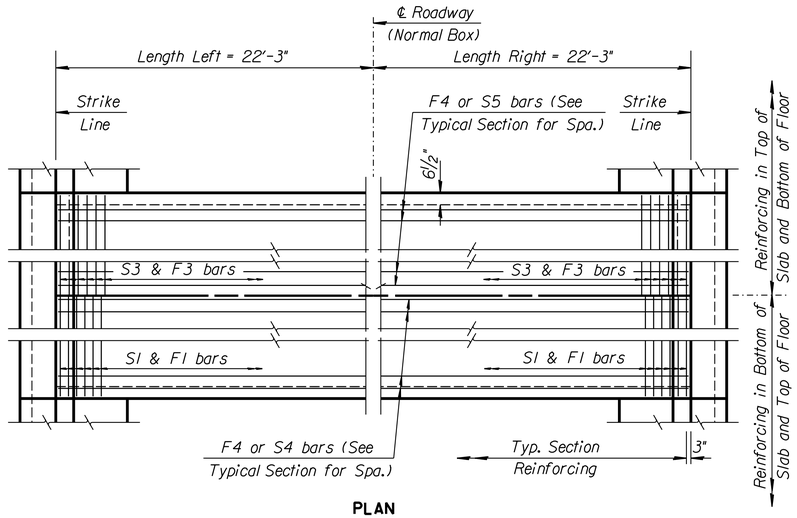
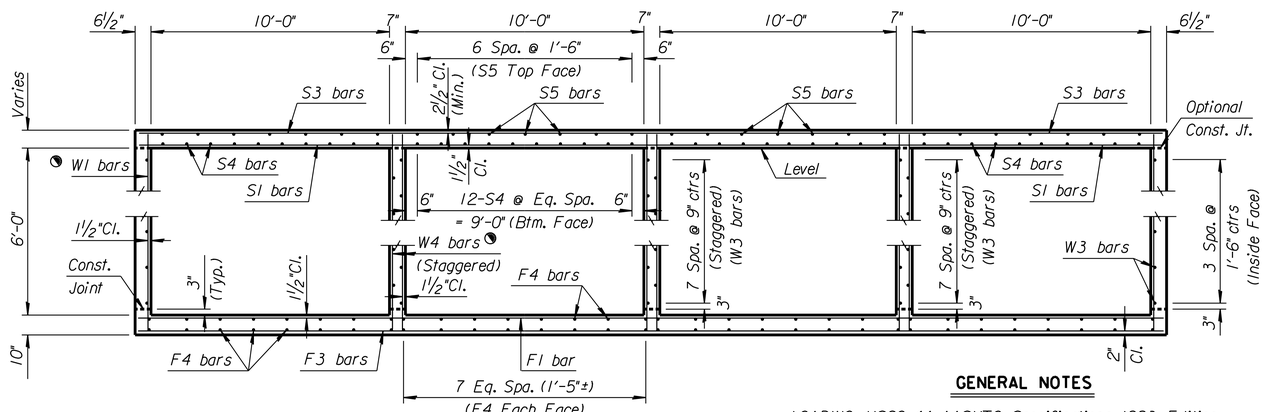
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84021	2004	13	35



PLAN

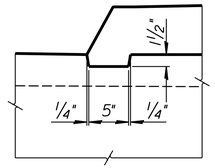


TYPICAL SECTION

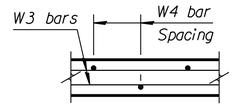
See RCB Auxillary Details for Optional Splice.

Note: Use only cast-in-place construction at this location.

G2



KEYED JOINT DETAIL



PLAN OF INTERIOR WALL

Quantities have been estimated for rail reinforcing.

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications, 1983 Edition.
UNIT STRESSES: Class AAA Concrete; f'c = 4,000 p.s.i.
Reinforcing Steel; fy = 60,000 p.s.i.
FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and shall include the surfacing.
CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a ¾inch triangular moulding. Where Class AAA Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint. Class AAA Concrete (AE) (Special) shall include Polypropylene fibers engineered and designed for secondary reinforcement of concrete slabs, complying with ASTM C1116, Type III, not less than ¾inch long at the rate of 1.5 pounds per cubic yard.
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.
EXCAVATION: Excavation for culverts less than bridge length shall not be paid for directly but shall be subsidiary to Class AAA Concrete. Excavation for RCB Bridges shall be paid for as Class III Excavation.
SEAL COURSE: A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 3 inches or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Course.
FOUNDATION STABILIZATION: Foundation Stabilization may be required as directed by the Engineer. The depth of Foundation Stabilization shall be determined by the Engineer. Foundation Stabilization shall be paid for at the determined Unit Price set for Foundation Stabilization. See Auxiliary Details.
QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when their construction is required by the plans. Payment for additional quantities that result from including seal course and/or floating apron, as a change in original plans, shall be made at the Unit Price bid for the various items involved.
GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxiliary Details Sheet.
STRIKE LINE: Wingwalls and that portion of the RCB outside the Strike Line shall be constructed level. Footing for wingwalls shall be constructed with the culvert floor. See wingwall detail sheet.

CULVERT SUMMARY

Flow Line Elev. Lt.	Flow Line Elev. Rt.	Crown Gr. Elev.	Design Fill Ht.	Skew	Left Wings	Right Wings	Scour Apron	Soil Saver	Concrete Barrel (Cu.Yds.)	Concrete Wings (Cu.Yds.)	Concrete Total (Cu.Yds.)	Reinf. Steel (Gr. 60) Barrel (Lbs.)	Reinf. Steel (Gr. 60) Wings (Lbs.)	Reinf. Steel (Gr. 60) Total (Lbs.)
1325.20	1325.00	1333.38	2	0	SPECIAL	SPECIAL	NO	NO	168.4	24.4	192.8	28,819	1770	30,589

BAR SCHEDULE

F1 Size	Spa.	No.	Length	F3 Size	Spa.	No.	Length	F4 Size	Spa.	No.	Length	S1 Size	Spa.	No.	Length	S3 Size	Spa.	No.	Length	S4 Size	No.	Length	S5 Size	No.	Length
6	6"	89	42'-6"	5	5"	108	42'-6"	4	128	22'-9"	6	6"	89	42'-6"	5	5"	108	42'-6"	5	48	44'-2"	4	56	22'-9"

K1 Size	Spa.	No.	Length	K2 Size	Spa.	No.	Length	W1 Size	Spa.	No.	Length	W2 Size	Spa.	No.	Length	W3 Size	No.	Length	W4 Size	Spa.	No.	Length	G1 Size	No.	Length	G2 Size	No.	Length	Size	Spa.	No.
N/A	N/A	N/A		N/A	N/A	N/A		4	9"	122	7'-4"	N/A	N/A	N/A	N/A	4	64	22'-9"	4	9"	183	7'-4"	5	4	42'-6"	4	88	3'-11"			

SUMMARY OF QUANTITIES	
Class AAA Concrete	0 C.Y.
Class AAA Concrete (AE)	192.8 C.Y.
Class AAA Concrete (AE) (Special)	11.2 C.Y.
Reinforcing Steel (Gr. 60)	0 Lbs.
Reinforcing Steel (Epoxy Coated)	30,590 Lbs.
Class III Excavation	433 C.Y.
Foundation Stabilization (Set)	1 C.Y.
Concrete for Seal Course (Set)	1 C.Y.
Granular Backfill (Wingwalls) (Set)	1 C.Y.
Bridge Handrail (Steel)(Pedestrian)	139 L.F.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION
Br. No. 530400870CCWR50 Sta. 53+74.87
4 - 10 ft x 6 ft RCB

~~BR-3.10.6-P~~ Sedgwick Co.

FHWA APPROVAL		6-5-91	APP'D	KENNETH F. HURST	
DESIGNED	DETAILED	QUANTITIES	TRACED		
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.		

Plotted By: drp Plot Location: $UNIT$
File: h:/04330/officecheck/04330_C-Rcb4-10x6(EK).dgn
Plot Date: 9-8-2004