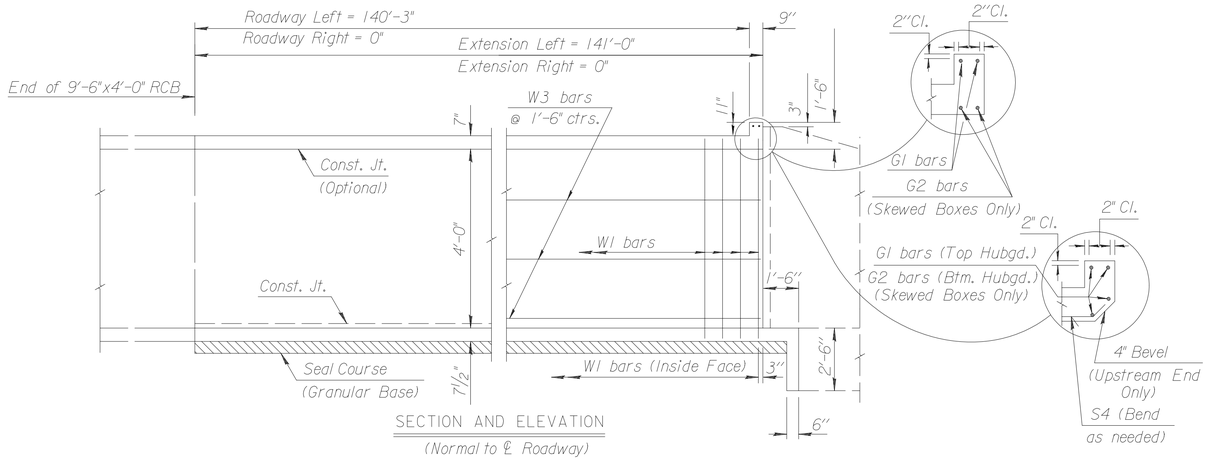
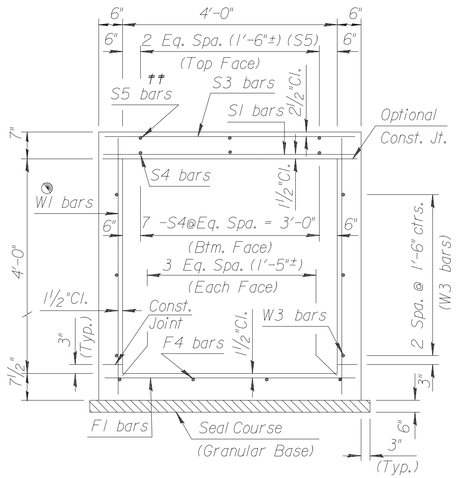
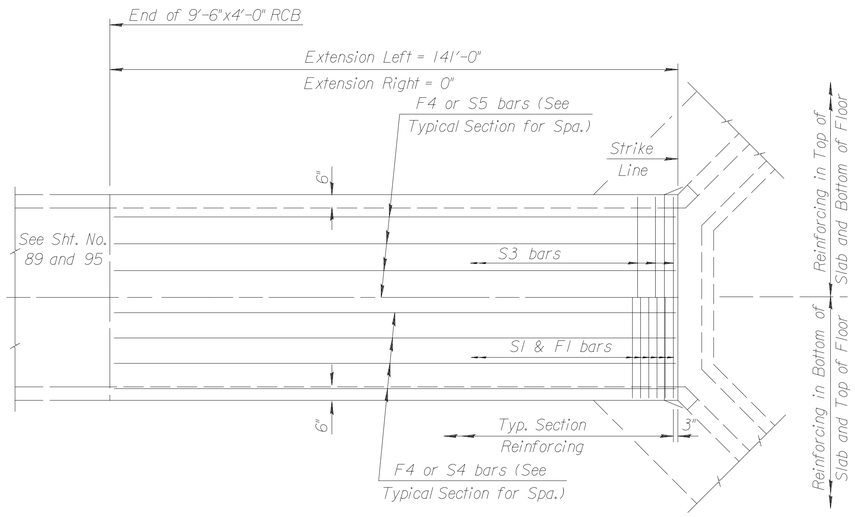
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84004	2005	90	215



SECTION AND ELEVATION
(Normal to ℄ Roadway)



TYPICAL SECTION



PLAN

‡ Includes Soil Saver

CULVERT SUMMARY

	Flow Line Elev.	Crown Gr. Elev.	Design Fill Ht.	Skew	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.)
Ext.Lt.	1360.90	1366.52	2	0	FLARED	NO	YES	52.56	6.84	59.40	5935.00	429.96	6364.96
Ext.Rt.	1359.41				NONE			0.00	0.0	0.00	0	0	0

Pre-cast option allowed.
See Sh. 107 for added F1 & S1 bars at 9'-6"x4'-0" RCB joint location.

BAR SCHEDULE

	F1 Size	F1 Spa.	F1 No.	F1 Length		F4 Size	F4 Spa.	F4 No.	F4 Length		S1 Size	S1 Spa.	S1 No.	S1 Length		F4 No.	F4 Length		S3 Size	S3 Spa.	S3 No.	S3 Length		S4 Size	S4 No.	S4 Length		S5 Size	S5 No.	S5 Length
Ext.Rt.	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A
Ext.Lt.	5	5½"	312	4'-8"		N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A		4	16	36'-3"	5	5½"	312	4'-8"		N/A	N/A	N/A		4	28	36'-3"	N/A	N/A	N/A

	K1 Size	K1 Spa.	K1 No.	K1 Length		K2 Size	K2 Spa.	K2 No.	K2 Length		W1 Size	W1 Spa.	W1 No.	W1 Length		W3 Size	W3 No.	W3 Length		G1 Size	G1 Spa.	G1 No.	G1 Length		G1 Size	G1 No.	G1 Length		G1 Size	G1 No.	G1 Length
Ext.Rt.	N/A	N/A	N/A			N/A	N/A	N/A			N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A
Ext.Lt.	N/A	N/A	N/A			N/A	N/A	N/A			4	9"	378	4'-11"		4	24	36'-3"		N/A	N/A	N/A	N/A		5	2	4'-8"		N/A	N/A	N/A

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

SUMMARY OF QUANTITIES

Concrete (Grade 4.0)	0 C.Y.
Concrete (Grade 4.0)(AE)	59.4 C.Y.
Reinforcing Steel (Gr. 60)	0 Lbs.
Reinforcing Steel (Epoxy Coated)	6365 Lbs.
Class III Excavation	—— C.Y.
Bridge Handrail (Steel) (Pedestrian)	24.5 L.F.
Seal Course (Granular Base)	14.5 C.Y.

See RCB Auxiliary Details for Optional Splice.
Note:
S3 bars omitted unless grade box or slab thickness is greater than or equal to 12".

†† Omit S5 bars when S3 bars are omitted

See Standard No. RD 080 for additional details.

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications, 1983 Edition.
UNIT STRESSES: Grade 4.0 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: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a ¾inch triangular moulding. Where Grade 4.0 Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint.
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 Grade 4.0 Concrete. Excavation for RCB Bridges shall be paid for as Class III Excavation.
SEAL COURSE: A Seal Course shall be constructed below the R.C.B. as shown in the Plans. The Seal Course shall consist of a 6" of crushed rock conforming to ASTM C-33, Gradation No. 67, and shall meet the requirements for Portland Cement Concrete Pavement Coarse Aggregate, Section 406.2, City of Wichita Standard Specifications. Wichita Standard Specifications. No reinforcing shall be placed until the Seal Course has gained sufficient strength to permit working upon it without injury.
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.
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.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION
Sta. 72+56.00
SINGLE 4 ft x 4 ft RCB
141.0 ft EXT. LT.
~~BR 1.4.4 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: ras Plot Location: $UNIT$
Files: i:/2004/04219/final/04219-000_C-4'x4'ExtLtBoxEKNV71.dgn
Plot Date: 9-27-2005