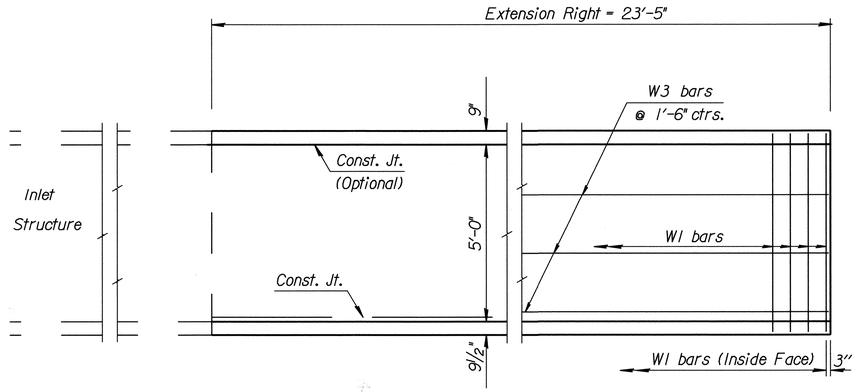
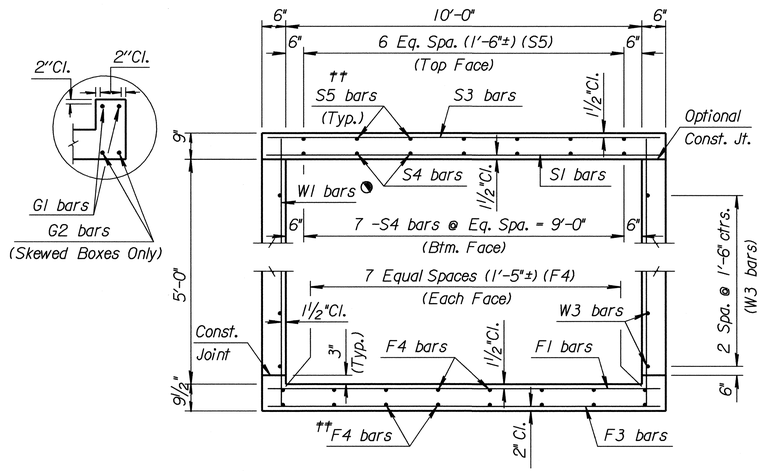
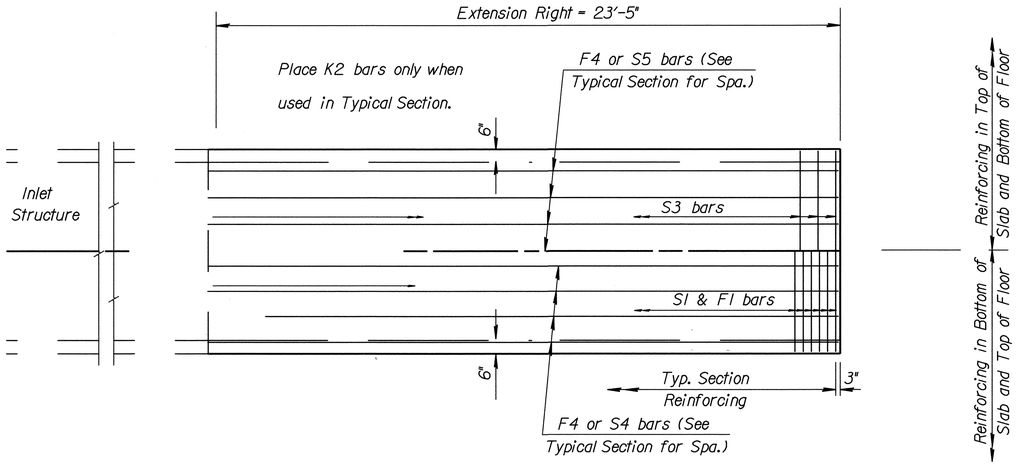
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0353-01	2005	76	162



SECTION AND ELEVATION



TYPICAL SECTION



PLAN

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

Note:
F3 bars omitted unless floor thickness is greater than or equal to 12.".

†† Omit S5 bars when S3 bars are omitted and omit the bottom layer of F4 bars when F3 bars are omitted.

Note: Precast Concrete Box Culverts will be allowed.

RCB to be bid by the Linear Foot. All labor, equipment and material required shall be subsidiary.

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 ¾ inch 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 shall not be paid for directly but shall be subsidiary to the bid item.
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 not be paid for directly but shall be subsidiary to the bid item.
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 not be paid directly but shall be subsidiary to the bid item.
QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when their construction is required by the plans.
GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxiliary Details 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			Reinf. Steel (Gr. 60)		
									Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)
111.60	111.74	122.00	5	0	NONE	NONE	NO	NO	19.1		19.1	2200		2200

BAR SCHEDULE

F1				F3				F4			SI				S3				S4			S5			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length
6	6"	48	10'-8"	N/A	N/A	N/A	N/A	4	7	25'-1"	6	6"	48	10'-8"	N/A	N/A	N/A	N/A	4	7	25'-1"	N/A	N/A	N/A

K1				K2				W1				W2				W3				S3				S4				S5			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length		Size	No.	Length		Size	No.	Length		Size	Spa.	No.	
N/A	N/A	N/A		N/A	N/A	N/A		4	9"	70	6'-3"	N/A	N/A	N/A	N/A	4	8	25'-1"		N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A	

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

FOR INFORMATION ONLY SUMMARY OF QUANTITIES	
Concrete (Grade 4.0)	19.1 C.Y.
Concrete (Grade 4.0)(AE)	0.0 C.Y.
Reinforcing Steel (Gr. 60)	2200 Lbs.
Reinforcing Steel (Epoxy Coated)	0 Lbs.
Class III Excavation	Subsidiary
Foundation Stabilization	Subsidiary
Concrete for Seal Course	Subsidiary
Granular Backfill (Wingwalls)	Subsidiary

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

Sta. 79+50.00

SINGLE 10 ft x 5 ft RCB

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: $$USERNAME$$ | Plot Location: $UNIT$
File: $$$$$$$$$$$$DGNSPEC$$$$$$$$$$$$$$
Plot Date: $$$$$$STIME$$$$$$