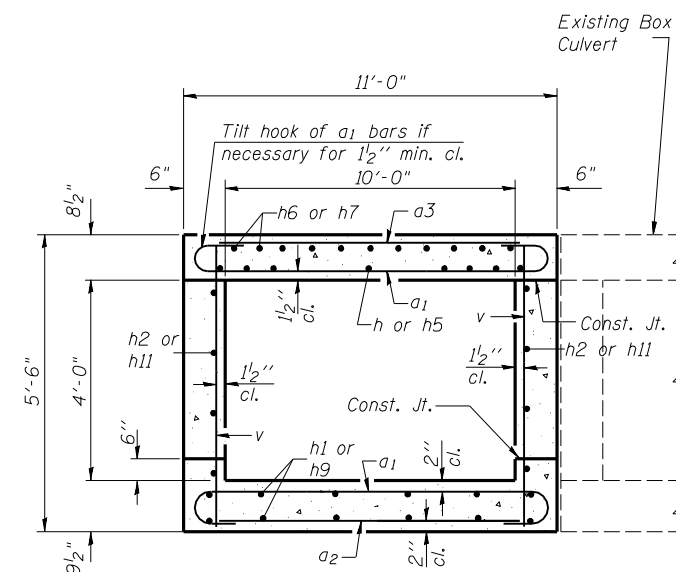
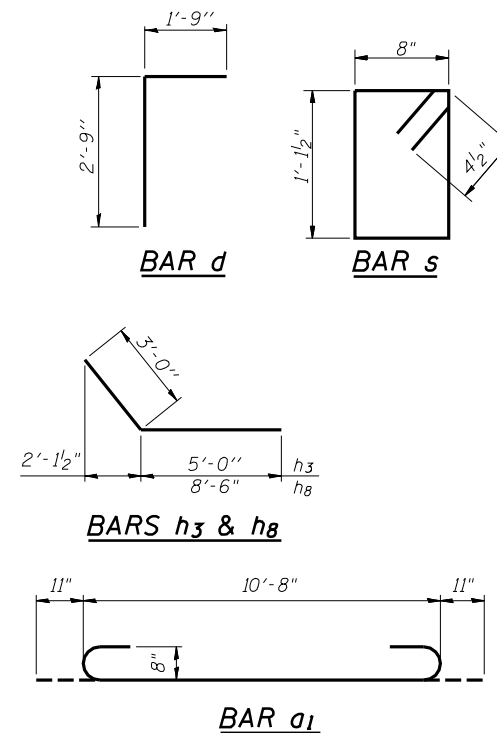


HALF LONG SECTION

HALF ELEVATION



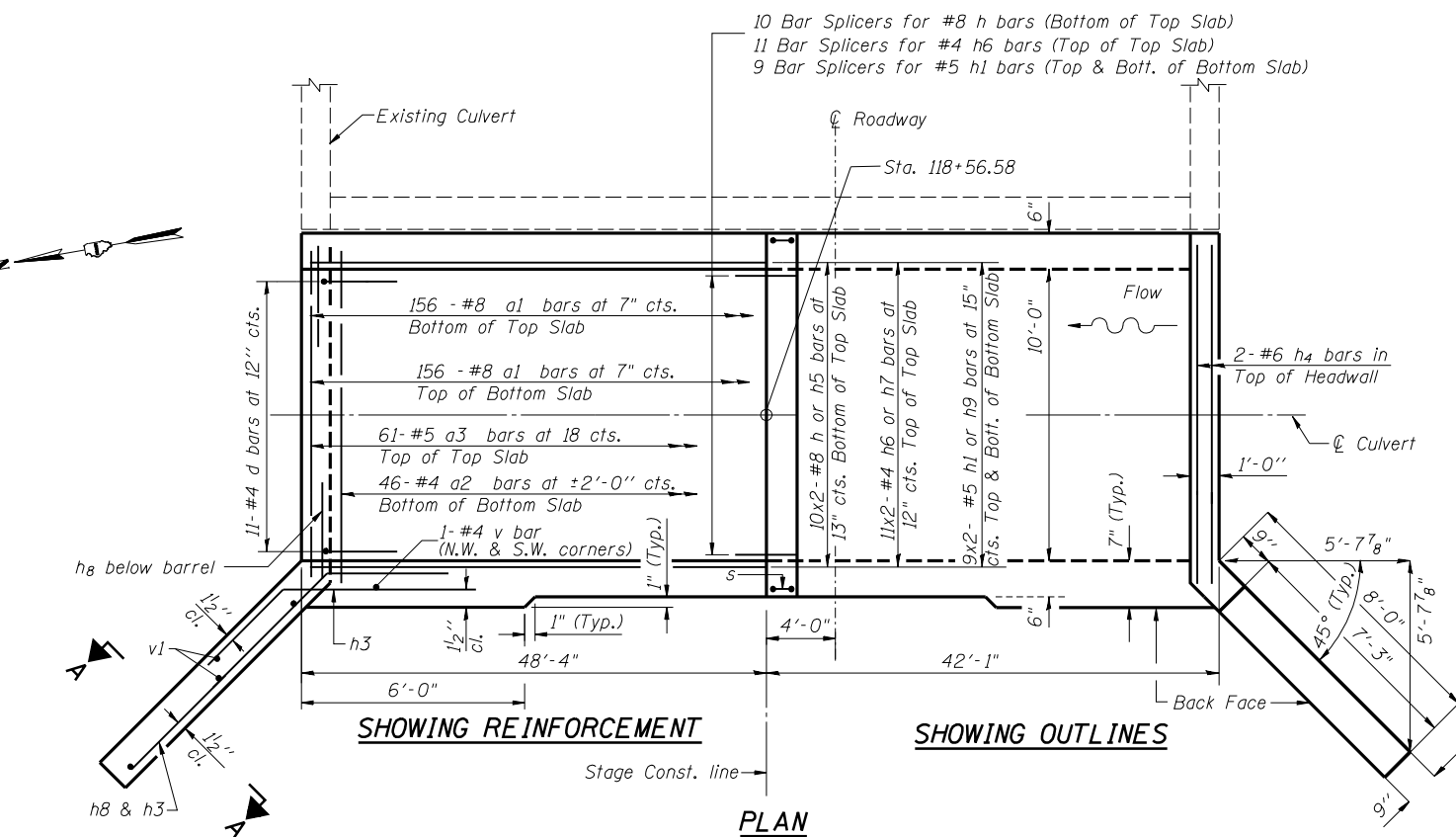
SECTION THRU BARREL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a1	312	#8	12'-6"	C	
a2	46	#4	10'-3"	—	
a3	61	#5	10'-8"	—	
d	22	#4	4'-6"	L	
h	20	#8	28'-4"	—	
h1	18	#5	27'-2"	—	
h2	8	#5	27'-7"	—	
h3	16	#5	8'-0"	—	
h4	4	#6	10'-6"	—	
h5	20	#8	23'-2"	—	
h6	22	#4	26'-11"	—	
h7	22	#4	22'-6"	—	
h8	18	#5	11'-6"	—	
h9	18	#5	23'-0"	—	
h10	4	#6	10'-9"	—	
h11	8	#5	23'-11"	—	
v	246	#4	5'-2"	—	
v1	8	#4	8'-8"	—	
s	24	#4	4'-4"	□	
Concrete Box Culverts				Cu. Yd.	75.1
Reinforcement Bars				Pound	17,760

MIN. BAR LAPS

#4 bars = 1'-8"  
#5 bars = 2'-2" (except as noted on walls)  
#8 bars = 4'-6"



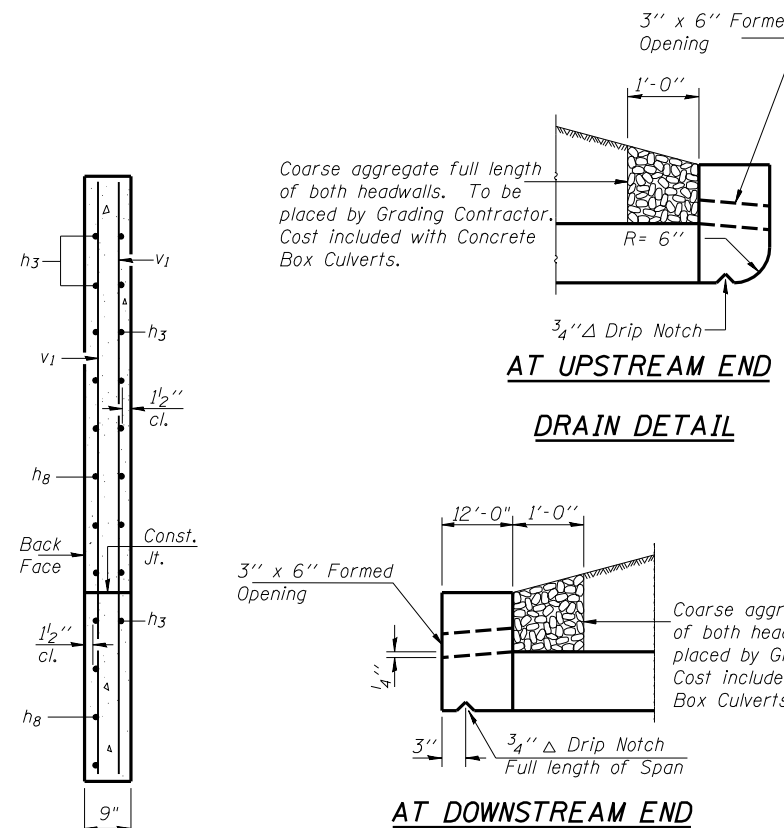
SHOWING REINFORCEMENT

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 ASTM A 706 Gr 60. See Special Provisions.  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.



AT UPSTREAM END

DRAIN DETAIL

AT DOWNSTREAM END

DRAIN DETAIL

SECTION A-A

DETAILS  
IL ROUTE 19 (IRVING PARK ROAD)  
OVER CRYSTAL CREEK  
STA. 118+56.58  
COOK COUNTY  
S.N. 016-1198