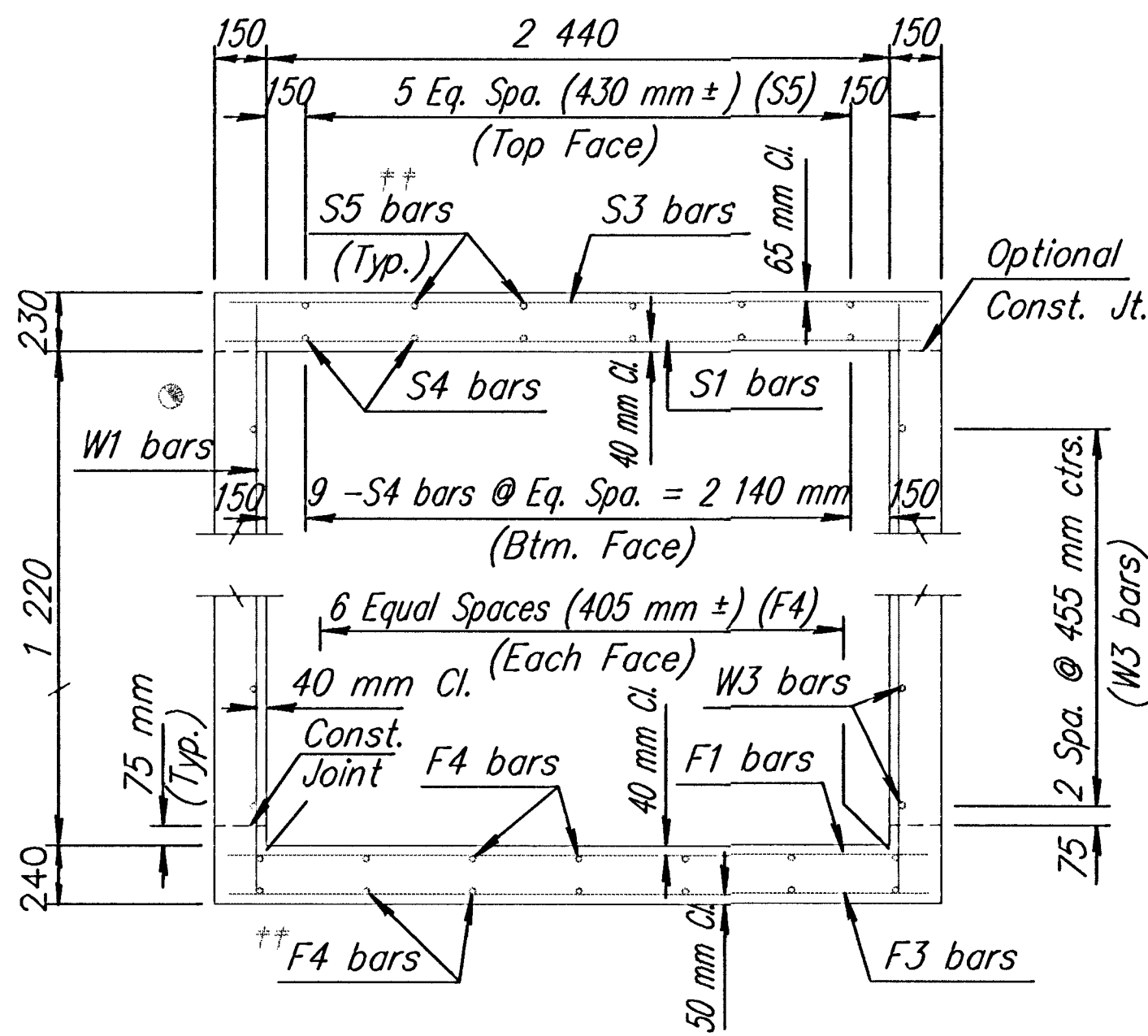
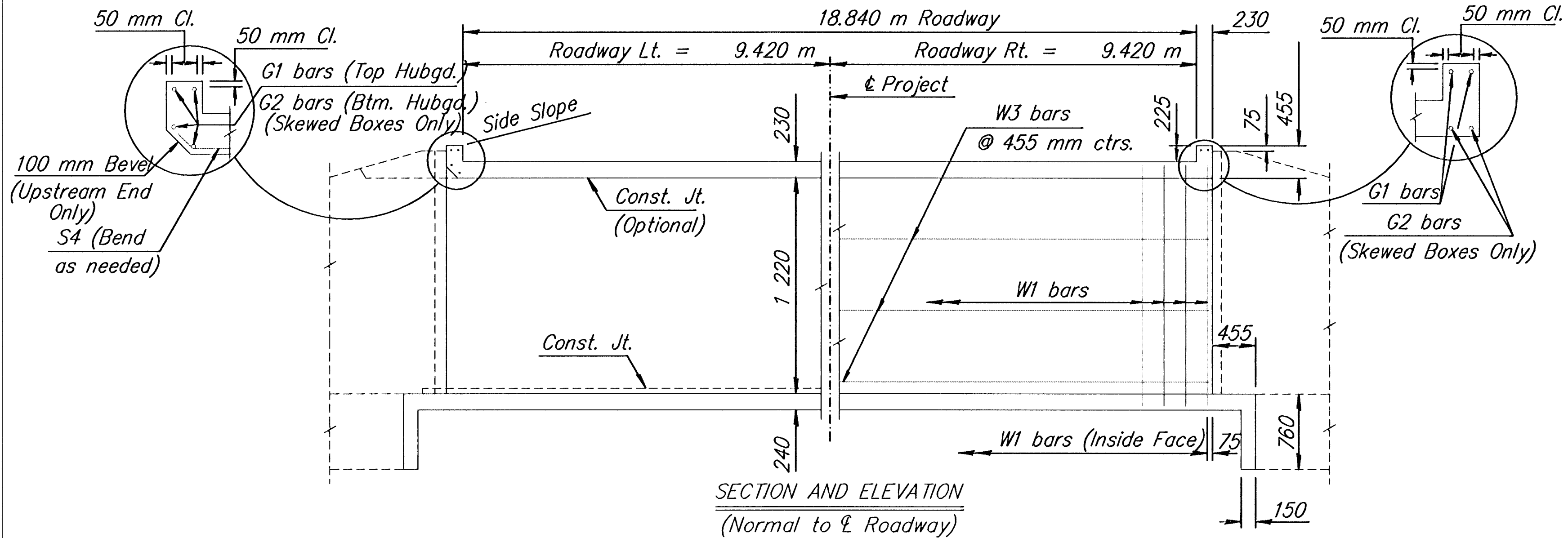


FHWA REGION NO.	STATE	PROJECT NO	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87N-0127-01	1999	25	90



● 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.

TYPICAL SECTION

GENERAL NOTES

<u>DESIGN SPECIFICATION:</u>	AASHTO Specifications, 1983 Edition
<u>DESIGN LOADING:</u>	MS18-44

DESIGN LOADING: MS18-44

UNIT STRESSES:

Class AAA Concrete	$f'_c = 28 \text{ MPa}$
Reinforcing Steel	$f_y = 420 \text{ MPa}$

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.

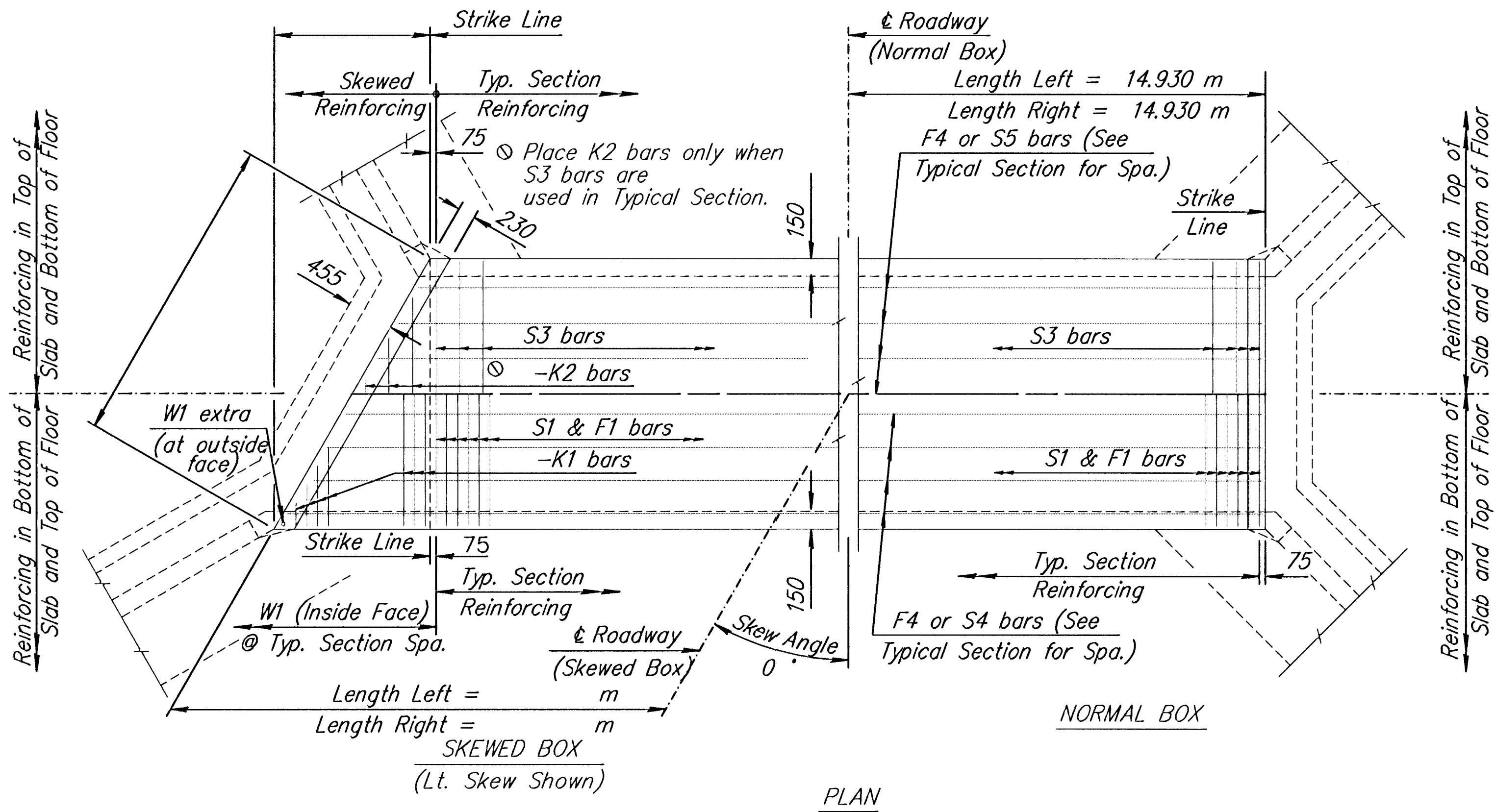
SEAL COURSE: The Engineer may require a seal course. The seal course shall be unreinforced Concrete(Commercial Grade) with a minimum depth of 75 mm or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Course.

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.



CULVERT SUMMARY															
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	Concrete			Reinf. Steel (Gr. 420)		
										Barrel (mø)	Wings (mø)	Total (mø)	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	Spa.	No.	Length	Size	No.	Length	Size	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	m ³	
Class AAA Concrete (AE)	0.0	m ³	
Reinforcing Steel (Gr. 420)	3990	kg	
Reinforcing Steel (Epoxy Coated)	0	kg	
Class III Excavation		m ³	
Foundation Stabilization (Set)	1	m ³	
Concrete for Seal Course (Set)	1	m ³	
Granular Backfill (Wingwalls) (Set)	1	m ³	

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