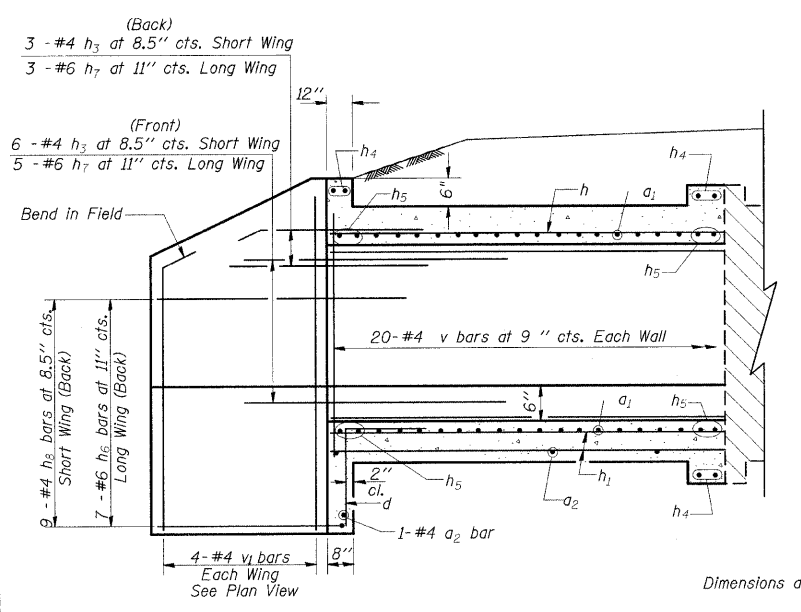


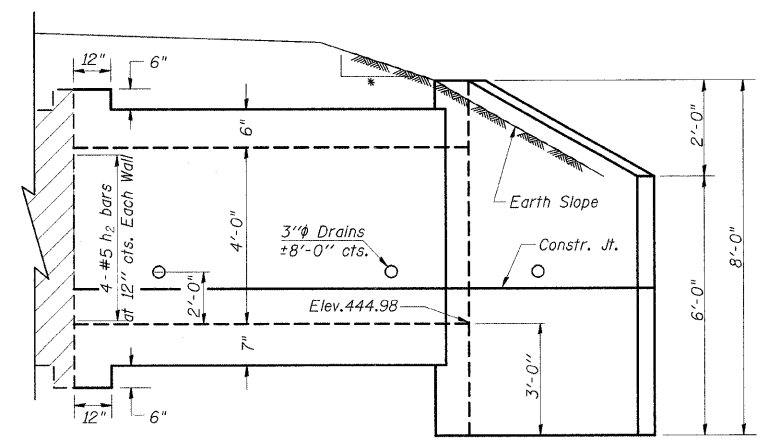
F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
932	(8,9,11)WS-1	*	401	174
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• JOHNSON/POPE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

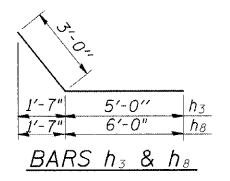


HALF LONG SECTION

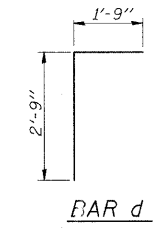


HALF ELEVATION

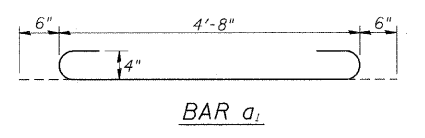
• 4:1 TO CLEAR ZONE
3:1 AFTER CLEAR ZONE



BARS h_3 & h_8



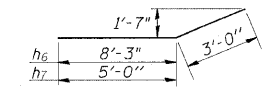
BAR d



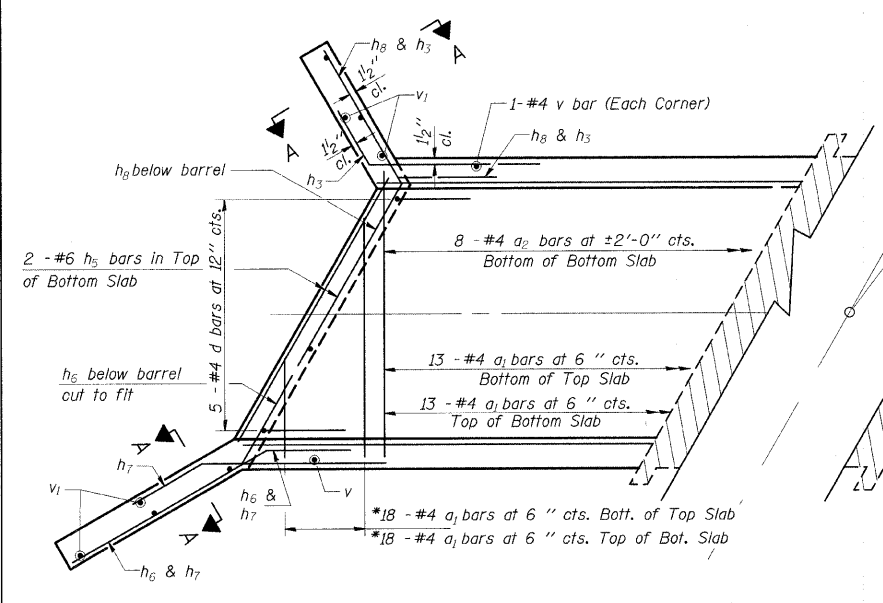
BAR a_1

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

LOADING HS 20-44 & ALT.

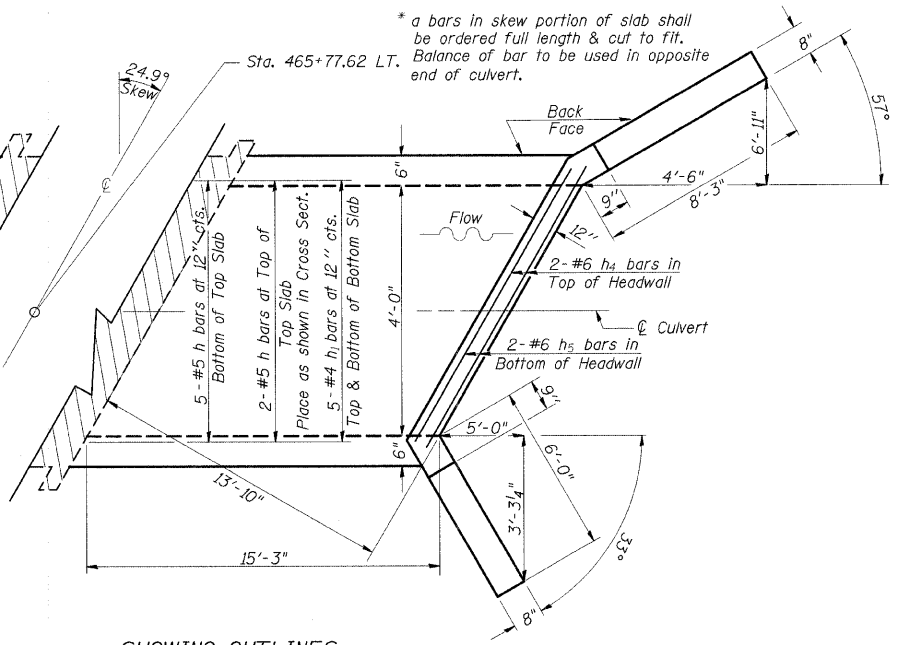


BARS h_6 & h_7



SHOWING REINFORCEMENT

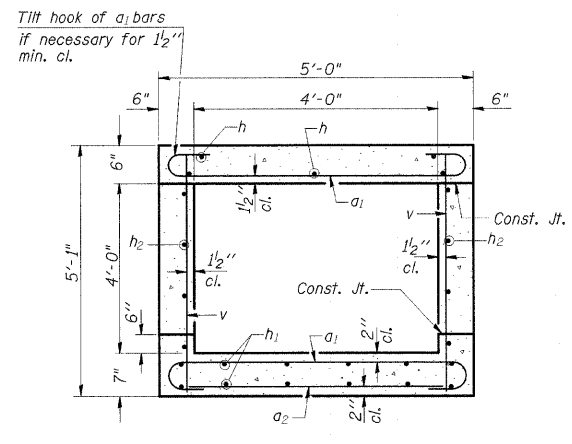
PLAN



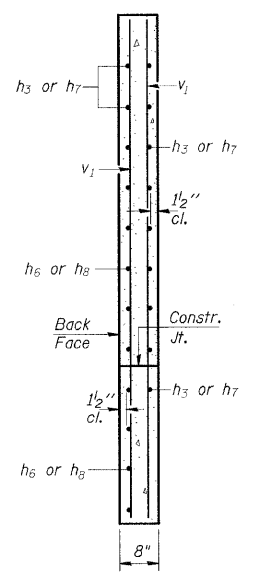
SHOWING OUTLINES

NOTES

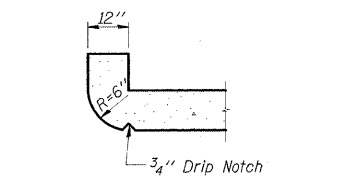
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths 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	62	#4	5'-8"	U
a_2	9	#4	4'-3"	—
d	10	#4	4'-6"	—
h	14	#5	15'-0"	—
h_1	20	#4	15'-0"	—
h_2	16	#5	15'-0"	—
h_3	9	#4	8'-0"	—
h_4	6	#6	4'-7"	—
h_5	8	#6	4'-2"	—
h_6	7	#6	11'-3"	—
h_7	8	#6	8'-0"	—
h_8	9	#4	9'-0"	—
v	42	#4	4'-9"	—
v_1	8	#4	7'-1"	—
Expansion Bolts $3/4"$				Each 12
Concrete Box Culverts				Cu. Yd. 8.2
Reinforcement Bars				Pound 1540

PRECAST OPTION NOT ALLOWED

ILLINOIS DEPARTMENT OF TRANSPORTATION
BOX CULVERT EXTENSION
STATION 465+77.62 LT.
4' X 4', SKEW 24.9° RT. AH.
EXTEND 15'-3"