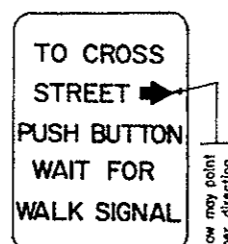
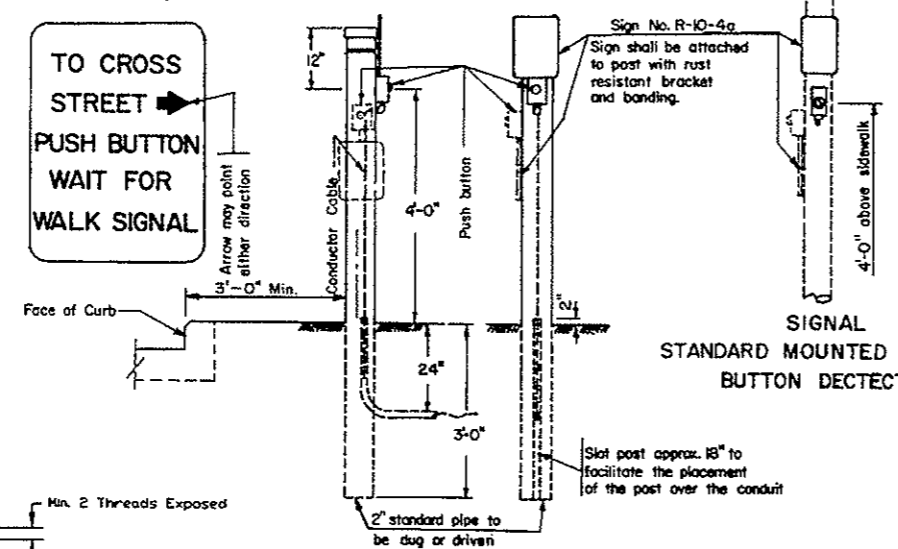


TRAFFIC SIGNAL STANDARDS

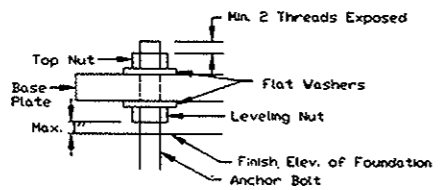
SIGN NO. R-10-4a
(OOBt Aluminum)
See Standard Sign Layout Booklet
for dimensions and legend series.



The positioning of sign & pushbutton & direction of arrow shall clearly indicate which crosswalk is actuated by the push button.

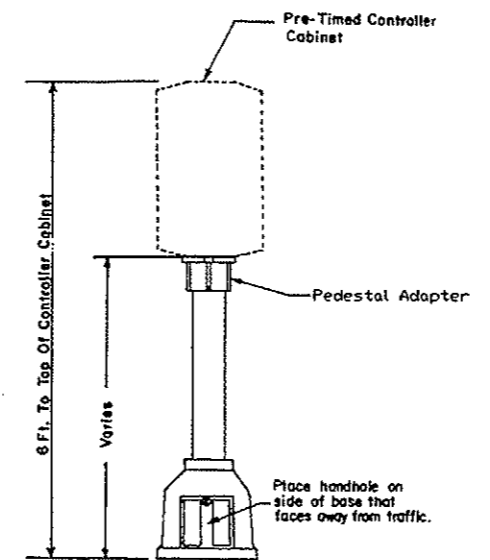


SIGNAL STANDARD PUSH BUTTON DETECTOR

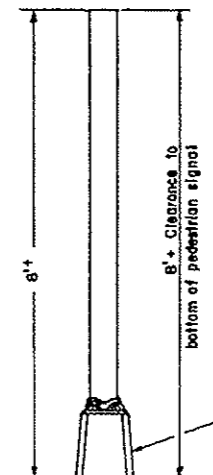


Anchor Bolt Detail

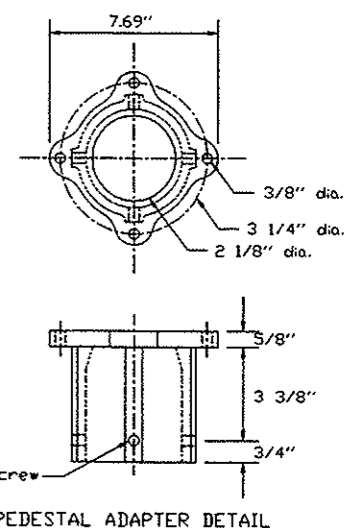
SIDE VIEW FRONT VIEW
PEDESTRIAN PUSH BUTTON POST DETAILS



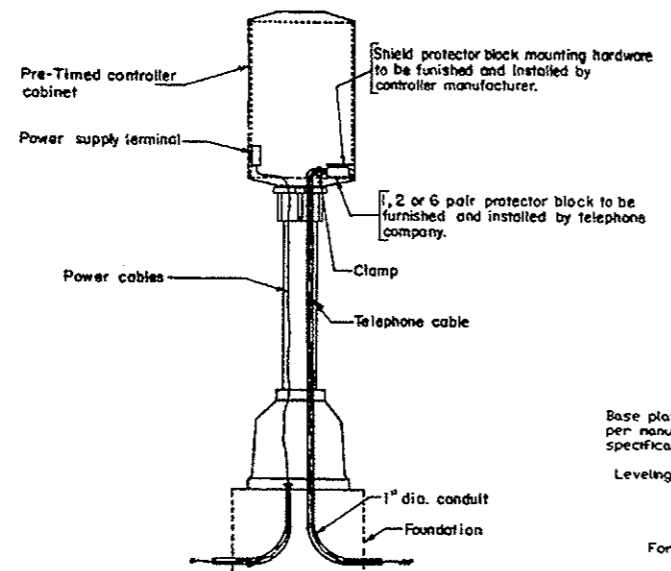
TYPE I



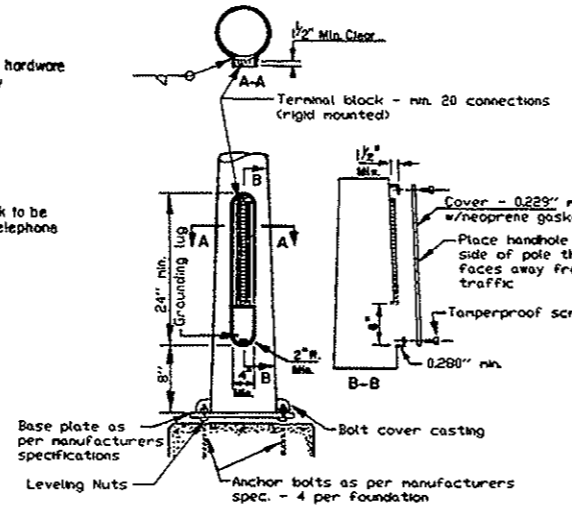
TYPE II



PEDESTAL ADAPTER DETAIL

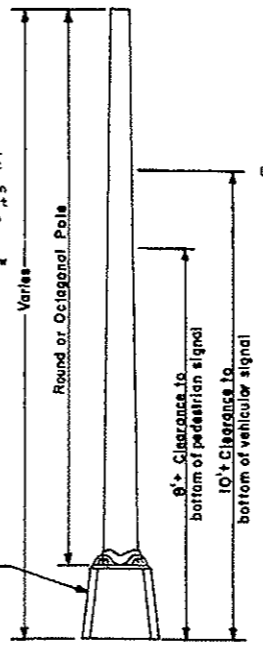


TELEPHONE INTERCONNECT SCHEMATICS DETAIL
(Control circuits not shown)

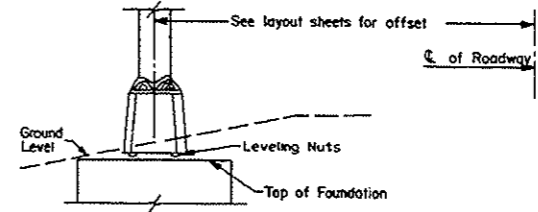
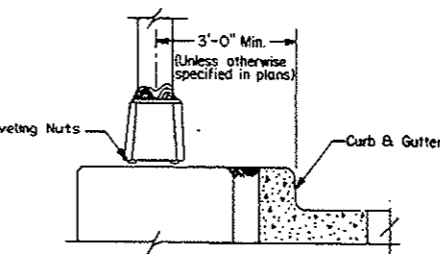


ALTERNATE SIGNAL STANDARD BASE
For Use Only With Type V, VI & VII Signal Standards

Place Handhole on side of base that faces away from traffic.



TYPE V, VI, VII



SIGNAL STANDARD MIN. CLEARANCE DETAIL

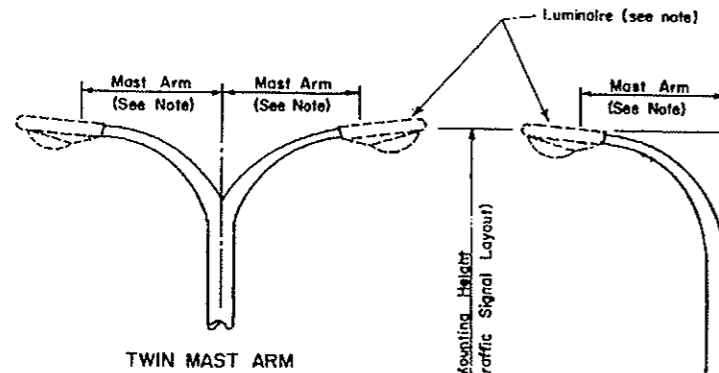
NOTES:
Signal Heads: See traffic signal layout for correct mounting position, number, size, and arrangement of lenses.
Steel Standards: The C of the signal standard shall be a minimum of 3 feet from the face of the curb unless shown otherwise on the layout sheets.
Paint: See note sheet for required color of paint.
Transformer Base: In lieu of the transformer base the contractor may use the alternate signal standard base.

10-1-86	
REVISIONS	
DATE	CHANGE
12-1-88	Min. Clearance
6-16-94	Leveling Nuts
8-29-95	Delete Type III
11-27-95	Pedestal Adapter

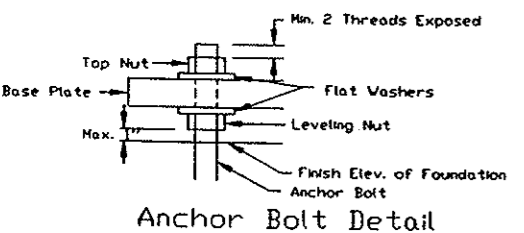
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION
APPROVED: *Daniel K. Lee*
DESIGN ENGINEER

TRAFFIC SIGNAL STANDARDS (Mast Arm Type)

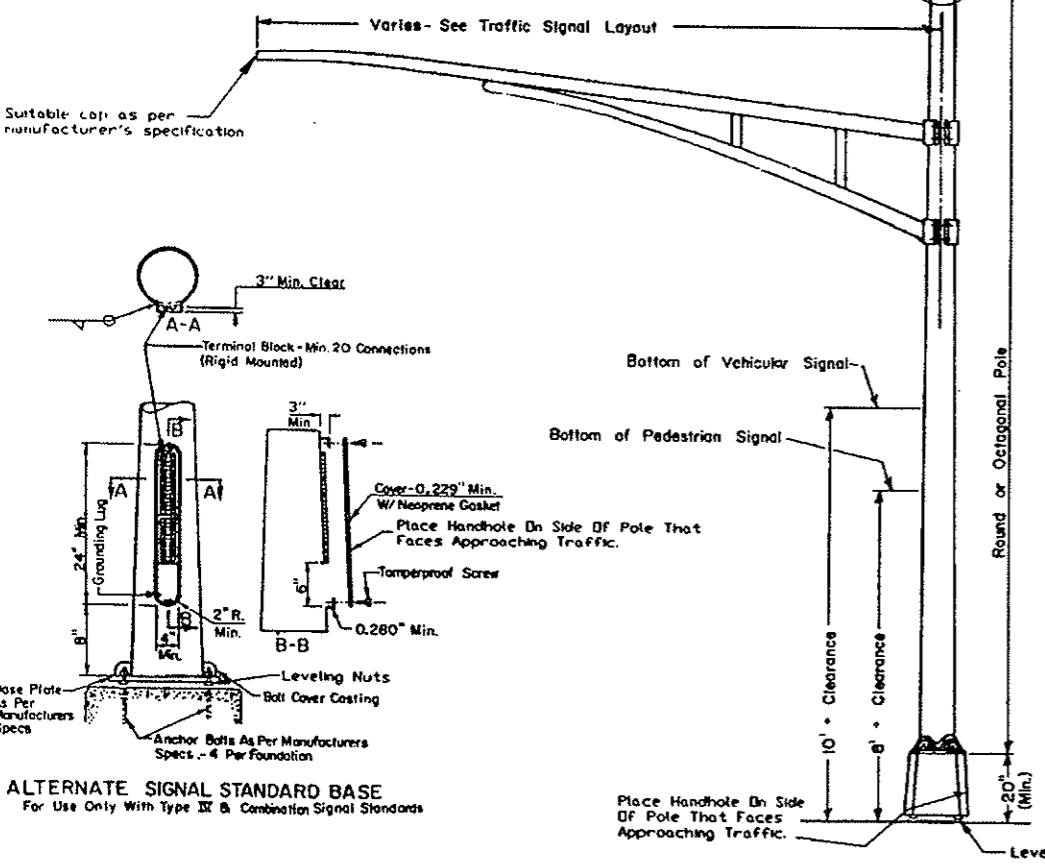
D-772-3



TWIN MAST ARM

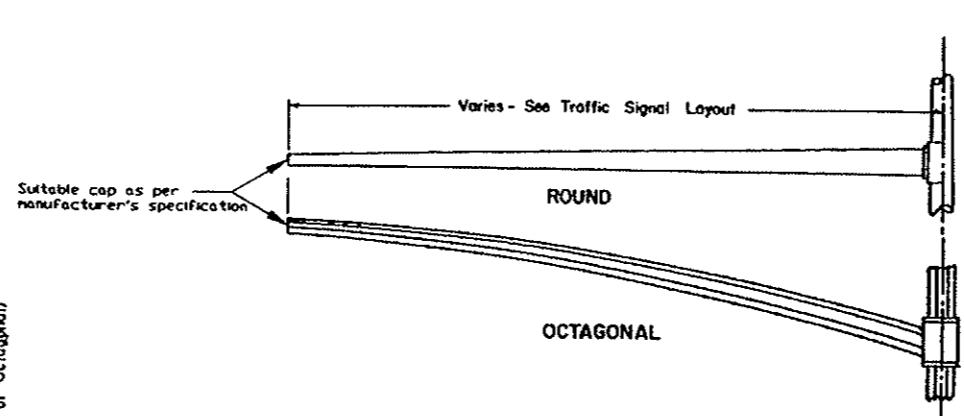


Anchor Bolt Detail

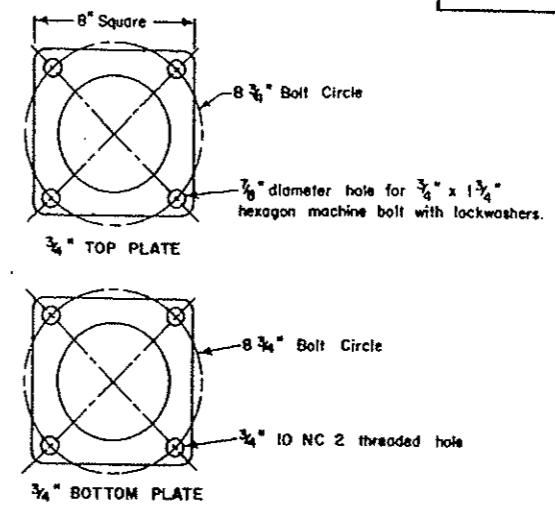


COMBINATION SIGNAL AND LIGHT STANDARD

ALTERNATE SIGNAL STANDARD BASE
For Use Only With Type III & Combination Signal Standards



MONOTUBE TYPE MAST ARMS



DETAIL "A"

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

NOTES: COMBINATION SIGNAL AND LIGHT STANDARD:

Signal Standard Type	Luminaire Mounting Height	Install Light Standard Extension and Luminaire	Luminaire Mast Arm
A	30 ft.	Yes	Single
B	30 ft.	#	Single
C	40 ft.	Yes	Single
D	40 ft.	#	Single
E	30 ft.	Yes	Twin
F	30 ft.	#	Twin
G	40 ft.	Yes	Twin
H	40 ft.	#	Twin
I	50 ft.	Yes	Single
J	50 ft.	Yes	Twin

The Light Standard Extension for these signal standards shall be installed at a later date under a separate contract.

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 voltages. See layout sheets for type of luminaire, wattage, and I.E.S. distribution. See note sheet for operating voltage.

SIGNAL HEAD:
See Traffic Signal Layout for correct mounting position, number, size and arrangement of lenses. Clearance from the center of the roadway to the bottom of mast arm mounted signal heads shall be 16 ft. minimum and 19 ft. maximum.

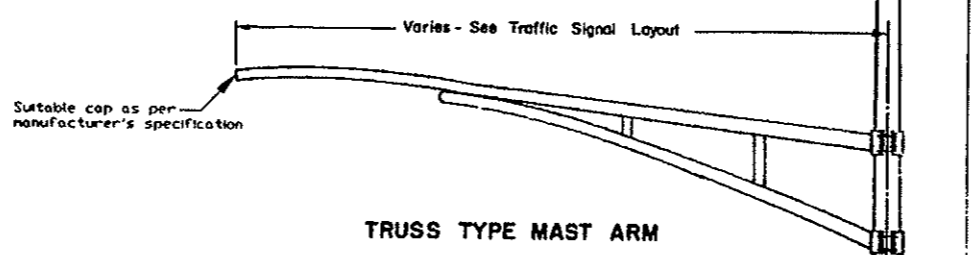
STEEL STANDARD:
The center of the signal standard shall be a minimum of 3 ft. from the face of the curb unless shown otherwise on the layout sheets.

PAINT:
See note sheet for required color of paint.

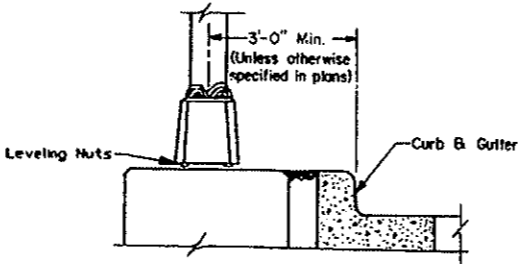
OCTAGONAL POLES:
Shall have a means that will not allow the mast arm to be rotated by wind forces other than friction. This means shall be so fabricated so that the mast arm is rotatable. This feature shall be approved by the Engineer.

TRANSFORMER BASE:
In lieu of the transformer base the contractor may use the alternate signal standard base.

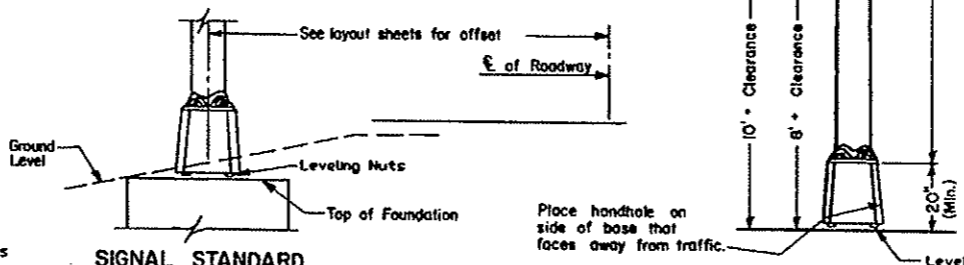
NOTE: On Combination Signal & Light Standards Type B, D, F and H and on all Type IV Signal Standards install a suitable pole cap as per manufacturer's specifications.



TRUSS TYPE MAST ARM



SIGNAL STANDARD MIN. CLEARANCE DETAIL



TYPE IV SIGNAL STANDARD

10-1-86	
REVISIONS	
DATE	CHANGE
12-1-88	Min. Clearance
1-21-94	Add 50 ft.
6-16-94	Leveling Nuts
10-12-94	Handhole Location
5-28-96	Mast Arm Cap

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

APPROVED: *Daniel R. Loren*
DESIGN ENGINEER