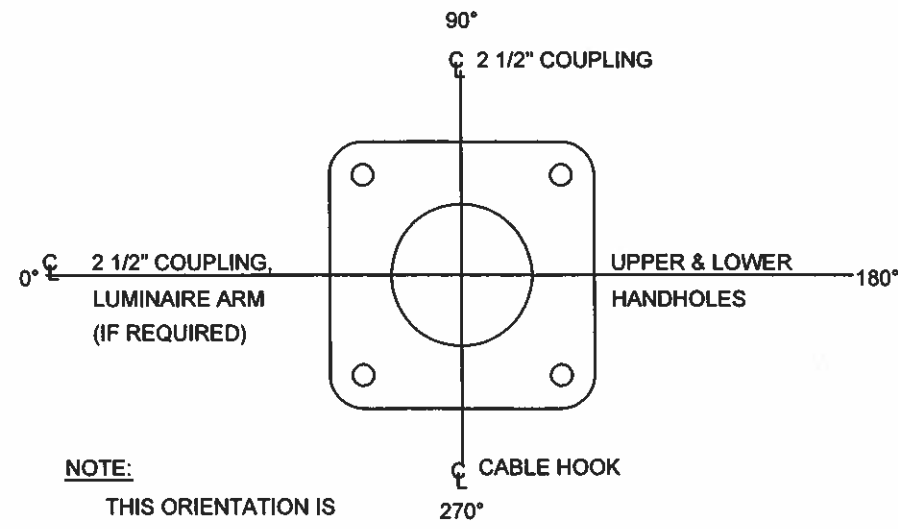


POLE DATA						BASE PLATE				ANCHOR BOLTS		
POLE CLASS	MAX LOAD	SHAFT LENGTH "A"	THK	BASE OD	TOP OD	BASE DETAIL	BASE "D"	BASE "BC"	BASE THK "T"	QTY	DIA	LEN
1900	1.9 KIPS	30'-0"	0.3125"	10 3/4"	6 5/8"	B1	15"	15"	1 1/2"	4	1 1/4"	60"
2700	2.7 KIPS	30'-0"	0.3125"	12 1/8"	8"	B1	17"	17"	1 1/2"	4	1 1/2"	60"
3700	3.7 KIPS	30'-0"	0.3125"	13 1/2"	9 3/8"	B1	19"	19"	1 3/4"	4	1 1/2"	60"
4800	4.8 KIPS	30'-0"	0.3125"	14 7/8"	10 3/4"	B1	20"	20"	1 3/4"	4	1 3/4"	60"
5600	5.6 KIPS	30'-0"	0.3125"	14 7/8"	10 3/4"	B1	20"	20"	1 3/4"	4	1 3/4"	60"
6300	6.3 KIPS	30'-0"	0.3125"	16 1/4"	12 1/8"	B1	22"	22"	2"	4	1 3/4"	60"
7200	7.2 KIPS	30'-0"	0.3125"	16 1/4"	12 1/8"	B1	22"	22"	2"	4	1 3/4"	60"

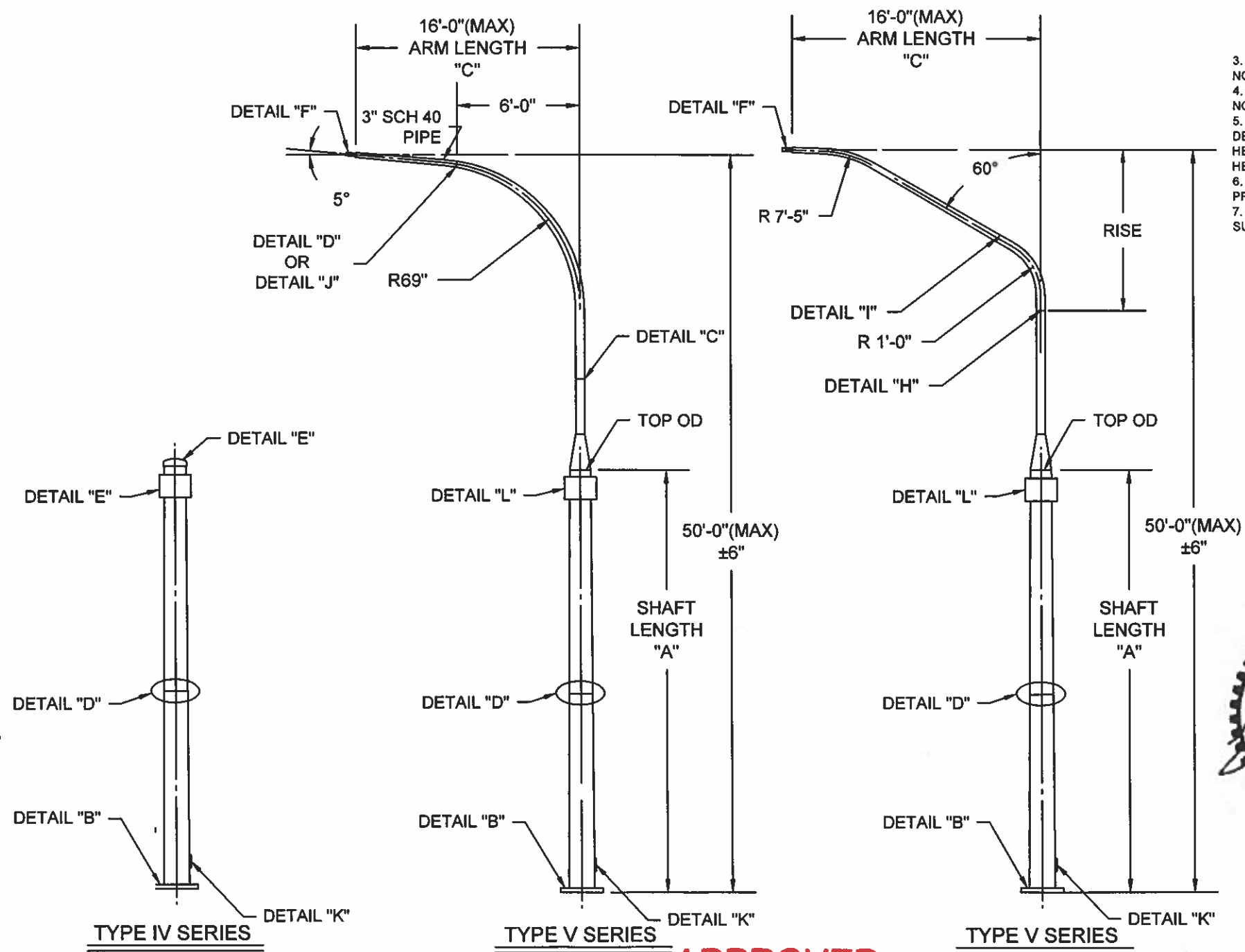
TYPE "T" LUMINAIRE DATA				
ARM LENGTH "C"	BASE OD	END OD	THK	RISE
6'-0"	4"	3 5/16"	.120"	3'-0"
8'-0"	4"	3"	.120"	4'-0"
10'-0"	4"	2 11/16"	.120"	5'-0"
12'-0"	4 1/2"	2 7/8"	.120"	6'-6"
14'-0"	4 1/2"	2 3/8"	.120"	7'-6"
16'-0"	4 1/2"	2 3/8"	.120"	8'-6"

- GENERAL NOTES**
- DESIGN NOMENCLATURE
 TYPE IV-1900-DWG NO
 POLE STYLE | POLE CLASS
 TYPE V-1900-50-16 J-DWG NO
 POLE STYLE | POLE CLASS | LUMINAIRE STYLE | LUMINAIRE LENGTH | LUMINAIRE HEIGHT
 - LOADS PER AASHTO AASHTO LRFD 2015
 A. LOCATION: WASHINGTON STATE
 B. BASIC WIND SPEED: 115
 C. MEAN RECURRENCE INTERVAL: 1700
 D. FATIGUE CATEGORY: None
 E. GALLOPING LOADS: No
 F. NATURAL WIND GUST: No
 G. TRUCK INDUCED GUST: No
 TRAFFIC SPEED = 55
 - CUSTOMER TO VERIFY ACTUAL LOADS DO NOT EXCEED DESIGN LOADS AND CUBICS
 - SEE DWG WA15TR15-2 FOR DETAILS & NOTES
 - LUMINAIRE POLE EXTENSION VARIES DEPENDING ON LUMINAIRE MOUNTING HEIGHT. MINIMUM LUMINAIRE MOUNTING HEIGHT IS 37'-6" AND THE MAX IS 50'.
 - POLE SHAFT LENGTH VARIES BASED ON PROJECT REQUIREMENTS
 - TYPE V POLE SIZING WILL ALSO BE SUFFICIENT FOR TYPE IV POLES



NOTE:
THIS ORIENTATION IS TO BE USED UNLESS OTHERWISE SPECIFIED

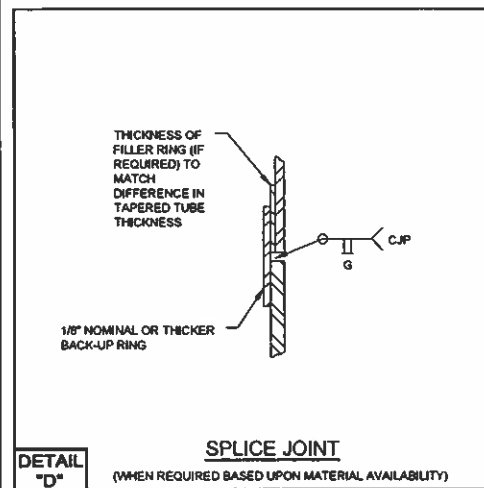
ORIENTATION
(TOP VIEW)



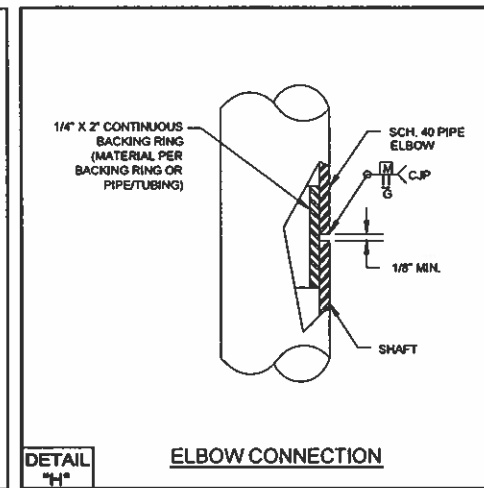
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-17-2018



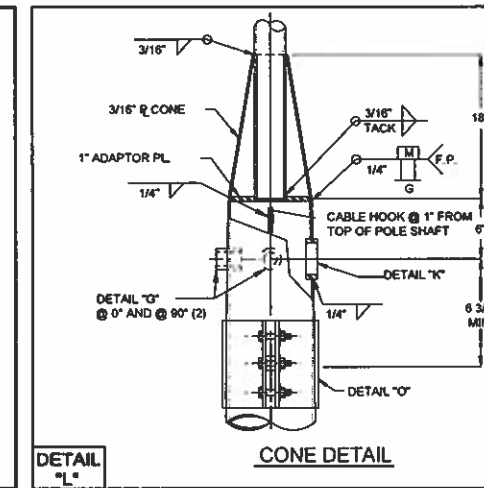
REV	DATE	DESCRIPTION	BY	GM
A	9/10/18	REVISED PER WASHINGTON DOT COMMENTS	ST	GM
Amperon POLE PRODUCTS STATE OF WASHINGTON AASHTO 2015-LRFD TYPE IV & V SERIES POLES				
THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AMPERON. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF AMPERON.				
DRAWN	DATE	APPR	DATE	
DO	8/23/18	ST	8/23/18	
DRAWING NUMBER	REVISION	SHEET	SCALE	
WA15TR15	A	1 OF 2	NTS	



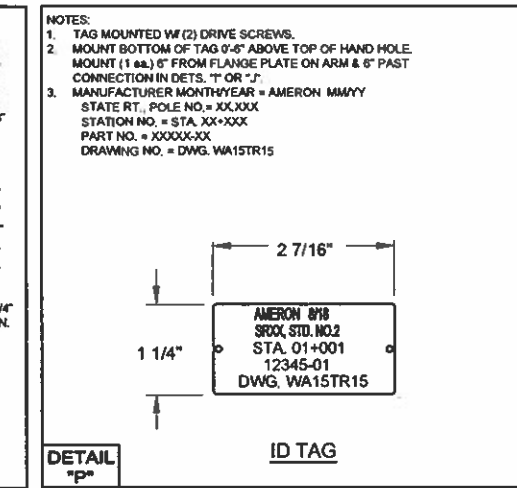
DETAIL "D" SPLICE JOINT (WHEN REQUIRED BASED UPON MATERIAL AVAILABILITY)



DETAIL "H" ELBOW CONNECTION



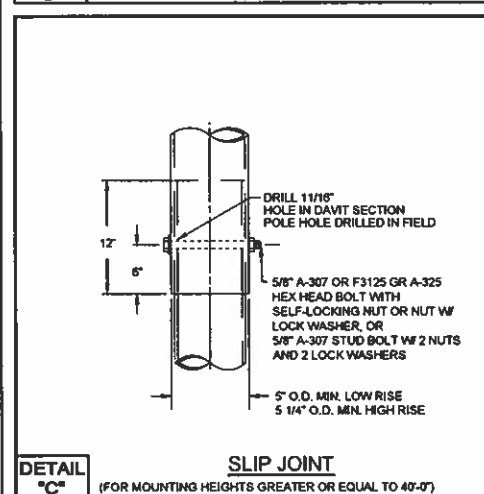
DETAIL "L" CONE DETAIL



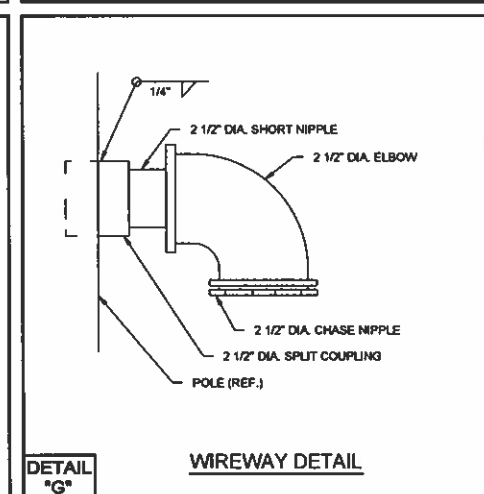
DETAIL "P" ID TAG

NOTES:
 1. TAG MOUNTED W/ (2) DRIVE SCREWS.
 2. MOUNT BOTTOM OF TAG 0'-6" ABOVE TOP OF HAND HOLE. MOUNT (1 ea.) 6" FROM FLANGE PLATE ON ARM & 6" PAST CONNECTION IN DETS. "I" OR "J".
 3. MANUFACTURER MONTH/YEAR = AMERON MM/YY
 STATE RT., POLE NO. = XXXXX
 STATION NO. = STA. XX-XXX
 PART NO. = XXXXX-XX
 DRAWING NO. = DWG. WA15TR15

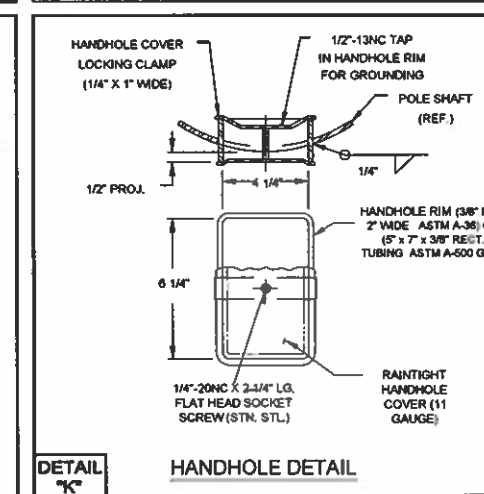
MATERIAL SPECIFICATION	
*STEEL TO HAVE SILICON CONTENT OF 0.0 - 0.06 OR 0.15 - 0.25	
*SHAFT	50 KSI MIN YIELD ASTM A-572 ASTM A-595 Gr A Or Gr B ASTM A-709 ASTM A-1008 ASTM A-1011 ASTM A-1018
*PLATE	(36 KSI YIELD MIN) ASTM A-36, A709 GR36 OR MATERIAL LISTED FOR SHAFT
*BACKING RING	ASTM A529 ASTM A-36 ASTM A709 GR36 OR MATERIAL LISTED FOR SHAFT
*PIPE/TUBING	ASTM A-53 GR B ASTM A-500 GR B ASTM A-513 GR 1015 (35 KSI YIELD MIN) ASTM A-513 GR 1026 (45 KSI YIELD MIN)
MAST ARM CONNECTION BOLTS	ASTM F-3125, A325 TYPE 1
ANCHOR BOLTS	ASTM F-1554 GR 105
ANCHOR NUTS	ASTM A-563 GR DH
ANCHOR WASHER	ASTM F-436
POLE FINISH	HOT DIP GALVANIZED PER ASTM A-123
HARDWARE FINISH	HOT DIP GALVANIZED PER ASTM F2329



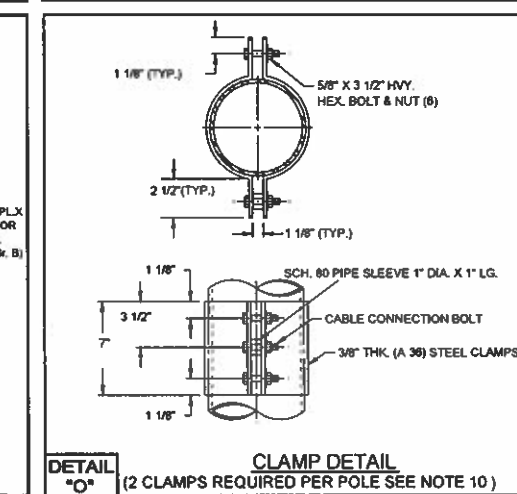
DETAIL "C" SLIP JOINT (FOR MOUNTING HEIGHTS GREATER OR EQUAL TO 40'-0")



DETAIL "G" WIREWAY DETAIL



DETAIL "K" HANDHOLE DETAIL



DETAIL "O" CLAMP DETAIL (2 CLAMPS REQUIRED PER POLE SEE NOTE 10)

NOTES:
 1. TOLERANCES SHALL BE IN ACCORDANCE WITH SECTION 14.4.6 OF THE "SPECIFICATION FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 2015 LRFD.
 2. TOLERANCE FOR STRAIGHTNESS OF TAPERED SHAFTS SHALL BE .025"/FT.
 3. TOLERANCE FOR SHAFT & ARM LENGTHS SHALL BE ±6".
 4. TOLERANCE FOR MOUNTING HEIGHTS SHALL BE ±6".
 5. 3" SCH. 40 PIPE FOR LUM. ARMS ≤ 10'. 3 1/2" SCH. 40 PIPE FOR LUM. ARMS > 10'.
 6. 3 1/2" SCH. 40 PIPE FOR LUM. ARMS ≤ 10'. 4" SCH. 40 PIPE FOR LUM. ARMS > 10'.
 7. 3/4" PL TO BE WELDED TO POLE TOP, SKIPPING SLOTTED AREA, THEN CONE IS WELDED IN PLACE.
 8. AMERON RESERVES THE RIGHT TO INSTALL TOOLING LUGS OR HOLES TO FACILITATE IN THE GALVANIZING PROCESS. THESE LUGS/HOLES WILL NOT IMPEDE WITH THE FIT, FORM, OR FUNCTION OF THE FINISHED PRODUCT AND ARE TO BE USED SOLELY BY THE MANUFACTURER.
 9. 10GAGE (0.1345") TUBE MAY BE SUBSTITUTED FOR 11 GAGE (0.1196") BASED ON MATERIAL AVAILABILITY.
 10. CLAMPS ARE SIZED TO MOUNT BETWEEN 25' TO 29' FROM POLE BASE

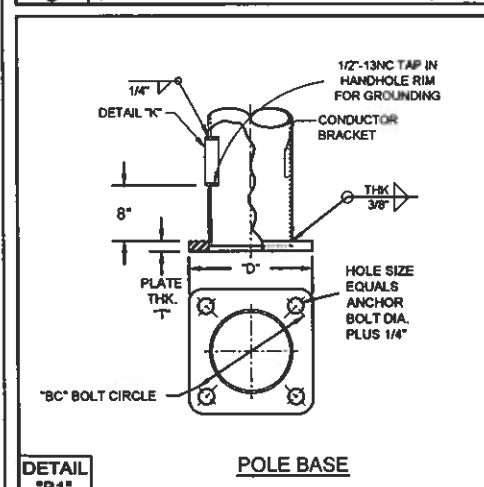
2015 AASHTO LRFD DEVIATION NOTES
 THE FOLLOWING DEVIATIONS TO 2015 AASHTO LRFD REQUIREMENTS ARE AS FOLLOWS.

- ANCHOR BOLT BENDING STRESS REQUIREMENT WILL BE REFERRED TO SECTION C5.17.4.3 OF THE 2013 AASHTO CODE WHICH STATES THAT "BENDING STRESSES IN INDIVIDUAL BOLTS CAN BE IGNORED IF THE STANDOFF DISTANCE BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT IS LESS THAN ONE BOLT DIAMETER" SINCE THIS STATEMENT WAS REMOVED IN THE 2015 LRFD AASHTO CODE.
- SECTION 5.6.6 FOR HANDHOLE CLEAR DISTANCE AND 40% OF POLE WIDTH REQUIREMENT. STRESSES ARE REVIEWED AT EACH HANDHOLE FOR STRUCTURAL ADEQUACY.

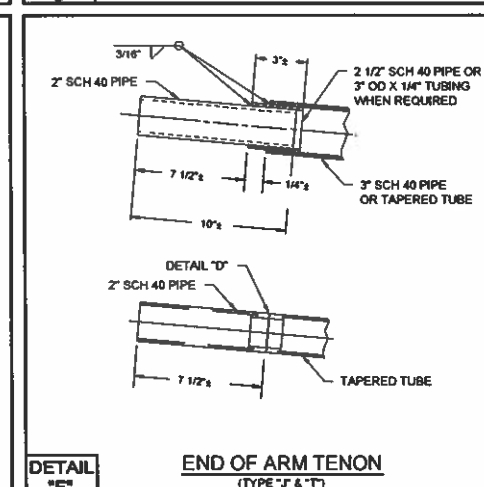
WELDING INSPECTION:
 1. WELDING INSPECTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO, INCLUDING LATEST INTERIMS, WELD INSPECTION SECTION 14.5.3
 2. ALL LONGITUDINAL PARTIAL PENETRATION SEAM WELDS SHALL BE INSPECTED BY MAGNETIC PARTICLE METHOD ON THE OD FOR 30% OF LENGTH.
 3. COMPLETE JOINT PENETRATION (CJP) SEAM WELD WITH A SHAFT THICKNESS 0.3125 AND GREATER SHALL BE 100% ULTRASONICALLY INSPECTED.
 4. CJP WELD WITH A SHAFT THICKNESS OF LESS THAN 0.3125 SHALL BE MAGNETIC PARTICLE INSPECTED ON BOTH SIDES OF THE WELD WHEN BACKING IS NOT USED. THE CJP WELD SHALL BE INSPECTED THE ENTIRE LENGTH ON THE OD AND ID OF ALL SHAFTS. FOR SHAFTS WITH A NOMINAL OD LESS THAN 10.5 INCHES, WHERE ACCESS TO THE ID IS RESTRICTED, THE ID SHALL BE INSPECTED FOR A MINIMUM LENGTH OF 2 INCHES. SHAFTS WITH OD LESS THAN OR EQUAL TO 6 INCHES REQUIRE VISUAL INSPECTION ONLY AND SHALL BE PERFORMED PRIOR TO GALVANIZING.

WELDING:
 WELDING OF STRUCTURES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS STRUCTURAL WELDING CODE D1.1-STEEL. 60% MINIMUM PENETRATION IS REQUIRED FOR ALL LONGITUDINAL SEAM WELDS OF POLE AND ARM SECTIONS EXCEPT FOR THE FOLLOWING LOCATIONS WHICH REQUIRE 100% PENETRATION:

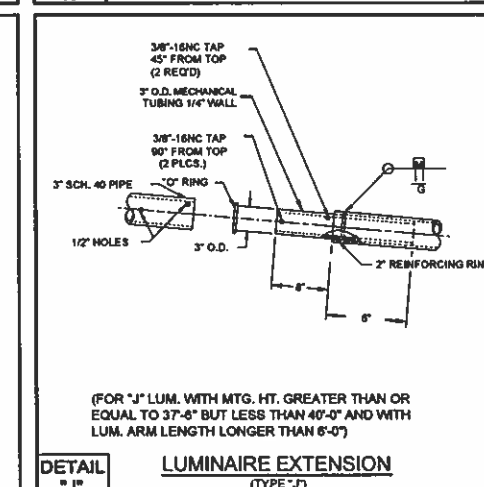
- 6 INCHES ADJACENT TO COMPLETE JOINT PENETRATION WELDS OF SHAFT TUBE TO BASEPLATE, FLANGE PLATE AND BUTT WELDED SPLICES WITH A NOMINAL OD OF 5" OR GREATER.
- 1.5 TIMES THE DIAMETER PLUS 6" ON ALL SLIP JOINTS OF THE FEMALE SECTION OF SHAFTS WITH A NOMINAL OD OF 10" OR GREATER.
- ONE DIAMETER ON ALL SLIP JOINTS OF FEMALE SECTION OF SHAFTS WITH A NOMINAL OD LESS THAN 10"



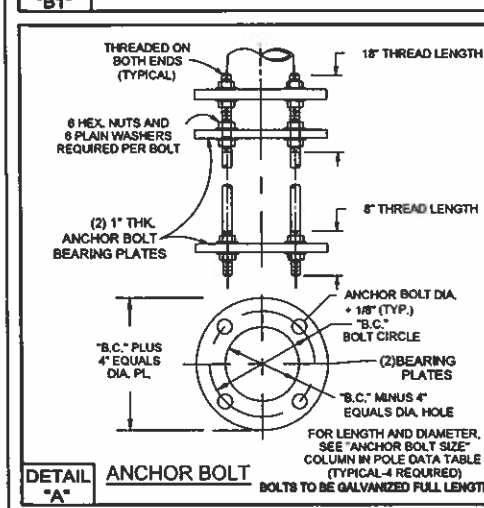
DETAIL "B1" POLE BASE



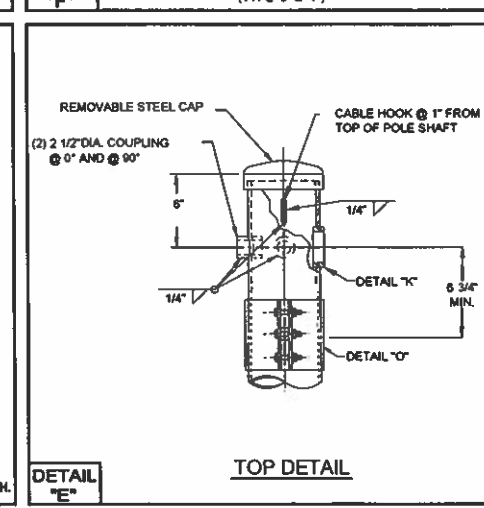
DETAIL "F" END OF ARM TENON (TYPE "J" & "T")



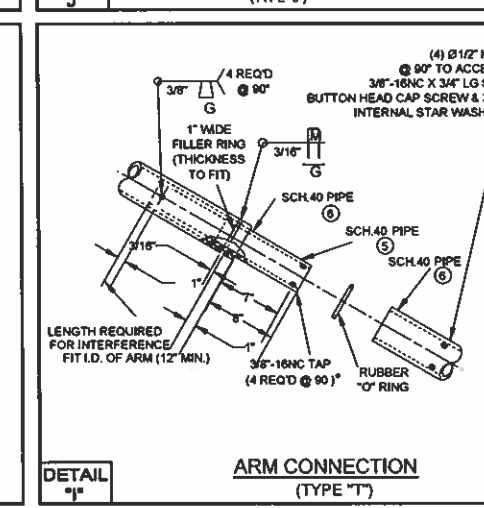
DETAIL "J" LUMINAIRE EXTENSION (TYPE "J")



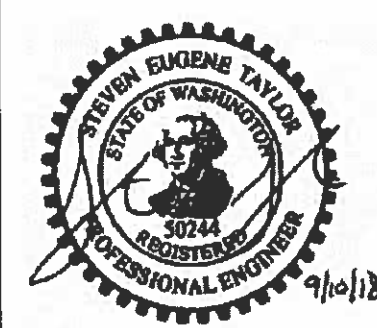
DETAIL "A" ANCHOR BOLT BOLTS TO BE GALVANIZED FULL LENGTH.



DETAIL "E" TOP DETAIL



DETAIL "I" ARM CONNECTION (TYPE "T")



APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-17-2018

REV.	DATE	REVISION	BY	GM
A	9/10/18	REVISED PER WASHINGTON DOT COMMENT		
		DESCRIPTION		
Ameron POLE PRODUCTS				
STATE OF WASHINGTON				
ASSHTO 2015-LRFD				
TYPE IV & V SERIES POLES				
THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AMERON. IT SHALL NOT BE REPRODUCED, COPIED OR DISCLOSED TO ANYONE WITHOUT THE WRITTEN PERMISSION OF AMERON.				
DRAWN DO	DATE: 8/23/18	APP'R ST	DATE: 8/23/18	
DRAWING NUMBER	REVISION SHEET	SCALE		
WA15TR15	A	2 OF 2	NTS	