NOTES:
1. Work with Index 700-010.
2. Shop Drawings: Not required.

3. Materials:
   A. Steel Pipe: ASTM A36 or ASTM A706 Grade 36
   B. Steel Pipe (Support Post): ASTM A501 Schedule 40
   C. Aluminum Pipe: ASTM B429 Alloy 6063-T6
   D. Galvanized U-Bolts, Nuts and Plate Washer
      a. U-Bolts: ASTM A449
      b. Hex Nuts: ASTM A 563 Lock Nuts
      c. Plate Washer: ASTM A 36 or ASTM A509 Grade 36 or 50
   E. Galvanized anchor bolts, Nuts and Washers:
      a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)
      b. Anchor Bolts: ASTM F1554 Grade 55 Grade A Hex
      c. Nuts: ASTM A563 Heavy Hex Locking
      d. Washers: ASTM F436
   F. Adhesive Anchor Bonding Material: Specification 931 Type HF Adhesive.
   G. Weld Material: E70XX
   H. Snap-In Post Cap: UV and weather-resistant glass-filled polyester cap

4. Coatings:
   A. U-Bolts, Threaded Rods, Nuts and Washers: ASTM F2329
   B. Other Steel: ASTM A123

5. Fabrication:
   A. Weld: Specification 460-6.4
   B. Hot dip galvanize after fabrication

6. Construction:
   A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement).
   B. Base plate must be flush with back of Traffic Railing
   C. Anchors in Traffic Railings:
      a. Install Adhesive Anchors in accordance with Specification 416 except perform field test on one anchor per sign support location.
      b. Use templates and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors
   D. Do not drill into existing conduit
   E. Anchors in Traffic Railings: Same as Permanent except Field testing of anchors is not required

7. Removal of Temporary Signs on Permanent Traffic Railings:
   A. Cut anchor rods flush with the top of the traffic railing
   B. Coat anchors with Type F-1 epoxy to prevent corrosion
      a. Epoxy coating 2 inches beyond edge of cut anchor rods
      b. Epoxy coating 1/16" 1/4" minimum

8. Payment:
   Include the cost of all materials and labor in the cost of the single post sign assembly.

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**SIGN LIMITATIONS TABLE**

<table>
<thead>
<tr>
<th>MAX. SIGN AREA</th>
<th>MAX. SIGN CENTROID HEIGHT (DIM. A + DIM. C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>9 - 12</td>
</tr>
</tbody>
</table>

Dimension A = Distance from centerline of the Support Post to the bottom of the sign or sign cluster.
Dimension C = Vertical distance from the bottom of the sign or sign cluster to the centroid of the sign or sign cluster.

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**SIGN SUPPORT ASSEMBLY**
NOTES:

1. Existing Traffic Railings:
   A. Locate existing conduit prior to drilling and adjust placement of base plate as necessary to avoid damaging existing conduit. Base plate must be flush with back of traffic railing. Maintain a minimum cover 2" from face of traffic railing to tip of Adhesive Anchor.
   B. For concrete parapets less than 1½" thick, through bolt ⅜" Heavy Hex Head Bolts with Nuts and Washers may be used. Bolt heads shall not protrude more than 1½" beyond traffic face of railing.
   C. For through bolting, countersink the nut and washer so that the bolt and nut does not extend beyond the face of the traffic railing. Do not exceed a countersink depth and diameter of 2½".

2. New Traffic Railings:
   A. Optional Couplers are shown for slipforming; keep Anchor Bolt coupler threads free of concrete.
   B. For concrete parapets less than 10" thick, through bolt Adhesive Bonded Anchors with Heavy Hex Head Bolts and Washers may be used. Bolt heads shall not protrude beyond traffic face of railing.
   C. For through bolting, countersink the nut and washer so that the bolt and nut does not extend beyond the face of the traffic railing. Do not exceed a countersink depth and diameter of 2½".
   D. Bridge Deck shown, Approach Slab and Retaining Wall are similar.

3. 36° Single-Slope Traffic Railing shown, other Traffic Railings and Parapets are similar.

4. Bridge Deck shown, Approach Slab and Retaining Wall are similar.
SIGN SUPPORT ASSEMBLY

SIGN SUPPORT WELDMENT DETAIL

BASE PLATE

U-BOLT PLATE WASHER

END PLATE

DESCRIPTION:

SINGLE POST BRIDGE MOUNTED SIGN SUPPORT

FY 2019-20
STANDARD PLANS

INDEX 700-012

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