SECTION A - A

EXIST. CULV.

EXPANSION BOLTS

PROP. EXTENSION

H, T, 8, 8

END VIEW

15 min. splice

A, A, 4, B

W', H'

EXPANSION BOLTS

#4 BARS EVENLY SPACED

PLAN VIEW

10, 8, 2, 8

T, W, T, θ, W'

D, D, E

A, A

#4 ☐ BAR
FIVE REQUIRED
PER COLLAR

X, Y

$$D = \frac{8(200)+T}{\cos\theta}$$

$$E = [W+16+2T]\tan\theta+10$$

$$X = B-8$$

$$Y = \frac{W/2 +T+4}{\cos\theta} +7$$

LOCATION	EXIST. BOX		PROP. BOX			EACH COLLAR						REBARS LBS.	¾ EXPANSION BOLTS EACH	EXT. LENGTH		END SEC.	SKEW ANGLE
	W	H	W'	H'	T	CLASS SI CONCRETE CU. YD.	A	B	E	X	Y			LT.	RT.		Θ

QUANTITIES

CALC. BY: _____ DATE: _____

CHECKED BY: _____ DATE: _____

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

GENERAL NOTES

1. 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.

2. Expansion bolts shall consist of approved expansion anchors, and ¾ hook bolts which conform to section 1006.08. These bolts shall extend at least 8 into the new concrete.

3. This work will be paid for by the cubic yard for CONCRETE COLLAR, by the pound for REINFORCEMENT BARS, and by Each for EXPANSION BOLTS of the size indicated.

All dimensions are in inches unless otherwise noted.