

09-21-12 LETTING ITEM 001

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

VARIOUS ROUTES  
D-2 OVD SIN STR REPL 13-01  
VARIOUS COUNTIES  
C-60-001-13

INDEX OF SHEETS

<u>NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3-25	SCHEDULE OF LOCATIONS FOR DISTRICT 2

<u>STANDARDS</u>	
701006-03	635001-01
701101-02	635006-03
701106-02	635011-02
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701301-04	
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701411-08	
701446-03	
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720021-02	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED May 23 2012  
PASSED

Justin Mann / [Signature]  
ENGINEER OF OPERATIONS

August 17 2012  
John D. Baranzelli, P.E. / [Signature]  
actg ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED August 17 2012  
William R. Fry / [Signature]  
actg DIRECTOR DIVISION OF HIGHWAYS

JOINT UTILITY LOCATING INFORMATION FOR  
EXCAVATIONS PHONE: 800-892-0123

CONTRACT NO. 46214

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-2 OVD SIN STR REPL 13-01	Various	25	1
		DRAWN -	REVISED -		CONTRACT NO. 46214				
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT				

0040  
100% STATE

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	SIGN 40 SITE 2-01	SIGN 41 SITE 2-02	SIGN 63 SITE 2-03	SIGN 78 SITE 2-04	SIGN 120 SITE 2-05
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	262.5				262.5	
* 63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1	EACH	3				3	
* 63302000	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 2	EACH	2				2	
67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.2	0.2	0.2
73300100	OVERHEAD SIGN STRUCTURE-SPAN, TYPE I-A (4'-0" X 4'-6")	FOOT	136				86	50
73301810	OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	168	25	25	30	42	46
73302210	OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE III-C-A (36' X 7'-0")	FOOT	105	35	35	35		
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	46.4	9	8	9	20.4	
73600100	REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	2				1	1
73600200	REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	3	1	1	1		
73700300	REMOVE CONCRETE FOUNDATIONS-OVERHEAD	EACH	5	1	1	1	2	
X0325265	REMOVE ELECTRIC SERVICE	EACH	5	1	1	1	1	1
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.2	0.2	0.2	0.2	0.2
X7240195	REMOVE EXISTING SIGN PANEL	EACH	7	1	1	1	2	2
72000300	SIGN PANEL - TYPE 3	SQFT	1439	245	161	225	476	332

\* Specialty Items

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Summary of Quantities

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIN STR REPL 15-01	Various	25	2
			CONTRACT NO. 46214	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

*District 2*  
*Schedule of Overhead Sign Structure Repair & Replacement*

Location No.:	2-01	State I.D. No.:	2C071039R097.2		
County:	Ogle	Route:	I-39	M.P.:	Direction: NB
Description of Work	Unit	Quantity			
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE IIIA (3' X 7')	FOOT	35.00			
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	9.00			
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00			
REMOVE CONCRETE FOUNDATIONS OVERHEAD	EACH	1.00			
REMOVE ELECTRIC SERVICE	EACH	1.00			
REMOVE EXISTING SIGN PANEL	EACH	1.00			
SIGN PANEL-TYPE 3	SQ FT	245.00			
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	25.00			

Location No.:	2-02	State I.D. No.:	2C071039L097.1		
County:	Ogle	Route:	I-39	M.P.:	Direction: SB
Description of Work	Unit	Quantity			
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE IIIA (3' X 7')	FOOT	35.00			
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	8.00			
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00			
REMOVE CONCRETE FOUNDATIONS OVERHEAD	EACH	1.00			
REMOVE ELECTRIC SERVICE	EACH	1.00			
REMOVE EXISTING SIGN PANEL	EACH	1.00			
SIGN PANEL-TYPE 3	SQ FT	161.00			
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	25.00			

Location No.:	2-03	State I.D. No.:	2C081074L003.6		
County:	Rock Island	Route:	I-74	M.P.:	Direction: NB
Description of Work	Unit	Quantity			
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE IIIA (3' X 7')	FOOT	35.00			
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	9.00			
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00			
REMOVE CONCRETE FOUNDATIONS OVERHEAD	EACH	1.00			
REMOVE ELECTRIC SERVICE	EACH	1.00			
REMOVE EXISTING SIGN PANEL	EACH	1.00			
SIGN PANEL-TYPE 3	SQ FT	225.00			
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	30.00			

Location No.:	2-04	State I.D. No.:	2S0371074L015.2		
County:	Henry	Route:	I-74	M.P.:	Direction: NB
Description of Work	Unit	Quantity			
OVERHEAD SIGN STRUCTURE-SPAN TYPE 1A	FEET	86.00			
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	20.40			
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00			
REMOVE CONCRETE FOUNDATIONS OVERHEAD	EACH	2.00			
REMOVE ELECTRIC SERVICE	EACH	1.00			
REMOVE EXISTING SIGN PANEL	EACH	2.00			
SIGN PANEL-TYPE 3	SQ FT	476.00			
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FEET	42.00			
STEEL PLATE BEAM GUARDRAIL, TYPE A	FEET	262.50			
REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE	EACH	3.00			
REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE	EACH	2.00			

Location No.:	2-05	State I.D. No.:	2S0371074R012.7		
County:	Henry	Route:		M.P.:	Direction:
Description of Work	Unit	Quantity			
OVERHEAD SIGN STRUCTURE-SPAN TYPE 1A	FEET	50.00			
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00			
REMOVE ELECTRIC SERVICE	EACH	1.00			
REMOVE EXISTING SIGN PANEL	EACH	2.00			
SIGN PANEL-TYPE 3	SQ FT	332.00			
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FEET	46.00			

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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIGN STR REPL I3-01	Various	25	3
CONTRACT NO. 46214				
[ILLINOIS] FED. AID PROJECT				

**GENERAL NOTES**

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:

Field Units

$f'_c = 3,500$  p.s.i.

$f_y = 60,000$  p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W\*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

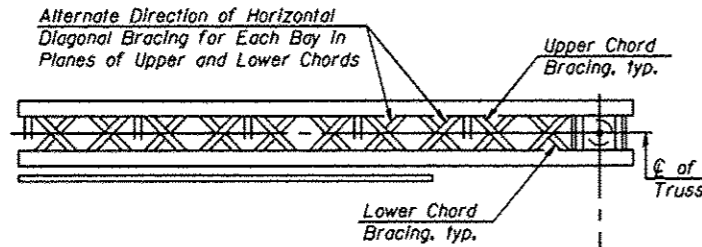
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

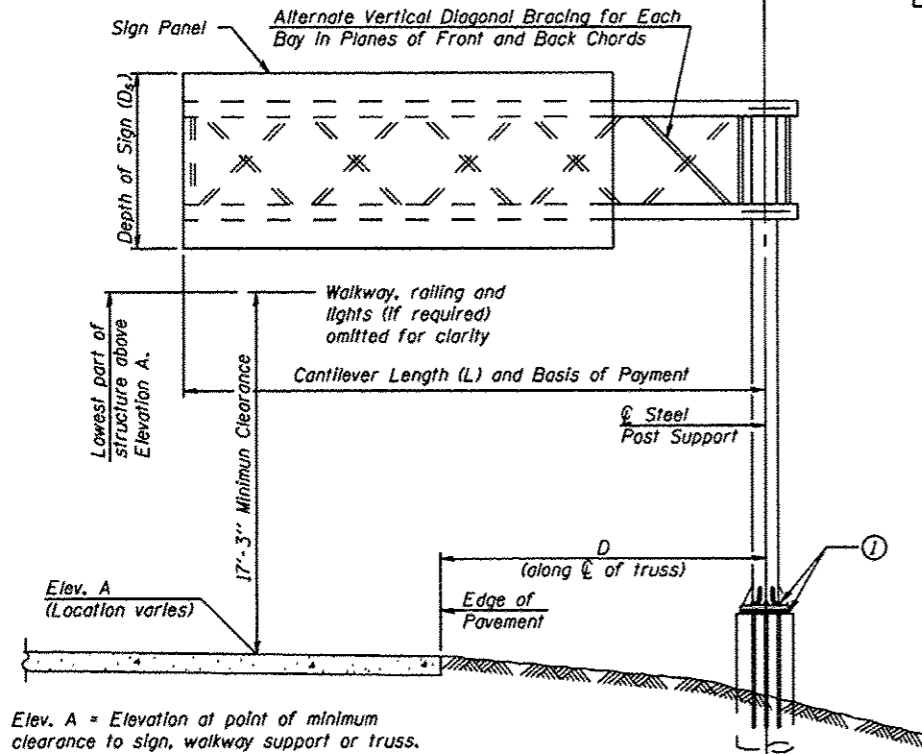
FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D <sub>s</sub>	Total Sign Area
2C0711039R097.2	1411 + 85	III-C-A	35'-0"	830.65'	20'-0"	12'-0"	245 sq ft
2C0711039L097.1	1406 + 15	III-C-A	35'-0"	833.20'	20'-0"	10'-0"	161 sq ft
2C0811074L003.6	417 + 25	III-C-A	35'-0"	577.5'	14'-0"	12'-0"	225 sq ft

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



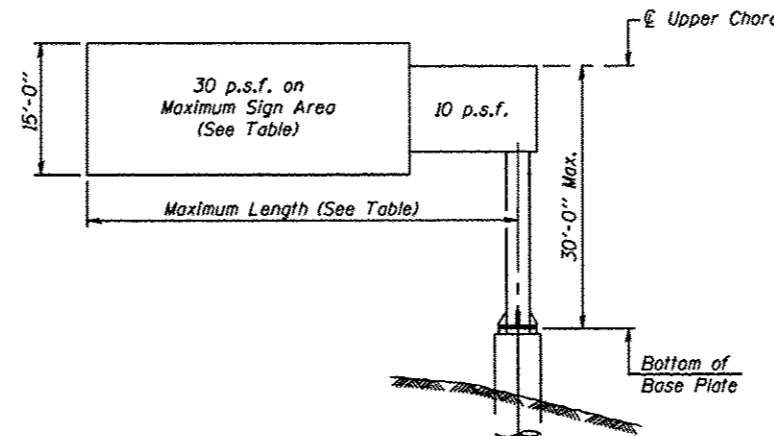
TYPICAL PLAN  
(Walkway not shown)



TYPICAL ELEVATION  
Looking in Direction of Traffic

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.



**DESIGN WIND LOADING DIAGRAM**

Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

**Note:**

Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

① After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

• If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	

OSC-A-1

9-15-11

FILE NAME	USER NAME	DESIGNED	REVISED

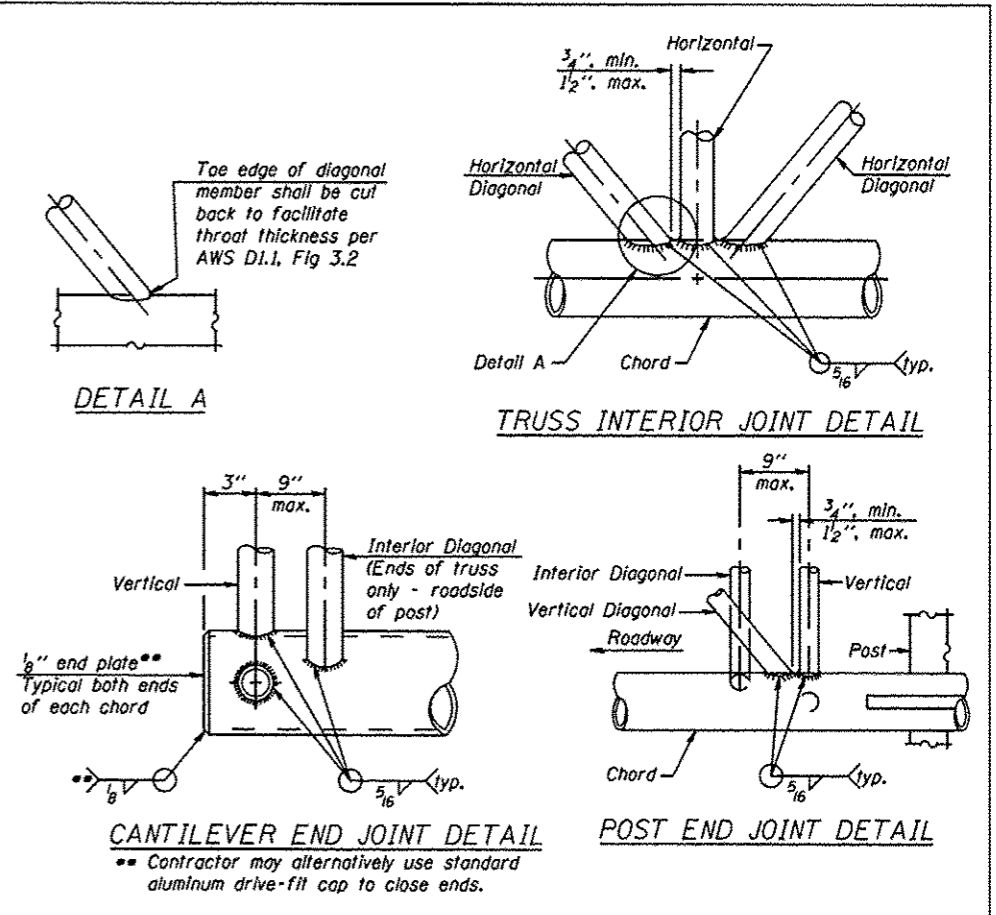
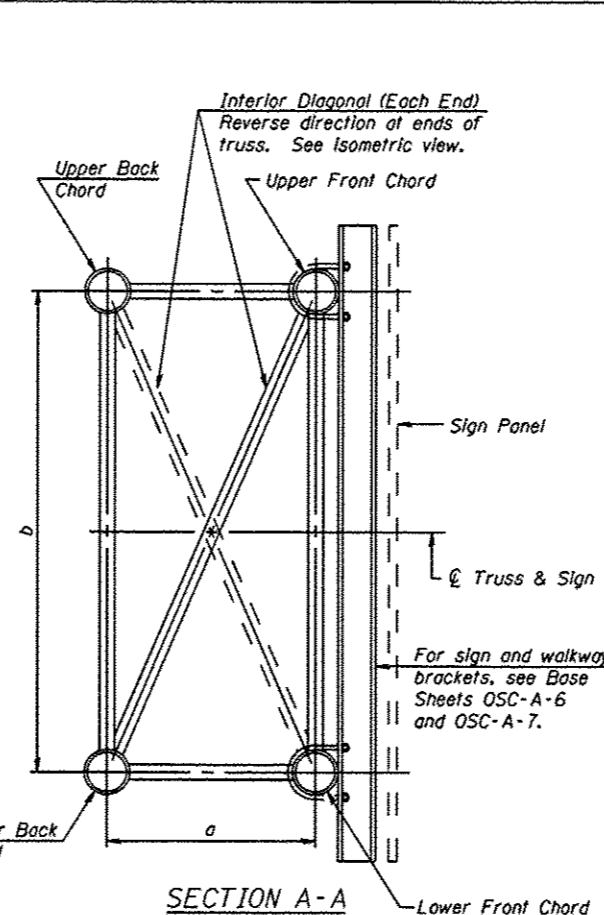
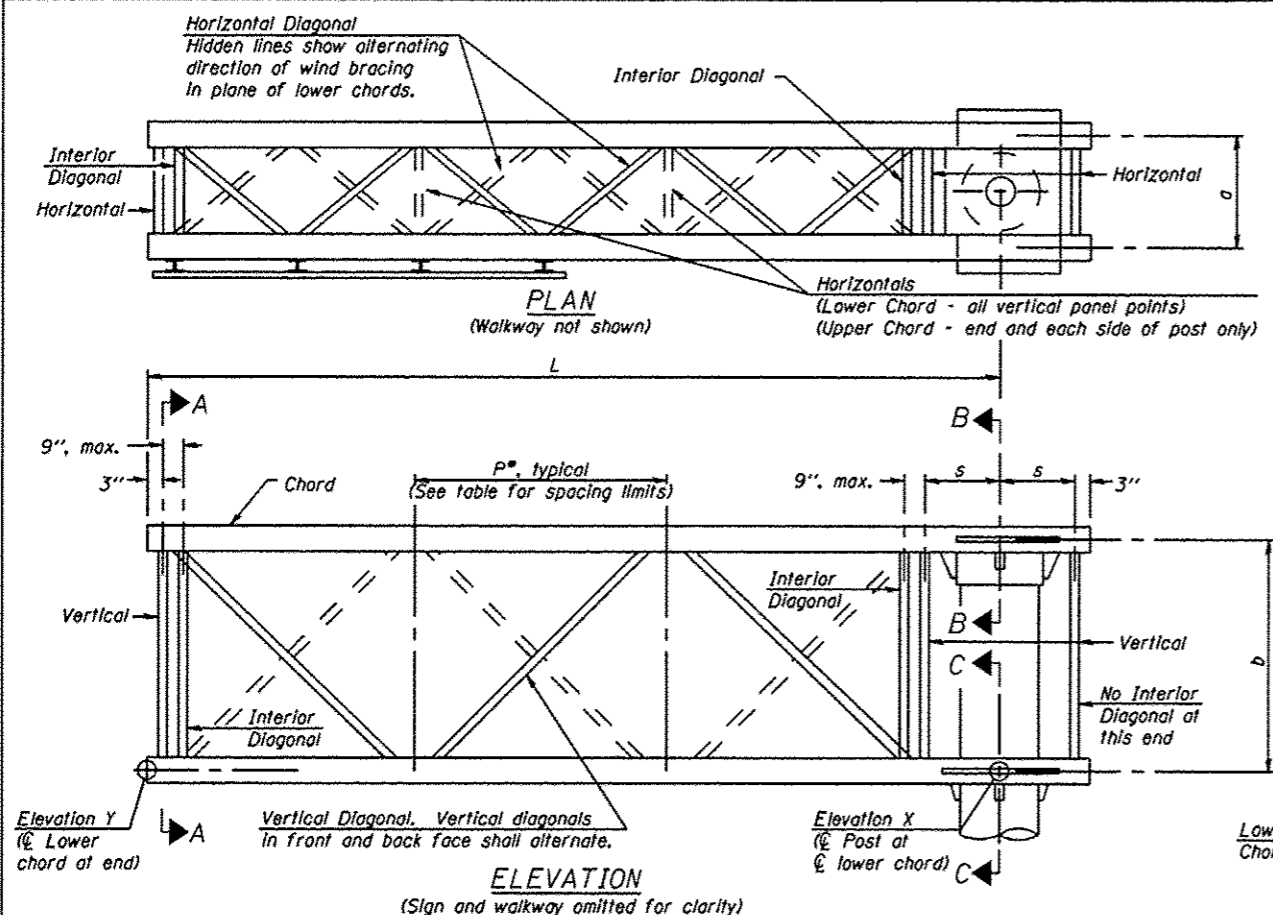
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - GENERAL PLAN & ELEVATION  
ALUMINUM TRUSS & STEEL POST

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

CONTRACT NO. 46214

ILLINOIS FED. AID PROJECT



Note:

For Section B-B and Section C-C, see Base Sheet OSC-A-3.

There are twice as many horizontal diagonals as there are vertical diagonals.

**TRUSS UNIT TABLE**

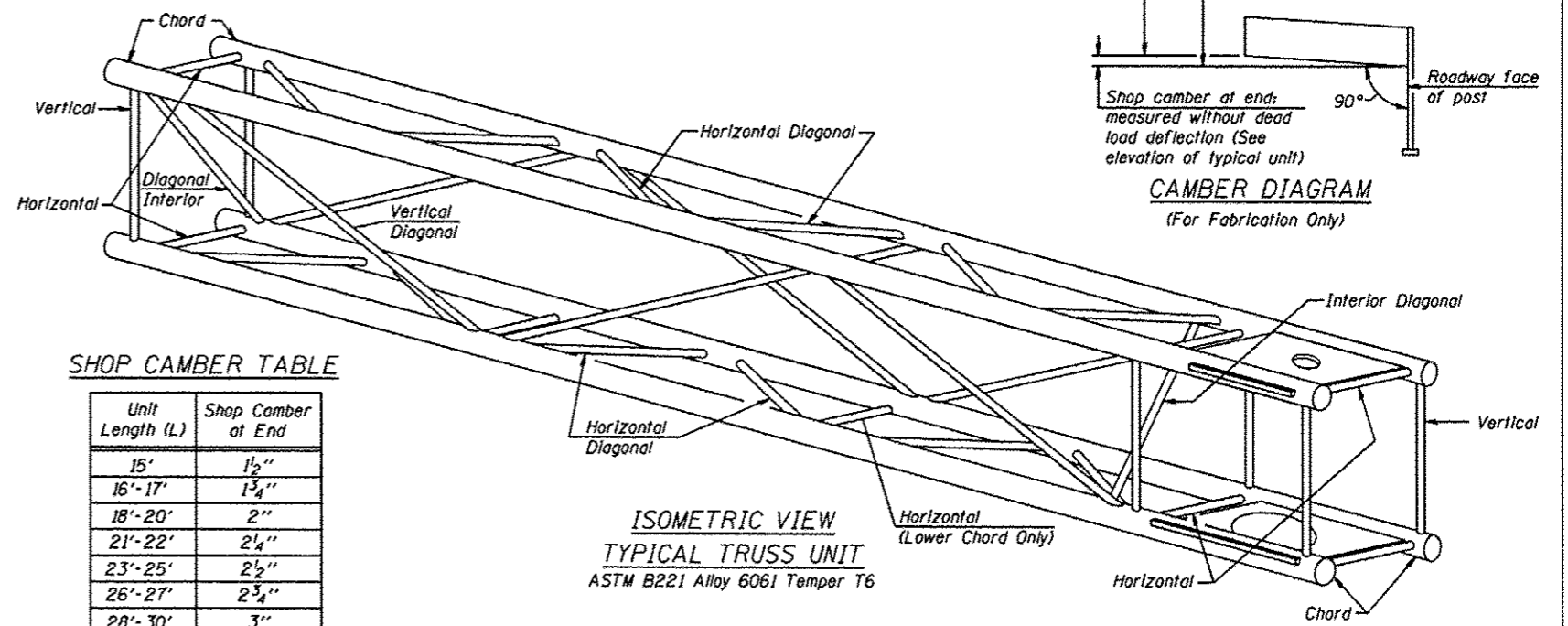
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord				Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals			
					O.D.	Wall	O.D.	Wall	O.D.	Wall	O.D.	Wall
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"				
II-C-A	36"	66"	21"	42" min. to 54" max.	6 1/2"	5/16"	3 1/4"	5/16"				
III-C-A (35' Max.)	36"	84"	21"	48" min. to 66" max.	7"	3/8"	3 1/2"	3/8"				
III-C-A (>35' to 40')	36"	84"	21"	48" min. to 66" max.	8"	3/8"	3 1/2"	3/8"				

$$*P = \frac{L \cdot s \cdot 3''}{\# \text{ Panels}}$$

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
2C0711039R097.2	1411 + 95	III-C-A	35'-0"	6	5' - 6"
2C0711039L097.1	1406 + 15	III-C-A	35'-0"	6	5' - 6"
2C0811074L003.6	417 + 25	III-C-A	35'-0"	6	5' - 6"

**SHOP CAMBER TABLE**

Unit Length (L)	Shop Camber at End
15'	1 1/2"
16'-17'	1 3/4"
18'-20'	2"
21'-22'	2 1/4"
23'-25'	2 1/2"
26'-27'	2 3/4"
28'-30'	3"
31'-32'	3 1/4"
33'-35'	3 1/2"
36'-37'	4"
38'-40'	4 1/2"



OSC-A-2

9-15-11

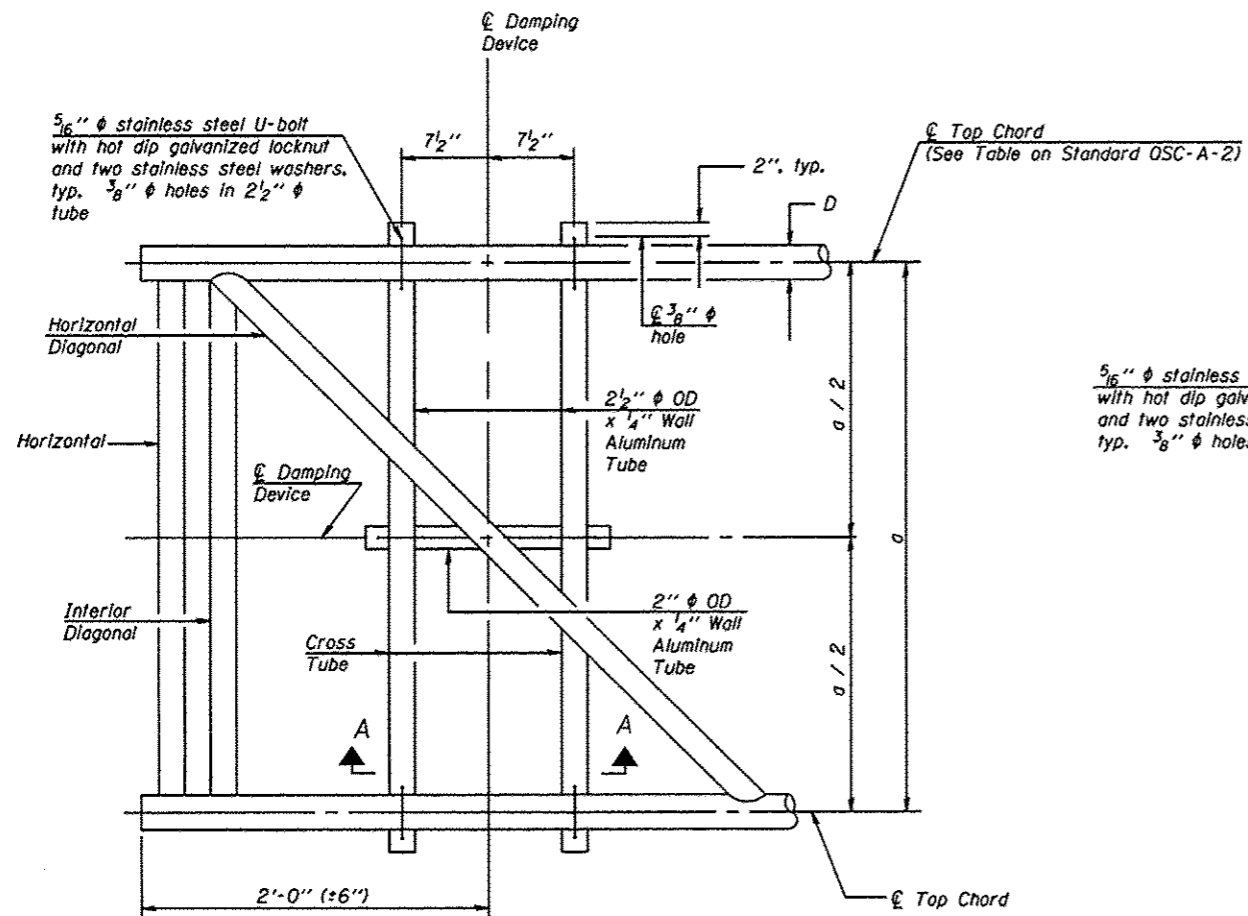
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		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

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

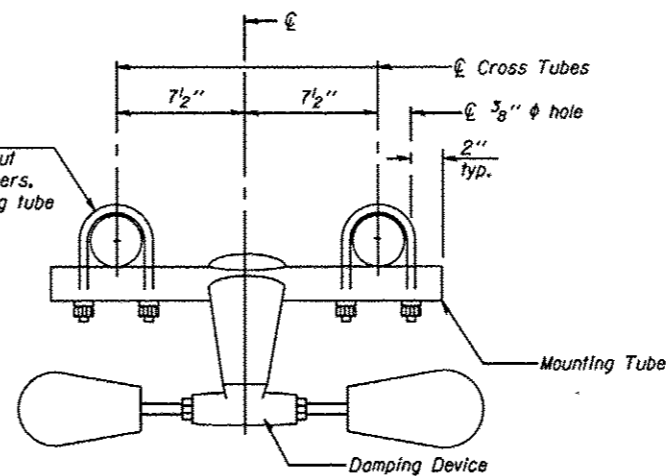
**CANTILEVER SIGN STRUCTURES - TRUSS DETAILS**  
**ALUMINUM TRUSS & STEEL POST**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIN STR REPL 13-01	Various	25	5

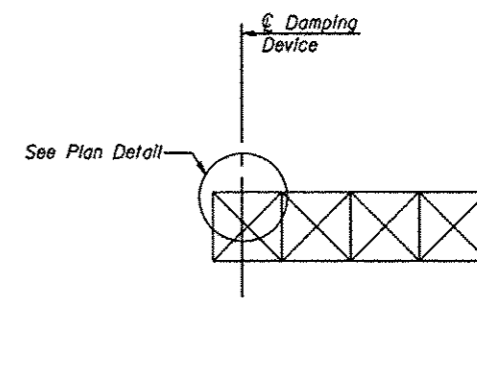
CONTRACT NO. 46214  
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PLAN DETAIL

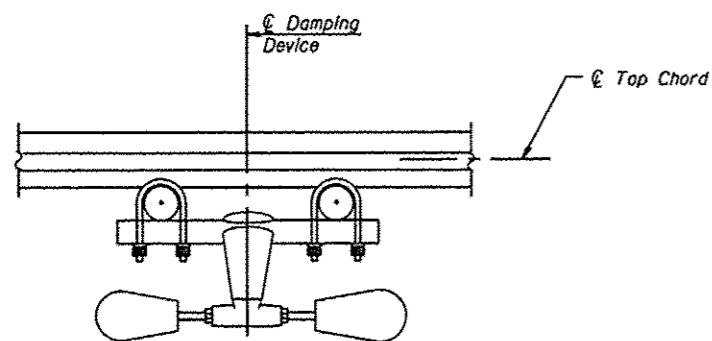


TRUSS DAMPING DEVICE CONNECTION DETAIL

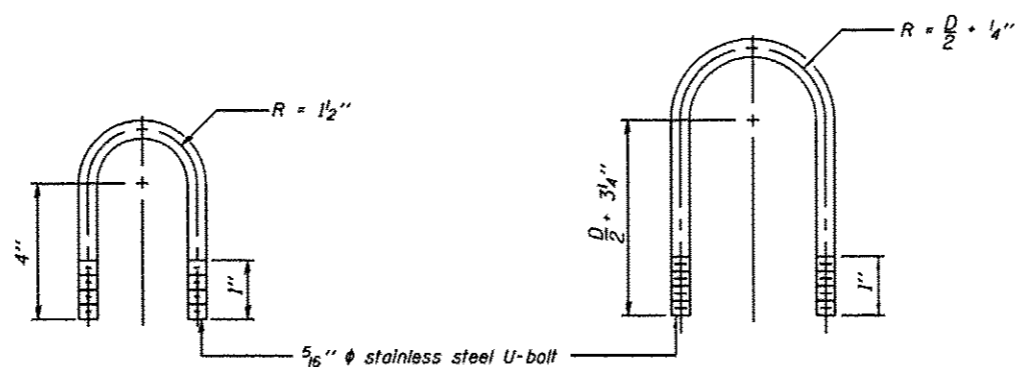


ELEVATION  
Aluminum Cantilever  
Sign Structure

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



SECTION A-A



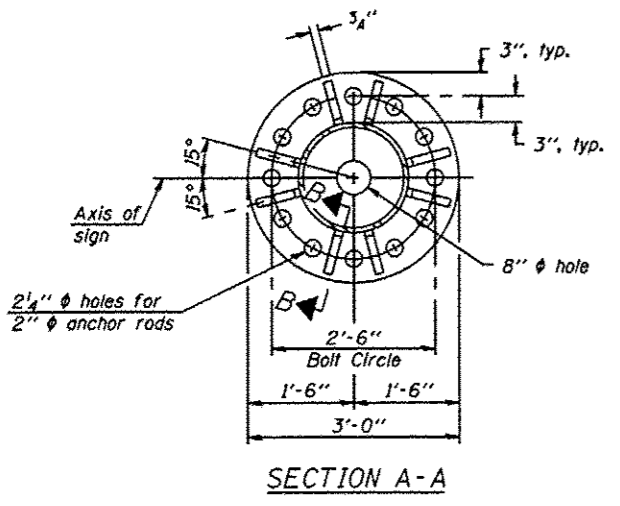
DAMPING DEVICE MOUNTING  
TUBE U-BOLT DETAIL  
(Typical)

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

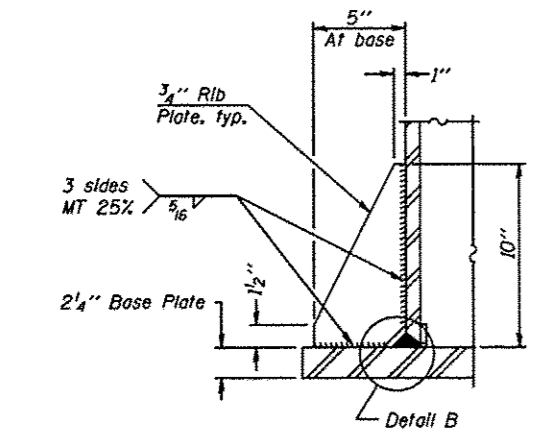
OSC-A-D

9-15-11

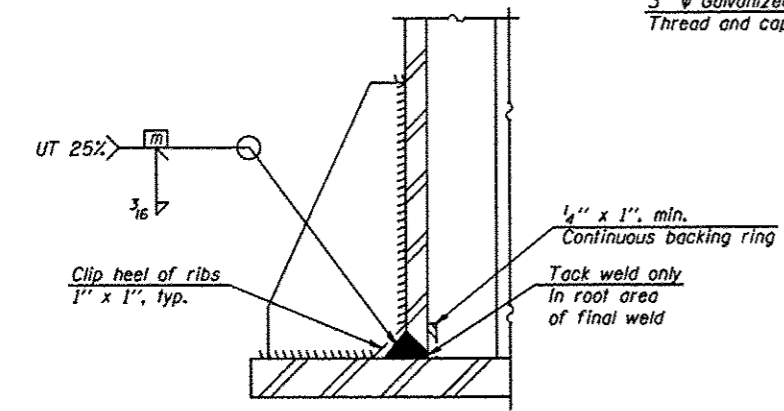
FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CANTILEVER SIGN STRUCTURE DAMPING DEVICE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISED -			Various	13-01	Various	25	6	
	PLOT SCALE *	DRAWN -	REVISED -			CONTRACT NO. 46214					
	PLOT DATE *	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					



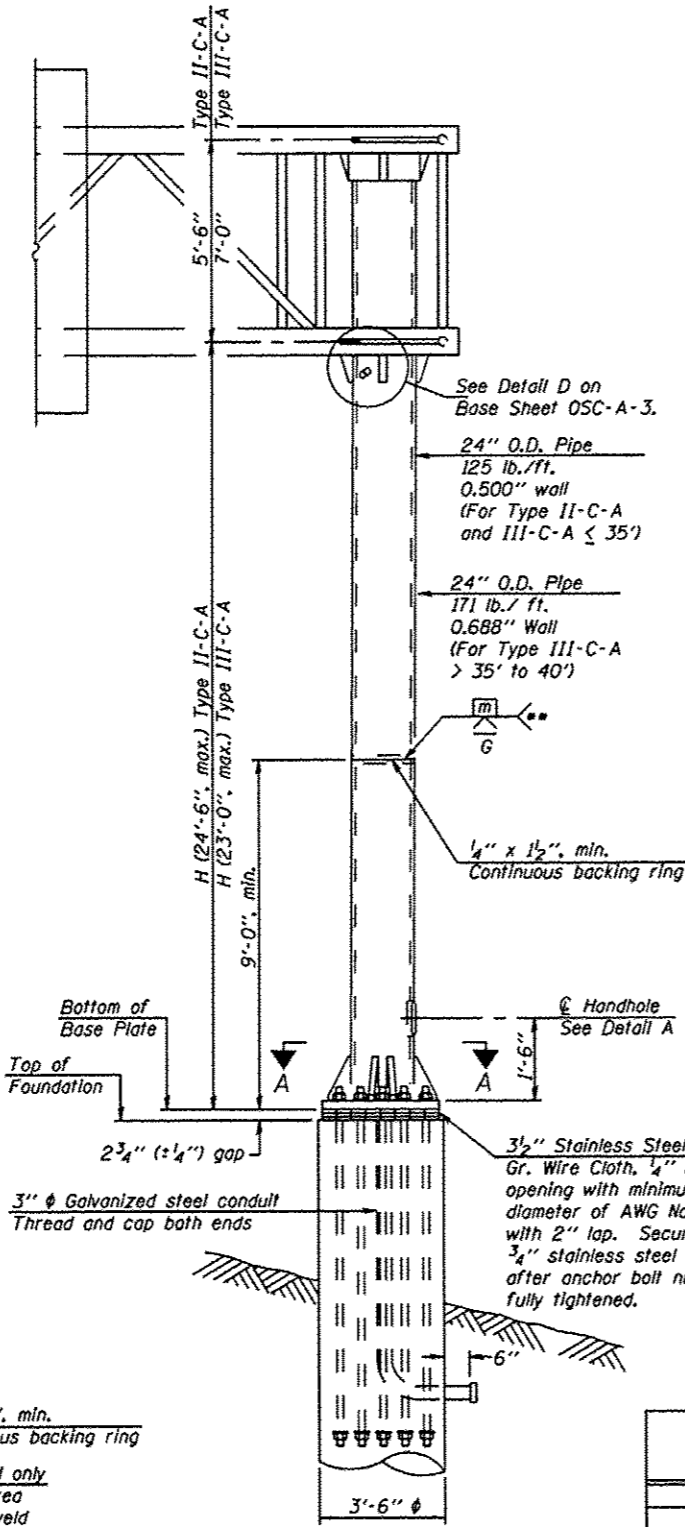
SECTION A-A



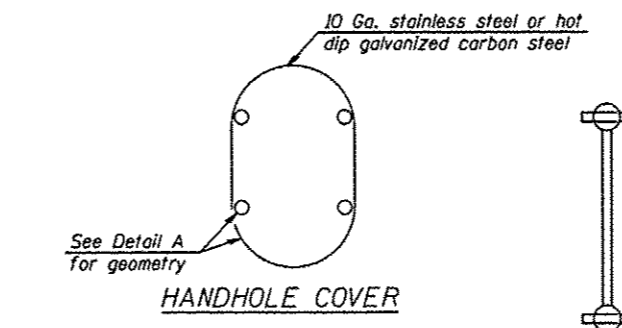
SECTION B-B



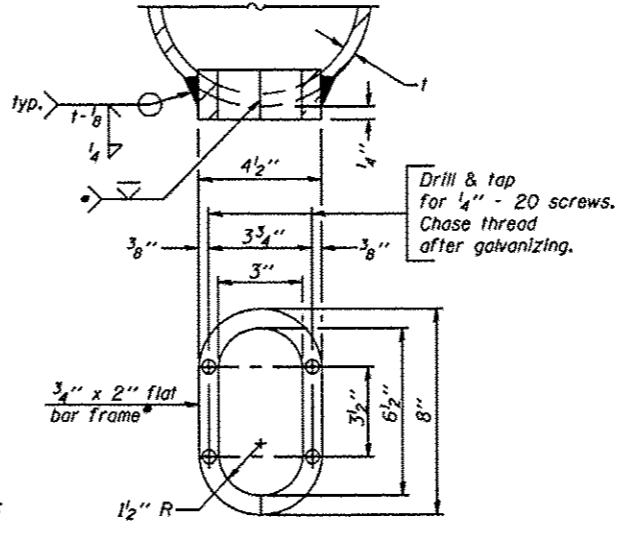
DETAIL B  
(Typical rib)



FRONT ELEVATION  
For Foundation Details  
see Base Sheet OSC-A-9.



HANDHOLE COVER

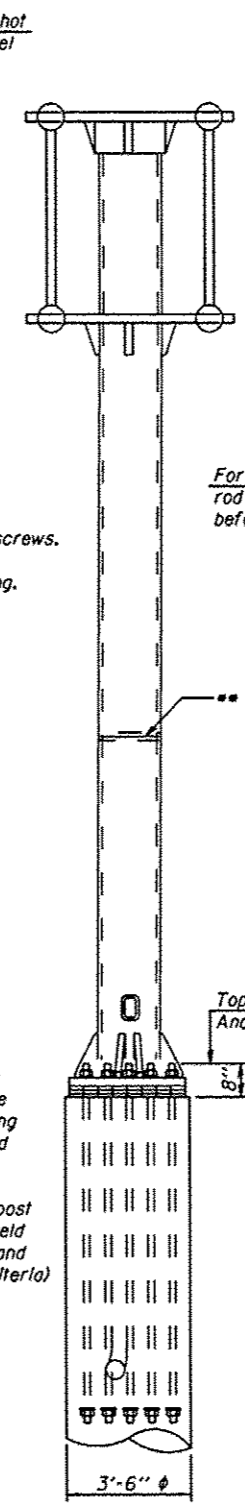


DETAIL A

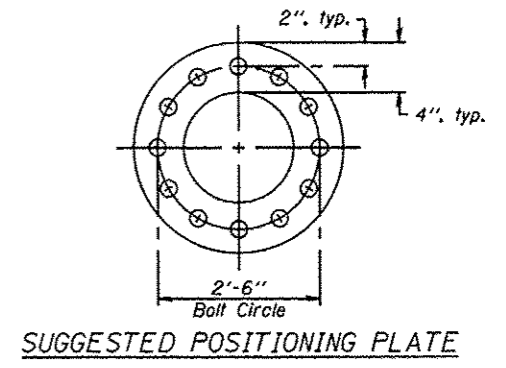
- Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- Butt welded joint in post is only allowed for post heights (H) over 20 ft. In length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	H
2C0711039R097.2	1411 + 85	22'-8 1/2"
2C0711039L097.1	1406 + 15	22'-0"
2C0811074L003.6	417 + 25	21'-8"

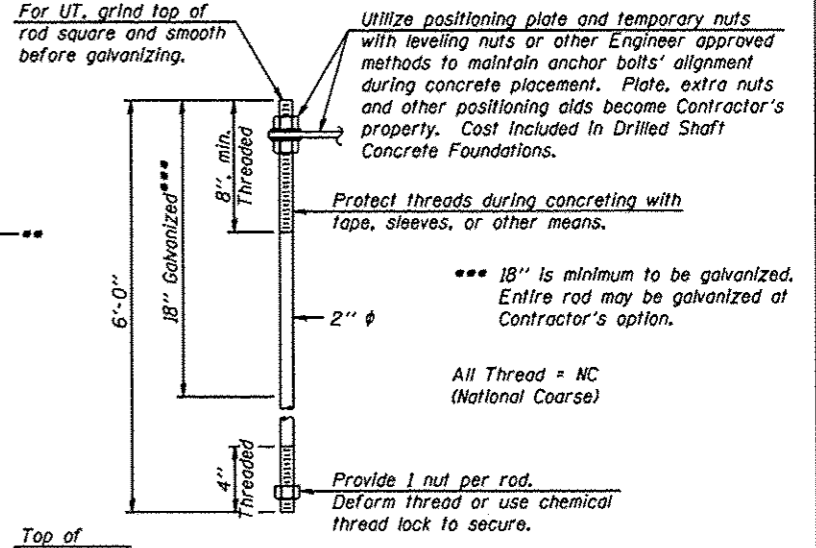
Note: "H" based on 15'-0" or actual sign height, whichever is greater.



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize the upper 18" (minimum) and associated AASHTO M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide a nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III Inspector, qualified in accord with ANSI guidelines, to insure no rejectable flaws exist in the upper 18" (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

OSC-A-5

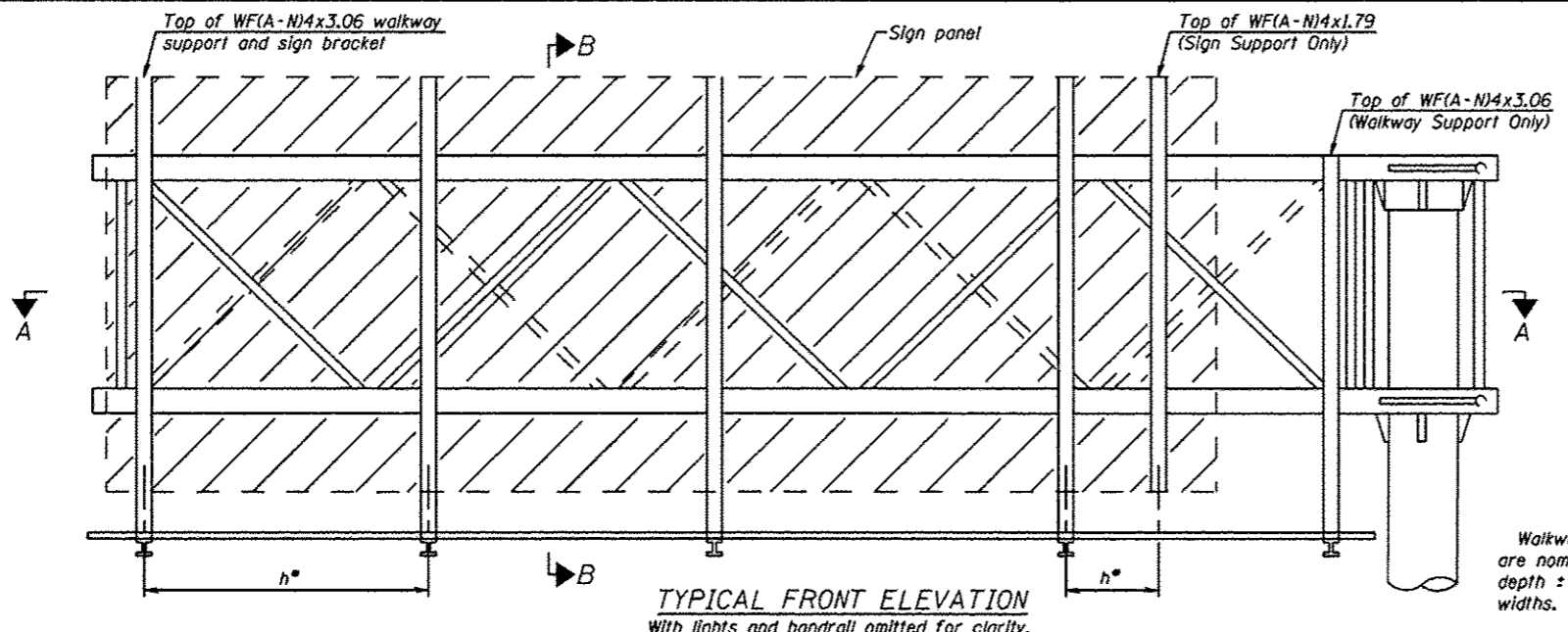
9-15-11

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

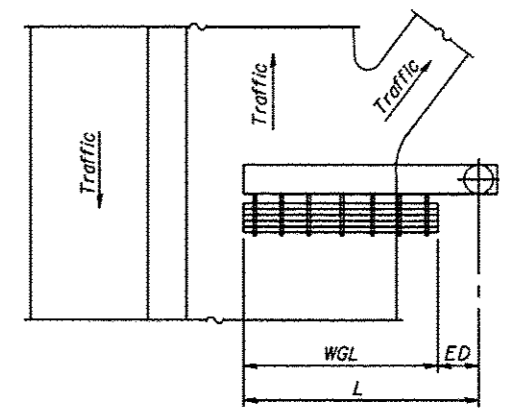
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - TYPE II-C-A & III-C-A  
TRUSS SUPPORT POST - ALUMINUM TRUSS & STEEL POST

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 DVD SIN STR REPL 13-01	Various	25	7
			CONTRACT NO. 46214	
ILLINOIS FED. AID PROJECT				

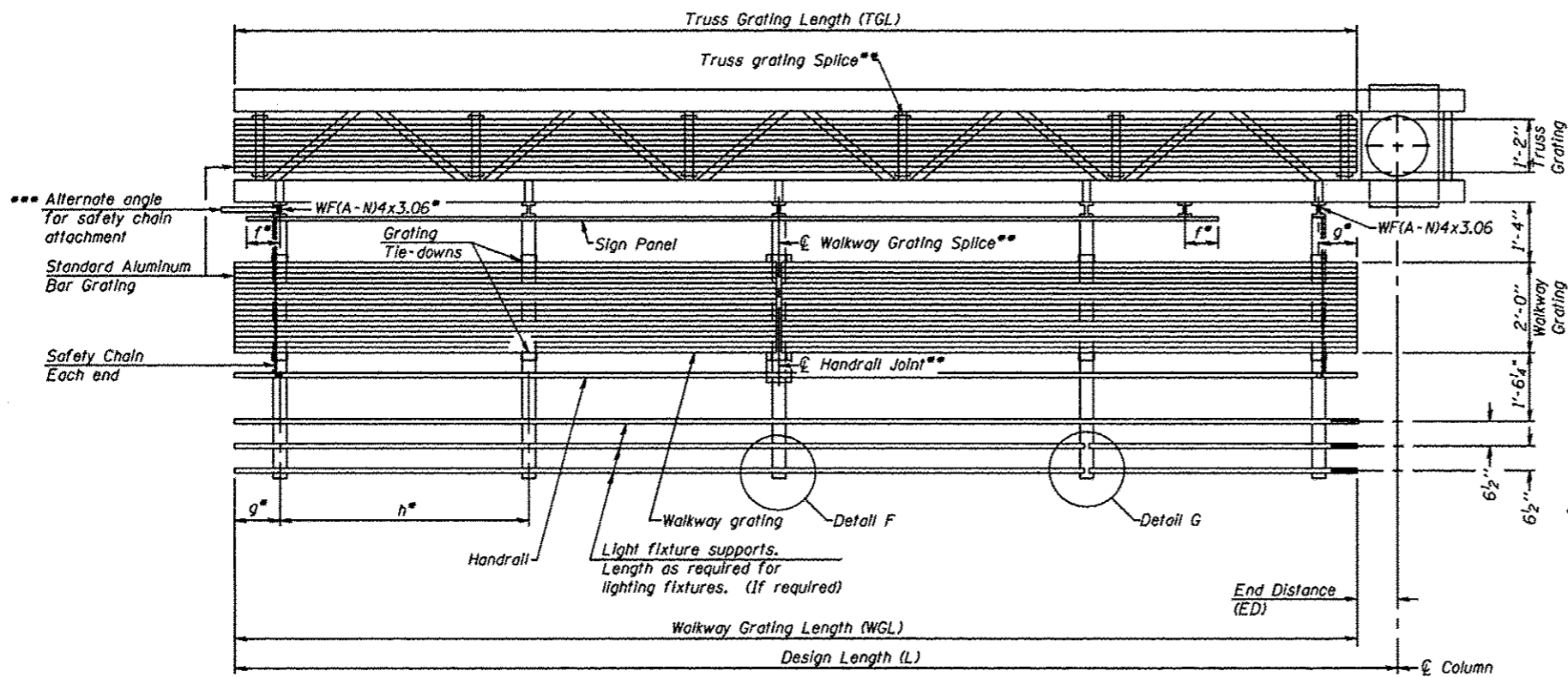


**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



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

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.

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

Structure Number	Station	WGL	ED	TGL
2C0711039R097.2	1411 + 85	25'-0"	10' - 0"	33'-6"
2C0711039L097.1	1406 + 15	25'-0"	10' - 0"	33'-6"
2C0811074L003.6	417 + 25	30'-0"	5' - 0"	33'-6"

- Notes:
- Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 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, WF(A-N)4x1.79 or WF(A-N)4x3.06)
  - \*\*\* If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8.
- For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.  
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-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

OSC-A-6

9-15-11

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

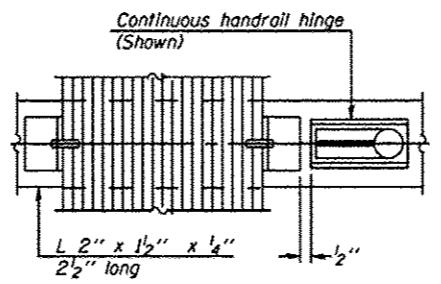
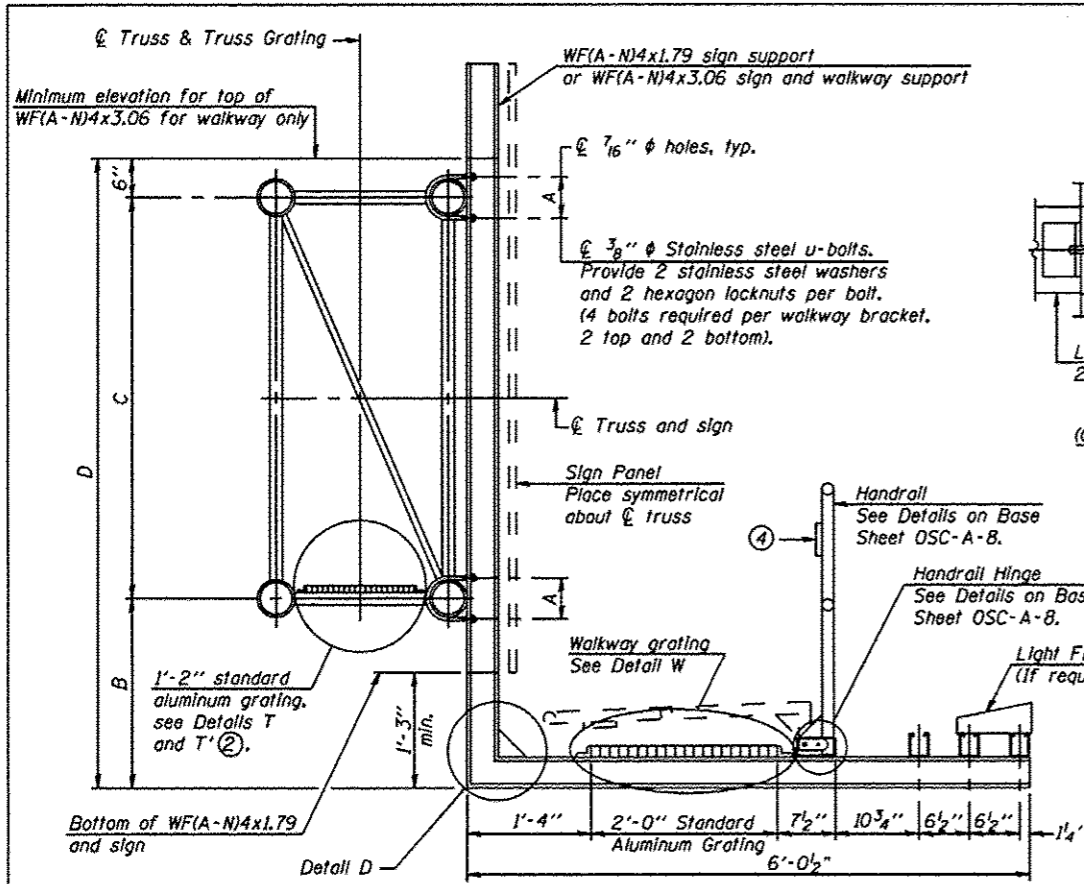
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	0-2 OVD SIN STR REPL 13-01	Various	25	8
				CONTRACT NO. 46214
ILLINOIS FED. AID PROJECT				



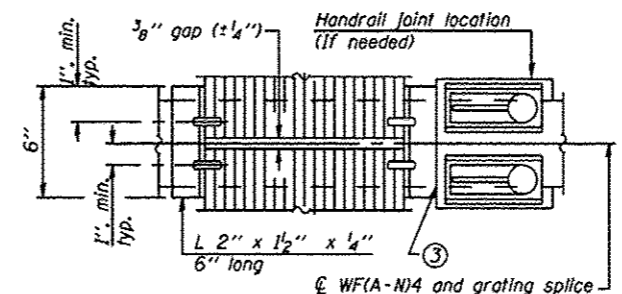
**SPECIFICATIONS FOR STANDARD ALUMINUM GRATING**

Main Bearing Bars (MBB) shall be  $\frac{3}{16}$ " x  $1\frac{1}{2}$ " on  $1\frac{3}{16}$ " centers and conform to ASTM B221 Alloy 6061-T6.  
 Cross bars (CB) shall be  $\frac{3}{16}$ " x  $1\frac{1}{2}$ " on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

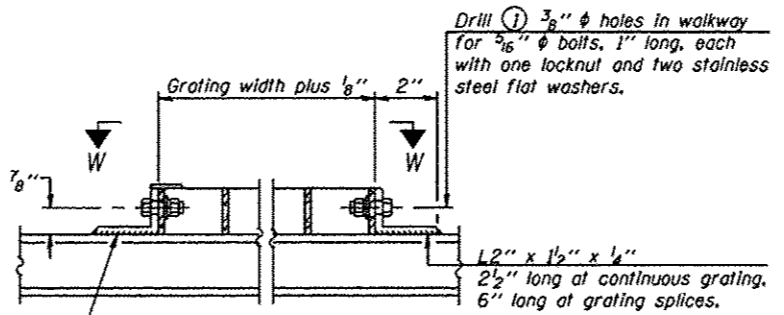
OR  
 Aluminum Grating with modified "I" sections for main bearing bars shall meet the following requirements:  
 Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.<sup>3</sup> per bar, a depth of  $1\frac{1}{2}$ ", spaced on  $1\frac{3}{16}$ " centers.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



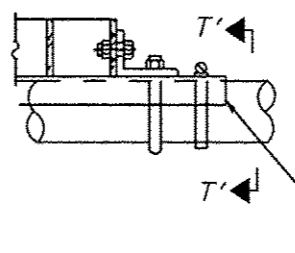
(CONTINUOUS WALKWAY GRATING)



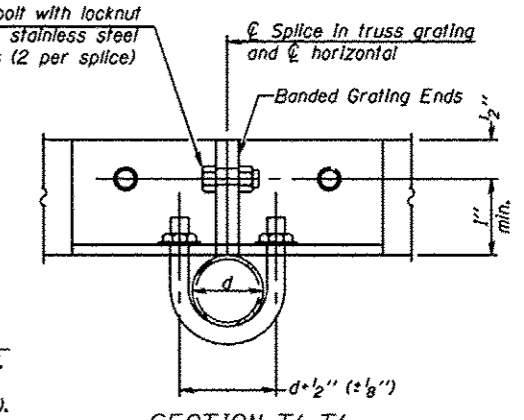
SECTION W-W



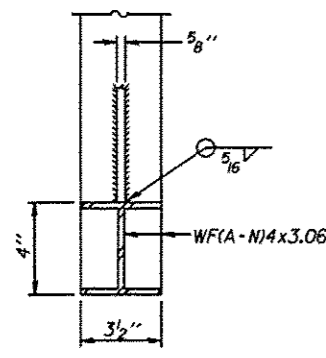
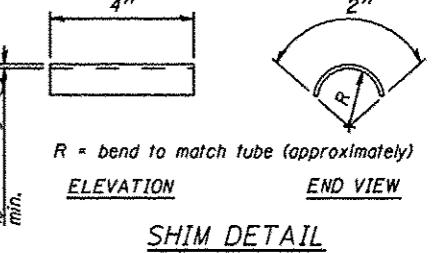
DETAIL W (Walkway grating)



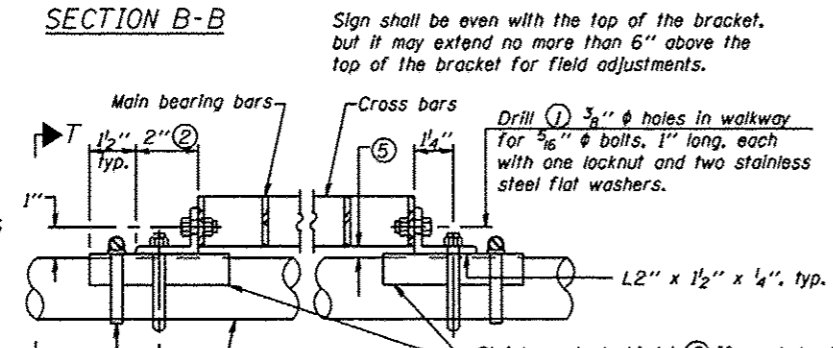
DETAIL T' (Truss grating splice)



SECTION T'-T'

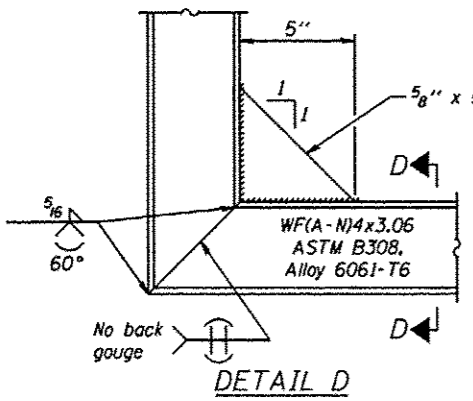


SECTION B-B

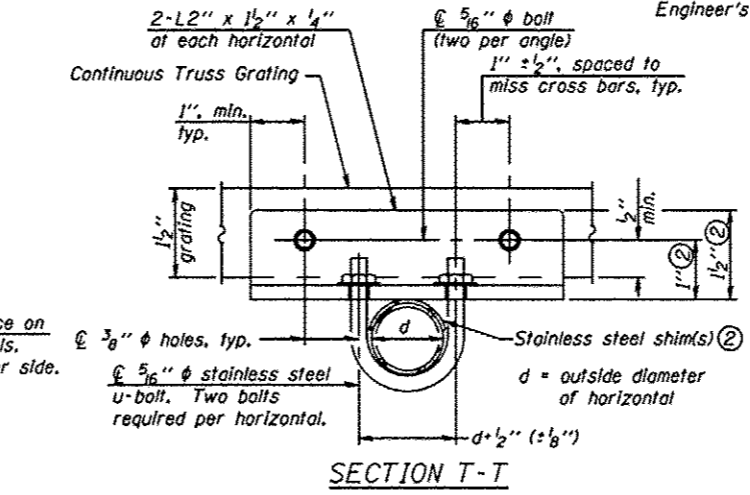


SECTION D-D

Screw type stainless steel tube clamp at shim location



DETAIL D



SECTION T-T

Structure Number	Station	A	(6) B	C	(6) D
2C0711039R097.2	1411 + 85	7 1/2"	4'-9"	7'-0"	12'-3"
2C0711039L097.1	1406 + 15	7 1/2"	3'-6"	7'-0"	11'-0"
2C0811074L003.6	417 + 25	7 1/2"	2'-9"	7'-0"	10'-3"

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- 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.
- If Handrail joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- Based on actual sign height. D<sub>s</sub> given on OSC-A-1.

OSC-A-7

9-15-11

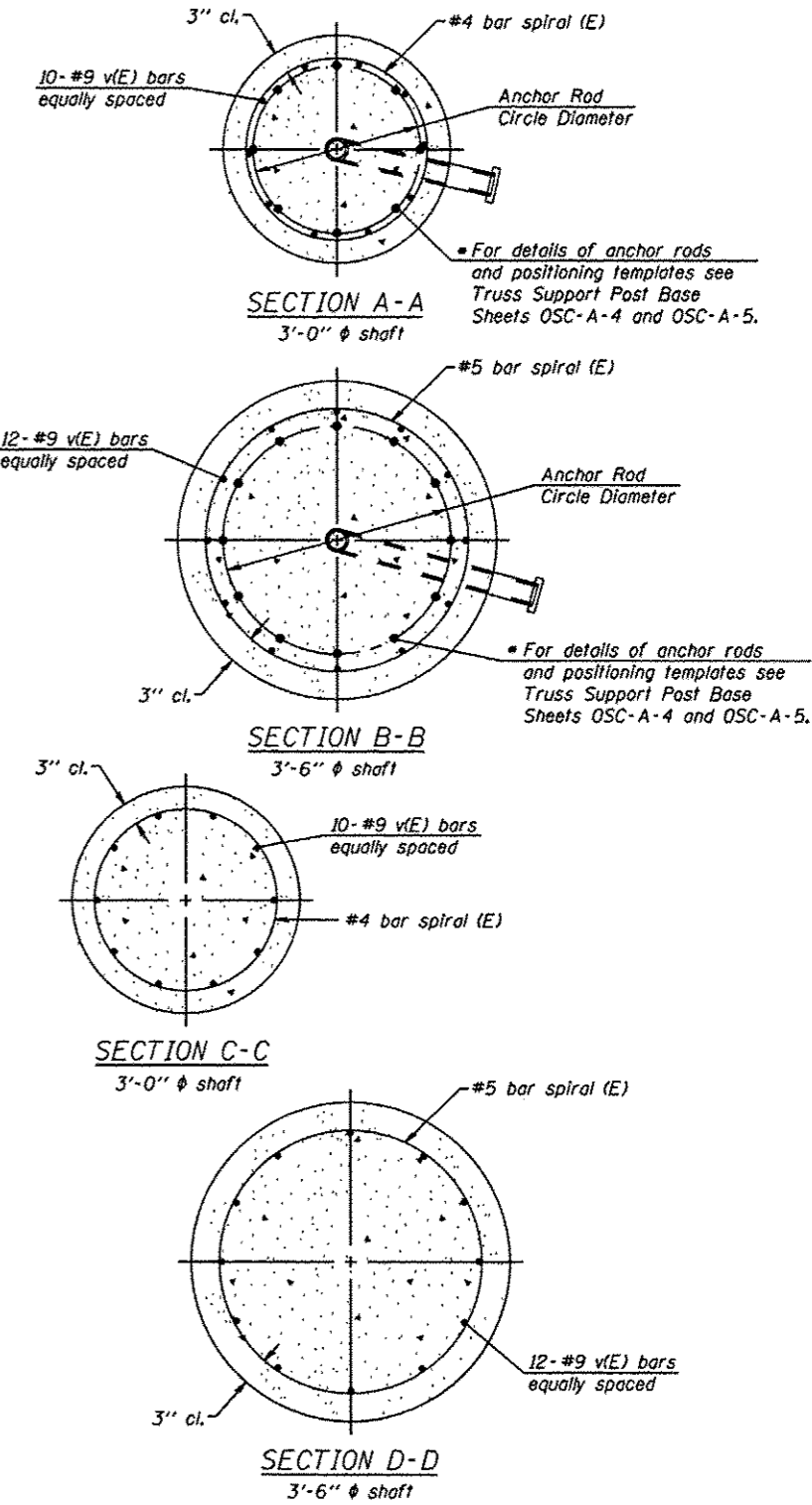
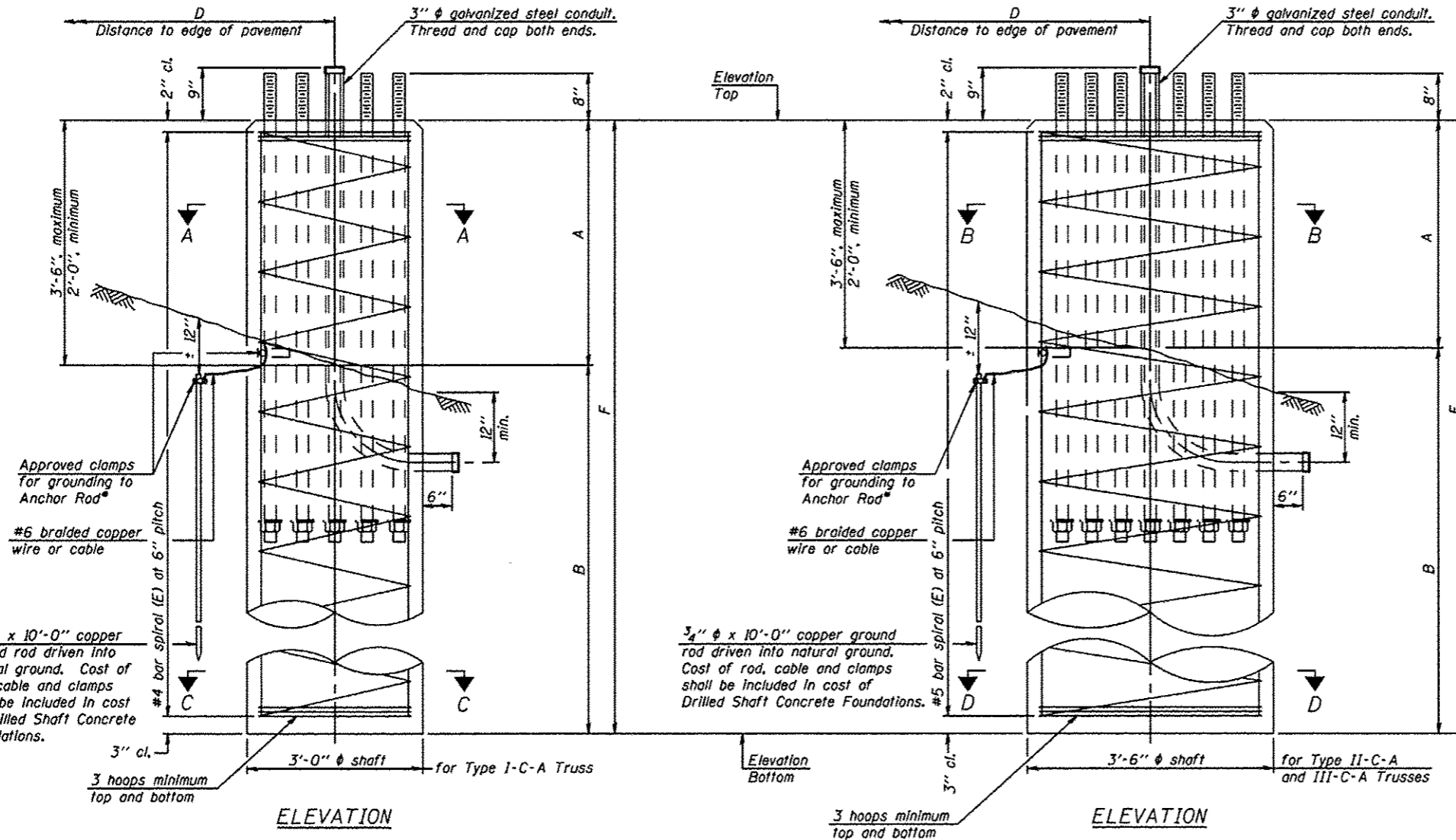
FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE *		DRAWN -	REVISED -
PLOT DATE *		CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - WALKWAY DETAILS  
 ALUMINUM TRUSS & STEEL POST

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIN STR REPL 13-01	Various	25	9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 46214	

• Grind anchor rod to bright finish at ground clamp location before installing clamp.



**NOTES:**

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength ( $Q_u$ ) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future 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 Engineer's written permission.

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 Seal Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

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-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	$Q_u$	A	B	F	Class DS Concrete Cubic Yards
2C0711039R097.2	1411 + 85	III-C-A	3'-6"	830.30'	805.30'	TBA	2'-6"	22'-6"	25'-0"	9
2C0711039L097.1	1406 + 15	III-C-A	3'-6"	833.50'	812.00'		2'-6"	19'-0"	21'-6"	8
2C0811074L003.6	417 + 25	III-C-A	3'-6"	578.20'	553.20'		2'-6"	22'-6"	25'-0"	9

OSC-A-9

9-15-11

**GENERAL NOTES**

**DESIGN:** AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

**CONSTRUCTION:** Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

**LOADING:** 90 M.P.H. WIND VELOCITY

**WALKWAY LOADING:** Dead load plus 500 lbs. concentrated live load.

**DESIGN STRESSES:**  
Field Units  
F<sub>c</sub> = 3,500 p.s.i.  
F<sub>y</sub> = 60,000 p.s.i. (reinforcement)

**WELDING:** All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

**MATERIALS:** Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W\*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

**FASTENERS FOR ALUMINUM TRUSSES:** All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members Interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

**U-BOLTS AND EYEBOLTS:** U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

**GALVANIZING:** All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

**ANCHOR RODS:** Shall conform to ASTM F1554 Gr. 105.

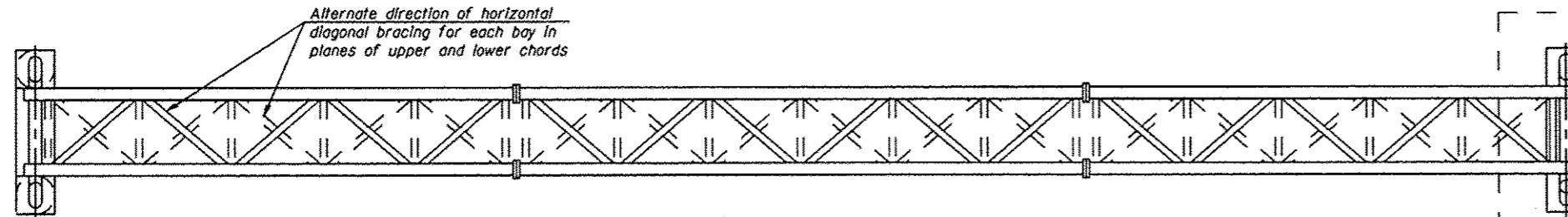
**CONCRETE SURFACES:** All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

**REINFORCEMENT BARS:** Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

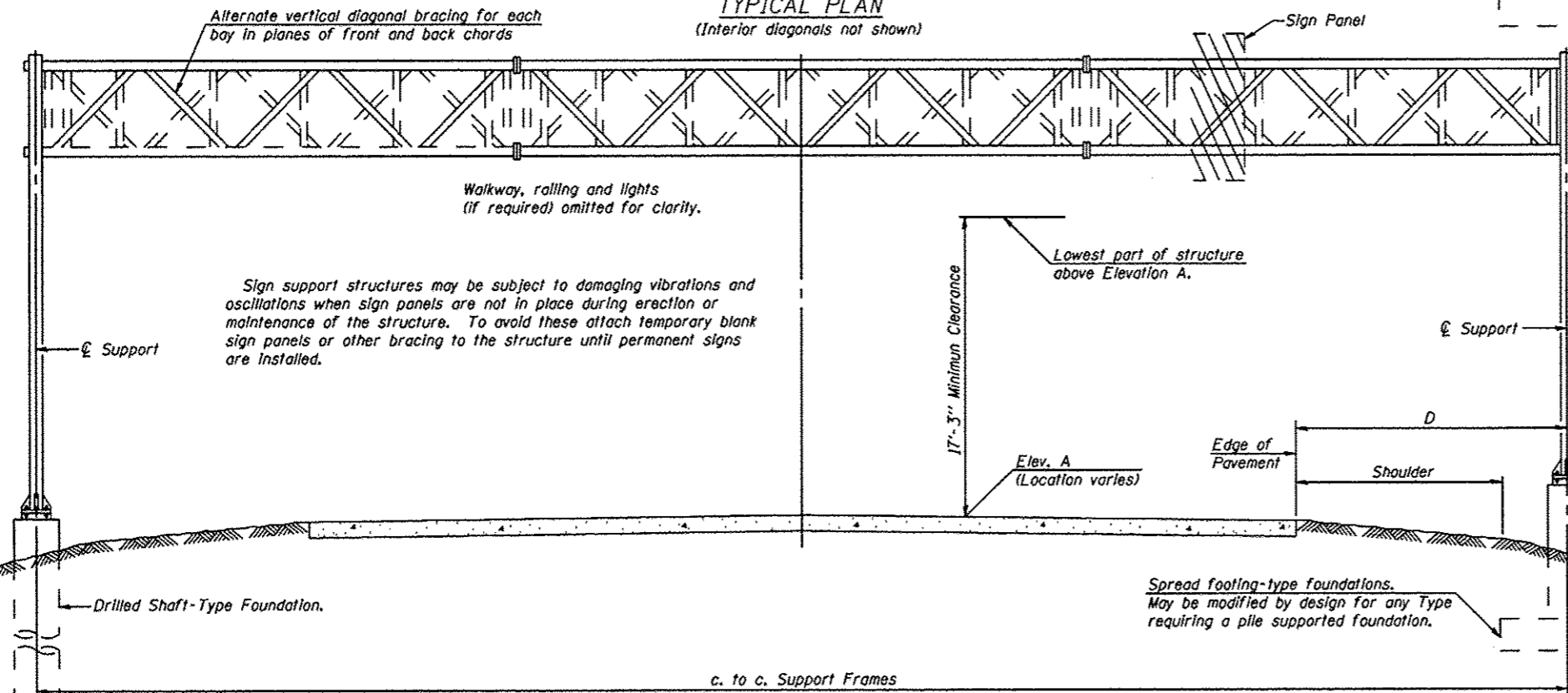
**FOUNDATIONS:** The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	



**TYPICAL PLAN**  
(Interior diagonals not shown)



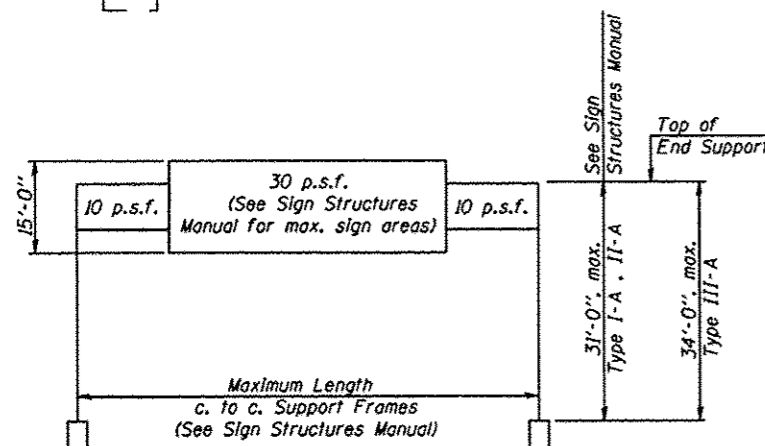
**TYPICAL ELEVATION**  
(Looking at Face of Signs)\*\*

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
2S0371074L015.2	636 + 75	I-A	86'-0"	721.47	30'-0"	13'-6"	477
2S0371074R012.7	896 + 74	I-A	50'-0"	686.42	14.60'	12'-6"	332

\*\*Looking upstation for structures with signs both sides.

• If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.



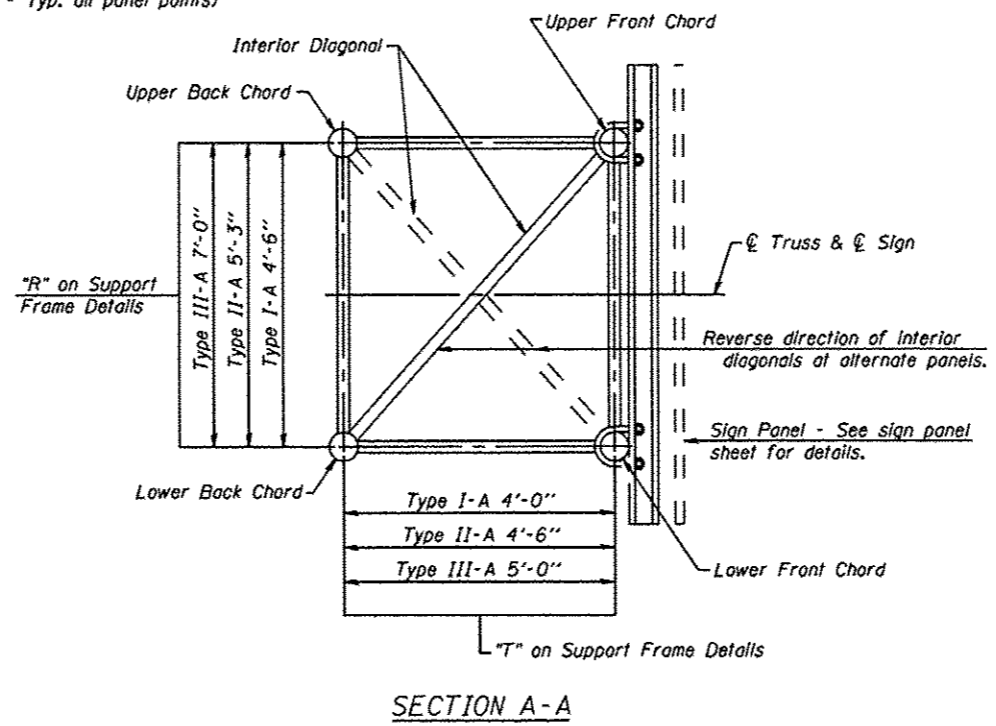
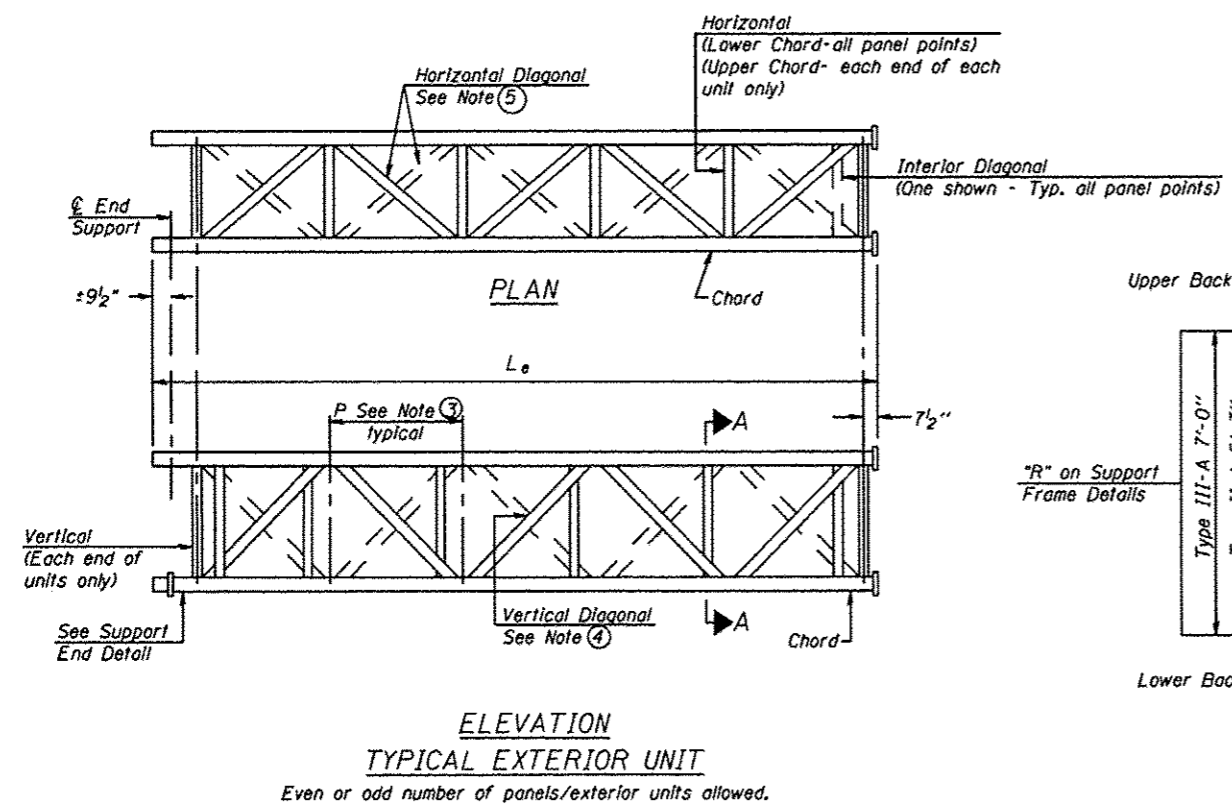
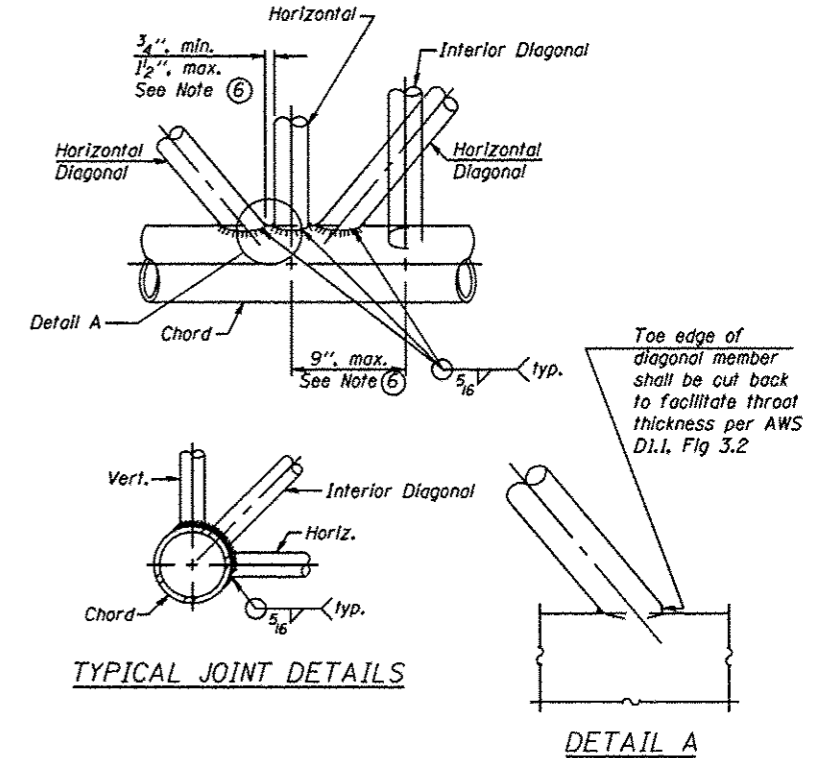
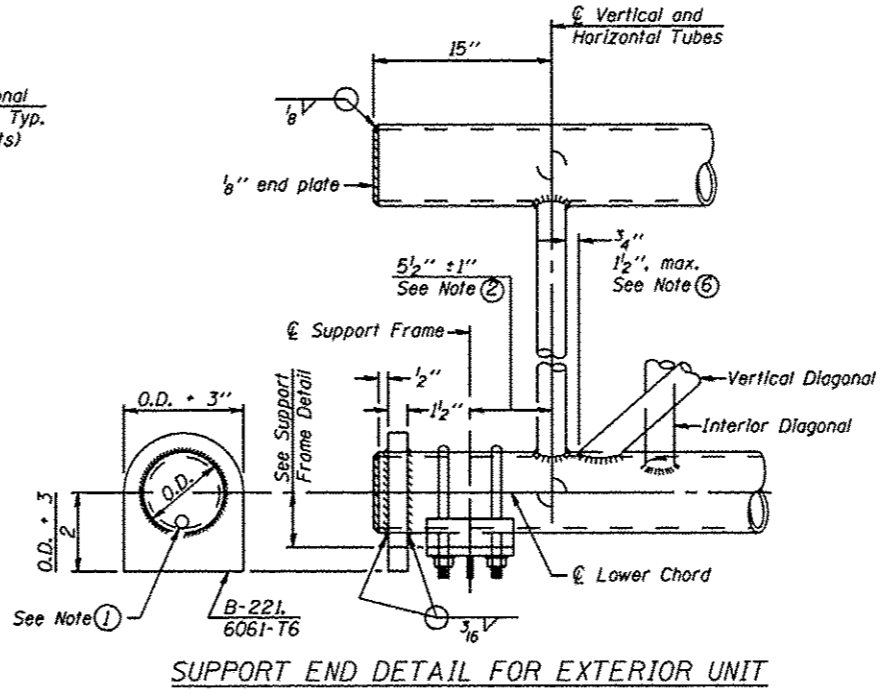
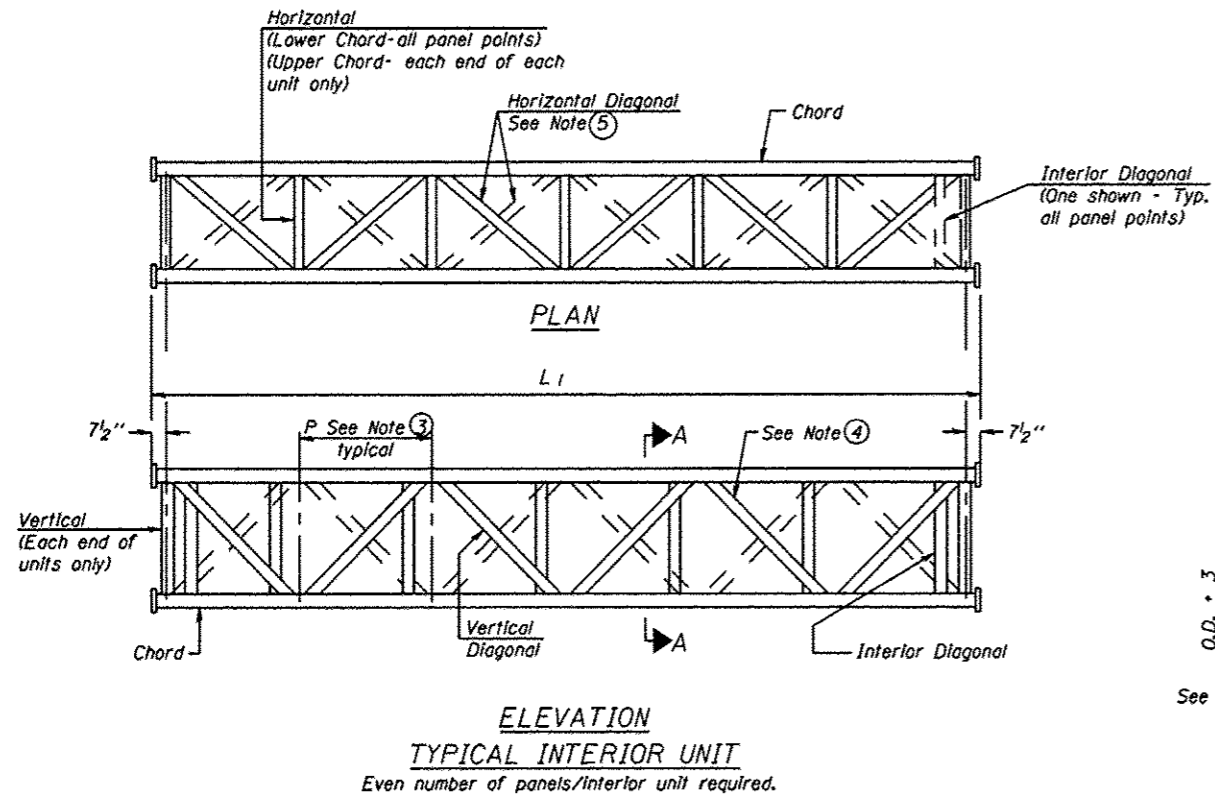
**DESIGN WIND LOADING DIAGRAM**

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

OS-A-1

1-20-11

FILE NAME *	USER NAME *	DESIGNED -	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OVERHEAD SIGN STRUCTURES - GENERAL PLAN &amp; ELEVATION - ALUMINUM TRUSS &amp; STEEL SUPPORTS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISD -			Various D-2 OVD	SIN STR REPL 13-01	Various	25	11	
PLOT SCALE *		DRAWN -	REVISD -			CONTRACT NO. 46214					
PLOT DATE *		CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT					



- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2"  $\phi$  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

I-20-II

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

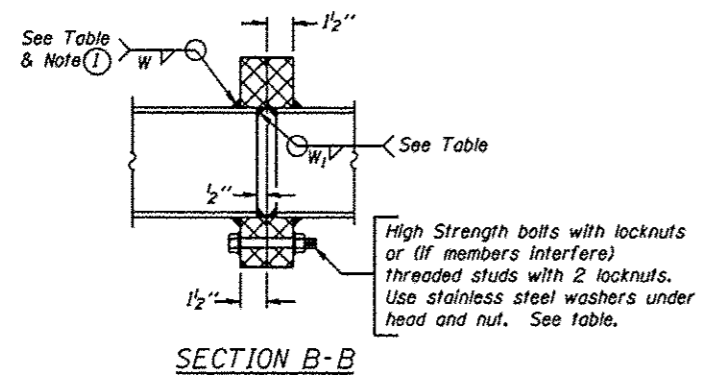
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

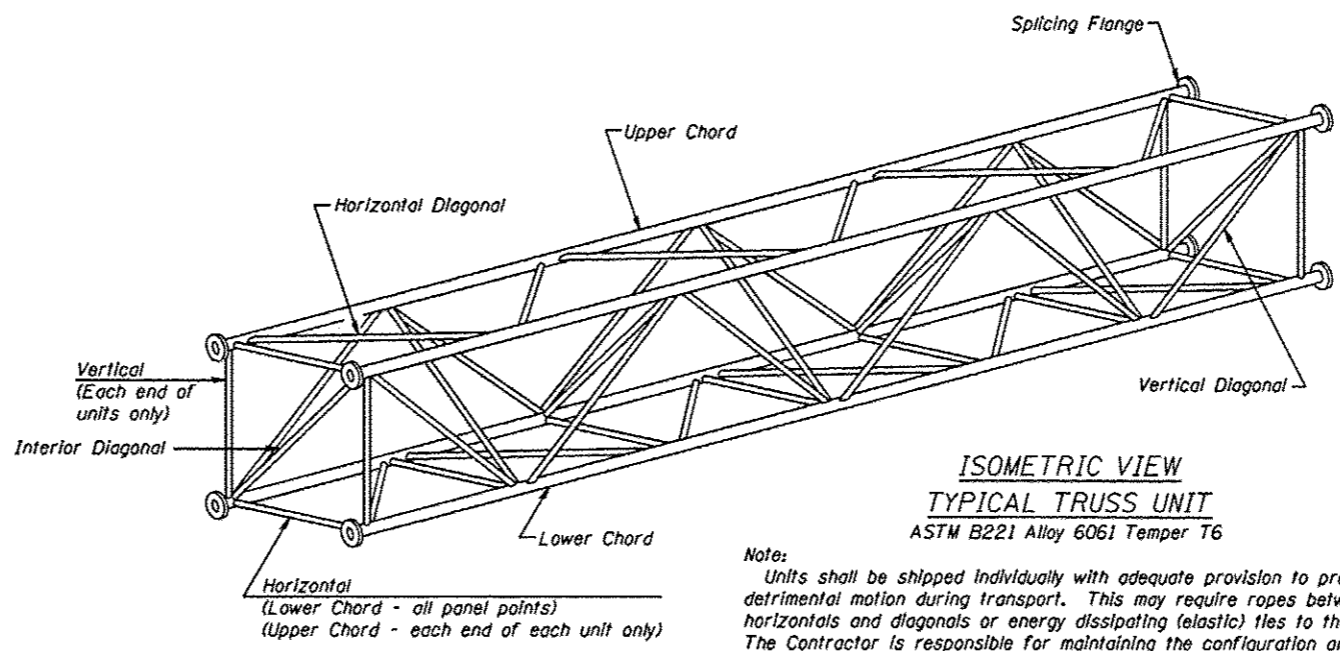
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-2 OVD SIN STR REPL 13-01		Various	25	12
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				

TRUSS UNIT TABLE

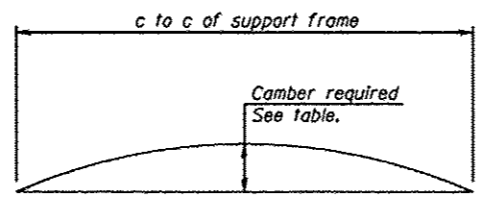
Structure Number	Station	Design Truss Type	Exterior Units (2)				Interior Unit				Upper & Lower Chord		Verticals, Horizontals, Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange				
			No. Panels per Unit	Unit Lgth.(L <sub>e</sub> )	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L <sub>i</sub> )	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall	No./Splice		Diag.	W	W <sub>1</sub>	A	B
2S0371074L015.2	636 + 75	I-A	6	29'-4 1/2"	4'-7"	1	6	28'-9"	4'-7"	5"	5/16"	2 1/2"	5/16"	2.55"	6	1/8"	5/16"	1/4"	8 3/4"	11 3/4"
2S0371074R012.7	896 + 74	I-A	5	25'-9 3/8"	4'-9 3/8"					5"	5/16"	2 1/2"	5/16"	3/4"	6	1/8"	5/16"	1/4"	8 3/4"	11 3/4"



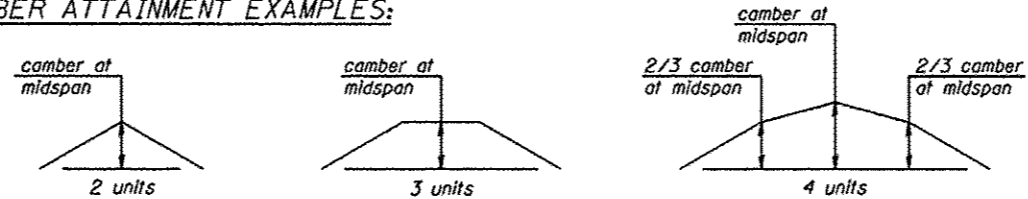
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



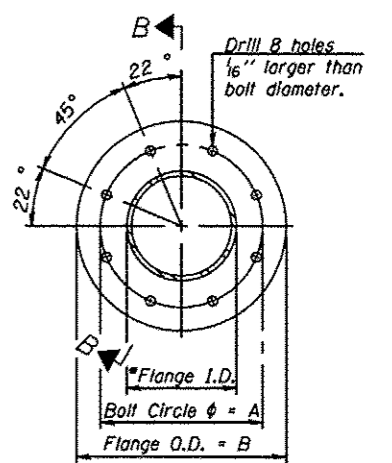
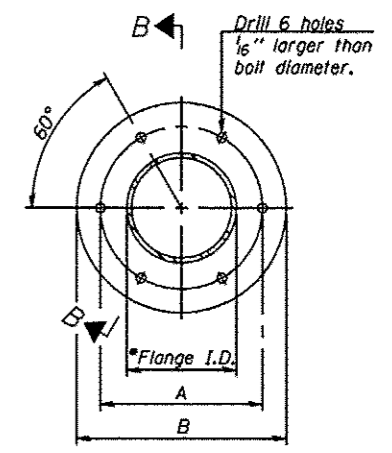
Note:  
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



OS4-A-2

1-20-11

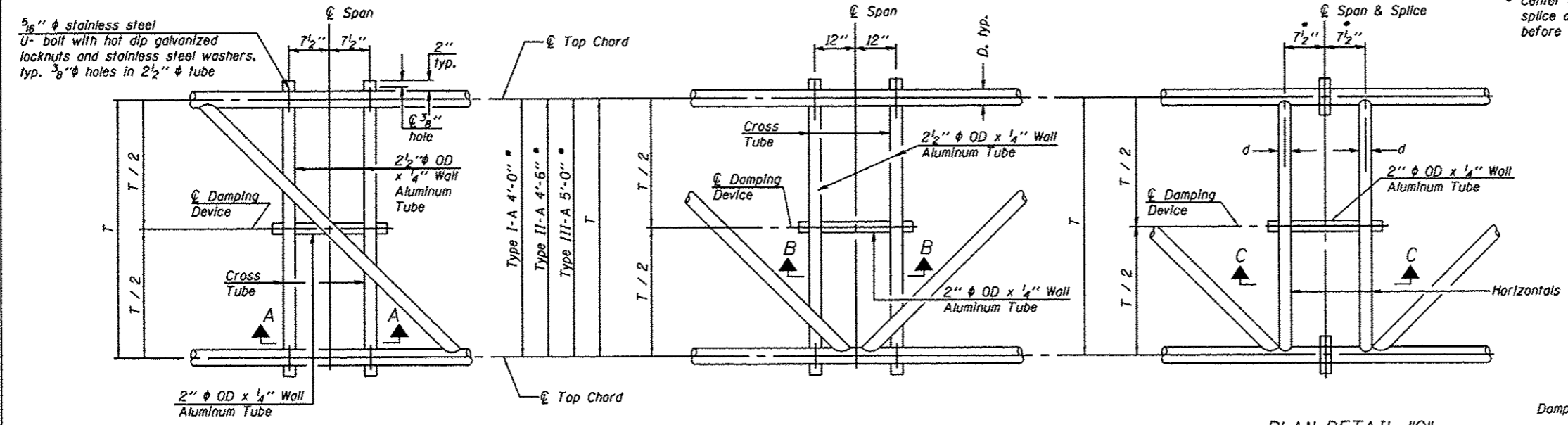
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		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

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.
Various D-2 DVD SIN STR REPL 13-01		Various	25	13
CONTRACT NO. 46214			ILLINOIS FED. AID PROJECT	

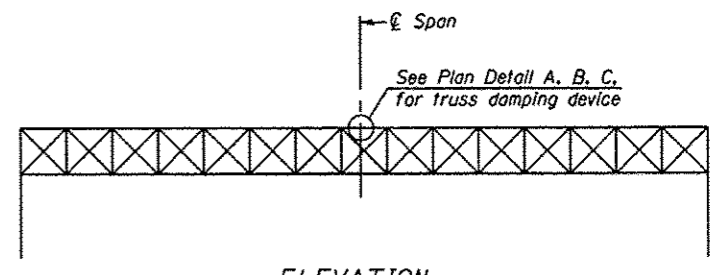
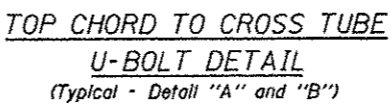
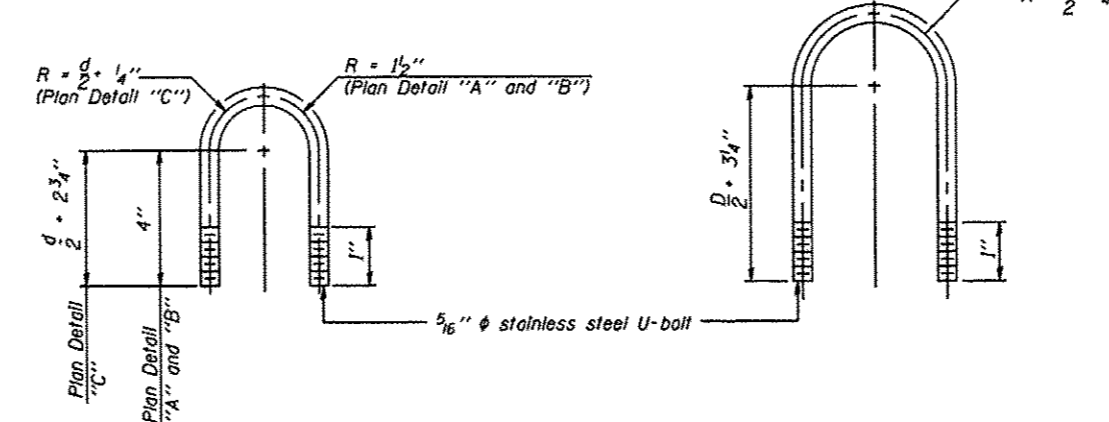
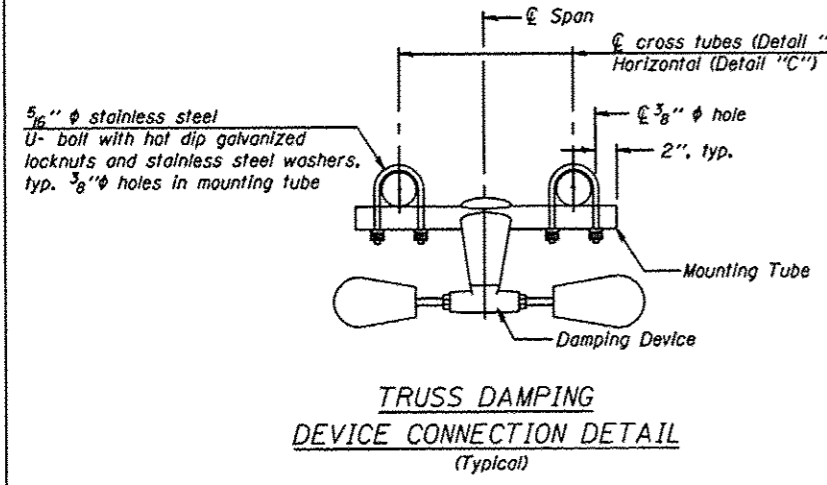
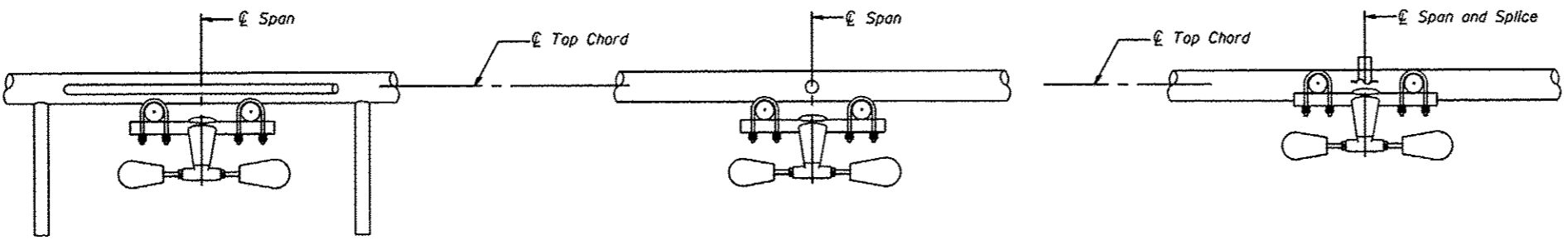
\* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



**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...



OS-A-D

1-20-11

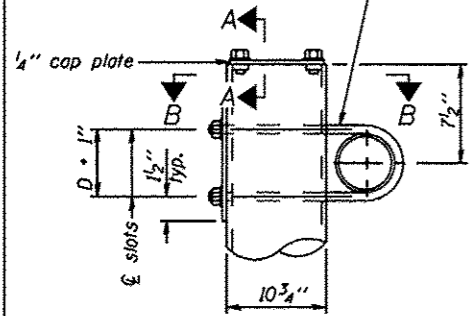
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USER NAME *	CHECKED -	REVISI
PLOT SCALE *	DRAWN -	REVISI
PLOT DATE *	CHECKED -	REVISI

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

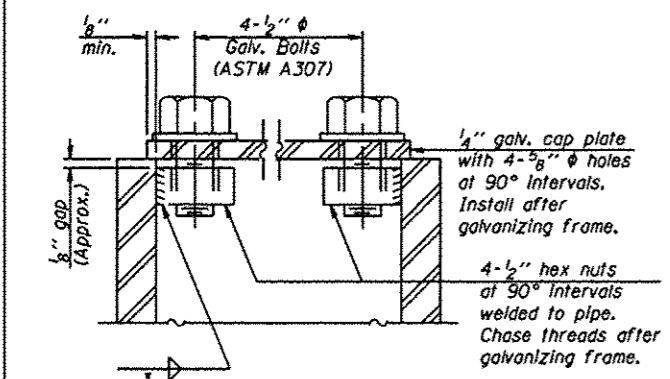
**OVERHEAD SIGN STRUCTURE**  
**DAMPING DEVICE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 DVD SIN STR REPL 13-01	Various	25	14
			CONTRACT NO. 46214	
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 10" φ pipe.  
(4 slots required per pipe)

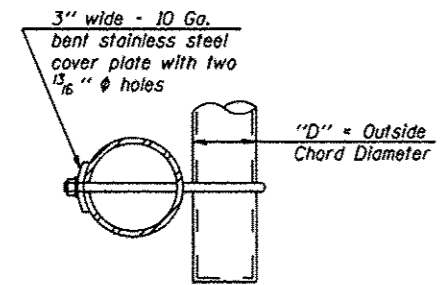


DETAIL A

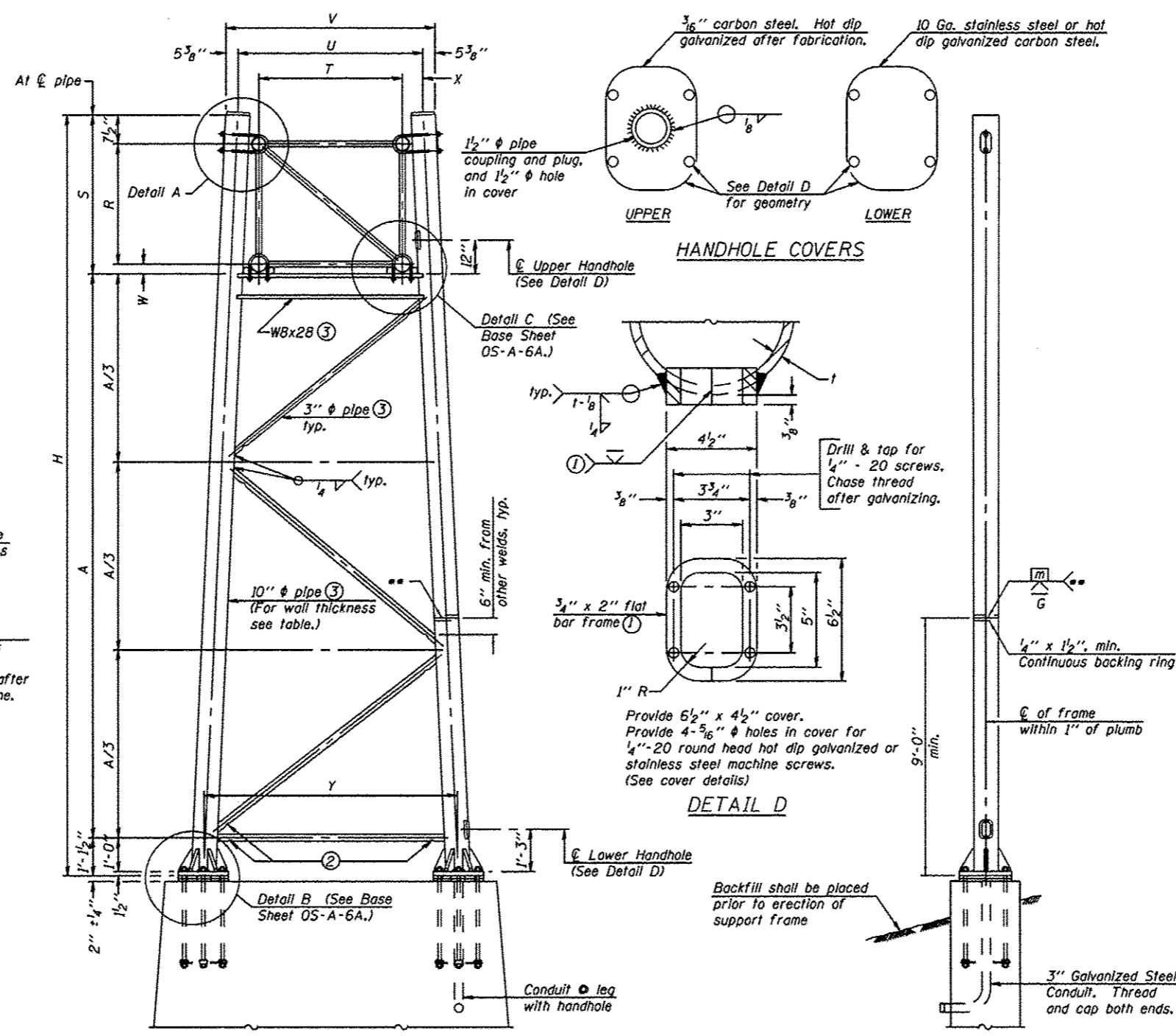


SECTION A-A

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



SECTION B-B



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

SIDE ELEVATION

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.

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 3/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"

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

- 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.
- 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.
- 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.
- See General Notes for fasteners.
- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- "H" based on 15'-0" or actual sign height, whichever is greater.

END ELEVATION

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H (6)	A
		Left	Right				
2S0371074L015.2	636 + 75		X	I-A	0.279	29'-4 1/2"	22.8'
2S0371074L015.2	636 + 75	X		I-A	0.279	29'-4 1/2"	22.8'
2S0371074R012.7	896 + 74	X		I-A	0.279	26'-8 3/8"	20'-1 1/4"
2S0371074R012.7	896 + 74		X	I-A	0.279	26'-8 3/8"	20'-1 1/4"

OS-A-6

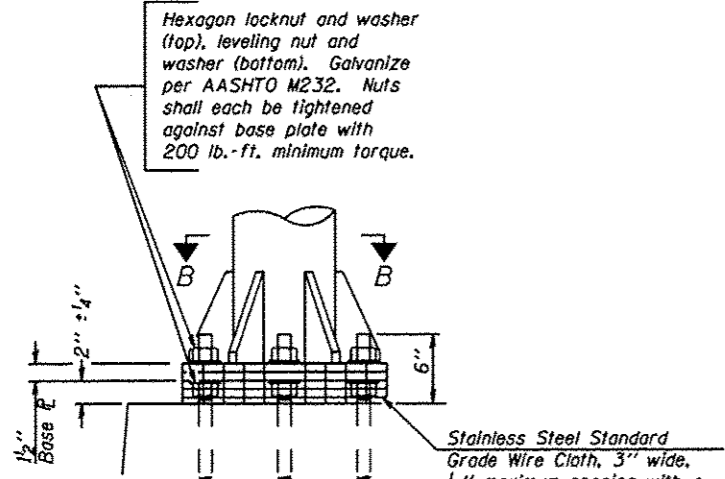
1-20-11

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

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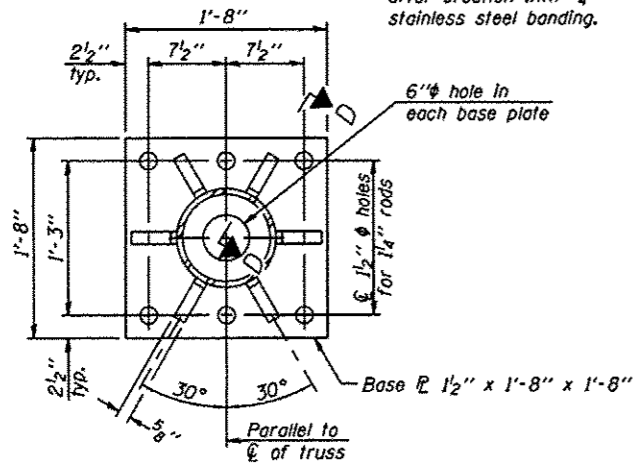
OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME FOR ALUMINUM TRUSS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various 0-2 OVD SIN STR REPL 13-01		Various	25	15
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				

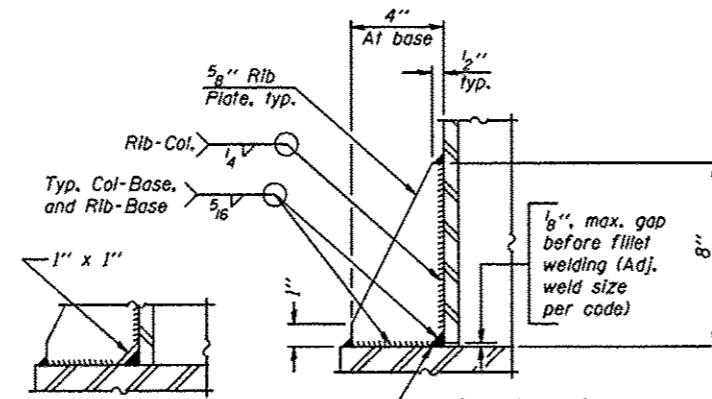


**DETAIL B**

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.

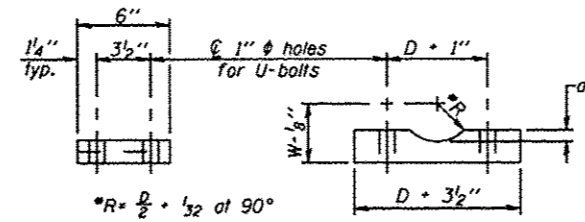


**SECTION B-B**



**SECTION D-D**

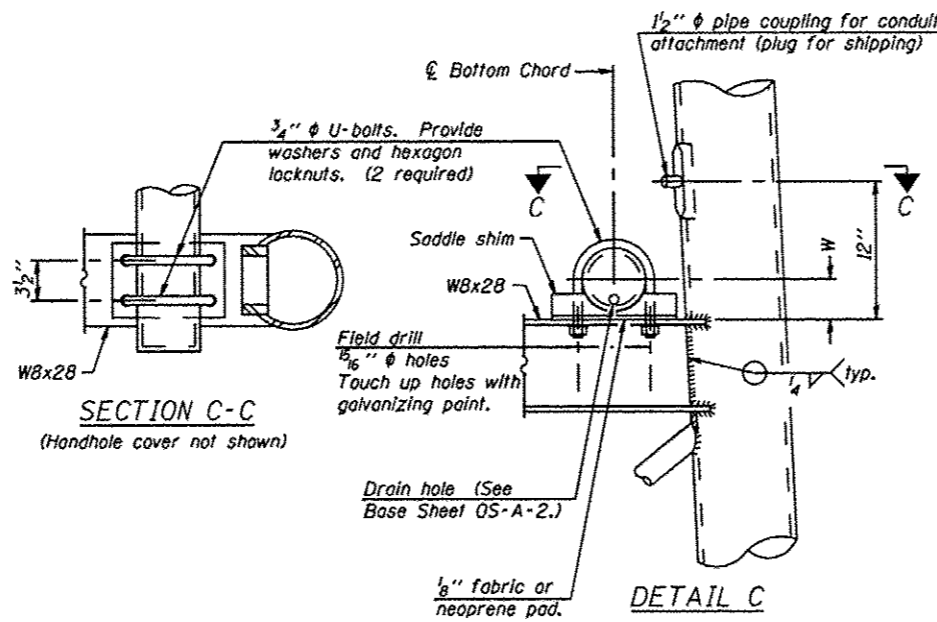
\*\* Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



**SADDLE SHIM DETAIL**

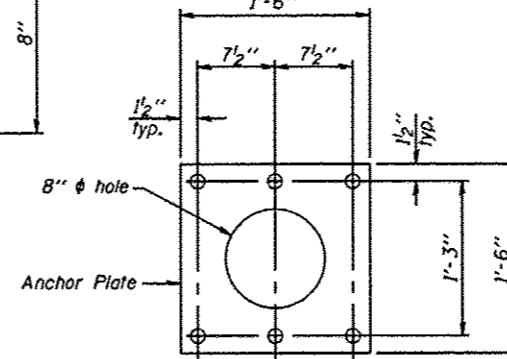
ASTM B26 Alloy 356-F  
or  
ASTM B209 Alloy 6061-T651  
(4 required per sign truss)

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

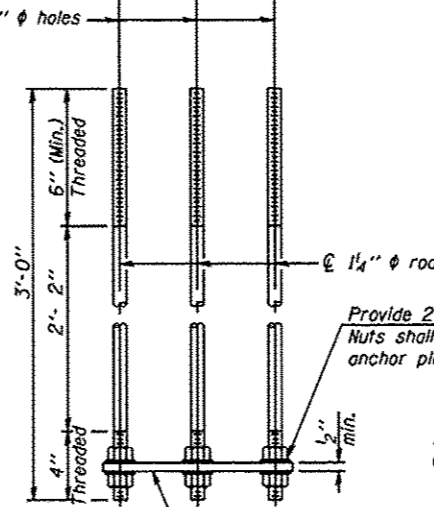


**SECTION C-C**

**DETAIL C**



**Anchor Plate**

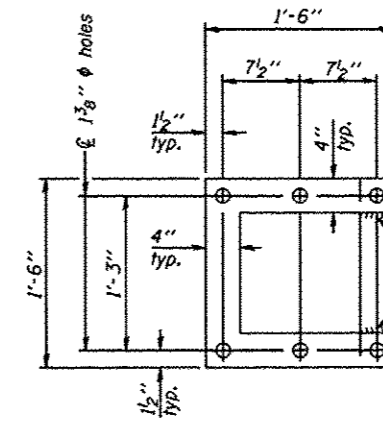


**ANCHOR ROD DETAIL**  
Spread Footing Foundation

All Thread = NC  
(National Coarse)

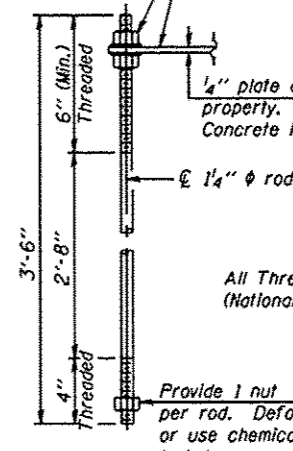
Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

**10" 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.



**ANCHOR ROD DETAIL**  
Drilled Shaft Foundation

All Thread = NC  
(National Coarse)

05-A-6A

1-20-11

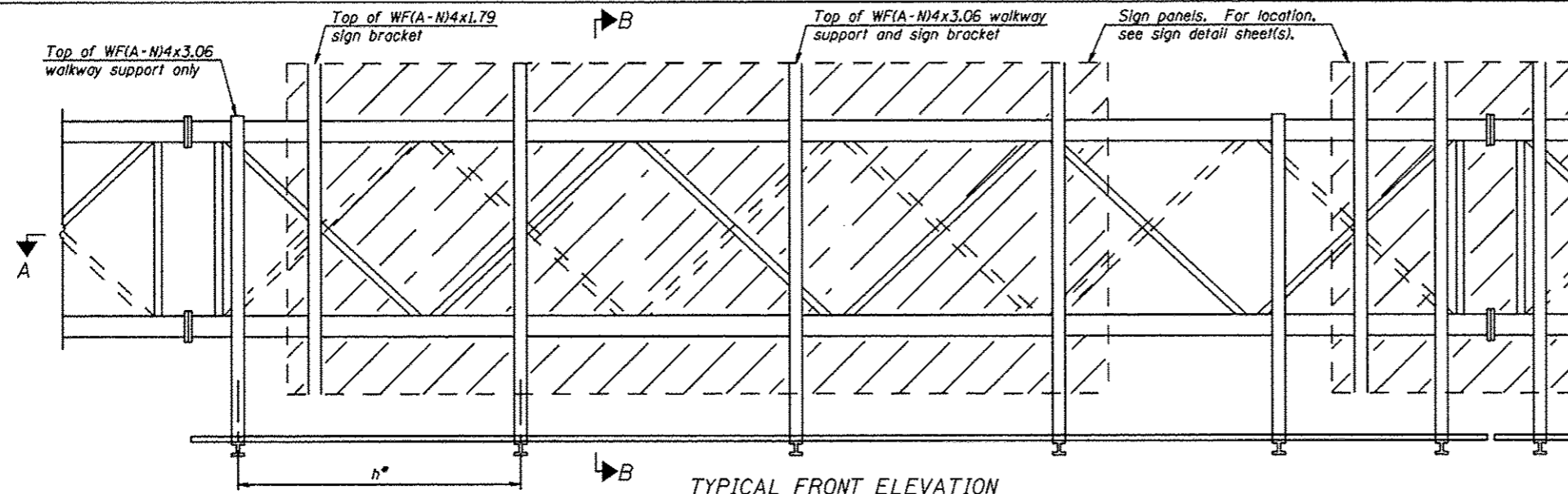
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

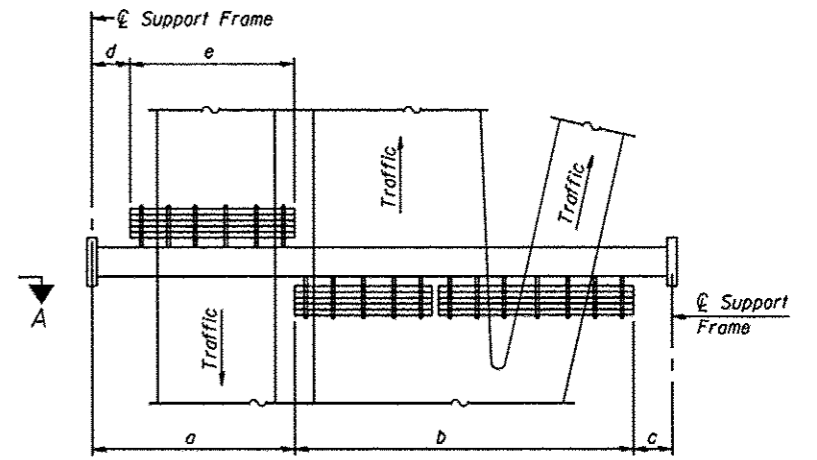
OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME DETAILS - ALUMINUM TRUSS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIGN STR REPL 13-01	Various	25	16
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				





**TYPICAL FRONT ELEVATION**  
 With lights and handrail omitted for clarity.  
 For Section B-B, see Base Sheet OS-A-10.

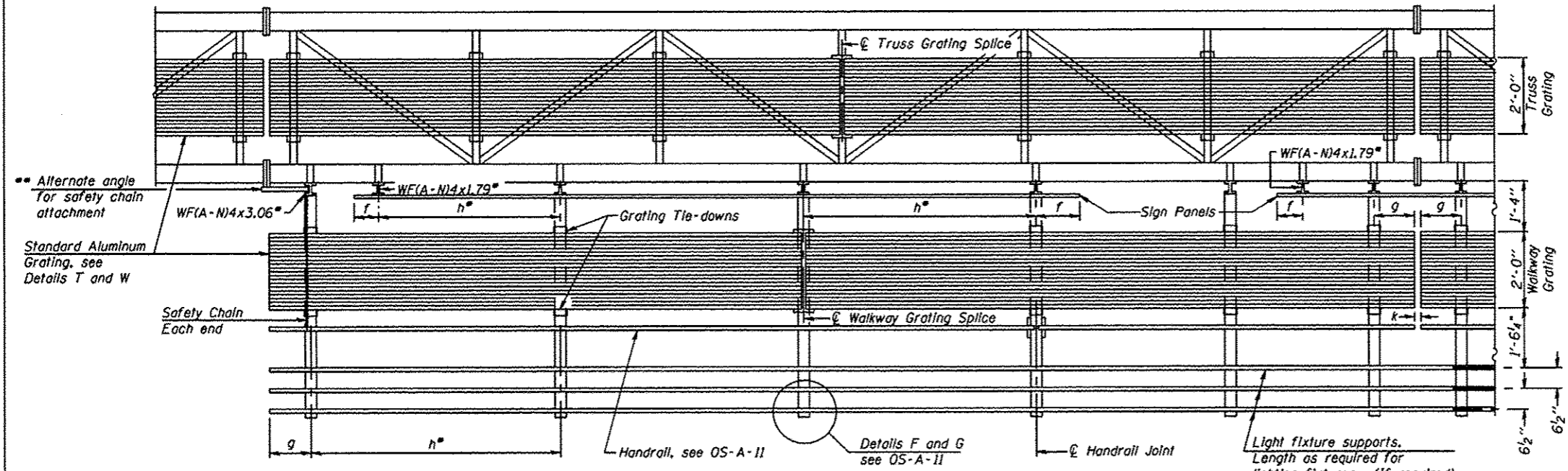


**PLAN**  
**WALKWAY AND HANDRAIL SKETCH**  
 (Road plan beneath truss varies)

**BRACKET TABLE**

WF(A-N)4x1.79 or WF(A-N)4x3.06 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

- Notes:**
- Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
  - f = 12" maximum, 4" minimum (End of sign to  $\phi$  of nearest bracket)
  - g = 12" maximum, 4" minimum (End of walkway grating to  $\phi$  of nearest support bracket)
  - h = 6'-0" maximum ( $\phi$  to  $\phi$  sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
  - 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-A-11.
- For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.  
 For Handrail Details see Base Sheet OS-A-11.



**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.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
2S0371074L015.2	636 + 75	26'-0"	42'-0"	18'-0"			42'-0"
2S0371074R012.7	896 + 74	2'-0"	46'-0"	2'-0"			46'-0"

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

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

OS-A-9

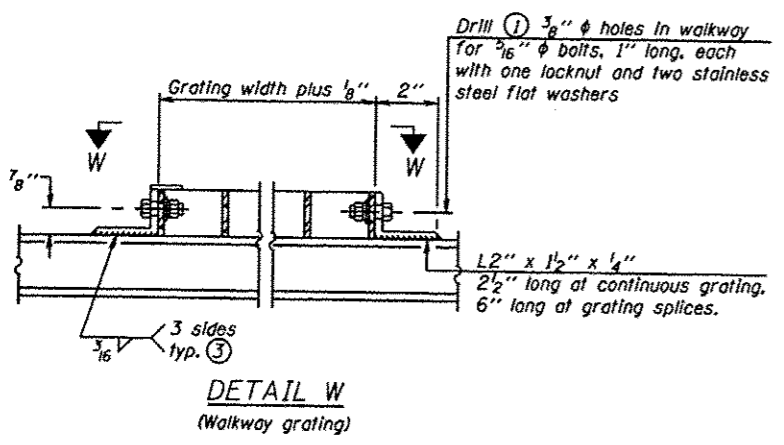
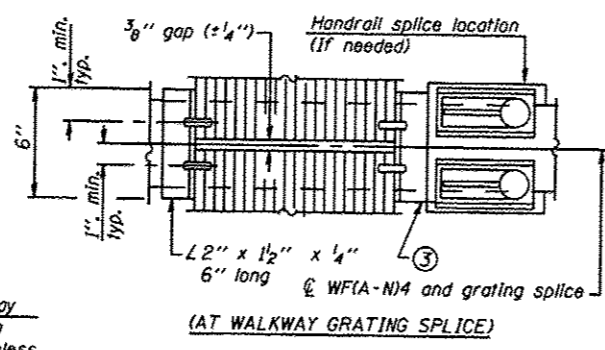
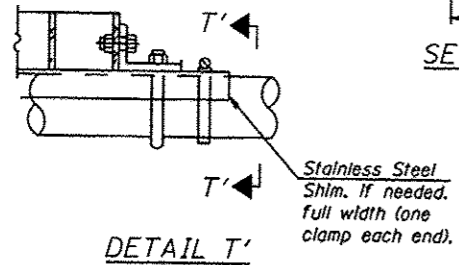
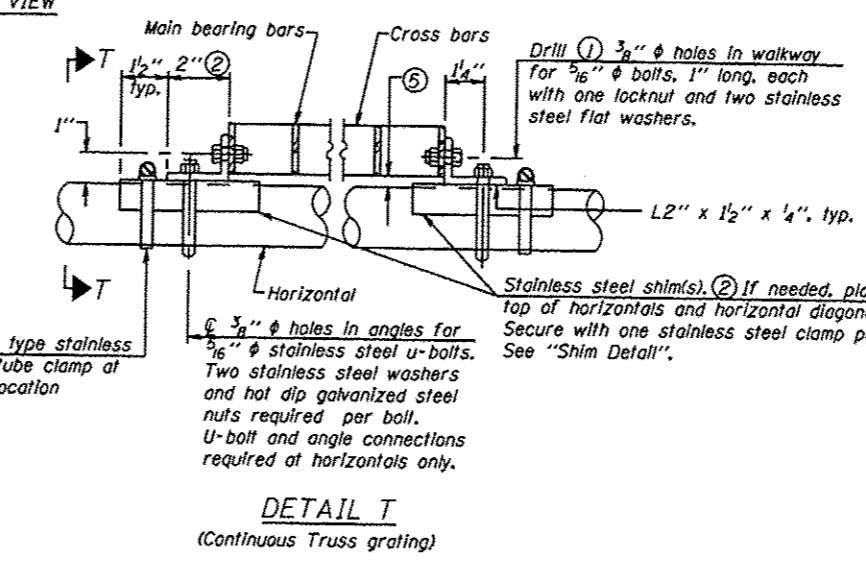
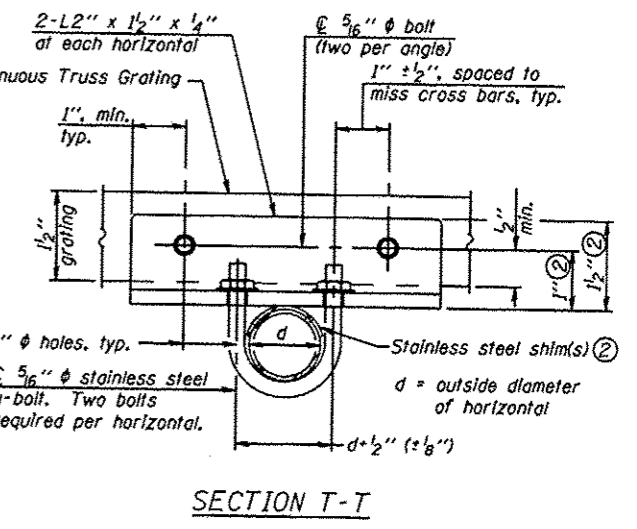
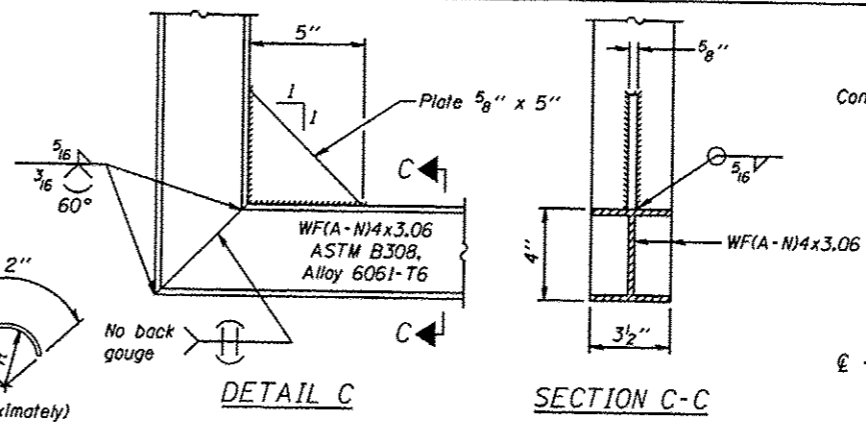
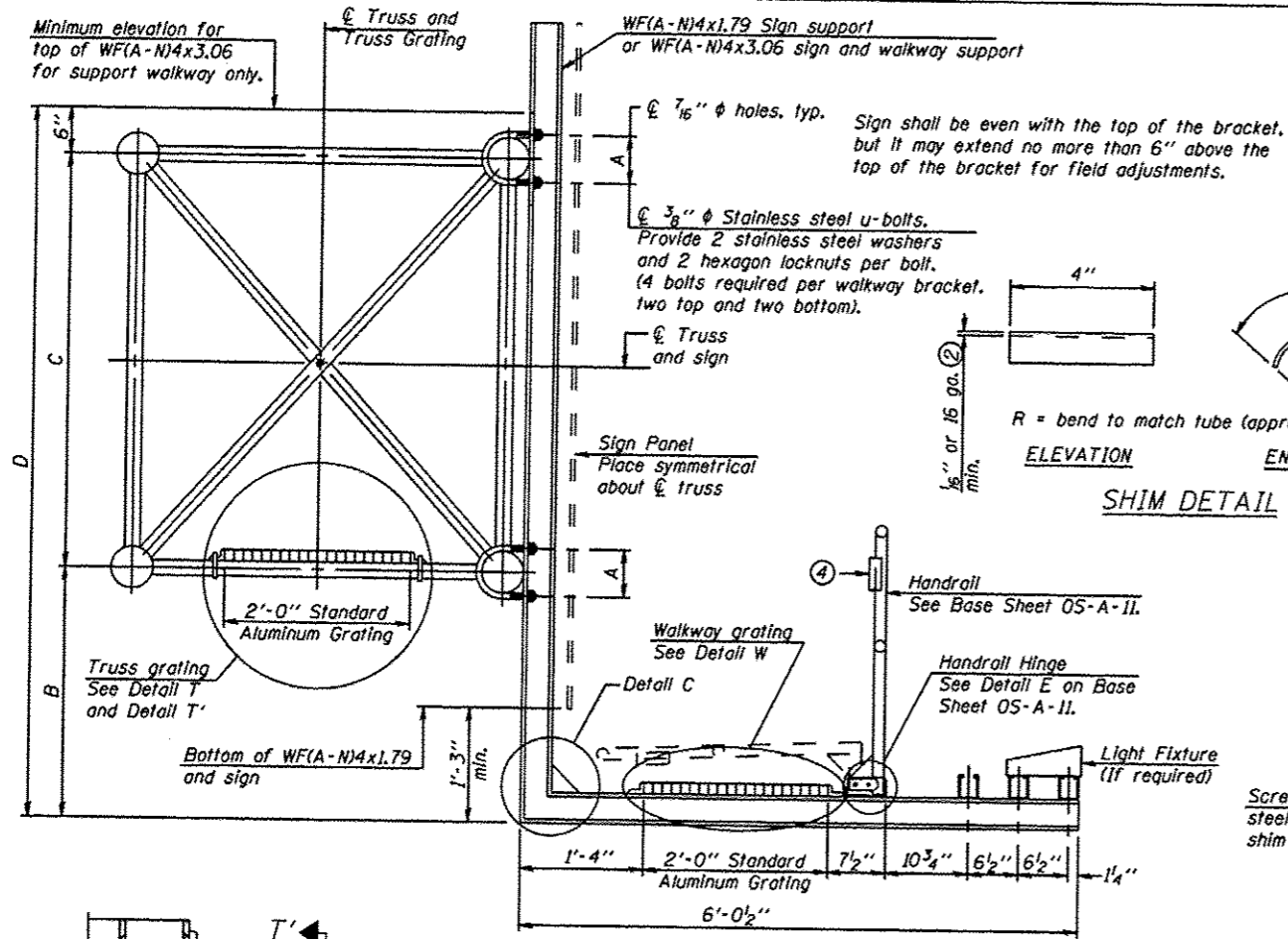
1-20-11

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

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OVERHEAD SIGN STRUCTURES  
 ALUMINUM WALKWAY DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-2 DVD SIN STR REPL 13-01		Various	25	17
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				



**SPECIFICATIONS FOR STANDARD ALUMINUM GRATING**

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/8" 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 "I" 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.<sup>3</sup> per bar, a depth of 1 1/2", spaced on 1 3/8" centers.  
 Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	ⓐ B	C	ⓑ D
2S0371074L015.2	636 + 75	5 1/2"	6'-0"	4'-6"	11'-0"
2S0371074R012.7	896 + 74	5 1/2"	5'-3"	4'-6"	10'-3"

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- 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.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- Based on actual height of tallest sign given on OS-A-1.

OS-A-10

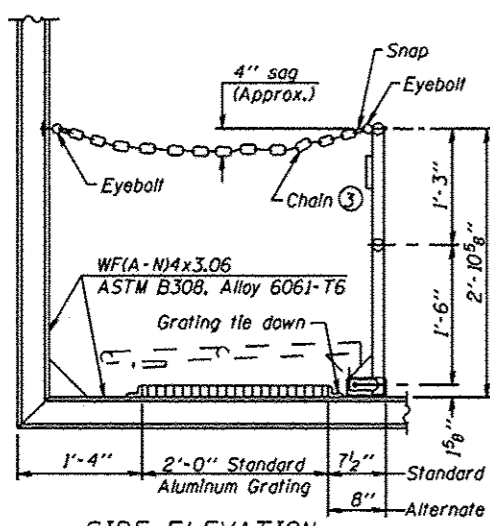
1-20-11

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
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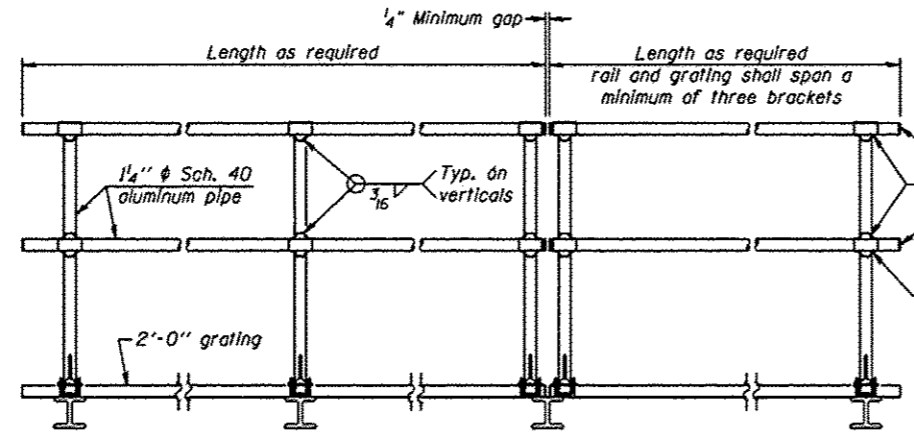
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
ALUMINUM WALKWAY DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-2 DVD SIN STR REPL 13-01		Various	25	18
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				



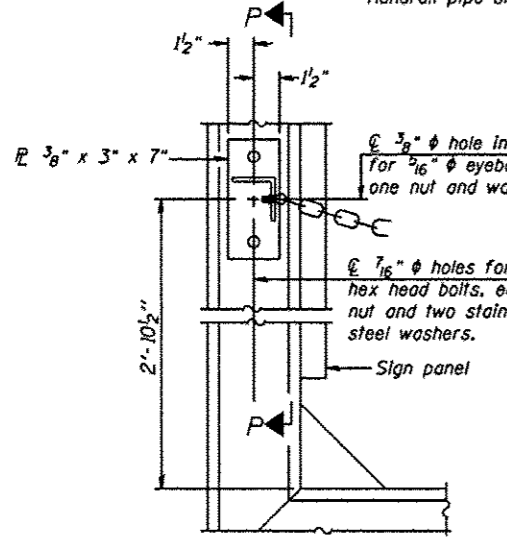
**SIDE ELEVATION**  
(Showing safety chain w/o sign)



**FRONT ELEVATION**

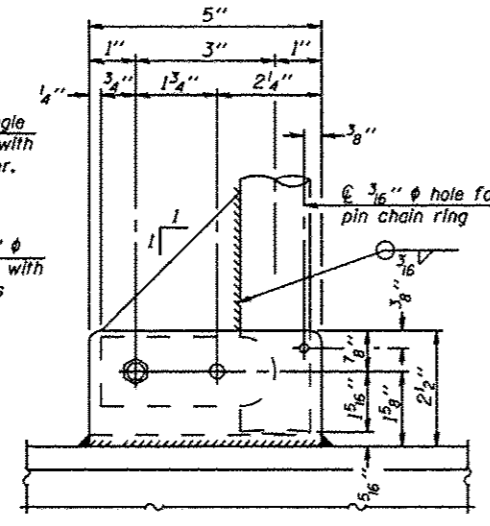
**HANDRAIL DETAILS**

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

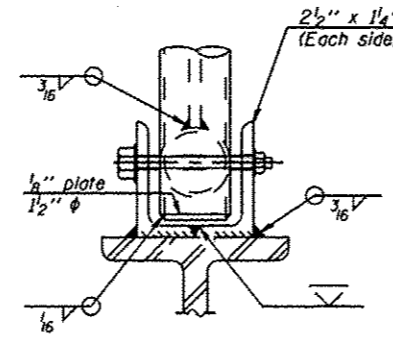


**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

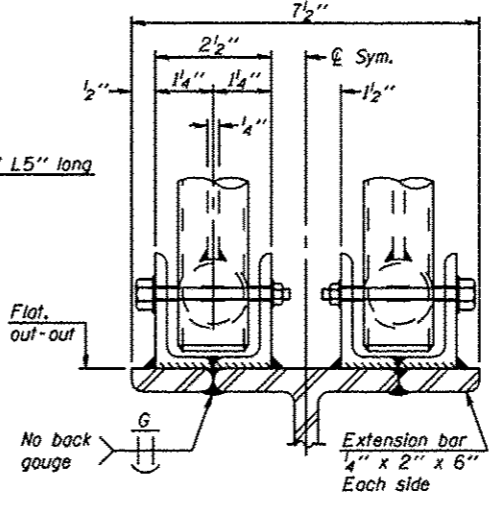


**SIDE ELEVATION**

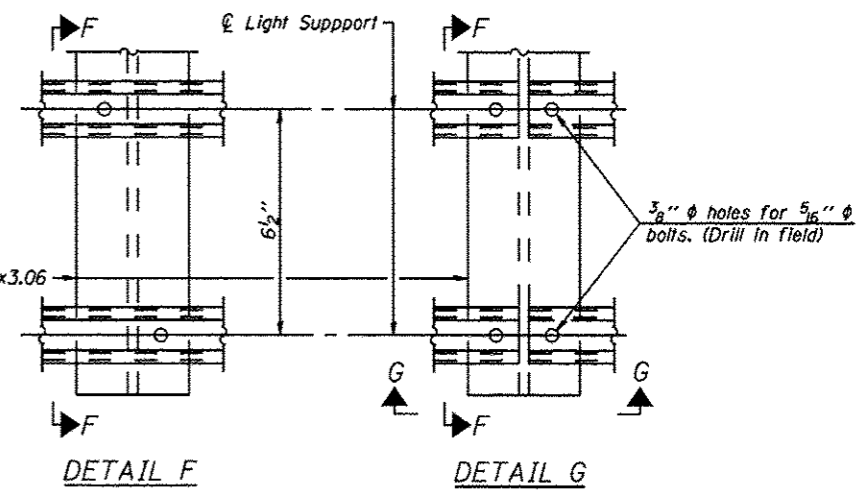


**FRONT ELEVATION**

See "Elevation" at right for dimensions.

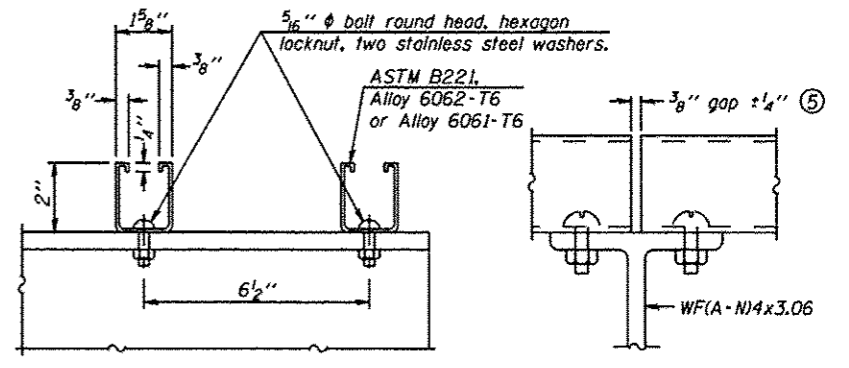


**ELEVATION AT HANDRAIL JOINT**



**DETAIL F**

**DETAIL G**

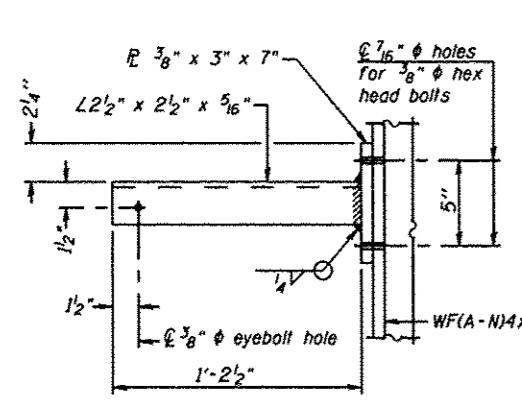


**SECTION F-F**

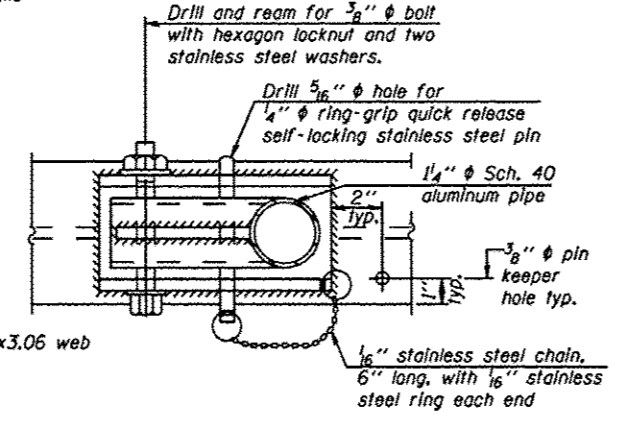
**SECTION G-G**

**LIGHTING FIXTURE MOUNTS (IF REQUIRED)**

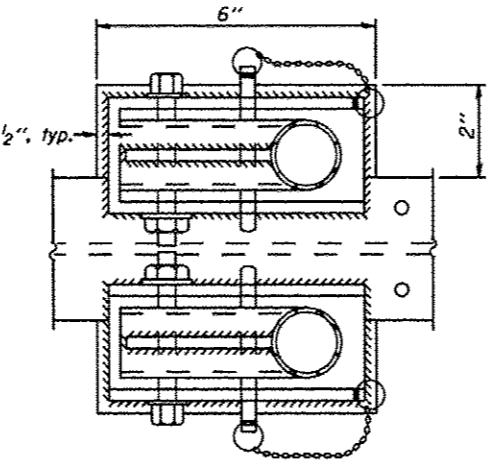
5. Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



**SECTION P-P**

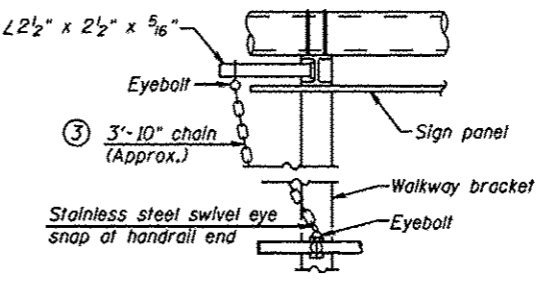


**PLAN DETAIL E HANDRAIL HINGE**



**PLAN AT HANDRAIL JOINT**

Details not shown same as "PLAN"

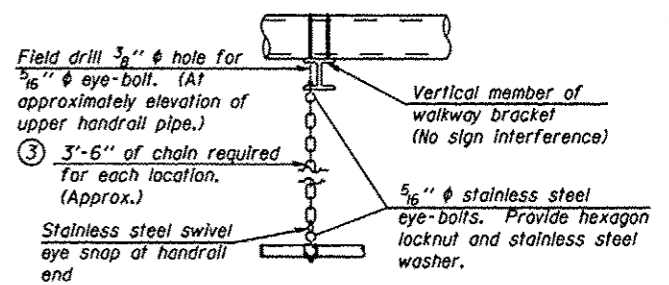


**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

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.



**SAFETY CHAIN**

One required for each end of each walkway.

OS-A-11

1-20-11

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

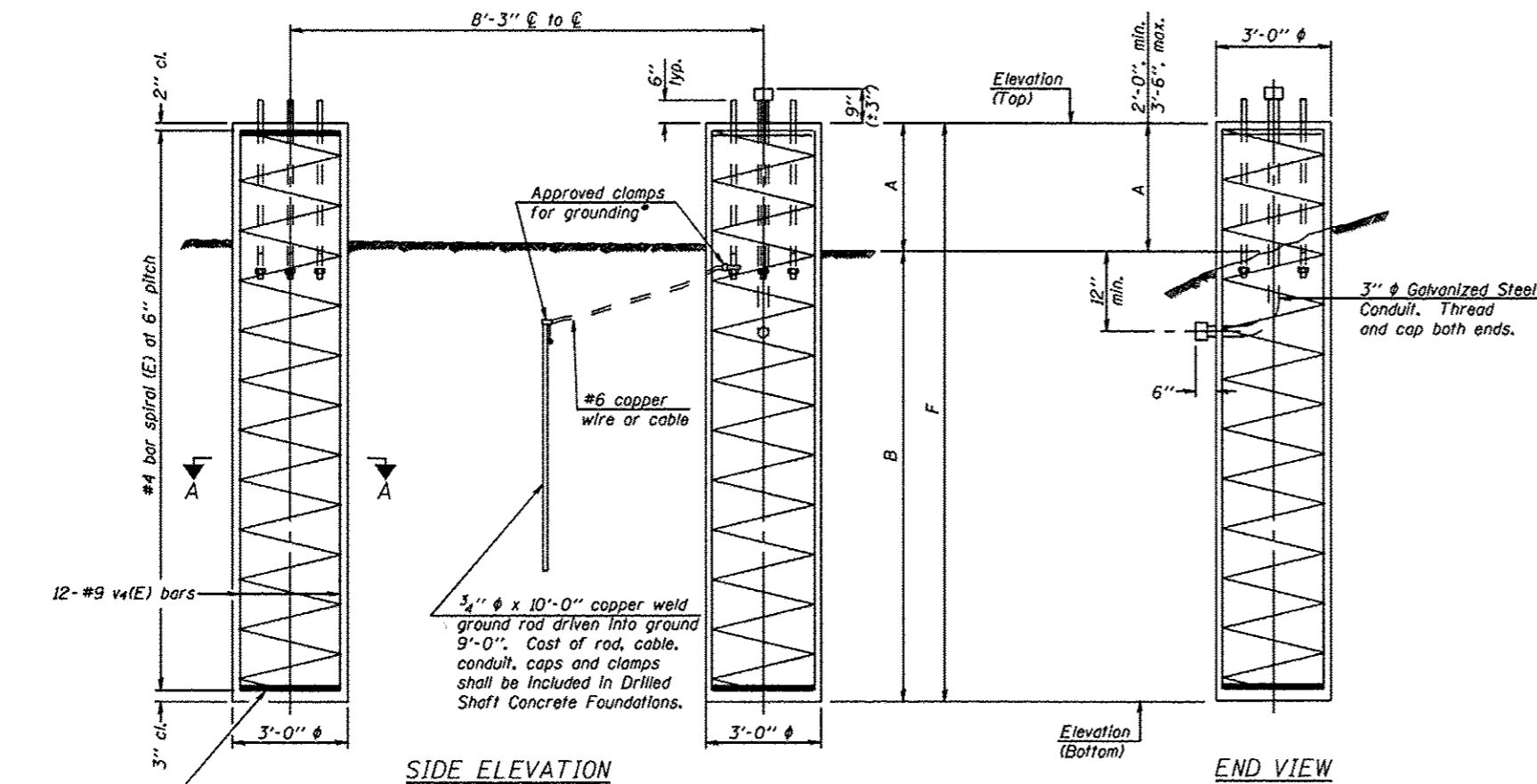
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
ALUMINUM HANDRAIL DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-2 DVD SIGN STR REPL 13-01		Various	25	19
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				

**BAR LIST - EACH FOUNDATION**

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	—
#4 bar spiral (E) - see Side Elevation				



**NOTES:**

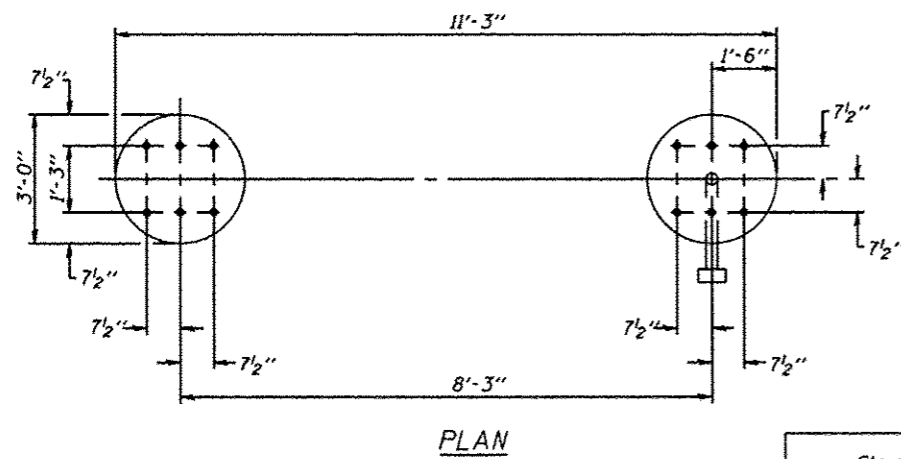
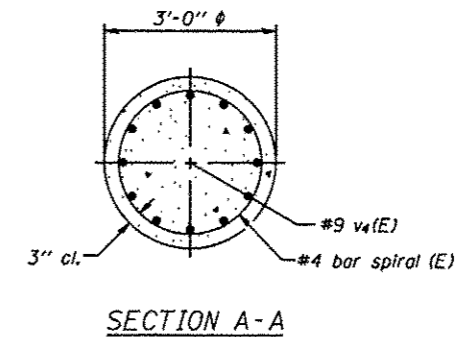
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength ( $Q_u$ ) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future 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 Engineer's written permission.

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.



For anchor rod size and placement, see Support Frame Detail Sheet.

\* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

**DETAILS FOR 10"  $\phi$  SUPPORT FRAME  
TYPE I-A or II-A TRUSS**

Structure Number	Station	Left Foundation			Right Foundation			Class DS Concrete (Cu. Yds.)				
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F
2S0371074L015.2	636 + 75	720.80'	701.00'	3.3'	16'-6"	19.8'	720.80'	701.50'	2.63'	16'-6"	19.13'	20.4

OS4-F3

1-20-11

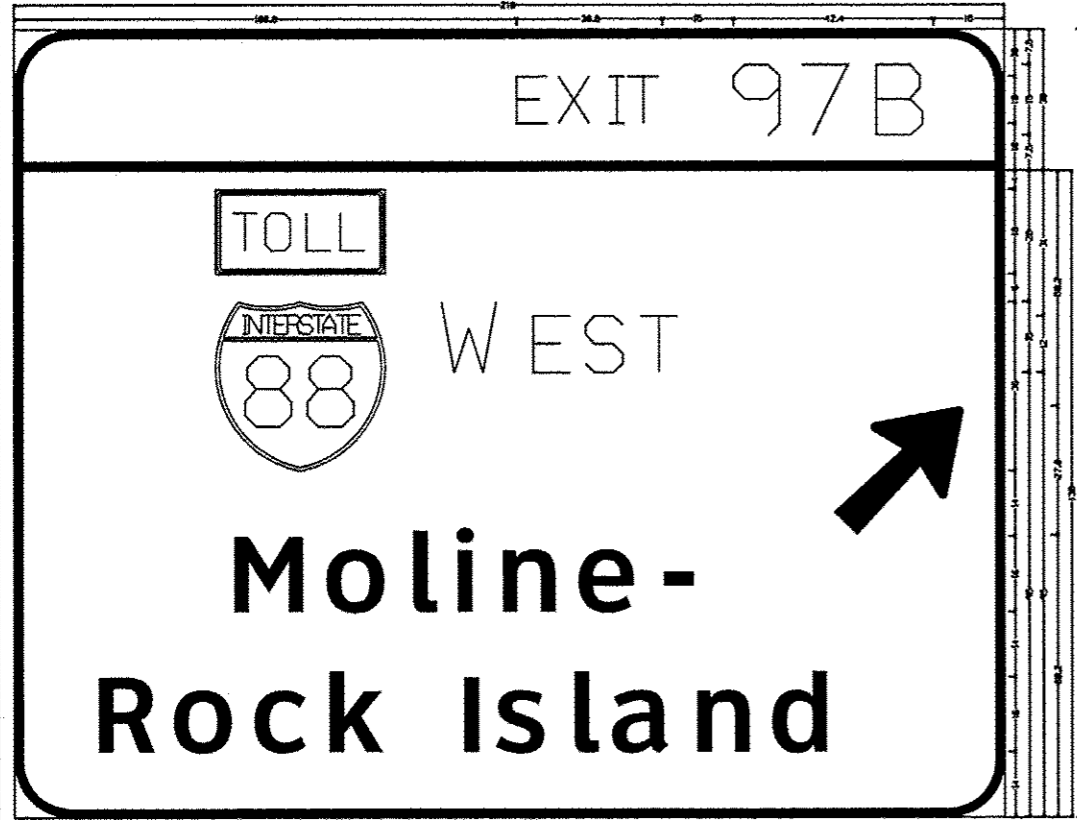
FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
DRILLED SHAFT DETAILS

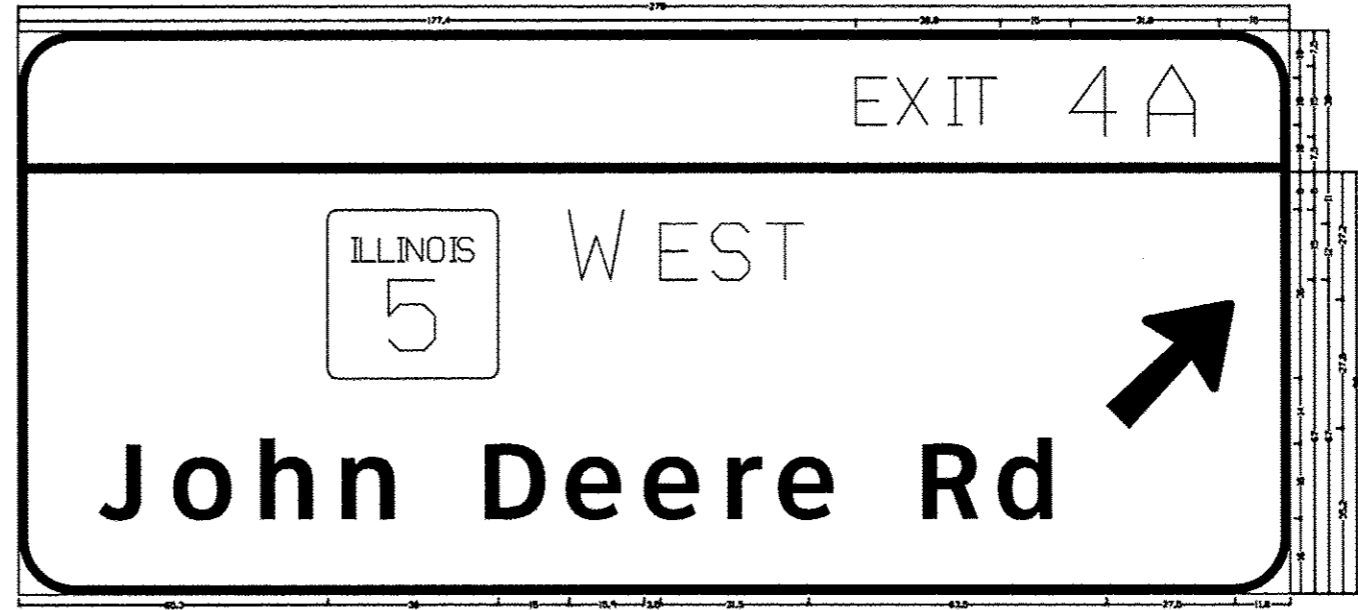
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-2 OVD SIN STR REPL 13-01	Various	Various	25	20
CONTRACT NO. 46214				
ILLINOIS FED. AID PROJECT				

2C071I039R097.2

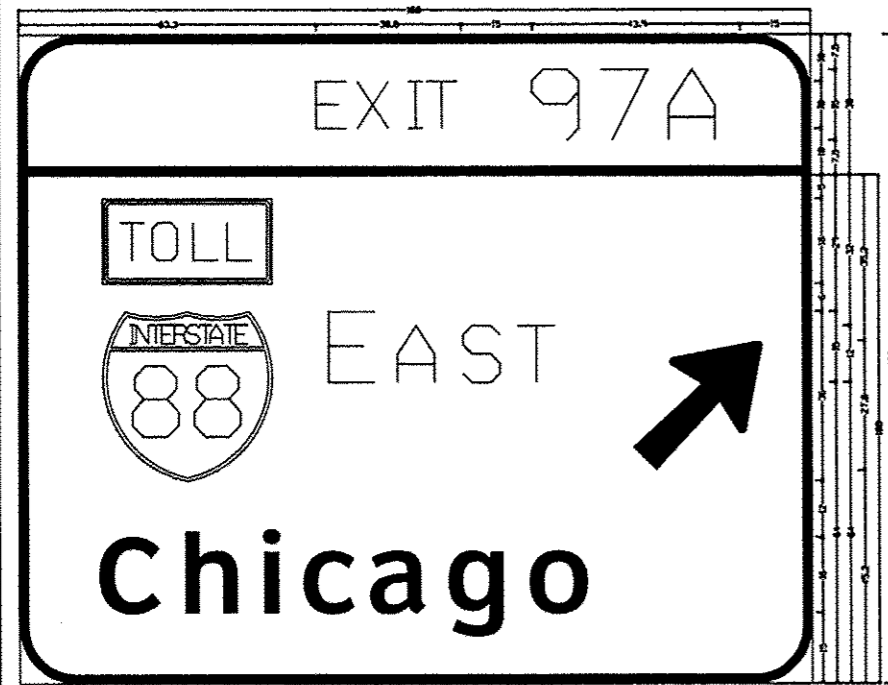


12.0' Radius, 2.0' Border, White on Green  
 EXIT 97B E Mod 2K  
 12.0' Radius, 2.0' Border, White on Green  
 (I-88) E Mod 2K (Moline-Rock Island) Clearway 5-16 Area 188 - 35.0' x 45.0'

2C081I074L003.6



12.0' Radius, 2.0' Border, White on Green  
 EXIT 4A E Mod 2K  
 12.0' Radius, 2.0' Border, White on Green  
 (I-55) E Mod 2K (John Deere Rd) Clearway 5-16 Area 188 - 35.0' x 45.0'



12.0' Radius, 2.0' Border, White on Green  
 EXIT 97A E Mod 2K  
 12.0' Radius, 2.0' Border, White on Green  
 (I-88) E Mod 2K (Chicago) Clearway 5-16 Area 188 - 35.0' x 45.0'

2C071I039L097.1

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

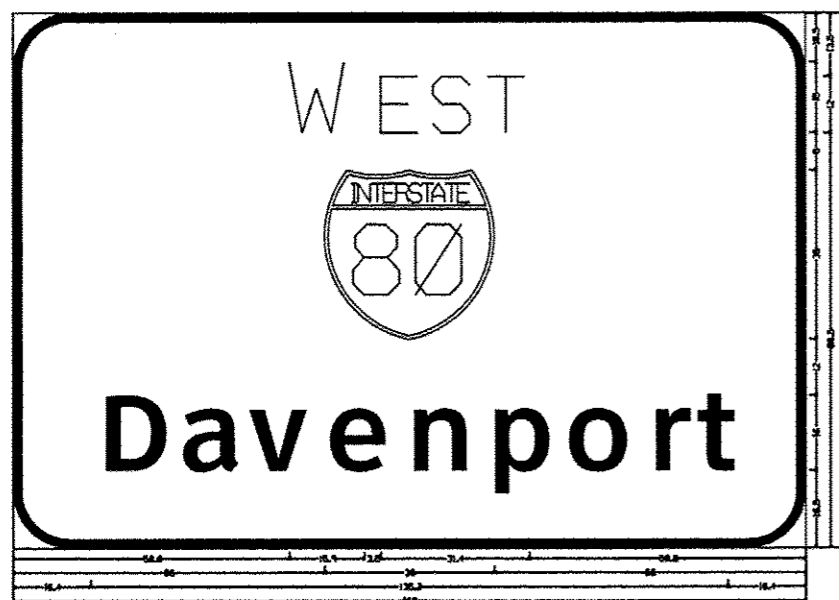
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	2-0VD SIN STR REPL 13-01	Various	25	21

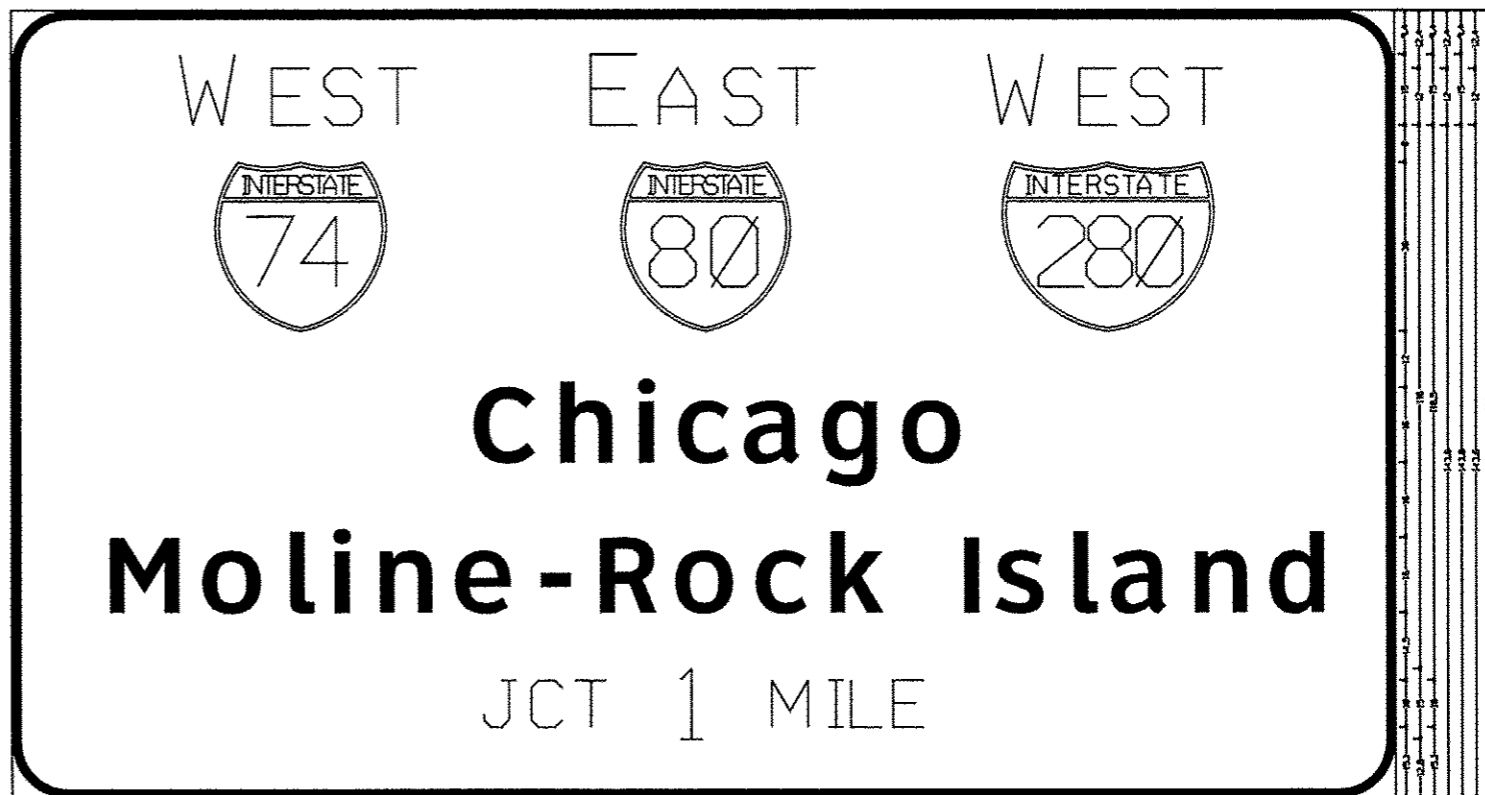
CONTRACT NO. 46214	
ILLINOIS FED. AID PROJECT	

2S037I074L015.2

2S037I074L015.2

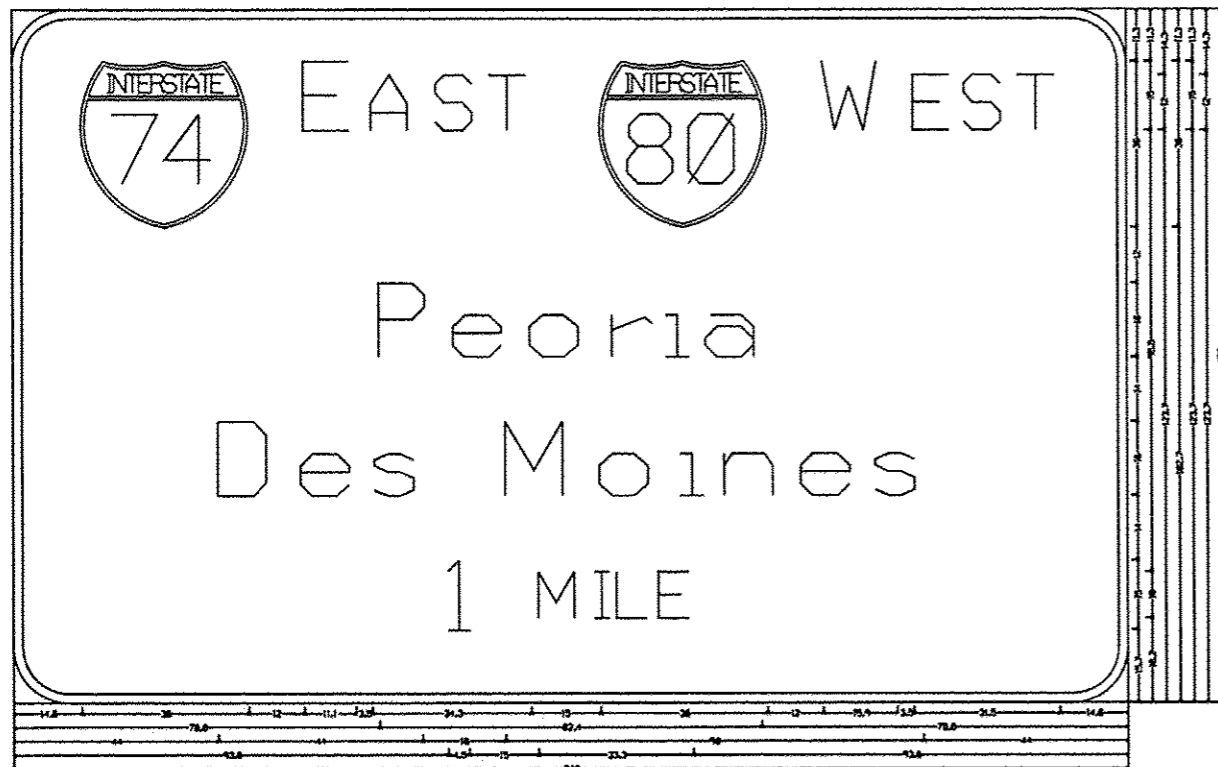


12.8" Radius, 2.8" Border, White on Green  
1/4" ESTEE Mod 201 (Davenport) Clearcutting-5-14



12.8" Radius, 2.8" Border, White on Green  
1/4" ESTEE Mod 201 (Chicago) Clearcutting-5-14 (Moline-Rock Island) Clearcutting-5-14 JCT 1 MILE Mod 201

S037I074R012.7



12.8" Radius, 2.8" Border, White on Green  
1/4" ESTEE Mod 201 (Peoria) Clearcutting-5-14 (Des Moines) Clearcutting-5-14 (1 MILE) Mod 201

S037I074R012.7



12.8" Radius, 2.8" Border, White on Green  
1/4" ESTEE Mod 201 (Chicago) Clearcutting-5-14

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-2 OVD SIN STR REPL 13-01	Various	25	22
				CONTRACT NO. 46214
ILLINOIS FED. AID PROJECT				

SIBD 220711039 R097.2  
LOCATION 2-01 CONTRACT 46214



Illinois Department of Transportation  
Division of Highways  
Illinois Department of Transportation/D-2

SOIL BORING LOG

ROUTE I-39 DESCRIPTION P92-ST40-12 Sign Truss on I-39 NB for WB I-88 Exit Ramp LOGGED BY W. Garza  
SECTION LOCATION Dement Twp. - 29SE. SEC. , TWP. 40N. RNG. 2E  
COUNTY Ogle DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	DEPTH	BLOW	UCS	MOIST
40	(ft)	(/ft)	(tsf)	(%)	ft	ft	ft	ft	ft	ft	(ft)	(/ft)	(tsf)	(%)
VERY SOFT tan SANDY LOAM			0.2 P	13.0			VERY DENSE tan SAND with medium GRAVEL (continued)				23			7.0
	97.80					78.30					34			
MEDIUM light gray SILTY LOAM with SAND lens		5					VERY DENSE light gray clean medium coarse SAND				23			
	96.30	17	0.8 P	12.0		75.80					33			
											35			
VERY STIFF gray SANDY LOAM with SAND lens		11					VERY STIFF/HARD gray SAND LOAM with fine SAND lens				11			
	93.30	15	3.8 P	9.0		73.80					15	4.0	8.0	
		14									18	P		
DENSE tan SAND with medium GRAVEL		13					VERY STIFF gray SILTY CLAY LOAM with SAND lens				6			
	91.30	17				71.30					6	2.5	27.0	
		21									8	P		
VERY DENSE tan SAND with medium GRAVEL		18					MEDIUM tan SILTY CLAY LOAM				2			
	88.80	32				67.80					3	0.9	26.0	
		35									4	B		
VERY DENSE tan SAND with medium GRAVEL		11					MEDIUM tan SILTY CLAY LOAM TILL				1			
	86.30	25				66.30					3	0.7	15.0	
		33									4	B		
VERY DENSE tan SAND with medium GRAVEL		16					STIFF tan SILTY CLAY LOAM TILL				1			
	83.80	27				63.80					4	1.2	14.0	
		31									5	B		
VERY DENSE tan SAND with medium GRAVEL		16					End of Boring							
	80.80	19												
		34												
		15												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-89)

SIBD 220711039 L097.1  
LOCATION 2-02 CONTRACT 46214



Illinois Department of Transportation  
Division of Highways  
Illinois Department of Transportation/D-2

SOIL BORING LOG

ROUTE I-39 DESCRIPTION P92-ST41-12 Sign Truss on I-39 NB for WB I-88 Exit Ramp LOGGED BY W. Garza  
SECTION LOCATION Dement Twp. - 29SE. SEC. , TWP. 40N. RNG. 2E  
COUNTY Ogle DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	DEPTH	BLOW	UCS	MOIST
41	(ft)	(/ft)	(tsf)	(%)	ft	ft	ft	ft	ft	ft	(ft)	(/ft)	(tsf)	(%)
MEDIUM tan SILTY LOAM			0.8 P	11.0			VERY STIFF tan SILTY CLAY LOAM TILL (continued)				6			23.0
	98.10					79.10					12	B		
STIFF tan SANDY LOAM		7					VERY STIFF tan SILTY CLAY LOAM TILL				8			
	96.60	5	1.2 B	11.0		76.60					12	2.9	12.0	
		5									13	B		
STIFF tan LOAM		7					STIFF tan SILTY CLAY LOAM TILL				8			
	94.10	6	1.2 B	14.0		74.10					11	1.8	12.0	
		6									11	B		
VERY STIFF gray CLAY LOAM		4					No Recovery				10			
	91.60	6	3.3 B	26.0		71.60					11			
		7									13			
VERY STIFF tan SILTY CLAY LOAM		3					STIFF gray SILTY CLAY LOAM TILL				4			
	89.10	4	2.5 B	13.0		69.10					5	1.8	13.0	
		7									8	B		
VERY STIFF tan SILTY CLAY LOAM		4					STIFF gray SILTY CLAY LOAM TILL				5			
	86.10	5	3.1 B	13.0		66.60					8	1.8	13.0	
		7									10	B		
STIFF tan SILTY CLAY LOAM TILL		3					VERY STIFF gray SILTY CLAY LOAM TILL				4			
	84.10	5	1.5 B	24.0		84.10					6	2.3	12.0	
		6									10	B		
VERY STIFF gray/tan CLAY LOAM TILL		4					End of Boring							
	81.60	7	3.5 B	21.0										
		9												
		2												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-89)

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-2 OVD SIN STR REPL 13-01	Various	25	23
		DRAWN -	REVISED -		CONTRACT NO. 46214				
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT				



**Illinois Department of Transportation**  
Division of Highways  
 Illinois Department of Transportation/D-3

**SOIL BORING LOG**

ROUTE FAP 595 DESCRIPTION 1-74, John Deere Road over I-74, .25 m. E. of 27th Street LOGGED BY W. Garza  
 SECTION 142-R LOCATION S. Moline Twp. - 16 NE, SEC., TWP. 17N, RNG. 1W  
 COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	BORING NO. Station Offset	Ground Surface Elev.	DEPTH (ft)	BLOWS (/ft)	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	DEPTH (ft)	BLOWS (/ft)	UCS (tsf)	MOIST (%)
081-0097, 0098 250+02.98	B-1a 249+86 90.00R RI CL	576.50							584.0 ft 553.5 ft After Hrs.				
MEDIUM brown SILTY LOAM							DENSE gray SHALE			18			
										22			
										26			
		574.00					VERY DENSE gray SHALE			100/1'			
HARD gray SILTY LOAM							Auger Refusal @ 23.5			PEN			
		572.50					End of Boring						
STIFF dark gray CLAY LOAM													
		570.00											
MEDIUM dark gray CLAY LOAM													
		567.50											
STIFF gray SILTY LOAM													
		565.00											
MEDIUM gray SILTY CLAY													
		562.50											
MEDIUM gray SILTY CLAY													
		559.50											
MEDIUM gray fine SAND													
		557.00											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



**Illinois Department of Transportation**  
Division of Highways  
 Illinois Department of Transportation/D-3

**SOIL BORING LOG**

ROUTE I-74 DESCRIPTION I-74 Sign Truss Sign Truss, NB I-74, 1.1 m. S. of I-80 LOGGED BY W. Garza  
 SECTION                      LOCATION Colona Twp. - 24NW, SEC., TWP. 17N, RNG. 1E  
 COUNTY Henry DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	BORING NO. Station Offset	Ground Surface Elev.	DEPTH (ft)	BLOWS (/ft)	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	DEPTH (ft)	BLOWS (/ft)	UCS (tsf)	MOIST (%)
78	B-2 11' S 43.00R W of NB CL	96.80							None ft Dry ft After Hrs.				
STIFF brown SILTY CLAY LOAM							MEDIUM gray SILTY LOAM			2	0.5	27.0	
							(continued)			2	B		
		94.80								75.80			
SOFT tan SILTY LOAM							STIFF gray SILTY CLAY						
		83.30											
VERY SOFT tan SILTY LOAM							STIFF gray SILTY CLAY LOAM						
		90.80					with SAND lens						
SOFT tan SILTY LOAM							SOFT olive green LOAM						
		88.30											
MEDIUM light gray SILTY LOAM							HARD tan LOAM TILL						
		85.80											
STIFF tan SILTY LOAM							HARD gray TILL with SHALE						
		83.30					fragments						
MEDIUM gray SILT							HARD gray CLAY LOAM TILL						
		80.80											
SOFT gray SILT							End of Boring						
		78.30											
MEDIUM gray SILTY LOAM													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME	USER NAME	DESIGNED	REVISED	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED	REVISED		Various D-2 QVD SIN STR REPL 13-01	Various	25	24	
		DRAWN	REVISED		CONTRACT NO. 46214				
		CHECKED	REVISED		ILLINOIS FED. AID PROJECT				



25037I074 L015.2

SIGN CONTRACT 46214  
LOCATION 2-09



**Illinois Department of Transportation**  
Division of Highways  
Illinois Department of Transportation/D-2

**SOIL BORING LOG**

Page 1 of 1

Date 2/9/12

ROUTE I-74 DESCRIPTION I-74 Sign Truss Sign Truss, NB I-74, 1.1 m. S. of I-80 LOGGED BY W. Garza

SECTION LOCATION Colona Twp. - 24NW, SEC. , TWP. 17N, RNG. 1E

COUNTY Henry DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 78  
Station

BORING NO. B-3  
Station 11' S  
Offset 55.00ft E of NB CL  
Ground Surface Elev. 98.80 ft

DEPTH ft	BLOW S	UCS Qu	MOIST T	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter 66.6 ft Upon Completion Dry ft After Hrs.	DEPTH ft	BLOW S	UCS Qu	MOIST T
						MEDIUM gray SILTY LOAM with 11% ORGANICS (continued)	77.80	1	0.7	40.0
		1.5	23.0							
		P								
96.80	3					MEDIUM gray SILTY LOAM		0		
	3	0.8	26.0					1	0.6	27.0
95.30	4	B					75.30	4	P	
	3					STIFF gray SILTY CLAY		1		
	3	1.2	28.0				-28	4	1.2	28.0
92.80	3	B					72.30	4	B	
	1					STIFF gray CLAY LOAM TILL		1		
	1	0.1	32.0					3	1.4	26.0
90.30	2	P					70.30	5	B	
	1					STIFF gray CLAY LOAM TILL		1		
	1	0.2	26.0				-30	1	1.7	24.0
87.80	3	B					67.80	4	B	
	1					STIFF olive green LOAM TILL		2		
	1	0.2	25.0					4	1.1	17.0
85.30	4	B					65.30	6	B	
	2					VERY STIFF gray CLAY LOAM TILL		3		
	2	0.5	27.0				-35	6	2.5	13.0
82.80	4	B					62.80	10	B	
						End of Boring				
	1					MEDIUM gray SILTY LOAM				
	2	0.5	28.0							
80.30	3	B								
	1						-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	ILLINOIS FED. AID PROJECT															
		CHECKED -	REVISED -																	
		DRAWN -	REVISED -																	
		CHECKED -	REVISED -																	
PLOT SCALE *	PLOT DATE *																			
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																
Various	D-2 OVD SIGN STR REPL 13-01	Various	25	25																
			CONTRACT NO. 46214																	