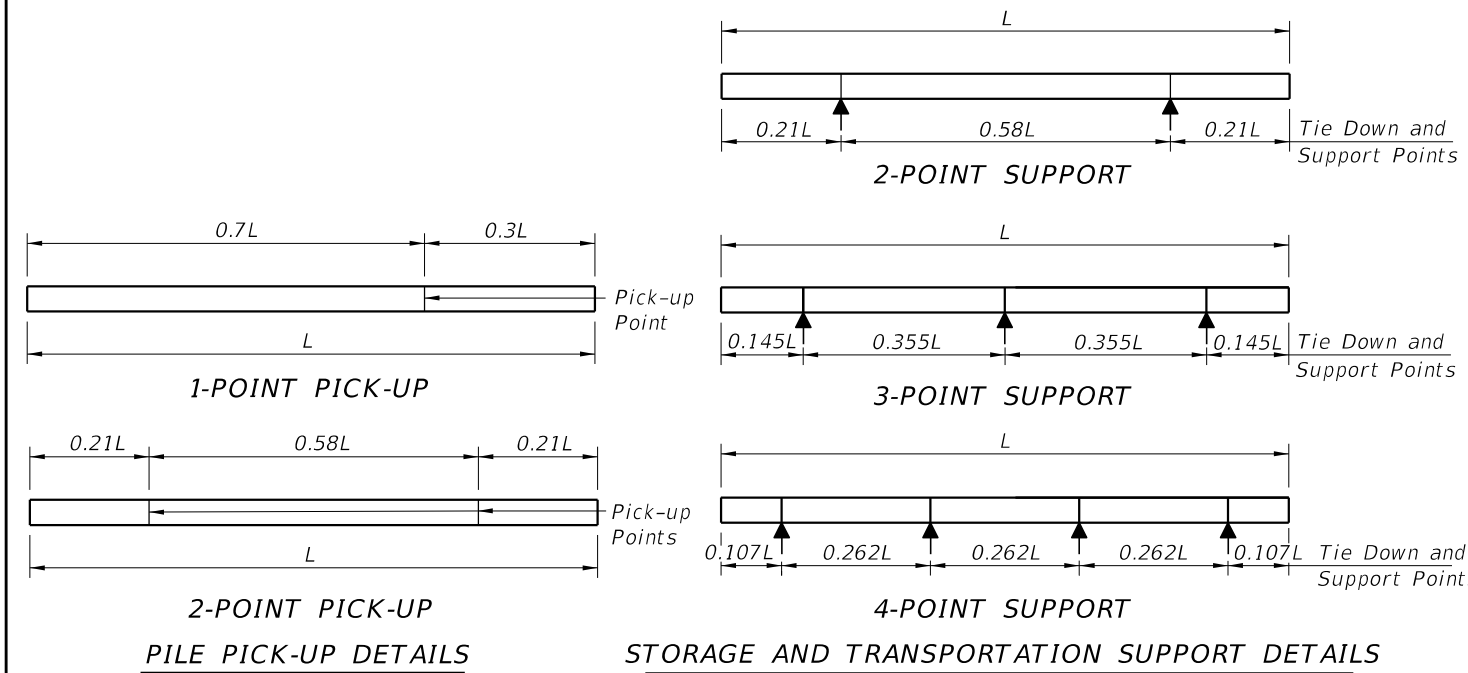


ELEVATION



NOTES

**DESIGN SPECIFICATIONS:**  
 Florida Department of Transportation (FDOT) "Structures Design Guidelines", Current Edition.  
 American Association of State Highway and Transportation Officials (AASHTO) "LRFD Bridge Design Specifications", Current Edition.

**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 6,000 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 Section 926 of the Specifications. The bonding agent used on internal pile surfaces shall be a Type A Epoxy Compound in accordance with Section 926 of the Specifications. 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 tendons shall be made up of two seven-wire strands. Prestressing strands shall be 1/2" Ø (Special), Grade 270 low relaxation, at 33.8 kips.

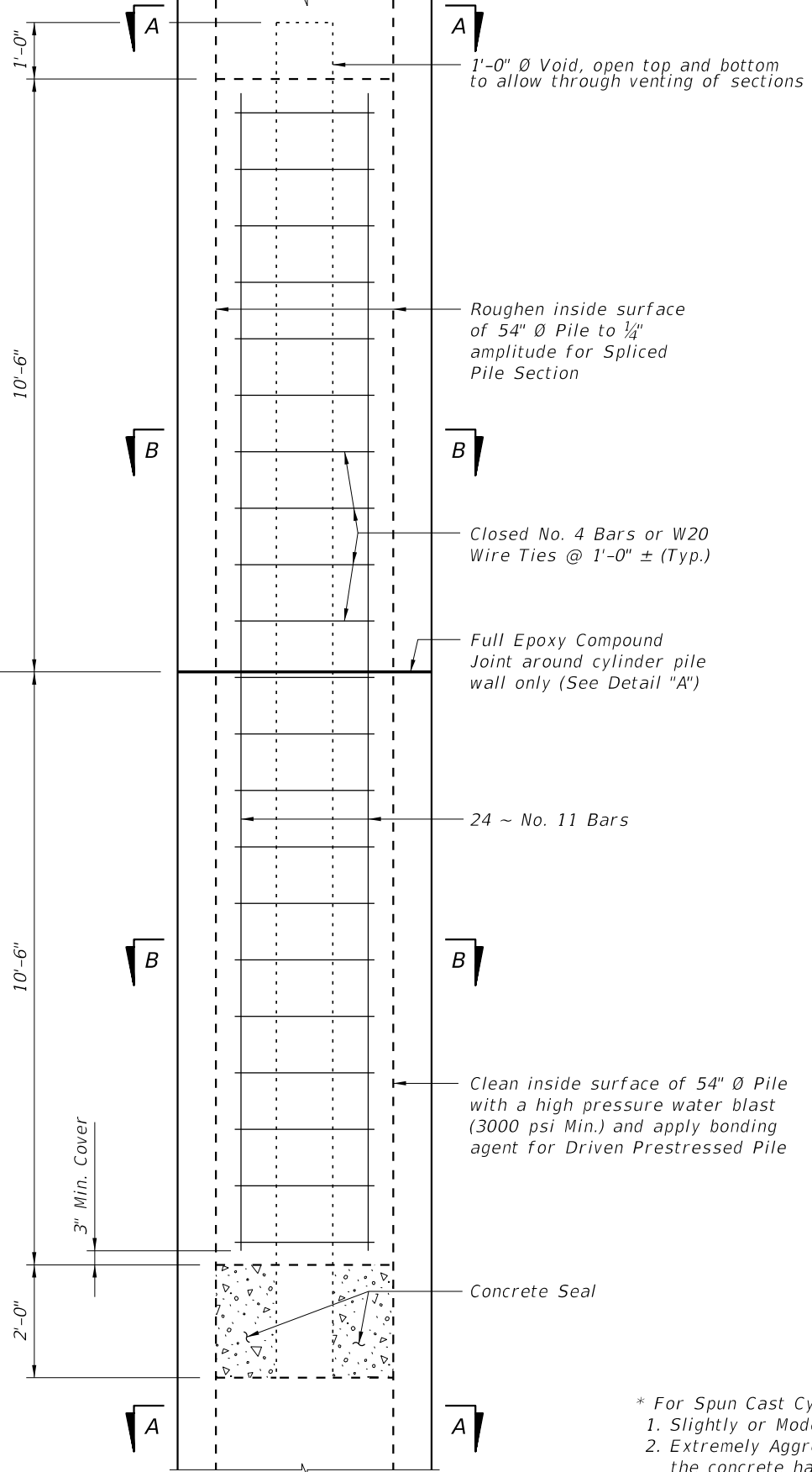
**PILE DRIVING AFTER SPLICING:**  
 Pile splices shall reach a minimum strength of 5500 psi before driving is resumed.

TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS		
Maximum Pile Length (Feet)	Required Storage and Transportation Detail	Pick-Up Detail
119	2, 3, or 4 point	1 Point
170	2, 3, or 4 point	2 Point

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Spliced Precast/Post-Tensioned Pile Section

Driven Precast/Post-Tensioned Pile



**DRIVABLE UNFORESEEN FIELD SPLICE DETAIL**  
(Cast-In-Place Plug)

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

Roughen inside surface of 54"  $\emptyset$  Pile to  $\frac{1}{4}$ " amplitude for Spliced Pile Section

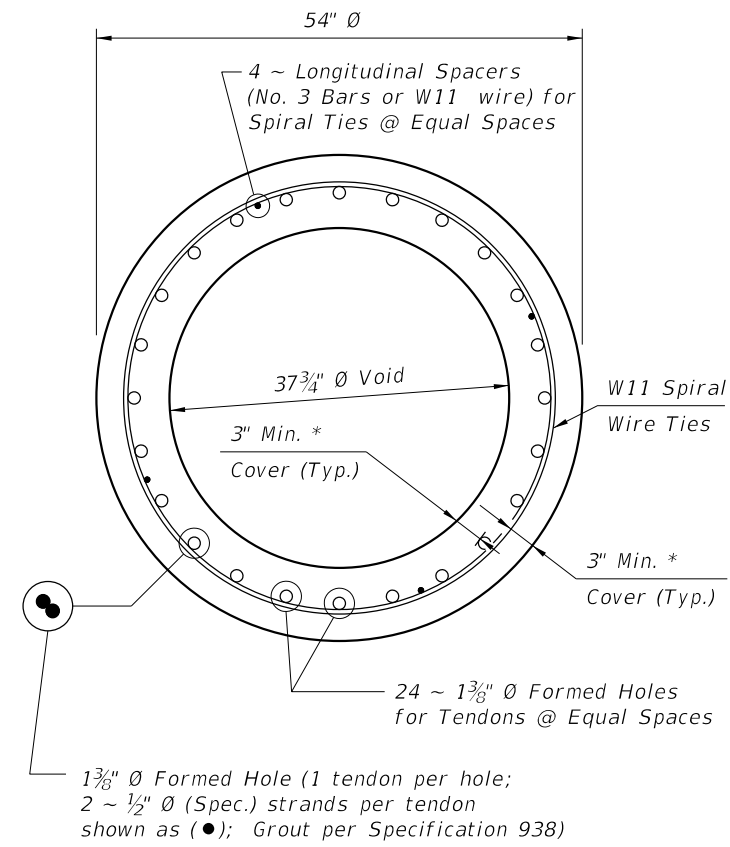
Closed No. 4 Bars or W20 Wire Ties @ 1'-0"  $\pm$  (Typ.)

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

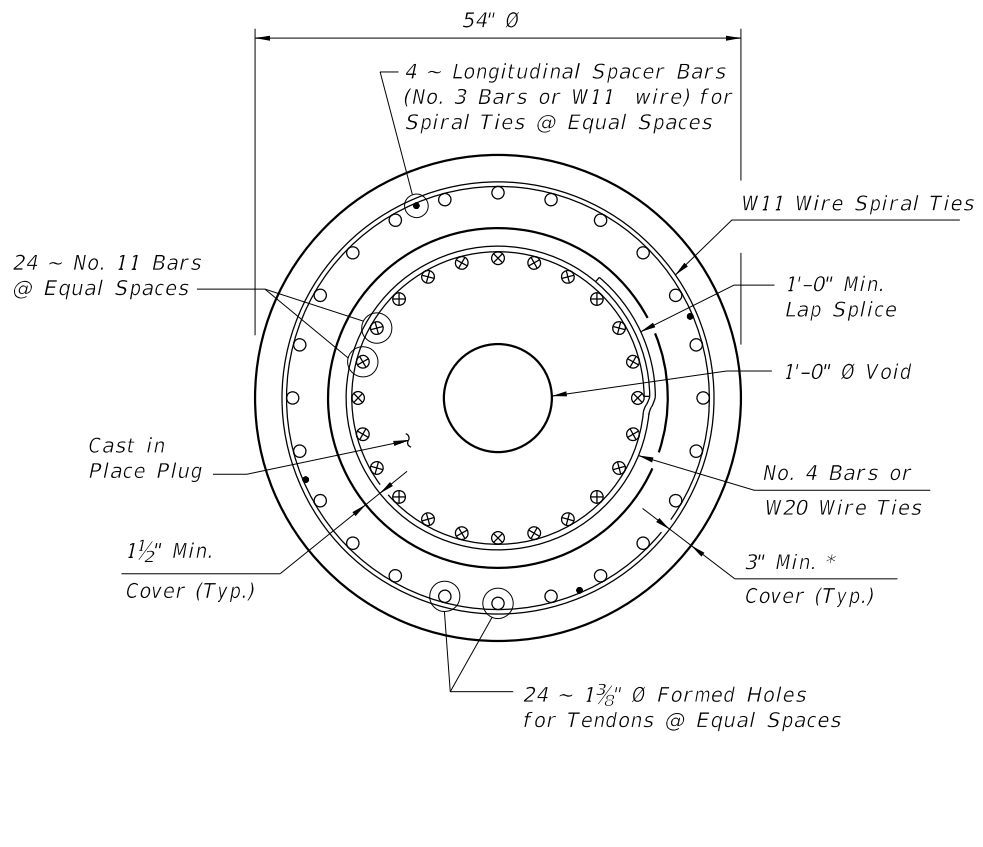
24 ~ No. 11 Bars

Clean inside surface of 54"  $\emptyset$  Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile

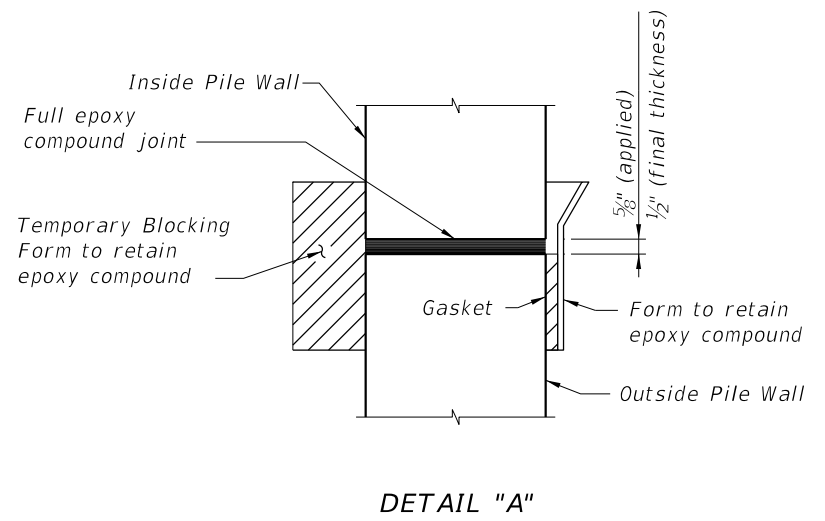
Concrete Seal



**SECTION A-A**



**SECTION B-B**



**DETAIL "A"**

\* For Spun Cast Cylinder Piles, the following requirements for concrete cover apply:  
 1. Slightly or Moderately Aggressive Environments: The concrete cover may be reduced to 2 inches.  
 2. Extremely Aggressive Environments: The concrete cover may be reduced to 2 inches as long as the concrete has a documented chloride ion penetration apparent diffusion coefficient with a mean value of 0.005 in<sup>2</sup> per year or less; otherwise, a 3-inch concrete cover is required.

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LAST REVISION 07/01/13	DESCRIPTION:		FY 2016-17 DESIGN STANDARDS	54" PRECAST/POST-TENSIONED CONCRETE CYLINDER PILE	INDEX NO. 20654	SHEET NO. 2 of 2
REVISION						