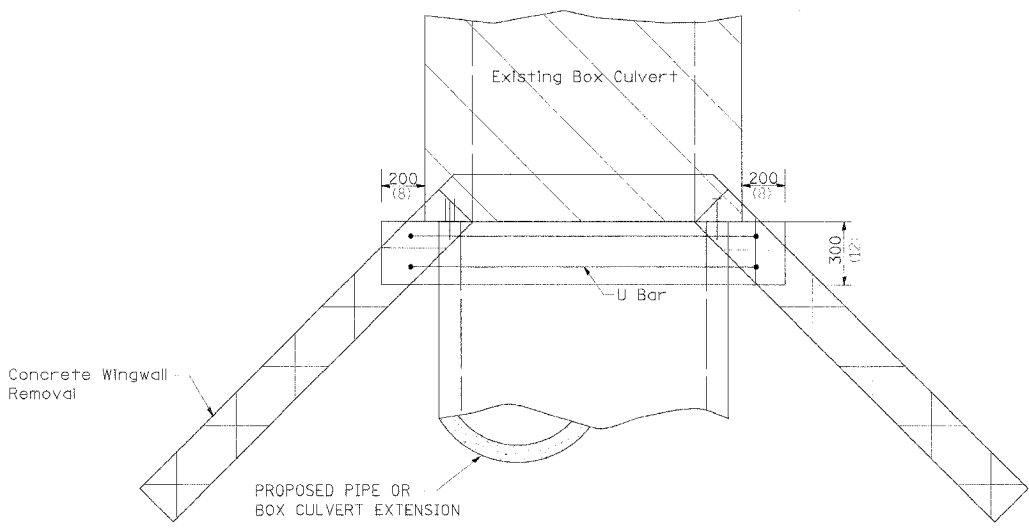


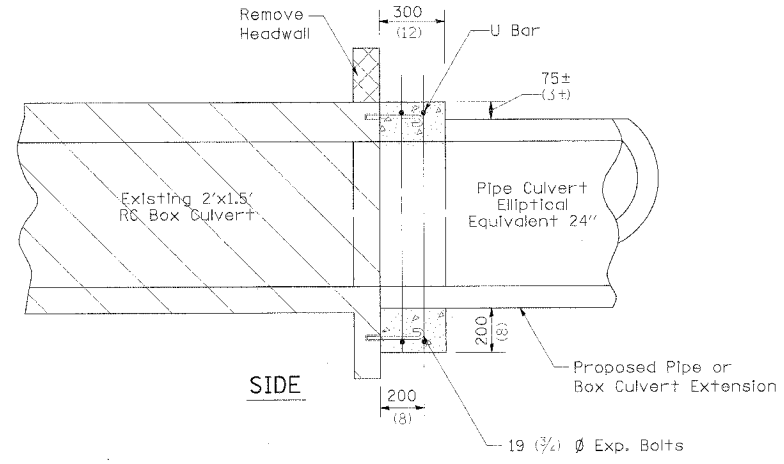
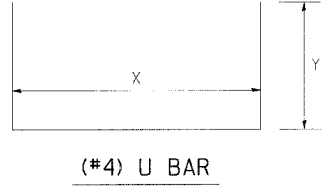
DETAIL FOR CONCRETE COLLAR FOR BOX CULVERT EXTENSION

CONTRACT NO. 64C31

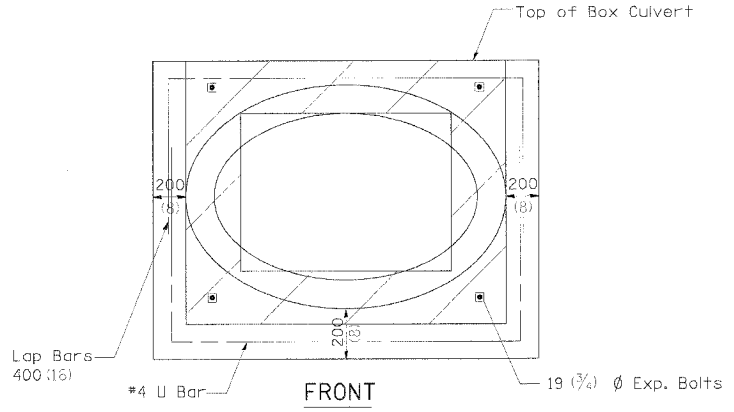
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
545	141-1		118	69
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	
CARROLL & OGLE				



PLAN OF CULVERT WITH ANGLED WING WALLS



SIDE



FRONT

PLACEMENT DETAILS FOR EXPANSION BOLTS

H OR S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS < 4.57m (15')		EXTENSIONS > 4.57m (15')	
	NUMBER	SPACING	NUMBER	SPACING
600 (24)	*		*	
750 (30)	2	450 (18)	2	450 (18)
900 (36)	2	600 (24)	2	600 (24)
1200 (48)	3	450 (18)	3	450 (18)
1500 (60)	4	400 (16)	3	600 (24)
1800 (72)	5	375 (15)	4	500 (20)
2100 (84)	5	450 (18)	4	600 (24)
2400 (96)	6	375 (15)	5	525 (21)
2700 (108)	6	475 (19)	5	600 (24)
3000 (120)	7	450 (18)	6	525 (21)
3300 (132)	8	425 (17)	6	600 (24)
3600 (144)	8	475 (19)	7	550 (22)

* MINIMUM ONE PER SIDE

Bill of Materials

STATION	DIMENSIONS		U Bar		EXPANSION BOLTS	CONCRETE COLLAR	REINF. BARS
	X	Y	No.	Length	No.	Cu. Yd	LBS
1226+49	4'-0"	2'-6"	4	9'-0"	4	0.55	24.00
1227+13	4'-0"	2'-6"	4	9'-0"	4	0.55	24.00
				Total	8	1.10	48.00

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 meter (cubic yard) for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per kilogram (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 200 (8 inches) into the new concrete.

PLOT DATE = 12/11/2006
 FILE NAME = N:\P\p\0832\Draw 2 Vae\UL-72\FINAL-dist-standard.dgn
 PLOT SCALE = 80.0000 / IN.
 REFERENCE = None