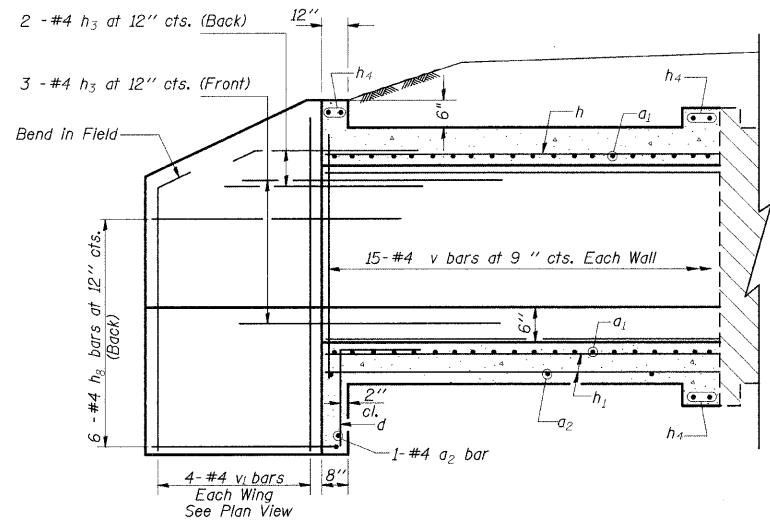
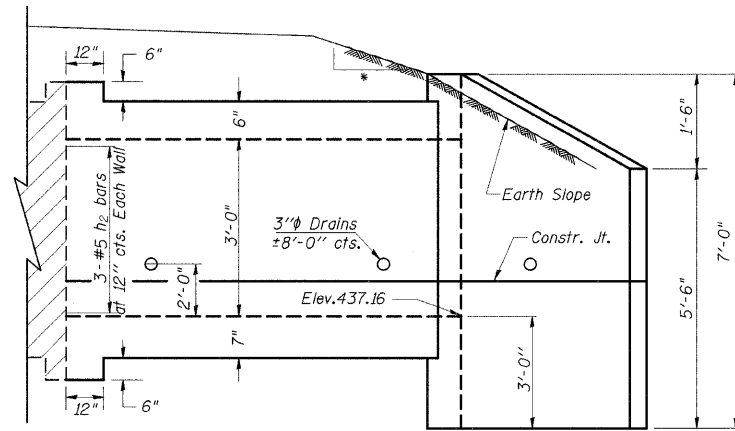


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
932	(8,9,11)W,RS-1	*	401	178
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
JOHNSON/POPE				

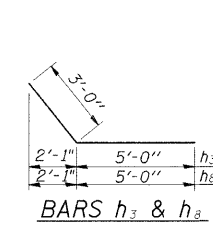


HALF LONG. SECTION

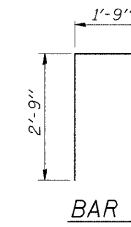


HALF ELEVATION

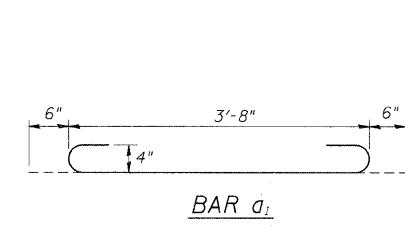
4:1 TO CLEAR ZONE  
3:1 AFTER CLEAR ZONE



BARS  $h_3$  &  $h_8$



BAR  $d$

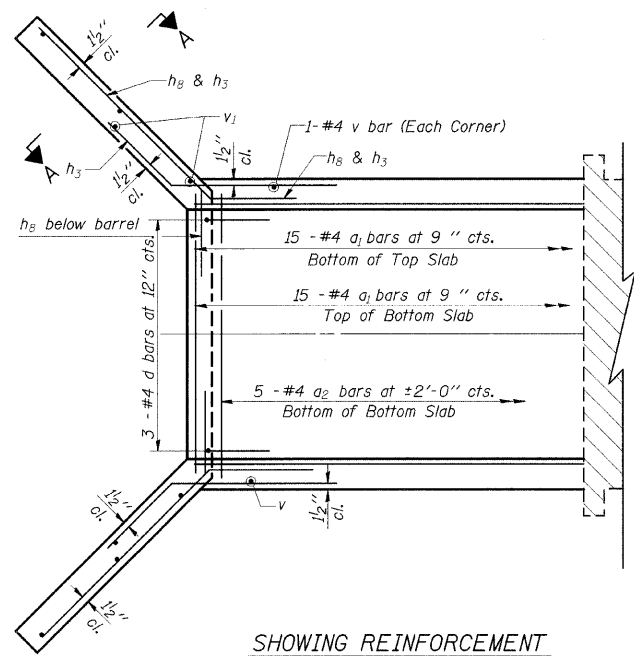


BAR  $a_1$

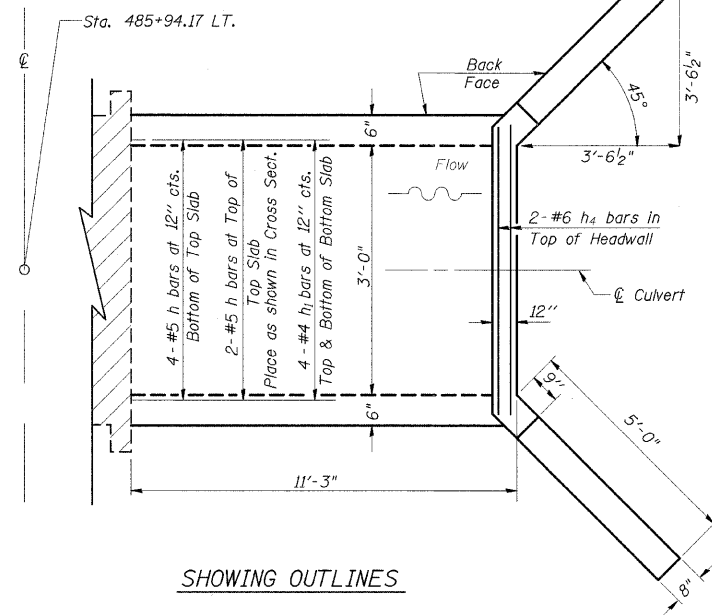
DESIGN STRESSES

$f_y = 60,000$  psi  
 $f'_c = 3,500$  psi

LOADING HS 20-44 & ALT.



SHOWING REINFORCEMENT

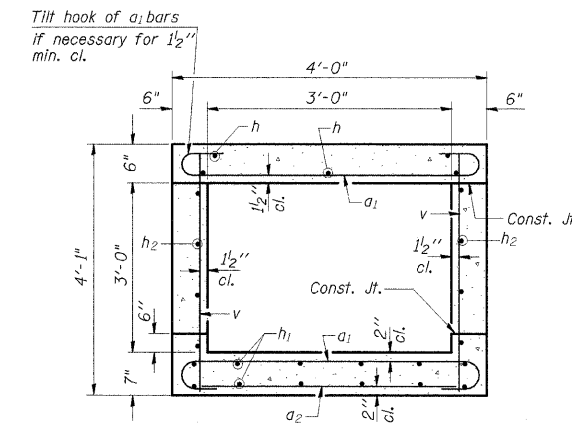


SHOWING OUTLINES

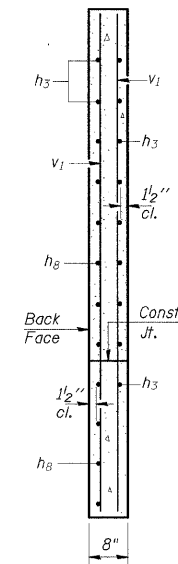
PLAN

NOTES

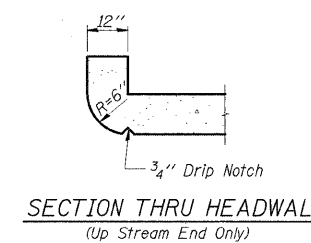
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.  
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with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



SECTION THRU BARREL



SECTION A-A



SECTION THRU HEADWALL  
(Up Stream End Only)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
$a_1$	30	#4	4'-8"		
$a_2$	6	#4	3'-3"		
$d$	3	#4	4'-6"		
$h$	6	#5	11'-0"		
$h_1$	8	#4	11'-0"		
$h_2$	6	#5	11'-0"		
$h_3$	5	#4	8'-0"		
$h_4$	6	#6	3'-2"		
$h_8$	6	#4	8'-0"		
$v$	32	#4	3'-9"		
$v_1$	8	#4	6'-7"		
Expansion Bolts 3/4"				Each	8
Concrete Box Culverts				Cu. Yd.	4.9
Reinforcement Bars				Pound	520

ILLINOIS DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION

STATION 485+94.17 LT.

3' X 3', SKEW 0°

EXTEND 11'-3"