GENERAL NOTES:

1. Work these Index drawings with the Strain Pole Schedule in the Plans.
2. Shop Drawings: This Design Standard is considered fully detailed and no shop drawings are necessary.
3. Submit shop drawings for minor modifications not detailed in the plans.
4. Materials:
   A. Concrete: Class V Special or Class VI
   B. Prestress Strands & Spiral Reinforcing: Specification Section 641
   C. Hand and coupler cover plates: Non-corrosive material
   D. Screws: Round headed, chrome plated
5. Fabrication:
   A. Pole Taper for pole length, strands, reinforcing and void: 0.081 in/ft per face.
   B. Concrete Super-T minimum
   C. Spiral Reinforcing: As shown, plus one turn for splices and two turns at both the tip and butt ends of the pole.
   D. The design dimensions for Front Face (FF) and Back Face (BF) of the poles may vary transversely from the section shown by ±¼" to assist with removal from forms. Balance addition and subtraction of the face widths to maintain section areas shown.
   E. Tie ground wires to the interior of reinforcing steel to prevent displacement during concreting operations.
   F. Cut the tip end of the prestressed strand first or simultaneously with the butt end.
   G. Provide cover plates and screws for hand hole and couplers. Attach cover plates to the poles using lead anchors or embedded threaded inserts.
   H. Provide aluminum identification tags on the poles with the following information:
      a. Financial Project ID
      b. Pole Manufacturer
      c. Standard Pole Type Number
      d. Pole Length (L)
7. Pick-up and support locations shown may vary within a tolerance of ±3".
8. Two point attachment: provide an eye bolt hole for the messenger wire.
9. Tether Wire: When required, field-drill the eyebolt hole prior to installation.

Concretes:

- Class V Special or Class VI
- Prestress Strands & Spiral Reinforcing: Specification Section 641
- Hand and coupler cover plates: Non-corrosive material
- Screws: Round headed, chrome plated
SERVICE POLE P-IIB (12 Ft.) & P-IIB (36 Ft.) ELEVATION
(Strands Not Shown)

PEDESTAL POLE P-IIC (12 Ft.) ELEVATION
(Horizontal Pole)

NOTES:

Strands shown are continuous from Tip End to Butt End.

Elevation view scale is exaggerated vertically for clarity.

For final erection, tilt pole upright with single point attachment located a
distance of 4 Ft. (for P-IIB & P-IIC) or 10 Ft. (for P-IIB) from the Tip End.

* Dimension may vary from 2¼" to 3½" to accommodate smaller radius of
optional stepped (PVC) void. The void diameter shall not be less than 2".
SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)

POLE ELEVATION
(Strands and Reinforcing Not Shown)
(See Design Standard Index 17900 and Specification 744 for Modifications to Type P-III Poles Used at Traffic Monitoring Sites)

NOTES:
Strands shown are continuous from Tip End to Butt End.
Elevation view scale is exaggerated vertically for clarity.
For final erection, tilt pole upright with single point attachment located a distance 33.3% L from Tip End.
* Dimension may vary from 2½" to 3¾" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 2½".

LIGHTING AND TRAFFIC MONITORING POLES TYPE P-III
**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)

**SPIRAL REINFORCING ELEVATION**  
(Strands, Holes, and Fixtures Not Shown)

**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)

**STRAND LEGEND**
- Prestressed Strand: 0.5 in. - 1.0 in. before transfer (9 strands total)
- Dormant Strand: 0.5 in. (9 strands total)
  One 24" Splice Allowed Per Strand

**NOTES:**
Strands shown are continuous from Tip End to Butt End.  
Elevation view scale is exaggerated vertically for clarity.
For final erection, tilt pole upright with single point attachment located a distance 20% L from the Tip End.
° Dimension may vary from 3" to 4½" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 4½".

**STRAIN POLE TYPE P-IV**

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[Diagram and text related to concrete pole specifications, strain pole type P-IV, with details on dimensions, reinforcement, and fixtures.]
SPiral REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)

POLE ELEVATION
(Strands and Reinforcing Not Shown)

STRAND LEGEND
- Prestressed Strand
- Dormant Strand
- Transfer Strand

NOTES:
- Strands shown are continuous from Tip End to Butt End.
- Elevation view scale is exaggerated vertically for clarity.
- For final erection, tilt pole upright with single point attachment located a distance 12.5% L from the Tip End.

* Dimension may vary from 3½" to 4½" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 4".

STRAIN POLE TYPE P-V

CONCRETE POLES

FY 2016-17
DESIGN STANDARDS

INDEX NO. 17725

SHEET NO. 5 of 8
SPRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)

POLE ELEVATION
(Strands and Reinforcing Not Shown)

NOTES:
- Strands shown are continuous from Tip End to Butt End.
- Elevation view scale is exaggerated vertically for clarity.
- For final erection, tilt pole upright with single point attachment located a distance 10% L from the Tip End.
- * Dimension may vary from 3½" to 5" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 8½".

STRAND LEGEND:
- Prestressed Strand
  0.5 in. (~31 kips Before Transfer (12 Strands Total)
- Dormant Strand
  0.5 in. (~8 Strands Total)
  24" Splice Allowed Per Strand