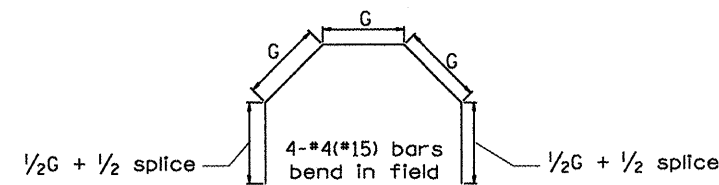


| EXISTING BOX | | EACH COLLAR | | | | | | | | |
|--------------|----------|-------------------|-------------------|--------------|------------|--------------|-----------------|----------------|---------------------|-----------|
| W | H | A | B | D | f | CONC. COLLAR | | | EXPANSION BOLT EACH | |
| | | | | | | CU. YD. (m³) | G | L | | LBS. (KG) |
| 12(300) | PIPE | 32 (810) | 32 (810) | 12 (300) | 2(50) | 0.18(0.14) | 10 (254) | 4'-7" (1.40m) | 12(5.5) | 4 |
| 18(450) | PIPE | 39 (990) | 39 (990) | 18 (450) | 2 1/2(65) | 0.24(0.18) | 12 3/4 (324) | 5'-6" (1.68m) | 15(7) | 4 |
| 24(600) | PIPE | 3'-10" (1.17m) | 3'-10" (1.17m) | 24 (600) | 3(75) | 0.30(0.23) | 15 3/4 (400) | 6'-6" (1.98m) | 17(8) | 4 |
| 24(600) | 24(600) | 4'-5" (1.35m) | 4'-5" (1.35m) | 30 (750) | 3 1/2(90) | 0.37(0.28) | 18 3/4 (416) | 7'-6" (2.29m) | 20(9) | 4 |
| 30(750) | 30(750) | 5'-0" (1.52m) | 5'-0" (1.52m) | 36 (900) | 4(100) | 0.45(0.34) | 21 1/2 (546) | 8'-5" (2.57m) | 22.5(10) | 8 |
| 36(900) | 36(900) | 5'-7" (1.7m) | 5'-7" (1.7m) | 42 (1050) | 4 1/2(115) | 0.50(0.38) | 24 1/2 (622) | 9'-5" (2.87m) | 25(11) | 10 |
| 42(1050) | 42(1050) | 6'-2" (1.88m) | 6'-2" (1.88m) | 48 (1200) | 5(125) | 0.61(0.47) | 27 1/4 (692) | 10'-4" (3.15m) | 28(12.5) | 10 |
| 48(1200) | 48(1200) | 6'-9" (2.06m) | 6'-9" (2.06m) | 54 (1350) | 5 1/2(140) | 0.80(0.61) | 30 3/4 (768) | 11'-4" (3.45m) | 30(14) | 10 |



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 3/4(M20) Hook Bolts which conform to Section 1006.09. These Bolts shall extend at least 8(200) into the new Concrete.
- This work will be paid for by the cubic yard (cubic meter) for CONCRETE COLLAR, by the pound (kg) for REINFORCEMENT BARS, and by Each for EXPANSION BOLTS of the size indicated.

| QUANTITIES | | |
|---|---|------|
| CALC. BY: _____ | DATE: _____ | |
| CHECKED BY: _____ | DATE: _____ | |
| QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION | | |
| 01-01-97 | RENUM. J-11.02, NEW REVISION BOX, REVISED | T.P. |
| 10-16-06 | TITLE BOX, ADDED QUANTITY CALCULATION BOX | M.A. |
| 2-15-11 | REV. TO 2007 SPEC., REINF. BATS COL. | R.D. |
| 2-15-11 | ADDED NOTES | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIPE CULVERT EXTENSION COLLAR (WITH END SECTION)

NOT TO SCALE

CADD STD. 542001-D4

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

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------------------------------|----------|---------------------------|-----------|
| 155 | 90(108)S-4,(107,106,106)X(RS-2) | TAZEWELL | 92 | 81 |
| CONTRACT NO. 68914 | | | ILLINOIS FED. AID PROJECT | |