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## ORIGINATION FORM

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### Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

**Contact Information:**

Date: October 21, 2021  
Originator: Joshua Turley  
Phone: (850) 414-4475  
Email: [joshua.turley@dot.state.fl.us](mailto:joshua.turley@dot.state.fl.us)

**Standard Plans:**

Index Number: 455-160  
Sheet Number (s): 1  
Index Title: 60" Prestressed CFRP & SS Concrete  
Cylinder Pile

**Summary of the changes:**

Changed Class V (Special) concrete to Class V.

**Commentary / Background:****Other Affected Offices / Documents:** (Provide name of person contacted)

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Standard Plans –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FDOT Design Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Basis of Estimates Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Standard Specifications –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved Product List –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance –

**Origination Package Includes:**

(Email or hand deliver package to Rick Jenkins)

Yes	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Redline Mark-ups
<input type="checkbox"/>	<input type="checkbox"/>	Proposed Standard Plan Instruction (SPI)
<input type="checkbox"/>	<input type="checkbox"/>	Revised SPI
<input type="checkbox"/>	<input type="checkbox"/>	Other Support Documents

**Implementation:**

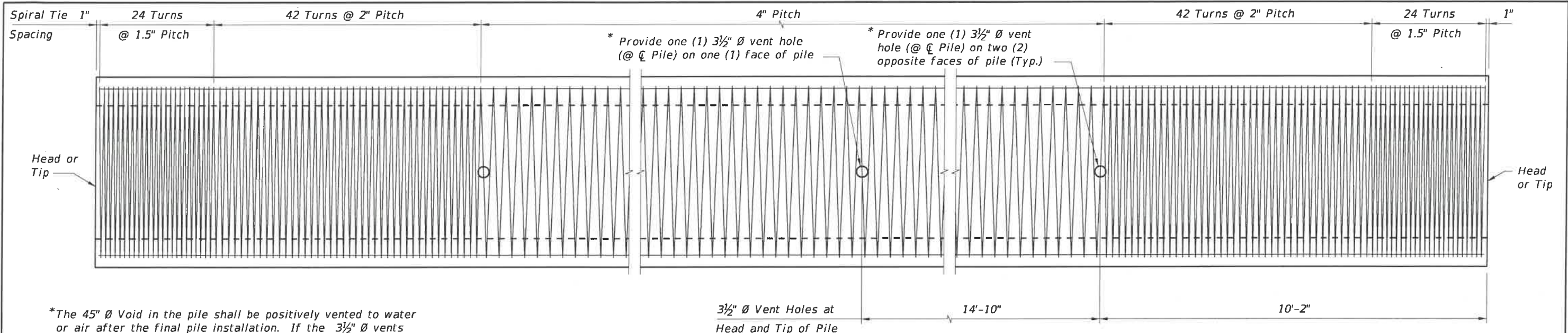
<input type="checkbox"/>	Design Bulletin (Interim)
<input type="checkbox"/>	DCE Memo
<input checked="" type="checkbox"/>	Program Mgmt. Bulletin
<input checked="" type="checkbox"/>	FY-Standard Plans (Next Release)

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Contact the Roadway Design Office for assistance in completing this form

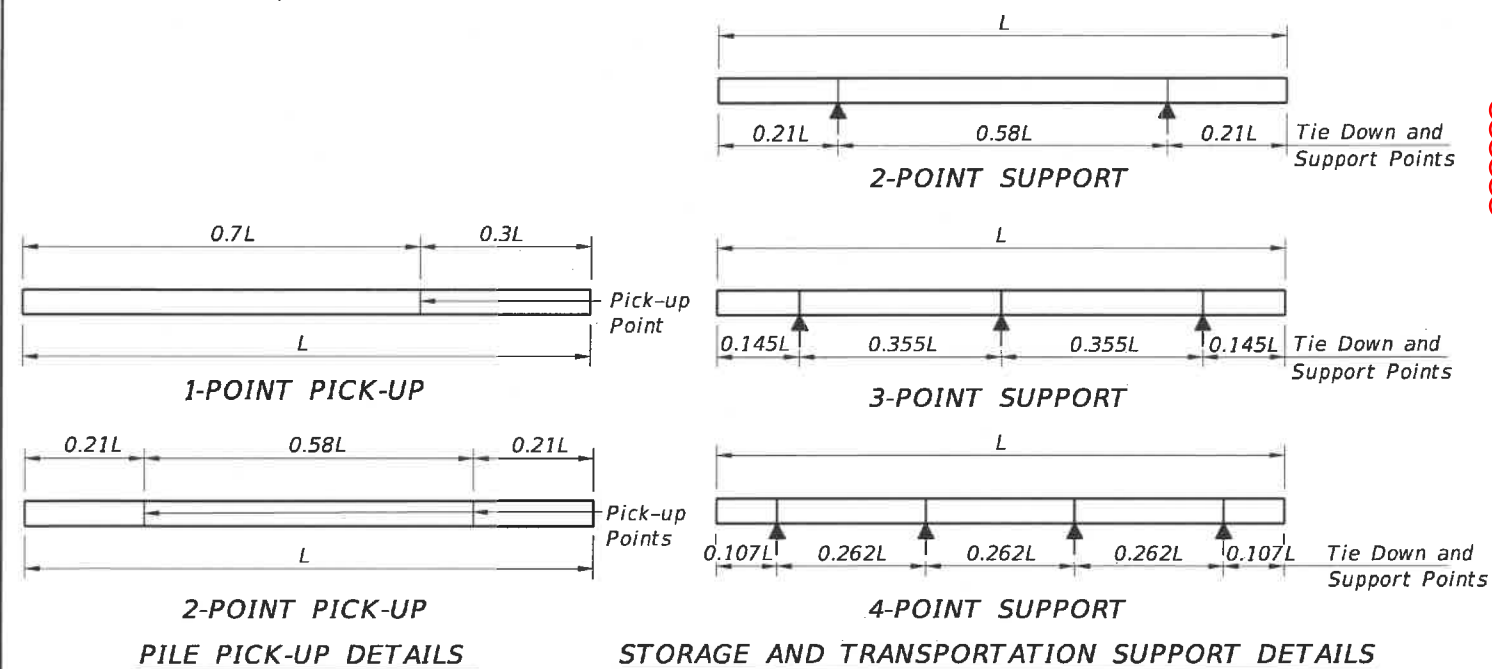
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Email to: Rick Jenkins [rick.jenkins@dot.state.fl.us](mailto:rick.jenkins@dot.state.fl.us) and Darren Martin [darren.martin@dot.state.fl.us](mailto:darren.martin@dot.state.fl.us)



\*The 45" Ø Void in the pile shall be positively vented to water or air after the final pile installation. If the 3 1/2" 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.

ELEVATION

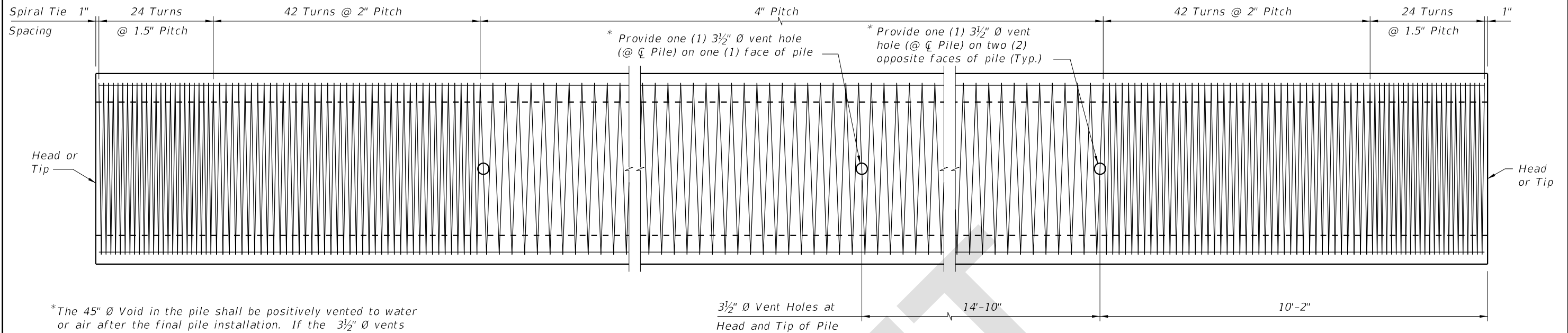


NOTES

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. See "GENERAL NOTES" in the Structures Plans for locations where the use of Highly Reactive Pozzolans 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.

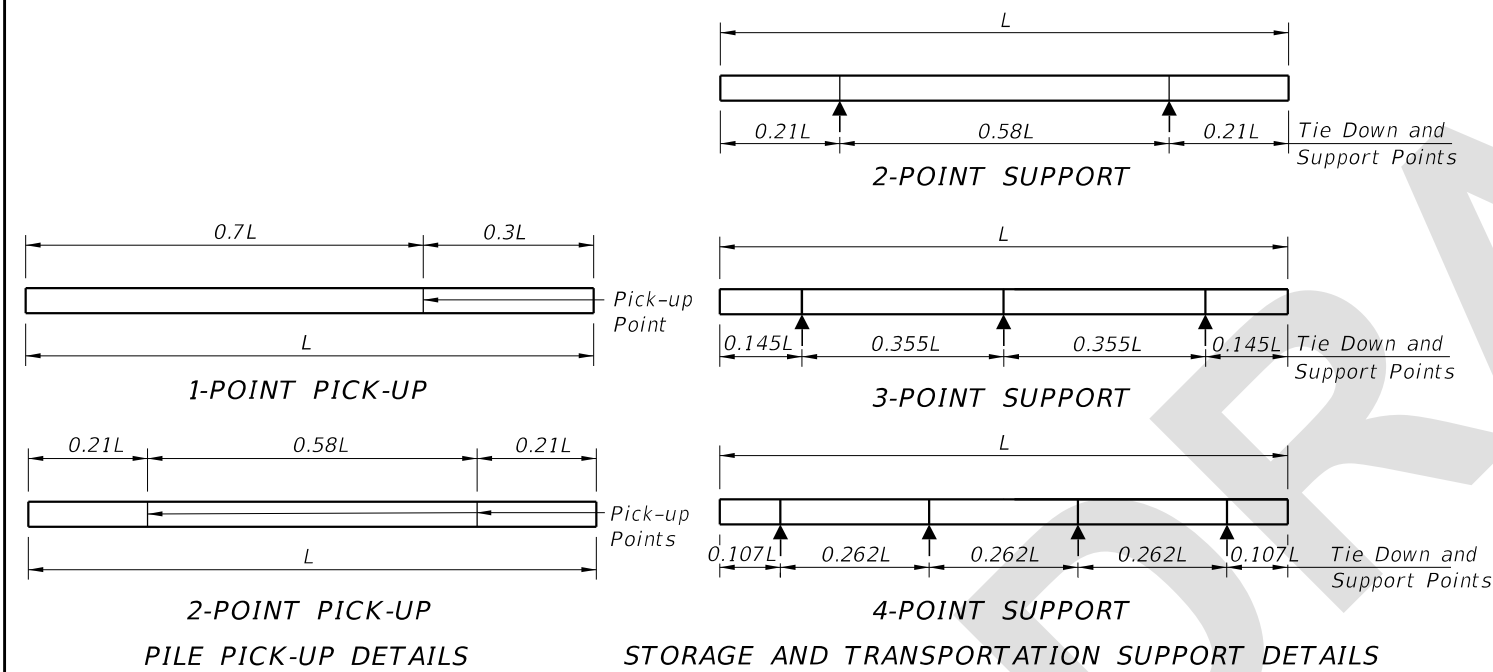
Maximum Pile Length (Feet)	Required Storage and Transportation Detail	Pick-Up Detail
122	2, 3, or 4 point	1 Point
174	2, 3, or 4 point	2 Point

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\*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.

**ELEVATION**

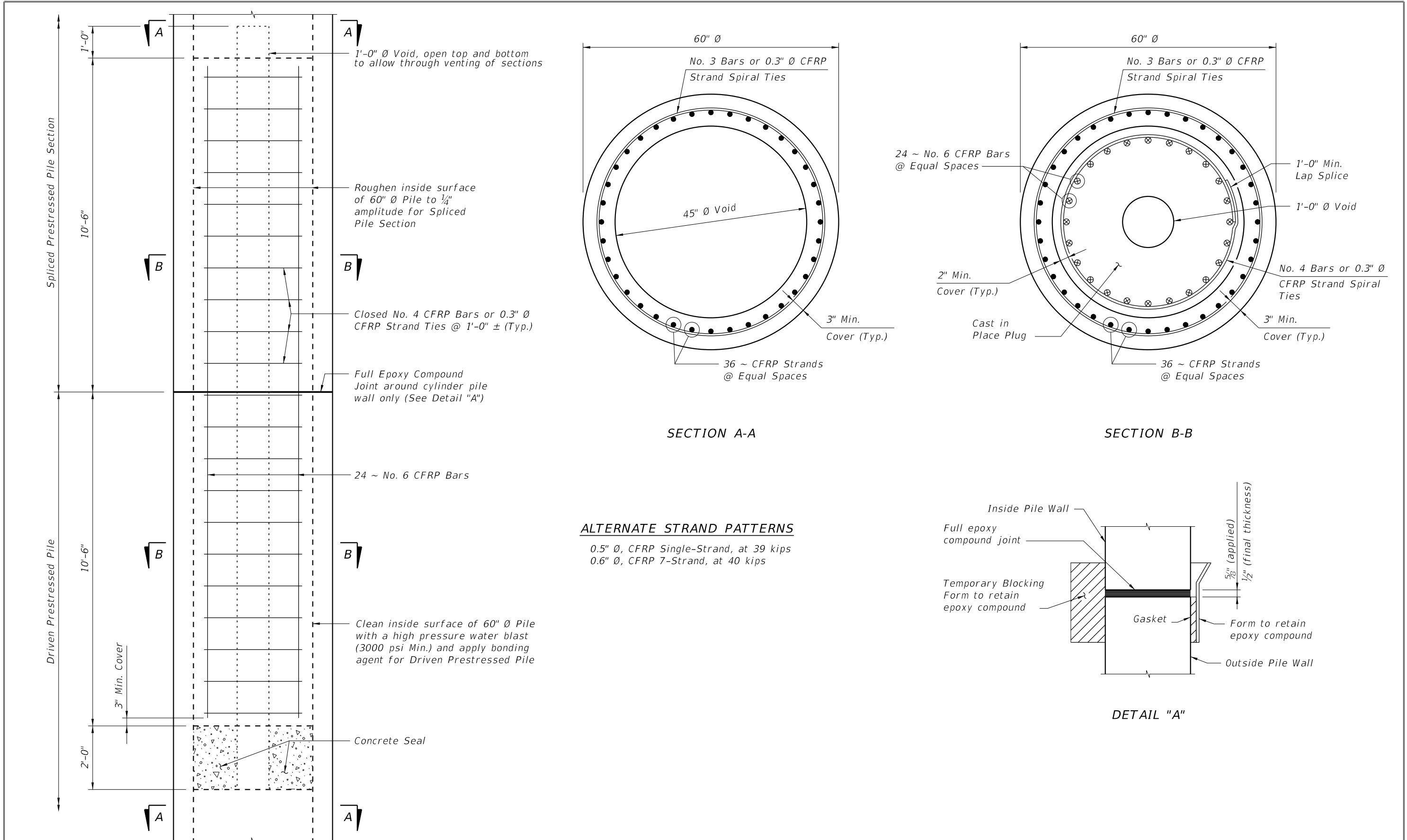


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TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS		
Maximum Pile Length (Feet)	Required Storage and Transportation Detail	Pick-Up Detail
122	2, 3, or 4 point	1 Point
174	2, 3, or 4 point	2 Point

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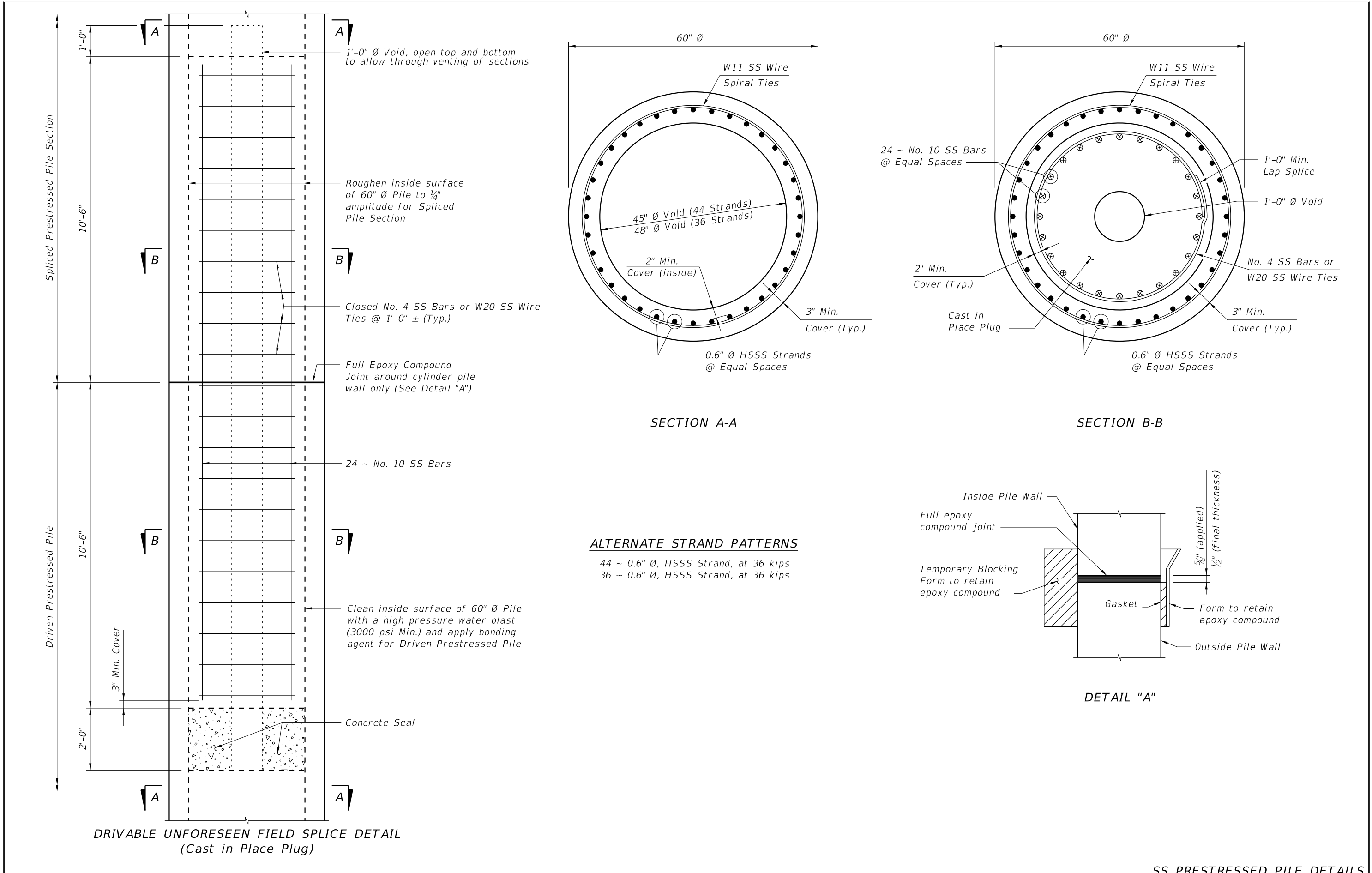


**DRIVABLE UNFORESEEN FIELD SPLICE DETAIL**  
(Cast in Place Plug)

**CFRP PRESTRESSED PILE DETAILS**

LAST REVISION	REVISION	DESCRIPTION:		FY 2023-24 <b>STANDARD PLANS</b>	<b>60" PRESTRESSED CFRP &amp; SS CONCRETE          CYLINDER PILE</b>	INDEX	SHEET
01/01/16						455-160	2 of 3

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**ALTERNATE STRAND PATTERNS**  
 44 ~ 0.6" Ø, HSSS Strand, at 36 kips  
 36 ~ 0.6" Ø, HSSS Strand, at 36 kips

**DRIVABLE UNFORESEEN FIELD SPLICE DETAIL**  
 (Cast in Place Plug)

**SS PRESTRESSED PILE DETAILS**

LAST REVISION	REVISION	DESCRIPTION:		FY 2023-24 <b>STANDARD PLANS</b>	<b>60" PRESTRESSED CFRP &amp; SS CONCRETE          CYLINDER PILE</b>	INDEX	SHEET
01/01/16						455-160	3 of 3

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