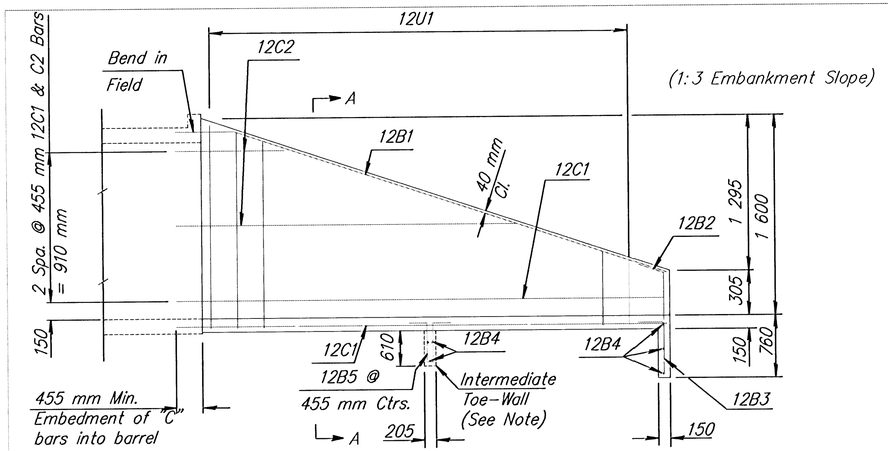
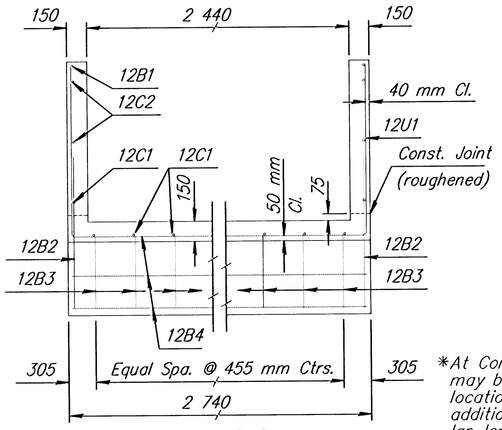
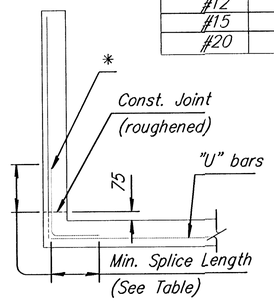
FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87N-0127-01	1999	26	90



ELEVATION OF WINGWALL



Section A-A



MIN. SPLICE LENGTHS	
#12	405
#15	510
#20	610

*At Contractors option, straight bars and bent bars may be substituted for "U" bars and spliced at locations shown. No allowance will be made for additional steel required. See table for required lap length.

GENERAL NOTES

UNIT STRESSES: Class AAA Concrete; f'c = 28 MPa
Reinforcing Steel; fy = 420 MPa

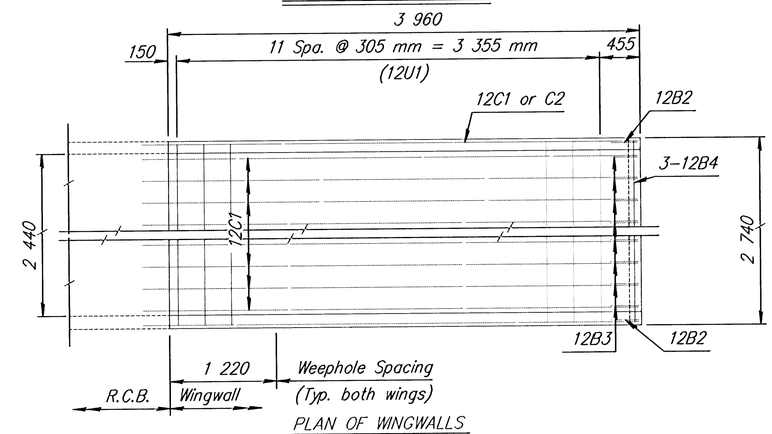
CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a 20 mm triangular moulding.

REINFORCING: All reinforcing shall conform to ASTM A616M, Grade 420. Welded wire fabric shall conform to ASTM A185M-16. Wire fabric shall be electrically welded and shall be composed of 150x150-MW10xMW10 welded wire fabric and shall be classified as kilograms of reinforcing.

QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

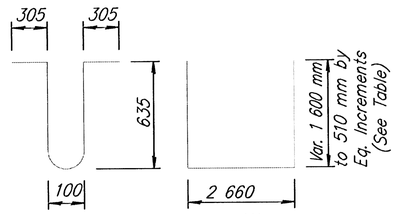
FOUNDATION AND BACKFILL MATERIAL: Soils judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for foundation and/or backfill material for wingwalls and will not be used. Where these conditions exist, Foundation Stabilization and/or Granular Backfill (Wingwalls) shall be used as determined by the Engineer. See "RCB Auxiliary Details" sheet for additional details.

INTERMEDIATE TOE-WALL: When the length of wingwalls and width of apron both exceed 4 570 m, an intermediate toe-wall shall be constructed at mid-length of wing-wall as shown on "Elevation of Wingwall".



PLAN OF WINGWALLS
(Normal RCB)

NOTE:
Wingwall floor and toewall shall be constructed with the RCB floor. Wingwalls to be constructed with RCB walls.

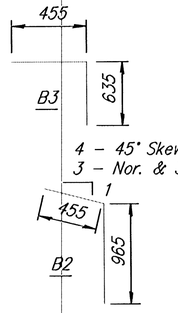


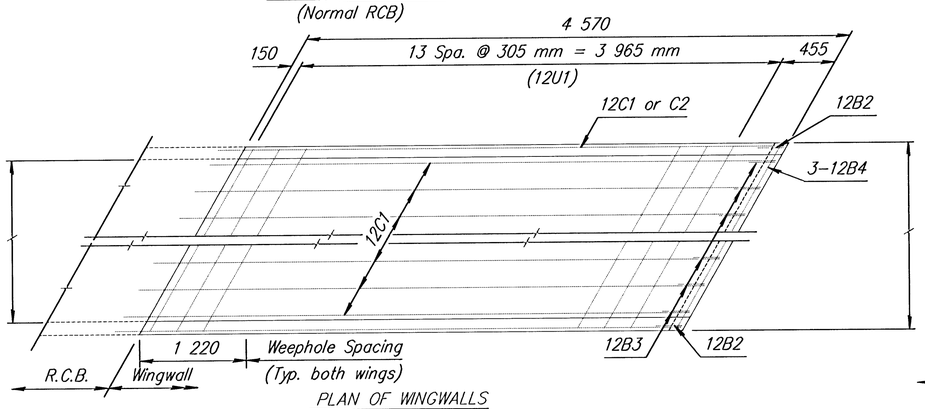
SKEW	INCREMENT
0°	100 mm
30°	90 mm
45°	75 mm

Normal	Var. 1 955 mm to 3 355 mm by 1 395 mm Increments
30° Skew	Var. 2 185 mm to 3 810 mm by 1 625 mm Increments
45° Skew	Var. 2 565 mm to 4 495 mm by 1 930 mm Increments

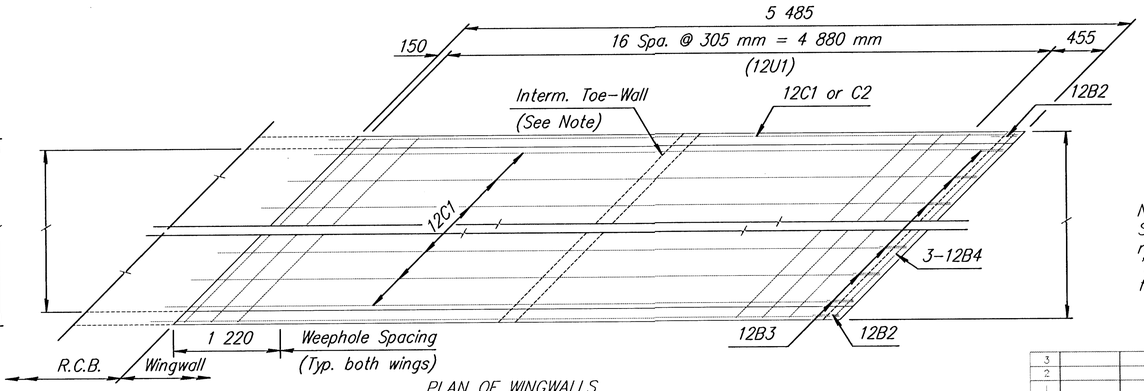
BENDING DIAGRAMS

All dimensions are out to out of bars.





PLAN OF WINGWALLS
(30° Skewed RCB)



PLAN OF WINGWALLS
(45° Skewed RCB)

NOTE:
Space Weepholes to clear reinforcing steel. See "RCB Auxiliary Details" sheet for additional weephole details.

* See Bending Diagram

NOTE: Reinforcing Bar List is for both wings at one end of box only.	12B1		12B2 *		12B3 *		12B4		12B5 *		12C1		12C2				12U1 *					
	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
0 ° Skew	2	4 570	2	1 420	6	1 090	3	2 640	0	1 930	8	4 370	4	*			12	*				

WINGWALL QUANTITIES (One End Only)		
Class AAA Concrete	3.0	m³
Reinforcing Steel	129	kg

Quantities listed are included in the Summary of Quantities shown on the RCB.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION
Sta. 10+828
STRAIGHT WINGWALLS
1.2 m Rise (3°26'16" SKEW LEFT)

BR 11.00.04 SI — SEDGWICK CO.

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

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

Drawn By : USERNAME
DGN File : DGNSPEC
Plotted : SYTIME — View= PLOT4