

CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS

Bill of Materials

STATION	DIMENSIONS		h Bar	U Bar		EXPANSION BOLTS	CONCRETE COLLAR	REINF. BARS
	X	Y	No.	No.	Length	No.	Cu. Yd	LBS
26018+46 (SW RAMP)	3'-4"	1'-11"	12	4	7'-2"	4	1.0	31.2
16+67 (SW RAMP)	6'-5"	2'-2.5"	20	4	11'-4"	12	2.3	50.2
29+56 SPRINGFIELD AVE	3'-4"	1'-11"	12	4	7'-2"	4	1.1	31.2
Total								

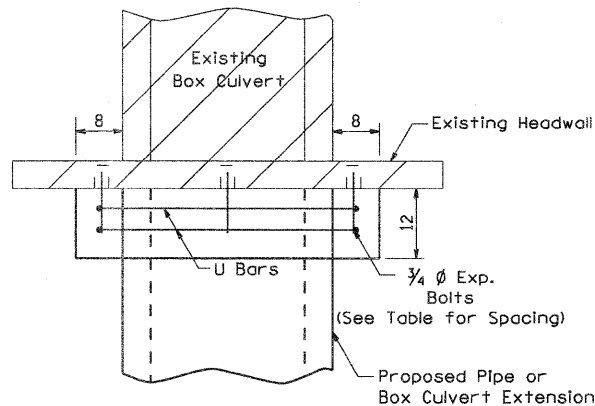
All h Bars 18 Long
 • COLLAR SIZE EQUAL TO COLLAR SIZE WITH 24" CLEAR HEIGHT OR SPAN

General Notes

Concrete Collars shall be constructed of Class SI Concrete in accordance with Section 503 of the Standard Specifications

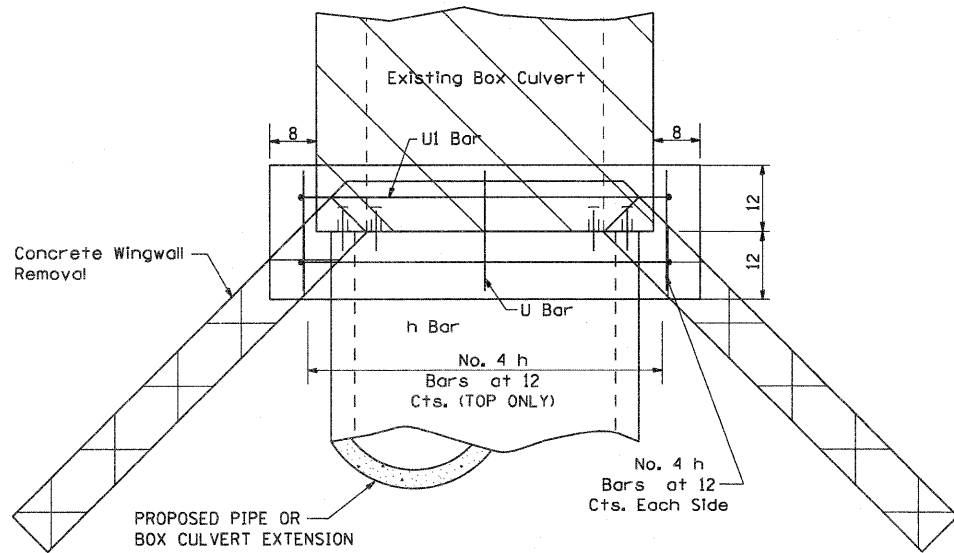
Reinforcement bars shall conform to Section 508 of the Standard Specifications.

The concrete will be paid for at the contract unit price per cubic yard for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per pound for REINFORCEMENT BARS. Expansion Bolts, when required, will be paid for at the contract unit price each for EXPANSION BOLTS of the size indicated, which price shall include furnishing, drilling holes, and installing the expansion bolts complete in place. These bolts shall extend at least 8 inches into the new concrete.

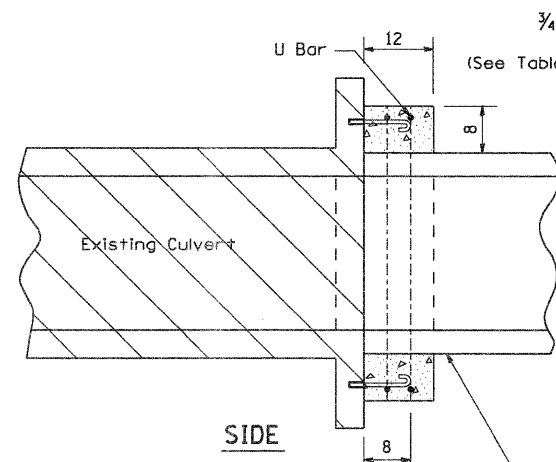


PLAN OF CULVERT WITH STRAIGHT HEADWALL

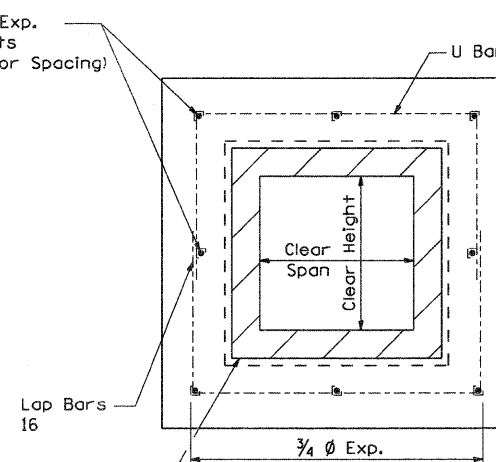
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



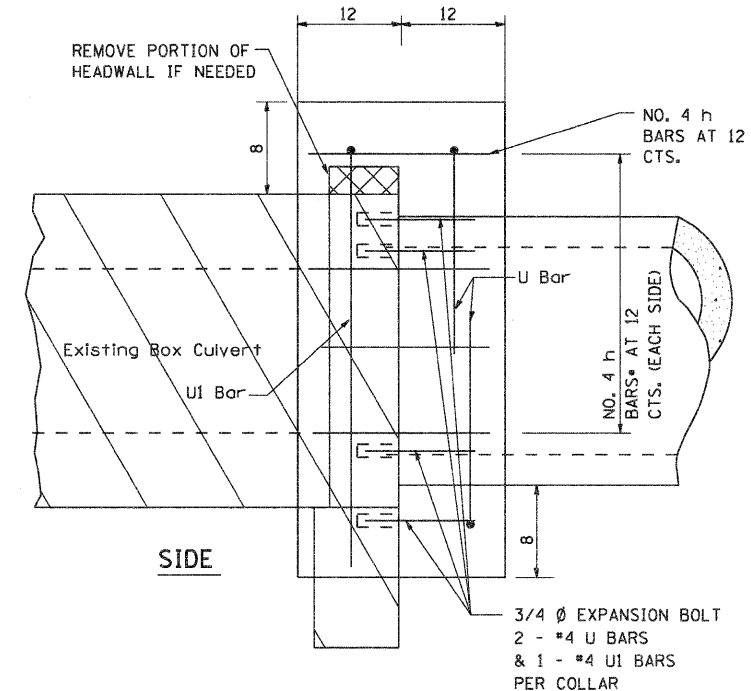
PLAN OF CULVERT WITH ANGLED WING WALLS



SIDE



FRONT

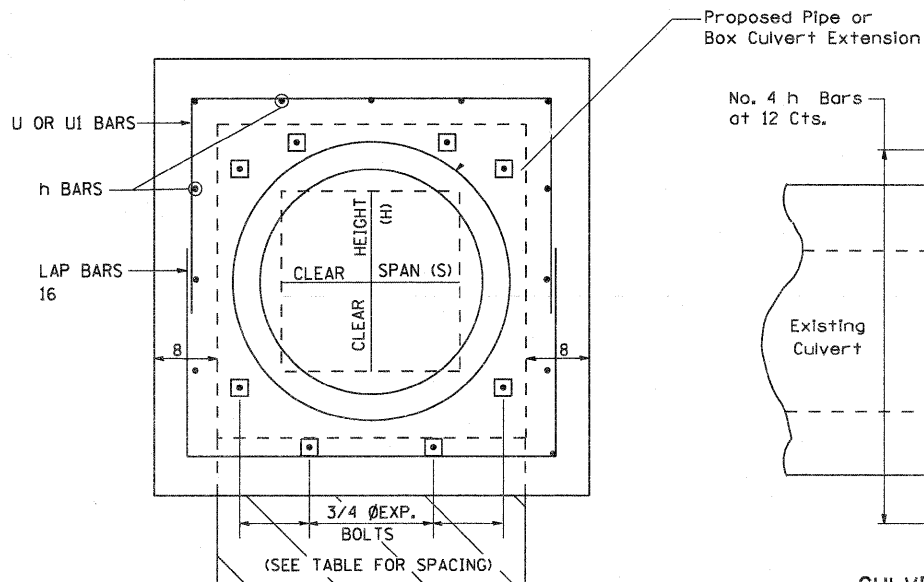


SIDE

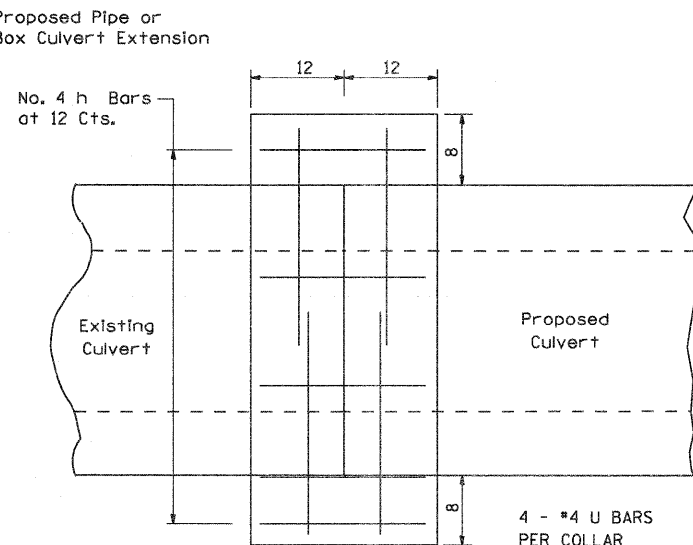
PLACEMENT DETAILS FOR EXPANSION BOLTS

H OR S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS < 15'		EXTENSIONS > 15'	
	NUMBER	SPACING	NUMBER	SPACING
24	*		*	
30	2	18	2	18
36	2	24	2	24
48	3	18	3	18
60	4	16	3	24
72	5	15	4	20
84	5	18	4	24
96	6	15	5	21
108	6	19	5	24
120	7	18	6	21
132	8	17	6	24
144	8	19	7	22

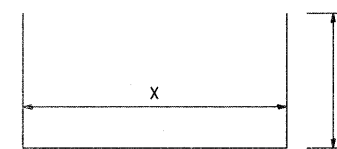
* MINIMUM ONE PER SIDE



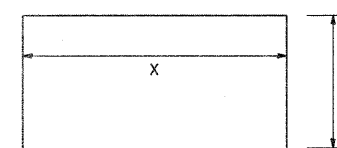
FRONT



CULVERT CONNECTION WITHOUT EXISTING HEADWALL



(*4) U BAR



(*4) UI BAR

FILE NAME =	USER NAME = petp	DESIGNED -	REVISED - 10-17-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A. RTE. 742	SECTION 34R	COUNTY WINNEBAGO	TOTAL SHEETS 491	SHEET NO. 348	
GA\2010\TRANS\B10\001\NDGN\District Standards	District Standards.dgn	DRAWN -	REVISED -			SCALE: 1/17/2012	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	CONTRACT NO. 64515
PLOT SCALE = 50.0000 / IN.		CHECKED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT			
PLOT DATE = 1/17/2012		DATE -	REVISED -								