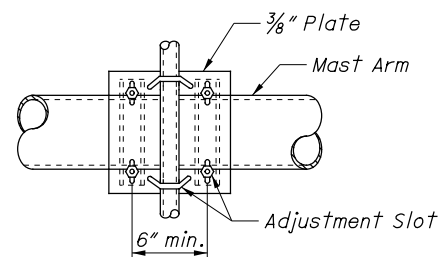
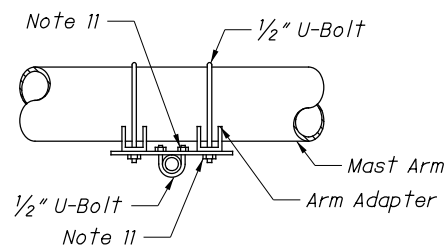
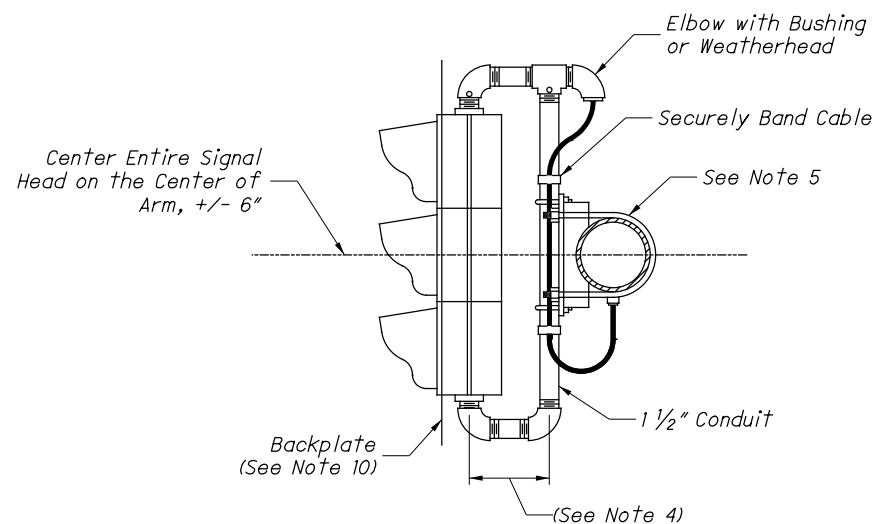
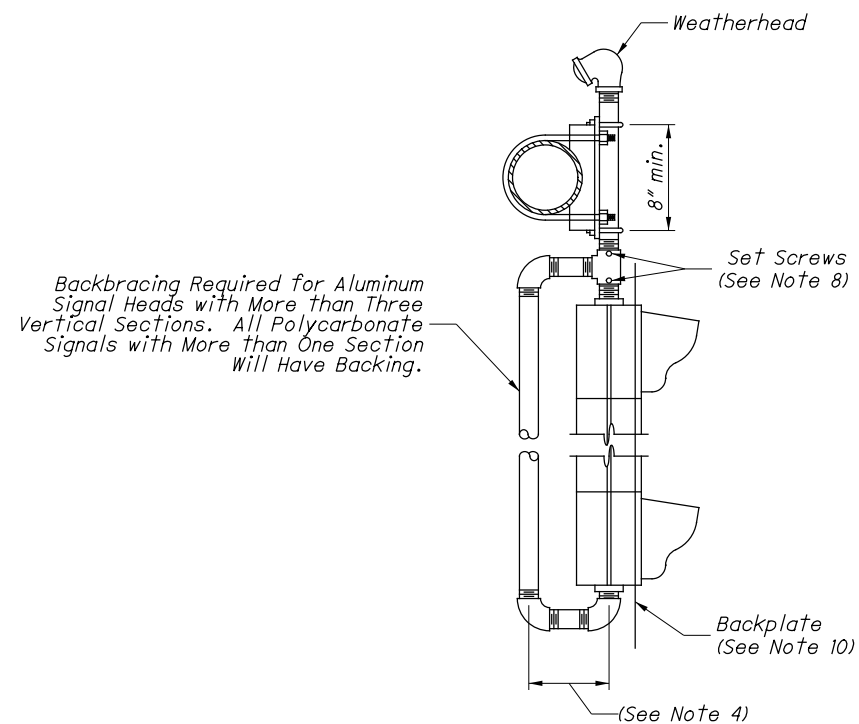


RIGID SIGNAL HEAD MOUNTING FOR MAST ARMS



SIGNAL HEAD SUSPENSION



Backbracing Required for Aluminum Signal Heads with More than Three Vertical Sections. All Polycarbonate Signals with More than One Section Will Have Backing.

NOTES:

- Signal head conduit brackets and conduit fittings shall be galvanized. On span wire mounted signals, they shall be painted to match the body of the signal head. On mast arm mounted signals, they shall not be painted unless specified in the plans.
- All signal head assemblies shall be installed in a plumb position and perpendicular to the approach lane.
- The mast arm clamp shall have a minimum strength at yield to support a 200 pound dead load and 90 mph design wind.
- A minimum of 17" is required for optically programmed signal heads and a minimum of 6" for standard signal heads.
- Alternate rigid signal head mounting devices (e.g. "Astro-Brac") for mast arms may be approved by the Engineer upon demonstration that they provide adequate rigidity, equal range of adjustment and can be tightened sufficiently to prevent movement and loosening under vibration.
- All signal heads shall be installed with their lowest part (including backbracing and backplates) with a clearance above pavement elevation at the center of the roadway of 17' minimum, 19' maximum. It is intended that this clearance be obtained without the use of drop pipes, but rather by the careful selection of foundation heights, attachment heights, arm rise, and other factors during the installation. If the installation cannot be adjusted to the proper clearance the Contractor shall advise the Engineer of all signals which exceed the maximum. The Engineer will, in consultation with the maintaining agency, direct the use of drop pipes or waive the maximum clearance requirement for each head.
- Cable entrance openings on disconnect hangers shall rigidly clamp cable to prevent movement of the cable within the enclosure.
- Signal head rotation shall be prevented by the use of serrated rings, set screws, or other positive devices incorporated in the signal housing and at critical locations in the supporting hardware.
- All conductors shall have adequate clearance between hangers, thimbles, bullrings, etc. in order to avoid damage from rubbing.
- All backplates shall have a 2" fluorescent yellow reflective border.
- Use nylon locking or deformed thread nuts.

THIS DRAWING REPLACES TC-85.20 DATED 01-15-2016.

SD NUMBER

TC-85.20

STANDARD ROADWAY CONSTRUCTION DRAWING

OVERHEAD SIGNAL ATTACHMENT MAST ARM

OFFICE OF ROADWAY ENGINEERING

STDS ENGINEER

Duemmel

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR

David L. Holstein

REVISION DATE

07-20-2018