

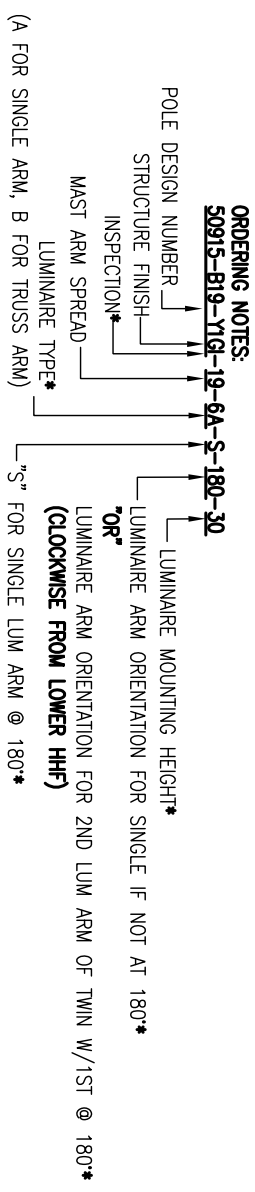
QTY	LUM ARM	UMIC DESIGN NUMBER	SPAN	MAST ARM TUBE SIZE	JOINT LENGTH (in)		MAST ARM RISE	MAST ARM ORIENTATION	NO LUMINAIRE POLE TUBE SIZE	LOW RISE POLE		MEDIUM RISE POLE		HIGH RISE POLE	
					NOM	MIN				LUM MTG HT	TUBE SIZE	LUM MTG HT	TUBE SIZE	LUM MTG HT	TUBE SIZE
		50915-B19-Y1	20'-0"	7E-8.00x5.20x20'-0"	-	-	2'		7E-12.00x9.34x19'-0"						
		50915-B19-Y2	22'-0"	7E-9.00x5.92x22'-0"	-	-	2'								
		50915-B19-Y3	24'-0"	7E-9.00x5.64x24'-0"	-	-	2'								
		50915-B19-Y4	26'-0"	7E-9.00x5.36x26'-0"	-	-	2'		3E-12.50x9.84x19'-0"						
		50915-B19-Y5	28'-0"	7E-9.00x5.08x28'-0"	-	-	2'								
		50915-B19-Y6	30'-0"	7E-10.00x5.80x30'-0"	-	-	3'								
		50915-B19-Y7	32'-0"	7E-10.50x6.02x32'-0"	-	-	3'								
		50915-B19-Y8	34'-0"	7E-11.00x6.24x34'-0"	-	-	3'		3E-13.00x10.34x19'-0"						
		50915-B19-Y9	36'-0"	7E-11.00x5.96x36'-0"	-	-	3'								
		50915-B19-Y10	38'-0"	7E-11.00x7.68x38'-0"	-	-	3'								
		50915-B19-Y11	40'-0"	7E-13.50x7.90x40'-0"	-	-	3'								
		50915-B19-Y12	42'-0"	7E-12.38x9.02x42'-0"	24	18.03	3'								
		50915-B19-Y13	44'-0"	7E-14.50x11.70x20'-0"	24	18.03	3"								
		50915-B19-Y14	46'-0"	7E-14.50x11.70x20'-0"	24	18.03	3'		3E-16.00x13.27x19'-6"						
		50915-B19-Y15	48'-0"	7E-12.38x8.46x28'-0"	24	18.03	3'								
		50915-B19-Y16	50'-0"	7E-14.50x11.70x20'-0"	24	18.03	3'	180°							
		50915-B19-Y17	52'-0"	7E-15.50x12.42x22'-0"	27	19.16	3'								
		50915-B19-Y18	54'-0"	7E-15.50x12.42x22'-0"	27	19.16	3'		3E-17.00x13.22x27'-0"						
		50915-B19-Y19	56'-0"	7E-15.50x12.42x22'-0"	27	19.16	3'								
		50915-B19-Y20	58'-0"	7E-15.50x12.42x22'-0"	27	19.16	3'								
		50915-B19-Y21	60'-0"	7E-14.17x10.50x26'-3"	27	20.72	3'								
		50915-B19-Y22	62'-0"	7E-18.50x13.46x36'-0"	27	20.72	3'								
		50915-B19-Y23	64'-0"	7E-14.17x10.22x28'-3"	27	20.72	3'								
		50915-B19-Y24	66'-0"	7E-14.17x9.94x30'-3"	27	20.72	3'								
		50915-B19-Y25	68'-0"	7E-18.50x13.46x36'-0"	27	20.72	3'								
		50915-B19-Y26	70'-0"	7E-18.50x13.46x36'-0"	27	20.72	3'								

7 GA = 0.179" WALL THICKNESS
 3 GA = 0.250" WALL THICKNESS
 0 GA = 0.313" WALL THICKNESS
 E = ROUND TAPERED STEEL TUBE @ 0.14 in./ft TAPER

MATERIAL SPECIFICATIONS

	ASTM	MIN YIELD STRENGTH
TAPERED TUBE	ASTM A595 GR A	55 KSI
PLATE	ASTM A36	36 KSI
BASE PLATE	ASTM A572 GR 50	50 KSI
HANDHOLE FRAME	ASTM A572 GR 50	50 KSI
HANDHOLE COVER	ASTM A36	36 KSI
ANCHOR BOLTS	ASTM F1554 GR 55	55 KSI
ANCHOR BOLT NUTS	ASTM A563 GR A	55 KSI
FLAT WASHERS	ASTM F436	40 KSI
SIMPLEX	ASTM A576 FORGED STEEL	60 KSI
ARM CONNECTION BOLTS	ASTM A325	92 KSI
ARM CONNECTION NUTS	ASTM A563 GR DH	105 KSI
ARM JOINT STUD	ASTM A36	36 KSI
"ANCO" LOCK NUTS	ASTM A563 GR DH	105 KSI
POLE TOP/ARM END CAP	ASTM A1011	-
PIPE	A53 GR B or A500 GR B	35 KSI
S.S. HARDWARE	AS1-300 SERIES (18-8)	-
STRUCTURE FINISH	HD GALV TO ASTM A123	-
HARDWARE FINISH	HD GALV TO ASTM A153	-

TYPE A:
 6'-0" = 6A
 8'-0" = 8A
 TYPE B:
 10'-0" = 10B
 12'-0" = 12B



* OMIT IF NOT REQUIRED

DESIGN CRITERIA:

- DESIGNED IN ACCORDANCE WITH THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR 90 M.P.H. WIND ZONE. THE DESIGN PARAMETERS INCLUDE:
 50 YEAR STRUCTURE DESIGN LIFE
 FATIGUE CATEGORY II CONSIDERATION FOR:
 NO GALLOPING
 NATURAL WIND GUST
 NO TRUCK-INDUCED GUST
- THE EXPOSED LENGTH OF THE ANCHOR BOLT BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT SHOULD NOT EXCEED ONE BOLT DIAMETER.
- PER AASHTO THE MINIMUM LENGTH OF ANY TELESCOPIC FIELD JOINT SHALL BE 1.5 TIMES THE INSIDE DIAMETER OF THE END OF THE FEMALE SECTION.
- VIBRATION IS MORE LIKELY TO OCCUR WHEN STRUCTURES ARE INSTALLED WITHOUT ATTACHING THE SIGNALS AND OR SIGNS. THEREFORE, THE INTENDED EQUIPMENT OR DAMPENING DEVICES MUST BE INSTALLED AT THE TIME OF ERECTION. BECAUSE VIBRATION IS GENERALLY UNPREDICTABLE, A MAINTENANCE PROGRAM SHOULD INCLUDE INSPECTION FOR INDICATIONS OF EXCESSIVE VIBRATION OR FATIGUE AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING.
- ALL COMPLETE PENETRATION WELDS SHALL RECEIVE VISUAL AND UT INSPECTION IN ACCORDANCE WITH AWS D1.1. ALL OTHER WELDS SHALL RECEIVE VISUAL INSPECTION ON 100% OF WELDS, AND MT INSPECTION ON MIN. 30% OF WELDS.
- CUSTOMER TO CONFIRM ALL DIMENSIONS & ORIENTATIONS BEFORE RELEASING ORDER FOR MANUFACTURING.**

NOTE:
 SEE SHEET 3 FOR BASE AND MAST ARM CONNECTION DATA & HANDHOLE DETAILS

REV	DESCRIPTION	DATE	BY	CHK BY
R6.1	REVISED ORDERING NOTE TO INCLUDE FINISH, INSPECTION, AND MAST ARM SPREAD	3/22/23	MS	KS
R6	DESIGN LIFE WAS 25 YEARS, CA DIM WAS 7" FOR DESIGN Y1 / 13" FOR DESIGNS Y17-120 / 10 1/2" FOR DESIGNS Y21-726. UPDATED WELD PROCEDURES TO CURRENT UMIC STANDARDS. ADDED LUM ARM ORIENT TO PART NUMBER IN ORDERING NOTES	1/29/23	FJP	FJP
R5	REMOVED ANCHOR BOLT COVERS	2/20/17	AD	SAO
R4	Y10 THRU Y26 POLES WITHOUT LUM ARMS WERE 19'-0"	8/17/16	TNS	SAO
R3.1	Y17 THRU Y26 (NO LUM) POLE HTS WERE 19'-0"; ADDED POLE AND ARM ID. TAG LOCATIONS, AND SIZE	2/22/16	TNS	SAO
R3	ADDED ID TAG FORMAT FOR ARMS AND POLES	8/21/15	JEF	SAO
R2	LOWER HHF WAS 4'x6 1/2" & MOVED GROUND RETAINER FROM FRAME TO OPP. INSIDE POLE. UPPER HHF WAS 4'x6 1/2". REMOVED GRD & ADDED 3" HOOK. REVISED LOADING DIMENSION FOR "G" WAS 6'-0". ADDED TYPE B* TO ORDER NOTES; ADDED DIMENSION TO 2 BOLT SIMPLEX SIDE GUSSET.	7/15/15	DHG	SAO
R1	ADDED MIN. YIELD TO WATL. ADDED 1/2" J-HOOK DETAIL. ARM CONNECT WAS INT. & UPDATED WASHERS REQ'D. CHANGED "J" ON LOADING DIAGRAM	4/27/15	KNS	SAO

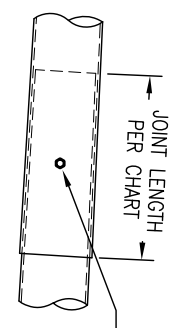
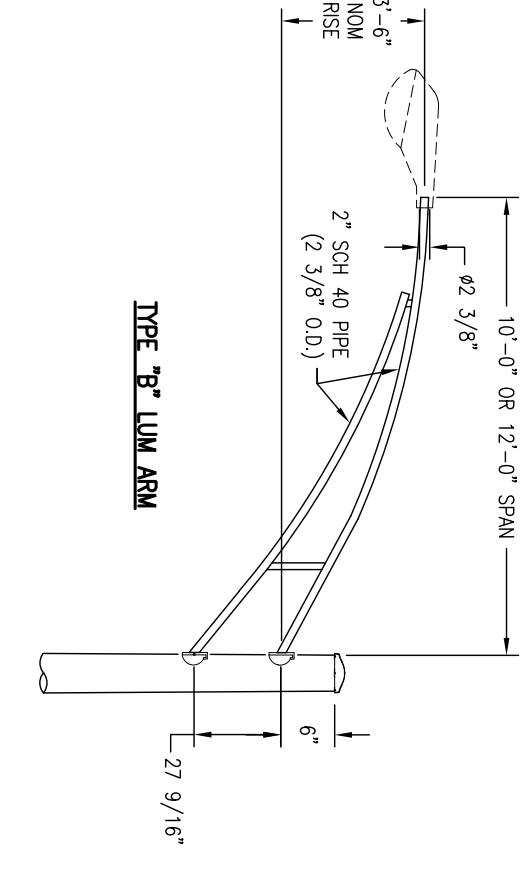
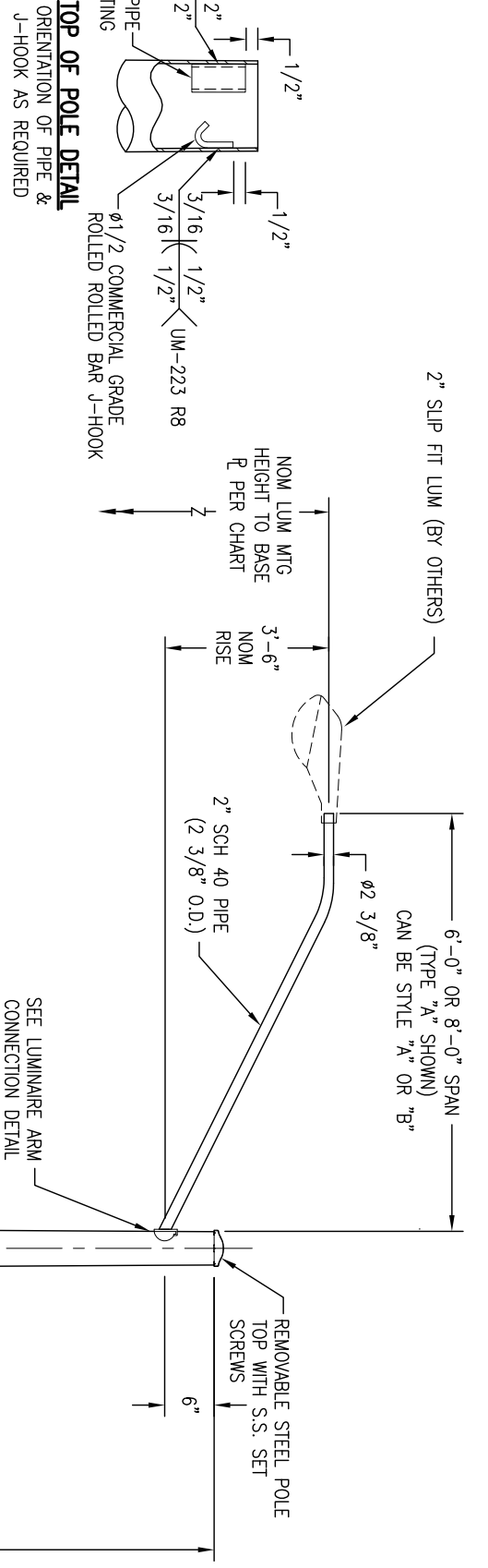
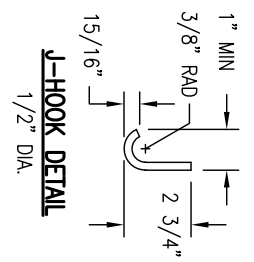
STATE: KS
 PROJECT NAME: TRAFFIC POLE STANDARDS
 REQ# / SO# : KS-54977-1

DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
JEF	JAB	8/8/14	NTS	50915-B1
50915-B19				R6.1
				1 OF 5

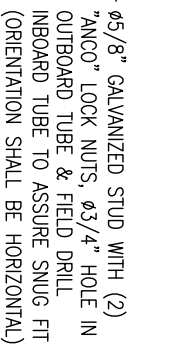
TAPERED STEEL TRAFFIC CONTROL STRUCTURES
 OVERLAND PARK, KANSAS

UNION METAL INDUSTRIES CORPORATION

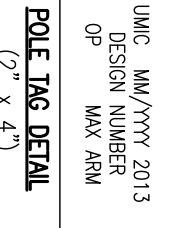
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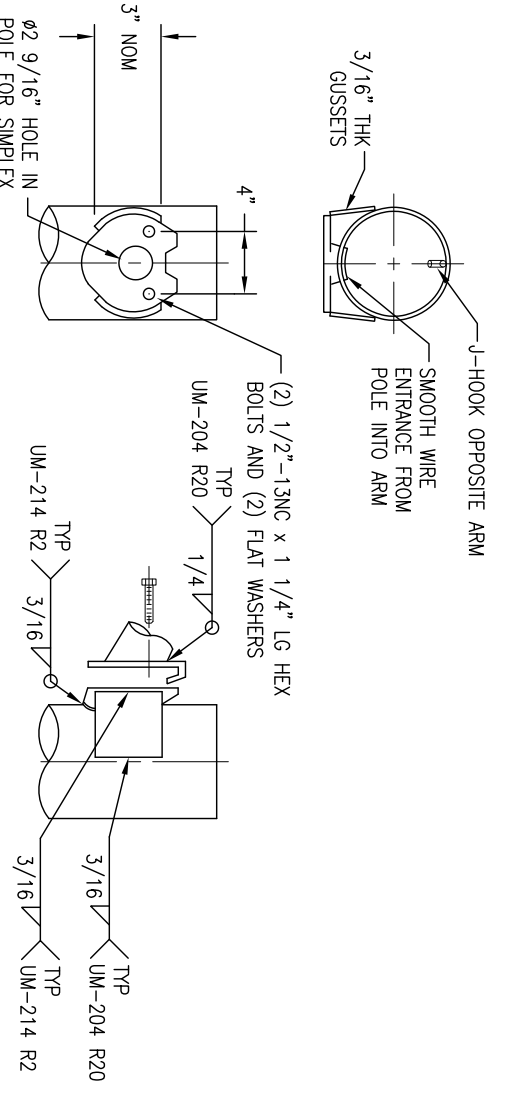
TELESCOPIC FIELD JOINT DETAIL
(FOR ARMS OVER 40'-0")



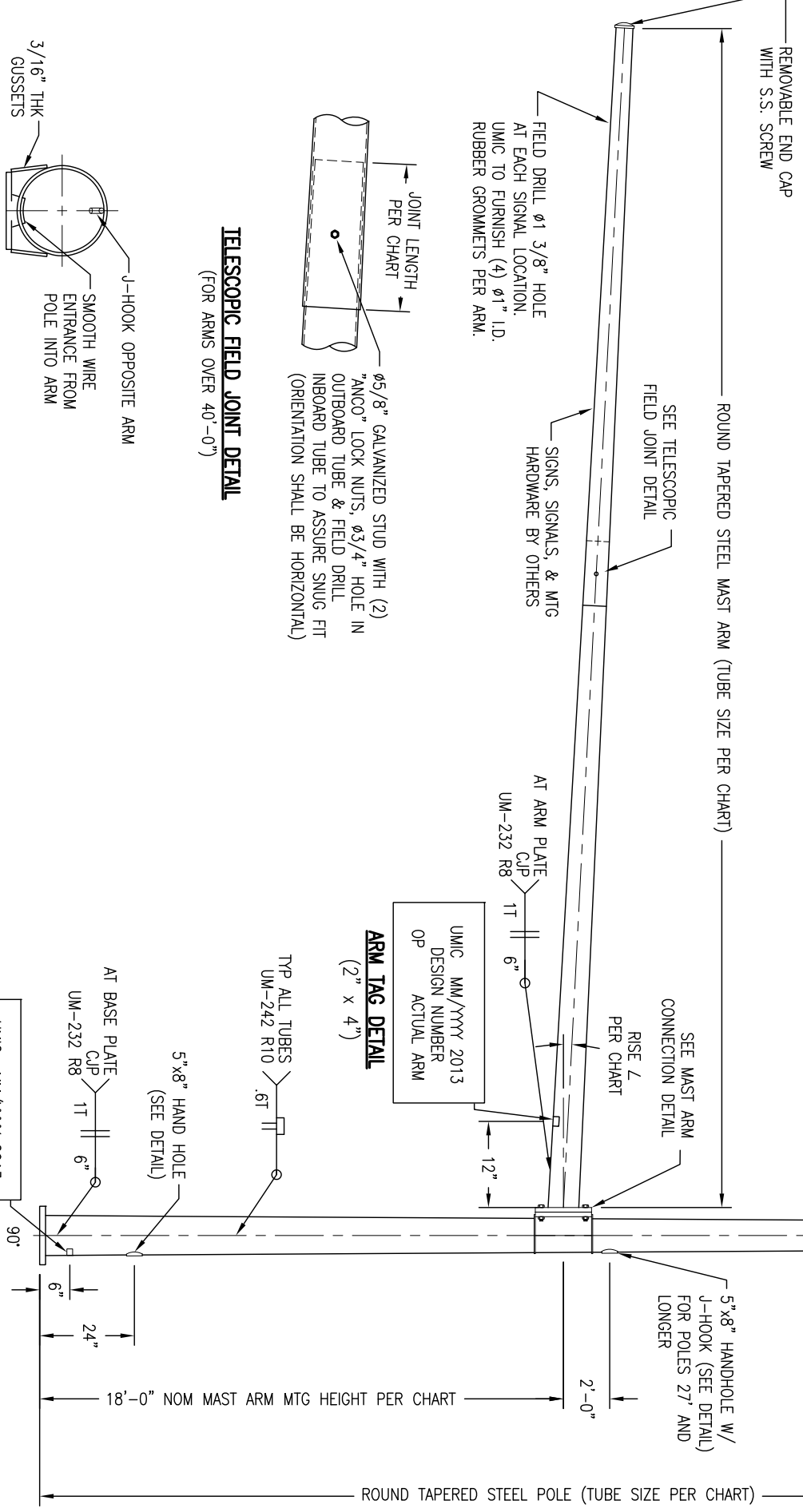
ARM TAG DETAIL
(2" x 4")



POLE TAG DETAIL
(2" x 4")



2-BOLT SIMPLEX LUMINAIRE ARM CONNECTION DETAIL



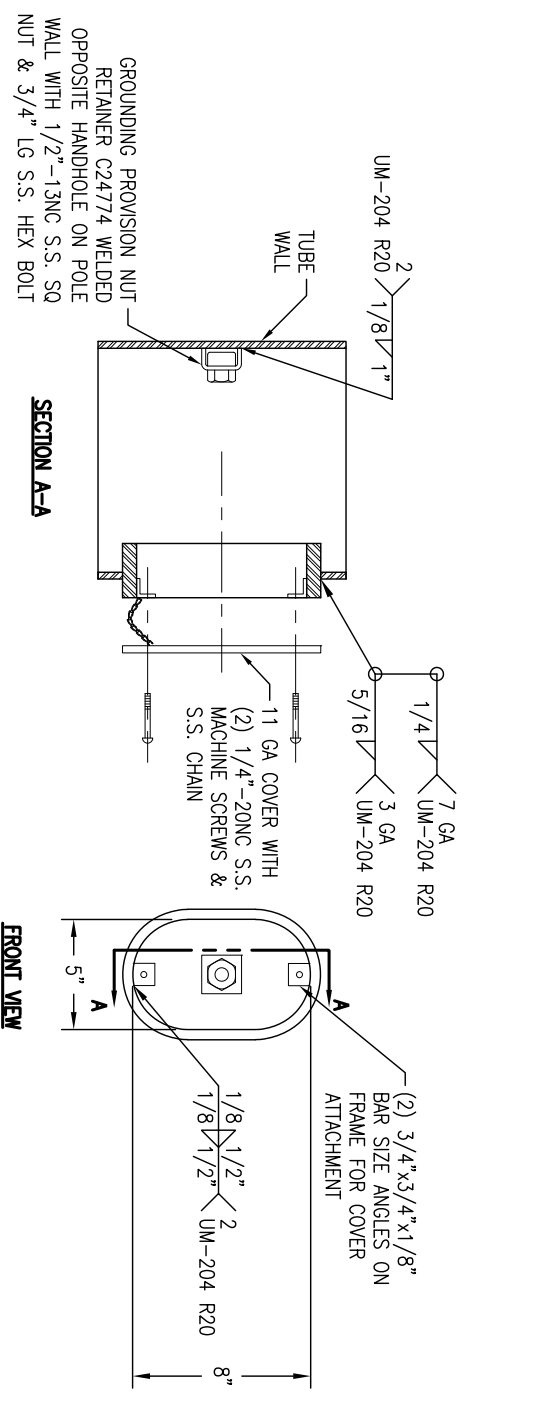
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STATE: KS		REQ# / SO# : KS-54977-1		REV		DESCRIPTION		DATE		REV BY/CHK BY	
PROJECT NAME: TRAFFIC POLE STANDARDS		TAPERED STEEL TRAFFIC CONTROL STRUCTURES		REVISIONS							
UNION METAL INDUSTRIES CORPORATION		OVERLAND PARK, KANSAS		DESIGNED BY		CHECKED BY		DATE		SCALE	
				JEF		JAB		8/8/14		NTS	
				50915-B19				R6.1		ENG REF	
										50915-B1	
										SHEET	
										2 OF 5	

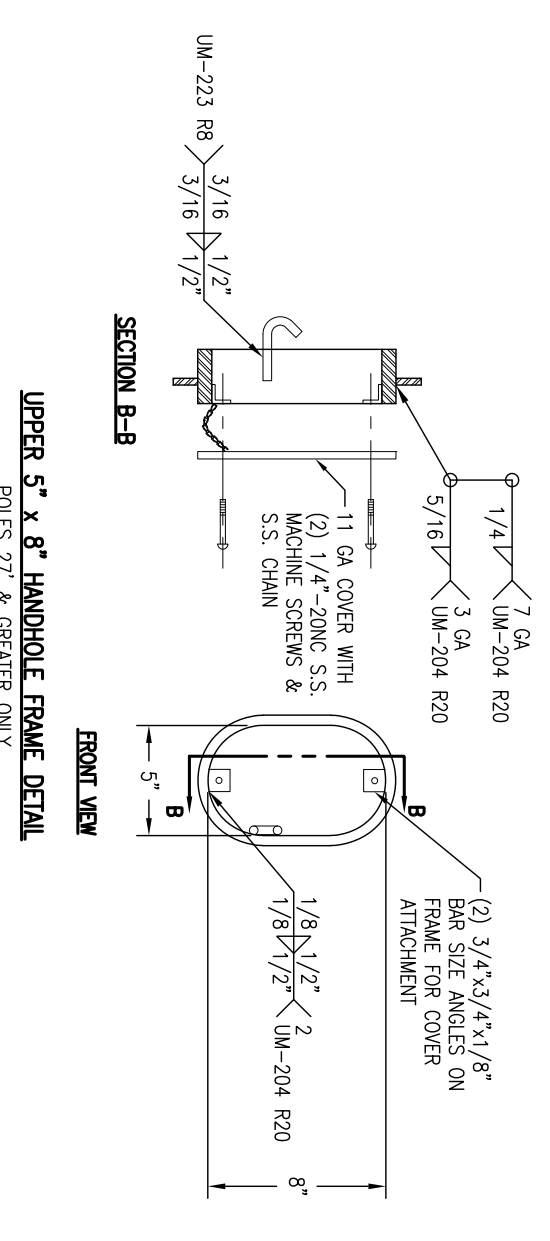
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UMIC DESIGN NUMBER	POLE BASE CONNECTION DATA (in)						
	B.C.	S	F	P	T	ØCB	ANCHOR BOLT SIZE
Y1	16	17	11 5/16	6 3/4	2	10 1/2	(4) 1 1/2 x 54 x 6
Y2-Y5	16 1/2	17 1/2	11 5/8	6 3/4	2	11	(4) 1 1/2 x 54 x 6
Y6-Y9	17 1/2	18 1/2	12 3/8	7 1/2	2	11 1/2	(4) 1 3/4 x 84 x 6
Y10-Y16	21	22	14 7/8	7 3/4	2 1/4	14	(4) 1 3/4 x 84 x 6
Y17-Y20	22	23	15 9/16	8 1/2	2 1/4	14 3/4	(4) 2 x 84 x 6
Y21-Y26	27	28	19 1/8	8 1/2	2 1/4	14 1/4	(4) 2 x 84 x 6

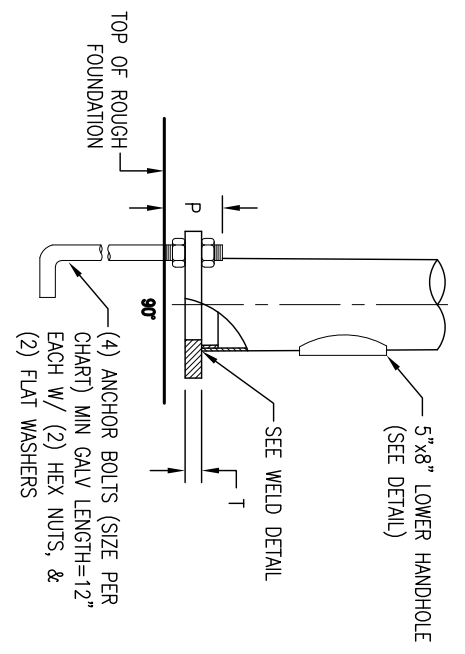
UMIC DESIGN NUMBER	MAST ARM FLANGE CONNECTION DATA (in)								
	BOLT Ø	X	Y	W	H	APL	PPL	ØCA	G
Y1	1 1/4	14	14	17 1/4	17 1/4	2	2	6 1/2	3/8
Y2-Y5	1 1/4	14 1/2	14 1/2	17 3/4	17 3/4	2	2	7 1/2	3/8
Y6-Y9	1 1/4	15	15	18 1/4	18 1/4	2	2	8 1/2	3/8
Y10-Y16	1 1/4	18	18	21 1/4	21 1/4	2	2	11 3/4	3/8
Y17-Y20	1 1/2	19 1/2	19 1/2	23 1/4	23 1/4	2 1/2	2 1/2	8 1/2	3/8
Y21-Y26	1 1/2	23	23	26 3/4	26 3/4	2 1/2	2 1/2	8 1/2	3/8



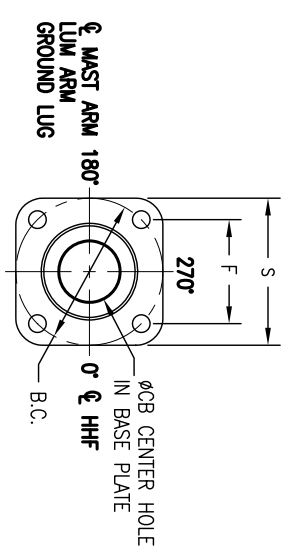
LOWER 5' x 8' HANDHOLE FRAME DETAIL



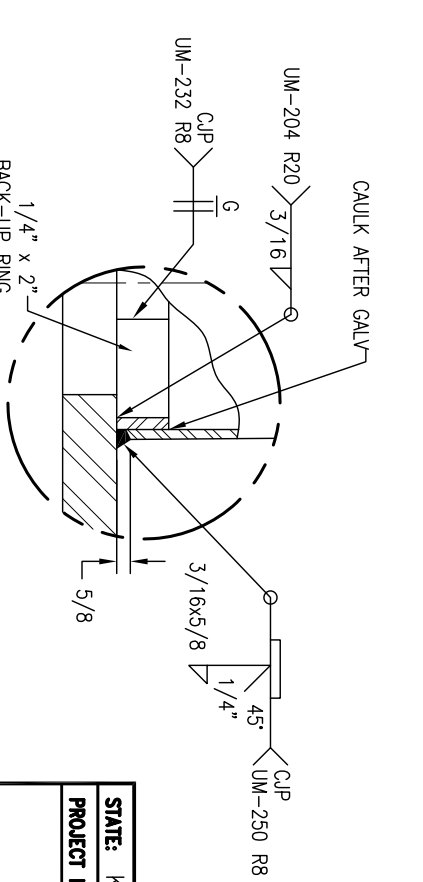
UPPER 5' x 8' HANDHOLE FRAME DETAIL



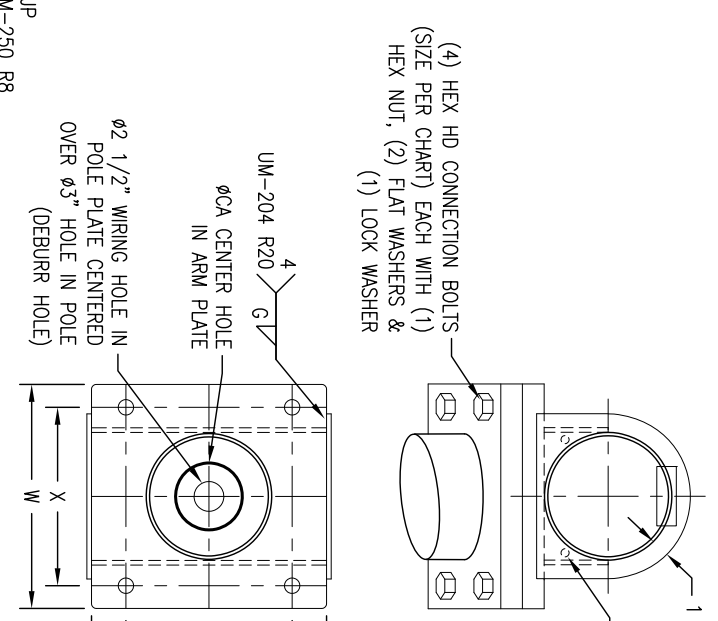
BASE CONNECTION DETAIL



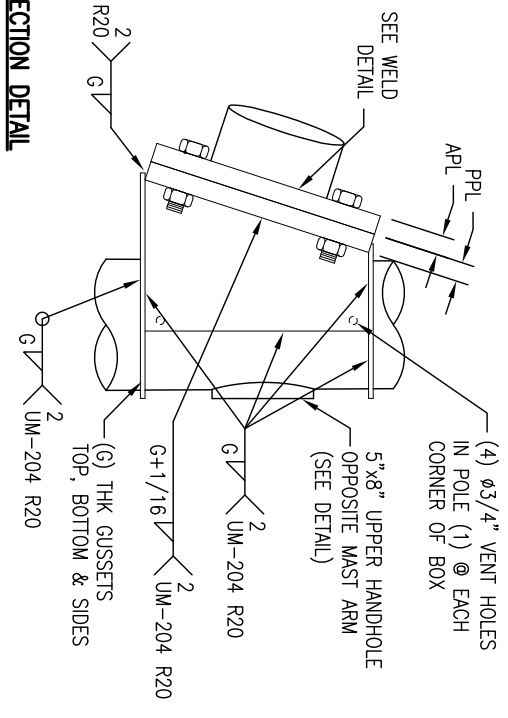
BASE PLATE DETAIL



POLE BASE & ARM FLANGE WELD DETAIL

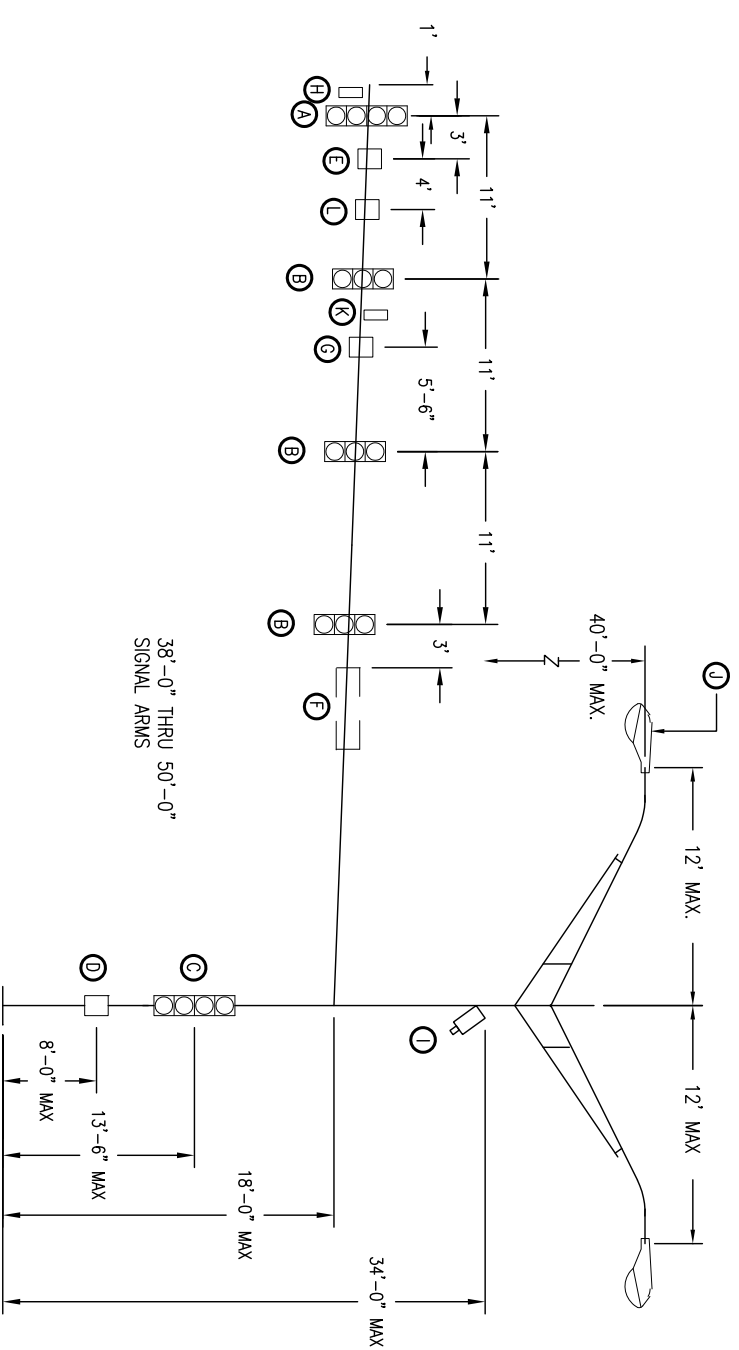
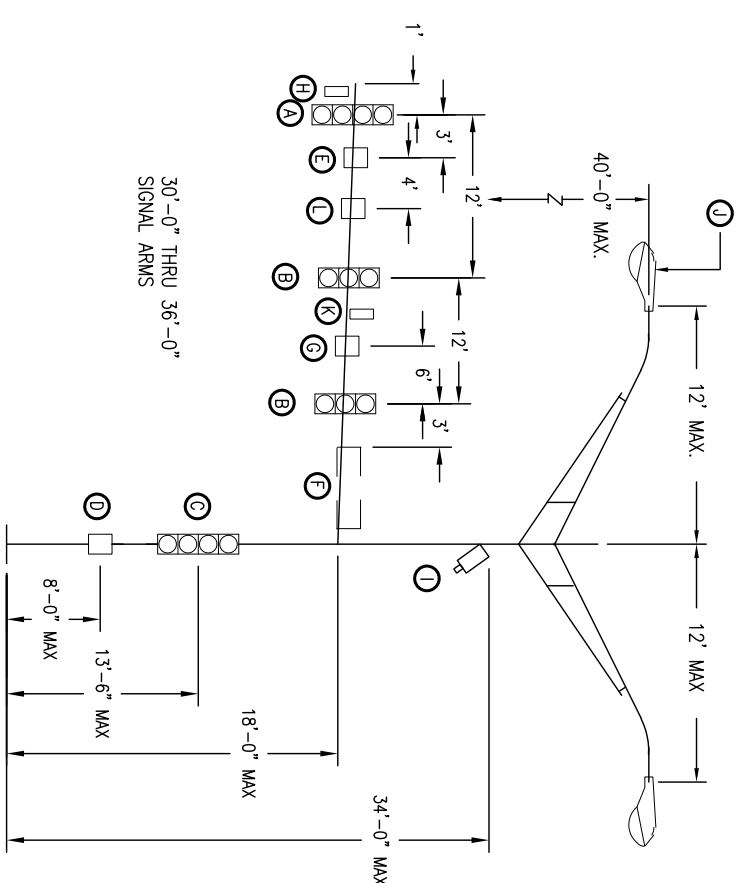
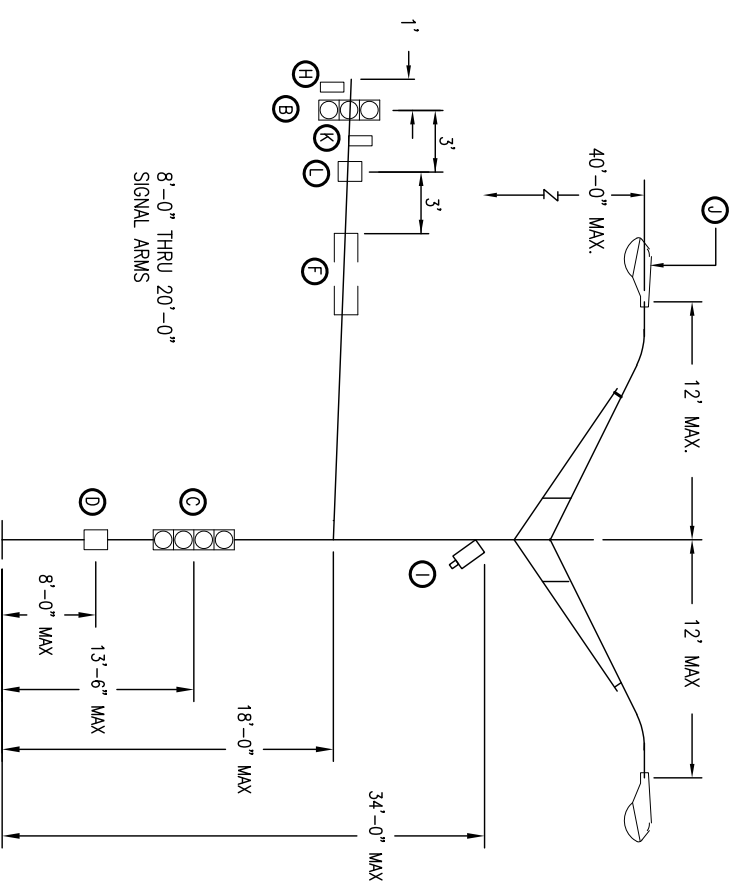
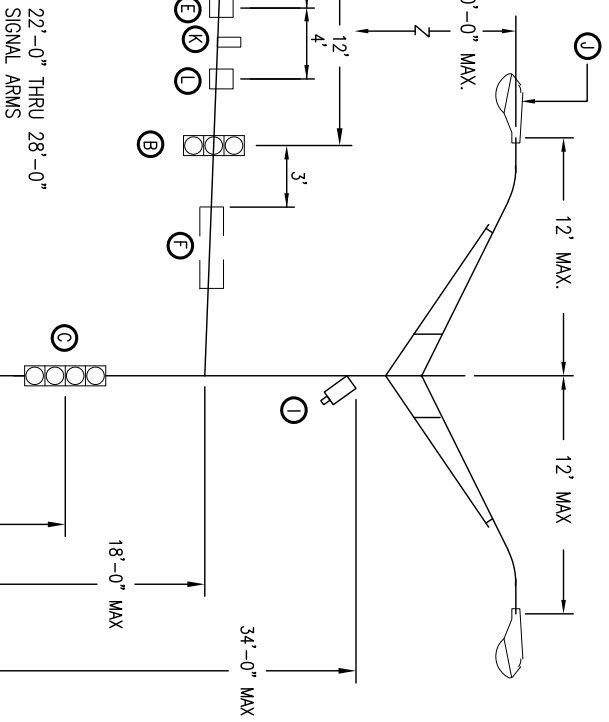


MAST ARM CONNECTION DETAIL



5' x 8\"/>

STATE: KS	REQ# / SQ# : KS-54977-1	REV	DESCRIPTION	DATE	REV BY/CHK BY		
PROJECT NAME: TRAFFIC POLE STANDARDS	TAPERED STEEL TRAFFIC CONTROL STRUCTURES OVERLAND PARK, KANSAS						
UNION METAL INDUSTRIES CORPORATION							
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			JEF	JAD	8/8/14	NTS	50915-B1
			50915-B19	R6.1	3 OF 5		



LOAD INFORMATION

DEVICE	DESCRIPTION	PROJ AREA (sq ft)	WEIGHT (lbs)
A	12"-4 SECTION SIGNAL WITH BACKPLATE	12.00	54
B	12"-3 SECTION SIGNAL WITH BACKPLATE	10.00	42
C	12"-4 SECTION SIGNAL WITH NO BACKPLATE	6.00	40
D	16"x18"-1 SECTION PEDESTRIAN SIGNAL	3.00	20
E	36"x36" FLATSHEET SIGN	9.00	20
F	24"x96" ILLUMINATED STREET NAME SIGN	16.00	120
G	ADVANCED RADAR DETECTOR	1.00	15
H	PRESENCE RADAR DETECTOR	1.00	15
I	CCTV CAMERA	1.00	15
J	LUMINAIRE	1.00	30
K	EMERGENCY VEHICLE PRE-EMPTION DETECTOR	0.50	5
L	36"x36" FLATSHEET SIGN	9.00	20

LOADING INFORMATION

STATE	REQ# / SQ#	REV	DESCRIPTION	DATE	REV BY	CHK BY
KS	KS-54977-1		TAPERED STEEL TRAFFIC CONTROL STRUCTURES			
PROJECT NAME: TRAFFIC POLE STANDARDS OVERLAND PARK, KANSAS						

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		50915-B19	REVISION R6.1	SHEET 4 OF 5		

