





**APPROVED**  
 Manufacturer's Pole Plan  
 Approved For Listing As A  
 Pre-Approved Drawing  
 WSDOT Bridge & Structures Office  
 By GB Date 9-28-2018

- NOTES:**
1. ALL WIREWAYS SHALL BE DEBURRED ROUNDED AND SMOOTH FOR WIRE PROTECTION PURPOSES.
  2. THE POLE BASE PLATE WITHOUT THE BOTTOM SLIP PLATE AND ANCHOR PLATE IS A FIXED BASE. WHEN A FIXED BASE IS REQUIRED BY THE CONTRACT PLANS, ROTATE THE ANCHOR BOLT PATTERN SHOWN ON STANDARD PLAN "J-28.30-00" AND INSTALL THE TOP SLIP PLATE DIRECTLY UPON THE FOUNDATION.
  3. THE MEDIAN BARRIER BASE SHALL BE USED ON 50' MAXIMUM LIGHTING STANDARDS WITH 16' MAXIMUM LENGTH DOUBLE ARMS.
  4. FOR POLES REQUIRING DIFFERENT POLE LENGTHS THAN SHOWN, POLE DIAMETER SHALL BE ADJUSTED BY USING THE SAME POLE TAPER (0.1375"/FT.).
  5. FOR 20' OR LESS MTG. HT., USE 5" I.D. FOR TOP SLIP PLATE.
  6. 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 MANUFACTURE.
  7. TACK WELD BACK-UP RING AT ROOT (FROM OUTSIDE), WHERE FULL PEN WELD IS PLACED BETWEEN SHAFT WALL AND BASE PLATE. WELD JOINT TO BE 100% MT INSPECTED.
  8. BACK-UP RING AND FILLER RING MATERIAL TO BE ASTM A36 OR AS LIST FOR SHAFT MATERIAL.

- 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 FOR 30% OF LENGTH.
  2. COMPLETE JOINT PENETRATION (CJP) SEAM WELD WITH A SHAFT THICKNESS 0.3125 AND GREATER SHALL BE 100% ULTRASONICALLY INSPECTED.
  3. 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:
1. 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.
  2. 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.
  3. ONE DIAMETER ON ALL SLIP JOINTS OF FEMALE SECTION OF SHAFTS WITH A NOMINAL OD LESS THAN 10"

GENERAL NOTES	
MATERIAL SPECIFICATIONS	
*STEEL TO HAVE SILICON CONTENT OF 0.0 - 0.6 OR 0.15 - 0.25	
*POLE SHAFT	STEEL OF 55 K.S.I. MINIMUM YIELD AFTER FABRICATION. ASTM A-572 GR.55, ASTM A-595 GR. A, ASTM A-709 GR.55, ASTM A-1008 GR.55, ASTM A-1011 GR.55, ASTM A-1018 GR.55
*LUMINAIRE ARM SHAFT	STEEL OF 50 K.S.I. MINIMUM YIELD AFTER FABRICATION. ASTM A-572 GR.50, ASTM A-595 GR. A, ASTM A-709 GR.50, ASTM A-1008 GR.50, ASTM A-1011 GR.50, ASTM A-1018 GR.50
*SHAFT GENERAL	THE MATERIALS LISTED ABOVE ARE USED BASED UPON AVAILABILITY AT TIME OF PURCHASE OF MATERIAL LOTS FOR PRODUCING POLE AND ARM SHAFTS
*SLIP PLATES, *ANCHOR PLATES	ASTM A-572 GR. 50 STEEL
*BASE PLATE	ASTM A-572 GR. 50 STEEL
*MEDIAN BARRI. PL.	ASTM A-572 GR. 50 STEEL
*MISC. PLATE	ASTM A-36
*PIPE	ASTM A-53 GR "B" OR ASTM A-500 GR. "B", OR ASTM A-513 w/ 50 KSI MIN. YIELD, ASTM F-1554 GR. 105 ANCHOR BOLT MIN.
MANUFACTURING PROCESSES	
LONGITUDINAL WELDS	BUTT WELDED BY ELECTRICAL RESISTANCE PROCESS.
CIRCUMFERENTIAL	BUTT WELDED WITH PERMANENT BACKUP RING (CONTINUOUS).
FINISH COATING	
STRUCTURE	HOT DIP GALVANIZE PER ASTM A-123.
HARDWARE	HOT DIP GALVANIZE PER ASTM F2329.
DESIGN CRITERIA	
STRUCTURE AND HARDWARE	IN ACCORDANCE WITH TO 2015 AASHTO LRFD STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SUPPORTS

REV.	DATE	DESCRIPTION	BY	APPR
A	8/10/17	REVISED DETAILS PER STATE'S COMMENTS	ST	GM

**AMERON POLE PRODUCTS DIVISION**  
**STATE OF WASHINGTON**  
**AASHTO 2015 - LRFD**  
**TYPE "J" SERIES LIGHTING**

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