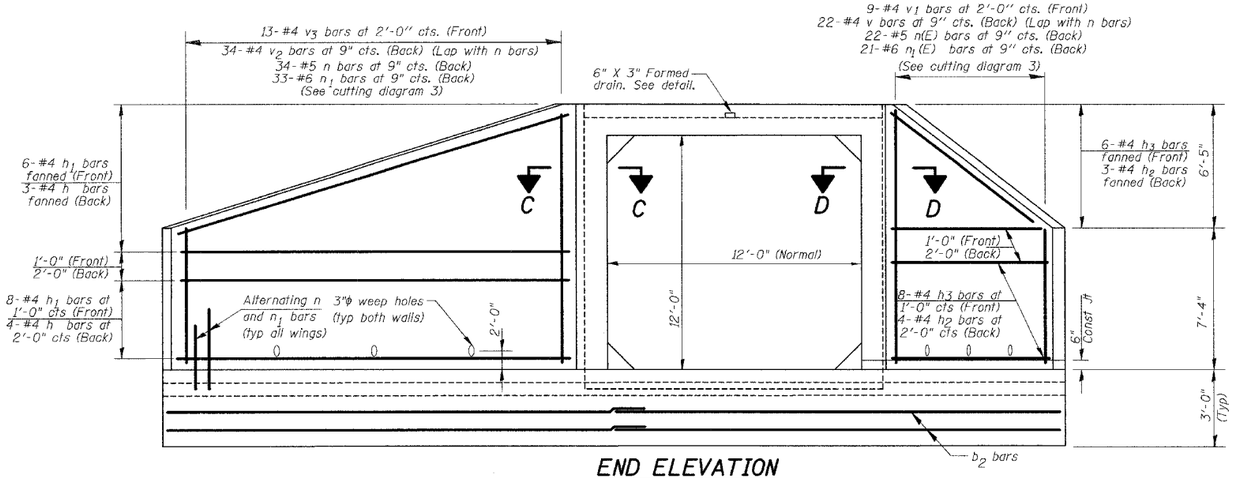
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
328	5(R, Y, RS-1	CLAY	367	89
STA	TO STA			
	ILLINOIS	US RTE 45		

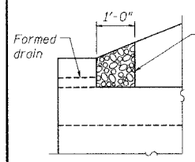
SHEET 3 OF 4

94307

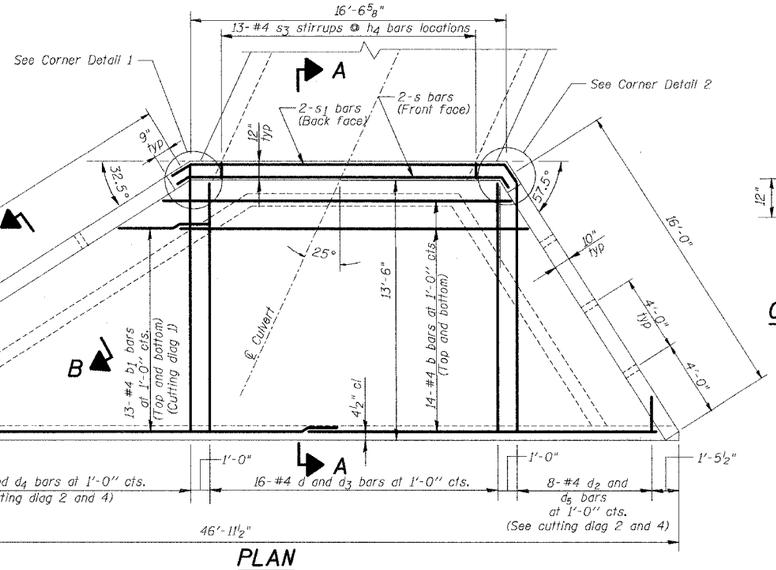


END ELEVATION

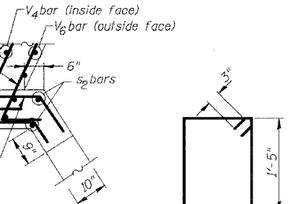
Note: 12"x12" Continuous french drains (CA-11) behind headwall and wingwalls cost included with box culvert end sections.



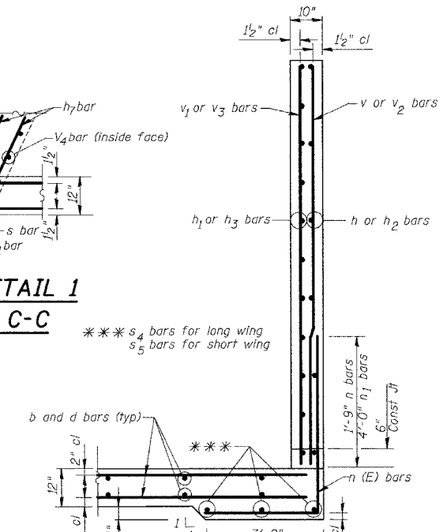
FRENCH DRAIN DETAIL



PLAN



CORNER DETAIL 2
SECTION D-D

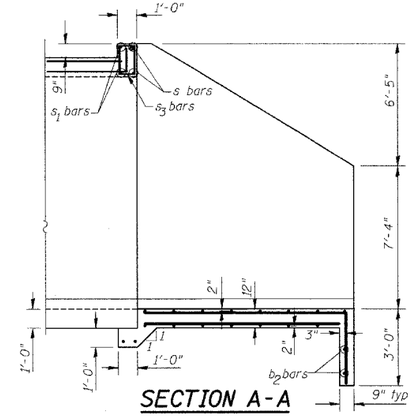


CORNER DETAIL 1
SECTION C-C

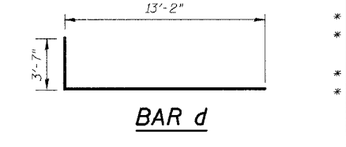
BAR LAP

#4 - 1'-4" min
#5 - 1'-10" min

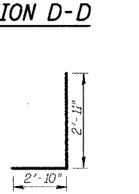
SECTION B-B
(typ both wings)



SECTION A-A

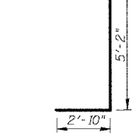


BAR d

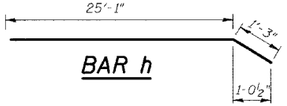


BAR s3

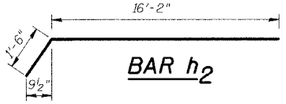
BAR n



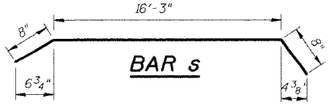
BAR n1



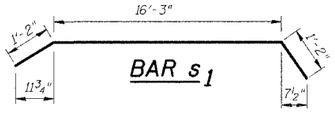
BAR h



BAR h2



BAR s

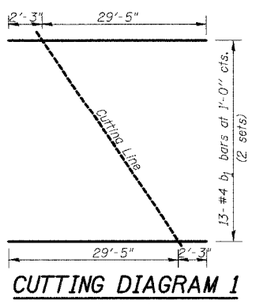


BAR s1

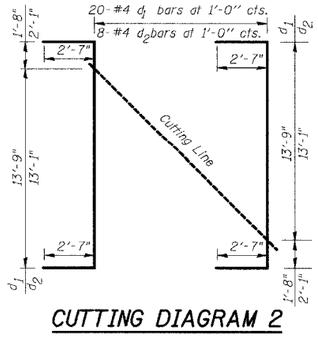
** BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	b	56	#4	18'-5"	
*	b_1	26	#4	29'-5"	
	b_2	8	#4	23'-10"	
	d	32	#4	16'-9"	
*	d_1	20	#4	20'-7"	
*	d_2	8	#4	20'-4"	
	d_3	32	#4	13'-2"	
*	d_4	20	#4	15'-5"	
*	d_5	8	#4	15'-2"	
	h	14	#4	26'-4"	
	h_1	28	#4	25'-8"	
	h_2	14	#4	17'-8"	
	h_3	28	#4	16'-8"	
	n (E)	112	#5	5'-9"	
	n_1(E)	108	#6	8'-0"	
	s	4	#6	17'-7"	
	s_1	4	#6	18'-7"	
	s_2	8	#4	13'-4"	
	s_3	26	#4	4'-8"	
	s_4	6	#4	25'-0"	
	s_5	6	#4	16'-0"	
*	v	22	#4	20'-5"	
*	v_1	9	#4	20'-5"	
*	v_2	34	#4	20'-5"	
*	v_3	13	#4	20'-5"	
	Total Class SI Concrete			Cu Yd	87
	Total Reinforcing Bars			Lb	9546
	Total Epoxy Coated Bars			Lb	2443

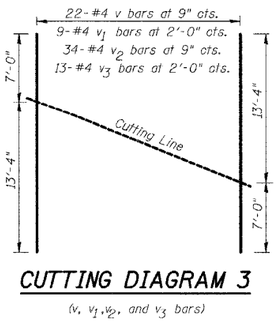
* Cut bars are used on both end sections
** Bill of Material is for two (2) end sections. Quantities given for information only.



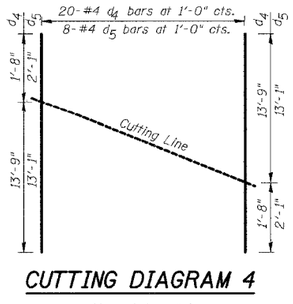
CUTTING DIAGRAM 1
(b_1 bars)



CUTTING DIAGRAM 2
(d_1 and d_2 bars)



CUTTING DIAGRAM 3
(v, v_1, v_2, and v_3 bars)



CUTTING DIAGRAM 4
(d_4 and d_5 bars)

HURST-ROSCHE ENGINEERS, INC.
CONSULTING ENGINEERS & ARCHITECTS
1400 E. TREMONT ST.
HILLSBORO, ILLINOIS 62049

DESIGNED	JLG
CHECKED	RPB
DRAWN	BAD
CHECKED	RPB

CAST-IN-PLACE END SECTION
FAP 328 (US 45) OVER
TRIB TO LITTLE WABASH
SECTION 5R, Y, RS-1
CLAY COUNTY STA 1040+19.21

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