

QTY	STD. NO.	SR. NO.	SR MILE POST	UMC DESIGN NUMBER	MAST ARM DATA					MAST ARM FLANGE CONNECTION DATA (in)							POLE TUBE SIZE	POLE BASE CONNECTION DATA (in)					MAX. ALLOWABLE XYZ VALUES (CU. FT)				
					MAX SPAN	TUBE SIZE	MIN JOINT	NOM JOINT	MTG HGT	ORIENT	BOLT Ø	X	Y	W	H	APL		PPL	G	B.C.	S	F		P	T	BASE WELD	ANCHOR BOLT SIZE
				71026-B86-Y1	15'-0"	7E-6.00x3.90x15'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	7E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	251
				71026-B86-Y2	20'-0"	7E-6.00x3.20x20'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	7E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	409
				71026-B86-Y3	25'-0"	7E-7.50x4.00x25'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	3E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	855
				71026-B86-Y4	30'-0"	7E-8.50x4.30x30'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	3E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	865
				71026-B86-Y5	35'-0"	7E-10.00x5.10x35'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	3E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	1075
				71026-B86-Y6	40'-0"	7E-11.00x5.40x40'-0"	-	-	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	0E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	1285
				71026-B86-Y7	45'-0"	7E-11.00x6.80x30'-0" 11E-7.29x4.98x16'-8"	10.6"	18"	20'-0"	0°	1 1/4	6 1/2	14	13	18	1 1/4	1 1/4	1/4	0E-14.00x10.92x22'-0"	18	18	12 3/4	6 1/4	1 1/2	SOCKET	1 1/2 x 60	1495
				71026-B86-Y8	50'-0"	7E-12.00x7.80x30'-0" 11E-8.29x5.28x21'-6"	12.1"	18"	20'-0"	0°	1 1/2	9	15	16	20	1 1/2	1 1/2	1/4	3E-16.25x13.17x22'-0"	22	22	15 9/16	8 1/4	2	FULL PEN	2 x 60	1705
				71026-B86-Y9	55'-0"	7E-12.50x8.30x30'-0" 11E-8.83x5.09x26'-9"	12.9"	21"	20'-0"	0°	1 1/2	9	15	16	20	1 1/2	1 1/2	1/4	3E-16.25x13.17x22'-0"	22	22	15 9/16	8 1/4	2	FULL PEN	2 x 60	1915
				71026-B86-Y10	60'-0"	3E-12.50x7.60x35'-0" 11E-8.09x4.38x26'-6"	11.8"	18"	20'-0"	0°	1 1/2	9	15	16	20	1 1/2	1 1/2	1/4	0.375E-16.25x13.17x22'-0"-J	22	22	15 9/16	8 1/4	2	FULL PEN	2 x 60	2609
				71026-B86-Y11	65'-0"	3E-13.00x7.68x38'-0" 7E-8.29x4.30x28'-6"	11.9"	18"	20'-0"	0°	1 1/2	10	15	16	20	1 3/4	1 1/2	1/4	0.375E-16.25x13.17x22'-0"-J	22	22	15 9/16	8 1/4	2	FULL PEN	2 x 60	2889

FORMULA: MAX ALLOW = Σ(P.A.)x(MOM ARM)

11 GA = 0.120" WALL THICKNESS
7 GA = 0.179" WALL THICKNESS
3 GA = 0.250" WALL THICKNESS
0 GA = 0.313" WALL THICKNESS
0.375 = 0.375" WALL THICKNESS
E = ROUND TAPERED STEEL TUBE @ 0.14 in/r TAPER

SIGNAL LOCATIONS					
DESIGN NUMBER	SPAN	SIGNAL (E or S)	K1	K2	K3

NOTE: ALL SIGNALS ON NEAR SIDE OF ARM

RATING NOTE:
DESIGNED PER 2009 AASHTO
BASIC WIND SPEED: 90 MPH
DESIGN LIFE: 50 YEARS
FATIGUE CATEGORY: III
GALLOPING LOADS: YES (H=0.3)
TRUCK GUSTS: YES (H=0.70)
NATURAL WIND: YES (H=0.55)
CAFL AT CRITICAL CONNECTIONS:
POLE TO BASE PLATE CONNECTION
A. SOCKET DETAIL W/ FILLET WELD = E'
B. FULL PENETRATION WELD = D
ARM TO PLATE CONNECTION
A. SOCKET DETAIL W/ FILLET WELD = E'
B. FULL PENETRATION WELD = D
FLANGE GUSSETS = E'
POLE WALL AT FLANGE GUSSETS = E'
POLE JUST BELOW FLANGE BOX = E
POLE SHAFT = B'
TELESCOPIC JOINT = B

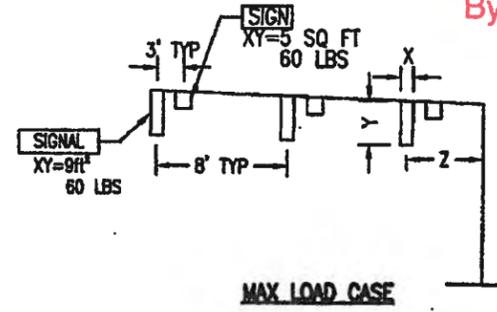
MATERIAL SPECIFICATIONS	
TAPERED TUBE	ASTM A595 GR A
-J "COLLEY" TUBE	ASTM-A572 GR 50 MIN
PLATE	ASTM A36
BAR HANDHOLE FRAME	ASTM A529 GR 50 (PREFERRED) or ASTM A572 GR 50 or ASTM A709 GR 50
HANDHOLE COVER	ASTM A36 or A1011
ANCHOR BOLTS	ASTM F1554 GR 105
ANCHOR BOLT NUTS	ASTM A563 GR DH
FLAT WASHERS	ASTM F436
ARM CONNECTION BOLTS	ASTM A325
ARM JOINT STUD	ASTM A36
"ANCO" LOCK NUTS	ASTM A563 GR DH
ARM END CAP	ASTM A1011
PIPE	ASTM A501, A53 GR B, or A500 GR B
S.S. HARDWARE	AISI-300 SERIES (18-8)
STRUCTURE FINISH	HD GALV TO ASTM A123
HARDWARE FINISH	HD GALV TO ASTM A153

WELDING NOTE:
• WELDING PER AWS D1.1 STRUCTURAL WELDING CODE, 2008 AND SECTION 1.4.2 OF THE SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, AASHTO 2009."
• LONGITUDINAL SEAM WELD IS 60% MINIMUM PENETRATION EXCEPT FOR 6 INCHES FROM END OF SECTION AT FLANGE, BASE PLATE AND SLIP JOINT ARE 100% PENETRATIONS

DESIGNED FOR MAX. ALLOW. XYZ VALUE AS CHARTED



5/21/12



APPROVED
Manufacturer's Pole Plan
Approved For Listing As A
Pre-Approved Drawing
WSDOT Bridge & Structures Office
By GB Date 5-30-2012

REV	DESCRIPTION	DATE	BY	CHK
R10	ADDED A500 GR B PIPE TO MATERIAL SPECS	9/30/11	ESB	BAR
R9	POLE TUBE SIZE CHG WAS 17.00 FOR Y8, Y9, Y10, Y11 ADDED -J COLLEY TUBE TO MATERIAL SPECIFICATIONS & Y10, Y11, CHANGED WALL THICKNESS OF Y10, Y11; WAS 3001 AASHTO	6/7/11	JAC	END
R8	DNV-OS1010-1: REVERSED ORIENTATIONS TO MATCH & "X" VALUE DIM'S; UPDATED DRAWING FOR ANCH.	12/7/10	GCH	END
R7	20273-4: REVERSED CENTER HOLE DIMENSION ON ANCHOR PLATES.	5/8/09	BAR	BAR

STATE: WASHINGTON REG. / SQ. : 0873-07-1

PROJECT NAME: WASHINGTON DOT STANDARDS

TYPE II STEEL TRAFFIC POLES
STATE OF WASHINGTON DOT

DESIGNED BY: LCV CHECKED BY: SRJ DATE: 2/12/03 SCALE: NTS ENG REF: 71026-B34

71026-B86 R10 SHEET 1 OF 3

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