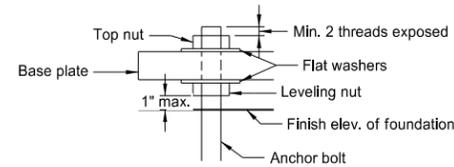
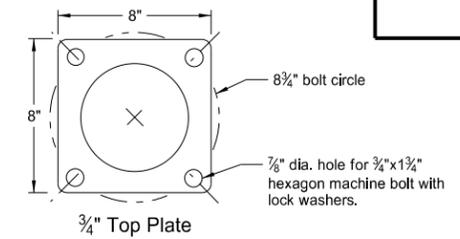


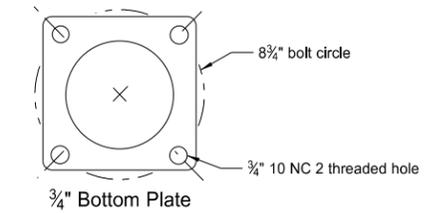
TRAFFIC SIGNAL STANDARDS  
(MAST ARM TYPE)



Anchor Bolt Detail



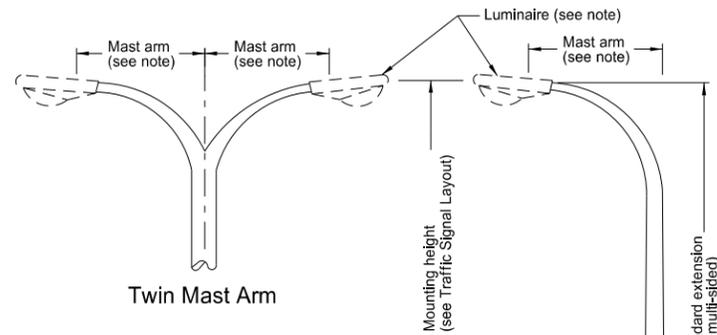
3/4" Top Plate



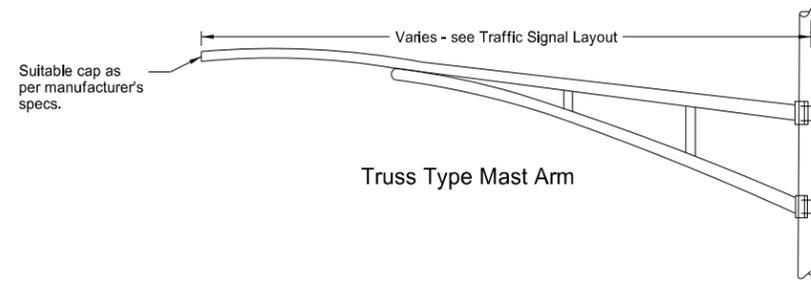
3/4" Bottom Plate

Detail A

Note: In lieu of the plate type connection a telescoping clamp type extension may be used.



Twin Mast Arm



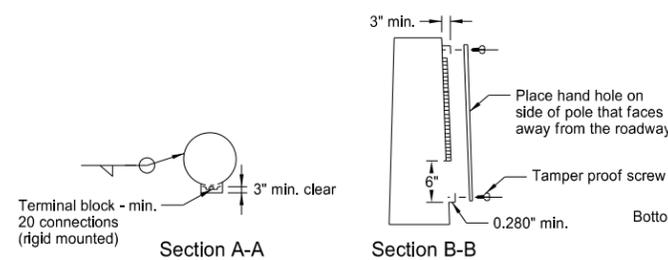
Truss Type Mast Arm

Combination Signal and Light Standard			
Signal Standard Type	Luminaire Mounting height (ft)	Install Light Standard Extension and Luminaire	Luminaire Mast Arm
A	30	yes	single
B	30	(A)	single
C	40	yes	single
D	40	(A)	single
E	30	yes	twin
F	30	(A)	twin
G	40	yes	twin
H	40	(A)	twin
I	50	yes	single
J	50	yes	twin

(A) The light standard extension for these signal standards shall be installed at a later date under a separate contract.

Notes:

- Light standard extension:** The mast arm shall be 6 ft. unless otherwise noted on the plans. The light standard extension shall be galvanized. Galvanizing shall be in accordance with ASTM A 123.
- Luminaire:** Luminaires shall be internal ballast - constant wattage 120 x 240 voltage. See layout sheets for type of luminaire, wattage, and I.E.S. distribution.
- Signal head:** See Traffic Signal Layout for correct mounting position, number, size, and arrangement of lenses. Clearance from the centerline of the roadway to the bottom of mast arm mounted signal heads shall be 17 ft. minimum and 19 ft. maximum.
- Multi-sided poles:** Shall have a means that will not allow the mast arm to be rotated by wind forces other than friction. The pole shall be so fabricated so that the mast arm is rotatable. This feature shall be approved by the Engineer.
- Transformer base:** In lieu of the transformer base the Contractor may use the alternate signal standard base.

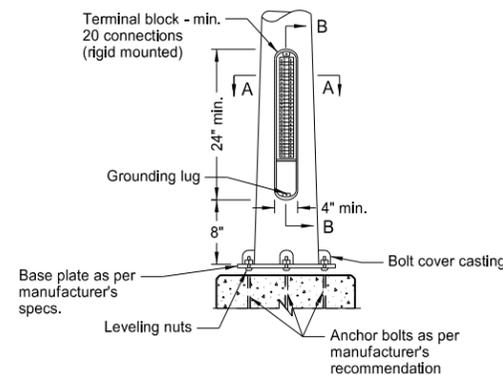


Section A-A

Section B-B

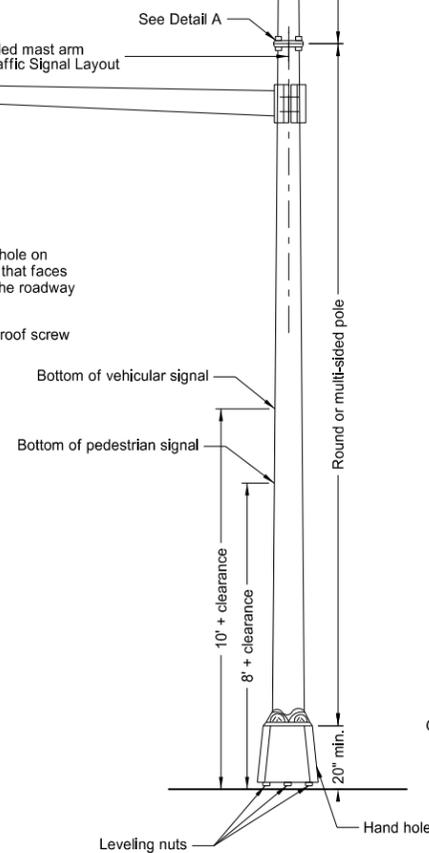
Terminal block - min. 20 connections (rigid mounted) 3" min. clear

3" min. Place hand hole on side of pole that faces away from the roadway Tamper proof screw 0.280" min.

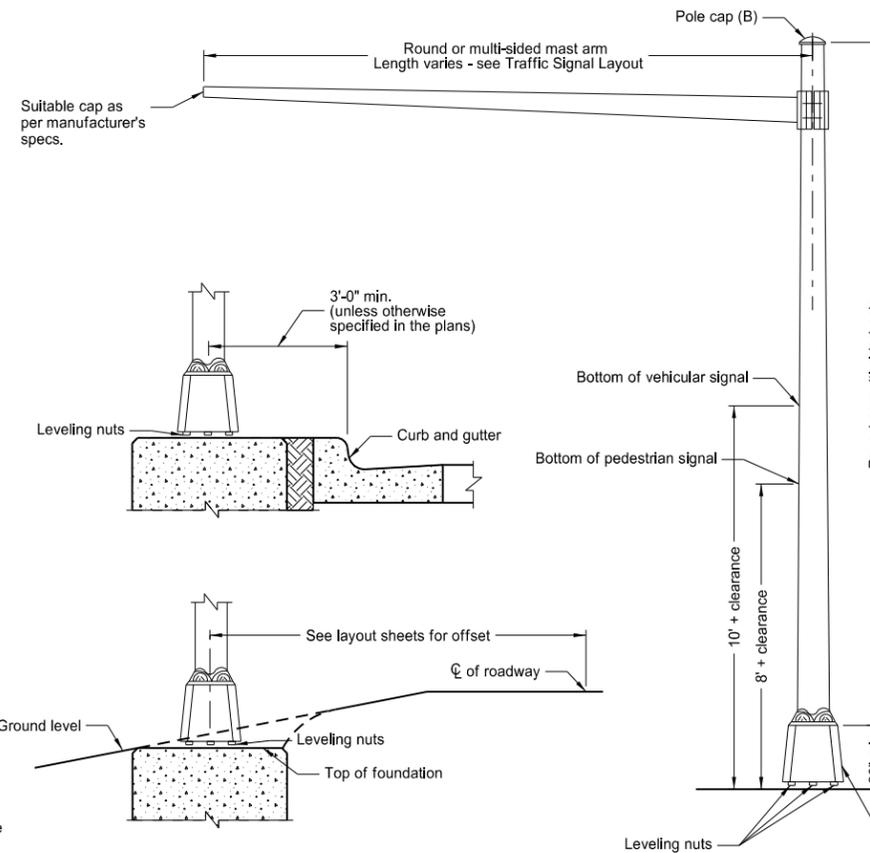


Alternate Signal Standard Base

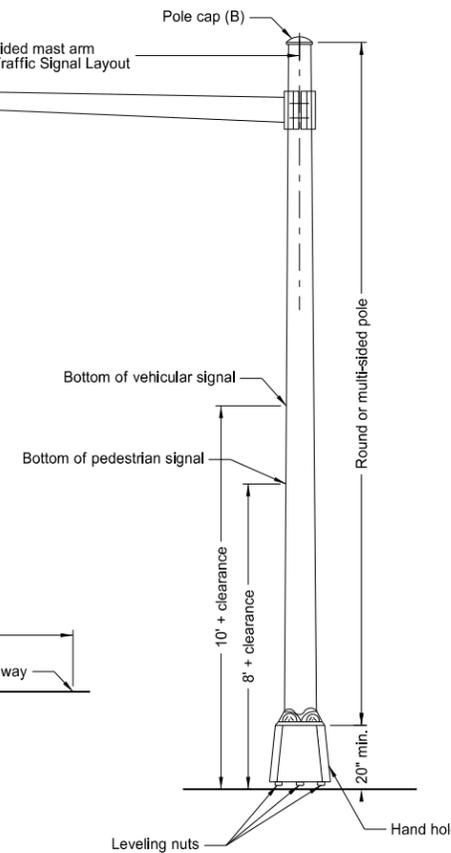
Note: For use only with Type IV and combination signal standards



Combination Signal and Light Standard



Signal Standard Minimum Clearance Detail



Type IV Signal Standard

(B) On combination signal and light standards Type B, D, F, and H, and on all Type IV signal standards install a suitable pole cap as per manufacturer's specifications.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
11-14-13	
REVISIONS	
DATE	CHANGE

This document was originally issued and sealed by Roger Weigel, Registration Number PE-2930, on 11/14/13 and the original document is stored at the North Dakota Department of Transportation