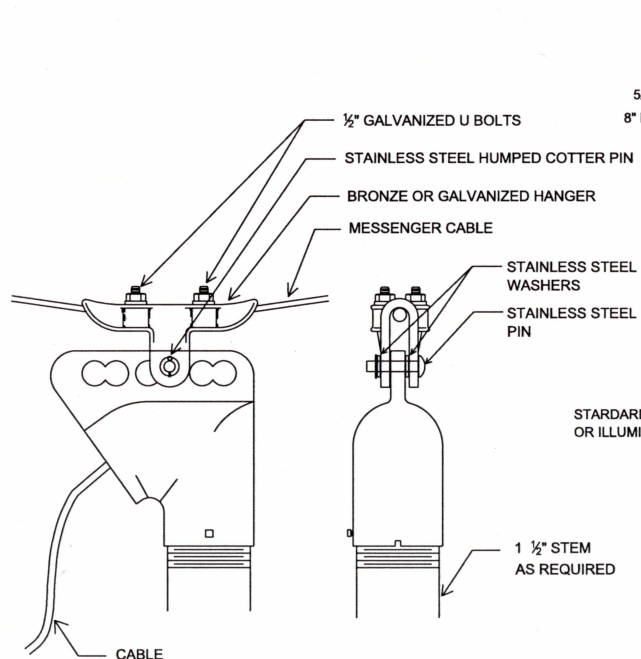
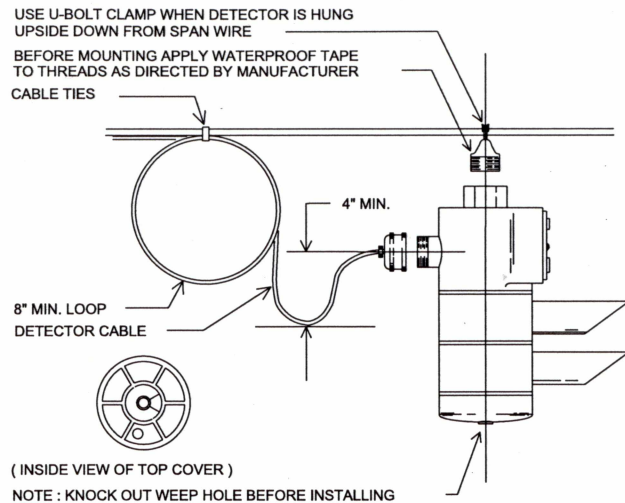


NOTE: MESSENGER CABLE SHALL BE BONDED TO STEEL POLE OR TO RISER BELOW WEATHERHEAD WITH TOWN & COUNTRY CLAMP ON WOOD POLE.

### MESSENGER ATTACHMENT WITH BONDING LUG AND BOND WIRE



SUSPENSION FITTING

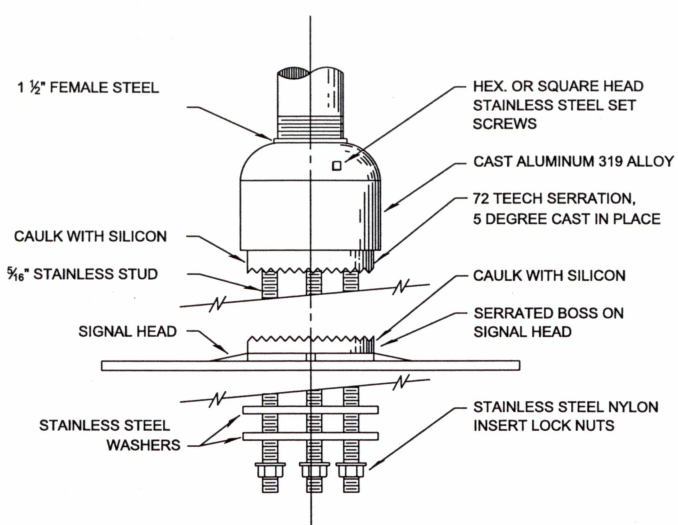


(INSIDE VIEW OF TOP COVER)

NOTE: KNOCK OUT WEEP HOLE BEFORE INSTALLING

NOTE: ROUTE CONTROL CABLES ABOVE ATTACHMENT POINT SO THEY DO NOT CONTACT DETECTOR

### OPTICOM DETECTOR SPAN WIRE INSTALLATION



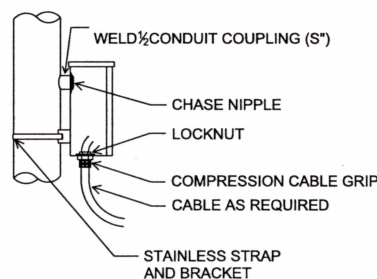
NOTE: ALL SET SCREWS SHALL BE DRILLED & TAPPED TO ALLOW SET SCREW TO EXTEND INTO ADJACENT PART.

### VEHICLE SIGNAL MOUNTING DETAIL TRI-STUD ADAPTER

#### NOTES

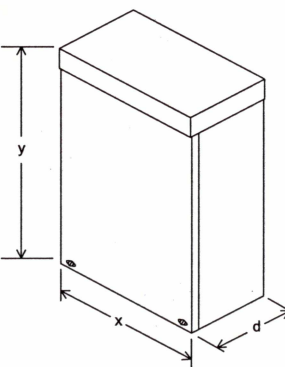
- 1 - BOND MESSENGER TO GROUNDING BUSHING OUTSIDE OF AND ON THE BOTTOM OF TERMINAL CABINET.
- 2 - ON WOOD POLES FASTEN TERMINAL CABINET WITH 2-1/4" x 2" LAG SCREWS.
- 3 - CONDUCTORS INTO A METAL POLE SHALL BE ROUTED OVER THE EYEBOLT ABOVE THE TERMINAL CABINET. EYEBOLT THREADS WITHIN THE POLE SHALL BE TAPED.
- 4 - 8" MINIMUM LOOP REQUIRED WHERE CONDUCTORS JOIN MESSENGER CABLE.

| T.E. SIZE | WIDTH x | HEIGHT y | DEPTH d | DIA. s |
|-----------|---------|----------|---------|--------|
| 1         | 6       | 8        | 4       | 2      |
| 2         | 8       | 10       | 4       | 2 1/2  |
| 3         | 8       | 16       | 4       | 3      |
| 4         | 12      | 16       | 4       | 3      |
| 5         | 12      | 16       | 6       | 3 1/2  |

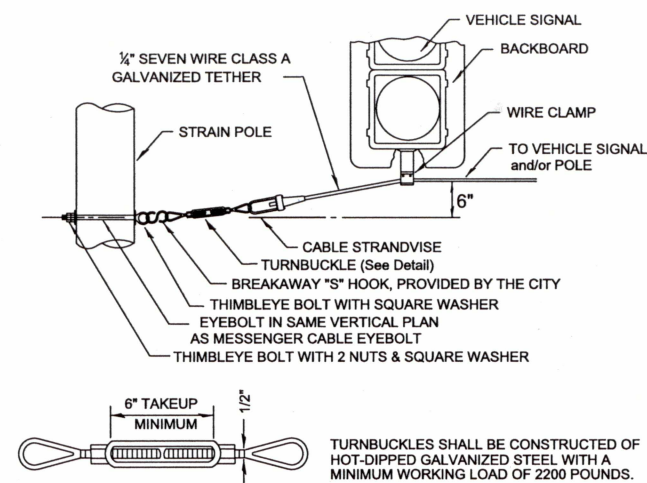


TYPICAL INSTALLATION ON STEEL STRAIN POLE

### RAINTIGHT TERMINAL CABINET

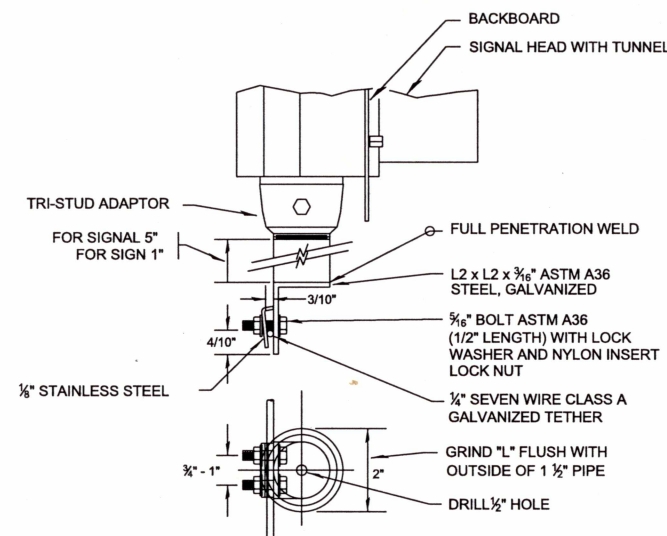


NOT TO SCALE



TURNBUCKLE DETAIL


### TETHER WIRE DETAIL



### WIRE CLAMP FOR STANDARD VEHICLE SIGNAL AND ILLUMINATED SIGN

The selection and use of this Standard Detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.

Note:  
All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.

 **BUREAU OF TRANSPORTATION**  
**CITY OF PORTLAND, OREGON**  
\_\_\_\_\_  
Chief Engineer

Standard Detail Title  
**SIGNAL EQUIPMENT**  
**SPAN WIRE INSTALLATION**  
**DETAILS**

Effective Date: 03/15/12  
Calc. Book No.: N/A  
Baseline Report Date: N/A

Standard Detail No.  
**P-628**