1. Work this Index in conjunction with SPAN SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.
2. Handholes at the pole base are required for DMS Structures. Refer to Index 700-090 for Handhole Details.
3. Shop Drawings are required.

4. Materials:
   A. Sign Structure:
      a. Upright and Chords (Steel Pipe): API 5L X42 PS12, 42 ksi yield or ASTM A500, Grade B (Min).
      b. Steel Angles and Plates: ASTM A709 grade 36
      c. Weld Material: E70XX
   B. Bolts, Nuts and Washers:
      a. High Strength Bolts: ASTM F3123, Grade A325, Type 1
      b. Nuts: ASTM A563 Grade A Heavy-Hex
      c. Washers: ASTM F436, Type 1, one under turned element
   C. Anchor Bolts, Nuts and Washers:
      a. Anchor Bolts: High Strength (minimum required length: Grade 55)
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per bolt)
      c. Plugs Washers: ASTM A193 Grade 1 (per bolt)
   D. Concrete: Class IV (Drilled Shaft)
   E. Handholes at pole base (when required).

5. Fabrication:
   A. Welding: Specification 400-6.4
   B. Chord Splices: Minimum splice spacing is three truss panel lengths apart and three truss panel lengths from the uprights when panel lengths are 10'-0" or less.
   C. Upright splice: Not allowed unless the upright exceeds available mill lengths (35' - 40').
   D. Structural bolt hole diameters: Bolt diameter plus 0.166".
   E. Anchor bolt hole diameters: Bolt diameter plus 0.166".
   F. Hot Dip Galvanize after fabrication.

6. Coatings:
   A. Anchor Bolts, Nuts and Washers: ASTM F1554 Grade 55
   B. All other steel, including Plate Washers, hot dip galvanize: ASTM A123 Grade B
   C. Upright and Chords (Steel Pipe): API 5L X42 PSL2, 42 ksi yield or ASTM A500, Grade B (Min).

7. Construction:
   A. Construct foundation in accordance with Specification 455 Drilled Shaft, except payment is included in the cost of the structure.
   B. Prior to erection, record the as-built anchor locations and submit to the Engineer.
   C. Provide a parabolic camber with the required upward deflection as shown on the Camber Diagram.
   D. Tighten nuts and bolts in accordance with Specification 700. Split-Lock Washers are not permitted.
   E. Install Aluminum Sign Panels as shown in the Plans.
   F. After installation, place wire screen between top of foundation and bottom of baseplate in accordance with Specification 649-6.
   G. Shop assemble the entire structure after galvanizing to validate/document alignment and clearance for bolted connections as well as contact between connecting plates. Take remedial action, if necessary, prior to shipment.
   H. Disassemble as necessary and secure components for shipment.

8. Notes:
   A. Work this Index in conjunction with SPAN SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.
   B. Upright Pipe height ('C' & 'B') and foundation elevations: Verify dimensions in the field prior to submittal to ensure minimum vertical clearances of the sign panel over the roadway.
   C. Height of the foundation above adjacent grade.
   D. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
   E. Method to be used to provide the required parabolic camber (see Camber Diagram).
   F. Handholes at pole base (when required).
   G. Obtain Shop Drawing approval prior to fabrication. Include the following:
      A. Upright Pipe height ('C' & 'B') and foundation elevations: Verify minimum vertical clearances of the sign panel over the roadway.
      B. Height of the foundation above adjacent grade.
      C. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
      D. Method to be used to provide the required parabolic camber (see Camber Diagram).
      E. Handholes at pole base (when required).
   H. Hot Dip Galvanize after fabrication.

9. Shop Drawings are required.

10. Coatings:
    A. Anchor Bolts, Nuts and Washers: ASTM F1554 Grade 55
    B. All other steel, including Plate Washers, hot dip galvanize: ASTM A123 Grade B

11. Construction:
    A. Construct foundation in accordance with Specification 455 Drilled Shaft, except payment is included in the cost of the structure.
    B. Prior to erection, record the as-built anchor locations and submit to the Engineer.
    C. Provide a parabolic camber with the required upward deflection as shown on the Camber Diagram.
    D. Tighten nuts and bolts in accordance with Specification 700. Split-Lock Washers are not permitted.
    E. Install Aluminum Sign Panels as shown in the Plans.
    F. After installation, place wire screen between top of foundation and bottom of baseplate in accordance with Specification 649-6.

12. Notes:
    A. Work this Index in conjunction with SPAN SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.
    B. Upright Pipe height ('C' & 'B') and foundation elevations: Verify dimensions in the field prior to submittal to ensure minimum vertical clearances of the sign panel over the roadway.
    C. Height of the foundation above adjacent grade.
    D. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
    E. Method to be used to provide the required parabolic camber (see Camber Diagram).
    F. Handholes at pole base (when required).
    G. Obtain Shop Drawing approval prior to fabrication. Include the following:
       A. Upright Pipe height ('C' & 'B') and foundation elevations: Verify minimum vertical clearances of the sign panel over the roadway.
       B. Height of the foundation above adjacent grade.
       C. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
       D. Method to be used to provide the required parabolic camber (see Camber Diagram).
       E. Handholes at pole base (when required).
    H. Hot Dip Galvanize after fabrication.
NOTES:
1. See Traffic Plans for elevation at top of Foundation.
2. Install Drilled Shaft with a 2'-0" minimum from top elevation of the drill shaft to the finished grade, unless specified otherwise in the plans.
3. The shaft length is based on 2'-0" height above finished grade.
4. Wrap fillet weld around the stiffener termination on the tube wall (Typ).

1. See Traffic Plans for elevation at top of Foundation.
2. Install Drilled Shaft with a 2'-0" minimum from top elevation of the drill shaft to the finished grade, unless specified otherwise in the plans.
3. The shaft length is based on 2'-0" height above finished grade.
4. Wrap fillet weld around the stiffener termination on the tube wall (Typ).
SPAN SIGN ASSEMBLY

SPAN SIGN STRUCTURE

UPRIGHT-TRUSS CONNECTION DETAIL

SECTION A-A

NOTES:

1. Wrap fillet weld around the stiffener termination on the tube wall.
2. Truss Chord Bolts: 'LB' or 'RB' Hex Head Bolts, 'LA' or 'RA' Ø.
3. Right Upright Truss connection shown, Left Upright Truss connection similar.
SPAN SIGN ASSEMBLY

NOTES:
1. Out-of-plane members are not shown for clarity.
2. Back truss chord and attached angles are not shown for clarity.
3. Wrap fillet weld around plate termination on the tube wall.

<table>
<thead>
<tr>
<th>Bolt Diameter (in.)</th>
<th>Distance (in.)</th>
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<tbody>
<tr>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
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DETAIL 'D'

DETAIL 'E'

DETAIL 'F'

DETAIL 'G'

DETAIL 'H'

DETAIL 'I'

DETAIL 'J'

DETAIL 'K'

DETAIL 'L'

SPAN SIGN STRUCTURE

REV 01/01/17

DESCRIPTION:
FY 2020-21

LAST
REVISION

INDEX

SHEET

STANDARD PLANS

SPANSign.jpg

LAYERS.png

SHEET 5

INDEX700-041
SPAN SIGN ASSEMBLY

SPLICE CONNECTION DETAIL

FLANGE Ø Bolt, 'SF' Required
(See Note 1)

'PA' Ø Bolt Circle
(Each Half Each End Of Splice)

SPICE CONNECTION NOTE:
1. Only 6 bolts are shown in detail for clarity.
   (One Half Each End Of Splice)

TRUSS PLUG DETAIL

PLAN

UPRIGHT CAP DETAIL

SIDE ELEVATION

SECTION D-D

ALTERNATE SPLICE CONNECTION DETAIL