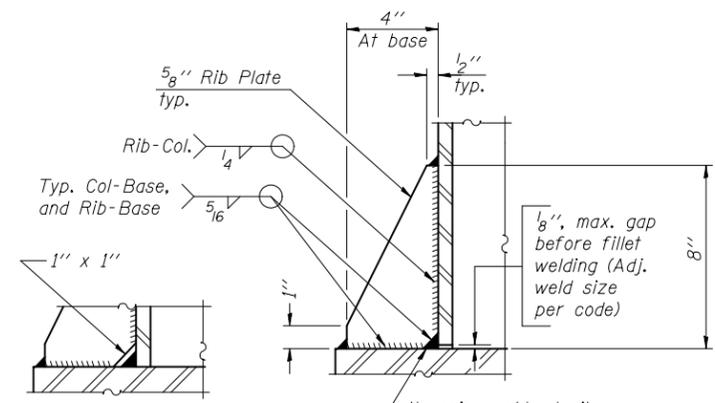
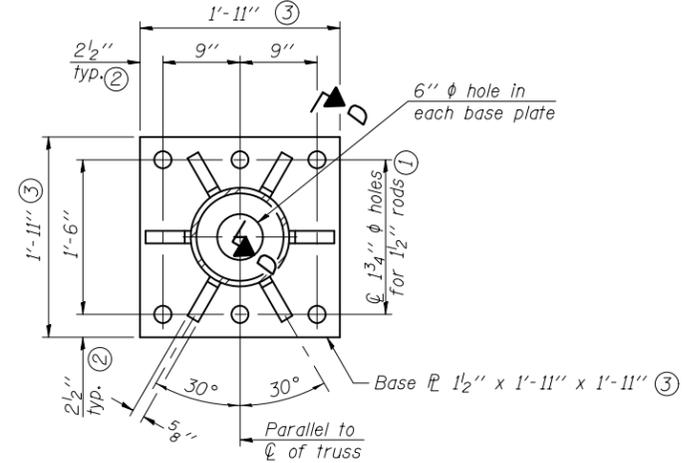
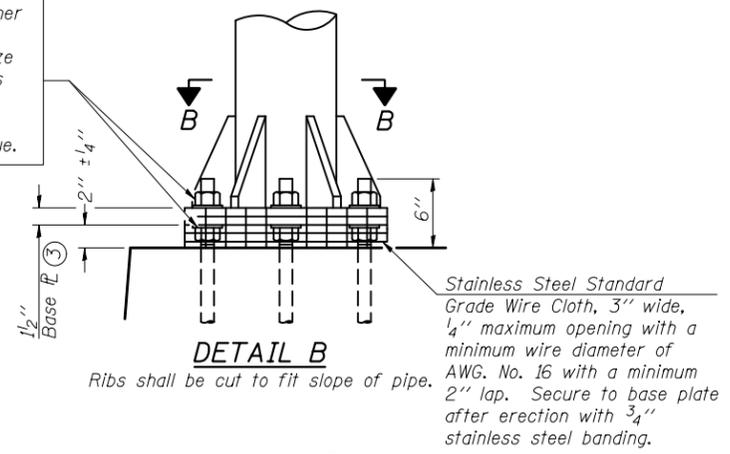
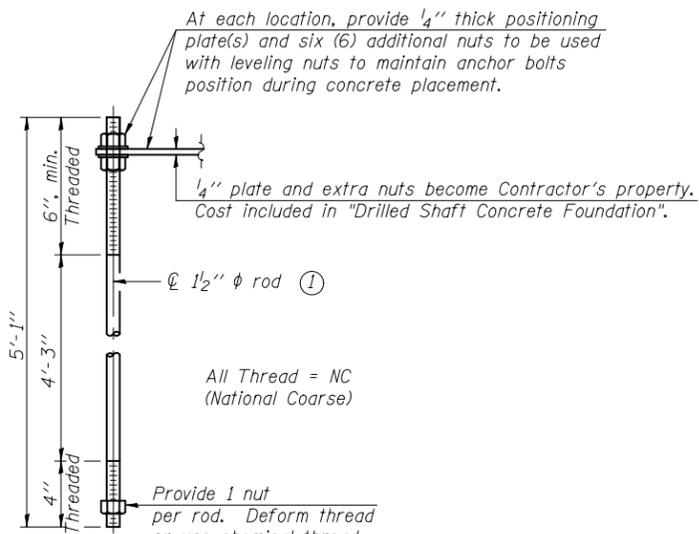
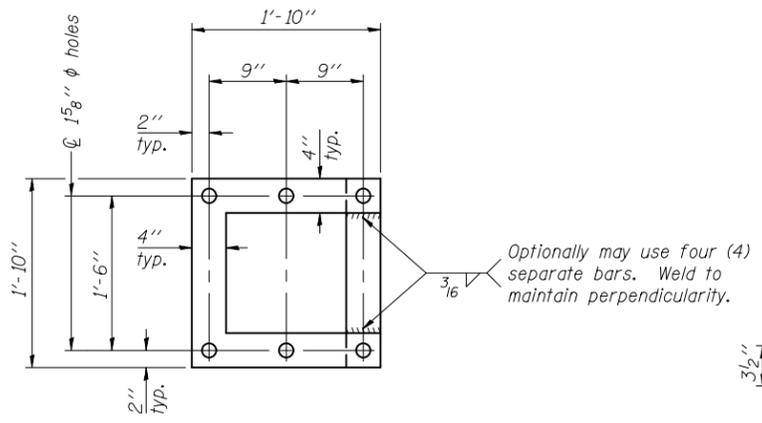


CELL / MODEL NAME	DESCRIPTION	DATE
OS4-A-2	Aluminum truss details for truss type I-A, II-A & III-A	06/01/2012
OS4-A-8a	12" Dia. pipe support frame for type III-A aluminum truss	06/01/2012
OS4-A-8aA	12" Dia. pipe support frame details for type III-A aluminum truss	06/01/2012
OS4-F1	Foundation details (6" dia. pipe, drilled shaft)	08/21/2013
OS4-F2	Foundation details (8" dia. pipe, drilled shaft)	08/21/2013
OS4-F3	Foundation details (10" dia. pipe, drilled shaft)	08/21/2013
OS4-F4	Foundation details (12" dia. pipe, drilled shaft)	08/21/2013
OS4-MED2	Median support foundation details II	08/21/2013
OS4-MED	Median support foundation details	08/21/2013
OS-A-1	General plan and elevation	08/21/2013
OS-A-2	Aluminum truss details for truss types I-A, II-A & III-A	06/01/2012
OS-A-3	6" Dia. pipe support frame for type I-A aluminum truss	06/01/2012
OS-A-3A	6" Dia. pipe support frame details aluminum truss	06/01/2012
OS-A-4	8" Dia. pipe support frame for type I-A aluminum truss	06/01/2012
OS-A-4A	8" Dia. pipe support frame details aluminum truss	06/01/2012
OS-A-6	10" Dia. pipe support frame for aluminum truss	06/01/2012
OS-A-6A	10" Dia. pipe support frame details aluminum truss	06/01/2012
OS-A-9	Aluminum walkway details	06/01/2012
OS-A-9-DMS	Alternate aluminum walkway details for DMS	06/01/2012
OS-A-9S	Alternate walkway details	06/01/2012
OS-A-10	Aluminum walkway details	06/01/2012
OS-A-10-DMS	Alternate aluminum walkway details for DMS	06/01/2012
OS-A-10S	Alternate walkway details	06/01/2012
OS-A-11	Aluminum handrail details	06/01/2012
OS-A-11-DMS	Alternate aluminum handrail details for DMS	06/01/2012
OS-A-D	Damping device	06/01/2012
OS-F1	Foundation details (6" dia. pipe, spread footing)	08/21/2013
OS-F2	Foundation details (8" dia. pipe, spread footing)	08/21/2013
OS-F3	Foundation details (10" dia. pipe, spread footing)	08/21/2013
OS-F4	Foundation details (12" dia. pipe, spread footing)	08/21/2013

Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



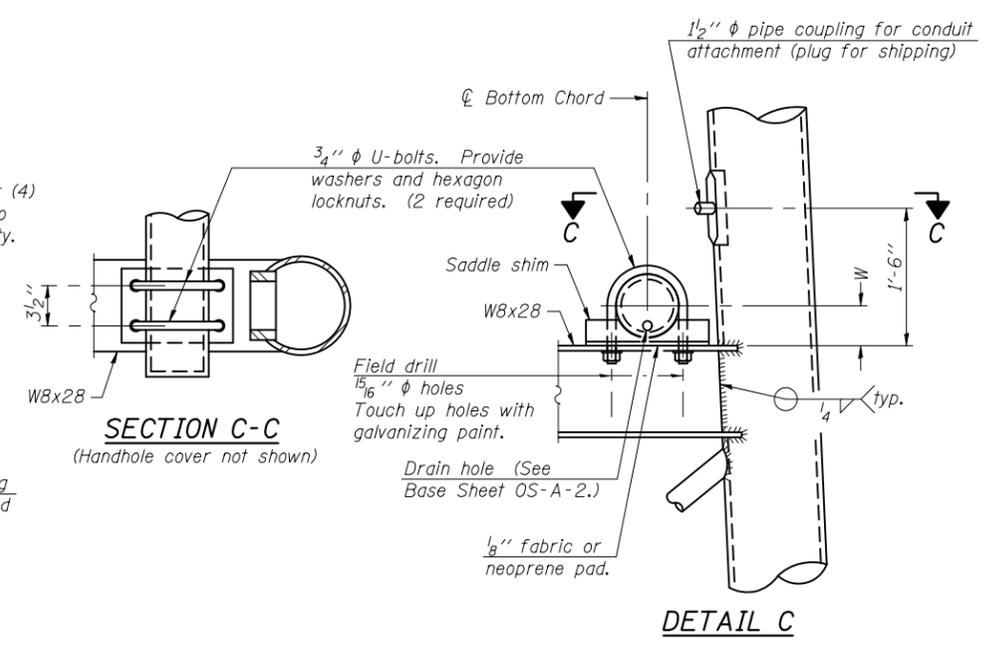
** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



TYPE III-A TRUSS
12" ϕ PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

- ① 1 3/4" ϕ rod, 2" ϕ holes
- ② 2 3/4" edge distance
- ③ Base Pl 1 5/8" x 1'-11 1/2" x 1'-11 1/2"



SECTION C-C
(Handhole cover not shown)

*R = $\frac{D}{2} + \frac{1}{32}$ at 90°
D = Outside Diameter of Chord.
For W, see Base Sheet OS-A-6.

Truss Chord Nominal Dia.	a
7"	1"
8 1/2"	1 1/4"
9"	1 3/8"

SADDLE SHIM DETAIL
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

OS4-A-8aA

6-1-12

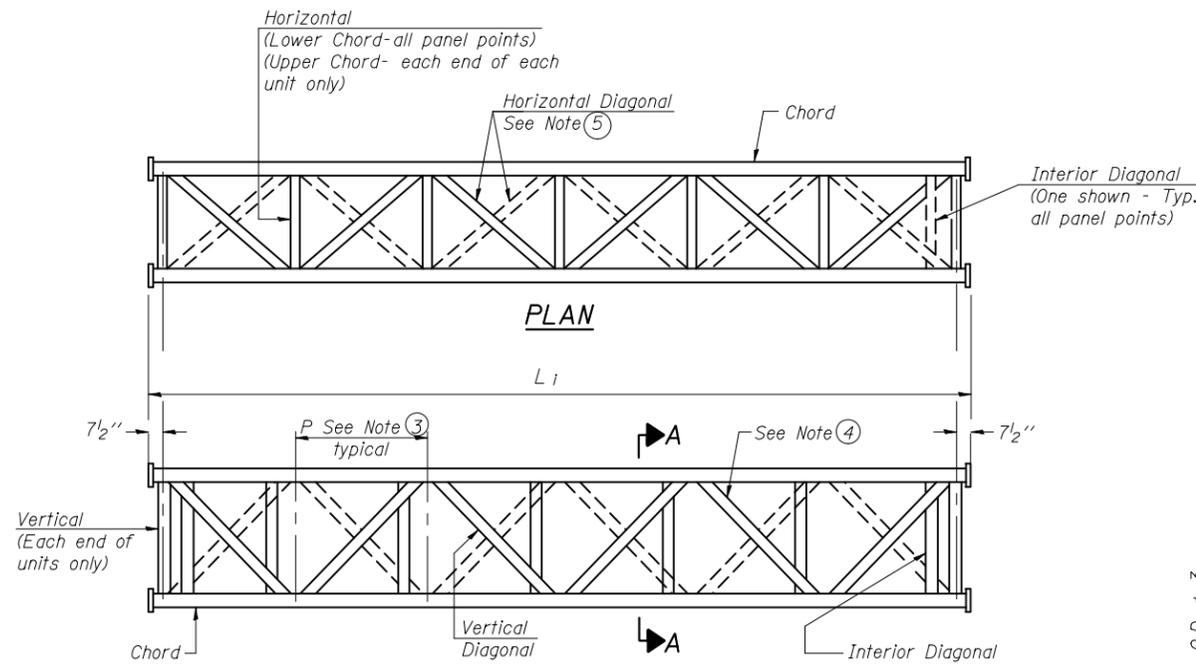
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

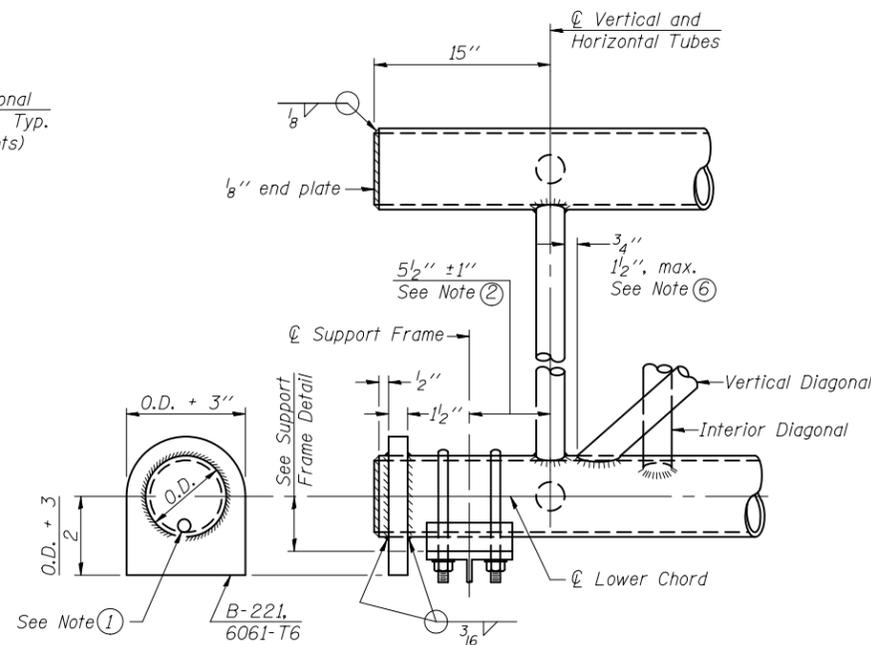
OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

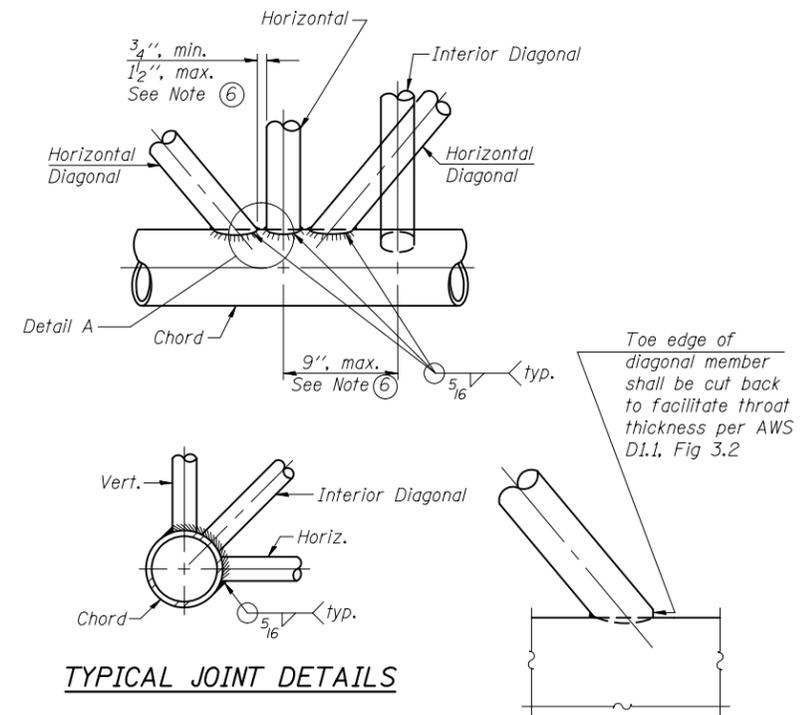
SHEET NO. OF SHEETS



**ELEVATION
TYPICAL INTERIOR UNIT**
Even number of panels/interior unit required.

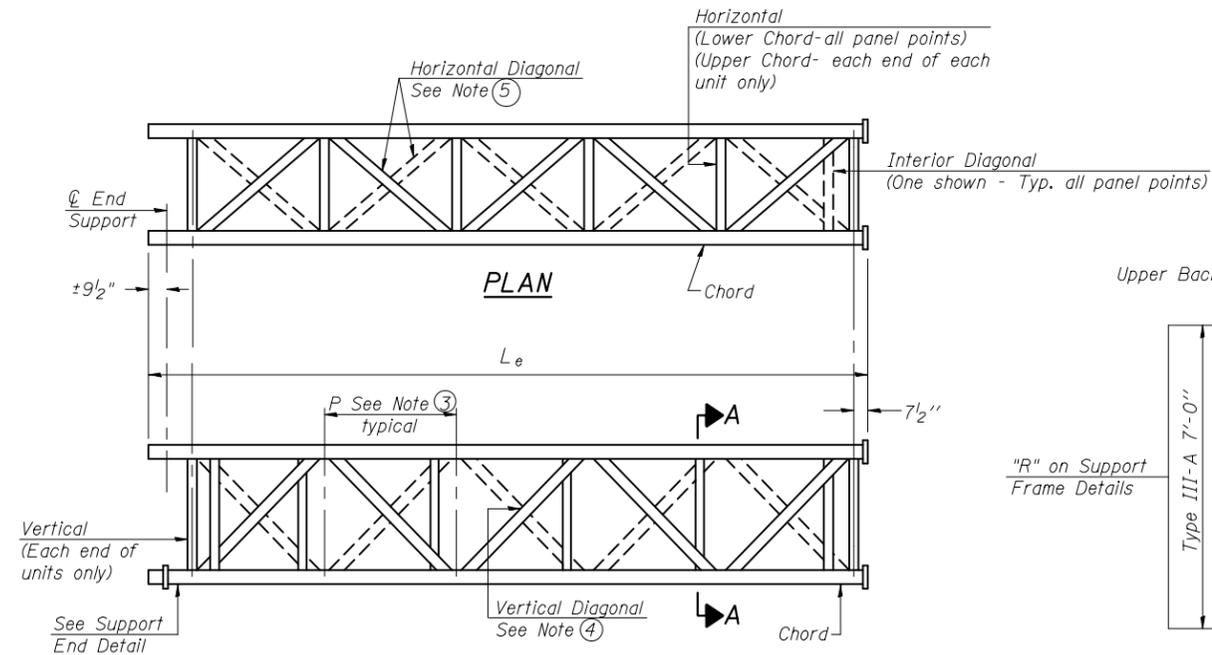


SUPPORT END DETAIL FOR EXTERIOR UNIT

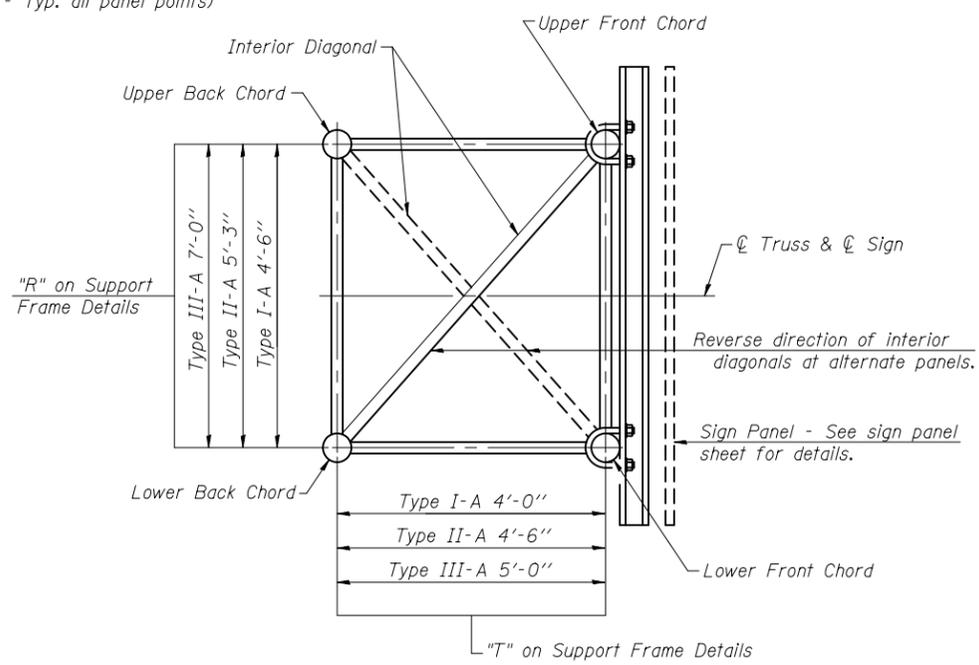


TYPICAL JOINT DETAILS

DETAIL A



**ELEVATION
TYPICAL EXTERIOR UNIT**
Even or odd number of panels/exterior units allowed.



SECTION A-A

- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ② 5 1/2" end dimension may vary by $\pm 1"$ to provide uniform panel spacing (P).
- ③ Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- ④ Vertical Diagonals in front and back face shall alternate.
- ⑤ Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- ⑥ All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2

6-1-12

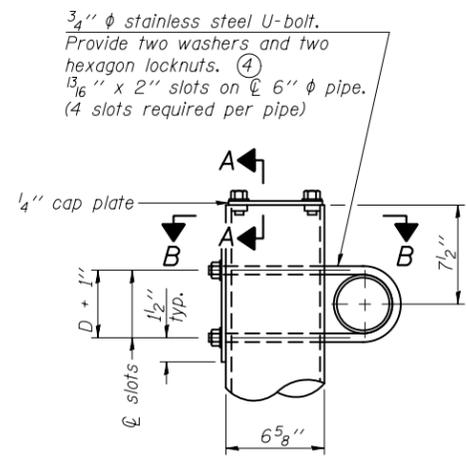
FILE NAME =	USER NAME =	DESIGNED -	REVISED
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

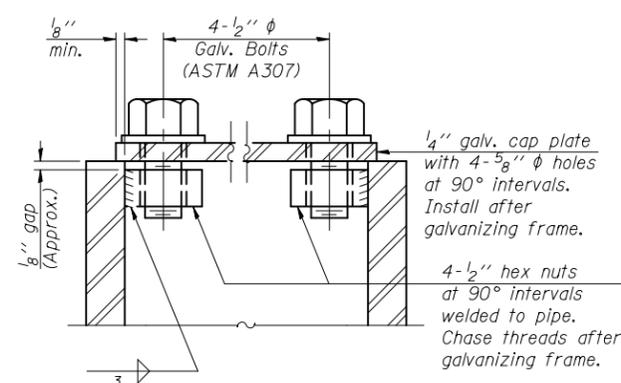
**OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS
DETAILS FOR TRUSS TYPES I-A, II-A AND III-A**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

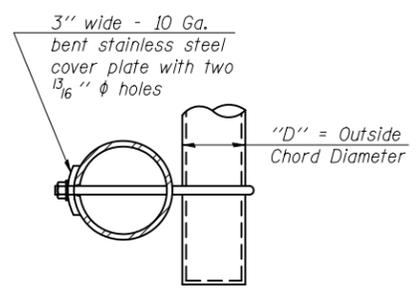


DETAIL A

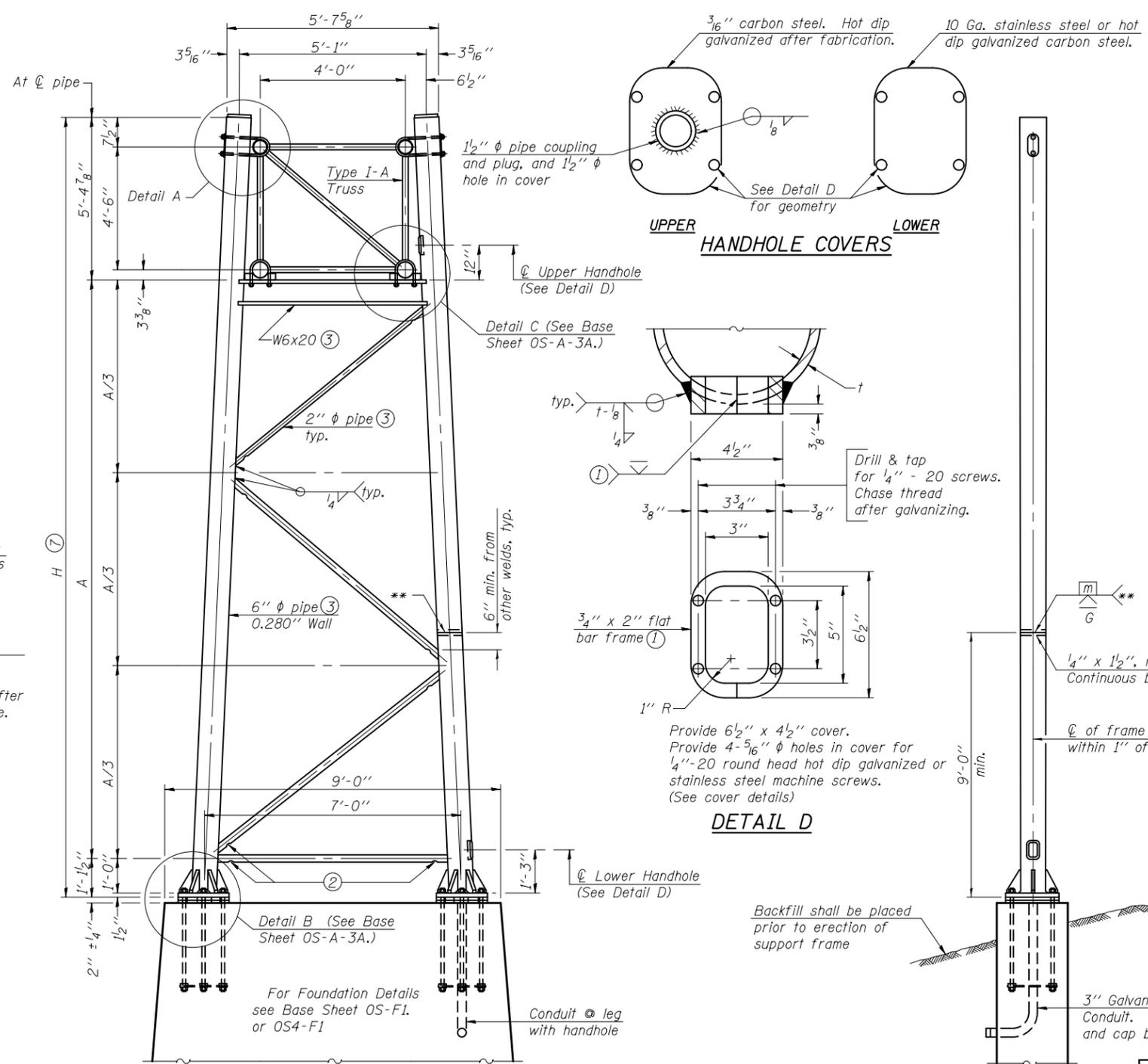


SECTION A-A

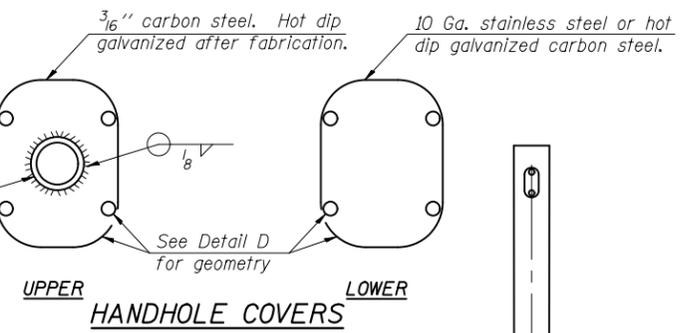
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



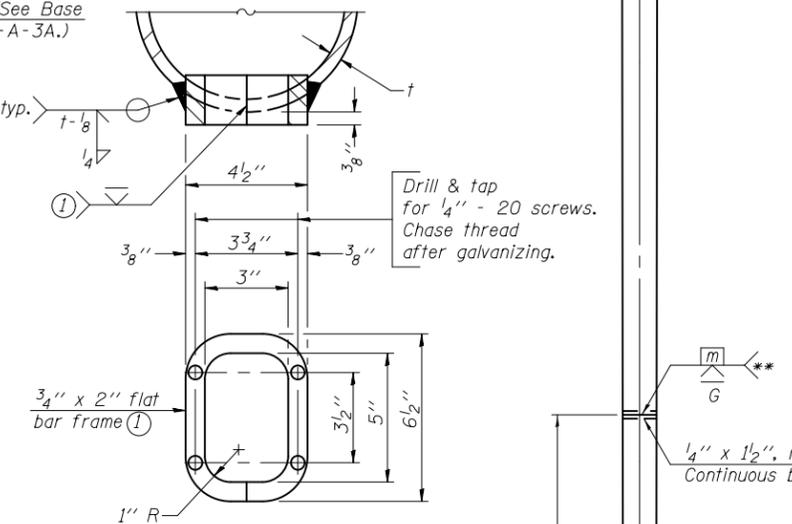
SECTION B-B



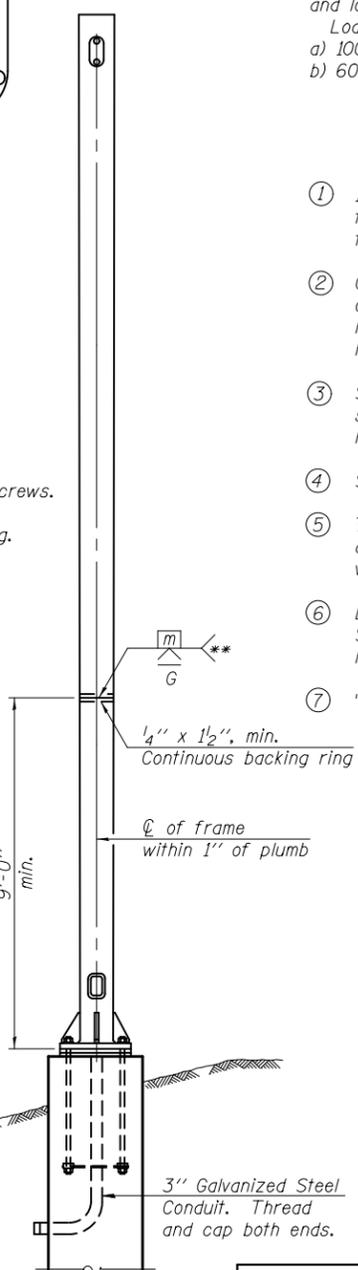
SIDE ELEVATION



UPPER HANDHOLE COVERS LOWER



DETAIL D



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- ① In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- ② Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
- ③ Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- ④ See General Notes for fasteners.
- ⑤ This standard may be utilized for special short-span and/or short end support applications subject to verification of maximum loads and capacities by the designer.
- ⑥ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- ⑦ "H" based on 15'-0" or actual sign height, whichever is greater.

6" PIPE TRUSS SUPPORT DETAILS

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	Support		H ⑦	A
		Left	Right		

OS-A-3

6-1-12

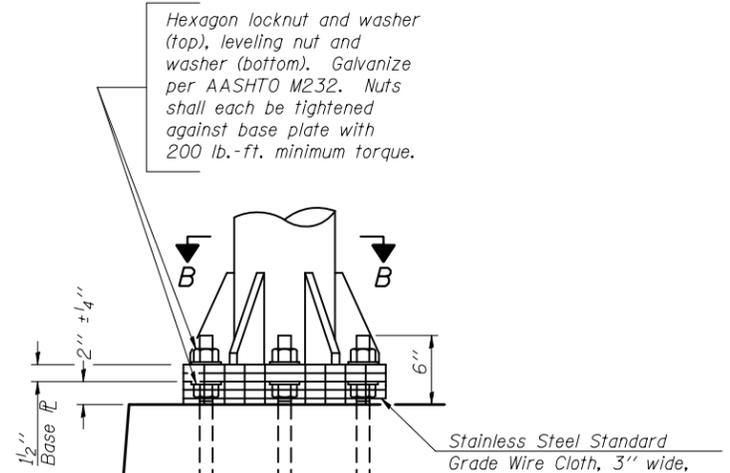
FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		CHECKED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE I-A ALUMINUM TRUSS**

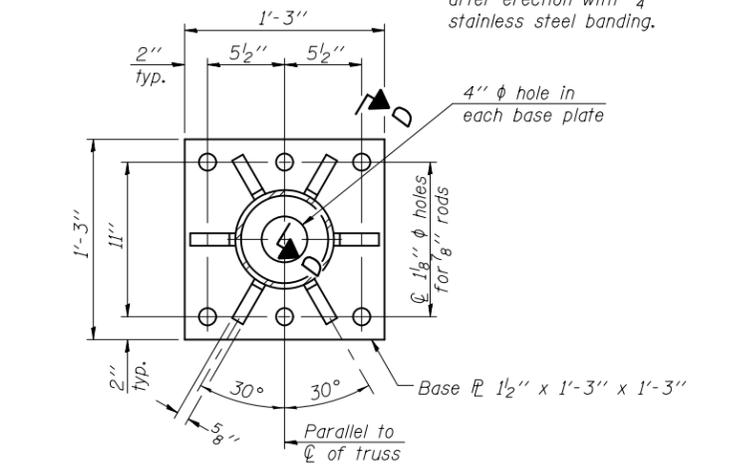
SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

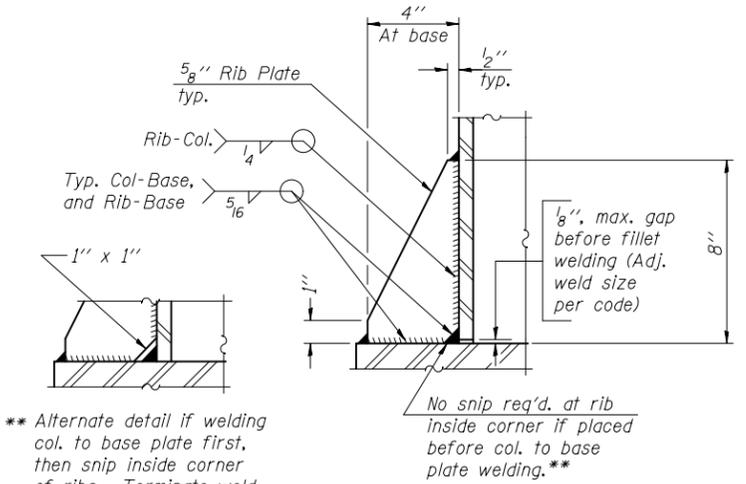


DETAIL B

Ribs shall be cut to fit slope of pipe.
Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.

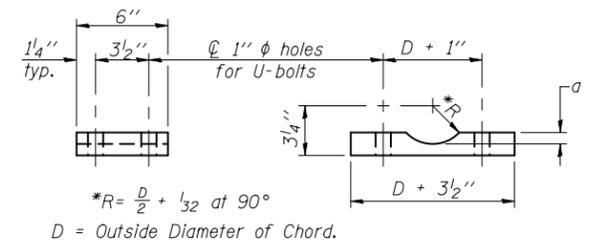


SECTION B-B



SECTION D-D

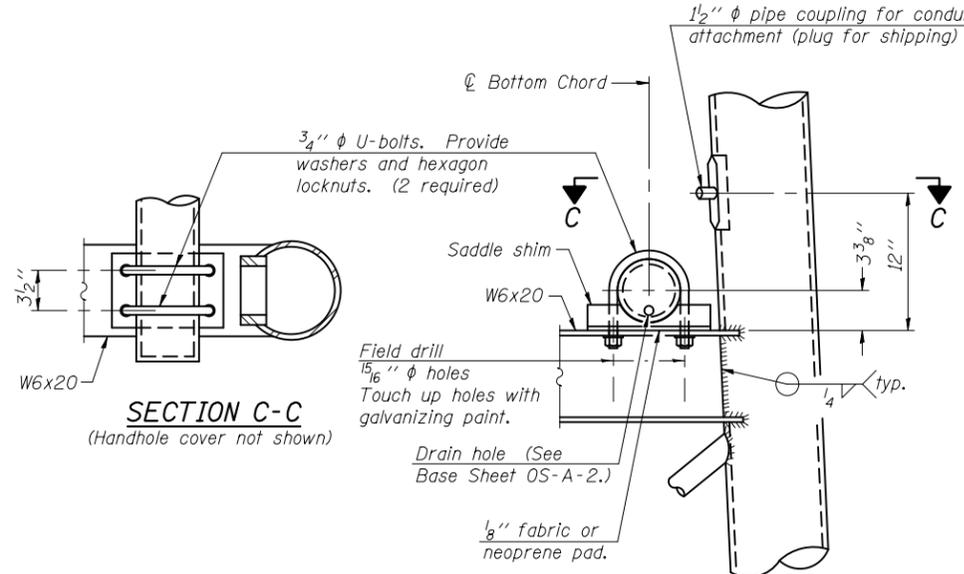
** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



SADDLE SHIM DETAIL

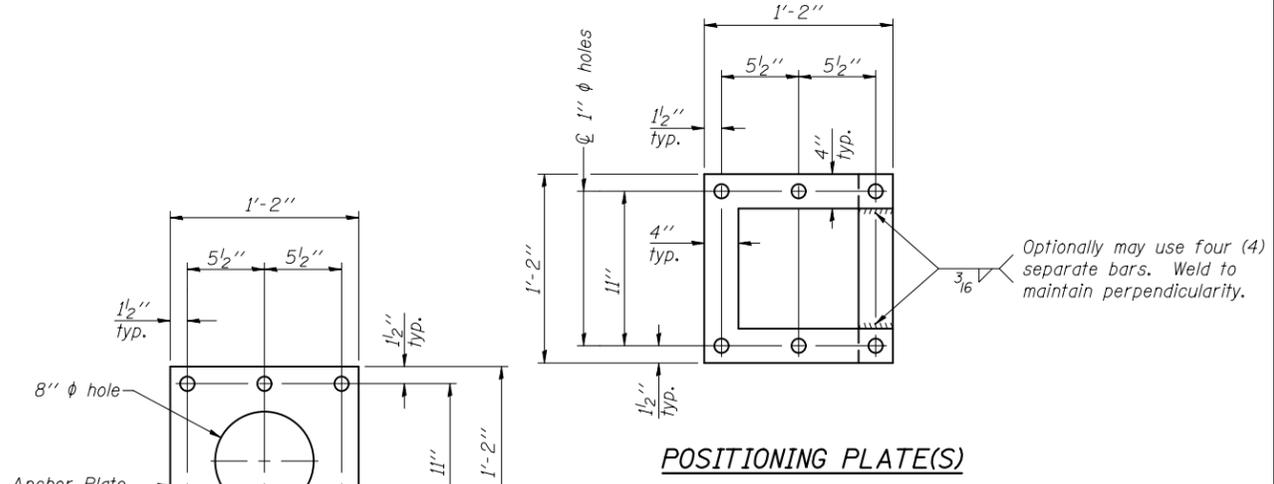
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

Truss Chord Nominal Dia.	a
4 1/2"	1 1/16"
5"	3 3/4"
5 1/2"	13 1/16"



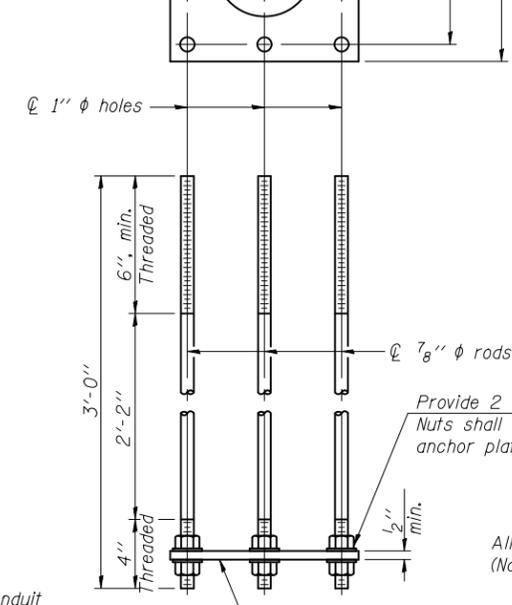
SECTION C-C
(Handhole cover not shown)

DETAIL C



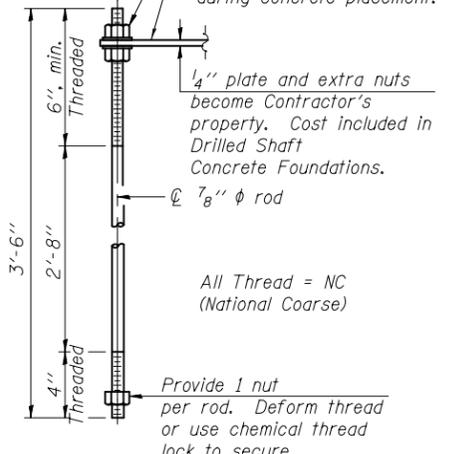
POSITIONING PLATE(S)

At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL
Spread Footing Foundation

All Thread = NC (National Coarse)



ANCHOR ROD DETAIL
Drilled Shaft Foundation

All Thread = NC (National Coarse)

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

TYPE I-A TRUSS
6" φ PIPE SUPPORT FRAME DETAILS

OS-A-3A

6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		CHECKED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS

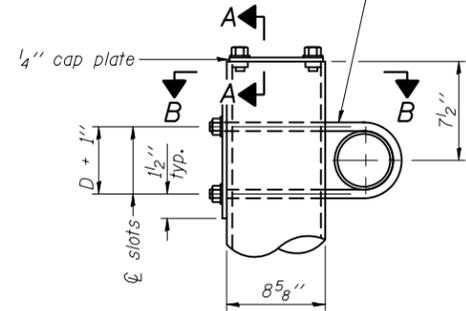
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS ALUMINUM TRUSS

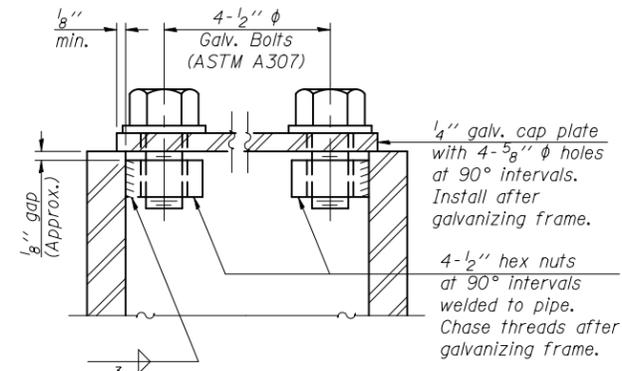
SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

3/4" φ stainless steel U-bolt.
Provide two washers and two hexagon locknuts. (4)
1 3/16" x 2" slots on 8" φ pipe.
(4 slots required per pipe)

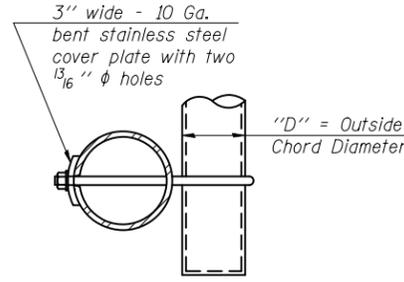


DETAIL A

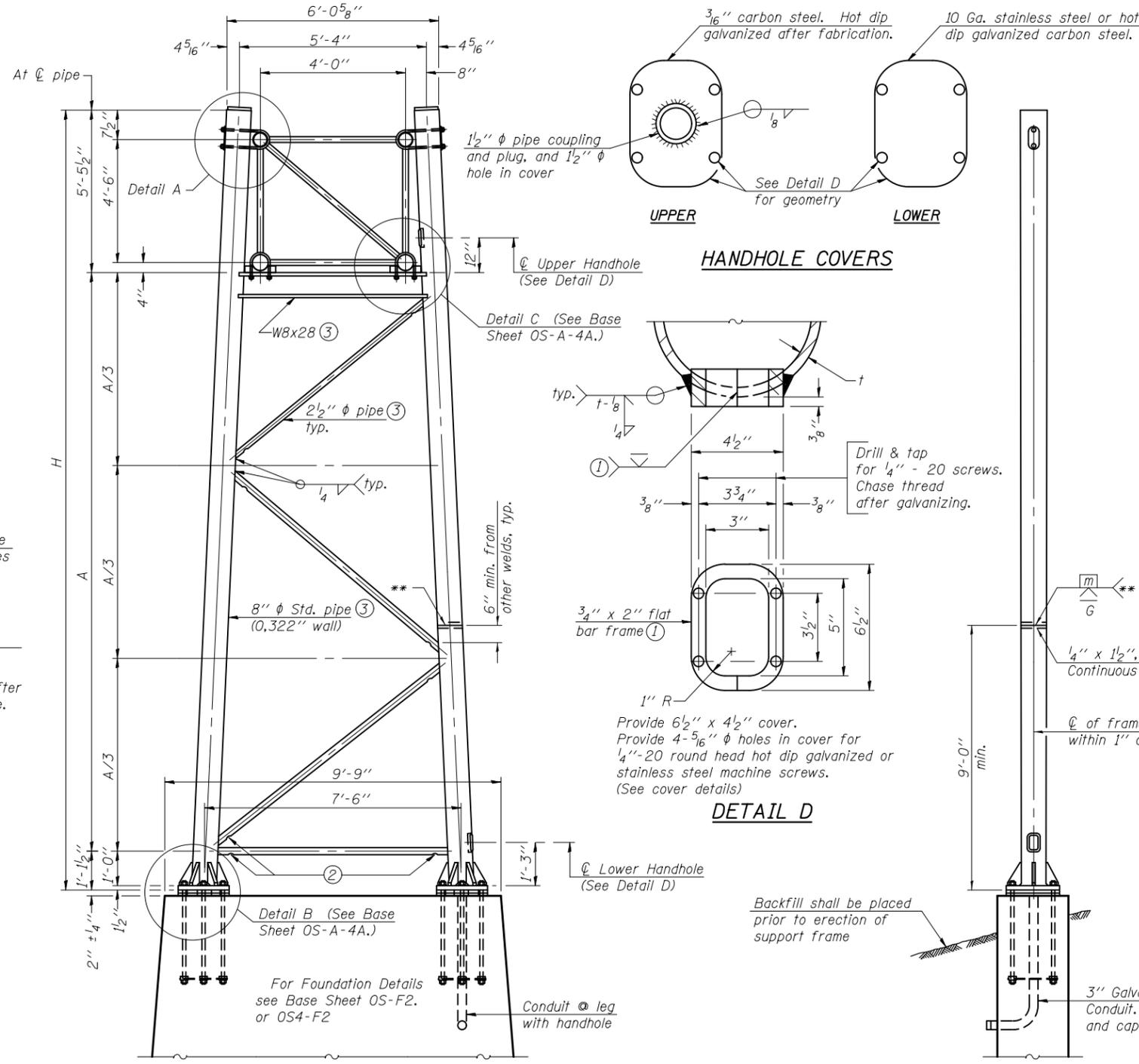


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

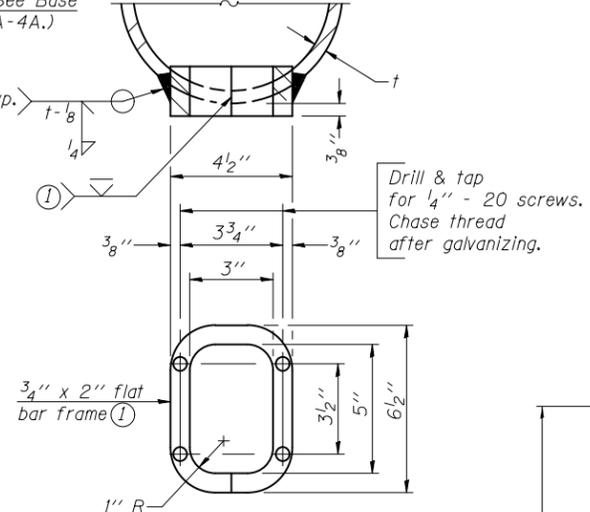


SECTION B-B



SIDE ELEVATION

HANDHOLE COVERS



DETAIL D

END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- ① In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- ② Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
- ③ Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- ④ See General Notes for fasteners.
- ⑤ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- ⑥ "H" based on 15'-0" or actual sign height, whichever is greater.

8" φ PIPE TRUSS SUPPORT FRAME
** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	Support		H ⑥	A
		Left	Right		

OS-A-4

6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		CHECKED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS

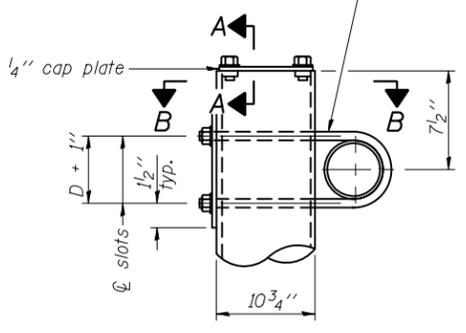
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE I-A ALUMINUM TRUSS**

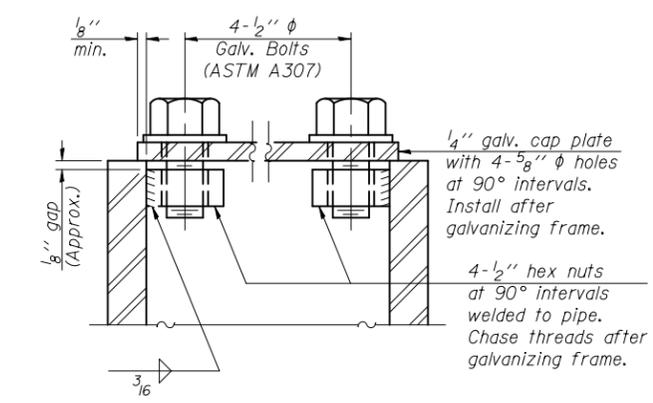
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

3/4" φ stainless steel U-bolt.
Provide two washers and two hexagon locknuts. ④
13/16" x 2" slots on 10" φ pipe.
(4 slots required per pipe)

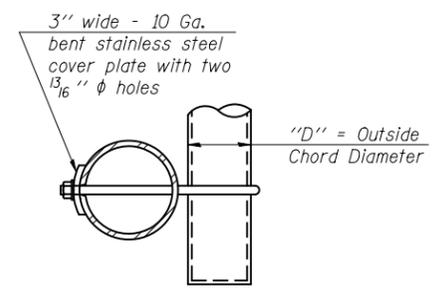


DETAIL A

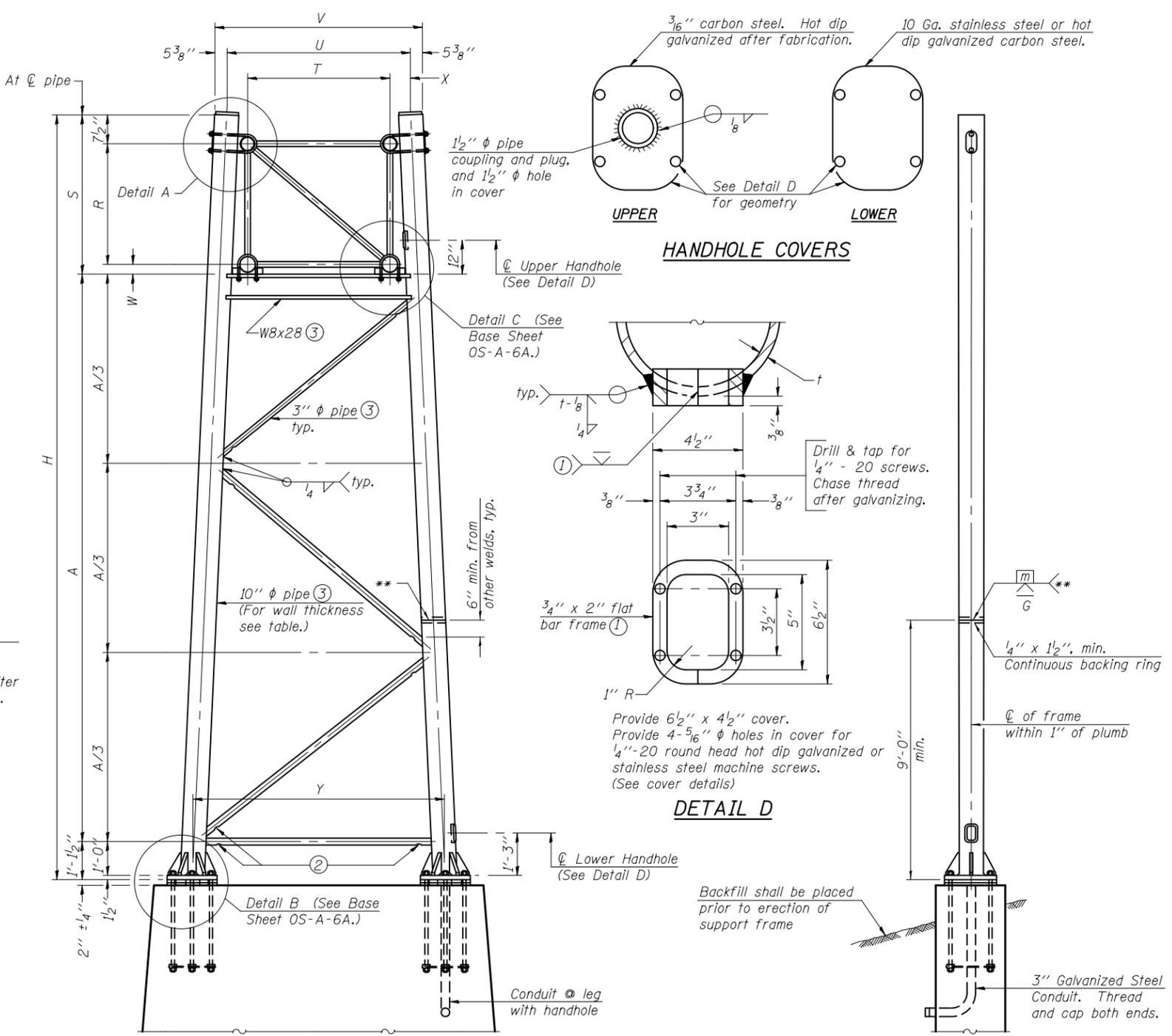


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

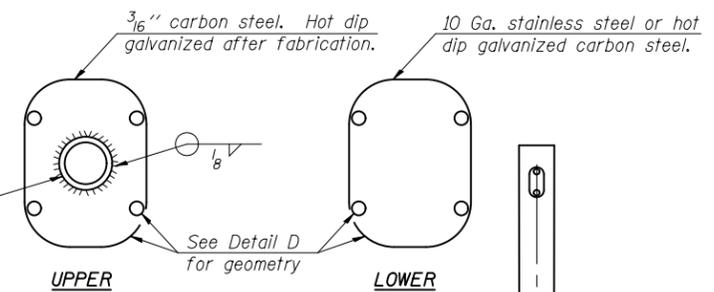


SECTION B-B

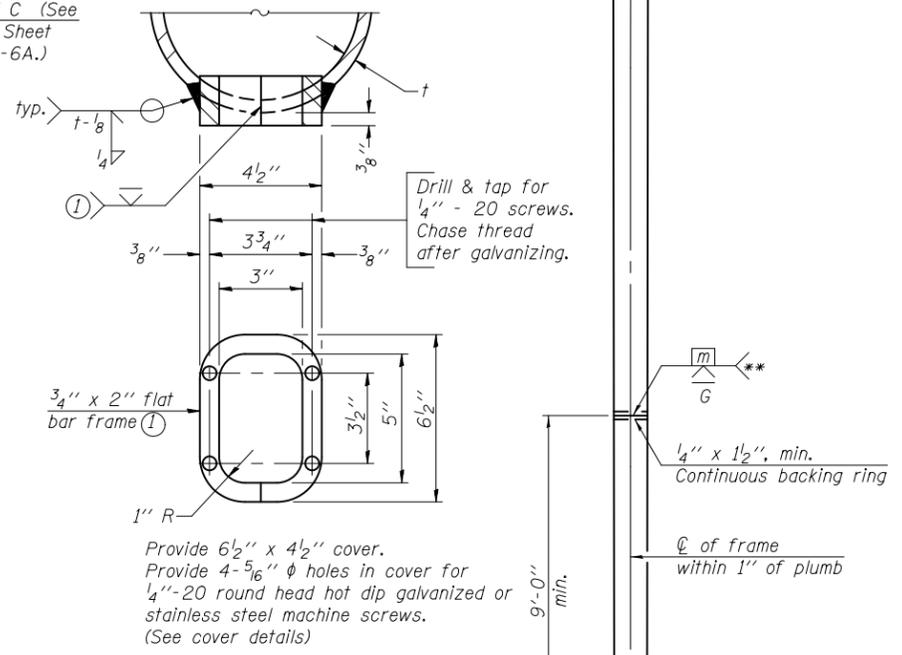


SIDE ELEVATION

For Foundation Details, see base sheet OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).

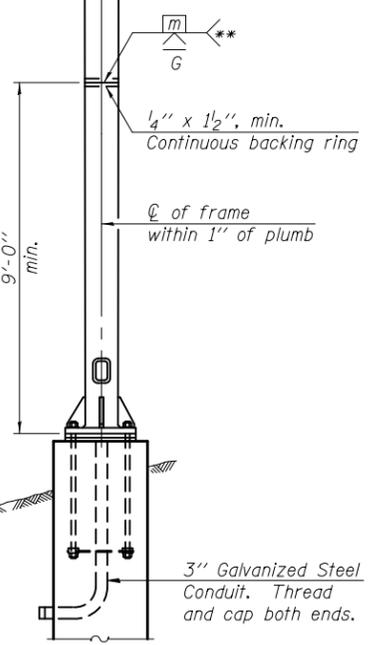


HANDHOLE COVERS



DETAIL D

Provide 6 1/2" x 4 1/2" cover. Provide 4-5/16" φ holes in cover for 1/4"-20 round head hot dip galvanized or stainless steel machine screws. (See cover details)



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- ① In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- ② Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
- ③ Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- ④ See General Notes for fasteners.
- ⑤ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- ⑥ "H" based on 15'-0" or actual sign height, whichever is greater.

Truss Type	Dimensions							
	R	S	T	U	V	W	X	Y
I-A	4'-6"	5'-5 1/2"	4'-0"	5'-6"	6'-4 3/4"	4"	9"	8'-3"
II-A ⑤	5'-3"	6'-3 1/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"

10" φ PIPE TRUSS SUPPORT FRAME
** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

OS-A-6

6-1-12

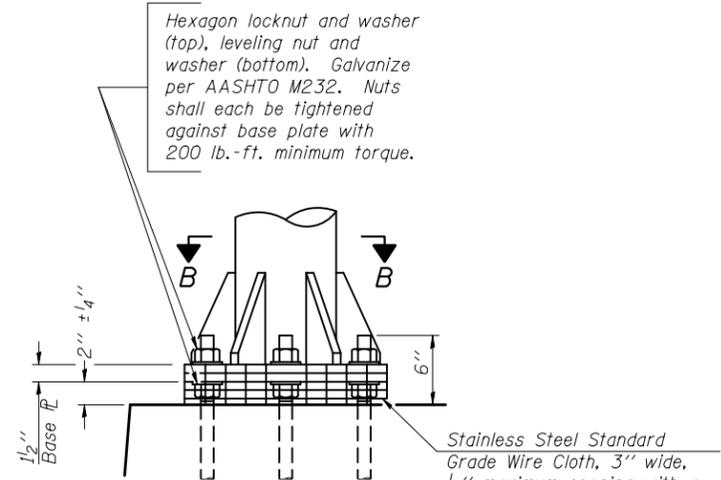
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		CHECKED -	REVISD
		DRAWN -	REVISD
		CHECKED -	REVISD

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR ALUMINUM TRUSS**

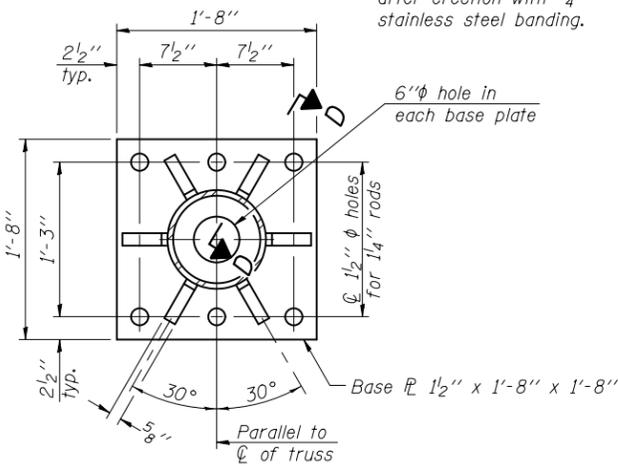
SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

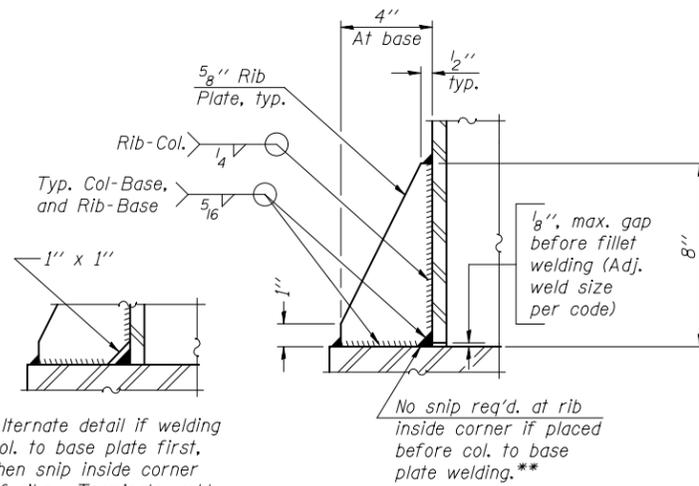


DETAIL B

Ribs shall be cut to fit slope of pipe.

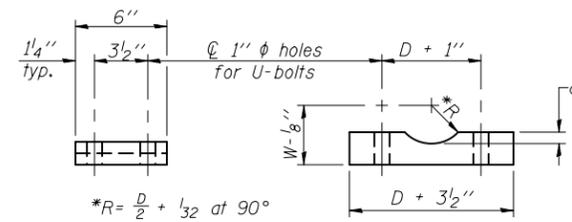


SECTION B-B



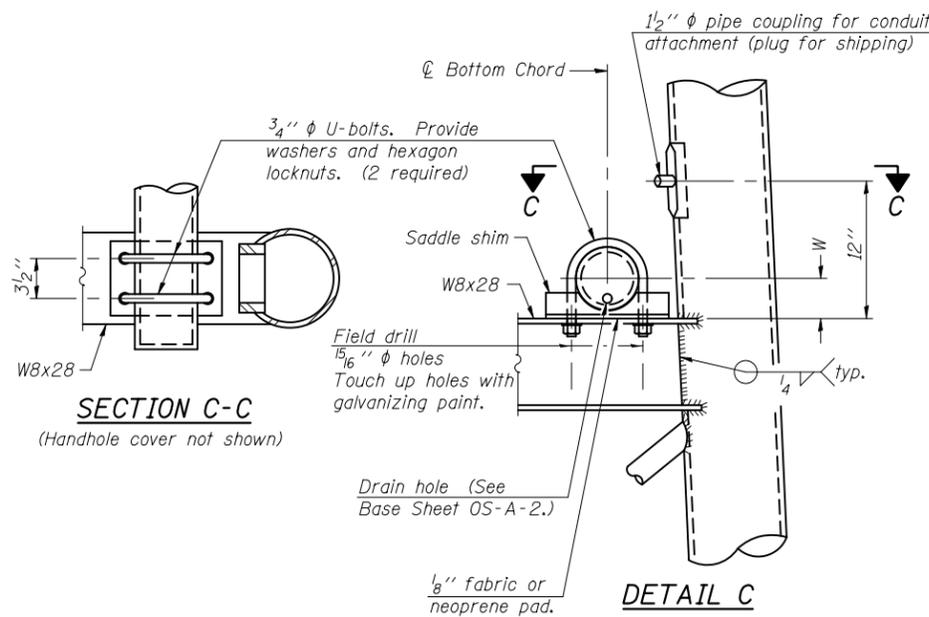
SECTION D-D

** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



SADDLE SHIM DETAIL

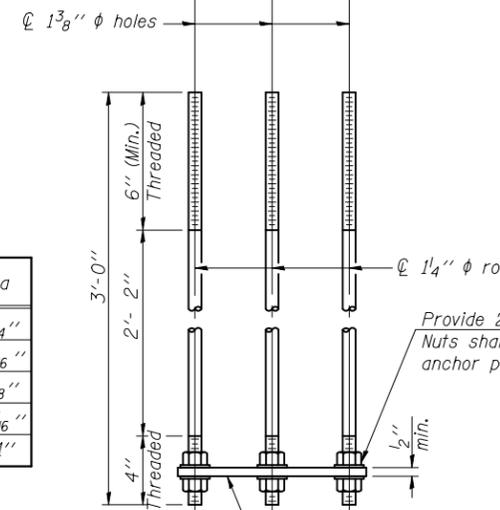
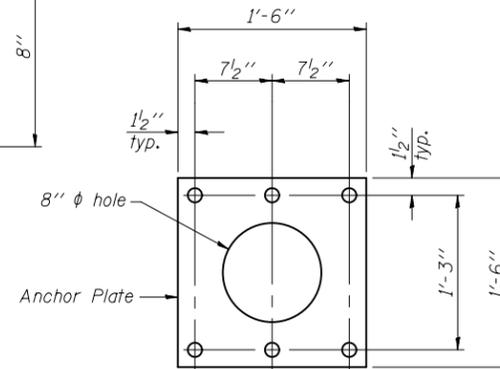
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)



SECTION C-C

(Handhole cover not shown)

DETAIL C

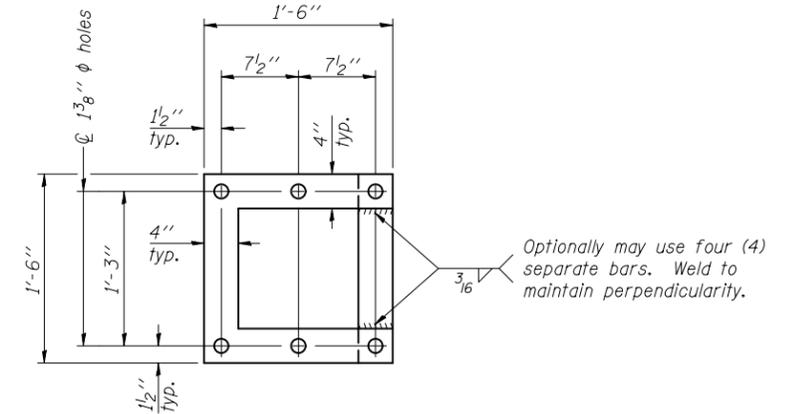


ANCHOR ROD DETAIL
Spread Footing Foundation

All Thread = NC (National Coarse)

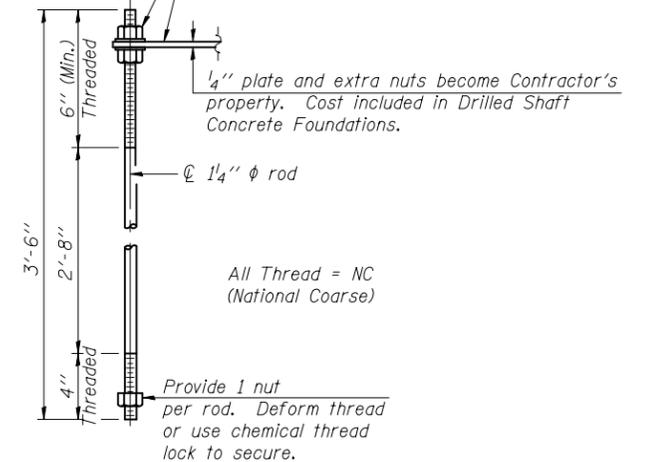
Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

10" ϕ PIPE SUPPORT FRAME DETAILS



POSITIONING PLATE(S)

At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



All Thread = NC (National Coarse)

ANCHOR ROD DETAIL
Drilled Shaft Foundation

OS-A-6A

6-1-12

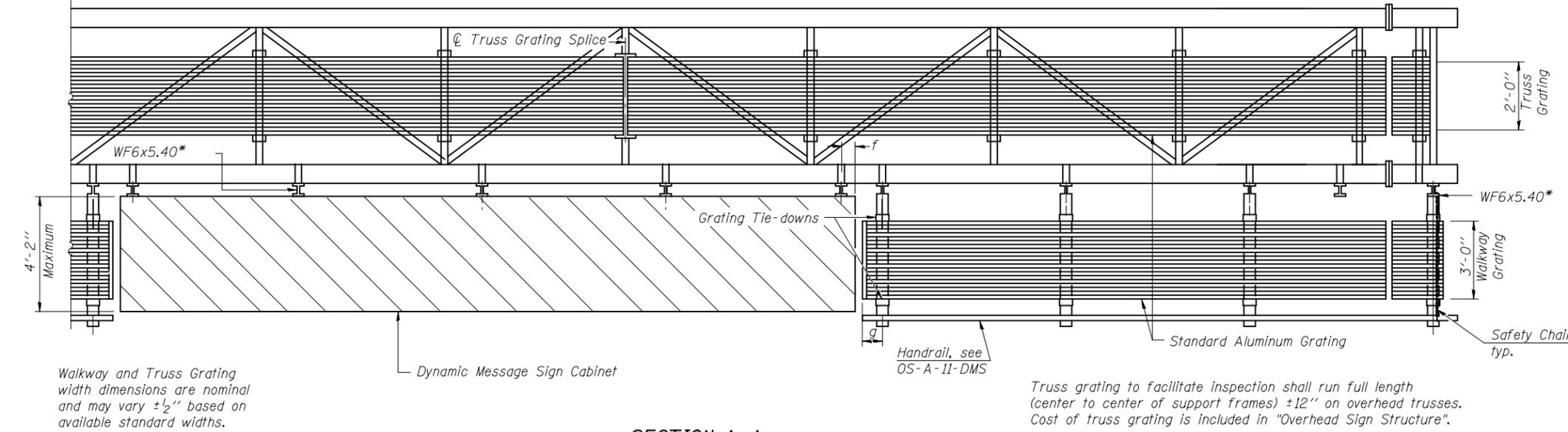
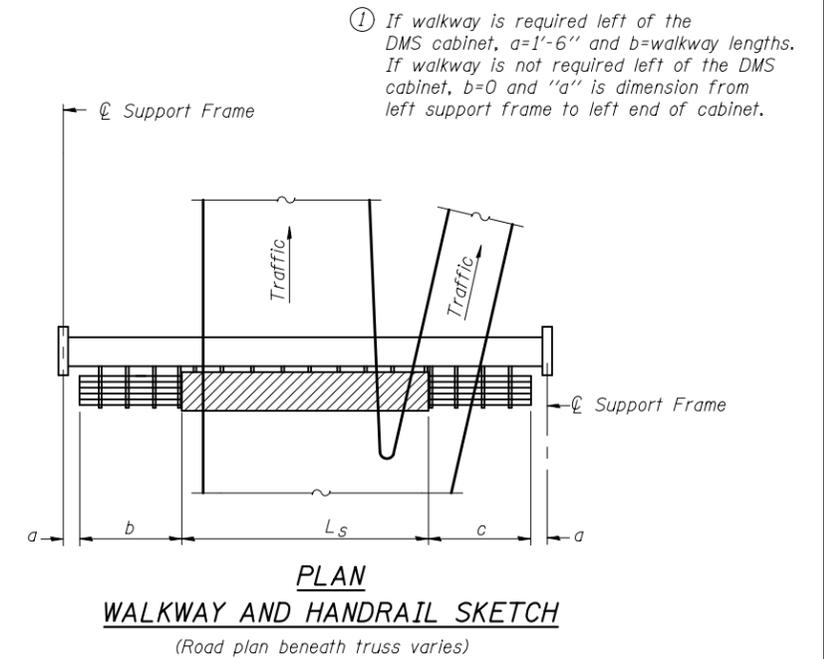
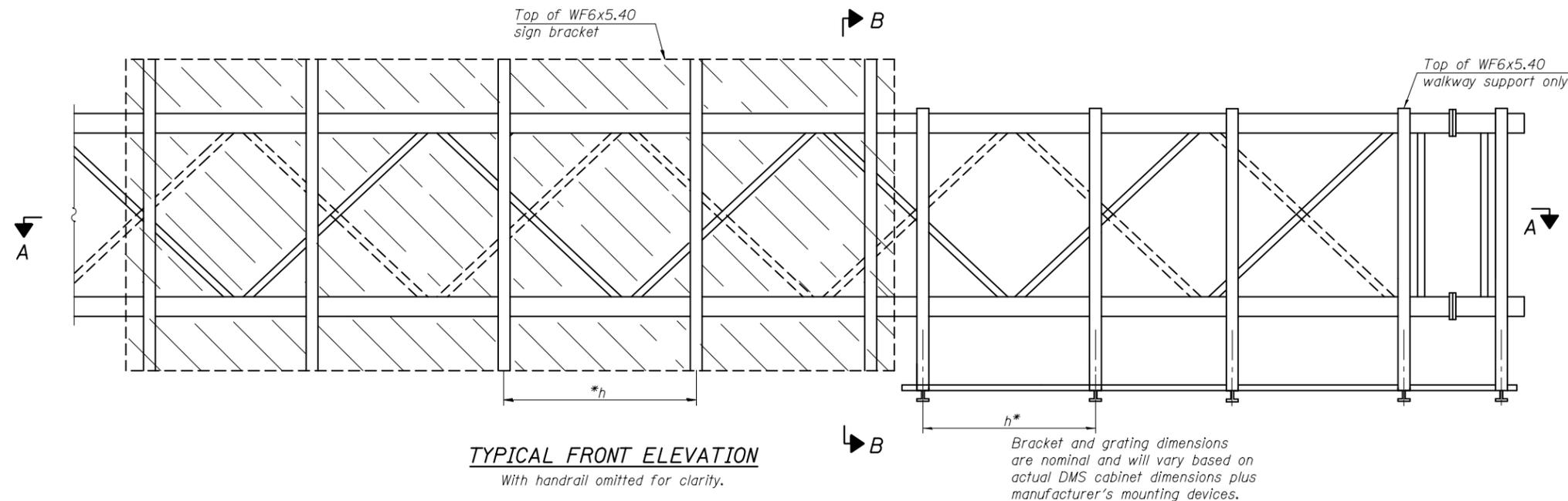
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		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE =			
PLOT DATE =			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS - ALUMINUM TRUSS

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



BRACKET TABLE

WF6x5.40 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

SECTION A-A
Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating and handrail splices placed as needed.

Notes:
* Space walkway brackets WF6x5.40 for efficiency and within limits shown:
f = 12" maximum, 4" minimum (End of sign to ϕ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ϕ of nearest support bracket)
h = 6'-0" maximum (ϕ to ϕ sign and/or walkway support brackets, WF6x5.40)
Maximum DMS weight = 5000 lbs. 4'-2" maximum cabinet depth includes depth of cabinet plus connection to WF6x5.40.
For Section B-B and Grating Splice Details, see Base Sheet OS-A-10-DMS.
For Handrail Splice Details, see Base Sheet OS-A-11-DMS.

Structure Number	Station	a	b	c	L _s	Walkway Grating and Handrail Lengths

OS-A-9-DMS

6-1-12

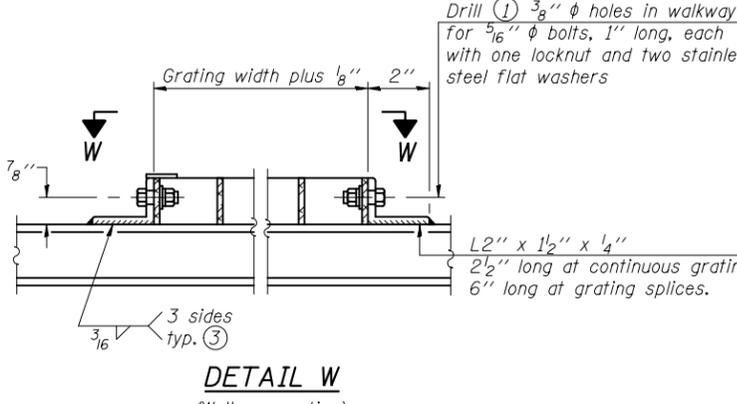
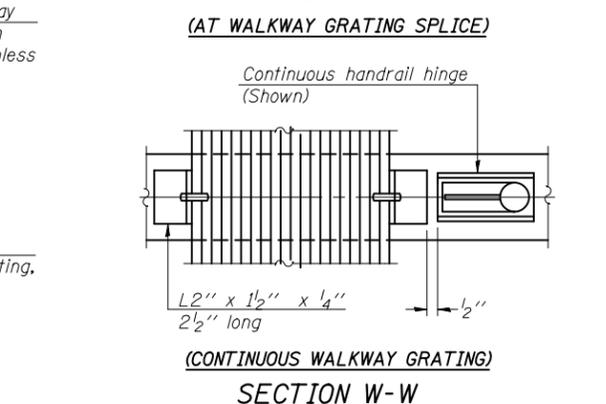
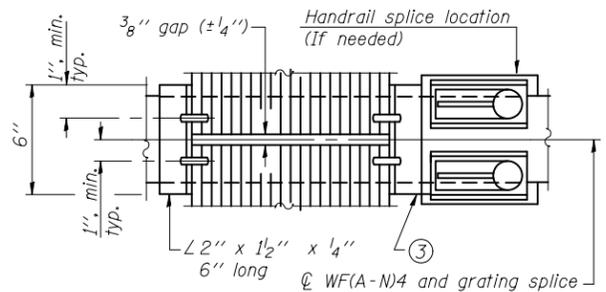
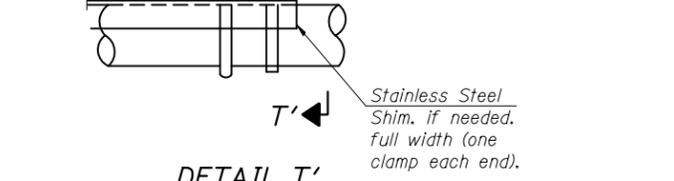
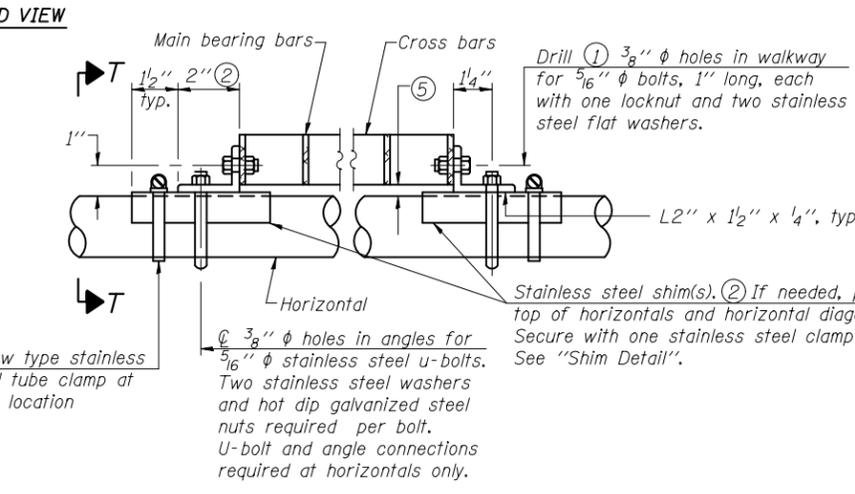
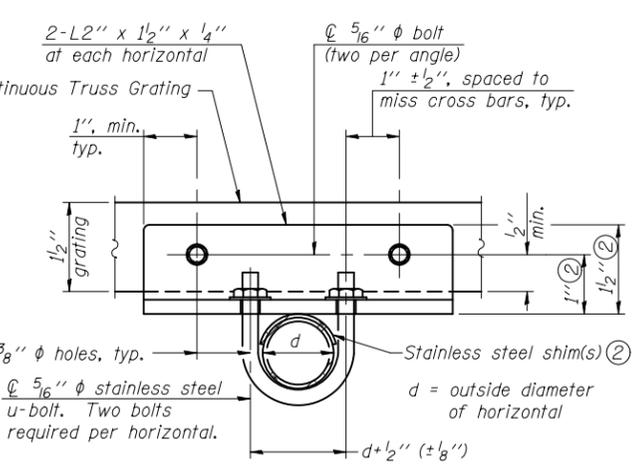
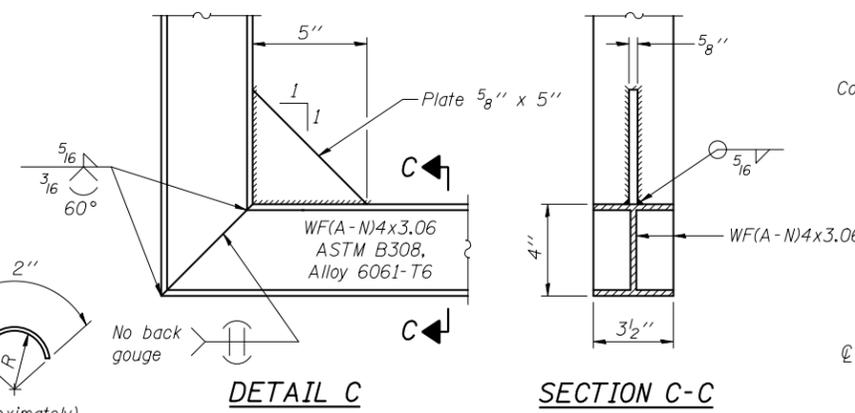
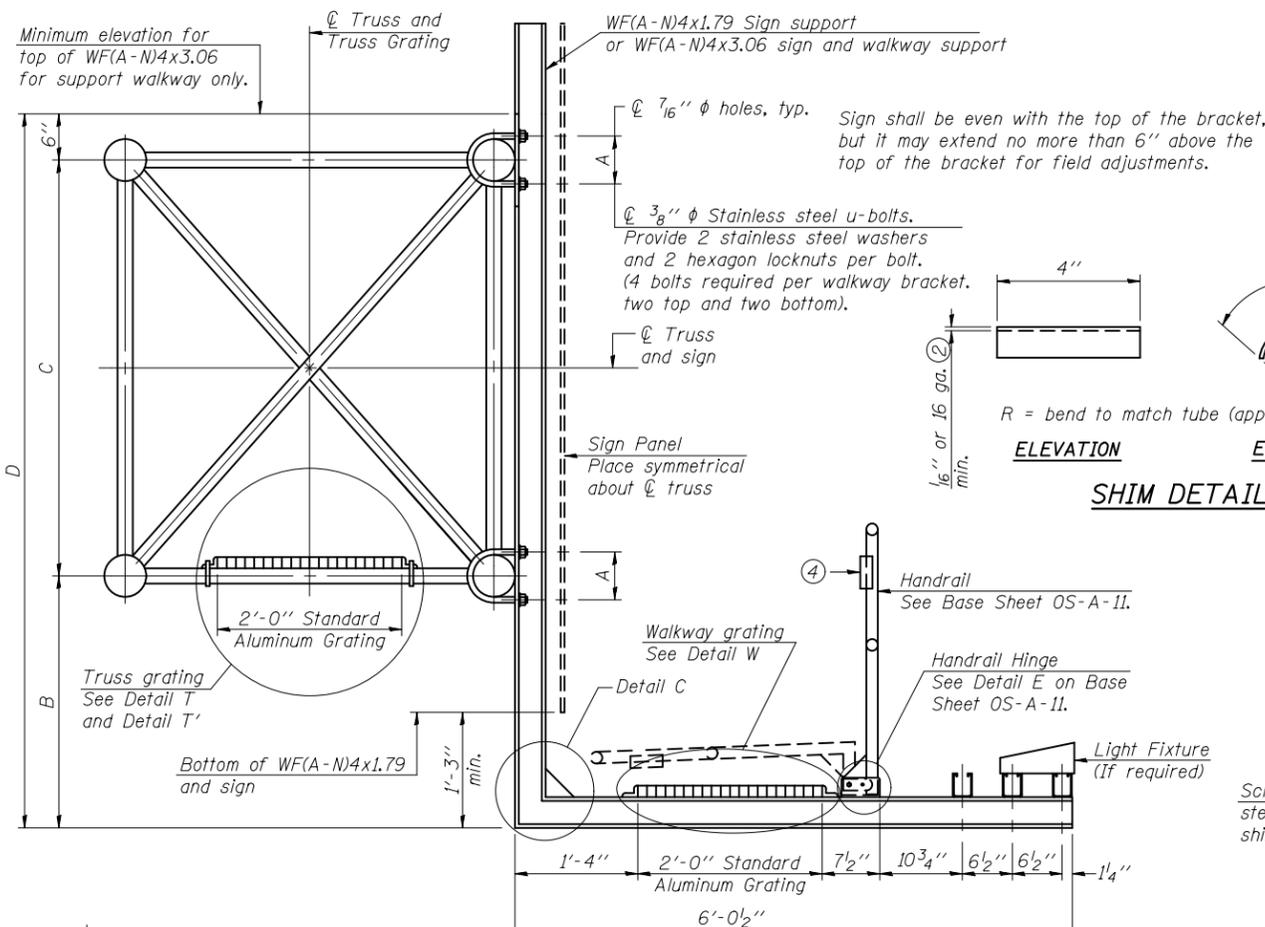
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		CHECKED -	REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS**

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
 Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "4" sections for main bearing bars shall meet the following requirements:
 Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.
 Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- ③ If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
- ④ R 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ⑤ Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- ⑥ Based on actual height of tallest sign given on OS-A-1.

Structure Number	Station	A	⑥ B	C	⑥ D

OS-A-10

6-1-12

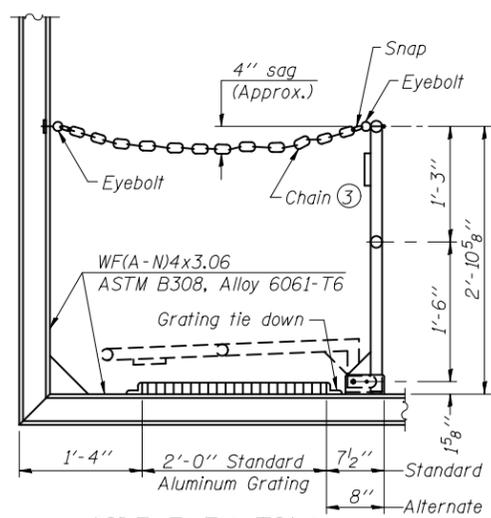
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STATE OF ILLINOIS
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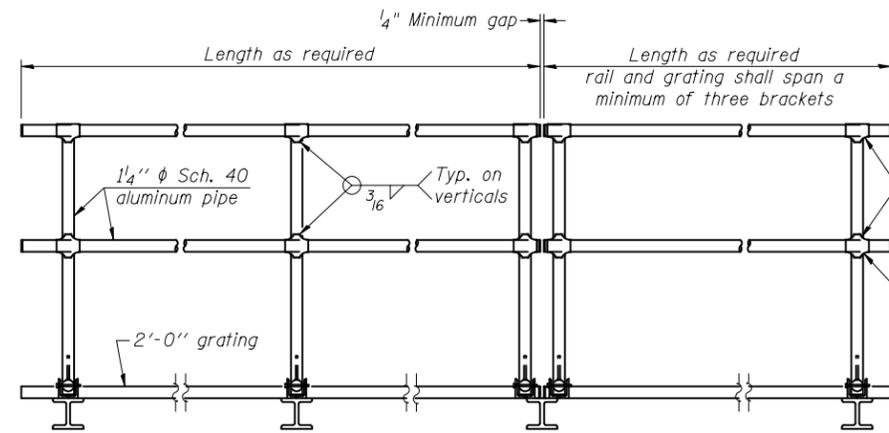
OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



SIDE ELEVATION
(Showing safety chain w/o sign)

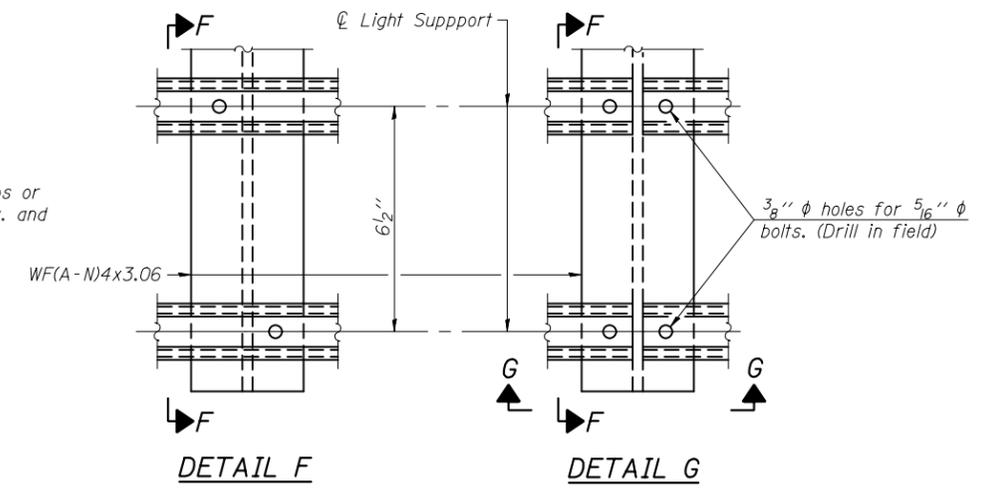


FRONT ELEVATION

HANDRAIL DETAILS

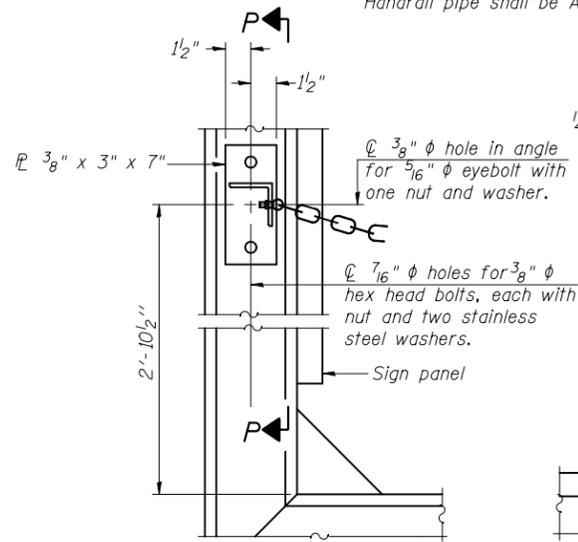
Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.

- ① Install standard force-fit end caps or weld 3/8" end plates with 3/8" c.f.w. and grind smooth. (All rail ends)
- ② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" φ hole in fitting for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" φ holes on top rail at ends only.)



DETAIL F

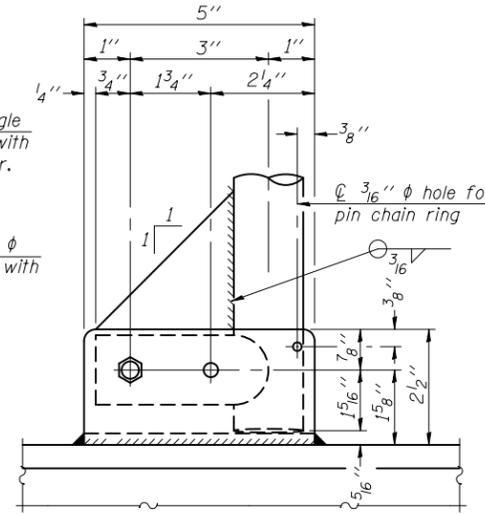
DETAIL G



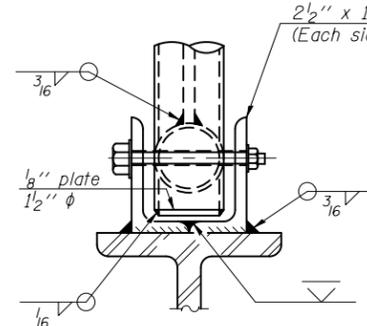
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

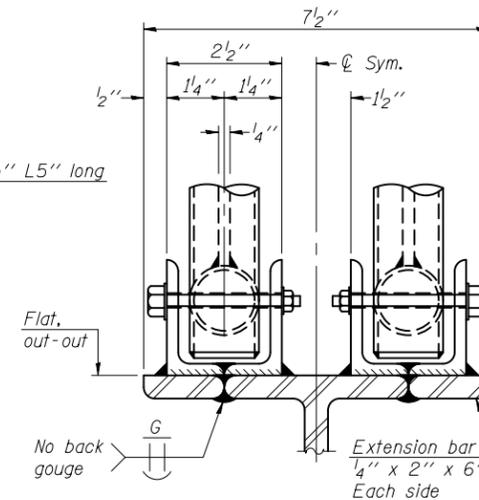


SIDE ELEVATION

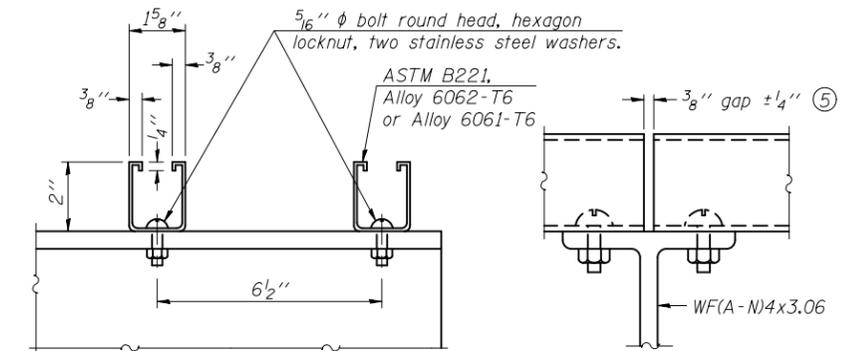


FRONT ELEVATION

See "Elevation" at right for dimensions.



ELEVATION AT HANDRAIL JOINT

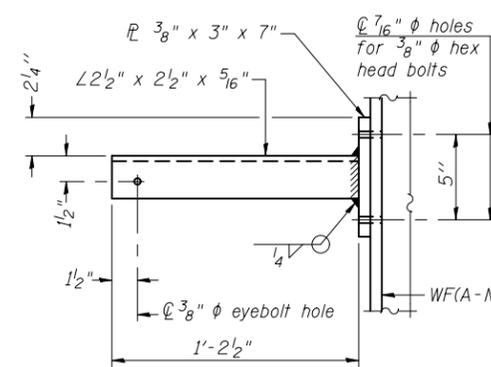


SECTION F-F

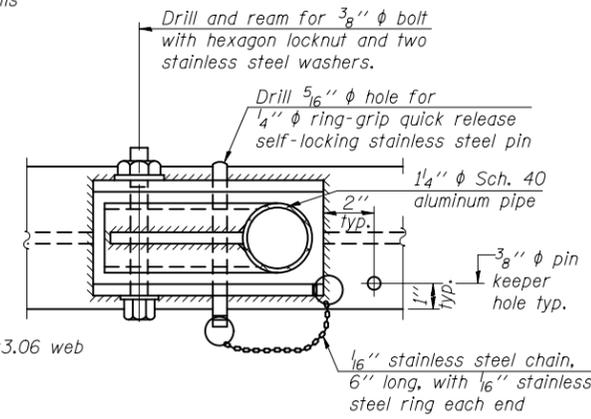
SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

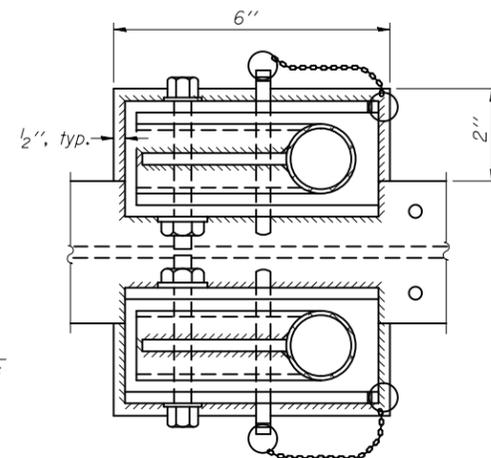
- ⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



SECTION P-P

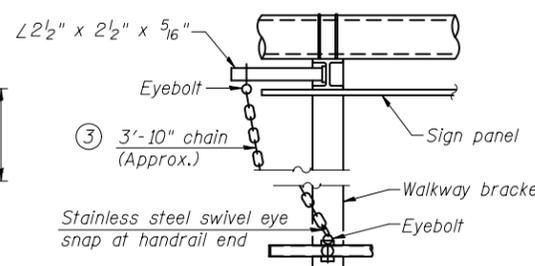


PLAN DETAIL E HANDRAIL HINGE



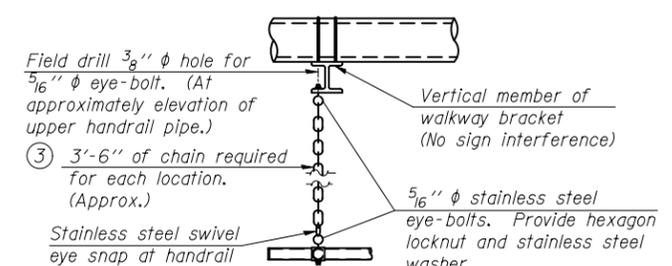
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)



SAFETY CHAIN

One required for each end of each walkway.

- ③ 3/16" Type 304L stainless steel chain, approximately 12 links per foot.

- ④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

OS-A-11

6-1-12

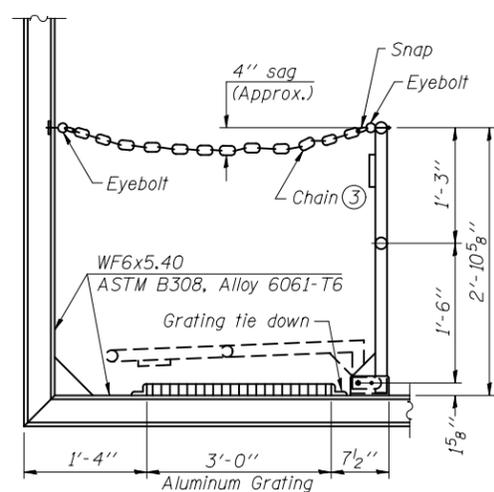
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

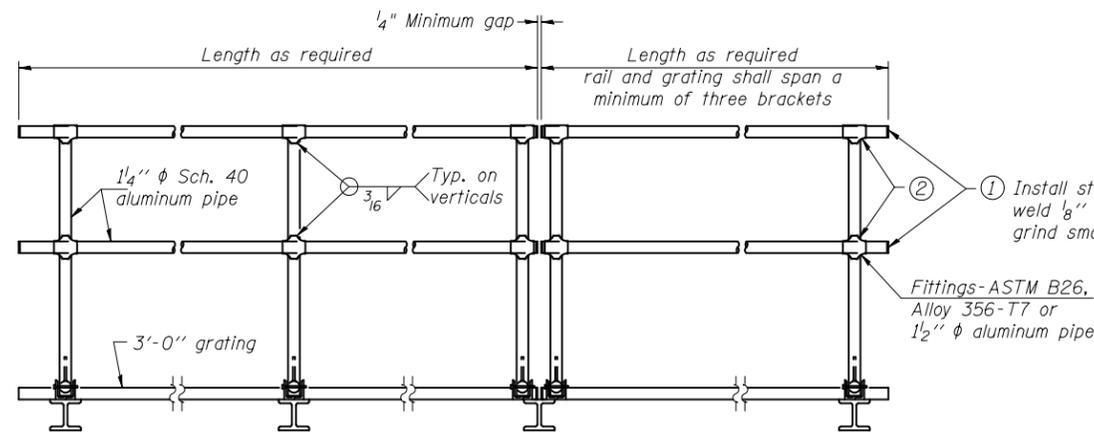
OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS

SHEET NO. OF SHEETS

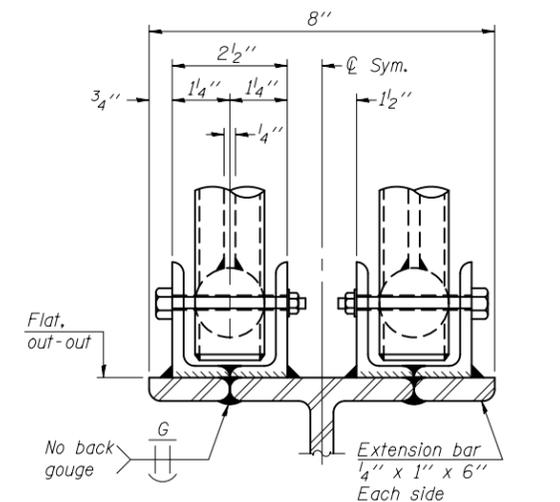
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



SIDE ELEVATION
(Showing safety chain w/o sign)



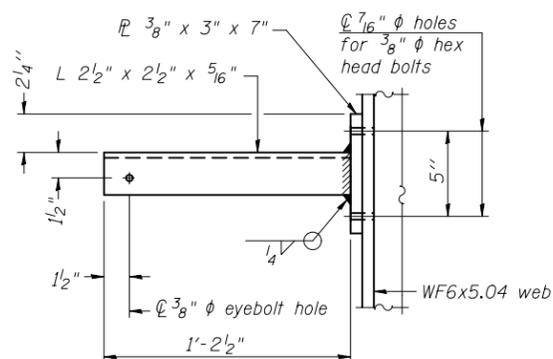
FRONT ELEVATION



ELEVATION AT HANDRAIL JOINT ④

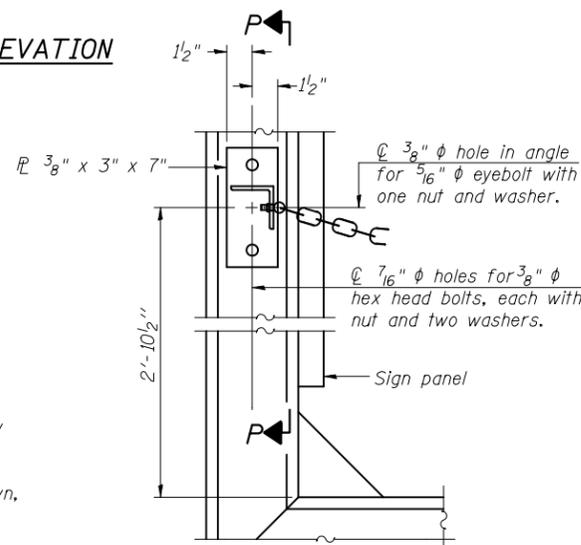
HANDRAIL DETAILS

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.



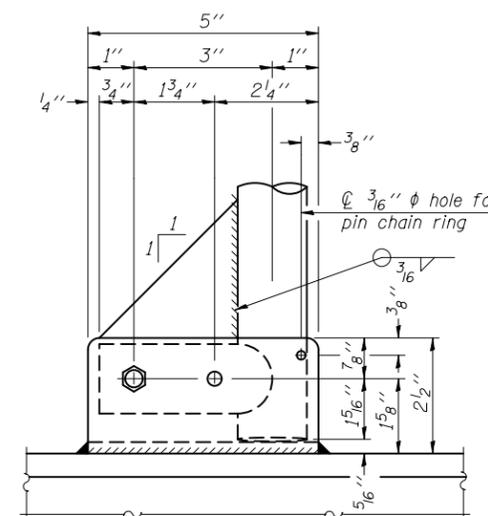
SECTION P-P

- ② Horizontal handrail member shall be continuous thru fitting. Provide 7/16 inch hole in fitting for 3/8 inch bolt. Field drill 7/16 inch hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16 inch eyebolts in 7/16 inch holes on top rail at ends only.)
- ③ 3/16 inch type 304L stainless steel chain, approximately 12 links per foot.
- ④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

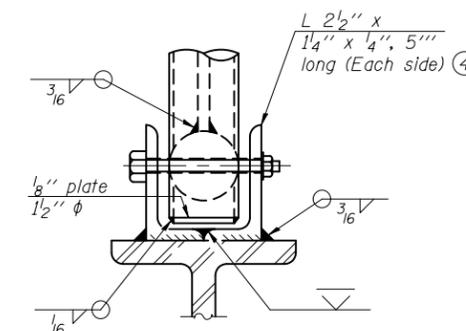


ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"

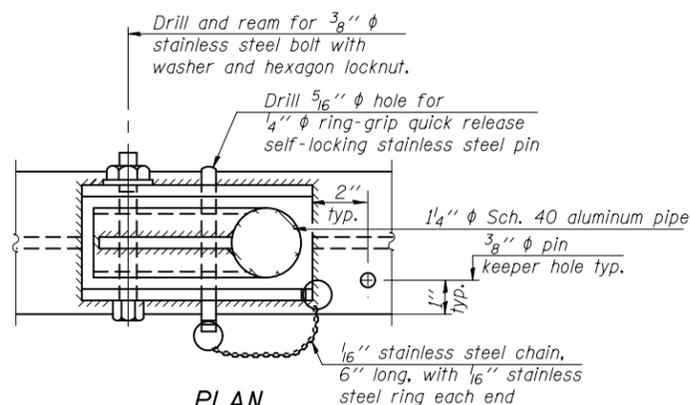


SIDE ELEVATION

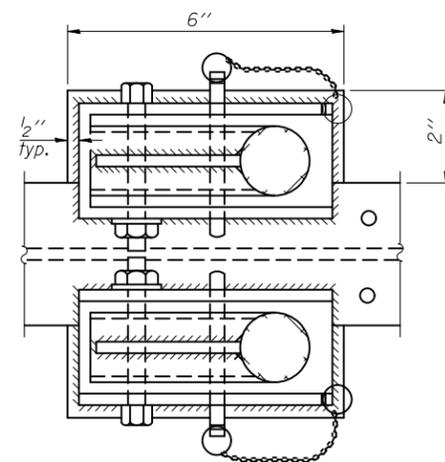


FRONT ELEVATION

See "ELEVATION" at right for dimensions.

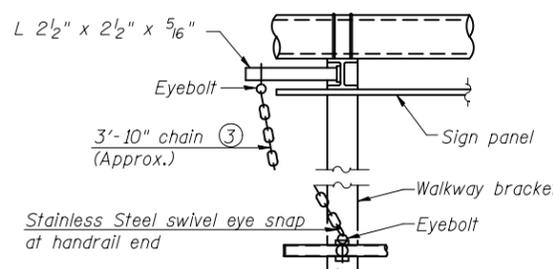


PLAN
DETAIL E HANDRAIL HINGE



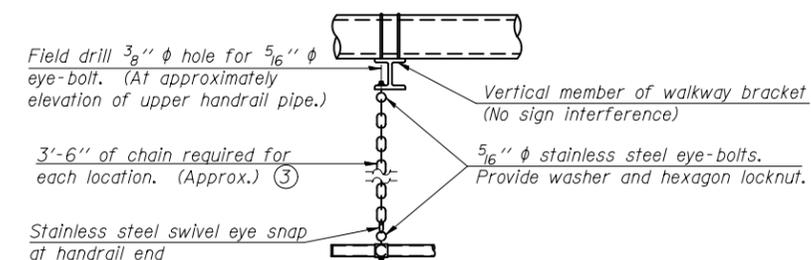
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details
(Walkway omitted for clarity)



SAFETY CHAIN

One required for each end of each walkway.

OS-A-11-DMS

6-1-12

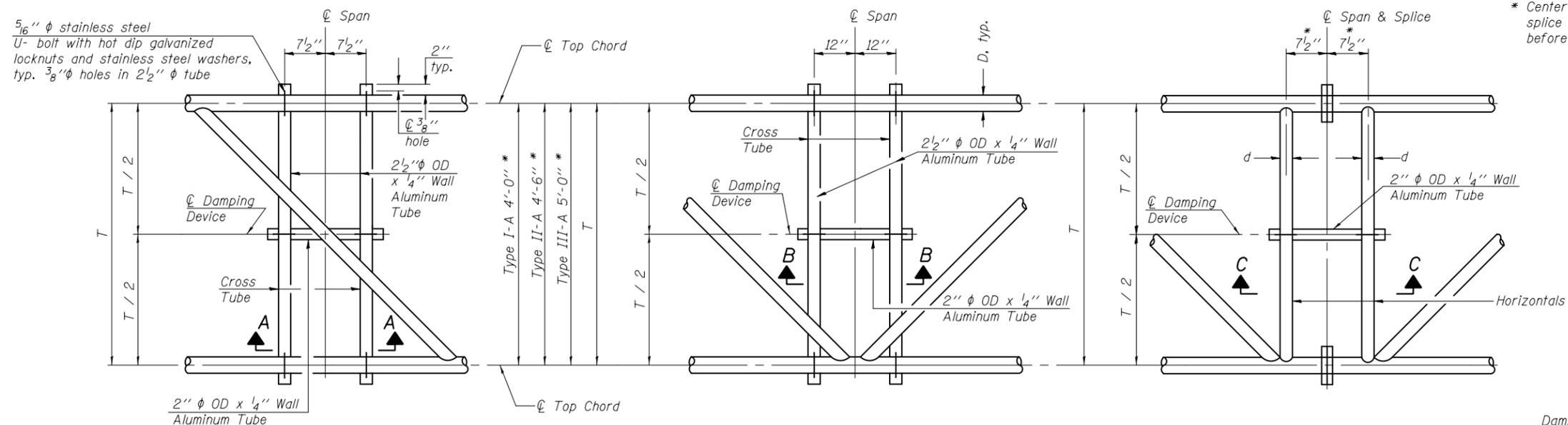
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		CHECKED -	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS FOR DMS

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				CONTRACT NO.
ILLINOIS FED. AID PROJECT				



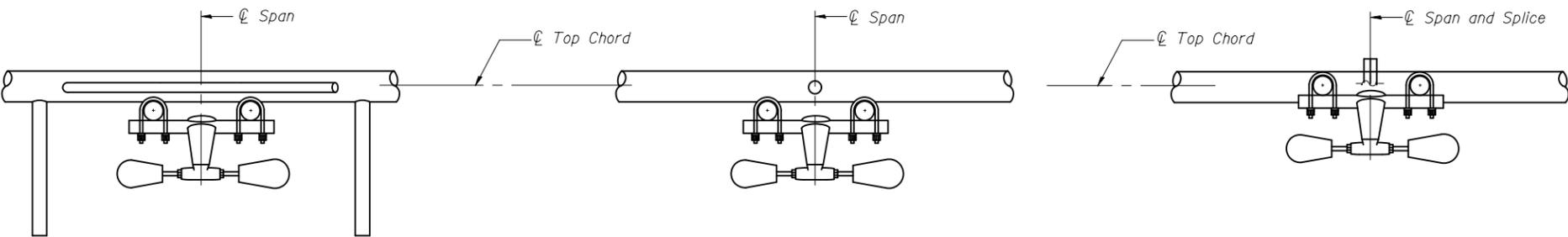
PLAN DETAIL "A"
 ☉ Span between Panel Points

PLAN DETAIL "B"
 ☉ Span at Panel Point

PLAN DETAIL "C"
 ☉ Span at ☉ Chord Splice

* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

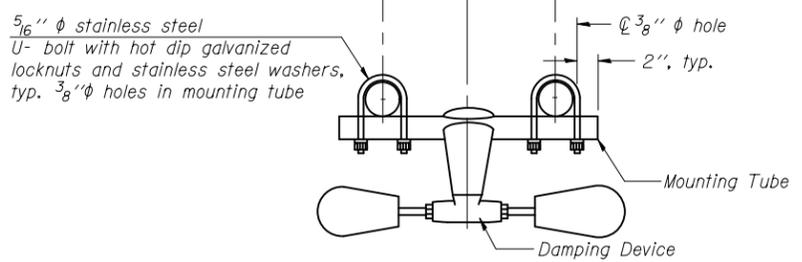
NOTES
 Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...
 Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



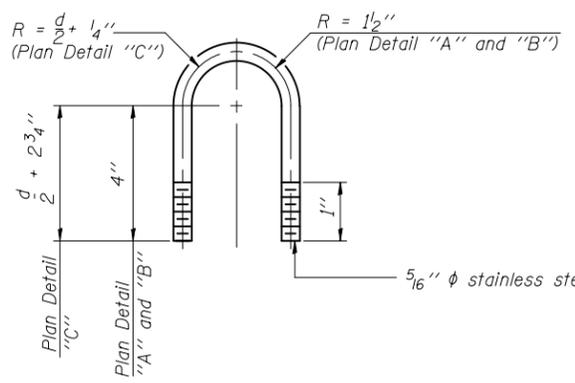
SECTION A-A

SECTION B-B

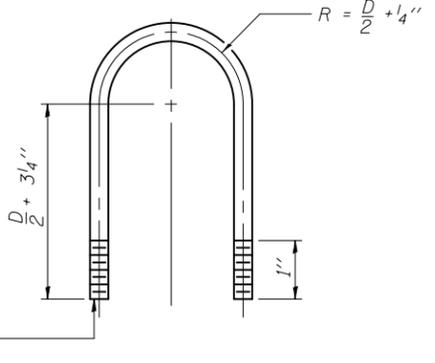
SECTION C-C



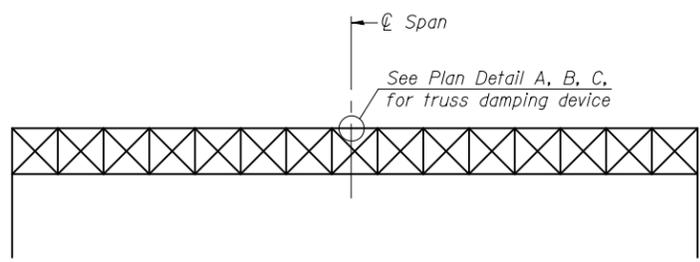
TRUSS DAMPING DEVICE CONNECTION DETAIL
 (Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
 (Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
 (Typical - Detail "A" and "B")



ELEVATION
 Aluminum Overhead Sign Truss

OS-A-D

6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISED
		CHECKED -	REVISED
		DRAWN -	REVISED
		CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE
DAMPING DEVICE

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

