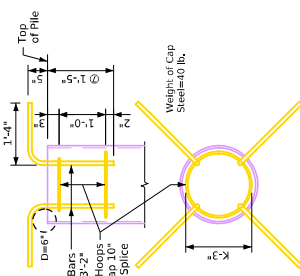
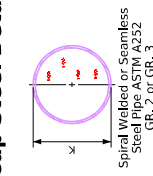


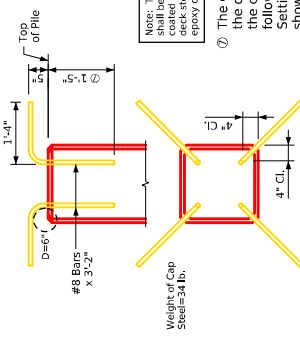
Cast in Place



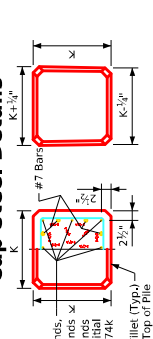
Cap Steel Details



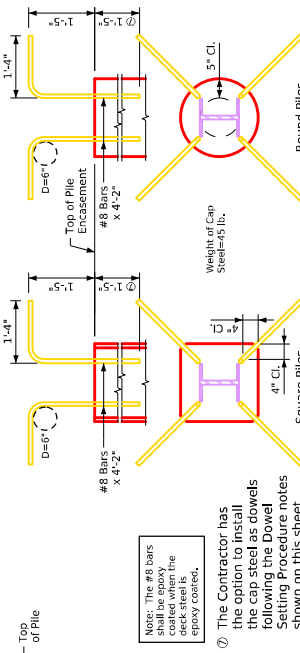
Prestressed



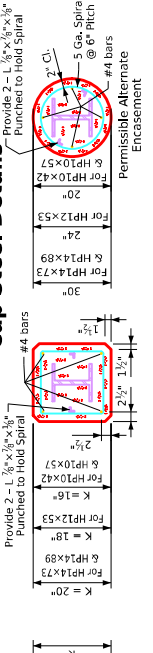
Cap Steel Details



Concrete Encased Steel H Pile



Cap Steel Details



General Notes:

Except as noted elsewhere, material, construction, driving and extensions or build ups when necessary shall be in accordance with Standard Specifications of the Iowa D.O.T. and current Supplemental Specifications and Special Provisions applicable. Cap steel shall be as detailed on this sheet (D=Pin Diameter). It shall be used if pile embedment is less than 1'-6".

"Nominal resistance Pn", "G", and "H" as given in tables are recommended design values for ordinary conditions, but may be modified for special conditions on any given job.

Nominal resistance Pn and pile size required shall in all cases be as specified on the plans.

Nominal resistance Pn shown are for friction resistance except for Type 3 piling where the resistance values shown could be either friction or point resistance. Cost of all driving points and cap steel is to be included in the price bid per linear foot for piling.

Wire spiral shall conform to ASTM A1064 Grade 70.

Cap in Place Pile Notes:

Shell thickness shown are minimum requirements. The method of driving steel shells shall be adopted by the contractor and shall be specified. All shells which are damaged or defective shall be removed and replaced by the bridge contractor.

All cast in place piles shall have a closure plate. Driving points shall be used if specified on the plans.

Except as otherwise noted all exposed corners 90° or sharper shall be filleted 3/4". Driving points for prestressed piles, if called for on the plans, shall be as detailed. Heads of prestressed piles to be finished smooth and normal to axis of pile.

Bidding Notes:

The plans shall designate the size of pile to be used. They shall also specify the type, either Type 1, Type 2, or Type 3. If the option of Type 1 or 2 is given on the plans, the Contractor shall choose the type to be used. If Type 3 is specified, Type 3 shall be used. The Contractor may choose the size of the pile for encasement. It shall be kept in mind that for a given size and resistance value, length may vary with the shape (square or round).

Piles shall be bid designating the size, type and length.

Type 1 piling will be bid per linear foot of pile.

Type 2 piling will be bid per linear foot of pile and linear foot of encasement. Price bid for encasement shall be full payment for necessary excavation and for furnishing and placing all material.

Dowel Setting Procedure:

If cap steel is required for the prestressed piles, the #8 deformed bars are to be set as dowels into the piles with polymer grout in accordance with Article 2301.03, E, of the Standard Specifications or by the following procedure.

A - Drill hole approximately twice the diameter of the dowel bar and to the depth indicated.

B - Fill hole with water and allow to stand long enough to thoroughly saturate the surrounding concrete (about four hours).

C - Blow out all free water and fill hole 2/3 full of mortar.

D - Insert dowel by driving, if necessary, and manipulate or tap with a hammer to consolidate mortar and secure complete embedment.

E - Add more mortar, if necessary, to fill hole.

F - Mortar shall consist of equal parts portland cement and sand with just enough water to make a workable mix.

Approved By: 

Latest Revision: 06-2025

LRFD Trestle Pile Bents - P10L

PROJECT NUMBER

COUNTY

Standard Sheet P10L

LRFD Designed Trestle Pile Bents

DESIGN TEAM

6/13/2025

ENGLISH

1121339 AM

Revised 03-2022: Updated Spiral Requirements to ASTM A1054 Grade 70 (was ASTM A82).

Revised 06-2025: Corrected Typo and Added Note. This note was missing when the sheet was updated and re-issued on 11-2023 (the note was on the previous version of this sheet).

Sheet Name: LRFD Trestle Pile Bents - P10L - This Sheet Re-issued 11-2023. Sheet Format Update.

File Name: P10L.dwg

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