
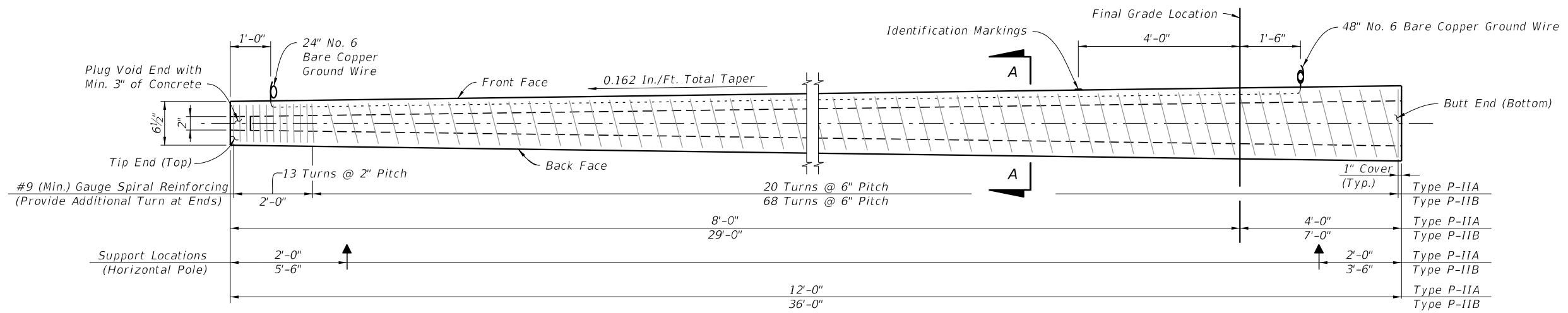


**GENERAL NOTES:**

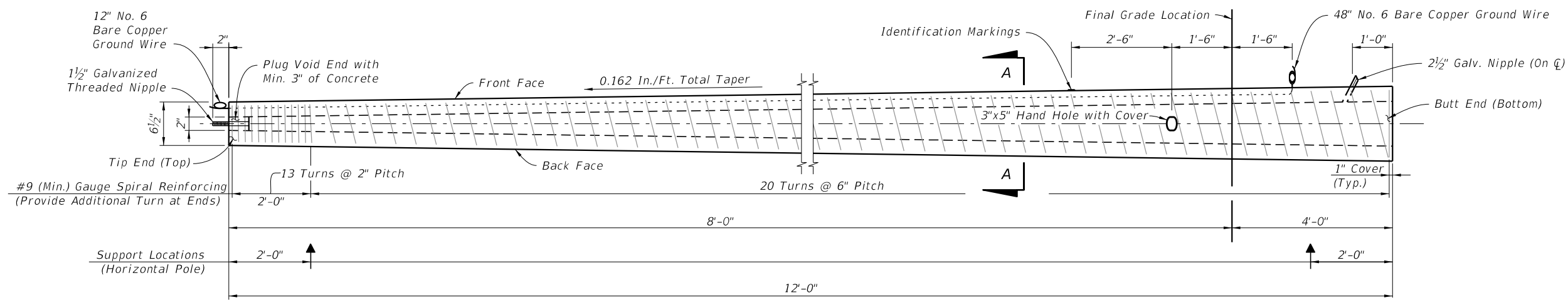
1. Work these Index drawings with the Strain Pole Schedule in the Plans.
2. Shop Drawings: This Index is considered fully detailed and no shop drawings are necessary. Submit shop drawings for minor modifications not detailed in the plans.
3. Materials:
  - A. Concrete: Class V Special or Class VI
  - 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  $\pm \frac{1}{4}$ " 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  $\pm 3$ ".
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

10/16/2017 10:29:31 AM

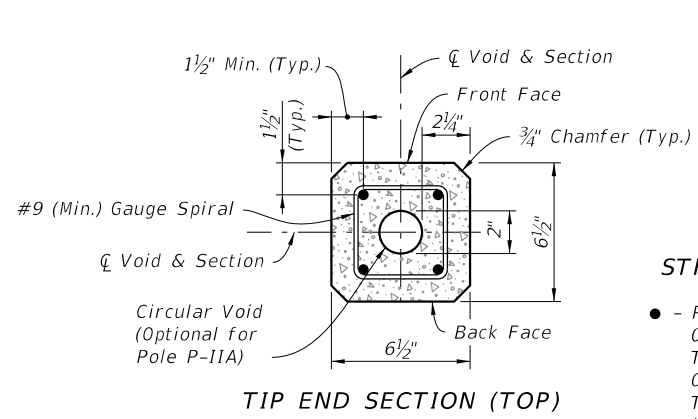
|                              |          |              |   |                       |                         |                        |
|------------------------------|----------|--------------|---|-----------------------|-------------------------|------------------------|
| LAST<br>REVISION<br>11/01/17 | REVISION | DESCRIPTION: | <br><b>FY 2018-19</b><br><b>STANDARD PLANS</b> | <b>CONCRETE POLES</b> | INDEX<br><b>641-010</b> | SHEET<br><b>1 of 8</b> |
|------------------------------|----------|--------------|---|-----------------------|-------------------------|------------------------|



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

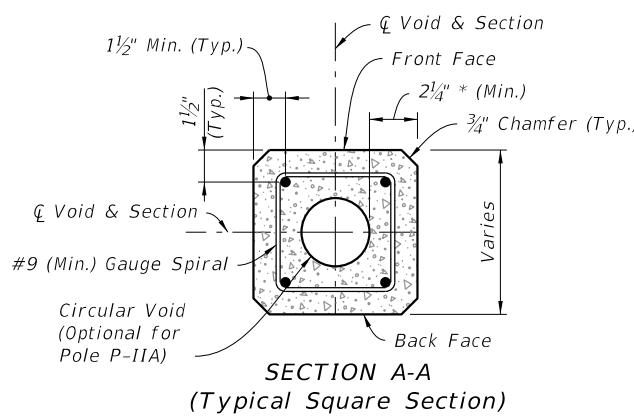


**PEDESTAL POLE P-IIC (12 Ft.) ELEVATION**  
(Strands Not Shown)



**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.

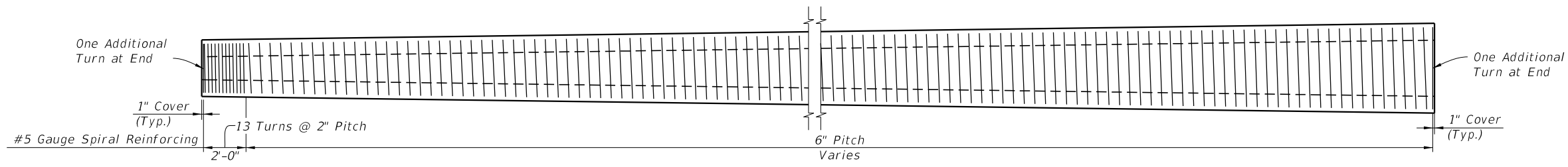
For final erection, tilt pole upright with single point attachment located a distance of 4 Ft. (for P-IIA & P-IIC) or 10 Ft. (for P-IIB) from the Tip End.

\* Dimension may vary from 2 1/4" to 3 1/2" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 2".

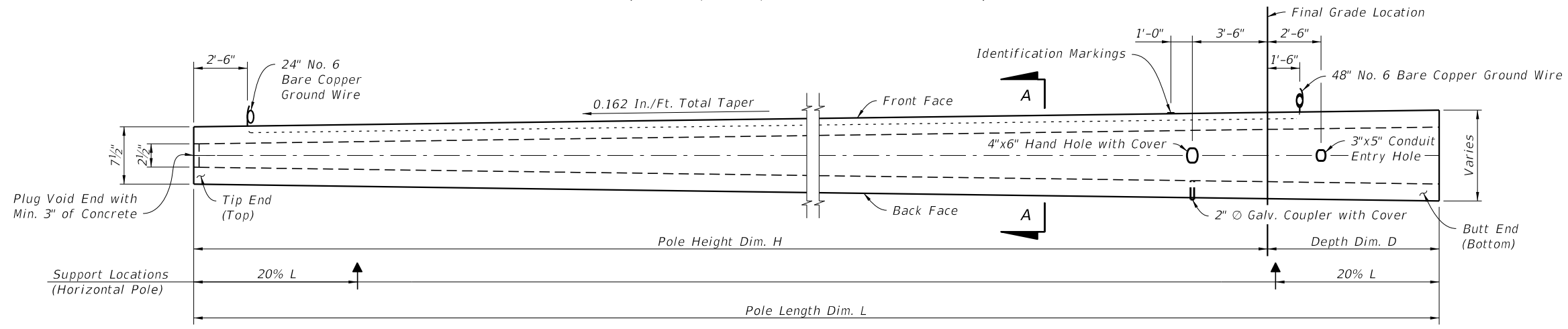
**SERVICE AND PEDESTAL POLE TYPE P-II**

10/16/2017 10:29:31 AM

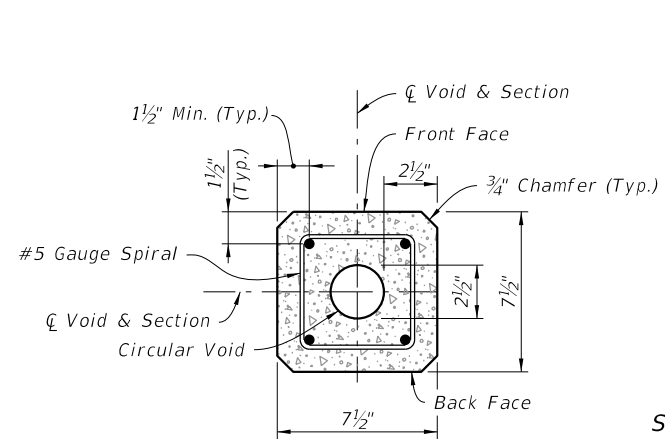
|                           |          |              |  |                                      |                       |                         |                        |
|---------------------------|----------|--------------|--|--------------------------------------|-----------------------|-------------------------|------------------------|
| LAST REVISION<br>11/01/17 | REVISION | DESCRIPTION: |  | <b>FY 2018-19<br/>STANDARD PLANS</b> | <b>CONCRETE POLES</b> | INDEX<br><b>641-010</b> | SHEET<br><b>2 of 8</b> |
|---------------------------|----------|--------------|--|--------------------------------------|-----------------------|-------------------------|------------------------|



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

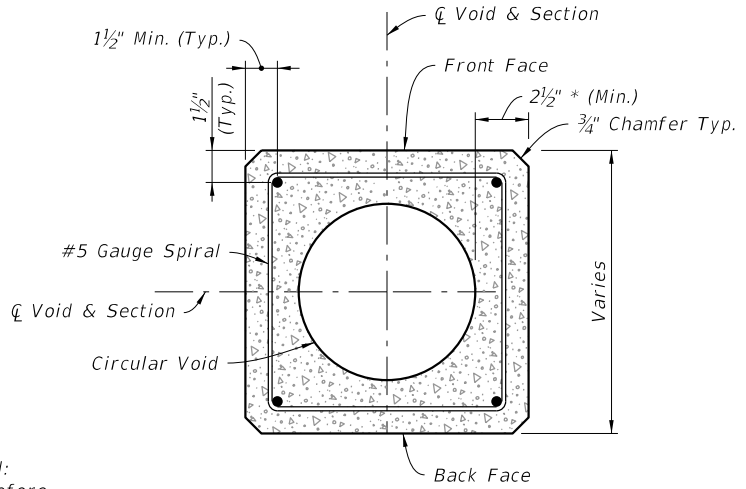


**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)



**TIP END SECTION (TOP)**

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



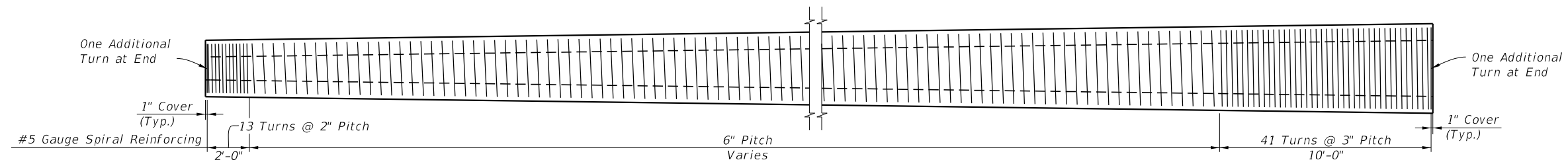
**SECTION A-A**  
(Typical Square Section)

**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 2 1/2" to 3 3/4" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 2 1/2".

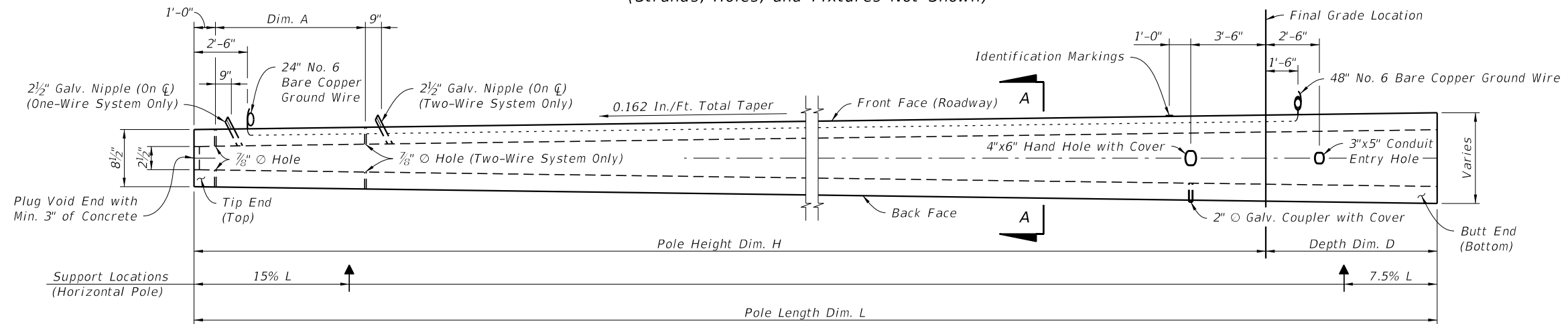
10/16/2017 10:29:32 AM

**POLE TYPE P-III**

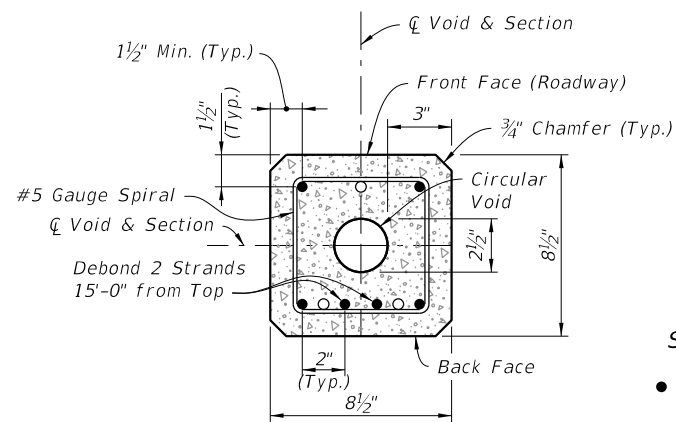
|                           |          |              |  |                              |                |                  |                 |
|---------------------------|----------|--------------|--|------------------------------|----------------|------------------|-----------------|
| LAST REVISION<br>11/01/17 | REVISION | DESCRIPTION: |  | FY 2018-19<br>STANDARD PLANS | CONCRETE POLES | INDEX<br>641-010 | SHEET<br>3 of 8 |
|---------------------------|----------|--------------|--|------------------------------|----------------|------------------|-----------------|



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



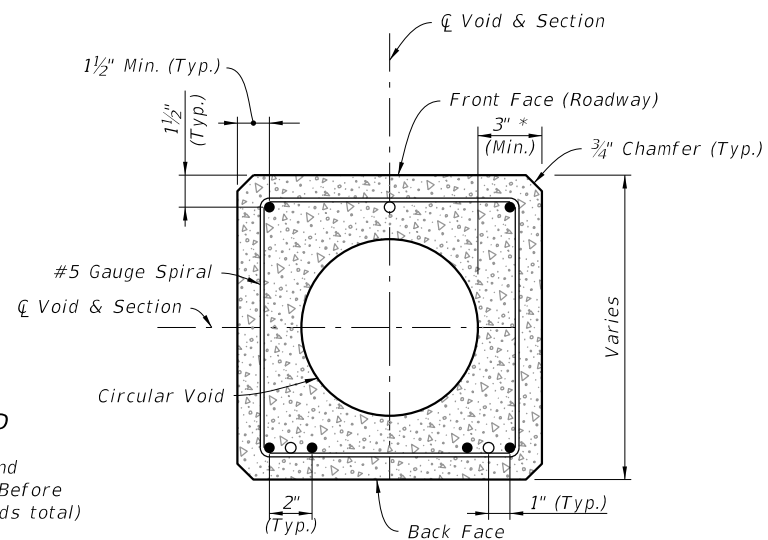
**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)



**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 4 1/4" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 2 1/2".

10/16/2017 10:29:32 AM

|                           |          |              |
|---------------------------|----------|--------------|
| LAST REVISION<br>11/01/17 | REVISION | DESCRIPTION: |
|---------------------------|----------|--------------|



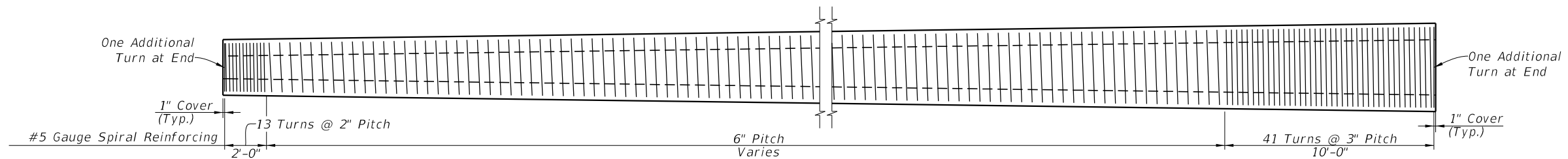
FY 2018-19  
STANDARD PLANS

CONCRETE POLES

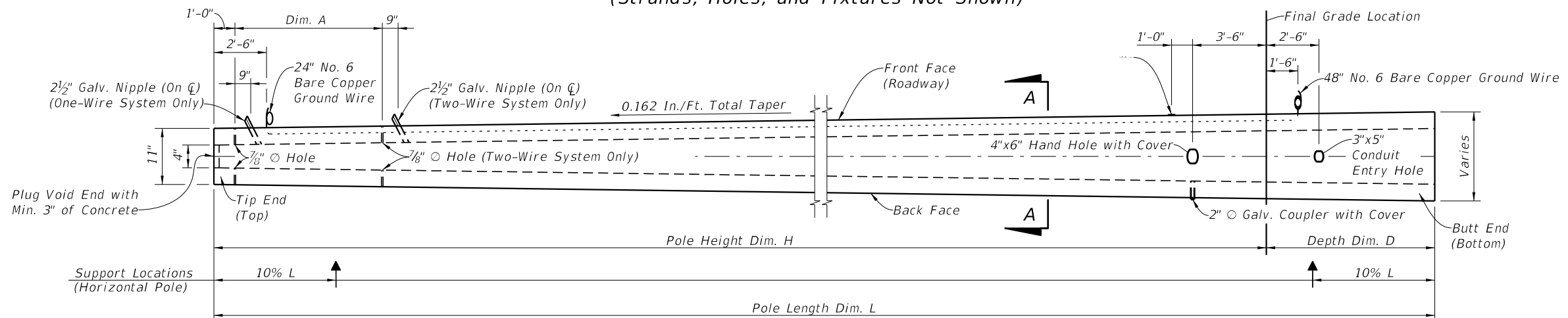
INDEX  
641-010

SHEET  
4 of 8

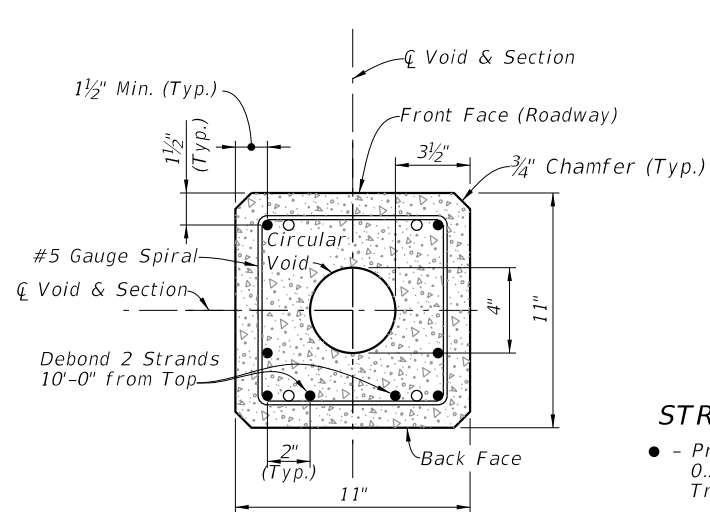
**STRAIN POLE TYPE P-IV**



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



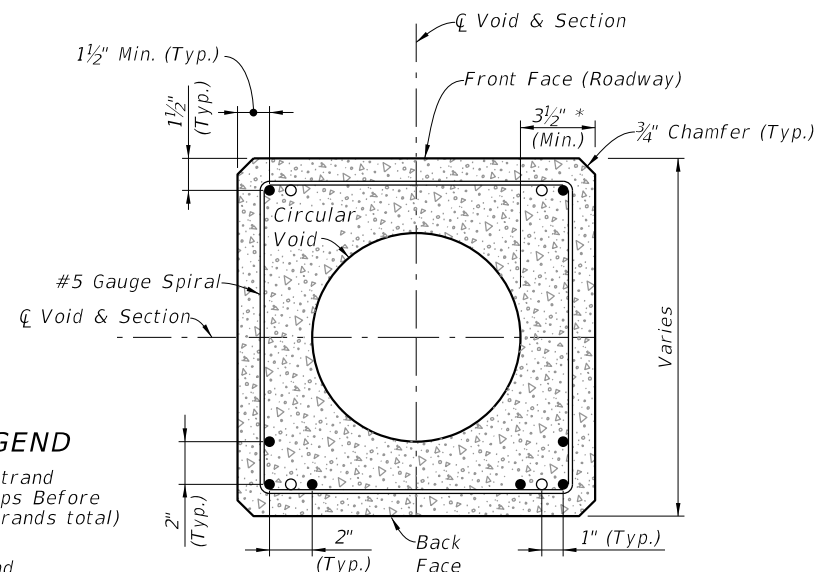
**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)



**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 3 1/2" to 4 3/4" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 4".

10/16/2017 10:29:33 AM

|                           |          |              |
|---------------------------|----------|--------------|
| LAST REVISION<br>11/01/17 | REVISION | DESCRIPTION: |
|---------------------------|----------|--------------|



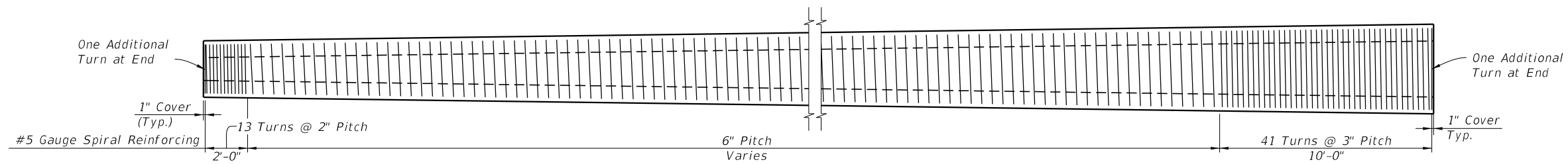
FY 2018-19  
STANDARD PLANS

CONCRETE POLES

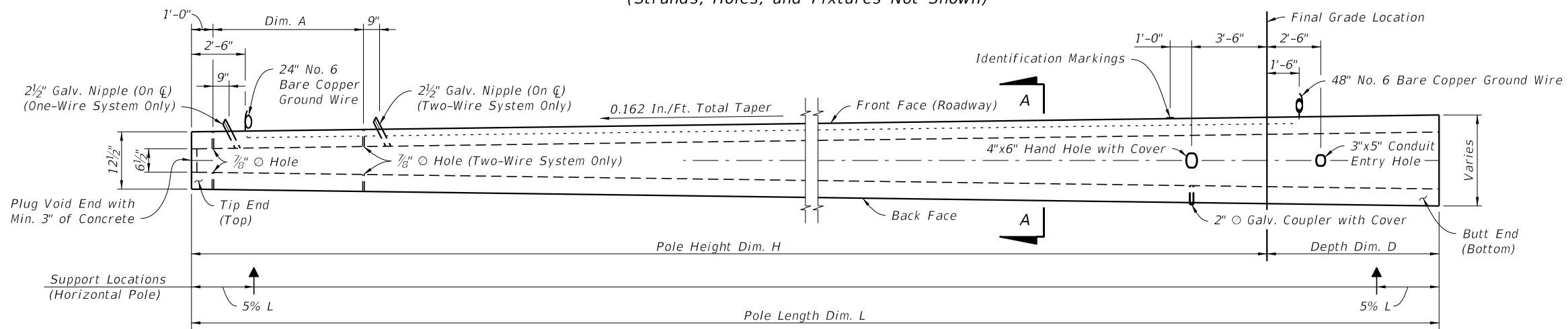
INDEX  
641-010

SHEET  
5 of 8

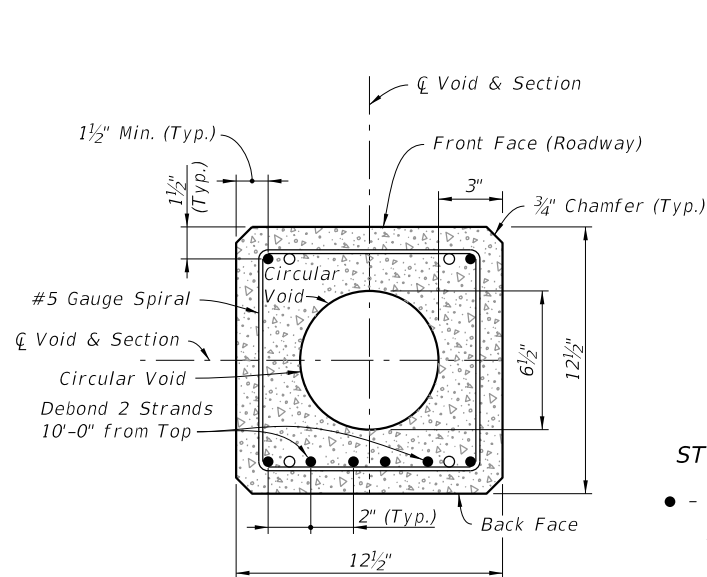
**STRAIN POLE TYPE P-V**



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



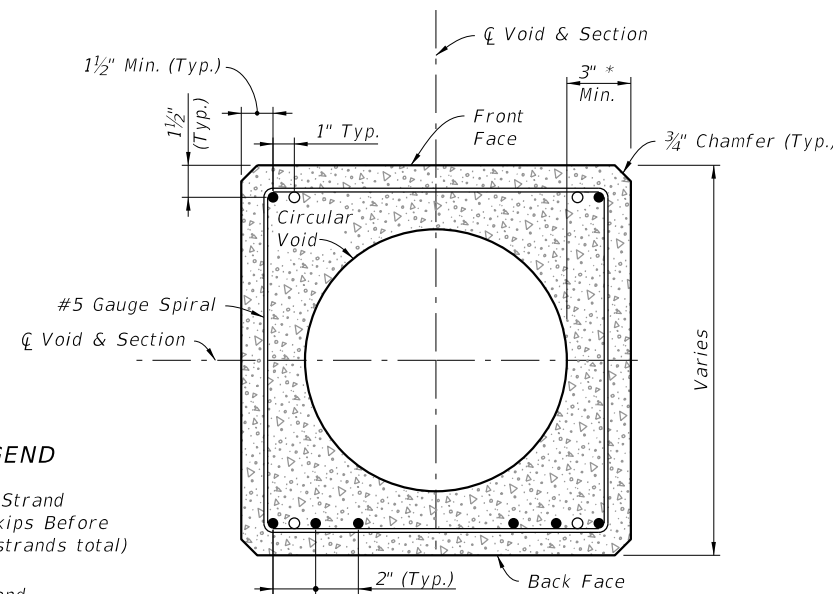
**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)



**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 4 1/4" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6 1/2".

10/16/2017 10:29:34 AM

**STRAIN POLE TYPE P-VI**

|                           |              |
|---------------------------|--------------|
| LAST REVISION<br>11/01/17 | DESCRIPTION: |
|---------------------------|--------------|

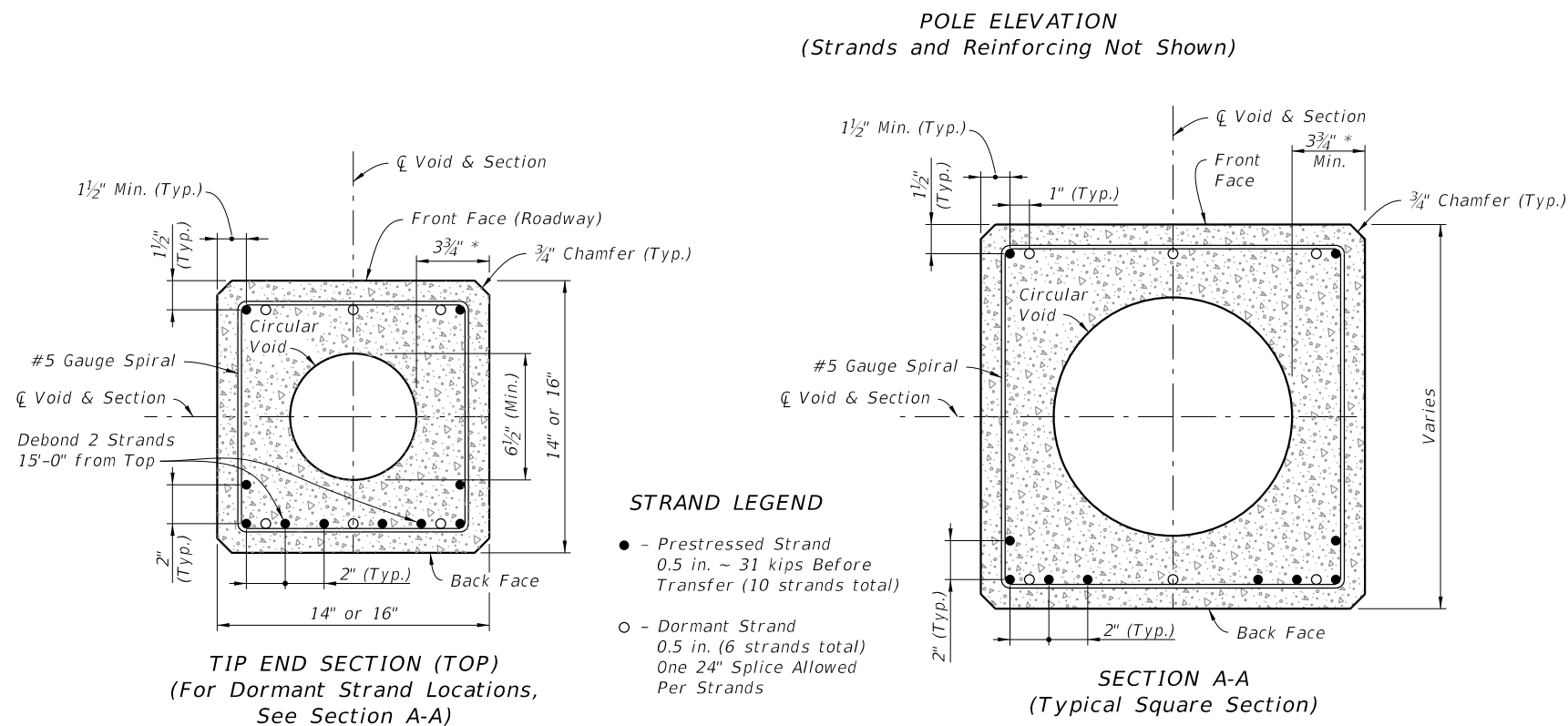
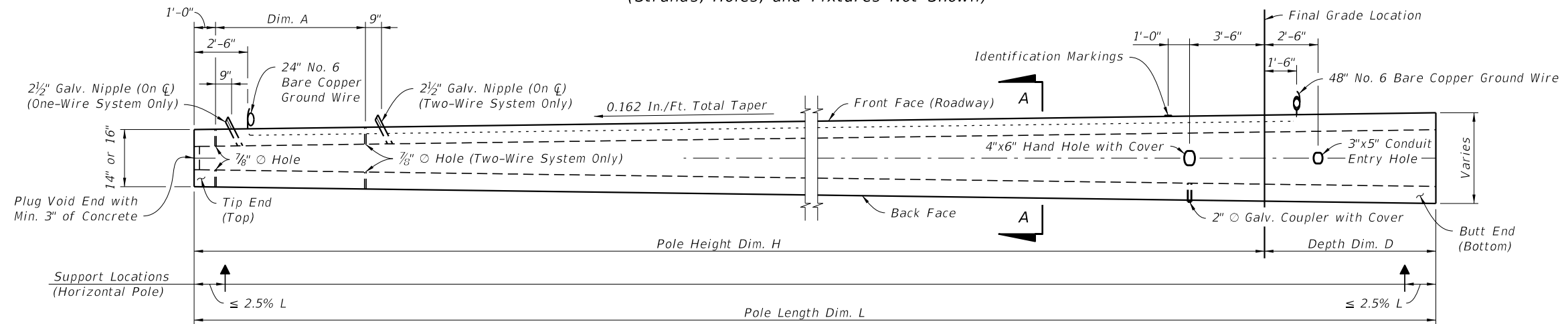
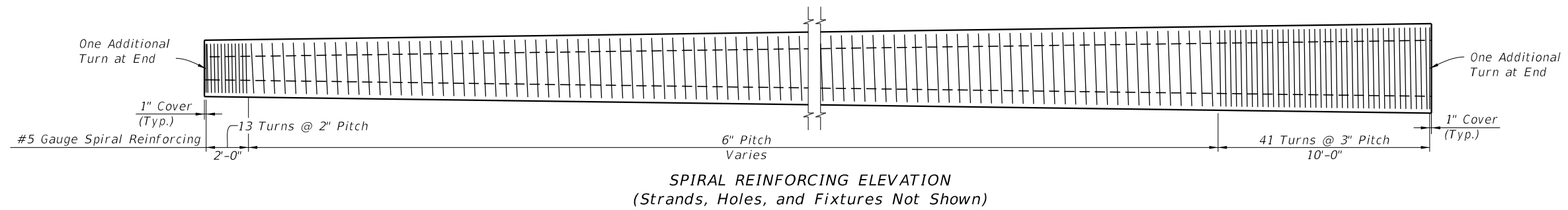


**FY 2018-19  
STANDARD PLANS**

**CONCRETE POLES**

INDEX  
**641-010**

SHEET  
**6 of 8**

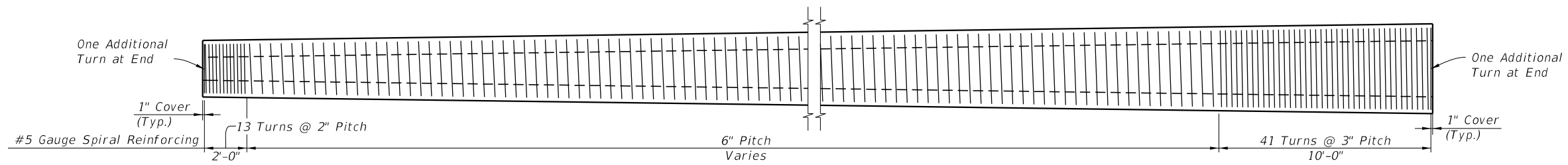


**NOTES:**

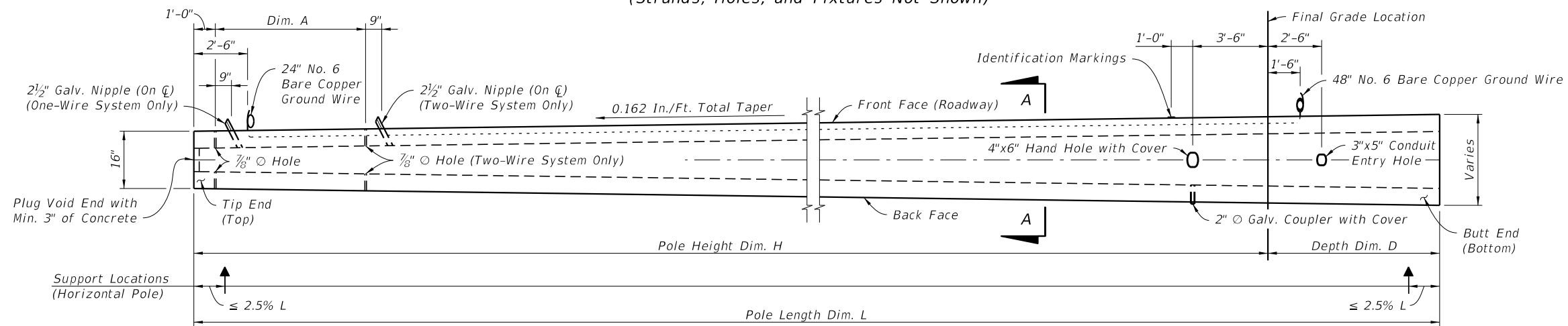
- Strands shown are continuous from Tip End to Butt End.
- Elevation view scale is exaggerated vertically for clarity.
- For final erection, tilt pole upright with single point attachment located a distance 10% L from the Tip End.
- \* Dimension may vary from 3 3/4" to 5" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6 1/2".

10/16/2017 10:29:34 AM

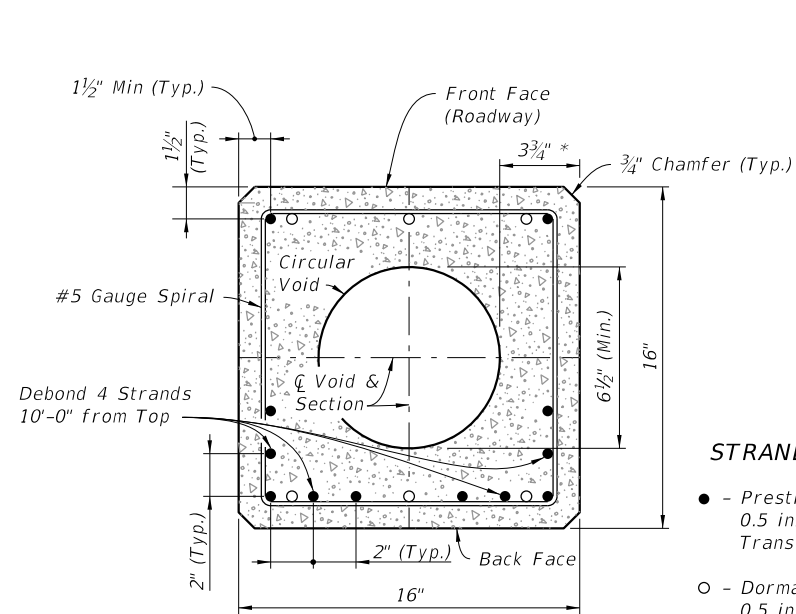
|                           |              |  |                       |                         |                        |
|---------------------------|--------------|--|-----------------------|-------------------------|------------------------|
| LAST REVISION<br>11/01/17 | DESCRIPTION: | <br><b>FY 2018-19<br/>STANDARD PLANS</b> | <b>CONCRETE POLES</b> | INDEX<br><b>641-010</b> | SHEET<br><b>7 of 8</b> |
|---------------------------|--------------|--|-----------------------|-------------------------|------------------------|



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



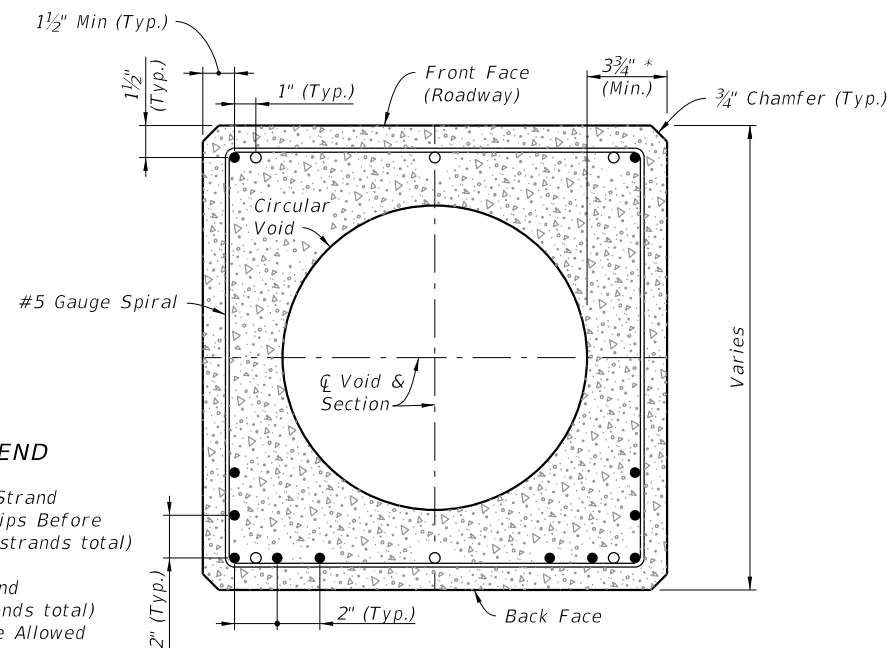
**POLE ELEVATION**  
(Strands and Reinforcing Not Shown)



**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 3 3/4" to 5" to accommodate smaller radius of optional stepped (PVC) void. The void diameter shall not be less than 6 1/2".

10/16/2017 10:29:35 AM

|                           |          |              |
|---------------------------|----------|--------------|
| LAST REVISION<br>11/01/17 | REVISION | DESCRIPTION: |
|---------------------------|----------|--------------|

**FY 2018-19  
STANDARD PLANS**

CONCRETE POLES

|                  |                 |
|------------------|-----------------|
| INDEX<br>641-010 | SHEET<br>8 of 8 |
|------------------|-----------------|

STRAIN POLE TYPE P-VIII