

RIGID SIGNAL HEAD MOUNTING FOR MAST ARMS

## OVERHEAD SIGNAL ATTACHMENTS -MAST ARM

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION

STD DWG

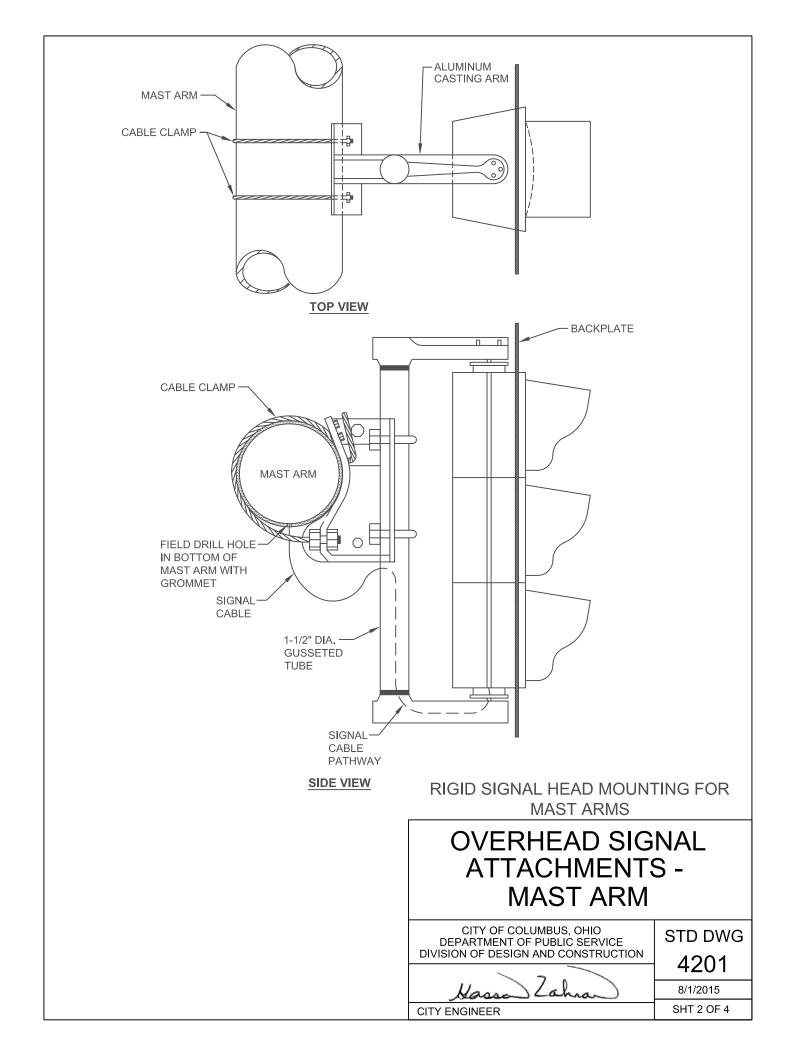
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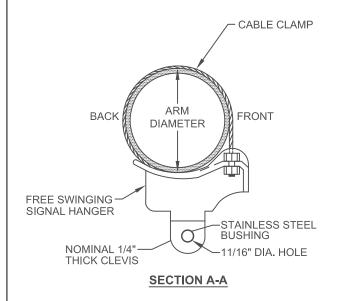
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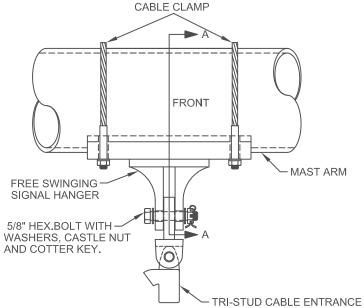
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Harra Zahra

CITY ENGINEER







FREE SWINGING SIGNAL HEAD MOUNTING FOR MAST ARMS

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#### **GENERAL**

ALL SIGNAL HEAD ASSEMBLIES SHALL BE INSTALLED IN A PLUMB POSITION AND PERPENDICULAR TO THE APPROACH LANE.

ALL SIGNAL HEADS SHALL BE INSTALLED WITH THEIR LOWEST PART (INCLUDING BACKBRACING AND BACKPLATES) WITH A CLEARANCE ABOVE PAVEMENT ELEVATION AT THE HIGHEST POINT OF THE ROADWAY OF 16.5' MINIMUM, 19' MAXIMUM. HOWEVER, 17' IS THE PREFERRED HEIGHT. IT IS INTENDED THAT THIS CLEARANCE BE OBTAINED BY 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 CITY OF ALL SIGNALS WHICH WILL POTENTIALLY NOT BE IN COMPLIANCE WITH THIS RANGE PRIOR TO INSTALLATION.

SIGNAL HEAD ROTATION SHALL BE PREVENTED BY THE USE OF SERRATED RINGS, SET SCREWS OR OTHER POSITIVE LOCKING DEVICES INCORPORATED IN THE SIGNAL HOUSING AND AT CRITICAL LOCATIONS IN THE SUPPORTING HARDWARE.

SIGNAL HEAD MOUNTING BRACKETS AND FITTINGS SHALL BE COATED TO MATCH THE MAST ARM, ATTACHMENT HARDWARE SHALL BE COATED IN ACCORDANCE WITH THE PLANS.

#### RIGID SIGNAL HEAD MOUNTING FOR MAST ARMS:

THE MAST ARM CLAMP SHALL HAVE A MINIMUM STRENGTH AT YIELD TO SUPPORT A 200 POUND LOAD WITH 90 MPH WIND.

FOR A 3-SECTION SIGNAL, SIGNAL CABLE SHALL ENTER THE GREEN SECTION SIGNAL HEAD. FOR A 5-SECTION HEAD, ENTER HOUSING THROUGH GREEN BALL SECTION AND ROUTE CABLE THROUGH RED SECTION TO ACCESS THE TURN ARROW SECTION.

TERMINAL BLOCK SHALL BE LOCATED IN GREEN SECTION FOR RIGID MOUNTED SIGNAL HEADS

CABLE CLAMPS SHALL BE STAINLESS STEEL CABLE ONLY, CABLE CLAMPS TO BE PROVIDED WITH APPROPRIATE LENGTH. ANY ADDITIONAL CABLE WILL BE SECURELY COILED IN PLACE AND NOT CUT.

#### FREE SWINGING SIGNAL HEAD MOUNTING FOR MAST ARMS:

THE CLEVIS SHALL HAVE A NOMINAL 11/16" DIAMETER HOLE WHICH WILL ACCEPT A 5/8" DIAMETER X 2" LONG STAINLESS STEEL CLEVIS PIN.

A 1" LONG X 1/8" DIAMETER STAINLESS STEEL COTTER PIN SHALL BE FURNISHED WITH EACH CLAMP.

THE HANGER SHALL HAVE A MINIMUM STRENGTH AT YIELD TO SUPPORT A 1000-POUND.

A 90 DEGREE CLEVIS HANGER THAT HAS A STAINLESS STEEL BUSHING AND IS CONNECTED. TO A WIRE ENTRANCE HEAD SHALL BE USED.

SIGNAL CABLE SHALL ENTER THE RED SECTION.

TERMINAL BLOCK SHALL BE LOCATED IN RED SECTION.

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