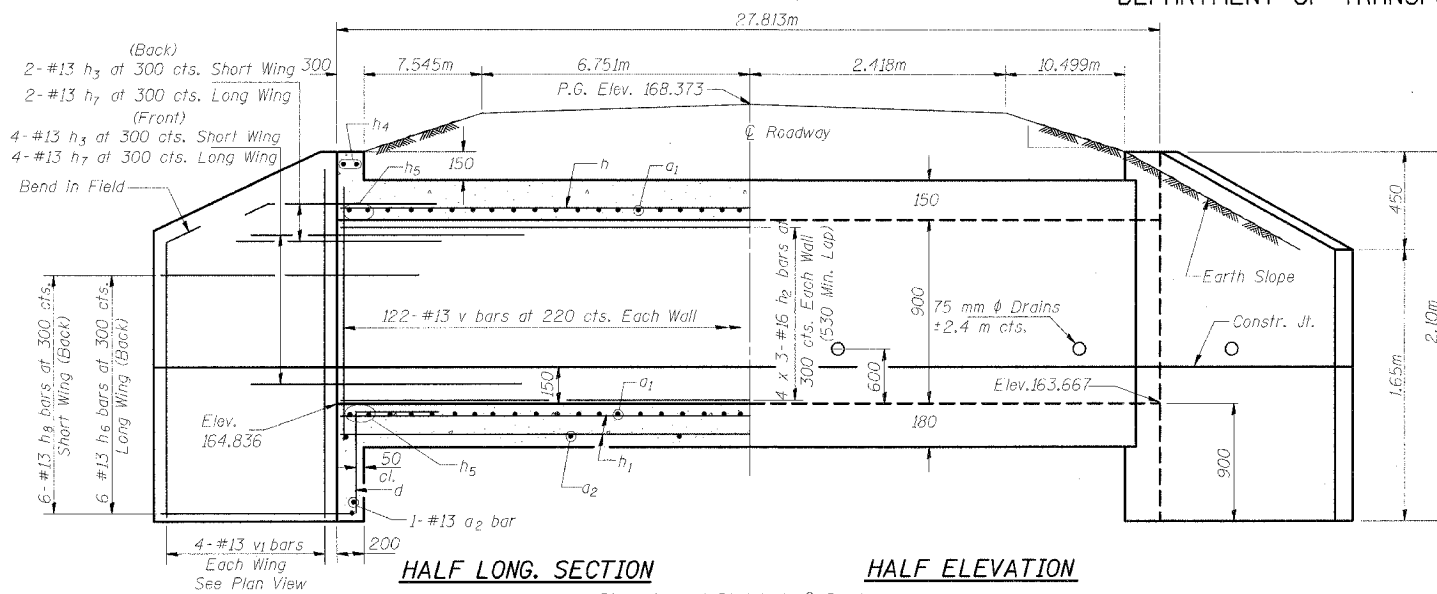


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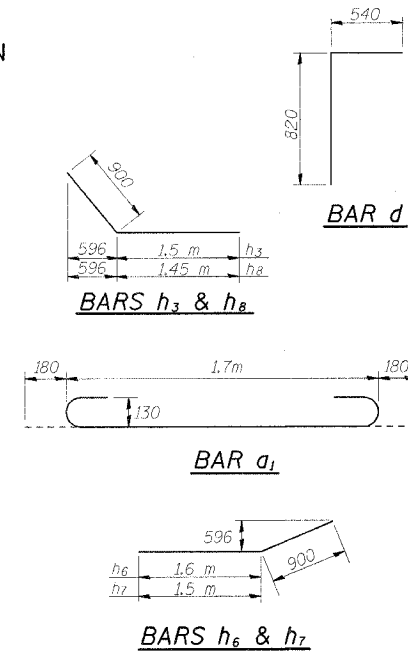
FAP NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	MADISON	452	152
STA. 1+110.790				
FED. ROAD DIST. NO. 3		ILLINOIS	FED. AID PROJECT-	

SECTION 60-14
SECTION 60-14-1B
CONTRACT NO. 76321

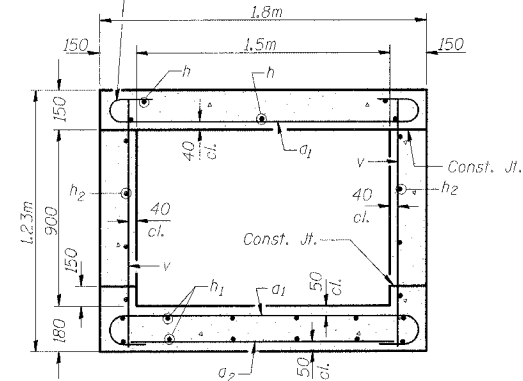


HALF LONG SECTION HALF ELEVATION

Dimensions at Rt. L's to \odot Roadway



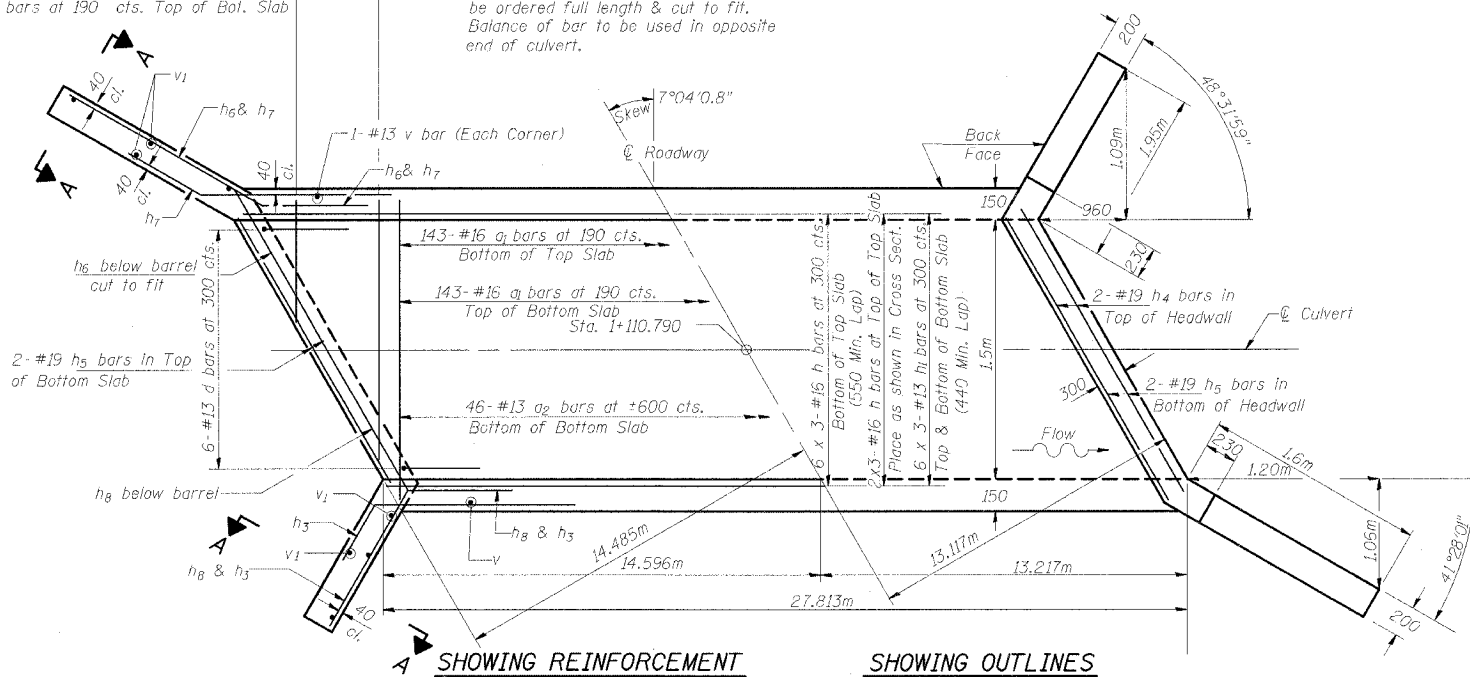
Tilt hook of a_1 bars if necessary for 40 mm min. cl.



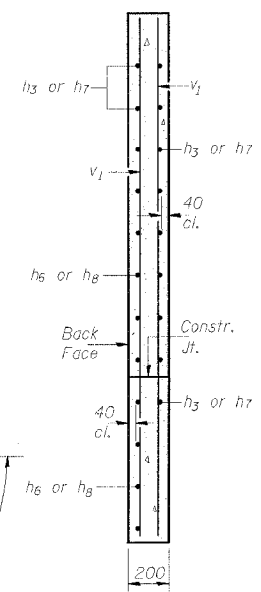
SECTION THRU BARREL

*2-#16 a_1 bars at 190 cts. Bot. of Top Slab
*2-#16 a_1 bars at 190 cts. Top of Bot. Slab

* a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.



SHOWING REINFORCEMENT SHOWING OUTLINES PLAN



SECTION THRU HEADWALL (Up Stream End Only)

DESIGN STRESSES
 $f_y = 420 \text{ MPa}$
 $f'_c = 24 \text{ MPa}$

LOADING MS18 & ALT.

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
a_1	290	#16	2.06	U
a_2	48	#13	1.58	—
d	20	#13	1.36	L
h	24	#16	9.61	—
h_1	36	#13	9.54	—
h_2	24	#16	9.61	—
h_3	12	#13	2.40	—
h_4	4	#19	1.76	—
h_5	8	#19	1.92	—
h_6	12	#13	2.50	—
h_7	12	#13	2.40	—
h_8	12	#13	2.35	—
v	258	#13	1.23	—
v_1	16	#13	2.02	—
Concrete Box Culverts			m ³	28.0
Reinforcement Bars			kg	2590

DESIGNED
CHECKED
DRAWN
CHECKED

SSB-H-L (M) 6611P2000

NOTES

A distance of half the length of the wingwall but not less than 2 m of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31M, M-42M or M-53M, Grade 420.
Bars indicated thus 12 x 4-#15 etc. indicates 12 lines of bars with 4 lengths per line.
All dimensions are in millimeters (mm) except as noted.
All construction joints shall be bonded.

PLANS PREPARED BY:
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FA 310
SECTION 60-14
MADISON COUNTY
RAMP 1 STATION 1+110.790