The 45" Ø void in the pile shall be positively vented to water or air after the final pile installation. If the 3½" Ø vents are included in the pile cut-off section, then venting shall be provided by the use of a 1" Ø PVC conduit through the substructure cap or column.

**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>

**NOTES**

1. Work this Index with the Pile Data Table in the Structures Plans.
2. Concrete:
   A. Piles: Class V (Special)
   B. Splice Collar: Class IV
   C. Silica Fume: See "GENERAL NOTES" in the Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required.
3. Concrete Strength at time of prestress transfer:
   A. Piles: 4,000 psi minimum.
4. Reinforcing:
   A. Bars:
      a. Stainless Steel: Meet the requirements of Specification Section 931 for Type 304, Grade 75.
      b. Carbon FRP: Meet the requirements of Specification Section 932.
   B. Prestressing Strands:
      a. Stainless Steel: Seven-wire HSSS, UNS S32205 (Type 2205) or UNS S31803 strand, meeting the requirements of Specification Section 933.
      b. Carbon FRP: Meet the requirements of Specification Section 933.
   C. Spiral Ties:
      a. One half turn is required for carbon steel spiral splice.
      b. One full turn is required at the pile head and tip.
5. Pile Splices:
   A. Epoxy: Type AB Epoxy Compound or Epoxy Mortar must meet the requirements of Specification Section 926.
      a. Use a Type AB Epoxy Bonding Compound or Epoxy Mortar, as recommended by the Manufacturer, to form the joint between pile sections.
   B. Splices: Resume pile driving after the splice concrete reaches a minimum strength of 5,500 psi.
   C. Mark piles at the pick-up points to indicate the proper points for attaching handling lines.
**Concrete Seal**

- 1'-0" Ø Void, open top and bottom to allow through venting of sections

**Driven Prestressed Pile**

- 10'-6" M in. Cover

**Spliced Prestressed Pile Section**

- 10'-6" Ø Void
- Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

**SECTION A-A**

- No. 3 Bars or 0.3" Ø CFRP Strand Spiral Ties
- Closed No. 4 CFRP Bars or 0.3" Ø CFRP Strand Ties @ 1'-0" ± (Typ.)
- 24 – No. 6 CFRP Bars

**SECTION B-B**

- No. 3 Bars or 0.3" Ø CFRP Strand Spiral Ties
- 2" Min. Cover (Typ.)
- Cast in Place Plug
- 36 – CFRP Strands @ Equal Spaces

**Alternate Strand Patterns**

- 0.3" Ø, CFRP Single-Strand, at 39 kips
- 0.8" Ø, CFRP 7-Strand, at 40 kips

**DETAIL "A"**

- Inside Pile Wall
- Full epoxy compound joint
- Temporary Blocking Form to retain epoxy compound
- Gasket
- Form to retain epoxy compound
- Outside Pile Wall
Concrete Seal

2'-0" M in. Cover Drive

Prestressed Pile

10'-6"

Spiral Ties

1'-0"Ø Void, open top and bottom to allow through venting of sections

Roughen inside surface of 60"Ø Pile to 3/8" amplitude for Spliced Pile Section

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

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

Concrete Seal

Drivable Unforeseen Field Splice Detail (Cast in Place Plug)

SECTION A-A

SECTION B-B

ALTERNATE STRAND PATTERNS

44 - 0.6"Ø HSSS Strand, at 36 kips
36 - 0.6"Ø HSSS Strand, at 36 kips

SS POST-TENSIONED PILE DETAILS

W11 SS Wire Spiral Ties

24 - No. 10 SS Bars @ Equal Spaces

2" Min. Cover (inside)

3" Min. Cover (Typ.)

0.6"Ø HSSS Strands @ Equal Spaces

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"

FRP POST TENSIONED PILE DETAILS

SECTION B-B

SECTION A-A

ALTERNATE STRAND PATTERNS

0.6" Ø HSSS Strands @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

0.6"Ø HSSS Strands @ Equal Spaces

DETAIL "A"