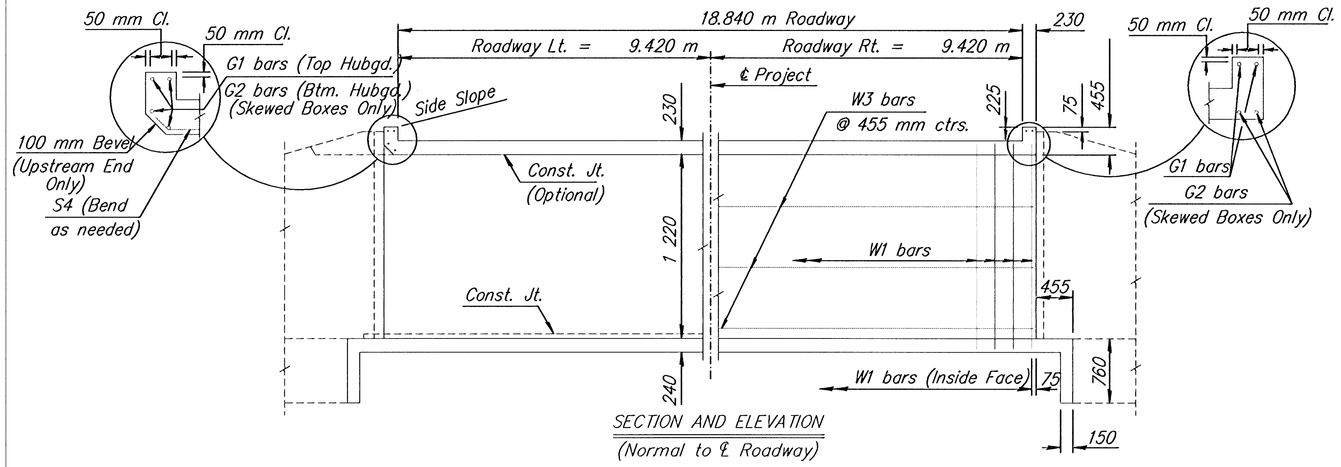
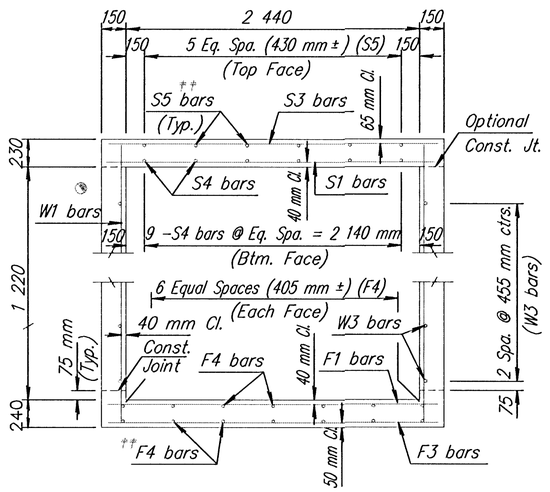
VERSION: 5.10m COMPILED: 03/01/95

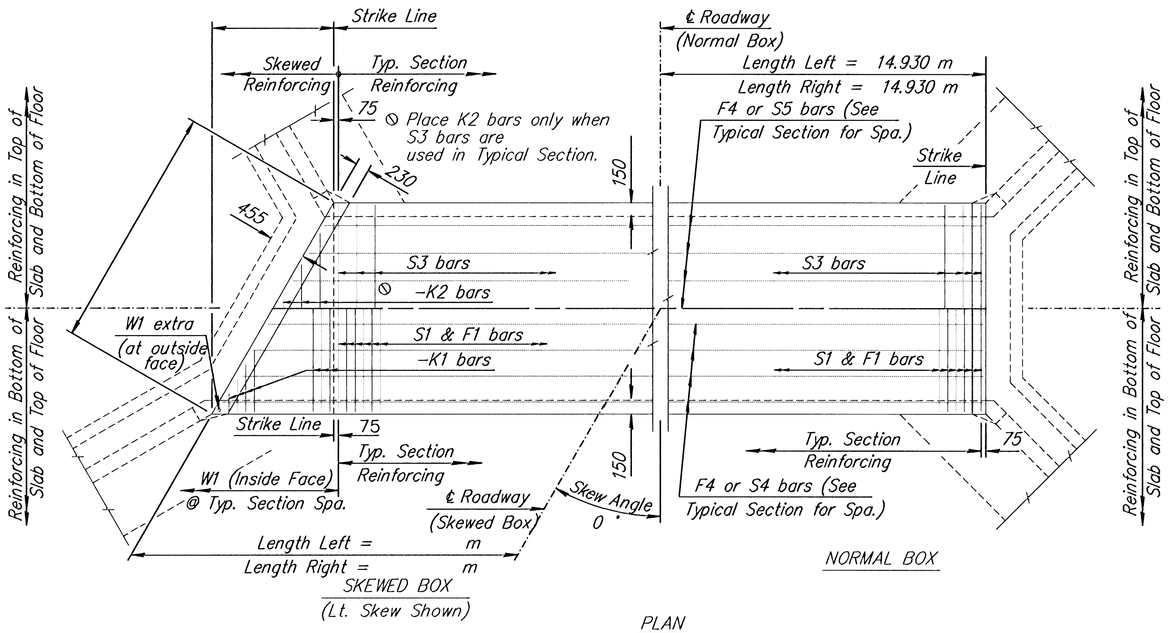
FHWA REGION NO.	STATE	PROJECT NO	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87N-0127-01	1999	25	90



SECTION AND ELEVATION
(Normal to ℄ Roadway)



TYPICAL SECTION



PLAN

GENERAL NOTES

DESIGN SPECIFICATION: AASHTO Specifications, 1983 Edition
DESIGN LOADING: MS18-44
UNIT STRESSES: Class AAA Concrete f'c = 28 MPa
Reinforcing Steel fy = 420 MPa

FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and includes the surfacing.

CONCRETE: Use concrete conforming to Class AAA Concrete. Bevel all exposed edges with a 20 mm triangular molding. Where Class AAA(AE) is specified, place this concrete in the top slab above the Construction Joint.

REINFORCING: Use reinforcing steel conforming to ASTM A615M, Grade 420. All dimensions relative to reinforcing steel are to the centerline of the 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: The Engineer may require a seal course. The seal course shall be unreinforced Concrete(Commercial Grade) with a minimum depth of 75 mm 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: The Engineer may require Foundation Stabilization. The Engineer shall determine the depth of Foundation Stabilization. Foundation Stabilization shall be paid for at the unit price set for Foundation Stabilization. See the "Auxiliary Details" sheet.

QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when they are required by the plans. Payment for additional quantities that result from including a seal course and/or a floating apron, as a change in the original plans, shall be made at the unit price bid for the various items involved.

GRANULAR BACKFILL (WINGWALLS): The Engineer may require special backfill procedures. See the "Auxiliary Details" sheet.

STRIKE LINE: Construct the wingwalls and that portion of the RCB outside the Strike Line level. Construct the wingwall footings with the culvert floor. See the wingwall detail sheets.

See RCB Auxillary Details for Optional Splice.

Note: S3 bars omitted unless grade box or slab thickness is greater than or equal to 305 mm.

Note: F3 bars omitted unless floor thickness is greater than or equal to 305 mm.

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

CULVERT SUMMARY										Concrete			Reinf. Steel (Gr. 420)		
Flow Line Elev. Lt. (m)	Flow Line Elev. Rt. (m)	Crown Gr. Elev. (m)	Design Fill Ht. (m)	Skew	Left Wings	Right Wings	Scour Apron	Soil Saver	Granular Backfill	Barrel (m³)	Wings (m³)	Total (m³)	Barrel (kg)	Wings (kg)	Total (kg)
403.900	403.750	406.340	0.6	0	STRAIGHT	STRAIGHT	NO	NO	NO	49.4	6.0	55.4	3728	257	3985

BAR SCHEDULE

F1				F3				F4			S1				S3				S4				S5			
Size	Spa.	No.	Length	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
20	150	199	2 640	–	–	–	–	–	–	–	–	12	21	10 190	20	150	199	2 640	–	–	–	–	–	–	–	15	18	15 130	–	–	–

K1				K2				W1				W3				G1			G2							
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length
–	–	–		–	–	–		12	230	260	1 600	–	–	–	–	12	18	10 190	–	–	–	–	15	4	2 640	–	–	–				

Minimum Splice Lengths	
#12	405
#15	510
#20	610

SUMMARY OF QUANTITIES		
Class AAA Concrete	55.4	m³
Class AAA Concrete (AE)	0.0	m³
Reinforcing Steel (Gr. 420)	3990	kg
Reinforcing Steel (Epoxy Coated)	0	kg
Class III Excavation		m³
Foundation Stabilization (Set)	1	m³
Concrete for Seal Course (Set)	1	m³
Granular Backfill (Wingwalls) (Set)	1	m³

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION
Sta. 10+828
SINGLE 2.4 m x 1.2 m RCB

BR1.8.4 SI SEDGWICK CO.

FHWA APPROVAL	6-5-9	APP'D	KENNETH F. HURST
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

ORIG. FROM: BR.NO.	PROJ.	CO. CHECK
DESIGN	DATE	DATE
DETAIL	DATE	DATE
QUANTITIES	DATE	DATE
TRACING	DATE	DATE
RETRACED	DATE	DATE

Drawn By : USERNAME
DGN File : DGNSPEC
Plotted : SYTIME View=