PRESTRESSED CONCRETE PILE NOTES:

**DESIGN SPECIFICATIONS:**

**DESIGN PARAMETERS:**
- Square Prestressed Concrete Section: Designed for 1,000 psi uniform compression after prestress losses without loads.
- Pick-up, Storage, and Transportation: 0.0% prestress using a factor of 1.5 times pile self-weight.

**SPIRAL TIES:**
- Each wrap of spirals shall be tied to at least two corner strands. One turn required for spirals spaced.

**CONCRETE CLASS:**
- Concrete for piles shall be Class V (Special) except designated High Capacity Piles shall be Class VI.
- Concrete for High Capacity Column Splice shall be Class V (Special).
- See "GENERAL NOTES" in Structures Plans for any specific locations where the use of Silica Fume is required.

**CONCRETE STRENGTH:**
- The pile cylinder strength shall be 6,000 psi minimum at 28 days and 4,000 psi minimum at time of transfer of the Prestressing Force. The cylinder strength for designed High Capacity Piles shall be 8,500 psi minimum at 28 days and 6,500 psi minimum at time of transfer of the Prestressing Force.

**SPIRE BONING MATERIAL:**
- The material to fill downdrilled holes and form the joint between pile sections shall be a Type B epoxy compound in accordance with Section 926 of the Specifications and shall be contained on the Qualified Products List (QPL). Use epoxy bonding compound or epoxy mortar as recommended by the manufacturer. For epoxy only uses 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 be Grade 60, except that spirals shall be manufactured from cold-drawn steel wire meeting the requirements of ASTM A416.

**PRESTRESSING STEEL:**
- Prestressing steel shall be seven-wire strand, Grade 1770, or 250 as noted.
- SR = Stress Relieved Strand
- LRS = Low-Relaxation Strand

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**TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS**

<table>
<thead>
<tr>
<th>D = Square Pile Size (inches)</th>
<th>12</th>
<th>14</th>
<th>16</th>
<th>18</th>
<th>20</th>
<th>24</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Pile Length (Feet)</td>
<td>48</td>
<td>52</td>
<td>59</td>
<td>62</td>
<td>68</td>
<td>87</td>
<td>2, 3, or 4 point, 1 Point</td>
</tr>
<tr>
<td>69</td>
<td>75</td>
<td>85</td>
<td>89</td>
<td>98</td>
<td>124</td>
<td>2, 3, or 4 point, 2 Point</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>107</td>
<td>121</td>
<td>140</td>
<td>178</td>
<td>3 or 4 point, 3 Point</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**TYPICAL PILE SHAPE FOR MOLD FORMS**

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**DETAIL SHOWING TYPICAL COVER**