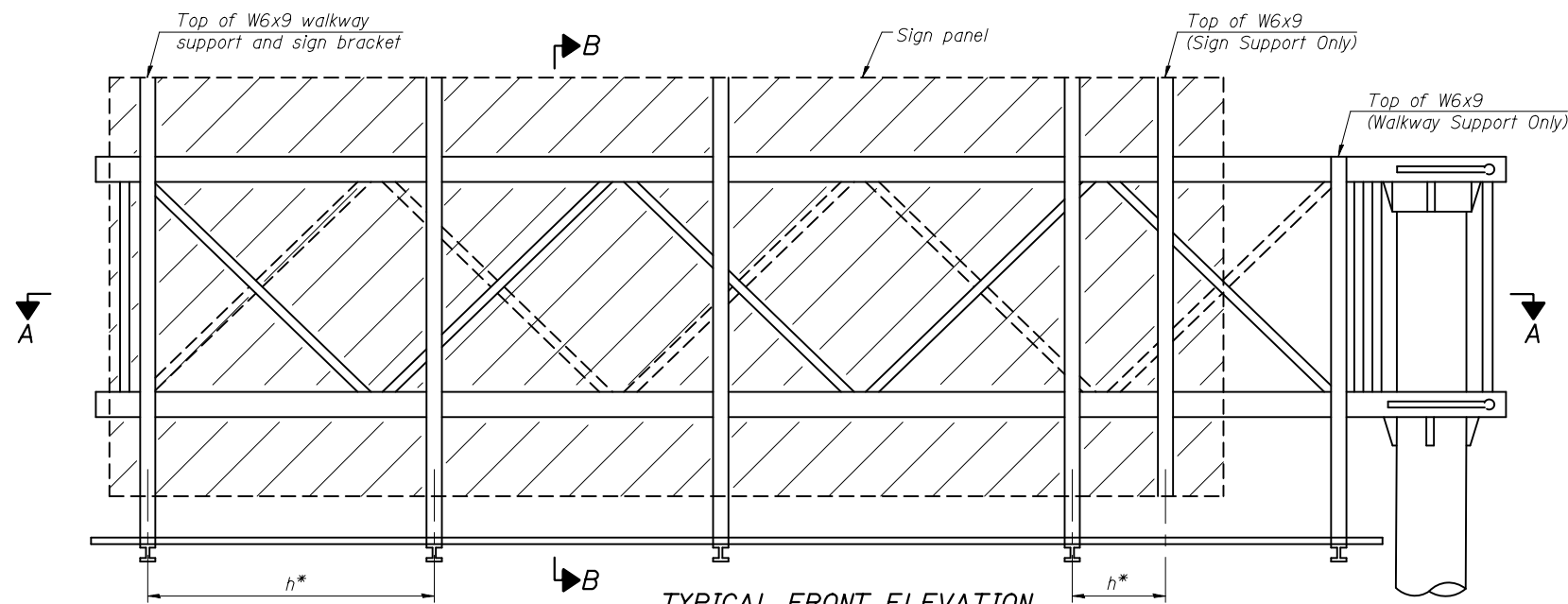
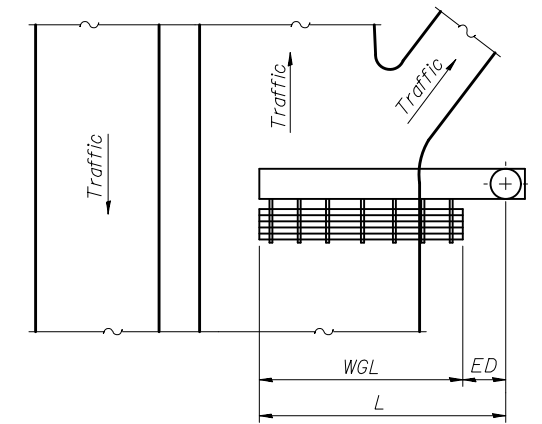


CELL / MODEL NAME	DESCRIPTION	DATE
OSC-S-1	General plan and elevation	06/01/2012
OSC-S-2	Truss details	06/01/2012
OSC-S-3	Juncture details	06/01/2012
OSC-S-4	Type I-C-S truss support post	06/01/2012
OSC-S-5	Type II-C-S and III-C-S truss support post	06/01/2012
OSC-S-6	Walkway details	06/01/2012
OSC-S-6S	Alternate steel walkway details	06/01/2012
OSC-S-7	Walkway details	06/01/2012
OSC-S-7S	Alternate walkway details	06/01/2012
OSC-S-8	Handrail details	06/01/2012
OSC-S-9	Drilled shaft	06/01/2012
OSC-S-D	Damping device	06/01/2012



TYPICAL FRONT ELEVATION

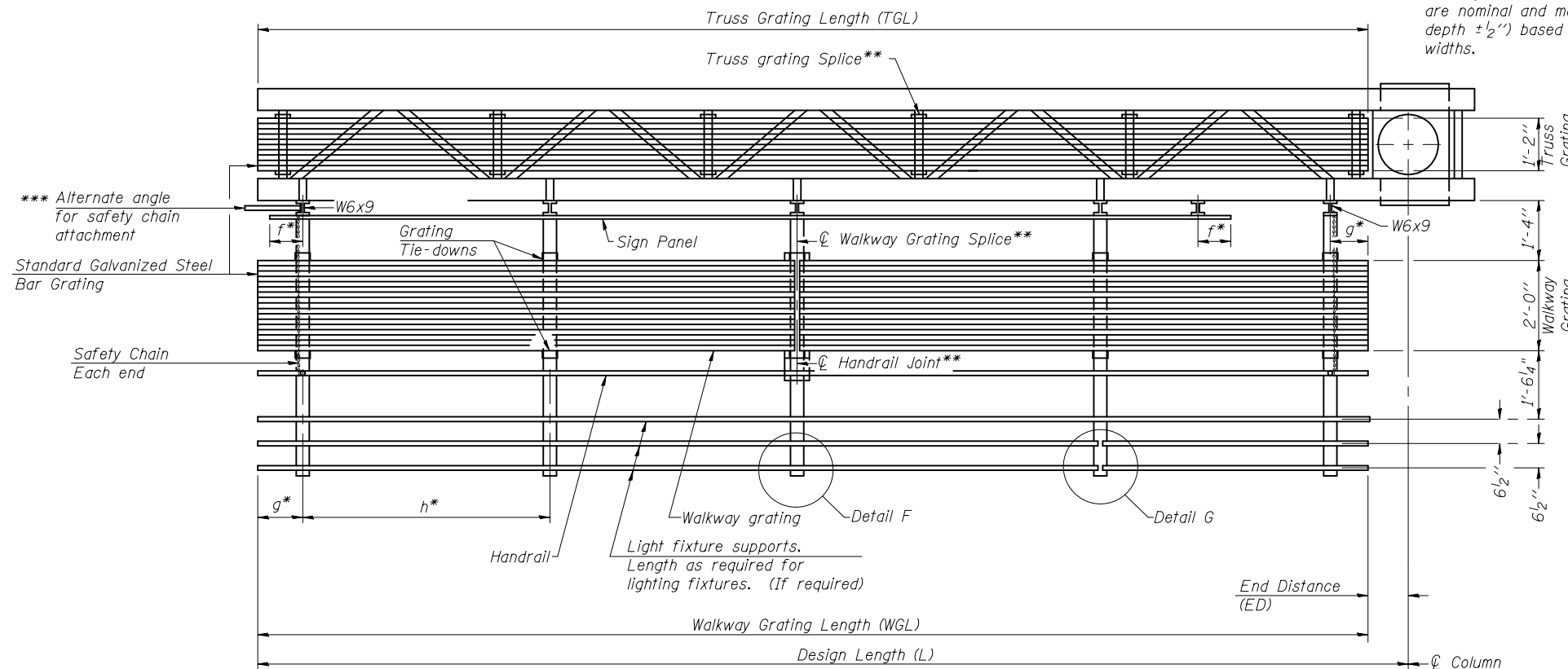
With lights and handrail omitted for clarity.



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

Structure Number	Station	WGL	ED	TGL

Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth ±1/2") based on available standard widths.



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in "Overhead Sign Structure Cantilever".

Handrail and walkway grating shall span a minimum of three brackets between splices.
** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6'' \right)$$

Notes:

* Space 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 to center of nearest bracket)
h = 6'-0" maximum (center to center sign and/or walkway support brackets, W6x9)

*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-S-8.
For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-S-7.
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-S-8.

BRACKET TABLE

W6x9		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	10'-0"	2
10'-0"	16'-0"	3
16'-0"	22'-0"	4
22'-0"	28'-0"	5
28'-0"	34'-0"	6

OSC-S-6

6-1-12

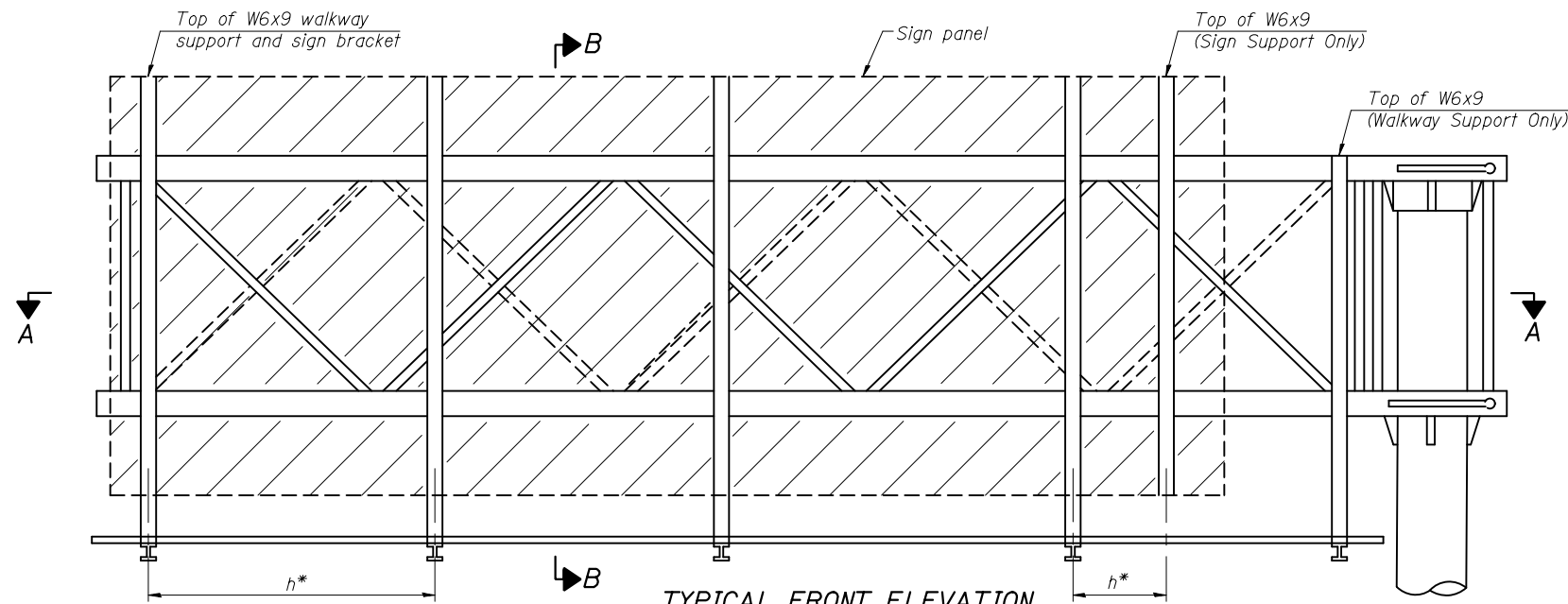
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

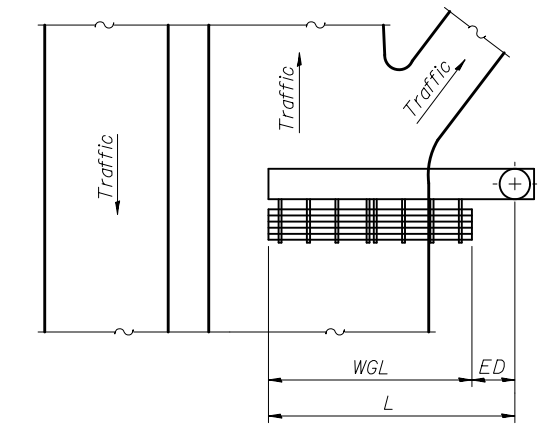
**CANTILEVER SIGN STRUCTURES - WALKWAY DETAILS
STEEL TRUSS & STEEL POST**

SHEET NO. OF SHEETS

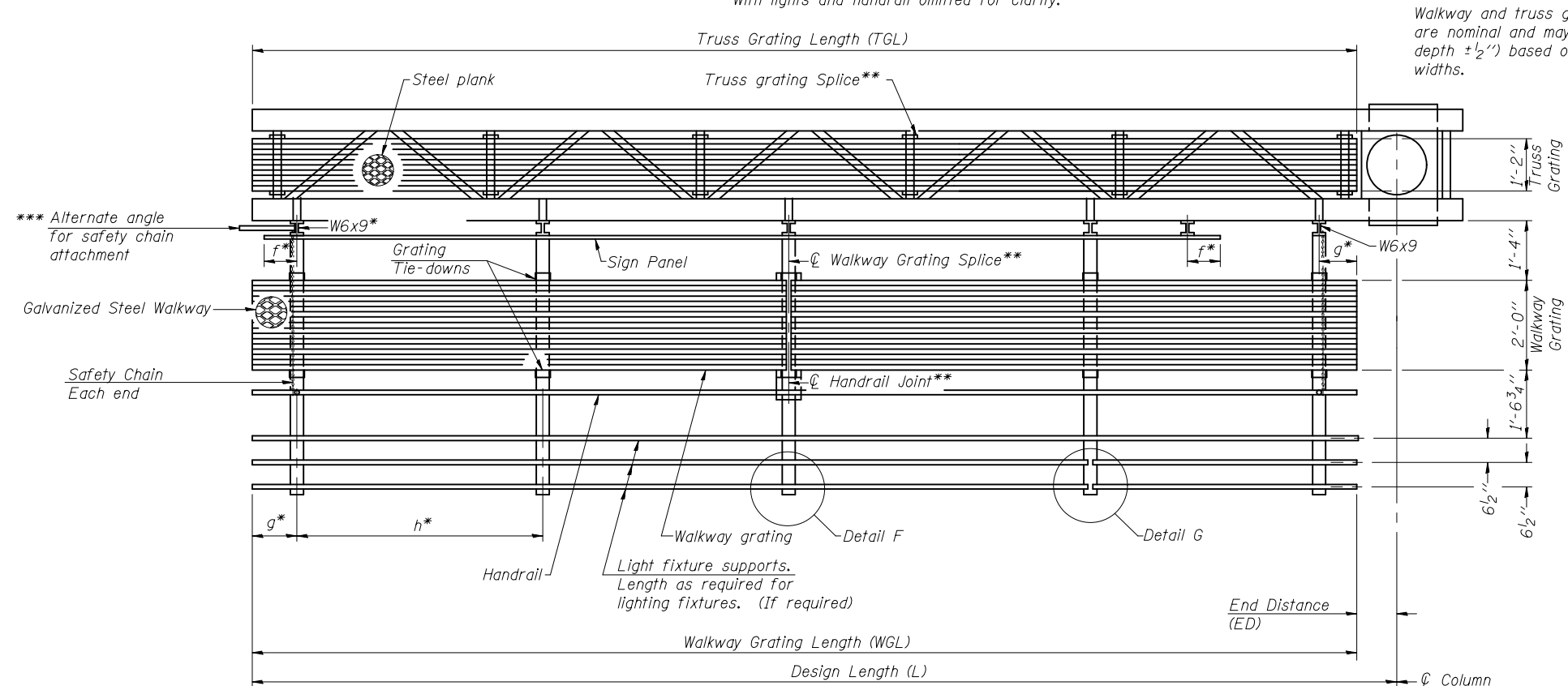
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.



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



SECTION A-A

Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth ±1/2") based on available standard widths.

Structure Number	Station	WGL	ED	TGL

Notes:
 * Space 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 to center of nearest bracket)
 h = 6'-0" maximum (center to center sign and/or walkway support brackets, W6x9)
 *** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-S-8.
 For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-S-7S.
 For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-S-8.

BRACKET TABLE

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

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in "Overhead Sign Structure Cantilever".

Handrail and walkway grating shall span a minimum of three brackets between splices.
 ** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.
 $TGL = L - (\frac{Post\ O.D.}{2} + 6")$

OSC-S-6S

6-1-12

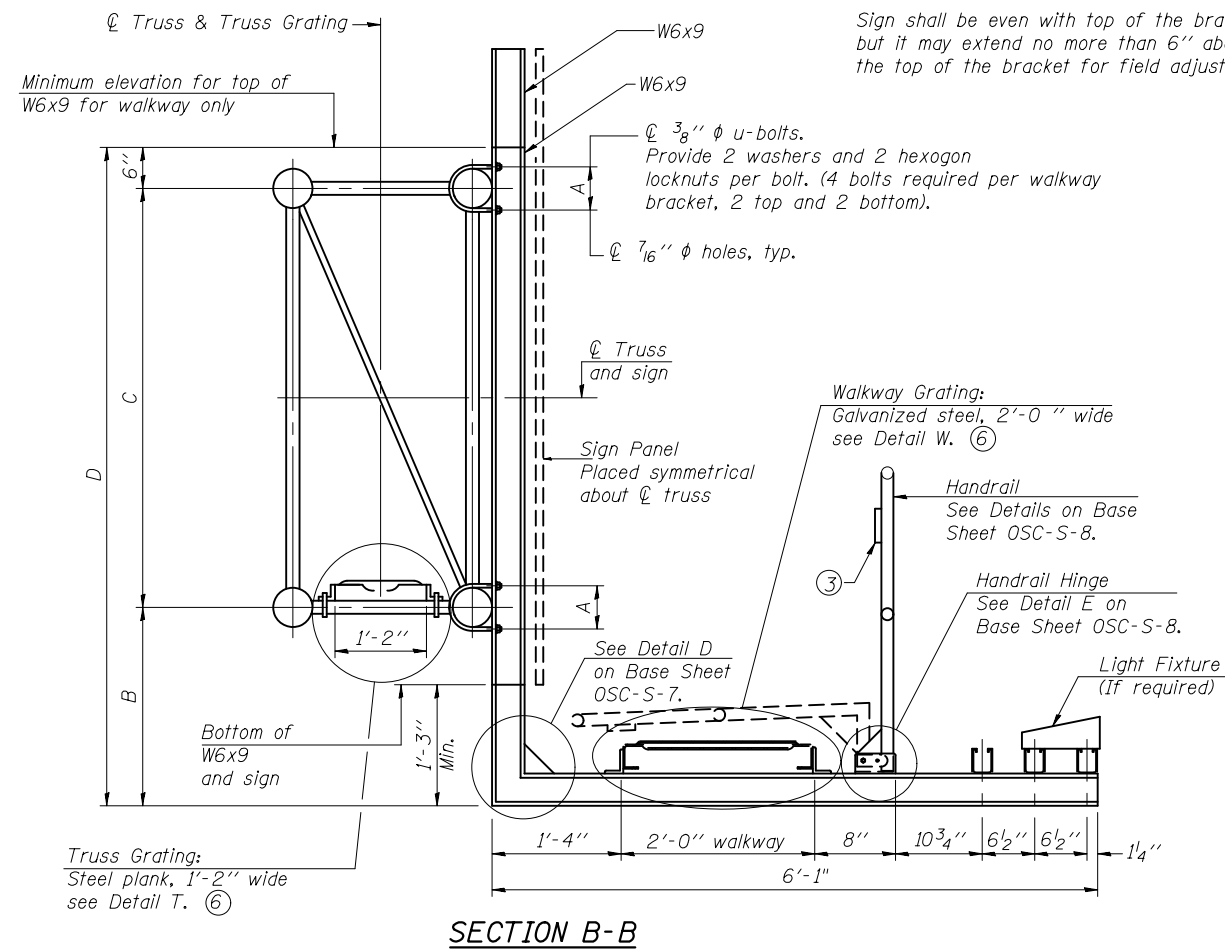
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

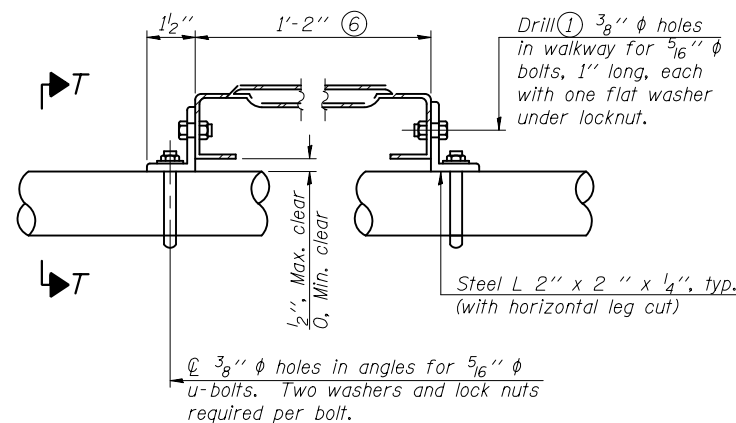
**CANTILEVER SIGN STRUCTURES - ALTERNATE STEEL
WALKWAY DETAILS - STEEL TRUSS & STEEL POST**

SHEET NO. OF SHEETS

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

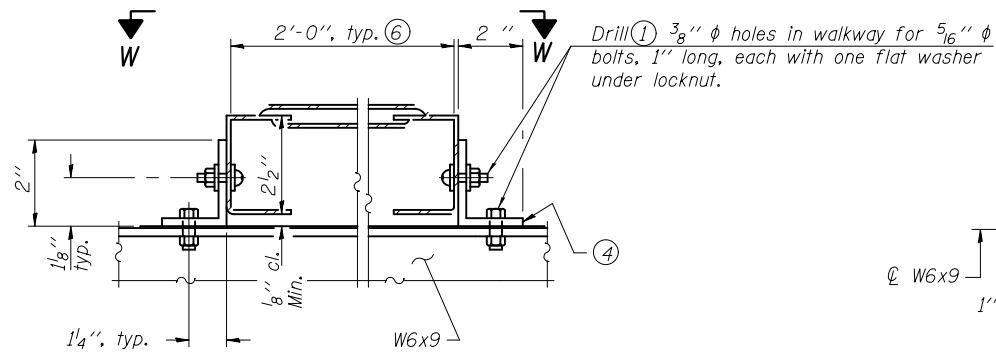


SECTION B-B

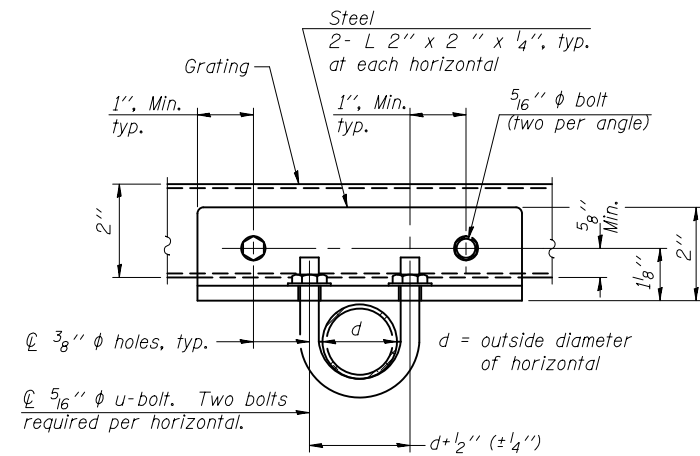


DETAIL T

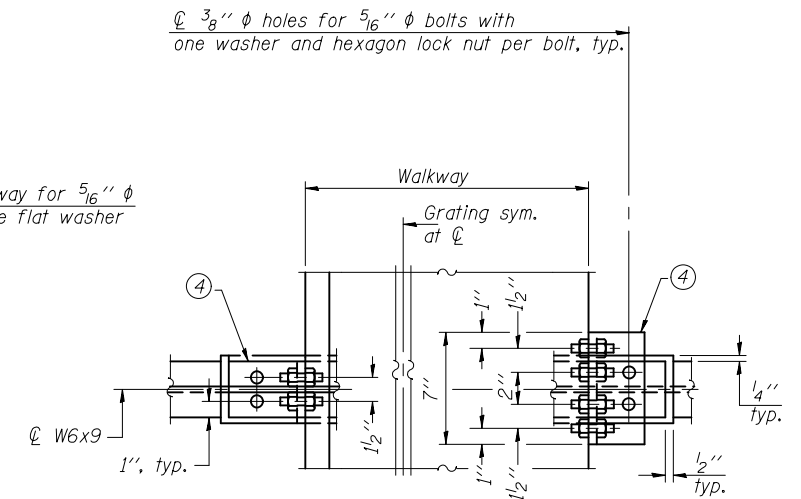
(Truss Grating at Horizontal)



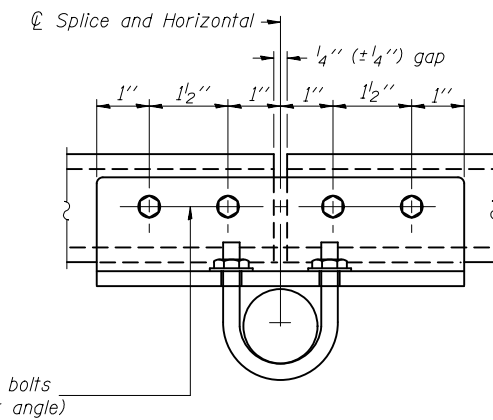
DETAIL W
GALVANIZED STEEL WALKWAY GRATING



SECTION T-T
(Truss Grating Continuous)



WALKWAY GRATING CONTINUOUS AT WALKWAY GRATING SPLICE
SECTION W-W



SECTION T-T
(Truss grating splice)

Details not shown same as Section T-T. Alternate splice details and locations may be used subject to the Engineer's review and approval.

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

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② When truss grating must be spliced, use suggested details or other methods in accord with grating manufacturer's recommendation and subject to the Engineer's review and approval.
- ③ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ④ Galvanized steel L 2" x 2" x 1/4", 3 1/2" long with continuous grating 7" long at grating splice.
- ⑤ Details shown are considered equal alternatives to Standard Steel Walkway Details and may be substituted by Contractor at no charge in contract cost.
- ⑥ Perforated or expanded metal grating providing a skid resistant (non-serrated) surface and capable of supporting a 500 pound concentrated load with a 6'-0" clear span. Walkway and truss grating dimensions are nominal and may vary (width ± 1/2", depth ± 1/2") based on available standard sizes. Cut ends of grating shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.
- ⑦ Based on actual sign height, D_s, given on OSC-S-1.

STEEL TRUSS GRATING

Structure Number	Station	A	⑦ B	C	⑦ D

OSC-S-7S

6-1-12

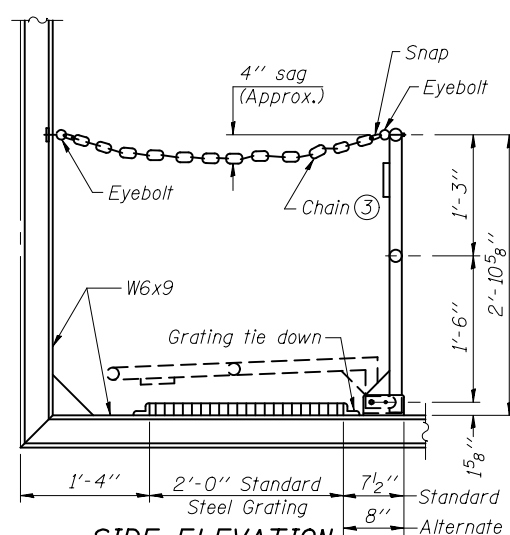
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CANTILEVER SIGN STRUCTURES
ALTERNATE WALKWAY DETAILS

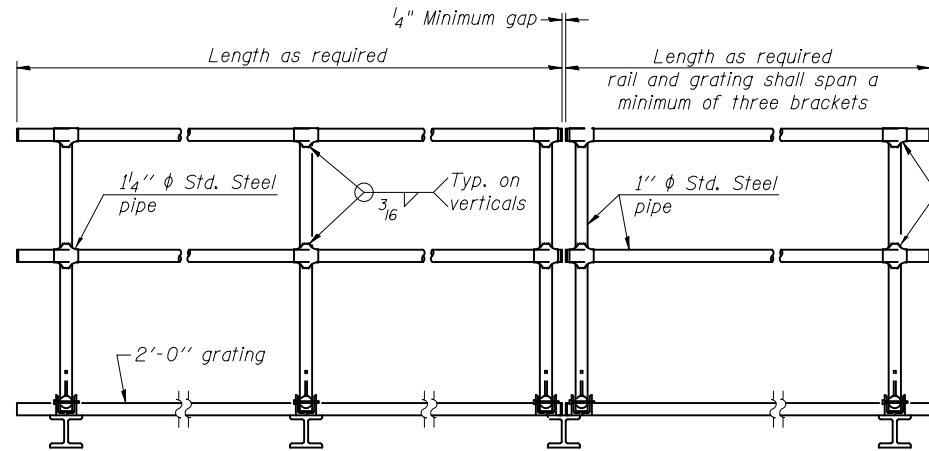
SHEET NO. OF SHEETS

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



SIDE ELEVATION

(Showing Safety Chain W/O Sign)

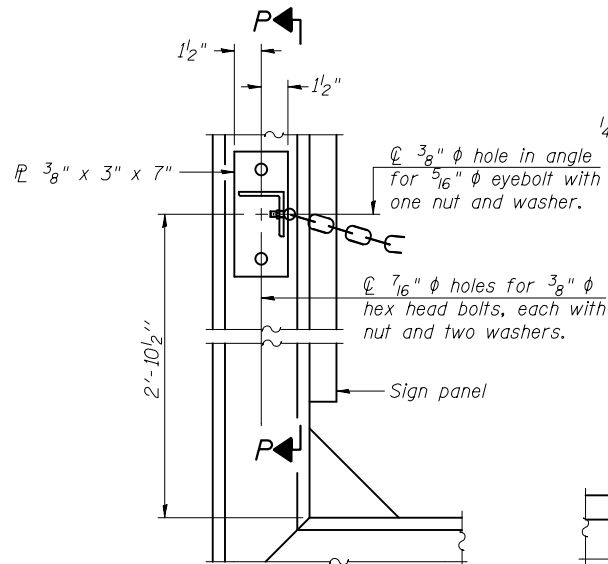
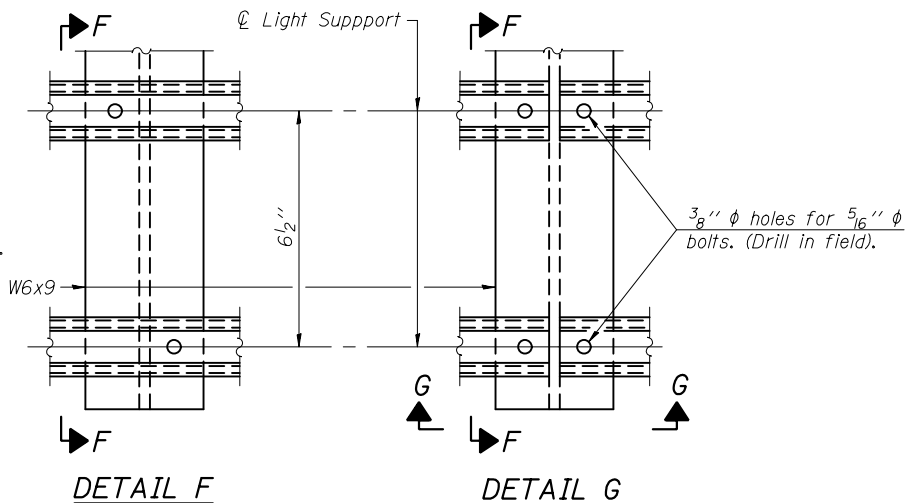


FRONT ELEVATION

HANDRAIL DETAILS

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)

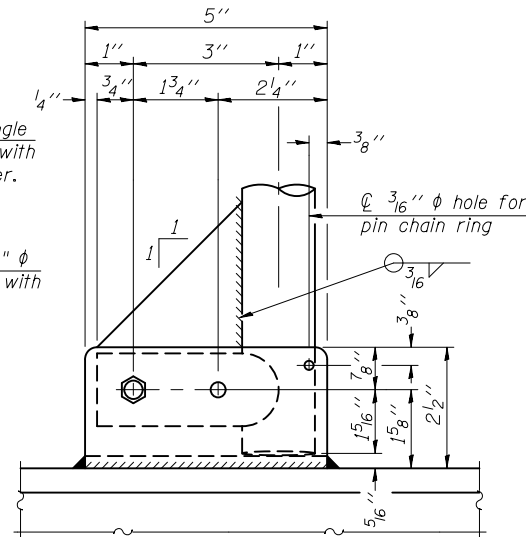
② Horizontal handrail member shall be continuous thru 1 1/4" φ pipe. Provide 7/16" φ hole in 1 1/4" φ pipe for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" φ holes on top rail at ends only.)



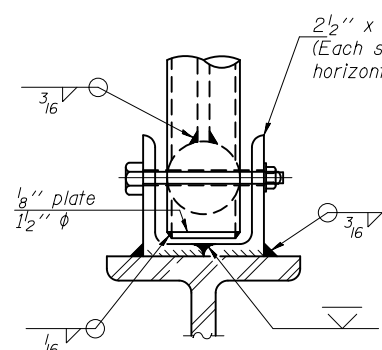
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

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

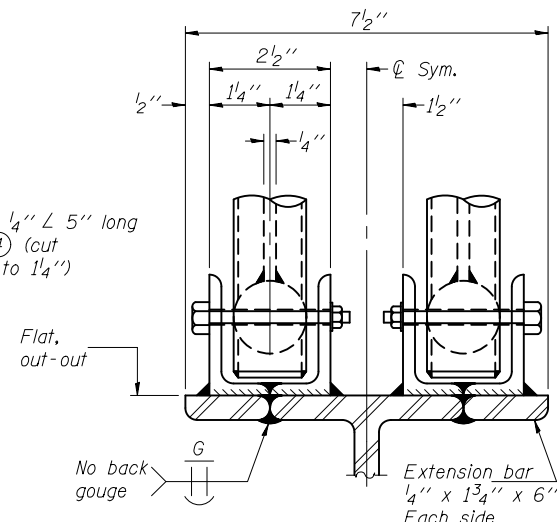


SIDE ELEVATION



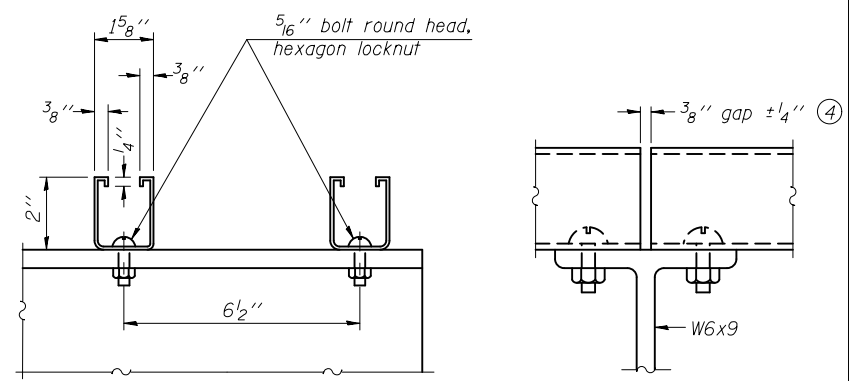
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.



ELEVATION AT HANDRAIL JOINT

Details not shown same as "FRONT ELEVATION"

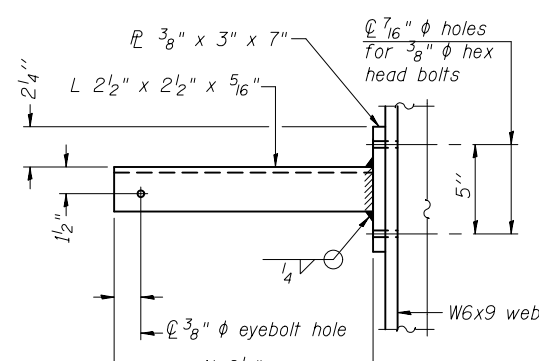


SECTION F-F

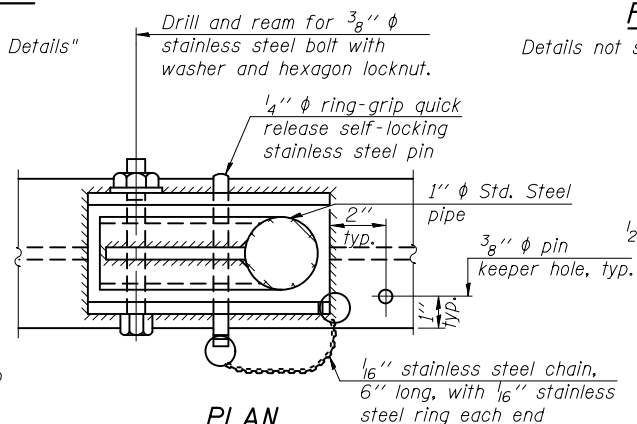
SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

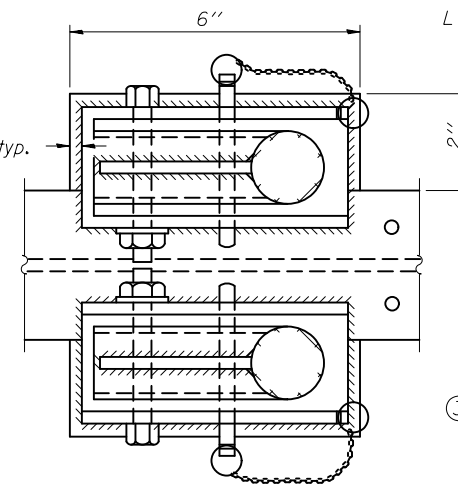
④ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



SECTION P-P

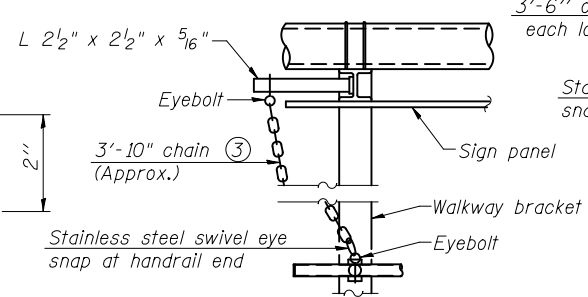


**PLAN
DETAIL E HANDRAIL HINGE**



PLAN AT HANDRAIL JOINT

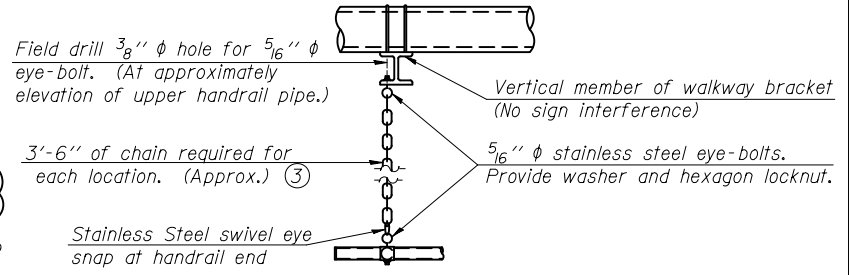
Details not shown same as "PLAN"



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.

OSC-S-8

6-1-12

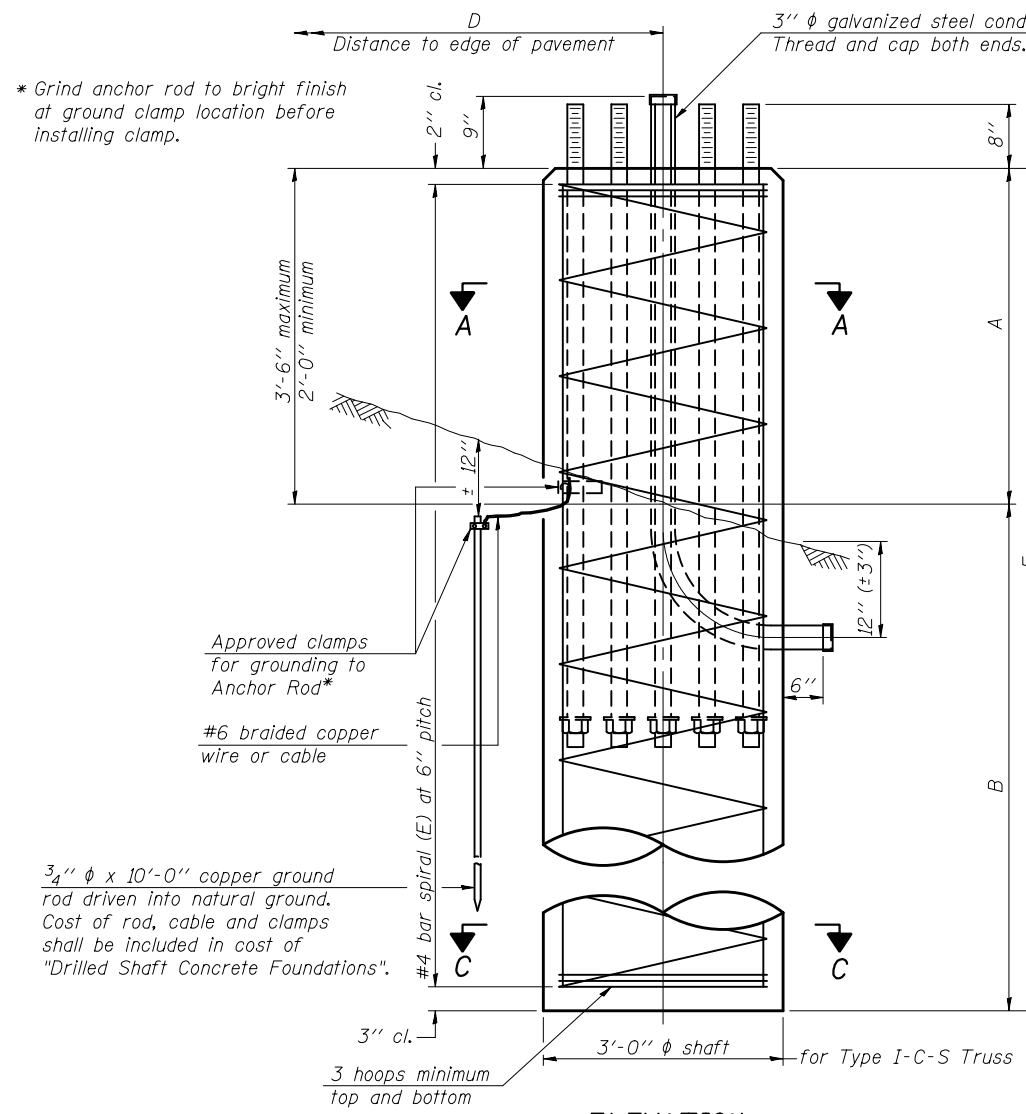
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STATE OF ILLINOIS
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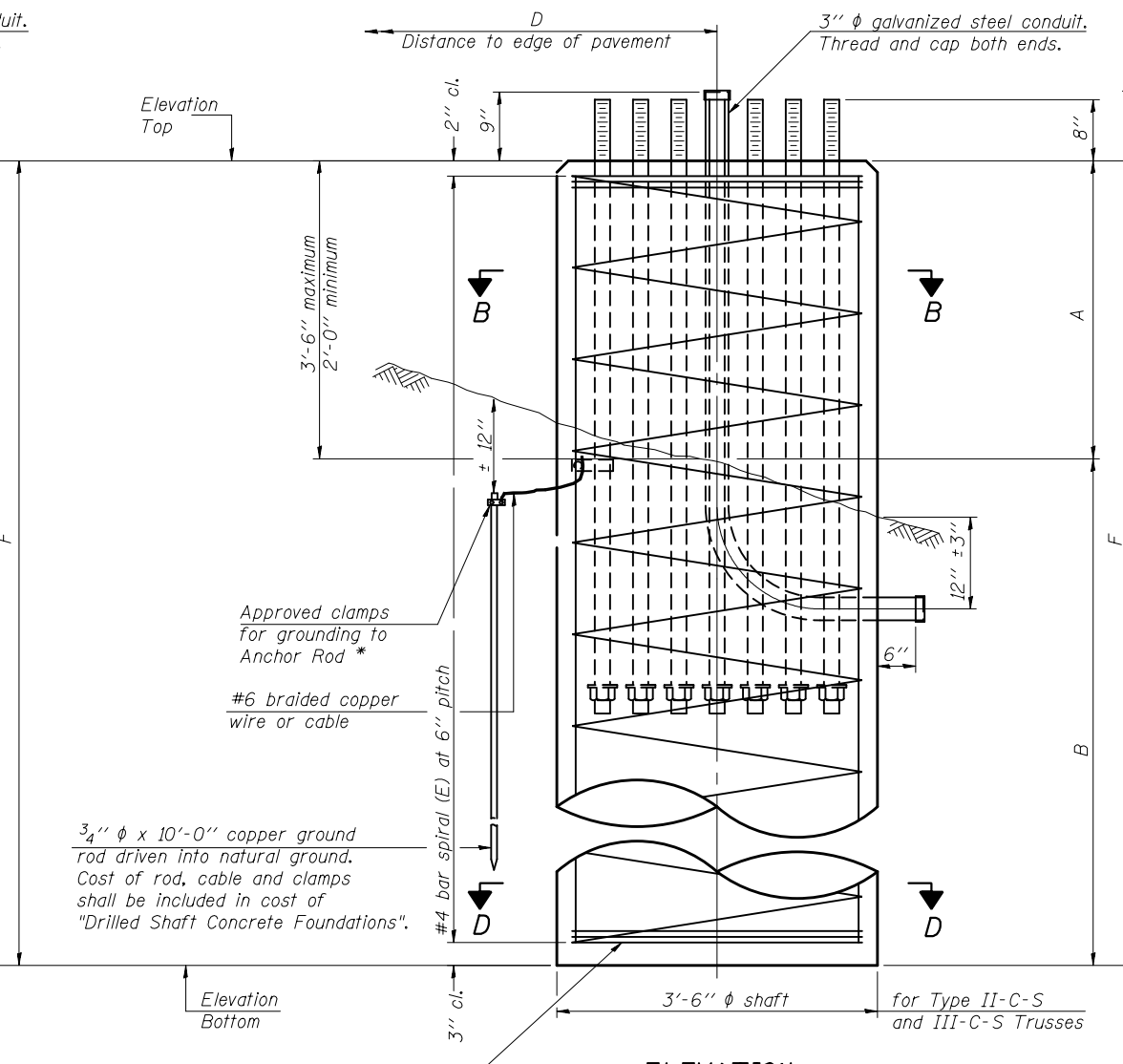
CANTILEVER SIGN STRUCTURES - HANDRAIL DETAILS
STEEL TRUSS & STEEL POST

SHEET NO. OF SHEETS

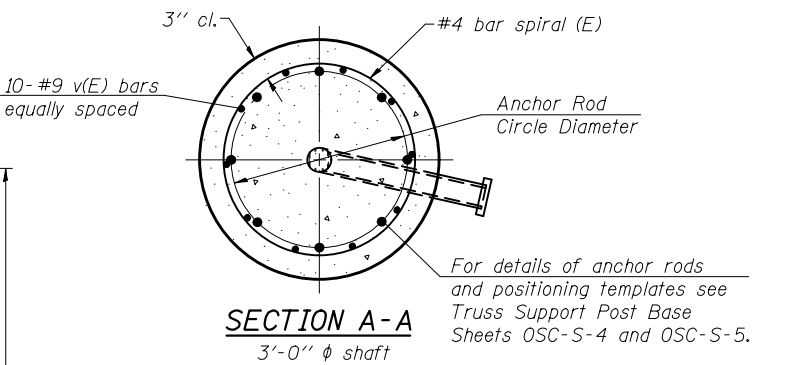
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				CONTRACT NO.
ILLINOIS FED. AID PROJECT				



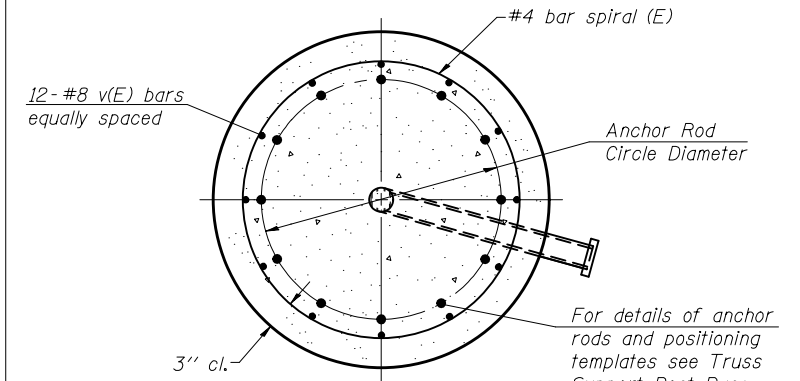
ELEVATION



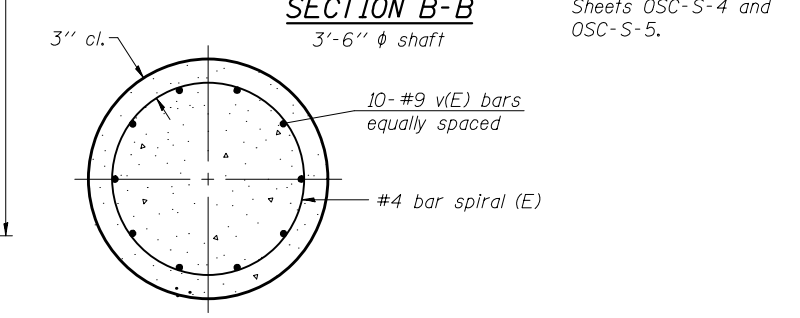
ELEVATION



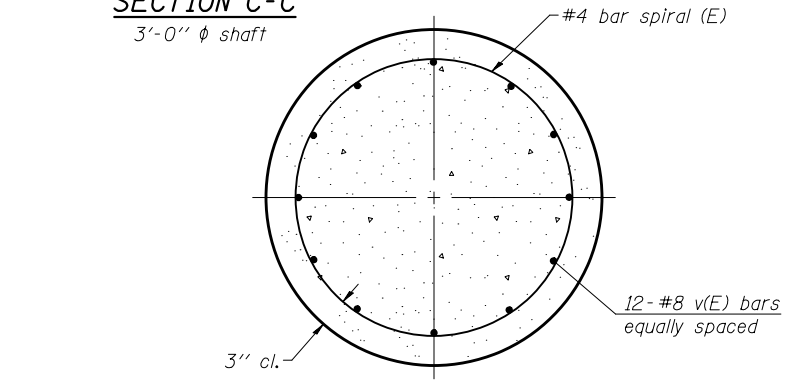
SECTION A-A
3'-0" ϕ shaft



SECTION B-B
3'-6" ϕ shaft



SECTION C-C
3'-0" ϕ shaft



SECTION D-D
3'-6" ϕ shaft

NOTES:
 The foundation details shown are based on common cohesive soil conditions (silty or sandy clay) with an average $Q_u \geq 1.25$ ton/sq. ft. for all strata within the "B" portion of the foundation. " Q_u ", the soil's unconfined compressive strength, shall be determined by the Engineer from either hand penetrometer readings during construction or previous soil investigations at the site. For lower soil strengths or different soil types, the Engineer shall review pertinent data and determine any required revisions to the diameter, depth, reinforcement or configuration of the foundation. If changes are required by the Engineer, or if dimensions "B" and "F" are increased more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference. Actual "B", "Elevation Bottom", and average " Q_u " values shall also be entered in the table on this sheet for permanent reference.
 No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineers' written permission. Excavations shall be dewatered before concrete placement if directed by the Engineer at no additional cost.
 Concrete shall be placed monolithically, without construction joints.
 Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
 A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

FOUNDATION DATA								
Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-S	OSC-S-4	25	170	3.0	15.5	8	2	22
II-C-S	OSC-S-5	30	170	3.5	15.0	12	2	30
II-C-S	OSC-S-5	30	340	3.5	21.5	12	2	30
III-C-S	OSC-S-5	35	170	3.5	19.0	12	2	30
III-C-S	OSC-S-5	35	250	3.5	22.5	12	2	30
III-C-S	OSC-S-5	35	400	3.5	26.5	12	2	30
III-C-S	OSC-S-5	40	400	3.5	30.0	12	2	30

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Q_u	A	B	F	Class DS Concrete Cubic Yards

$F = A + B$

OSC-S-9

6-1-12

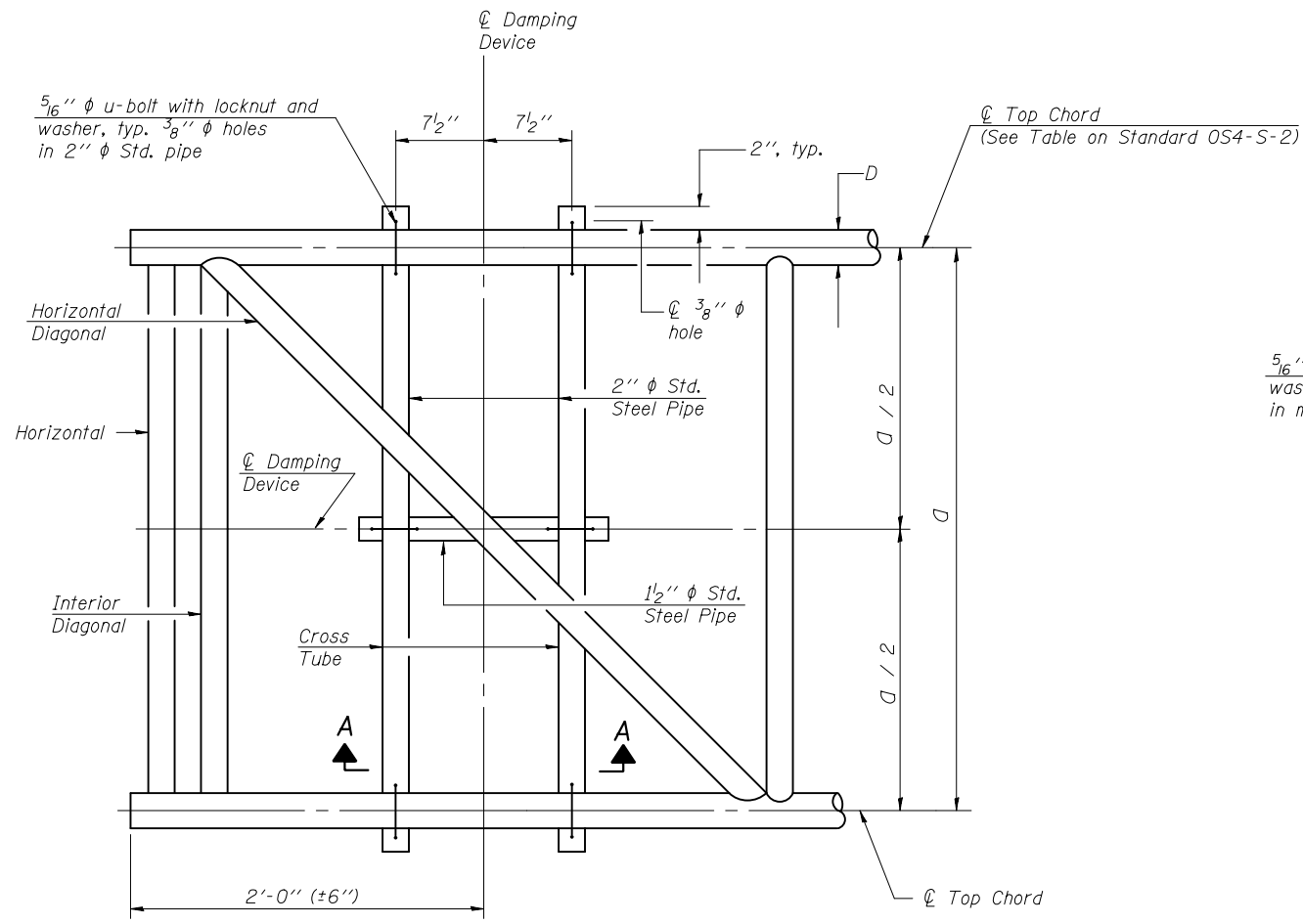
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STATE OF ILLINOIS
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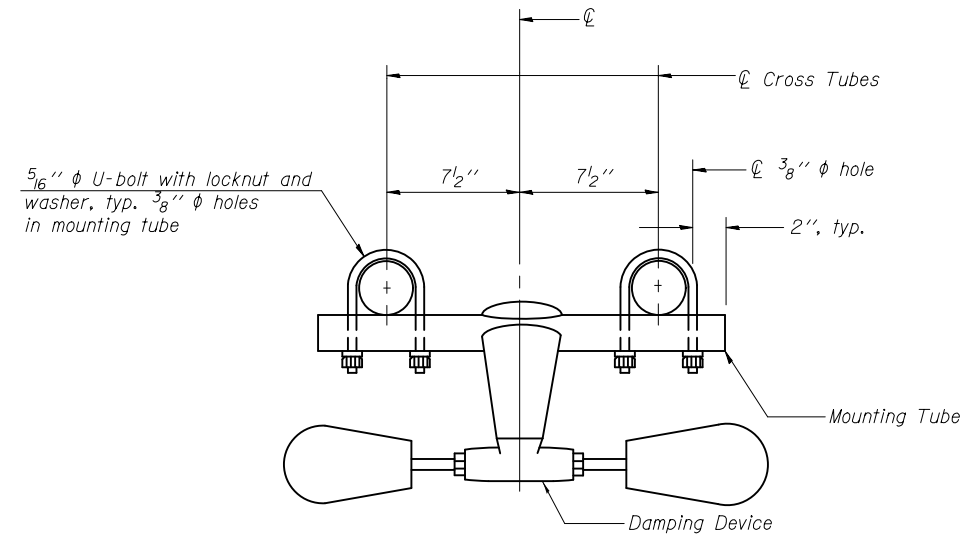
CANTILEVER SIGN STRUCTURES - DRILLED SHAFT
STEEL TRUSS & STEEL POST

SHEET NO. OF SHEETS

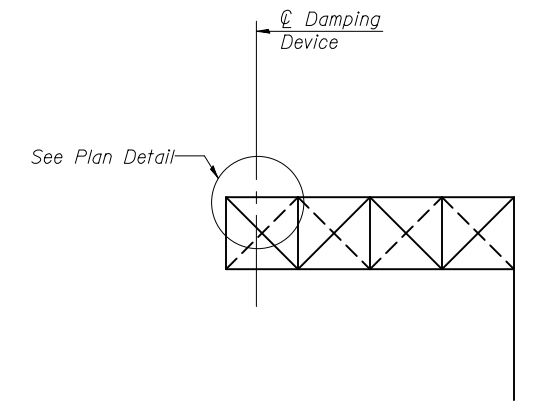
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
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PLAN DETAIL

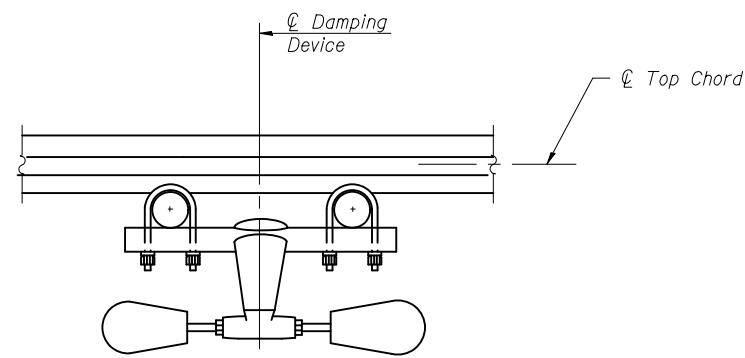


**TRUSS DAMPING
DEVICE CONNECTION DETAIL**

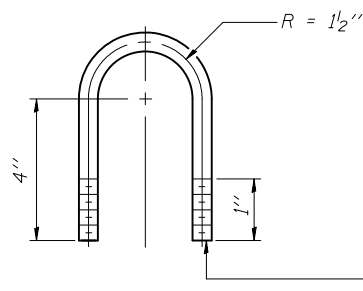


ELEVATION
Steel Cantilever
Sign Structure

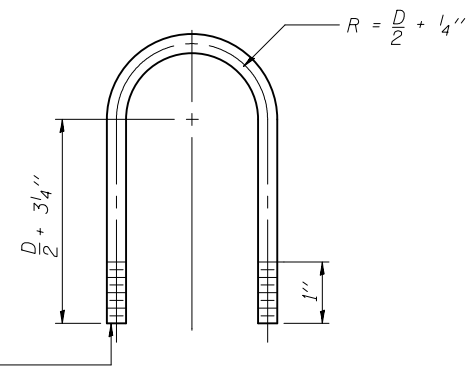
GENERAL NOTES
Damper: One damper per truss. (31 Lbs. Stockbridge-Type - 29" minimum between ends of weights)



SECTION A-A



**DAMPING DEVICE MOUNTING
TUBE U-BOLT DETAIL**
(Typical)



**TOP CHORD TO CROSS TUBE
U-BOLT DETAIL**
(Typical)

OSC-S-D

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**

**CANTILEVER SIGN STRUCTURES
DAMPING DEVICE**

SHEET NO. OF SHEETS

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