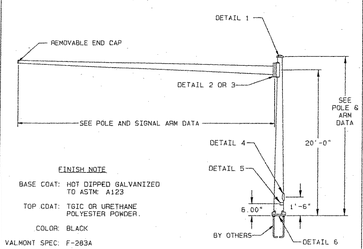



FINISH NOTE

BASE COAT: HOT DIPPED GALVANIZED TO ASTM A123

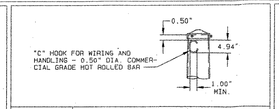
TOP COAT: TGIC OR URETHANE POLYESTER POWDER.

COLOR: BLACK

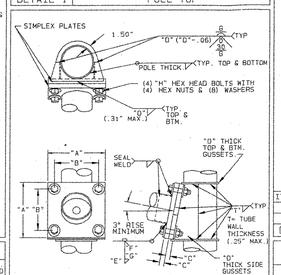
VALMONT SPEC: F-203A

NOTE:

1" I.D. GROMMETS WILL BE SUPPLIED FOR 1.38" DIAMETER HOLES AT EACH SIGNAL LOCATION. HOLES IN ARMS TO BE FIELD DRILLED.

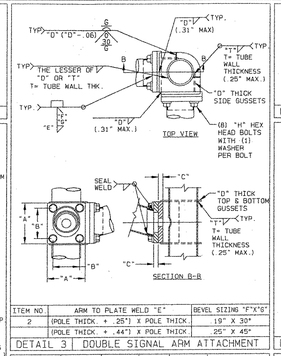



DETAIL 1 — POLE TOP




| ITEM NO. | ARM TO PLATE WELD "E" | BEVEL SIZING "F"X"G" |
|---|---|---|
| 1 | (POLE THICK + .25") X POLE THICK. | .19" X 30° |
| | (POLE THICK + .44") X POLE THICK. | .25" X 45° |

DETAIL 2 — SIGNAL ARM ATTACHMENT



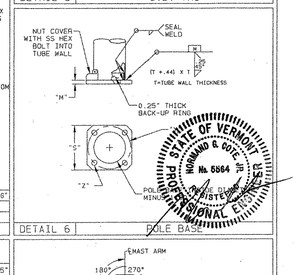

| ITEM NO. | ARM TO PLATE WELD "E" | BEVEL SIZING "F"X"G" |
|---|---|---|
| 2 | (POLE THICK. + .25") X POLE THICK. | .19" X 30° |
| | (POLE THICK. + .44") X POLE THICK. | .25" X 45° |

DETAIL 3 — DOUBLE SIGNAL ARM ATTACHMENT

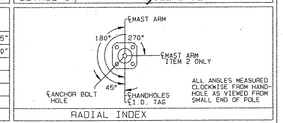



1.50" X 3.25" ALUMINUM IDENTIFICATION TAG SECURED TO POLE SHAFT WITH (2) 0.19" RIVETS AT 6" UP FROM BASE STAMPED AS SHOWN

DETAIL 5 — I.D. TAG




DETAIL 6 — POLE BASE




ALL ANGLES MEASURED CLOCKWISE FROM HANDHOLE AS VIEWED FROM SMALL END OF POLE

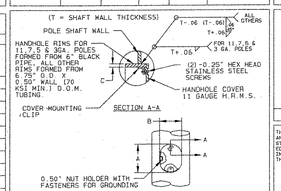
RADIAL INDEX

## MATERIAL DATA

| COMPONENT | ASTM DESIGNATION | MIN. YIELD (KSI) | COMPONENT | ASTM DESIGNATION | MIN. YIELD (KSI) |
|---|---|---|---|---|---|
| POLE SHAFT-5 GA. | A595 GR.A | 48 | | | |
| POLE BASE | A36 | 36 | | | |
| SIGNAL ARM SHAFT | A595 GR.A | 48 | | | |
| SIGNAL ARM CONNECTION | A36 | 36 | | | |
| SIGNAL ARM CONN. BOLTS | A325 | | | | |
| GALVANIZING- HARDWARE | A153 | | | | |

## POLE AND SIGNAL ARM DATA

| ITEM | QTY. | POLE TUBE: BASE DIA. (IN) | POLE TUBE: TOP DIA. (IN) | POLE TUBE: LENGTH (FT) | POLE TUBE: GAUGE OR THK. (IN) | POLE BASE: SQUARE "S" (IN) | POLE BASE: BOLT CIRCLE "Y" (IN) | POLE BASE: THK. "M" (IN) | POLE BASE: HOLE / SLOT "Z" (IN) | ANCHOR BOLT: DIA. "K" (IN) | ANCHOR BOLT: LENGTH "J" (IN) | ANCHOR BOLT: HOOK "H" (IN) | ANCHOR BOLT: THREAD LENGTH "U" (IN) | SIGNAL ARM TUBE: FIXED END DIA. (IN) | SIGNAL ARM TUBE: FREE END DIA. (IN) | SIGNAL ARM TUBE: GAUGE OR THICK. (IN) | SIGNAL ARM TUBE: SPAN (FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 11.00 | 8.06 | 21.00 | 7 | 16.50 | 15.00 | 1.50 | 1.50 | 1.25 | BY OTHERS | | | 9.00 | 4.10 | 7 | 35.00 |
| 2 | 1 | 12.00 | 9.06 | 21.00 | 7 | 17.00 | 16.00 | 1.50 | 1.50 | 1.25 | BY OTHERS | | | 9.00 | 4.10 | 7 | 35.00 |
| | | | | | | | | | | | | | | 9.00 | 4.10 | 7 | 35.00 |




| POLE GA. | A | B | C |
|---|---|---|---|
| 11,7,5 & 3 | 7.56" | 5.19" | 0.280" |
| ALL OTHERS | 7.56" | 5.50" | 0.500" |

DETAIL 4 — HANDHOLE

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

THESE TRAFFIC SIGNAL SUPPORT STRUCTURES ARE DESIGNED IN ACCORDANCE WITH LOADING AND ALLOWABLE STRESS REQUIREMENTS OF 2001 AASHTO "STANDARDS SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", FOURTH EDITION. WIND LOADS ARE BASED ON A BASIC WIND SPEED OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS AS SHOWN ON THE WIND SPEED MAP. STRESSES ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 AND THE FOLLOWING DESIGN LOADS:

VORTEX SHEDDING: NOT APPLICABLE FOR STRUCTURES WITH A TAPER OF AT LEAST 5.14 IN/FT. PER AASHTO.

NATURAL WIND GUSTS: THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS WILL BE ASSUMED TO BE 112 MPH.

GALLOPING: STRUCTURES ARE NOT DESIGNED TO RESIST PERIODIC GALLOPING FORCES.

TRUCK-INDUCED GUST: STRUCTURES ARE DESIGNED TO INCLUDE TRUCK-INDUCED GUSTS. (THE SPECIFIED AVERAGE TRUCK SPEED IS 40 MPH)

AASHTO 2001 SPECIFICATIONS

STATE OF VERMONT — RICHARD G. COTE — No. 6864 — PROFESSIONAL ENGINEER — NOT VALID WITHOUT RAISED SEAL

| REV | DRAWN BY-DATE | CHECK BY-DATE | DESCRIPTION |
|---|---|---|---|
| — | BCM 03/07/08 | BCM 03/10/08 | — — —