11-17-2017 LETTING ITEM 047

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	1
	ILLINOIS	CONTRACT NO. 46469		

D-3

D-93-022-18

INDEX OF SHEETS

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2. GENERAL NOTES
3 - 4. SUMMARY OF QUANTITIES
5. TYPICAL SECTION
6. SITE PLAN
7 - 8. IMPACT ATTENUATOR INSTALLATION DETAILS
9. SAND MODULE IMPACT ATTENUATORS
10 - 18. OVERHEAD SIGN TRUSS - CANTILEVER DETAILS
19. PROPOSED SIGNAGE
20. BORING

STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-11	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701901-06	TRAFFIC CONTROL DEVICES

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: JOE KANNEL P.E.
UNIT CHIEF: RON WOODSHANK
DISTRICT NO. 3 (815) 434-6131

CONTRACT NO. 46469

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 57 (I-57)

SECTION D-3 OVD SIN STR REPL 18-31

OVERHEAD SIGN TRUSS - CANTILEVER

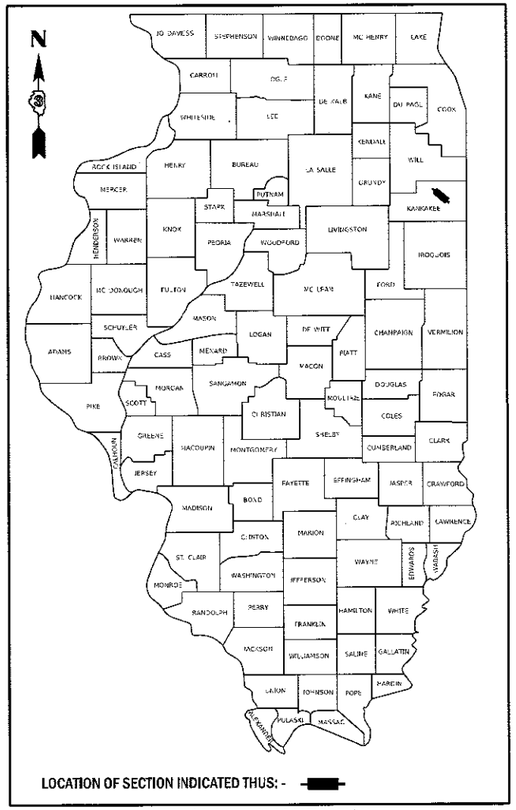
KANKAKEE COUNTY

M-60-004-18

POINT LOCATION

PROJECT LOCATION

OVERHEAD SIGN STRUCTURE - CANTILEVER
S.N. #3C046I057R315.1
NB EXIT 315 TO IL 50
M.L. STA. 292+10
RAMP STA. 100+61



LOCATION OF SECTION INDICATED THUS: -

FUNCTIONAL CLASSIFICATION

URBAN INTERSTATE
MAINLINE F.A.I. 57 (I-57)

2015 ADT 28800
P.V. 76.4% S.U. 4.2% M.U. 19.4%

RAMP "G" F.A.I. 57 (I-57)
2015 ADT 800
P.V. 80.7% S.U. 3.7% M.U. 15.6%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Sept 6 20 17
Ag Ellen KM
REGIONAL ENGINEER
Oct 13 20 17
Maureen M. Addis P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 13 20 17
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV

GENERAL NOTES

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE WILL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

COMMITMENTS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

____
SUPERVISING CONSTRUCTION FIELD ENGINEER

____
RESIDENT ENGINEER / TECHNICIAN

START & END DATES OF CONSTRUCTION: ______________________

INSPECTORS: ______________________

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

REVIEWED BY: ______________________
DISTRICT STUDIES & PLANS ENGINEER

DATE: ______________________

EXAMINED BY: ______________________
DISTRICT CONSTRUCTION ENGINEER

____
DISTRICT MATERIALS ENGINEER

____
DISTRICT OPERATIONS ENGINEER

USER NAME = woodshankrl	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

GENERAL NOTES

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	2

CONTRACT NO. 46469

ILLINOIS | FED. AID PROJECT

CONSTR. CODE
STRR 100% STATE
MINOR STRUCTURES
0044
URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN
20400800	FURNISHED EXCAVATION	CU YD	353	353
542A5485	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 30"	FOOT	48	48
54214515	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 30"	EACH	2	2
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1
64301090	ATTENUATOR BASE	SQ YD	28	28
67100100	MOBILIZATION	LSUM	1	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	LSUM	1	1
* 72000300	SIGN PANEL - TYPE 3	SQ FT	198	198
73301840	OVERHEAD SIGN STRUCTURE WALKWAY, CANTILEVER, TYPE A	FOOT	24	24
73302210	OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE III-C-A (36" X 7'-0")	FOOT	40	40
* 73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	12.1	12.1
X0326998	FURNISH AND INSTALL HANDRAIL	FOOT	24	24
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	65	65

14

* SPECIALTY ITEMS

USER NAME = woodsfrankd	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/5/2017	DATE - 8/5/2017	REVISED -	

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 2 SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	3

CONTRACT NO. 46469

ILLINOIS | FED. AID PROJECT

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE STRR 100% STATE MINOR STRUCTURES 0044 URBAN
X7330112	SAFETY CHAIN	EACH	2	2

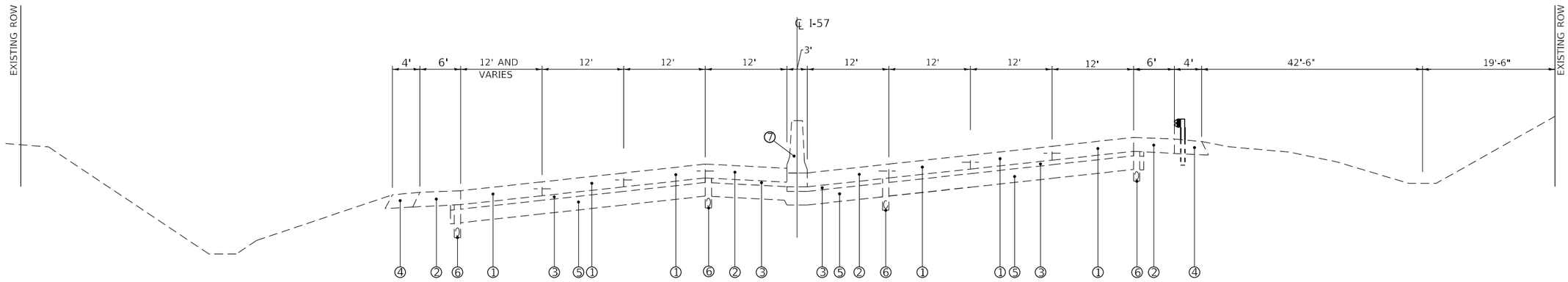
USER NAME = woodshankd	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES
	DRAWN - RW	REVISED -		
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -		
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -		SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	4

CONTRACT NO. 46469

ILLINOIS FED. AID PROJECT

REV



I-57 TYPICAL SECTION SUPERELEVATION - CURVE TO LEFT

CURVE 1 - PC STA 284+11.96 TO PT STA 313+76.54
SE TRANSITION - STA 281+93.96 TO STA 285+20.96
FULL SE - STA 285+20.96 TO STA 312+97.54
SE TRANSITION - STA 312+97.54 TO STA 316+24.54

LEGEND

1. CONTINOUSLY REINFORCED CONCRETE PAVEMENT 12¼
2. PORTLAND CEMENT CONCRETE SHOULDERS 12¼
3. STABILIZED SUBBASE - HMA 4"
4. AGGREGATE SHOULDERS 12"
5. AGGREGATE SUBGRADE 12"
6. PIPE UNDERDRAIN 4"
7. CONCRETE BARRIER, DOUBLE FACE, 42" HEIGHT
8. STEEL PLATE BEAM GUARDRAIL, TYPE A
9. GUARDRAIL STABILIZATION - PCC
   SEE STANDARD 630001 AND 630201

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USER NAME = woodshankrl	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/13/2017	DATE - 8/5/2017	REVISED -	

TYPICAL SECTION

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	5
		CONTRACT NO. 46469		
	ILLINOIS FED. AID PROJECT			

B.M. #1 S.W. CORNER BOLT ON LIGHT POLE FOUNDATION
RAMP STA.104+70, ±67' OFFSET EDGE OF RAMP PCC SHOULDER.
ELEVATION = 689.79

48' - PIPE CULVERT, CLASS A, TYPE 1
EQUIVALENT ROUND SIZE 30" WITH
2 - PRE-CAST REINFORCED CONCRETE
FLARED END SECTION, EQUIVALENT
ROUND SIZE 30"
42'-6" OFFSET FROM EDGE OF RAMP SHOULDER
INVERT ELEVATIONS SHALL MATCH EXISTING ℄ ELEVATIONS

SAND MODULE IMPACT ATTENUATORS
WITH ATENUATOR BASE

EXIT 315
ILLINOIS 50
BRADLEY
BOURBONNAIS

EXISTING SIGNAGE

EXISTING SIGN TO REMAIN IN PLACE.

EXISTING DITCH LINE

1:6

30'

1:10

1:6

RAMP "G"

101+00

100+00

STA. 290+32

STA. 289+70

NORTHBOUND SHOULDER/RAMP G

NORTHBOUND DRIVE LANE

NORTHBOUND PASSING LANE

293+00

292+00

291+00

290+00

SOUTHBOUND PASSING LANE

SOUTHBOUND DRIVE LANE

289+00

RAMP "H"

68+00

69+00

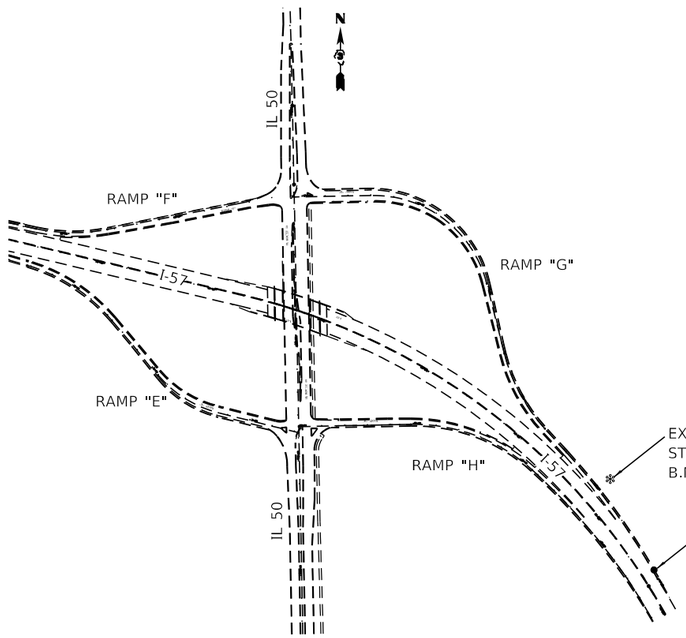
70+00

AFSFSDFSDFSDFS
JGFHSGHBDNBCV

EXISTING LIGHT POLE
STA. 104+70
B.M. #1

OVERHEAD SIGN STRUCTURE - CANTILEVER
S.N. #3C046I057R315.5
NB EXIT 315 TO IL 50
M.L. STA. 292+10
RAMP STA. 100+61

SITE PLAN



PLAN OF INTERCHANGE

USER NAME = woodshankrl	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/13/2017	DATE - 8/5/2017	REVISED -	

SITE PLAN

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	6
		CONTRACT NO. 46469		
	ILLINOIS	FED. AID PROJECT		

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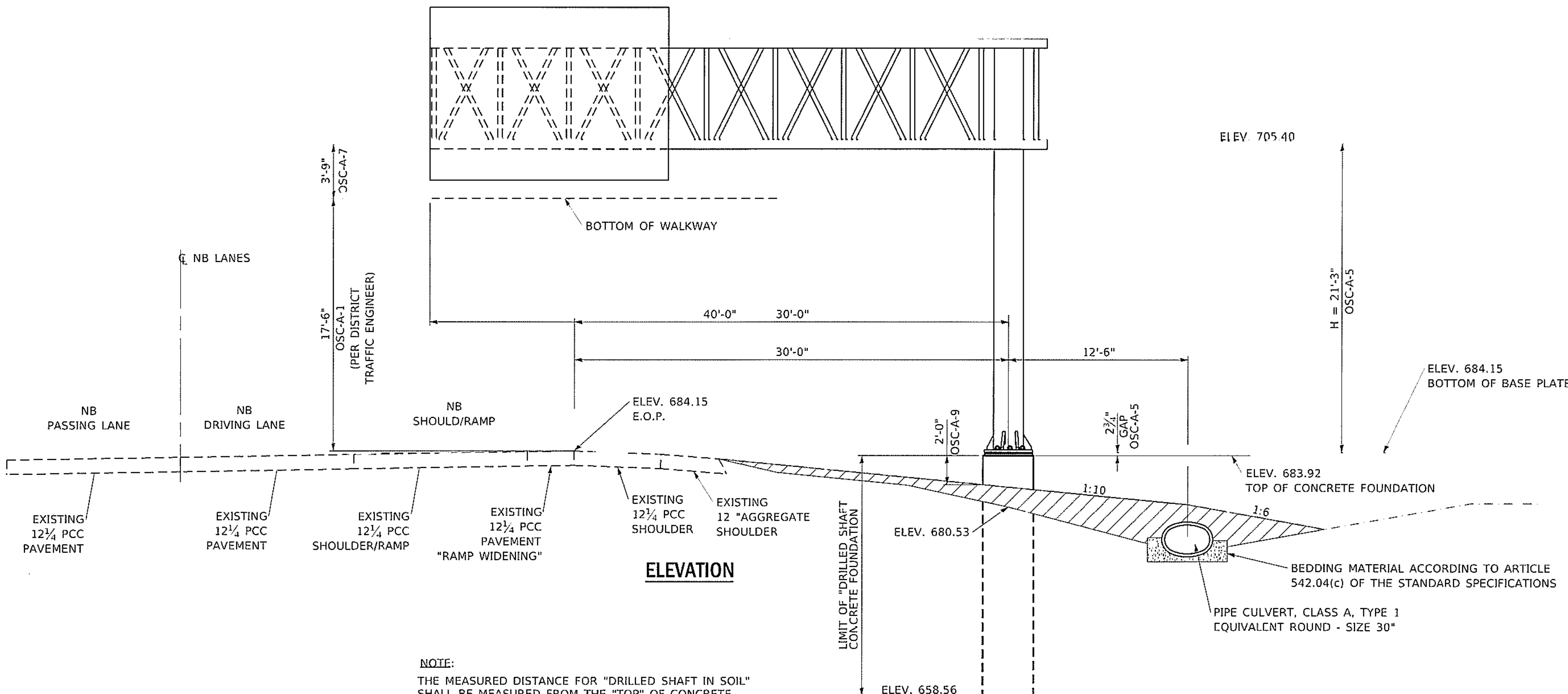
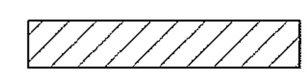


ELEVATION

NOTE:
THE MEASURED DISTANCE FOR "DRILLED SHAFT IN SOIL" SHALL BE MEASURED FROM THE "TOP" OF CONCRETE FOUNDATION ELEVATION TO THE"TOP" OF ROCK ELEVATION.



FURNISHED EXCAVATION (EMBANKMENT) TO CONSTRUCT 1:10 SLOPE FOR ATTENUATOR BASE

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USER NAME = woodshankel	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

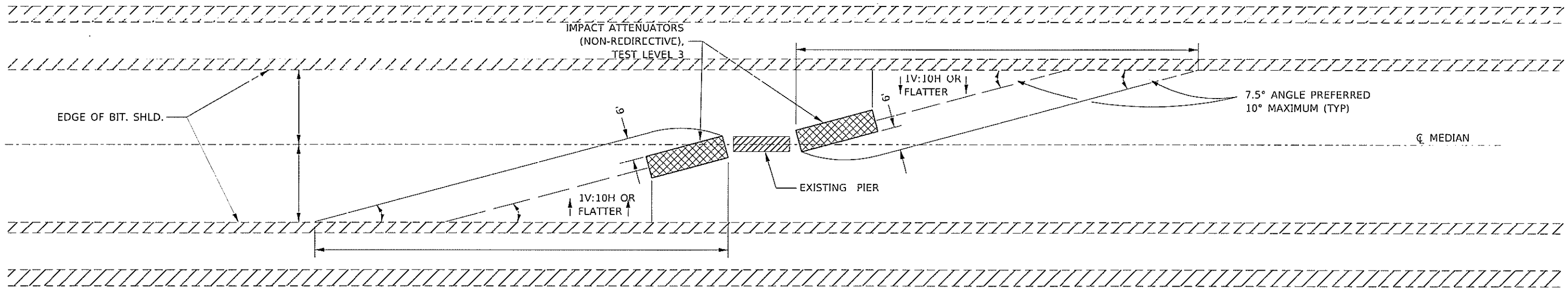
IMPACT ATTENUATOR INSTALLATION DETAILS
SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	7

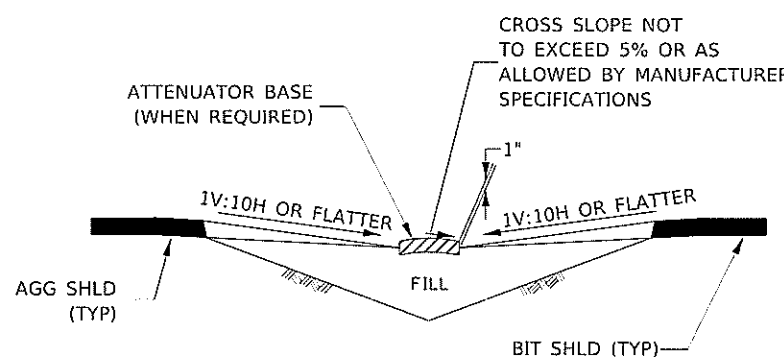
CONTRACT NO. 46469
ILLINOIS | FED. AID PROJECT

GENERAL NOTES

1. THE 10:1 SLOPE CONTROLS NOSE OF ATTENUATOR BASE ELEVATION.
2. ATTENUATOR BASE GRADE PARALLELS EDGE OF PAVEMENT GRADE.
3. SLOPE ADJACENT TO ATTENUATOR BASE SHALL BE 10:1 OR FLATTER.



IMPACT ATTENUATOR LAYOUT AND GRADING PLAN

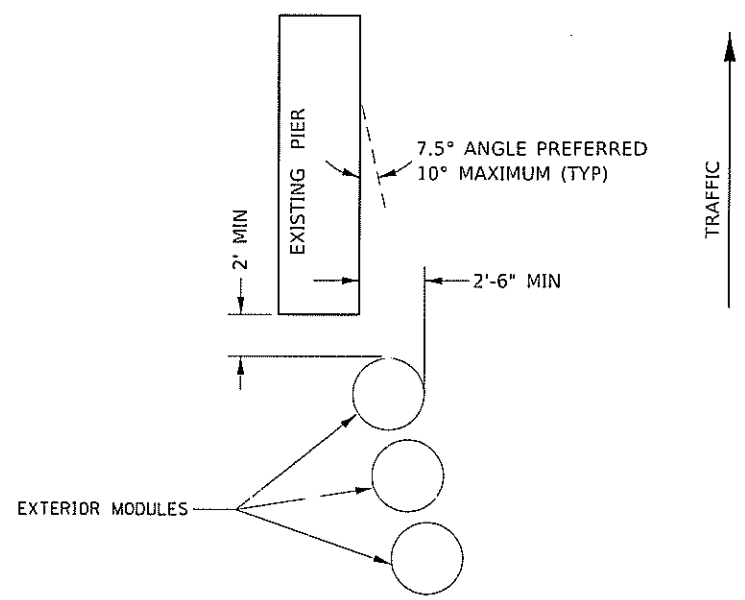


SECTION A - A

NOTE:

ATTENUATOR BASE SHALL BE PER MANUFACTURER SPECIFICATIONS EXCEPT SAND MODULE SYSTEMS SHALL HAVE THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. ATTENUATOR BASE SHALL PROVIDE A 1' BUFFER ALONG THE SIDES AND FRONT OF THE ARRAY.
2. SAND MODULE SYSTEMS SHALL BE PLACED ON A HMA OR CONCRETE BASE.



TYPICAL EXTERIOR MODULE LAYOUT

USER NAME = weedshankrl	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

IMPACT ATTENUATOR INSTALLATION DETAILS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	8
		CONTRACT NO. 46469		
	ILLINOIS	FED. AID PROJECT		

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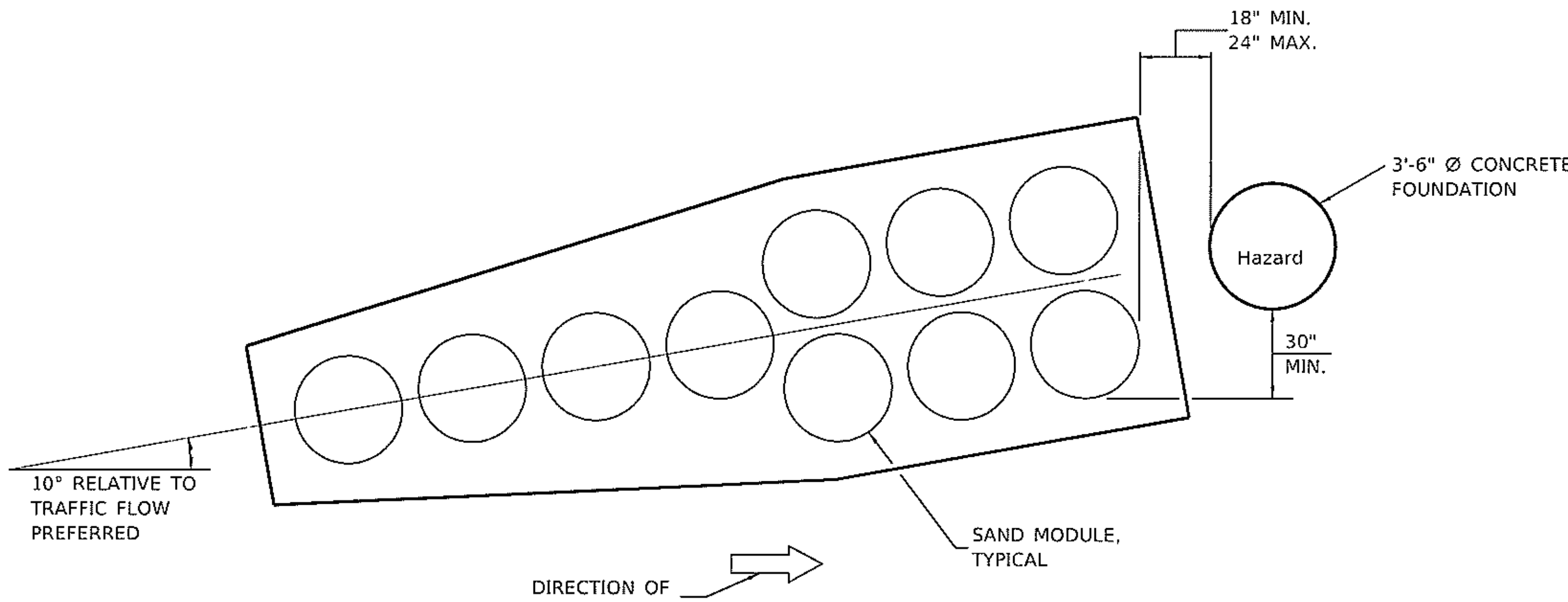
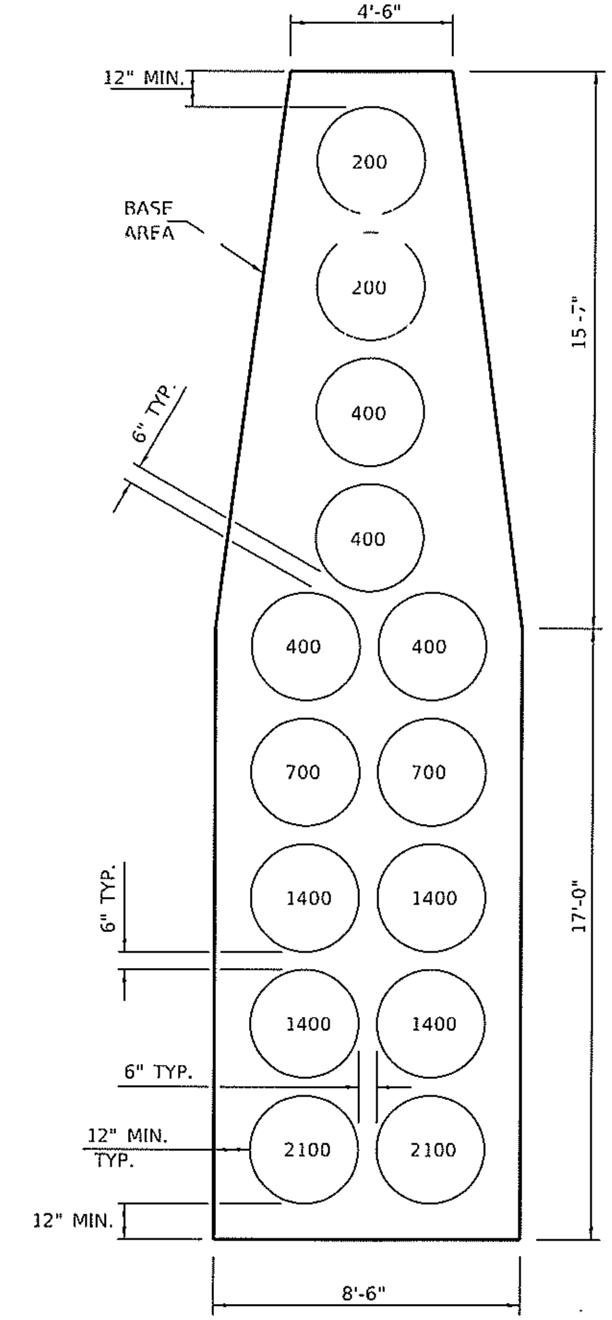


ROADSIDE INSTALLATION
(TRAFFIC APPROACHES ON ONE SIDE)
(TEST LEVEL 2 ARRAY SHOWN)



TEST LEVEL 3 ARRAY
(FOR DESIGN SPEED
GREATER THAN 45 MPH.)
(NUMBERS INSIDE SAND MODULES
INDICATE SAND WEIGHT IN POUNDS.)

USER NAME = woodsf-ank-l	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

SAND MODULE IMPACT ATTENUATORS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	9
		CONTRACT NO. 46469		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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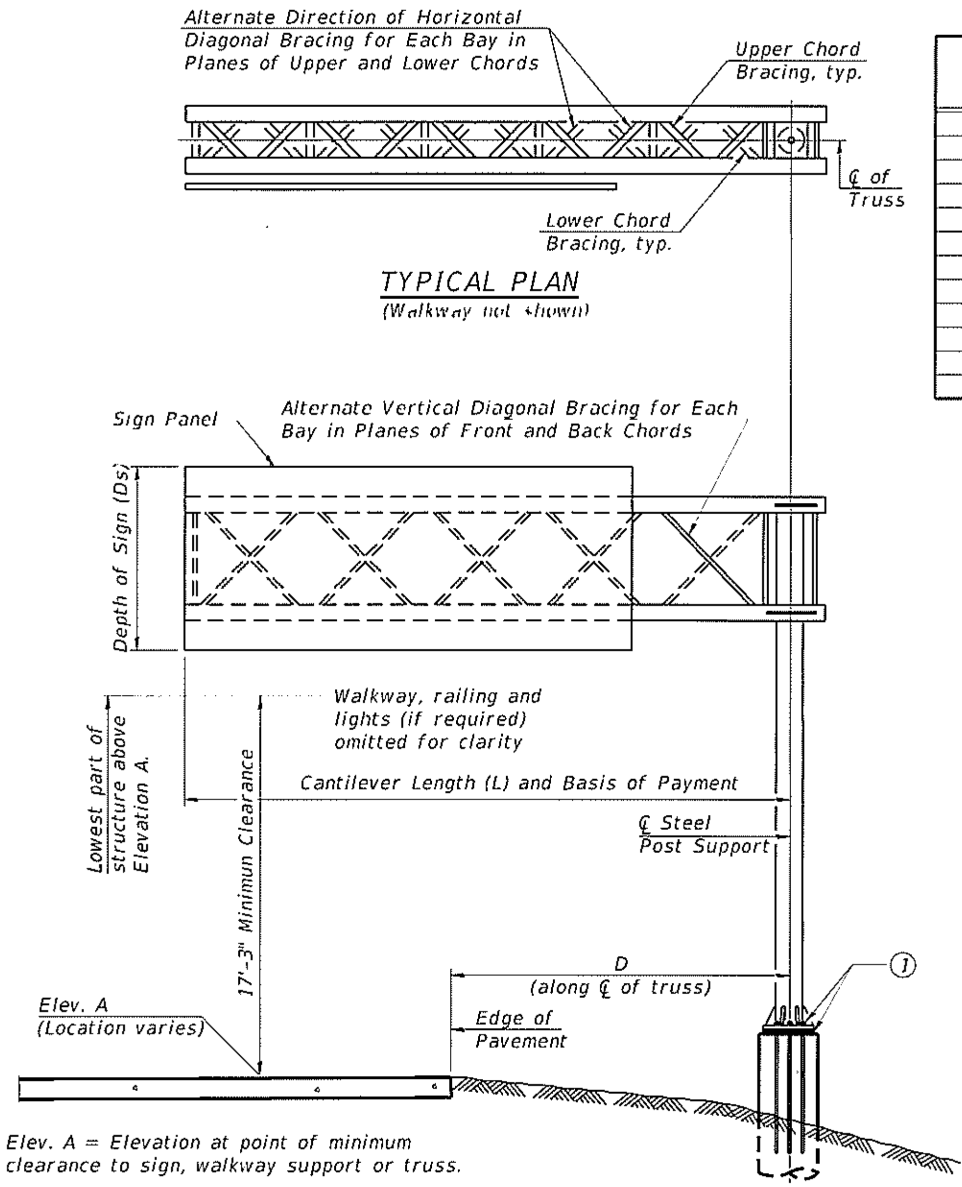


Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

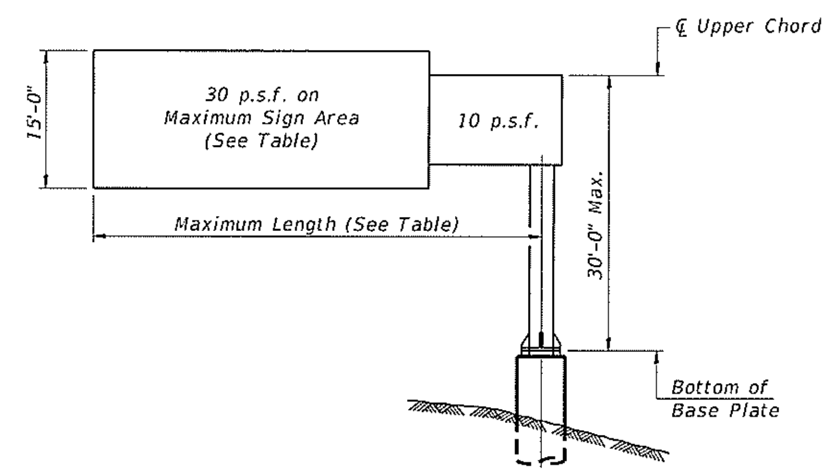
TYPICAL ELEVATION

Looking in Direction of Traffic

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.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	Ds	Total Sign Area
3C0461057R315.1	292+10	III-C-A	40'-0"	684.15	30'-0"	12'-0"	198.0

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.



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.

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 ("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.

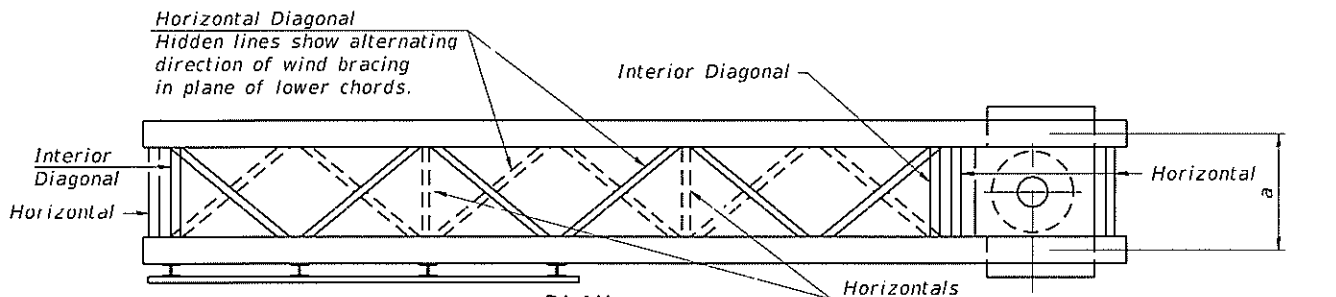
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

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

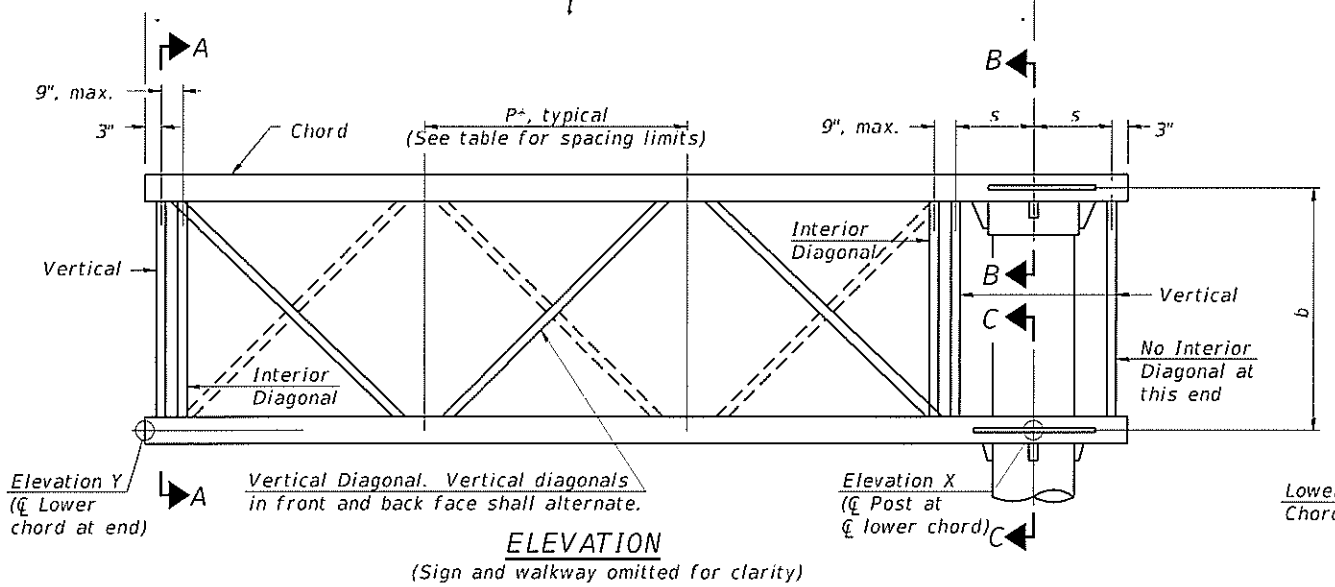
FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

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	40
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	24
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	12.1



PLAN
(Walkway not shown)

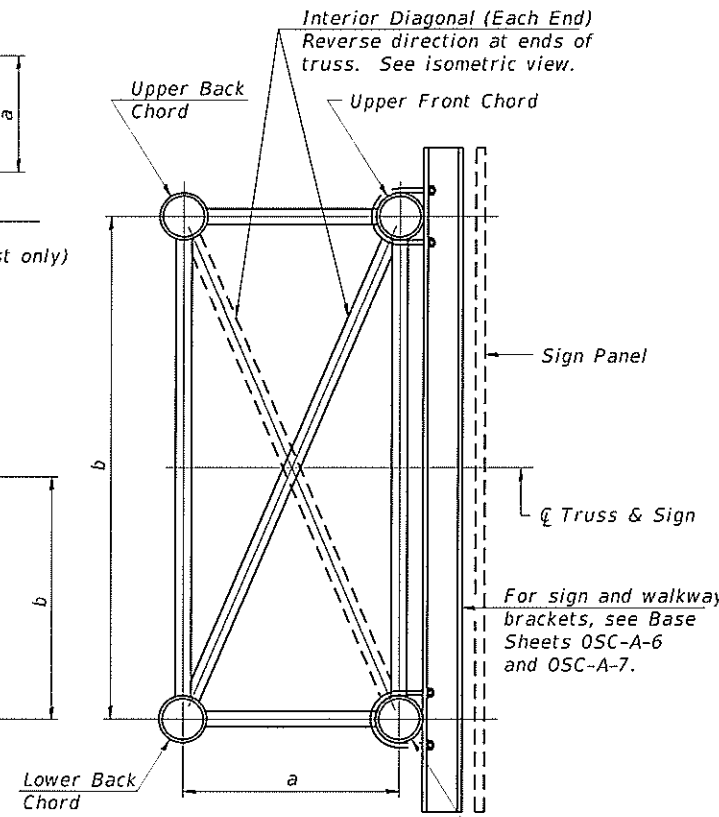


ELEVATION
(Sign and walkway omitted for clarity)

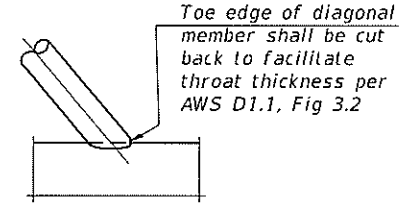
TYPICAL TRUSS UNIT

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

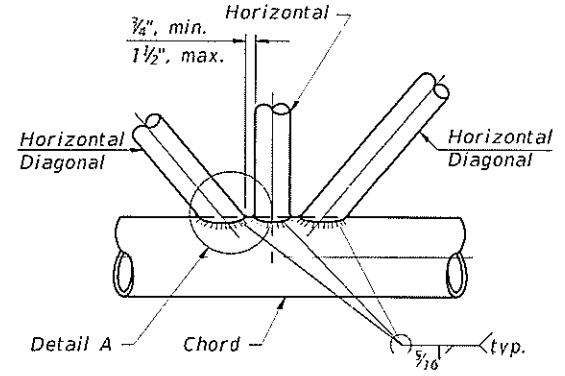
Note:
There are twice as many horizontal diagonals as there are vertical diagonals.



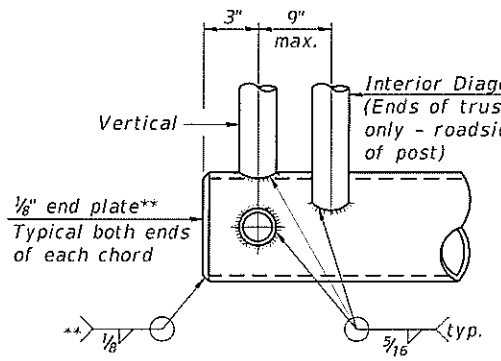
SECTION A-A



DETAIL A

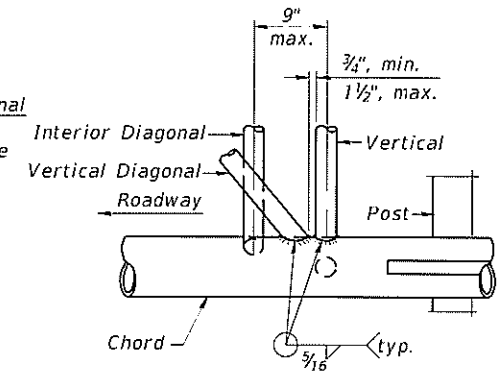


TRUSS INTERIOR JOINT DETAIL

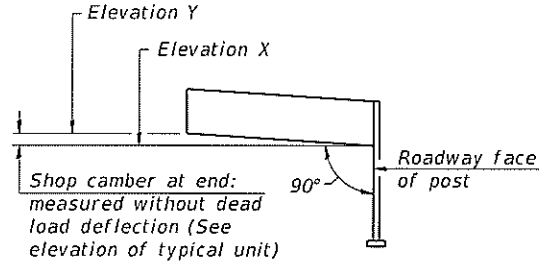


CANTILEVER END JOINT DETAIL

** Contractor may alternatively use standard aluminum drive-fit cap to close ends. ½" Ø Drain hole in end plate / drive-fit cap.



POST END JOINT DETAIL



CAMBER DIAGRAM
(For Fabrication Only)

ISOMETRIC VIEW
TYPICAL TRUSS UNIT
ASTM B221 Alloy 6061 Temper T6

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
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2½"	5/16"
II-C-A	36"	66"	21"	42" min. to 54" max.	6½"	5/16"	3¼"	5/16"
III-C-A (35' Max.)	36"	84"	21"	48" min. to 66" max.	7"	⅜"	3½"	⅜"
III-C-A (>35' to 40')	36"	84"	21"	48" min. to 66" max.	8"	⅜"	3½"	⅜"

$$*P = \frac{L - s - 3"}{\#\ Panels}$$

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
3C0461057R315.1	292+10	III-C-A	40'-0"	8	4'-9"

SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	1½"
16'-17'	1¾"
18'-20'	2"
21'-22'	2¼"
23'-25'	2½"
26'-27'	2¾"
28'-30'	3"
31'-32'	3¼"
33'-35'	3½"
36'-37'	4"
38'-40'	4½"

OSC-A-2 2-17-2017

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	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

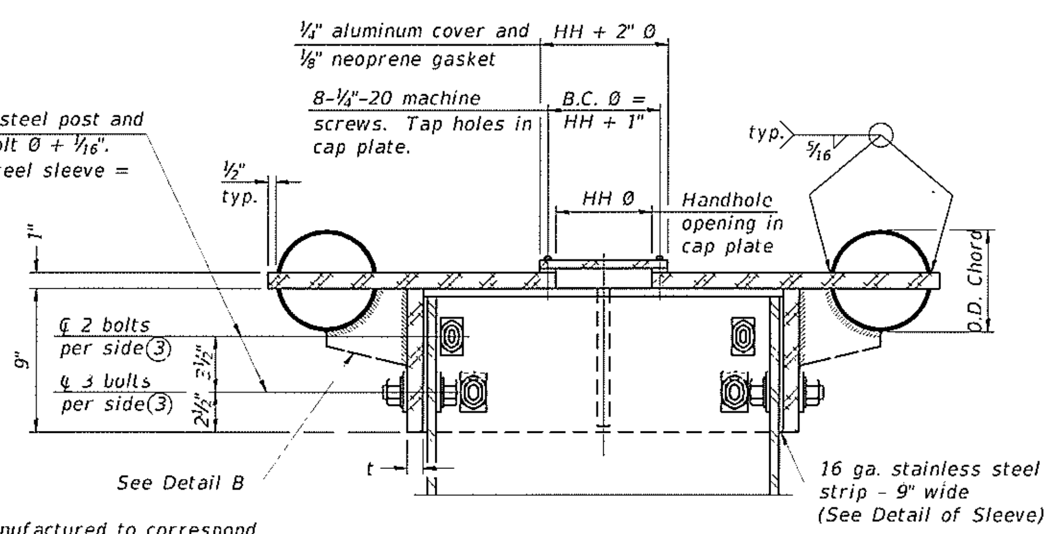
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET 2 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	11
		CONTRACT NO. 46469		
	ILLINOIS	FED. AID PROJECT		

SECTION B-B

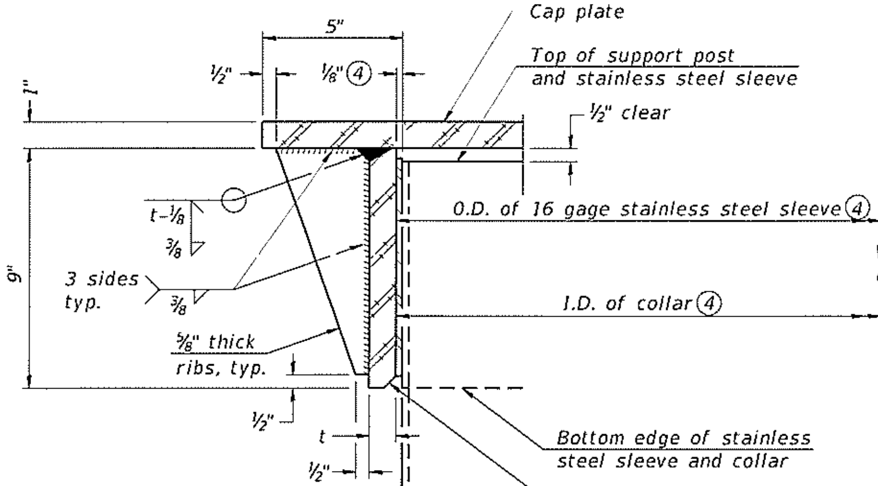


SECTION B-B

Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

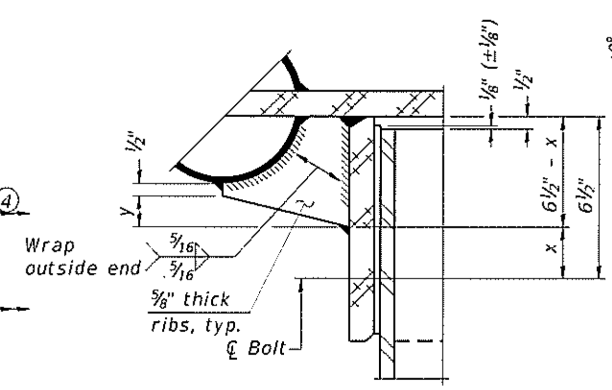
④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus ⅛" (±¹⁄₁₆"). Maximum gap between post and collar at any location equals ⅛" before tightening bolts.

DETAIL A



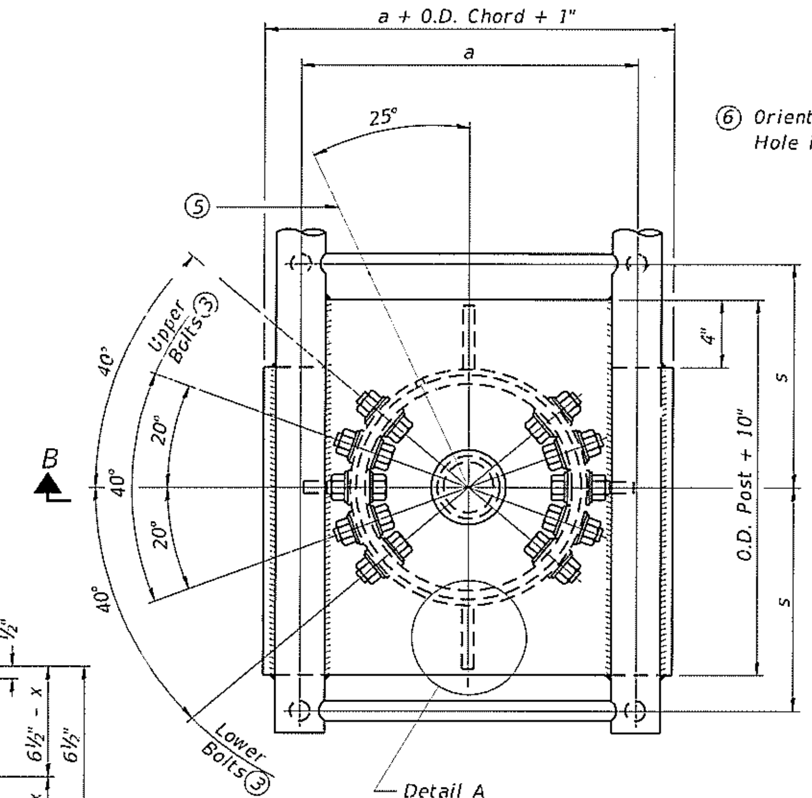
DETAIL A
(Two locations)

DETAIL B



DETAIL B
Two locations
(For details not shown, see Detail C)

PLAN VIEW - TOP OF COLUMN

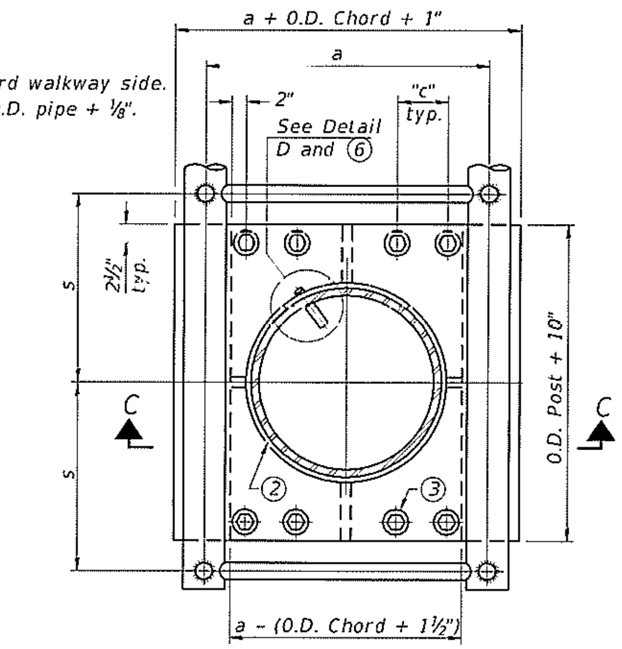


PLAN VIEW - TOP OF COLUMN

⑤ Optional full penetration weld in collar. (Two locations maximum....(180° apart)....X-ray or UT 100%)

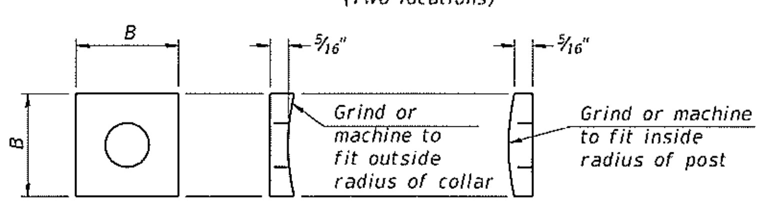
⑥ Orient pipe toward walkway side. Hole in post = O.D. pipe + ⅛".

SECTION THRU POST ABOVE LOWER CHORDS



SECTION THRU POST ABOVE LOWER CHORDS

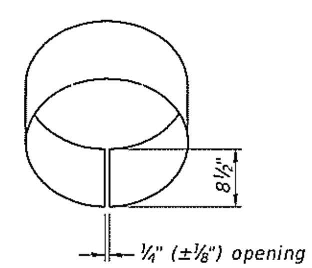
CONTOURED WASHERS



CONTOURED WASHERS

Bolt Size	Contoured Washers Hole Dia.	Contoured Washers B
⅞"	1"	2½"
1"	1⅛"	3"
1¼"	1⅜"	3¼"

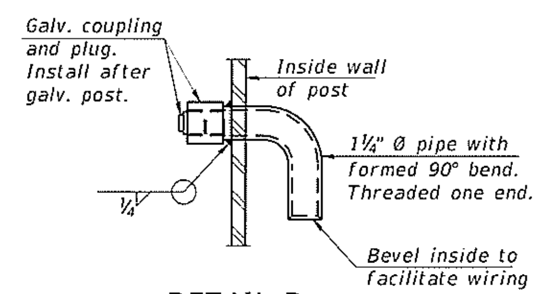
DETAIL OF STAINLESS STEEL SLEEVE



DETAIL OF STAINLESS STEEL SLEEVE

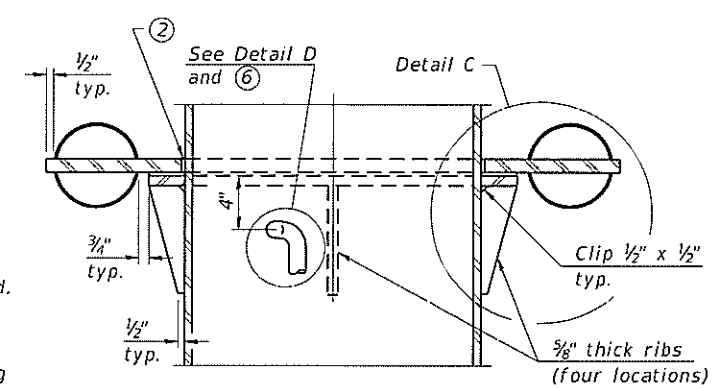
Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1½" long at 6" cts. along top edge and at ¼" opening.

DETAIL D



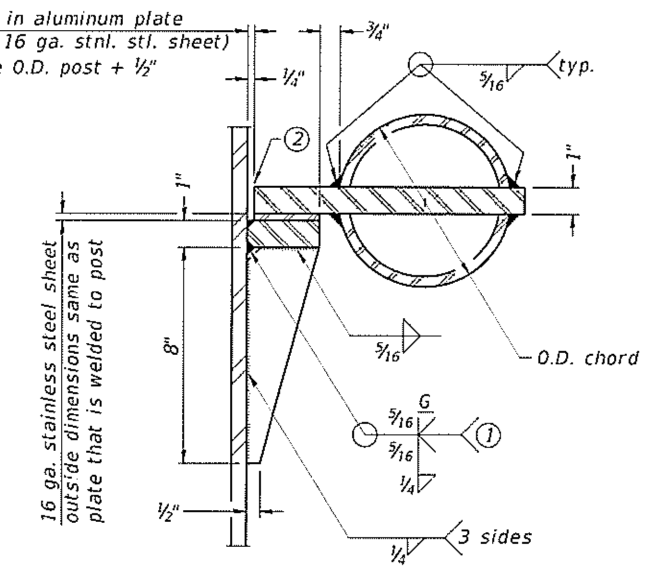
DETAIL D

SECTION C-C



SECTION C-C

DETAIL C



DETAIL C

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter③	Lower Juncture Bolt Spacing Dimension "c"③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs x	Side Ribs y
I-C-A	16" Ø (83#/')	⅞"	3¼"	8"	⅝"	1¾"	2¼"
II-C-A	24" Ø (125#/')	1"	3½"	12"	⅞"	2"	1¼"
III-C-A (35' max.)	24" Ø (125#/')	1¼"	3½"	12"	⅞"	2"	1"
III-C-A (>35' to 40')	24" Ø (171#/')	1¼"	3½"	12"	⅞"	2"	1"

① Grind top if required to fully seat aluminum plate and stainless steel sheet.

② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

OSC-A-3   2-17-2017

USER NAME = woodshankrl	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CANTILEVER SIGN STRUCTURES – JUNCTURE DETAILS ALUMINUM TRUSS & STEEL POST	F.A.I. RTE. 57	SECTION OVD SIN STR REPL 18-31	COUNTY KANKAKEE	TOTAL SHEETS 20	SHEET NO. 12
	DRAWN - RW	REVISED -							
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -		SCALE: SHEET 3 OF 9 SHEETS STA. TO STA.	CONTRACT NO. 46469				
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -			ILLINOIS FED. AID PROJECT				

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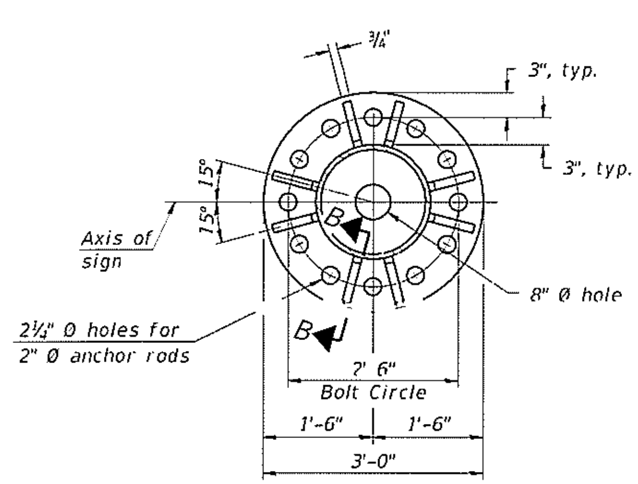
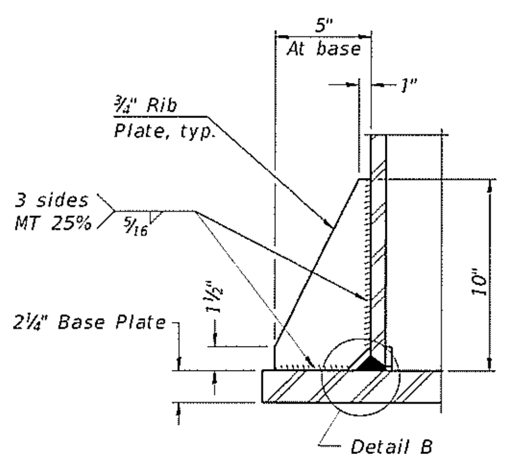
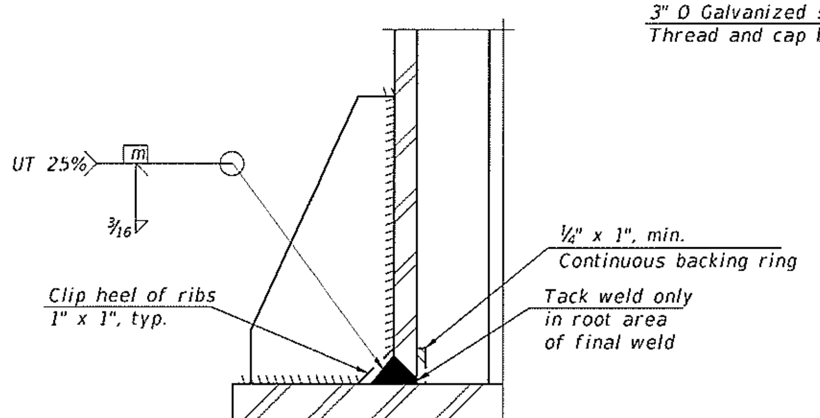


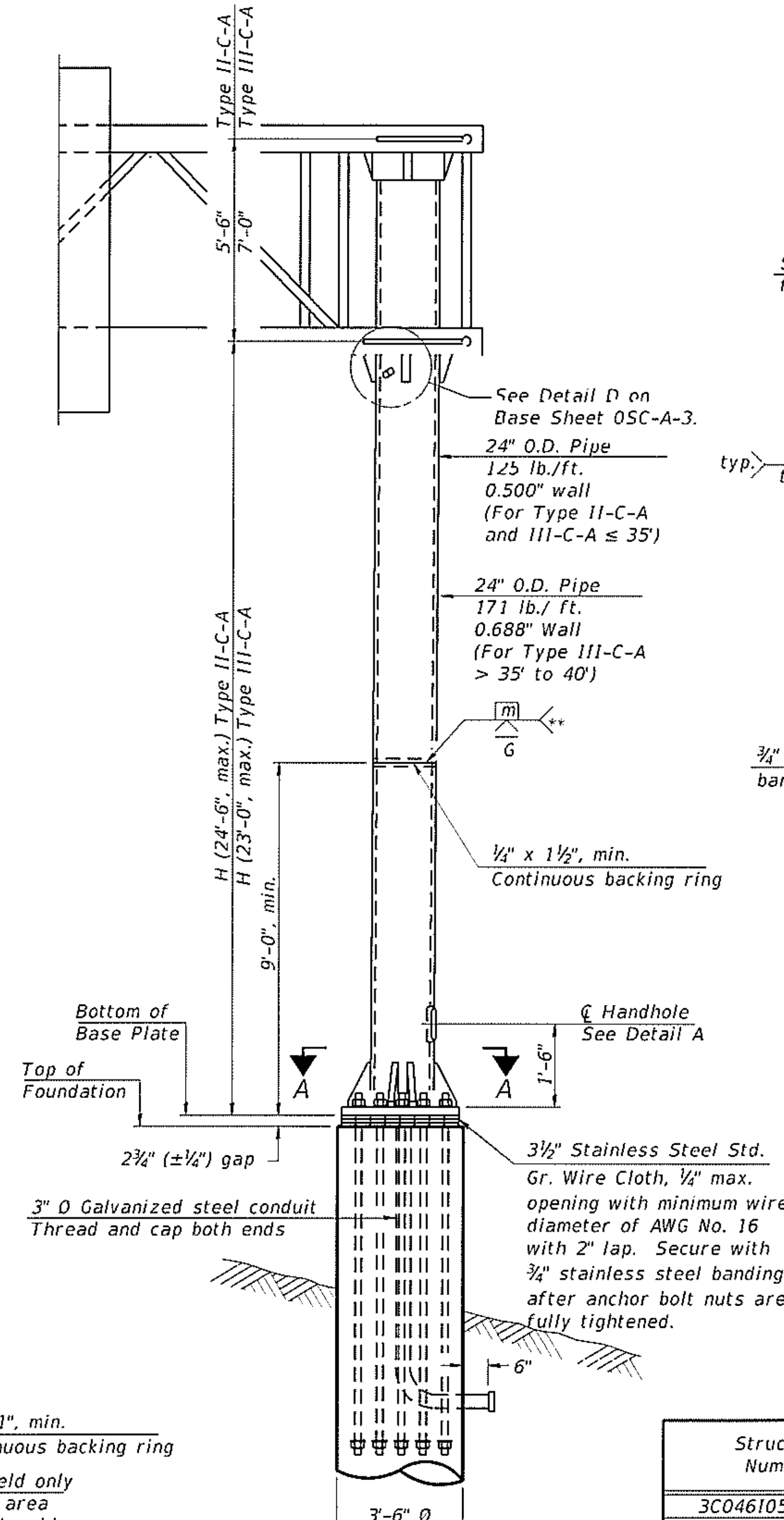
SECTION A-A



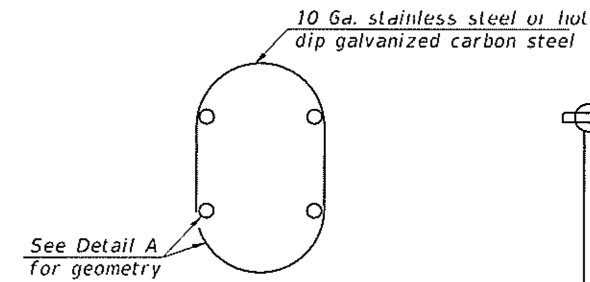
SECTION B-B



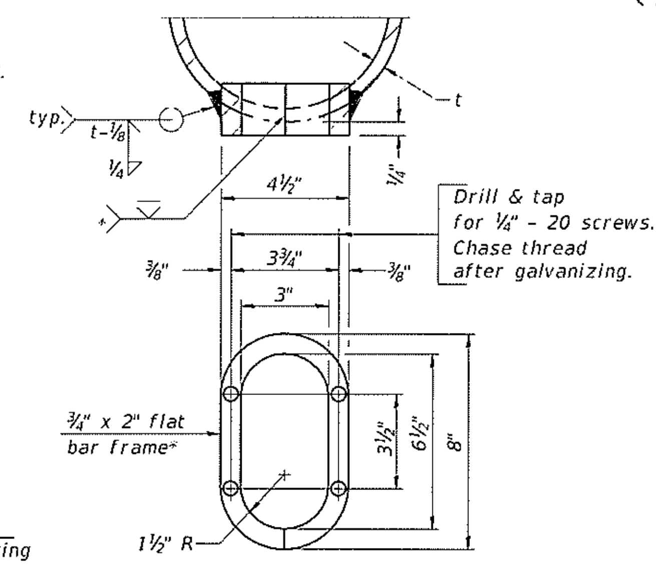
DETAIL B
(Typical rib)



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



HANDHOLE COVER

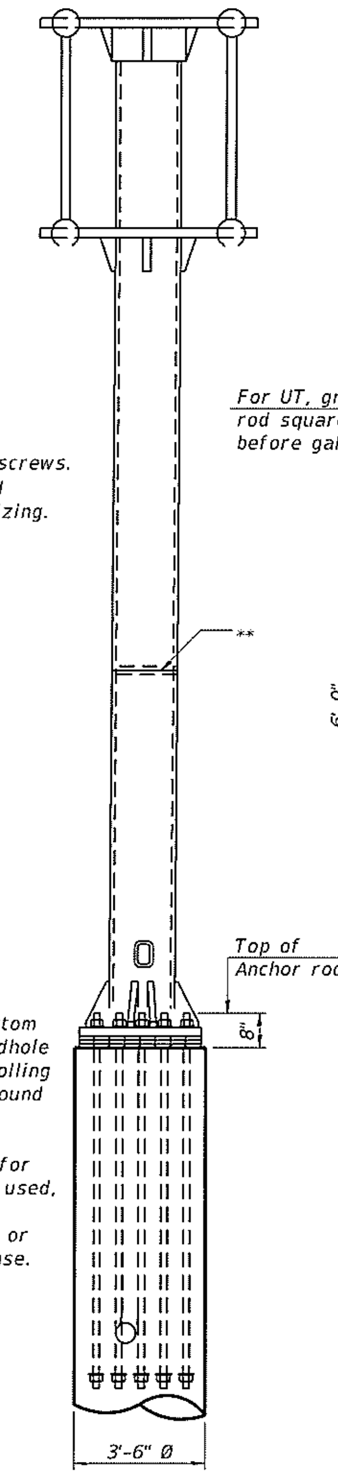


Provide 8" x 4½" cover. Outside corners = 2¼" radius. Provide 4-5⁄16" Ø holes in cover for ¼" - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

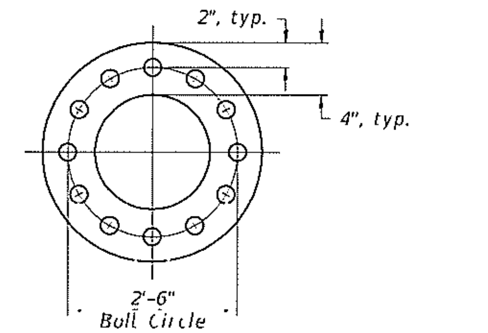
DETAIL A

* 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 500μ in or less.

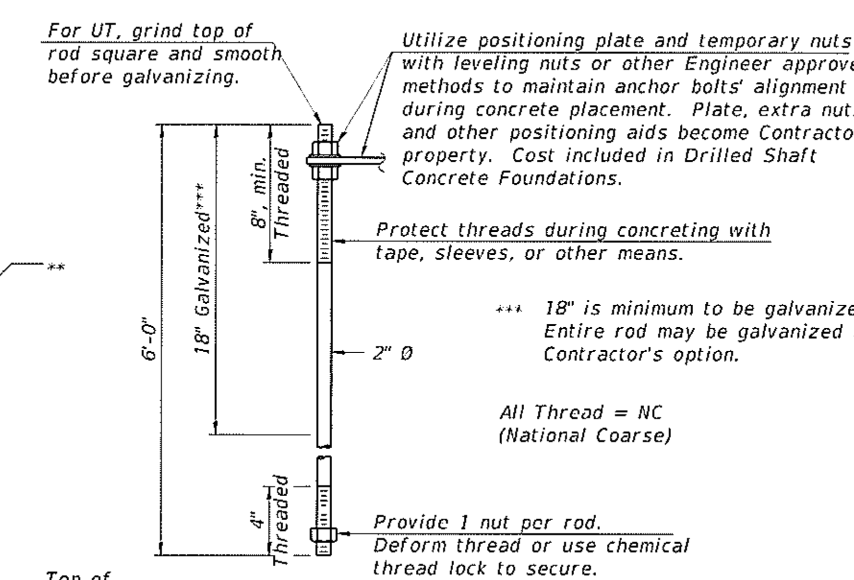
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.



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.

Structure Number	Station	H
3C0461057R315.1	292+10	21'-3"

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

OSC-A-5   2-17-2017

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	DRAWN - RW	REVISED -
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -

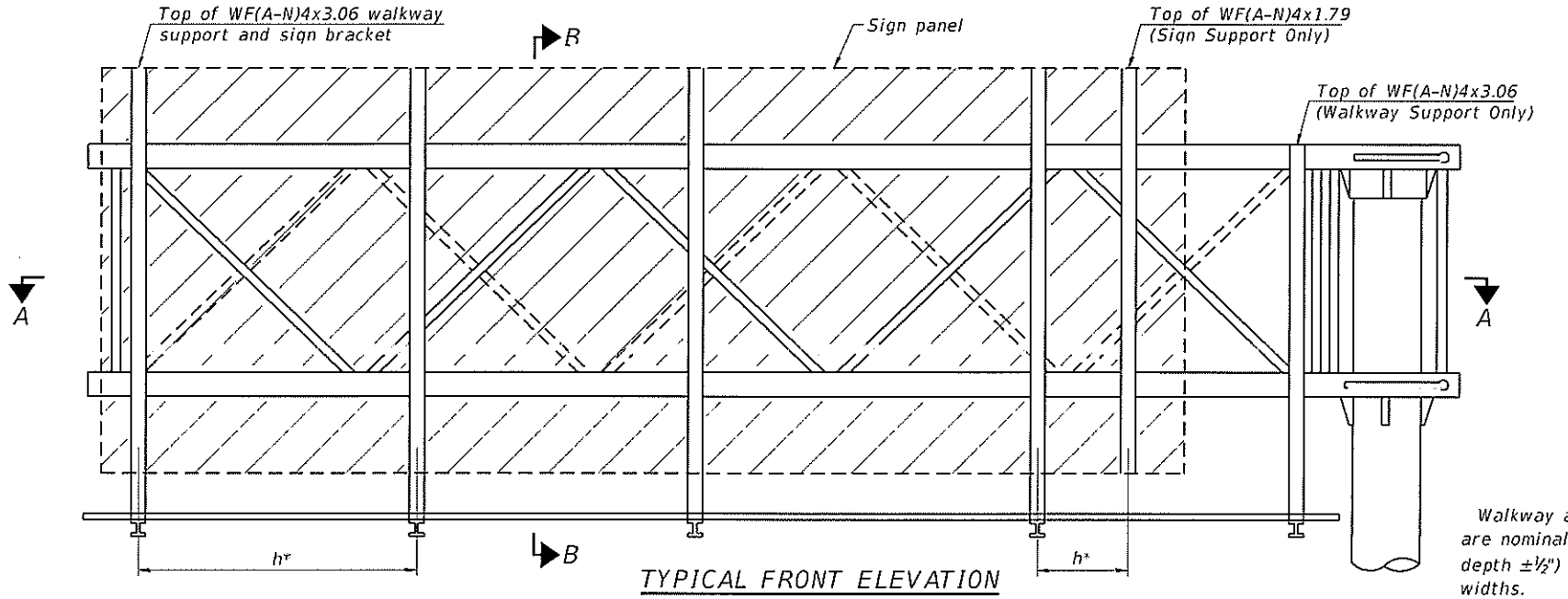
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: | SHEET 4 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	13

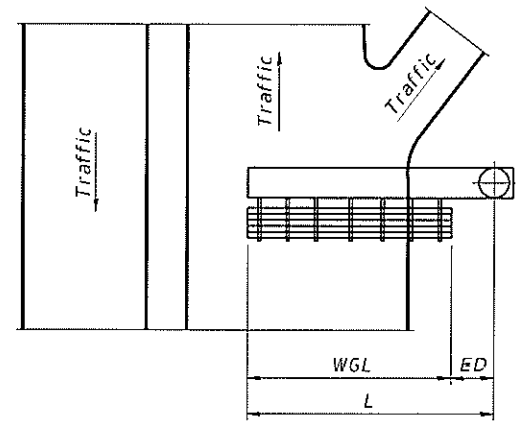
CONTRACT NO. 46469
ILLINOIS FED. AID PROJECT



TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.

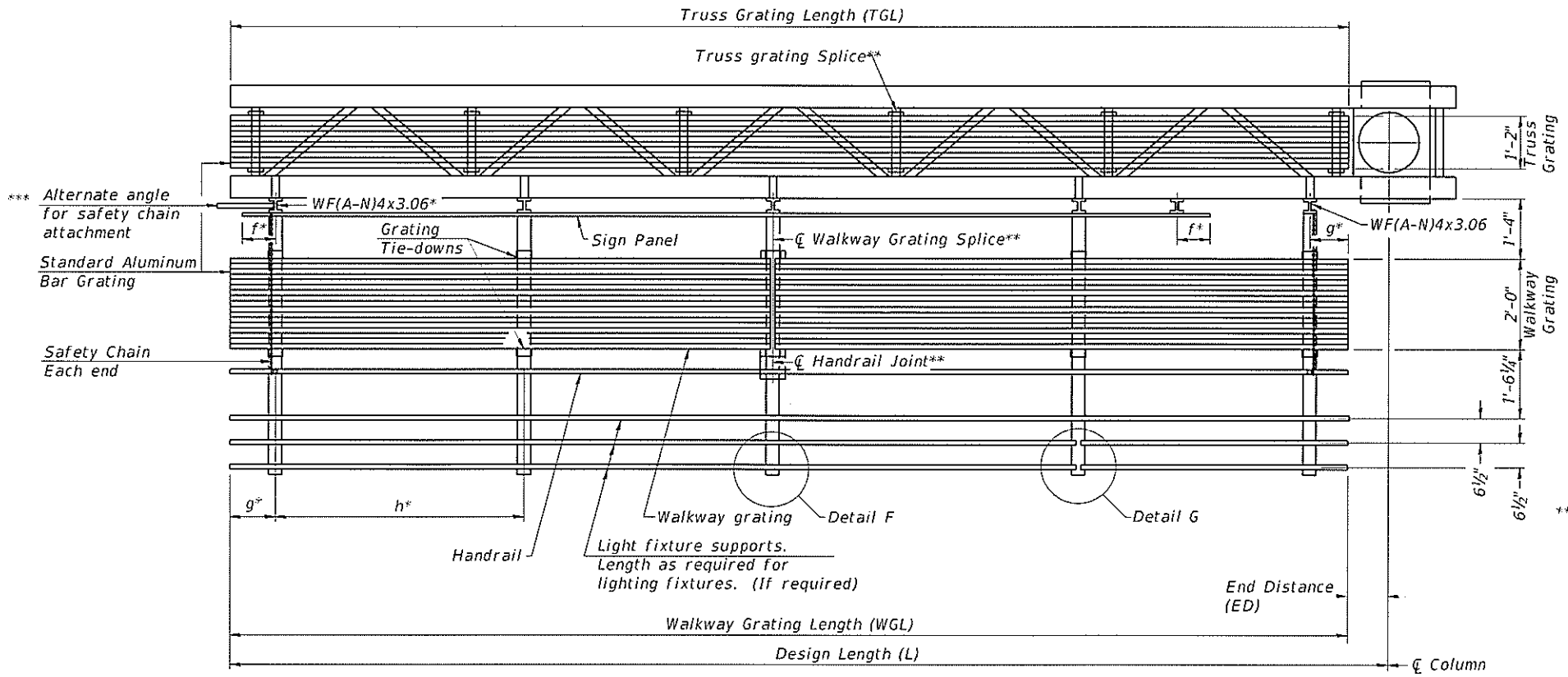
Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



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
3C0461057R315.1	292+10	24'-0"	16'-0"	38'-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 ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to ℄ of nearest bracket)
h = 6'-0" maximum (℄ to ℄ 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

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

OSC-A-6 2-17-2017

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	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: | SHEET 5 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	14
		CONTRACT NO. 46469		
	ILLINOIS FED. AID PROJECT			

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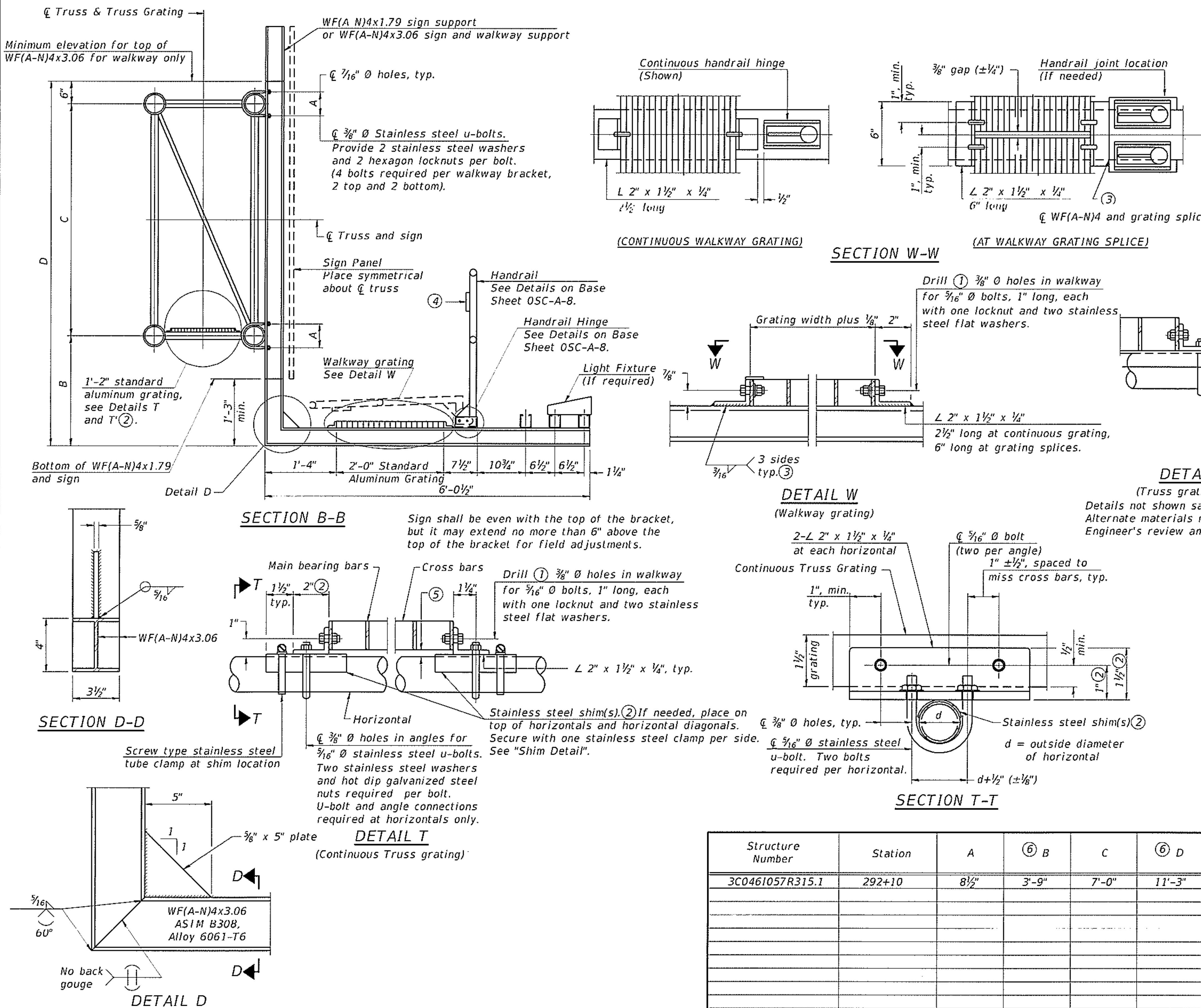


SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.

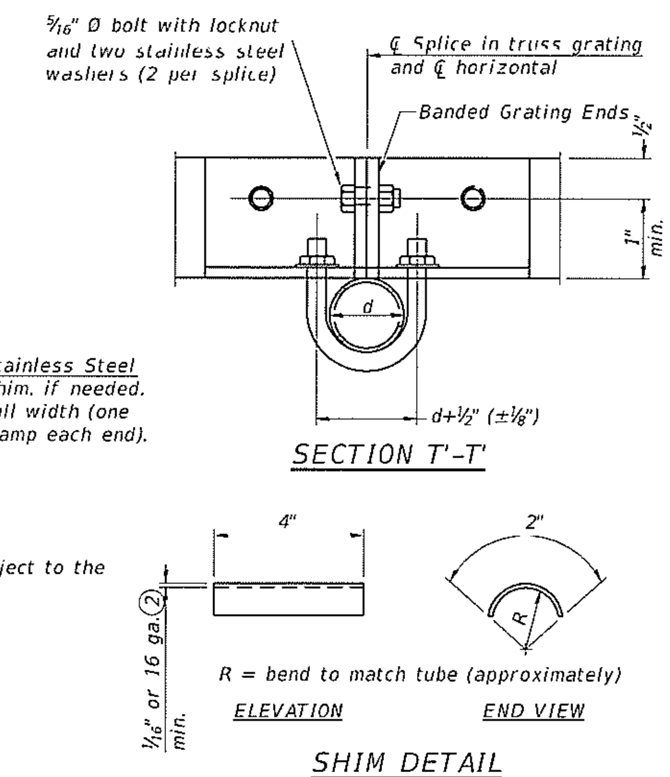
Cross bars (CB) shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1½", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.



Structure Number	Station	A	(6) B	C	(6) D
3C0461057R315.1	292+10	8½"	3'-9"	7'-0"	11'-3"

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

(3) If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet OSC-A-8.)

(4) ℞ ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may vary from 0 to ½", max. to align walkway, allow for camber, etc.

(6) Based on actual sign height, Ds, given on OSC-A-1.

OSC-A-7 2-17-2017

USER NAME = woodshankrl	DESIGNED - RW	REVISED -
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PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

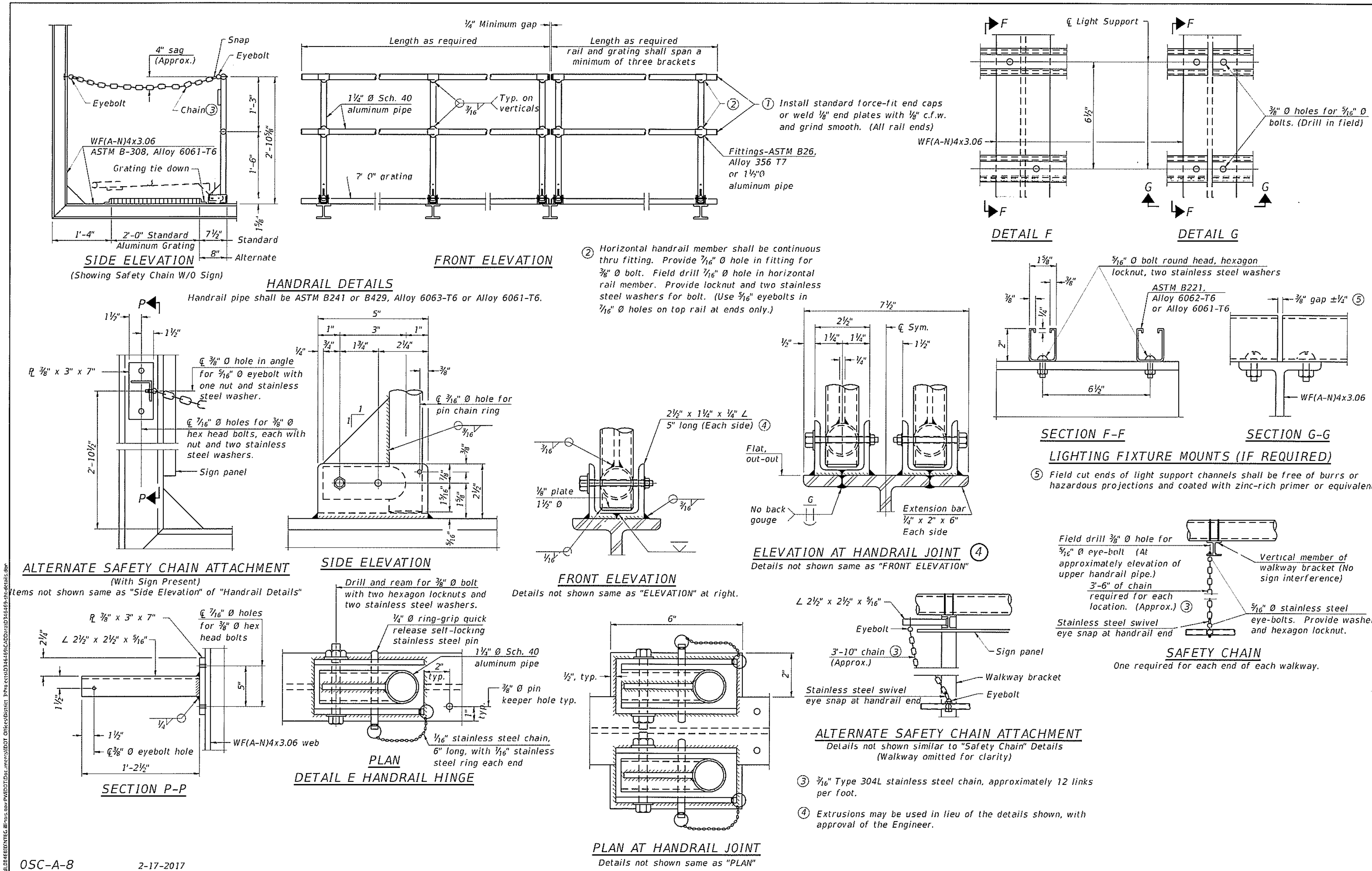
CANTILEVER SIGN STRUCTURES - WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: SHEET 6 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	15

CONTRACT NO. 46469

ILLINOIS FED. AID PROJECT



SIDE ELEVATION
(Showing Safety Chain W/O Sign)
4" sag (Approx.)
Snap
Eyebolt
Chain ③
WF(A-N)4x3.06 ASTM B-308, Alloy 6061-T6
Grating tie down
1'-4"
2'-0" Standard Aluminum Grating
7½" Standard
8" Alternate
1'-3"
1'-6"
2'-10⅝"
1⅝"
HANDRAIL DETAILS
Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.
FRONT ELEVATION
¼" Minimum gap
Length as required
Length as required rail and grating shall span a minimum of three brackets
1¼" Ø Sch. 40 aluminum pipe
Typ. on verticals
7' 0" grating
① Install standard force-fit end caps or weld ⅛" end plates with ⅛" c.f.w. and grind smooth. (All rail ends)
Fittings-ASTM B26, Alloy 356 T7 or 1½"Ø aluminum pipe
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" Ø hole in fitting for ⅜" Ø bolt. Field drill 7/16" Ø hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" Ø holes on top rail at ends only.)
DETAIL F
DETAIL G
℄ Light Support
6½"
WF(A-N)4x3.06
⅜" Ø holes for 5/16" Ø bolts. (Drill in field)
SECTION F-F
SECTION G-G
LIGHTING FIXTURE MOUNTS (IF REQUIRED)
5/16" Ø bolt round head, hexagon locknut, two stainless steel washers
ASTM B221, Alloy 6062-T6 or Alloy 6061-T6
⅜" gap ±¼" ⑤
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.
ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"
PL ⅜" x 3" x 7"
℄ ⅜" Ø hole in angle for 5/16" Ø eyebolt with one nut and stainless steel washer.
℄ 7/16" Ø holes for ⅜" Ø hex head bolts, each with nut and two stainless steel washers.
Sign panel
2'-10½"
SIDE ELEVATION
℄ 3/16" Ø hole for pin chain ring
Drill and ream for ⅜" Ø bolt with two hexagon locknuts and two stainless steel washers.
FRONT ELEVATION
Details not shown same as "ELEVATION" at right.
2½" x 1¼" x ¼" ∠ 5" long (Each side) ④
⅛" plate
1½" Ø
ELEVATION AT HANDRAIL JOINT ④
Details not shown same as "FRONT ELEVATION"
Flat, out-out
No back gouge
Extension bar ¼" x 2" x 6" Each side
℄ Sym.
SECTION P-P
PL ⅜" x 3" x 7"
∠ 2½" x 2½" x 5/16"
℄ 7/16" Ø holes for ⅜" Ø hex head bolts
℄ ⅜" Ø eyebolt hole
WF(A-N)4x3.06 web
1'-2½"
PLAN
DETAIL E HANDRAIL HINGE
¼" Ø ring-grip quick release self-locking stainless steel pin
1¼" Ø Sch. 40 aluminum pipe
⅜" Ø pin keeper hole typ.
1/16" stainless steel chain, 6" long, with 1/16" stainless steel ring each end
PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"
½", typ.
ALTERNATE SAFETY CHAIN ATTACHMENT
Details not shown similar to "Safety Chain" Details
(Walkway omitted for clarity)
∠ 2½" x 2½" x 5/16"
Eyebolt
3'-10" chain ③ (Approx.)
Sign panel
Walkway bracket
Stainless steel swivel eye snap at handrail end
SAFETY CHAIN
One required for each end of each walkway.
Field drill ⅜" Ø hole for 5/16" Ø eye-bolt (At approximately elevation of upper handrail pipe.)
3'-6" of chain required for each location. (Approx.) ③
Vertical member of walkway bracket (No sign interference)
5/16" Ø stainless steel eye-bolts. Provide washer and hexagon locknut.
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.

OSC-A-8 2-17-2017

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PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

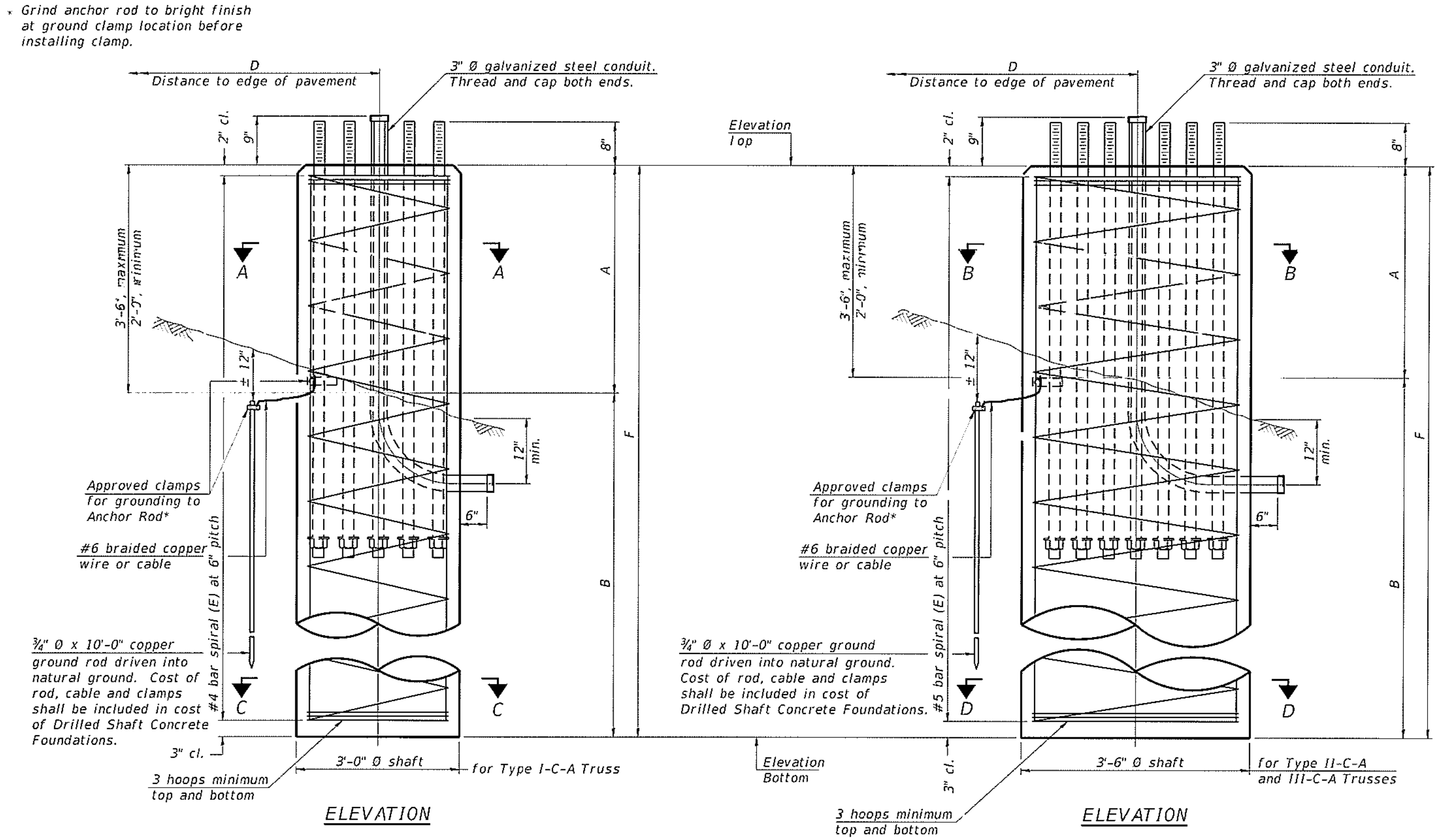
CANTILEVER SIGN STRUCTURES – HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST

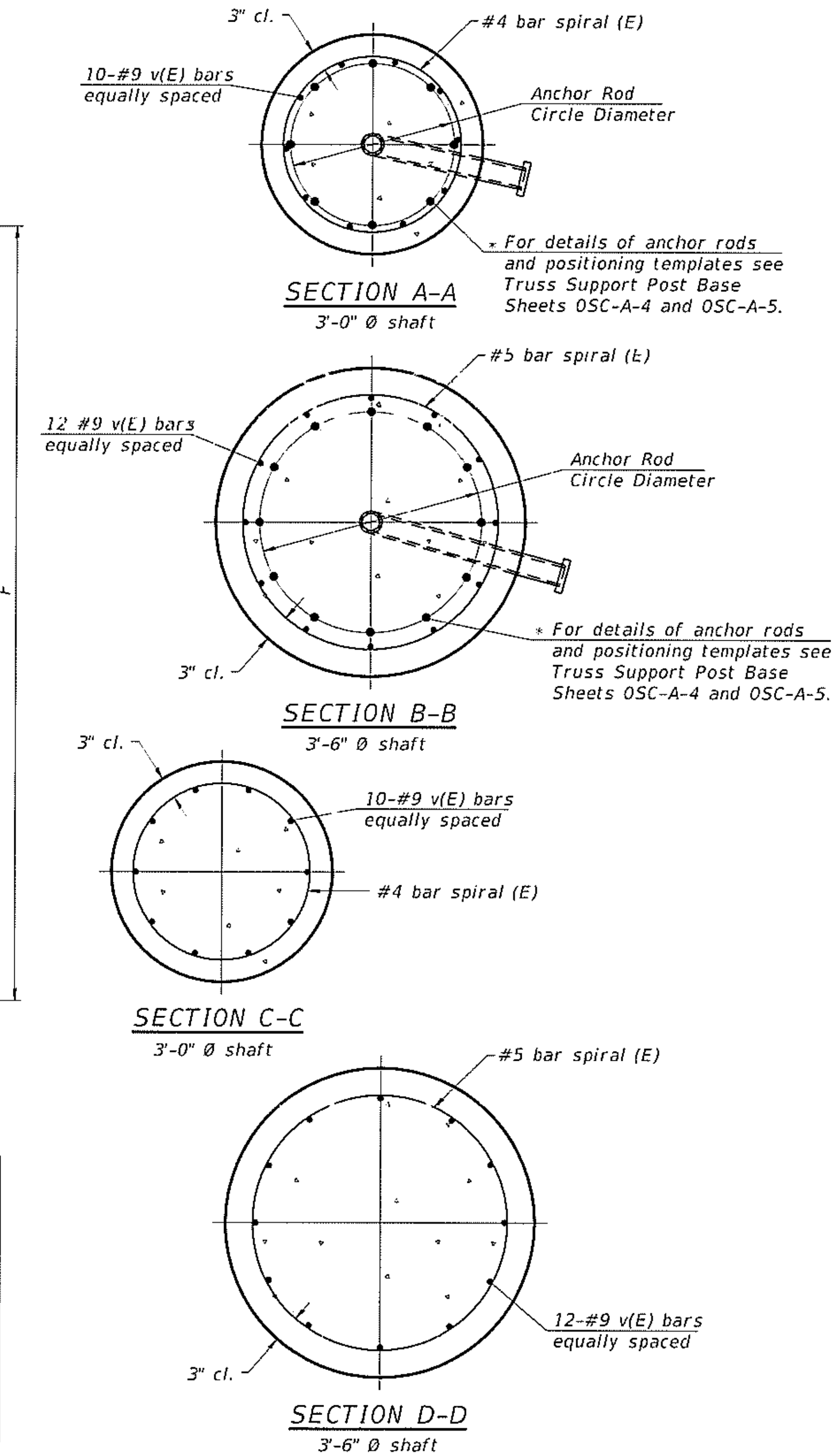
SCALE: SHEET 7 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	16

CONTRACT NO. 46469

ILLINOIS FED. AID PROJECT





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

FOUNDATION DESIGN TABLE

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 Rods 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

FOUNDATION DATA TABLE

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete Cubic Yards
3C0461057R315.1	292+10	III-C-A	3'-6"	683.92	658.56	>4	2'-2"	23'-2¼"	25'-4⅜"	9.0

OSC-A-9   2-17-2017

USER NAME = woodshankrl	DESIGNED - RW	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SCALE: | SHEET 8 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	17

CONTRACT NO. 46469
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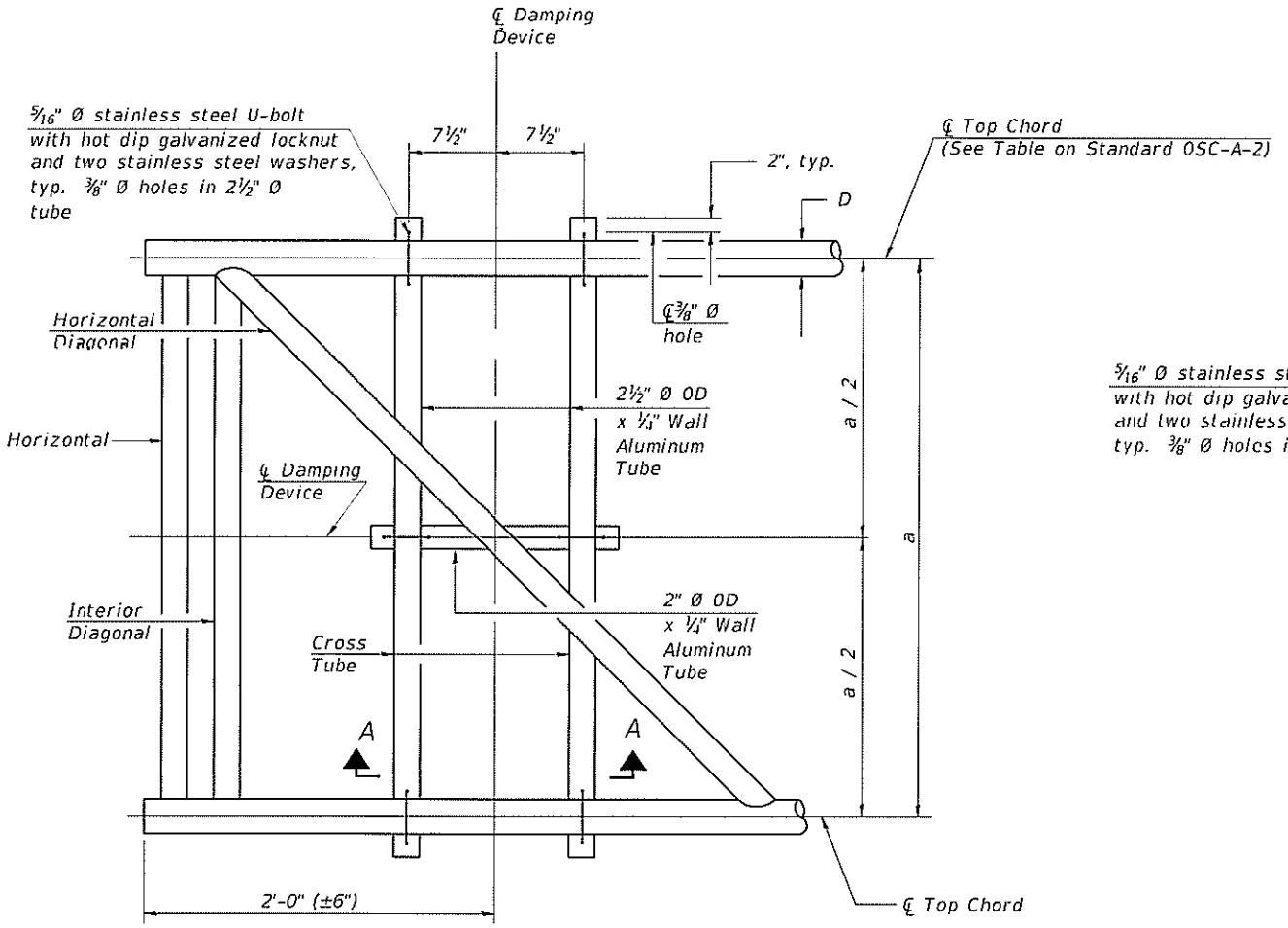
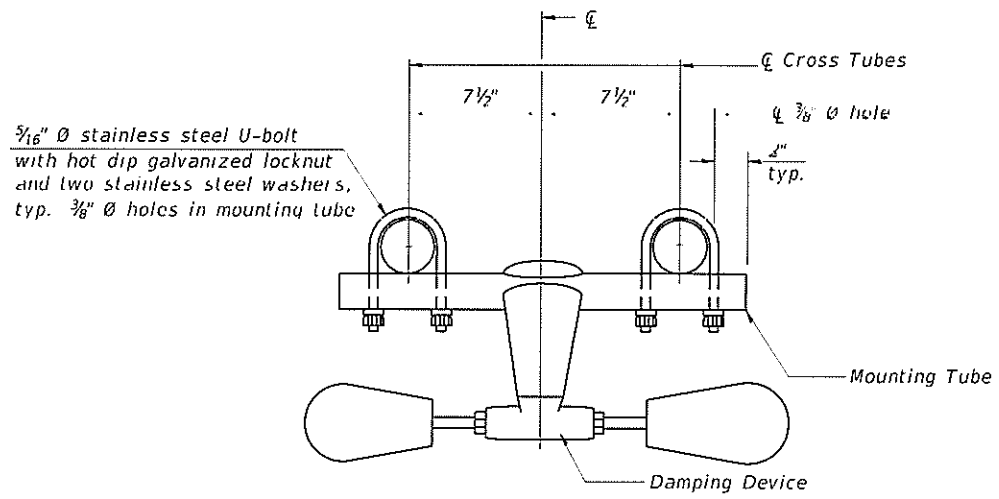
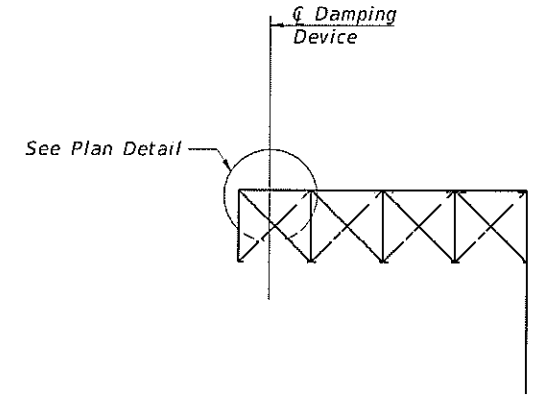


PLAN DETAIL



TRUSS DAMPING DEVICE CONNECTION DETAIL



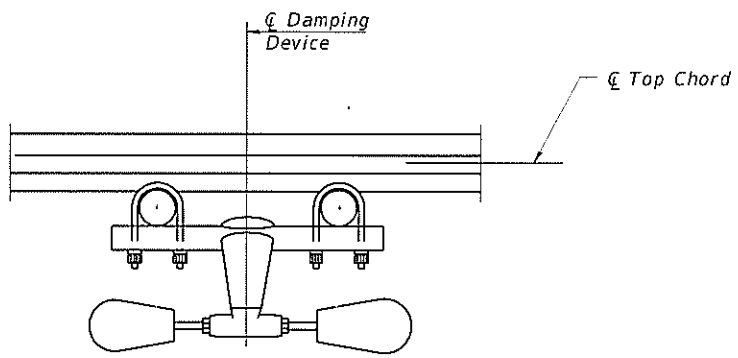
ELEVATION

Aluminum Cantilever Sign Structure

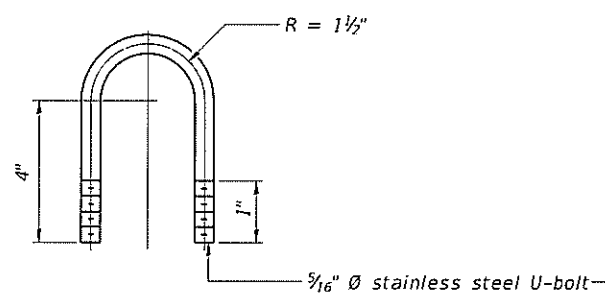
GENERAL NOTES

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

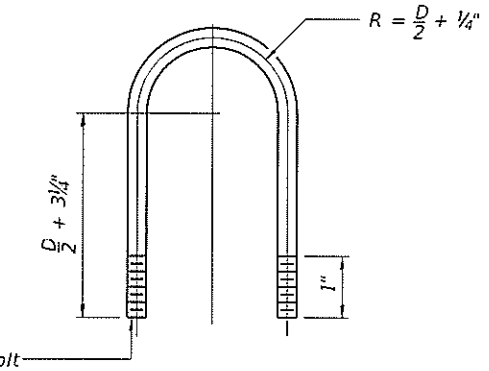


SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

OSC-A-D 2-17-2017

USER NAME = woodsh.ankrd	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

CANTILEVER SIGN STRUCTURE
DAMPING DEVICE

SCALE: | SHEET 9 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	18
		CONTRACT NO. 46469		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: dgn="UL084EBIDJNTEG.illinois.gov:PWIDOTDocuments:IDOT Offices\District 3\Projects\D3464690\CADD:std\D3464690-cm-details.dgn

12.0" Radius, 2.0" Border, White on Green;
"EXIT" E Mod 2K 120% spacing; " 315" E Mod 2K;
12.0" Radius, 2.0" Border, White on Green;
"Bradley" E Mod 2K; "Bourbonnais" E Mod 2K; Arrow 160 - 35.0" 40°;
Table of letter and object lefts.

E	X	I	T	3	1	5
100.3	109.4	120.6	124.8	147.1	162.6	170.9

[50]	[arrow]
73.4	160.6

B	r	a	d	l	e	y
43.4	60.9	71.3	86.8	103.8	111.9	125.7

B	o	u	r	b	o	n	n	a	i	s
12.2	28.2	44.0	61.0	72.8	86.9	102.7	119.7	135.2	152.2	160.0

USER NAME = woodshankrl	DESIGNED - RW	REVISED -	
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAGE

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	19

CONTRACT NO. 46469

ILLINOIS FED. AID PROJECT

MODEL: Default
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Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/23/17

ROUTE FAI 57 (I-57) DESCRIPTION 0.1 miles South of IL 50 (Exit 351 Northbound off ramp at interchange) LOGGED BY Larry Myers

D-3 OVD SIN STR REPL

SECTION 18-31 LOCATION SE 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM, Latitude 41.165579, Longitude -87.845528

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 3C046I057R315.1
Station 292+35

BORING NO. 1
Station 292+35
Offset 77.4 ft Rt. Centerline of NBL
Ground Surface Elev. 676.56 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 659.1 ft ▼
Upon Completion Dry ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Brown Silty Clay Loam Till - Fill				
674.06		5		
Stiff Gray Silty Clay Loam / Silty Loam Till with Large Limestone Gravel Pieces - Fill		5 7	1.5 S	18
671.56	-5	3		
Very Stiff to Hard Brown & Gray Silty Clay Loam Till * Rock in Shoe		3 7	*	24
		7		
		8 11	8.4 S	18
	-10	5		
		8 12	8.2 S	17
664.56				
Loose Brown Loamy Fine Sand to Coarse Limestone / Dolostone Gravel		3		
		3 5		13
	-15	8		
660.56		71 100/0"		14
Very Dense Buff to Tan Limestone / Dolostone Gravel in Silt Matrix - Weathered & Reworked Rock Surface ▼ 658.56		100/2"		6
Auger Refusal @ 18.0' End of Boring	-20			

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, form 137 (Rev. 8-99)

SOIL BORING LOG OVERHEAD SIGN MP3 55.1 NB GPJ IL DOT.GDT 8/24/17

MODEL: Default
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USER NAME = woodshankrl	DESIGNED - RW	REVISED -	
	DRAWN - RW	REVISED -	
PLOT SCALE = 100.00 ' / in.	CHECKED - RW	REVISED -	
PLOT DATE = 9/1/2017	DATE - 8/5/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	OVD SIN STR REPL 18-31	KANKAKEE	20	20
		CONTRACT NO. 46469		
	ILLINOIS FED. AID PROJECT			