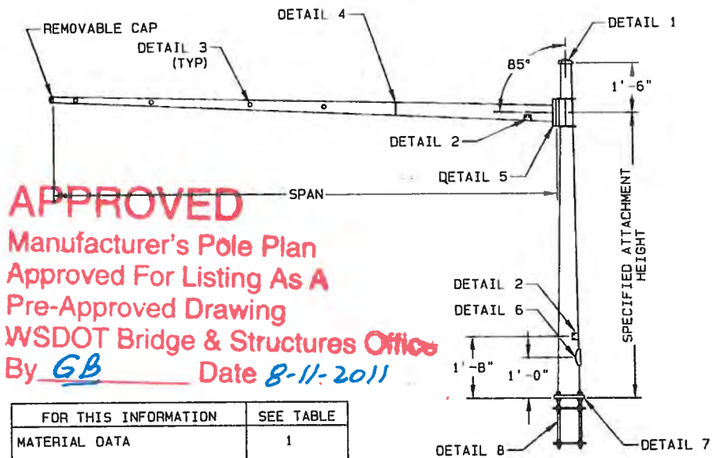
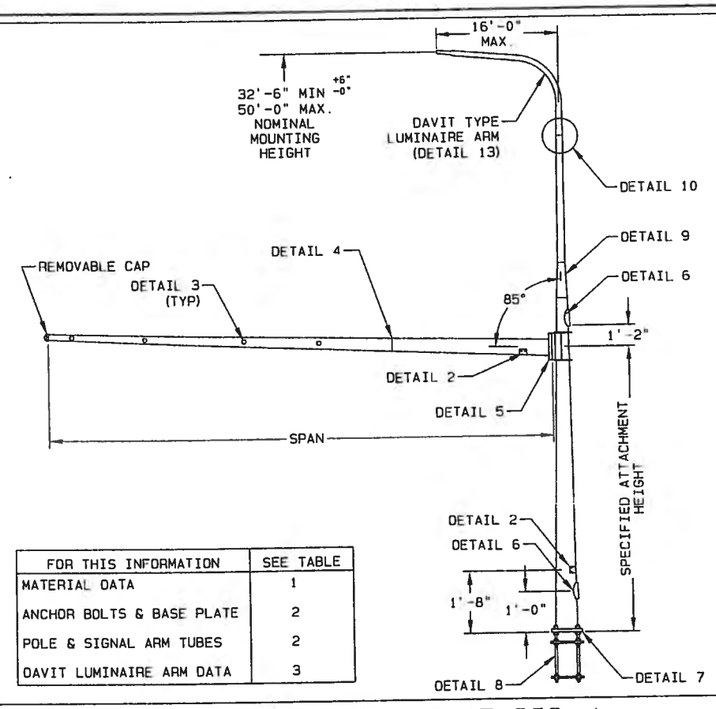


APPROVED
Manufacturer's Pole Plan
Approved For Listing As A
Pre-Approved Drawing
WSDOT Bridge & Structures Office
By GB Date 8-11-2011

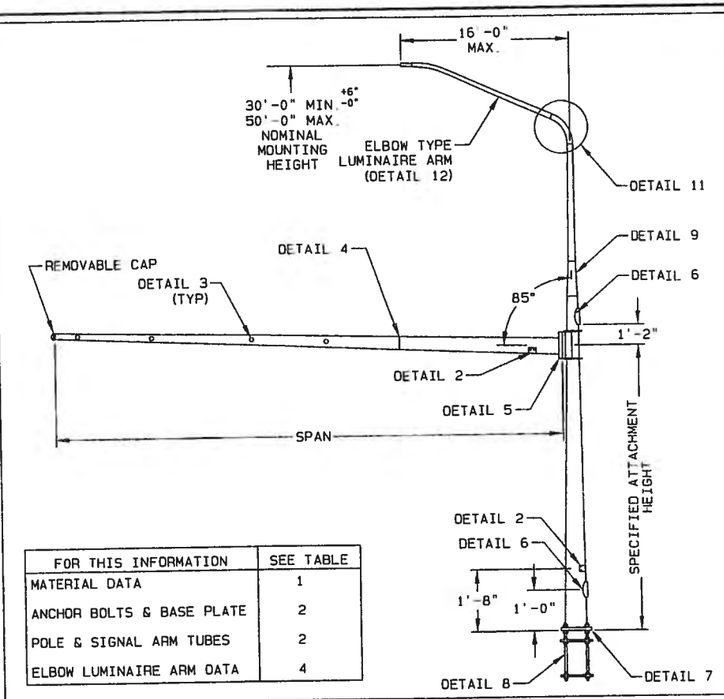
FOR THIS INFORMATION	SEE TABLE
MATERIAL DATA	1
ANCHOR BOLTS & BASE PLATE	2
POLE & SIGNAL ARM TUBES	2

WASHINGTON POLE TYPE II



FOR THIS INFORMATION	SEE TABLE
MATERIAL DATA	1
ANCHOR BOLTS & BASE PLATE	2
POLE & SIGNAL ARM TUBES	2
DAVIT LUMINAIRE ARM DATA	3

WASHINGTON POLE TYPE III-J



FOR THIS INFORMATION	SEE TABLE
MATERIAL DATA	1
ANCHOR BOLTS & BASE PLATE	2
POLE & SIGNAL ARM TUBES	2
ELBOW LUMINAIRE ARM DATA	4

WASHINGTON POLE TYPE III-T

DESIGN CRITERIA:
2009 AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.
-50 YEAR DESIGN LIFE/RECURRENCE INTERVAL
-FATIGUE CATEGORY III
-GALLOPING & TRUCK-INDUCED FATIGUE INCLUDED

WIND VELOCITY:
90 MPH ISOTACH.

MAXIMUM TRUCK-INDUCED FATIGUE
65 MPH

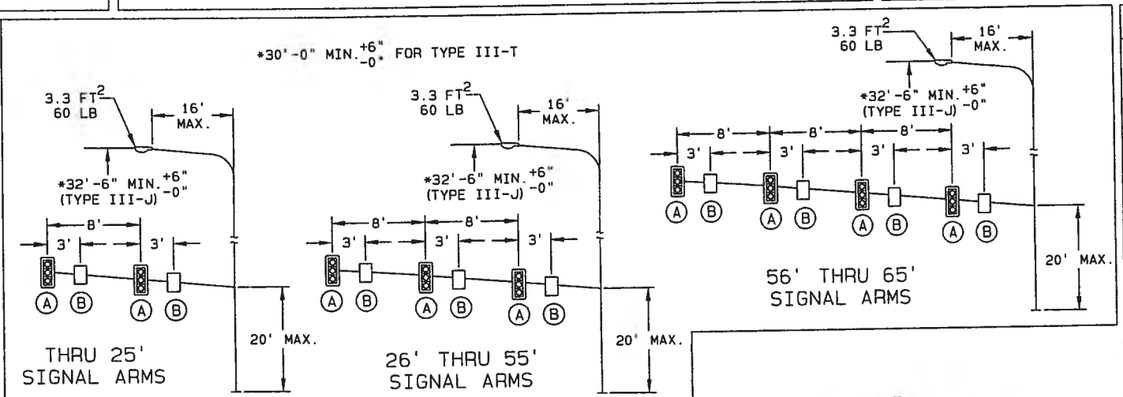
CAFL AT CRITICAL CONNECTIONS
-POLE TO BASE PLATE CONNECTION = D
-ARM TO SIMPLEX PLATE CONNECTION = D
-SIMPLEX GUSSETS = ET
-POLE WALL AT SIMPLEX GUSSET = E
-POLE SHAFT = B'

LONGITUDINAL WELD SEAM:

WELDING PROCESS:
HYBRID LBW/GMAW. (POLE/SIGNAL ARM SHAFT (0.2500, 0.3125 & 0.3750)
HIGH FREQUENCY ELECTRIC RESISTANCE WELD. (POLE/SIGNAL ARM SHAFT (5 GA., 7 GA. & 11 GA.)

WELD INSPECTION:
ALL LONGITUDINAL SEAM WELDS SHALL BE INSPECTED BY MAGNETIC PARTICLE METHOD FOR 30% OF LENGTH EXCEPT FOR SHAFT THICKNESS OVER 0.3125 TO BE ULTRASONIC METHOD.

WELDING:
WELDING OF STRUCTURES SHALL BE IN ACCORDANCE WITH LATEST OF THE AWS STRUCTURAL WELDING CODE D1.1-STEEL. LONGITUDINAL SEAM WELD IS 60% MINIMUM PENETRATION EXCEPT 100% PENETRATION FOR 6 INCHES FROM END OF SECTION AT FLANGE PLATE OR BASEPLATE. SLIP JOINTS SHALL BE A MINIMUM OF 1.5 X FEMALE SECTION DIA + 6 INCHES.



DEVICE	DESCRIPTION	PROJ. AREA (FT²)	WEIGHT (LBS)
(A) SIGNAL	12"-3 SEC. SIGNAL WITH BACKPLATES	9.20	60
(B) SIGN	30" X 24" DIRECTIONAL SIGN	5.00	60

XYZ VALUES LISTED ON PAGE 2 OF 3 INCLUDE SIGNS AND SIGNALS, AND ONE LUMINAIRE WITH A 16'-0" ARM ON THE TYPE III POLES

LOADING INFORMATION

STEPHEN R. OSBORN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
8/9/11

TABLE 1: MATERIAL DATA

COMPONENT	DESIGNATION	MIN. YIELD (KSI)
POLE AND SIGNAL ARM TAPERED TUBES	A595 GR. A OR A572	55
BASE PLATE	A36 OR A572 GR. 50	36 50
SIGNAL ARM ATTACHMENT PLATES AND GUSSET PLATES	A36 OR A572 GR. 50	36 50
SIGNAL ARM CONN. BOLTS	A325	--
LUMINAIRE ARM POLE TOP EXTENSION REDUCING CONE	A595 GR. A A595 GR. A A595 GR. A	55 55 55
HANDHOLE RIM	A500 GR. B OR C A513 GR. 1035 OR 1040 *WITH FURTHER RESTRICTION ON MINIMUM YIELD STRENGTH HELD TO 50 KSI.	50* 50
PIPE TUBING ELBOW	A53 GR. B A501 A513 GR. 1015 A618 A500 GR. B A513 TYPE 5 GR. 1026	35 36 35 50 42 45
ANCHOR BOLTS NUTS WASHERS	F 1554 ASTM A563 GR. DH ASTM F436	105 -- --
GALVANIZING - STRUCTURE GALVANIZING - HARDWARE	A123 F2329	-- --

REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION
R	BDB3 07/22/11	BDB3 07/22/11	ADDED HANGING DETAIL / HLAW WELD NOTES
P	BDB3 08/05/10	BDB3 08/05/10	UPDATED TO 2009 AASHTO
N	JKC 02/03/10	JKC 02/04/10	ADDED WELD INSPECTION NOTES
—	JKC 05/08/02	JKC 05/10/02	— — — — — — — — — — — — — — — —

TITLE STATE OF WASHINGTON
TRAFFIC SIGNAL STRUCTURES

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

valmont
Valley, NE 68064
(402) 359-2201

PAGE NUMBER: 1 OF 4
DRAWING NUMBER DB00625
REV R