

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

VARIOUS ROUTES
D-4 OVD SIN STR REPL 2011-29
KNOX & PEORIA COUNTIES
C-60-029-11

INDEX OF SHEETS

<u>NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2-	SUMMARY OF QUANTITIES
3-39	SCHEDULE OF LOCATIONS FOR DISTRICT 4

STANDARDS

- 701006-03
- 701101-02
- 701106-02
- 701201-04
- 701301-04
- 701400-05
- 701401-06
- 701406-06
- 701411-07
- 701446-02
- 701901-01
- 720021-02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DEC. 10 20 10
PASSED *[Signature]*
ENGINEER OF OPERATIONS

February 4 20 11
Scott E. Stille, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED February 4 20 11
Christina M. Radtke
DIRECTOR DIVISION OF HIGHWAYS

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

CONTRACT NO. 46152

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 1 OF 30 SHEETS	P.A. SITE	SECTION	COUNTY	TOTAL SHEET NO.	
		CHECKED -	REVISED -			Peoria	D-4 OVD SIN STR REPL. (1-29)	KNOX-PEORIA	30	1
PLOT SCALE *		DRAWN -	REVISED -			CONTRACT NO. 46152				
PLOT DATE *		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT				

CODE NUMBER	PAY ITEM	UNIT	100% STATE TOTAL QUANTITY	PEORIA URBAN	KNOX RURAL
67100100	MOBILIZATION	L SUM	1.00	0.50	0.50
X7010210	TRAFFIC CONTROL & PROTECTION (SPECIAL)	L SUM	1.00	0.50	0.50
73300200	OVERHEAD SIGN STRUCTURE-SPAN, TYPE I-A (4'-6" X 5'-3")	FOOT	94.00		94.00
73302170	OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE II-C-A (36" X 5'-8")	FOOT	30.00		30.00
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	7.12		7.12
73600100	REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00		1.00
73600200	REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00		1.00
73700300	REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00		1.00
73801100	REMOVE AND REERECT OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	1.00	
T9990205	FURNISH AND ERECT SIGN PANEL	SQ FT	4,124.00	3,574.00	550.00
T9990710	REMOVE AND REINSTALL WALKWAY	FOOT	163.50		163.50
T9991300	REMOVE EXISTING SIGN PANEL	EACH	17.00	14.00	3.00
T9992530	REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER EACH SIGN	EACH	7.00	2.00	5.00
T9995010	REMOVE AND RE- ERECT OVERHEAD SIGN END SUPPORT - STRUCTURE -	EACH	2.00	2.00	
T9995200	REPLACE U-BOLT	EACH	3.00		3.00
T9995210	TIGHTEN U-BOLT	EACH	3.00	3.00	
T9995400	FURNISH AND INSTALL SADDLE BLOCK CSHM	EACH	4.00		4.00
T9996200	REPAIR CONCRETE FOUNDATION FOR OVERHEAD SIGN STRUCTURE	EACH	4.00	4.00	
T9996300	OVERHEAD SIGN SUPPORT GROUT REPAIR	EACH	4.00	4.00	
T9997255	FURNISH AND INSTALL TRUSS DAMPER	EACH	1.00		1.00
T9997700	FURNISH AND INSTALL SAFETY CHAIN	EACH	12.00	6.00	6.00
T9998105	REPLACE HAND-HOLE COVER BOLT	EACH	8.00	2.00	6.00
T9998300	TIGHTEN SPLICE FLANGE	EACH	1.00	1.00	
T9998600	TIGHTEN CANTILEVER CONNECTION	EACH	1.00	1.00	
T9998700	FURNISH AND INSTALL WALKWAY TIE DOWN BOLTS	EACH	1.00	1.00	
T9998815	REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	36.00	26.00	10.00
T9998910	FURNISH AND INSTALL METAL SCREEN	EACH	1.00		1.00
T9998992	RELOCATE ELECTRIC SERVICE	L SUM	1.00		1.00
T9998995	DISCONNECT AND RECONNECT ELECTRIC SERVICE	EACH	6.00	3.00	3.00
X0321631	REMOVAL OF LUMINAIRE	EACH	21.00	12.00	9.00
X0323583	SPEED INDICATOR SIGN	CAL DA	40.00	20.00	20.00
X7330100	PAINT OVERHEAD SIGN SUPPORT	EACH	12.00	8.00	4.00

FILE NAME :
WPLLS

USER NAME : USER0	DESIGNED -	REVISED -
PLOT SCALE : 1"=20'	DRAWN -	REVISED -
PLOT DATE : 04/20/04	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE:	SHEET NO. 2 OF 30 SHEETS	STA.	TO STA.																				
<table border="1"> <tr> <th>F.A. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>Portland-4 OVD SM STR REPL II-20</td> <td></td> <td>MON-PEORIA</td> <td>30</td> <td>2</td> </tr> <tr> <td colspan="3"></td> <td colspan="2">CONTRACT NO. 46152</td> </tr> <tr> <td colspan="5" style="text-align: center;">(ILLINOIS) FED. AID PROJECT</td> </tr> </table>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	Portland-4 OVD SM STR REPL II-20		MON-PEORIA	30	2				CONTRACT NO. 46152		(ILLINOIS) FED. AID PROJECT				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																			
Portland-4 OVD SM STR REPL II-20		MON-PEORIA	30	2																			
			CONTRACT NO. 46152																				
(ILLINOIS) FED. AID PROJECT																							

Location No.:	4-01	State I.D. No.:	4S048U034L008.0
County:	KNOX	Route:	US 34
M.P.:	8.00	Direction:	WB
Description of Work	Unit	Quantity	
REMOVE AND REINSTALL WALKWAY	FOOT	145.00	
REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	1.00	
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	94.00	
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	
FURNISH AND ERECT SIGN PANEL	SQ FT	176.00	
REMOVE LUMINAIRE	EACH	4.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	

Location No.:	4-04	State I.D. No.:	4S072H74L001.10
County:	PEORIA	Route:	I474
M.P.:	1.10	Direction:	WB
Description of Work	Unit	Quantity	
REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	1.00	
REPLACE HAND-HOLE COVER BOLT	EACH	4.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	12.00	
FURNISH AND ERECT SIGN PANEL	SQ FT	625.75	
TIGHTEN SPLICE FLANGE	EACH	1.00	
REMOVE LUMINAIRE	EACH	4.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	

Location No.:	4-07	State I.D. No.:	4S072S006L000.50
County:	PEORIA	Route:	IL 6
M.P.:	0.50	Direction:	SB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	393.00	
REMOVE EXISTING SIGN PANEL	EACH	3.00	

Location No.:	4-10	State I.D. No.:	4C072H74L000.40
County:	PEORIA	Route:	I474
M.P.:	0.4	Direction:	WB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	125.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

Location No.:	4-02	State I.D. No.:	4C048U150L011.9
County:	KNOX	Route:	US 150
M.P.:	11.9	Direction:	WB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	75.00	
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE II-C-A	FOOT	30.00	
DRILLED SHAFT CONCRETE FOUNDATION	CU YD	7.12	
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00	
REPLACE AND TIGHTEN CLIPS PER SIGN	EACH	1.00	
FURNISH AND INSTALL TRUSS DAMPER	EACH	1.00	
FURNISH AND INSTALL METAL SCREEN	EACH	1.00	
FURNISH AND INSTALL SADDLE BLOCK	EACH	4.00	
REMOVE LUMINAIRE	EACH	2.00	
DISCONNECT AND RECONNECT ELECTRIC SERVICE	EACH	1.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	
REMOVE AND REINSTALL WALKWAY	FOOT	18.50	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

Location No.:	4-05	State I.D. No.:	4S072H74L001.6
County:	PEORIA	Route:	I474
M.P.:	1.60	Direction:	WB
Description of Work	Unit	Quantity	
REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	1.00	
TIGHTEN U-BOLT	EACH	3.00	
REPLACE HAND-HOLE COVER BOLT	EACH	2.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	10.00	
PAINT OVERHEAD SIGN SUPPORT	EACH	4.00	
FURNISH AND ERECT SIGN PANEL	SQ FT	625.75	
REPAIR CONCRETE FOUNDATION FOR OVERHEAD SIGN STR	EACH	4.00	
REMOVE AND REERECT OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	
REMOVE AND REERECT OVERHEAD SIGN END SUPPORT	EACH	2.00	
OVERHEAD SIGN SUPPORT GROUT REPAIR	EACH	4.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	
FURNISH AND INSTALL WALKWAY/TIE DOWN BOLTS	EACH	1.00	
REMOVE LUMINAIRE	EACH	4.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

Location No.:	4-08	State I.D. No.:	4S072S006L001.0
County:	PEORIA	Route:	IL 6
M.P.:	1.00	Direction:	SB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	357.00	
REMOVE EXISTING SIGN PANEL	EACH	2.00	

Location No.:	4-11	State I.D. No.:	4C072H74L000.60
County:	PEORIA	Route:	I474
M.P.:	0.60	Direction:	WB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	575.50	
REMOVE EXISTING SIGN PANEL	EACH	3.00	

Location No.:	4-03	State I.D. No.:	4S048U074R045.30
County:	KNOX	Route:	I74
M.P.:	45.3	Direction:	EB
Description of Work	Unit	Quantity	
REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	2.00	
REPLACE U-BOLTS	EACH	3.00	
REPLACE HAND-HOLE COVER BOLT	EACH	2.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	10.00	
PAINT OVERHEAD SIGN SUPPORT	EACH	4.00	
FURNISH AND ERECT SIGN PANEL	SQ FT	299.00	
DISCONNECT AND RECONNECT ELECTRIC SERVICE	EACH	1.00	
REMOVE LUMINAIRE	EACH	3.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	

Location No.:	4-06	State I.D. No.:	4C072H74R000.10
County:	PEORIA	Route:	I474
M.P.:	0.10	Direction:	EB
Description of Work	Unit	Quantity	
TIGHTEN CANTILEVER CONNECTION	EACH	1.00	
REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	1.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	4.00	
PAINT OVERHEAD SIGN SUPPORT	EACH	4.00	
FURNISH AND ERECT SIGN PANEL	SQ FT	125.00	
FURNISH AND INSTALL SAFETY CHAIN	EACH	2.00	
REMOVE LUMINAIRE	EACH	4.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

Location No.:	4-09	State I.D. No.:	GROUND MOUNT
County:	PEORIA	Route:	IL 6
M.P.:	1.5	Direction:	SB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	306.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

Location No.:	4-12	State I.D. No.:	GROUND MOUNT
County:	PEORIA	Route:	I474
M.P.:	2.63	Direction:	WB
Description of Work	Unit	Quantity	
FURNISH AND ERECT SIGN PANEL	SQ FT	441.00	
REMOVE EXISTING SIGN PANEL	EACH	1.00	

FILE NAME = D4 Contract 46152 (12).dgn

USER NAME = hachem
 PLOT SCALE = 1/4" = 154.6798' / IN.
 PLOT DATE = 12/17/2018

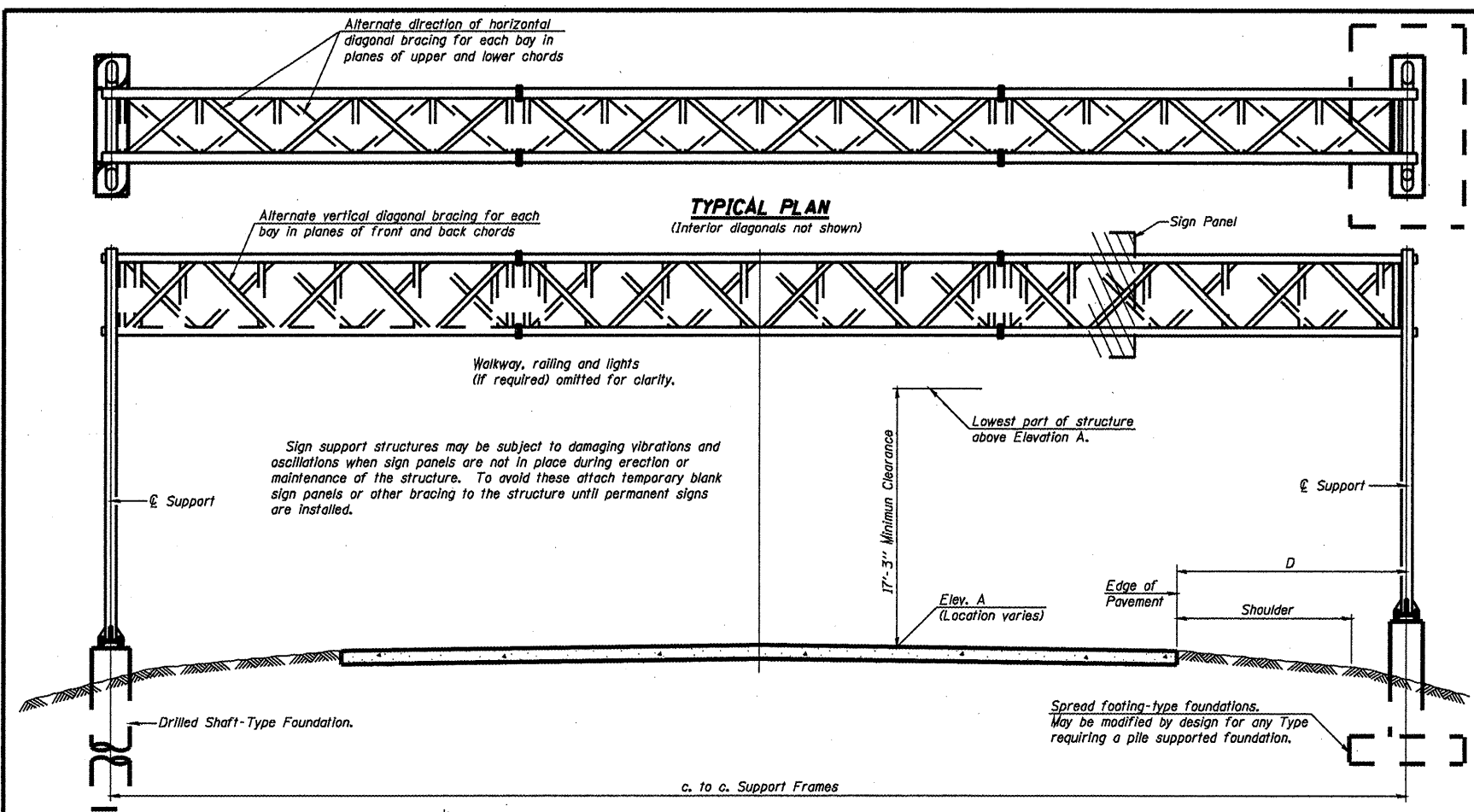
DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

District 4
 Schedule of Truss Repair & Replacement
 SCALE: SHEET NO. 4 OF 30 SHEETS STA. TO STA.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-4 OVD SIGN STR REPL II-25	KNOX-PEORIA	30	4
CONTRACT NO. 46152			
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)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("RUCAP") 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 AASHTO M314 Gr. 36, 55 or 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

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.

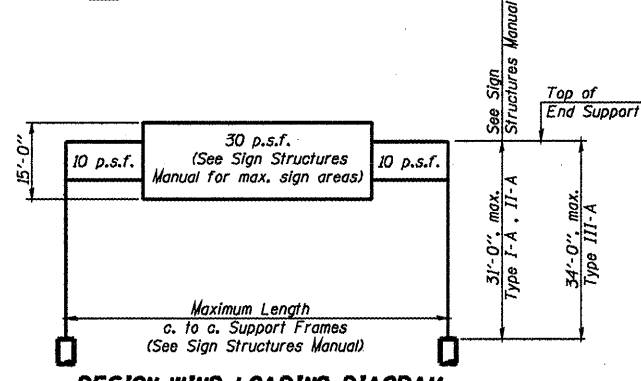
FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

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.	

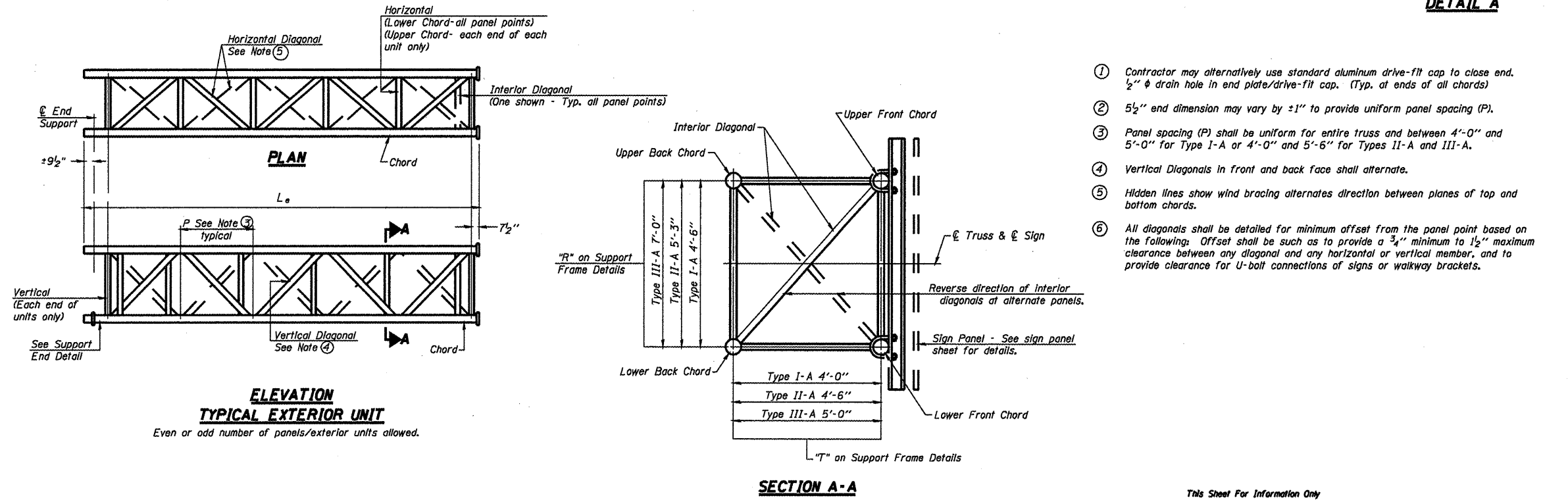
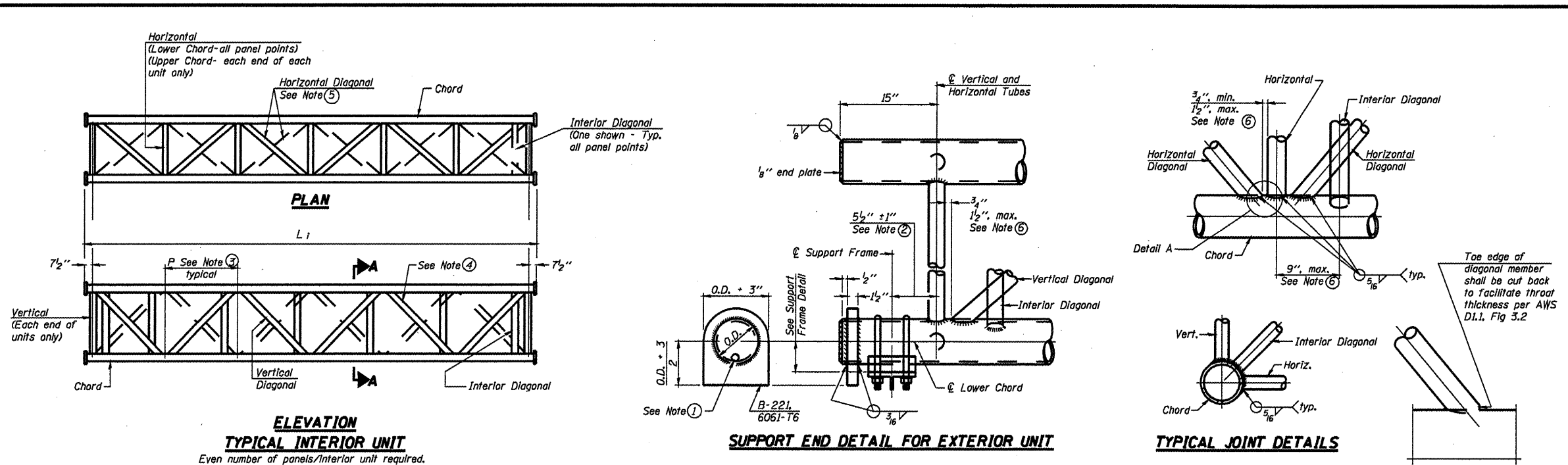
TYPICAL ELEVATION
(Looking at Face of Signs)**)

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
45048U034L008.0	640+20	II-A	94'-0"	808.92	32'-0"	9'-0"	176.0



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.

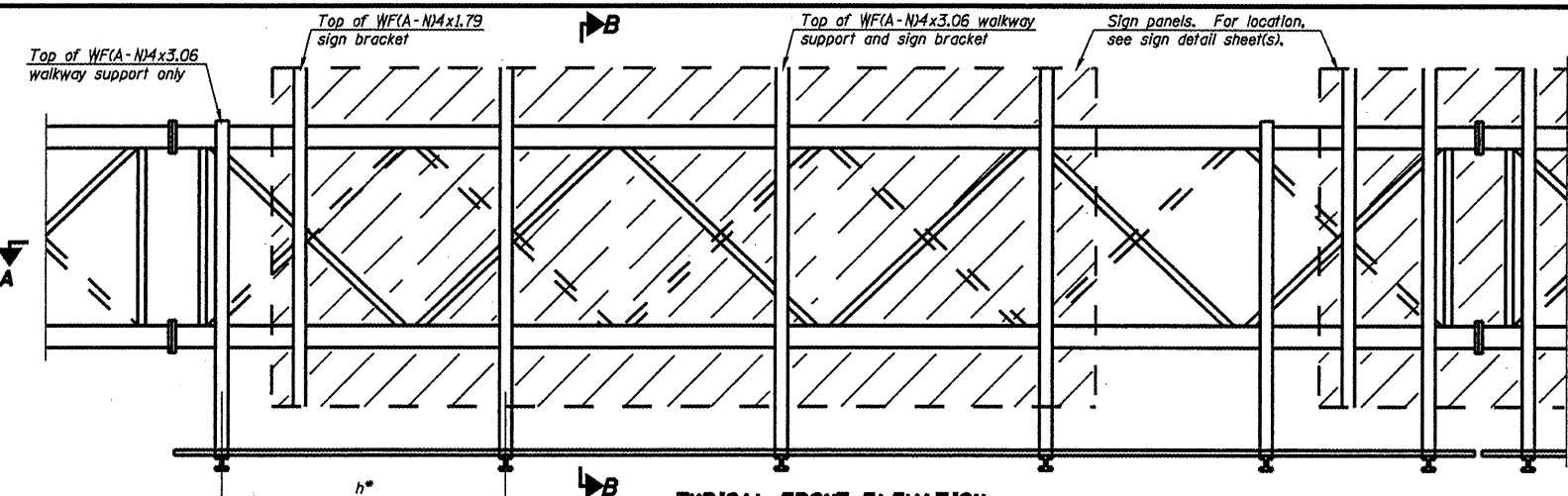
**Looking upstation for structures with signs both sides.
 * If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.



- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" φ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ② 5 1/2" end dimension may vary by ±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.

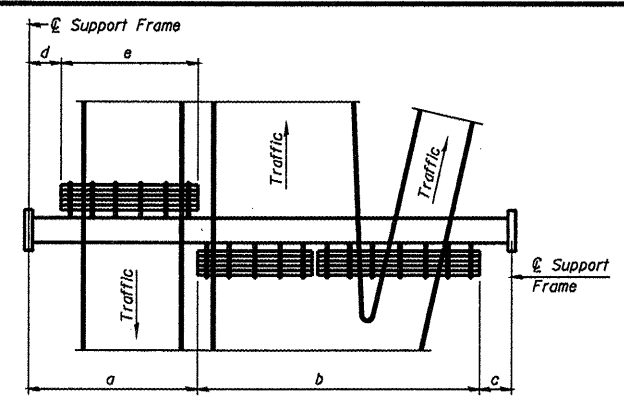
OS-A-2		7-1-ID		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A		SHEET NO. 6 OF 30 SHEETS					
FILE NAME	USER NAME	DESIGNED	REVISED							I.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
		CHECKED	REVISED							SECTION	ENGINEER		SHEETS
PLOT SCALE		DRAWN	REVISED							DESIGN	DATE		NO.
PLOT DATE		CHECKED	REVISED	ILLINOIS FED. AID PROJECT		CONTRACT NO. 46152							

This Sheet For Information Only



TYPICAL FRONT ELEVATION

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

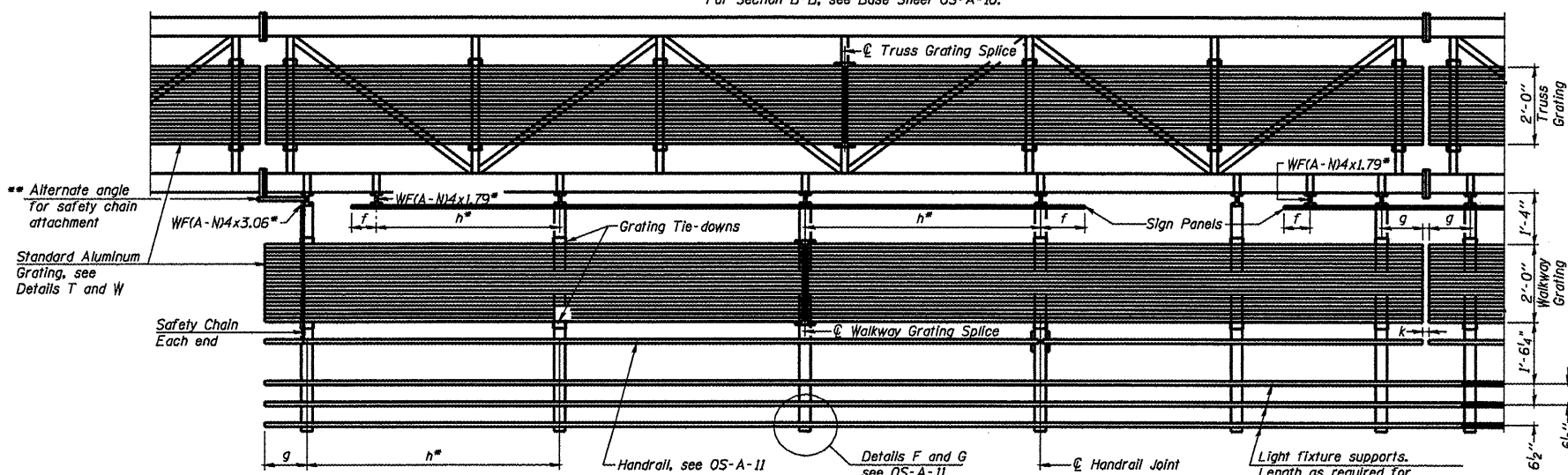


PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

BRACKET TABLE

WFA-N4x1.79 or WFA-N4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width	Less Than or Equal To	Number Brackets Required
Greater Than	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 WFA-N4x3.06 and sign brackets WFA-N4x1.79 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 grating to center of nearest support bracket)
 - h = 6'-0" maximum (center to center of sign and/or walkway support brackets, WFA-N4x1.79 or WFA-N4x3.06)
 - k = 2" maximum gap between adjacent walkway grating sections and handrail ends



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.

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.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
450480034L008.0	640+20	N/A	N/A	N/A	N/A	N/A	95'-6"

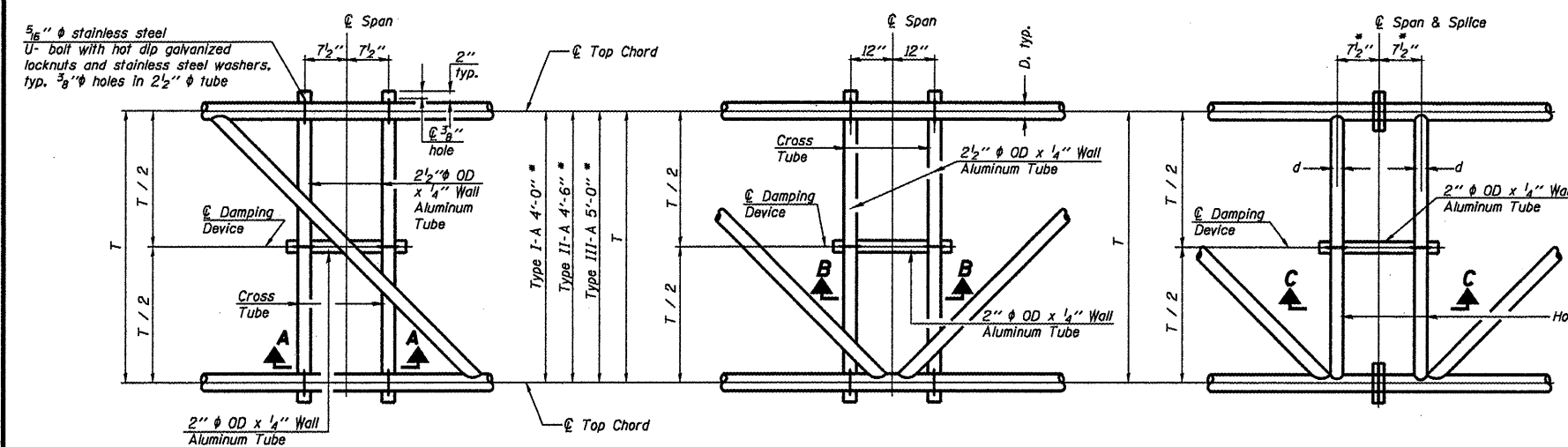
Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

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

OS-A-9

7-1-10

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS	SHEET NO. 8 OF 30 SHEETS	FILE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISIONS -				Var Issue D-4 DVD SIGN STR REPL 11-29	INDIANA	30	8	
PLOT SCALE =		DRAWN -	REVISIONS -				CONTRACT NO. 46152				
PLOT DATE =		CHECKED -	REVISIONS -				ILLINOIS FED. AID PROJECT				



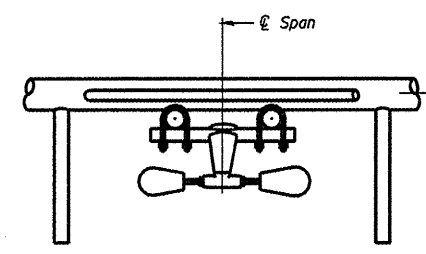
PLAN DETAIL "A"
Span between Panel Points

PLAN DETAIL "B"
Span at Panel Point

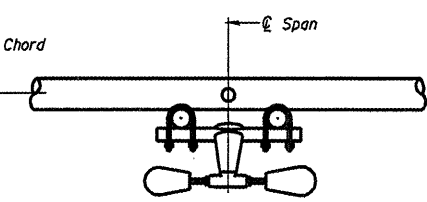
PLAN DETAIL "C"
Span at Chord Splice

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

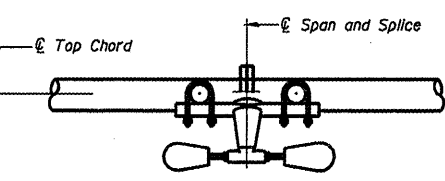
NOTES
 Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...
 Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



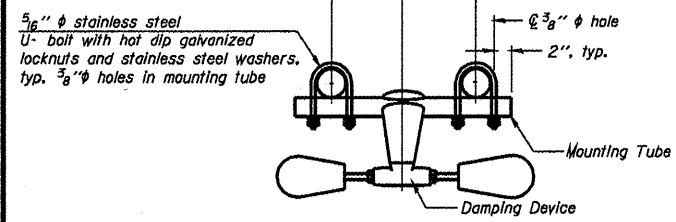
SECTION A-A



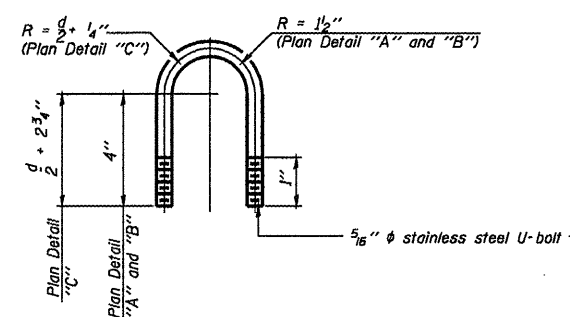
SECTION B-B



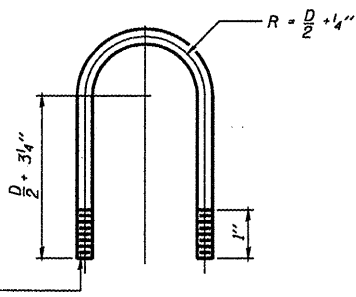
SECTION C-C



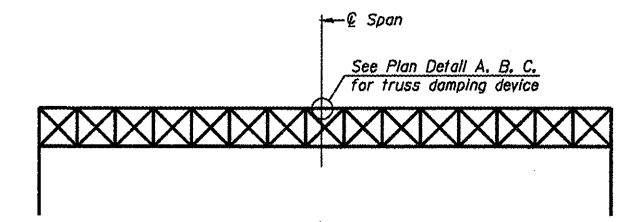
TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



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



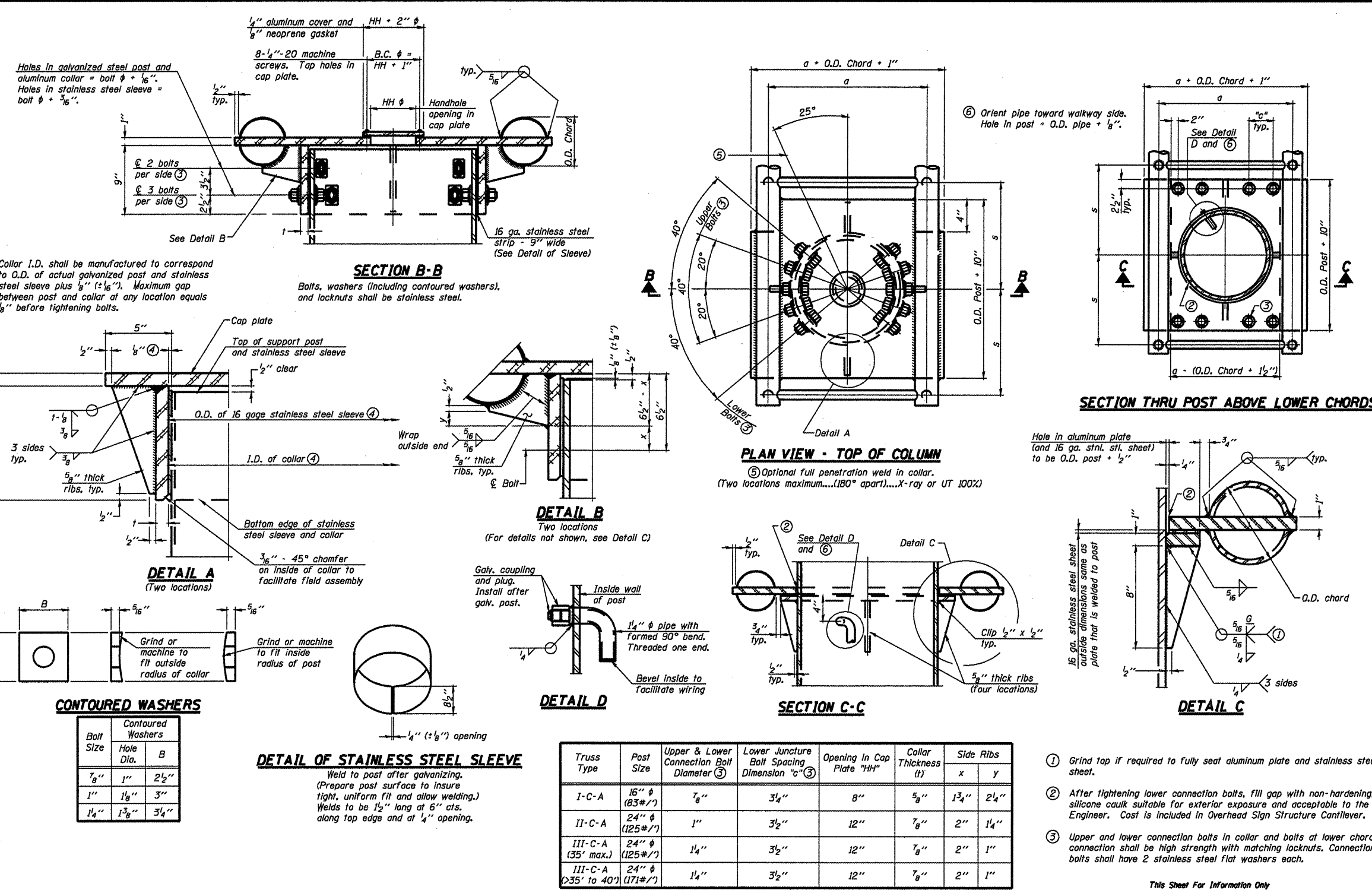
ELEVATION
Aluminum Overhead Sign Truss

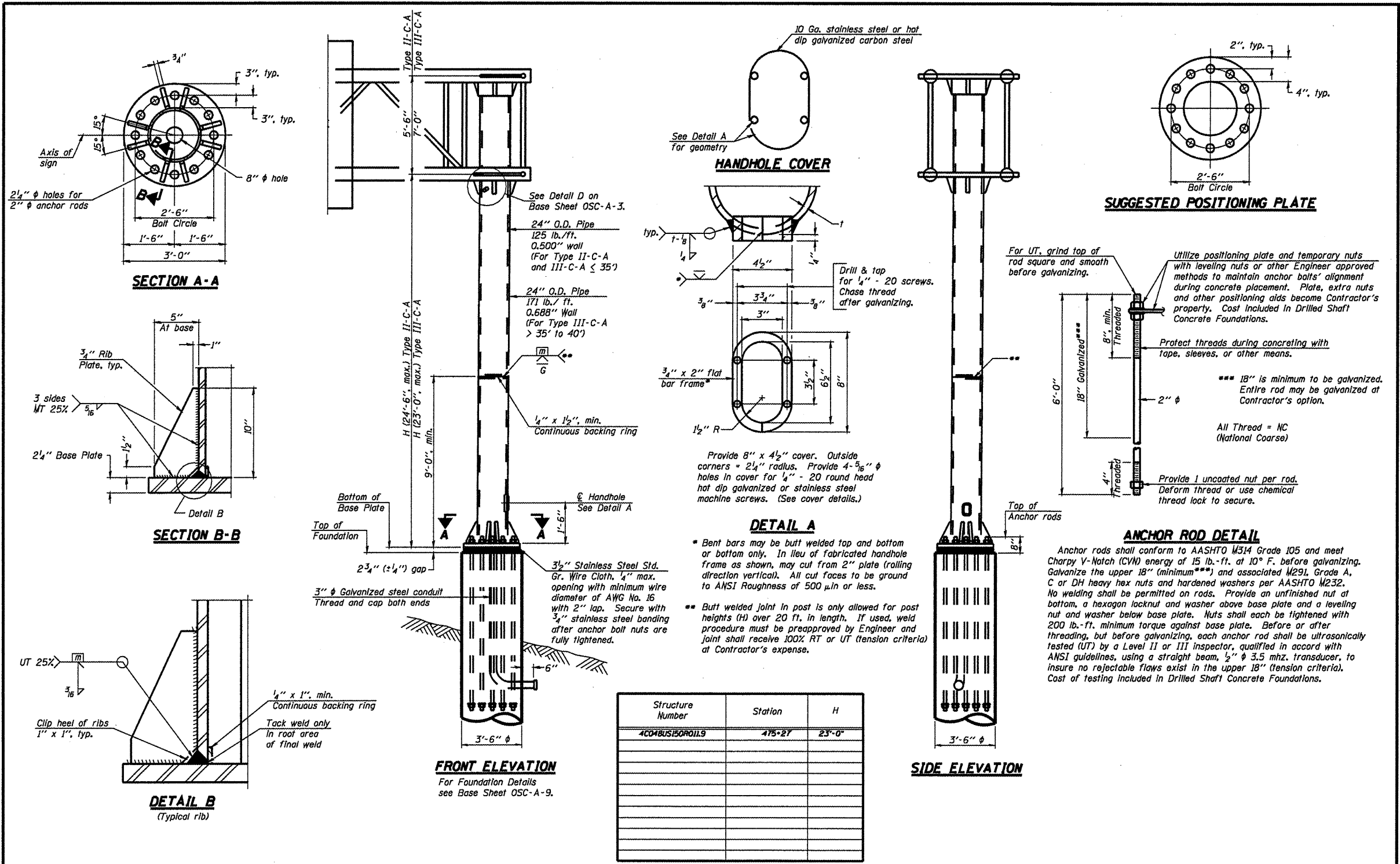
OS-A-D

7-1-10

FILE NAME :	USER NAME :	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE DAMPING DEVICE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
		CHECKED -	REVISD -			Various D-4 OVD SIM STR REPL 11-29	INDI-PERNA	30	11
		DRAWN -	REVISD -			CONTRACT NO. 46182			
		CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT			

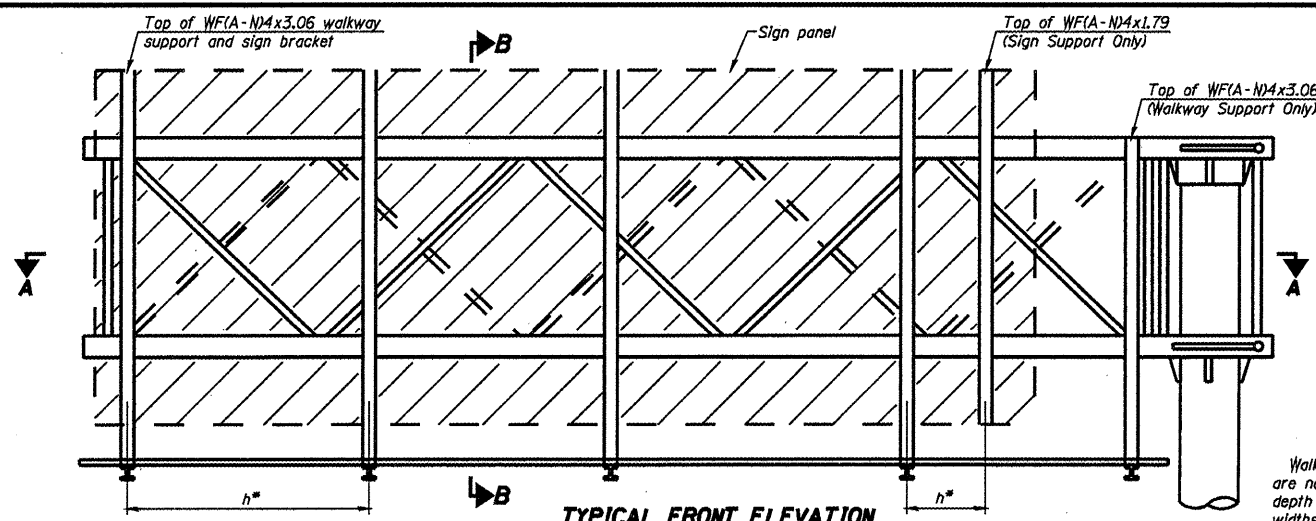
SHEET NO. 11 OF 30 SHEETS





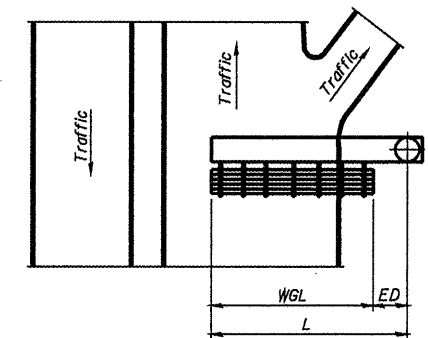
Structure Number	Station	H
4COMBUSBOROILS	475+27	23'-0"

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

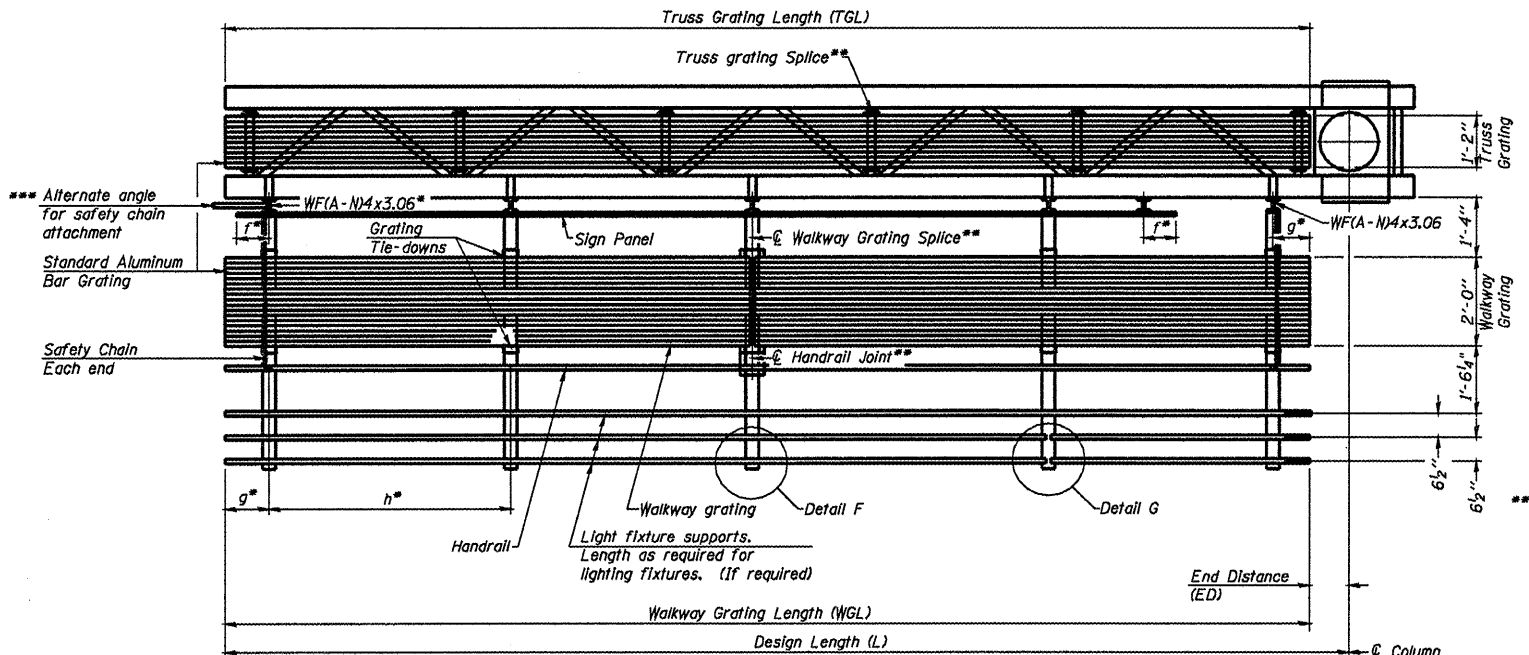


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



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



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.

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

Structure Number	Station	WGL	ED	TGL
4C04BUS150R01L9	RT 475-27	N/A *	N/A	18'-6"

- Notes:
- * Reuse existing walkway and walkway support brackets.
 - Space walkway brackets WFA-N4x3.06 and sign brackets WFA-N4x1.79 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 of sign and/or walkway support brackets, WFA-N4x1.79 or WFA-N4x3.06)
 - *** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-B
- 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

WFA-N4x1.79 or WFA-N4x3.06
ASTM B308, Alloy 6061-T6

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

OSC-A-6

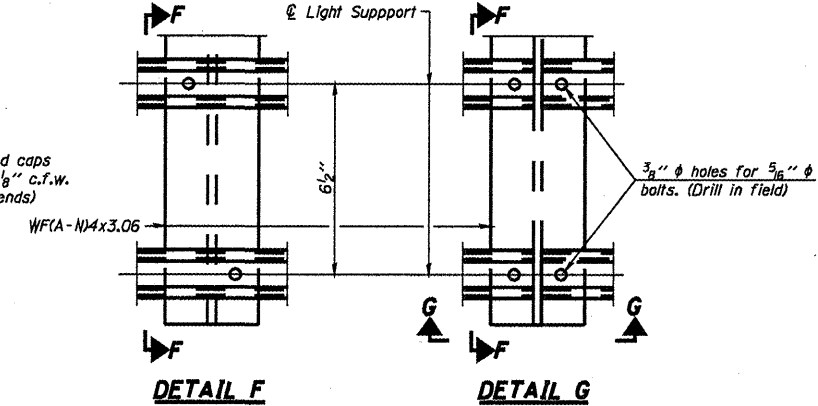
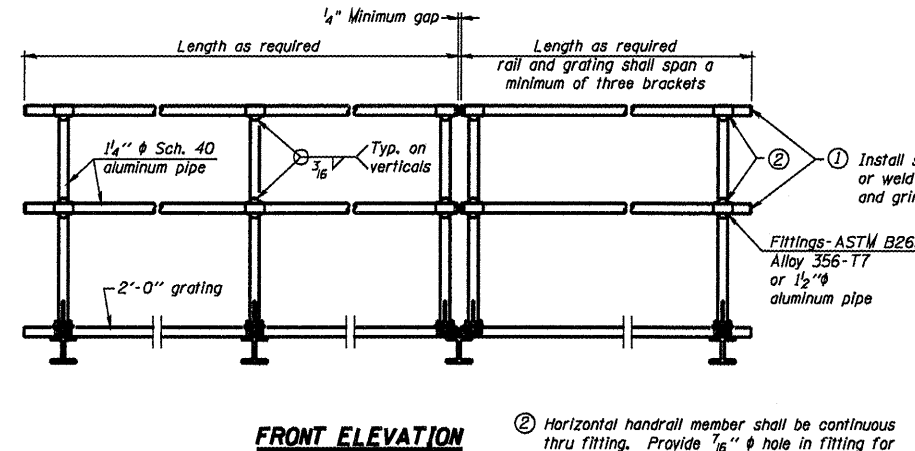
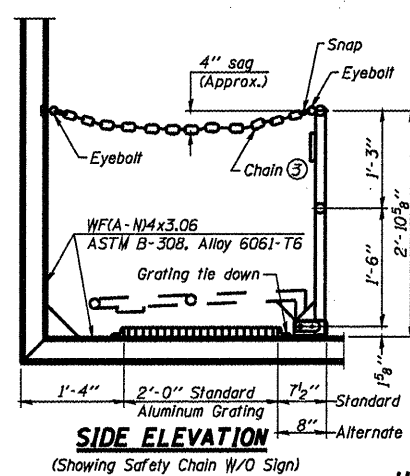
7-1-10

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - ALUMINUM WALKWAY
DETAILS - ALUMINUM TRUSS & STEEL POST
SHEET NO. 16 OF 30 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various 0-4 OVD SIN STR REPL. 11-29	IND-PEORIA	IND-PEORIA	30	16
CONTRACT NO. 46152			ILLINOISIFIED AND PROJECT	



SIDE ELEVATION
(Showing Safety Chain W/O Sign)

FRONT ELEVATION

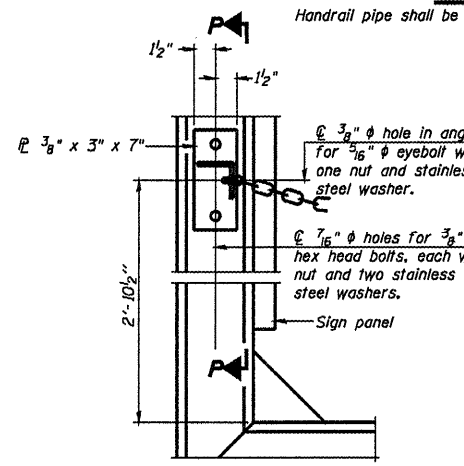
DETAIL F

DETAIL G

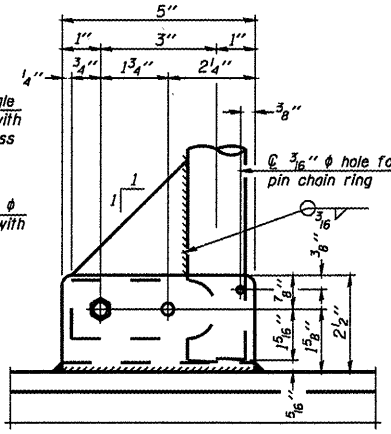
HANDRAIL DETAILS

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

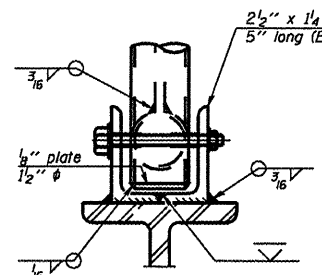
① Install standard force-fit and caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" hole in fitting for 3/8" bolt. Field drill 1/16" hole in horizontal rail member. Provide locknut and two stainless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



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

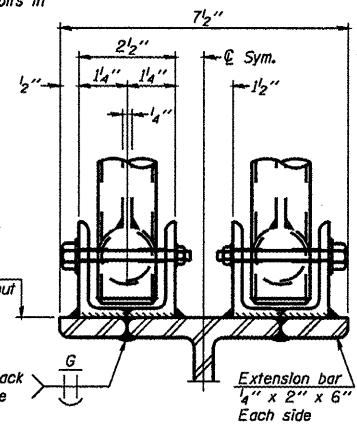


SIDE ELEVATION



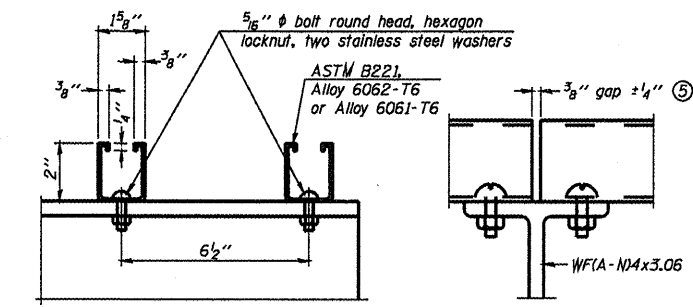
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.



ELEVATION AT HANDRAIL JOINT

Details not shown same as "FRONT ELEVATION"

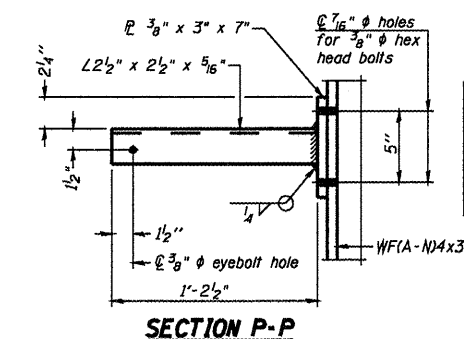


SECTION F-F

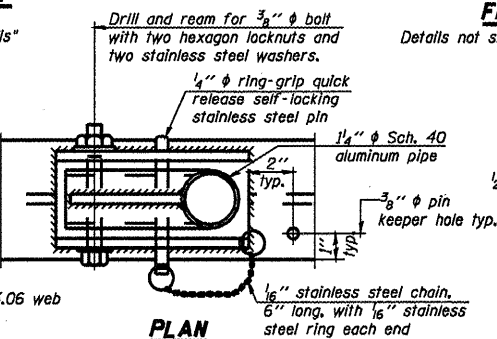
SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

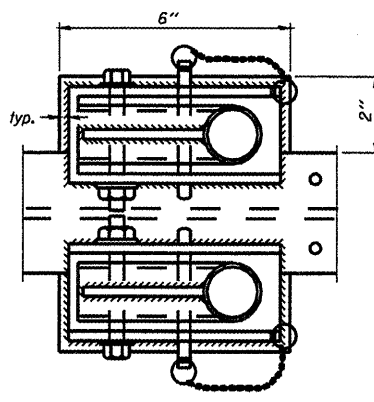
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



SECTION P-P

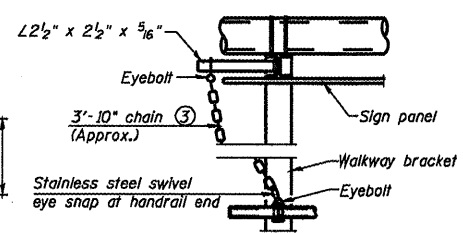


DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

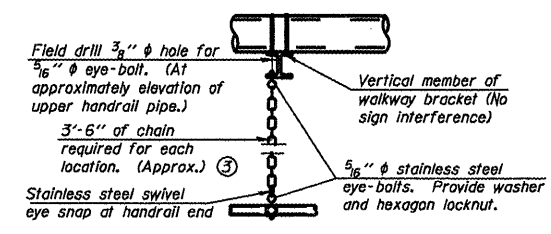


ALTERNATE SAFETY CHAIN ATTACHMENT

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.

OSC-A-8

7-1-10

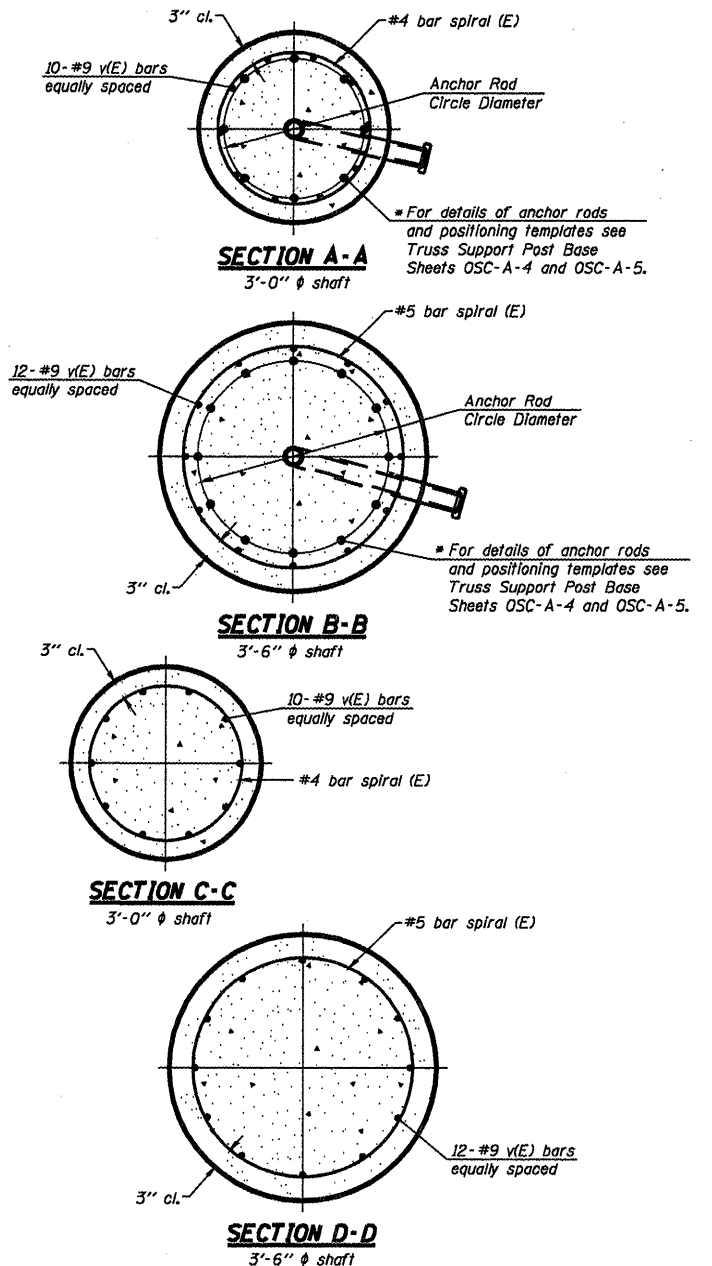
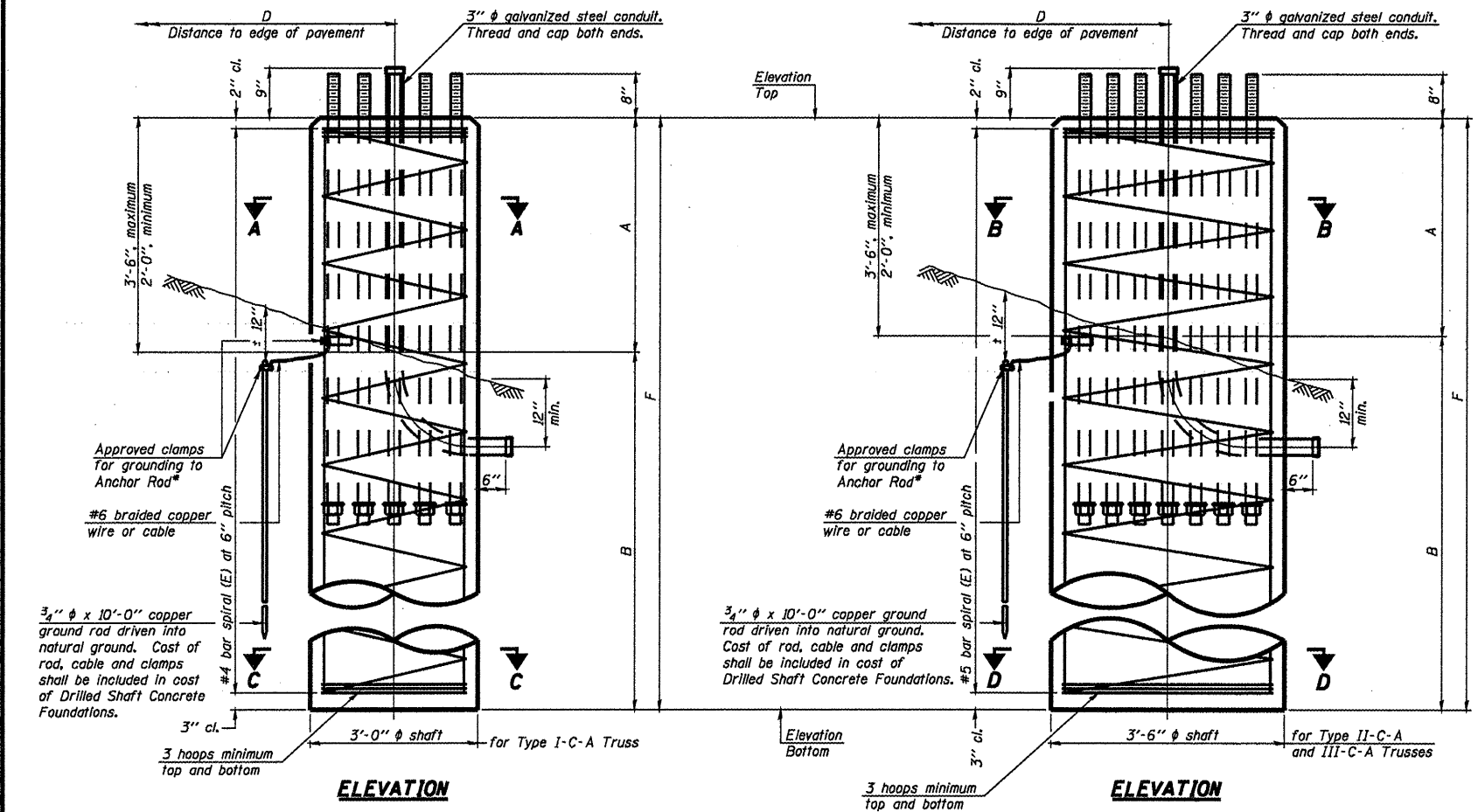
FILE NAME	USER NAME	DESIGNED	REVISIONS
		CHECKED	REVISIONS
PLOT SCALE		DRAWN	REVISIONS
PLOT DATE		CHECKED	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST
SHEET NO. 18 OF 30 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Verbal-D-4 OVD SIN STR REPL 11-29		MON-PEORIA	30	18
CONTRACT NO. 46152				
ILLINOIS FED. AID PROJECT				

* 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 (Qu) 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 shelding 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 No.	Anchor Rod Diameter (in)	Anchor Rod Circle 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	Qu	A	B	F	Class DS Concrete Cubic Yards
AC04BUS(50R01)9	RT 475+27	II-C-A	3.5	787.28	N/A	*	3'-0"	17'-0"	20'-0"	7.12

OSC-A-9

7-1-10

FILE NAME	USER NAME	DESIGNED	REVISIONS
		CHECKED	REVISIONS
		DRAWN	REVISIONS
		CHECKED	REVISIONS

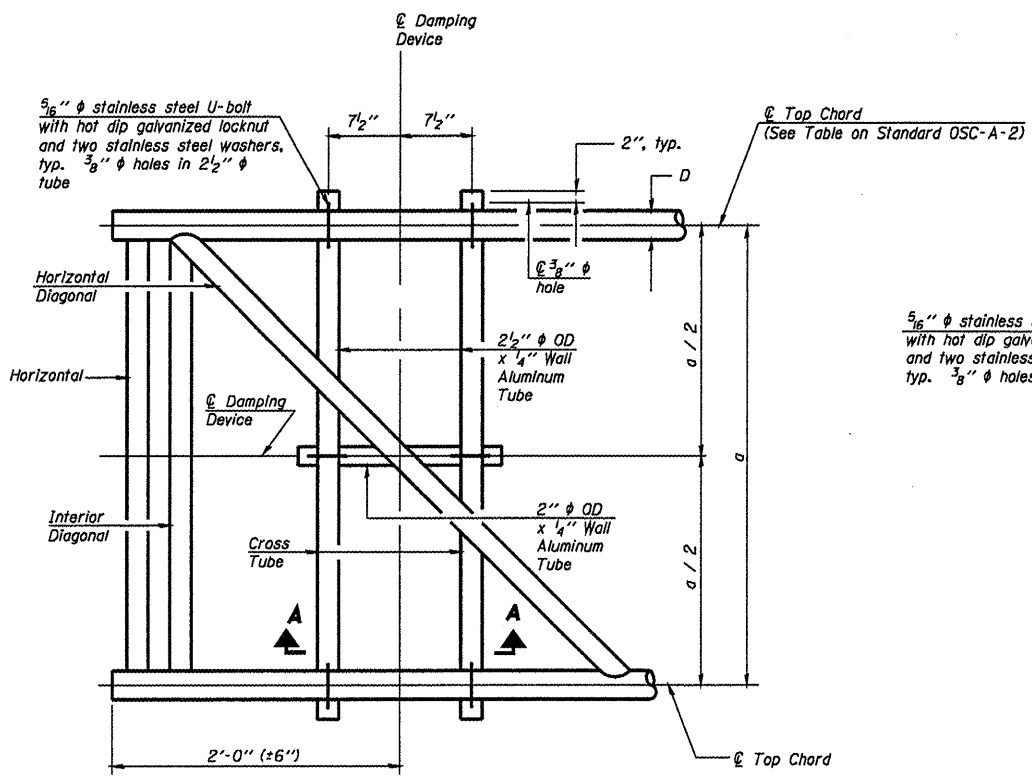
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

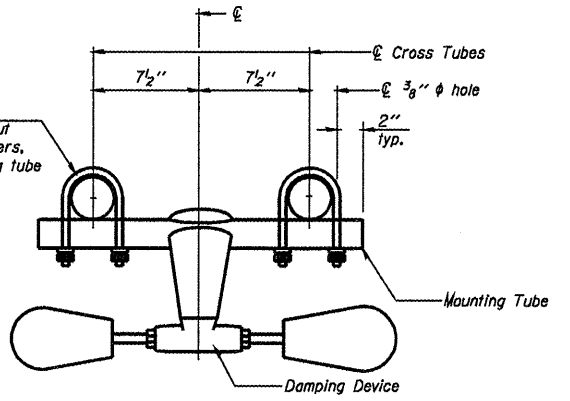
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-4	OVD SIN STR REPL. II-29	INDIAN-PEORIA	30	19

SHEET NO. 19 OF 30 SHEETS

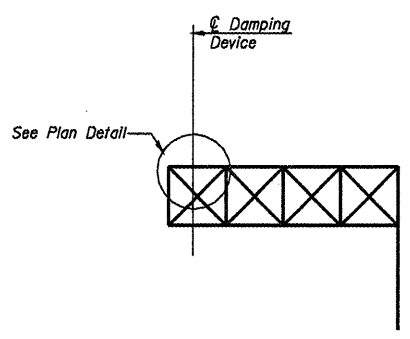
CONTRACT NO. 46152



PLAN DETAIL

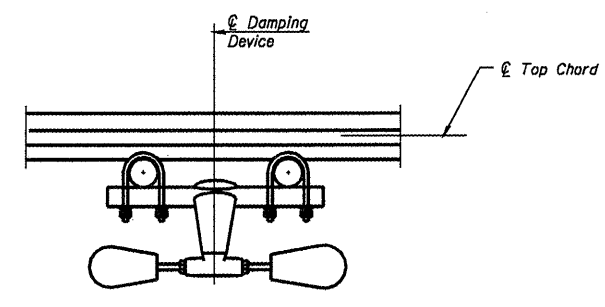


TRUSS DAMPING DEVICE CONNECTION DETAIL

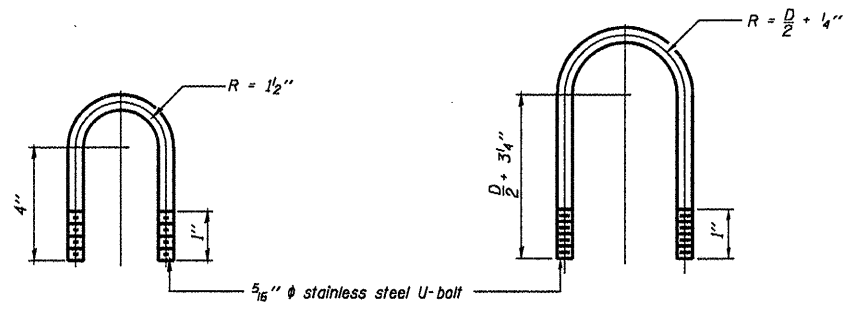


ELEVATION
Aluminum Cantilever Sign Structure

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

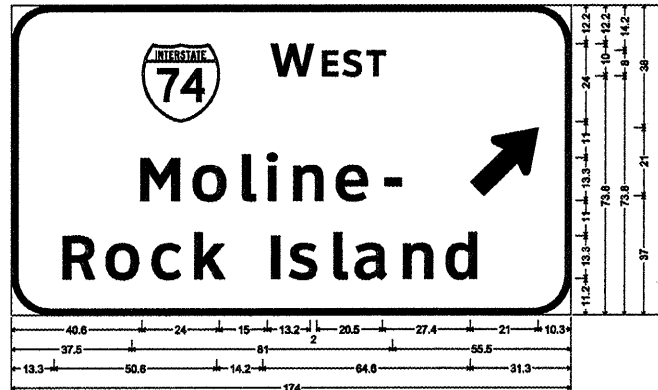


DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)

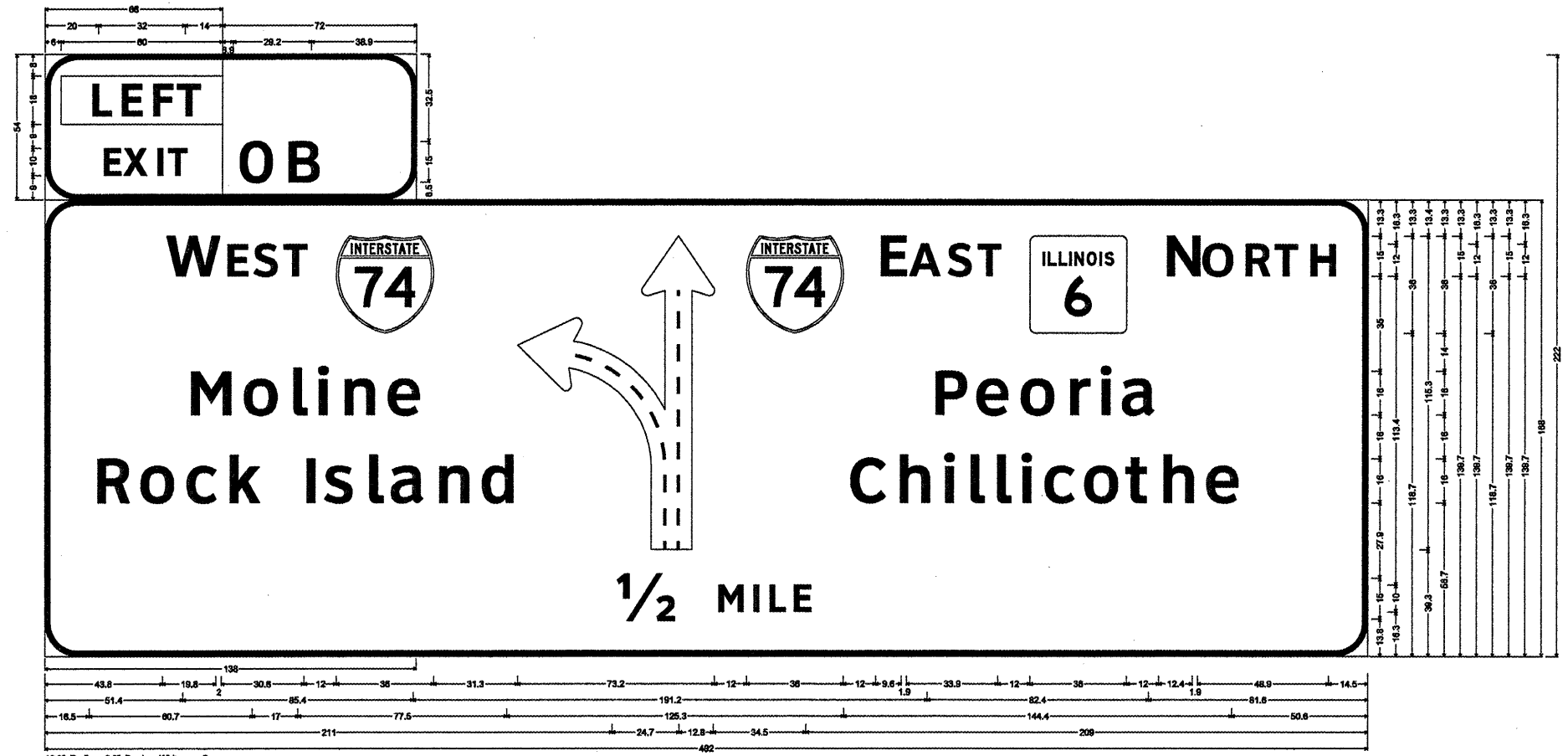
TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical)

OSC-A-D		7-1-10		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		CANTILEVER SIGN STRUCTURE DAMPING DEVICE		SHEET NO. 20 OF 30 SHEETS						
FILE NAME	USER NAME	DESIGNED	REVISIONS							F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED	REVISIONS							Various D-4 OVD SIGN STR REPL 11-29	EMERSON	EMERSON	30	20
PLOT SCALE		DRAWN	REVISIONS							CONTRACT NO. 46152				
PLOT DATE		CHECKED	REVISIONS	ILLINOIS FED. AID PROJECT										

US 34, WB, @ RAMP TO I-74, WB
SN: 4S048U034L008.00



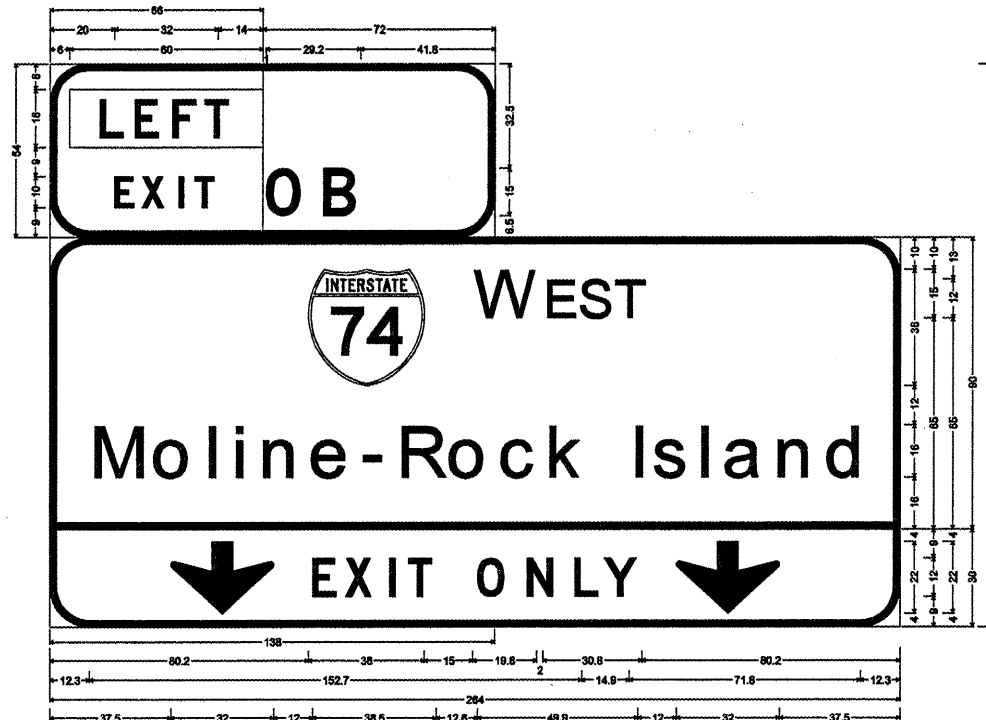
I-474, WB, IN ADVANCE OF
 I-74/I474 INTERCHANGE, PEORIA CO
 SN : 4S072I474L001.10



12.0" Radius, 2.0" Border, White on Green;
 Rectangle Yellow;
 [EXIT] Clearviewhwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [0B] Clearviewhwy-S-W;
 Use type xx shading: 12.0" Radius, 2.0" Border, White on Green;
 [W EST] Clearviewhwy-S-W; [Moline] Clearviewhwy-S-W; [Rock Island] Clearviewhwy-S-W; Diagrammatic Arrow Lane Line Black; [E AST] Clearviewhwy-S-W; [N ORTH] Clearviewhwy-S-W; [Peoria] Clearviewhwy-S-W; [Chillicothe] Clearviewhwy-S-W; [1/2 MILE] Clearviewhwy-S-W;

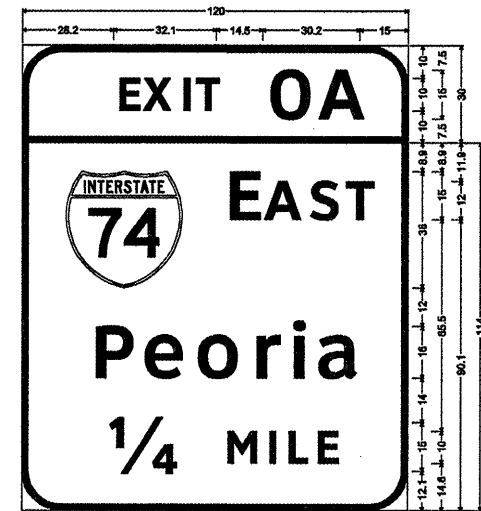
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	PLOT SCALE *	CHECKED -	REVISED -			Various D-4 OVD SIN STR REPL. II-29	INDR-PEORIA	30	23	
	PLOT DATE *	DRAWN -	REVISED -			CONTRACT NO. 46152				
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT				

I-474, WB, MP 0.60
 IN ADVANCE IF I-74/IL 6
 INTERCHANGE
 SN: 4S072I474L000.60



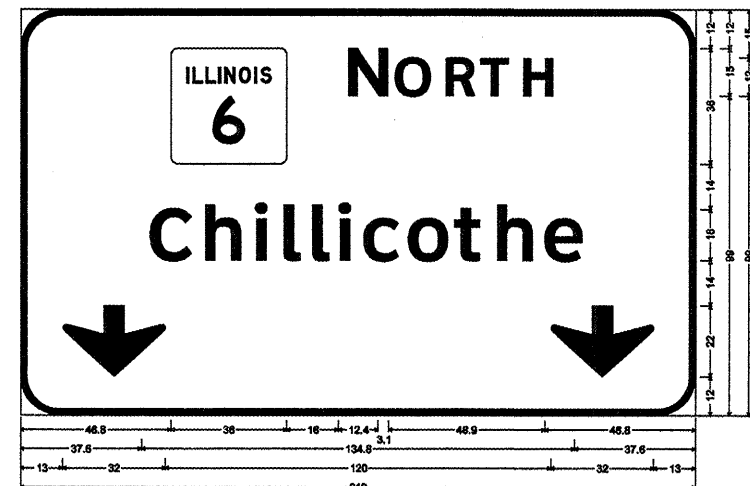
12.0" Radius, 2.0" Border, White on Green;
 Rectangle Yellow;
 [EXIT] ClearviewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [0B] ClearviewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [W EST] ClearviewHwy-S-W; [Moline-Rock Island] ClearviewHwy-S-W-R 97% spacing;
 12.0" Radius, 2.0" Border, Black on Yellow;
 Down Arrow 22.0° 270°; [EXIT ONLY] ClearviewHwy-S-W; Down Arrow 22.0° 270°;

I-474, WB, MP 0.6 IN ADVANCE OF
 I-74/IL 6 INTERCHANGE
 SN: 4S072I474L000.60



12.0" Radius, 2.0" Border, White on Green;
 [EXIT 0A] ClearviewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [EAST] ClearviewHwy-S-W; [Peoria] ClearviewHwy-S-W;
 [1/4 MILE] ClearviewHwy-S-W;

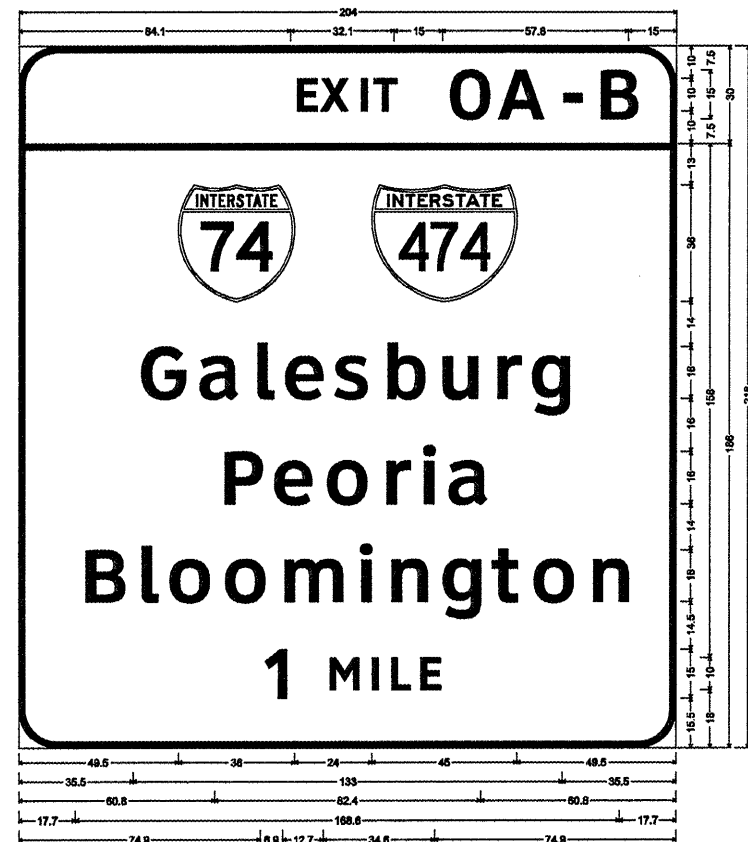
I-474, WB, MP 0.6 IN ADVANCE OF
 I-74/IL 6 INTERCHANGE
 SN: 4S072I474L000.60



12.0" Radius, 2.0" Border, White on Green;
 [NORTH] ClearviewHwy-S-W; [Chillicothe] ClearviewHwy-S-W-R; Down Arrow 22.0° 270°; Down Arrow 22.0° 270°;

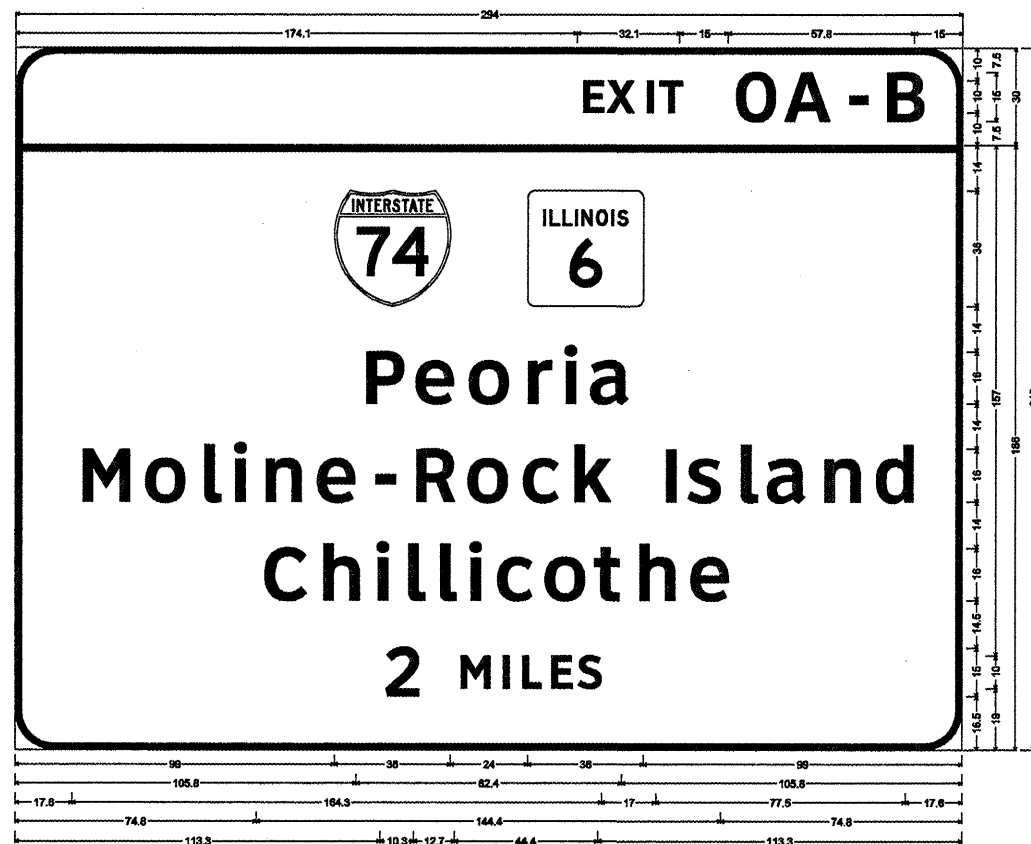
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		CHECKED -	REVISED -		0-4 OVD SIN STR REPL II-29	IND-PEORIA	30	25
		DRAWN -	REVISED -		CONTRACT NO. 46152			
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT			

IL 6, SB, MP 1.5, PEORIA CO.
GROUND MOUNT



12.0" Radius, 2.0" Border, White on Green;
[EXIT 0A-B] ClearviewHwy-5-W;
Use type sz sheeting; 12.0" Radius, 2.0" Border, White on Green;
[Galesburg] ClearviewHwy-5-W; [Peoria] ClearviewHwy-5-W; [Bloomington] ClearviewHwy-5-W; [1 MILE] ClearviewHwy-5-W;

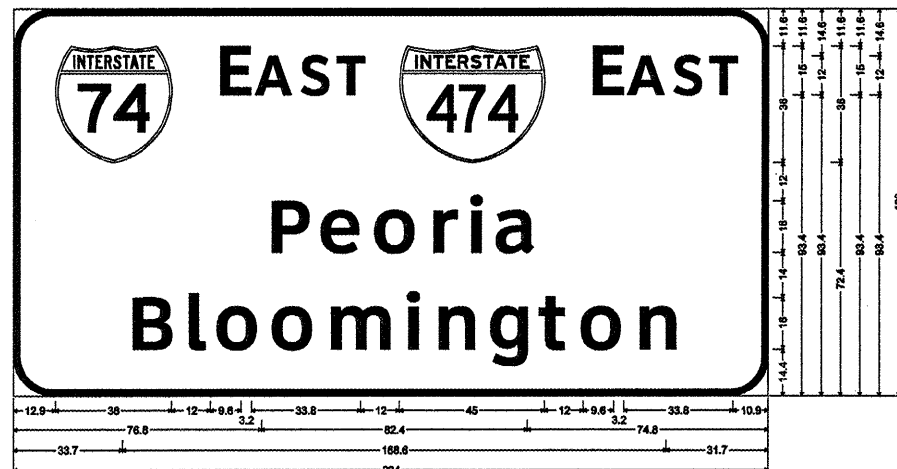
I-474, WB, MP 2.63, GROUND MOUNT



12.0" Radius, 2.0" Border, White on Green;
[EXIT 0A-B] ClearviewHwy-5-W;
Use type sz sheeting; 12.0" Radius, 2.0" Border, White on Green;
[Peoria] ClearviewHwy-5-W; [Moline-Rock Island] ClearviewHwy-5-W; [Chillicothe] ClearviewHwy-5-W; [2 MILES] ClearviewHwy-5-W;

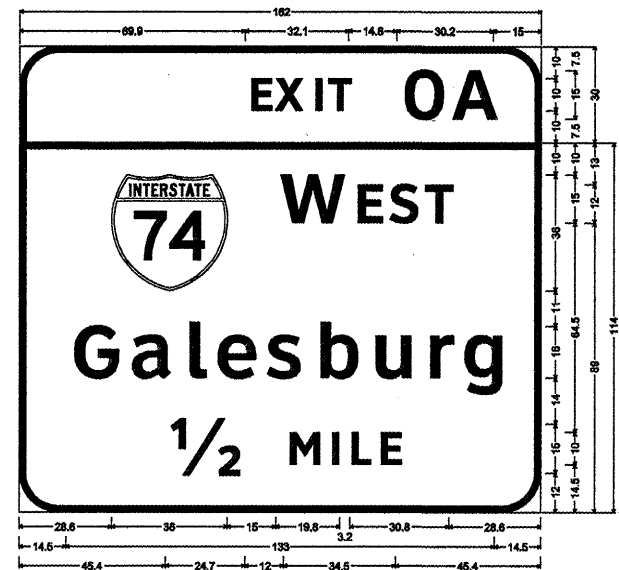
FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 26 OF 30 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -							
		DRAWN -	REVISED -							
		CHECKED -	REVISED -							
						0-4 OVD SIN STR REPL 11-29		EMPI-PEORIA	30	26
								CONTRACT NO. 46152		
								ILLINOIS FED. AID PROJECT		

IL 6, SB, MP 1.00
SN: 4S072S006L001.00



12.0" Radius, 2.0" Border, White on Green;
[E AST] ClearviewHwy-5-W; [E AST] ClearviewHwy-5-W; [Peoria] ClearviewHwy-5-W; [Bloomington] ClearviewHwy-5-W;

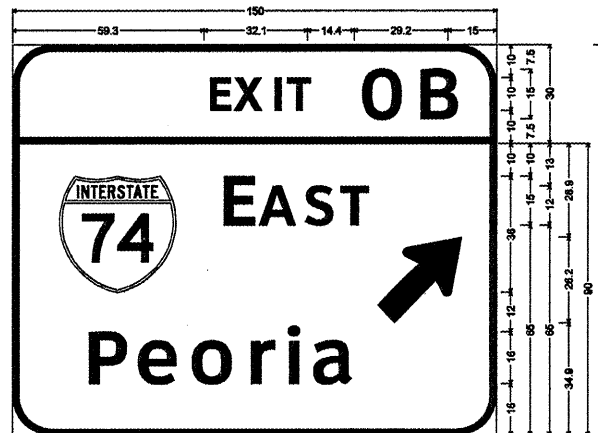
IL 6, SB, MP 1.00
SN: 4S072S006L001.00



Use type ZZ Sheetings;
12.0" Radius, 2.0" Border, White on Green;
[EXIT 0A] ClearviewHwy-5-W;
12.0" Radius, 2.0" Border, White on Green;
[W EST] ClearviewHwy-5-W; [Galesburg] ClearviewHwy-5-W; [1/2 MILE] ClearviewHwy-5-W;

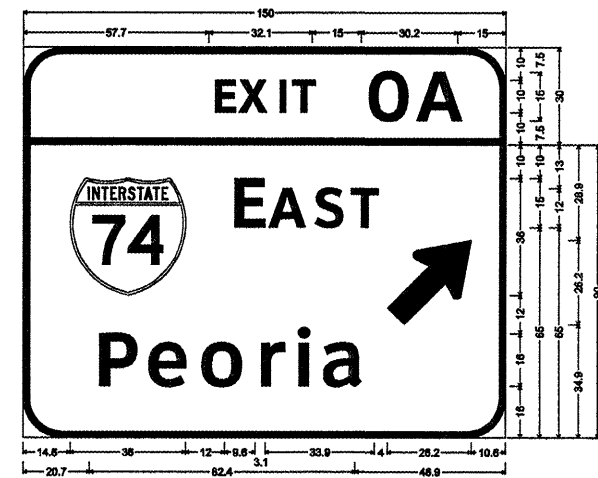
FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-4 OVD SIN STR REPL II-29	MON-PEORIA	30	27
		DRAWN -	REVISED -		CONTRACT NO. 46152				
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT				
					SHEET NO. 27 OF 30 SHEETS				

I-474, EB, MP 0.1
 @ I-74 INTERCHANGE
 RAMP TO I-74 EB
 SN: 4C072I474R000.10



12.0" Radius, 2.0" Border, White on Green;
 [EXIT 0B] Clearviewtype-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [EAST] Clearviewtype-S-W; [Peoria] Clearviewtype-S-W;
 Standard Arrow Custom 33.4" X 20.3" 45°;

I-474, WB, MP 0.40 @ I-74 INTERCHANGE
 RAMP TO I-74, EB
 SN: 4C072I474L000.40

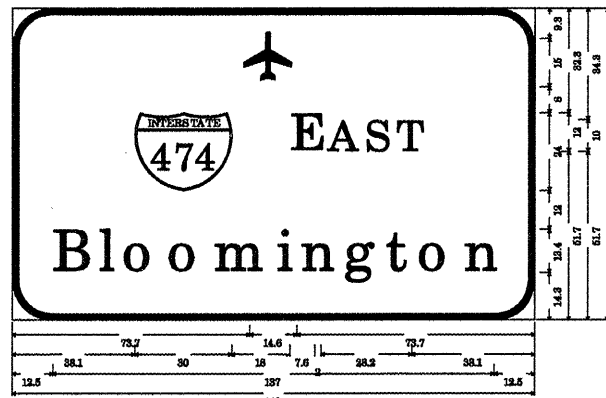


12.0" Radius, 2.0" Border, White on Green;
 [EXIT 0A] Clearviewtype-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [EAST] Clearviewtype-S-W; [Peoria] Clearviewtype-S-W;
 Standard Arrow Custom 33.4" X 20.3" 45°;

FILE NAME :	USER NAME :	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISD -		Various	D-4 OVD SIN STR REPL 11-29	MONROE	30	28
PLOT SCALE :		DRAWN -	REVISD -		CONTRACT NO. 46152				
PLOT DATE :		CHECKED -	REVISD -		ILLINOIS FED. AID PROJECT				

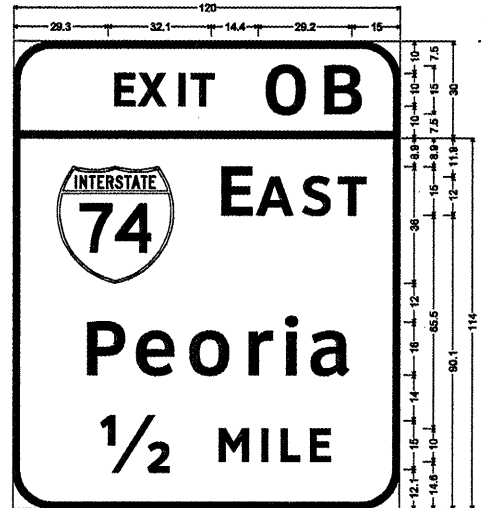
SHEET NO. 28 OF 30 SHEETS

IL 6, SB, MP 0.50
 @ I-74 RAMP TO I-74 WB
 SN: 4S072S006L000.5



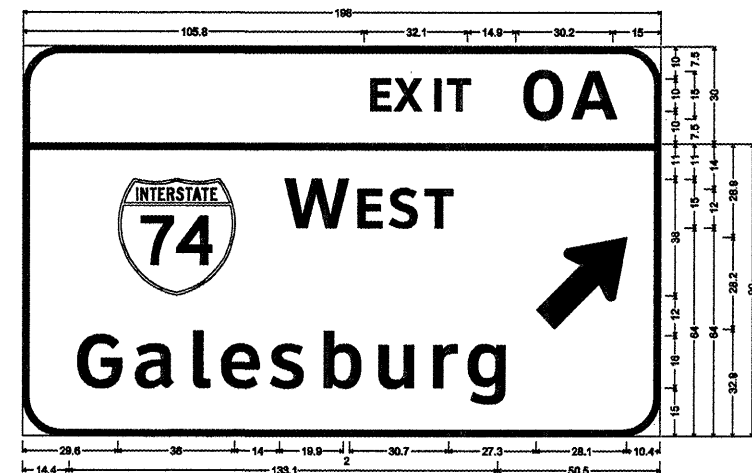
12.0" Radius, 2.0" Border, White on Green;
 Symbol RAMP; Interstate 474 9.0" H; [E AST] ClearviewHwy-5-W;
 [Bloomington] ClearviewHwy-5-W specified length;

IL 6, SB, MP 0.50
 @ I-74 RAMP TO I-74 WB
 SN: 4S072S006L000.5



12.0" Radius, 2.0" Border, White on Green;
 [EXIT 0A] ClearviewHwy-5-W;
 12.0" Radius, 2.0" Border, White on Green;
 [E AST] ClearviewHwy-5-W; [Peoria] ClearviewHwy-5-W;
 [1/2 MILE] ClearviewHwy-5-W;

IL 6, SB, MP 0.50
 @ I-74 RAMP TO I-74 WB
 SN: 4S072S006L000.5



12.0" Radius, 2.0" Border, White on Green;
 [EXIT 0A] ClearviewHwy-5-W;
 12.0" Radius, 2.0" Border, White on Green;
 [W EST] ClearviewHwy-5-W; [Galesburg] ClearviewHwy-5-W; Standard Arrow Custom 35.8" X 21.6" 45°;

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 29 OF 30 SHEETS	P.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -			Varouh0-4 OVD SIN STR REPL 11-29	EMM-PERIA	30	29	
PLOT SCALE *		DRAWN -	REVISED -			CONTRACT NO. 46152				
PLOT DATE *		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT				

