**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. Use a Type AB Epoxy Bonding Compound as a bonding agent on internal pile surfaces.
   B. Splices: Resume pile driving after the splice concrete reaches a minimum strength of 5,500 psi.
6. Mark piles at the pick-up points to indicate the proper points for attaching handling lines.

**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>
**DESCRIPTION:**

- **REVISION:** REVISION NO.
- **SHEET:** SHEET NO.
- **INDEX:** INDEX
- **REVISIO N:** NO.

**DESIGN STANDARDS**

**60° PRESTRESSED CFRP & SS CONCRETE CYLINDER PILE**

**REV. 01/01/16**

**FOR:** FY 2017-18

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**SECTION A-A**

- **SECTION B-B**

**ALTERNATE STRAND PATTERNS**

- 0.5" Ø, CFRP Single-Strand, at 39 kips
- 0.6" Ø, CFRP 7-Strand, at 40 kips

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**DETAIL "A"**

- **DETAIL "A"**

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**DRAWING NUMBER:** 22660

**REVISION NO.** 01/01/16

**INDEX NO.** 22660

**SHEET NO.** 2 of 3
**Concrete Seal**

- **2'-0"**
- **3" Min. Cover**

**Driven Prestressed Pile**

- **10'-6"**
- **3" Min. Cover (Typ.)**

**Spliced Pile Section**

- **10'-6"**
- **1'-0" Ø Void, open top and bottom to allow through venting of sections**

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

- **Roughen inside surface of 60" Ø Pile to \( \text{^"}_1 \) \( \cdot \) \( \text{ amplitude for Spliced Pile Section} \)**

**ALTERNATE STRAND PATTERNS**

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

**DETAIL "A"**

- **Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")**
- **Inside Pile Wall**
- **Full epoxy compound joint**
- **Temporary Blocking Form to retain epoxy compound**
- **Outside Pile Wall**
- **Gasket**
- **Form to retain epoxy compound**

**SECTION A-A**

- **60° Ø**
- **W11 SS Wire Spiral Ties**
- **44 Ø Void (44 Strands) 48 Ø Void (36 Strands)**
- **2" Min. Cover (inside)**

- **0.6" Ø HSSS Strands @ Equal Spaces**

- **SECTION B-B**

- **60° Ø**
- **W11 SS Wire Spiral Ties**
- **24 - No. 10 SS Bars @ Equal Spaces**
- **3" Min. Cover (Typ.)**
- **0.6" Ø HSSS Strands @ Equal Spaces**

**SS POST-TENSIONED PILE DETAILS**

- **No. 4 SS Bars or W20 SS Wire Ties**
- **24 ~ No. 10 SS Bars @ Equal Spaces**
- **W11 SS Wire**
- **Closed No. 4 SS Bars or W20 SS Wire Ties @ 1'-0" ± (Typ.)**

**REVISION**

- **LAST REVISION: 01/01/16**
- **INDEX NO.: 22660**

**DESIGN STANDARDS**

- **FY 2017-18**
- **60° PRESTRESSED CFRP & SS CONCRETE CYLINDER PILE**

**DETAIL "A"**

- **Concrete Seal**
- **2" Min. Cover**
- **Drivable Unforeseen Field Splice Detail (Cast in Place Plug)**

**INDEX NO.: 22660**

**SHEET NO.: 3 of 3**