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. Submit shop drawings for minor modifications not detailed in the plans.
3. 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
4. Fabrication:
   - A. Pole Taper for pole width, strands, reinforcing and void: 0.081 in/ft per face.
   - B. Concrete Cover: 1" 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)
5. Support locations are for strand release, storage, lifting and transport. Keep BF oriented downward until final erection.
6. Pick-up and support locations shown may vary within a tolerance of ±3".
7. Two point attachment: provide an eye bolt hole for the messenger wire.
8. Tether Wire: When required, field-drill the eyebolt hole prior to installation

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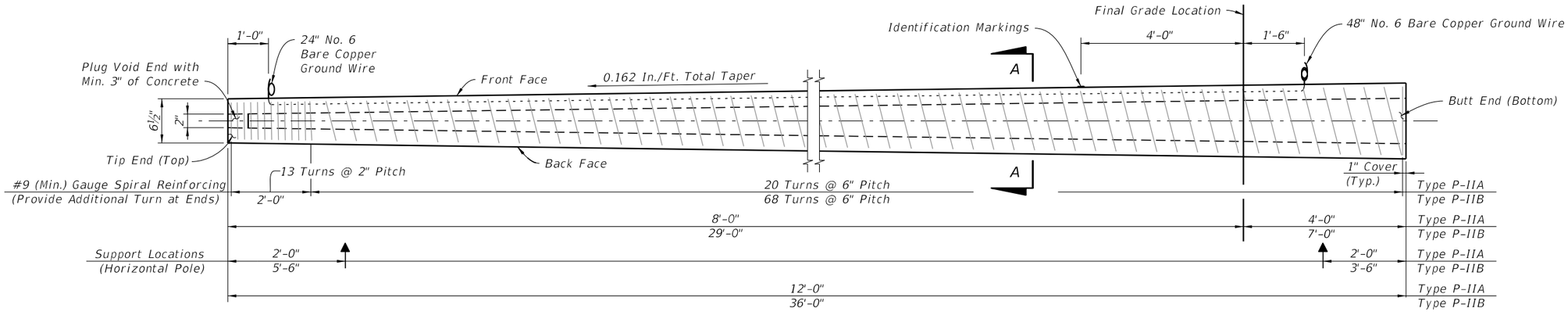
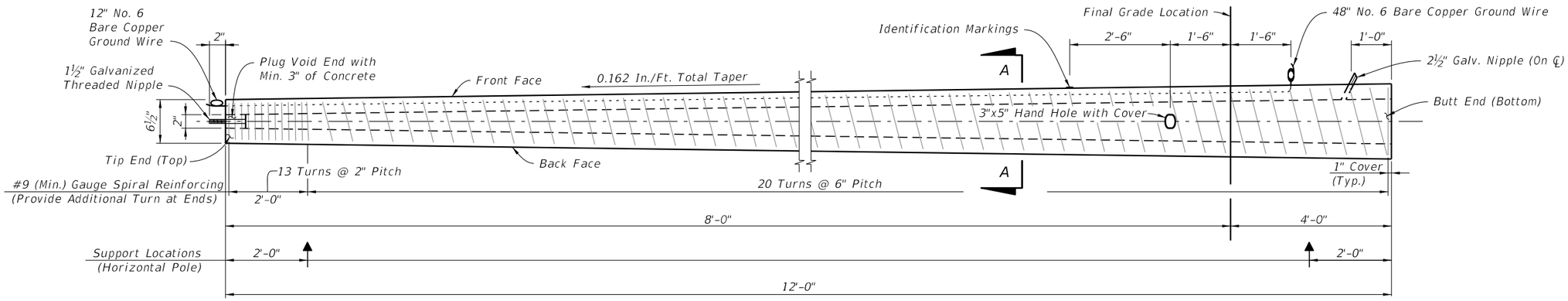
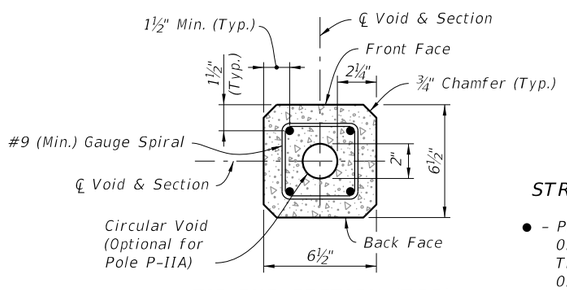
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	INDEX NO.	SHEET NO.
07/01/15					17725	1 of 8



SERVICE POLE P-IIA (12 Ft.) & P-IIB (36 Ft.) ELEVATION
(Strands Not Shown)



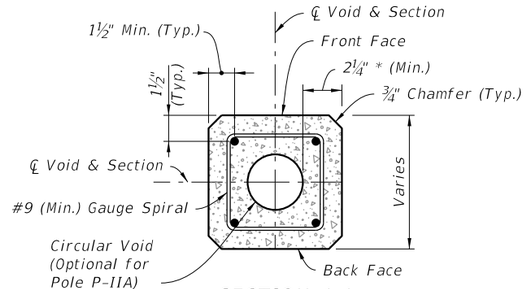
PEDESTAL POLE P-IIC (12 Ft.) ELEVATION
(Strands Not Shown)



TIP END SECTION (TOP)

STRAND LEGEND

- – *Prestressed Strand:*
  0.5 in. ~ 24 kips Before Transfer or
  0.375 in. ~ 14 kips Before Transfer
  (4 strands total)



SECTION A-A
(Typical Square Section)

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-IIA & 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".*

SERVICE AND PEDESTAL POLE TYPE P-II

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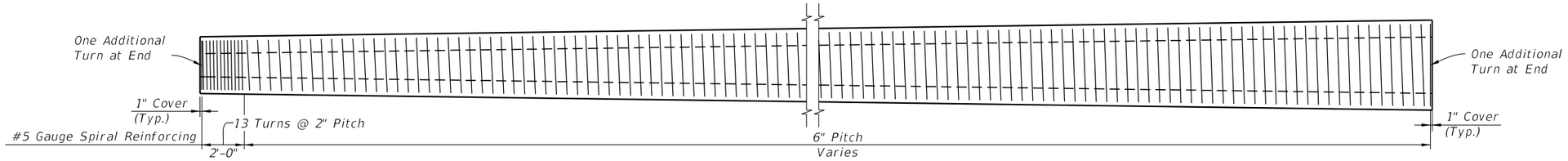
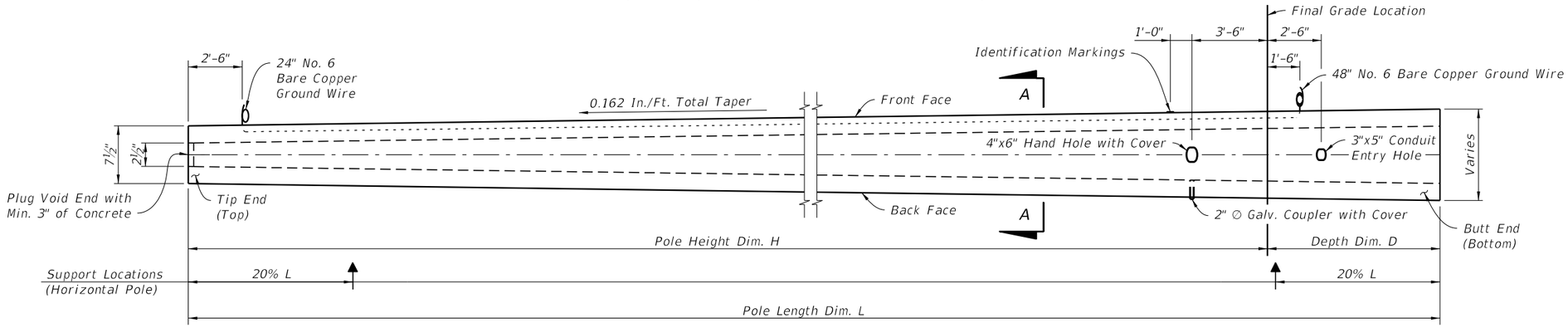
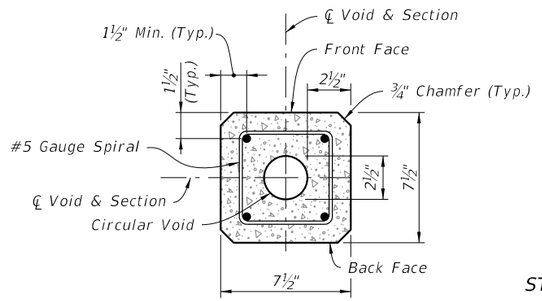
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	INDEX NO.	SHEET NO.
11/01/16					17725	2 of 8



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



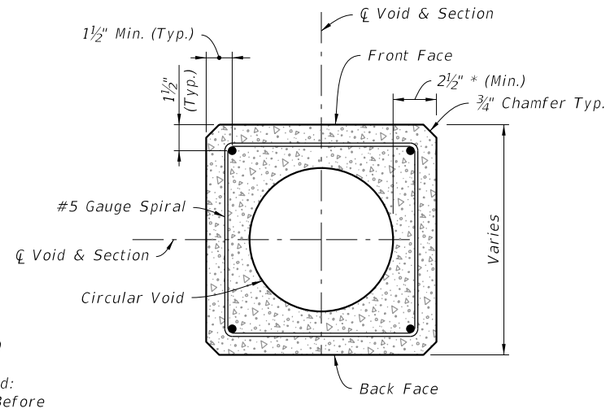
POLE ELEVATION
(Strands and Reinforcing Not Shown)



TIP END SECTION (TOP)

STRAND LEGEND

● - Prestressed Strand:
0.5 in. ~ 31 kips Before
Transfer (4 strands total)



SECTION A-A
(Typical Square Section)

NOTES:

Strands shown are continuous from Tip End to Butt End.

Elevation view scale is exaggerated vertically for clarity.

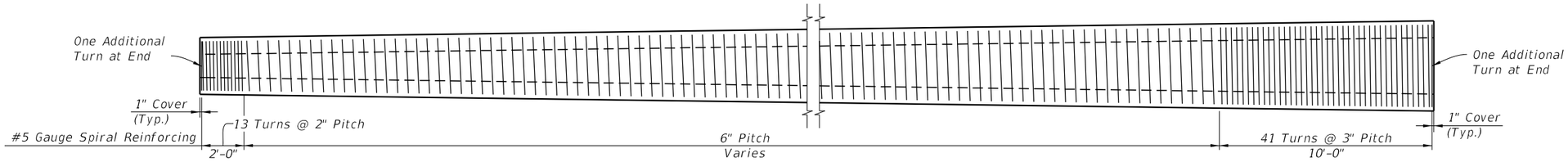
For final erection, tilt pole upright with single point attachment located a distance 33.3% L from Tip End.

* 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".

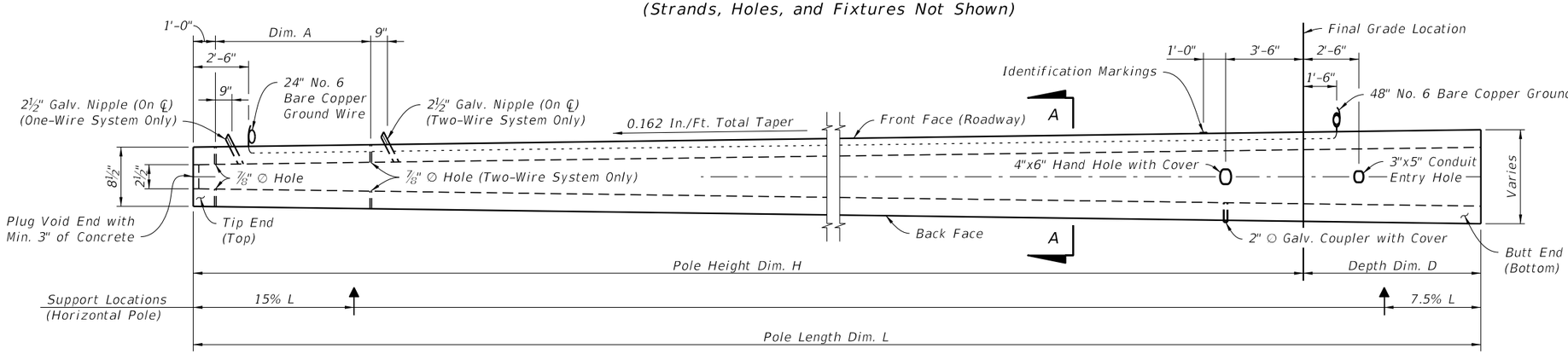
POLE TYPE P-III

10/14/2016 11:48:28 AM

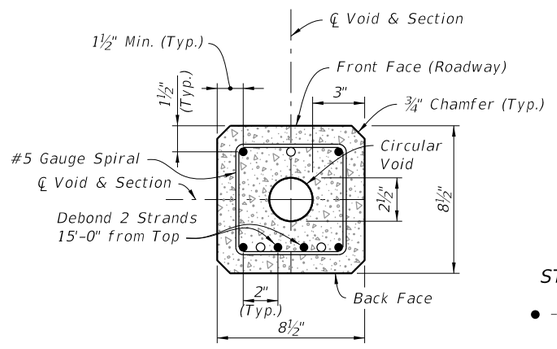
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	17725	3 of 8



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



POLE ELEVATION
(Strands and Reinforcing Not Shown)

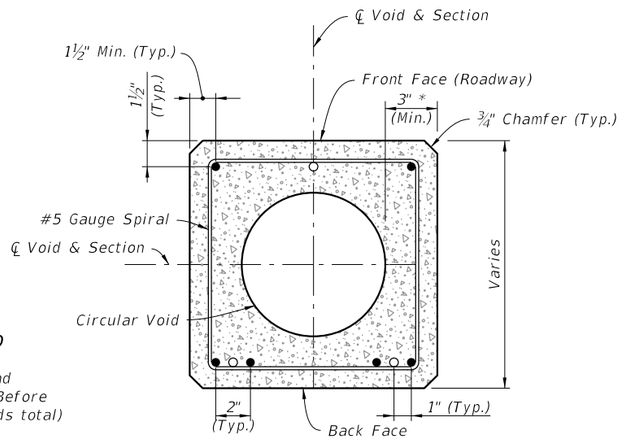


TIP END SECTION (TOP)
(For Dormant Strand Locations See Section A-A)

STRAND LEGEND

● – *Prestressed Strand 0.5 in. ~ 31 kips Before Transfer (6 strands total)*

○ – *Dormant Strand 0.5 in. (3 strands total) One 24" Splice Allowed Per Strand*



SECTION A-A
(Typical Square Section)

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 4¼" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 2½".*

STRAIN POLE TYPE P-IV

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	17725	4 of 8

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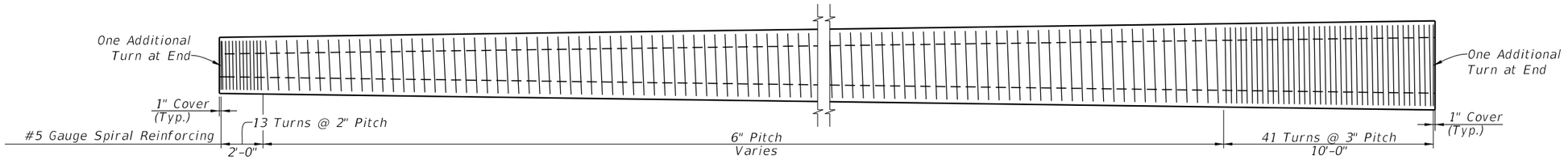
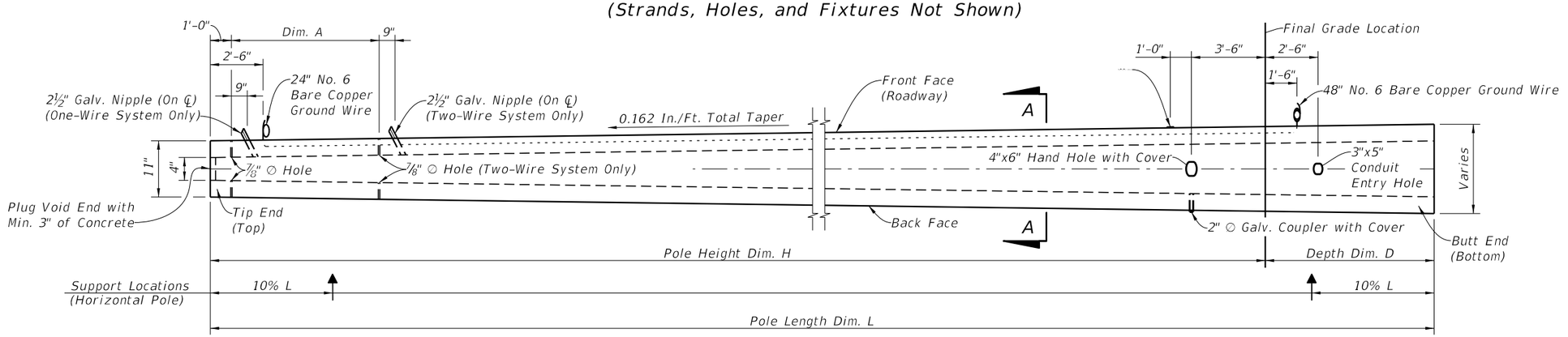
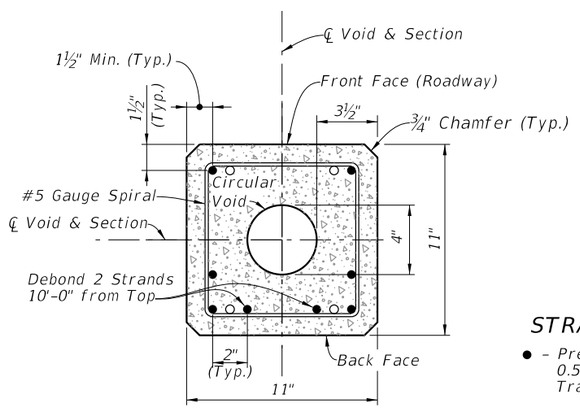


SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)

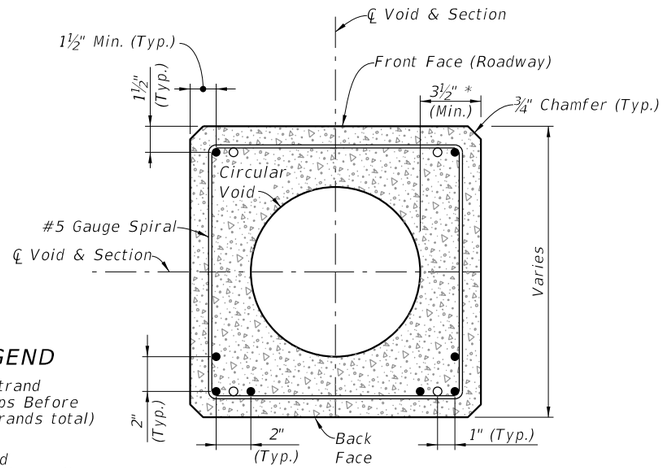


TIP END SECTION (TOP)
(For Dormant Strand Locations, See Section A-A)

STRAND LEGEND

● – Prestressed Strand 0.5 in. ~ 31 kips Before Transfer (8 strands total)

○ – Dormant Strand 0.5 in. (4 strands total) One 24" Splice Allowed Per Strand



SECTION A-A
(Typical Square Section)

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 4¾" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 4".

STRAIN POLE TYPE P-V

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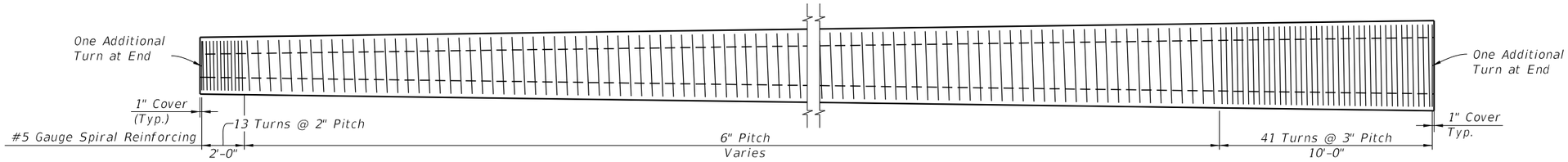
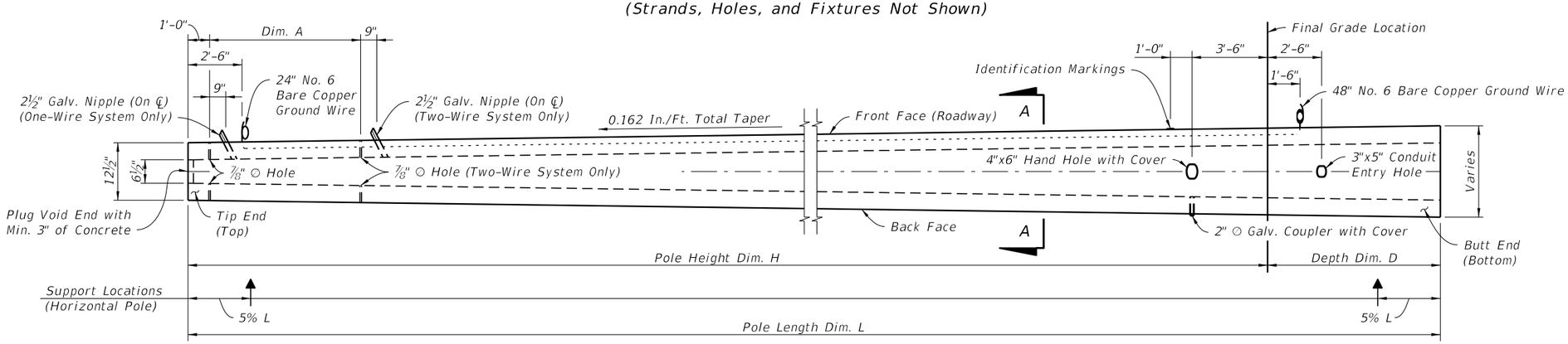
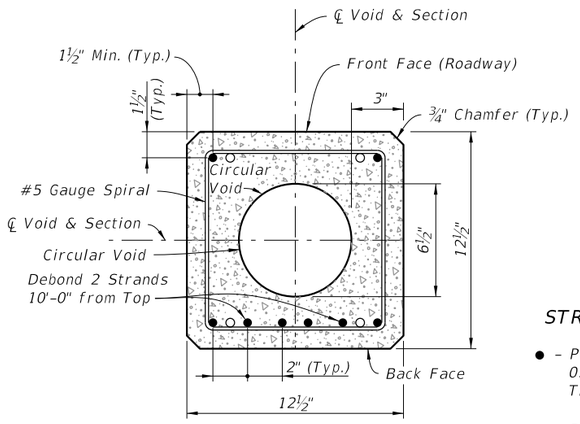
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	17725	5 of 8



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



POLE ELEVATION
(Strands and Reinforcing Not Shown)

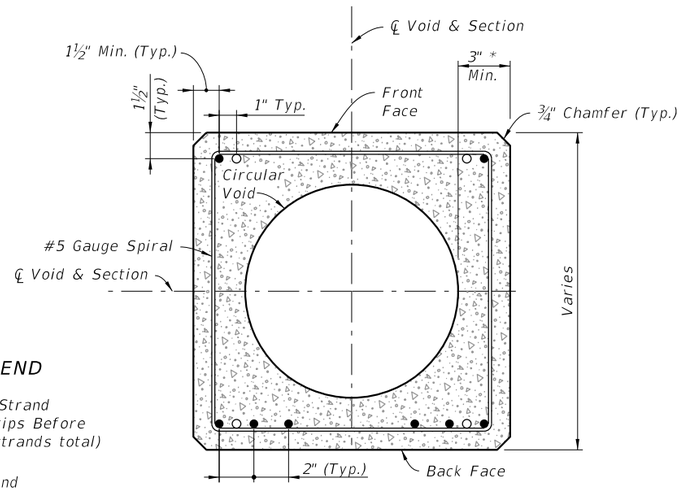


TIP END SECTION (TOP)
(For Dormant Strand Locations, See Section A-A)

STRAND LEGEND

● – Prestressed Strand 0.5 in. ~ 31 kips Before Transfer (8 strands total)

○ – Dormant Strand 0.5 in. (4 strands total) One 24" Splice Allowed Per Strand



SECTION A-A
(Typical Square Section)

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 Tip End.

* Dimension may vary from 3" to 4¼" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6½".

STRAIN POLE TYPE P-VI

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	INDEX NO.	SHEET NO.
11/01/16					17725	6 of 8

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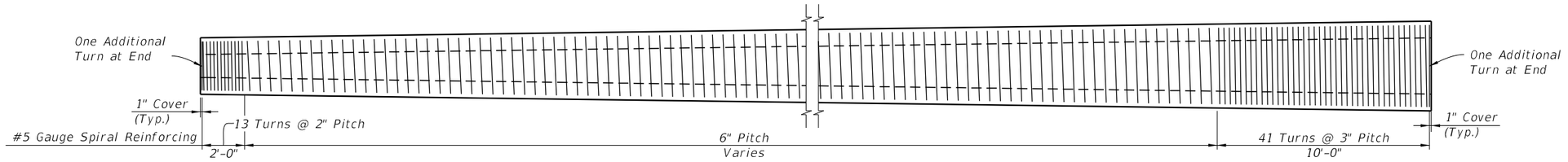
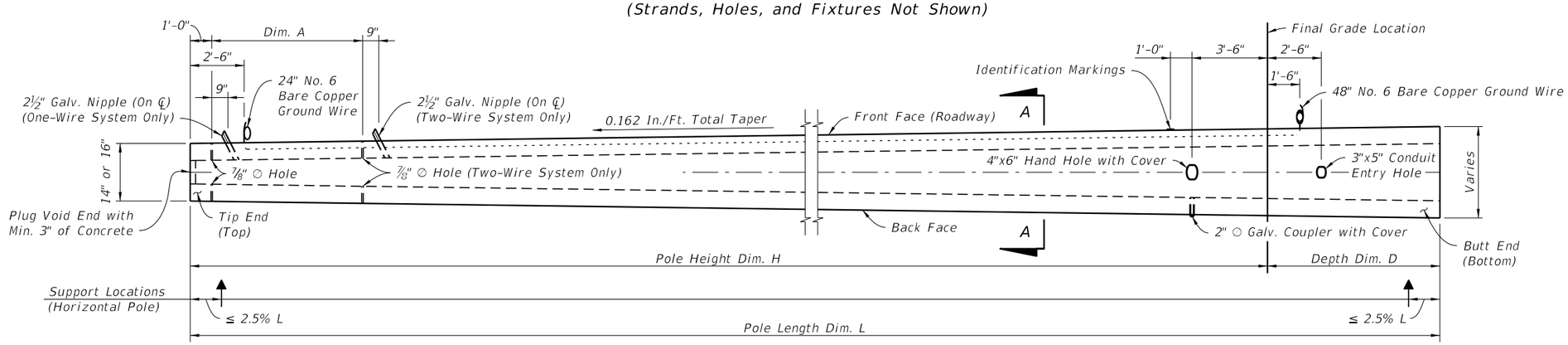
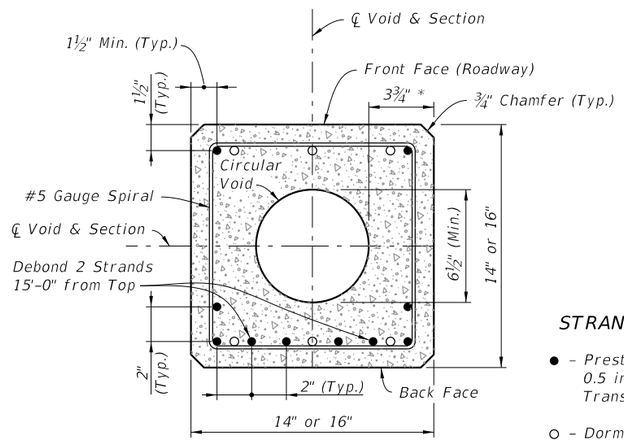


SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)

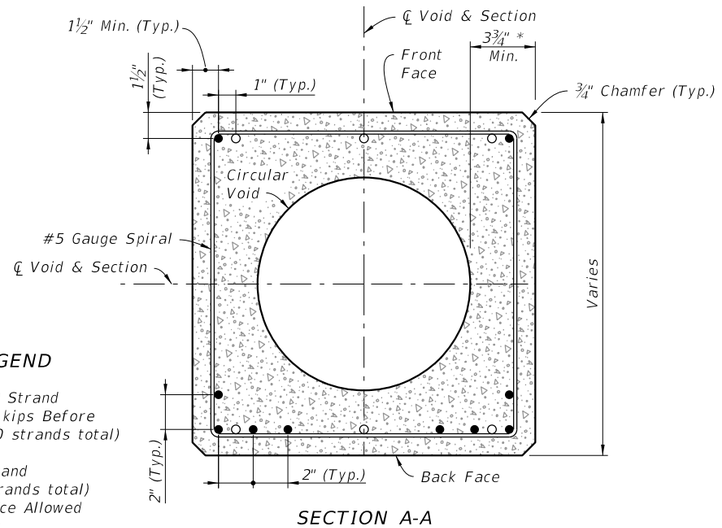


TIP END SECTION (TOP)
(For Dormant Strand Locations, See Section A-A)

STRAND LEGEND

● – Prestressed Strand
0.5 in. ~ 31 kips Before Transfer (10 strands total)

○ – Dormant Strand
0.5 in. (6 strands total)
One 24" Splice Allowed Per Strands



SECTION A-A
(Typical Square Section)

NOTES:

Strands shown are continuous from Tip End to Butt End.

Elevation view scale is exaggerated vertically for clarity.

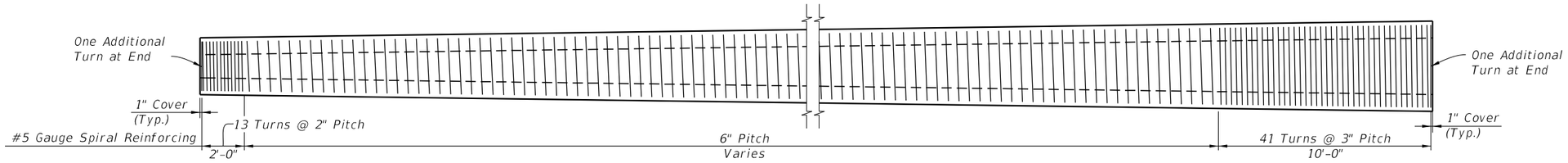
For final erection, tilt pole upright with single point attachment located a distance 10% L from the Tip End.

* Dimension may vary from 3¾" to 5" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6½".

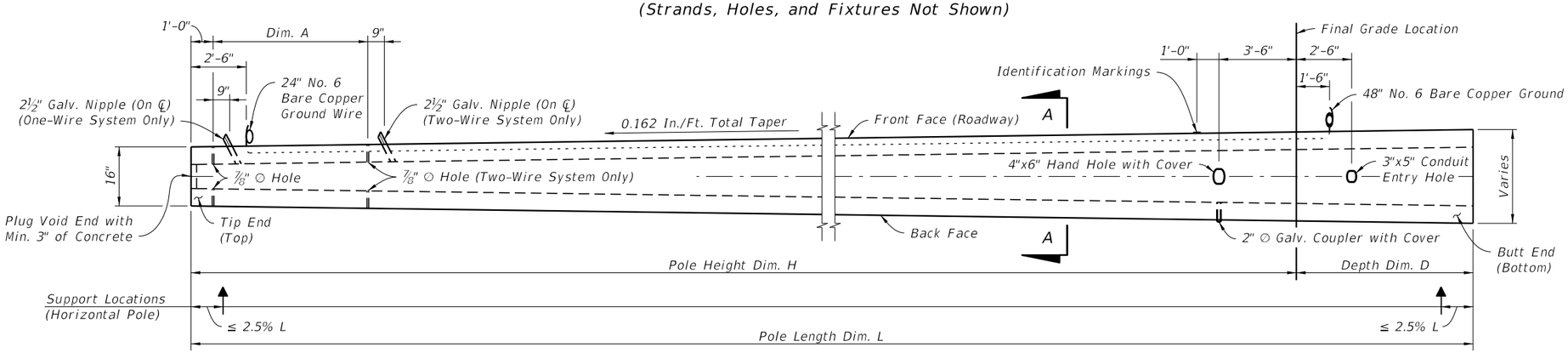
STRAIN POLE TYPE P-VII

10/14/2016 11:48:38 AM

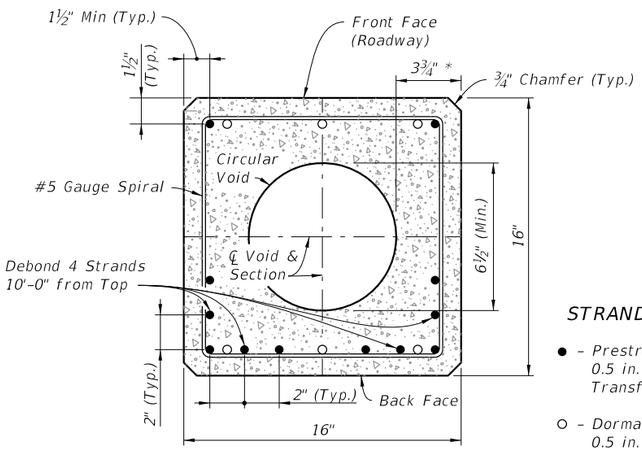
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	INDEX NO.	SHEET NO.
11/01/16					17725	7 of 8



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



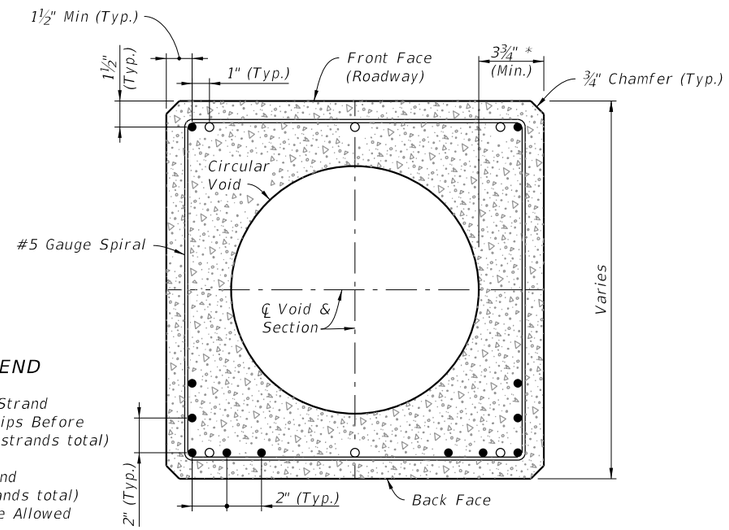
POLE ELEVATION
(Strands and Reinforcing Not Shown)



TIP END SECTION (TOP)
(For Dormant Strand Locations, See Section A-A)

STRAND LEGEND

- ● – *Prestressed Strand 0.5 in. ~ 31 kips Before Transfer (12 strands total)*
- ○ – *Dormant Strand 0.5 in. (6 strands total) One 24" Splice Allowed Per Strand*



SECTION A-A
(Typical Square Section)

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 3¾" to 5" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6½".*

STRAIN POLE TYPE P-VIII

10/14/2016 11:48:41 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	CONCRETE POLES	17725	8 of 8