

# A d d e n d u m

Iowa Department of Transportation  
Office of Contracts

Date of Letting: December 20, 2016  
Date of Addendum: November 22, 2016

<b>B.O.</b>	<b>Proposal ID</b>	<b>Proposal Work Type</b>	<b>County</b>	<b>Project Number</b>	<b>Addendum</b>
011	31-0209-209	BRIDGE NEW - PPCB	DUBUQUE	NHSX-020-9(203)--3H-31	20DEC011A01

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Change Proposal Line No. 0040 2402-2722000 EXCAVATION, CLASS 22:

From: 68.000 CY

To: 129.000 CY

If the above changes are not made, they will be made as shown here.

Replace plan SHEET NUMBER 2 and SHEET NUMBER 3 with the attached SHEET NUMBER 2 and SHEET NUMBER 3

SUMMARY OF CONCRETE QUANTITIES		
LOCATION	STRUCTURAL CONCRETE	HPC STRUCTURAL CONCRETE
SOUTH ABUT. FTG.	17.4	-----
NORTH ABUT. FTG.	17.4	-----
BRIDGE DECK + ABUT. & PIER DIAPHRAGMS	-----	243.1
ABUTMENT WINGS	-----	12.0
PIER #1	81.2	-----
PIER #2	80.5	-----
TOTAL (CU. YDS.)	196.5	255.1

SUMMARY OF REINFORCING STEEL			
LOCATION	NON-COATED REINFORCING STEEL	STAINLESS STEEL REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
BRIDGE DECK + ABUT. FTG. **	144	-----	63,530
ABUTMENT WINGS	-----	-----	964
BARRIER RAIL	-----	2,489	9,203
PIER #1	10,201	-----	-----
PIER #2	10,137	-----	-----
** INCLUDES ABUTMENT AND PIER DIAPHRAGMS	-----	-----	-----
TOTAL (LBS.)	20,482	2,489	73,697

SUMMARY OF EXCAVATION			
LOCATION	CLASS 20 EXCAVATION	CLASS 21 EXCAVATION	CLASS 22 EXCAVATION
SOUTH ABUT. FTG.	96.1	-----	-----
NORTH ABUT. FTG.	96.1	-----	-----
PIER #1	97.5	37.5	63.3
PIER #2	82.5	37.5	65.5
TOTAL (CU. YDS.)	372.2	75.0	128.8

SUMMARY OF FOUNDATIONS					
LOCATION	SUBSTRUCTURE TYPE	FOUNDATION TYPE	NUMBER	LENGTH (LIN. FT.)	TOTAL (LIN. FT.)
SOUTH ABUT. FTG.	INTEGRAL ABUTMENT	HPI0x57	7	35	245
NORTH ABUT. FTG.	INTEGRAL ABUTMENT	HPI0x57	7	35	245
PIER #1	TEE PIER	SPREAD FOOTING	1	-----	-----
PIER #2	TEE PIER	SPREAD FOOTING	1	-----	-----

SUMMARY OF BEARINGS			
LOCATION	BEARING TYPE	NUMBER	ASSOCIATED BID ITEM
SOUTH ABUT. FTG.	S3 x 7.5	5	INCIDENTAL ITEM
NORTH ABUT. FTG.	S3 x 7.5	5	INCIDENTAL ITEM
PIER #1	PLAIN NEOPRENE 1"	10	INCIDENTAL ITEM
PIER #2	PLAIN NEOPRENE 1"	10	INCIDENTAL ITEM

SUMMARY OF STRUCTURAL STEEL	
LOCATION	TOTAL (LBS.)
BRIDGE DECK DRAINS	636
DIAPHRAGMS	3,025
TOTAL (LBS.)	3,661

DESIGN FOR 15° SKEW R.A.  
**226'-4 x 28'-0 PRETENSIONED  
 PRESTRESSED CONCRETE BEAM BRIDGE**  
 72'-5 END SPANS 81'-6 INTERIOR SPAN  
**SUMMARY QUANTITIES SHEET**  
 STA. 4518+85.00 OCTOBER, 2016  
**DUBUQUE COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
 DESIGN SHEET NO. 2 OF 25 FILE NO. 30467 DESIGN NO. 116

## ESTIMATED BRIDGE QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	599.0	
2	2402-2720000	EXCAVATION, CLASS 20	CY	372	
3	2402-2721000	EXCAVATION, CLASS 21	CY	75	
4	2402-2722000	EXCAVATION, CLASS 22	CY	129	
5	2403-0100010	STRUCTURAL CONCRETE (BRIDGE)	CY	196.5	
6	2403-7000210	HIGH PERFORMANCE STRUCTURAL CONCRETE	CY	255.1	
7	2404-7775000	REINFORCING STEEL	LB	20,482	
8	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	73,697	
9	2404-7775009	REINFORCING STEEL, STAINLESS STEEL	LB	2,489	
10	2407-0551371	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, C71	EACH	10	
11	2407-0551380	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, C80	EACH	5	
12	2408-7800000	STRUCTURAL STEEL	LB	3,661	
13	2414-6424119	CONCRETE BARRIER RAILING, AESTHETIC	LF	506.7	
14	2501-0201057	PILES, STEEL, HP 10 X 57	LF	490	
15	2501-6335010	PREBORED HOLES	LF	140	
16	2507-2638650	BRIDGE WING ARMORING - EROSION STONE	SY	24.3	
17	2507-3250005	ENGINEERING FABRIC	SY	1,111.0	
18	2507-6799000	BANK SHAPING	LS	1.00	
19	2507-6800061	REVTMENT, CLASS E	TON	833.0	
20	2507-8029000	EROSION STONE	TON	138.0	
21	2520-3350015	FIELD OFFICE	EACH	1	
22	2526-8285000	CONSTRUCTION SURVEY	LS	1.00	
23	2533-4980005	MOBILIZATION	LS	1.00	

### ESTIMATE REFERENCE INFORMATION

DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.

ITEM NO.	DESCRIPTION
1	INCLUDES EXCAVATION NECESSARY TO PLACE REVETMENT AND EROSION STONE.
5	INCLUDES ALL PREFORMED EXPANSION JOINT FILLER REQUIRED. INCLUDES FURNISHING AND PLACING SUBDRAIN (INCLUDING EXCAVATION), FLOODABLE BACKFILL, POROUS BACKFILL, GEOTEXTILE FABRIC, WATER FLOODING, AND SUBDRAIN OUTLET AT BOTH ABUTMENTS.
6	THIS BID ITEM INCLUDES THE CONCRETE FOR THE SLAB, ABUTMENT, PIER DIAPHRAGMS, AND WINGWALLS. INCLUDES FURNISHING AND PLACING 3 INCH DIAMETER PVC PLASTIC PIPE AND EXPANDING FOAM IN THE ABUTMENT WINGS. REFER TO THE DEVELOPMENTAL SPECIFICATION FOR "HIGH PERFORMANCE CONCRETE FOR STRUCTURES" FOR ADDITIONAL INFORMATION.
10	INCLUDES PIER AND ABUTMENT BEARING MATERIAL. NONSTANDARD STIRRUP LENGTHS ARE USED FOR THIS BEAM. INCLUDES CONTRACTOR FILLING OUT BEAM NUMBERS BY LOCATION AND BEAM SEAT ELEVATIONS IN "PCC BEAM DATA SPREADSHEET" AND FORWARDING ELECTRONIC SPREADSHEET TO THE ENGINEER.
11	INCLUDES PIER BEARING MATERIAL. NONSTANDARD STIRRUP LENGTHS ARE USED FOR THIS BEAM. INCLUDES CONTRACTOR FILLING OUT BEAM NUMBERS BY LOCATION AND BEAM SEAT ELEVATIONS IN "PCC BEAM DATA SPREADSHEET" AND FORWARDING ELECTRONIC SPREADSHEET TO THE ENGINEER.
12	INCLUDES 6 DECK DRAINS AT 106 LBS. EACH.
13	THE CAST-IN-PLACE CONCRETE BARRIER RAILS SHALL USE CLASS C MIX AND BE BUILT IN ACCORDANCE WITH THE DIMENSIONS AND SPECIFICATIONS SHOWN IN THESE PLANS. SLIP-FORMING OF THE CONCRETE BARRIER RAILS IS NOT ALLOWED. WHEN TYPE A MID-RANGE WATER REDUCING ADMIXTURE IS USED, THE SLUMP, MEASURED ACCORDING TO MATERIALS I.M. 317, MAY BE INCREASED TO BETWEEN 1 INCH AND 4 INCHES AS A TARGET RANGE, ALLOWING A MAXIMUM OF 5 INCHES. IF A HIGH-RANGE WATER REDUCING ADMIXTURE IS USED, THE SLUMP, MEASURED ACCORDING TO MATERIALS I.M. 317, MAY BE INCREASED TO BETWEEN 1 INCH AND 7 INCHES AS A TARGET RANGE, ALLOWING A MAXIMUM OF 8 INCHES. INCLUDES MATERIAL AND LABOR ASSOCIATED WITH PROVIDING AND INSTALLING APPROXIMATELY 1,015 FEET OF 2 INCH DIAMETER RIGID STEEL CONDUIT IN RAIL, JUNCTION BOXES AND FITTINGS. PRICE BID FOR THIS ITEM SHALL INCLUDE THE COST OF CAST-IN-PLACE FORMS.
16	INCLUDES FURNISHING AND PLACING ENGINEERING FABRIC, EROSION STONE, AND ALL REQUIRED EXCAVATING, SHAPING AND COMPACTING FOR WING ARMORING.
17	ENGINEERING FABRIC SHALL BE MATERIAL AS SPECIFIED FOR EMBANKMENT EROSION CONTROL IN ACCORDANCE WITH ARTICLE 4196.01, B, 3, OF THE STANDARD SPECIFICATIONS.
18	INCLUDES ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM BANK SHAPING ON THE NORTH BANK OF THE CHANNEL AS DETAILED ON SHEET 4. THE BANK SHAPING WILL NOT BE MEASURED SEPARATELY BUT WILL BE CONSIDERED LUMP SUM AND THE CONTRACTOR WILL BE PAID THE LUMP SUM CONTRACT PRICE.
19	ESTIMATED AT 1.6 TON/CY.
20	ESTIMATED AT 1.6 TON/CY.

## GENERAL NOTES:

THIS DESIGN IS FOR CONSTRUCTION OF A NEW 226'-4 x 28'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE.

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

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.

IT SHALL BE THE BRIDGE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SITES FOR EXCESS EXCAVATED MATERIAL. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

THE APPROACH FILLS AS SHOWN ARE NOT A PART OF THIS CONTRACT, BUT ARE TO BE IN PLACE BEFORE ABUTMENT PILES ARE DRIVEN. THE BRIDGE CONTRACTOR IS TO LEVEL OFF AND SHAPE THE BERMS TO THE ELEVATIONS AND DIMENSIONS SHOWN. DRESSING OF SLOPES OUTSIDE THE BRIDGE AREA NOT DISTURBED BY THE BRIDGE CONTRACTOR SHALL BE PAID FOR AS EXTRA WORK.

THE BRIDGE CONTRACTOR SHALL PREBORE HOLES FOR ABUTMENT PILES. HOLES SHALL BE BORED TO THE ELEVATIONS SHOWN ON THE "LONGITUDINAL SECTION ALONG CENTERLINE ROADWAY" ON DESIGN SHEET 3. PILES SHALL BE DRIVEN THROUGH THE HOLES TO AT LEAST THE SPECIFIED DESIGN BEARING.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5/8 is 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.

THE 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.

THE BRIDGE CONTRACTOR IS TO CLEAR AND/OR SHAPE THE CHANNEL WITHIN THE APPROXIMATE LIMITS OF THE CLASS E REVETMENT AND EROSION STONE AS SHOWN ON THE "SITUATION PLAN" AND "LONGITUDINAL SECTION ALONG CENTERLINE ROADWAY" ON DESIGN SHEET 3.

CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS.

## SHOP DRAWING SUBMITTALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING ITEMS SHOWN IN THE TABLE BELOW. (NOTE ADDITIONAL SHOP DRAWINGS MAY BE REQUIRED IN ACCORDANCE WITH ARTICLE 1105.03 OF THE STANDARD SPECIFICATIONS.)

SUBMITTAL REQUIREMENTS FOR SHOP DRAWINGS SHOULD BE IN ACCORDANCE WITH ARTICLE 1105.03, OF THE STANDARD SPECIFICATIONS, FOR HIGHWAY AND BRIDGE CONSTRUCTION OF THE IOWA DEPARTMENT OF TRANSPORTATION.

1	STEEL INTERMEDIATE DIAPHRAGMS
2	DECK DRAINS

## SPECIFICATIONS:

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

DEVELOPMENTAL SPECIFICATION FOR HIGH PERFORMANCE CONCRETE FOR STRUCTURES, DS-15044.

## 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 DESIGN 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 PRESTRESSED BEAM CONCRETE AS NOTED.

PRESTRESSED CONCRETE BEAMS, SEE DESIGN SHEET 13.

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).

## BRIDGE DECK DIMENSION TABLE

	ITEM	UNITS	QUANTITY
1	DECK LENGTH	L.F.	229.4
2	DECK WIDTH	L.F.	31.2
3	DECK AREA	S.F.	7,151

1. DECK LENGTH IS MEASURED FROM FACE-TO-FACE OF PAVING NOTCHES ALONG THE CENTERLINE OF THE ROADWAY.
2. DECK WIDTHS ARE MEASURED FROM OUT-TO-OUT OF DECK PERPENDICULAR TO THE CENTERLINE OF ROADWAY.
3. DECK AREA IS TO BE BASED ON THE FACE-TO-FACE PAVING NOTCH DISTANCE AND OUT-TO-OUT DECK DIMENSIONS.

NOTE:  
ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.

NOTE:  
POLLUTION PREVENTION PLAN SHOWN ELSEWHERE IN THESE PLANS.

TRAFFIC CONTROL PLAN:  
THIS STRUCTURE IS BEING CONSTRUCTED ON A RELOCATION AND THE ROAD WILL NOT BE OPEN TO TRAFFIC UNTIL AFTER COMPLETION OF CONSTRUCTION.

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**226'-4 x 28'-0 PRETENSIONED  
PRESTRESSED CONCRETE BEAM BRIDGE**  
72'-5 END SPANS 81'-6 INTERIOR SPAN  
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