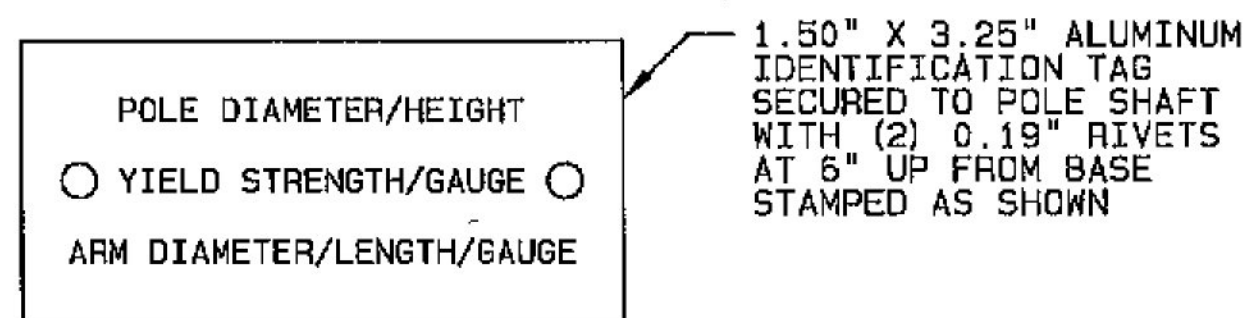
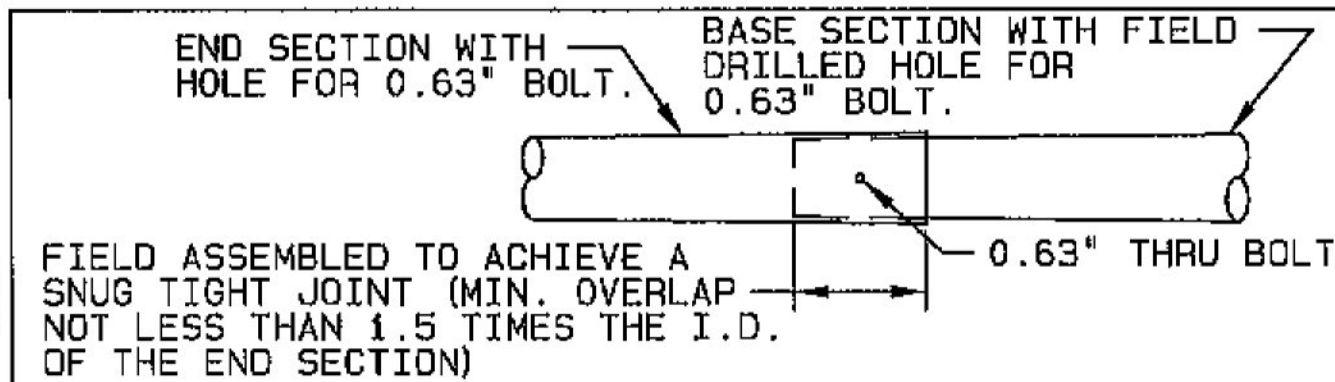


DETAIL 8 NUT COVER



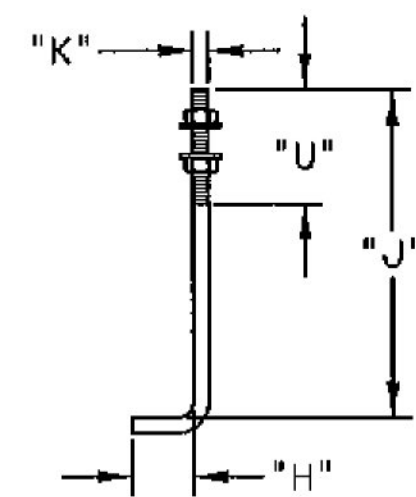
DETAIL 9 I.D. TAG



ITEM	BASE SECTION		END SECTION	
	LENGTH	GAUGE	LENGTH	GAUGE
6	19.42'	0.250"	38.30'	7

DETAIL 10 SIGNAL ARM SLIP JOINT

(6) - ANCHOR BOLTS WITH
(2) HEX NUTS AND (2) WASHERS
PER BOLT.
GALVANIZED FULL LENGTH.



DETAIL 11 ANCHOR BOLT

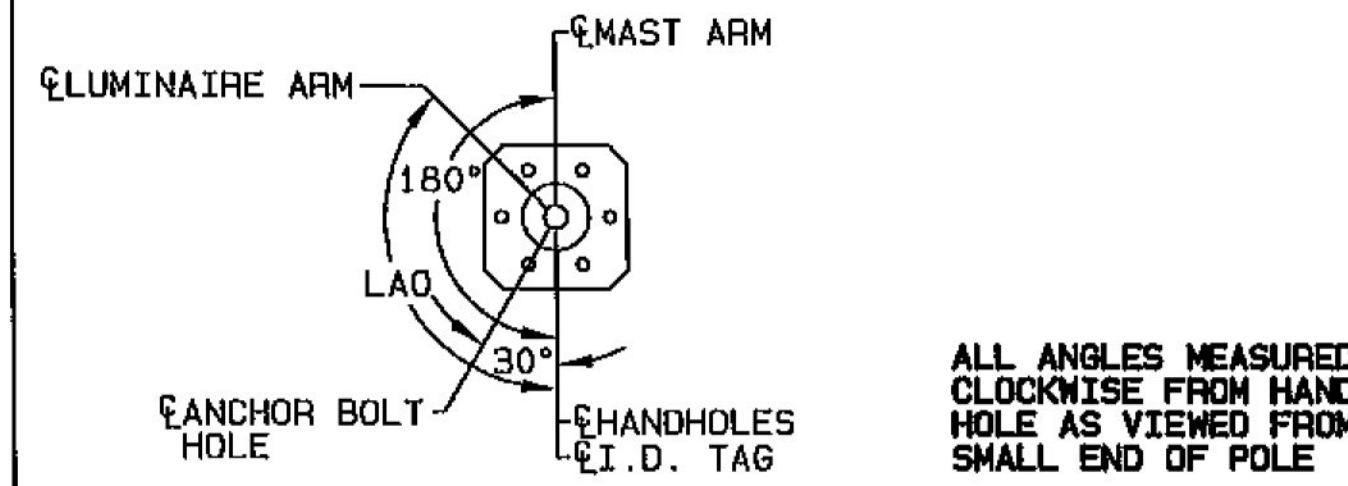
THE MAST ARM TRAFFIC STRUCTURES SHOWN ON THIS DRAWING HAVE BEEN DESIGNED IN ACCORDANCE WITH THE LOADING AND THE ALLOWABLE STRESS REQUIREMENTS OF THE 2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, SIXTH EDITION, LTS-6. THE WIND LOADS WERE CALCULATED FROM A BASIC WIND VELOCITY OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS, AND A FATIGUE CATEGORY OF 2. THE FATIGUE LOADS WERE CALCULATED ON THE REQUIREMENTS OF SECTION 11 OF THE CODE, AND THE FOLLOWING DESIGN CONDITIONS:

- STRUCTURES ARE DESIGNED TO RESIST NATURAL WIND GUSTS BASED ON THE YEARLY MEAN WIND VELOCITY OF 11.2 MPH.
- STRUCTURES ARE NOT DESIGNED TO RESIST GALLOPING-INDUCED CYCLIC LOADS.
- STRUCTURES ARE DESIGNED FOR TRUCK-INDUCED GUST LOADS, AS REQUIRED BY THE OWNER OF THE STRUCTURES.

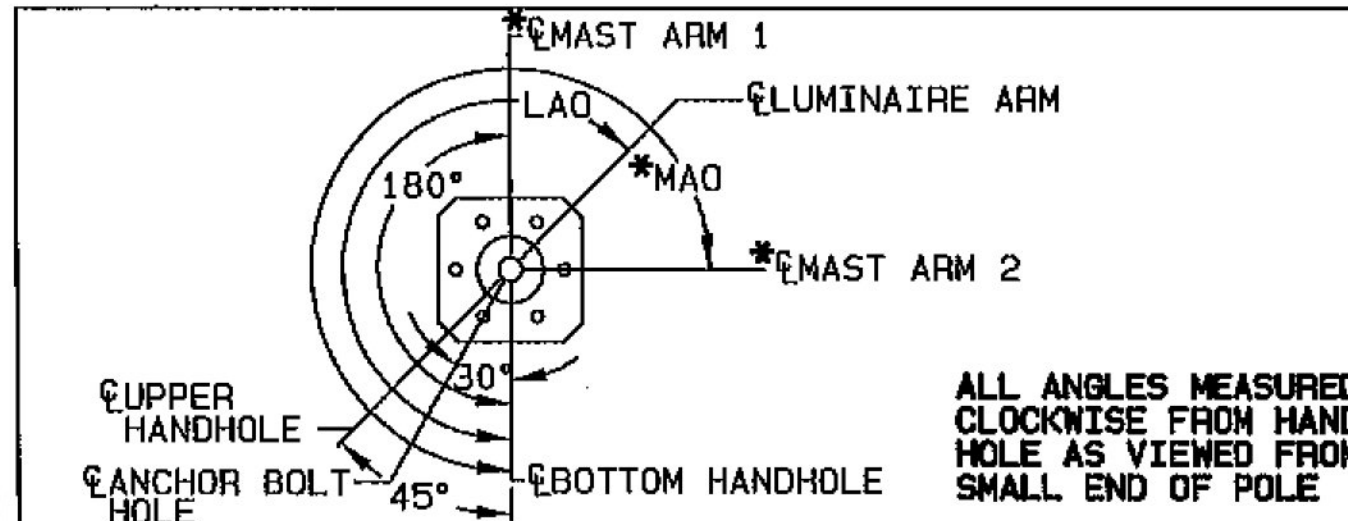
AASHTO 2013 SPECIFICATIONS

ALTHOUGH RARE, VIBRATIONS SEVERE ENOUGH TO CAUSE DAMAGE CAN OCCASIONALLY OCCUR IN STRUCTURES OF ALL TYPES. BECAUSE THEY ARE INFLUENCED BY MANY INTERACTING VARIABLES, VIBRATIONS ARE GENERALLY UNPREDICTABLE. THE USER'S MAINTENANCE PROGRAM SHOULD INCLUDE OBSERVATION FOR EXCESSIVE VIBRATION AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING. THE VALMONT WARRANTY SPECIFICALLY EXCLUDES FATIGUE FAILURE OR SIMILAR PHENOMENA RESULTING FROM INDUCED VIBRATION, HARMONIC OSCILLATION OR RESONANCE ASSOCIATED WITH MOVEMENT OF AIR CURRENTS AROUND THE PRODUCT.

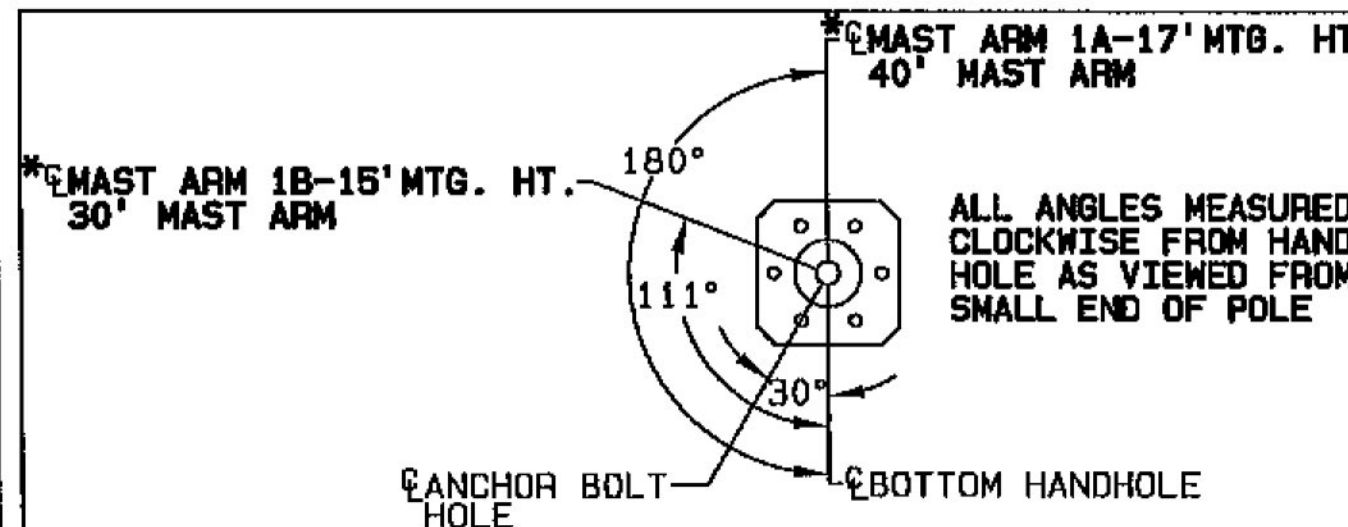
VIBRATION NOTE



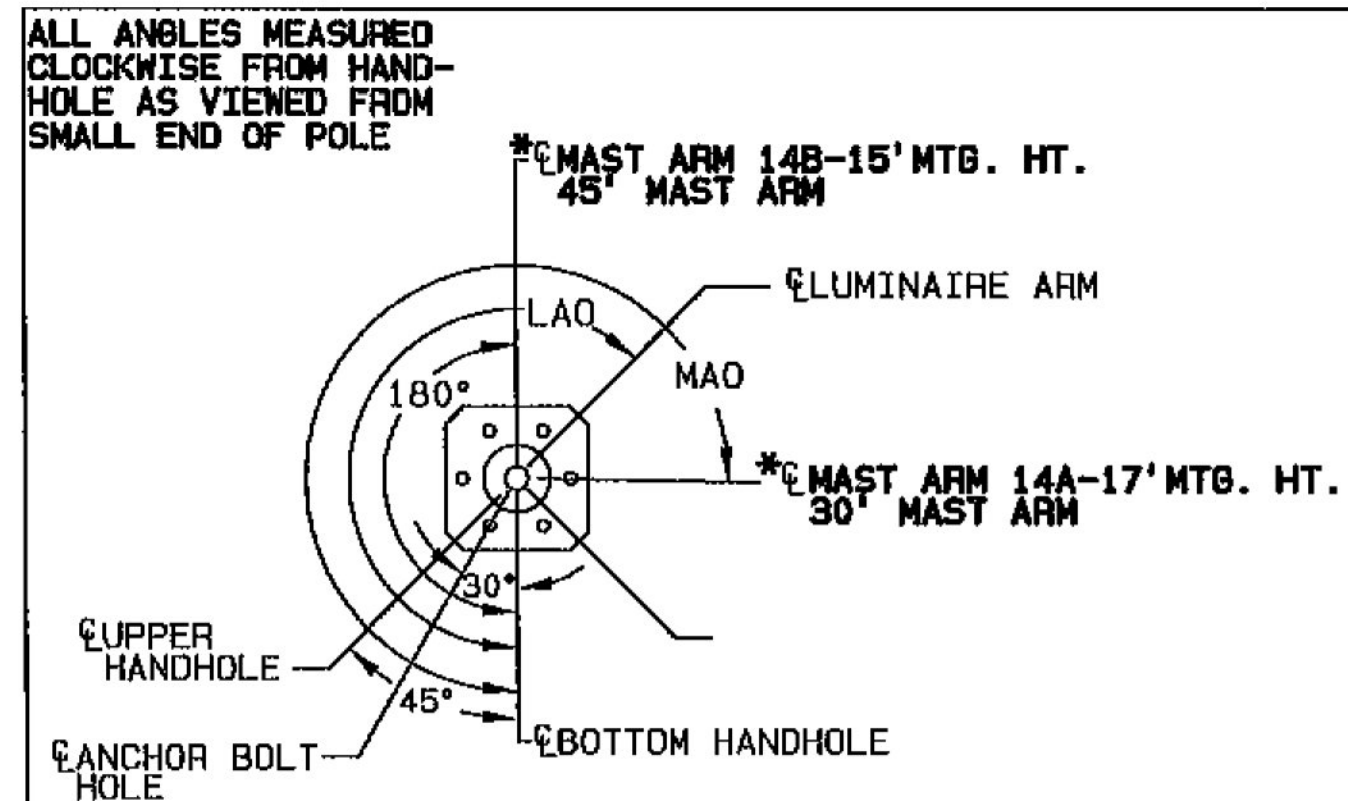
RADIAL INDEX - SINGLE MAST ARM & LUM. ARM



RADIAL INDEX - TWIN MAST ARM & LUM. ARM



RADIAL INDEX - MAP-1 ONLY



RADIAL INDEX - MAP-14 ONLY

***NOTES:**

1. ALL MAST ARM ORIENTATIONS MUST BE VERIFIED AT TIME OF RELEASE FOR MANUFACTURE. FAILURE TO DO SO WILL RESULT IN THE ORDER BEING PLACED ON HOLD.

(ALL ANGLES SHOWN ARE MEASURED FROM THE HANDHOLE AT THE BASE OF POLE AS VIEWED FROM THE SMALL END OF THE POLE)

2. (1) EXTRA ANCHOR BOLT PER POLE AND (1) EXTRA CONNECTING BOLT PER ARM SENT FOR TESTING.

JOB VAOT
WILLISTON-ESSEX STPG SGNL (46)
TITLE TRAFFIC SIGNAL STRUCTURES

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

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PAGE NUMBER: 2 OF 3
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