
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: January 14, 2020

Originator: Cheryl Hudson

Phone: 414-5332

Email: cheryl.hudson@dot.state.fl.us

Standard Plans:

Index Number: 455-001

Sheet Number (s): 1

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



Summary of the changes:

Change Silica Fume, metakaolin or ultra-fine flyash to Highly Reactive Pozzolans

Commentary / Background:

Specification changed to fit silica fume, metakaolin and ultra-fine flyash under Highly Reactive Pozzolans

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

Yes	No	
☐	☒	Other Standard Plans –
☐	☒	FDOT Design Manual –
☐	☒	Basis of Estimates Manual –
☐	☒	Standard Specifications –
☐	☒	Approved Product List –
☐	☒	Construction –
☐	☒	Maintenance –

Origination Package Includes:

(Email or hand deliver package to Rick Jenkins)

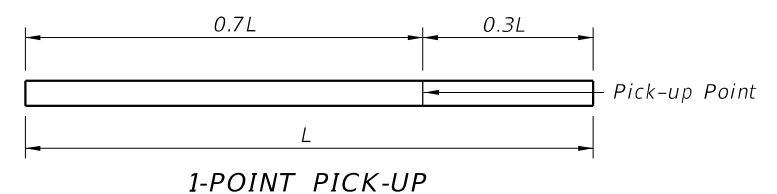
Yes	N/A	
☒	☐	Redline Mark-ups
☐	☒	Proposed Standard Plan Instruction (SPI)
☐	☒	Revised SPI
☐	☒	Other Support Documents

Implementation:

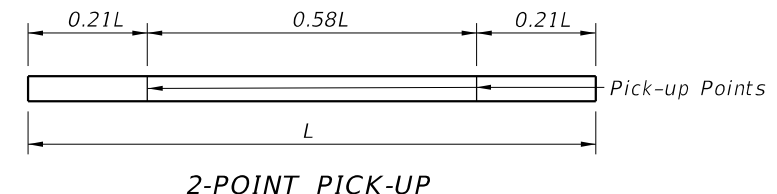
- ☐ Design Bulletin (Interim)
- ☐ DCE Memo
- ☐ Program Mgmt. Bulletin
- ☒ FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form

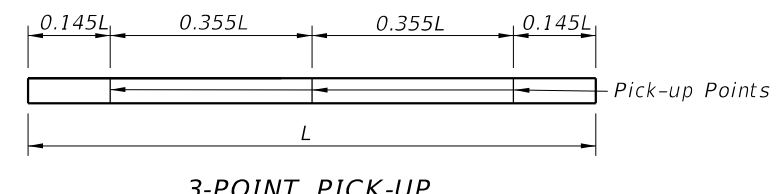
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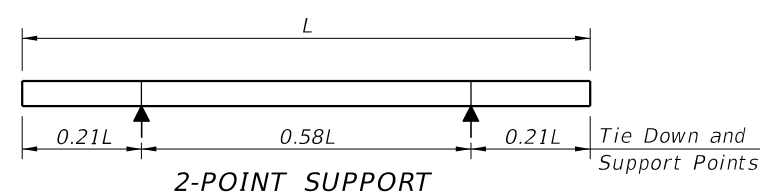
1-POINT PICK-UP



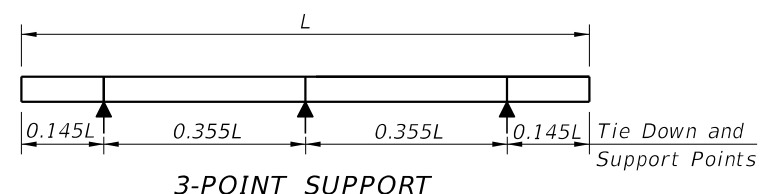
2-POINT PICK-UP



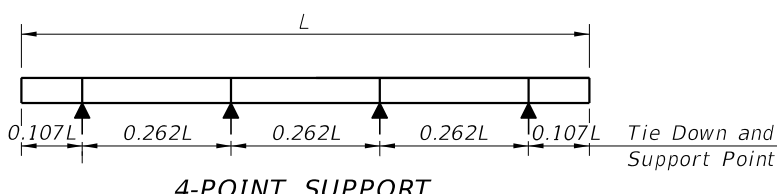
3-POINT PICK-UP
PILE PICK-UP DETAILS



2-POINT SUPPORT



3-POINT SUPPORT



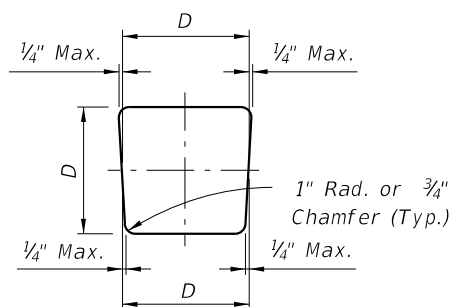
4-POINT SUPPORT
STORAGE AND TRANSPORTATION SUPPORT DETAILS

PRESTRESSED CONCRETE PILE NOTES:

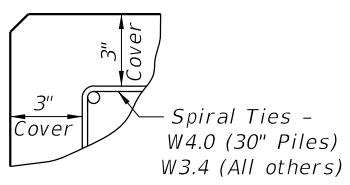
1. Work this Index with the Square Prestressed Concrete Pile Splices (Index 455-002), the Prestressed Concrete Pile Standards (Index 455-012 thru 455-030), the High Moment Capacity Square Prestressed Concrete Pile (Index 455-031) and the Pile Data Table in the Structures Plans.
2. Concrete:
 - A. Piles: Class V (Special), except use Class VI for High Moment Capacity Pile (Index 455-031).
 - B. High Capacity Splice Collar: Class V (Special).
 - 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.
 - B. High Moment Capacity Piles: 6,500 psi minimum.
4. Carbon-Steel Reinforcing:
 - A. Bars: Meet the requirements of Specification Section 415.
 - B. Prestressing Strands: Meet the requirements of Specification Section 933.
 - C. Protect all strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
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 962. Use an Epoxy Bonding Compound or an Epoxy Mortar as recommended by the Manufacturer.

Highly Reactive Pozzolans

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	20	24	30		
Maximum Pile Length (Feet)	48	52	59	62	68	87	2, 3, or 4 point	1 Point
	69	75	85	89	98	124	2, 3, or 4 point	2 Point
	99	107	121	128	140	178	3 or 4 point	3 Point



TYPICAL PILE SHAPE
FOR MOLD FORMS



DETAIL SHOWING
TYPICAL COVER

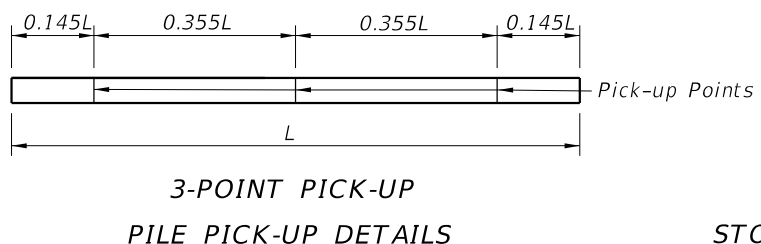
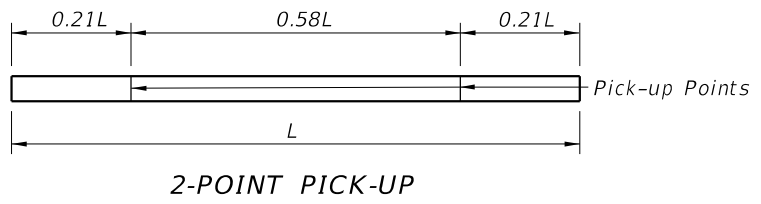
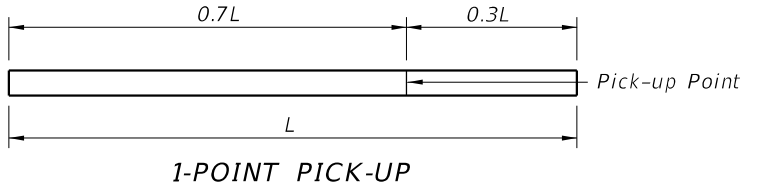
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LAST REVISION
11/01/16

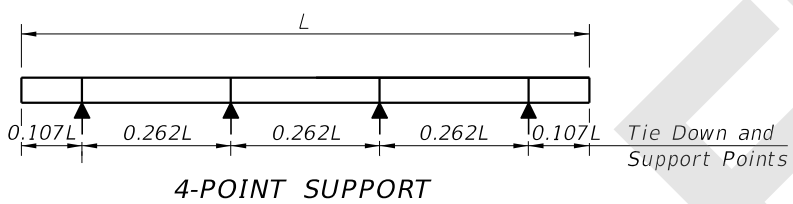
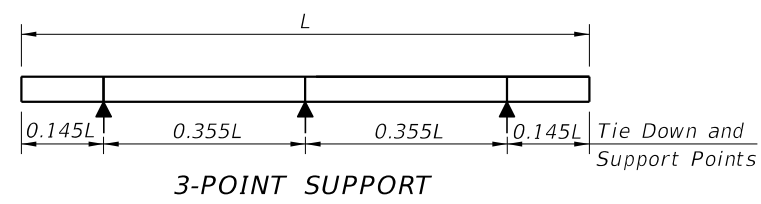
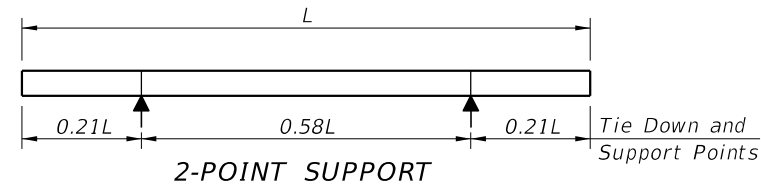
REVISION

DESCRIPTION:

SDATES\$
\$TIMES\$



PILE PICK-UP DETAILS



STORAGE AND TRANSPORTATION SUPPORT DETAILS

PRESTRESSED CONCRETE PILE NOTES:

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