

# A d d e n d u m

Iowa Department of Transportation  
Office of Contracts

Date of Letting: June 20, 2017  
Date of Addendum: May 17, 2017

<b>B.O.</b>	<b>Proposal ID</b>	<b>Proposal Work Type</b>	<b>County</b>	<b>Project Number</b>	<b>Addendum</b>
001	07-0636-075	BRIDGE NEW - PPCB	Black Hawk	NHSX-063-6(75)--3H-07 NHSX-063-6(87)--3H-07 NHSX-063-6(90)--3H-07 NHSX-063-6(92)--3H-07 NHSN-063-6(94)--2R-07 NHSX-063-6(96)--3H-07 NHSN-063-6(97)--2R-07	20JUN001A01

Make the following changes to the plan: NHSX-063-6(90)--3H-07

Replace SHEET NUMBER 3 of the plan with the Attached SHEET NUMBER 3

Summary of changes: Deleted the note that specifies the pier cap and columns removal.

## GENERAL NOTES:

THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING RAILROAD UNDERPASS BRIDGE WITH A RAILROAD OVER PASS BRIDGE ON US 63 IN THE CITY OF WATERLOO. THE EXISTING RAILROAD BRIDGE IS A 111'-0" x 36' BALLASTED DECK PLATE GIRDER BRIDGE, ORIGINAL DESIGN NO. 160 (CONSTRUCTED IN 1963). ELECTRONIC COPIES OF THE ORIGINAL DESIGN PLANS ARE AVAILABLE TO THE CONTRACTOR AS PART OF THE E-FILES SUPPLIED WITH THE CONTRACT DOCUMENTS.

THE LUMP SUM BID FOR "REMOVAL OF EXISTING BRIDGE" SHALL INCLUDE REMOVING THE EXISTING RAILROAD BRIDGE SUPERSTRUCTURE ABOVE THE BEARINGS. THE BID ITEM REMOVAL WILL ALSO INCLUDE REMOVING THE ABUTMENTS TO A MINIMUM OF 2'-0" BELOW THE PROPOSED RAILROAD SUBGRADE, THE ABUTMENT WINGS, ABUTMENT WING PILING AND PILE CAP, AND CONCRETE SLOPE PROTECTION.

IT IS ESTIMATED THAT A MINIMUM OF 16 EXISTING STEEL PILING IN THE ABUTMENT WING CORNERS OF THE RAILROAD BRIDGE WILL BE IN CONFLICT WITH THE NEW DRILLED-IN PILE CONSTRUCTION AND NEED TO BE REMOVED. THE CONTRACTOR SHALL DEMOLISH SECTIONS OF THE WING WALLS AND FOOTING, EXPOSE THE EXISTING HP12X53 STEEL PILES, LAYOUT THEIR POSITIONS, AND SURVEY THE LOCATION OF THE NEW DRILLED-IN PILES. THE INFORMATION SHALL BE PROVIDED TO THE ENGINEER. ALL COSTS ASSOCIATED WITH PROVIDING PILE LOCATION INFORMATION TO THE ENGINEER AND PILE REMOVAL SHALL BE INCLUDED IN THE PRICE BID FOR "REMOVAL OF EXISTING BRIDGE."

THE EXISTING STEEL PILE LOCATIONS AND LENGTHS IN THE ABUTMENT WING CORNERS ARE SHOWN ON PAGE 5 OF 61 IN THE AS BUILT PLANS FOR THE RAILROAD BRIDGE DESIGN NO. 160 AND NUMBERED AS FOLLOWS:

WEST ABUTMENT, SOUTH END: REMOVE PILES 79, 80, AND 90.  
WEST ABUTMENT, NORTH END: REMOVE PILES 95, 96, 97, 98, 99, 100, 107, AND 108.  
EAST ABUTMENT, SOUTH END: REMOVE PILES 94, 95, 96, 97, AND 98.

STAGING, SHORING, AND DEWATERING FOR PILE REMOVAL IS SHOWN ELSEWHERE IN PROJECT NNSN-063-6(97)-2R-07

REMOVAL OF PILES SHALL BE PERFORMED BY VIBRATORY HAMMERS WITH ADEQUATE HAMMER ENERGY TO COMPLETELY EXTRACT THE PILES OUT OF THE GROUND. THE CONTRACTOR SHALL FURNISH PEA GRAVEL, THEN BACKFILL ANY VOIDS RESULTING FROM PILE REMOVAL. THE COST OF PROVIDING AND PLACING PEA GRAVEL SHALL BE INCIDENTAL TO THE PRICE BID FOR "REMOVAL OF EXISTING BRIDGE."

REMOVALS SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE STANDARD SPECIFICATIONS.

A SCRAPE SAMPLE WAS TAKEN FROM AN AREA OF THE EXISTING RR BRIDGE TO GET AN INDICATION OF THE EXISTENCE OF AND LEVEL OF TOTAL LEAD AND TOTAL CHROMIUM. BEAM; TOTAL LEAD = 120000 mg/kg (PPM), TOTAL CHROMIUM = 130 mg/kg (PPM) EXPANSION PLATE; TOTAL LEAD = 340000 mg/kg (PPM), TOTAL CHROMIUM = 140 mg/kg (PPM)

THESE ANALYSES SHOW THE EXISTENCE OF THESE TWO TOXIC CONSTITUENTS. LEVELS INDICATED BY THESE TESTS COULD CREATE CONDITIONS ABOVE REGULATORY LIMITS FOR HEALTH AND SAFETY REQUIREMENTS. THE BIDDER SHOULD NOT RELY ON THE IOWA DOT'S TESTING AND ANALYSIS FOR ANY PURPOSE OTHER THAN AS AN INDICATION OF THE EXISTENCE OF THESE TWO TOXIC CONSTITUENTS. THE COST OF HANDLING AND DISPOSAL OF ANY PAINTED STEEL OR REMOVED PAINT IS INCIDENTAL TO THE "REMOVAL OF EXISTING BRIDGE" BID ITEM.

THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS IN SUCH A MANNER THAT ANY PAINT REMOVED DURING DEMOLITION IS CONTAINED, COLLECTED, AND DISPOSED OF IN ACCORDANCE WITH SECTION 2508 OF THE STANDARD SPECIFICATIONS. COST OF THIS WORK SHALL BE INCIDENTAL TO THE BID ITEM "REMOVAL OF EXISTING BRIDGE". BEFORE DELIVERY OF ANY SCRAP STEEL THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE TO THE RECEIVING FACILITY. THIS NOTICE SHALL AT A MINIMUM INCLUDE:

1. A NOTICE THAT THE SCRAP STEEL IS COATED WITH PAINT THAT HAS REGULATED MATERIALS AT LEVELS WHICH COULD BE HAZARDOUS TO EMPLOYEES OR THE ENVIRONMENT.
2. A COPY OF THE SCRAPE SAMPLE PROVIDED IN THE CONTRACT DOCUMENTS.
3. A SIGNATURE BLOCK FOR THE RECEIVING FACILITY TO CONFIRM THEIR RECEIPT OF THIS INFORMATION.

A COPY OF THIS NOTICE, SIGNED BY THE RECEIVING FACILITY, SHALL BE RETURNED TO THE ENGINEER BEFORE ANY SCRAP STEEL IS REMOVED FROM THE PROJECT.

THE FOLLOWING ASBESTOS SAMPLES WERE TAKEN FROM THE RAILROAD BRIDGE:  
CAULK UNDER THE ALUMINUM HANDRAIL BASES, 12 SQ. FT., 5% ASBESTOS  
3-PLY MEMBRANE IN THE TRACK NOTCH IN EACH ABUTMENT, 832 SQ. FT., 2% ASBESTOS  
2-PLY MEMBRANE ON THE BACK SIDE OF EACH ABUTMENT, 4602 SQ. FT., 15% ASBESTOS  
TAR SEALANT/DAMP-PROOFING ON THE BACK SIDE OF EACH ABUTMENT, 4602 SQ. FT., 20% ASBESTOS

LABORATORY ANALYSIS HAS IDENTIFIED ASBESTOS AT THIS SITE. ASBESTOS SHALL BE REMOVED PRIOR TO BRIDGE DEMOLITION OPERATIONS. REMOVAL, TRANSPORT, AND DISPOSAL SHALL BE IN ACCORDANCE WITH SECTION 2536, OF THE STANDARD SPECIFICATIONS.

REQUIRED DNR INFORMATION INCLUDES:

YEAR CONSTRUCTED - 1963  
FHWA NUMBER - 14750  
ROAD/ROUTE (CITY) - C. C. & P. R.R. OVER US 63 (E. MULLEN AVE.)  
COUNTY - BLAWK HAWK  
DIRECTION TO BRIDGE - IN THE CITY OF WATERLOO, 1.2 MI. N. OF JCT. 218  
BRIDGE SIZE - 111'-0" x 36'-0" BALLASTED DECK PLATE GIRDER  
NUMBER OF DECKS - 1 (TYP.)

THE CITY AND UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE BRIDGE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

FAINT LINES ON PLANS INDICATE EXISTING STRUCTURE.

CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USE OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICLE 2513.03, A, 2 OF THE STANDARD SPECIFICATIONS. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS (CAST-IN-PLACE OR SLIPFORMED METHOD).

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (501 IS  $\frac{5}{8}$  INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

KEYWAY DIMENSIONS SHOWN ON THE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS STATED OTHERWISE. IN ADDITION, THE BEVEL USED ON THE KEYWAY SHALL BE LIMITED TO A MAXIMUM OF 10 DEGREES FROM VERTICAL.

THIS BRIDGE IS DESIGNED FOR HL-93 LOADING, PLUS 20 LBS. PER SQUARE FOOT OF ROADWAY FOR FUTURE WEARING SURFACE.

THE BRIDGE CONTRACTOR SHALL INSTALL DRILLED-IN PILES, AND CORRUGATED METAL PILE CASINGS BEFORE THE MECHANICALLY STABILIZED EARTH (MSE) WALL IS CONSTRUCTED. THE POSITION OF THE PILING SHALL BE MAINTAINED WHILE THE MSE WALL IS BEING CONSTRUCTED. THE PILING SHALL BE TIED TOGETHER BY MECHANICAL MEANS AND ANCHORED TO PREVENT DISPLACEMENT DURING BACKFILLING OPERATIONS AND MSE WALL CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL OF THE CONNECTIONS AND ANCHORAGE.

CMP CASING SHALL BE CENTERED AROUND ABUTMENT PILES. SEE DETAILS OF BLOCKING REQUIRED TO MAINTAIN POSITION OF CMP CASING DURING M.S.E. WALL PLACEMENT. CMP SHALL BE BACKFILLED WITH A BENTONITE SLURRY AND GRANULAR BACKFILL AS SHOWN.

DURING CONSTRUCTION OF THIS PROJECT THE BRIDGE CONTRACTOR WILL BE REQUIRED TO COORDINATE OPERATIONS WITH THOSE OF OTHER CONTRACTORS WORKING WITHIN THE SAME AREA. OTHER WORK IN PROGRESS DURING THE SAME PERIOD OF TIME WILL INCLUDE, BUT IS NOT LIMITED TO, CONSTRUCTION OF THE FOLLOWING PROJECTS:

NHSX-063-6(75)--3H-07 GRADE AND PAVE  
NHSX-063-6(78)--3H-07 GRADE AND PAVE (STORM AND SANITARY SEWER)  
NHSX-063-6(91)--3H-07 TRAFFIC SIGNALS  
NHSX-063-6(92)--3H-07 CULVERT 1015  
NHSX-063-6(87)--3H-07 TRAFFIC SIGNALS  
NHSN-063-6(94)--2R-07 WATER MAIN  
NHSX-063-6(96)--3H-07 GROUND WATER SUPPRESSION SYSTEM  
NHSN-063-6(97)--2R-07 CHICAGO CENTRAL & PACIFIC R.R. SHOOFLY  
NHSN-063-6(95)--2R-07 WATER MAIN

LONGITUDINAL GROOVING WILL NOT BE A PART OF THIS PROJECT, BUT WILL BE INCLUDED IN ANOTHER PROJECT ASSOCIATED WITH THIS CONTRACT.

NOTE:

THESE BRIDGE PLANS DO NOT CONTAIN ROAD SHEETS FOR THE PROJECT SHOWN. ROAD PLANS FOR THE PROJECT HAVE BEEN TIED TO THE BRIDGE PLANS THROUGH THE CONTRACT LETTING PROCESS. THE TIED ROAD PLANS, PROJECT NO. NHSX-063-6(75)--3H-07, CONTAIN THE POLLUTION PREVENTION PLAN.

IOWA STATE UNIVERSITY/INTRANS BRIDGE ENGINEERING CENTER WILL BE INSTALLING BRIDGE MONITORING SENSORS ON THE EXISTING RAILROAD BRIDGE PIER TO MONITOR THE BRIDGE DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROVIDE NOTIFICATION, ACCESS TO THE SITE AND POWER 120V, 60HZ AC, 15AMP SERVICE FOR CONNECTION OF THE MONITORING EQUIPMENT. THE POWER SERVICE SHALL BE AVAILABLE FOR THE TIME PERIOD PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE GROUNDWATER SUPPRESSION SYSTEM AND/OR RAILROAD SHOOFLY, WHICHEVER IS FIRST, AND CONCLUDE AT THE EXISTING RAILROAD BRIDGE REMOVAL. CONTACT BRENT PHARES AT (515)-294-5879 OR VIA EMAIL AT BPHARES@IASTATE.EDU A MINIMUM OF 7 DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. COST FOR NOTIFICATION, ACCOMMODATING THE MONITORING SYSTEM AND PROVIDING POWER SHALL BE INCIDENTAL TO THE REMOVAL OF EXISTING BRIDGE LUMP SUM BID ITEM.

CONSTRUCTION OF THE MSE WALL, APPROACH ROADWAY GRADING AND PAVEMENT, APPROACH FENCING AND BARRIER RAIL, THE RAISED MEDIAN CONCRETE, AND VARIOUS LIGHTING ITEMS WILL NOT BE A PART OF THIS BRIDGE PROJECT, BUT WILL BE INCLUDED IN A ROADWAY PROJECT ASSOCIATED WITH THIS CONTRACT. SEE ROAD PLANS FOR PROJECT NO. NHSX-063-6(75)--3H-07.

## SPECIFICATIONS:

DESIGN: AASHTO LRFD 7th Ed, SERIES OF 2014, EXCEPT AS NOTED IN THE CURRENT IOWA BRIDGE MANUAL.

CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT. SPECIAL PROVISION FOR DRILLED-IN PILES. DEVELOPMENTAL SPECIFICATIONS FOR HIGH PERFORMANCE CONCRETE FOR STRUCTURES. DEVELOPMENTAL SPECIFICATIONS FOR CONSTRUCTION OR MAINTENANCE WORK ON RAILROAD RIGHT-OF-WAY (CHICAGO, CENTRAL, & PACIFIC RAILROAD COMPANY AND CEDAR RIVER RAILROAD COMPANY)

## DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7th Ed, SERIES OF 2014, EXCEPT AS NOTED IN THE CURRENT IOWA BRIDGE MANUAL.

REINFORCING STEEL IN ACCORDANCE WITH LRFD AASHTO SECTION 5, GRADE 60. CONCRETE IN ACCORDANCE WITH LRFD AASHTO SECTION 5,  $f'_c = 4.0$  KSI, EXCEPT AS NOTED.

PRESTRESSED CONCRETE BEAMS, SEE BEAM DESIGN SHEET.

BRIDGE DECK CONCRETE  $f'_c = 4.0$  KSI

STRUCTURAL STEEL IN ACCORDANCE WITH LRFD AASHTO SECTION 6. ASTM A709 GRADE 36, GRADE 50, AND GRADE 50W (AASHTO M270 GRADE 36, GRADE 50, AND GRADE 50W).

### TRAFFIC CONTROL PLAN

NOTE: THE ROADWAY WILL BE CLOSED TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN ON THE ROAD PLAN IN PROJECT NO. NHSX-063-6(75)--3H-07.

### DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
160	ORIGINAL 111' x 36' RAILROAD BRIDGE
915	PPCB BRIDGE NEW

DESIGN FOR 42° SKEW (L.A.)

115'-0" x 72' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

115'-0" SPAN

### GENERAL NOTES

STATION: 75+90.95 (US 63)

APRIL, 2017

### BLACK HAWK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
DESIGN SHEET NO. 2 OF 23 FILE NO. 30930 DESIGN NO. 915