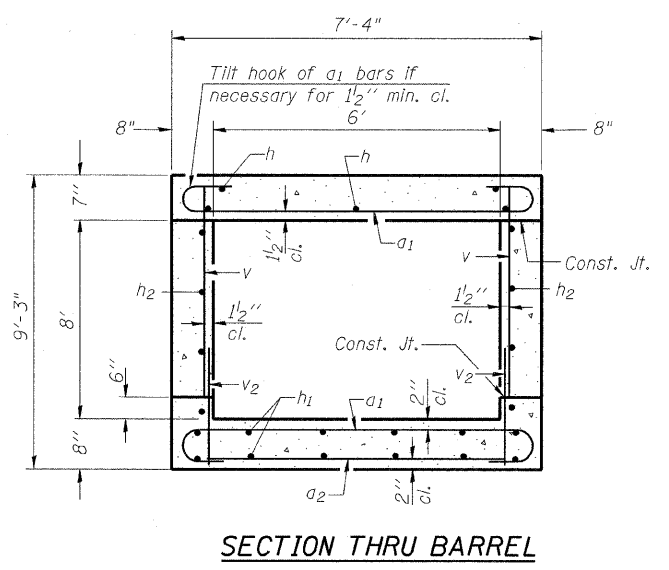
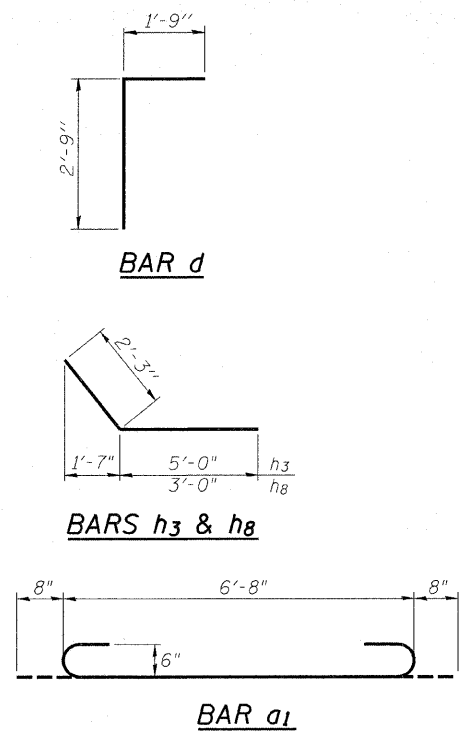
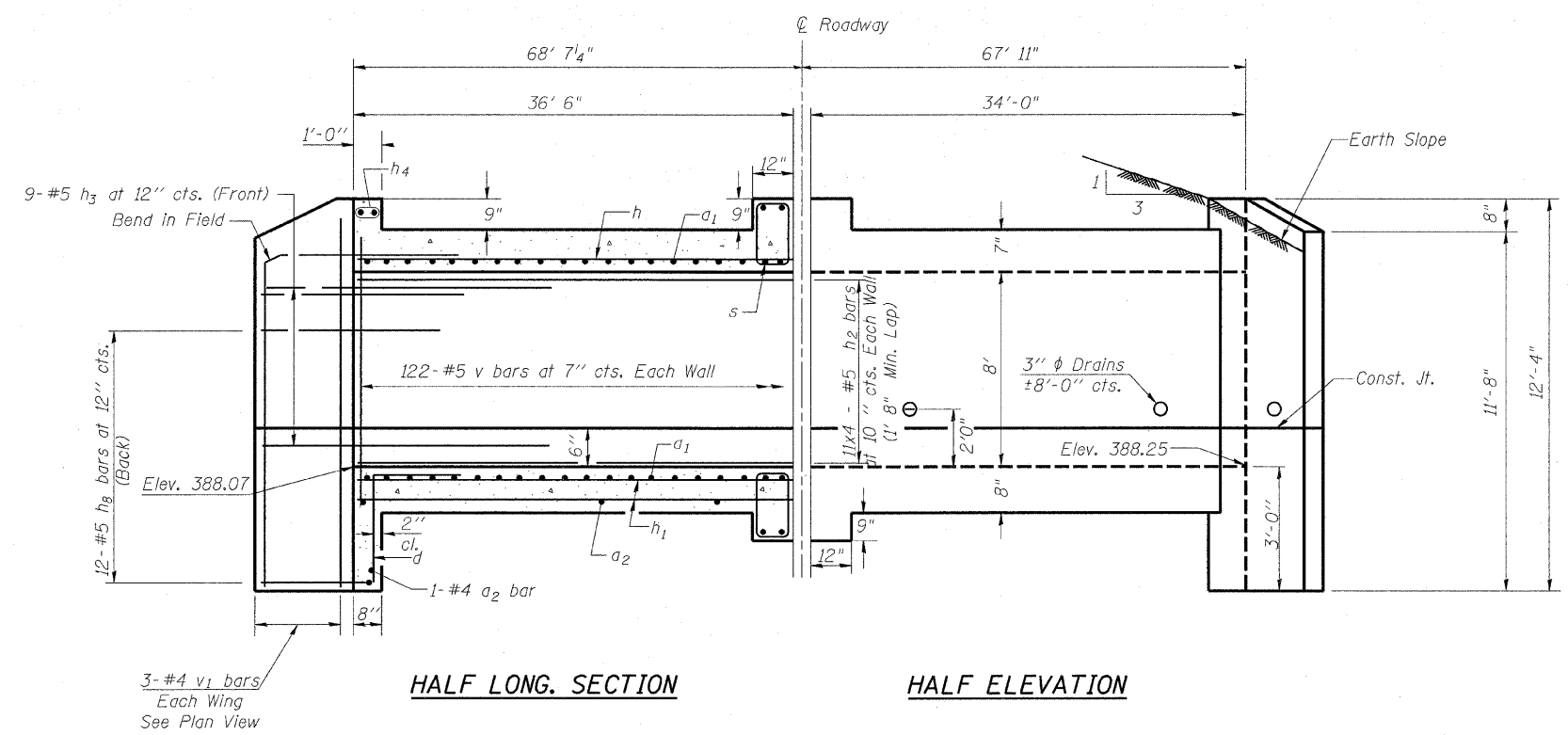
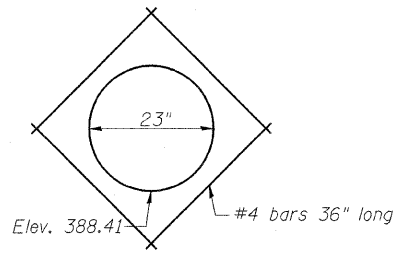


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B21	12Z,R	WABASH	31	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

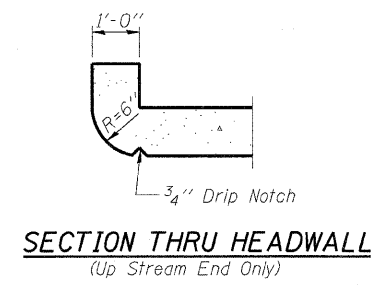
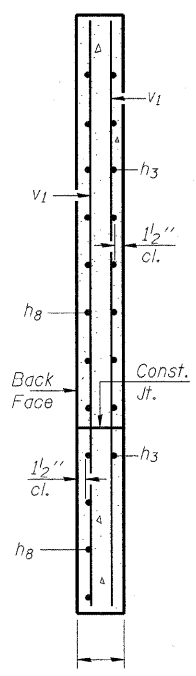
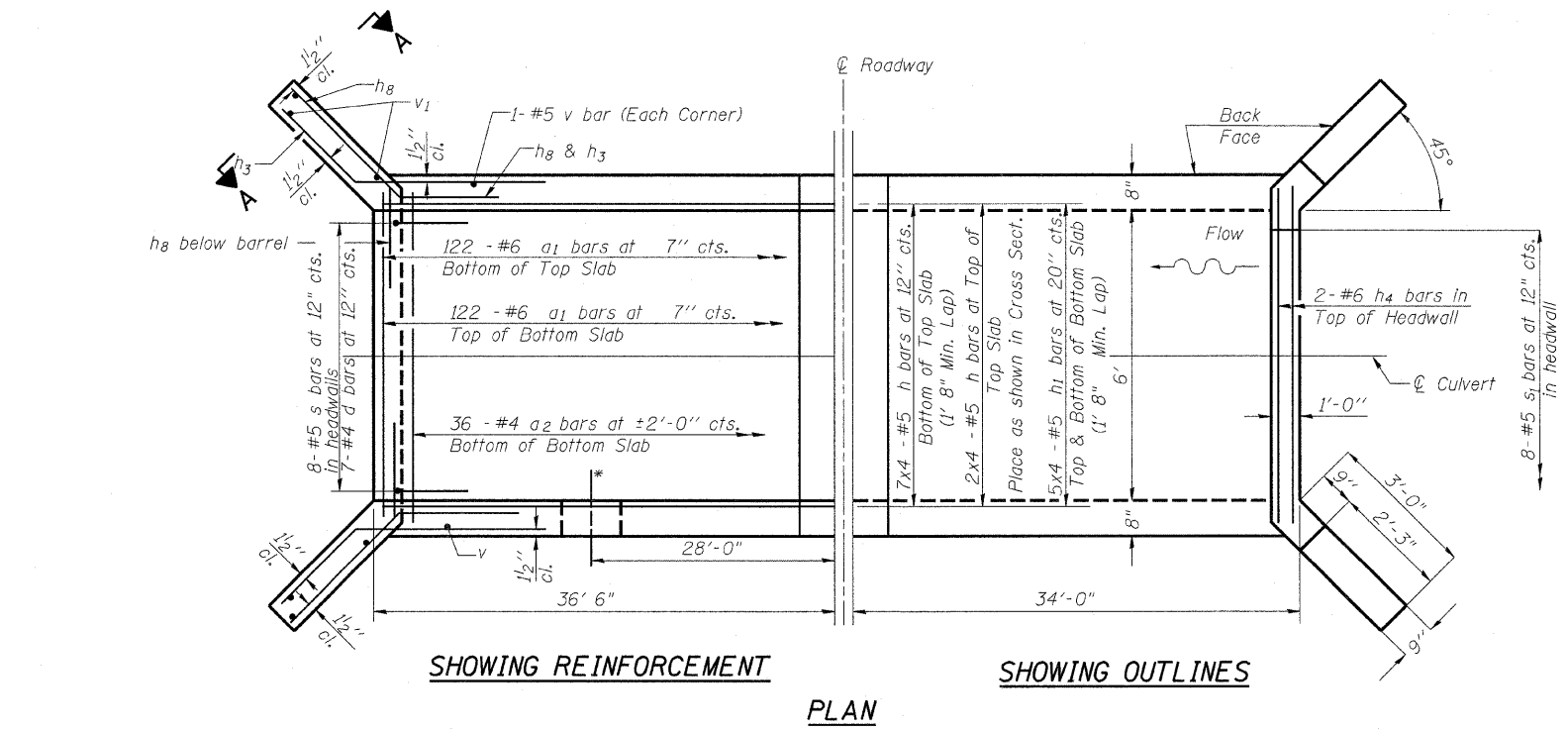


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	244	#6	8'-0"	U
a2	38	#4	6'-3"	—
d	14	#4	4'-6"	L
h	36	#5	19'-1"	—
h1	40	#5	19'-1"	—
h2	88	#5	19'-1"	—
h3	36	#5	7'-3"	—
h4	12	#6	7'-1"	—
h8	48	#5	5'-3"	—
v	244	#5	7'-11"	—
v1	12	#4	11'-10"	—
v2	244	#5	2'-2"	—
s	40	#5	4'-5"	□
s1	8	#5	4'-3"	□
Concrete Box Culverts			Cu. Yd.	57.4
Reinforcement Bars			Pound	9948
Expansion Bolts			Each	18



STORM SEWER FIELD CONNECTION DETAIL



SECTION THRU HEADWALL
(Up Stream End Only)

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

LOADING HS 20-44 & ALT.

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
All construction joints shall be bonded.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION
STA 1012 + 63.50

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____

PLOT DATE = 3/21/2008
FILE NAME = c:\p\proj\mca\74028\ssb-h-0.dgn
PLOT SCALE = 50:0000 / 1" IN.
USER NAME = tselingak