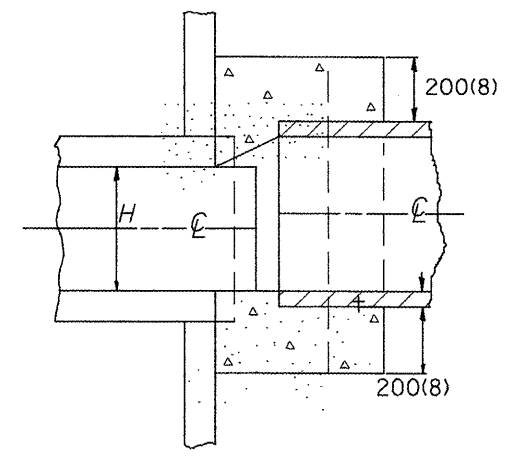
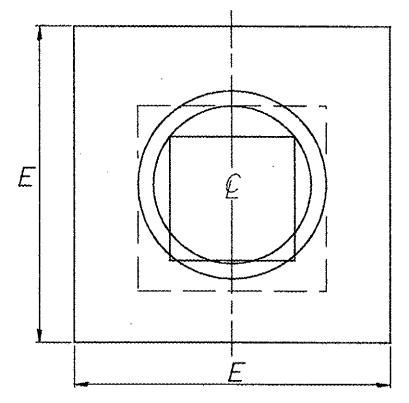


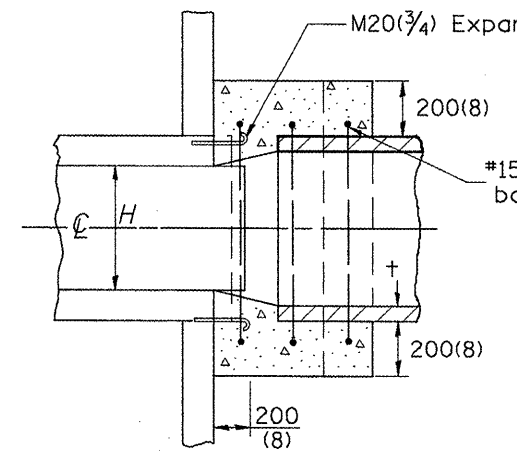
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
399	36R-1,37R-2	TAZEWELL	449	261
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



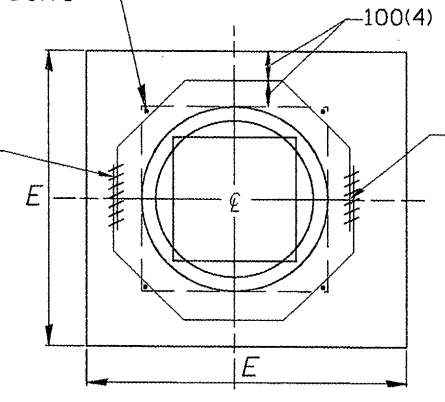
SECTION A-A



END VIEW



SECTION A-A



END VIEW

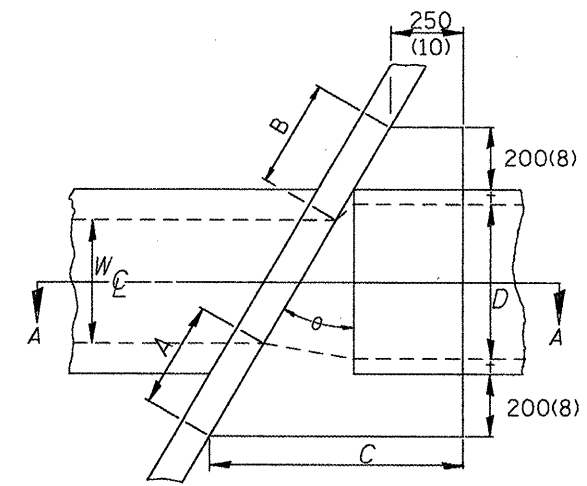
$$A = B = \frac{D - W}{2} + t + 200(8)$$

$$\cos \theta$$

$$C = \tan \theta [D + 2t + 410(16)] + 250(10)$$

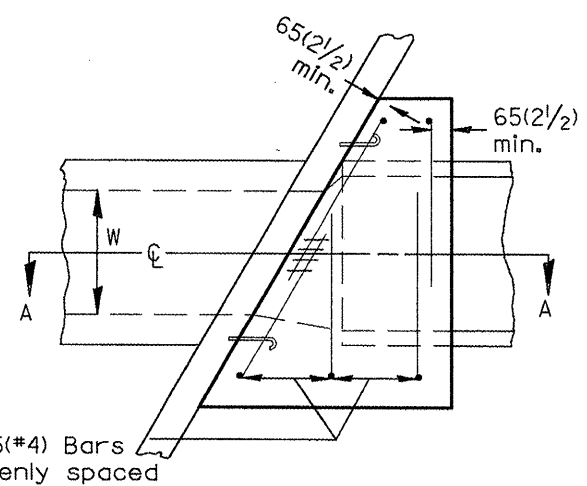
$$G = \frac{D + 2t + 200(8)}{2.4142 [\cos \theta]}$$

(Note: 'G' is based upon maximum skewed length)

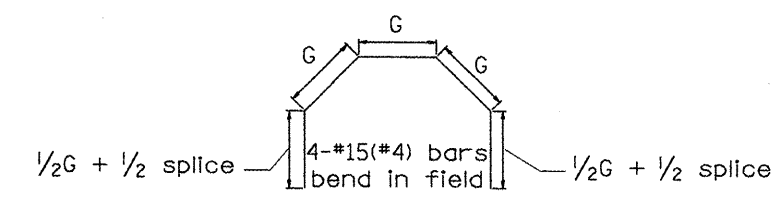


PLAN VIEW UP STREAM

NOTE:  
Dimensions are shown in Plan View of Up Stream End while Reinforcement is shown in plan view of Down Stream End.



PLAN VIEW DOWN STREAM



GENERAL NOTES

- The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. Reinforcement bars shall conform to section 508.
- Expansion bolts shall consist of approved expansion anchors, and M20(3/4) hook bolts which conform to section 1006.09. These bolts shall extend at least 200(8) into the new concrete.

EXISTING BOX		EACH COLLAR							CONCRETE	REINFORCEMENT BARS			EXPAN. BOLTS
W	H	θ	A	B	C	D	E	t	m <sup>3</sup> (CU. YD.)	G	L	KGLBS.	EACH

QUANTITIES

CALC. BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

DATE	REVISIONS	BY
1-1-97	RENUM. J-11.03, NEW REVISION BOX, REVISED TITLE BOX, ADDED QUANTITY CALCULATION BOX	T.P.

All dimensions are in millimeters (Inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

SKewed PIPE CULVERT  
EXTENSION COLLAR  
(WITH END SECTION)

CADD STD. NO. 542011-D4  
SCALE: NOT DRAWN TO SCALE  
DATE \*\*DATE\*\*

DRAWN BY CADD  
CHECKED BY