust Mitigation Bank in Harrison County. To compensate for stream impacts, the DOT will construct a rip rap grade control / splash basin at the outlet of the 8’ x 5’ x 79’ concrete flume.

Mitigation Sites:
Wetland Mitigation Site – G. William Coulthard Trust Mitigation Bank - Township 78 North, Range 45 West, Section 3&4 in Harrison County.
Stream Mitigation Site – 1 rip rap grade control / splash basin within the permanent easement boundary of project BRF-006-1(114)—38-78, Pottawattamie County. Please refer to Sheet S.1 in the project plans for stream mitigation information.

Wetland Mitigation Site Ownership: Thien Farm Management, Inc.

Stream Mitigation Site Ownership: IA DOT

Mitigation Site Agreements: A purchase agreement with Thien Farm Management, Inc. is pending.

Mitigation Site Maintenance: District 4 maintenance staff will provide routine maintenance within DOT ROW.

Please notify me immediately should the road design change or should wetland-related issues arise. Also notify me when the project work is complete. If there are any questions, please contact me by email at mark.sloppy@dot.iowa.gov or by phone at 515-233-7862.

MS

cc: M. J. Dillavou (Highway Division)
M. A. Swenson (Highway Division)
M. J. Kennerly (Design)
D. E. Ohman (Design)
N. L. McDonald (Bridges and Structures)
G. A. Novey (Bridges and Structures)
J. M. Smythe (Construction)
J. W. Smith (Contracts)
R. Bierbaum (Contracts)
M. Sankey (ROW)
J. P. Rost (Location and Environment)
R. A. Boydston (Location and Environment)
D. Newell (Location and Environment)
S. C. Marler (Location and Environment)
M. Sloppy (Location and Environment - file)
J. Selmer (District 4)
D. Stevens (District 4)
J. Bane (District 4)
M. LaPietra (Federal Highway Administration)
Records Center

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING - P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

http://www.mvr.usace.army.mil

April 21, 2010

Operations Division

SUBJECT: CEMVR-OD-P-2010-368

Mr. Jim Rost
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Rost:

Our office reviewed your application dated April 9, 2010, concerning the proposed replacement of the U.S. 6 Bridge that spans Keg Creek in Sections 15 and 22, Township 75 North, Range 42 West, Pottawattamie County, Iowa.

Your application indicated that 0.24 acres of regulated wetland will be impacted by this project through the placement of fill material. You will be required to provide proof of purchase of 0.36 acres of wetland credits from the William G. Coulthard Trust Mitigation Bank prior to placing fill material in the wetlands. In addition to the wetland mitigation bank purchase, you will be required to mitigate the stream impacts as discussed in your application package.

Your project is covered under Nationwide Permit No. 14, as published in the Enclosed Fact Sheet No. 6(IA), provided you meet the permit conditions for the nationwide permits which are also included in the Fact Sheet. The Corps has also made a determination of no impact on federally threatened and endangered species or critical habitat. The Iowa Department of Natural Resources (IADNR) has also issued Section 401 Water Quality Certification for this nationwide permit. The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision.

You are encouraged to conduct your construction activities during a period of low flow. You are required to remove all fill material used as a temporary crossing or coffer dam to an upland, non-wetland site, to seed all disturbed areas with native grasses, and to implement appropriate measures to insure that sediments are not introduced into waters of the United States during construction of this project.

This verification is valid for two years from the date of this letter, unless the nationwide permit is modified, reissued or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from this date to complete your activity under the present terms and conditions of this nationwide permit.

Although an individual Department of the Army permit will not be required for this project, this does not eliminate the requirement that you must still acquire other applicable federal, state and local permits. If you have not already coordinated your project with the IADNR, please contact Mr. Kelly Stone in writing or telephone 515/281-8693 to determine if a floodplain development permit is required for your project. You should also contact the Manager, of the IADNR Sovereign Lands Division in writing or telephone 515/281-8967 to determine if a sovereign lands construction permit is required or if this project may adversely impact Iowa threatened or endangered species or their habitat.

You are required to complete and return the enclosed "Completed Work Certification" upon completion of your project in accordance with General Condition No. 26 of the nationwide permits.

This letter contains an approved jurisdictional determination for the subject site. If you object to this jurisdictional determination, you may request an administrative appeal under Corps regulations found at 33 CFR Part 331. Enclosed is a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this approved jurisdictional determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the following address:

Mr. James B. Wiseman, Jr.
Administrative Appeals Officer
U.S. Army Corps of Engineers
Mississippi Valley Division
ATTN: CEMVD-PD-KM
Post Office Box 80
Vicksburg, Mississippi 39181-0080

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by June 21, 2010.

It is not necessary to submit an RFA form to the Division Office if you do not object to the approved jurisdictional determination contained in this letter.

The Rock Island District Regulatory Branch is committed to providing quality and timely service to our customers. To help us know how well we are doing and to improve our service where needed, we request that you take a few minutes to complete the "Customer Service Survey" questionnaire found on the following website: http://per2.nwp.usace.army.mil/survey.html. (Be sure to select "Rock Island District" under the area entitled: Which Corps office did you deal with?) If you would prefer to complete a hard copy of this survey, please contact our office and we will mail you a copy of the survey with a return envelope.

Should you have any questions, please contact our Regulatory Branch by letter, or telephone Mr. Albert Frohlich at 309/794-5859.

Sincerely,

Donna M. Jones, P.E.
Chief, Enforcement Section
Regulatory Branch

When the structure or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit are still in existence at the time the property is transferred, the terms and conditions, will continue to be binding on the new owner(s), of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

Transferee Date

Enclosures

Copies Furnished: (w/o enclosures)

Chris Schwake (3)
Iowa Department of Natural Resources
Water Resources Section
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319-0034

Ms. Martha S. Chieply (E-Mail)
Regulatory Branch
U.S. Army Engineer District, Omaha
12565 West Center Road
Omaha, Nebraska 68144-3869

Minutes for Pottawattamie County, Pre-Bid Meeting
ABC Demo Project US 6 over Keg Creek

- Letting Date is February 15, 2011. Bids must be received 10:00 AM and may only be submitted at the Office of Contracts in Ames.

- Requests for bidding documents must be submitted by noon the day before the letting, February 15, 2011 to the Contracts Engineer or the Assistant Contracts Engineer.

- There are currently 12 bid holders for bid order 014:
    1. CHRISTENSEN BROS., INC.
    2. CRAMER AND ASSOC., INC.
    3. CUNNINGHAM-REIS CO.
    4. GODBERSEN-SMITH CONSTRUCTION CO. & SUBSID.
    5. GRAVES CONSTRUCTION CO., INC.
    6. HAWKINS CONSTRUCTION CO.
    7. JENSEN CONSTRUCTION CO.
    8. MCC, L.L.C.
    9. MURPHY HEAVY CONTRACTING CORP.
    10. PETERSON CONTRACTORS INC.
    11. UNITED CONTRACTORS INC. AND SUBSIDIARIES
    12. CHARLES VRANA & SON CONSTRUCTION COMPANY

  There is ~~2.5%~~ 0.0% DBE Goal. (Changed by addendum)

- The Contract Period on page 2 of the Proposal Details

- Design Information – Mike LaViolette, from HNTB

During the contract period explanation a question was asked about the approximate start dates not being as flexible as late start dates. George Feazell responded the intent was not to restrict the contractor. If the long-range forecast indicated an August start would work, the contractor could ask the district to start earlier. The DOT will work with the contractor to make this project successful.

Q: Is the tolerance on the superstructure 2” gap behind the abutment enough?
A: Yes, based upon various tempatures the 2” gap is sufficient.

Q: Is the barrier precast?
A: Yes, the intent of the plan is that the barrier is in place prior to setting the superstructure module.

Q: What are the typical cure times for UHPC, self consolidating concrete, and grout?

A: 3-4 days for UHPC, 18 hours for SCC, and 12 hours for grout.

Q: What date is rolled steel needed?
A: It depends on the contractor's schedule and whether they self perform or not.

Q: Will there be a web cam on site?
A: The DOT is working on that issue.

Q: What the maximum weight of the units?
A: The weights are shown on sheet 4 of the plans.

Q: Will there be flexibility on the DBE goal?
A: The goal was eliminated by addendum.

Q: Is there an opportunity to set the precast columns prior to demolishing the existing bridge?
A: Yes, but damage to the columns could be a problem.

Q: Can the 404 permit be included in the addendum?
A: Yes.

Q: Can precasting be done locally?
A: Yes, you can self perform. There are notes in the plan for that option.

Pottawattamie County
ABC Demonstration Project
BRF-006-1(114)--38-78

NAME	COMPANY	E-Mail Address	PHONE #
WAYNE A. SUNDAY	IOWA DOT CONSTRUCTION	wayne.sunday@dot.iowa.gov	515-239-1185
Kurt Estrem	IDOT contracts		
BRUCE FLIPPIN	DISTRICT 4 CONSTRUCTION	Bruce.flippin@dot.iowa.gov	712-366-0566
Orest Lechnavsky	IDOT		
Calvin Schrage	NSBA	schrage@steelbridges.org	402-466-1007
MIKE LAVIOLETTE	HNTB	Mlaviolette@hntb.com	515-291-9035
GEO. FEAZELL	IOWA DOT		712-243-7628
DAN GRAVES	GRAVES Const.	dan@gravesconst.com	712-262-2403
JORDAN MILLER	PCI	jordan@petersoncontractors.com	319.269.5916

Pottawattamie County
ABC Demonstration Project
BRF-006-1(114)--38-78

NAME	COMPANY	E-Mail Address	PHONE #
Andy Stone	United Contractors	andystone@unitedcontractors.net	(515) 276-6162
Dan Hennings	Kiewit	Dan.Hennings@Kiewit.com	(402) 734-922000
Jim Nelson	Iowa DOT	James.S.Nelson@dot.iowa.gov	515 239-1193
Mark Freier	Godbersen-Smith Const.	mfreier@gs-const.com	712-364-3388
David Evans	Iowa DOT	David.Evans@dot.iowa.gov	515 239-1905
Brian Jacob	Cramer & Assoc	bjacob@cramerandassociates.com	265 1447
Ryan Cheeseman	Jensen	rcheeseman@jensenconst.com	515-266-5173
Dan Redmond	IDOT	daniel.redmond@dot.iowa.gov	712-243-7629
Kyle Frame	IDOT	kyle.frame@dot.iowa.gov	515.239.1619
Ahmad Abuhawash	IDOT	ahmad.abu-hawash@dot.iowa.gov	515-239-1393

SHRP 2 - R04 Innovative Bridge Designs for Rapid Renewal

Pre-Bid Meeting
Ames, IA

January 21, 2011

HNTB

Team

R04 Team Members

- HNTB - Prime Contractor
- Structural Engineering Associates
- Iowa State University
- Genesis Structures

HNTB

Iowa Department of Transportation
Highway Division

PLANS OF PROPOSED IMPROVEMENTS ON THE

US 6 BRIDGE OVER KEG CREEK

POTTAWATTAMIE COUNTY

SHRP PROJECT R04

INNOVATIVE BRIDGE DESIGNS FOR RAPID RENEWAL

ABC DEMONSTRATION PROJECT

Project cost	**$?????**
Conventional construction	**6 months**
Duration for ABC	**2 weeks**

HNTB

Incremental Innovation

Incremental Innovation

- Completed projects

  +
- Integrating diverse structural systems
- = Innovation
- Incremental improvements in a number of specific bridge details to fully leverage previously successful work.

HNTB

Project Innovations

Project Innovations

- Complete bridge system
- Precast
- Superstructure units create a semi-integral abutment for rapid construction
- HPC
- UHPC joints
- Durable, moment-resisting joint between deck panels and approach slab panels.

The proposed project will be the first in the US to use UHPC to provide a full, moment-resisting transverse joint at the piers.

HNTB

Project Innovations

Project Innovations

- No open deck joints
- UHPC concrete for continuity
- A Structural Health Monitoring System
- SCC will be used to improve consolidation and increase the speed of construction for abutment piles.
- Use of fully contained flooded backfill

HNTB

Iowa ABC Demonstration Project

Tier 2 - Two Week Closure

US 6
Bridge over
Keg Creek

Council Bluffs
Iowa

Concrete girder bridge

Built in 1953

HNTB

Existing Bridge

- Replacement design by Iowa DOT
- Spans 81 ft – 48 ft – 81 ft
- SHRP R-04 team has redesigned as an ABC system and will provide some onsite construction assistance

HNTB

Stage 1

Stage 1 –
Work Outside Existing Footprint

HNTB

ABC Stages

Stage 1 work (Prior to bridge closure)

- Construct drilled shafts to ground level
- Construct wingwalls on piles

Stage 2 work (14-day "ABC" period)

- Close bridge / Demolish existing bridge
- Assemble precast piers
- Assemble semi-integral abutments

Stage 3 work (14-day "ABC" period)

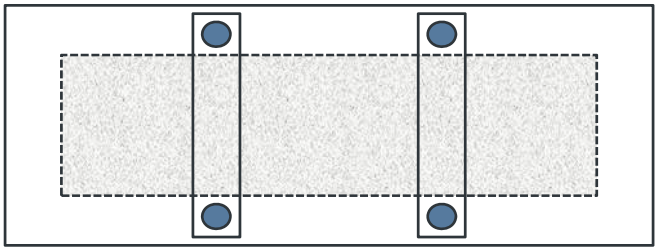
- Assemble modular superstructure
- Assemble precast approach slabs
- Cast UHPC closure joints and grind deck
- Re-open bridge to traffic – end ABC period

HNTB

Stage 1

Foundation Construction

Outside existing footprint

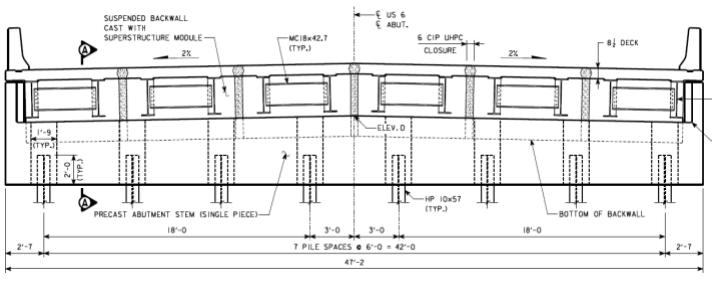


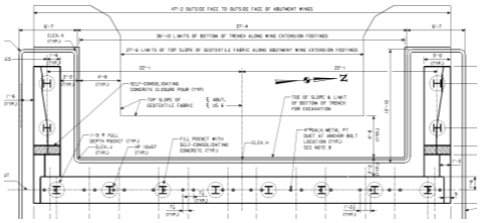
Stage 1 Work (prior to closure)

- Construct drilled shafts to ground level

HNTB

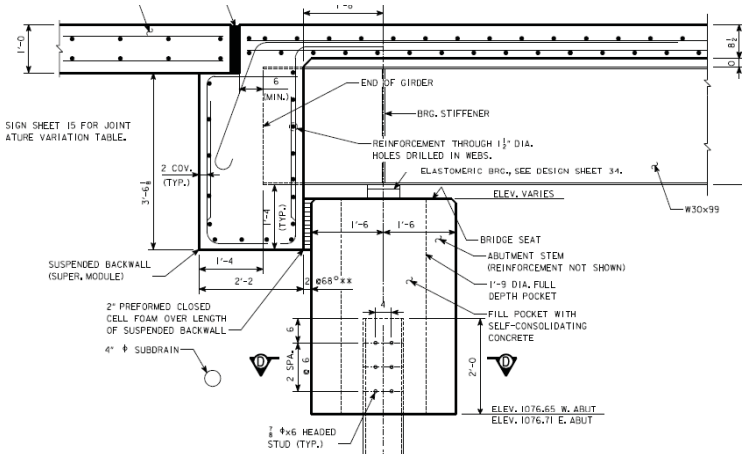
Abutment Details





HNTB

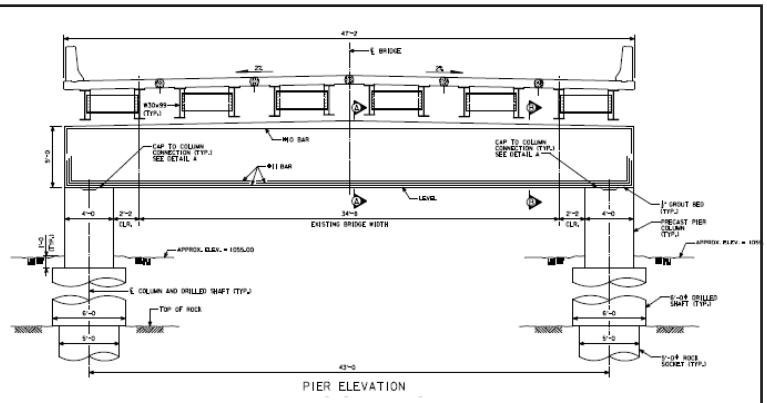
Semi-Integral Abutment

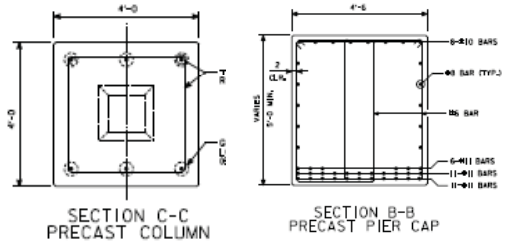


SUSPENDED BACKWALL DETAIL

HNTB

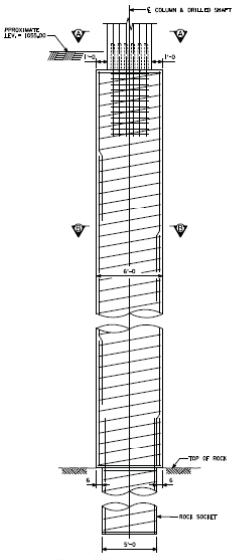
Precast Piers

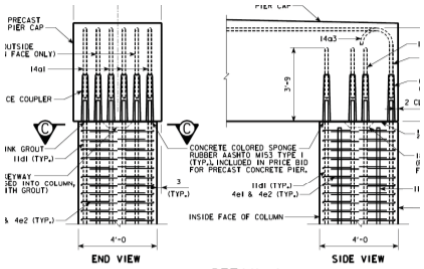




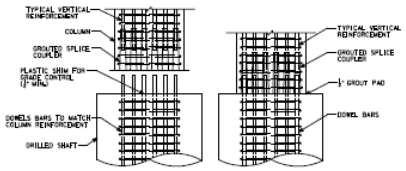
Grouted Spice Couplers

HNTB





DETAIL A
CAP TO COLUMN CONNECTION



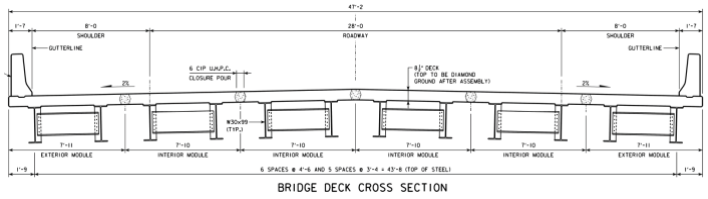
DETAIL A
DRILLED SHAFT TO COLUMN CONNECTION

Grouted Spice Couplers

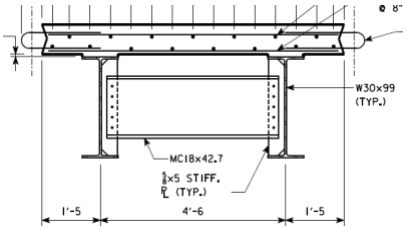
HNTB

Modular Superstructure

Stage 3



BRIDGE DECK CROSS SECTION



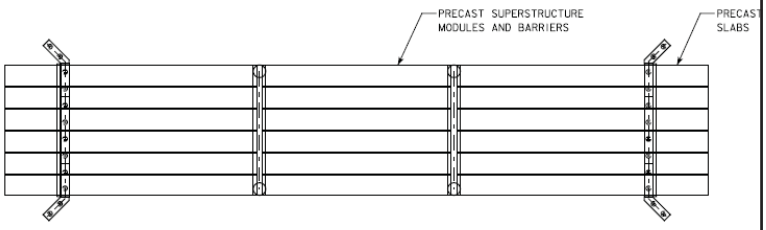
HNTB

Leveling Procedure for Adjacent Modules

- Adjust for Differential Camber
- Fill Joints with UHPC
- Diamond grind top ½”
- Open to traffic

HNTB

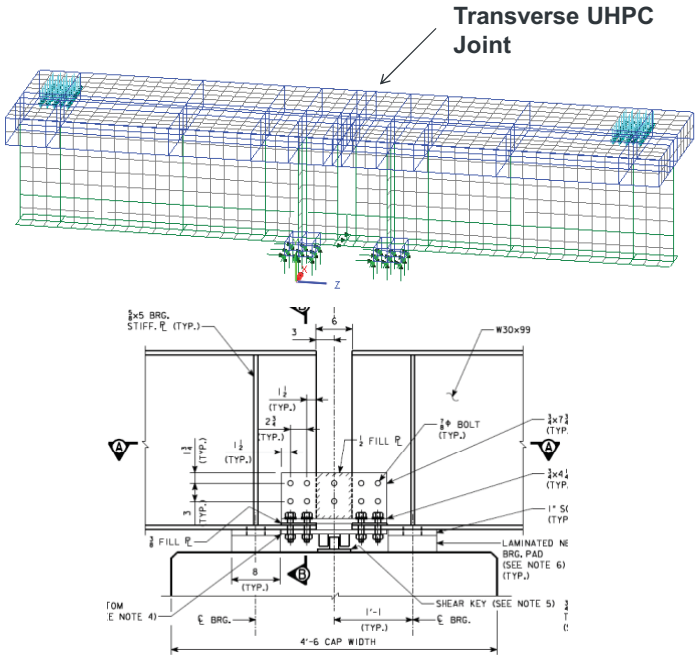
Demo Bridge Features



- UHPC closure joints (longitudinal & transverse over piers) in superstructure
- UHPC connections in precast approach slabs
- Jointless bridge
- Contractor to submit assembly plan
- Only the time of traffic disruption needs to be accelerated
- 14 day traffic interruption
- High enough I / D Clause in contract

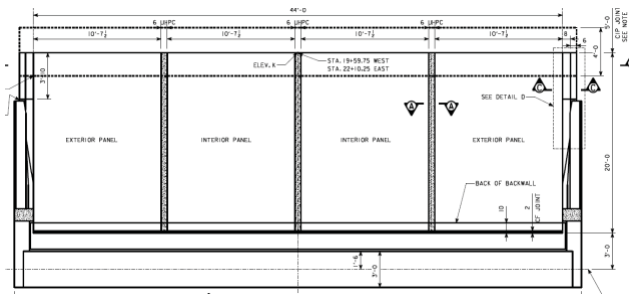
HNTB

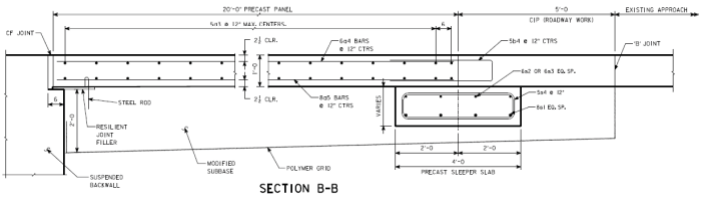
Pier Joint Detail



HNTB

Precast Approach Slabs





SECTION B-B

HNTB

Finished Bridge

Keg Creek

HNTB

ABC SUPPLEMENTAL SPECIFICATIONS

Special Provisions

- Precast Concrete Substructure Elements
- Prefabricated Superstructure Modules
- Precast Approach Slab Elements
- UHPC Infill Joints
- Removal of Existing Structure

VERIFY TITLES

HNTB

Stage 1 and 2 Schedule

Activity	Day 1	Day 2	Day 3	Day 4	Day 5
Phase 1					
Close bridge and enact detours					
Demolish existing Superstructure & Abutments					
Remove concrete substructure to 1' below grade					
Phase 2					
Drive abutment & wingwall H piles					
Assemble abutment stem					
Assemble abutment wingwalls and cheekwalls					
Place closure pours between abutment / wingwall					
Assemble precast columns					
Assemble precast pier cap beams					

VERIFY CURRENT

HNTB

Stage 3 Schedule

Activity	Day 6	Day 7	Day 8	Day 9
Phase 3				
Assemble modular superstructure				
Construct closure pours in superstructure				
Backfill abutment & install subbase				

Activity	Day 10	Day 11	Day 12	Day 13	Day 14
Phase 3					
Assemble precast approach slabs					
Construct closure pours in approach slabs					
Grind deck to final profile & groove					
Grind approach slabs to final profile					
Open bridge to traffic					

VERIFY CURRENT

HNTB