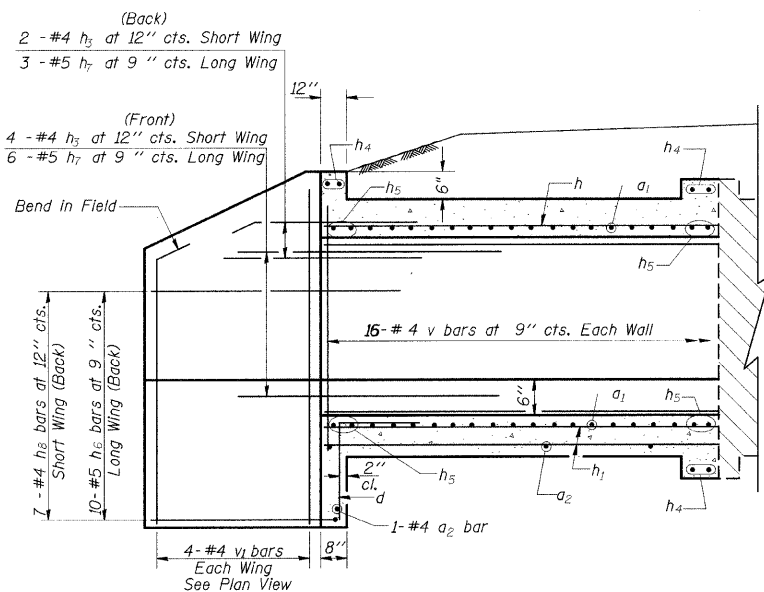


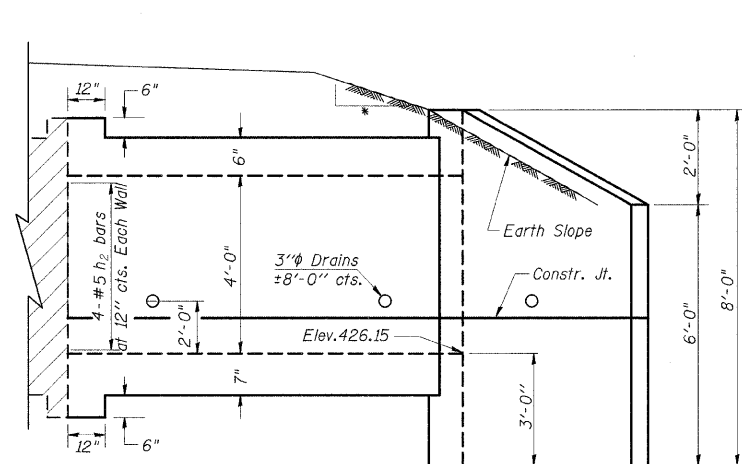
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
932	(8,9,11)W,RS-1	•	401	184
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• JOHNSON/POPE

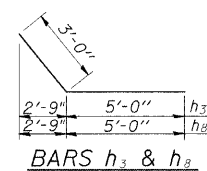


HALF LONG SECTION

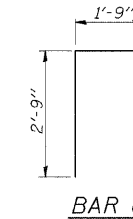


HALF ELEVATION

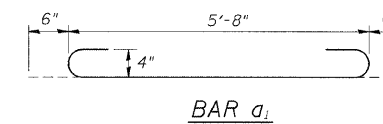
• 4:1 TO CLEAR ZONE
3:1 AFTER CLEAR ZONE



BARS h_3 & h_8



BAR d

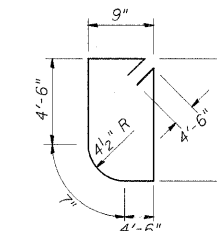


BAR a_1

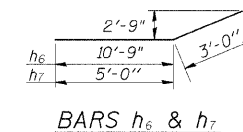
DESIGN STRESSES

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

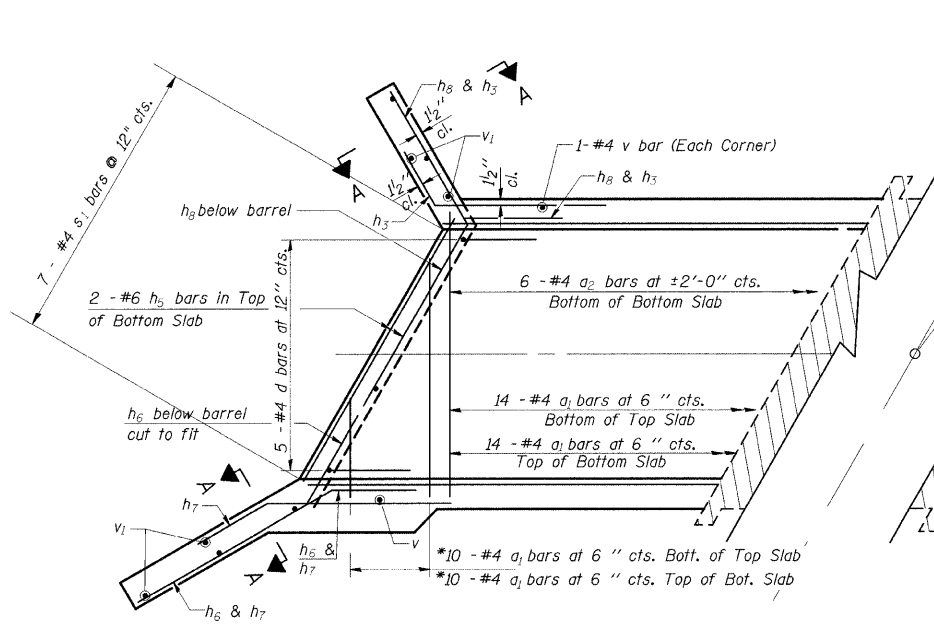
LOADING HS 20-44 & ALT.



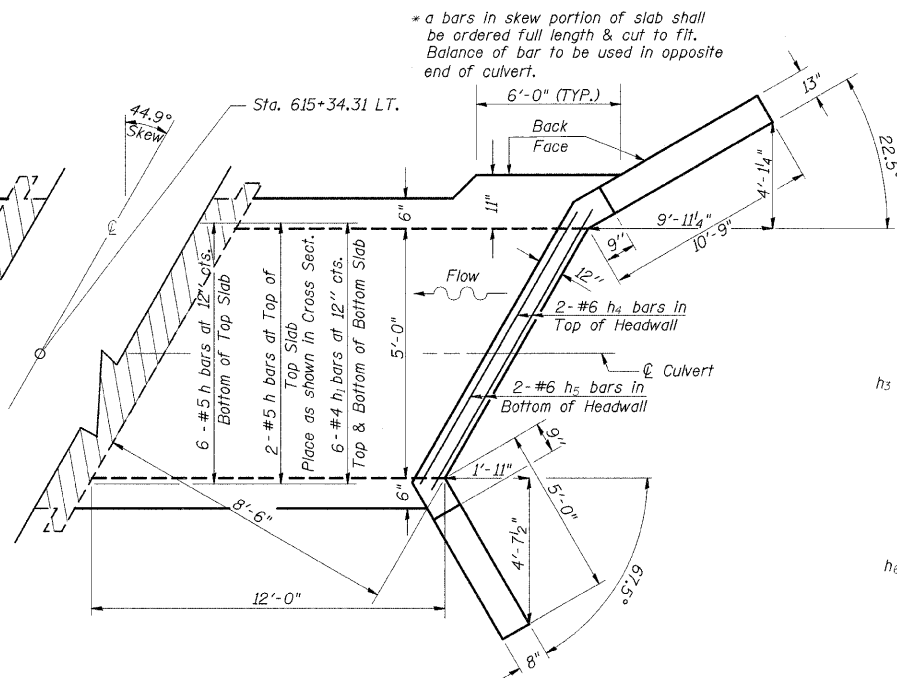
Bar s_1
(Upstream)



BARS h_6 & h_7



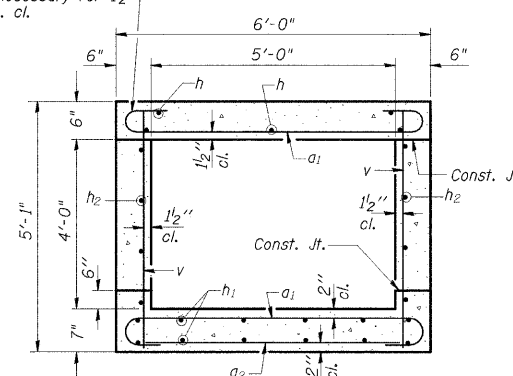
SHOWING REINFORCEMENT



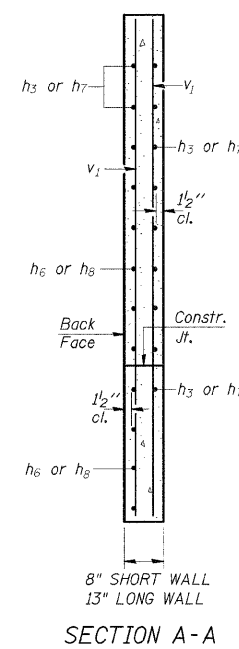
SHOWING OUTLINES

* 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.

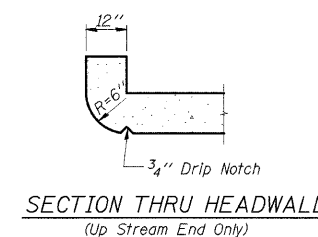
Tilt hook of a_1 bars if necessary for 1/2" min. cl.



SECTION THRU BARREL



SECTION A-A



SECTION THRU HEADWALL
(Up Stream End Only)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a_1	48	#4	6'-8"	U	
a_2	7	#4	5'-3"	—	
d	5	#4	4'-6"	—	
h	8	#5	11'-9"	—	
h_1	12	#4	11'-9"	—	
h_2	8	#5	11'-9"	—	
h_3	6	#4	8'-0"	—	
h_4	6	#6	6'-5"	—	
h_5	8	#6	8'-2"	—	
h_6	10	#5	13'-9"	—	
h_7	9	#5	8'-0"	—	
h_8	7	#4	8'-0"	—	
v	34	#4	4'-9"	—	
v_1	8	#4	8'-7"	—	
s_1	7	#4	3'-7"	U	
Expansion Bolts 3/4"				Each	16
Concrete Box Culverts				Cu. Yd.	9.7
Reinforcement Bars				Pound	1160

PRECAST OPTION NOT ALLOWED

ILLINOIS DEPARTMENT OF TRANSPORTATION
BOX CULVERT EXTENSION
STATION 615+34.31 LT.
5' X 4', SKEW 44.9° RT. AH.
EXTEND 12'-0"

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.