

INDEX OF SHEETS 09-21-12 LETTING ITEM 004 STATE OF ILLINOIS

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DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

VARIOUS ROUTES
SECTION D3 OVD SIN STR REPL 13-08

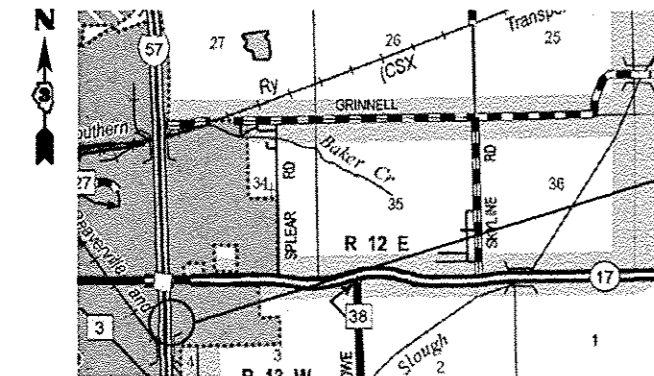
**OVERHEAD SIGN TRUSS PAINTING, AND MINOR REPAIRS.
KANKAKEE COUNTY**

C-60-008-13

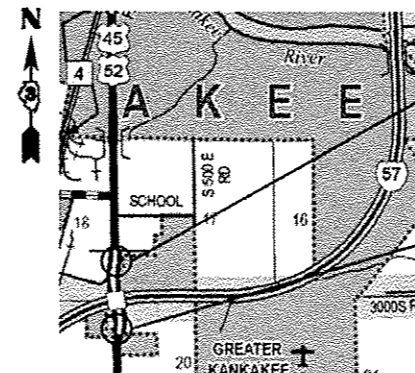
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D3	OVD SIN STR REPL 13-08	KANKAKEE	19	1
		ILLINOIS	CONTRACT NO. 46221	

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY PAVEMENT EDGE
- 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701101-02 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
- 701601-07 URBAN LANE CLOSURE MULTILANE 1W, OR 2W, WITH NONTRAVERSABLE MEDIAN
- 701602-05 URBAN LANE CLOSURE MULTILANE 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701901-02 TRAFFIC CONTROL DEVICES

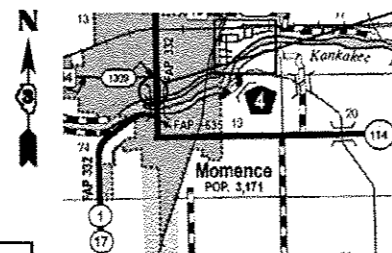


LOCATION 1 - FAI ROUTE 57
CANTILEVER SIGN STRUCTURE
S.N.# 3C0461057R311.5
I-57
(EXISTING STA. 208+43 NBL)

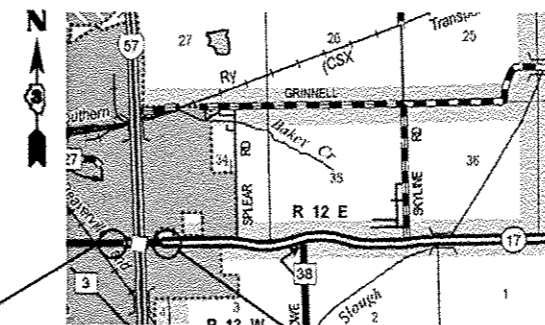


LOCATION 2 - FAP 840 US 45 /52 AT I - 57
CANTILEVER SIGN STRUCTURE
S.N.# 3C046U045L004.9
US 45 /52 - NB
(EXISTING STA. 136+42 RT)

LOCATION 3 - FAP 840 US 45 /52 AT I - 57
CANTILEVER SIGN STRUCTURE
S.N.# 3C046U045R005.1
US 45 /52 - SB
(EXISTING STA. 127+21 LT)



LOCATION 4 - FAP 332 IL 1/17
CANTILEVER SIGN STRUCTURE
S.N.# 3C046S017L011.2
IL 1/17 - SB
(EXISTING STA. 19+93)



LOCATION 5 - FAP 330 IL 17 AT I - 57
CANTILEVER SIGN STRUCTURE
S.N.# 3C046S017R014.1
IL 17 - EB
(EXISTING STA. 130+84)

LOCATION 6 - FAP 330 IL 17 AT I - 57
CANTILEVER SIGN STRUCTURE
S.N.# 3C046S017L014.3
IL 17 - WB
(EXISTING STA. 135+90)

FUNCTIONAL CLASSIFICATION

URBAN - PRINCIPAL ARTERIAL		URBAN - INTERSTATE	
FAP 330	FAP 332	FAP 840	FAL ROUTE 57
2011 ADT = 15100	2011 ADT = 9950	2011 ADT = 12900	2011 ADT = 18100
P.V. = 75.64%	P.V. = 87.69%	P.V. = 93.99%	P.V. = 77.66%
M.U. = 15.81%	M.U. = 4.52%	M.U. = 3.10%	M.U. = 17.26%
S.U. = 8.55%	S.U. = 7.79%	S.U. = 2.91%	S.U. = 5.08%

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

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL, P.E.
UNIT CHIEF: RON WOODSHANK
CONTRACT NO. 46221

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 23 2012
PASSED Justin Murray
ENGINEER OF OPERATIONS

August 17 2012
John D. Baranzelli, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED August 17 2012
William R. Taylor
acting DIRECTOR DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

GENERAL NOTES

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 SHALL BE REQUIRED TO SECURE WASTE CONTAINERS THAT REMAIN ON THE JOB SITE. THESE CONTAINERS CANNOT BE MOVED OR OPENED DURING NON-WORKING HOURS.

THE CONTRACTOR / SUBCONTRACTOR LICENSED TO DISPOSE OF LEAD PAINT RESIDUE MUST REMOVE THE WASTE MATERIAL FROM THE JOB SITE ACCORDING TO ALL FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES BY THE COMPLETION DATE.

THE SSPC-OP1 AND SSPC-OP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THIS PROJECT.

A MINIMUM OF 2 AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING AT ALL SITE LOCATIONS. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

LOCATIONS 2 THROUGH 6:

THE EXISTING STRUCTURAL STEEL CONTAINS LEAD. THE CONTRACTOR SHOULD TAKE NECESSARY PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD PAINT ON THIS PROJECT. SEE THE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD BASED CLEANING RESIDUES."

LOCATIONS 2 THROUGH 4:

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL EXPOSED STEEL SURFACES OF THE SUPPORTS AND ASSOCIATED STEEL COMPONENTS SHALL BE CLEANED PER "NEAR WHITE BLAST CLEANING SSPC-SP10". ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF "PAINT SYSTEM OZ/E/U". THE COLOR OF THE FINAL FINISH COAT SHALL BE "LIGHT GREY 10Y 7/1".

LOCATIONS 5 & 6:

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL STEEL COMPONENTS ADJACENT TO EXISTING TRAFFIC SIGNAL HEADS AND TRAFFIC MONITORING CAMERAS SHALL BE CLEANED PER POWER TOOL CLEANING - METHOD SP3. ALL EXPOSED STEEL SURFACES OF THE SUPPORT, TRUSS, WALKWAY AND ALL OTHER ASSOCIATED STEEL COMPONENTS SHALL BE CLEANED PER "NEAR WHITE BLAST CLEANING SSPC-SP10". ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF "PAINT SYSTEM OZ/E/U". THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE "REDDISH BROWN, 2.5YR 3/4".

COMMITMENTS

NONE

DATE: _____

PREPARED BY: _____
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: _____
DISTRICT CONSTRUCTION ENGINEER

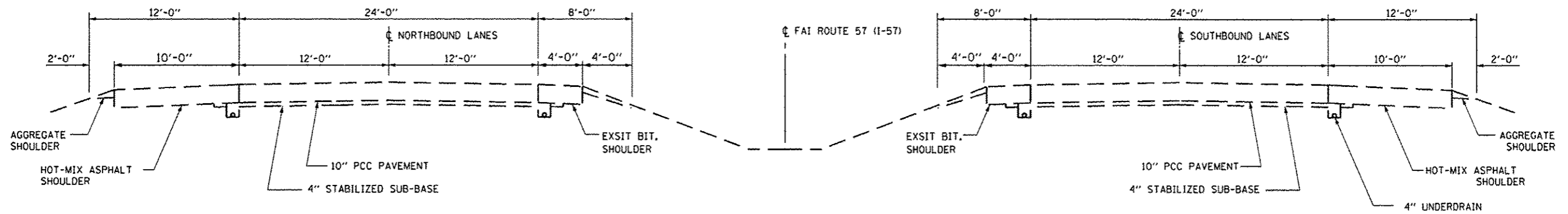
DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER

FILE NAME :	USER NAME : woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - YOGESH PATEL	REVISED -			VAR.	D3 DVD SIN STR REPL 13-08	KANKAKEE	19	2	
	PLOT SCALE • 99.9999 1/ in.	CHECKED - RON WOODSHANK	REVISED -			SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS	CONTRACT NO. 46221
	PLOT DATE • 5/17/2012	DATE -	REVISED -								

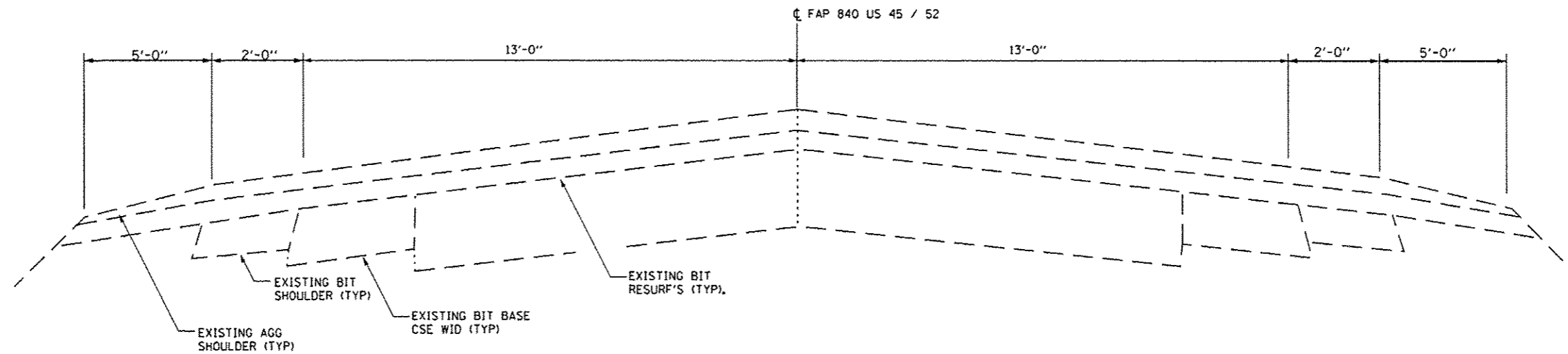
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				STATE FUNDS 100% STATE SIGN TRUSS 0040 URBAN
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1
72000300	SIGN PANEL - TYPE 3	SQ FT	330	330
X7240195	REMOVE EXISTING SIGN PANEL	EACH	4	4
X7330070	OVERHEAD SIGN SUPPORT GROUT REPAIR	EACH	6	6
X7330100	PAINT OVERHEAD SIGN SUPPORT	EACH	3	3
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1	1
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1	1
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1	1
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1	1
Z0007106	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 6	L SUM	1	1
Z0010382	SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 2	L SUM	1	1
Z0010383	SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 3	L SUM	1	1
Z0010384	SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 4	L SUM	1	1
Z0010385	SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 5	L SUM	1	1
Z0010386	SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 6	L SUM	1	1
Z0010480	CLEANING AND PAINTING SIGN STRUCTURE NO. 1	L SUM	1	1
Z0010481	CLEANING AND PAINTING SIGN STRUCTURE NO. 2	L SUM	1	1
Z0029602	TEMPORARY SIGNING	EACH	4	4

FILE NAME :	USER NAME : woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cd:\pcc\work\11\woodshankr1\11042211\11042211.dwg	11042211\11042211.dwg	DRAWN - YOGESH PATEL	REVISED -			VAR	03 OVD SIN STR REPL 13-08	KANKAKEE	19	3	
PLOT SCALE : 99.9999 ' / in.	CHECKED - RON WOODSHANK	REVISED -				SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS	CONTRACT NO. 46221
PLOT DATE : 5/17/2012	DATE -	REVISED -									



TYPICAL SECTION

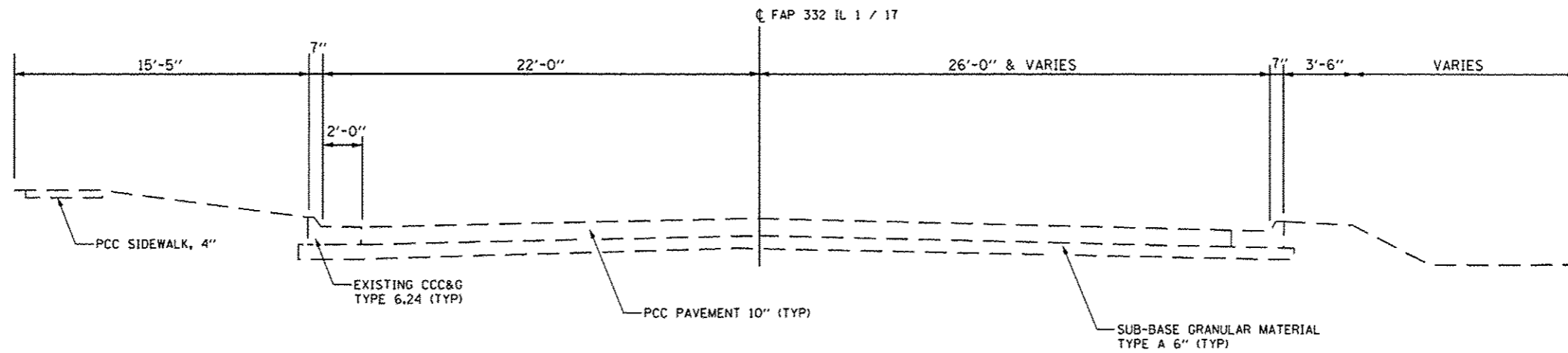
FAI ROUTE 57 - (I-57)
LOCATION 1



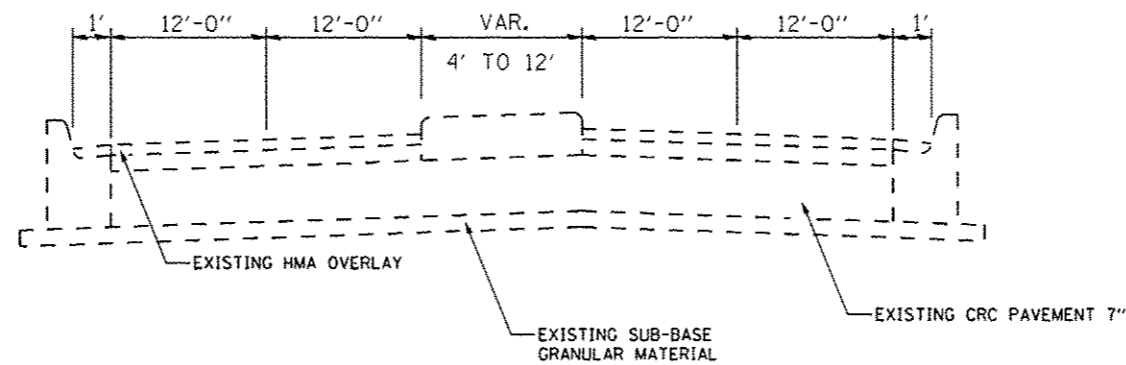
TYPICAL SECTION

FAP 840 - US 45 / 52
LOCATION 2 & LOCATION 3

FILE NAME =	USER NAME = woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - YOGESH PATEL	REVISED -			VAR	D3 OVD SJN STR REPL 13-08	KANKAKEE	19	4	
		CHECKED - RON WOODSHANK	REVISED -			SCALE:	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.	ILLINOIS	CONTRACT NO. 46221
		PLOT DATE = 5/17/2012	DATE -								



TYPICAL SECTION
 FAP 332 - IL 1/17
 LOCATION 4



TYPICAL SECTION
 FAP 330 - IL 17
 LOCATION 5 & 6

FILE NAME :	USER NAME : woodshank1	DESIGNED - YOGESH PATEL	REVISED -
		DRAWN - YOGESH PATEL	REVISED -
	PLOT SCALE : 99.9999 ' / in.	CHECKED - RON WOODSHANK	REVISED -
	PLOT DATE : 5/17/2012	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D3 OVD SIN STR REPL 13-08	KANKAKEE	19	5
ILLINOIS			CONTRACT NO. 46221	

STATE I.D. NO.	1	3C0461057R311.5					
COUNTY	KANKAKEE	ROUTE	FAI 57(I-57)	M.P.	311.5	DIRECTION	NB
DESCRIPTION OF WORK		UNIT		QUANTITY			
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1			

LOCATION NO.	2	STATE I.D. NO.	3C046U045L004.9			
COUNTY	KANKAKEE	ROUTE	FAP 840(US 45/52)	AT I-57	DIRECTION	NB
DESCRIPTION OF WORK		UNIT		QUANTITY		
PAINT OVERHEAD SIGN SUPPORT		EACH		1		
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2		L SUM		1		
SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 2		L SUM		1		
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201		L SUM		0.2		

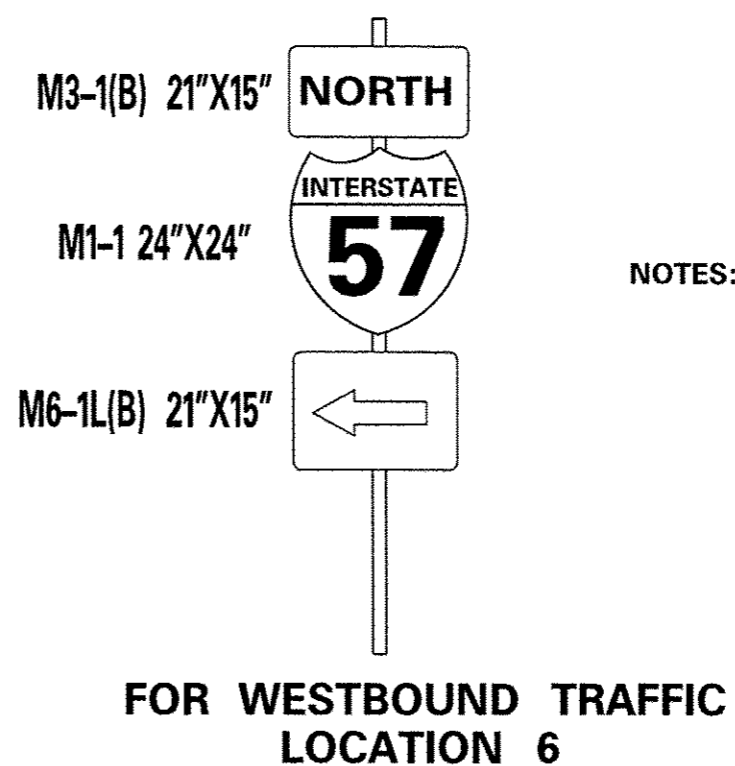
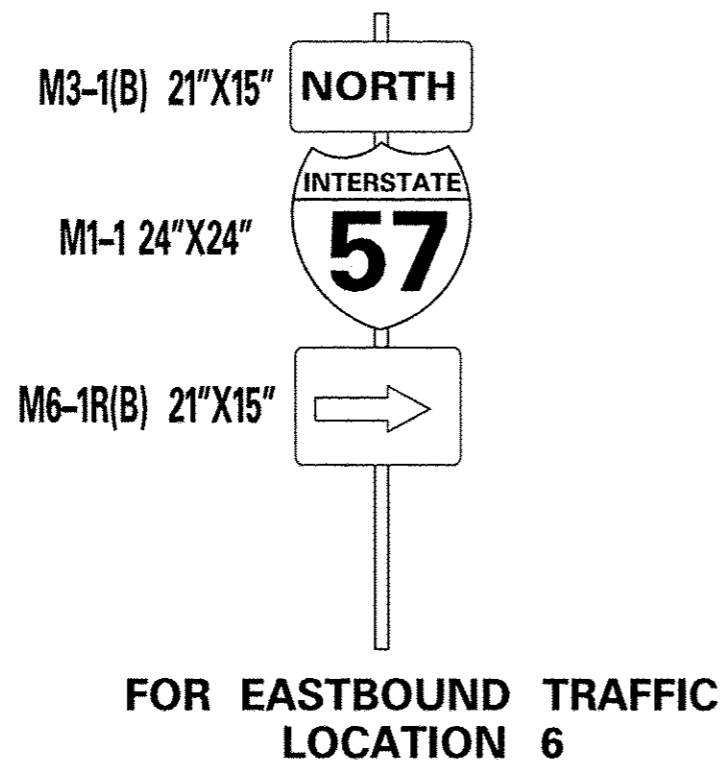
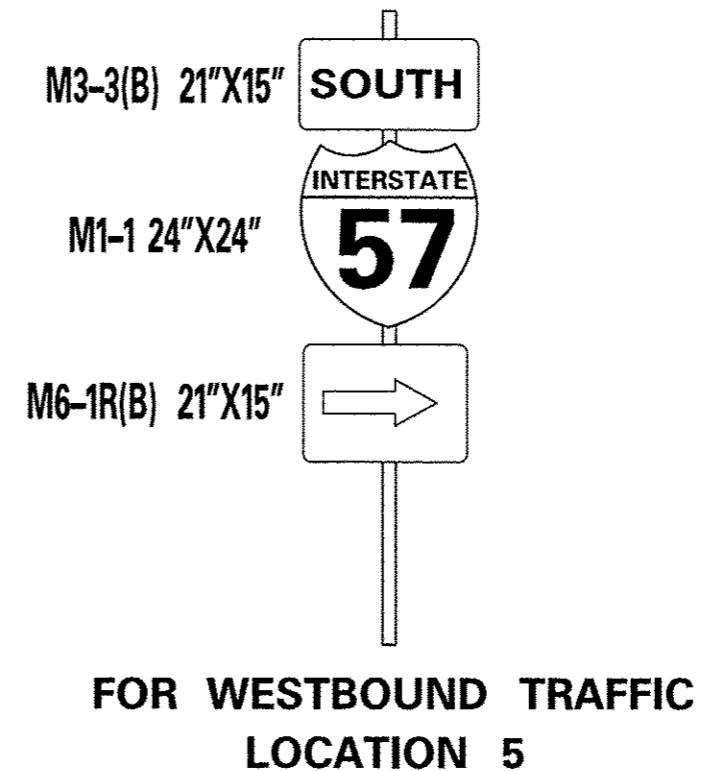
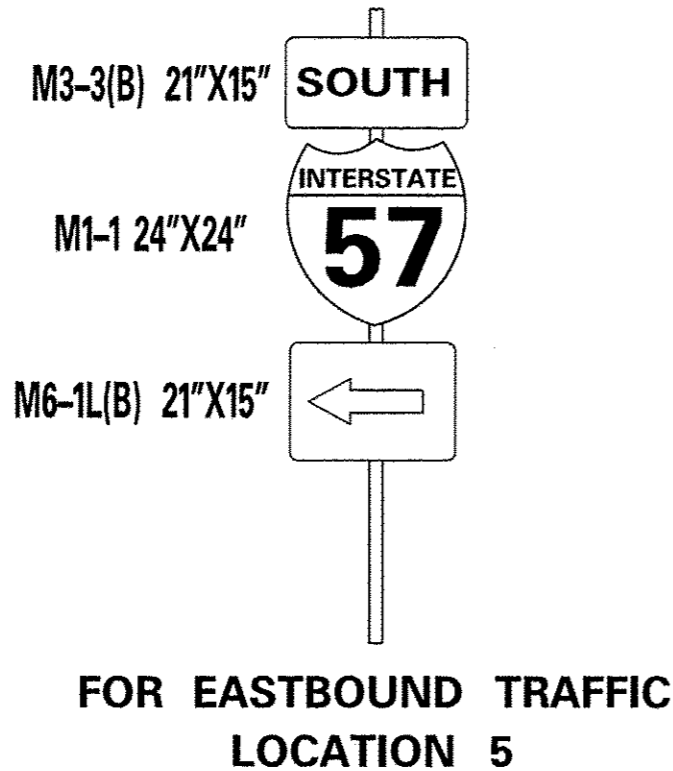
LOCATION NO.	3	STATE I.D. NO.	3C046U045R005.1			
COUNTY	KANKAKEE	ROUTE	FAP 840(US 45/52)	AT I-57	DIRECTION	SB
DESCRIPTION OF WORK		UNIT		QUANTITY		
PAINT OVERHEAD SIGN SUPPORT		EACH		1		
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3		L SUM		1		
SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 3		L SUM		1		
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201		L SUM		0.2		

LOCATION NO.	4	STATE I.D. NO.	3C046S017L011.2			
COUNTY	KANKAKEE	ROUTE	FAP 332(IL 1 /17)	AT MOMENCE	DIRECTION	SB
DESCRIPTION OF WORK		UNIT		QUANTITY		
PAINT OVERHEAD SIGN SUPPORT		EACH		1		
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4		L SUM		1		
SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 4		L SUM		1		
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201		L SUM		0.2		

LOCATION NO.	5	STATE I.D. NO.	3C046S017R014.1			
COUNTY	KANKAKEE	ROUTE	FAP 330(IL 17)	AT I-57	DIRECTION	EB
DESCRIPTION OF WORK		UNIT		QUANTITY		
CLEANING AND PAINTING SIGN STRUCTURE NO. 5		L SUM		1		
REMOVE EXISTING SIGN PANEL		EACH		2		
SIGN PANEL - TYPE 3		SO FT		180		
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5		L SUM		1		
SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 5		L SUM		1		
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1		
TEMPORARY SIGNING		EACH		6		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201		L SUM		0.2		

LOCATION NO.	6	STATE I.D. NO.	3C046S017L014.3			
COUNTY	KANKAKEE	ROUTE	FAP 330 (IL 17)	AT I-57	DIRECTION	WB
DESCRIPTION OF WORK		UNIT		QUANTITY		
CLEANING AND PAINTING SIGN STRUCTURE NO. 6		L SUM		1		
REMOVE EXISTING SIGN PANEL		EACH		2		
SIGN PANEL - TYPE 3		SO FT		150		
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 6		L SUM		1		
SIGN STRUCTURE CLEANING AND PAINTING WARRANTY NO. 6		L SUM		1		
OVERHEAD SIGN SUPPORT GROUT REPAIR		EACH		1		
TEMPORARY SIGNING		EACH		6		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201		L SUM		0.2		

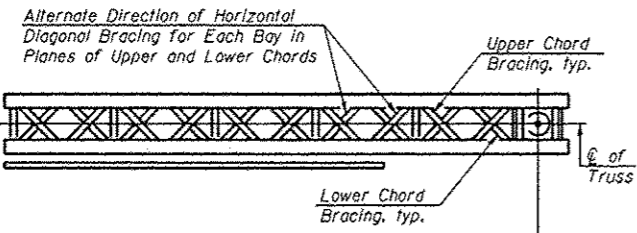
TEMPORARY SIGNAGE AT LOCATIONS 5 & 6



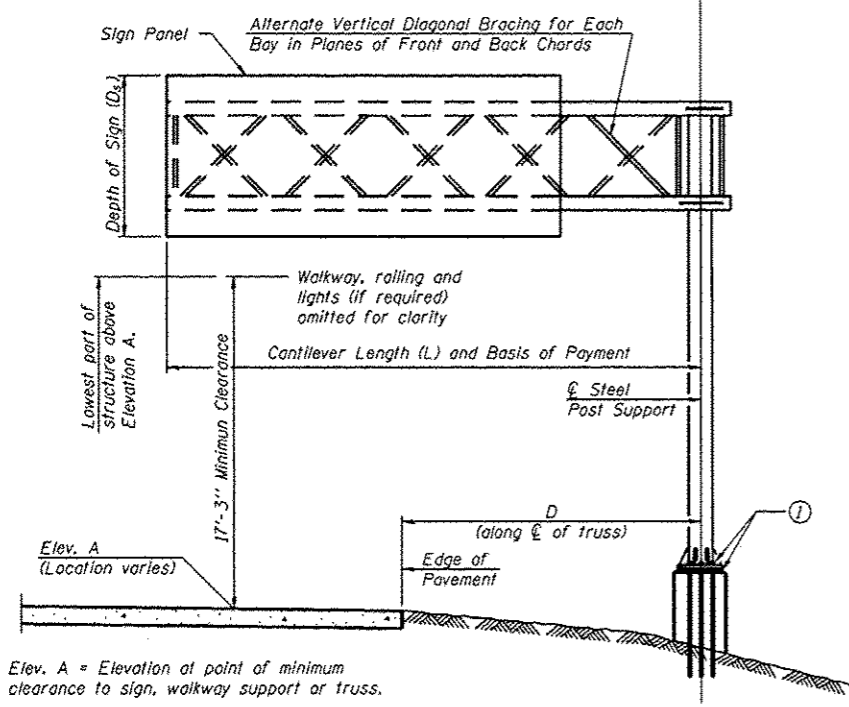
NOTES: ENGINEER SHALL FIELD DETERMINE EXACT LOCATION OF TEMPORARY SIGNAGE PLACEMENT PRIOR TO SIGN PANEL REMOVAL.

EACH COMPLETE SIGN POST SHALL INCLUDE THE SIGN PANELS AS SHOWN. PAYMENT FOR TEMPORARY SIGNAGE SHALL BE FOR EACH COMPLETE SIGN POST.

FILE NAME *	USER NAME * woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY SIGNAGE	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
of:\pwork\psidot\woodshankr1\40382812	346221-sht-detailed.dgn	DRAWN - YOGESH PATEL	REVISED -			VAR	D3 OVD SIN STR REPL 13-08	KANKAKEE	19	7	
	PLOT SCALE * 99.9999 1/ in.	CHECKED - RON WOODSHANK	REVISED -					CONTRACT NO. 46221			
	PLOT DATE * 5/17/2012	DATE -	REVISED -			SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		



TYPICAL PLAN
(Walkway not shown)

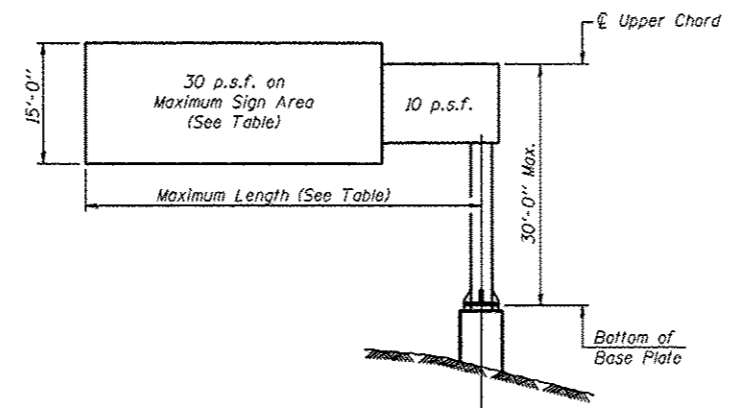


TYPICAL ELEVATION
Looking in Direction of Traffic

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)	Total Sign Area
3C0461057R311.5	208+43 NB	III-C-A	35'	150 SQ. FT.
3C046U045L004.9	136+42 RT	III-C-A	35'	72 SQ. FT.
3C046U045R005.1	127+21 LT	III-C-A	35'	90 SQ. FT.
3C046S017L011.2	19+93 LT	III-C-A	35'	220 SQ. FT.

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



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 AASHTO M314 Gr. 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F.

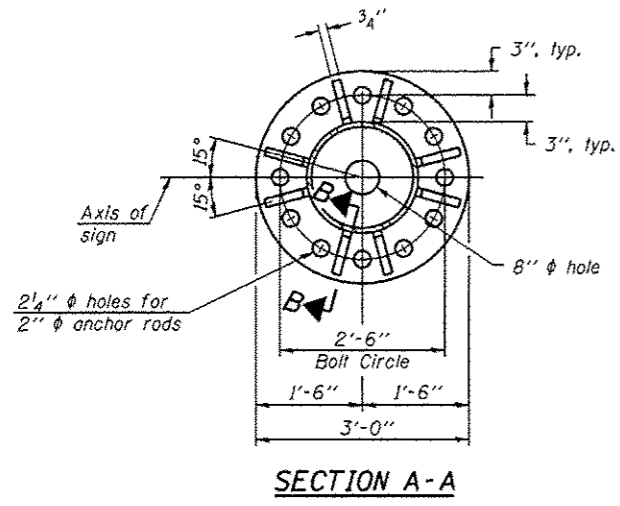
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

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

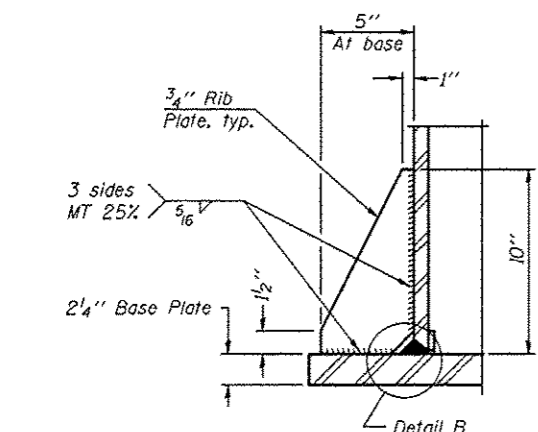
FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

**THIS SHEET FOR INFORMATION ONLY
LOCATION 1 THROUGH 4**

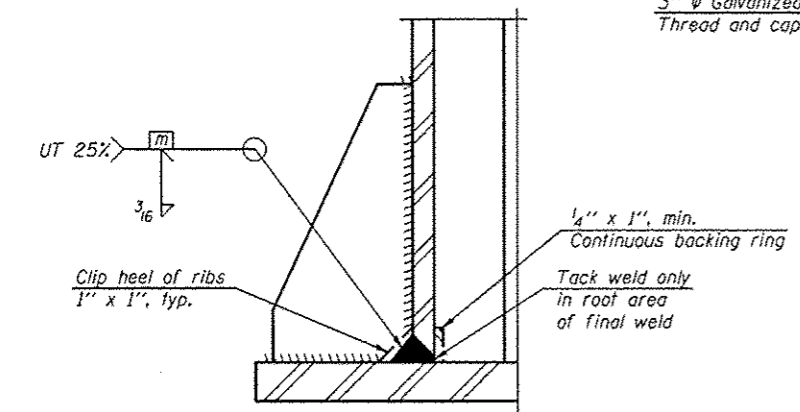
FILE NAME = c:\pwork\p1dot1\woodshankr\108302012	USER NAME = woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CANTILEVER TRUSS DETAIL	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	0346221-ehs-details.dgn	DRAWN - YOGESH PATEL	REVISED -			VAR	DS OVD SIN STR REPL 13-08	KANKAKEE	19	8	
	PLOT SCALE = 99.9999 1/1 in.	CHECKED - RON WOODSHANK	REVISED -			SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS	CONTRACT NO. 46221
	PLOT DATE = 5/17/2012	DATE -	REVISED -								



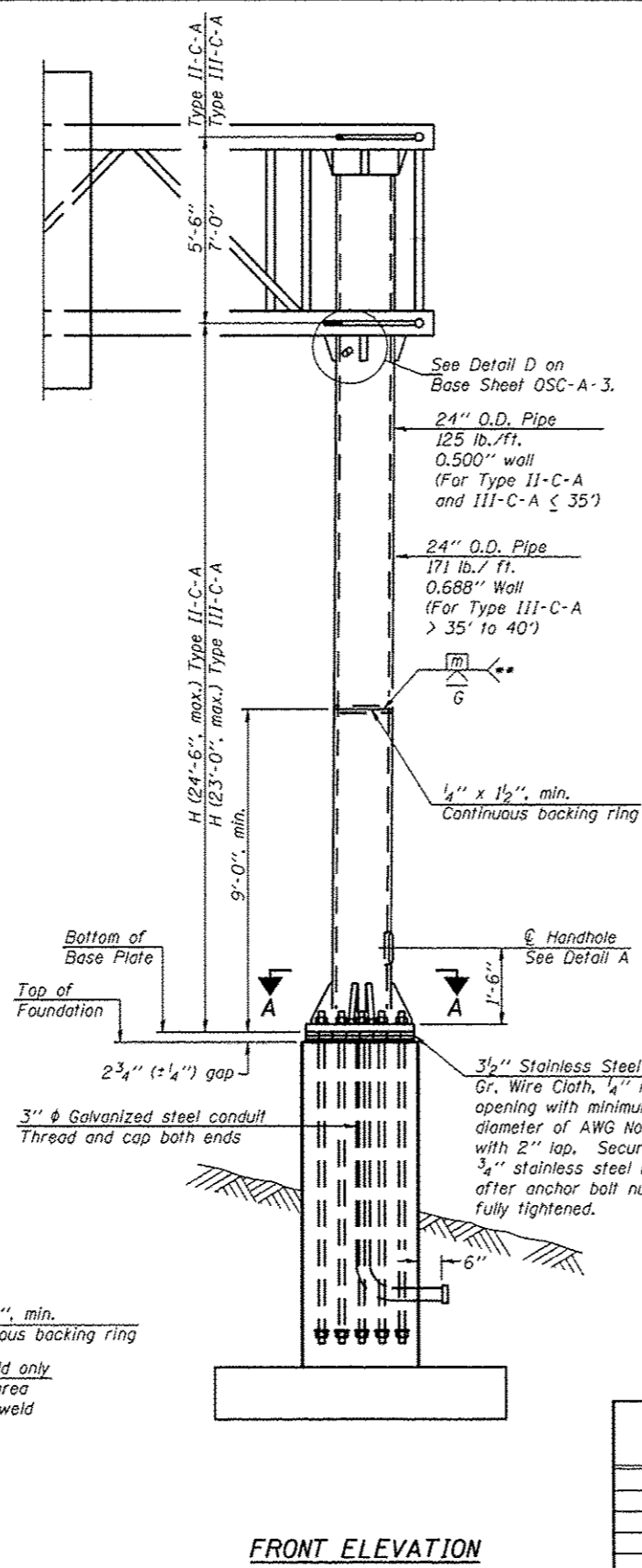
SECTION A-A



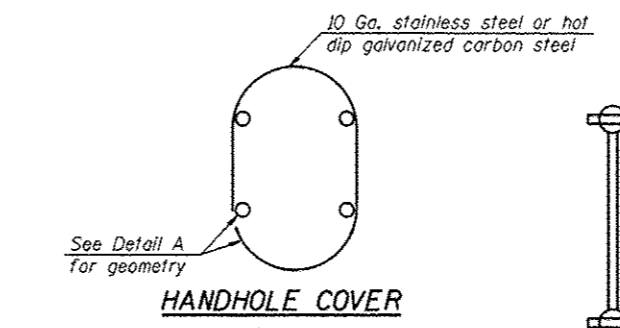
SECTION B-B



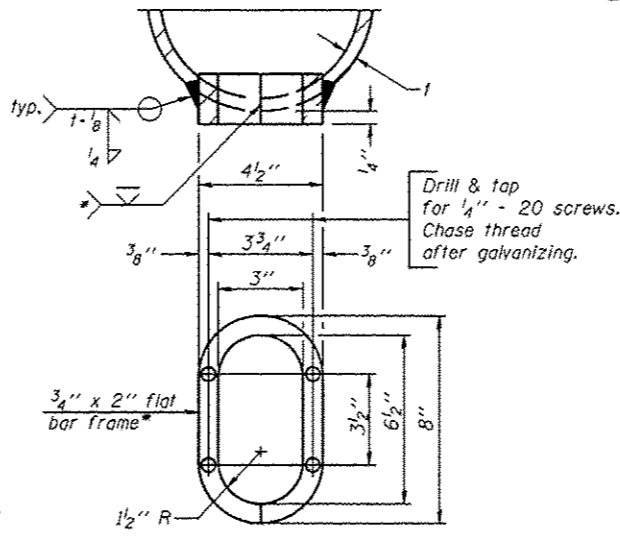
DETAIL B
(Typical rib)



FRONT ELEVATION

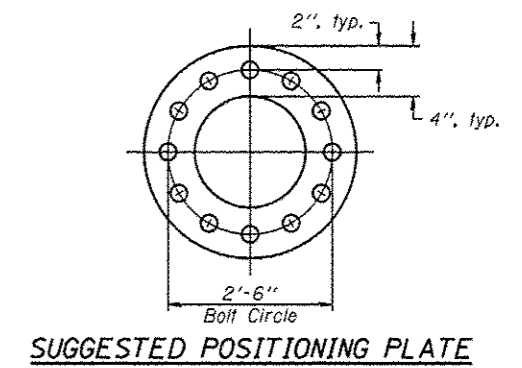


HANDHOLE COVER

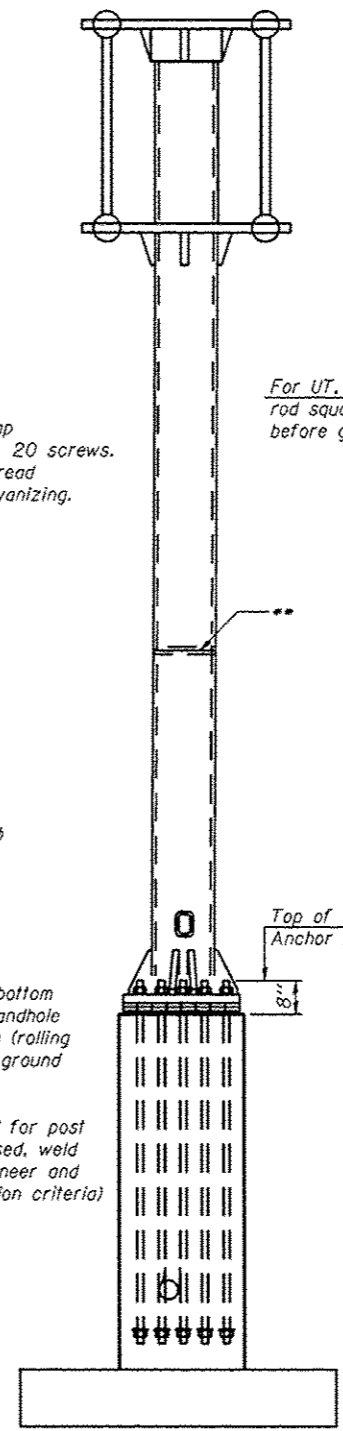


DETAIL A

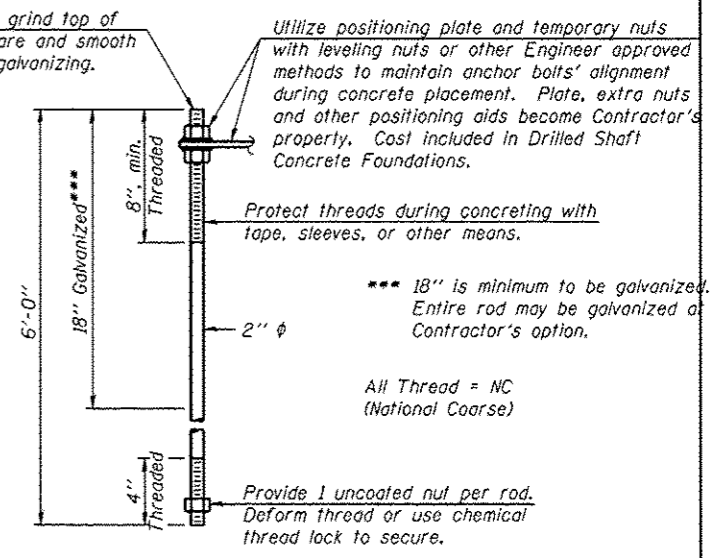
- * Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- ** Butt welded joint in post is only allowed for post heights (H) over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



SUGGESTED POSITIONING PLATE



SIDE ELEVATION

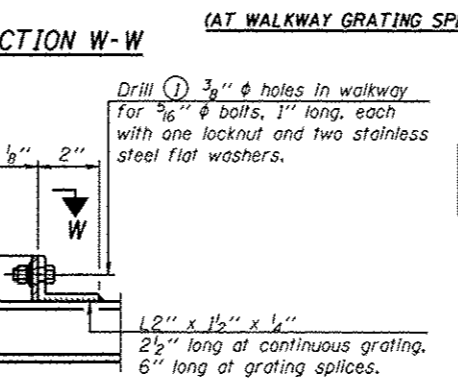
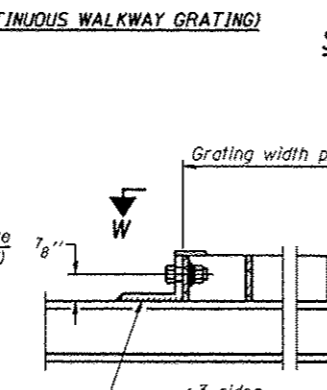
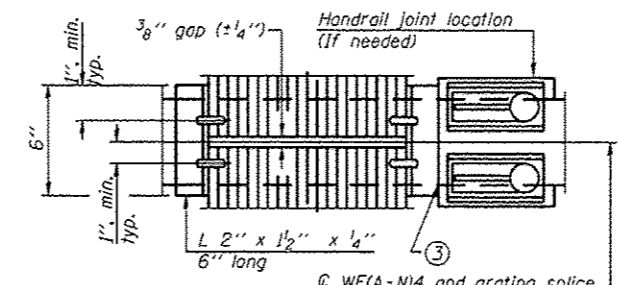
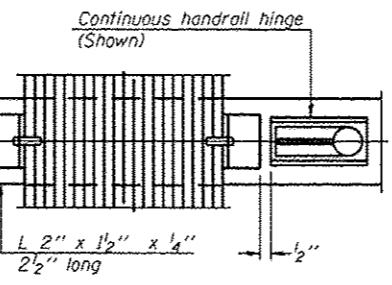
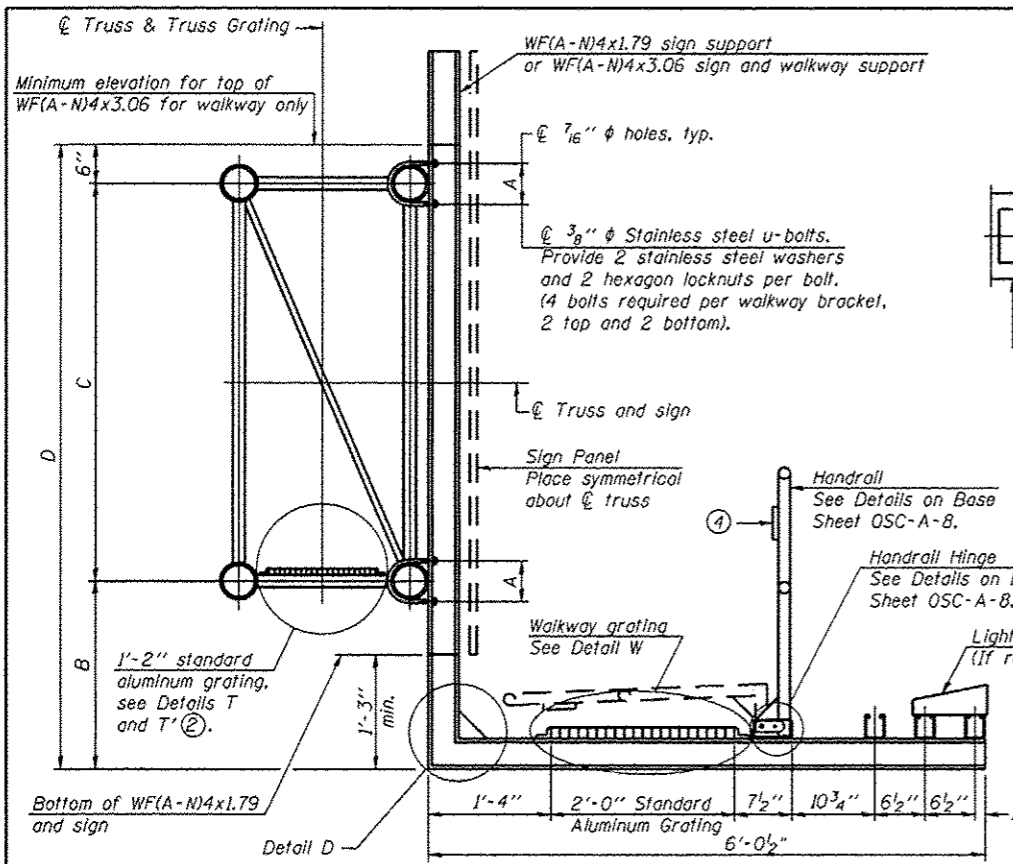


ANCHOR ROD DETAIL

Anchor rods shall conform to AASHTO M314 Grade 105 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18" (minimum) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide an unfinished 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, using a straight beam, 1/2" φ 3.5 mhz. transducer, to insure no rejectable flaws exist in the upper 18" (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

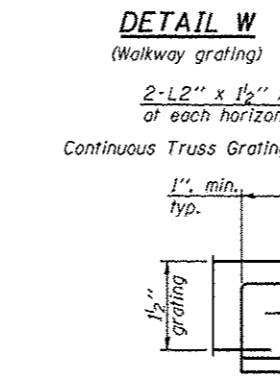
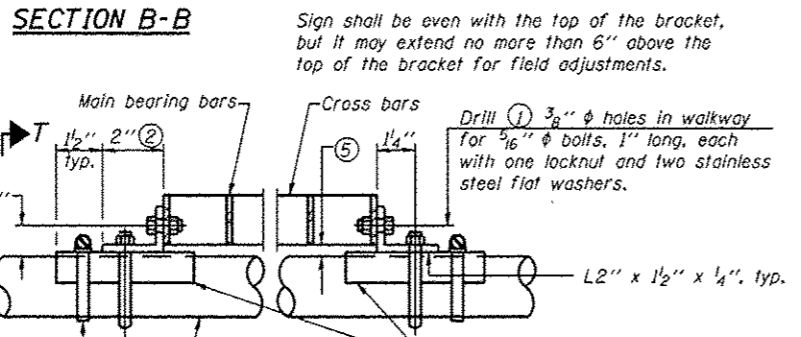
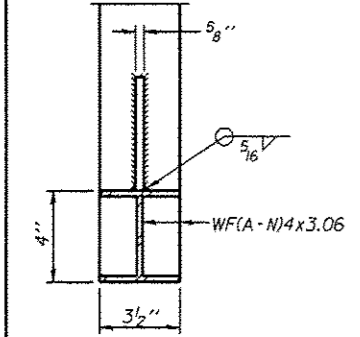
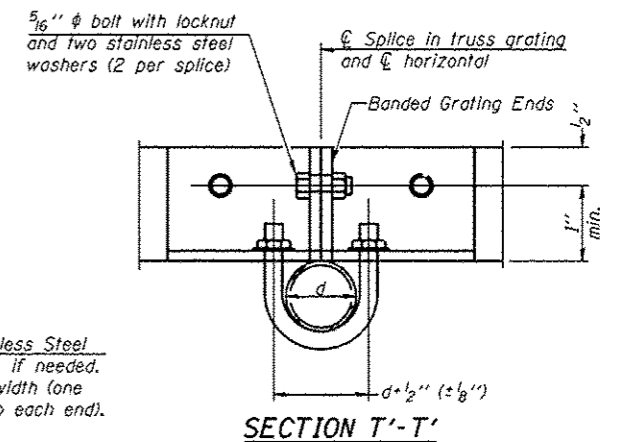
Structure Number	Station	H
3C0461057R311.5	208+43 NB	17'-3"
3C0460451004.9	136+42 RT	22'-7"
3C046045R005.1	127+21 LT	23'-4"
3C0465017L011.2	19+93 LT	18'-0"

THIS SHEET FOR INFORMATION ONLY
LOCATION 1 THROUGH 4

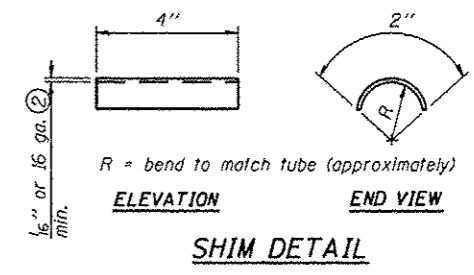


SPECIFICATIONS FOR STANDARD ALUMINUM GRATING
 Main Bearing Bars (MBB) shall be 3/16" x 1/2" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
 Cross bars (CB) shall be 3/16" x 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

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



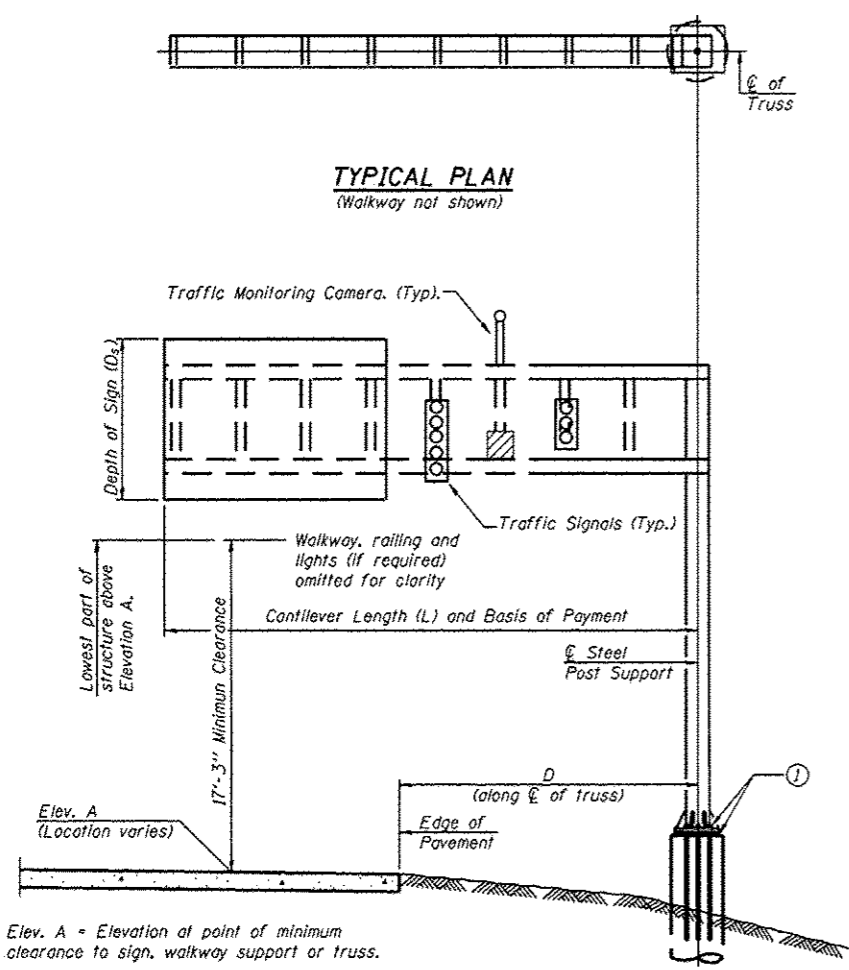
DETAIL T'
 (Truss grating splice)
 Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



- 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 1/4" extension bars. (See Base Sheet OSC-A-8.)
- ④ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ⑤ Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- ⑥ Based on actual sign height, D_s, given on OSC-A-1.

Structure Number	Station
3C0461057R311.5	208+43 NB
3C046U0451004.9	136+42 RT
3C046U045R005.1	127+21 LT
3C046S017L011.2	19+93 LT

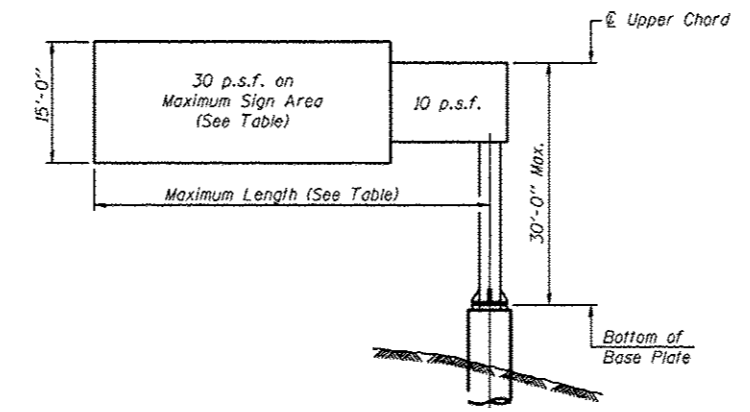
**THIS SHEET FOR INFORMATION ONLY
 LOCATION 1 THROUGH 4**



TYPICAL PLAN
(Walkway not shown)

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.



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.

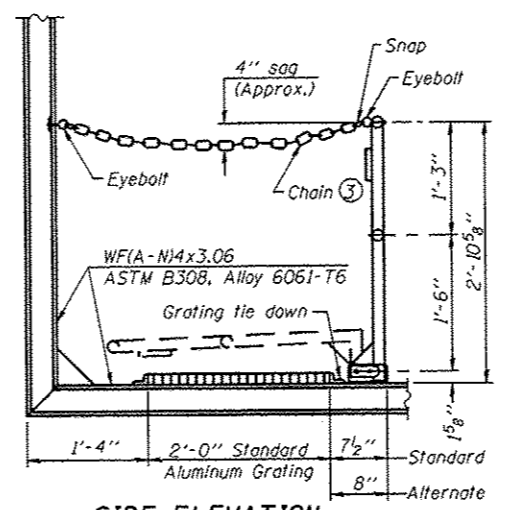
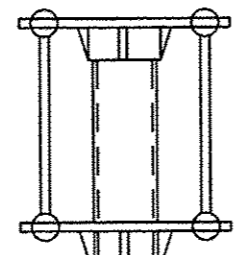
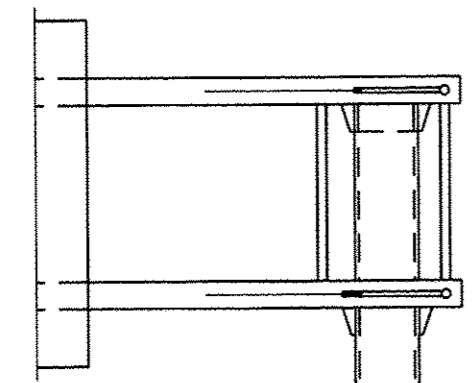
GENERAL NOTES

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.

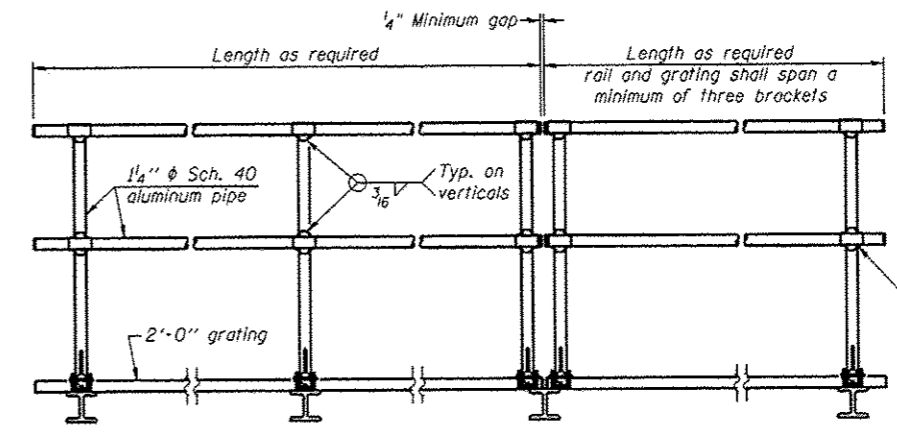
Structure Number	Station	Design Truss Type	Cantilever Length (L)	Total Sign Area
3C046S017R014.1	130+84 RT	TY IV POST	35'	180 SQ. FT.
3C046S017L014.3	135+90 LT	TY IV POST	35'	150 SQ. FT.

**THIS SHEET FOR INFORMATION ONLY
LOCATION 5 & 6**

FILE NAME: c:\pvc\work\p101\d01\woodshankr\1\08382012	USER NAME: woodshankr 0346221-ehtr-details.dgn	DESIGNED - YOGESH PATEL DRAWN - YOGESH PATEL CHECKED - RON WOODSHANK DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CANTILEVER TRUSS DETAIL	SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.	F.A.I. RTE. VAR D3 OVD SIN STR REPL 13-08 ILLINOIS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	CONTRACT NO. 46221
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SIDE ELEVATION
(Showing safety chain w/o sign)

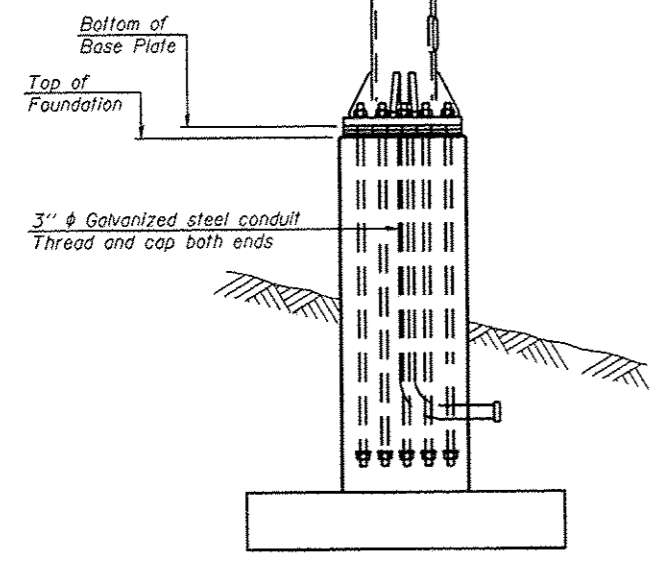


FRONT ELEVATION

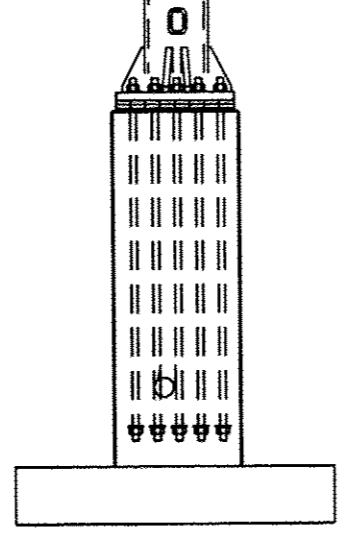
HANDRAIL DETAILS

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

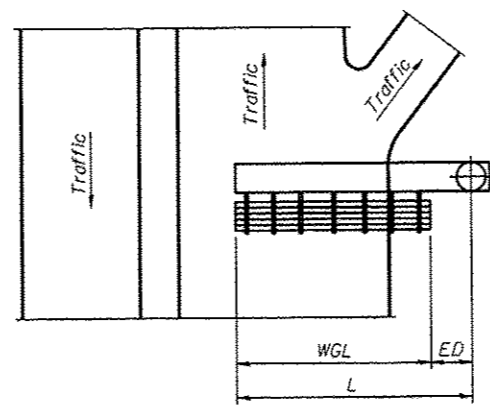
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16\"/>



FRONT ELEVATION



SIDE ELEVATION

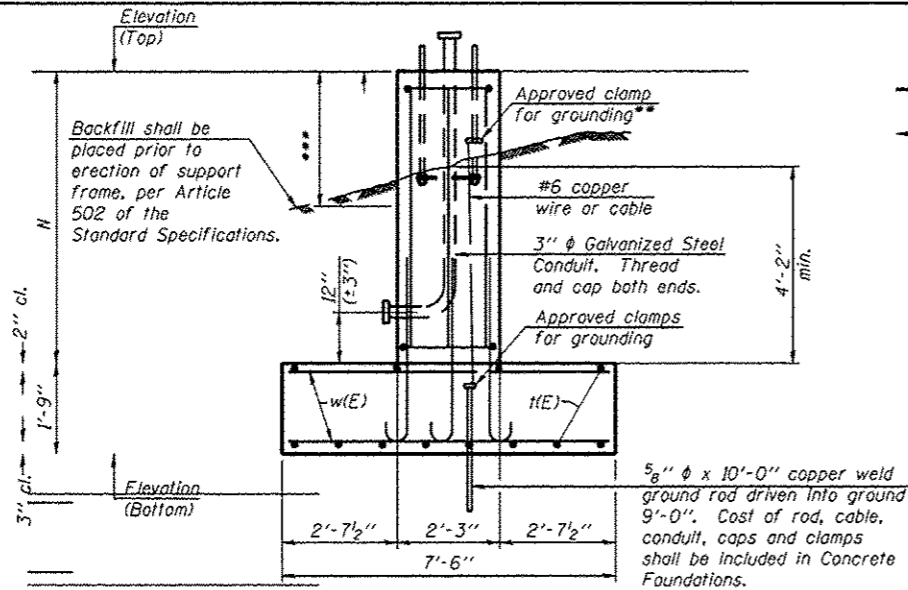


PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

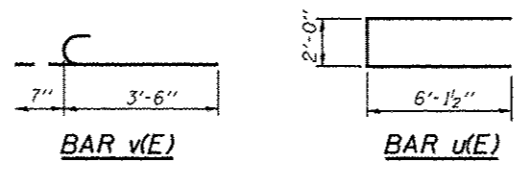
Structure Number	Station	WGL	ED	TGL
3C046S017R014.1	130+84 RT	16.0'	30.0'	16.0'
3C046S017L014.3	135+90 LT	13.0'	28.0'	13.0'

Structure Number	Station	H
3C046S017R014.1	130+84 RT	16'-1"
3C046S017L014.3	135+90 LT	16'-5"

THIS SHEET FOR INFORMATION ONLY
LOCATION 5 & 6



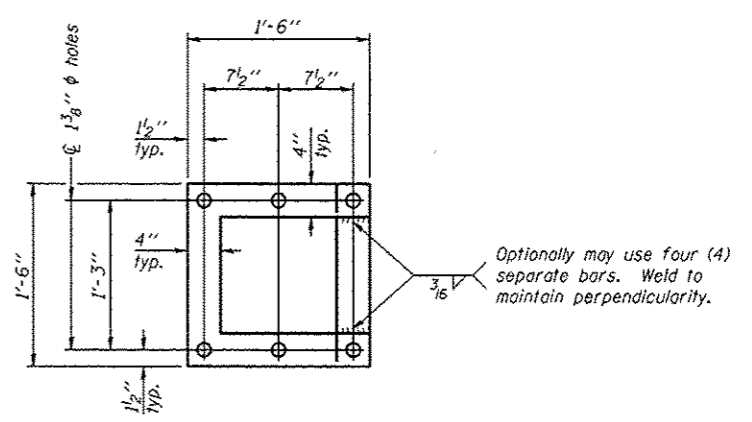
ELEVATION



BAR LIST - EACH FOUNDATION

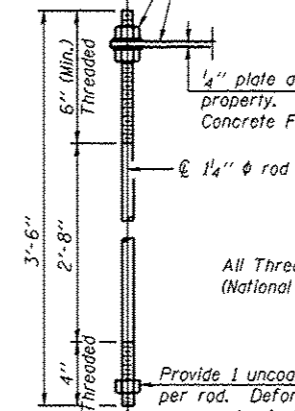
Bar	Number	Size	Length	Shape
1(E)	12	#5	"	—
u(E)	18	#4	14'-3"	U
v(E)	28	#5	4'-1"	U
v1(E)	28	#5	"	—
w(E)	39	#5	7'-3"	—

*Length of 1(E) bar = (Dim. M) - 6"
 v1(E) bar = (Dim. N) - 3"



POSITIONING PLATE(S)

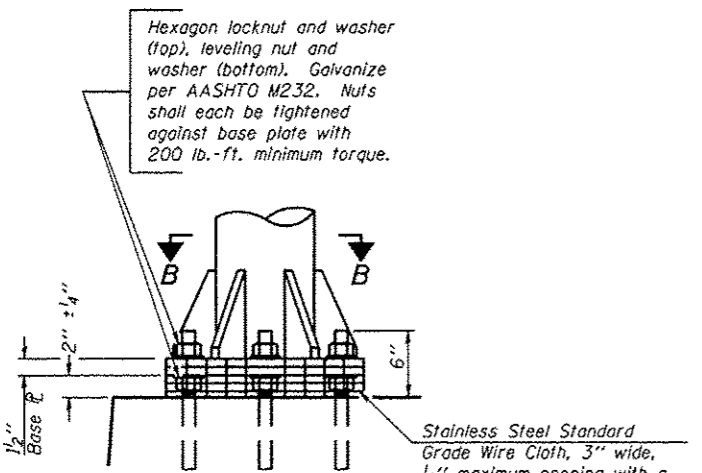
At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL
 Drilled Shaft Foundation

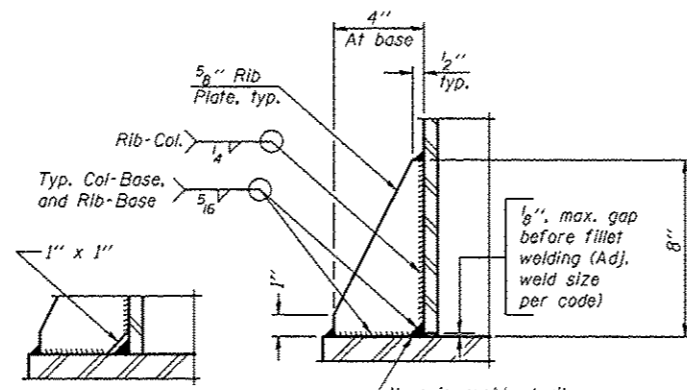
All Thread = NC (National Coarse)

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



DETAIL B

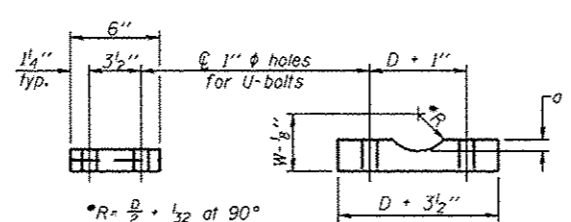
Ribs shall be cut to fit slope of pipe. Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.



SECTION D-D

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

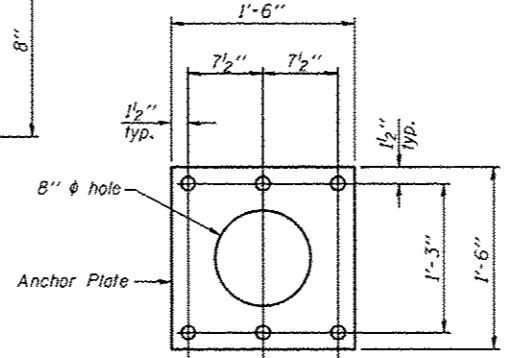
No snip req'd. at rib inside corner if placed before col. to base plate welding.



SADDLE SHIM DETAIL

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

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



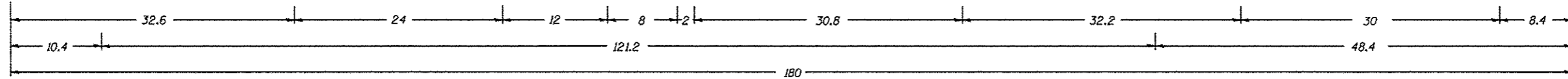
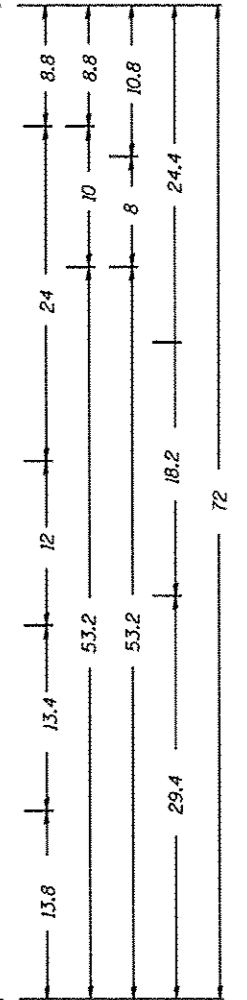
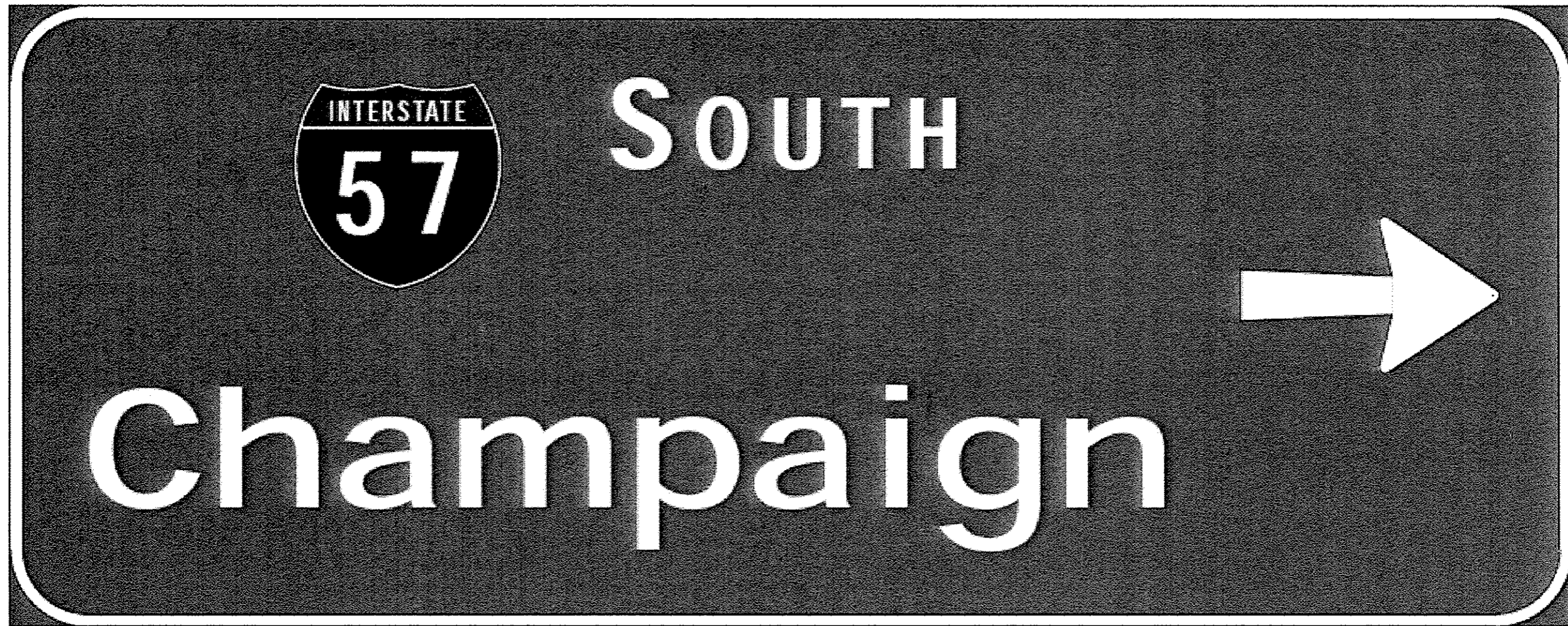
ANCHOR ROD DETAIL
 Spread Footing Foundation

All Thread = NC (National Coarse)

Provide 2 uncoated nuts per rod. Nuts shall be "snug tight" against anchor plate.

Structure Number	Station
3C0461057R311.5	208+43 NB
3C046U045L004.9	136+42 RT
3C046U045R005.1	127+21 LT
3C046S017L011.2	19+93 LT
3C046S017R014.1	130+84 RT
3C046S017L014.3	135+90 LT

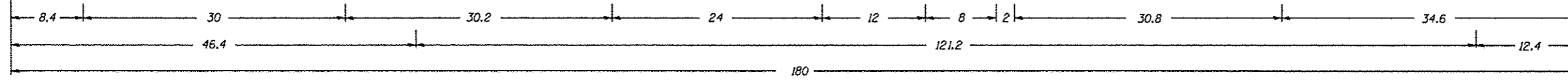
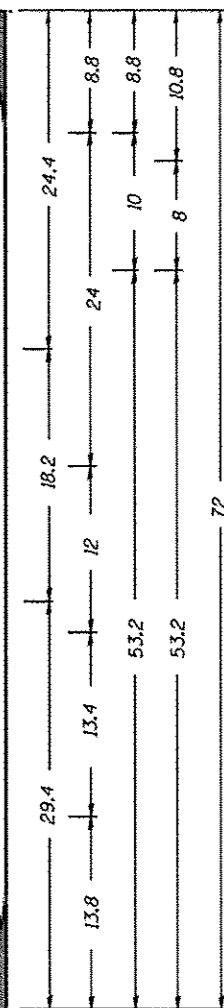
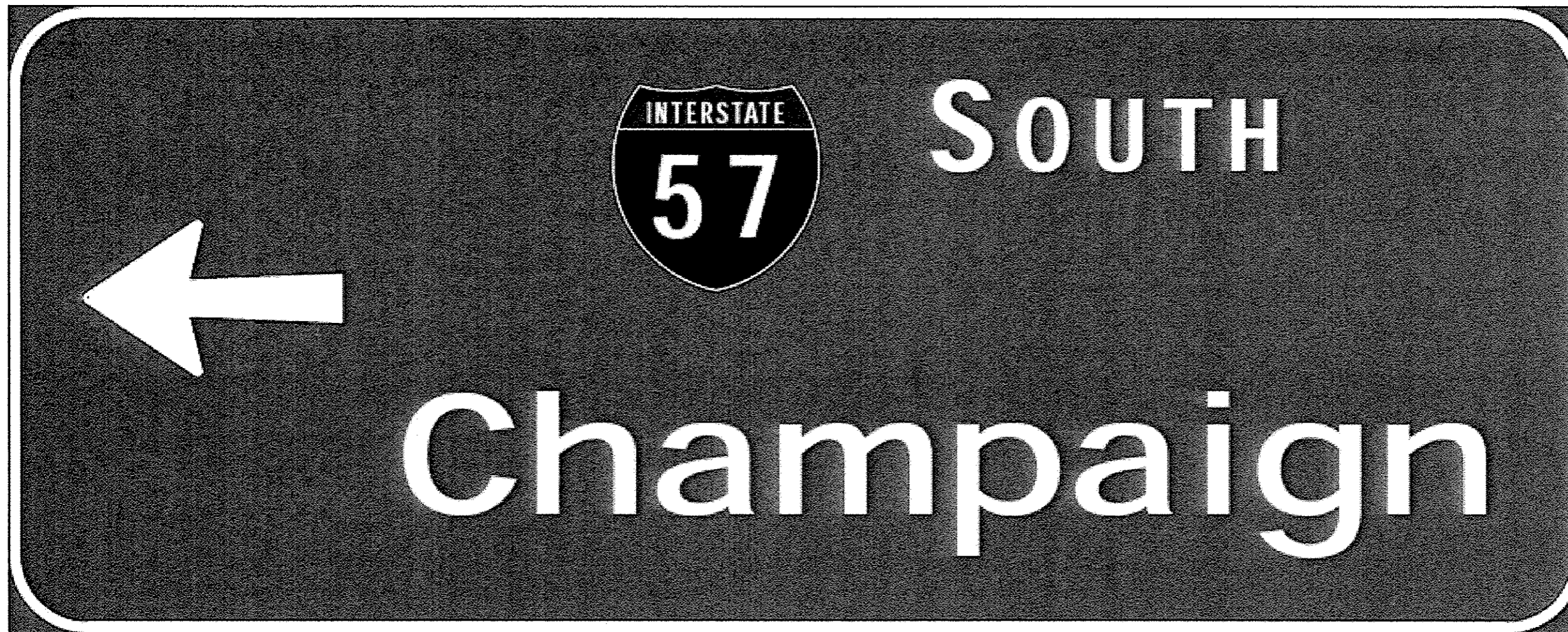
THIS SHEET FOR INFORMATION ONLY
LOCATION 1 THROUGH 6



9.0" Radius, 1.5" Border, White on Green.
 "SOUTH" E Mod; "Champaign" ClearviewHwy-5-W; Arrow 133 - 30.0" 0 ;

SIGN PANEL
3C046S017R014.1 - LOCATION 5
STA: 130+84 RT
LOOKING WEST

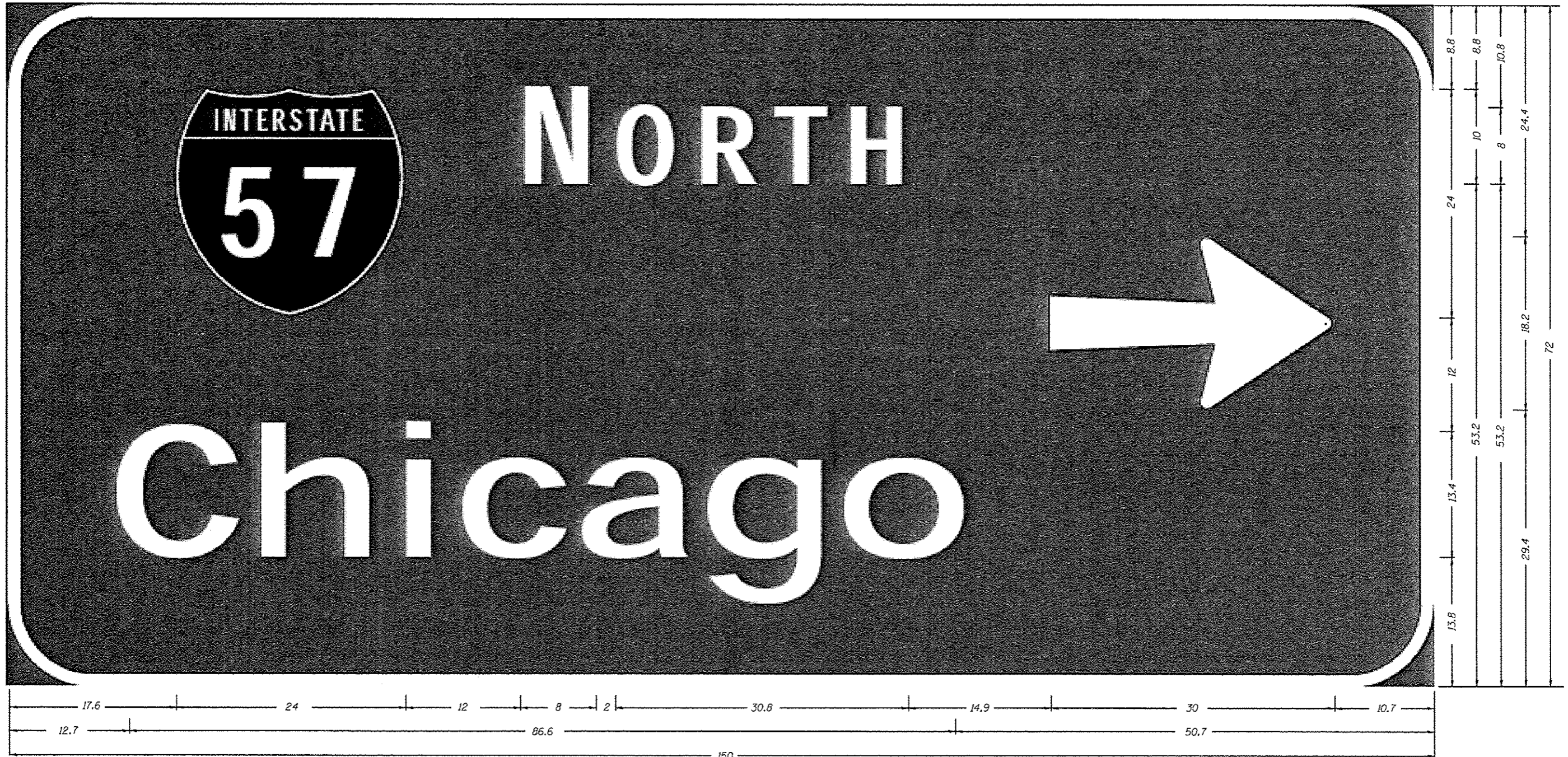
FILE NAME *	USER NAME * woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIGN PANEL DETAIL	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DESIGNED BY - YOGESH PATEL	DRAWN - YOGESH PATEL	REVISED -			VAR	03 OVD SIN STR REPL 13-08	KANKAKEE	19	16	
	PLOT SCALE * 99.9999 / 100	CHECKED - RON WOODSHANK	REVISED -			SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS	CONTRACT NO. 46221
	PLOT DATE * 5/17/2012	DATE -	REVISED -								



9.0" Radius, 1.5" Border, White on Green.
 "SOUTH" E Mod; "Champaign" ClearviewHwy-5-W; Arrow 133 - 30.0" 180°;

SIGN PANEL
3C046S017R014.1 - LOCATION 5
STA: 130+84 RT
LOOKING EAST

FILE NAME * c:\pwork\pwork\woodshankr\1\08382812	USER NAME * woodshankr1	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIGN PANEL DETAIL	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0346221-eh1r1details.dgn	DRAWN - YOGESH PATEL	REVISED -			VAR	D3 OVD SIN STR REPL 13-08	KANKAKEE	19	17
PLOT SCALE * 99.9999 / in.	CHECKED - RON WOODSHANK	REVISED -								
PLOT DATE * 5/17/2012	DATE -	REVISED -			SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		
									CONTRACT NO. 46221	



9" Radius, 1.5" Border, White on Green.
 "NORTH" E Mod; "Chicago" ClearviewHwy-5-W; Arrow 133 - 30.0" 0°;

SIGN PANEL
3C046S017L014.3 - LOCATION 6
STA: 135+90 LT
LOOKING EAST

FILE NAME : c:\pwwork\peidot\woodshankr\140302012	USER NAME : woodshankr	DESIGNED - YOGESH PATEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIGN PANEL DETAIL	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE : 5/17/2012	DATE -	REVISED -							

