### DMS GROUNDING DETAILS

**Not To Scale**

#### Ground Rod B
- Tin-Plated Bare Solid Copper Ground Rod B
- Diameter: 5/8" (19.05 mm)
- Ground Rod B is driven into undisturbed earth.

#### Ground Rod C and D
- Tin-Plated Bare Solid Copper Ground Rod C and D
- Diameter: 5/8" (19.05 mm)
- Ground Rods C and D are placed immediately adjacent to pole.

#### Ground Wire to Ground Rods C and D
- Tin-Plated Bare Solid Copper Wire
- Diameter: 5/8" (19.05 mm)
- Wire is to be placed in accordance with the pole material.

#### Ground Wire to Electrical Service
- Tin-Plated Bare Solid Copper Wire
- Diameter: 5/8" (19.05 mm)
- Wire is to be placed in accordance with the pole material.

#### Ground Wire to Structure
- Tin-Plated Bare Solid Copper Ground Wire
- Diameter: 5/8" (19.05 mm)
- Wire is to be placed in accordance with the pole material.

#### Ground Wire to Electrical Service Ground
- Tin-Plated Bare Solid Copper Ground Wire
- Diameter: 5/8" (19.05 mm)
- Wire is to be placed in accordance with the pole material.

#### Exothermic Weld
- Used to join copper wires to ground rods.

#### Finished Grade
- Indicates the finished or completed grade level.

#### See Index 18102
- Reference to the index for additional details.

#### Ground Lug
- Used to connect ground wires to the DMS cabinet.

#### Bottom of Plate (Grout Plate Optional)
- Optional grout plate for additional ground support.

#### Dynamic Message Sign (DMS)
- Equipment used for dynamic messaging.

#### Solid Copper 48" Air Terminal (1/2" Diameter) with Copper Flat Surface Base Attached To Top Of Upright, See Detail A
- Air terminal for electrical connections.

#### #2 AWG Tin-Plated Bare Solid Copper Ground Wire, Bond To All Air Terminals And Ground Rods With Exothermic Weld In 5/8" RGS Conduit
- Copper ground wires with exothermic welds in RGS conduit.

#### Catwalk
- Walkway for personnel to access DMS cabinet.

#### 5/8" FTP Alloy 110 Copper Air Terminal (Class II) Base Attached To Web At Top Of I-Beam, See Detail A
- Air terminal for electrical connections with base attached to I-beam web.
GENERAL NOTES:

1. All grounding materials shall meet the requirements of Section 4B20 of the current Minimum Specifications For Traffic Control Signal Devices (MSTCSD), except as noted.

2. All ground rod resistance readings shall be performed per Standard Specification Table 2.3.4. Submit data sheets to the Engineer.

3. Exothermically weld all connections to ground rods.

4. The contractor may, upon approval of the Engineer, install 30-foot sectional ground rods for instances when conditions will not allow for the installation of all auxiliary ground rods.

5. Install marker tape directly above all grounding electrodes and conductors.

6. All RS-232 coaxial and power cable to the DMS shall be completely concealed.

7. Copper flat surfaces shall be bolted, welded, or brazed securely to framework to maintain electrical continuity.

8. All air terminals must meet UL-96A.

9. Grounding system shall be placed within right of way.

10. See Index 18.101 for ground rod placement detail.

Not To Scale