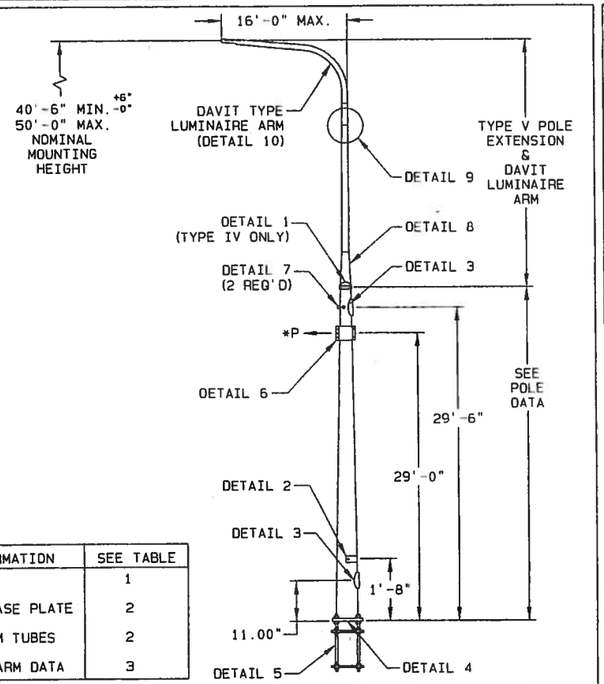


FOR THIS INFORMATION	SEE TABLE
MATERIAL DATA	1
ANCHOR BOLTS & BASE PLATE	2
POLE & SIGNAL ARM TUBES	2
DAVIT LUMINAIRE ARM DATA	3

WASHINGTON STRAIN POLE

DESIGN CRITERIA:
2009 AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.
-50 YEAR DESIGN LIFE/RECURRENCE INTERVAL

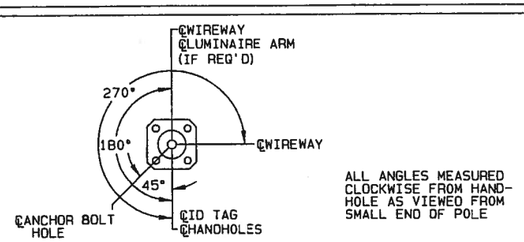
WIND VELOCITY:
90 MPH ISOTACH.

LONGITUDINAL WELD SEAM:
WELDING PROCESS:
HYBRID LBW/GMAW. (POLE SHAFT (0.2500, 3 GA. & 0.3125)
HIGH FREQUENCY ELECTRIC RESISTANCE WELD. (POLE SHAFT (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 BASEPLATE. SLIP JOINTS SHALL BE A MINIMUM OF 1.5 X FEMALE SECTION DIA + 6 INCHES.

LOADING INFORMATION



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

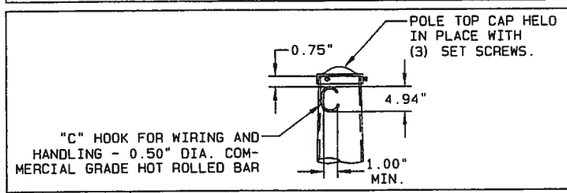
RADIAL INDEX

TABLE 2: POLE DATA

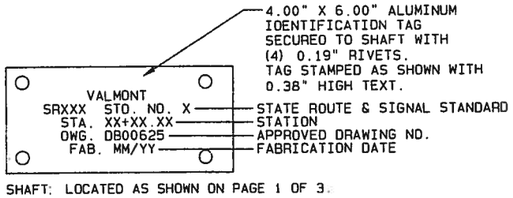
QTY.	POLE TYPE	POLE CLASS	POLE TUBE				POLE BASE				ANCHOR BOLT				LUMINAIRE ARM LENGTH (FT)
			BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	THREAD LENGTH "U" (IN)	ANCHOR PLATE D.D. (IN)	
	TYPE IV	1900#	11.00	6.80	30.00	0.239	15.00	15.00	1.500	1.50	1.25	60.00	18.00	19.00	N/A
	TYPE IV	2700#	12.50	8.30	30.00	0.239	17.00	17.00	1.500	1.75	1.50	60.00	18.00	21.00	N/A
	TYPE IV	3700#	14.00	9.80	30.00	0.250	19.00	19.00	1.500	1.75	1.50	60.00	18.00	23.00	N/A
	TYPE IV	4800#	14.00	9.80	30.00	0.313	20.00	20.00	1.750	2.00	1.75	60.00	18.00	24.00	N/A
	TYPE IV	5600#	15.00	10.80	30.00	0.313	20.00	20.00	1.750	2.00	1.75	60.00	18.00	24.00	N/A
	TYPE IV	6300#	16.00	11.80	30.00	0.313	22.00	22.00	1.750	2.00	1.75	60.00	18.00	26.00	N/A
	TYPE IV	7200#	17.00	12.80	30.00	0.313	22.00	22.00	1.750	2.00	1.75	60.00	18.00	26.00	N/A
	TYPE V	1900#	11.00	6.80	30.00	0.239	15.00	15.00	1.500	1.50	1.25	60.00	18.00	19.00	6' - 16' SPAN
	TYPE V	2700#	12.50	8.30	30.00	0.239	17.00	17.00	1.500	1.75	1.50	60.00	18.00	21.00	6' - 16' SPAN
	TYPE V	3700#	14.00	9.80	30.00	0.250	19.00	19.00	1.500	1.75	1.50	60.00	18.00	23.00	6' - 16' SPAN
	TYPE V	4800#	14.00	9.80	30.00	0.313	20.00	20.00	1.750	2.00	1.75	60.00	18.00	24.00	6' - 16' SPAN
	TYPE V	5600#	15.00	10.80	30.00	0.313	20.00	20.00	1.750	2.00	1.75	60.00	18.00	24.00	6' - 16' SPAN
	TYPE V	6300#	16.00	11.80	30.00	0.313	22.00	22.00	1.750	2.00	1.75	60.00	18.00	26.00	6' - 16' SPAN
	TYPE V	7200#	17.00	12.80	30.00	0.313	22.00	22.00	1.750	2.00	1.75	60.00	18.00	26.00	6' - 16' SPAN

TABLE 1: MATERIAL DATA

COMPONENT	DESIGNATION	MIN. YIELD (KSI)
TAPERED TUBES	A595 GR. A OR A572	55
REDUCING CONE	A595 GR. A	55
BASE PLATE	A572 GR. 50	50
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
ANCHOR BOLTS NUTS WASHERS	F 1554 ASTM A563 GR.DH ASTM F436	105 -- --
GALVANIZING - STRUCTURE	A123	--
GALVANIZING - HARDWARE	F2329	--

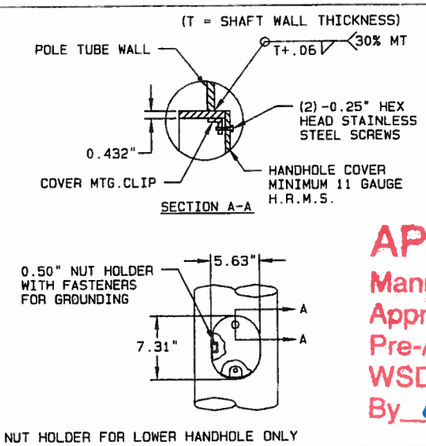


DETAIL 1 | POLE TOP CAP - TYPE IV ONLY

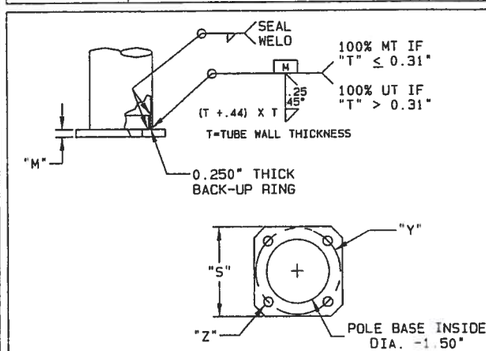


POLE SHAFT: LOCATED AS SHOWN ON PAGE 1 OF 3.
LUMINAIRE ARM: LOCATED AS SHOWN ON DETAILS 12 & 13, PAGE 3 OF 3.

DETAIL 2 | IDENTIFICATION TAG



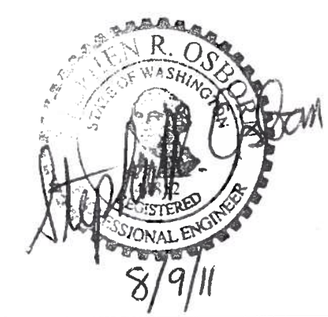
DETAIL 3 | HANDHOLE



DETAIL 4 | POLE BASE

PLEASE PROVIDE ID TAG STAMPING INFORMATION

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



REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION
A	BDB3 07/22/11	BDB3 07/22/11	ADDED HANGING DETAIL / HLAW WELD NOTES
—	BDB3 06/03/11	BDB3 06/03/11	— — —