LOWERING DEVICE INSTALLATION NOTES:

1. Place the lowering cable that moves within the pole in an interior conduit to prevent it from tangling or interfering with any electrical wire that is in the pole. Ensure that any electrical wire within the pole is routed securely and free from slack.

2. Mount lowering arm perpendicular to the roadway or as shown in the plans. Position CCTV pole so that the camera can be safely lowered without requiring lane closures.

3. Coordinate all lowering device hardware requirements (including Tenon, Tenon mounting plates, parking stand, etc.) with lowering device manufacturer.

POLE NOTES:

1. Pole Material Specifications:
   a. Pole: Use Class VI Concrete with 6 ksi minimum strength at transfer.
   c. Reinforcing Steel: ASTM A615 Grade 60.
   d. Spiral Reinforcing: ASTM A82 Cold-Drawn.
   e. Bolts: ASTM F2329, Grade 5.
   f. Steel plates and Pole Cap: ASTM A26 or ASTM A709 Grade 50.
   g. Galvanization: Bolts, nuts and washers; ASTM F2329
      All other steel: ASTM A325
   h. All other steel: ASTM A36 or ASTM A709 Grade 50.

2. The pole shall be round or 12-sided.

3. Flush cut prestressing strands and epoxy coat tip and butt surfaces in accordance with Section 450-11.6 of the Standard Specifications. Cut the tip end of the prestressed strand first or simultaneously with the butt end.

4. For spiral reinforcing, one turn is required for spiral splices and two turns are required at the top and bottom of poles.

5. For reinforcing steel, lap splice to consist of a 3'-0" lap length at each splice. No more than two opposing rebars to be spliced at the same cross section. stagger lap splices as needed.

6. Provide a 17" minimum cover.

7. Provide handhole and coupler cover plates made of non-corrosive materials. Attach cover plates to poles using lead anchors or threaded inserts embedded in the holes in conjunction with round headed chrome plated screws.

8. Provide Shop Drawings for minor modifications not detailed in the plans. Include the following information using inset numerals with 1" height or as approved in the Producers' Quality Control Program.

9. Storage, Handling and Erection locations shown may vary within ± 3'.

GENERAL NOTES
**PRESENTATION**

- **Air Terminal (See Index 18102)** Coordinate Mounting Method
- **Pole Tenon** Coordinate Mounting Method
- **Camera (See Index 18110 For Mounting Details)**
- **6" Min. Inside Diameter of Pole Raceway**

### 1" Lifting Hole
- **(2) 2" Couplings With Caps and Away From Approaching Traffic**
- **Handhole With Cover**
- **Shall be 90° From the Lowering Arm**

### 2' - 0" at 90° To Handhole Box
- **(2) 2" Couplings With Caps at 90° To Handhole Box To Provide Cable Entry Point For Camera Cables**
- **Provide Entry Point For Camera Cables**
- **Coordinate Mounting Method**

### POLE IDENTIFICATION MARKINGS
- **Conduit Entry Hole**
- **Handhole Box**
- **Ground Lug**
- **Conduit Entry Hole**

---

**POLE DESIGN TABLES**

**12-SIDED POLE DESIGN TABLE**

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* Diameter Measured Flat to Flat
** Total taper applies to pole, strands, and reinforcing.
*** For 12-Sided Pole and Round Pole Option 2 Stress prestressed strand to 70% of Ultimate before Transfer. For Round Pole, Option 1 Stress Prestressed strand to 60% of Ultimate before Transfer.
### Pole Elevation

**Strands and Reinforcing Not Shown**

**SECTION A-A**

- **Tip or Butt Diameter:** Measured Flat to Flat
- **Circular Void:** #5 Gage Spiral
- **Active and Dormant Strands spaced equally around pole**

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- **Tip or Butt Diameter:** Measured Flat to Flat
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- **Active and Dormant Strands spaced equally around pole**

**Strand Pattern 1**

(12 - SIDED)

**Strand Pattern 2**

(12 - SIDED)

**Strand Pattern 3**

(ROUND - OPTION 1)

**Strand Pattern 4**

(ROUND - OPTION 2)

Note: Strands and Rebar shown are continuous from Tip End to Butt End.

### Spiral Reinforcing Elevation

(Strands, Holes, and Fixtures Not Shown)

**Pole Elevation**

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**Strand Legend**

- Prestressed Strand
- Dormant Strand 0.6 in.
- (4) #5 Rebar (Shown) or (6) #4 Rebar

*Spiral wire may be wrapped in two directions given that an equivalent area of spiral wire is provided to that shown in this standard and the cover requirements are met.*
CONCRETE CCTV POLE

SECTION B-B

TENON COVER

- Provide a Tenon Cap and Fix to the Tenon Wall With 3¼" Ø x 20 Hex Head Cap Screw, Equally Spaced.
- (2) ½" Ø Holes Equally Spaced
- Provide Cable Guide
- ⅛" O.D. x ⅝" Wall x 12" (Min.) Long Tenon
- ½" Cap Plate
- (4) ⅝" Ø Nut with Flat Washer
- (4) ½" Ø x 18" Galv. Bolts with 15" Embedment, Equally Spaced (See Note 3 for alternate connector)

TOP OF POLE DETAIL WITH LOWERING DEVICE

- Provide Cable Guide
- ⅛" O.D. Plate
- (4) ⅝" Ø Holes Equally Spaced
- ½" Cap Plate
- (4) ⅝" Ø Nut with Flat Washer
- (4) ½" Ø x 18" Galv. Bolts with 15" Embedment, Equally Spaced (See Note 3 for alternate connector)

CAP PLATE DETAIL

- Provide a Tenon Cap and Fix to the Tenon Wall With 3¼" Ø x 20 Hex Head Cap Screw, Equally Spaced.
- (2) ½" Ø Holes Equally Spaced
- Provide Cable Guide
- ⅛" O.D. x ⅝" Wall x 12" (Min.) Long Tenon
- ½" Cap Plate
- (4) ⅝" Ø Nut with Flat Washer
- (4) ½" Ø x 18" Galv. Bolts with 15" Embedment, Equally Spaced (See Note 3 for alternate connector)

HANDHOLE DETAIL

- Handhole frame may be Cast Aluminum 356.2.
- As an alternate, embed (4) ½" ø x 18" stainless steel threaded rods with a threaded nut. At top of rod thread a coupling nut to attach plate w/ (4) ½" ø x 18" stainless steel bolts.
- Install all handhole and opening covers prior to shipping.
- Install ½" Ø x 5" long stud with hex nut in insert before shipment.