FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87 N-0088-01	1999	8	38

SUMMARY OF QUANTITIES

Item / Location	Excavation Class I m3	Excavation Class II m3	Concrete Grade 30 (AE) m3	Concrete Grade 30 (AE) (SW) m3	Reinforcing Steel Grade 420 Epoxy Coated kg	Reinforcing Steel Grade 420 kg	Steel Test Piles * m	Steel Piles * m	Bridge Backwall Prot. System m2	Abutment Strip Drain m2	Slope Protection (Shot Rock) m3	Bridge Handrail (Steel) m	Deck Drain Each	Bridge Plaque (Non-Participating) Each
Abutment No. 1	30	--	--	**	**	**	15.12	75.60	27	25.5	125	--	--	--
Pier No. 1	--	10	40.5	--	--	1,150	--	143.28	--	--	--	--	--	--
Pier No. 2	--	10	40.7	--	--	1,150	16.03	128.24	--	--	--	--	--	--
Abutment No. 2	30	--	--	**	**	**	--	91.08	27	25.5	125	--	--	--
Substr. Total	60	20	△ 82.1	--	--	2,380	31.15	438.20	54	51	250	--	--	--
Superstr. Total	--	--	--	296.4	39,430	--	--	--	--	--	--	93.2	26	1
Total	60	20	△ 82.1	296.4	39,430	△2,380	31.15	438.20†	54	51	250	93.2	26	1

△ Quantities include concrete end posts.

** Quantities are included in the Superstructure Total Quantity.

† Summary of Piling
Abutment No. 1 5 @ 15.12 m
Pier No. 1 9 @ 15.92 m
Pier No. 2 8 @ 16.03 m
Abutment No. 2 6 @ 15.18 m

* NOTE: Only steel pile HP250X62 shall be used on this project

INDEX TO BRIDGE DRAWINGS

Sheet No.	Drawing
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13	Pier Details
14-15	Superstructure Details
16	Traffic Rail Details
17	Bridge Handrail Details
18	Bridge Plaque Detail
19	Bill of Reinforcing Steel and Bending Diagrams
	Standards
20	Standard Pile Details
21	Bridge Excavation
22	Supports and Spacers for Reinforcing Steel

GENERAL NOTES

EMBANKMENT: The Grading Contractor shall complete the embankment at the abutments as shown on the Bridge Excavation sheet prior to driving abutment piling.

BRIDGE EXCAVATION: Elevation 402.000 shall designate the Excavation Boundary Plane of Class I and Class II Excavation; Class I above the plane, Class II below the plane. See Bridge Excavation sheet for limits of pay excavation.

BACKFILL COMPACTION: Backfill compaction shall be required at abutments.

PILING : Drive all piling to a minimum elevation of 390.000 m Driving shall stop when in the opinion of the Engineer additional driving may damage the piling. Drive all piling to the minimum computed bearing value equal to the Allowable Pile Driving Load:

Abutment No. 1 500 kN Pier No. 1 500 kN
Abutment No. 2 500 kN Pier No. 2 500 kN

When using the pile driving formula in the KDOT Specifications, the Contractor shall drive the pile to the Allowable Load and penetration, but in no case shall the pile be driven to MORE THAN 750 kN.

At any location where problems are experienced, pile damage is suspected, or apparent refusal occurs significantly above the design pile tip elevation, the Engineer may request that the Pile Driving Analyzer (PDA) equipment be used.

CORRAL RAIL: Build the rail after the falsework is released or struck.

CONCRETE: Superstructure concrete is bid as Concrete Grade 30 (AE)(SW). Substructure concrete is bid as Concrete Grade 30 (AE). The Contractor may use Grade 30 Concrete in the footings. Bevel all exposed edges of all concrete with a 20 mm triangular moulding, 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 A615M, Grade 420. Spiral bars may meet the requirements of either ASTM A615M (Gr. 300 or 420) or A82M, and are included in the bid item "Reinforcing Steel (Gr. 420)".

BROKEN CONCRETE: Waste the broken concrete from the existing bridge on sites provided by the Contractor and approved by the Engineer.

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 5 mm) or timber falsework with greater than 3.75 m clear span. If either case exists, submit falsework plans which show the additional required camber.

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. Notify the Engineer a minimum of two days prior to removal of the falsework. The Engineer will measure and record bridge deck elevations before the falsework is struck.

CONCRETE PLACING SEQUENCE: The sequence of placing concrete in the slab and curbs shall be as shown, or the Contractor shall submit an alternate placing sequence for review. The alternate placing sequence shall be given to the Engineer at the Preconstruction Conference. The alternate placing sequence shall include the proposed rate of concrete placement in cubic meters per hour, the plant capacity, a description of the equipment used in placing the concrete, proposed admixtures, and the quantity of concrete in each placing segment. Any additional cost for the Contractor's alternate plan of placing concrete, including admixtures, shall be at the Contractor's expense and shall be considered subsidiary to the bid item, "Concrete (Grade 30) (AE)(SW)". Approval of the Contractor's alternate sequence is required prior to placement of concrete in the deck.

Concrete for Walkways shall be placed only after the bridge deck falsework has been released or struck.

SLOPE PROTECTION (Shot Rock): Place Slope Protection (Shot Rock) to the limits and thicknesses shown on the plans or as directed by the Engineer.

Place a 3 m wide mat of geotextile under the rock/rubble embankment on the berm and berm slopes and centered on the drip lines of the slab.

REMOVAL OF EXISTING STRUCTURES: Removal of existing structure is included in the bid item, "Removal of Existing Structures", Lump Sum. All materials removed from the existing structure shall become the property of the Contractor. Remove this material from the site.

SLAB ELEVATIONS: The Engineer shall record bridge deck elevation readings at the following times:

1. Immediately prior to removal of the falsework.
2. Immediately after removal of all falsework from a span and its adjacent spans.

DESIGN DATA

DESIGN SPECIFICATIONS:
AASHTO Specifications, 1996 Edition and latest interim Specifications. Load Factor Design

DESIGN LOADING:
MS18-44

Design Dead Load includes an allowance of 1.2 kPa for a future wearing surface.

UNIT STRESSES:

Concrete Grade 30 (AE)	f'c = 30 MPa
Concrete Grade 30 (AE)(SW)	f'c = 30 MPa
Reinforcing Steel (Grade 420)	fy = 420 MPa

DESIGN PILE LOAD:

Loading		Design Load (kN per Piling)	Allowable Load (kN per Piling)
Abut. Group I	(100%)	493	500
Piers Group I	(100%)	479	500

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION
BR. NO. 530400870GC1020 STA. 1+450.20
GENERAL NOTES AND QUANTITIES
PROJ. NO. 87 N-0088-01 SEDGWICK CO.

SHEET NO. OF	SCALE	APP'D 11-19-98	
DESIGNED K.JS, PAF	DETAILED DPG, MLW	QUANTITIES	TRACED
DESIGN CK. MDK	DETAIL CK. MDK	QUAN.CK. MDK	TRACE CK.

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