

**NOTES:**

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.

Obtain Shop Drawing approval prior to fabrication. Include the following:

- A. 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.
- B. Height of the foundation above adjacent ground.
- 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).

**4. Materials:**

- A. Sign Structure:
  - a. Upright and Chords (Steel Pipe): API 5L X42 PSL2, 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 F3125, Grade A325, Type 1
  - b. Nuts: ASTM A563, Grade DH Heavy-Hex
  - c. Washers: ASTM F436, Type 1, one under turned element
- C. Anchor Bolts, Nuts and Washers
  - a. Anchor Bolts: ASTM F1554 Grade 55
  - b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per bolt)
  - c. Plate Washers: ASTM A36 (2 per bolt)
- D. Concrete: Class IV (Drilled Shaft)
- E. Reinforcing Steel: Specification 415

**5. Fabrication:**

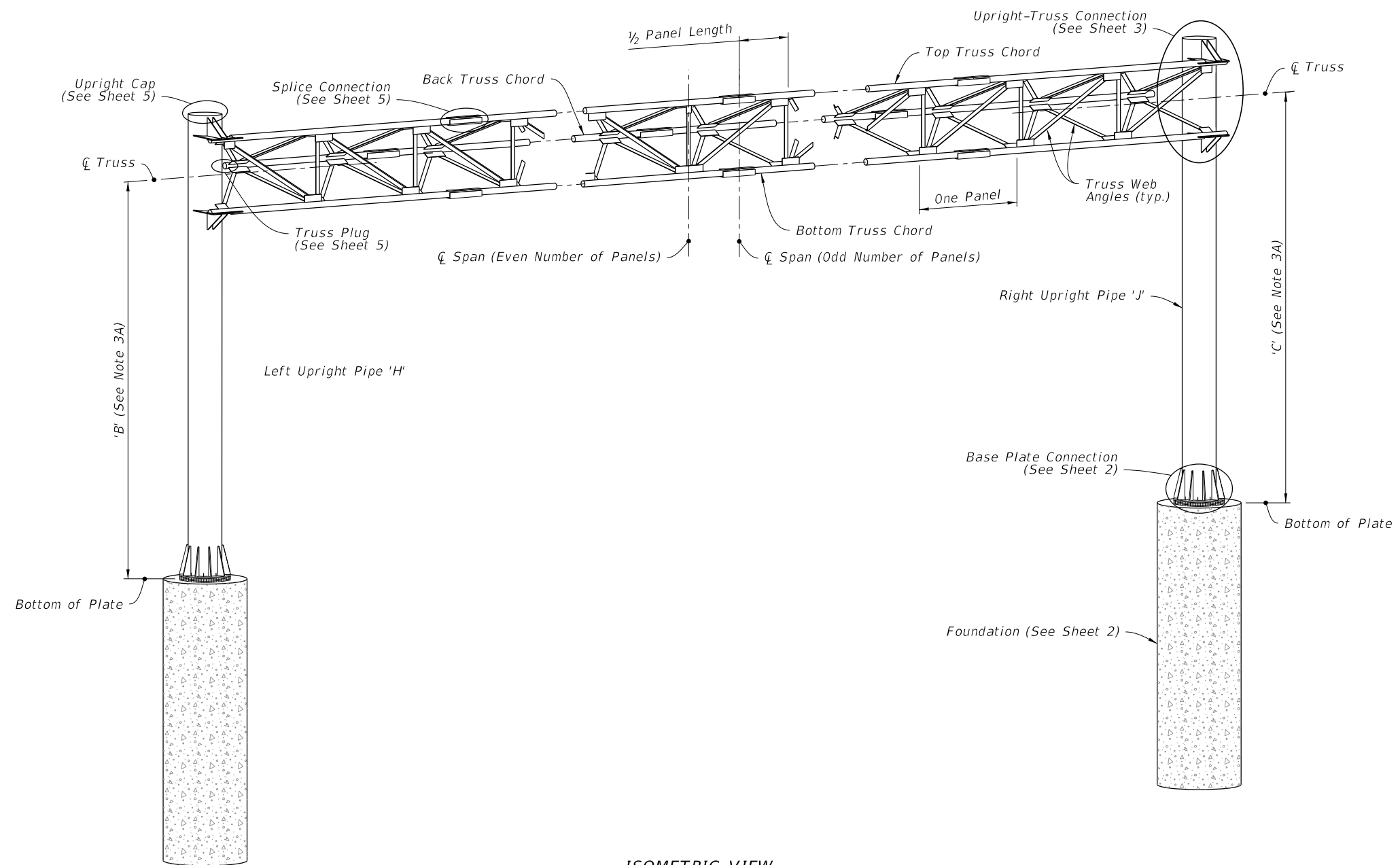
- A. Welding: Specification 460-6.4
- B. Chord Splices: Minimum splice spacing is three truss panel lengths apart and three truss panel lengths from the uprights when panel lengths are 10'-0" or less. Chord Splices may be either the Standard Splice or the Alternate Splice, but not both on the same structure.
- C. Upright splice: Not allowed unless the upright exceeds available mill lengths (35' - 40').
- D. Structural bolt hole diameters: Bolt diameter plus 1/16".
- E. Anchor bolt hole diameters: Bolt diameter plus 1/2".
- F. Hot Dip Galvanize after fabrication.
- 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.

**6. Coatings:**

- A. Bolts, Nuts and Washers: ASTM F2329
- B. All other steel, including Plate Washers, hot dip galvanize: ASTM A123

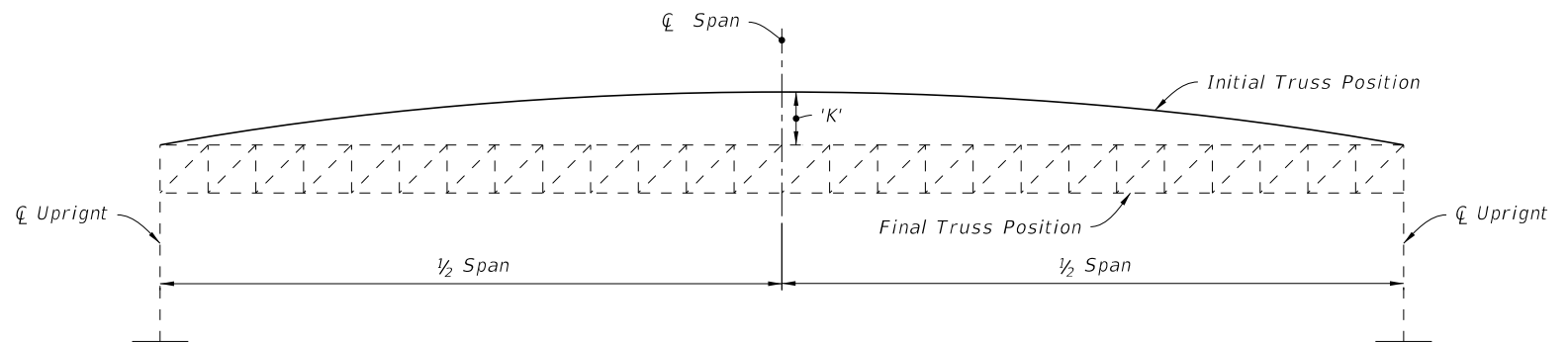
**7. Construction:**

- 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.



ISOMETRIC VIEW

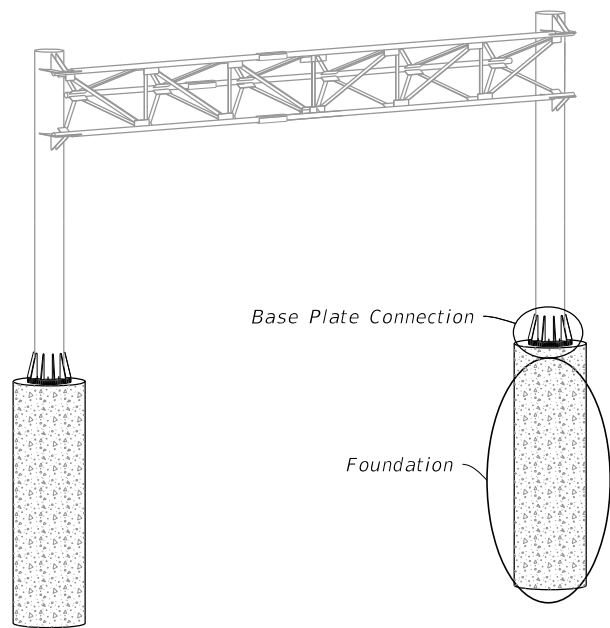
SPAN SIGN ASSEMBLY



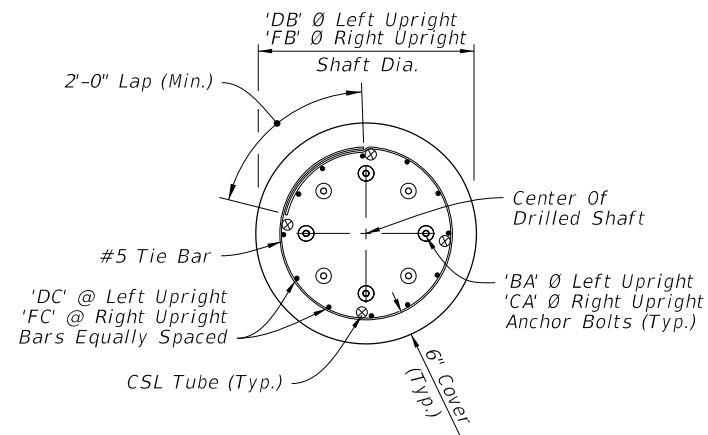
CAMBER DIAGRAM

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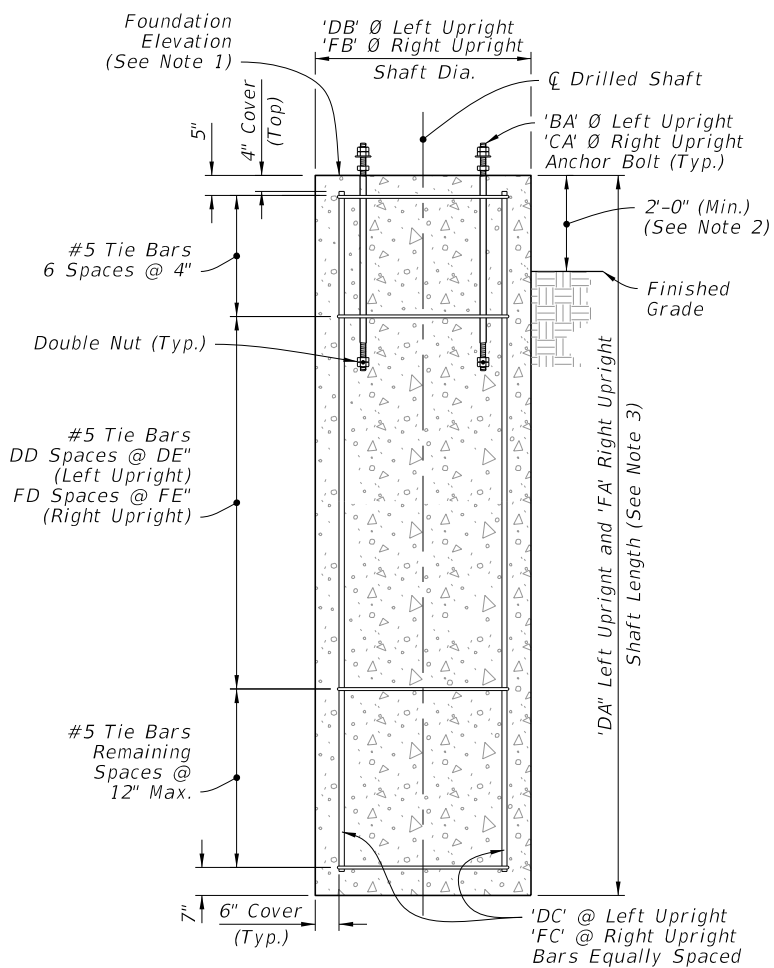
LAST REVISION 11/01/19	REVISION	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	SPAN SIGN STRUCTURE	INDEX 700-041	SHEET 1 of 5
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SPAN SIGN ASSEMBLY



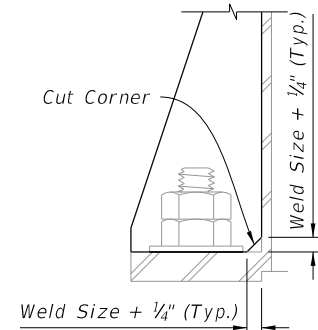
PLAN



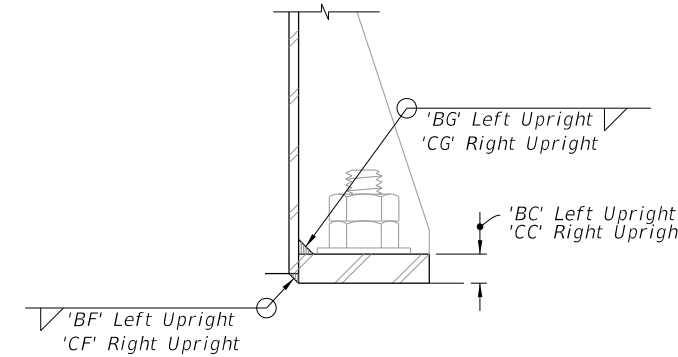
ELEVATION

DRILLED SHAFT

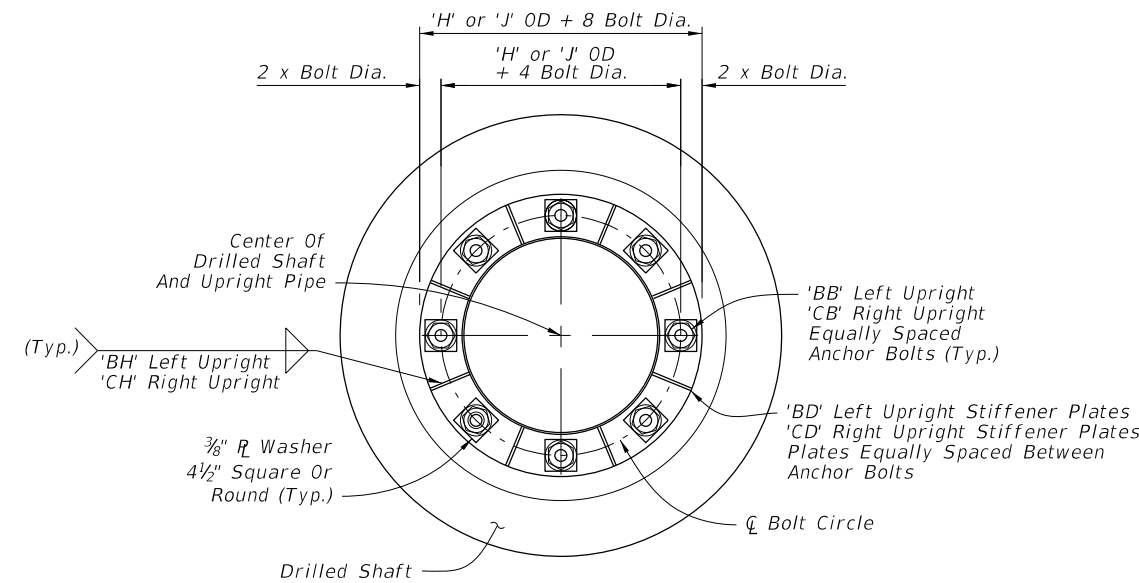
FOUNDATION



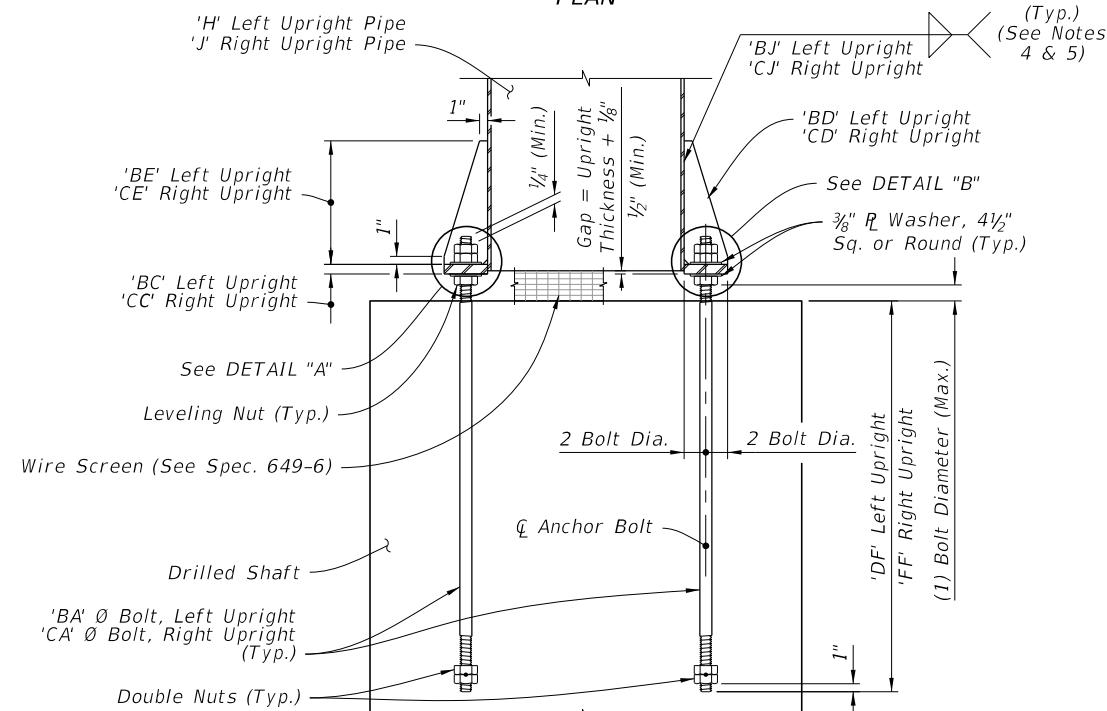
DETAIL "A"



DETAIL "B"



PLAN




ELEVATION

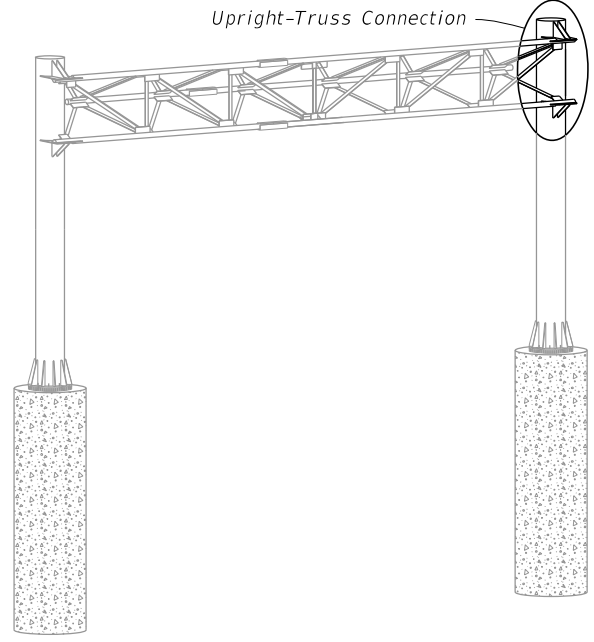
BASE PLATE CONNECTION

NOTES:

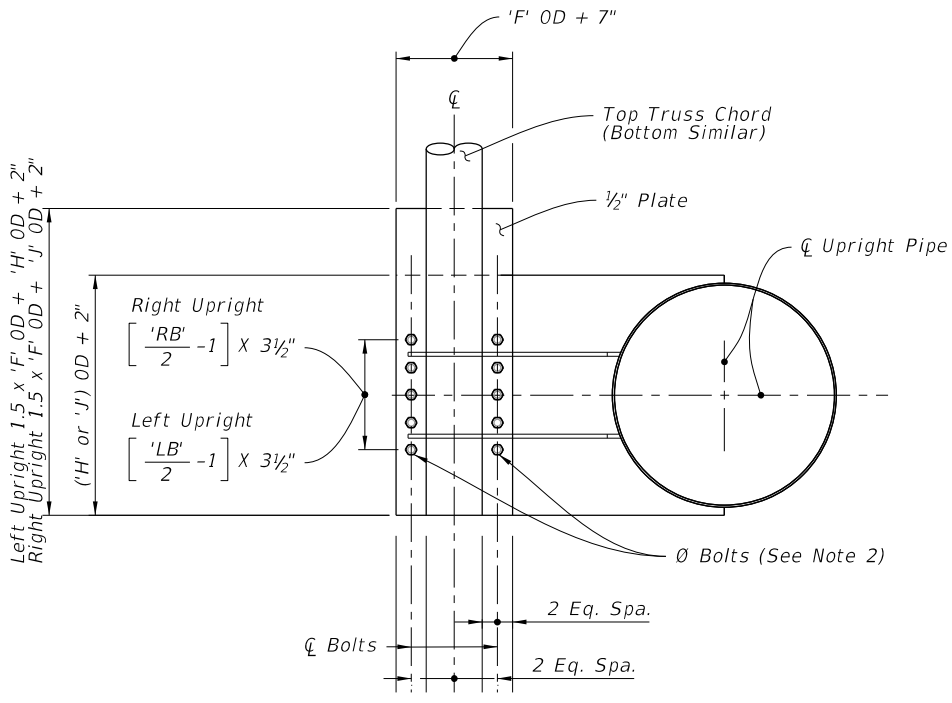
1. See Traffic Plans for elevation at top of Foundation.
2. Install Drilled Shaft with a 2'-0" minimum from top elevation of the drill shaft to the finished grade, unless specified otherwise in the plans.
3. The shaft length is based on 2'-0" height above finished grade.
4. Wrap fillet weld around the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

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LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	SPAN SIGN STRUCTURE	INDEX 700-041	SHEET 2 of 5
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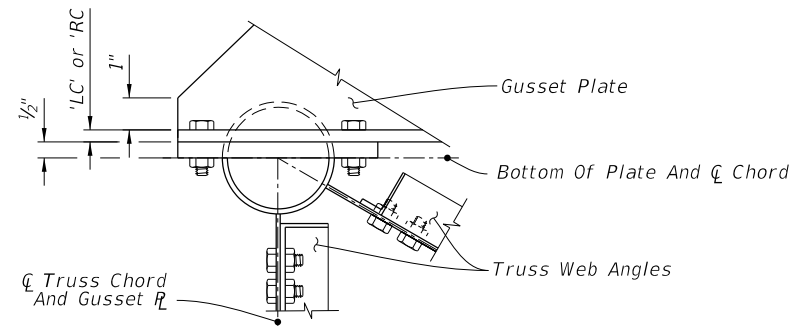


SPAN SIGN ASSEMBLY

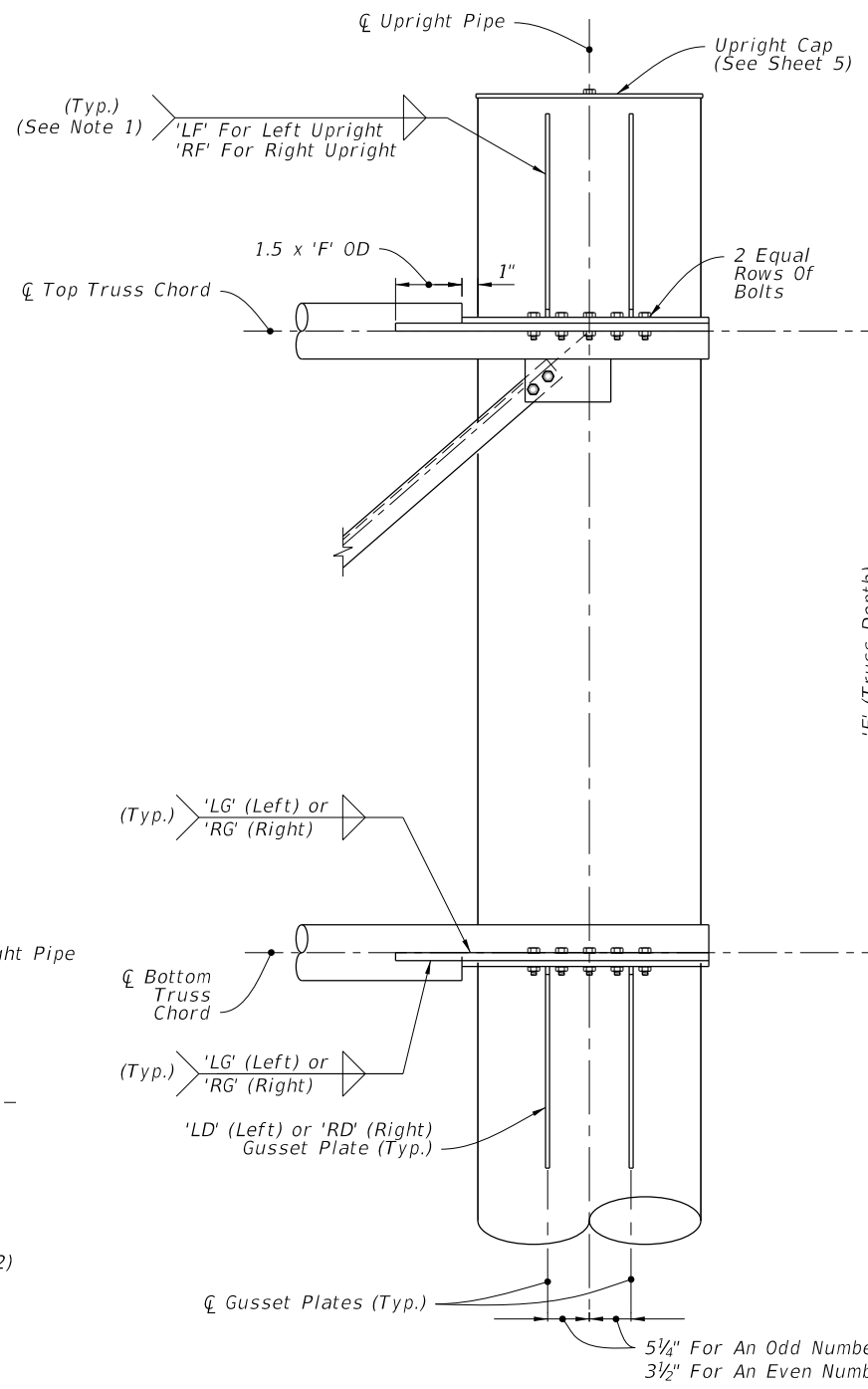


SECTION A-A

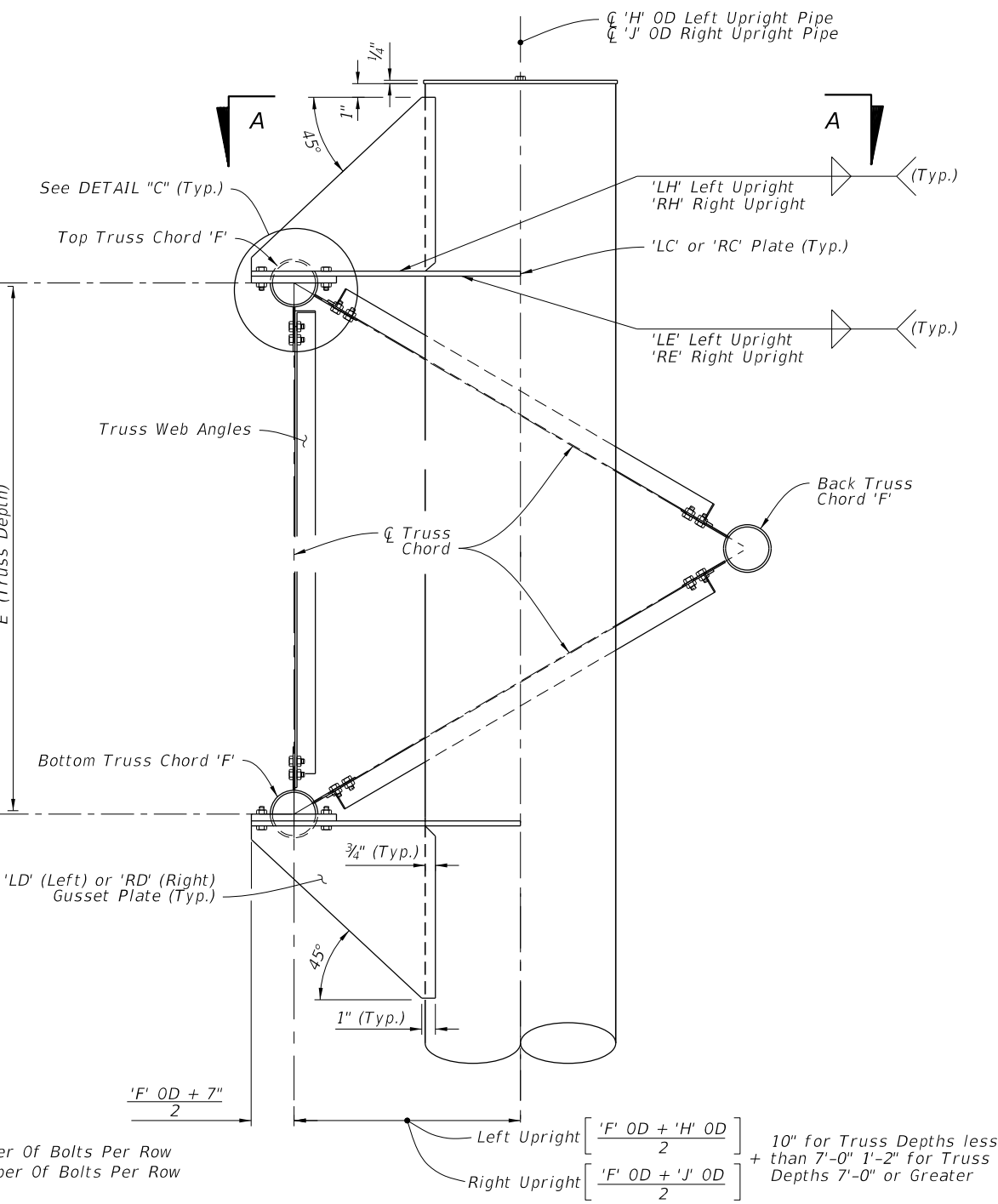
(With Gusset Plates And Web Angles Omitted For Clarity)



DETAIL "C"



FRONT ELEVATION



SIDE ELEVATION

UPRIGHT-TRUSS CONNECTION DETAIL

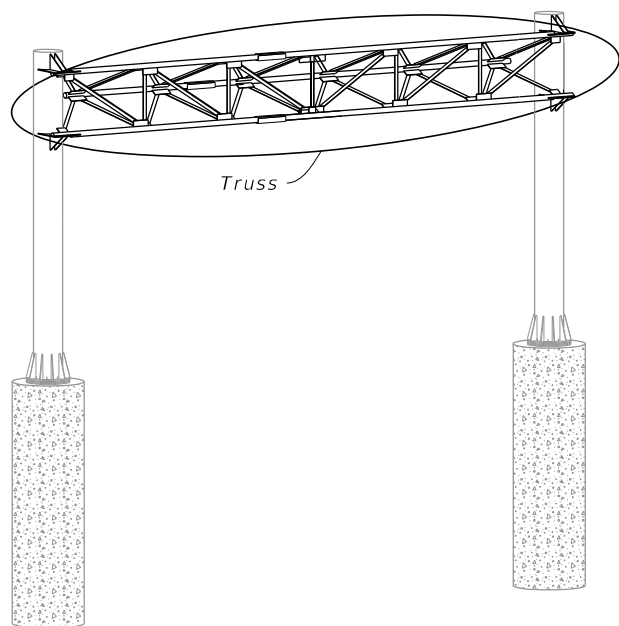
(Web Members From Back Truss Chord Omitted For Clarity, See Note 3)

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'  $\emptyset$ .
3. Right Upright Truss connection shown, Left Upright Truss connection similar.

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LAST REVISION 11/01/17	DESCRIPTION:
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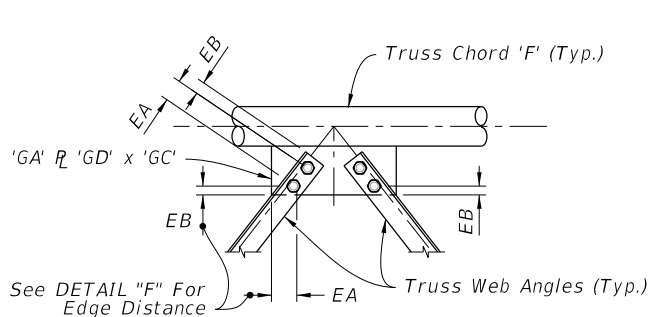
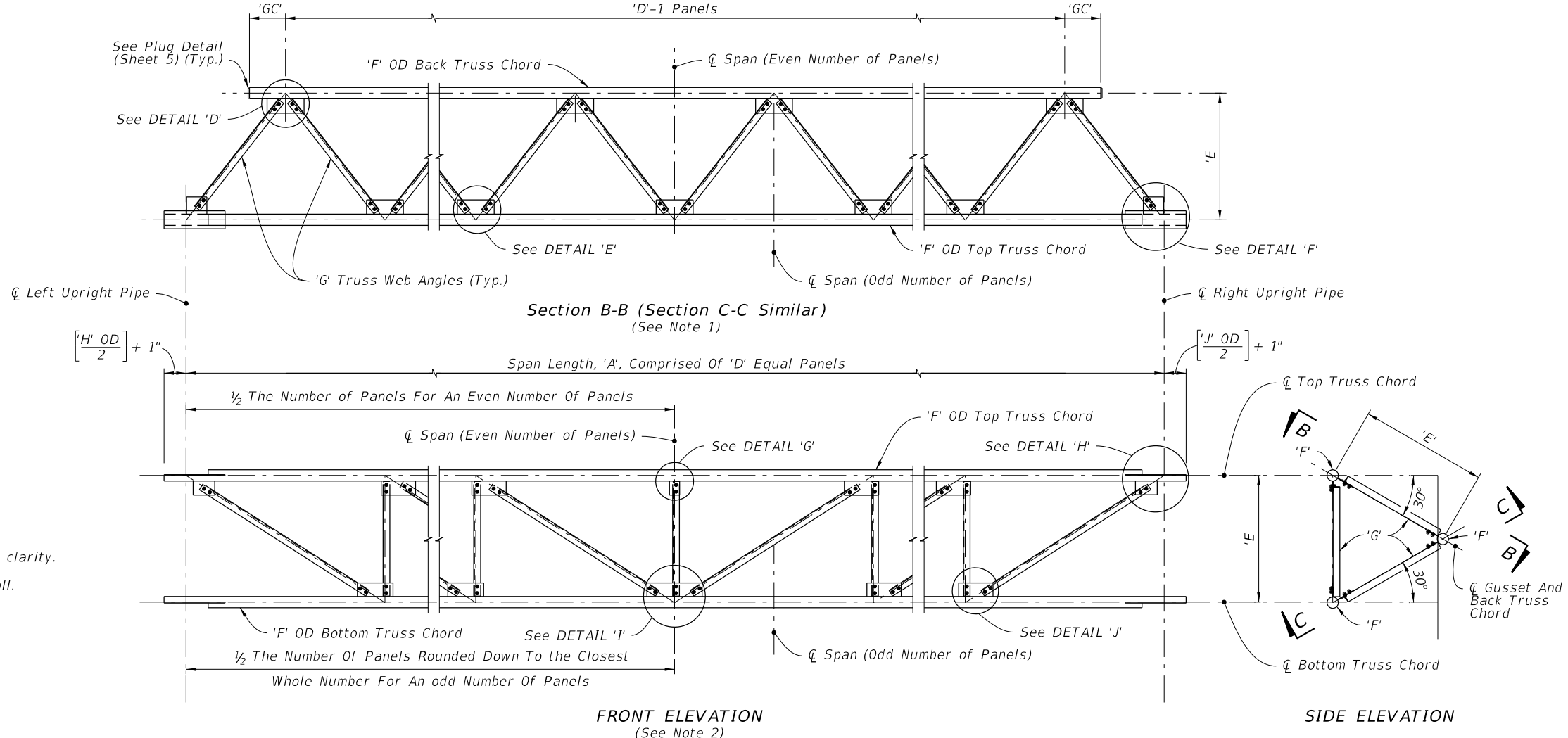


**SPAN SIGN ASSEMBLY**

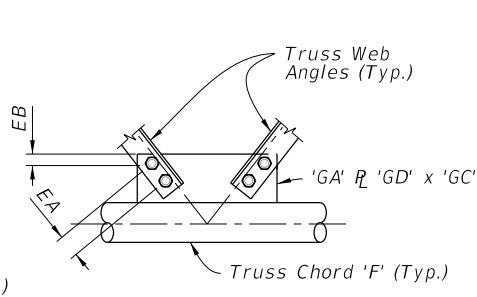
**NOTES:**

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.

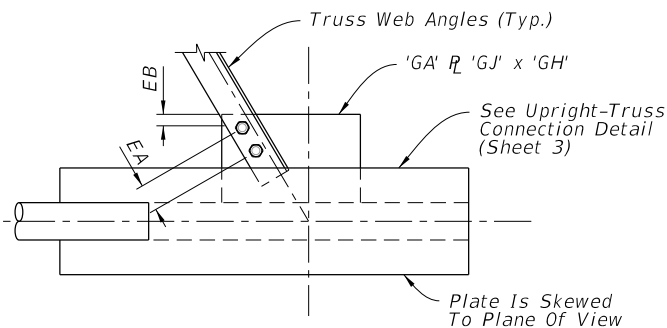
Bolt Diameter (in.)	Distance (in.)	
	EA	EB
1 1/4	4 3/8	2 1/4
1	3 1/2	1 3/4
7/8	3	1 1/2
3/4	2 1/2	1 1/4
5/8	2 1/4	1 1/8



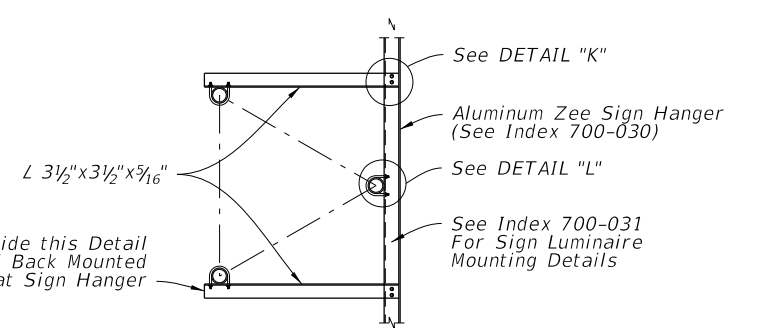
**DETAIL 'D'**



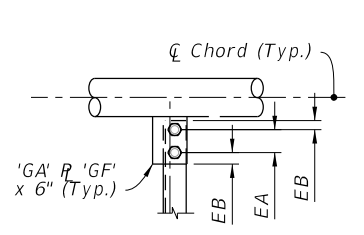
**DETAIL 'E'**



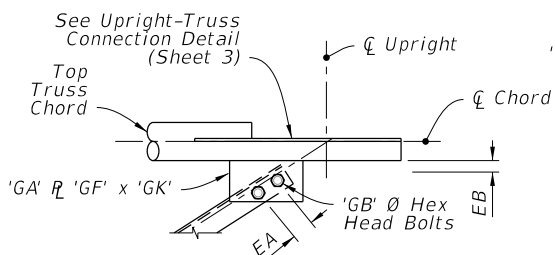
**DETAIL 'F'**



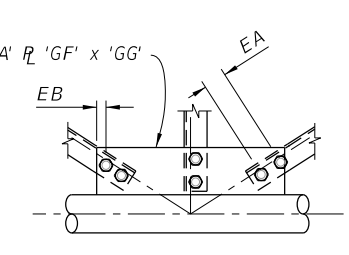
**BACK-SIDE SIGN MOUNTING**



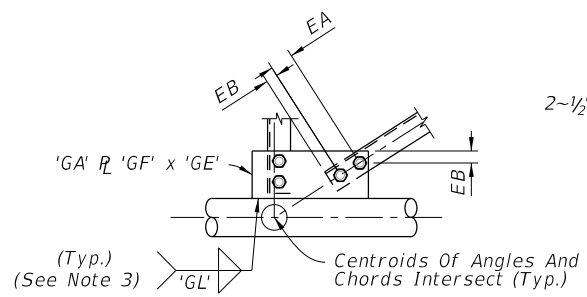
**DETAIL 'G'**



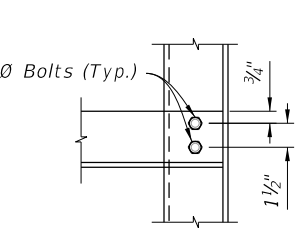
**DETAIL 'H'**



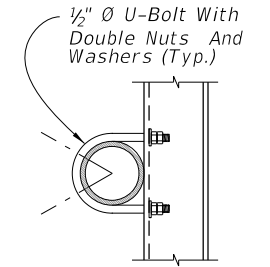
**DETAIL 'I'**



**DETAIL 'J'**

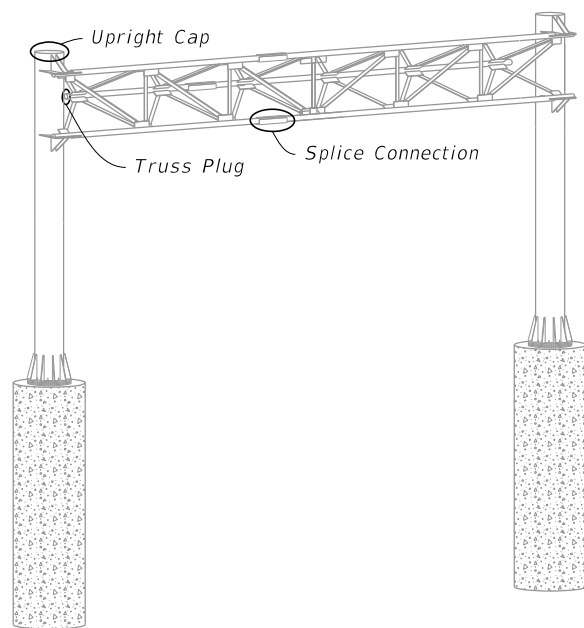


**DETAIL 'K'**



**DETAIL 'L'**

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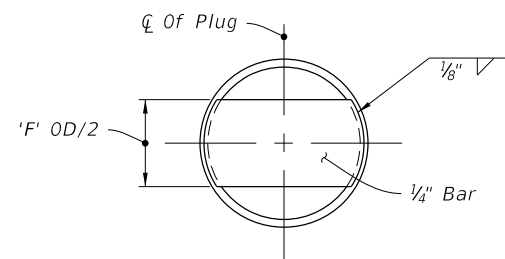
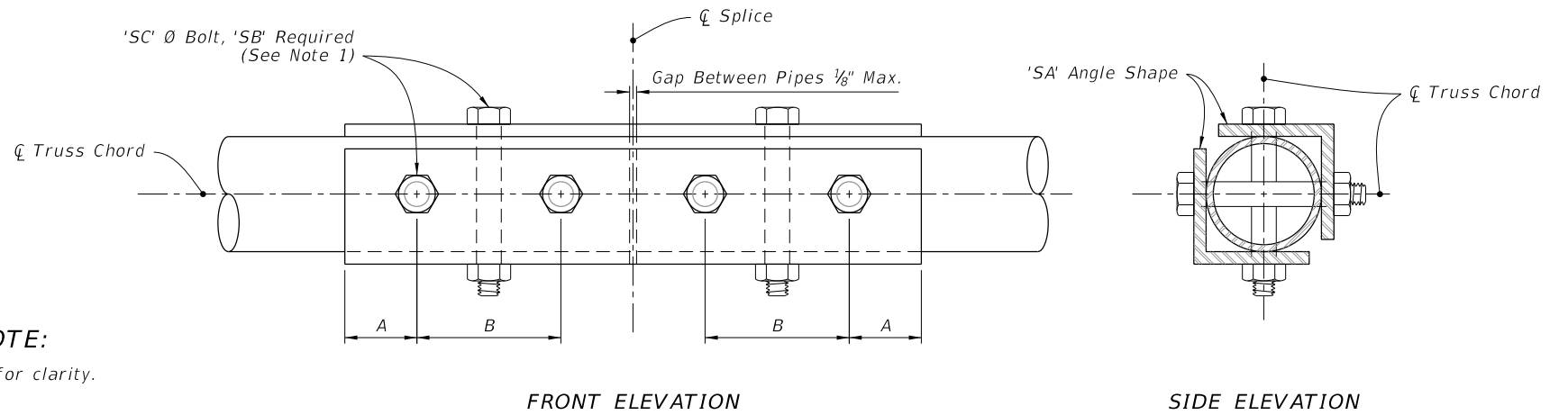


SPAN SIGN ASSEMBLY

Bolt Diameter (in.)	Distance (in.)	
	A	B
1	1¾	3½
¾	1½	3
½	1¼	2½

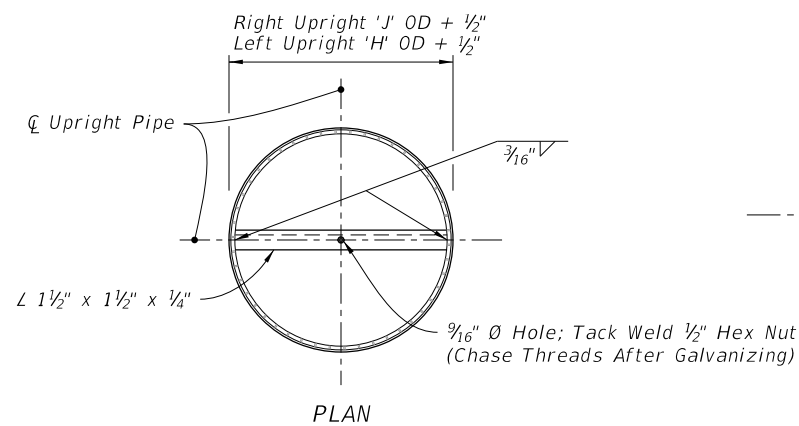
SPLICE CONNECTION NOTE:

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

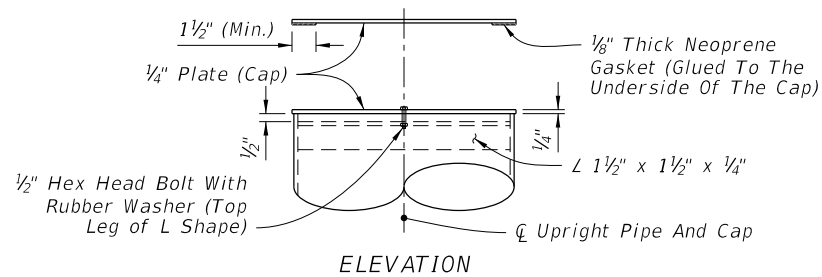


(Each End Of Back Truss Chord)

TRUSS PLUG DETAIL

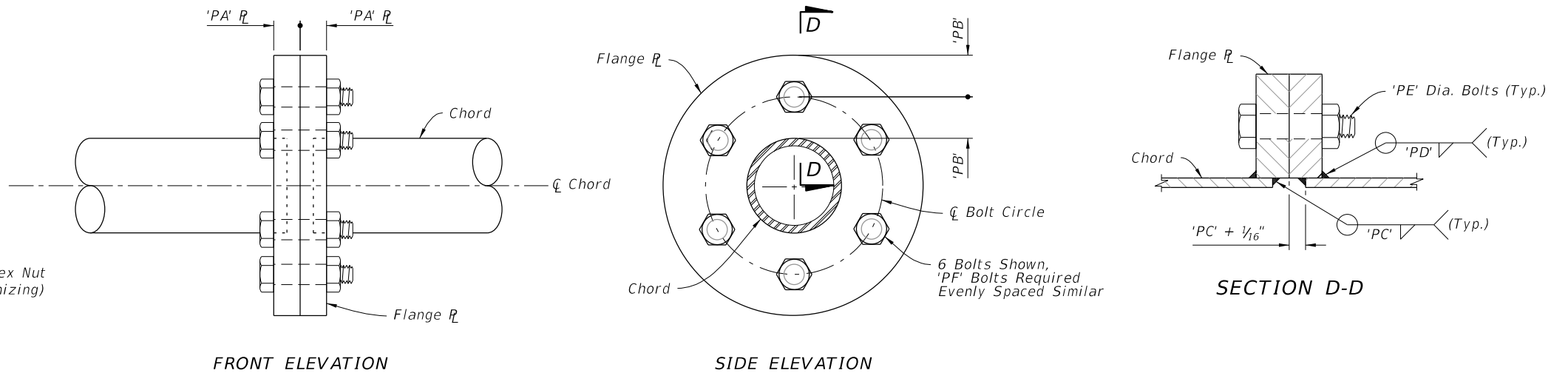


PLAN



ELEVATION

UPRIGHT CAP DETAIL



FRONT ELEVATION

SIDE ELEVATION

SECTION D-D

ALTERNATE SPLICE CONNECTION DETAIL

10/12/2020 9:01:58 AM

LAST REVISION	DESCRIPTION:
11/01/17	



FY 2021-22  
STANDARD PLANS

SPAN SIGN STRUCTURE

INDEX  
700-041

SHEET  
5 of 5