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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: 455-101

Sheet Number (s): 1

Index Title: Square CFRP & SS Prestressed Concrete Piles - Typical Details & Notes

**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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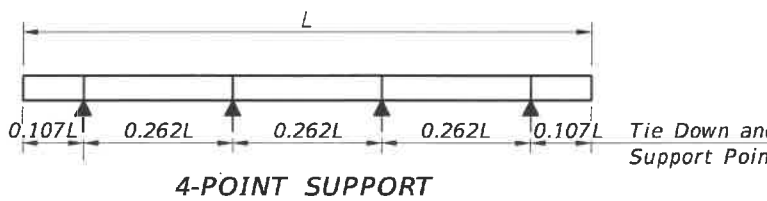
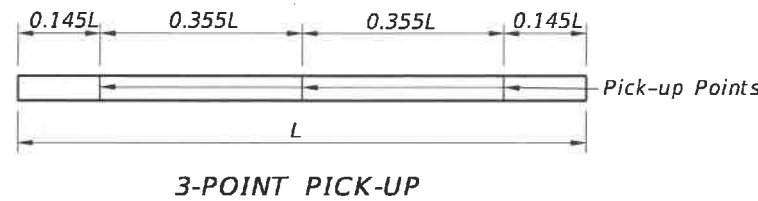
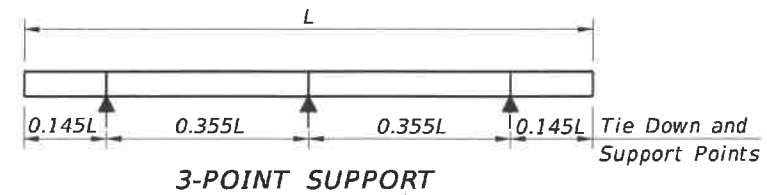
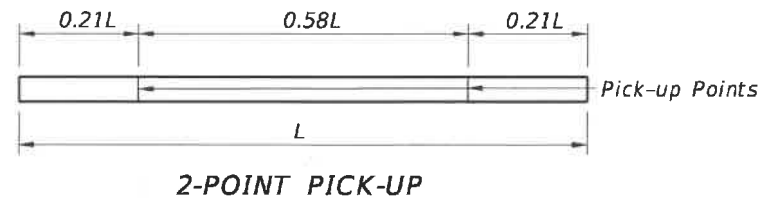
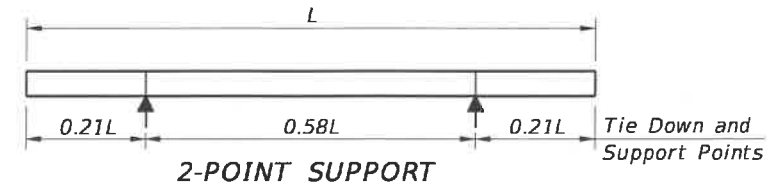
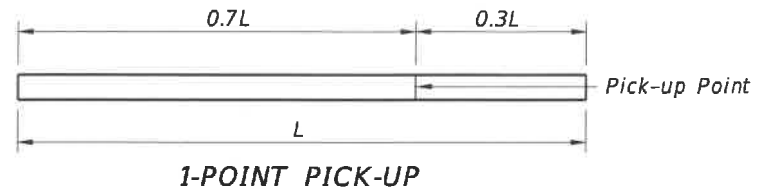
Contact the Roadway Design Office for assistance in completing this form

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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)

**PRESTRESSED CONCRETE PILE NOTES:**

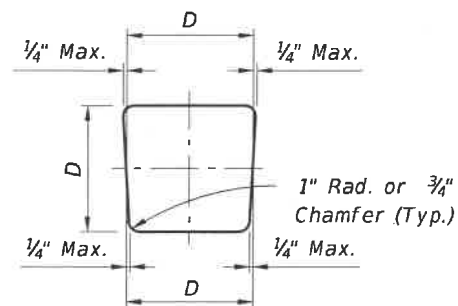
1. Work this Index with the Square Prestressed Concrete Pile Splices (Index 455-102), the Prestressed Concrete Pile Standards (Index 455-112, 455-114, 455-118, 455-124, 455-130, and the Pile Data Table in the Structures Plans.
2. Concrete:
  - A. Piles: Class V ~~(Special)~~
  - B. See "GENERAL NOTES" in the Structures Plans for locations where the use of Highly Reactive Pozzolans is required for options using stainless steel strand and reinforcing.
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, Grade 240 strand, meeting the requirements of Specification Section 933.
    - b. Carbon FRP: Meet the requirements of Specification Section 933.
5. Spiral Ties:
  - A. Tie each wrap of the spiral strand to a minimum of two corner strands.
  - B. One full turn required for spiral splices.
6. Pile Splices: Fill dowel holes and form the joint between pile sections with a Type AB Epoxy Compound in accordance with Specification Section 926. Use an Epoxy Bonding Compound or an Epoxy Mortar as recommended by the Manufacturer.



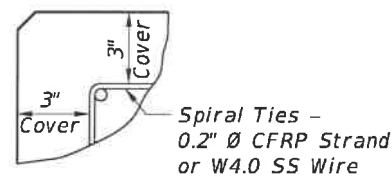
**PILE PICK-UP DETAILS**

**STORAGE AND TRANSPORTATION SUPPORT DETAILS**

TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS							
	D = Square Pile Size (inches)					Required Storage and Transportation Detail	Pick-Up Detail
	12	14	18	24	30		
Maximum Pile Length (Feet)	48	52	59	68	87	2, 3, or 4 point	1 Point
	69	75	85	98	124	2, 3, or 4 point	2 Point
	99	107	121	140	178	3 or 4 point	3 Point



**TYPICAL PILE SHAPE FOR MOLD FORMS**



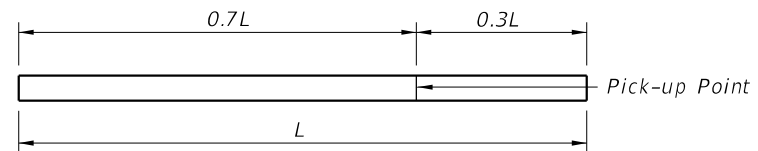
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10/8/2020 10:26:56 AM

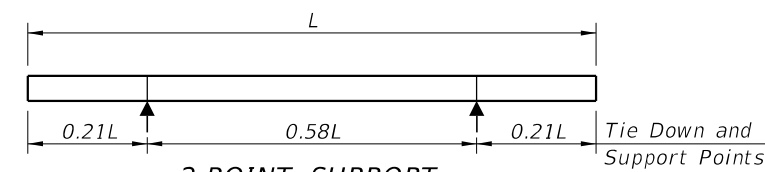
LAST REVISION	DESCRIPTION:
11/01/20	
	11/01/22

**PRESTRESSED CONCRETE PILE NOTES:**

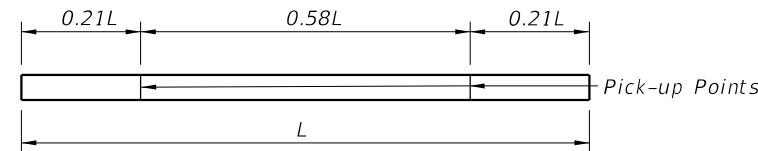
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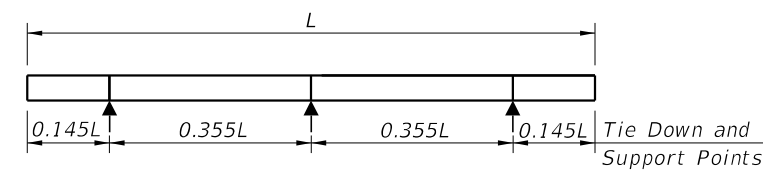
**1-POINT PICK-UP**



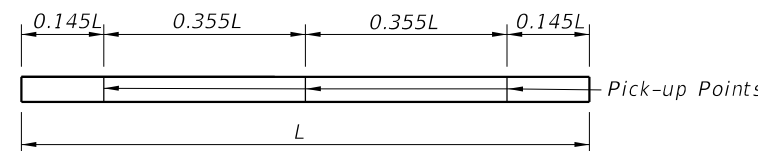
**2-POINT SUPPORT**



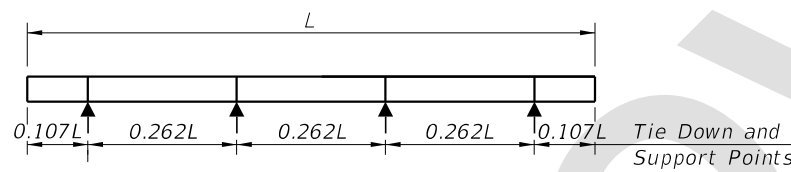
**2-POINT PICK-UP**



**3-POINT SUPPORT**



**3-POINT PICK-UP**

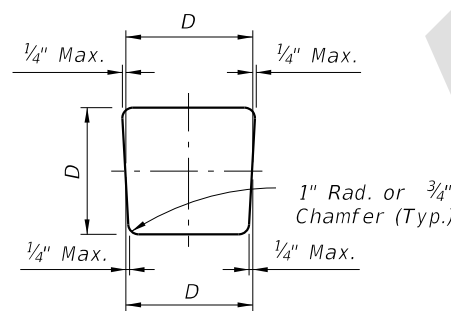


**4-POINT SUPPORT**

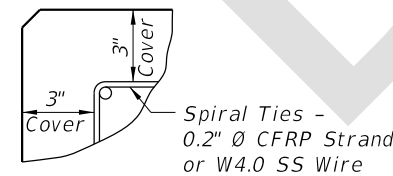
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**TYPICAL PILE SHAPE FOR MOLD FORMS**



**DETAIL SHOWING TYPICAL COVER**

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