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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: February 12, 2020

Originator: Cheryl Hudson

Phone: 414-5332

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

**Standard Plans:**

Index Number: 455-054

Sheet Number (s): 1

Index Title: 54" Square Precast/Post-Tensioned Concrete  
Cylinder Pile



**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                                  |                             |
|--------------------------|-------------------------------------|-----------------------------|
| <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 checked="" type="checkbox"/> | Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Revised SPI                              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Other Support Documents                  |

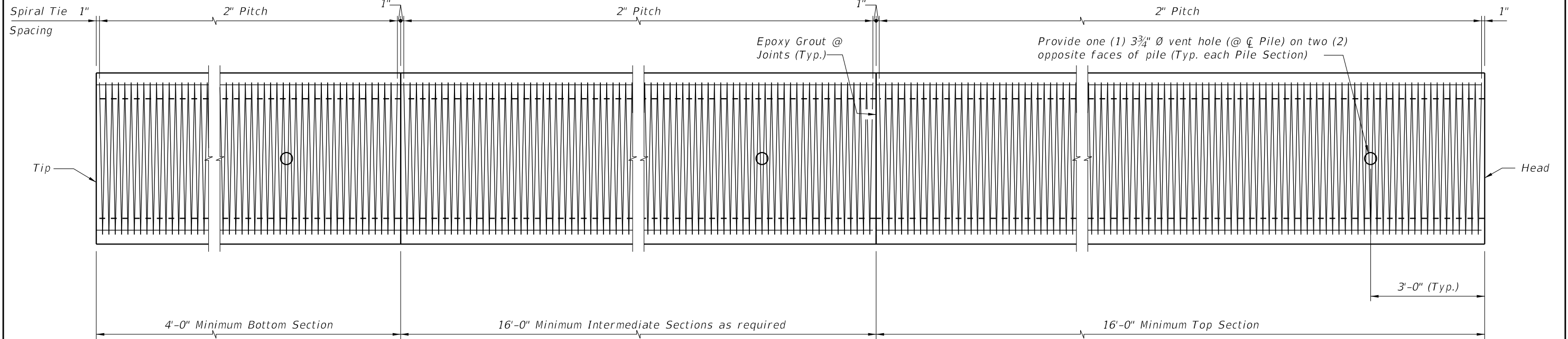
**Implementation:**

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

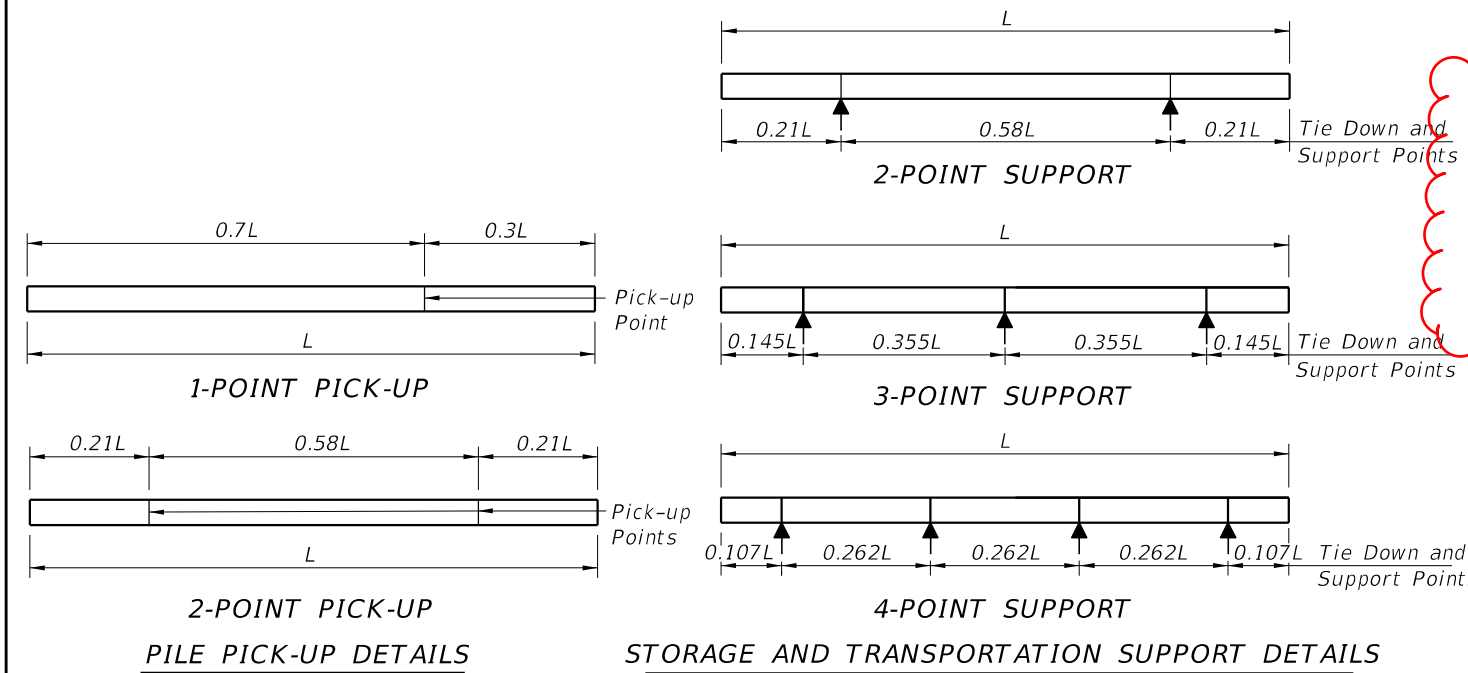
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Contact the Roadway Design Office for assistance in completing this form

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ELEVATION



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

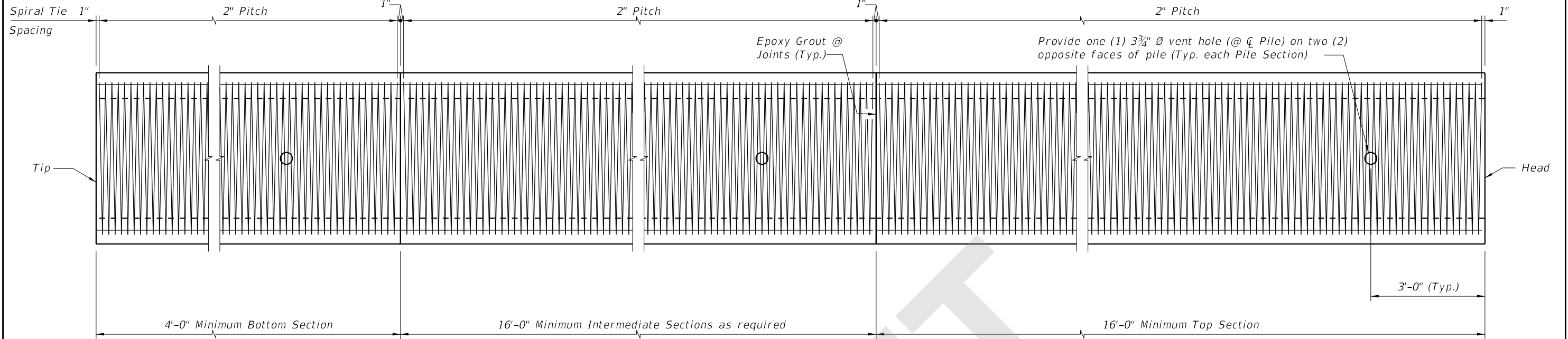
NOTES

- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
  - Piles: Class V (Special).
  - Splice: Class IV.
  - ~~Silica Fume~~: See "GENERAL NOTES" in Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required.
- Concrete Strength at time of prestress transfer:
  - Piles: 6,000 psi minimum.
- Carbon-Steel Reinforcing:
  - Bars: Meet the requirements of Specification Section 415.
  - Prestressing Strands: Meet the requirements of Specification Section 933.
  - Tendons: Two seven-wire 1/2" dia. (Special) Grade 270, low-relaxation strands tensioned to 33.8 kips.
  - Protect all carbon-steel strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
  - Spiral Ties:
    - One half turn is required for carbon-steel spiral splice.
    - One full turn is required at the pile head and tip.
- Pile Splices:
  - Epoxy: Type AB Epoxy Compound or Mortar must meet the requirements of Specification Section 926.
    - Use a Type AB Epoxy Bonding Compound or Epoxy Mortar, as recommended by the Manufacturer, to form the joint between pile sections
    - Use a Type AB Epoxy Bonding Compound as a bonding agent on internal pile surfaces.
  - Driving: Resume pile driving after splice concrete reaches a minimum strength of 5,500 psi.
- Mark piles at the pick-up points to indicate the proper points for attaching handling lines.

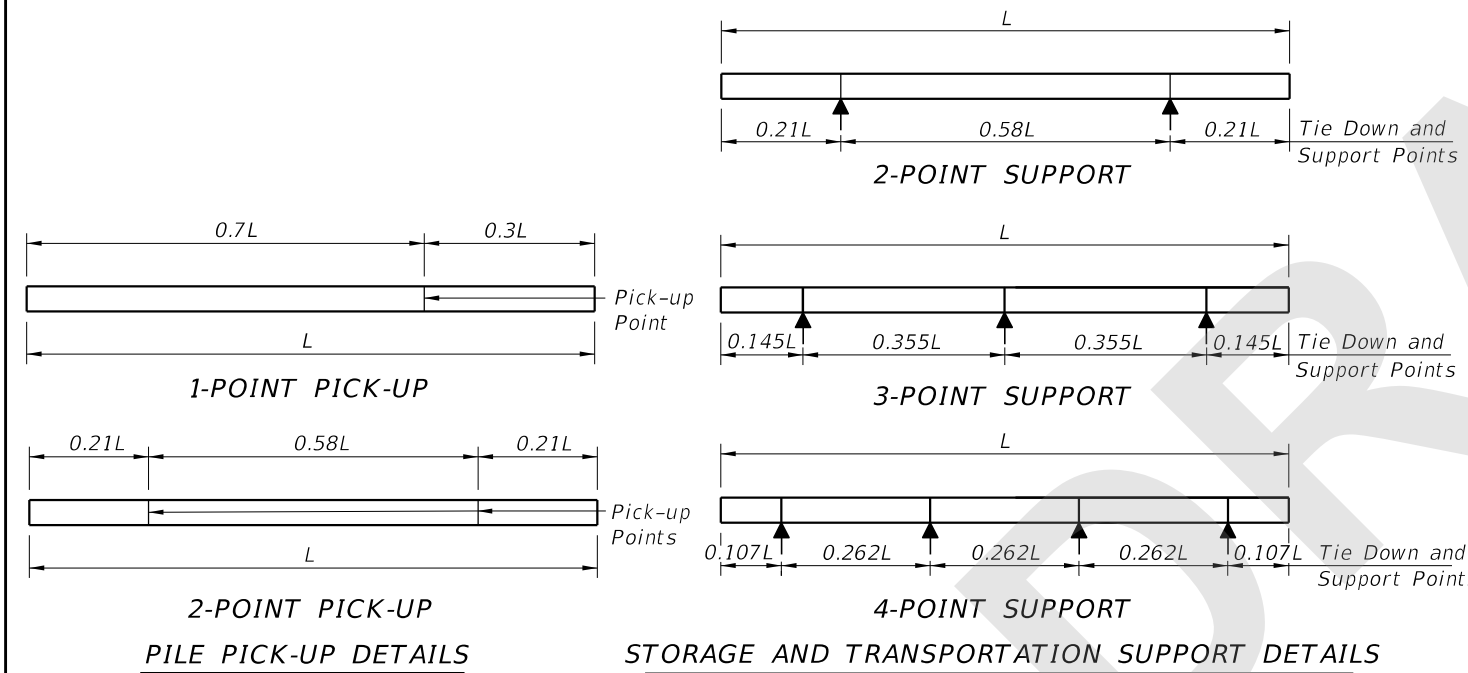
Highly Reactive Pozzolans

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ELEVATION



NOTES

- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
  - Piles: Class V (Special).
  - Splice: Class IV.
  - See "GENERAL NOTES" in Structures Plans for locations where the use of Highly Reactive Pozzolans is required.
- Concrete Strength at time of prestress transfer:
  - Piles: 6,000 psi minimum.
- Carbon-Steel Reinforcing:
  - Bars: Meet the requirements of Specification Section 415.
  - Prestressing Strands: Meet the requirements of Specification Section 933.
  - Tendons: Two seven-wire 1/2" dia. (Special) Grade 270, low-relaxation strands tensioned to 33.8 kips.
  - Protect all carbon-steel strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
  - Spiral Ties:
    - One half turn is required for carbon-steel spiral splice.
    - One full turn is required at the pile head and tip.
- Pile Splices:
  - Epoxy: Type AB Epoxy Compound or Mortar must meet the requirements of Specification Section 926.
    - Use a Type AB Epoxy Bonding Compound or Epoxy Mortar, as recommended by the Manufacturer, to form the joint between pile sections
    - Use a Type AB Epoxy Bonding Compound as a bonding agent on internal pile surfaces.
  - Driving: Resume pile driving after splice concrete reaches a minimum strength of 5,500 psi.
- 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

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

SDATES