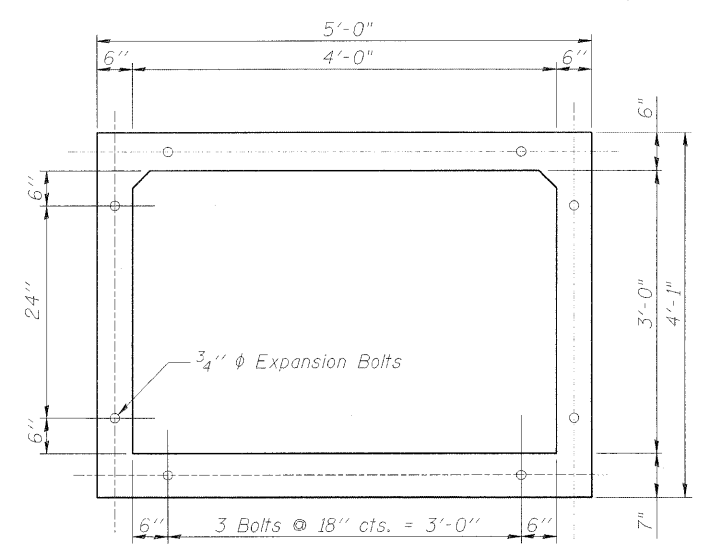
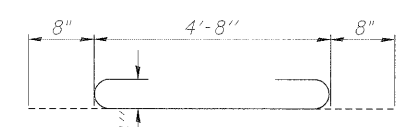


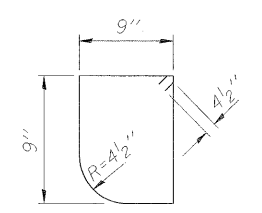
SECTION THRU HEADWALL
(Up Stream End Only)



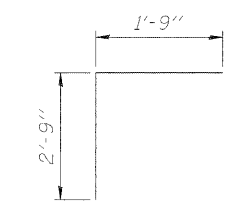
SECTION THRU BARREL
SHOWING EXPANSION BOLTS



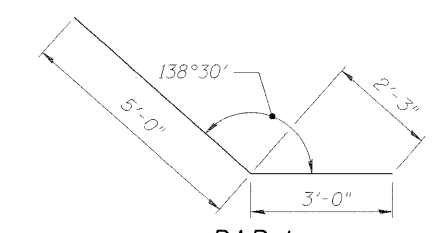
BAR a₁



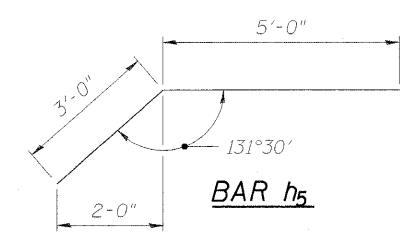
BAR s



BAR d



BAR h₄



BAR h₅

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁	32	#6	6'-0"	
a ₂	5	#4	4'-8"	
d	5	#4	4'-6"	
h	7	#6	8'-3"	
h ₁	10	#4	6'-9"	
h ₂	6	#5	6'-9"	
h ₃	10	#6	4'-9"	
h ₄	12	#5	8'-0"	
h ₅	12	#5	8'-0"	
h ₆	1	#4	4'-2"	
s	6	#4	3'-9"	
v	24	#4	3'-9"	
v ₁	8	#4	6'-8"	
Reinforcement Bars			Pound	880
Concrete Box Culverts			Cu. Yd.	4.4
Concrete Removal			Cu. Yd.	0.4

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.
2. All construction joints shall be bonded.
3. Expansion bolts shall be 3/4" φ hooked bolts. Hooked bolts shall extend a min. of 9" into new concrete. Cost of 3/4" φ expansion bolts shall be included with Concrete Box Culverts.
4. A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwall.
5. Structure Excavation required shall be according to Article 502 of the Standard Specifications. Cost of excavation shall not be paid for separately but included with Concrete Box Culverts.

FILE NAME =	USER NAME = Hejran00951	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STATION 624+54.40 3 X 4 BOX CULVERT EXTENSION DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I:\01\jobs\01S2024A\CADD\Road\Sheet\C-50	BB_Culvert_Ext_Det.dgn	DRAWN - JAP	REVISED -			01-00001-01-BT	MCLEAN	50	37	
PLOT SCALE = 1.0000' / in.		CHECKED - BWC	REVISED -			CONTRACT NO. 91429				
PLOT DATE = 11/19/2009		DATE - 11/03/2009	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: N.T.S.	SHEET NO. 2 OF 2 SHEETS	STA. TO STA.				