

## GENERAL NOTES:

1. Design Criteria: Poles shall be designed in accordance with the 2001 AASHTO Standard Specifications For Structural Supports For Highway Signs, Luminaires And Traffic Signals.

The structure shall not exceed 1" deflection in a 30 mph (non-gust) wind.

Drilled shaft foundation designs shall be based on site soil boring data.

2. Pole Shaft: The pole shaft shall be round or 16 sided with a 4" corner radius, have a constant linear taper of 0.14 in/ft and contain only one longitudinal seam weld for the poles. Circumferential welded tube butt splices and laminated tubes are not permitted. Longitudinal seam welds within 6" of complete penetration pole to base plate welds shall be complete penetration welds.

3. Handholes: See Index 18111 Sheet 2 of 2.

4. Cable Supports: Electrical Cable Guides and Eyebolts: Top and bottom electrical cable guides shall be located within the pole aligned with each other. One cable guide shall be positioned 2" below the handhole and the other shall be positioned 1" directly below the top of the tenon. An eyebolt shall be positioned 2 $\frac{3}{4}$ " below the top of the handhole.

5. CCTV Structure shall be as follows:

Poles	-> ASTM A595 Grade A
Steel Plates & Pole Cap	-> ASTM A709 Grade 36
Weld Metal	-> E70XX
Bolts (Except Anchor Bolts)	-> ASTM A325, Type 1
Anchor Bolts	-> ASTM F1554 Grade 55 (6 Min.)
Nuts For Anchor Bolts	-> ASTM A563 Grade A Heavy HEX
Washers For Anchor Bolts	-> ASTM F436 Type 1
Handhole Frame	-> ASTM A709 Grade 36
Handhole Cover	-> ASTM A607 Grade 50, 55, or 60
Stainless Steel Screws	-> ANSI Type 316

6. All Nuts, Bolts and Washers -> ASTM A153 Class C DR D  
Depending on Size  
All Other Steel Items -> ASTM A123

7. Reinforcing steel shall be ASTM A615-96, Grade 60.

8. Concrete foundations shall be Class IV (drilled shaft) with a minimum 28-day compressive strength of 4 ksi for all environmental classifications.

9. Grout shall have a minimum 28-day compressive strength of 5 ksi and shall meet the requirements of Section 934. Grout after pole is set and properly plumbed. Grout pad is optional.

10. All welding shall conform to American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (Current Edition).

11. Shop drawings must be submitted to the engineer for review and approval. Fabrication shall not begin until shop drawings are approved.

12. The foundation for the CCTV structure shall be constructed in accordance with Section 455 of the Specifications. Payment for the foundation and any other incidental items to furnish and install a complete CCTV structure shall be included in the pay item for the complete CCTV structure.

13. Except for anchor bolts, all bolt hole diameters shall be equal to the bolt diameter plus  $\frac{1}{16}$ ", prior to galvanizing. Hole diameters for anchor bolts shall not exceed the bolt diameter plus  $\frac{1}{2}$ ".

14. When the structure is fully loaded it shall be plumb.

15. The structure shall not be erected until the foundation concrete has been allowed to cure for a minimum of seven days.

## LOWERING DEVICE NOTES:

1. Pole Top Tenon: A tenon shall be bolted to the pole top with mounting holes and slot as required for the mounting of the lowering device. The tenon shall be of dimensions necessary to facilitate lowering device component installation. Each slot shall be parallel to the pole centerline for mounting the lowering device.

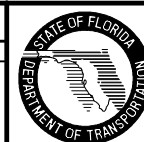
2. All cables shall be secured in a manner that prevents them from interfering with or being damaged by the lowering cable that moves within the pole.

3. Lowering arm shall be mounted perpendicular to the roadway or as directed by the engineer. The CCTV pole shall be positioned so that the camera can be safely lowered without requiring lane closures.

4. Pole shall include lowering device which includes top J-box, mounting hardware, lowering cable, contact block, waterproof electrical connectors, camera J-box, housing and steel pole.

### REVISIONS

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01/01/06	ITS	New Design Standard Index.			



2006 Interim Design Standard

STEEL CCTV POLE

Interim Date

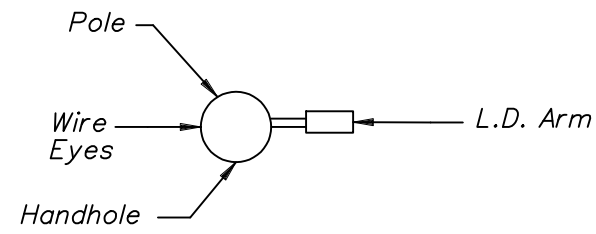
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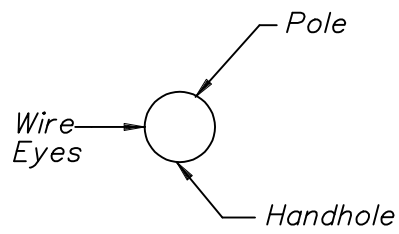
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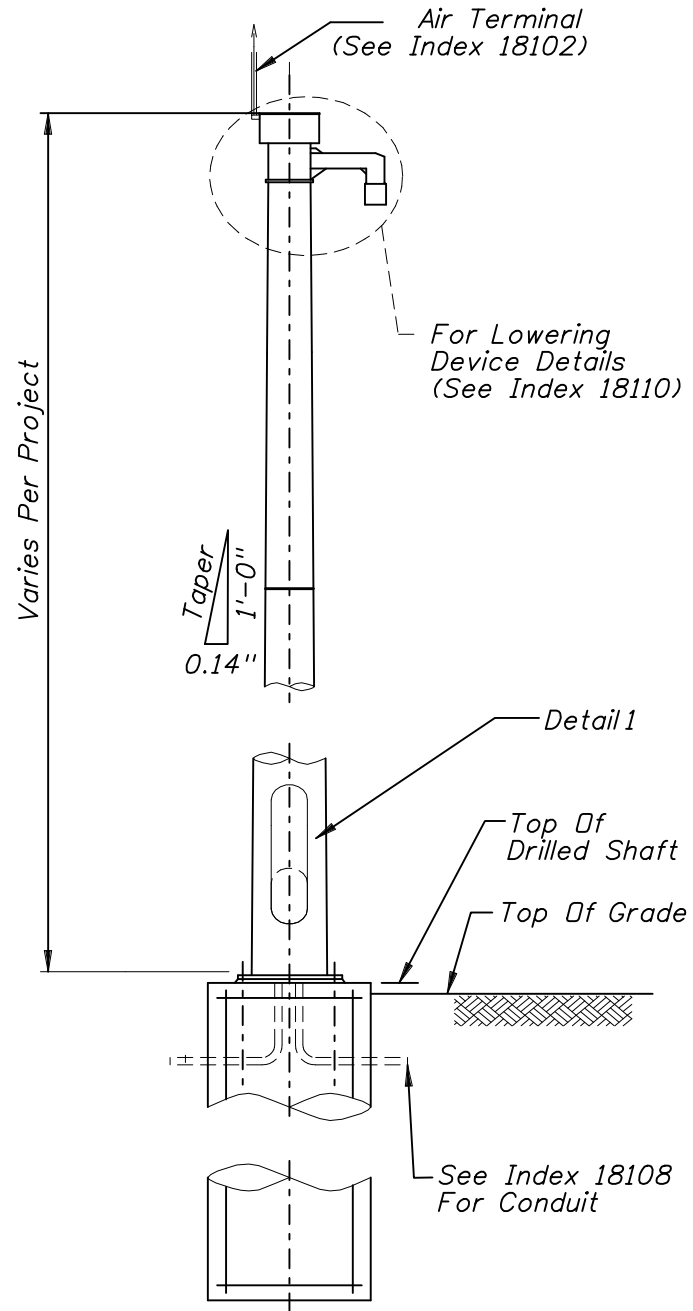
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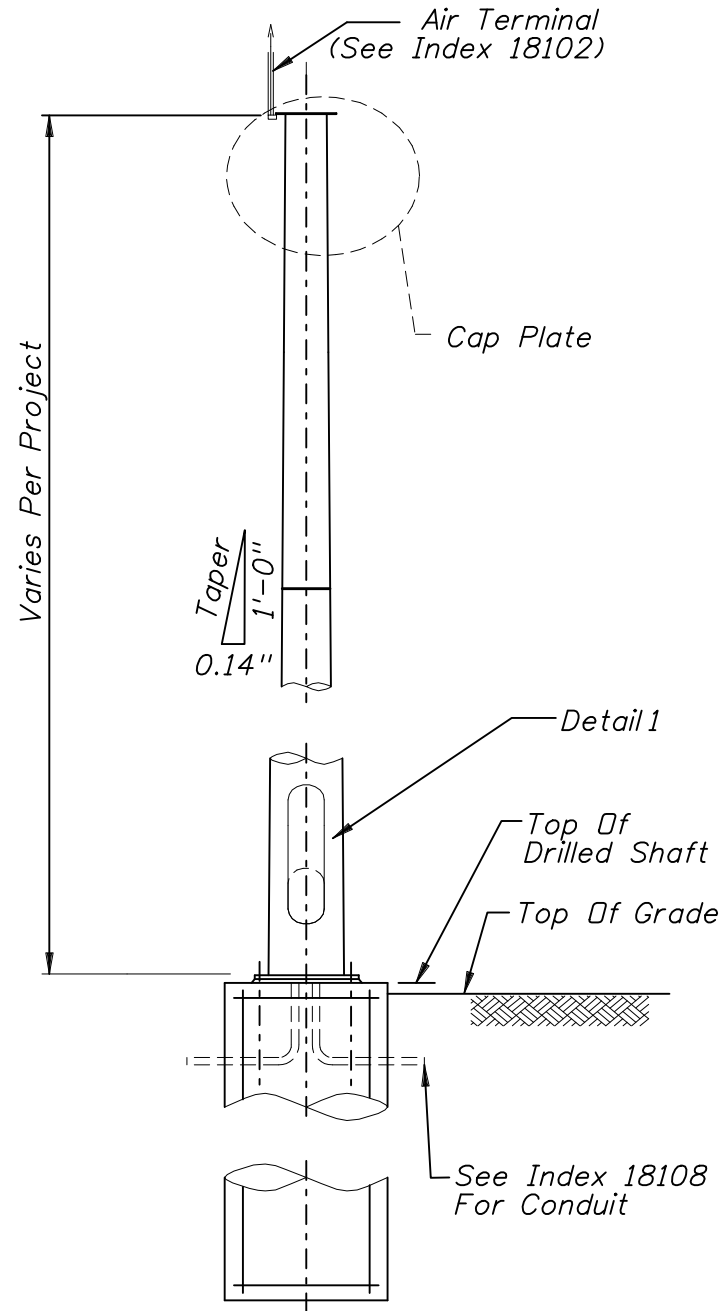
ORIENTATION VIEW



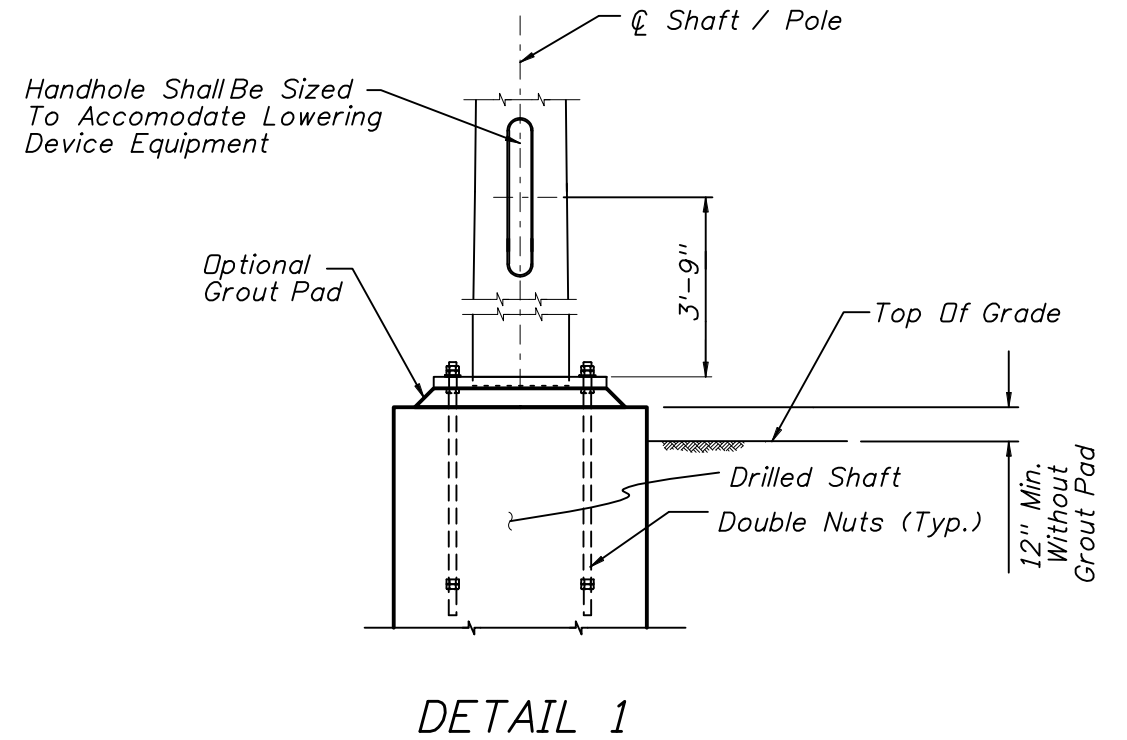
ORIENTATION VIEW



WITH LOWERING DEVICE ELEVATION



WITHOUT LOWERING DEVICE ELEVATION

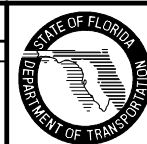


DETAIL 1

Not To Scale

REVISIONS

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