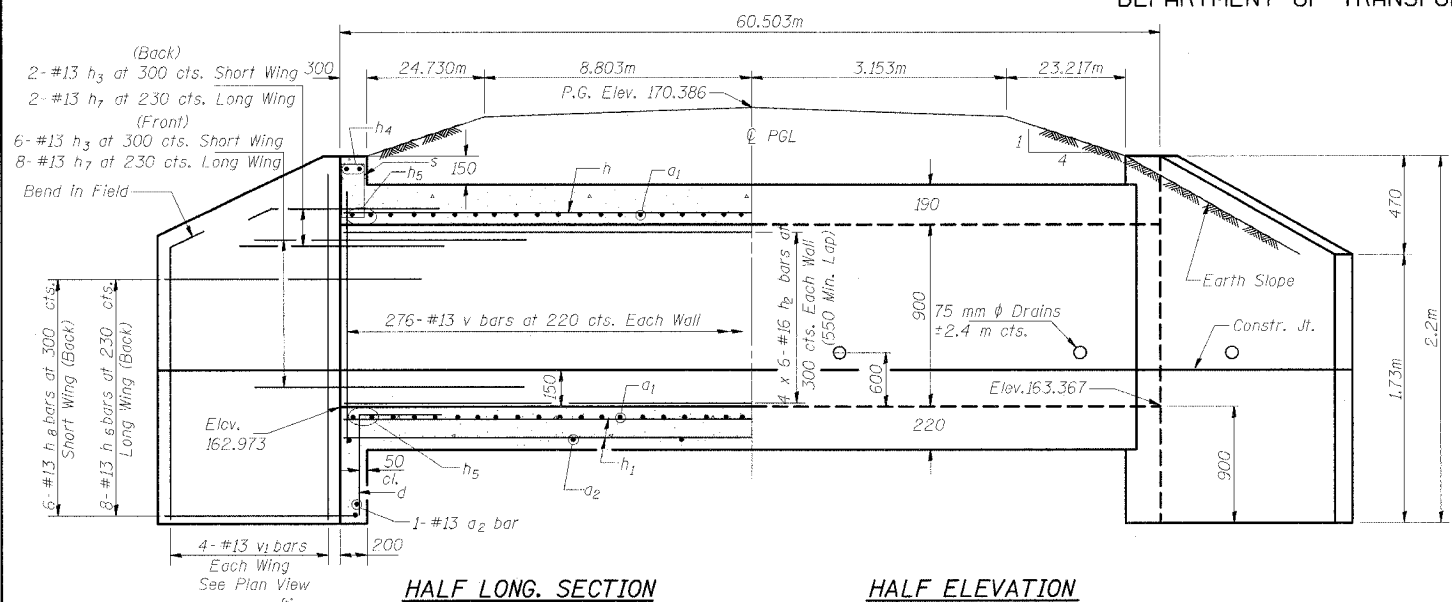


STATE OF ILLINOIS
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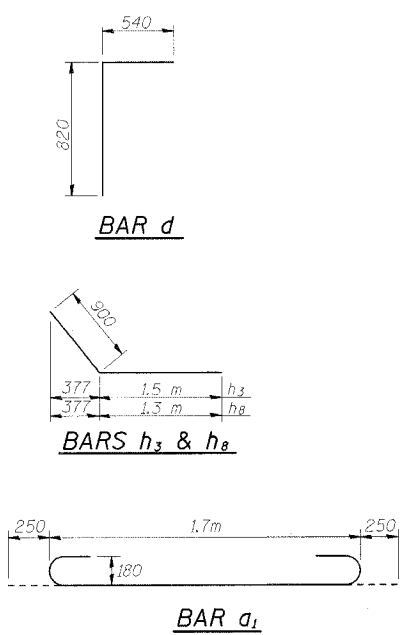
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	MADISON	452	153
STA. 1+448.472			
FED. ROAD DIST. NO. 8		ILLINOIS	FED. AID PROJECT-

SECTION 60-14
SECTION 60-14-18
CONTRACT NO. 76321

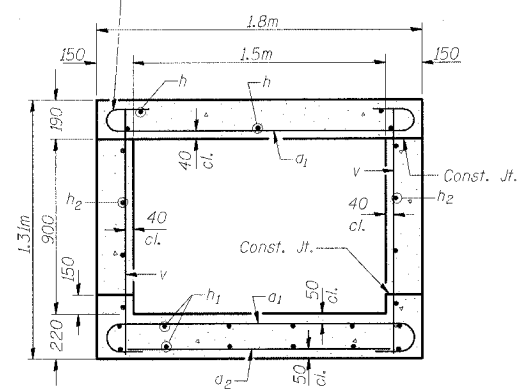


HALF LONG. SECTION

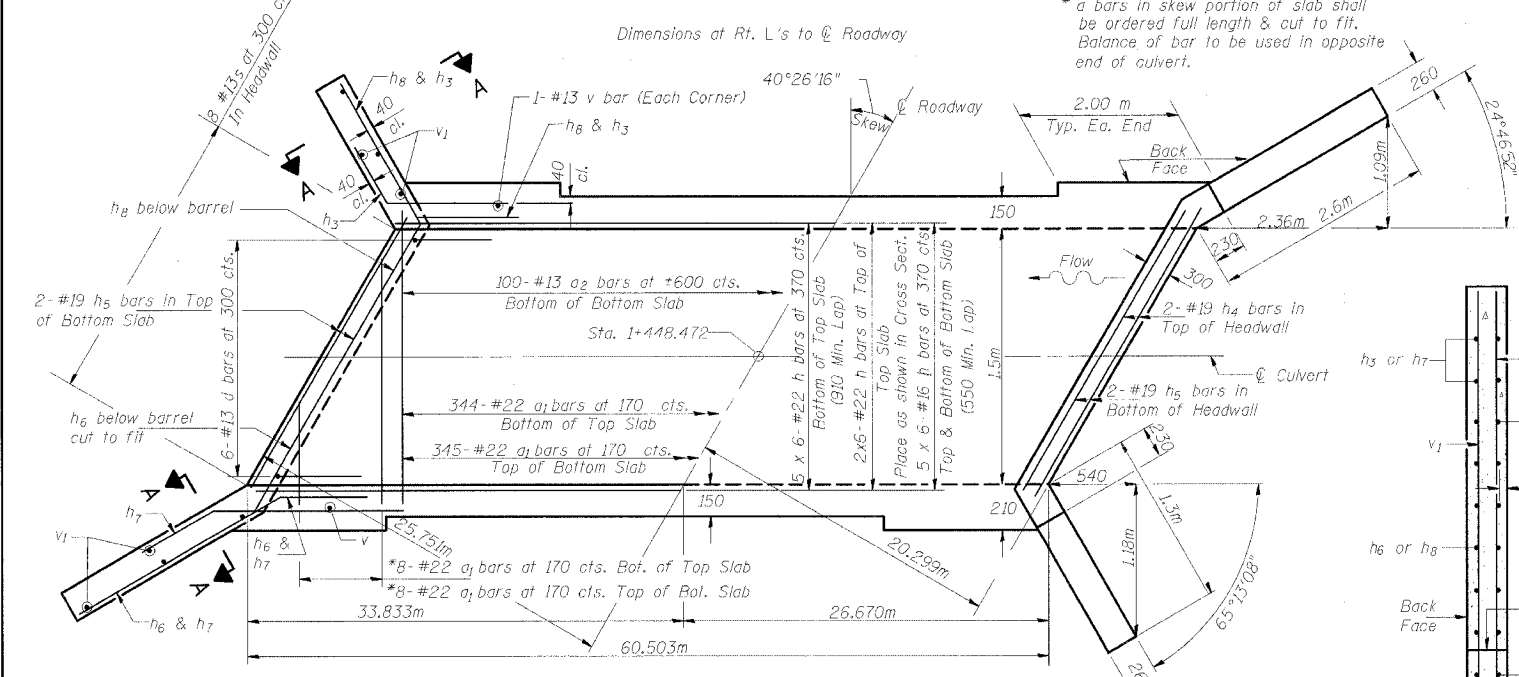
HALF ELEVATION



Tilt hook of a1 bars if necessary for 40 mm min. cl.



SECTION THRU BARREL



SHOWING REINFORCEMENT

SHOWING OUTLINES

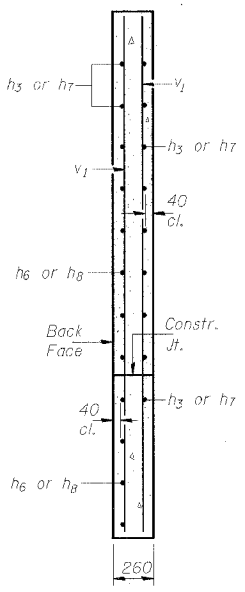
PLAN

NOTES

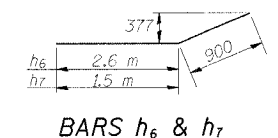
A distance of half the length of the wingwall but not less than 2 m of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31M, M-42M or M-53M, Grade 420.
Bars indicated thus 12 x 4-#16 etc. indicates 12 lines of bars with 4 lengths per line.
All dimensions are in millimeters (mm) except as noted.
All construction joints shall be bonded.

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

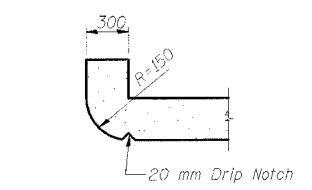
SSB-H-R (M) 6-1-2000



SECTION A-A



BARS h6 & h7



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
a1	705	#22	2.20	U
a2	102	#13	1.58	—
d	12	#13	1.36	L
h	42	#22	10.83	—
h1	60	#16	10.53	—
h2	48	#16	10.53	—
h3	12	#13	2.40	—
h4	4	#19	2.22	—
h5	8	#19	2.38	—
h6	16	#13	3.50	—
h7	12	#13	2.40	—
h8	12	#13	2.20	—
v	556	#13	1.23	—
v1	16	#13	2.12	—
s	16	#13	1.19	□
Concrete Box Culverts			m ³	66.2
Reinforcement Bars			kg	8980

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FA 310
SECTION 60-14
MADISON COUNTY
RAMP 2 STATION 1+448.472

PLANS PREPARED BY:
WOOLPERT LLP
4315 NORTH ILLINOIS STREET, SUITE 1 C
BELLEVILLE, IL
62226-1045
618.277.7004
FAX: 618.277.6114

11/25/00 10:00 AM