NOTES

1. All material and workmanship shall be in accordance with the requirements of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction.

2. The analysis and design for Adaptors 1 and 2 have been done in accordance with AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals - Fifth Edition - Dated 2009, and Interim, using basic wind speed of 90 MPH and 50 years of design life.

3. Adaptors' parameters are based on field data and existing signal standard anchor bolts and bolt circles. Adaptor 1 shall be used for 15' (ft) thru 45' (ft) mast arm signal standards and Adaptor 2 for 46' (ft) thru 65' (ft).

4. Adaptors shall only be used for temporary installation of knocked down signal standards.

5. Materials specifications:
   - All structural steel, except as otherwise noted
   - Pipes: ASTM A572 GR. 50 OR ASTM A588
   - Connecting/clamping bolts: ASTM A333 GR. B OR A500 GR. B
   - Nuts: AASHTO M 164 (ASTM A325)
   - Washers: AASHTO M 291 (ASTM A263) GRADE DH
   - AASHTO M 293 (ASTM F436)

6. All bolts, rods, and related hardware shall be galvanized after fabrication per ASTM F2329.

7. Steel surfaces shall be galvanized after fabrication in accordance with AASHTO M 111.

8. Install and secure adaptor to existing support anchor bolts. Then install signal standard on adaptor top plate. Rake to be plumb after all load has been placed.

9. All holes in top and bottom plates of Adaptor 1 and Adaptor 2 are thru holes. See engraved or stamped text for bolt hole diameter.

10. All fonts marked shall be engraved or stamped.

11. See engraved or stamped text for bolt hole diameter.
TOP VIEW
ADAPTOR 2 BOTTOM PLATE

SEE NOTE 9 (TYP.)

12" (IN) DIA. CLEAR OPENING
14" (IN) X 2" (IN) WIDE CONTINUOUS BACKUP RING (TYP.)

SEAL (TYP.)
12" (IN) DIA. X STRONG PIPE = 1/2" (IN) WALL THICKNESS
ADAPTOR BOTTOM = 2-1/4" (IN) THICK PLATE
5" (IN) DIA. CLEAR OPENING

TOP OF FOUNDATION

TYPICAL SECTION
8 - 3/16" (IN) MAX. GAP BEFORE WELDING

BOLT CIRCLE (B.C.) CENTERLINE (TYP.)

HEAVY HEX NUT (TYP.) - SIZE TO MATCH ANCHOR BOLT EXISTING ANCHOR BOLT (TO REMAIN)

1/8 (TYP.)

12" (IN) DIA. X STRONG PIPE

1/2" (IN) WALL THICKNESS
ADAPTOR BOTTOM - 2-1/4" (IN) THICK PLATE
9" (IN) DIA. CLEAR OPENING

STANDARD PLAN J-26.20-00
SHEET 4 OF 5 SHEETS
APPROVED FOR PUBLICATION
STATE DESIGN ENGINEER

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
ELEVATION VIEW
ADAPTOR LIFTING TOOL
REMOVE ALL BURRS AND SHARP EDGES

ADAPTOR 2 TOP PLATE SHOWN
(ADAPTOR 1 TOP PLATE SIMILAR)

2-2" (IN) DIA. BOLTS WITH WASHERS FOR 22" (IN) B.C.
2-1-1/2" (IN) DIA. BOLTS WITH WASHERS FOR 18" (IN) B.C.

ASSEMBLED VIEW
ADAPTOR LIFTING TOOL
WITH ADAPTOR 2 SHOWN
(ADAPTOR 1 SIMILAR)