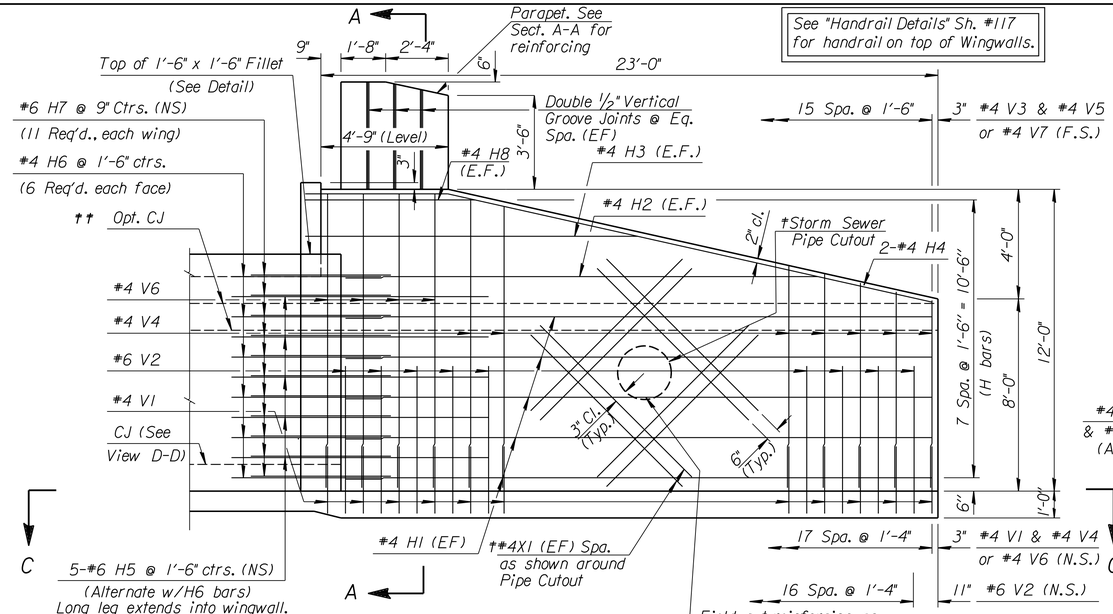
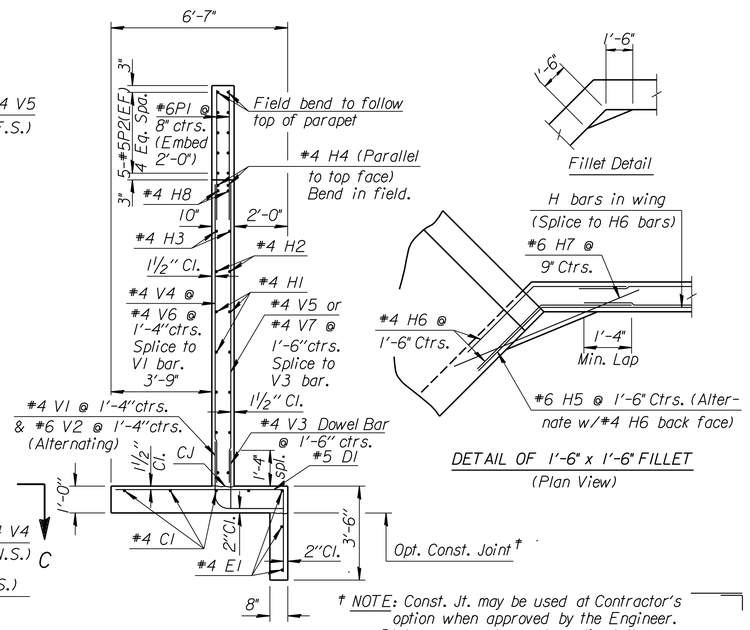
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0386-01	2009	107	255



ELEVATION OF WINGWALL

(Backface Shown)



SECTION A-A

† NOTE: Const. Jt. may be used at Contractor's option when approved by the Engineer. D1 bars or mesh may be spliced thus: Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.

DETAIL OF 1'-6" x 1'-6" FILLET

(Plan View)

GENERAL NOTES

UNIT STRESSES: Grade 4.0 Concrete; f'c = 4,000 p.s.i.
Reinforcing Steel; fy = 60,000 p.s.i.

CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a 3/4 inch triangular moulding.

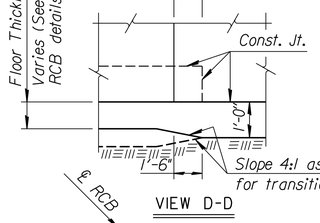
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. Welded Wire Fabric shall conform to ASTM A185. All dimensions relative to reinforcing steel shall be to center-line of bar unless otherwise noted.

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

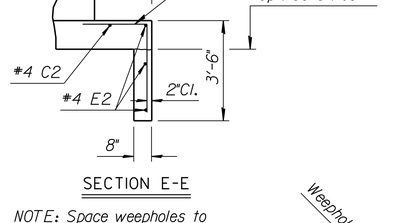
APRON: A 5" concrete slab shall be constructed between the downstream wings in locations subject to scour only when specified on the plans or by the Engineer. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6-W1.4 x W1.4 welded wire fabric and shall be classified as pounds of reinforcing and involved in the total quantity for the bid item Reinforcing Steel (Gr. 60).

BACKFILL MATERIAL: Soils judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for backfill material for wingwalls and will not be used. Where these conditions exist, use Granular Backfill (Wingwalls).

FOUNDATION STABILIZATION: Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.

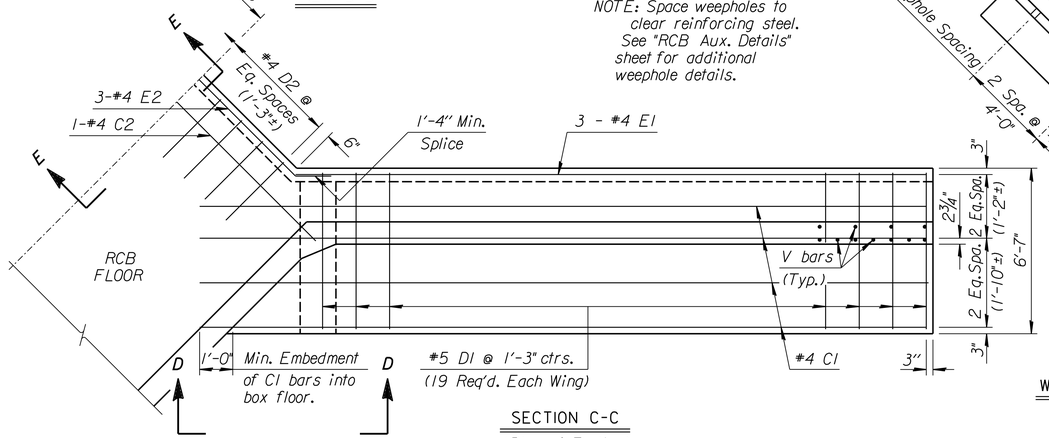


VIEW D-D



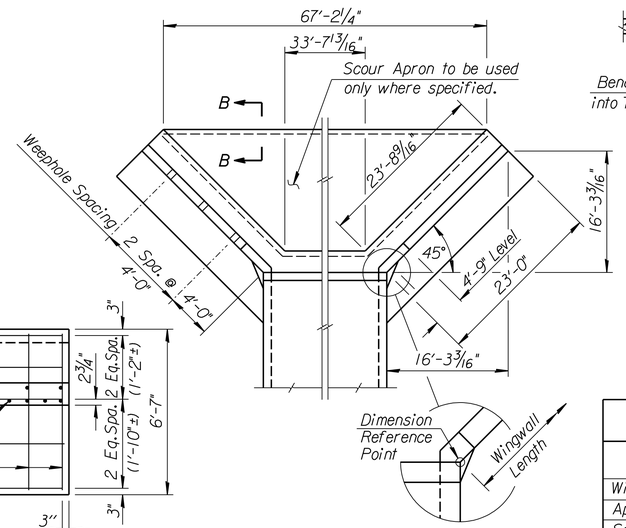
SECTION E-E

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



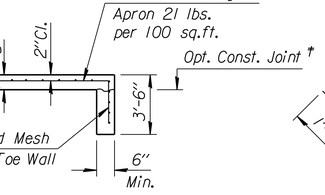
SECTION C-C

(Plan of Footing)



WING DIMENSIONS FOR NORMAL BOX

(3 1/2:1 Embankment Slope)



SECTION B-B

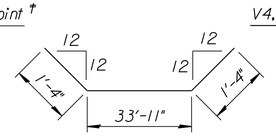
◔ Includes 6.79 C.Y. Concrete (Grade 4.0)(AE)

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

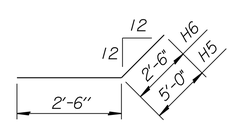
WINGWALL QUANTITIES (One End Only)	Foundation Stabilization (C.Y.)	Concrete (Gr. 4.0) (C.Y.)
Wingwalls	8.02	◔34.92
Apron (Rt.)	15.04	16.85
Soil Saver (Lt.)	13.34	22.12
Reinforcing Steel (Gr. 60)(Wing only)		2,937 Lbs. Left 3,108 Lbs. Right
Welded Wire Fabric (Apron only)		217 Lbs.

V4	Var. 7'-8" to 11'-5 1/2" by equal increments (3 1/2")	2 Req'd., each length
V5	Var. 7'-8" to 11'-8" by equal increments (4")	2 Req'd., each length

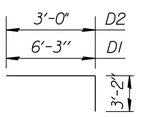
V4, V5



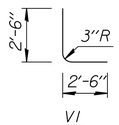
E2



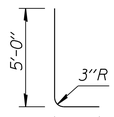
H5, H6



D1, D2



V1



V2

BENDING DIAGRAM

(All dimensions are out to out of bars.)

NOTE: Reinforcing Bar List is for both wings at one end of box only.

* See Bending Diagram † Right only

0° Skew	Mark	#4C1	#5D1	#4E1	#4C2	#4D2	#4E2	#4V1	#6V2	#4V3	#4V4	#4V5	#4V6	#4V7	#4H1	#4H2	#4H3	#4H4	#6H5	#4H6	#6H7	#4H8	#6P1	#5P2	#4X1
	Number	8	38 *	6	1	27 *	3 *	36 *	34 *	32	28	26	8	6	20	4	4	4	10 *	24 *	22	4	24	20	† 32
	Length	27'-4"	9'-5"	23'-8"	38'-4"	6'-2"	36'-7"	5'-0"	7'-6"	2'-3"	*	*	11'-8"	11'-8"	21'-10"	21'-2"	15'-1"	23'-0"	7'-6"	5'-0"	4'-8"	8'-3"	5'-10"	3'-8"	8'-0"

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

BR. NO. 4304008700SBTII Sta. 112+13

FLARED WINGWALLS
8 ft Rise (0°Skew)

~~BR 10.00.08~~ Sedgwick Co.

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

Plotted By: -
Plot Location: $UNIT$
File: $$$$$$$$$$$DGNSPEC$$$$$$$$$$$$$
Plot Date: 11/24/2009