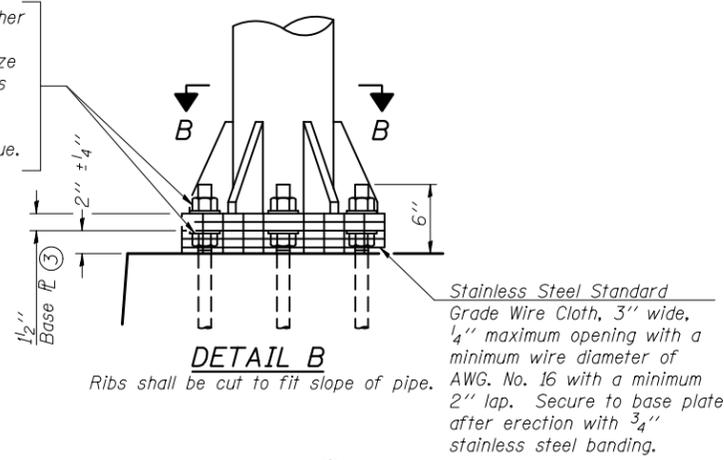


<b>CELL / MODEL NAME</b>	<b>DESCRIPTION</b>	<b>DATE</b>
OS4-S-2	Steel truss details for truss types I-S, II-S and III-S	06/01/2012
OS4-S-8a	12" Dia. Pipe support frame for type III-S steel truss	06/01/2012
OS4-S-8aA	12" Dia. Pipe support frame details	06/01/2012
OS-S-1	General plan and elevation	08/21/2013
OS-S-2	Steel truss details for truss types I-S, II-S and III-S	06/01/2012
OS-S-3	6" Dia. Pipe support frame for type I-S steel truss	06/01/2012
OS-S-3A	6" Dia. Pipe support frame details	06/01/2012
OS-S-4	8" Dia. Pipe support frame for type I-S steel truss	06/01/2012
OS-S-4A	8" Dia. Pipe support frame details	06/01/2012
OS-S-6	10" Dia. Pipe support frame for steel truss	06/01/2012
OS-S-6A	10" Dia. Pipe support frame details	06/01/2012
OS-S-9	Steel walkway details	06/01/2012
OS-S-9-DMS	Alternate steel walkway details for DMS	06/01/2012
OS-S-9S	Alternate steel walkway details	06/01/2012
OS-S-10	Steel walkway details	06/01/2012
OS-S-10-DMS	Alternate steel walkway details for DMS	06/01/2012
OS-S-10S	Alternate steel walkway details	06/01/2012
OS-S-11	Steel handrail details	06/01/2012
OS-S-11-DMS	Alternate steel handrail details for DMS	06/01/2012
OS-S-D	Damping device	06/01/2012

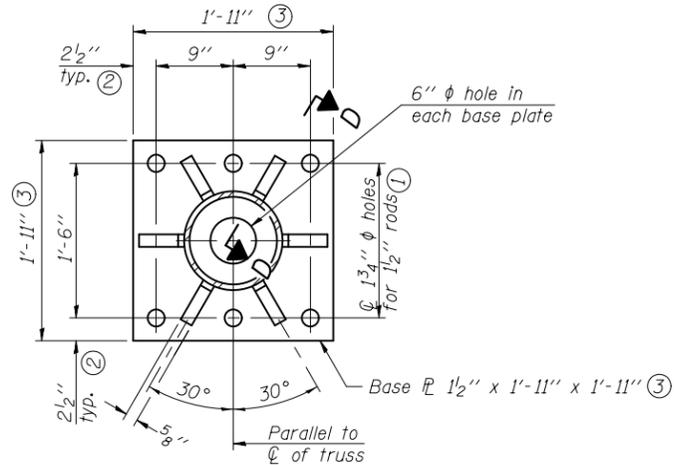




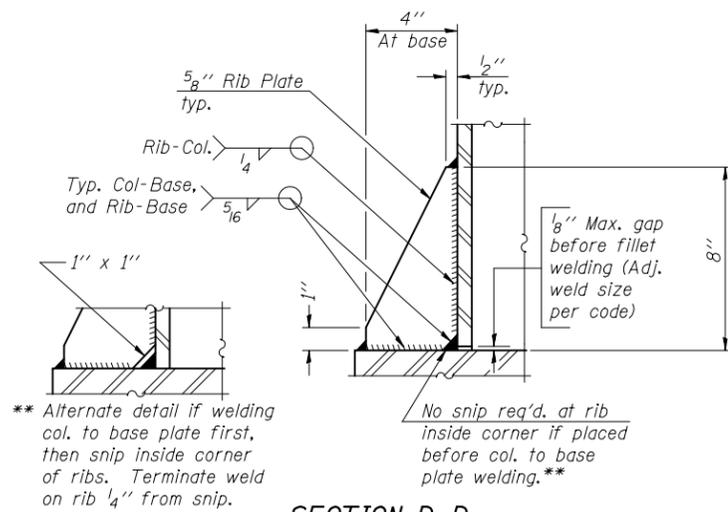
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



**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.

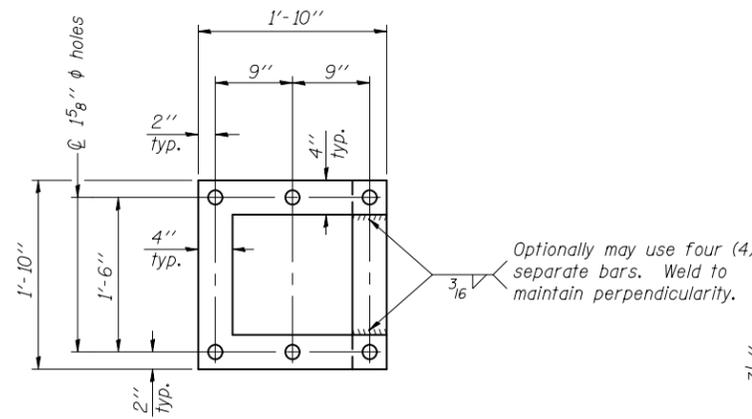


**SECTION B-B**



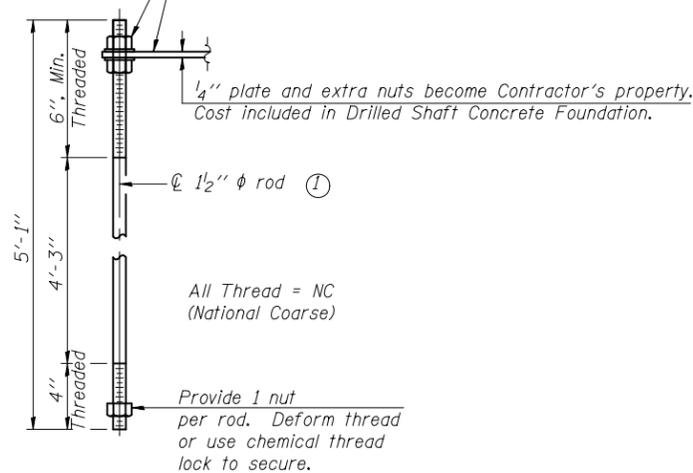
\*\* Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.

**SECTION D-D**



**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.



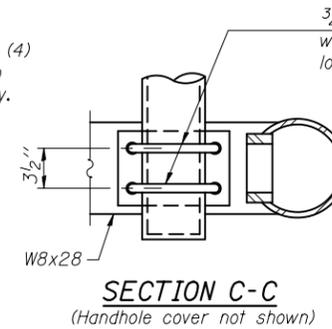
**ANCHOR ROD DETAIL**

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

**TYPE III-S STEEL TRUSS  
12" Ø PIPE SUPPORT FRAME DETAILS**

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

- ① 1 3/4" Ø rod, 2" Ø 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)

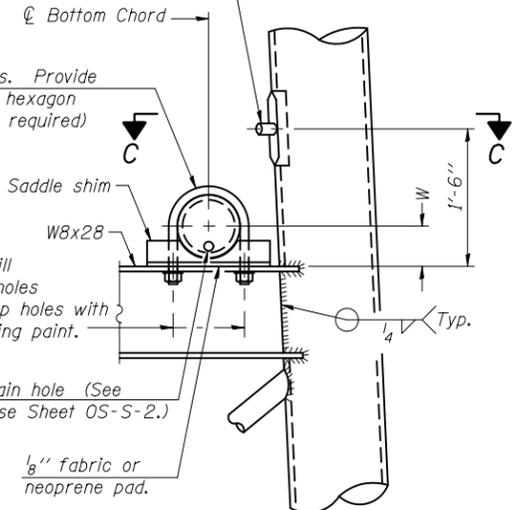
3/4" Ø U-bolts. Provide washers and hexagon locknuts. (2 required)

Field drill 1 5/16" Ø holes. Touch up holes with galvanizing paint.

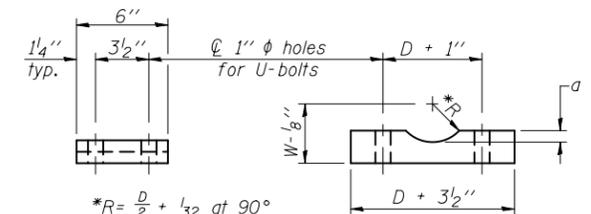
Drain hole (See Base Sheet OS-S-2.)

1/8" fabric or neoprene pad.

1 1/2" Ø pipe coupling for conduit attachment (plug for shipping)



**DETAIL C**



\*R = D/2 + 1/32 at 90°

D = Outside Diameter of Chord.  
For W, see Base Sheet OS-S-6.

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

**SADDLE SHIM DETAIL**

OS4-S-8aA

6-1-12

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

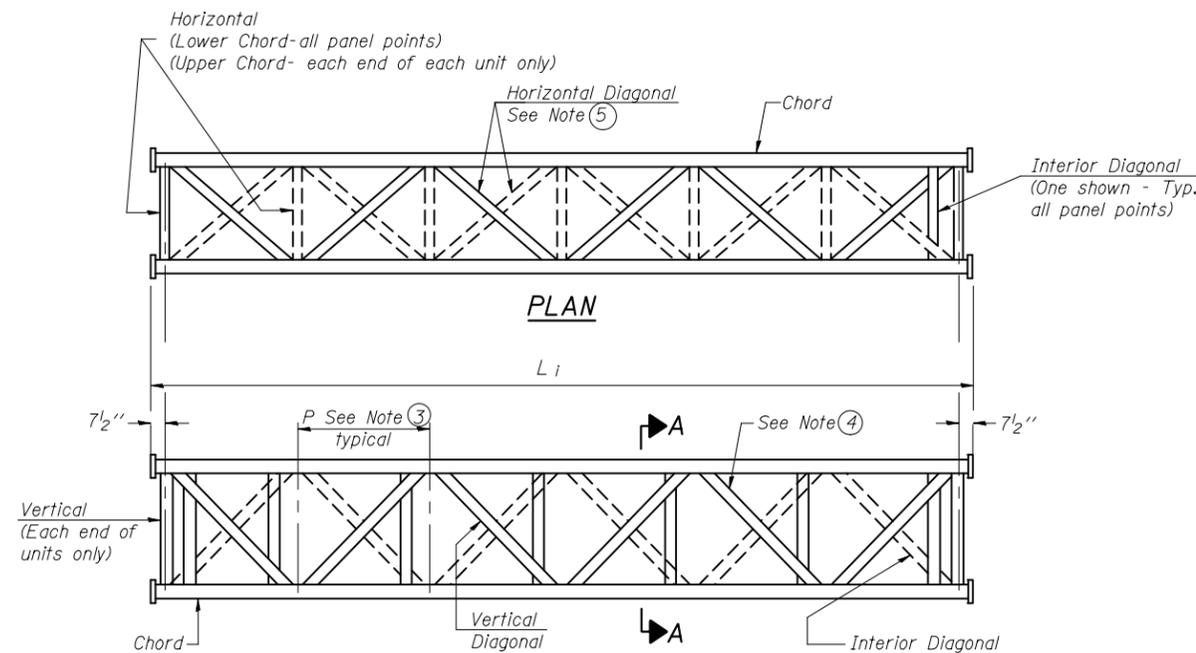
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SUPPORT FRAME  
FOR TYPE III-S STEEL TRUSS

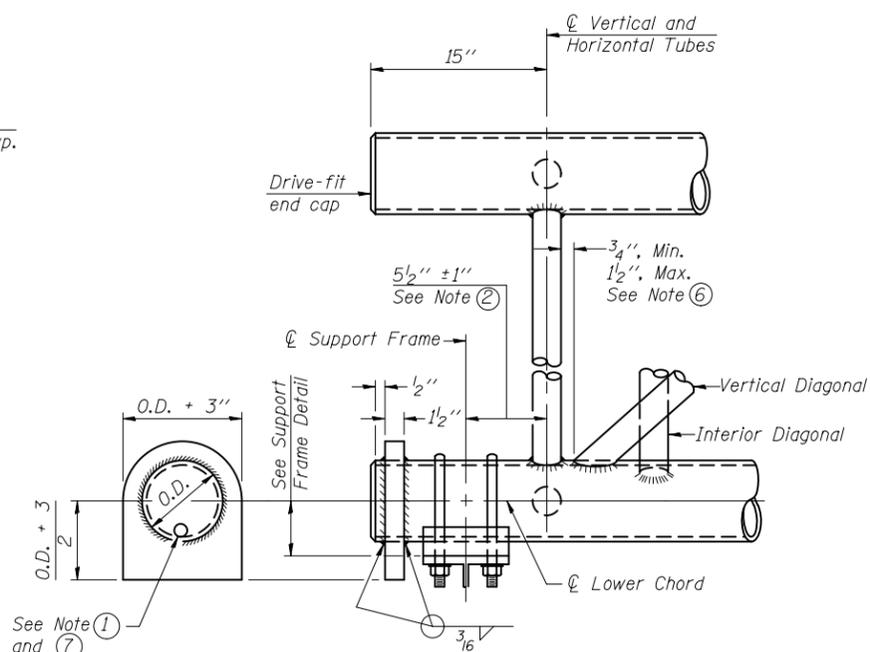
SHEET NO. OF SHEETS

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

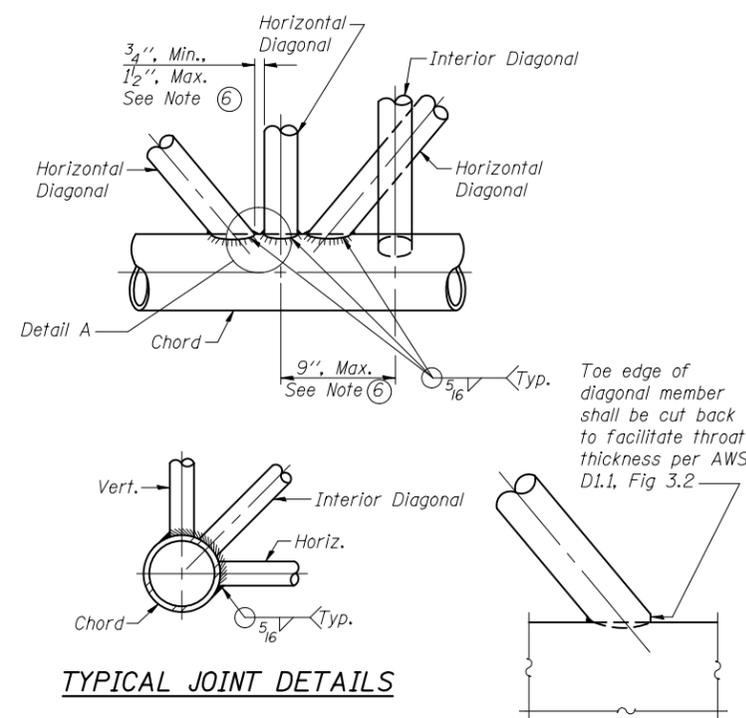




**ELEVATION  
TYPICAL INTERIOR UNIT**  
Even number of panels/interior unit required.

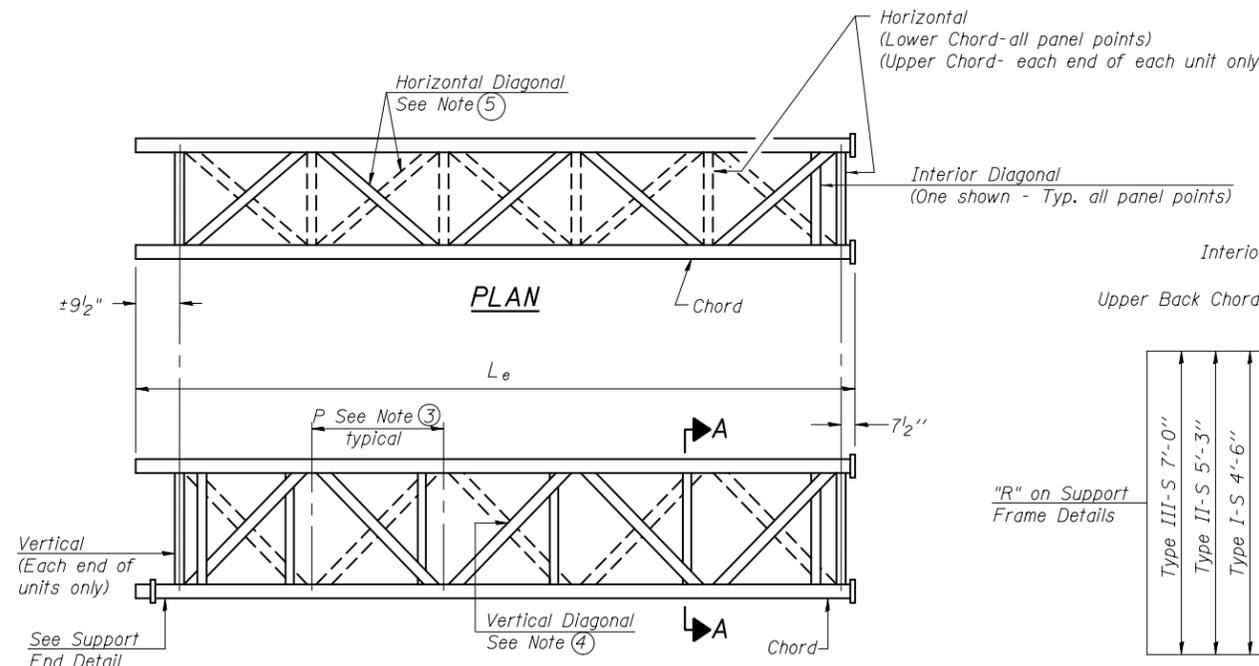


**SUPPORT END DETAIL FOR EXTERIOR UNIT**

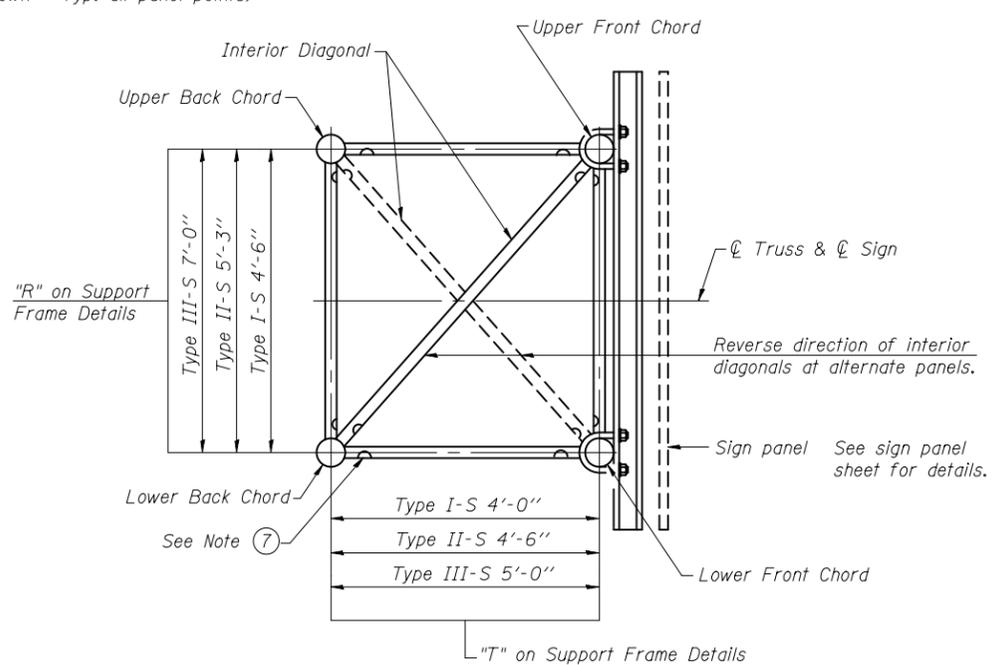


**TYPICAL JOINT DETAILS**

**DETAIL A**



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



**SECTION A-A**  
(Vertical and horizontal diagonals not shown)

- NOTES**
- Contractor must use standard drive-fit cap to close end. 1/2"  $\phi$  drain hole in drive-fit cap installed after galvanizing. (Typ. at non-splice ends of chords)
  - 5 1/2" end dimension may vary by  $\pm 1"$  to provide uniform panel spacing (P).
  - Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-S or 4'-0" and 5'-6" for Types II-S and III-S.
  - Vertical Diagonals in front and back face shall alternate inclination.
  - Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
  - All diagonals shall be offset from the panel point based on the following: offset shall provide a 3/4" minimum to 1 1/2" maximum clearance between diagonal and any other diagonal, horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.
  - Galvanizing vent holes of adequate size shall be provided on underside at each end of truss members except chords. Alternately, holes may be provided in wall of chords. All vent holes shall be drilled and de-burred, typ.

OS-S-2

6-1-12

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

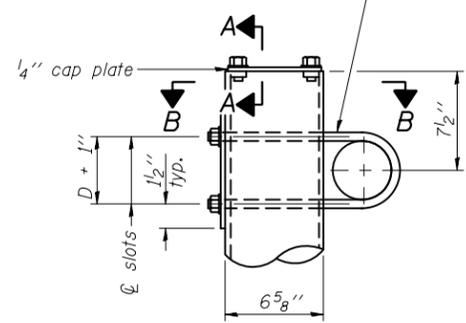
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES - STEEL TRUSS DETAILS  
FOR TRUSS TYPES I-S, II-S AND III-S**

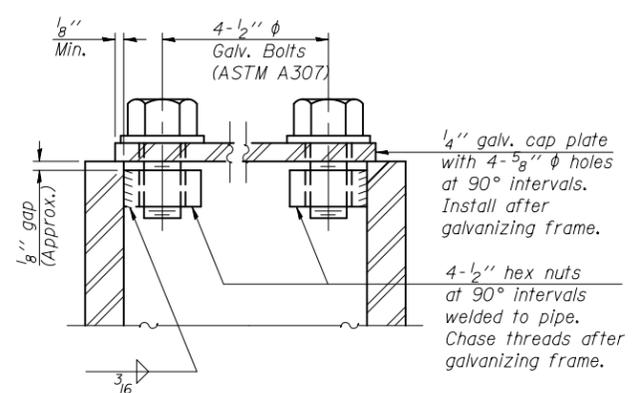
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

3/4" φ U-bolt.  
Provide two washers and two hexagon locknuts. (4)  
13/16" x 2" slots on 6" φ pipe.  
(4 slots required per pipe)

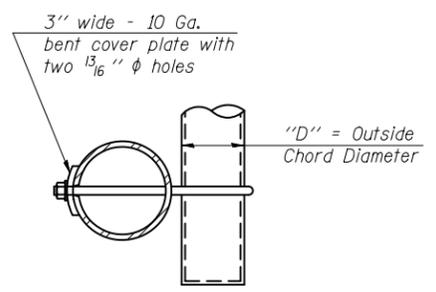


**DETAIL A**

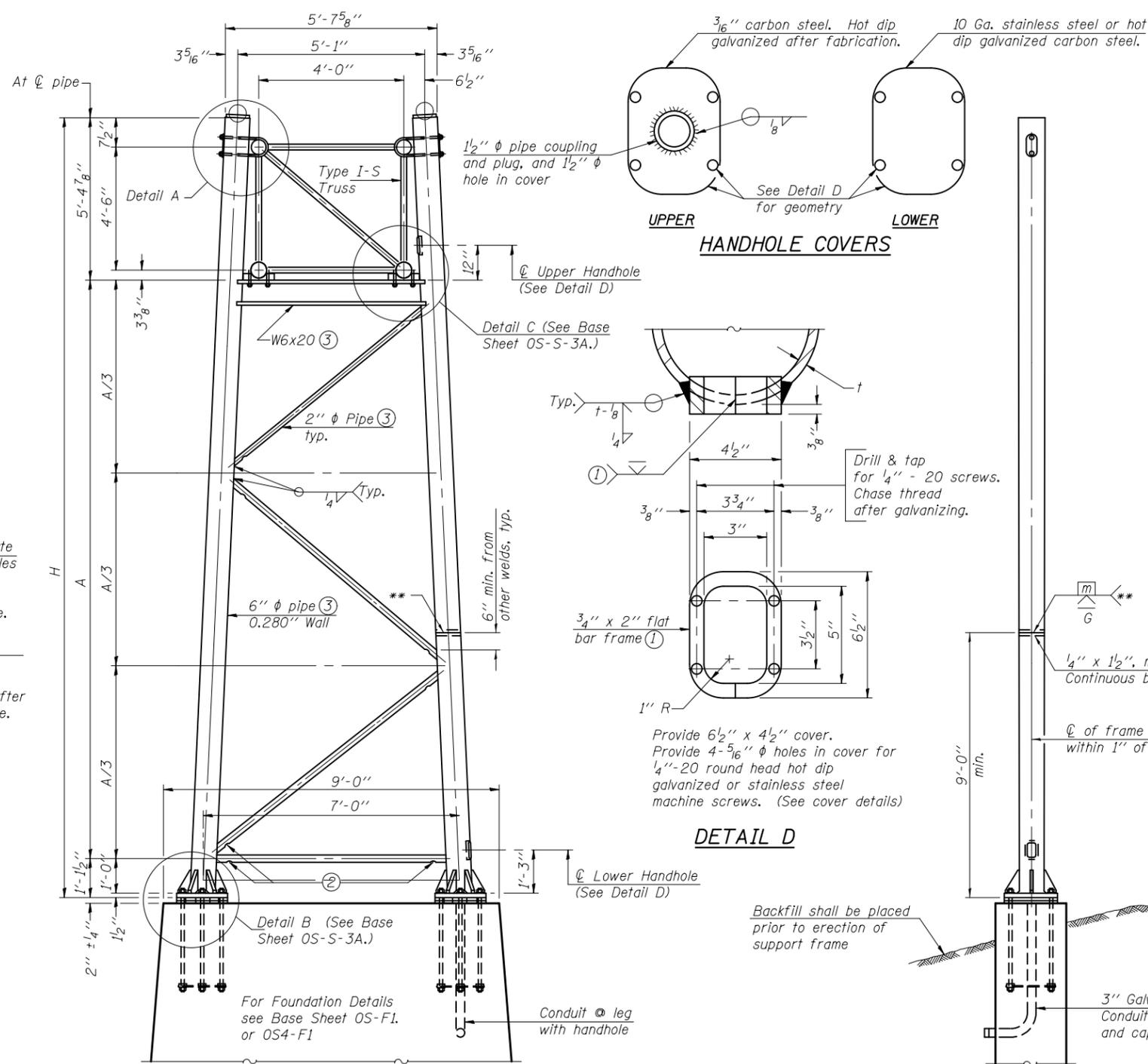


**SECTION A-A**

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



**SECTION B-B**



**SIDE ELEVATION**

**END ELEVATION**

**6" φ 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.

Support Design Loads:  
See Base Sheet OS-S-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-S-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.

Structure Number	Station	Support		H ⑦	A
		Left	Right		

OS-S-3

6-1-12

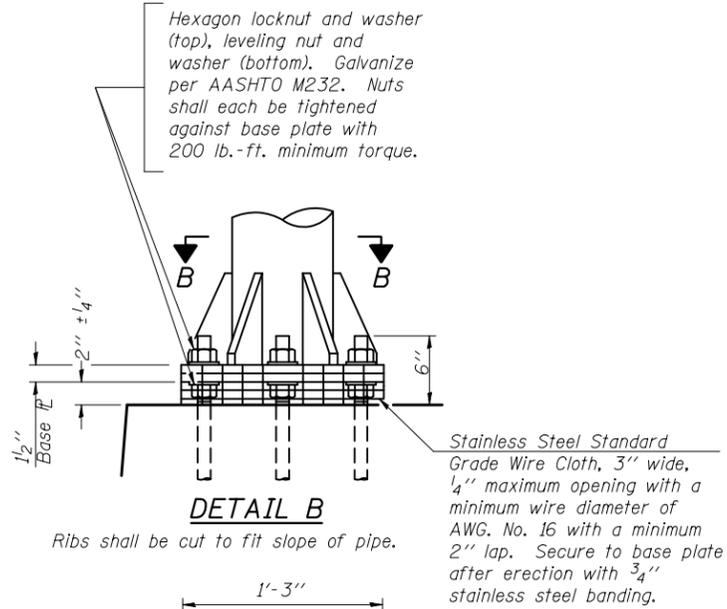
FILE NAME =	USER NAME =	DESIGNED -	REVISOR
		CHECKED -	REVISOR
		DRAWN -	REVISOR
		CHECKED -	REVISOR

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

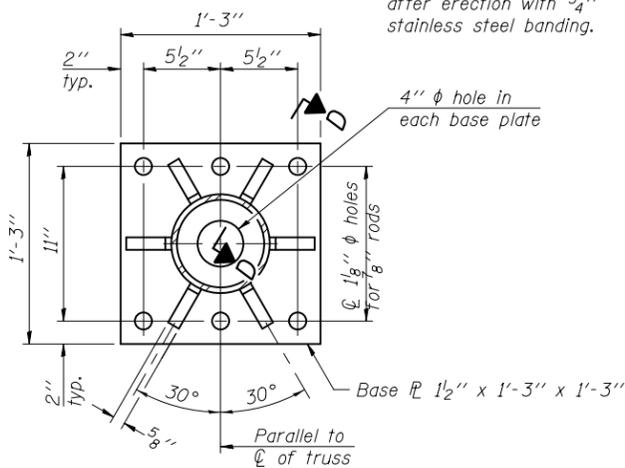
**OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME FOR TYPE I-S STEEL**

SHEET NO. OF SHEETS

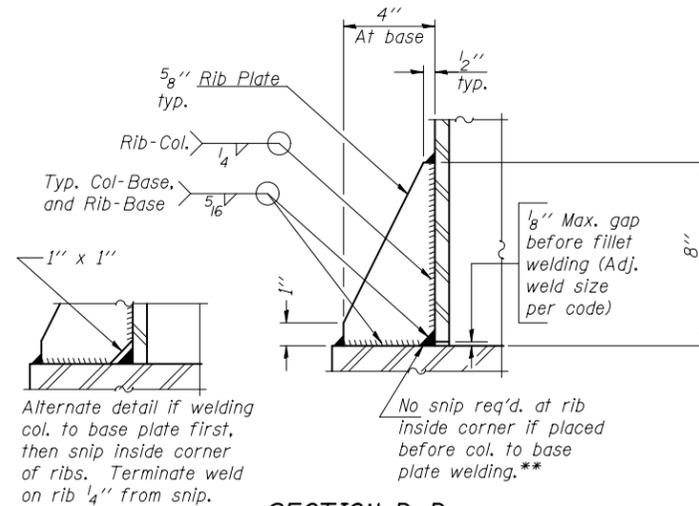
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.			ILLINOIS FED. AID PROJECT	



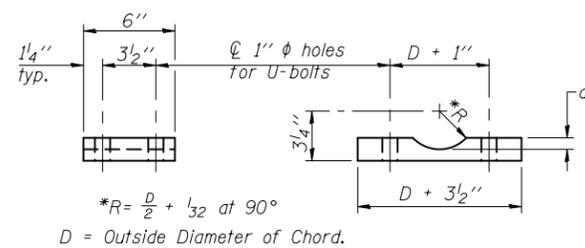
**DETAIL B**



**SECTION B-B**

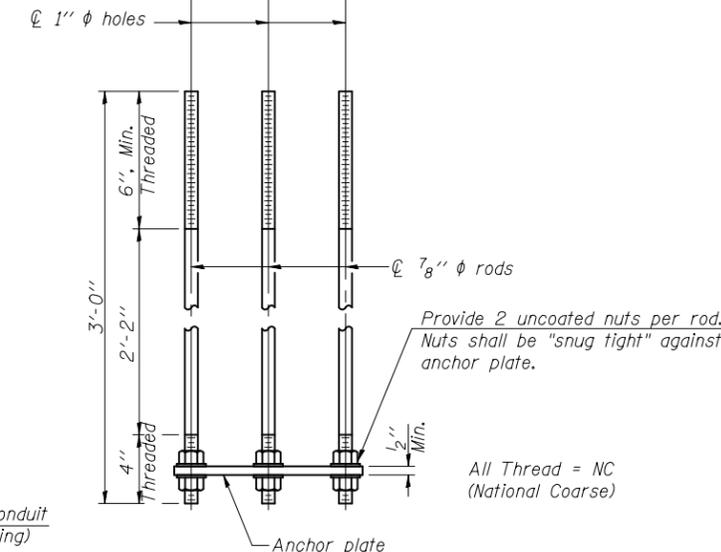
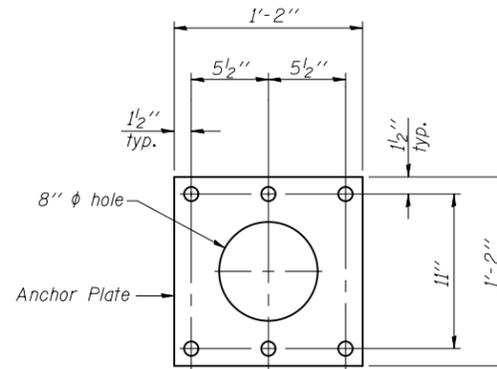


**SECTION D-D**

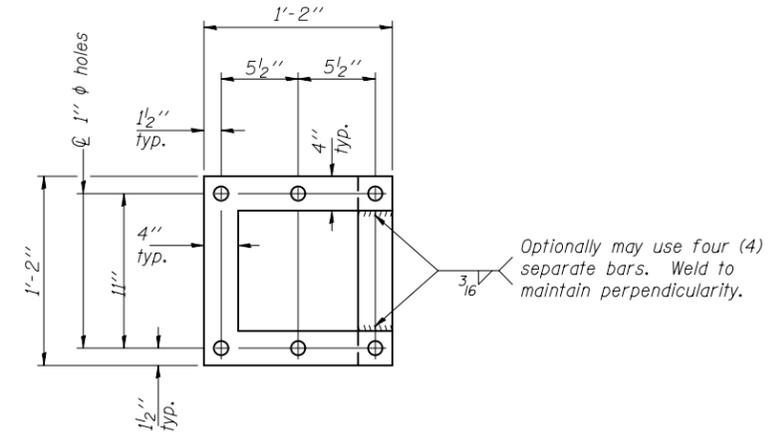


**SADDLE SHIM DETAIL**

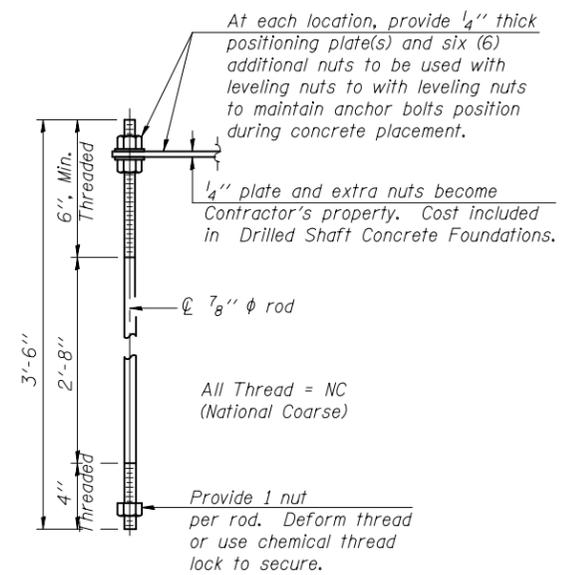
Truss Chord Nominal Dia.	a
4 1/2"	1 1/16"
5"	3/4"
5 1/2"	13/16"



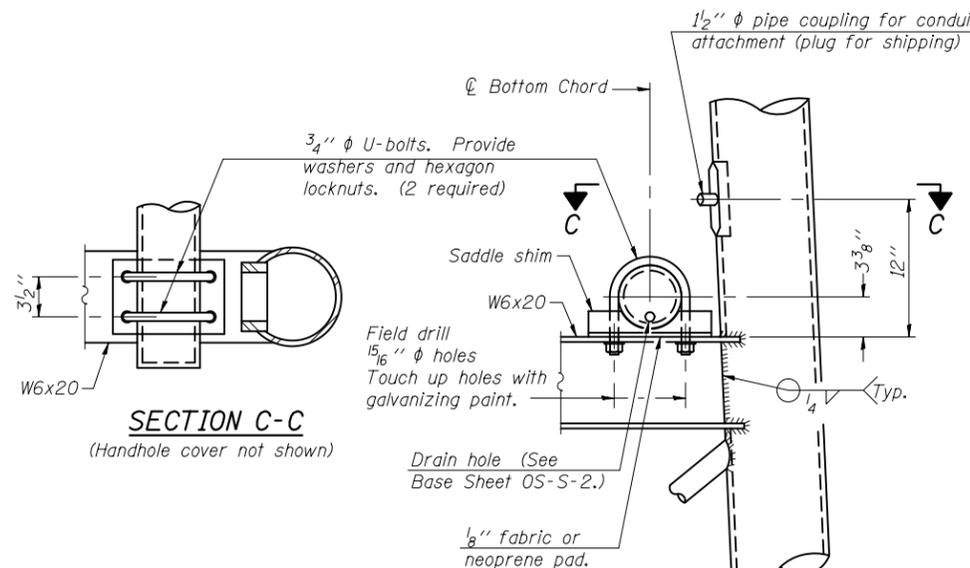
**ANCHOR ROD DETAIL**  
Spread Footing Foundation



**POSITIONING PLATE(S)**



**ANCHOR ROD DETAIL**  
Drilled Shaft Foundation



**SECTION C-C**

(Handhole cover not shown)

**DETAIL C**

**TYPE I-S STEEL TRUSS**  
6"  $\phi$  PIPE SUPPORT FRAME DETAILS

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

OS-S-3A

6-1-12

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

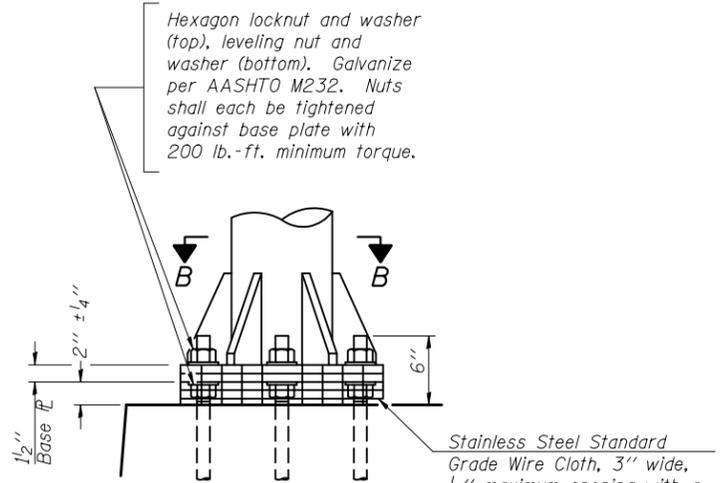
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME FOR TYPE I-S STEEL TRUSS

SHEET NO. OF SHEETS

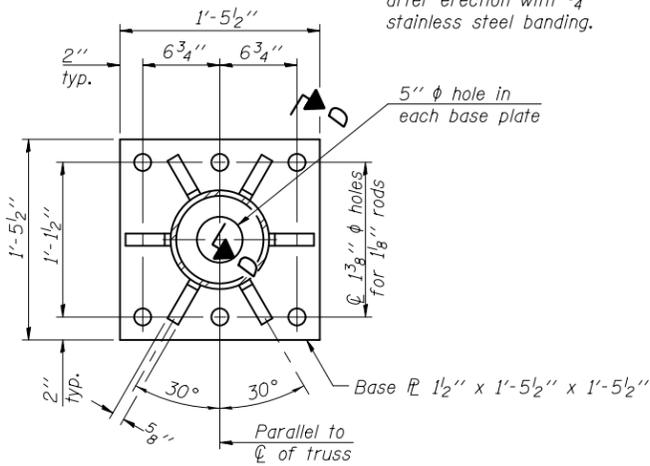
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



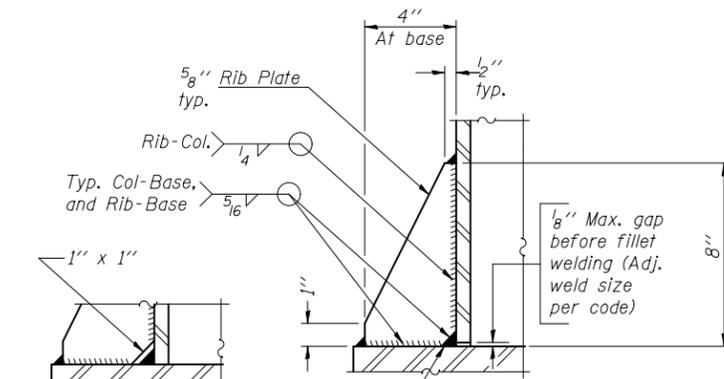


**DETAIL B**

Ribs shall be cut to fit slope of pipe.



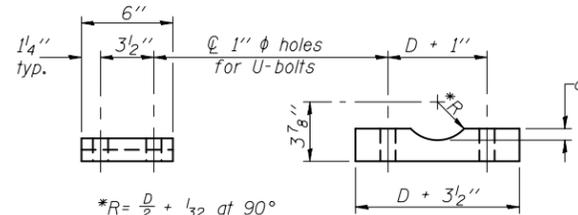
**SECTION B-B**



**SECTION D-D**

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

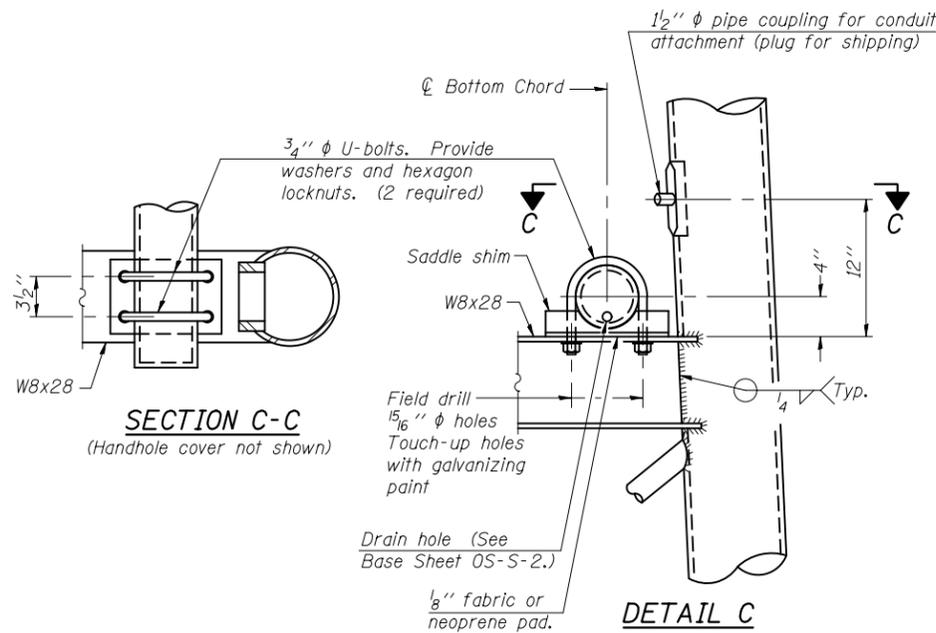
No snip req'd. at rib inside corner if placed before col. to base plate welding.



**SADDLE SHIM DETAIL**

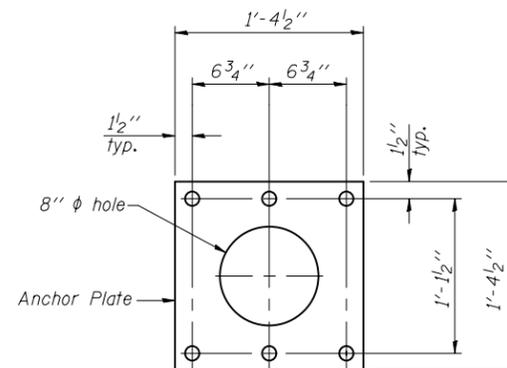
\*R =  $\frac{D}{2} + \frac{1}{32}$  at 90°  
D = Outside Diameter of Chord.

Truss Chord Nominal Dia.	a
5"	3/4"
5 1/2"	13/16"
6"	7/8"
6 1/2"	15/16"

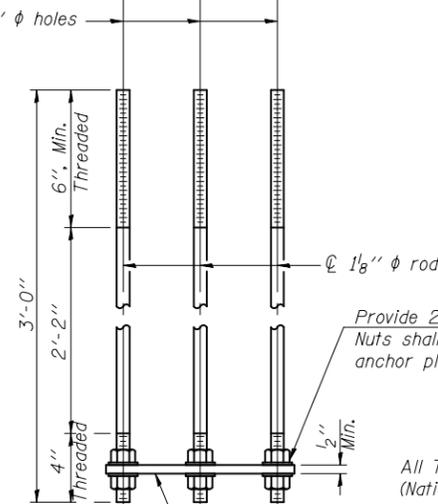


**SECTION C-C**

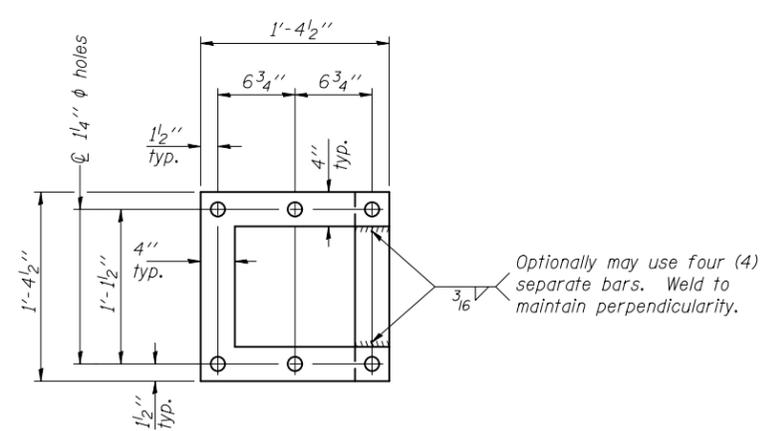
**DETAIL C**



Anchor Plate

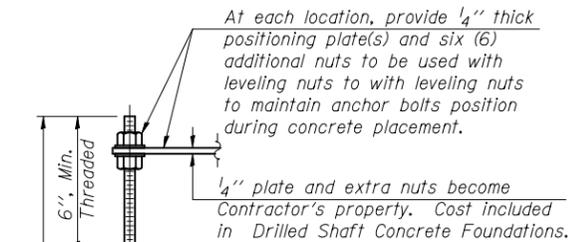


**ANCHOR ROD DETAIL**  
Spread Footing Foundation



**POSITIONING PLATE(S)**

Optionally may use four (4) separate bars. Weld to maintain perpendicularity.



**ANCHOR ROD DETAIL**  
Drilled Shaft Foundation

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

1/4 inch plate and extra nuts become Contractor's property. Cost included in Drilled Shaft Concrete Foundations.

All Thread = NC (National Coarse)

Provide 1 nut per rod. Deform thread or use chemical thread lock to secure.

**TYPE I-S TRUSS**  
**8" φ PIPE SUPPORT FRAME DETAILS**

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

OS-S-4A

6-1-12

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME FOR I-S STEEL TRUSS

SHEET NO. OF SHEETS

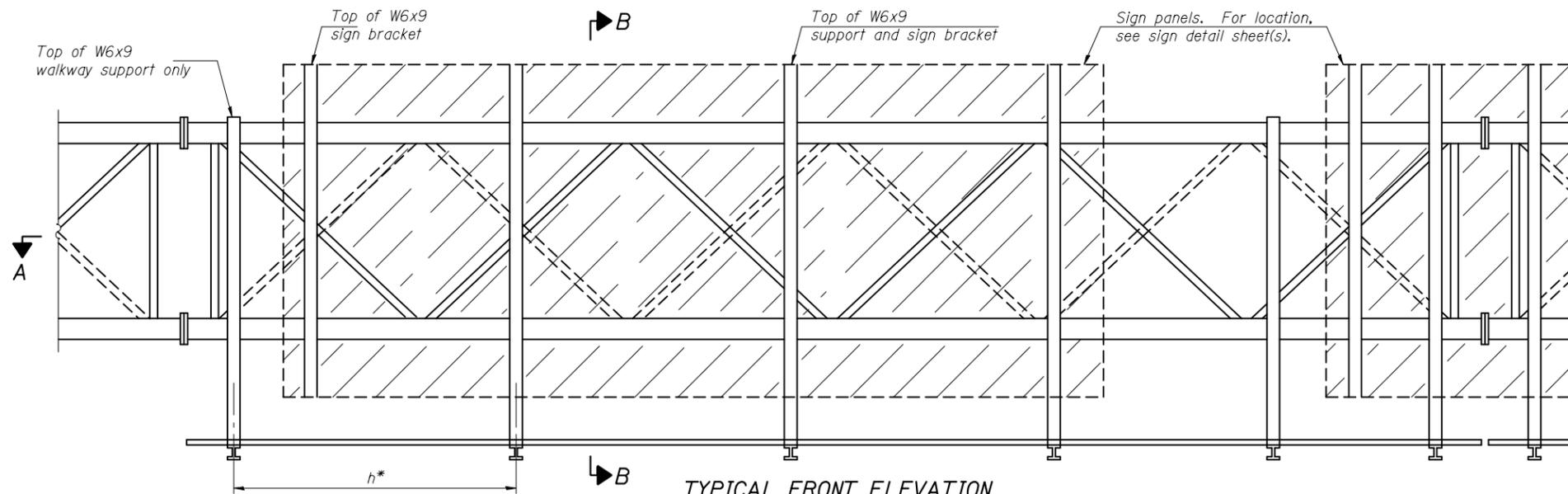
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

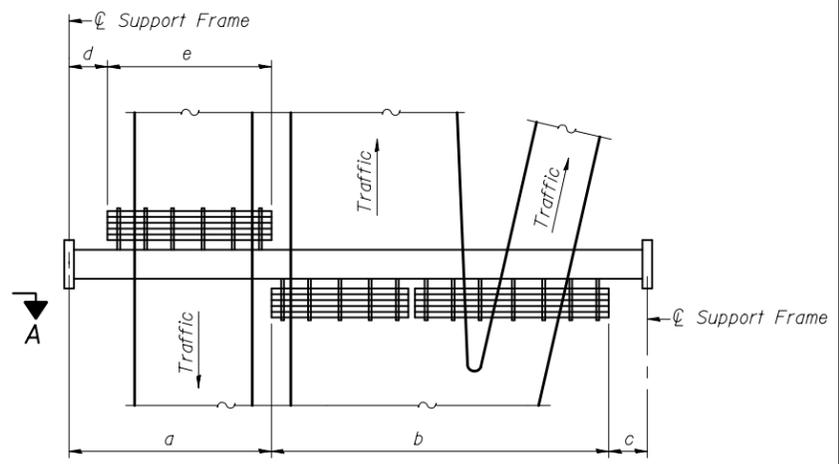
ILLINOIS FED. AID PROJECT



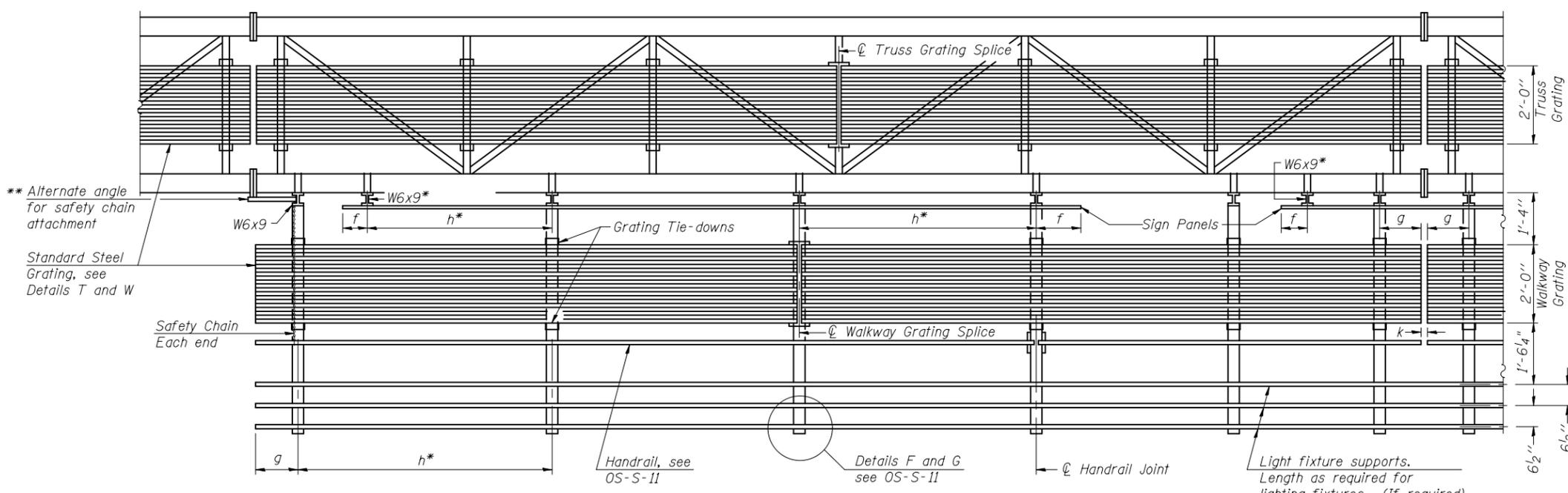




**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



**PLAN WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath truss varies)



**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. Handrail joints, grating, and light support splices placed as needed.

**BRACKET TABLE**

W6x9		
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

Walkway and Truss Grating width dimensions are nominal and may vary ±1/2" based on available standard widths.

**Notes:**

- \* Space W6x9 walkway brackets and sign brackets W6x9 for efficiency and within limits shown:
- f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
- g = 12" maximum, 4" minimum (End of walkway grating to center of nearest support bracket)
- h = 6'-0" maximum (center to center sign and/or walkway support brackets, W6x9)
- k = 2" maximum gap between adjacent walkway grating sections and handrail ends
- \*\* If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-S-10.  
For Handrail Details, see Base Sheet OS-S-11.

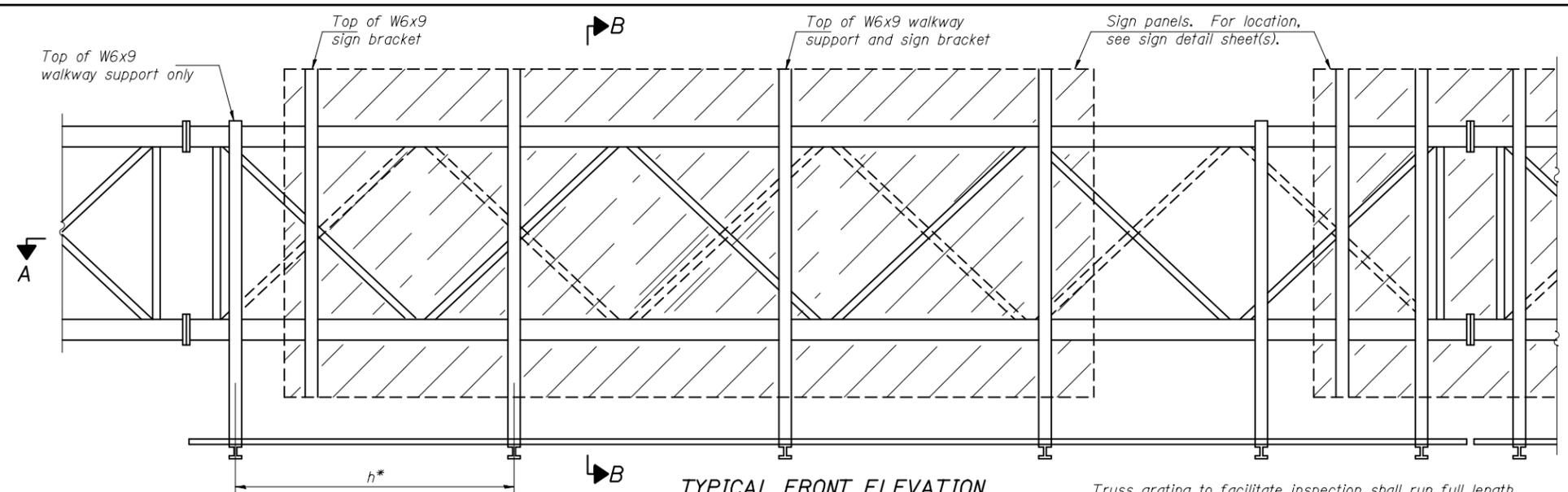
Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

OS-S-9

6-1-12

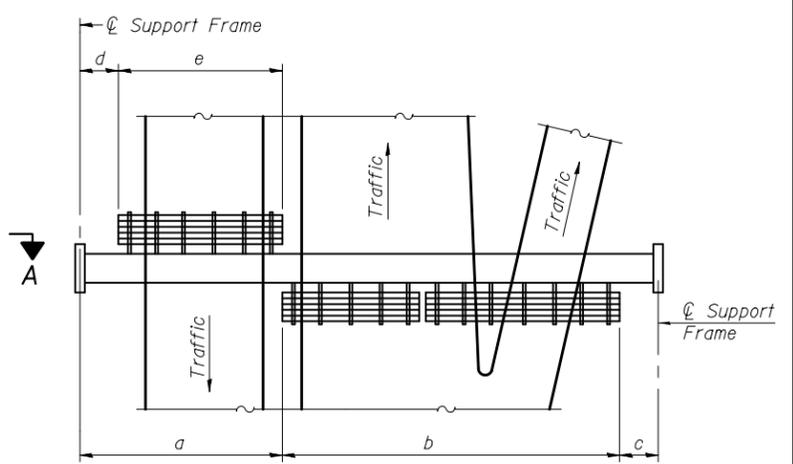




**TYPICAL FRONT ELEVATION**

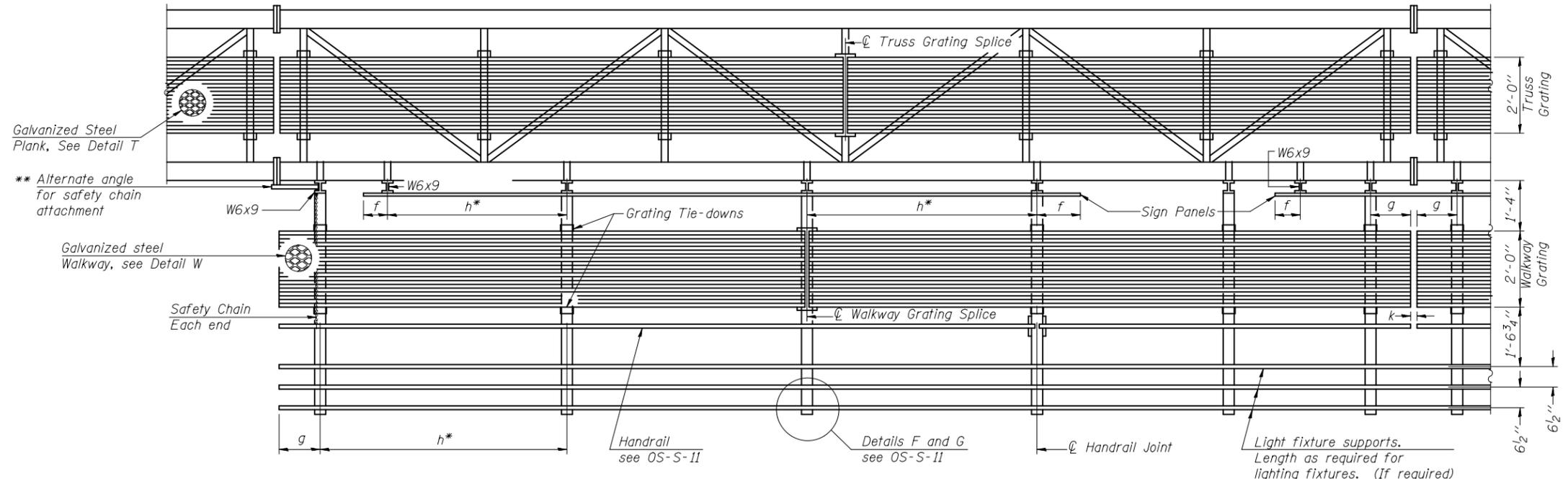
With lights and handrail omitted for clarity. For Section B-B, see Base Sheet OS-S-10.

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".



**PLAN WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath truss varies)

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.



**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, handrail and light support splices placed as needed.

Note: Details shown are considered equal alternatives to the Steel Walkway on Base Sheet OS-S-9, and may be substituted by Contractor at no change in contract cost.

Notes:

- \* Space W6x9 walkway brackets and sign brackets for efficiency and within limits shown:
- f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
- g = 12" maximum, 4" minimum (End of walkway grating to center of nearest support bracket)
- h = 6'-0" maximum (center to center of sign and/or walkway support brackets, W6x9)
- k = 2" maximum gap between adjacent walkway grating sections and handrail ends
- \*\* If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11.

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-S-10.  
For Handrail Details, see Base Sheet OS-S-11.

**BRACKET TABLE**

W6x9		Number Brackets Required
Sign Width Greater Than	Sign Width Less Than or Equal To	
8'-0"	8'-0"	2
14'-0"	14'-0"	3
20'-0"	20'-0"	4
26'-0"	26'-0"	5
32'-0"	32'-0"	6

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths

OS-S-9S

6-1-12

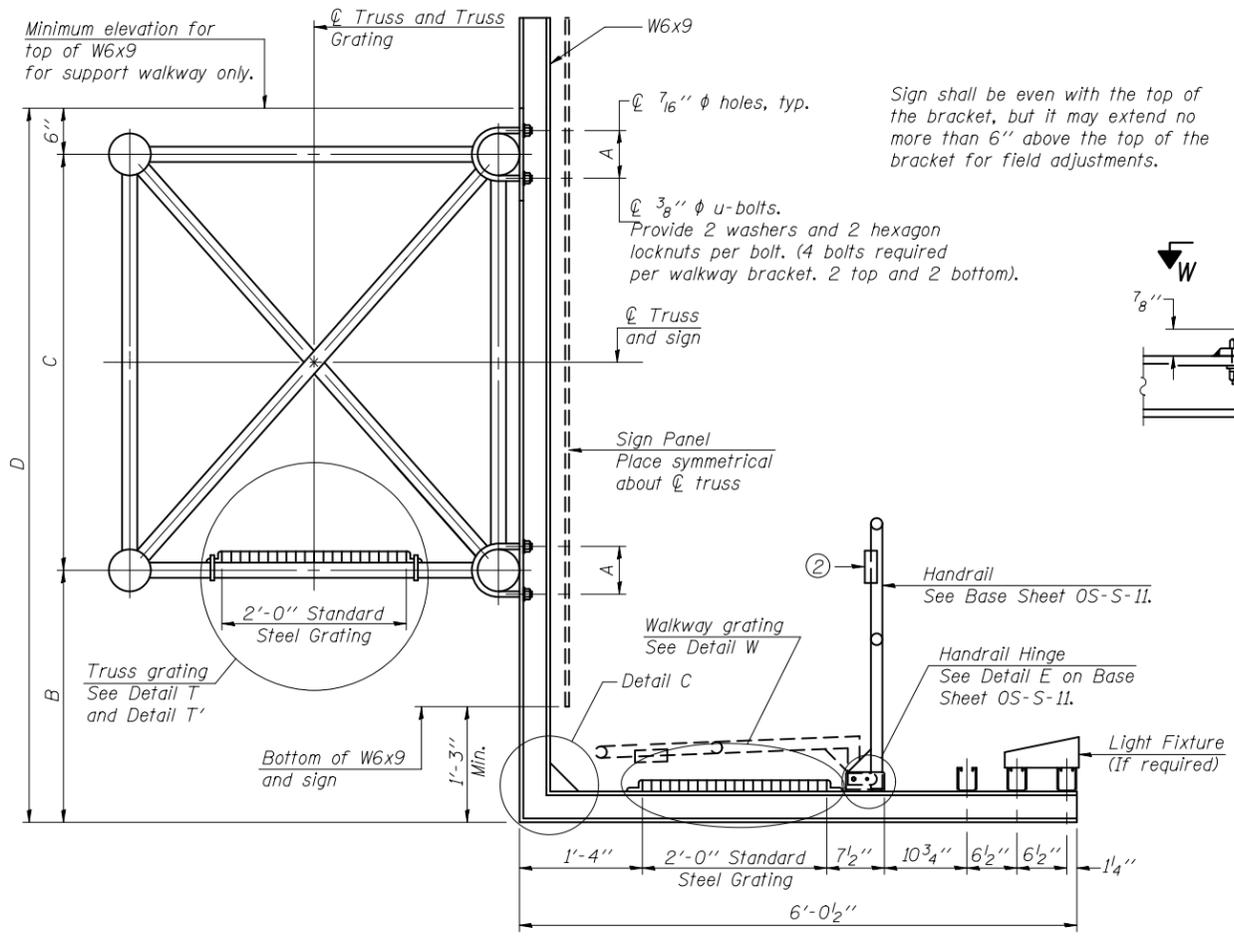
FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		CHECKED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES  
ALTERNATE STEEL WALKWAY DETAILS**

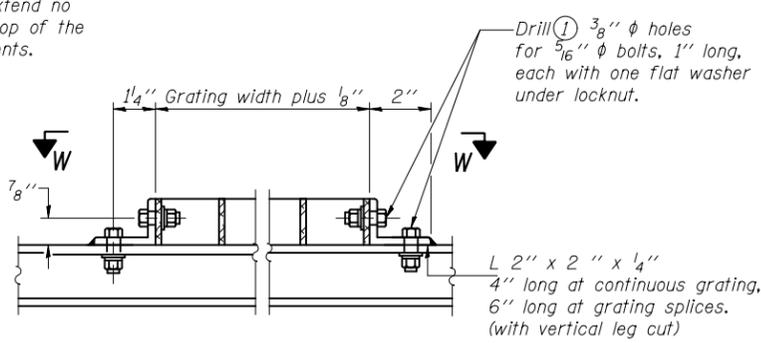
SHEET NO. OF SHEETS

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



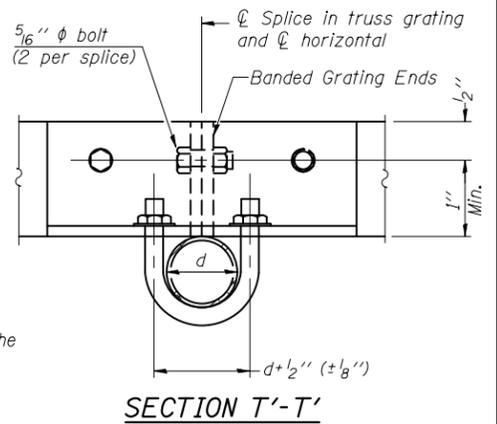
**SECTION B-B**

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

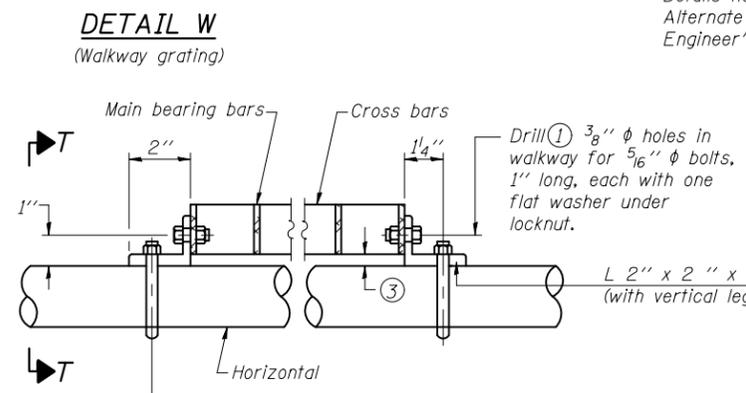


**DETAIL T'**

(Truss grating splice)  
Details not shown same as Detail T.  
Alternate materials may be used subject to the Engineer's review and approval.



**SECTION T'-T'**

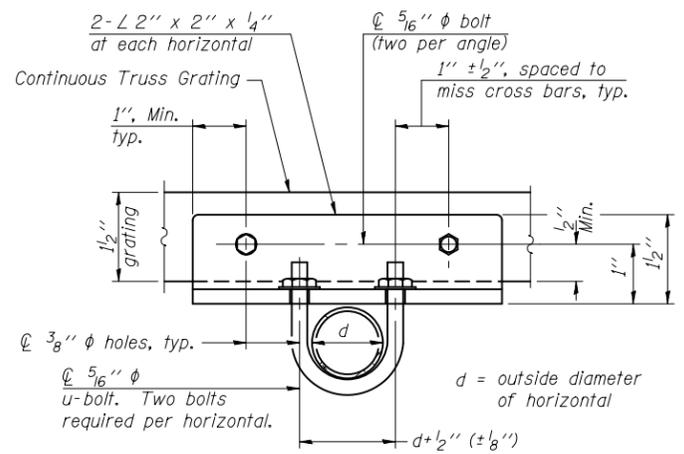


**DETAIL W**  
(Walkway grating)

Drill 3/8" phi holes in angles for 5/16" phi u-bolts. Two washers and nuts required per bolt. U-bolt and angle connections required at horizontals only.

**DETAIL T**

(Continuous Truss grating)

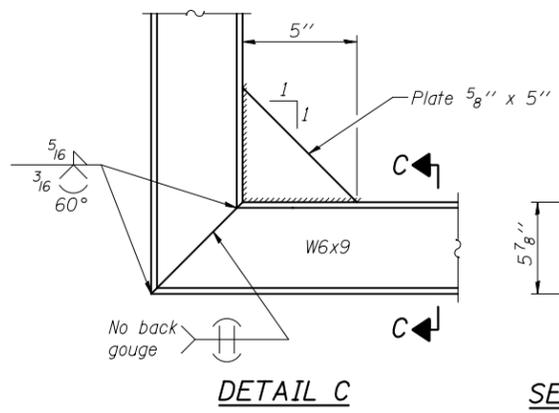


**SECTION T-T**

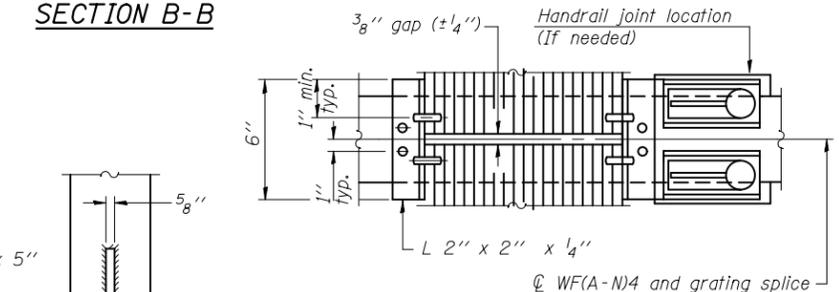
**BARS SIZES FOR STANDARD STEEL GRATING**

TRUSS GRATING Main bearing bars 1/2" x 1 1/2" on 1 3/16" centers.  
Cross bars 3/16" x 1 1/2" on 4" centers.  
WALKWAY GRATING Main bearing bars 3/16" x 1 1/2" on 1 3/16" centers.  
Cross bars 3/16" x 1 1/2" on 4" centers.

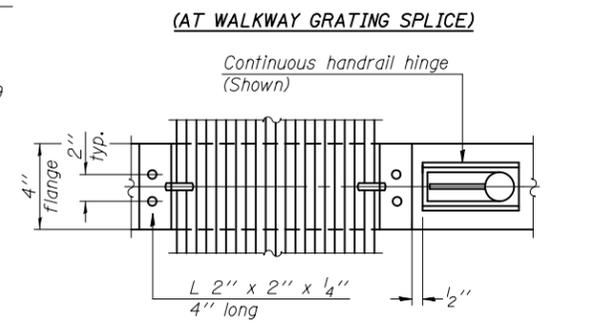
- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② 1/2" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ③ Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- ④ Based on actual height of tallest sign given on OS-S-1.



**DETAIL C**



**SECTION C-C**



**SECTION W-W**  
(CONTINUOUS WALKWAY GRATING)

Structure Number	Station	A	④ B	C	④ D

OS-S-10

6-1-12

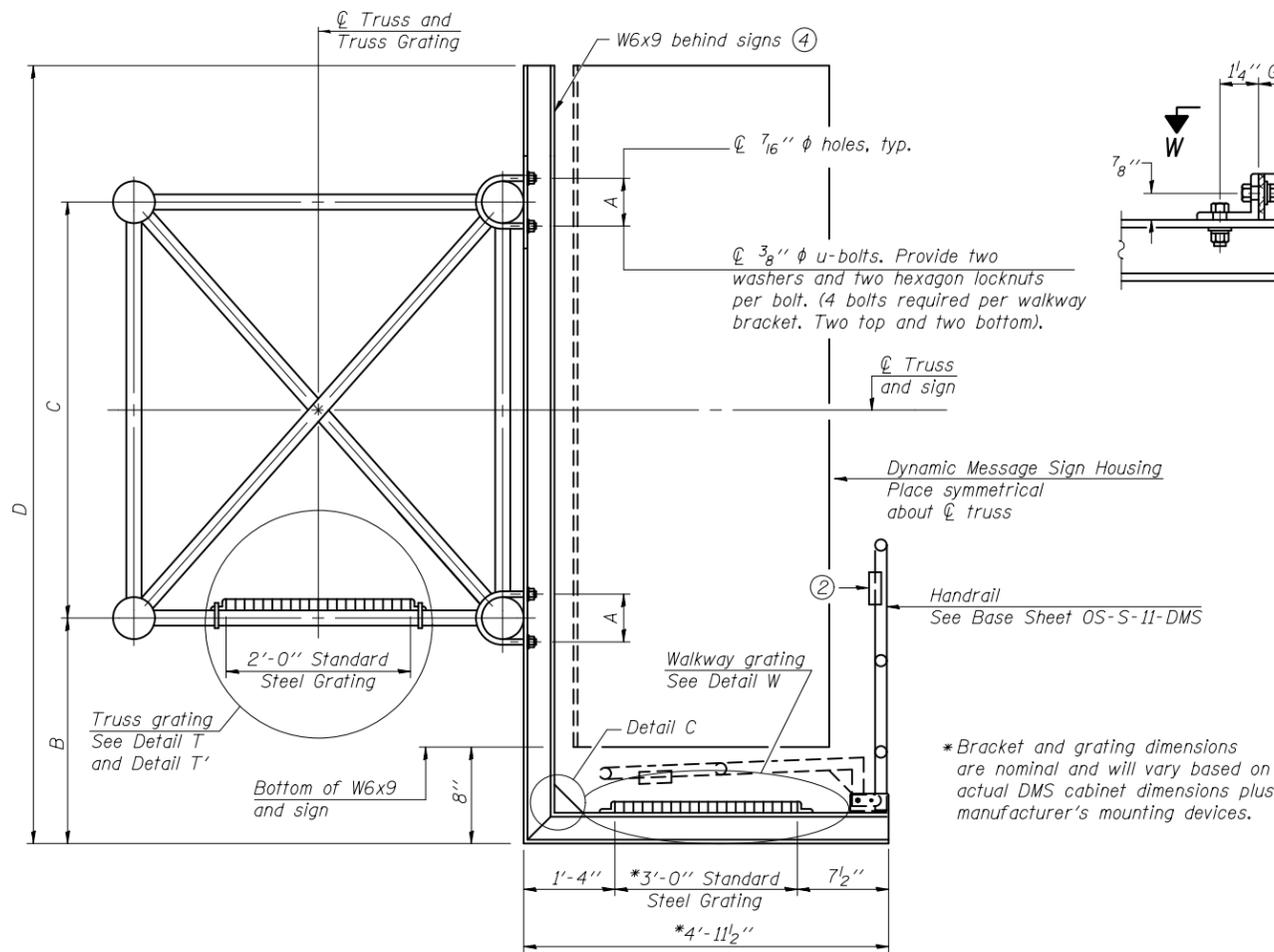
FILE NAME =	USER NAME =	DESIGNED -	REVISD
		CHECKED -	REVISD
		DRAWN -	REVISD
		CHECKED -	REVISD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

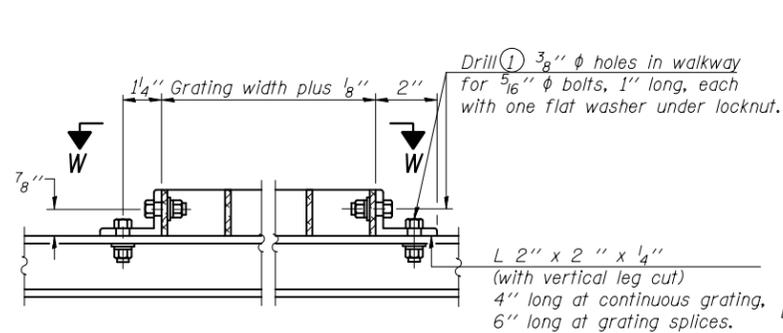
OVERHEAD SIGN STRUCTURES  
STEEL WALKWAY DETAILS

SHEET NO. OF SHEETS

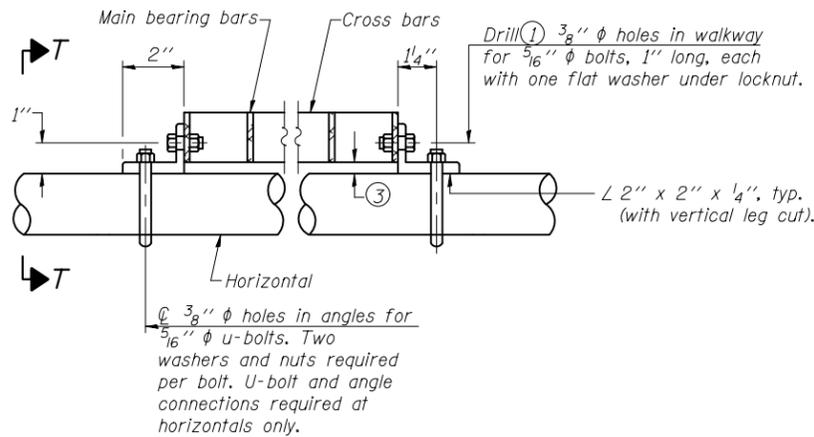
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



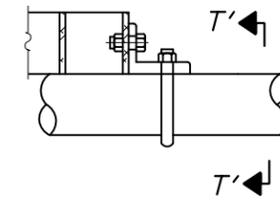
**SECTION B-B**



**DETAIL W**  
(Walkway grating)

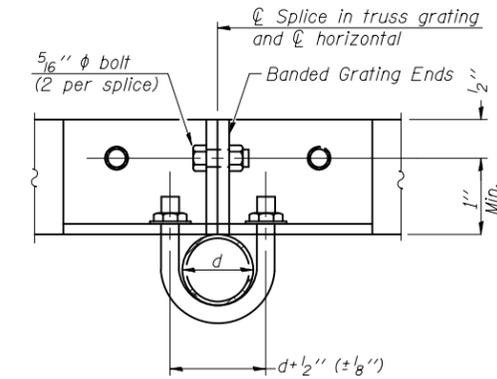


**DETAIL T**  
(Continuous Truss grating)

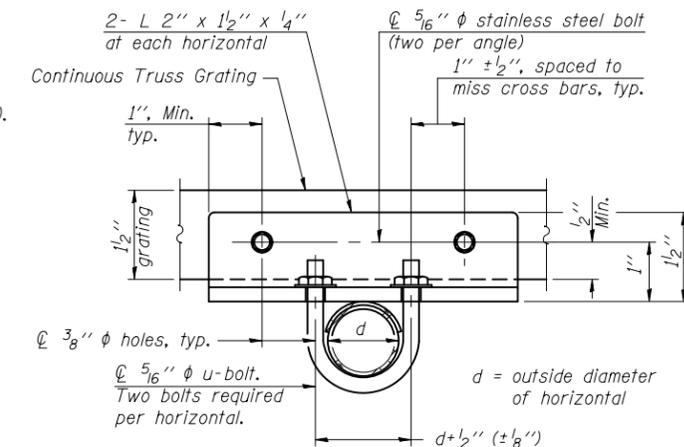


**DETAIL T'**

(Truss grating splice)  
Details not shown same as Detail T.  
Alternate materials may be used subject to the Engineer's review and approval.



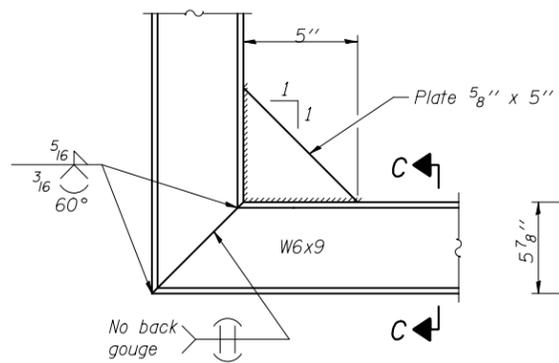
**SECTION T'-T'**



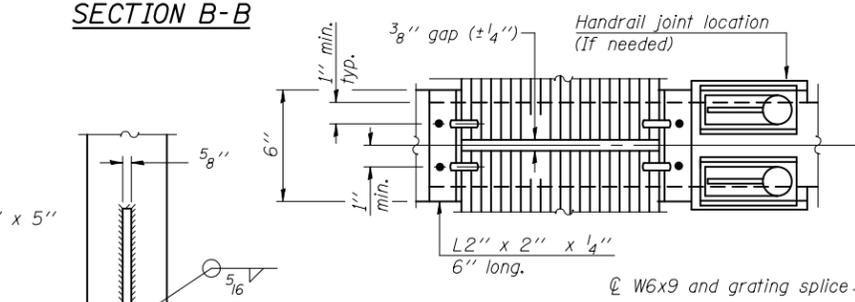
**SECTION T-T**

**BARS SIZES FOR STANDARD STEEL GRATING**

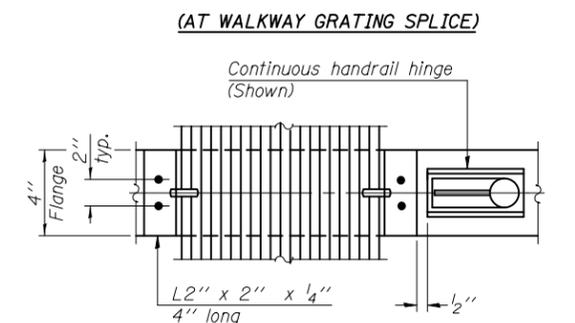
TRUSS GRATING Main bearing bars 3/16" x 1/2" on 1 3/16" centers.  
Cross bars 3/16" x 1/2" on 4" centers.  
WALKWAY GRATING Main bearing bars 3/16" x 1/2" on 1 3/16" centers.  
Cross bars 3/16" x 1/2" on 4" centers.



**DETAIL C**



**SECTION C-C**



**SECTION W-W**  
(CONTINUOUS WALKWAY GRATING)

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② R 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ③ Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- ④ Cabinet manufacturer must design and supply hardware for connection of cabinet to WF6's. Bolts must be stainless steel or hot dip galvanized high strength per IDOT specifications.
- ⑤ Based on actual height of tallest sign given on OS-S-1.

Structure Number	Station	A	⑤ B	C	⑤ D

OS-S-10-DMS

6-1-12

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

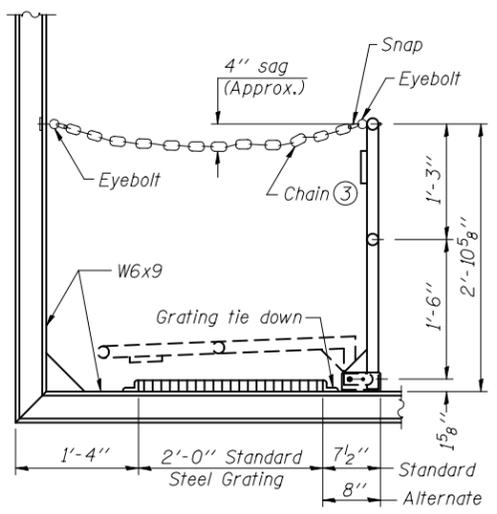
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - ALTERNATE  
STEEL WALKWAY DETAILS FOR DMS

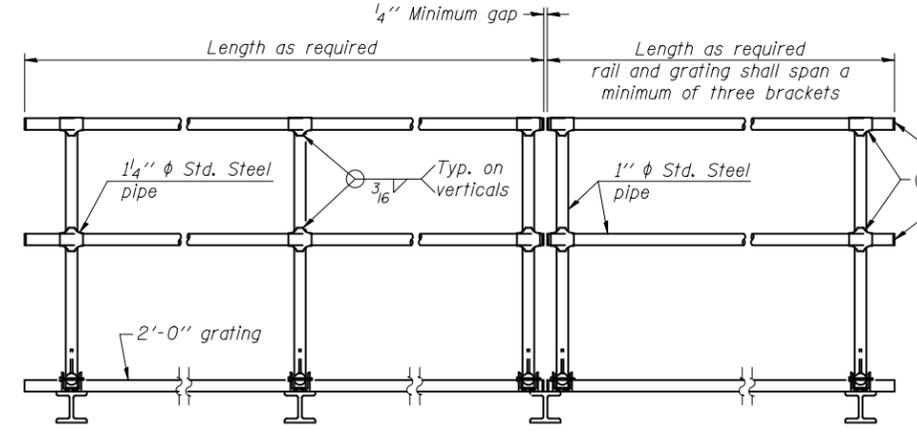
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS





**SIDE ELEVATION**  
(Showing safety chain w/o sign)

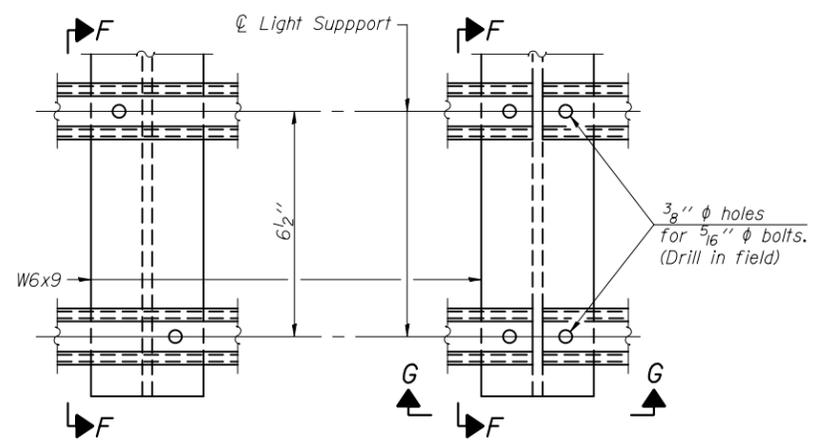


**FRONT ELEVATION**

**HANDRAIL DETAILS**

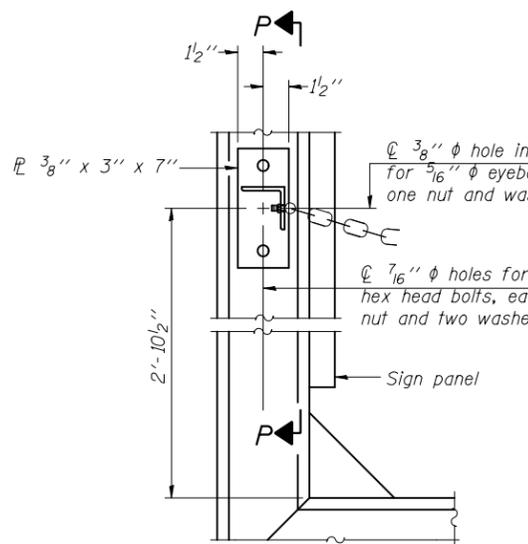
① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru 1 1/4" pipe. Provide 7/16" hole in 1 1/4" pipe for 3/8" bolt. Field drill 1/16" hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" holes on top rail at ends only.)



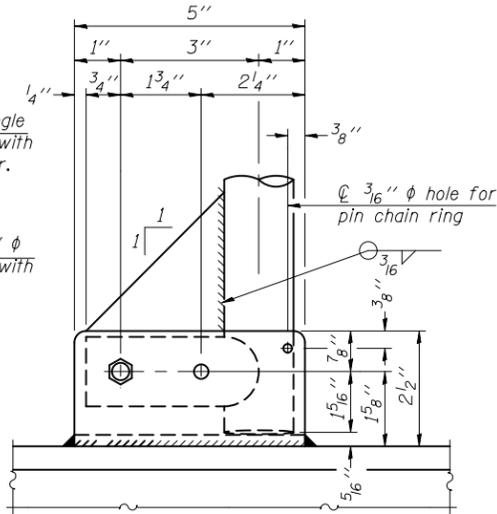
**DETAIL F**

**DETAIL G**

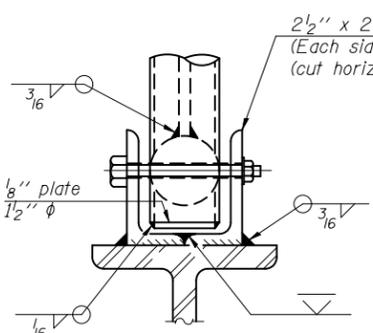


**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

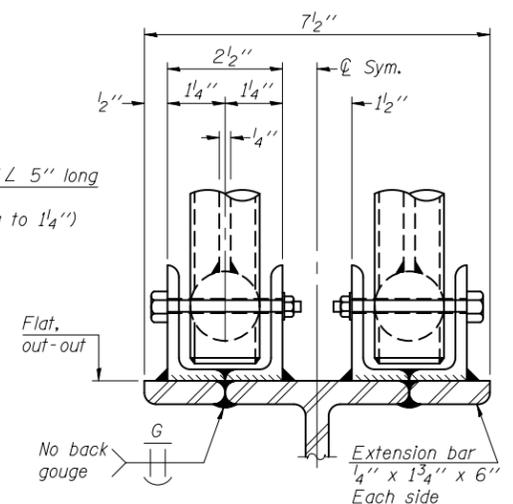


**SIDE ELEVATION**

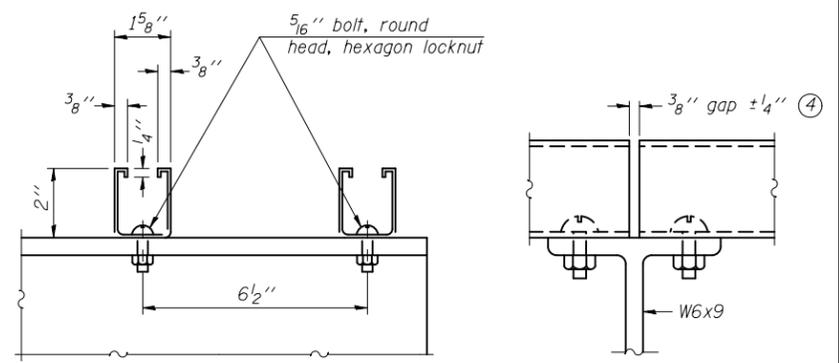


**FRONT ELEVATION**

See "ELEVATION" at right for dimensions.



**ELEVATION AT HANDRAIL JOINT**

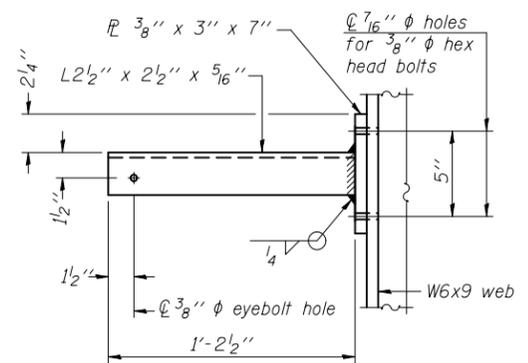


**SECTION F-F**

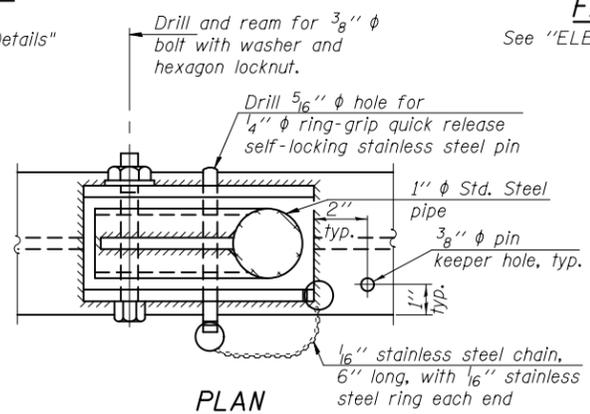
**SECTION G-G**

**LIGHTING FIXTURE MOUNTS (IF REQUIRED)**

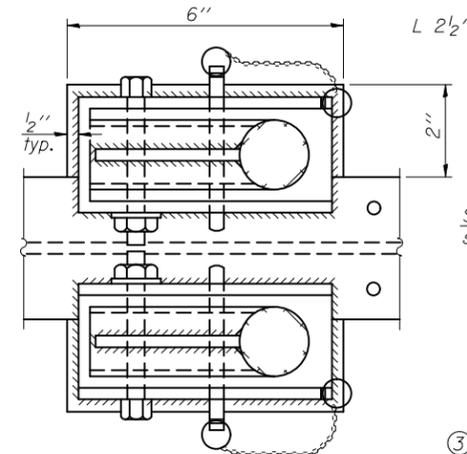
④ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



**SECTION P-P**

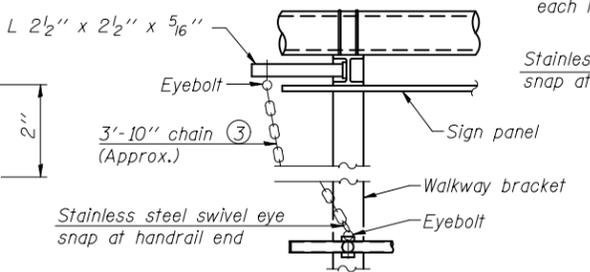


**PLAN**  
**DETAIL E HANDRAIL HINGE**



**PLAN AT HANDRAIL JOINT**

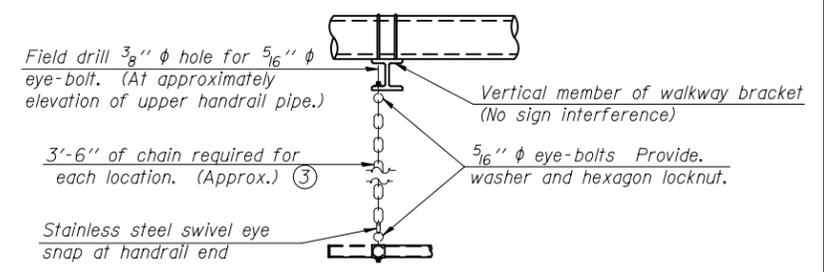
Details not shown same as "PLAN"



**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

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



**SAFETY CHAIN**

One required for each end of each walkway.

OS-S-11

6-1-12

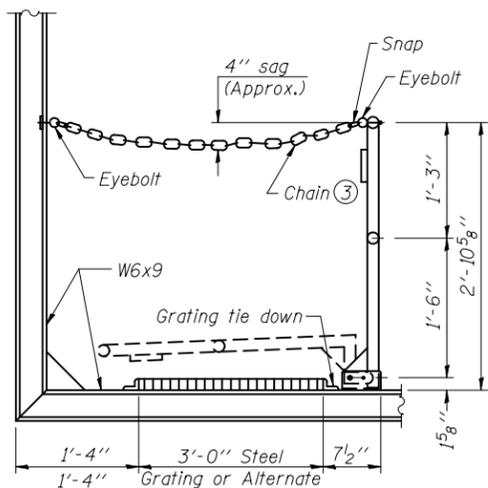
FILE NAME =	USER NAME =	DESIGNED -	REVISIONS
		CHECKED -	REVISIONS
		DRAWN -	REVISIONS
		CHECKED -	REVISIONS

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

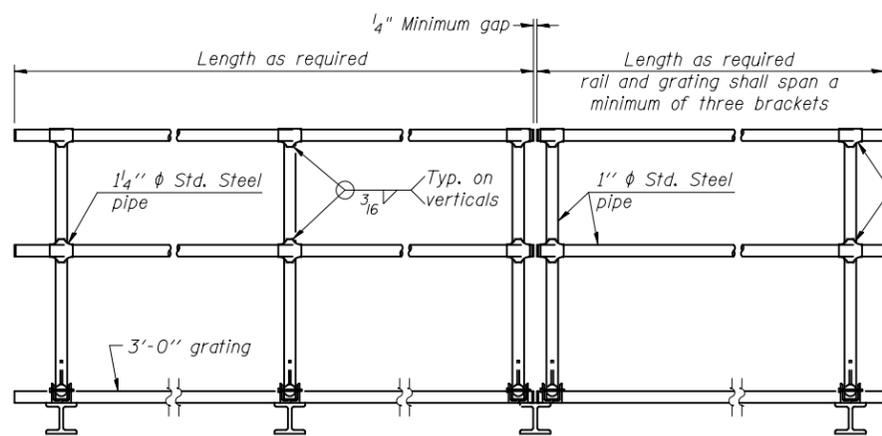
**OVERHEAD SIGN STRUCTURES**  
**STEEL HANDRAIL DETAILS**

SHEET NO. OF SHEETS

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



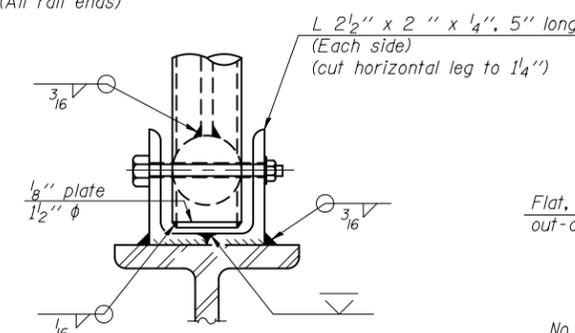
**SIDE ELEVATION**  
(Showing safety chain w/o sign)



**FRONT ELEVATION**

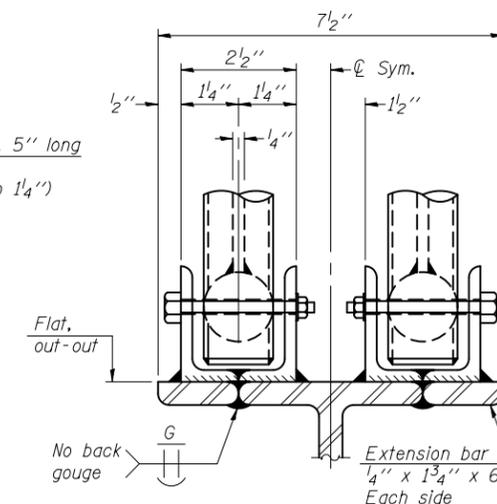
① Install standard force-fit end caps or weld 1/8" end plates with 3/8" c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru 1 1/4" diameter pipe. Provide 7/16" diameter hole in 1 1/4" diameter pipe for 3/8" diameter bolt. Field drill 7/16" diameter hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" diameter holes on top rail at ends only.)

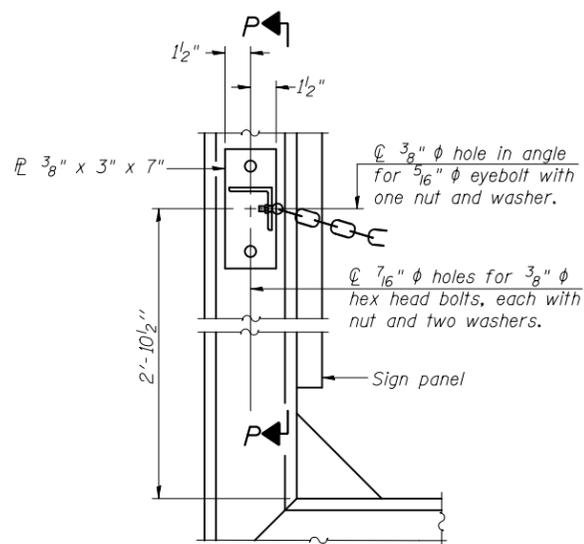


**FRONT ELEVATION**

See "ELEVATION" at right for dimensions.

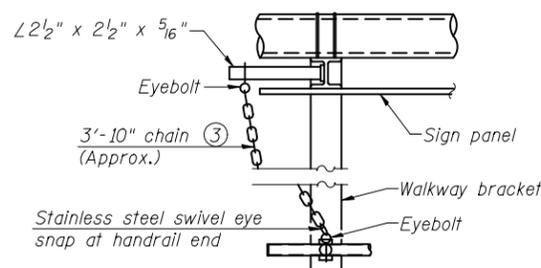


**ELEVATION AT HANDRAIL JOINT**



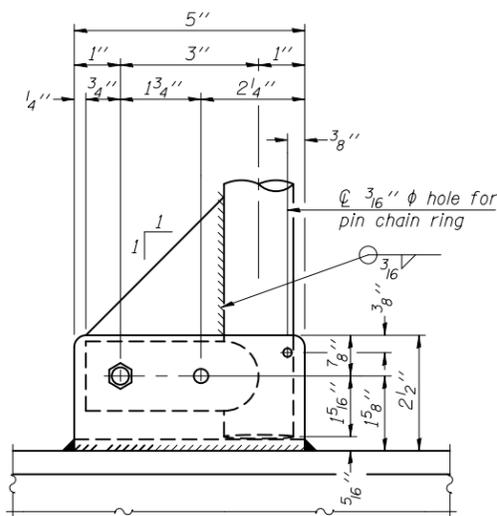
**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

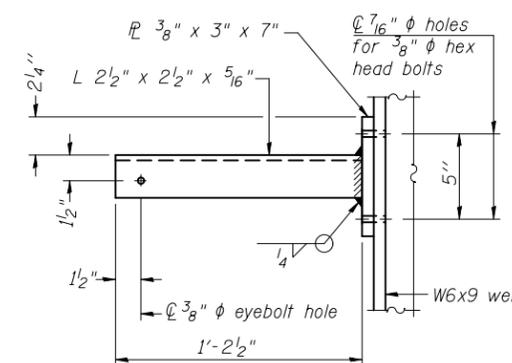


**ALTERNATE SAFETY CHAIN ATTACHMENT**

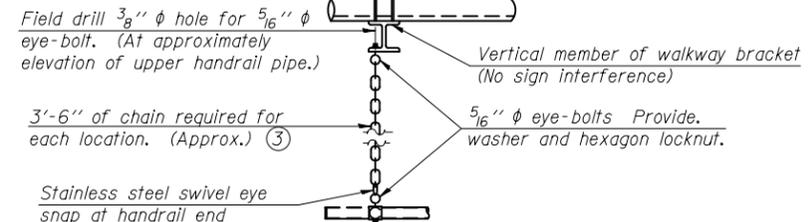
Details not shown similar to "Safety Chain" Details  
(Walkway omitted for clarity)



**SIDE ELEVATION**

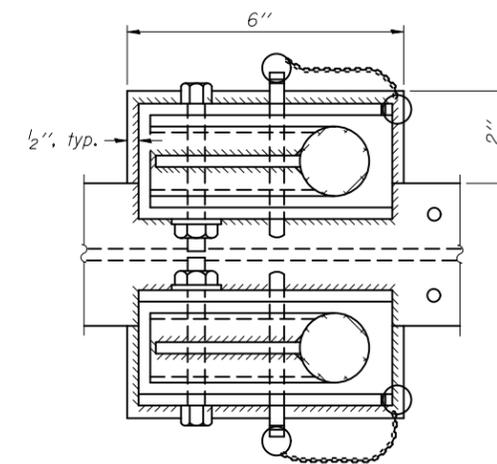


**SECTION P-P**



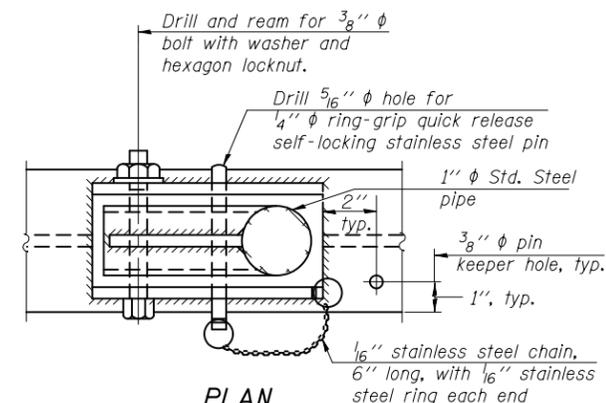
**SAFETY CHAIN**

One required for each end of each walkway.



**PLAN AT HANDRAIL JOINT**

Details not shown same as "PLAN"



**DETAIL E HANDRAIL HINGE**

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

OS-S-11-DMS

6-1-12

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

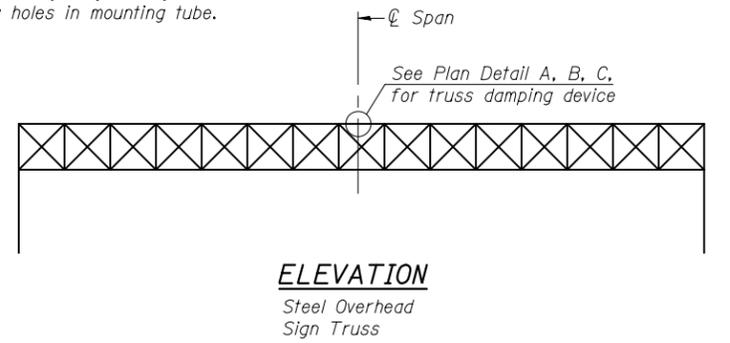
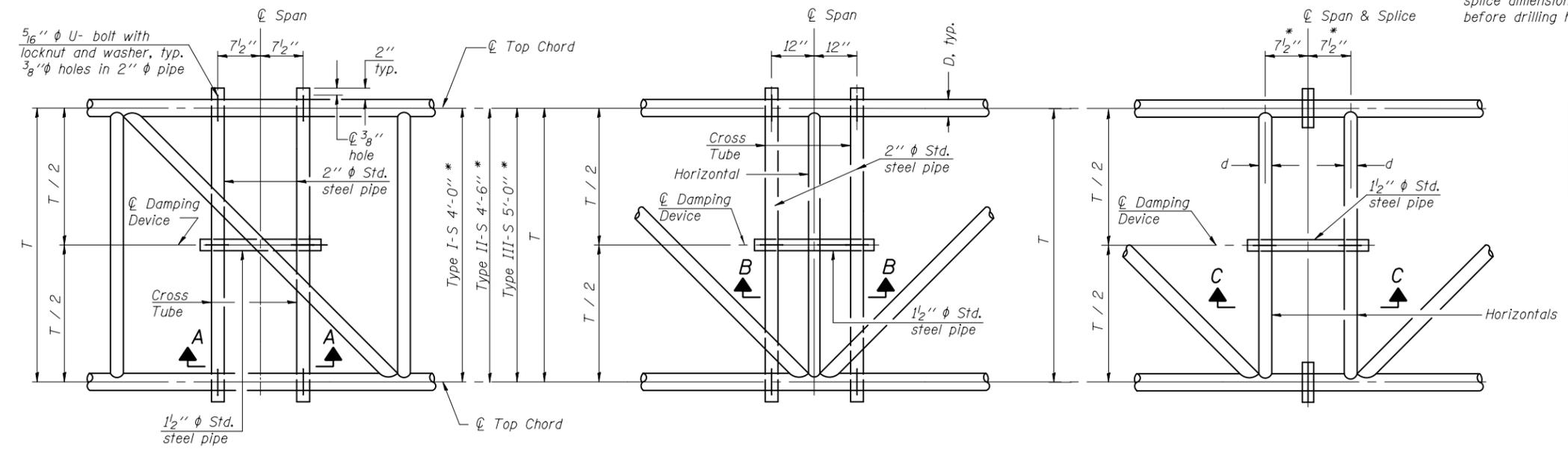
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - ALTERNATE  
STEEL HANDRAIL DETAILS FOR DMS

SHEET NO. OF SHEETS

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

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



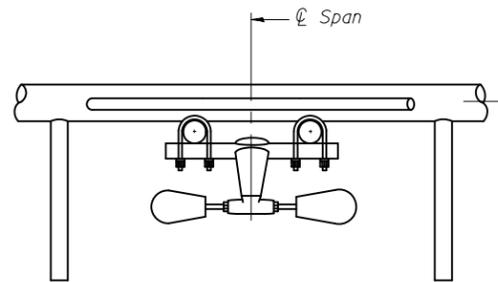
**ELEVATION**  
Steel Overhead Sign Truss

**NOTES**  
Damper: One damper per truss. (31 Lbs. Stockbridge-Type - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

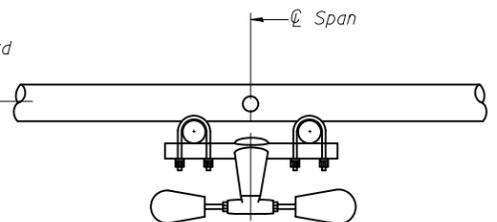
**PLAN DETAIL "A"**  
Span between panel points

**PLAN DETAIL "B"**  
Span at panel point

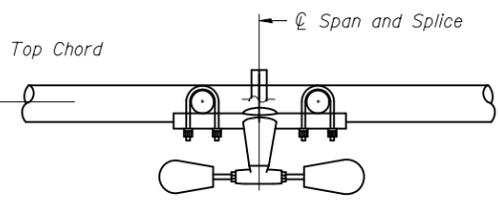
**PLAN DETAIL "C"**  
Span at chord splice



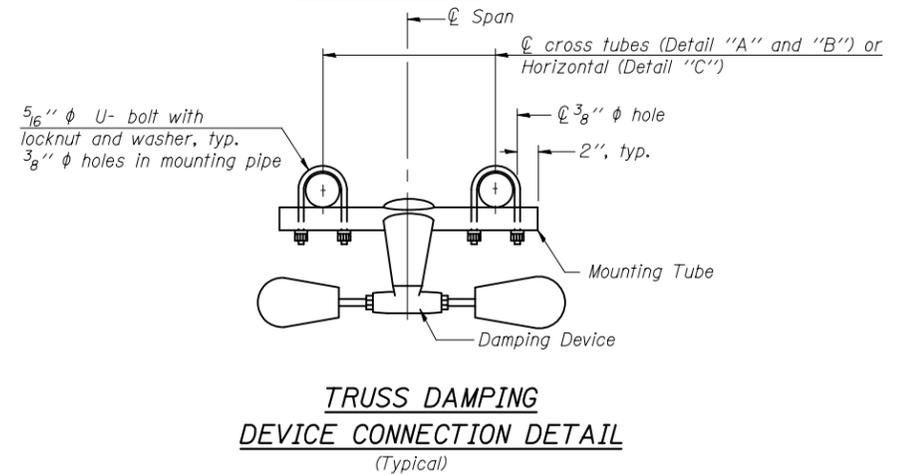
**SECTION A-A**



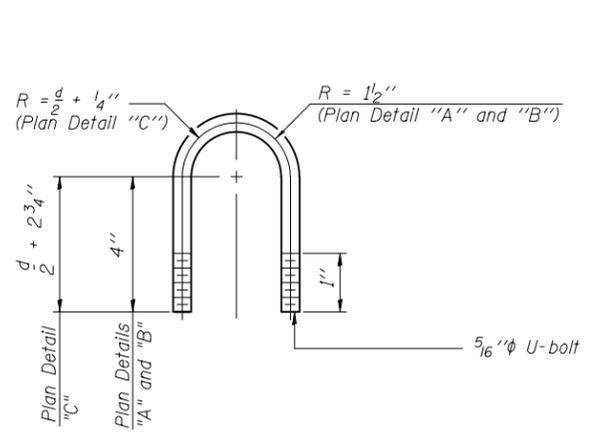
**SECTION B-B**



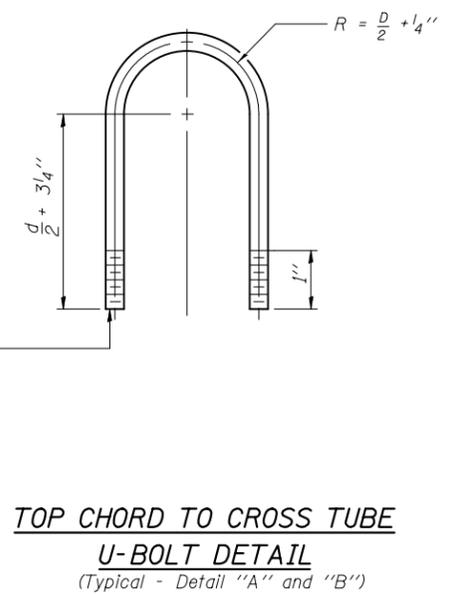
**SECTION C-C**



**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")

OS-S-D

6-1-12

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

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES**  
**DAMPING DEVICE**

SHEET NO. OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT