

ADDENDUM NO. 1

**Sedgwick County Project: 821-A-2234; Bridge on Broadway between
117th & 125th Streets North (B473)**

The items contained herein now become a part of the referenced plans and specifications. Please read the following items and acknowledge receipt of this addendum on the Proposal Page Number P-1. NOTE: THIS ADDENDUM MUST BE ACKNOWLEDGED TO CONSTITUTE A VALID BID.


SPECS:

N/A

PLANS:

Replace Sheet 17 with Sheet 17R.

Use of Pile Driving Analyzer (PDA) equipment is not required on this project. The test pile special piling shall remain in place as permanent piling. The plan note on Sh. No. 17 is intended to supersede Section 704.4(b) of the KDOT standard specifications for Piling.

By: 
David C. Spears, P.E.,
Director/County Engineer

Date: September 3, 2019

DESIGNED
CHECKED
DATE
BY

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Plotted : 8/29/2019

SUMMARY OF QUANTITIES													
Item Location	Excavation		Concrete		Reinforcing Steel		* Piles (Steel) (HPI2x53)	* Test Piles (Special)(Steel) (HPI2x53)	Bridge Backwall Prot. System	Abutment Strip Drain	Slope Protection (Riprap Stone)	Cast Steel Pile Points	Bridge Deck Grooving
	Class I Cu. Yds.	Class II Cu. Yds.	(Grade 4.0) (AE) (SA) (Fiber Reinforced) Cu. Yds.	(Grade 4.0) (AE) Cu. Yds.	(Grade 60) (Epoxy Coated) Lbs.	(Grade 60) Lbs.	Lin. Ft.	Lin. Ft.	Sq. Yds.	Sq. Yds.	Cu. Yds.	Each	Sq. Yds.
Abutment No. 1	100	--	**	--	**	--	352	54	35.3	28.9	243	9	--
Pier No. 1	34	294	--	45.1	--	8,663	805	45	--	--	-	24	--
Pier No. 2	78	305	--	45.1	--	8,663	851	47	--	--	-	24	--
Abutment No. 2	100	--	**	--	**	--	352	54	35.3	28.9	260	9	--
Substr. Total	312	599	--	90.2	--	17,326	2,360	200	70.6	57.8	503	66	--
Superstr. Total	--	--	617.6	--	176,223	--	--	--	--	--	-	--	887
Total	312	599	617.6	90.2	176,220	17,330	† 2,360	† 200	71	58	503	66	887

** Quantities are included in
the Superstr. Total Quantity.

GENERAL NOTES

EXISTING STRUCTURE: Plans of the existing structure are on file and available for inspection by qualified bidders at the Sedgwick County Public Works building, 1144 S. Seneca, Wichita, KS. 67213.

EMBANKMENT: Complete the embankment at the abutments as shown on the Bridge Excavation sheet prior to driving the abutment piling or commencing with the abutment footing excavation.

BRIDGE EXCAVATION: Elevation 1391.5 shall designate the Excavation Boundary Plane of Class I and Class II Excavation; Class I above the plane, Class II below the plane. See the Bridge Excavation sheet for the limits of pay excavation.

BACKFILL COMPACTION: Compact backfill at the abutments.

PILING: Drive all piling to penetrate or bear upon the weathered shale of the Wellington Formation. Driving shall stop when in the opinion of the Engineer additional driving may damage the piling. Drive all piling to the Pile Driving Formula Load of:

Abutments 67 Tons
Piers 75 Tons

As a minimum drive each pile to the load and penetration, but in no case shall the pile be driven to more than 110% of Pile Driving Formula Driving Load. At any location where problems are experienced, pile damage is suspected, or the Pile Driving Formula Load occurs significantly above the design pile tip elevation, the Engineer may request that the Pile Driving Analyzer (PDA) equipment be used.

TEST PILING SPECIAL: Drive the test pile special at the locations directed by the Engineer/Geologist or as shown on the Plans. Use Pile Driving Analyzer (PDA) equipment and ~~methods compliant with KDOT Specifications.~~ The test piling shall remain in place as permanent piling. Drive the test pile special piling to the resistance value of the Strength I load divided by Phi shown on the plans.

PILING SPLICE LOCATION: Integral pile splice locations and weld testing criteria for Abutments and Piers will follow the "Standard Pile Details" Sheet (BR110).

CORRAL RAIL: Build the corral rail after the falsework is struck.

ABUTMENT STRIP DRAIN: See the General Notes on the "Abutment Strip Drain" sheet.

CAST STEEL PILE POINTS: Provide cast steel pile points in conformance with KDOT Specifications and manufacturer recommendations. Use one of the following products or an approved equal:

- Associated Pile and Fitting Company (APF) HP-77600-B
- DFP Foundation Products Tuffip H-777
- Versa-Steel Inc. Versa-Bite VS300N

SLOPE PROTECTION (Riprap Stone): Place Slope Protection (Riprap Stone) to the limits and thicknesses shown on the plans or as directed by the Engineer. Use Heavy 1/4 Ton Series as described in Division 1100 placed to the limits shown on the plans.

CONCRETE: Superstructure concrete is bid as Concrete (Grade 4.0)(AE)(SA)(Fiber Reinforced). Substructure concrete is bid as Concrete (Grade 4.0)(AE). The Contractor may use Concrete (Grade 4.0) in the footings. Bevel all exposed edges of all concrete with a 3/4" triangular mauling, except as otherwise noted on the plans. Construction Joints are optional with the Contractor, but if used, place only at locations shown, or at locations approved by the Engineer.

REINFORCING STEEL: All reinforcing steel dimensions are to the centerline of bars unless otherwise noted. All reinforcing steel, except the spiral bars, shall conform to the requirements of ASTM A615, Grade 60. Spiral bars may meet the requirements of either ASTM A615 (Gr. 40 or 60) or A82, and are included in the bid item "Reinforcing Steel (Gr. 60)".

REINFORCING STEEL: Where noncoated bars come in contact with epoxy coated bars, they need not be coated.

CAMBER: Provide camber as shown on the Camber Diagram unless the Contractor uses either long span steel beam falsework (concrete dead load deflection greater than 1/4") or timber falsework with greater than 12'-0" clear span. If either case exists, submit falsework plans that show the additional required camber.

FALSEWORK PLANS: A licensed Professional Engineer shall design the falsework details. Details shall bear the seal of a licensed Professional Engineer. See the Bridge Design Manual, Section 16.1 "Review and Approval of Falsework Plans", for a listing of items to be included on the falsework plan. Submit electronic plans conforming to Section 105 of the Standard Specification with details in compliance with KDOT specifications to the Field Engineer for review.

DEMOLITION PLANS: This is a Category A Demolition. Submit detailed Demolition Plans to the Field Engineer per KDOT Specifications. No Demolition work will begin without approved Demolition Plans. A Licensed Professional Engineer is not required.

FALSEWORK: Leave the falsework in place for the entire unit until 15 days after the last concrete pour for the unit or longer as directed by the Engineer.

FALSEWORK INSPECTION: This project has falsework plan requirements which are considered "Category 2" by KDOT specifications. If falsework deficiencies or variations from the approved and sealed plans are found, the falsework design Engineer of Record will provide written approval of the changes. If for the convenience of the Contractor the falsework becomes "Category 1" by the use of non-typical supports, then the inspection and review requirement of "Category 1" will be fully enforced, but at no cost to the State. "Category 2" falsework inspection is not paid for directly, but is subsidiary to other bid items.

† Summary of Piling:		
Abutment No. 1	1 @ 54' (Test)(Vert.)	
	8 @ 44' (Vert.)	
Pier No. 1	1 @ 45' (Test)(Vert.)	
	23 @ 35' (Vert.)	
Pier No. 2	1 @ 47' (Test)(Vert.)	
	23 @ 37' (Vert.)	
Abutment No. 2	1 @ 54' (Test)(Vert.)	
	8 @ 44' (Vert.)	

* NOTE: Only steel pile HP12x53 shall be used on this project. The lengths shown are for bidding purposes only. Actual lengths shall be determined by the Engineer based on Test Pile Driving results.

COUNTY	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	B473	2019	17R	66

Revised Plans

INDEX TO BRIDGE DRAWINGS	
Sheet No.	Drawing
17	General Notes and Quantities
18	Slab Elevations
19	Contour Map
20	Construction Layout
21	Engineering Geology
22	Abutment Details
23	Abutment Strip Drain
24	Pier Details I
25	Pier Details II
26	Superstructure Details I
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28	Corral Rail Details
29	Bar List and Bending Diagrams
30	Bridge Project Marker
Standards	
31	Standard Pile Details
32	Bridge Excavation
33	Supports and Spacers for Reinforcing Steel

DESIGN DATA

DESIGN SPECIFICATIONS:
AASHTO Specifications, 7th Edition, 2015 Interims.
Load and Resistance Factor Design.

DESIGN LOADING:
HL-93

Design Dead Load includes an allowance of 15 psf for a future wearing surface.

UNIT STRESSES:

Concrete (Grade 4.0)	f'c = 4 ksi
Concrete (Grade 4.0)(AE)	f'c = 4 ksi
Concrete (Grade 4.0)(AE)(SA)	f'c = 4 ksi
Reinforcing Steel (Grade 60)	fy = 60 ksi
Steel Piles	Fy = 50 ksi

LRFD DESIGN PILE LOAD:

Design Loading (Tons/Pile)	Strength	Service	Phi
Abutments	67	46	0.5
Piers	75	56	0.5

LFD & LRFR RATING FACTORS		
Rating Level	Inventory	Operating
Truck		
HS-20 (36T)	1.62	2.70
Type HET (110T)	1.62	1.49
2002 LFD Rating, 17th Edition AASHTO		
HL-93 Loading	1.45	1.88
2011 Manual for Bridge Evaluation		

△ 08/29/19: Eliminated use of PDA.

SEDGWICK COUNTY PUBLIC WORKS DAVID C. SPEARS, P.E., DIRECTOR		
BROADWAY BRIDGE OVER GOOSEBERRY CREEK GENERAL NOTES AND QUANTITIES STRUCTURE NO. 821-A-2234 (B473)		
SCALE	DATE 8/29/2019	PROJ. NO. 35818