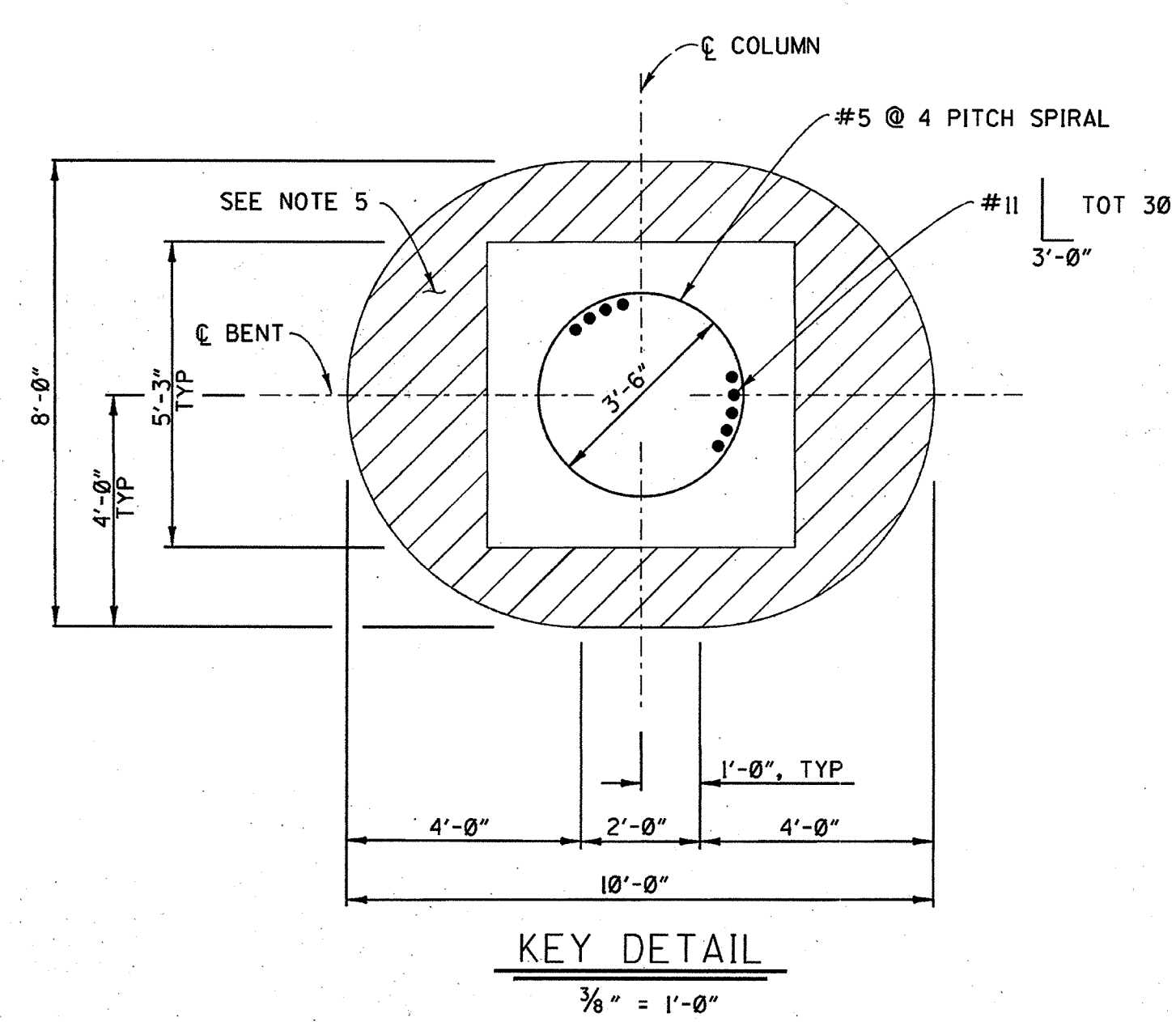
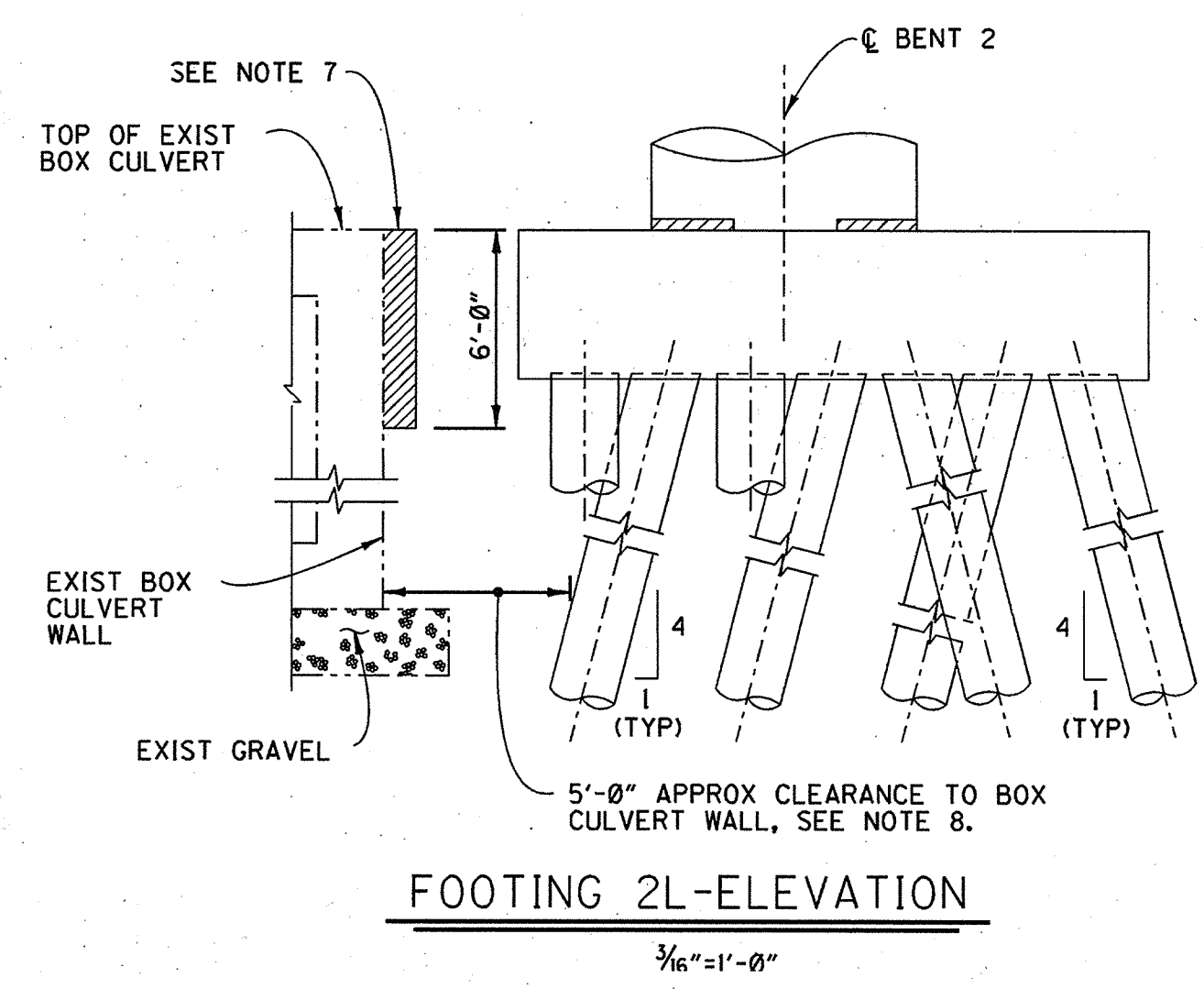
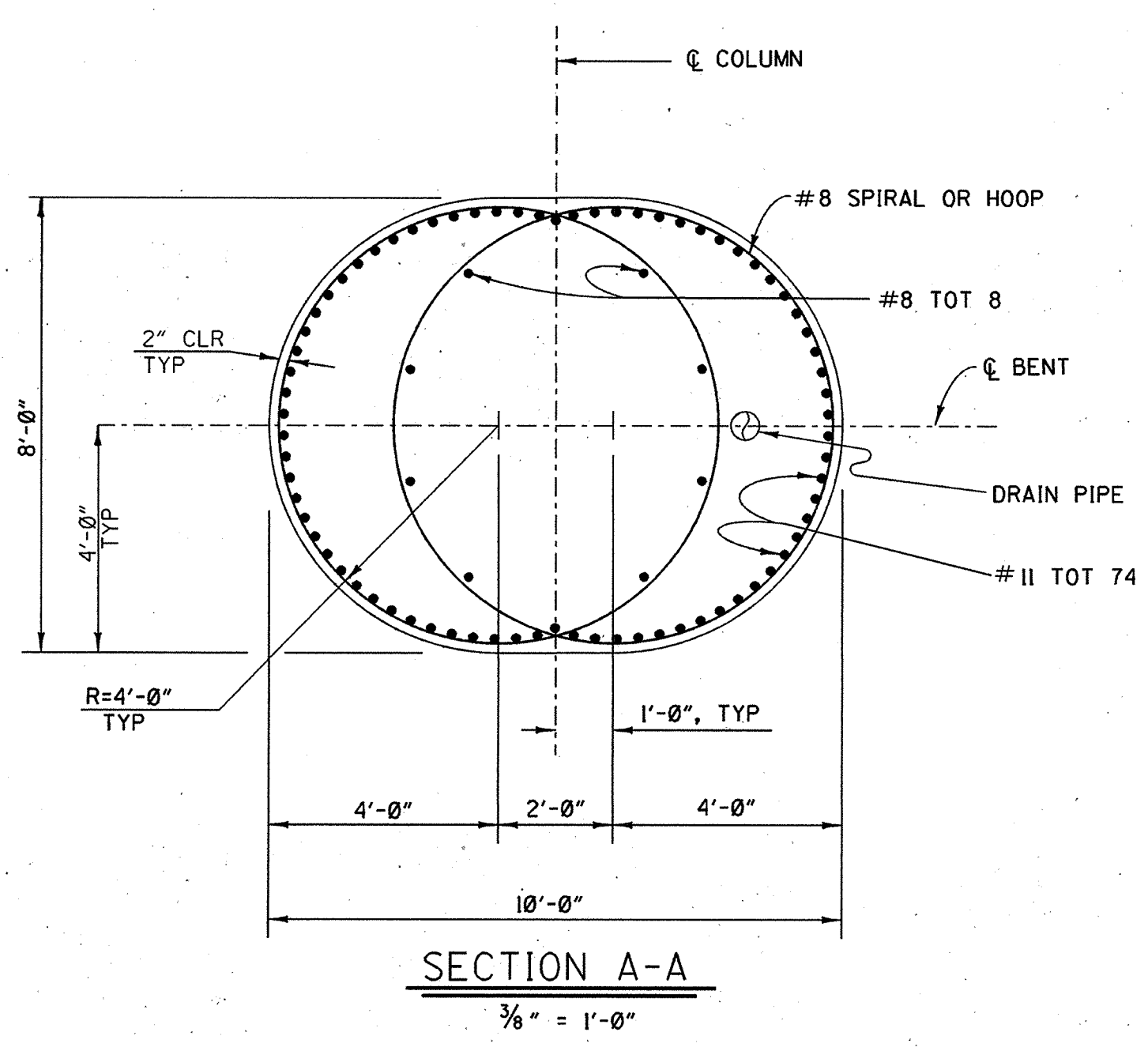
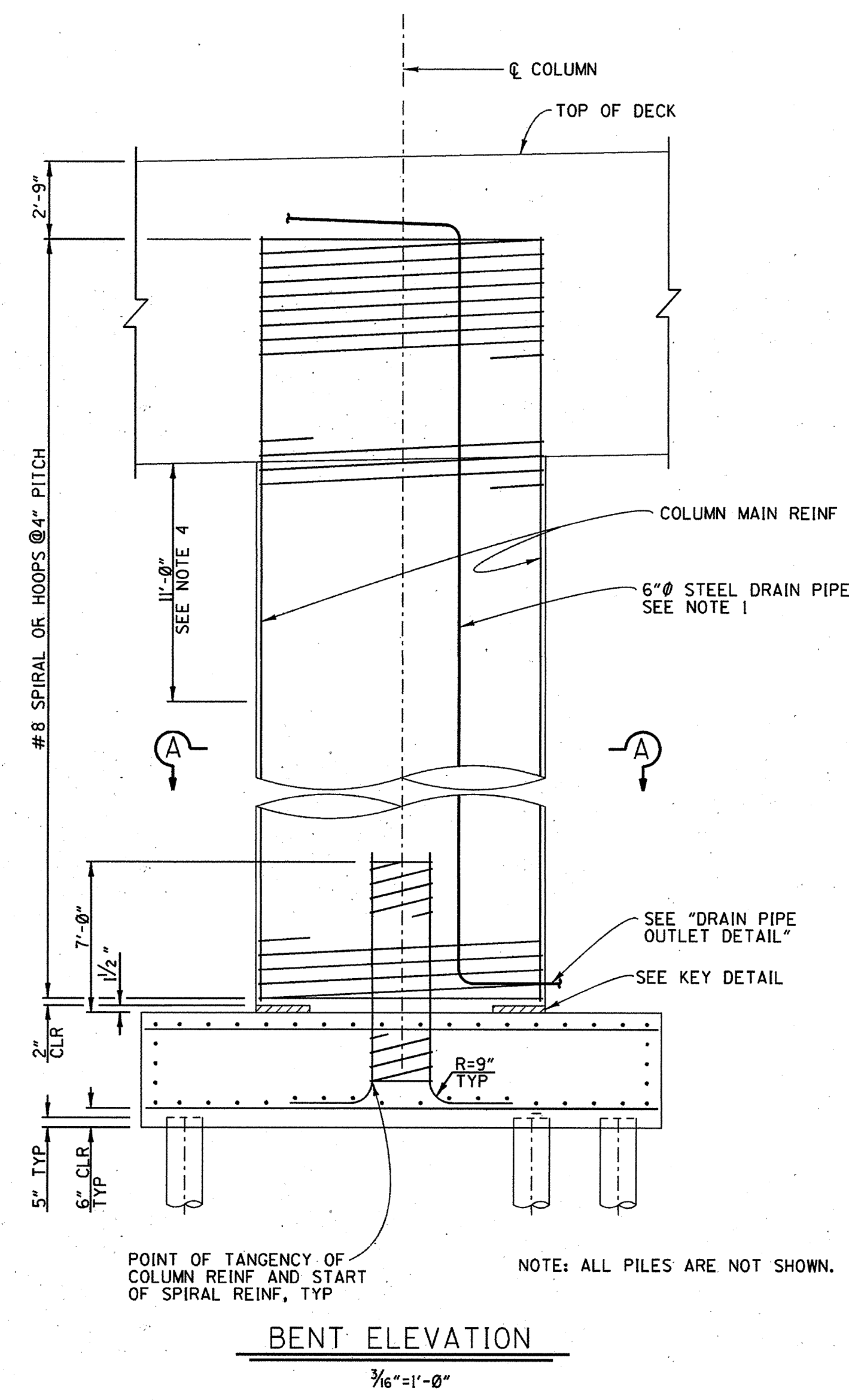
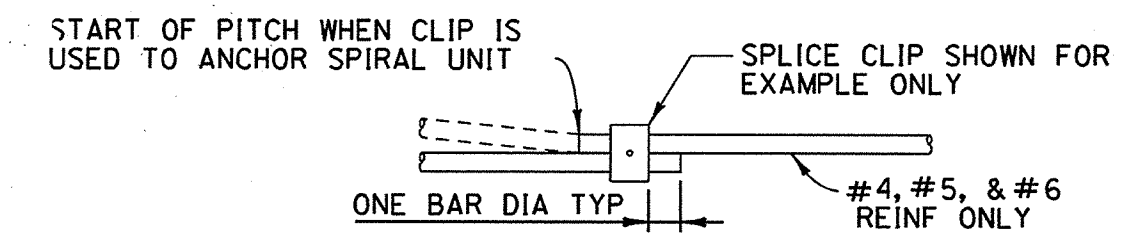
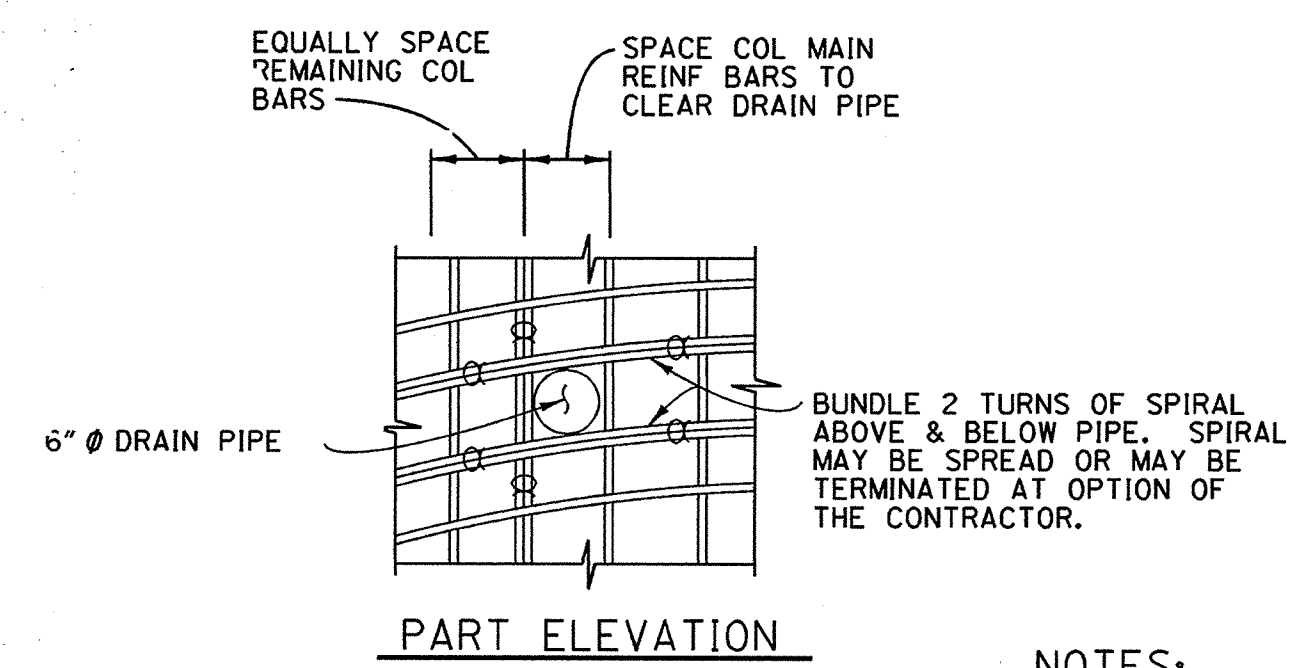


NOTE: FLARE WELD TO BE MADE IN DIRECTION SHOWN  
WELDED LAP SPLICE AND ANCHOR

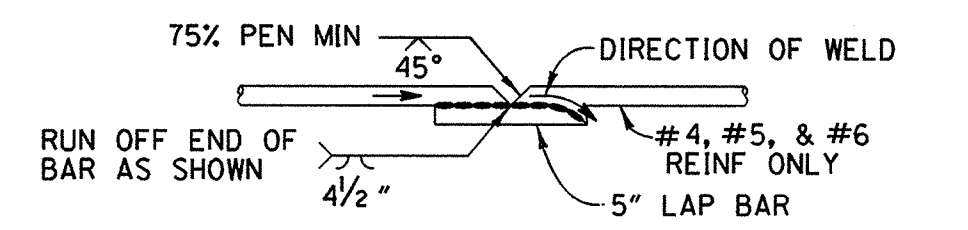


MECHANICAL LAP SPLICE AND ANCHOR

BAR SPIRAL SPLICE & SPIRAL ANCHOR AND HOOP DETAIL



DRAIN PIPE OUTLET DETAIL



1. BUTT WELD TO BE MADE FIRST.
2. BUTT WELD TO BE MADE IN FLAT OR HORIZONTAL POSITION.
3. LAP BAR TO BE CENTERED ON SPLICE.
4. FLARE WELD TO BE MADE IN DIRECTION SHOWN.
5. LAP BAR EQUAL SIZE TO SPIRAL BAR.

VEE GROOVE WELDED SPLICE



INDIVIDUAL HOOPS, MADE CONTINUOUS WITH 100% PENETRATION WELDS, MAY BE SUBSTITUTED FOR SPIRALS.

BUTT WELDED CONTINUOUS HOOP

NOTES:

1. SEE "DECK DRAIN DETAILS" SHEET FOR LOCATION AND OUTLET ORIENTATION OF DECK DRAIN PIPES IN COLUMNS.
2. SPIRAL MAY BE DISCONTINUOUS AT BENT CAP TO ALLOW FOR PLACING CAP REINFORCEMENT. PROVIDE SPIRAL ANCHOR AT END OF SPIRAL.
3. NO LAP SPLICE OR MECHANICAL CONNECTION IS ALLOWED IN COLUMN MAIN REINFORCEMENT.
4. NO LAP OR MECHANICAL SPLICE IN SPIRAL REINFORCEMENT ALLOWED IN THIS REGION. SPLICES FOR HOOP REINF SHALL BE STAGGERED IN THIS REGION.
5. USE 1/2" THICK EXPANSION JOINT FILLER AT BASE OF COLUMNS. SECURE POLYSTYRENE TO COLUMN WITH ADHESIVE. FOR ADDITIONAL DETAILS, SEE 60-13 (13-1).
6. FOR FOOTING REINFORCEMENT SEE "BENT DETAILS" SHEET.
7. PLACE 6'-0" WIDE X 1'-0" THICK EXPANDED POLYSTYRENE (i.e. STYROFOAM) AGAINST THE BOX CULVERT WALL. EXTEND THE LENGTH OF THE MATERIAL 6 FEET BEYOND THE PROJECTION OF THE FOOTING DIMENSION ALONG THE DIRECTION OF THE WALL.
8. OCEMA SURVEY DATA IS UTILIZED TO CHECK THE CRITICAL PILE CLEARANCE FROM THE BOX CULVERT WALL.

**URS GREINER, INC.**  
1241 EAST DYER ROAD, SUITE 250  
SANTA ANA, CALIFORNIA 92705-5605

|                                               |          |                                                  |        |
|-----------------------------------------------|----------|--------------------------------------------------|--------|
| ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY |          | JAMBOREE ROAD GRADE SEPARATION AT EDINGER AVENUE |        |
| BENT DETAILS                                  |          | SHEET 105 OF 130                                 |        |
| MARK                                          | DATE     | DESCRIPTION                                      |        |
| REVISIONS                                     |          |                                                  |        |
| PREPARED UNDER RESPONSIBLE CHARGE OF:         |          |                                                  |        |
|                                               |          |                                                  |        |
| DESIGNED                                      | J.W.     | CHECKED                                          | G.L.R. |
| DRAWN                                         | A. GOMEZ | DATE                                             | 6-97   |
| SCALE                                         | AS SHOWN | DATE                                             | 6-97   |

DR. 1 (16157)