

**GENERAL NOTES**

**DESIGN SPECIFICATIONS**  
THIS STANDARD DRAWING CONFORMS TO THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

**DESIGN LOADING:**  
DEAD LOAD - 60 LB/FT<sup>2</sup> (FUTURE WEARING SURFACE)  
LIVE LOAD - HS25 AND THE ALTERNATE MILITARY LOADING

**DESIGN DATA:**  
CONCRETE - COMPRESSIVE STRENGTH = 4500 PSI

REINFORCING STEEL - MIN. YIELD STRENGTH = 60 KSI

SPIRAL STEEL - EPOXY COATED, MIN. YIELD STRENGTH = 60 KSI

**ITEM SPECIAL - PILE ENCASEMENT:** ENCASE OR GALVANIZE ALL STEEL H-PILES AS SHOWN.

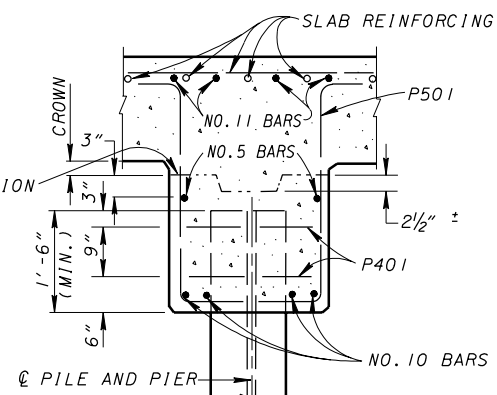
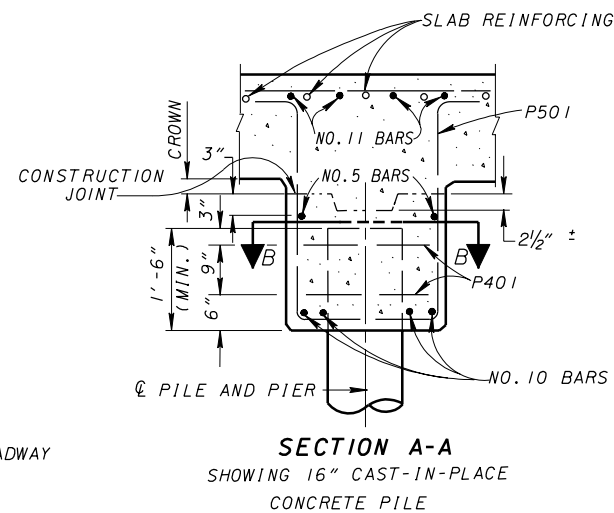
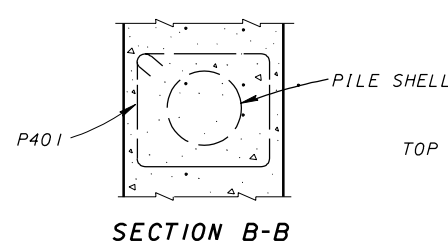
CONCRETE FOR ENCASEMENT SHALL BE CLASS C. PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER.

**GENERAL NOTES (CONTINUED)**

FOR THE GALVANIZING OPTION, GALVANIZE PILES ACCORDING TO 711.02 WITH A MINIMUM COATING THICKNESS OF 4 MILS. REPAIR TO THE SATISFACTION OF THE ENGINEER ALL GOUGES, SCRAPES, SCRATCHES OR OTHER SURFACE IMPERFECTIONS CAUSED BY THE HANDLING OR THE DRIVING OF THE PILE.

THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET. THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL NOT PAY FOR GALVANIZING PROVIDED BEYOND THE PROJECT REQUIREMENTS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM - SPECIAL, PILE ENCASEMENT.

**FALSEWORK SUPPORT:** ATTACHMENT OF THE FALSEWORK SUPPORT MEMBERS TO PIER PILES WILL BE PERMITTED IF THE ATTACHMENT IS MADE TO THE PORTION OF PILE ENCASED IN THE PIER CAP. THERE SHALL BE NO ECCENTRIC LOADS PRODUCED IN THE PILES BY ATTACHED FALSEWORK SUPPORT MEMBERS.



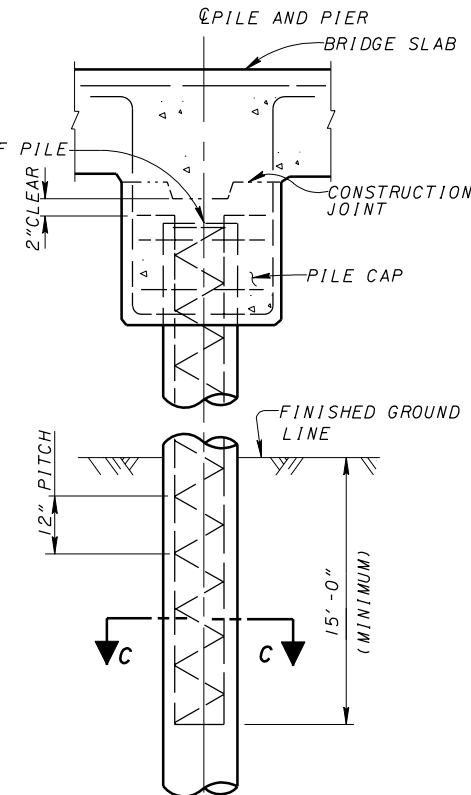
**SECTION A-A**  
SHOWING STEEL PILE, HP12x53

**DESIGN INSTRUCTIONS**

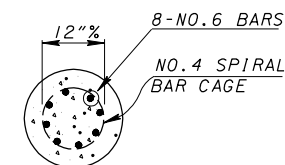
**GENERAL:** THIS DRAWING PROVIDES GENERAL CONSTRUCTION DETAILS. THE PROJECT PLANS FOR EACH STRUCTURE SHALL SHOW STATIONS, SPAN LENGTHS, ROADWAY WIDTH, SKEW, CURVE AND SUPERELEVATION (IF ANY) ELEVATIONS, SUPERSTRUCTURE DETAILS, ESTIMATED QUANTITIES, REINFORCING STEEL LIST, PILE ENCASEMENT AND OTHER NECESSARY DETAILS AND SPECIAL NOTES.

**REINFORCING STEEL:** THE MINIMUM LAP LENGTHS ARE 13'-6" FOR 11 BARS, 10'-3" FOR 10 BARS AND 3'-7" FOR 5 BARS. (LAP LENGTHS ASSUME EPOXY COATED STEEL.) IF THE LONGITUDINAL BARS ARE SPLICED, PLACE LAP SPLICES IN A STAGGERED ARRANGEMENT.

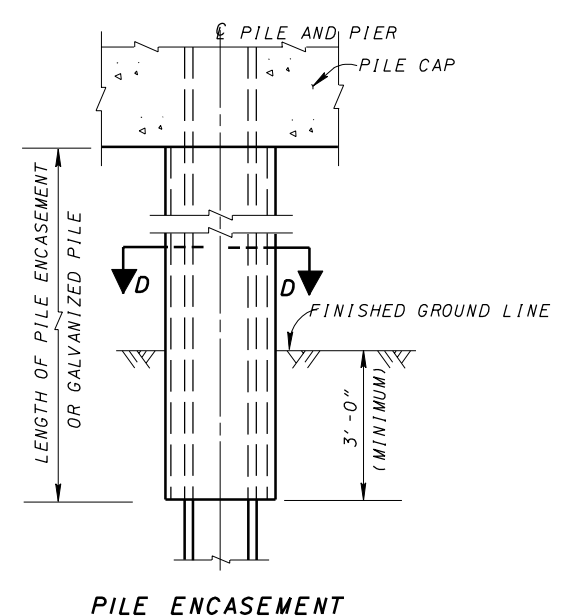
**PILES:** THE DESIGNER SHALL FURNISH THE PILE TYPE, SIZE, SPACING AND ULTIMATE BEARING VALUE ON THE PROJECT PLANS. THE MINIMUM SIZE SHALL BE A 16" DIAMETER CAST-IN-PLACE PILE AND AN HP12x53 PILE. THE MAXIMUM PILE SPACING IS 8'-0".



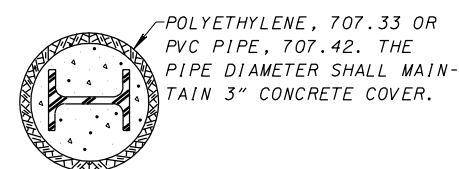
**CONCRETE PILE REINFORCEMENT**



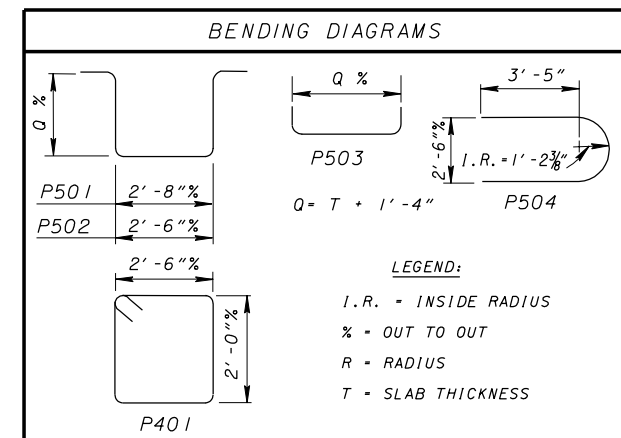
**SECTION C-C**  
SHOWING 16" CAST-IN-PLACE REINFORCED CONCRETE PILE (REINFORCED CONCRETE PILES SHALL NOT BE ENCASED OR GALVANIZED)



**PILE ENCASEMENT**



**SECTION D-D**  
SHOWING STEEL PILE, HP12x53



**DESIGN INSTRUCTIONS (CONTINUED)**

**SLAB THICKNESS:** SEE SLAB STANDARD BRIDGE DRAWING FOR THE VALUE OF "T".

**LIMITS OF DESIGN:** THIS STANDARD DRAWING SHOULD NOT BE USED FOR ANY BRIDGE IN WHICH THE FOLLOWING LIMITS ARE EXCEEDED.

- (A) SKEW ANGLE OF 35°.
- (B) EXPOSED HEIGHT OF PILES EQUALS 20 FEET (CONSIDER SCOUR DEPTHS AND SOIL DENSITY)
- (C) TO SUPPORT A STANDARD CONTINUOUS SLAB WITH AN INDIVIDUAL SPAN GREATER THAN 55'-0".
- (D) SLOPED EMBANKMENT, DEBRIS OR ICE FLOW LOADS WHICH WOULD CAUSE APPRECIABLE HORIZONTAL FORCE AGAINST THE PILE BENT
- (E) ROCK OR OTHER FIRM MATERIAL WOULD PREVENT DRIVING PILES AT LEAST TEN FEET BELOW FINISHED GROUND LINE

**16" C.I.P. REINFORCED CONCRETE PILES:** THE REINFORCING STEEL SHALL BE EPOXY COATED AND SHOWN IN THE STRUCTURE'S REINFORCING BAR LIST AND BE INCLUDED IN ITEM 507, 16 INCH CAST-IN-PLACE PILES FURNISHED FOR PAYMENT.

DESIGN AGENCY: OFFICE OF STRUCTURAL ENGINEERING  
 STATE OF OHIO DEPARTMENT OF TRANSPORTATION: 12-19-94 DATE  
 REVIEWED: LMW  
 CHECKED: SAM  
 PREPARED: JAM  
 DRAWN: GFJ  
 REVISIONS: 04-20-01, 07-19-02  
 STANDARD: CAPPED PILE PIER FOR CONTINUOUS SLAB BRIDGES  
 CPP-2-94