**Design Specifications:**

**Spiral Ties:**
One full wrap of spirals is required at both the head and tip of pile. One half turn required for spiral splices.

**Concrete Class:**
Concrete for all piles shall be Class V (Special). Concrete for pile splices shall be Class IV. See “General Notes” in Structures Plans for any specific locations where the use of Silica Fume is required.

**Concrete Strength:**
The cylinder strength shall be 4,000 psi minimum at time of transfer of the Prestressing Force.

**Splice Bonding Material:**
The material to form the joint between pile sections shall be a Type B Epoxy Compound in accordance with Specification Section 926. The bonding agent used on internal pile surfaces shall be a Type A Epoxy Compound in accordance with Specification Section 926. Epoxy Compounds used shall be contained on the Approved Products List (APL). Use Epoxy Bonding Compound or Epoxy Mortar as recommended by the Manufacturer. For Epoxy Mortar only use sand or other filler material supplied by the manufacturer and in the proportions recommended.

**Pick-up Points:**
Piles shall be marked at the pick-up points to indicate proper points for attaching handling lines.

**Reinforcing Steel:**
All reinforcing steel shall meet the requirements of Specification Section 450.

**Prestressing Steel:**
Prestressing steel shall be 0.6” Ø seven-wire strand, Grade 270 (low relaxation, at 440 kips).

**Pile Driving After Splicing:**
Pile splices shall reach a minimum strength of 5500 psi before driving is resumed.

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**Table of Maximum Pile Pick-Up And Support Lengths**

<table>
<thead>
<tr>
<th>Maximum Pile Length (Feet)</th>
<th>Required Storage and Transportation Detail</th>
<th>Pick-Up Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td>2, 3, or 4 point</td>
<td>1 Point</td>
</tr>
<tr>
<td>174</td>
<td>2, 3, or 4 point</td>
<td>2 Point</td>
</tr>
</tbody>
</table>
Concrete Seal

2' - 0"

3" Min. Cover

Driven Prestressed Pile

10'-6"

10'-6"

Closed No. 4 Bars or W20 Wire Ties @ 1'-0" ± (Typ.)

Roughen inside surface of 60" Ø Pile to &2 amplitude for Spliced Pile Section

Concrete Seal

24 - No. 11 Bars @ Equal Spaces

Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

Clean inside surface of 60" Ø Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile

36 - 0.6" Ø Strands @ Equal Spaces

SECTION A-A

SECTION B-B

DETAIL "A"

60" Ø

W11 Wire

Spiral Ties

1'-0" Ø Void

2 Min. Cover (Typ.)

Cast in Place Plug

1'-0" Ø Void

24 - No. 11 Bars @ Equal Spaces

No. 4 Bars or W20 Wire Ties

60" PRESTRESSED CONCRETE CYLINDER PILE

01/01/12

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