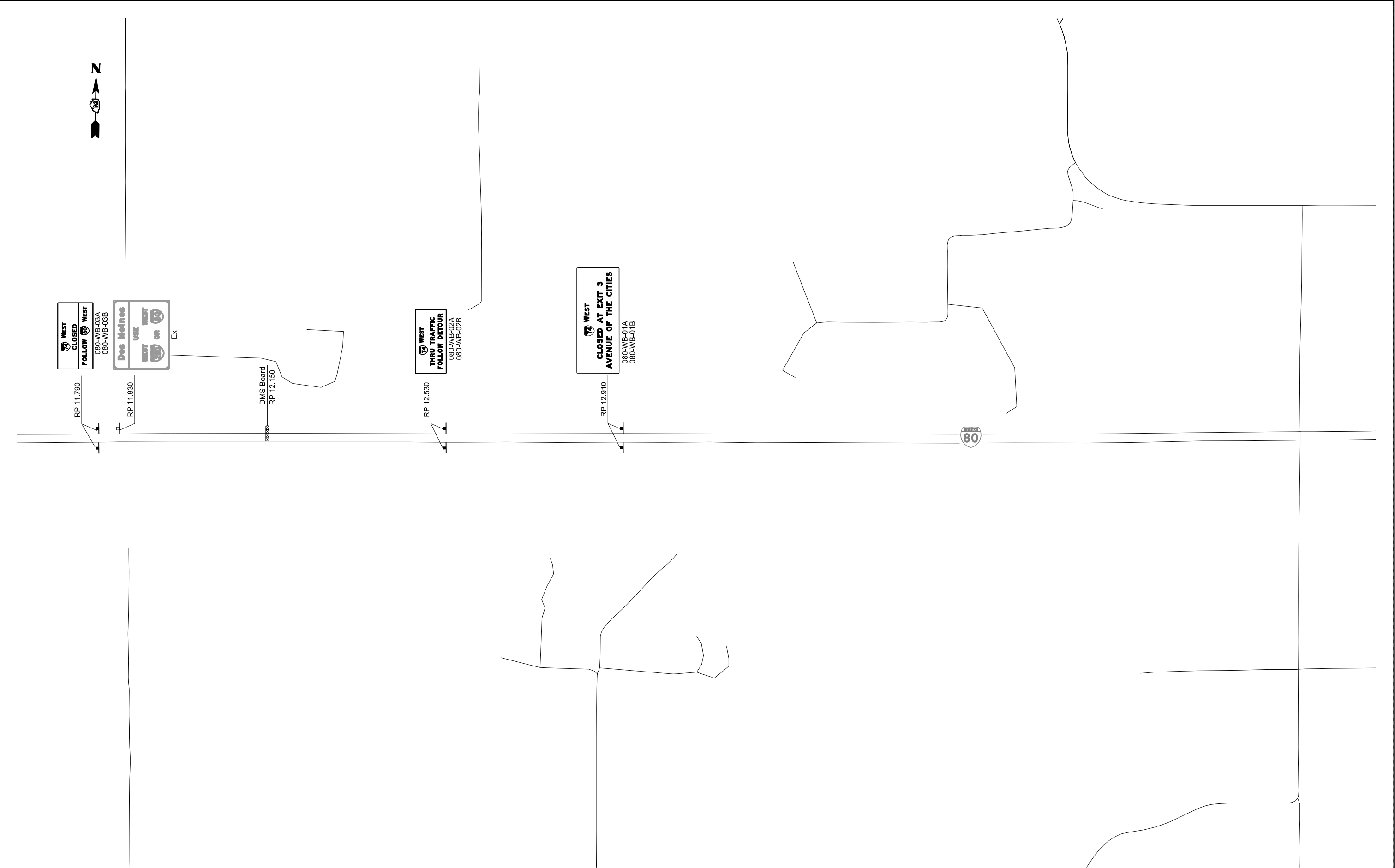
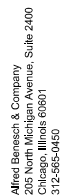
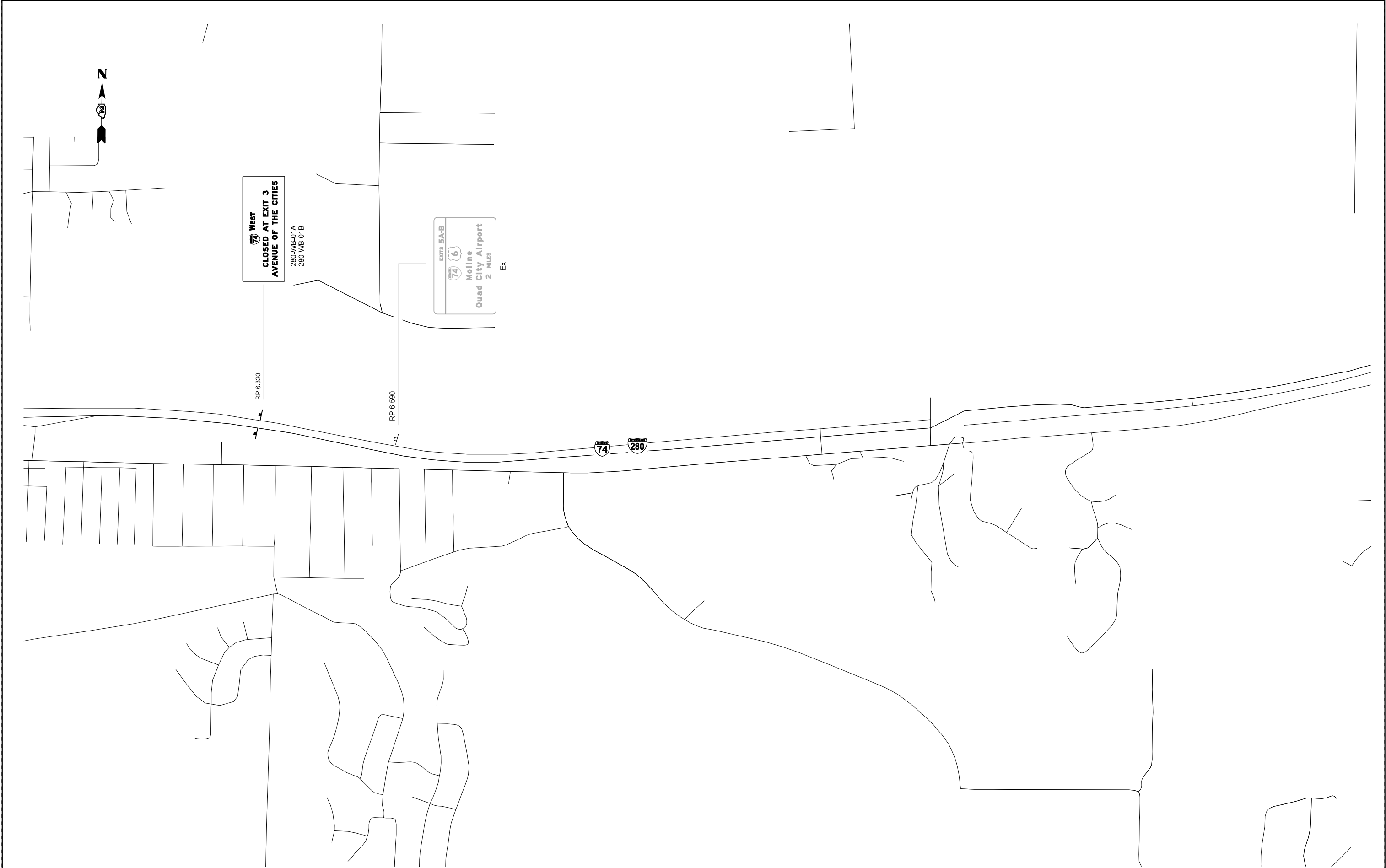


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		DRAWN - AWY	REVISED -		74	(B1-1R-1 & B1-1HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	801				
	PLOT SCALE =	CHECKED - JMJ	REVISED -		CONTRACT NO. 64E26				ILLINOIS FED. AID PROJECT				
	PLOT DATE = 3/23/2017	DATE - 3/23/2017	REVISED -		SCALE:	SHEET NO. 6	OF 16	SHEETS	STA.	TO STA.			

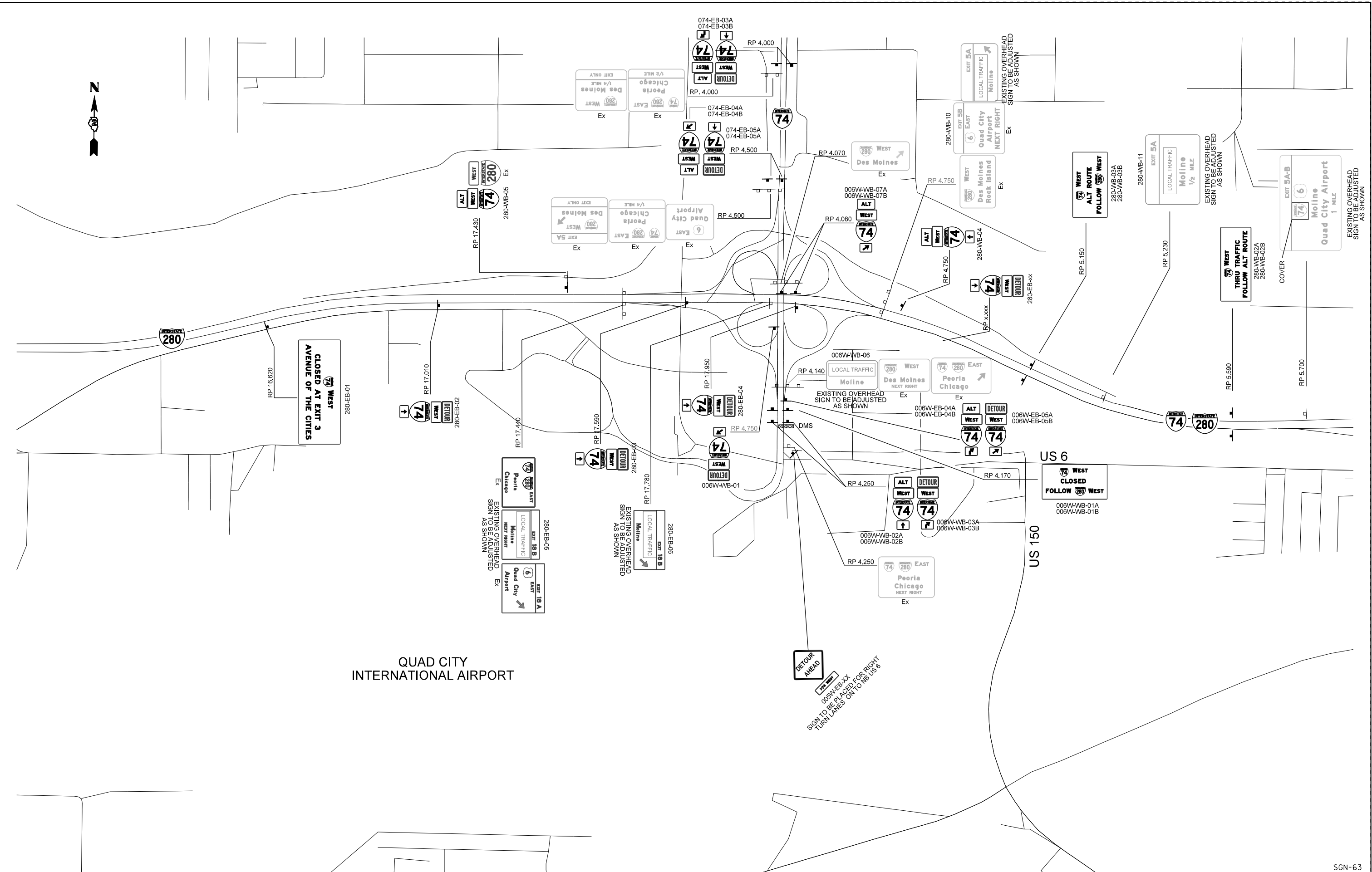


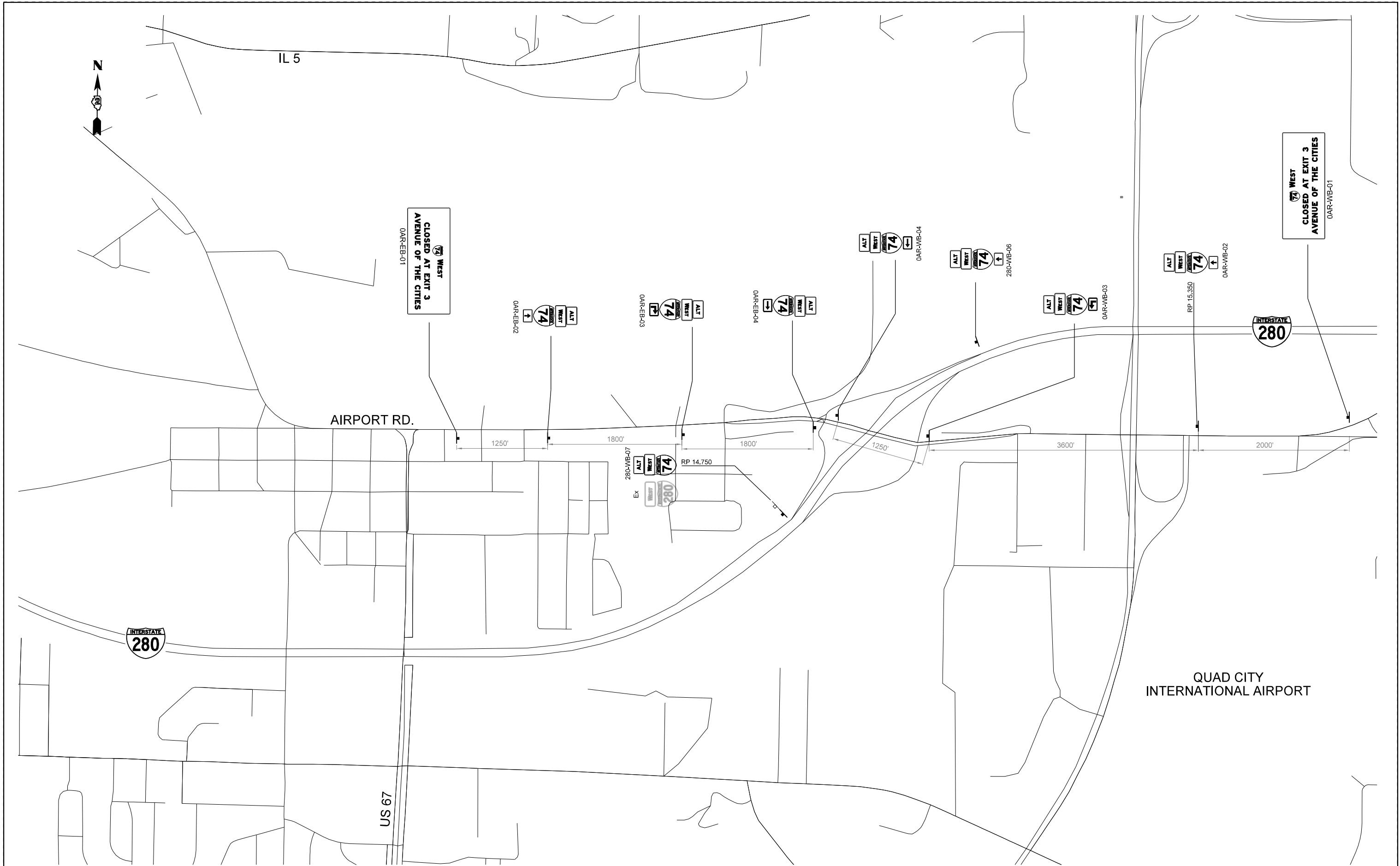


SGN-61

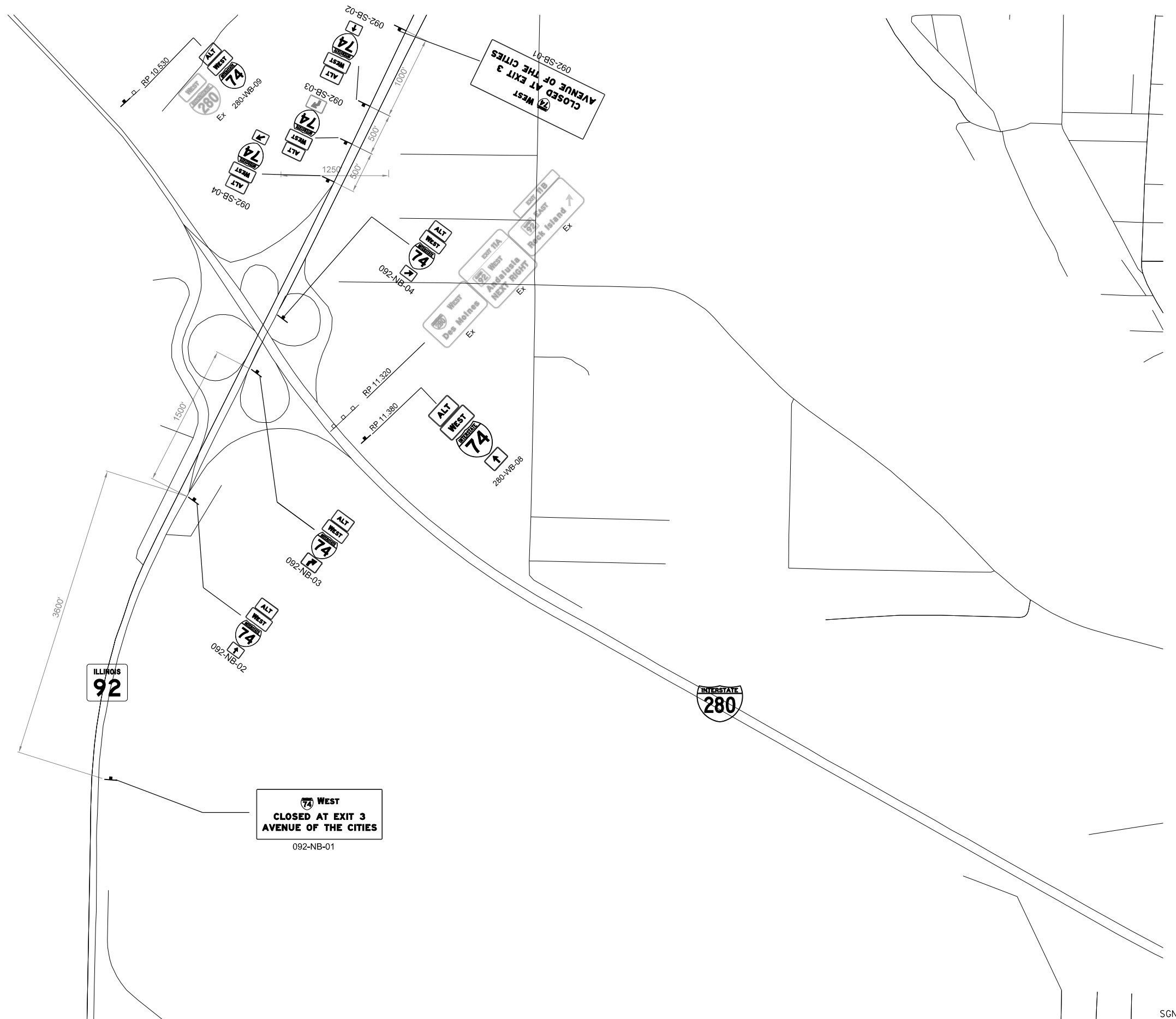
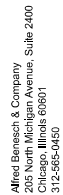


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	DRAWN - AWY		CHECKED - JMJ	REVISED -				74	(81-1R-1 & 81-1HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	804
	PLOT SCALE =		DATE - 3/23/2017	REVISED -		SCALE:		CONTRACT NO. 64E26				
#MODELNAME\$	PLOT DATE = 3/23/2017					SHEET NO. 9 OF 16 SHEETS		STA. TO STA.		ILLINOIS FED. AID PROJECT		

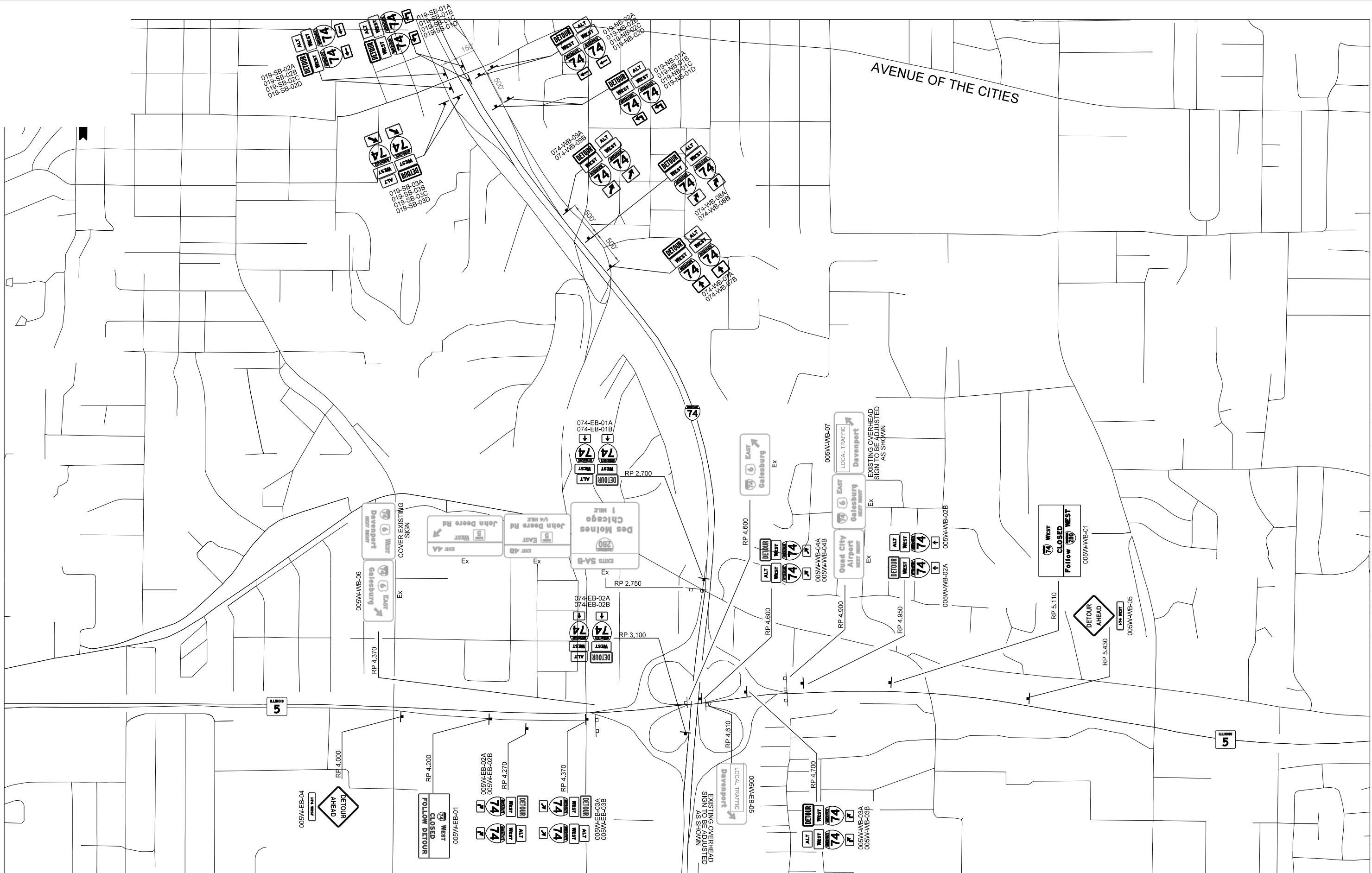




FILE NAME =	USER NAME = jterdy	DESIGNED - AWY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Detour Signing Plan SHEET 11				F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...\\D2CONCD-ABC-sht-SigningPlans-11.dgn		DRAWN - AWY	REVISED -		74	(81-1)R-1 & 81-10)BR, HBR-1, HBR-2)	ROCK ISLAND	2042	806				
	PLOT SCALE =	CHECKED - JMJ	REVISED -		SCALE:				SHEET NO. 11 OF 16 SHEETS	STA.	TO STA.		
#MODELNAME\$	PLOT DATE = 3/23/2017	DATE - 3/23/2017	REVISED -						CONTRACT NO. 64E26				
									ILLINOIS FED. AID PROJECT				



FILE NAME = ...\\D2CONCD-ABC-sht-SigningPlans-12.dgn  \$MODELNAME\$	USER NAME = jterdy	DESIGNED - AWY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Detour Signing Plan SHEET 12			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - AWY	REVISED -					74	81-1R-1 & 81-1HBR, HBR-1, HBR-2	ROCK ISLAND	2042	807
	PLOT SCALE =	CHECKED - JMJ	REVISED -					CONTRACT NO. 64E26				
	PLOT DATE = 3/23/2017	DATE - 3/23/2017	REVISED -		SCALE:	SHEET NO. 12 OF 16 SHEETS	STA.	TO STA.				
							ILLINOIS FED. AID PROJECT					



FILE NAME =	USER NAME = jterdy	DESIGNED - AWY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Detour Signing Plan SHEET 13					F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...\\02CONCD-ABC-shr-SigningPlans-13.dgn		DRAWN - AWY	REVISED -		74	(81-1)R-1 & 81-10(HR, HBR-1, HBR-2)	ROCK ISLAND	2042	808					
PLOT SCALE =		CHECKED - JMJ	REVISED -		CONTRACT NO. 64E26									
\$MODELNAME\$	PLOT DATE = 3/23/2017	DATE - 3/23/2017	REVISED -		SCALE:	SHEET NO. 13 OF 16 SHEETS	STA.	TO STA.						

RP 15.900  
074-WB-01A  
074-WB-01B

RP 12.910  
080-WB-01A  
080-WB-01B

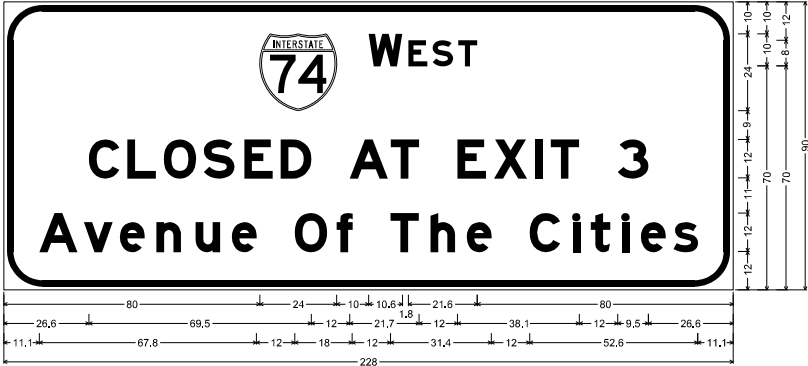
RP 2.400  
088-WB-01A  
088-WB-01B

RP 6.320  
280-WB-01A  
280-WB-01B

RP 16.620  
280-EB-01

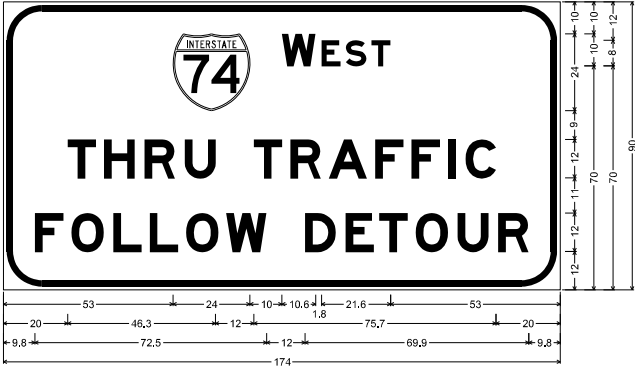
OAR-EB-01  
OAR-WB-01

O92-NB-01  
O92-SB-01



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
[WEST] E Mod; [CLOSED AT EXIT 3] E Mod; [Avenue Of The Cities] E Mod;  
Table of widths and spaces.

80.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	80.0										
	C	L	O	S	E	S	E	D	A	T	E	X	I	T	J					
26.6	9.5	2.5	5.0	2.5	9.6	3.0	8.9	2.5	9.6	12.0	0.8	8.9	12.0	8.9	2.5	2.4				
	A	V	E	N	U	E	O	F	T	H	E									
11.1	12.0	1.9	8.9	2.4	7.6	3.8	7.7	4.6	7.6	3.7	7.6	12.0	10.1	3.0	4.9	12.0				
	C	I	T	I	E	S														
	12.0	9.6	3.9	2.3	3.3	6.0	3.8	2.3	3.6	7.7	2.5	7.6	11.1							



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
[WEST] E Mod; [THRU TRAFFIC] E Mod; [FOLLOW DETOUR] E Mod;  
Table of widths and spaces.

53.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	53.0															
T	H	R	U	T	R	A	F	F	I	C															
20.0	8.9	2.5	9.6	3.1	9.6	12.0	8.9	2.4	9.6	2.5	12.0	2.5	8.9	2.4	9.0	2.4	3.1	9.6	20.0						
F	O	L	L	O	W	D	E	T	O	U	R										R				
9.8	8.9	2.5	10.1	3.0	8.9	2.5	8.9	2.5	10.0	2.5	12.7	12.0	9.5	3.1	8.9	1.7	8.9	2.5	10.0	3.1	9.5	3.1	R	9.6	9.8

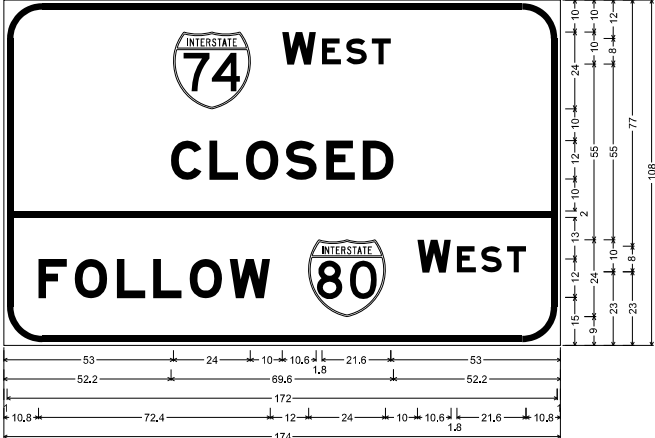
RP 15.440  
074-WB-02A  
074-WB-02B

RP 12.530  
080-WB-02A  
080-WB-02B

RP 2.020  
088-WB-02A  
088-WB-02B

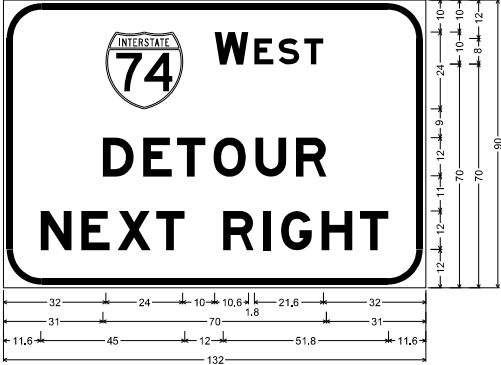
RP 15.180  
074-WB-06A  
074-WB-06B

RP 1.255  
088-WB-03A  
088-WB-03B



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
[WEST] E Mod; [CLOSED] E Mod; [FOLLOW] E Mod; [WEST] E Mod;  
Table of widths and spaces.

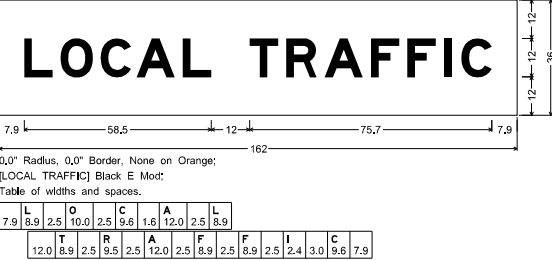
53.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	53.0
C	L	O	S	E	D					
52.2	8.9	2.5	8.9	2.5	10.0	2.5	9.5	3.1	8.9	2.5
1.0	172.0	1.0								
F	O	L	L	O	W					
10.8	8.9	2.5	10.0	3.1	8.9	2.5	8.9	2.5	10.0	2.5



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
[WEST] E Mod; [DETOUR] E Mod; [NEXT RIGHT] E Mod;  
Table of widths and spaces.

32.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	32.0
D	E	T	O	U	R					
31.0	9.6	3.1	8.9	1.6	9.0	2.4	10.1	3.0	9.6	3.1
N	E	X	T	R	I	G	H	T		
11.6	9.6	3.1	8.9	2.5	10.4	1.6	8.9	12.0	9.6	3.1

RP 11.510  
080-WB-04A  
080-WB-04B



0.0" Radius, 0.0" Border, None on Orange;  
[LOCAL TRAFFIC] Black E Mod;  
Table of widths and spaces.

L	O	C	A	L
7.9	8.9	2.5	10.0	2.5
T	R	A	F	I
12.0	8.9	2.5	9.5	2.5

RP 17.440  
280-EB-05

RP 17.780  
280-EB-06

RP 4.750  
280-WB-10

RP 5.230  
280-WB-11

RP 4.140  
006W-WB-06

RP 4.370  
005W-WB-06

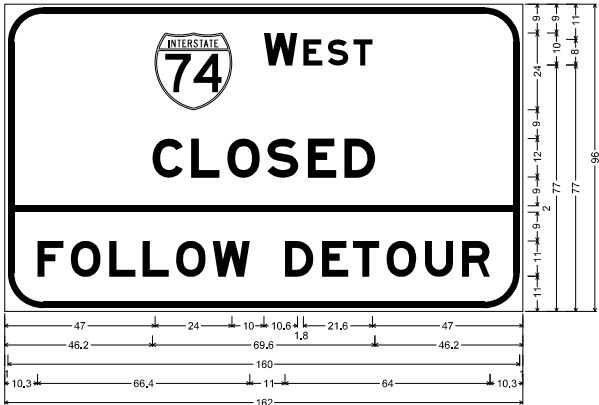
RP 4.610  
005W-EB-05

RP 4.900  
005W-WB-07



RP 12.315  
 006E-EB-01  
  
 RP 13.890  
 006E-WB-01  
 224-EB-01  
  
 RP 0.80  
 224-WB-01  
  
 RP 14.430  
 005E-EB-01  
  
 RP 12.190  
 084-EB-01

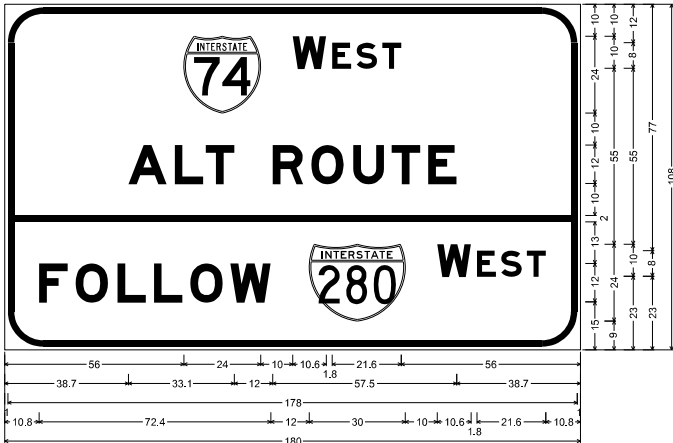
RP 12.950  
 084-WB-01  
  
 RP 11.790  
 080-WB-03A  
 080-WB-03B  
  
 RP 4.200  
 005W-EB-01



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
 [WEST] E Mod; [CLOSED] E Mod; [FOLLOW DETOUR] E Mod;  
 Table of widths and spaces.

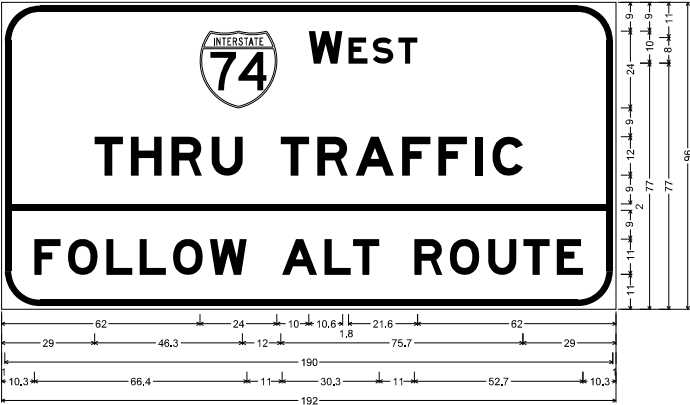
47.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	47.0		
C	L	O	S	E	D							
46.2	9.6	2.5	8.9	2.5	10.0	2.5	9.5	3.1	8.9	2.5	9.6	46.2
1.0	160.0	1.0										
10.3	8.1	2.3	9.2	2.8	8.2	2.3	8.1	2.3	9.2	2.3	11.6	
D	E	T	O	U	R							
11.0	8.7	2.8	8.2	1.5	8.2	2.3	9.2	2.8	8.8	8.7	10.3	

RP 5.150  
 280-WB-03A  
 280-WB-03B



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
 [WEST] E Mod; [ALT ROUTE] E Mod; [FOLLOW] E Mod; [WEST] E Mod;  
 Table of widths and spaces.

56.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	56.0						
A	L	T	R	O	U	T	E									
38.7	12.0	2.5	8.9	0.8	8.9	12.0	9.6	2.5	10.0	3.1	9.5	2.5	8.9	2.5	8.9	38.7
1.0	178.0	1.0														
10.8	F	O	L	L	O	W										
10.8	8.9	2.5	10.0	3.1	8.9	2.5	8.9	2.5	10.0	2.5	12.6	12.0	30.0	10.0	10.6	1.8

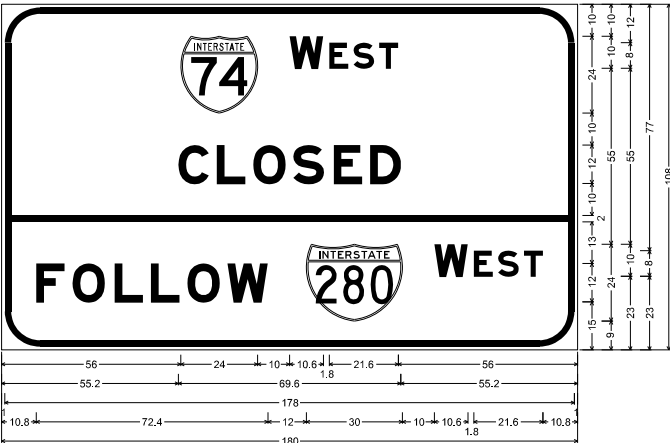


12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
 [WEST] E Mod; [THRU TRAFFIC] E Mod; [FOLLOW ALT ROUTE] E Mod;  
 Table of widths and spaces.

62.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	62.0													
T	H	R	U	T	R	A	F	F	I	C													
29.0	8.9	2.5	9.6	3.1	9.5	3.1	9.6	12.0	8.9	2.4	9.6	2.5	12.0	2.5	8.9	2.4	9.0	2.4	2.4	3.1	9.6	29.0	
1.0	1760.0	1.0																					
F	O	L	L	O	W	A	L	T															
10.3	8.1	2.3	9.2	2.8	8.2	2.3	8.1	2.3	9.2	2.3	11.6	11.0	11.0	2.2	8.2	0.8	8.1						
R	O	U	T	E																			
11.0	8.8	2.3	9.2	2.8	8.8	2.2	8.2	2.3	8.1	10.3													

RP 5.590  
 280-WB-02A  
 280-WB-02B

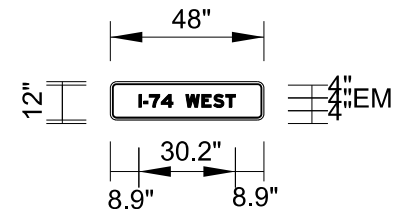
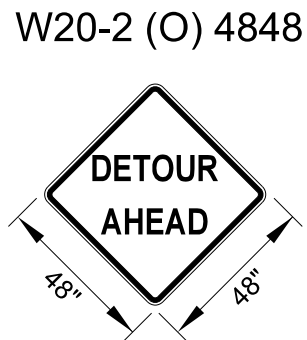
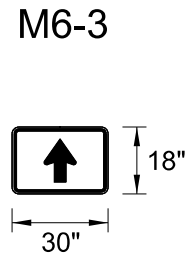
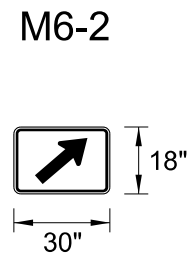
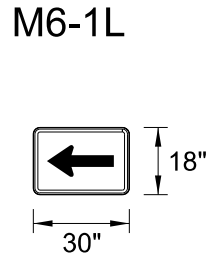
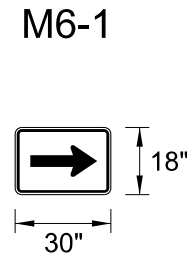
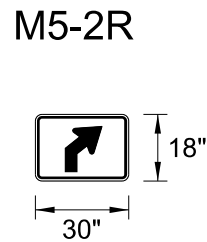
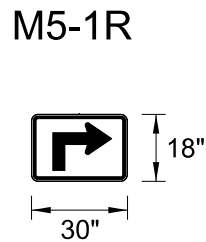
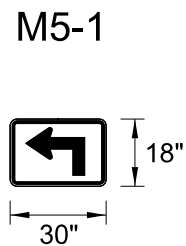
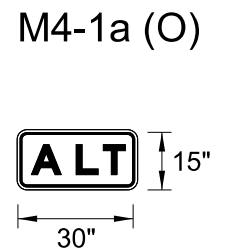
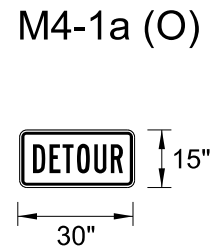
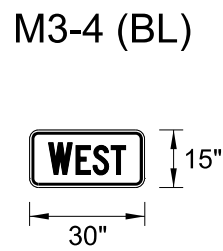
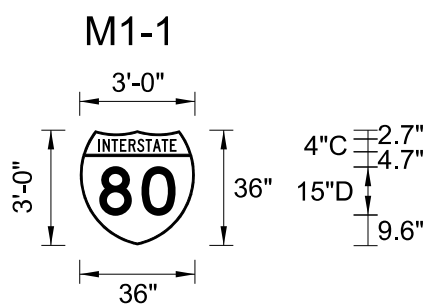
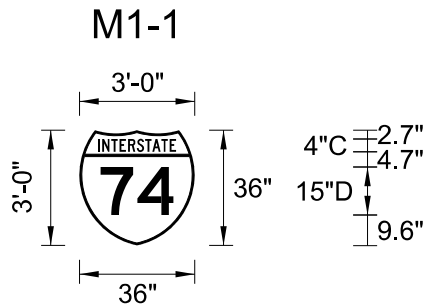
RP 4.170  
 006W-WB-01A  
 006W-WB-01B  
  
 RP 5.110  
 005W-WB-01



12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;  
 [WEST] E Mod; [CLOSED] E Mod; [FOLLOW] E Mod; [WEST] E Mod;  
 Table of widths and spaces.

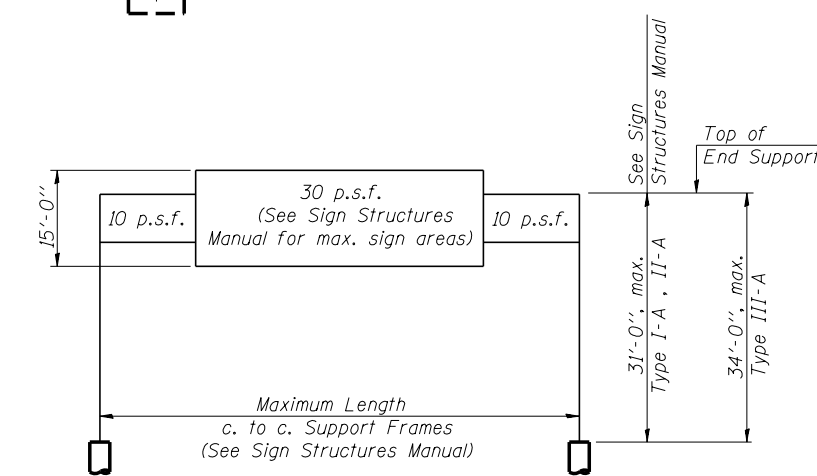
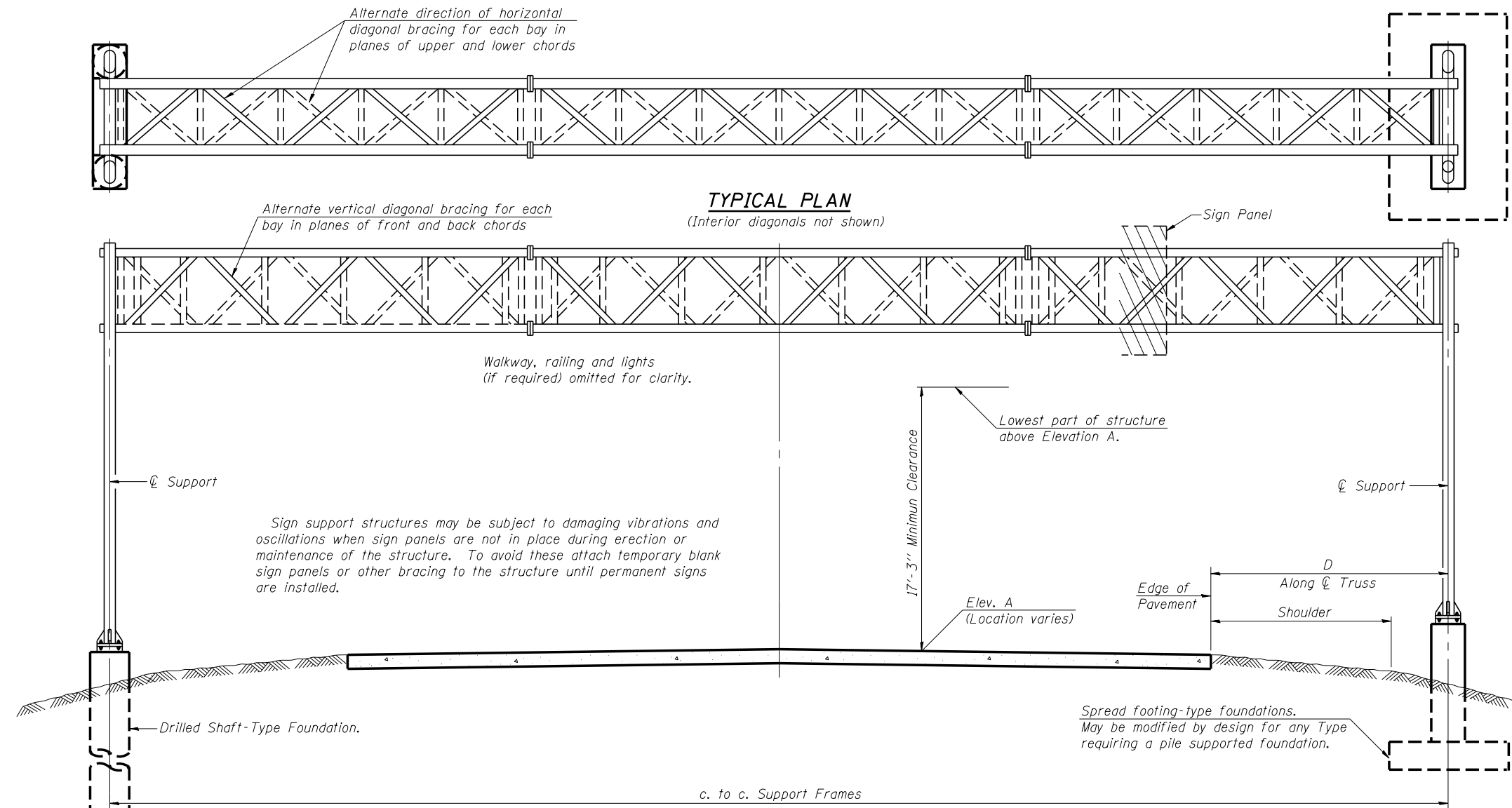
56.0	24.0	10.0	10.6	1.8	6.0	1.6	6.4	1.6	6.0	56.0												
C	L	O	S	E	D																	
55.2	9.6	2.5	8.9	2.5	10.0	2.5	9.5	3.1	8.9	2.5	9.6	55.2										
1.0	178.0	1.0																				
F	O	L	L	O	W																	
10.8	8.9	2.5	10.0	3.1	8.9	2.5	8.9	2.5	10.0	2.5	12.6	12.0	30.0	10.0	10.6	1.8	6.0	1.6	6.4	1.7	5.9	10.8





NOTE: AUXILIARY ARROWS SHALL BE WITH WHITE BACKGROUND  
AND BLUE LEGEND BORDER.

FILE NAME = ...\\D2CONCD-ABC-shr-SigningPlans-16.dgn  \$MODELNAME\$	USER NAME = jterdy	DESIGNED - AWY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Detour Signing Detail			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - AWY	REVISED -					74	(81-1)R-1 & 81-10(BR, HBR-1, HBR-2)	ROCK ISLAND	2042	811
	PLOT SCALE =	CHECKED - JMJ	REVISED -		SCALE:			CONTRACT NO. 64E26				
	PLOT DATE = 3/23/2017	DATE - 3/23/2017	REVISED -		SHEET NO. 16 OF 16 SHEETS			ILLINOIS FED. AID PROJECT				
					STA. TO STA.			SGN-69				



TYPICAL PLAN  
(Interior diagonals not shown)

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

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
2S081I074L001.3	65+55 (I-74)	II-A	103.00'	660.10	22.98'	17.00'	575 S.F.
2S081I074R001.7	85+10 (I-74)	III-A	90.00'	685.39	12.83'	12.00'	539 S.F.
2S081I074R002.5	129+75 (I-74)	II-A	70.00'	672.97	18.58'	14.00'	521 S.F.
2S081I074L002.5	130+58 (I-74)	II-A	70.00'	672.35	20.00'	12.00'	377 S.F.

\* 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.

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

\*\*\* For I-74 Median Foundations at Stations 65+55 and 85+10.

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT. UNLESS NOTED OTHERWISE. CONSTRUCTION SEQUENCE OF THE OVERHEAD SIGN STRUCTURES AND FOUNDATIONS. UNLESS NOTED OTHERWISE, IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONSIDER THE MAINTENANCE OF TRAFFIC PLANS.**

GENERAL NOTES

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

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

LOADING: 90 M.P.H. WIND VELOCITY

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

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

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

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

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

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

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

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

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

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

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

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	243
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	90
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	149
STRUCTURE EXCAVATION	Cu. Yds.	28

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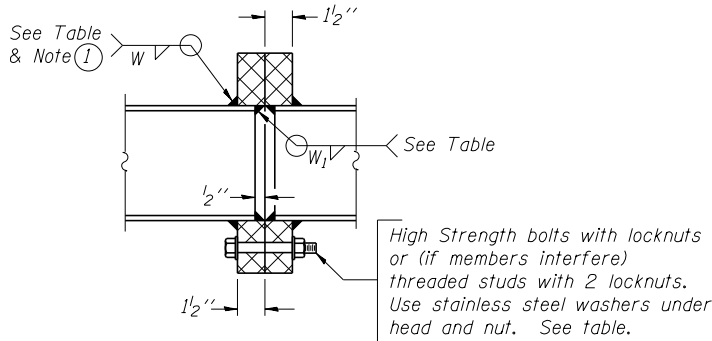
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OS-A-1 8-21-13



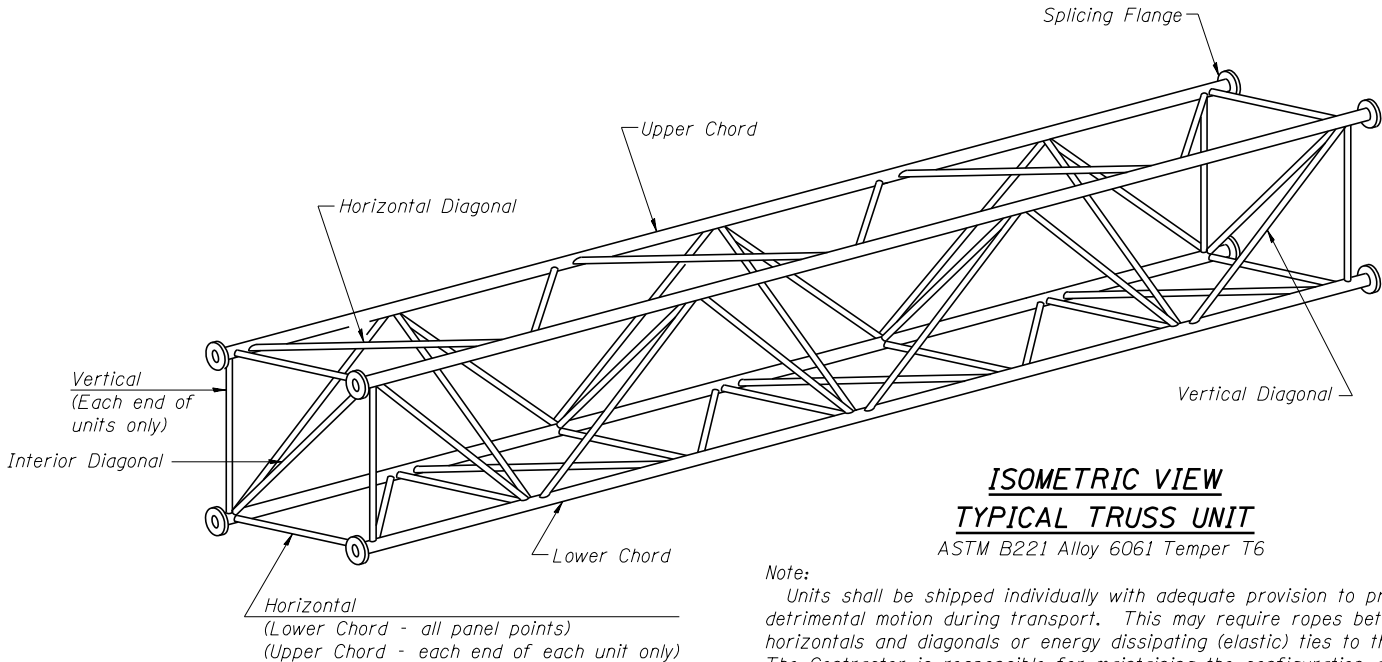
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L <sub>e</sub> )	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L <sub>i</sub> )	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W <sub>1</sub>		
2S081I074L001.3	65+55 (I-74)	II-A	7	36'-8 <sup>3</sup> / <sub>4</sub> "	4'-11 <sup>3</sup> / <sub>4</sub> "	1	6	31'-1 <sup>1</sup> / <sub>2</sub> "	4'-11 <sup>3</sup> / <sub>4</sub> "	6 <sup>1</sup> / <sub>2</sub> "	5 <sup>5</sup> / <sub>16</sub> "	3"	5 <sup>5</sup> / <sub>16</sub> "	3 <sup>1</sup> / <sub>4</sub> "	6	1"	3 <sup>3</sup> / <sub>8</sub> "	1 <sup>1</sup> / <sub>4</sub> "	11"	14 <sup>1</sup> / <sub>2</sub> "
2S081I074R001.7	85+10 (I-74)	III-A	5	28'-11 <sup>1</sup> / <sub>2</sub> "	5'-5"	1	6	33'-9"	5'-5"	7"	5 <sup>5</sup> / <sub>16</sub> "	3 <sup>1</sup> / <sub>4</sub> "	5 <sup>5</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>4</sub> "	6	1"	7 <sup>1</sup> / <sub>16</sub> "	5 <sup>5</sup> / <sub>16</sub> "	11 <sup>1</sup> / <sub>2</sub> "	15"
2S081I074R002.5	129+75 (I-74)	II-A	7	35'-8 <sup>1</sup> / <sub>2</sub> "	4'-10"	----	----	----	----	5 <sup>1</sup> / <sub>2</sub> "	5 <sup>5</sup> / <sub>16</sub> "	3"	5 <sup>5</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>8</sub> "	6	7 <sup>8</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "	1 <sup>1</sup> / <sub>4</sub> "	9 <sup>1</sup> / <sub>4</sub> "	12 <sup>1</sup> / <sub>4</sub> "
2S081I074L002.5	130+58 (I-74)	II-A	7	35'-8 <sup>1</sup> / <sub>2</sub> "	4'-10"	----	----	----	----	5 <sup>1</sup> / <sub>2</sub> "	5 <sup>5</sup> / <sub>16</sub> "	3"	5 <sup>5</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>8</sub> "	6	7 <sup>8</sup> / <sub>8</sub> "	3 <sup>3</sup> / <sub>8</sub> "	1 <sup>1</sup> / <sub>4</sub> "	9 <sup>1</sup> / <sub>4</sub> "	12 <sup>1</sup> / <sub>4</sub> "

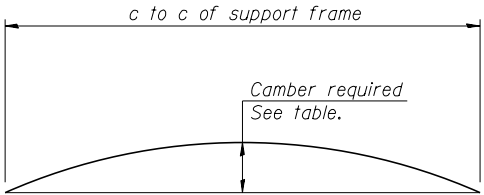


SECTION B-B

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



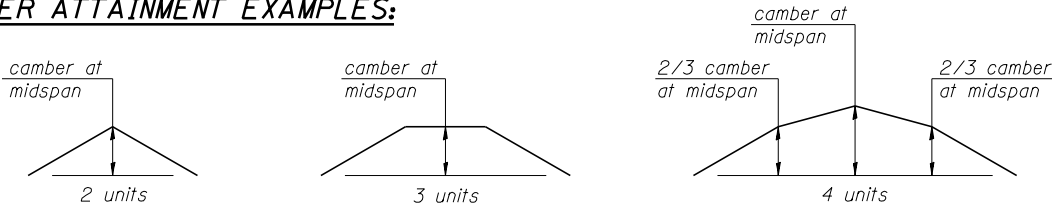
Note:  
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection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



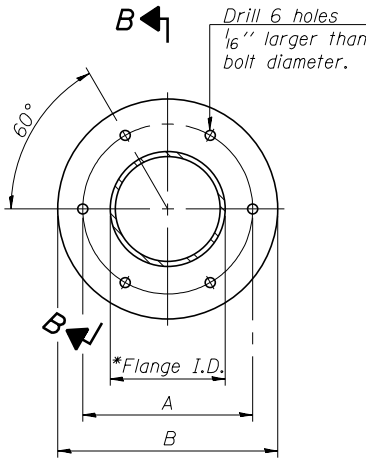
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

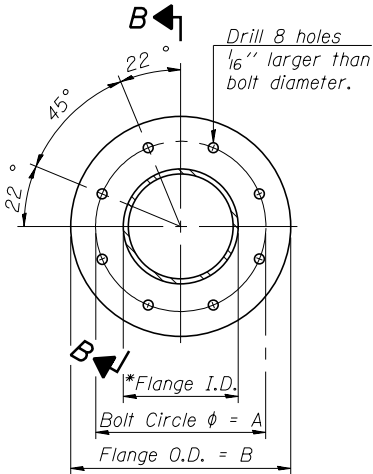
CAMBER ATTAINMENT EXAMPLES:



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



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6  
or ASTM B209, Alloy 6061-T651

\*To fit O.D. of Chord with maximum gap of 1/16".



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OS4-A-2

6-1-12

FILE NAME = D:\CONCD-AB-SHT-Sign-Structures.dgn

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DESIGNED - MFB  
CHECKED - KJN  
PLOT SCALE =  
DRAWN - VH  
PLOT DATE = 3/23/2017  
CHECKED - KJN

REVISD -  
REVISD -  
REVISD -  
REVISD -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

SHEET NO. 3 OF 30 SHEETS

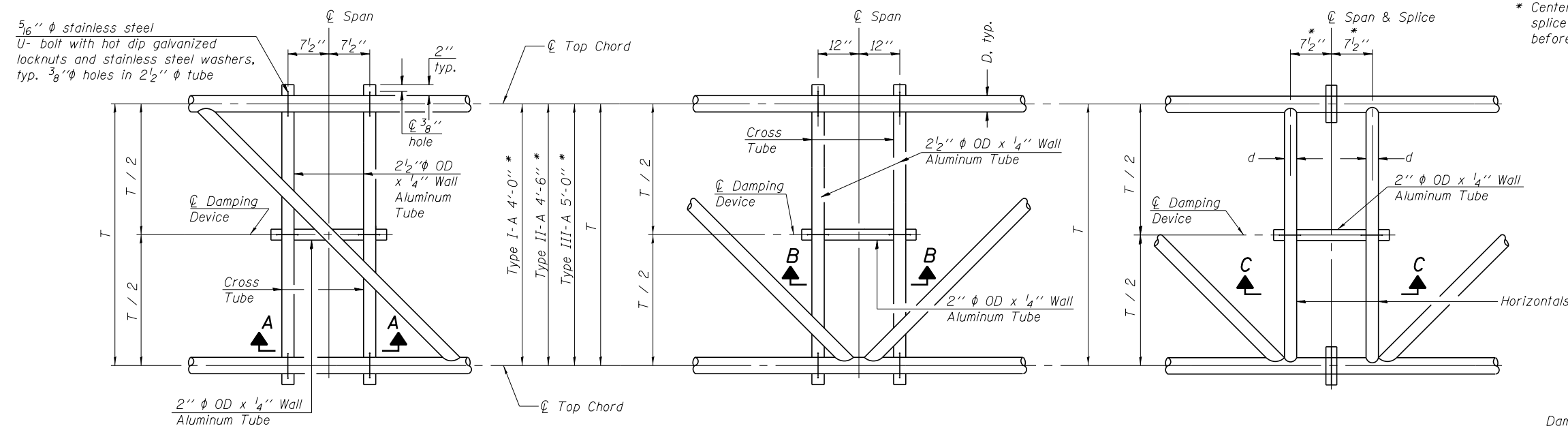
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
74 (81-1)R-1 & 81-1(HBR, HBR-1, HBR-2) ROCK ISLAND 2042 814  
CONTRACT NO. 64E26  
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

OSS-03

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8:52:05 AM

3/23/2017



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

**PLAN DETAIL "A"**  
Span between Panel Points

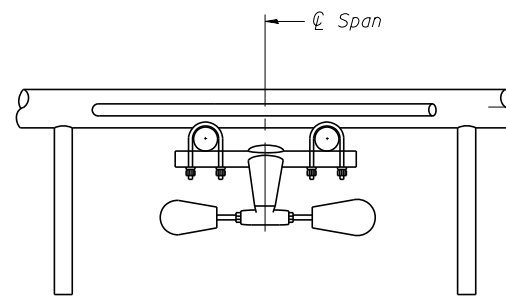
**PLAN DETAIL "B"**  
Span at Panel Point

**PLAN DETAIL "C"**  
Span at Chord Splice

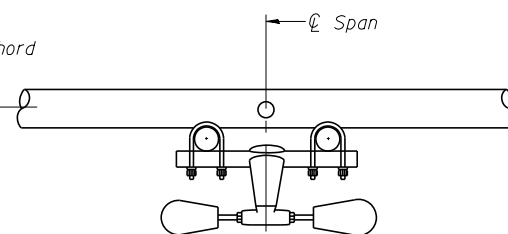
**NOTES**

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

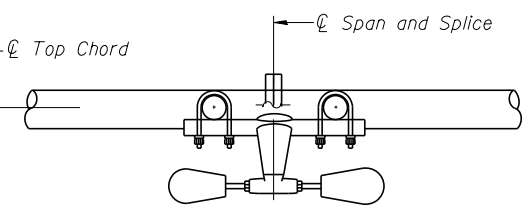
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



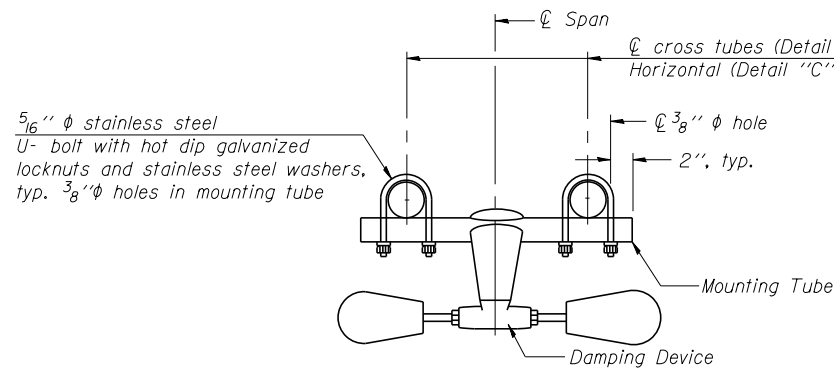
**SECTION A-A**



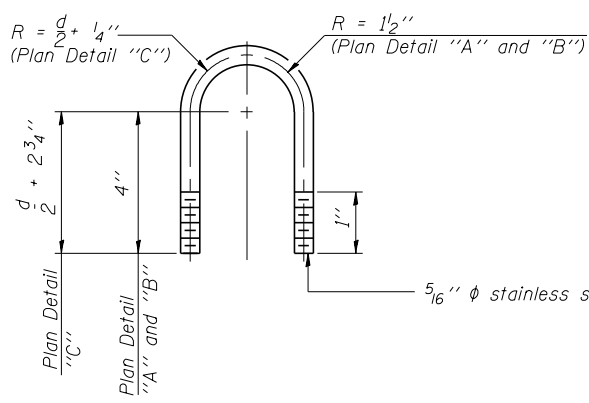
**SECTION B-B**



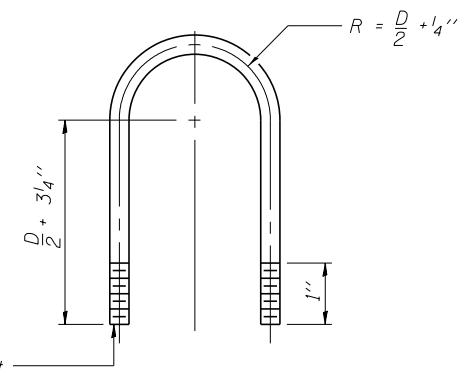
**SECTION C-C**



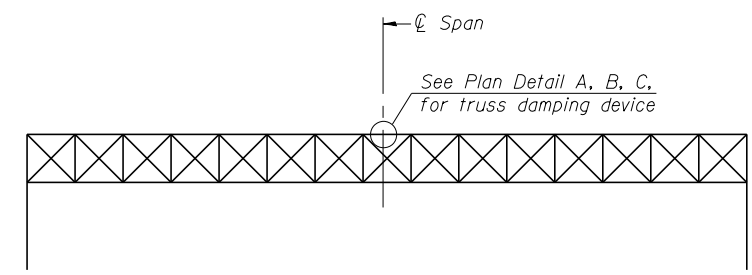
**TRUSS DAMPING  
DEVICE CONNECTION DETAIL**  
(Typical)



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



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

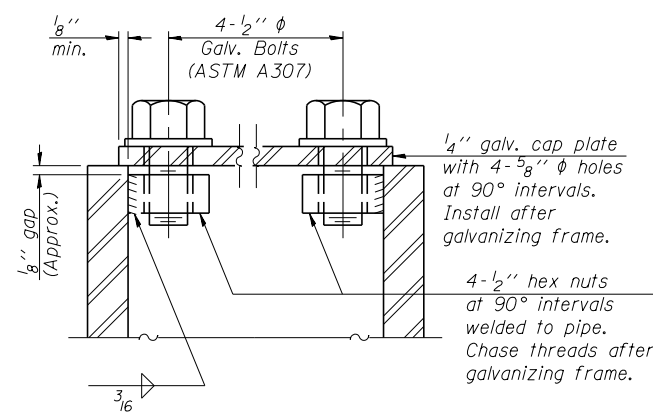


**ELEVATION**  
Aluminum Overhead  
Sign Truss

FILE NAME = D:\CONCD-AB-SHT-Sign-Structures.dgn	USER NAME = ksnider	DESIGNED - MFB	REVISED -
		CHECKED - KJN	REVISED -
MODEL: OSS-4	PLOT SCALE =	DRAWN - VH	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

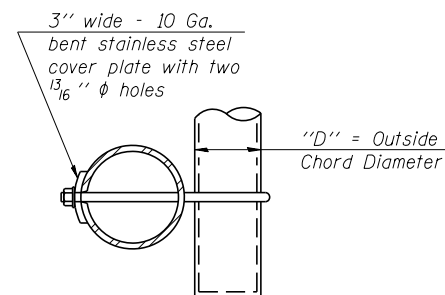
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-2)	ROCK ISLAND	2042	815
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DETAIL A

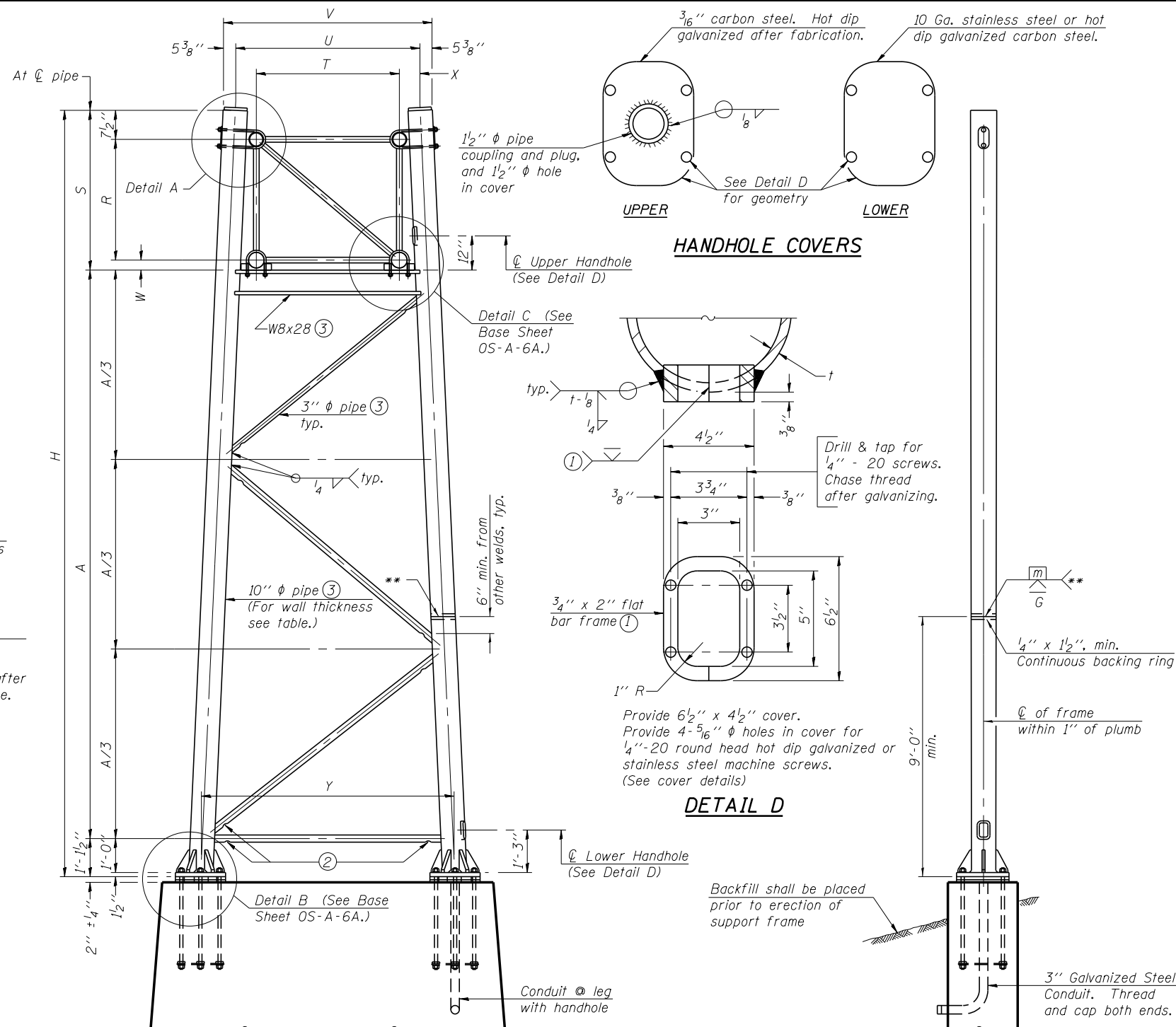


SECTION A-A

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



SECTION B-B



DETAIL D

Backfill shall be placed  
prior to erection of  
support frame

END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.

Load combinations checked include deadload plus:

- a) 100% wind normal to sign, 20% parallel to sign
- b) 60% wind normal to sign, 30% parallel to sign

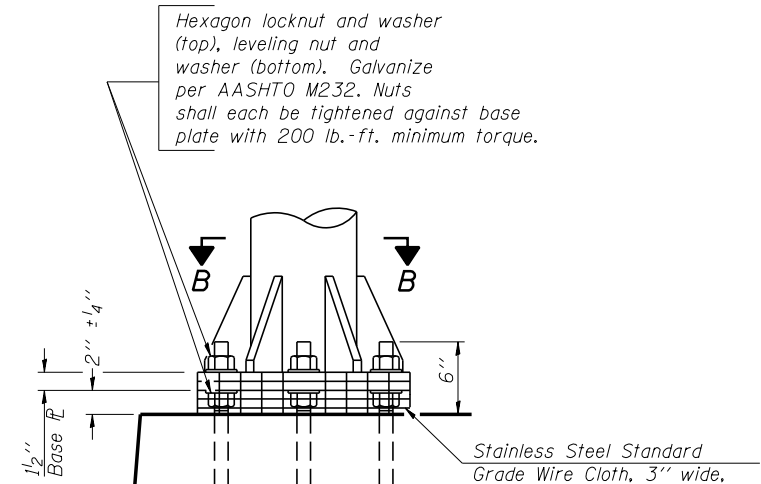
- ① *In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500  $\mu$ in or less.*
- ② *Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.*
- ③ *Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.*
- ④ *See General Notes for fasteners.*
- ⑤ *Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.*
- ⑥ *"H" based on 15'-0" or actual sign height, whichever is greater.*

**HANDHOLES AND CONDUIT IN FOUNDATION ARE INCLUDED IN THIS CONTRACT, UNLESS SHOWN OTHERWISE ON THE MEDIAN SUPPORT FOUNDATION DETAILS SHEETS.**

Truss Type	Dimensions							
	R	S	T	U	V	W	X	Y
I-A	4'-6"	5'-5½"	4'-0"	5'-6"	6'-4¾"	4"	9"	8'-3"
II-A ⑤	5'-3"	6'-3¼"	4'-6"	6'-1"	6'-11¾"	4¾"	9½"	8'-3"

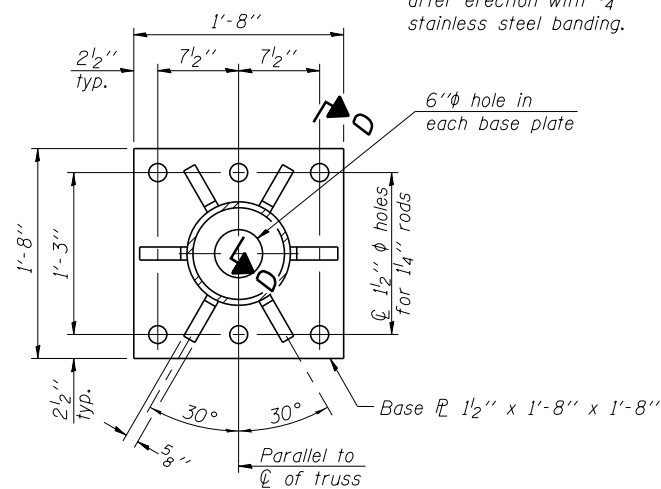
10"  $\phi$  PIPE TRUSS SUPPORT FRAME

**\*\* One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.**

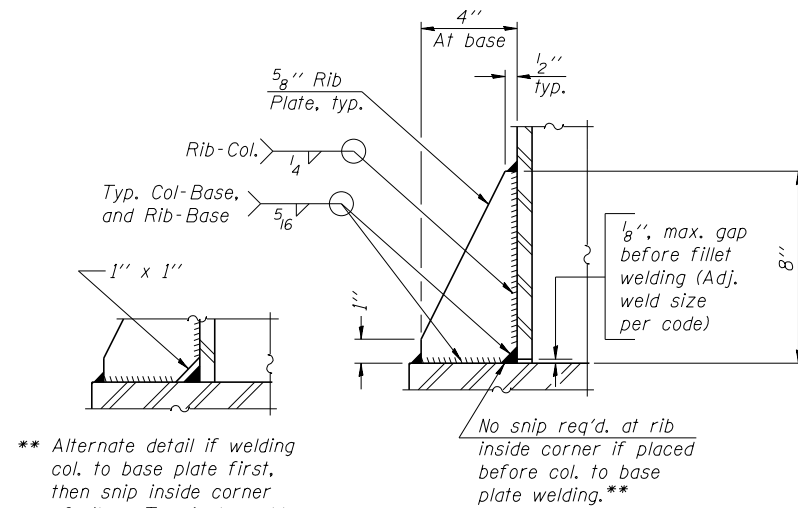


DETAIL B

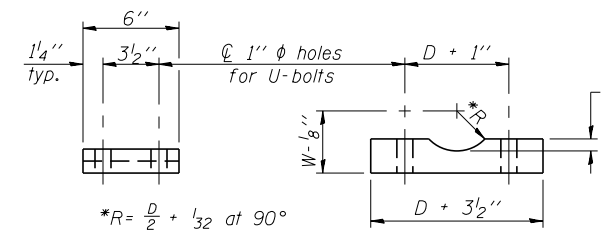
Ribs shall be cut to fit slope of pipe.



SECTION B-B



SECTION D-D



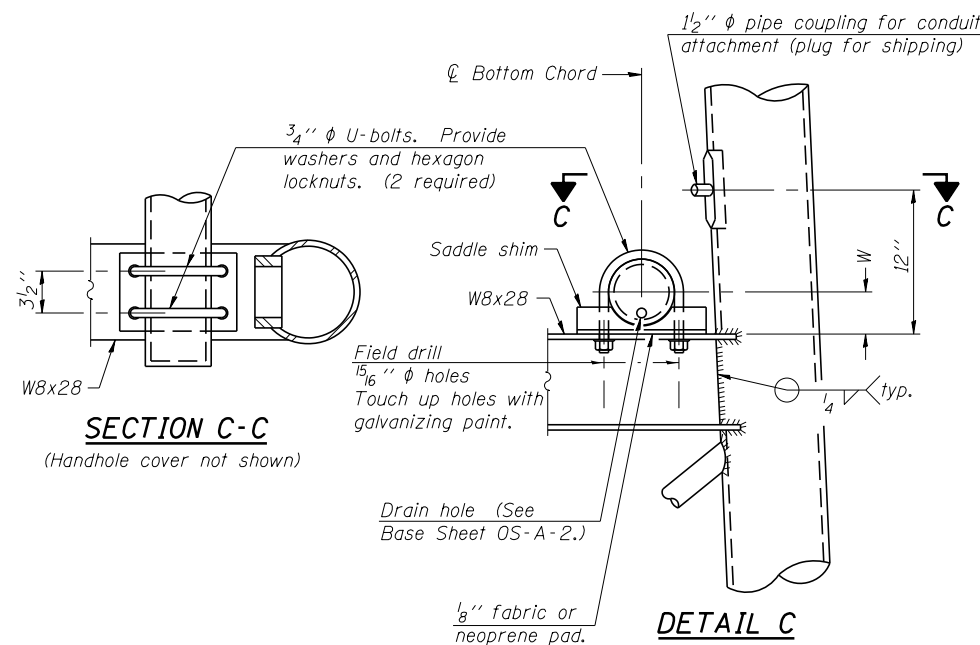
$$^*R = \frac{D}{2} + l_{32} \text{ at } 90^\circ$$

*D = Outside Diameter of Chord.  
For W, see Base Sheet OS-A-6.*

### SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F  
or  
ASTM B209 Alloy 6061-T6  
(4 required per sign truss)

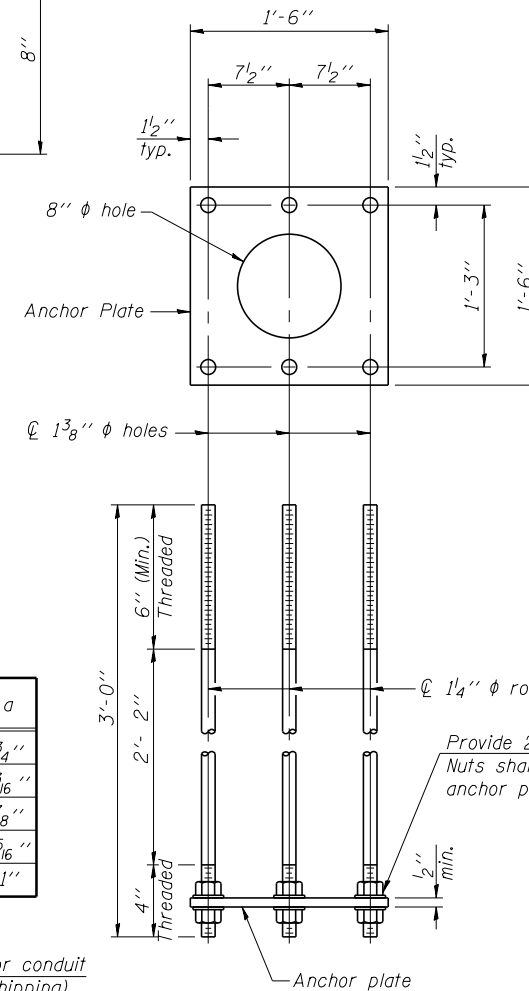
Truss Chord Nominal Dia.	$a$
5"	$3\frac{3}{4}$ "
5½"	$13\frac{1}{16}$ "
6"	$7\frac{7}{8}$ "
6½"	$15\frac{1}{16}$ "
7"	1"



SECTION C-C

(Handhole cover not shown)

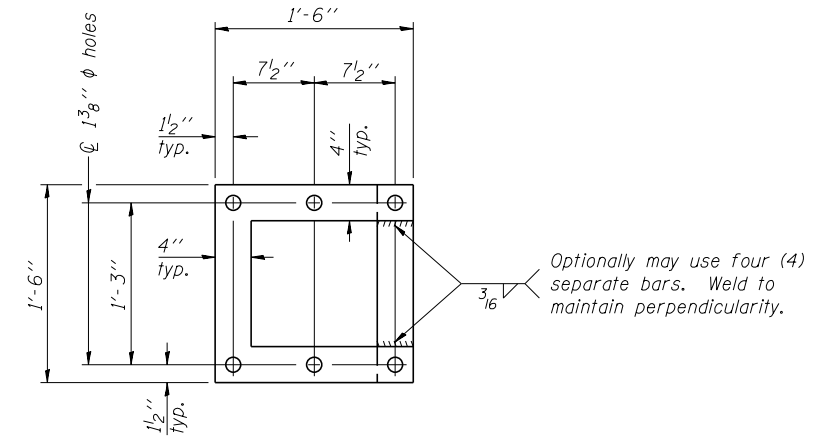
DETAIL C



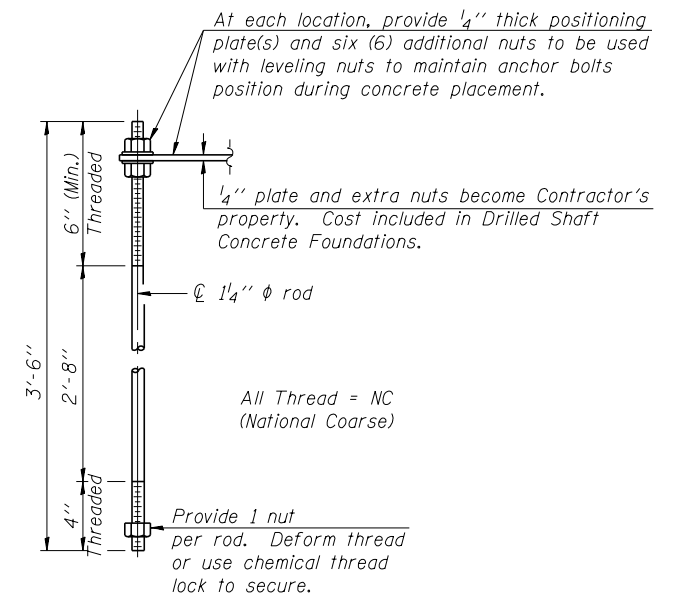
ANCHOR ROD DETAIL

---

*Spread Footing Foundation*



POSITIONING PLATE(S)



ANCHOR ROD DETAIL

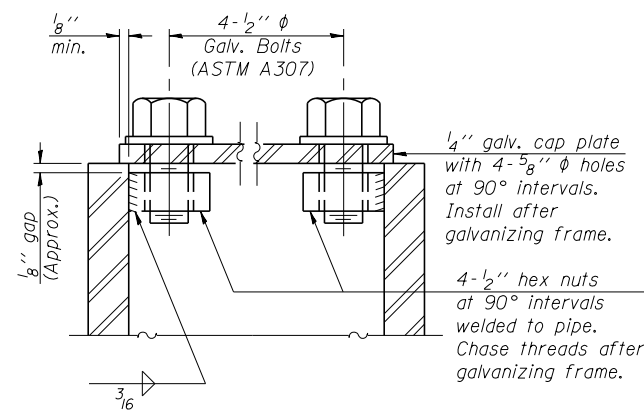
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*Drilled Shaft Foundation*

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

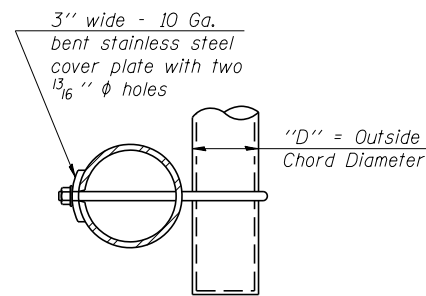
### 10" $\phi$ PIPE SUPPORT FRAME DETAILS

DETAIL A

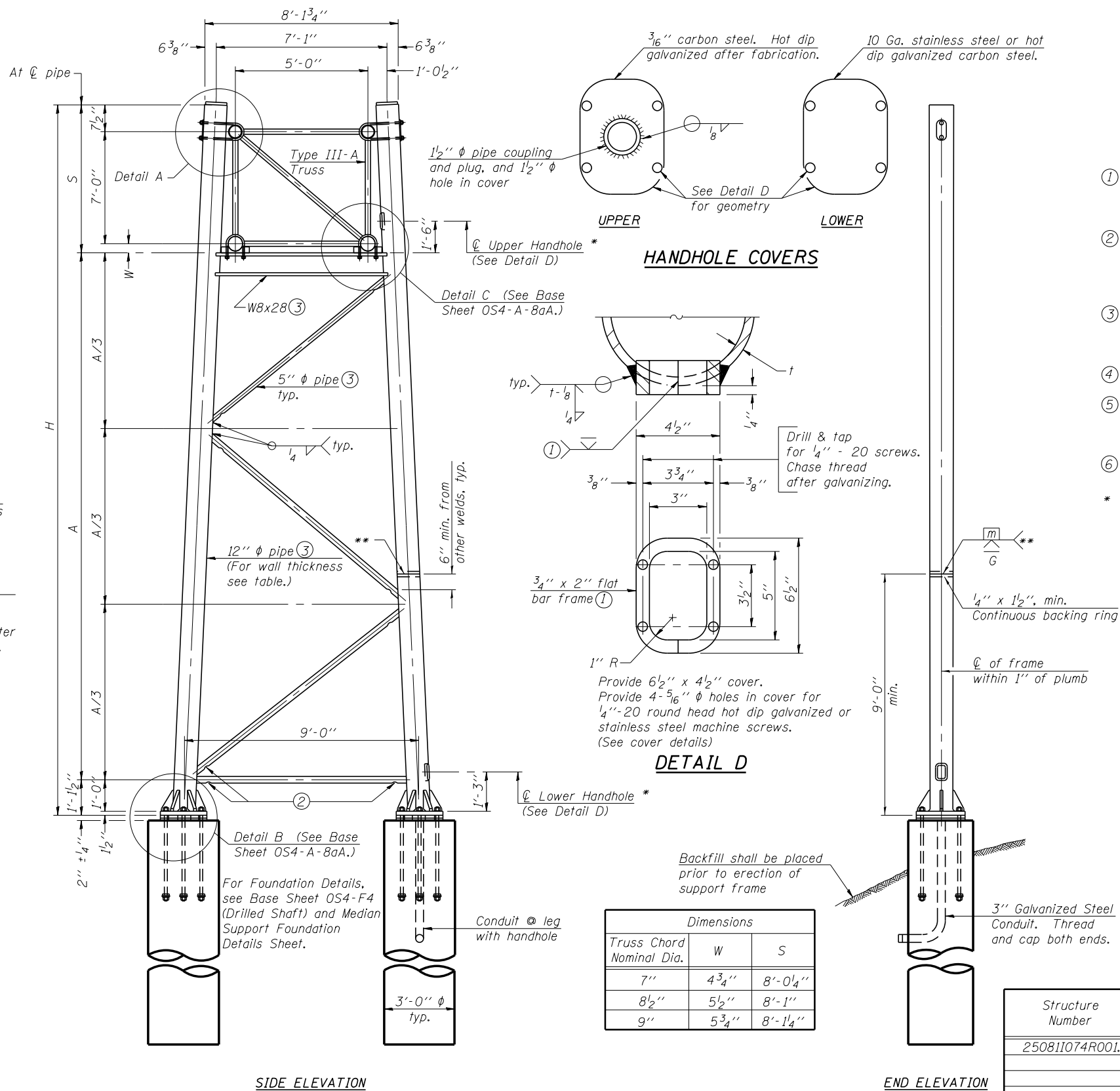


SECTION A-A

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



SECTION B-B



Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.

Load combinations checked include deadload plus:

- a) 100% wind normal to sign, 20% parallel to sign  
b) 60% wind normal to sign, 30% parallel to sign

- ① *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  $\mu$ in or less.*
- ② *Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.*
- ③ *Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet QS-A-1.*
- ④ *See General Notes for fasteners.*
- ⑤ *Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.*
- ⑥ *"H" based on 15'-0" or actual sign height, whichever is greater.*

\* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

**HANDHOLES AND CONDUIT IN FOUNDATION ARE INCLUDED IN THIS CONTRACT, UNLESS SHOWN OTHERWISE ON THE MEDIAN SUPPORT FOUNDATION DETAILS SHEET.**

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4 $\frac{3}{4}$ "	8'-0 $\frac{1}{4}$ "
8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	8'-1"
9"	5 $\frac{3}{4}$ "	8'-1 $\frac{1}{4}$ "

### TRUSS SUPPORT DETAILS

(12"  $\phi$  Pipe-Type III-A Truss)

**\*\* One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.**

[illegible]

SS-07



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OS4-A-8a

6-1-12

FILE NAME = D2CONCDB-AB-SHT-Sign.Structures.dgn  MODEL = OSS-7	USER NAME = ksnider	DESIGNED - MFB	REVISED -
		CHECKED - KJN	REVISED -
	PLOT SCALE =	DRAWN - VH	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

### OVERHEAD SIGN STRUCTURES – SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SHEET NO. 7 OF 30 SHEETS

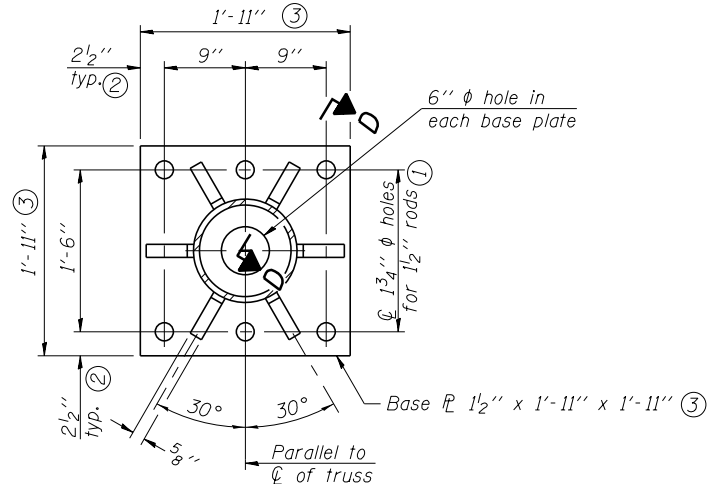
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		CONTRACT NO. 64E26		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



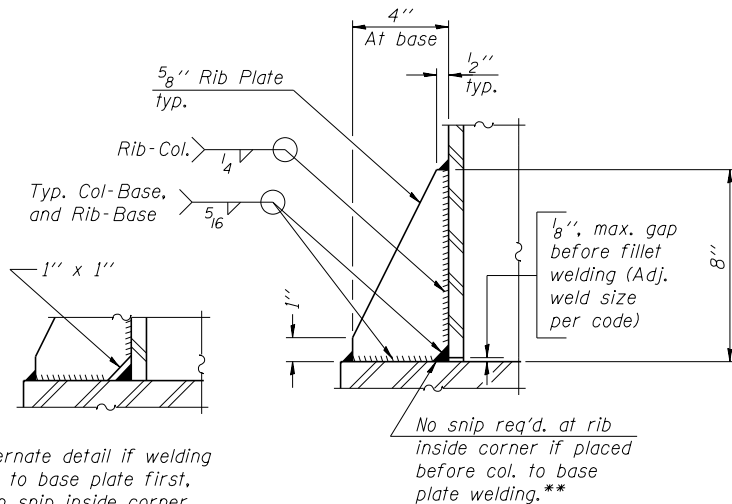
**DETAIL B**

Ribs shall be cut to fit slope of pipe.

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

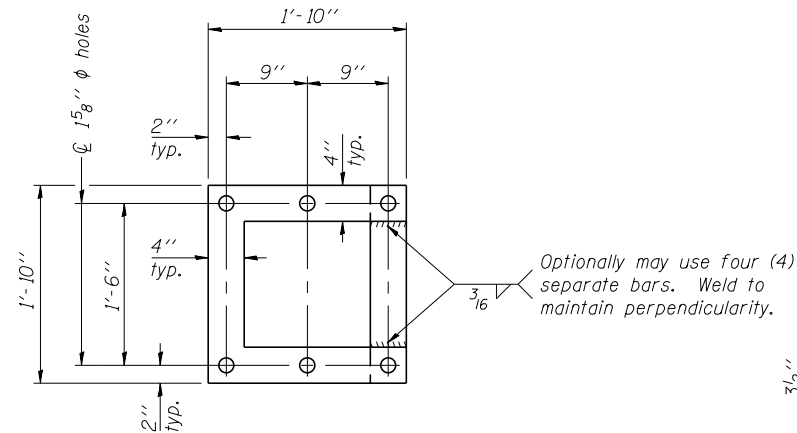


SECTION B-B



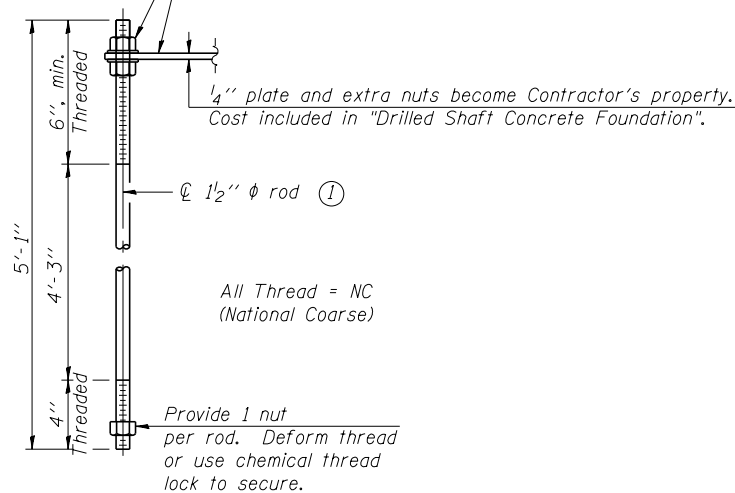
**\*\* Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib  $\frac{1}{4}$ " from snip.**

SECTION D-D



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.



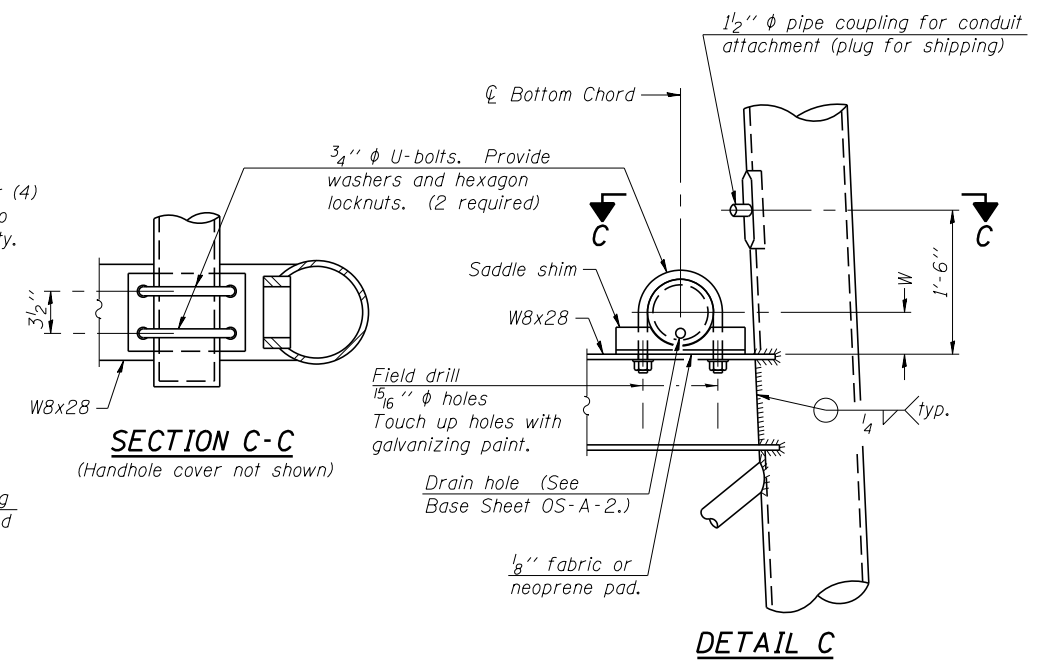
ANCHOR ROD DETAIL

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

TYPE III-A TRUSS  
12" Ø PIPE SUPPORT FRAME DETAILS

Notes:  
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

- ①  $1\frac{3}{4}'' \phi$  rod,  $2'' \phi$  holes
- ②  $2\frac{3}{4}''$  edge distance
- ③ Base  $\mathbb{R}$   $1\frac{5}{8}'' \times 1'-11\frac{1}{2}'' \times 1'-11\frac{1}{2}''$



### SADDLE SHIM DETAIL

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

Truss Chord Nominal Dia.	$a$
7"	1"
8 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "
9"	1 $\frac{3}{8}$ "

OS4-A-8aA 6-1-12

FILE NAME = D2CONCDD-AB-SHT-Sign.Structures.dgn  MODEL = OSS-8	USER NAME = ksnider	DESIGNED - MFB	REVISED -
		CHECKED - KJN	REVISED -
	PLOT SCALE =	DRAWN - VH	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

### OVERHEAD SIGN STRUCTURES

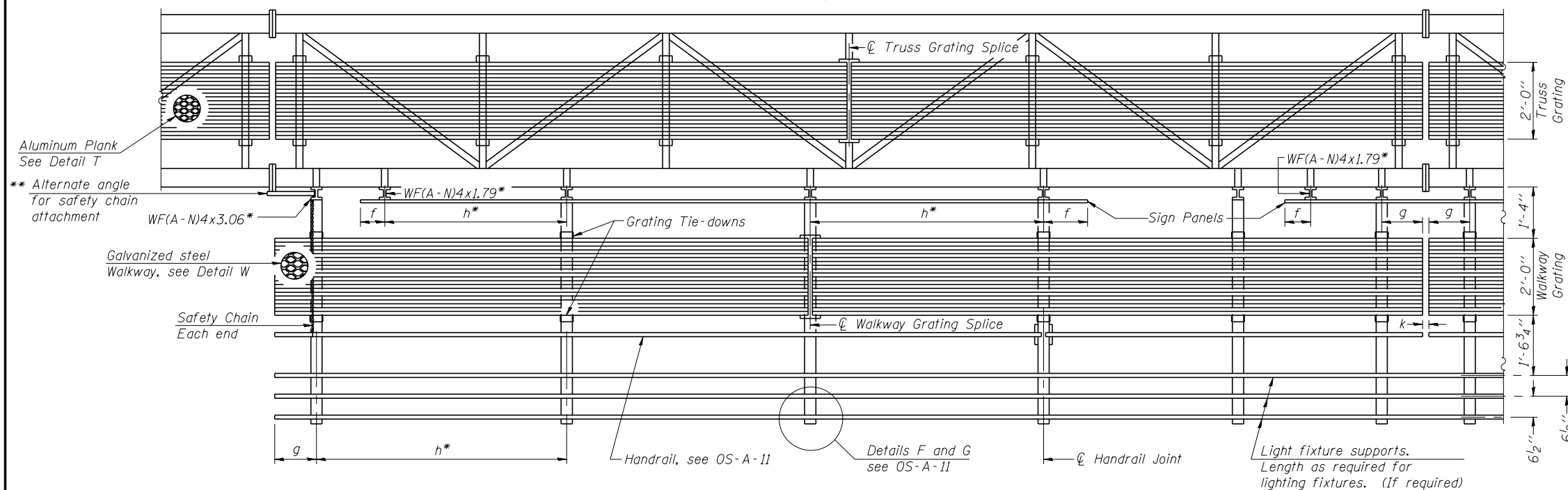
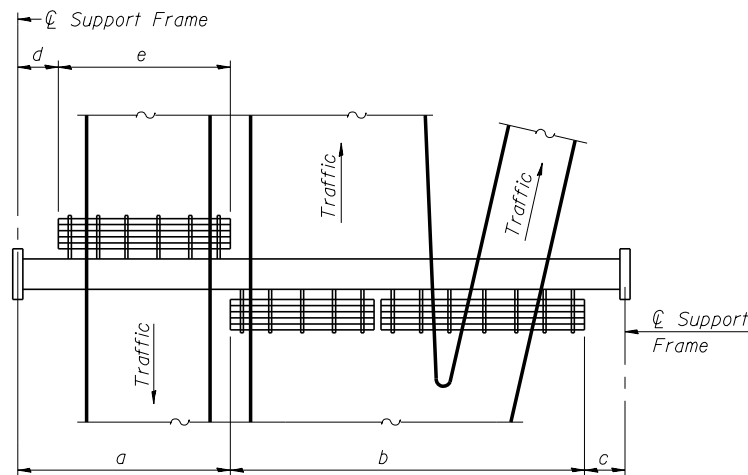
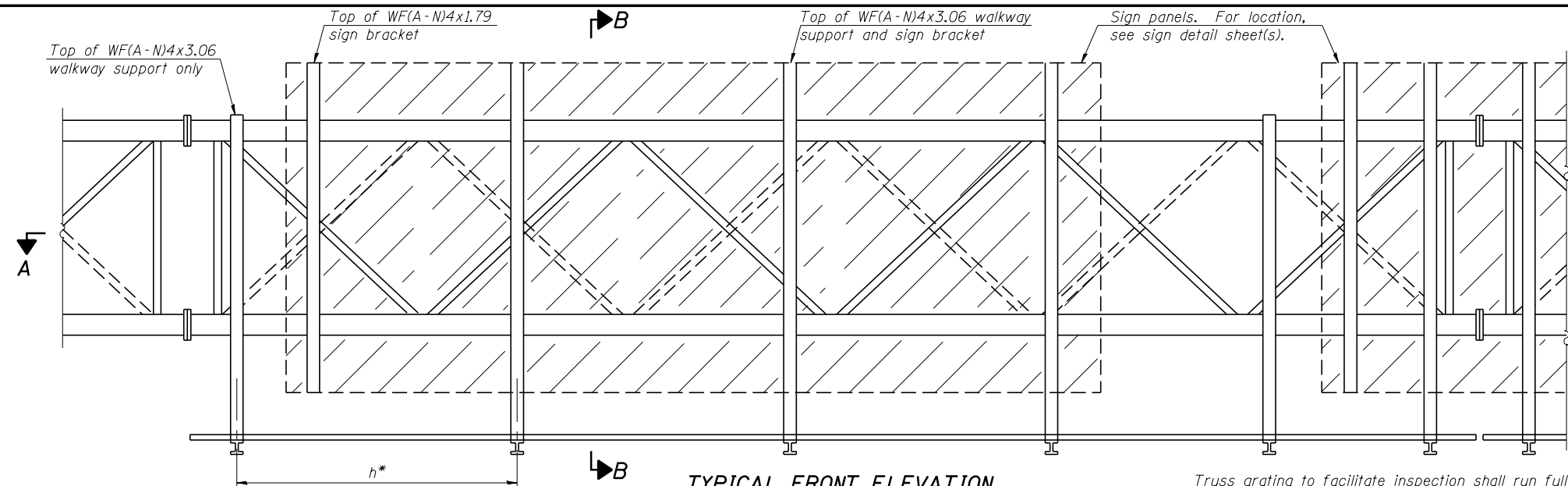
#### SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SHEET NO. 8 OF 30 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	819
		CONTRACT NO. 64E26		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SS-08





### **BRACKET TABLE**

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
<i>Sign Width</i>		<i>Number Brackets Required</i>
<i>Greater Than</i>	<i>Less Than or Equal To</i>	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

**WALKWAY GRATING, WALKWAY SUPPORTS,  
HANDRAIL AND LIGHTING ARE NOT INCLUDED  
IN THIS CONTRACT. INFORMATION SHOWN ON  
THIS SHEET SHALL BE USED FOR TRUSS  
GRATING AND SIGN BRACKETS ONLY.**

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 grating to  $\mathbb{C}$  of nearest support bracket)

$h = 6'-0''$  maximum (C to C sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)

$k = 2''$  maximum gap between adjacent walkway grating sections and handrail ends

*\*\* If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.*

For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.

For handrail details see base sheet OS-A-11.

*Note:*

*Details shown are considered equal alternatives to the Aluminum Walkway on Base Sheet OS-A-9, and may be substituted by Contractor at no change in contract cost.*

Walkway and Truss Grating width dimensions are nominal and may vary  $\pm \frac{1}{2}''$  based on available standard widths.

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Handrail joints, grating, and light support splices placed as needed.

[illegible]
**benesch**  
 engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OS-A-9S

6-1-12

FILE NAME =  
D2CONCD-AB-SHT-Sign\_Structures.dgn

USER NAME = ksnide
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DESIGNED - MFE
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REVISED	-
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES  
ALTERNATE WALKWAY DETAILS**

SHEET NO. 10 OF 30 SHEETS

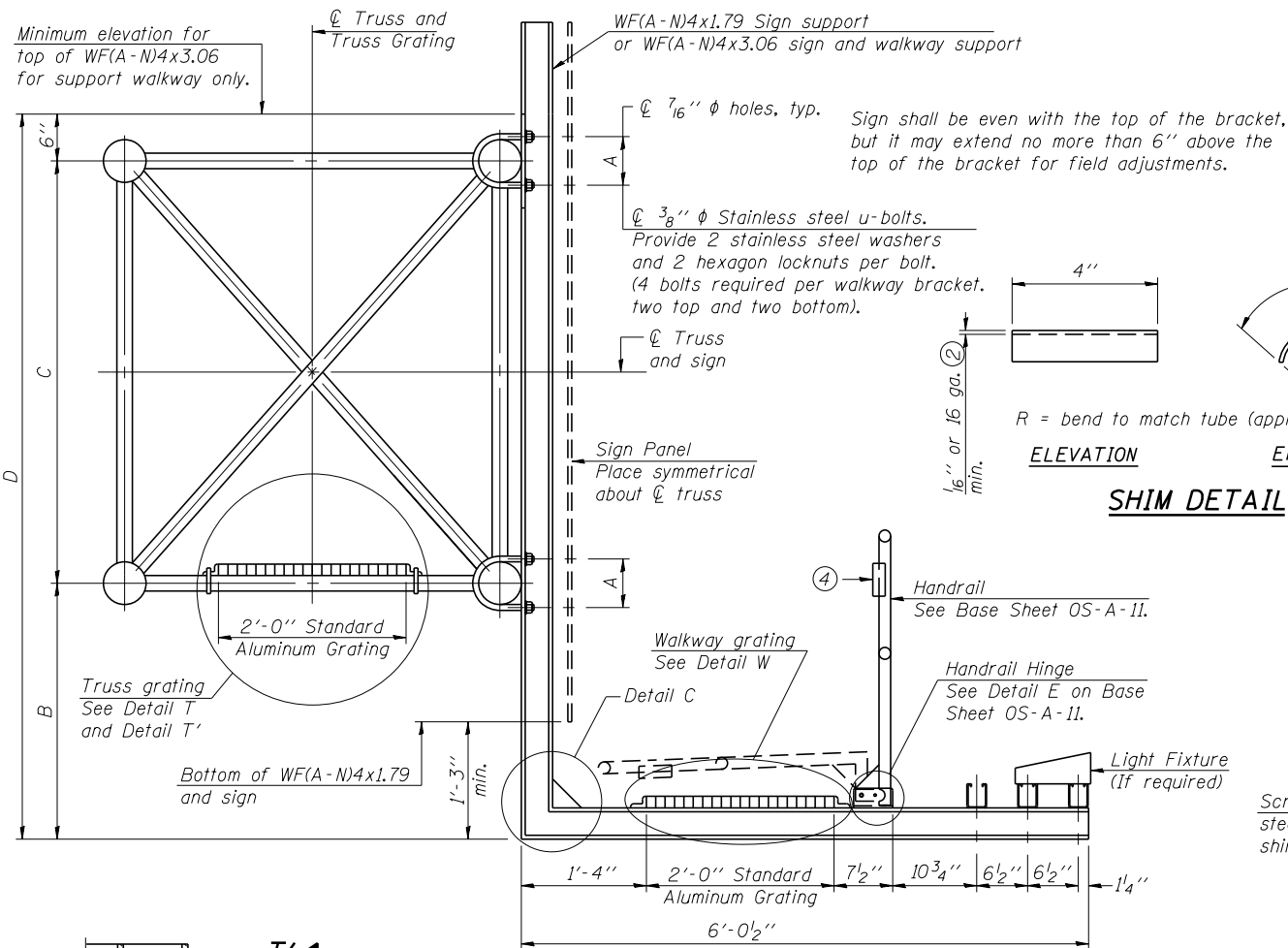
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	821
		CONTRACT NO. 64E26		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

055-10

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3/23/2017



**SHIM DETAIL**

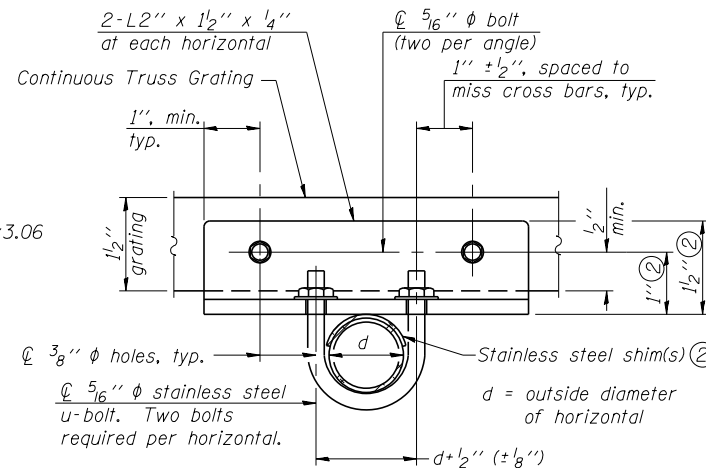
R = bend to match tube (approximately)

**ELEVATION**

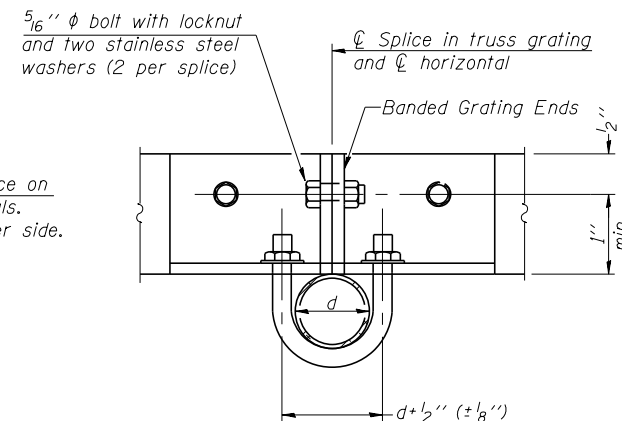
**END VIEW**

**DETAIL C**

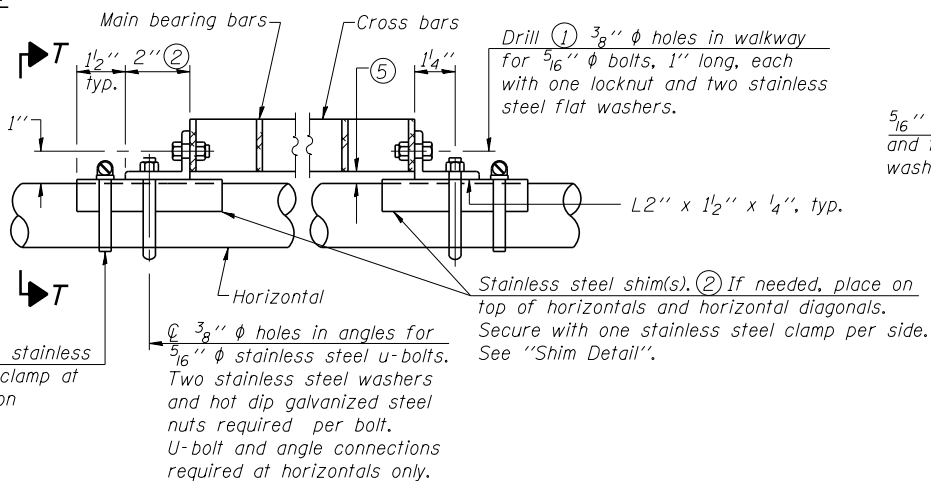
**SECTION C-C**



**SECTION T-T**



**SECTION T'-T'**



**DETAIL T**

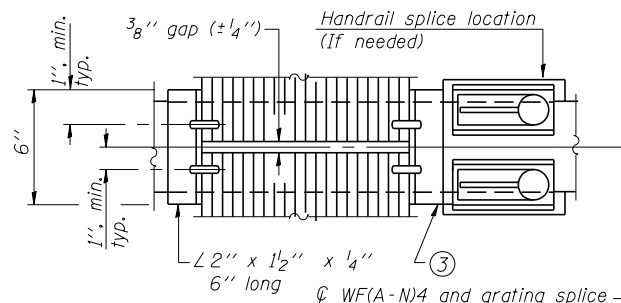
(Continuous Truss grating)

**SPECIFICATIONS FOR STANDARD ALUMINUM GRATING**

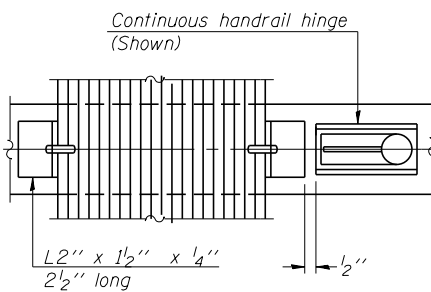
Main Bearing Bars shall be 3/16 inch x 1 1/2 inch on 1 3/16 inch centers and conform to ASTM B221 Alloy 6061-T6.  
Cross bars shall be 3/16 inch x 1 1/2 inch on 4 inch centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

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



**(AT WALKWAY GRATING SPLICE)**



**SECTION W-W**

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT. INFORMATION SHOWN ON THIS SHEET SHALL BE USED FOR TRUSS GRATING AND SIGN BRACKETS ONLY.**

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4 inch extension bars. (See Base Sheet OS-A-11.)
- 1/8 inch x 1/2 inch x 2 inch welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2 inch, max. to align walkway, allow for camber, etc.
- Based on actual height of tallest sign given on OS-A-1.

Structure Number	Station	A	⑥ B	C	⑥ D
2S0811074L001.3	65+55 (I-74)	6' 7/8"	---	5'-3"	---
2S0811074R001.7	85+10 (I-74)	7' 3/8"	---	7'-0"	---
2S0811074R002.5	129+75 (I-74)	5' 7/8"	---	5'-3"	---
2S0811074L002.5	130+58 (I-74)	5' 7/8"	---	5'-3"	---



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OS-A-10

6-1-12

FILE NAME = D:\CONC'D-AB-SHT-Sign-Structures.dgn

USER NAME = ksnider  
DESIGNED - MFB  
CHECKED - KJN  
PLOT SCALE =  
DRAWN - VH  
PLOT DATE = 3/23/2017  
CHECKED - KJN

DESIGNED - MFB  
CHECKED - KJN  
DRAWN - VH  
CHECKED - KJN

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
ALUMINUM WALKWAY DETAILS

SHEET NO. 11 OF 30 SHEETS

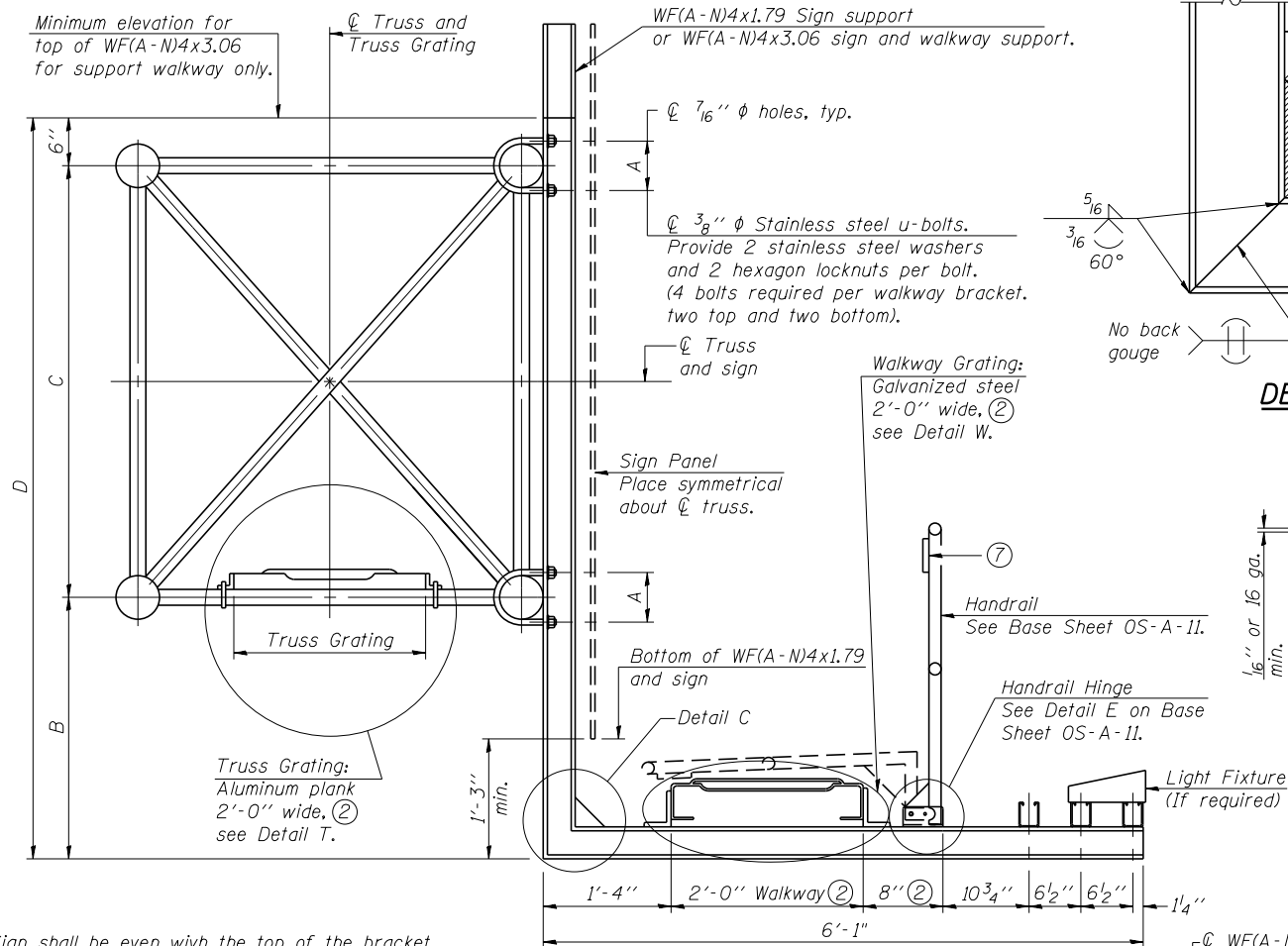
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81+1R-1 & 81+1RBR, HBR-1, HBR-2)	ROCK ISLAND	2042	822
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

OSS-11

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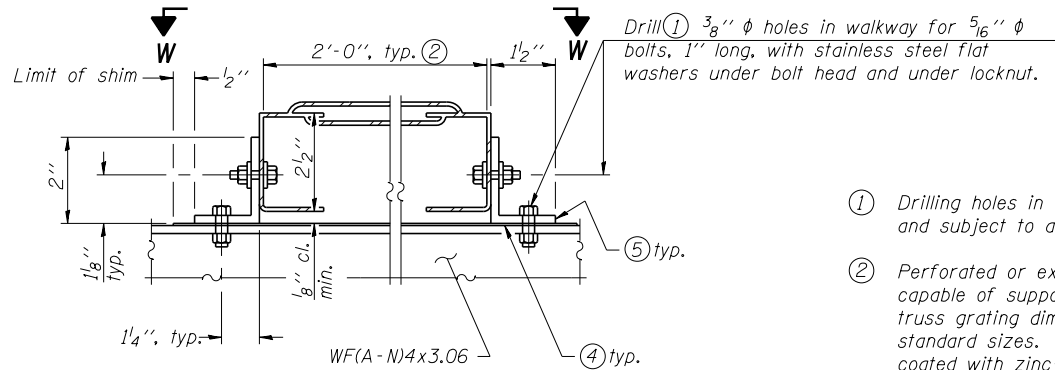
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3/23/2017

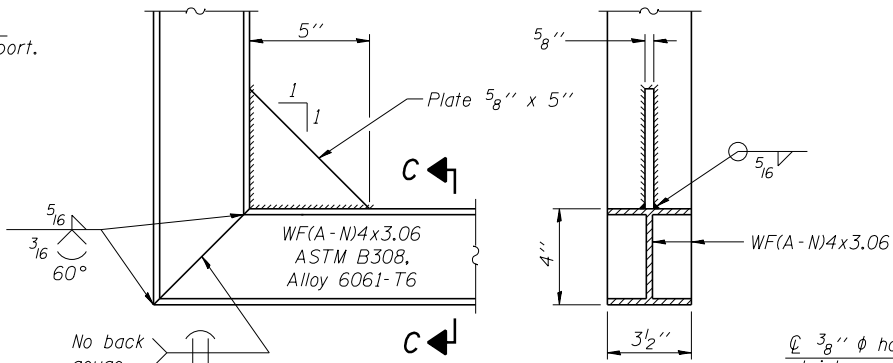


**SECTION B-B**

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

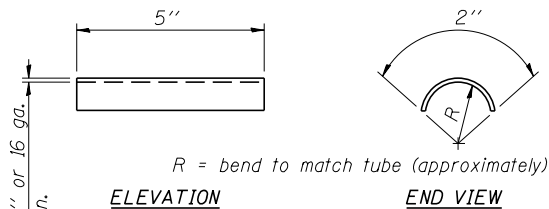


**DETAIL W**  
**GALVANIZED STEEL WALKWAY GRATING**

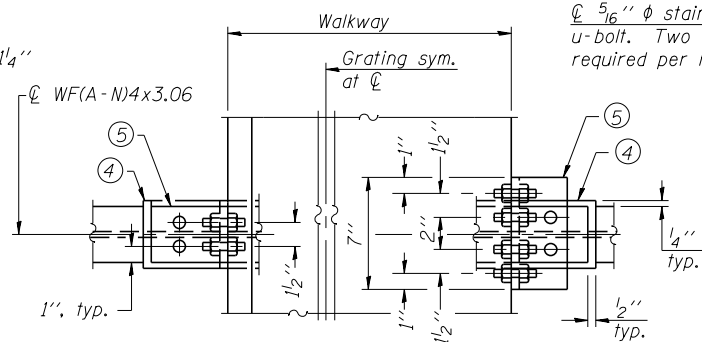


**DETAIL C**

**SECTION C-C**



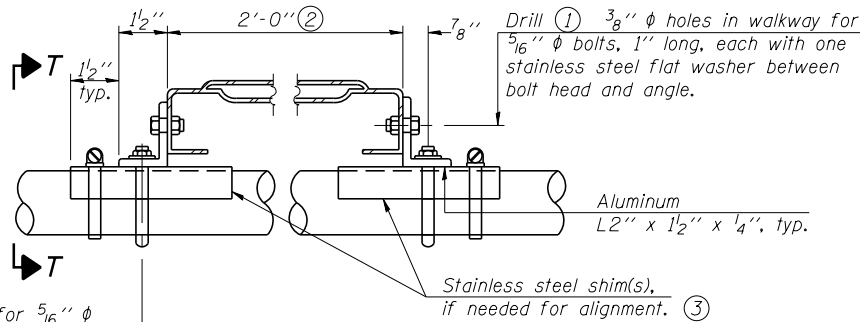
**SHIM DETAIL**



**WALKWAY GRATING CONTINUOUS AT WALKWAY GRATING SPLICE**

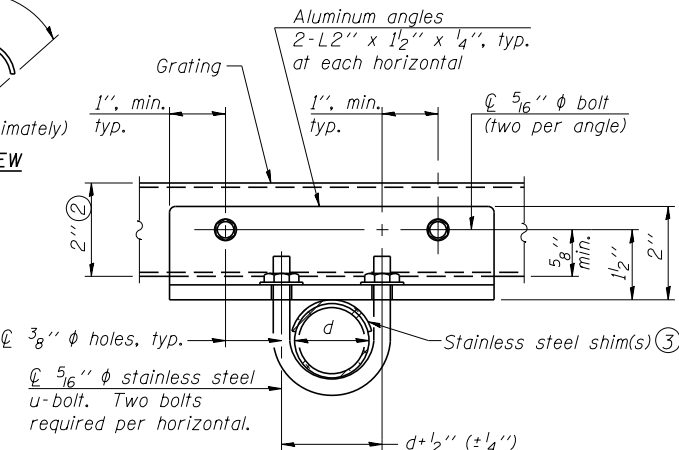
**SECTION W-W**

- (1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- (2) Perforated or expanded metal grating providing a skid resistant (non-serrated) surface and capable of supporting a 500 pound concentrated load with a 6'-0" clear span. Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth ±1/2") based on available standard sizes. Cut ends of grating shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.
- (3) Stainless steel shims shall be placed under angles at horizontals and horizontal diagonals if needed to compensate for alignment variations and differences in horizontal diagonal pipe sizes beyond adjustment provided by angles. Secure with one stainless steel clamp per location, see "Shim Detail". Thicker shim plates may be used when needed subject to shims performing properly.
- (4) 1/16" (or 1/16 ga.) x 2 1/2" x 4" stainless steel shim adhered to top of WF(A-N)4x3.06 beneath each galvanized angle. Adhesives for shims shall be suitable for materials joined and full exposure conditions.
- (5) Galvanized steel L2" x 2" x 1/4", 3 1/2" long with continuous grating, 7" long at grating splice.
- (6) Details shown are considered equal alternatives to the Aluminum Walkway on Base Sheet OS-A-10 and may be substituted by Contractor at no change in contract cost.
- (7) 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- (8) Based on actual height of tallest sign given on OS-A-1.



**DETAIL T**

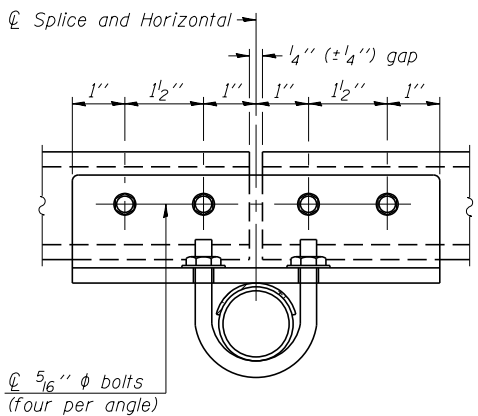
(Truss grating at horizontal)



**SECTION T-T**

(Truss Grating Continuous)

d = outside diameter of horizontal



**SECTION T-T**

(Truss Grating Splice)

Alternate splice details and locations may be used subject to the Engineer's review and approval.

**ALUMINUM TRUSS GRATING**

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT. INFORMATION SHOWN ON THIS SHEET SHALL BE USED FOR TRUSS GRATING AND SIGN BRACKETS ONLY.**

Structure Number	Station	A	(8) B	C	(8) D
2S0811074L001.3	65+55 (I-74)	6' 7/8"	----	5'-3"	----
2S0811074R001.7	85+10 (I-74)	7' 3/8"	----	7'-0"	----
2S0811074R002.5	129+75 (I-74)	5' 7/8"	----	5'-3"	----
2S0811074L002.5	130+58 (I-74)	5' 7/8"	----	5'-3"	----

BAR LIST - EACH FOUNDATION

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

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (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 will be the result of site specific designs.

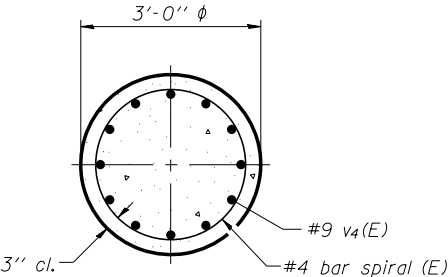
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District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

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundations.

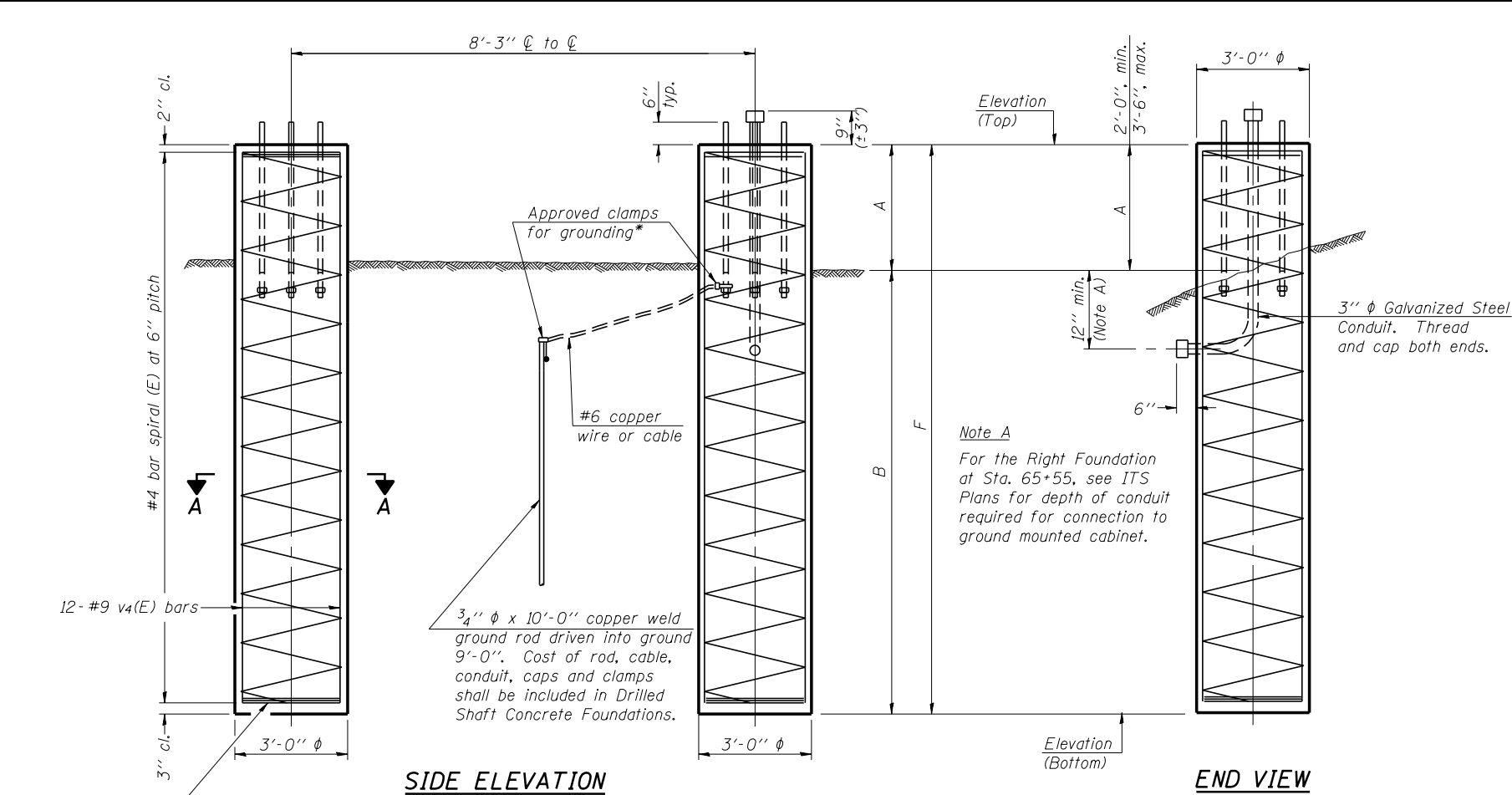


SECTION A-A

DETAILS FOR 10" Ø SUPPORT FRAME  
TYPE I-A or II-A TRUSS

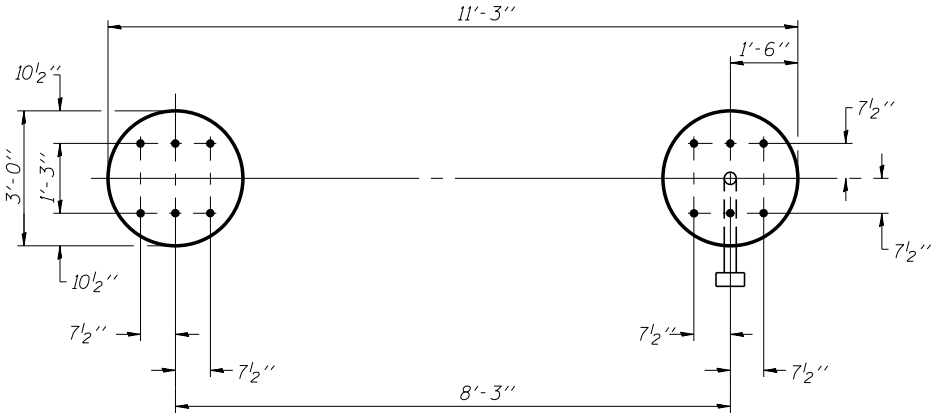
Structure Number	Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
2S0811074L001.3	65+55 (I-74)	----	----	----	----	----	659.17	635.17	3.50'	20.50'	24.00'	13
2S0811074R002.5	129+75 (I-74)	----	----	----	----	----	675.26	654.26	3.50'	17.50'	21.00'	11
2S0811074L002.5	130+58 (I-74)	----	----	----	----	----	674.44	653.44	3.50'	17.50'	21.00'	11

CONDUIT, GROUND ROD, CABLE, CAPS AND CLAMPS ARE INCLUDED IN THIS CONTRACT.



SIDE ELEVATION

END VIEW



PLAN

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

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

BAR LIST - EACH FOUNDATION

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

NOTES:

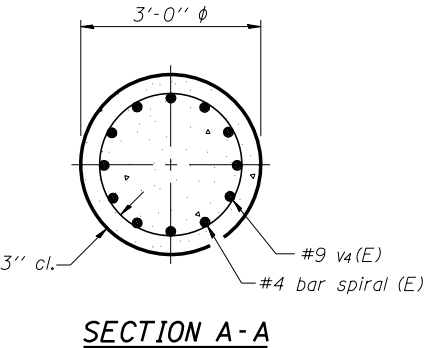
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included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



DETAILS FOR 12" Ø SUPPORT FRAME  
TYPE III-A TRUSS

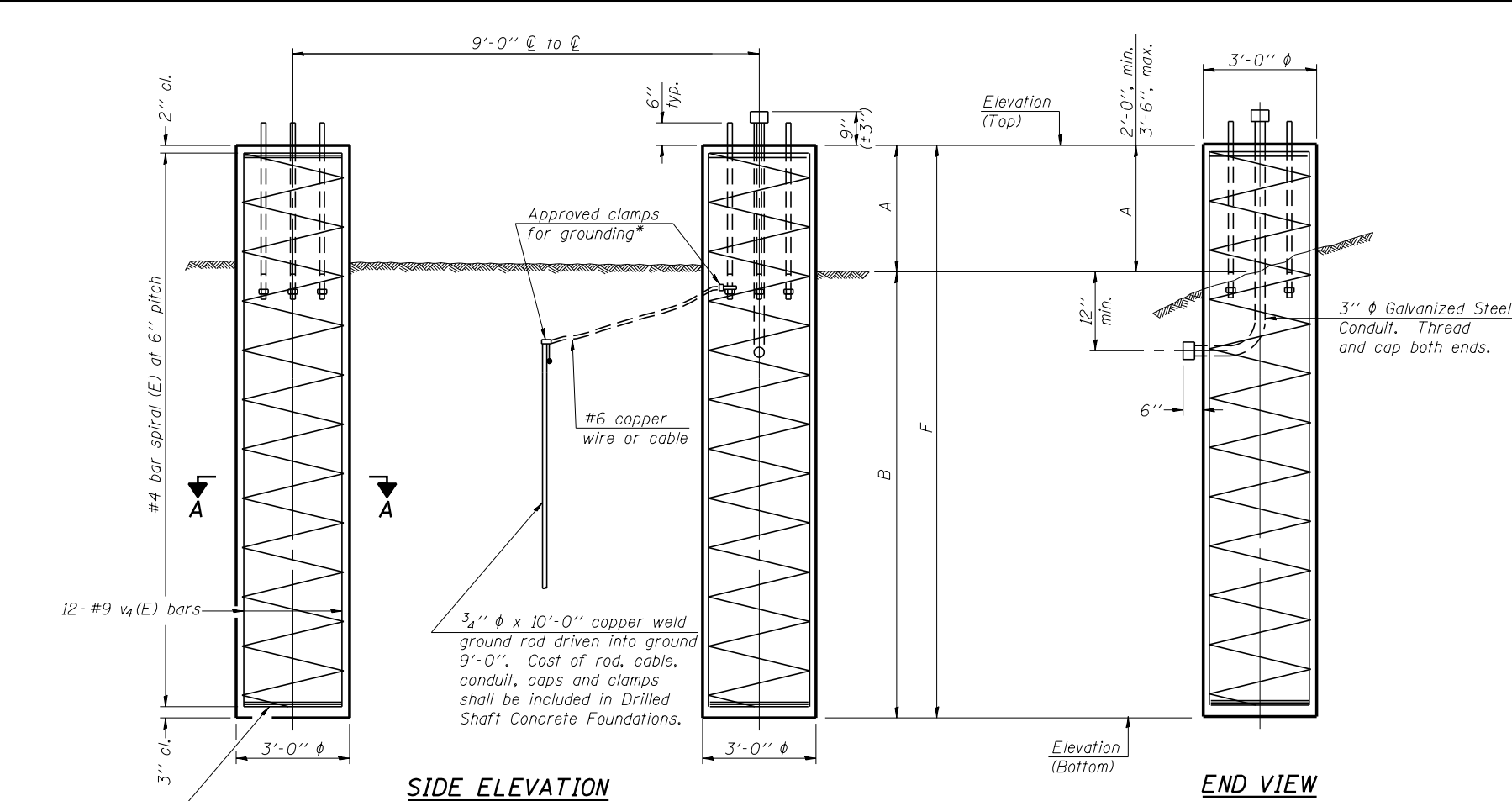
For anchor rod size and placement,  
see Support Frame Detail Sheet.

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

\*\* Soils are typically a mix of granular  
and cohesive materials with an average  
Qu value less than 1.25 tsf as shown  
on the soil boring log SB-143. The  
design details and foundation data  
shown on this sheet are a result of a  
site specific design.

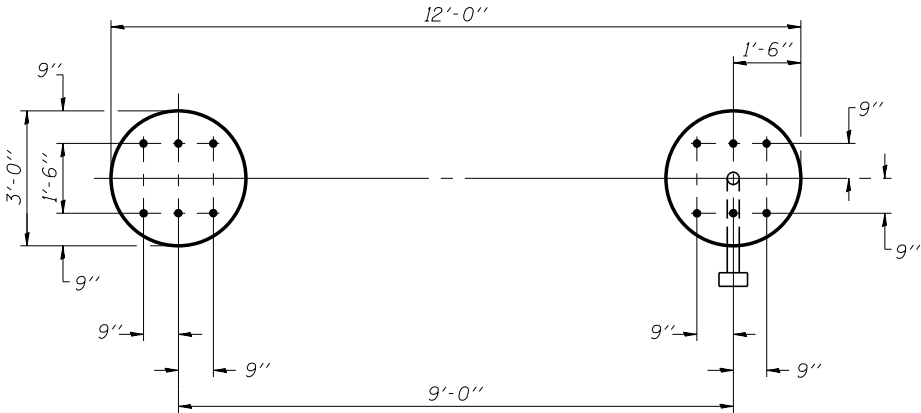
Structure Number	Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
2S081I074R001.7	85+10 (I-74)	----	----	----	----	----	687.44	647.95	3.49'	36.00' **	39.49' **	21

CONDUIT, GROUND ROD, CABLE,  
CAPS AND CLAMPS ARE INCLUDED  
IN THIS CONTRACT.



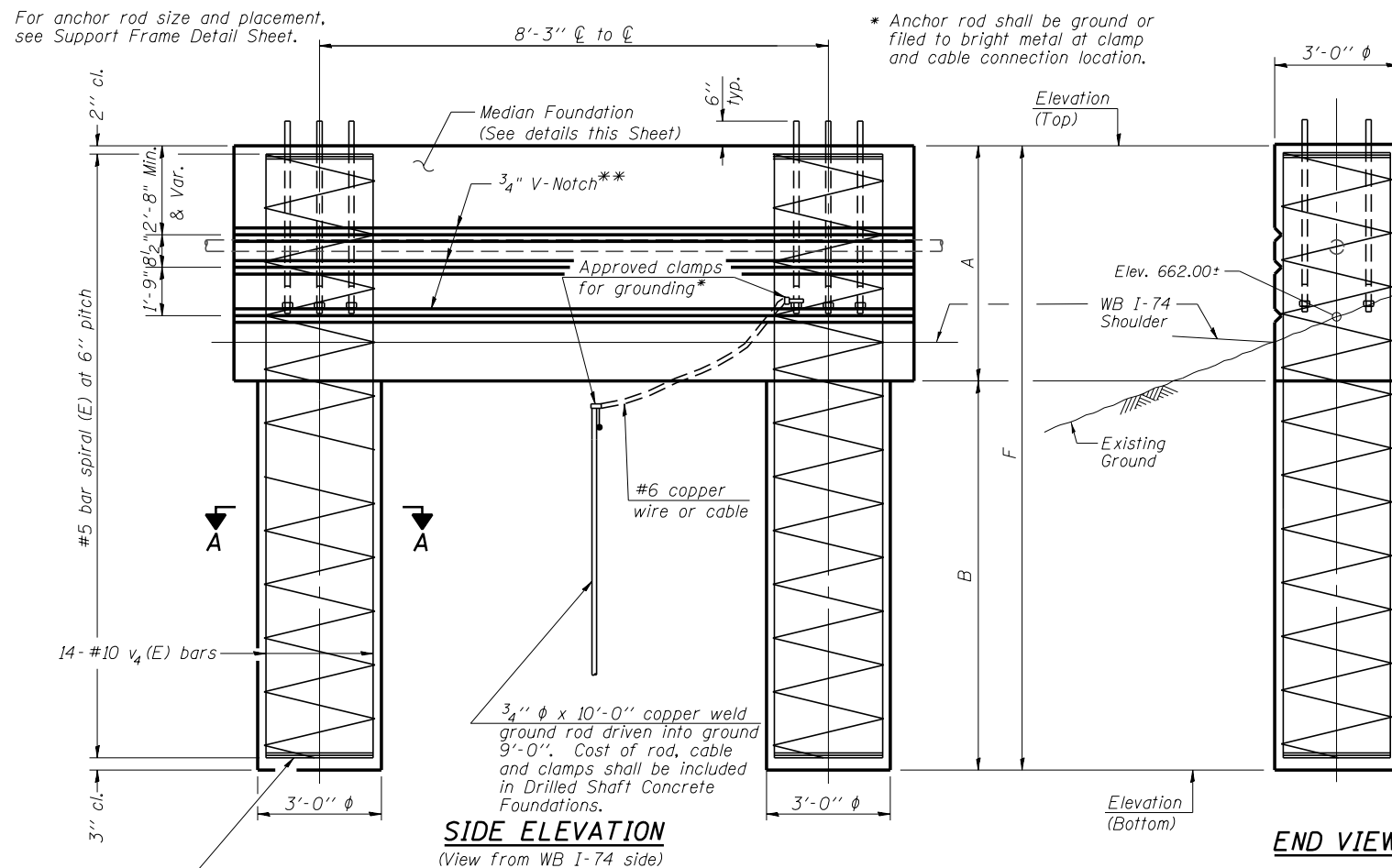
SIDE ELEVATION

END VIEW



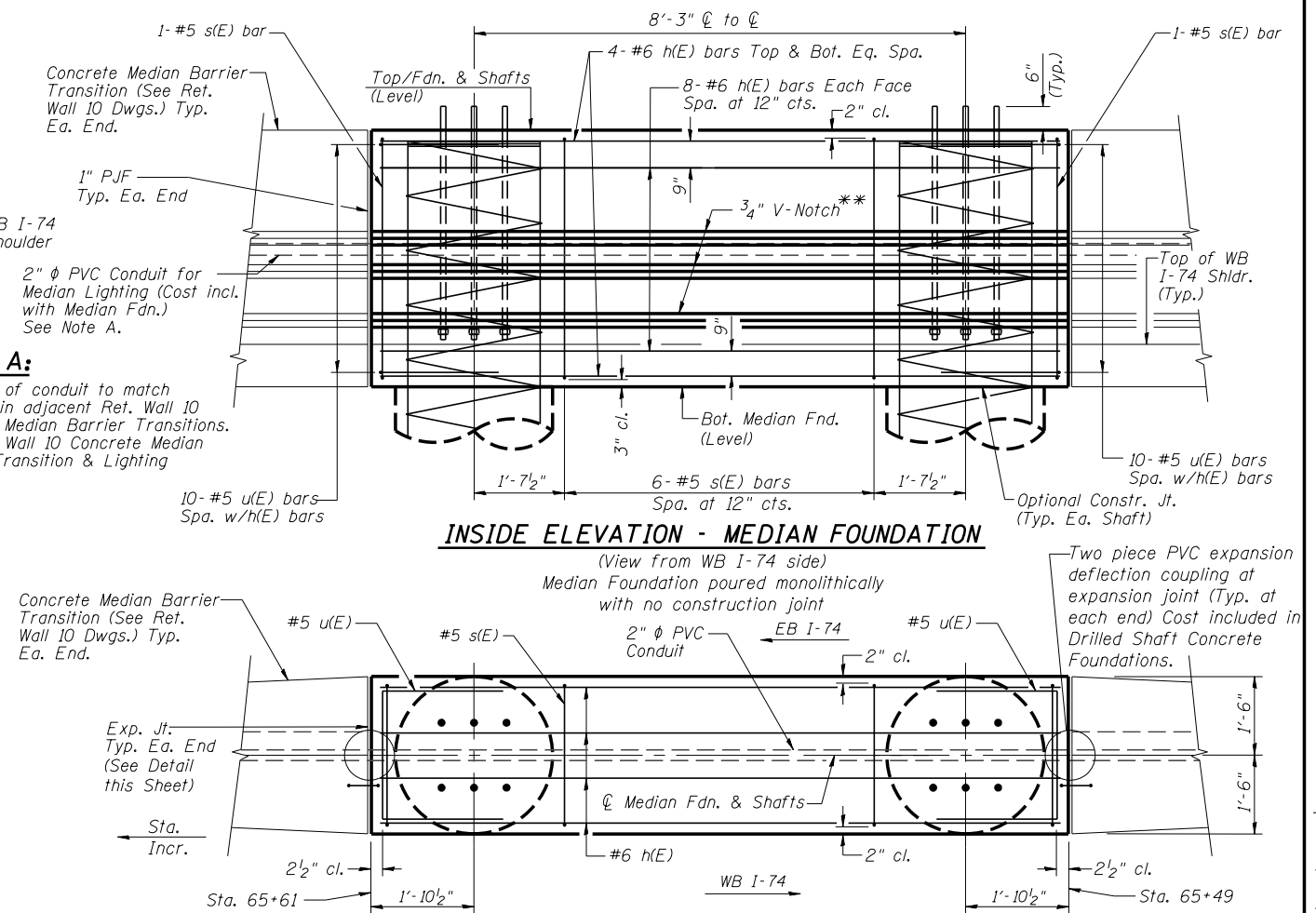
PLAN

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



**NOTE A:**

Elevation of conduit to match  
conduits in adjacent Ret. Wall 10  
Concrete Median Barrier Transitions.  
See Ret. Wall 10 Concrete Median  
Barrier Transition & Lighting  
details.

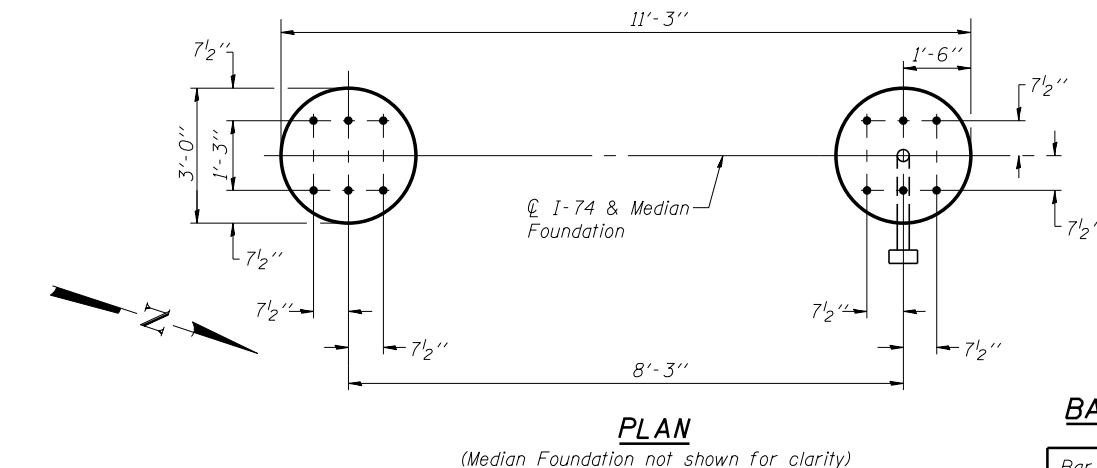


INSIDE ELEVATION - MEDIAN FOUNDATION

(View from WB I-74 side)  
Median Foundation poured monolithically  
with no construction joint

Two piece PVC expansion deflection coupling at expansion joint (Typ. at each end) Cost included in Drilled Shaft Concrete Foundations.

Note: 1" PJF shall be placed between each vertical face of the Median Foundation and the proposed Concrete Shoulder and curb. See Roadway Details. Cost included in Drilled Shaft Concrete Foundations.



NOTES:

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

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

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.




A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundations.

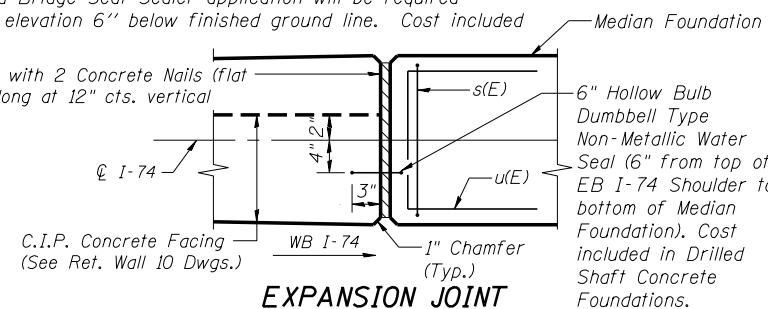
1" PJF Secured with 2 Concrete Nails  
head c.s.) 1 1/2" long at 12" cts. vertical

BAR LIST - MEDIAN SHAFTS

Bar	Number	Size	Length	Shape
v <sub>4</sub> (E)	28	#10	F less 5"	—
#5 bar spiral (E) - see Side Elevation				

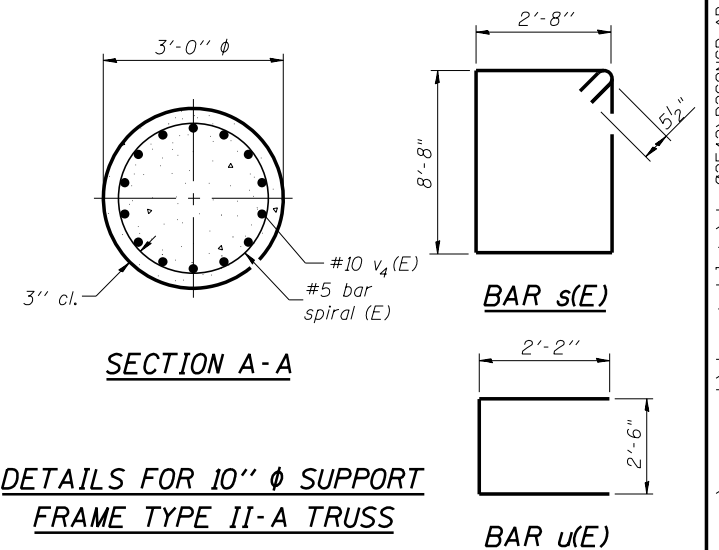
BAR LIST - MEDIAN FOUNDATION

Bar	Number	Size	Length	Shape
$s(E)$	8	#5	23'-7"	
$h(E)$	24	#6	11'-8"	
$u(E)$	20	#5	6'-10"	



SECTION A-A

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

[illegible]

SS-15

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3/23/2017



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

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		CHECKED - KJN	REVISED -
	PLOT SCALE =	DRAWN - VH	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

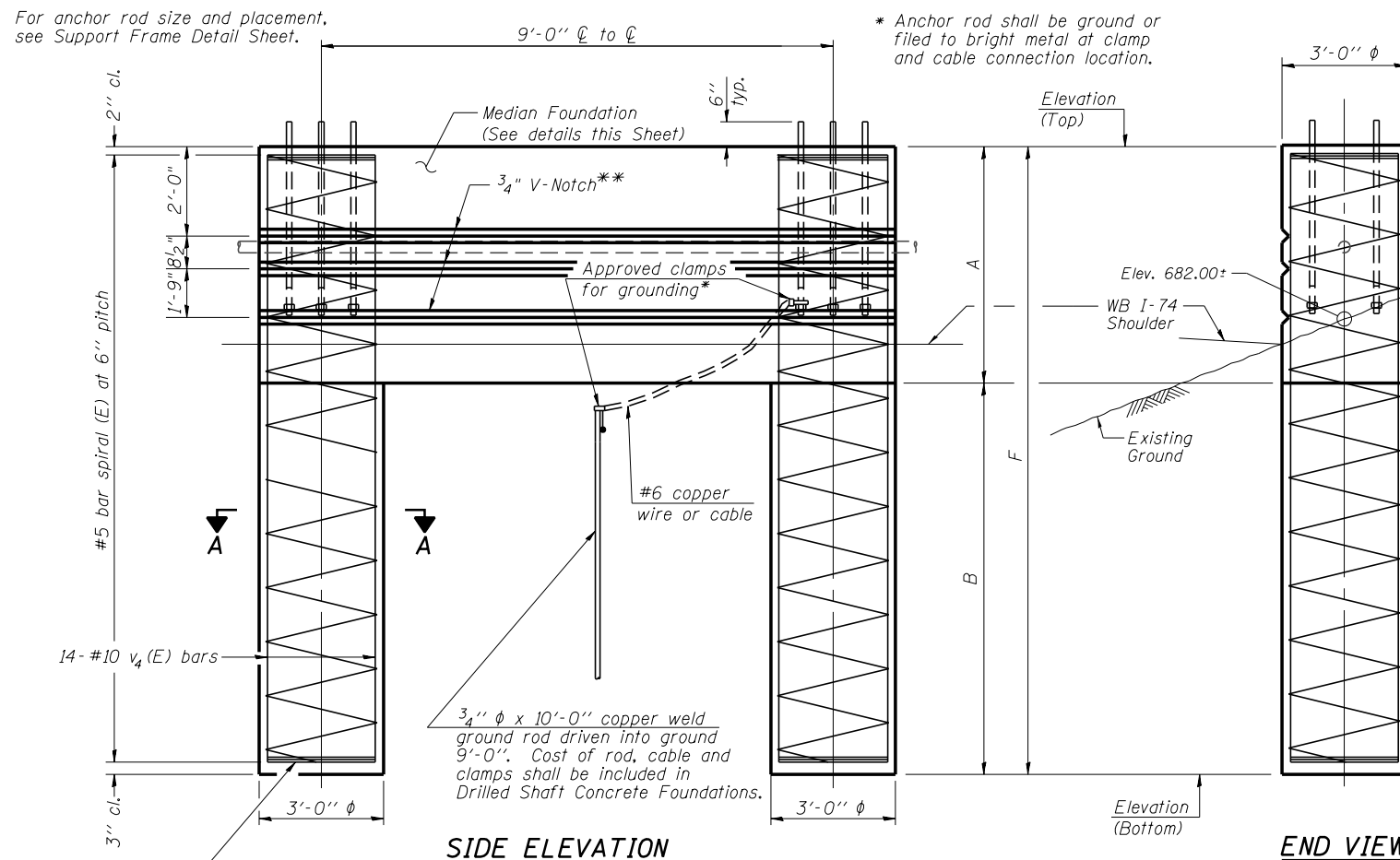
### OVERHEAD SIGN STRUCTURES MEDIAN SUPPORT FOUNDATION DETAILS

SHEET NO. 15 OF 30 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	826
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

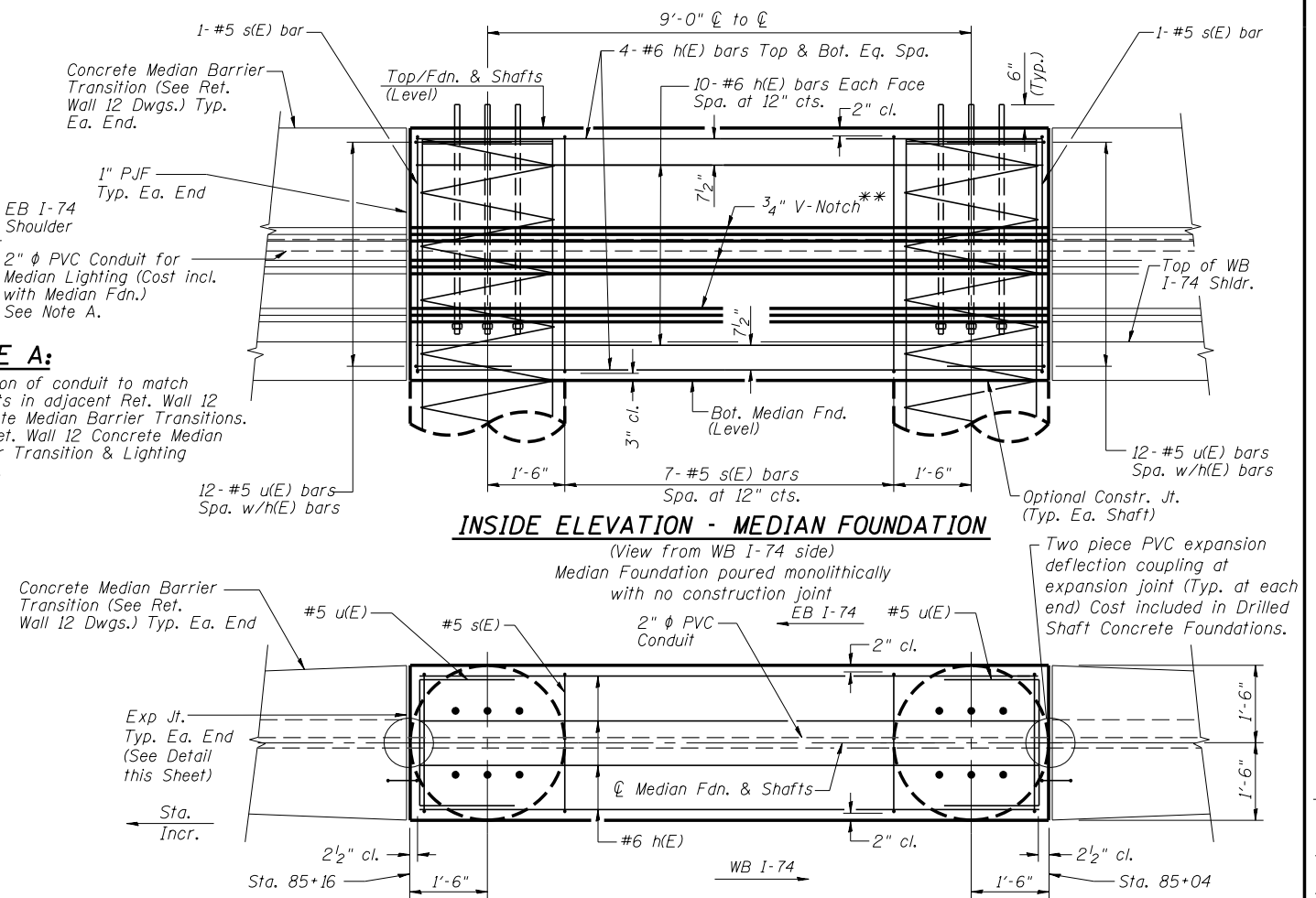


For anchor rod size and placement,  
see Support Frame Detail Sheet.



NOTE A:

*Elevation of conduit to match  
conduits in adjacent Ret. Wall 12  
Concrete Median Barrier Transitions.  
See Ret. Wall 12 Concrete Median  
Barrier Transition & Lighting  
details.*



INSIDE ELEVATION - MEDIAN FOUNDATION

(View from WB I-74 side)  
 Foundation poured monolithically  
 with no construction joint

Optional Constr. Jt.  
(Typ. Ea. Shaft)

Two piece PVC expansion deflection coupling at expansion joint (Typ. at each end) Cost included in Drilled Shaft Concrete Foundations.

NOTES:

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

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

*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 on concrete surfaces above the lowest in Drilled Shaft Concrete Foundations.

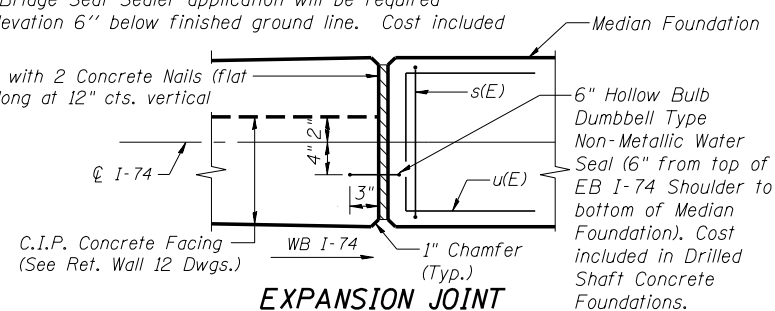
1" PJF Secured with 2 Concrete Nails (flat head c.s.) 1 1/2" long at 12" cts. vertical

### BAR LIST - MEDIAN SHAFTS

Bar	Number	Size	Length	Shape
v <sub>4</sub> (E)	28	#10	F less 5"	—
#5 bar spiral (E) - see Side Elevation				

BAR LIST - MEDIAN FOUNDATION

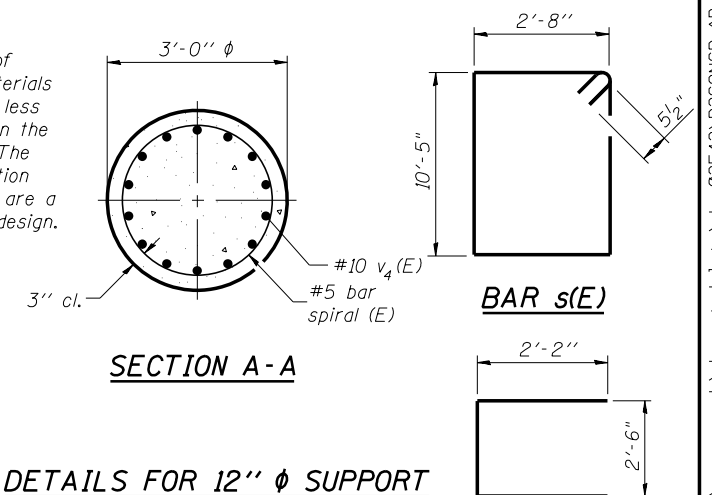
Bar	Number	Size	Length	Shape
$s(E)$	9	#5	27'-1"	
$h(E)$	28	#6	11'-8"	
$u(E)$	24	#5	6'-10"	



SECTION A - A

DETAILS FOR 12"  $\phi$  SUPPORT  
FRAME TYPE III-A TRUSS

\*\*\* Soils are typically a mix of granular and cohesive materials with an average  $Q_u$  value less than 1.25 tsf as shown on the soil boring log SB-144. The design details and foundation data shown on this sheet are a result of a site specific design.



- ① The concrete quantity includes the shafts from the bottom of the median foundation to the bottom of the shafts.
- ② All items required to construct the median foundation shall be included in the cost of Drilled Shaft Concrete Foundations.
- ③ Coordinate median foundation construction with Retaining Wall 12 construction.



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

FILE NAME = DZCONCD-AB-SHT-Sign.Structures.dgn  MODEL: OSS-16	USER NAME = ksnyder	DESIGNED - MFB	REVISED -
		CHECKED - KJN	REVISED -
	PLOT SCALE =	DRAWN - VH	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

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

### OVERHEAD SIGN STRUCTURES MEDIAN SUPPORT FOUNDATION DETAILS

SHEET NO. 16 OF 30 SHEETS

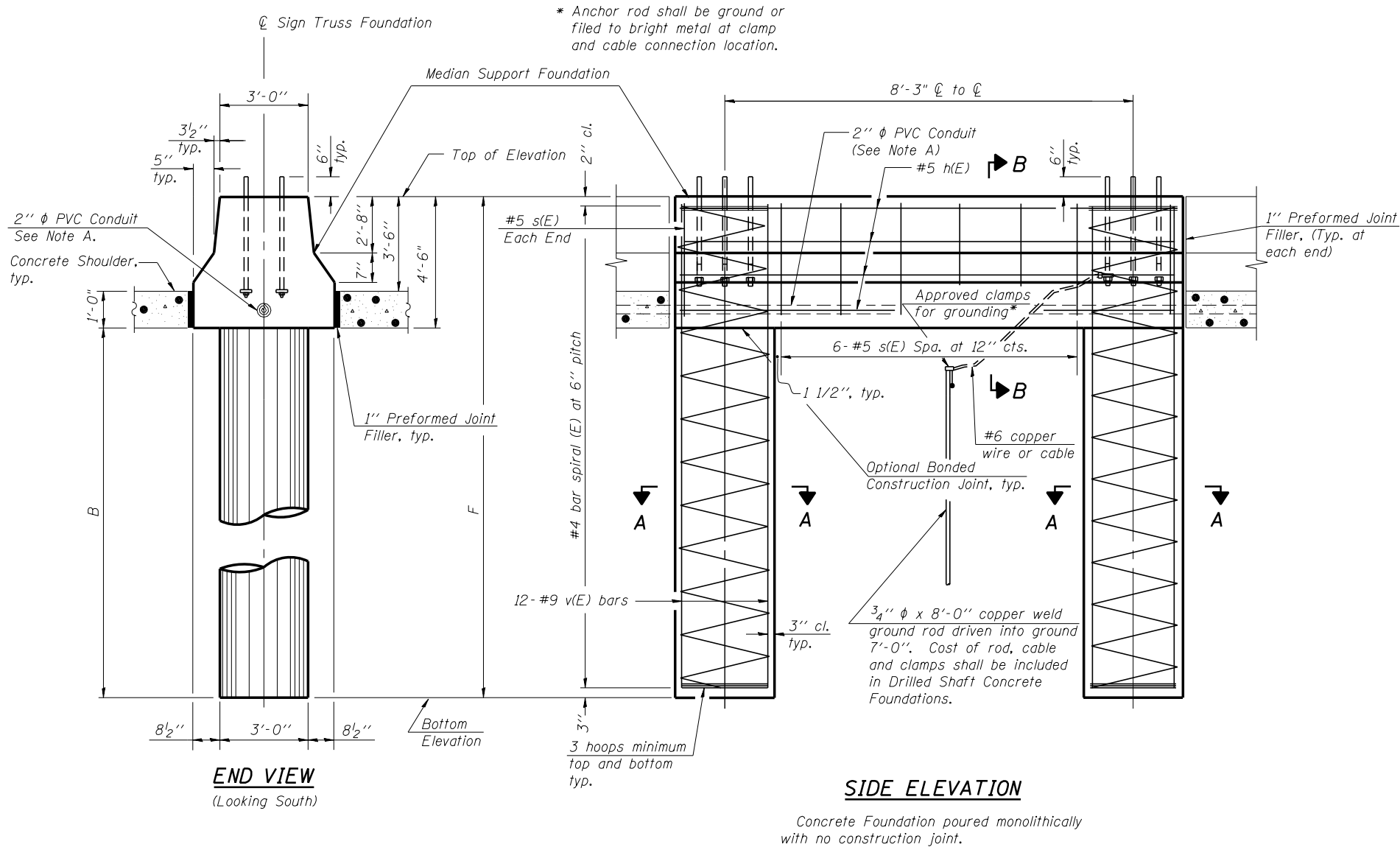
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	827
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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3/23/2017



NOTES:

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

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

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundations.

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

Cost of Preformed Joint Filer is included in Drilled Shaft Concrete Foundations.

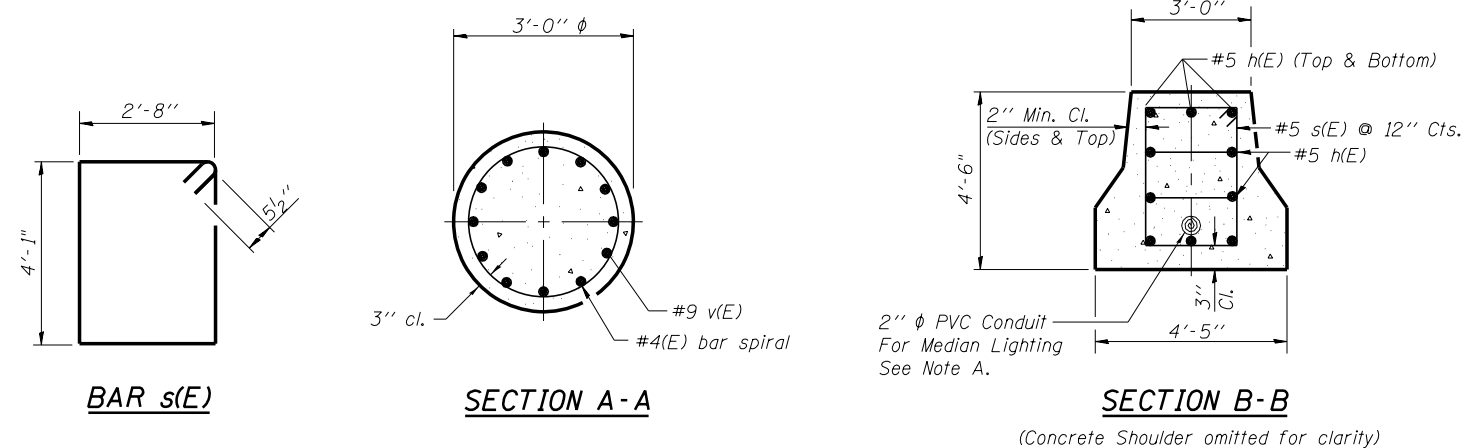
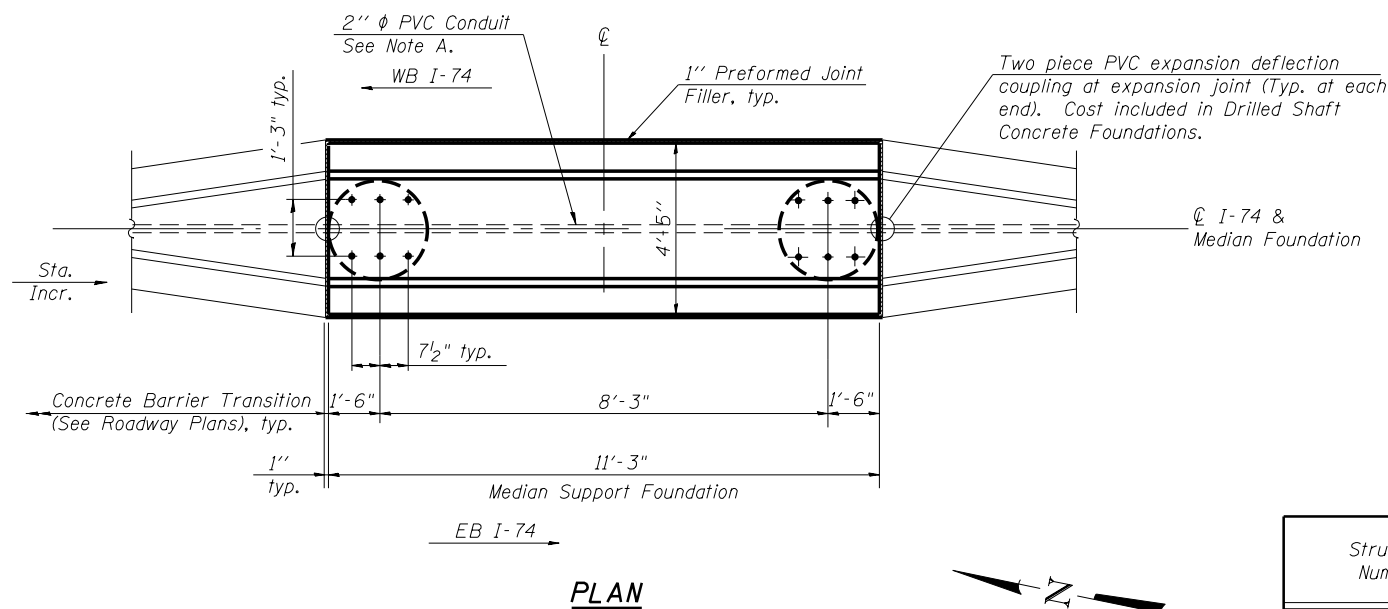
NOTE A:

Elevation of conduit to match conduits in adjacent Concrete Barrier Transitions. See Roadway and Lighting plans. Cost of conduit is included in Drilled Shaft Concrete Foundations.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	10'-11"	—
s(E)	8	#5	14'-5"	□
v(E)	24	#9	F less 5"	—
#4(E) bar spiral - see Side Elevation				

All reinforcement bars shown are included in the contract unit price for Drilled Shaft Concrete Foundations.



Structure Number	Station	Left Foundation (Median)				Right Foundation (Outside)				**Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
2S0811074R002.5	129+75 (I-74)	675.96	653.96	17.50'	22.00'	----	----	----	----	16
2S0811074L002.5	130+58 (I-74)	675.23	653.23	17.50'	22.00'	----	----	----	----	16

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312-565-0450 Job No. 10061.04

FILE NAME =  
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USER NAME = ksnider

DESIGNED - MFB

REVISD -

CHECKED - KJN

REVISD -

PLOT SCALE =

DRAWN - VH

REVISD -

PLOT DATE = 3/23/2017

CHECKED - KJN

REVISD -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
MEDIAN SUPPORT FOUNDATION DETAILS

SHEET NO. 17 OF 30 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-11R-1 & 81-11HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	828
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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3/23/2017

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.  
fy = 60,000 p.s.i. (reinforcement)

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

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W\*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

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

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

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

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

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

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

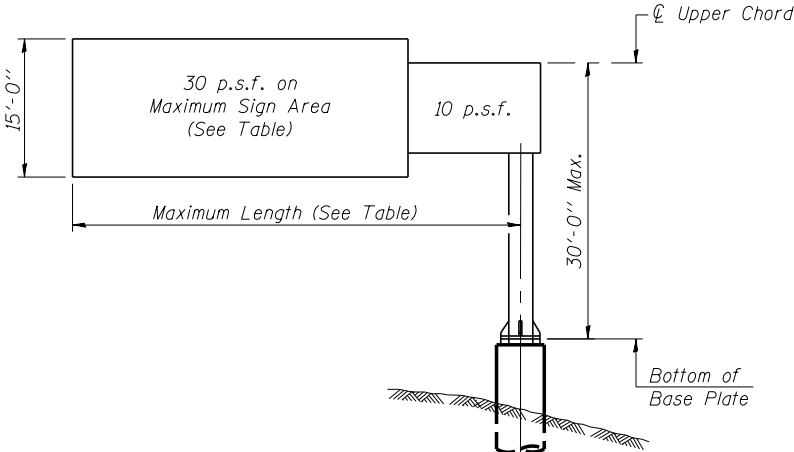
FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

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	33
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	10

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	Ds	Total Sign Area
2C0811074L001.6	80+90 (I-74)	III-C-A	33.00'	683.05	19.50'	11.00'	160 S.F.

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.



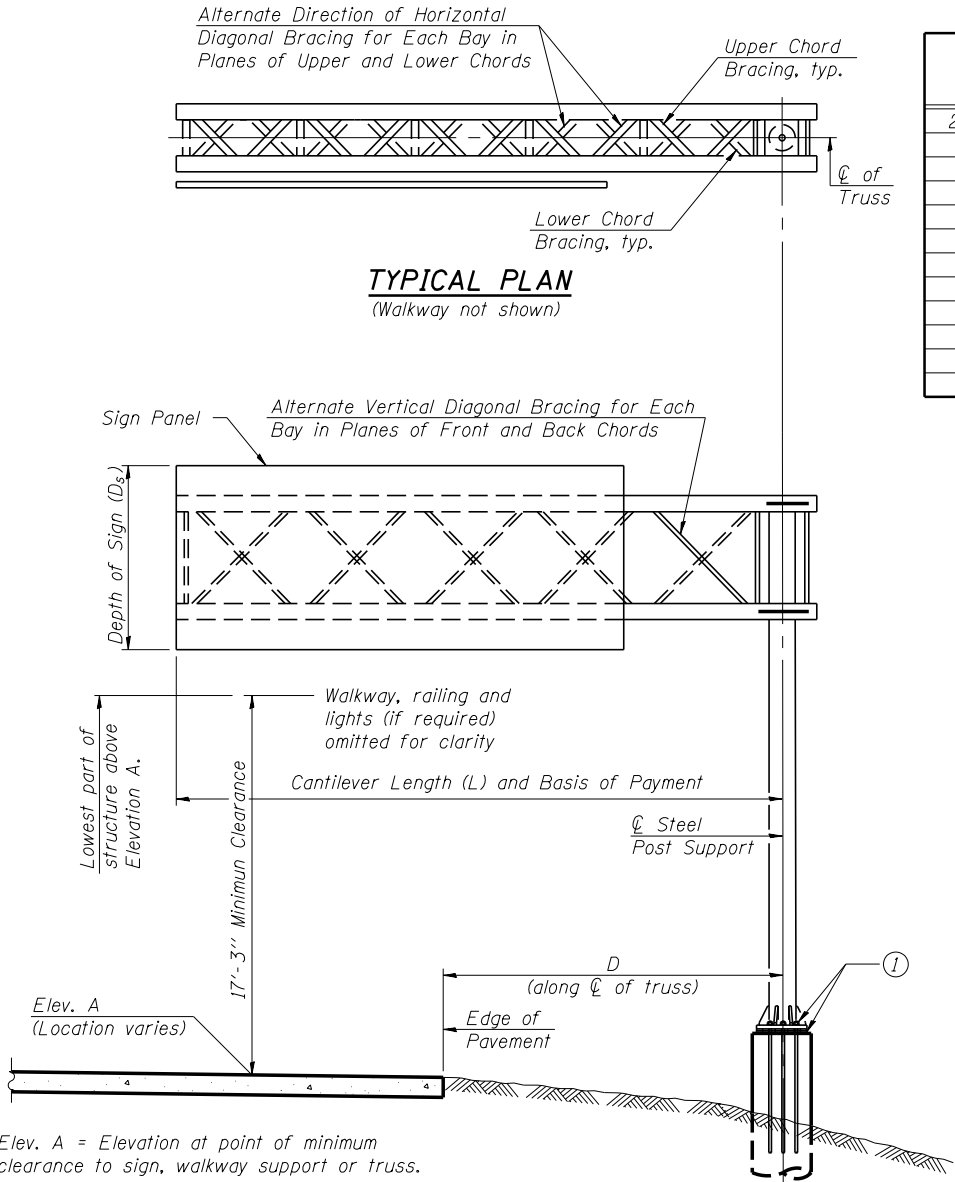
DESIGN WIND LOADING DIAGRAM

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.



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.

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT, UNLESS NOTED OTHERWISE. CONSTRUCTION SEQUENCE OF THE CANTILEVER SIGN STRUCTURE AND FOUNDATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONSIDER THE MAINTENANCE OF TRAFFIC PLANS.**



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OSC-A-1

8-21-13

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USER NAME = ksnyder  
PLOT SCALE =  
PLOT DATE = 3/23/2017

DESIGNED - MFB  
CHECKED - KJN  
DRAWN - VH  
CHECKED - KJN

REVISED -  
REVISED -  
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REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

SHEET NO. 18 OF 30 SHEETS

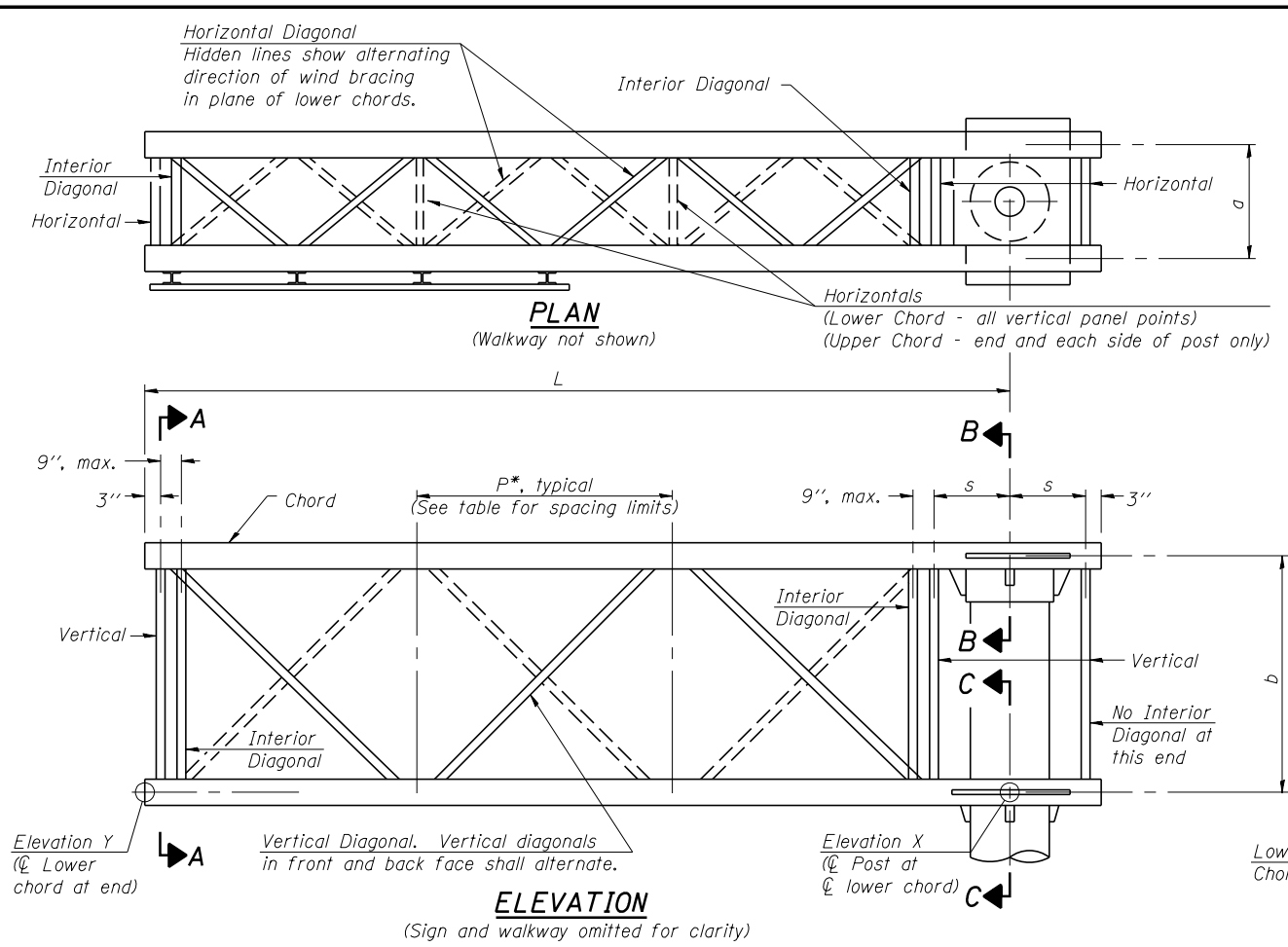
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
74 (81+1R-1 & 81+1HBR, HBR-1, HBR-2) ROCK ISLAND 2042 829  
CONTRACT NO. 64E26  
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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TYPICAL TRUSS UNIT

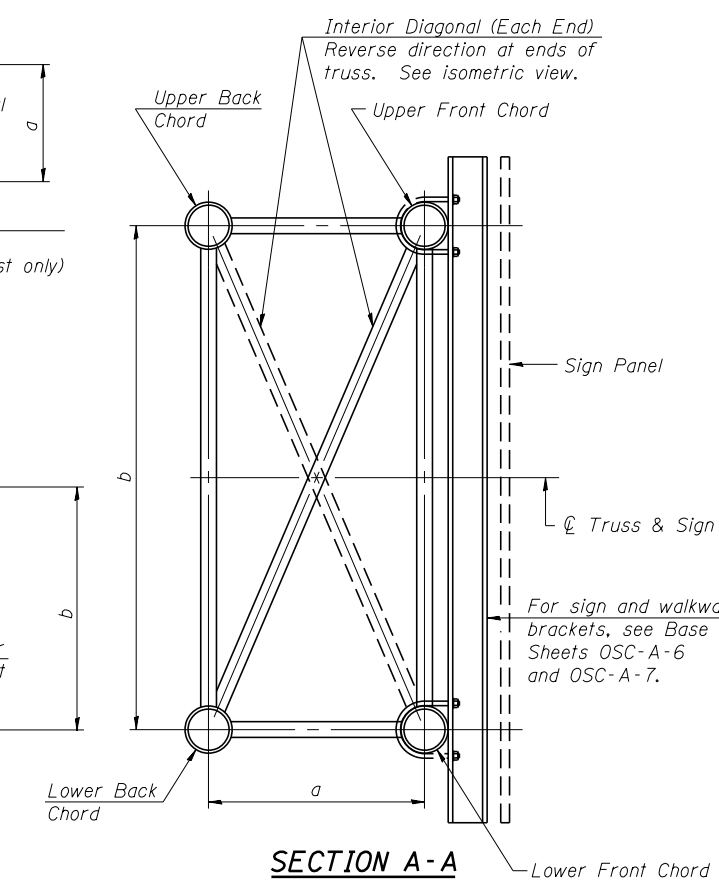
Note: For Section B-B and Section C-C, see Base Sheet OSC-A-3.  
There are twice as many horizontal diagonals as there are vertical diagonals.

TRUSS UNIT TABLE

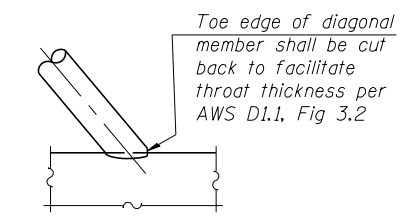
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord				Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals			
					O.D.	Wall	O.D.	Wall	O.D.	Wall	O.D.	Wall
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"				
II-C-A	36"	66"	21"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

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

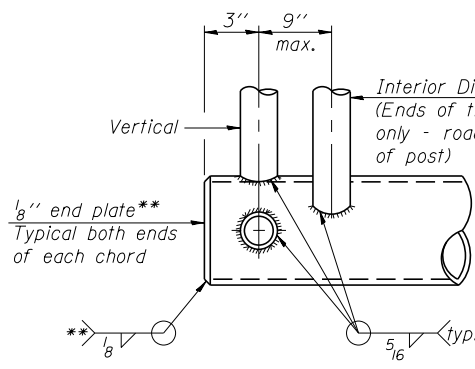
Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
2C0811074L001.6	80+90 (I-74)	III-C-A	33.00'	7	4.429'



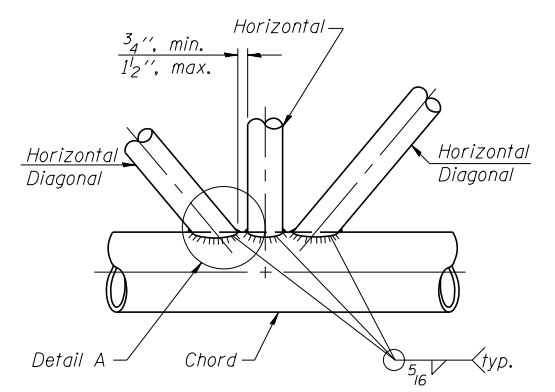
SECTION A-A



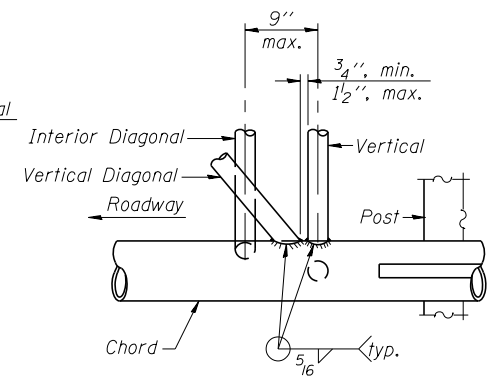
DETAIL A



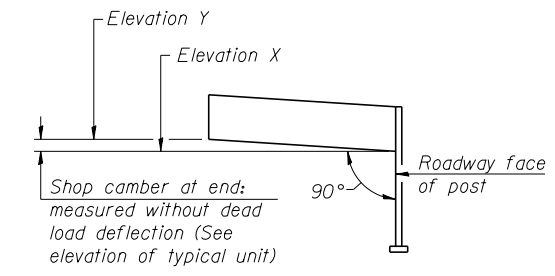
CANTILEVER END JOINT DETAIL



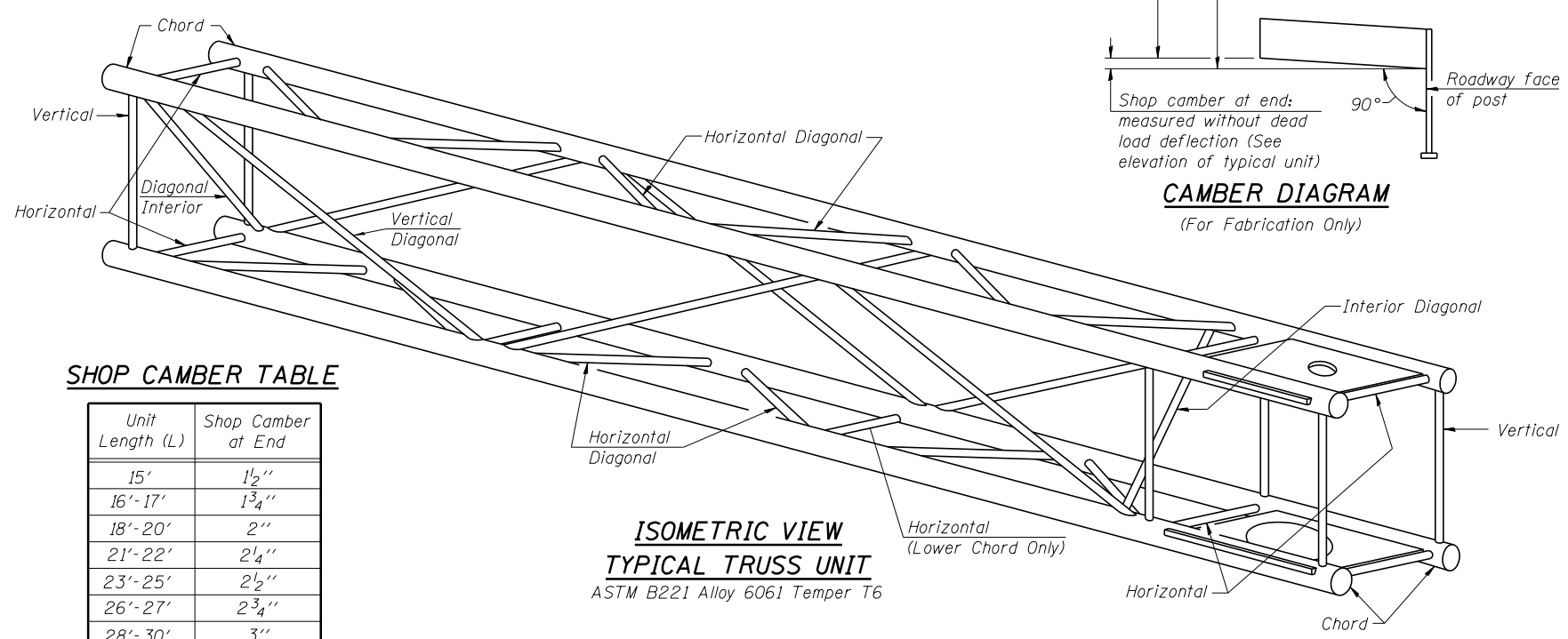
TRUSS INTERIOR JOINT DETAIL



POST END JOINT DETAIL



CAMBER DIAGRAM



ISOMETRIC VIEW

TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

SHOP CAMBER TABLE

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - TRUSS DETAILS  
ALUMINUM TRUSS & STEEL POST

SHEET NO. 19 OF 30 SHEETS

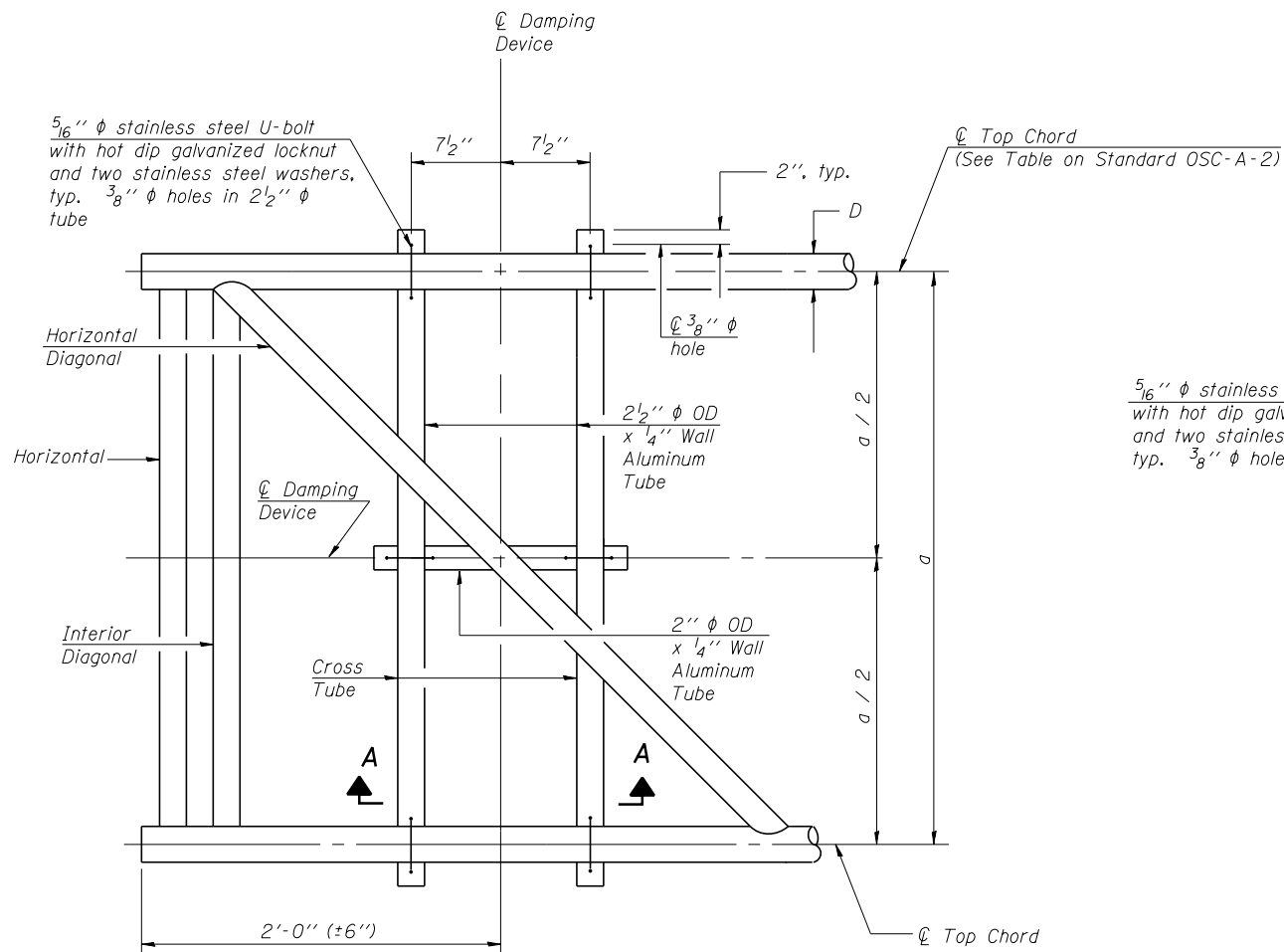
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74	(81-11R-1 & 81-11BR, HBR-1, HBR-2)	ROCK ISLAND	2042	830
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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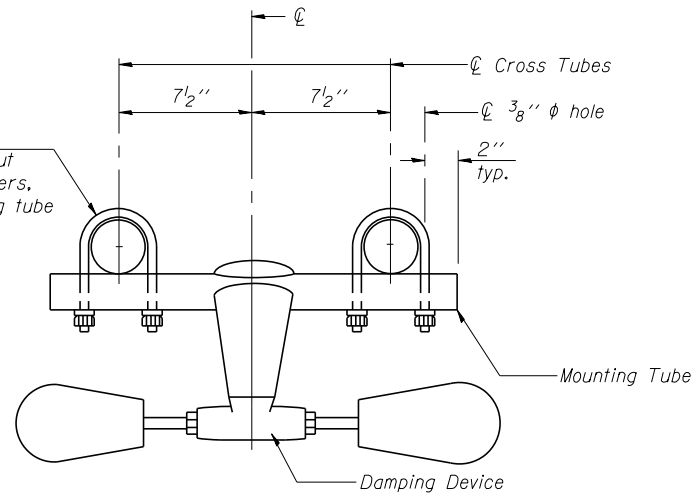
OSC-A-2

6-1-12

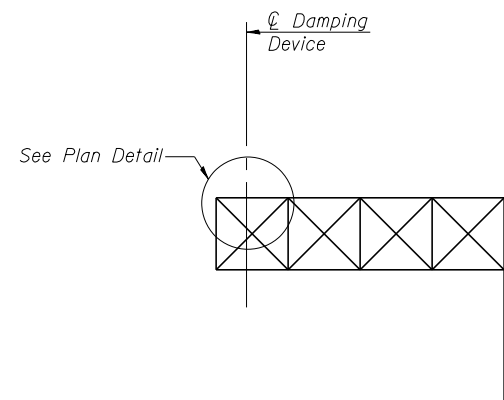
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		CHECKED - KJN	REVISOR -
		DRAWN - VH	REVISOR -
		CHECKED - KJN	REVISOR -
MODEL: OSS-19	PLOT DATE = 3/23/2017		



**PLAN DETAIL**



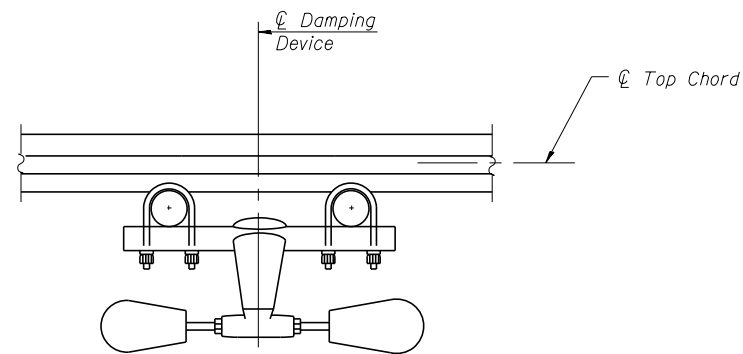
**TRUSS DAMPING  
DEVICE CONNECTION DETAIL**



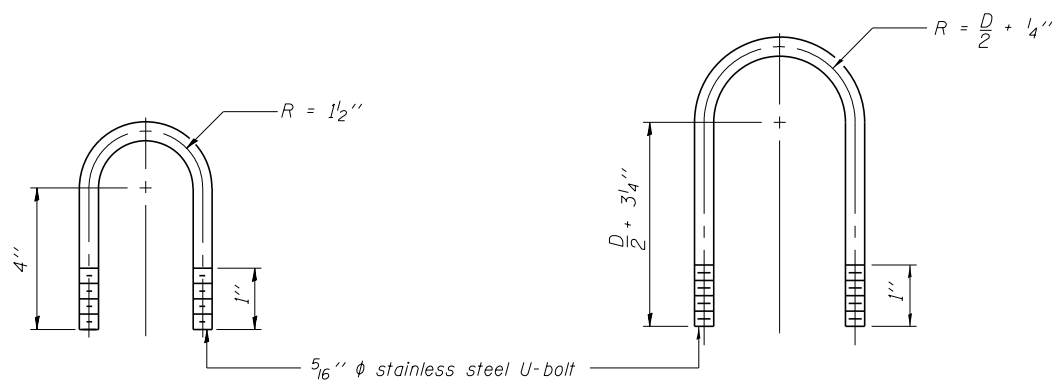
**ELEVATION**  
Aluminum Cantilever  
Sign Structure

**GENERAL NOTES**

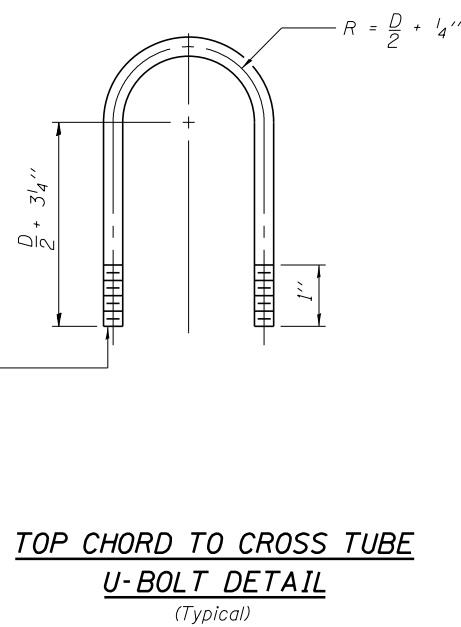
- Damper:** One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29" minimum between ends of weights)
- Materials:** Aluminum tubes shall be ASTM B221 alloy 6061 temper T6



**SECTION A-A**



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



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



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

OSC-A-D

6-1-12

FILE NAME =  
D2CONCD-AB-SHT-Sign-Structures.dgn

USER NAME = ksnider  
DESIGNED - MFB  
CHECKED - KJN  
PLOT SCALE =  
DRAWN - VH  
PLOT DATE = 3/23/2017  
CHECKED - KJN

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURE  
DAMPING DEVICE

SHEET NO. 20 OF 30 SHEETS

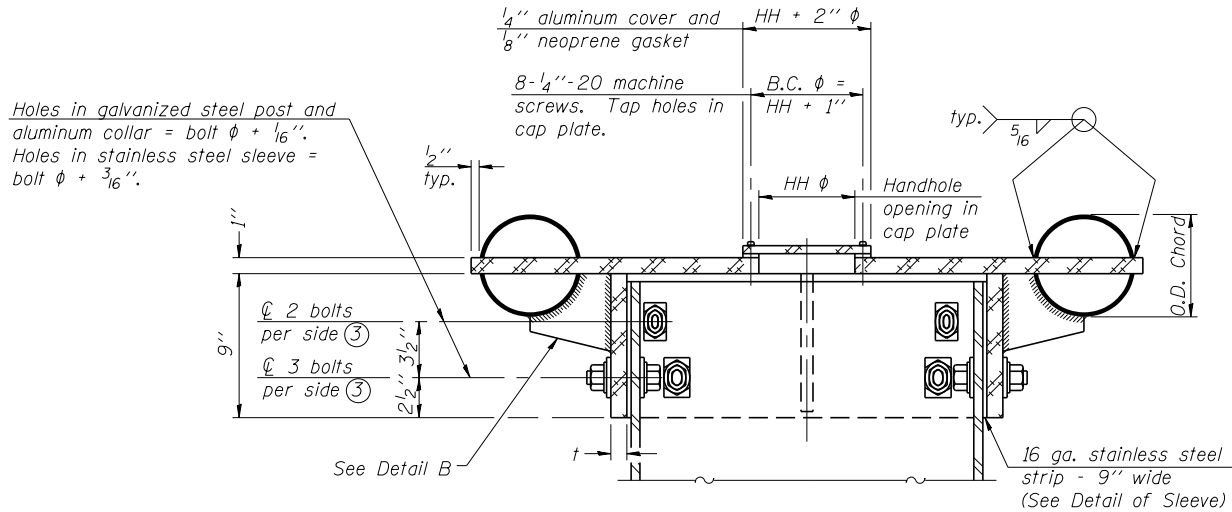
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74 (81-1)R-1 & 81-1(HBR, HBR-1, HBR-2) ROCK ISLAND 2042 831  
CONTRACT NO. 64E26  
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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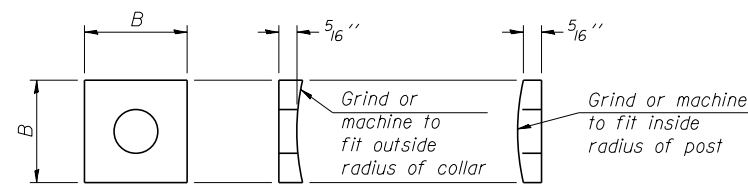
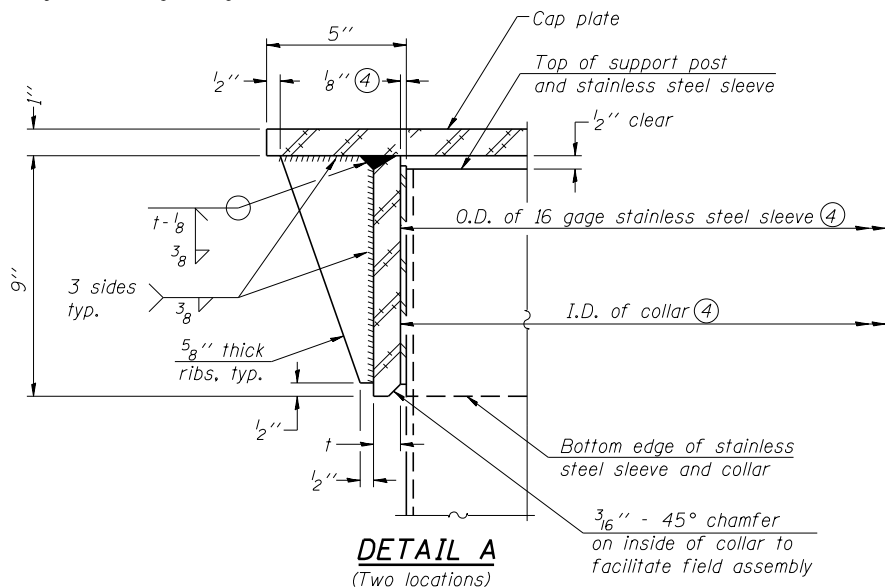
3/23/2017



- ④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" ( $\pm 1/16$ "). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

### SECTION B-B

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

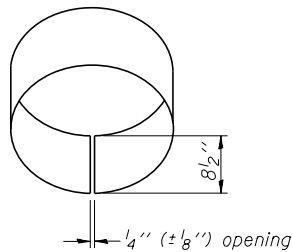


### CONTOURED WASHERS

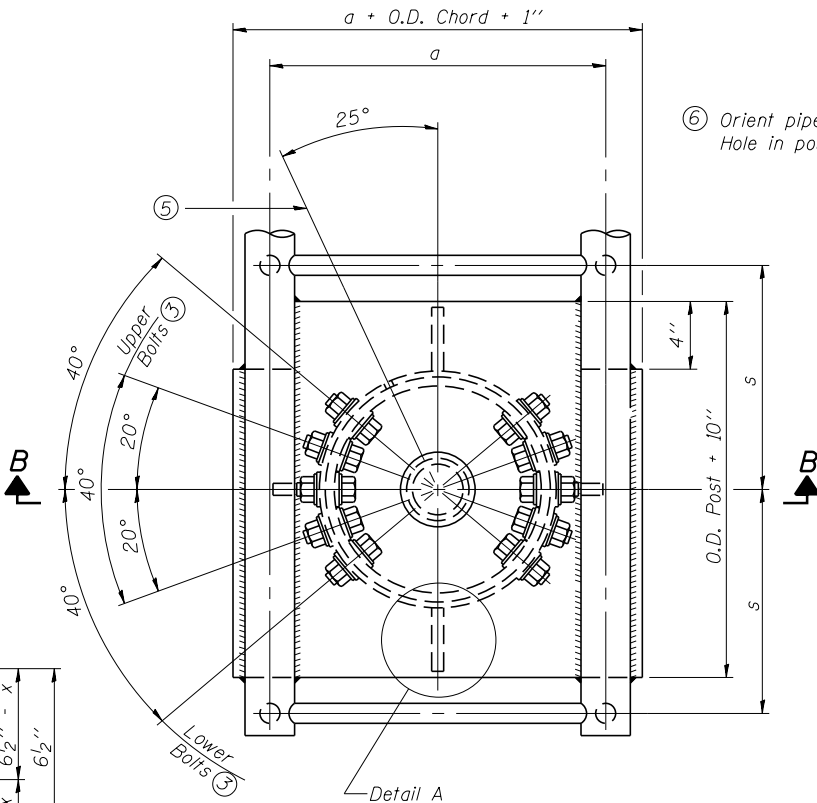
Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

### DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1/2" long at 6" cts. along top edge and at 1/4" opening.

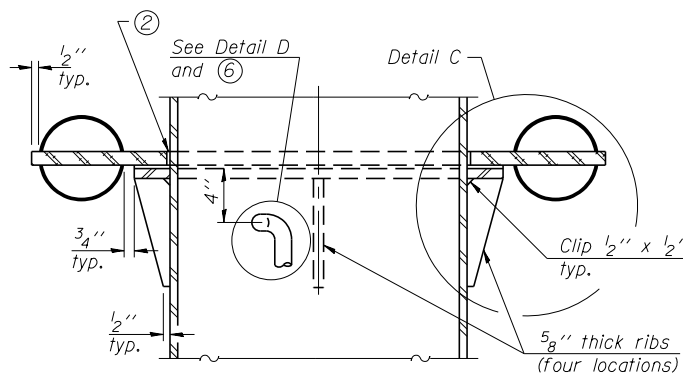


### DETAIL D

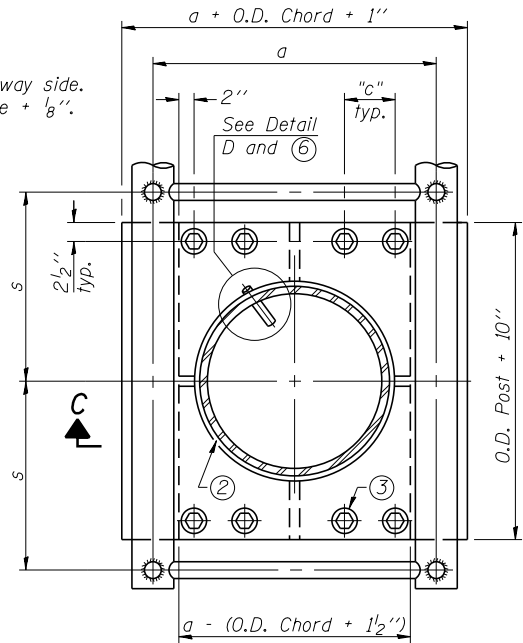


### PLAN VIEW - TOP OF COLUMN

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

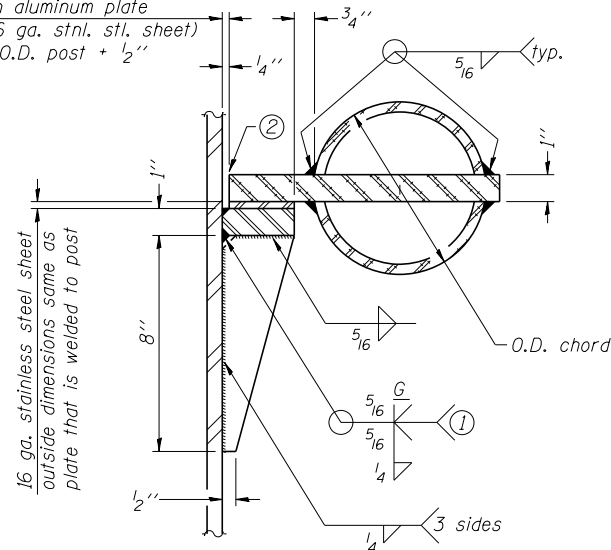


### SECTION C-C



### SECTION THRU POST ABOVE LOWER CHORDS

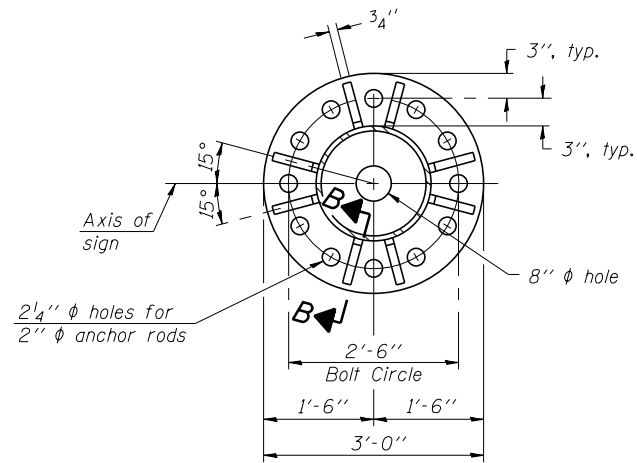
Hole in aluminum plate (and 16 ga. stnl. stl. sheet) to be O.D. post + 1/2"



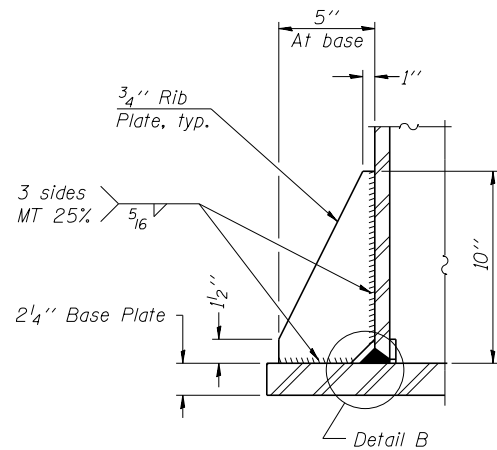
### DETAIL C

- 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.

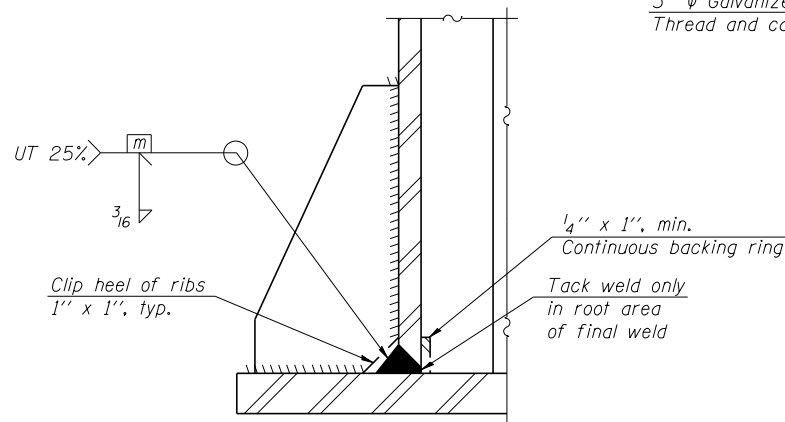
Truss Type	Post Size	Upper & Lower Connection Bolt Diameter (3)	Lower Juncture Bolt Spacing Dimension "c" (3)	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
I-C-A	16" $\phi$ (83#/' )	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" $\phi$ (125#/' )	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' max.)	24" $\phi$ (125#/' )	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" $\phi$ (171#/' )	1 1/4"	3 1/2"	12"	7/8"	2"	1"



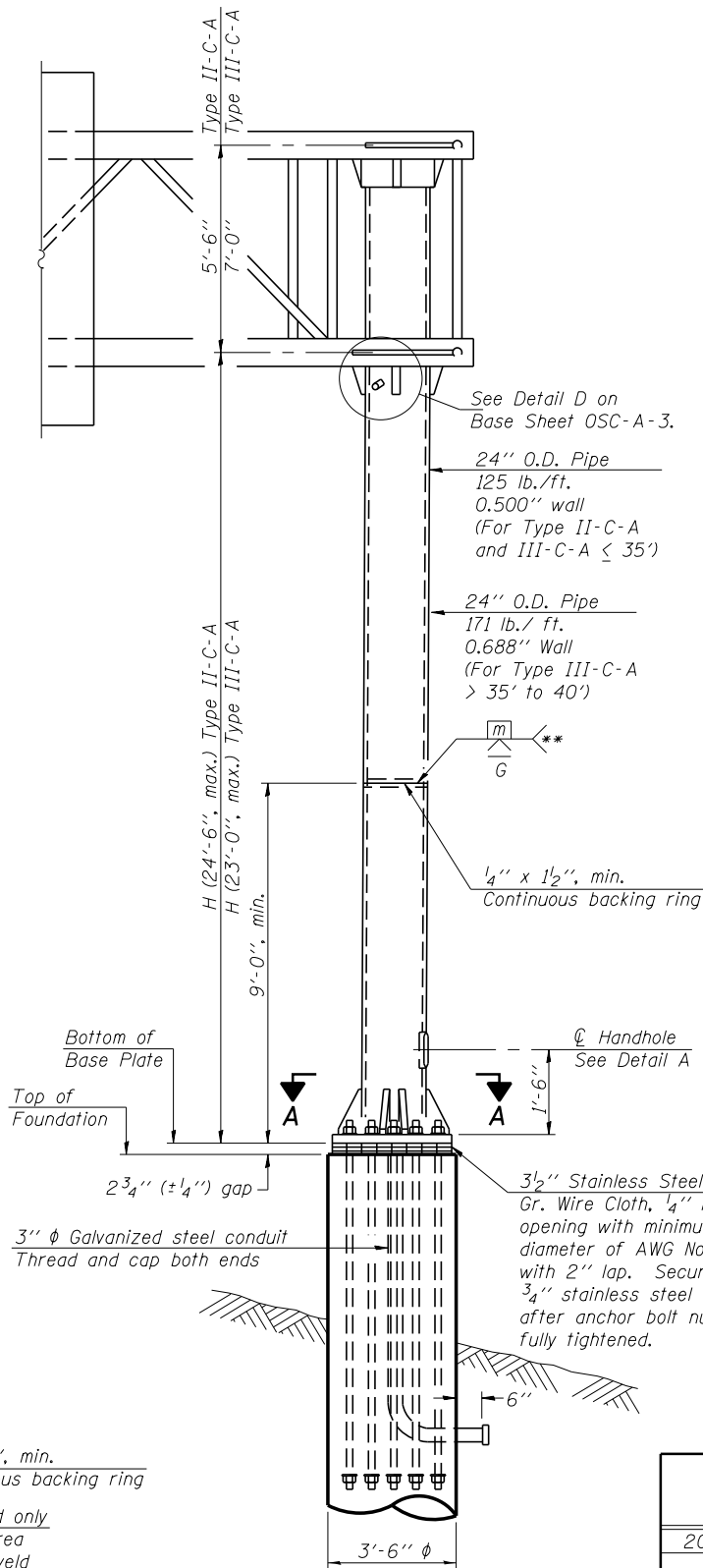
**SECTION A-A**



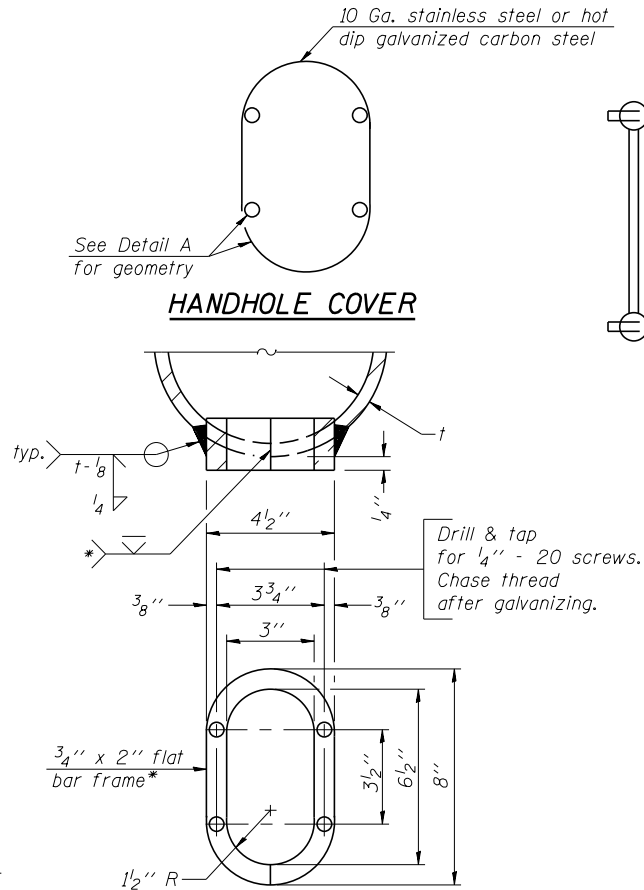
**SECTION B-B**



**DETAIL B**  
(Typical rib)



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

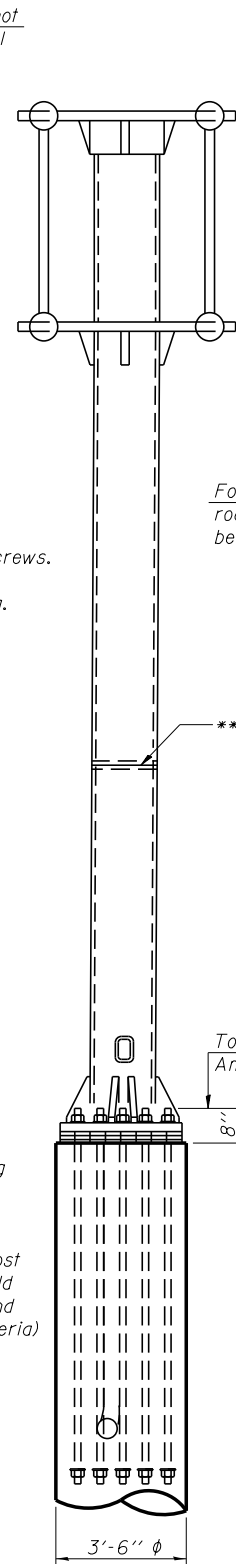


**DETAIL A**

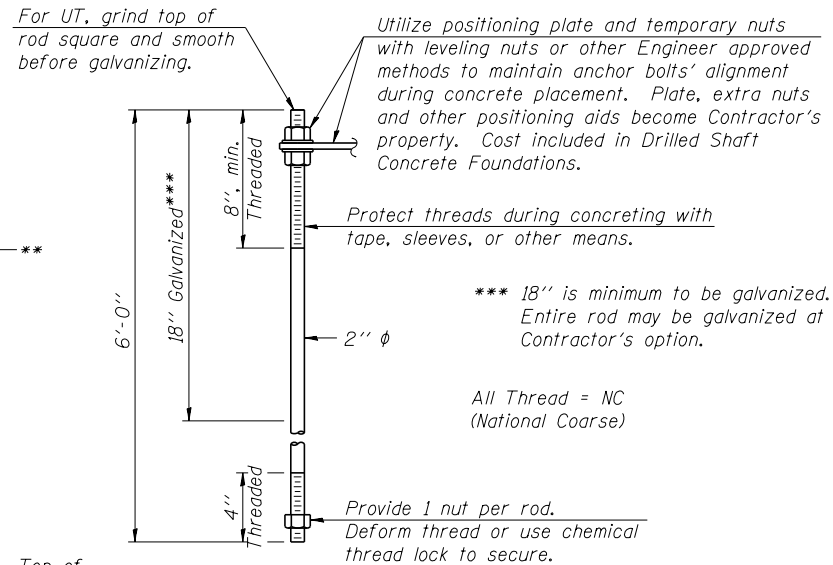
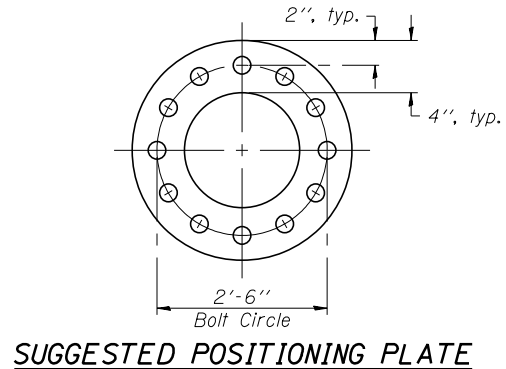
- \* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500  $\mu$ in or less.
- \*\* Butt welded joint in post is only allowed for post heights (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.

Structure Number	Station	H
2C0811074L001.6	80+90 (I-74)	19.15'

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



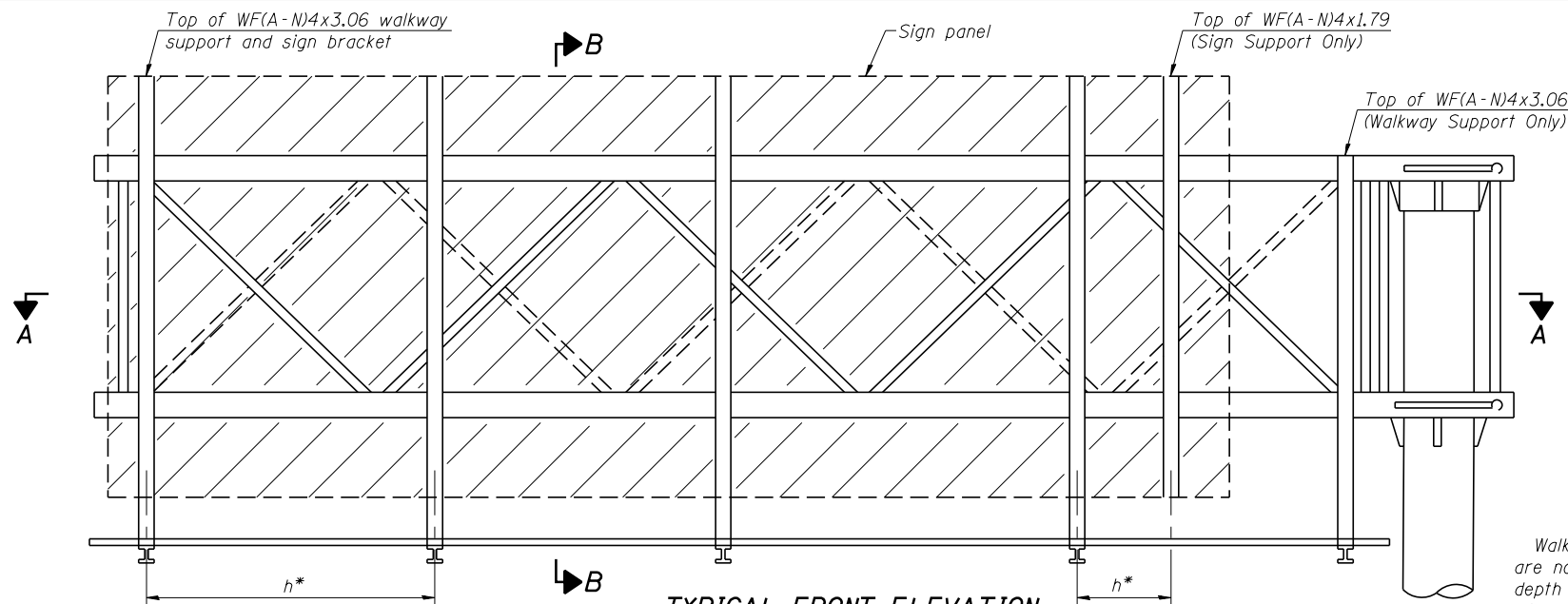
**SIDE ELEVATION**



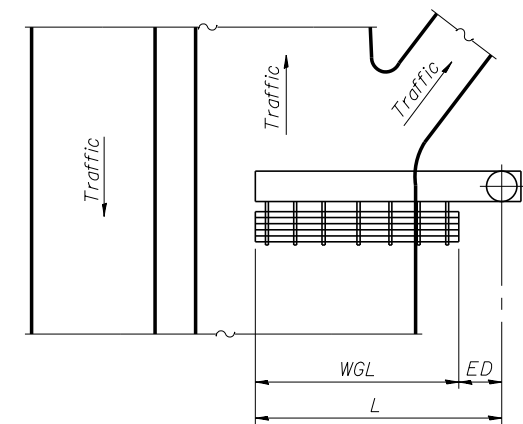
**ANCHOR ROD DETAIL**

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.

**HANDHOLE AND CONDUIT IN FOUNDATION ARE INCLUDED IN THIS CONTRACT.**

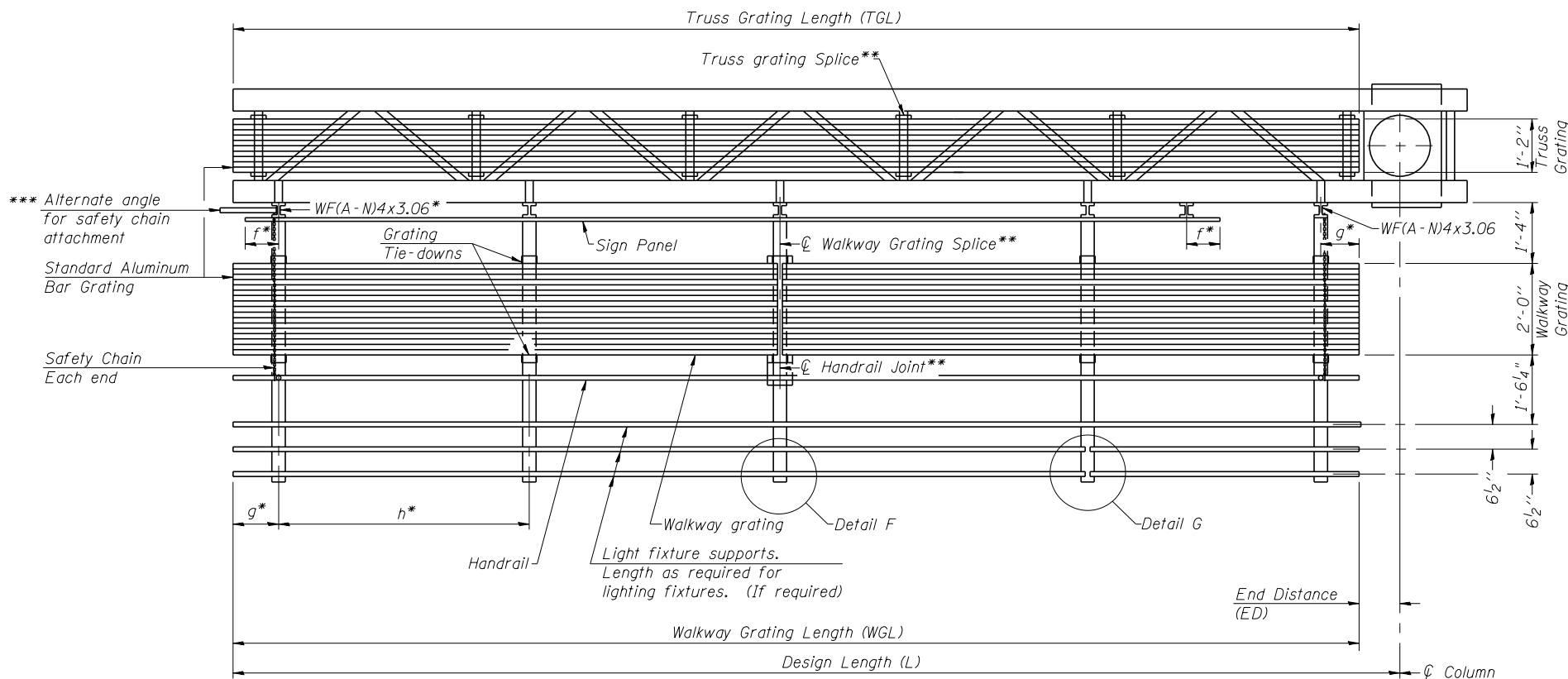


**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



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

Walkway and truss grating dimensions are nominal and may vary (width  $\pm \frac{1}{2}$ ", depth  $\pm \frac{1}{2}$ "') based on available standard widths.



**SECTION A-A**

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

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

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

- Notes:  
\* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:  
  
f = 12" maximum, 4" minimum (End of sign to  $\phi$  of nearest bracket)  
g = 12" maximum, 4" minimum (End of walkway to  $\phi$  of nearest bracket)  
h = 6'-0" maximum ( $\phi$  to  $\phi$  sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)  
\*\*\* 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.

Structure Number	Station	WGL	ED	TGL
2C0811074L001.6	80+90 (I-74)	----	----	31.50'

**BRACKET TABLE**

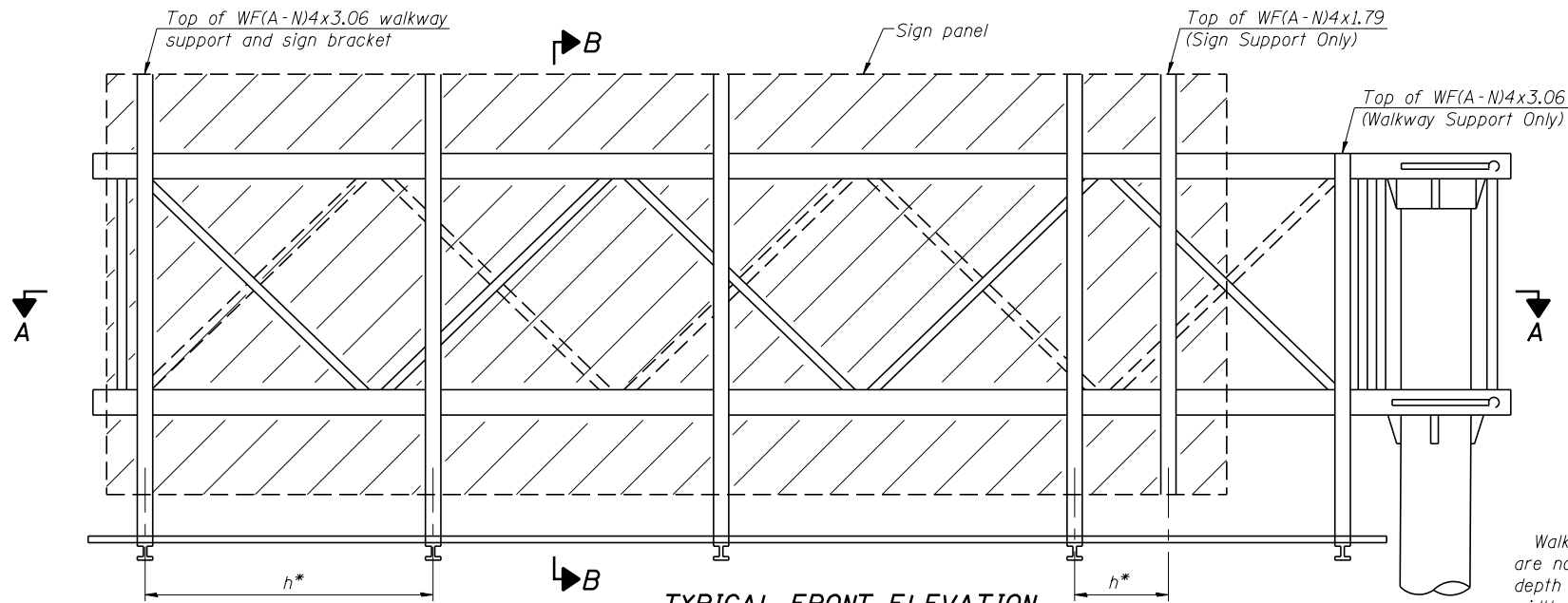
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT. INFORMATION SHOWN ON THIS SHEET SHALL BE USED FOR TRUSS GRATING AND SIGN BRACKETS ONLY.**

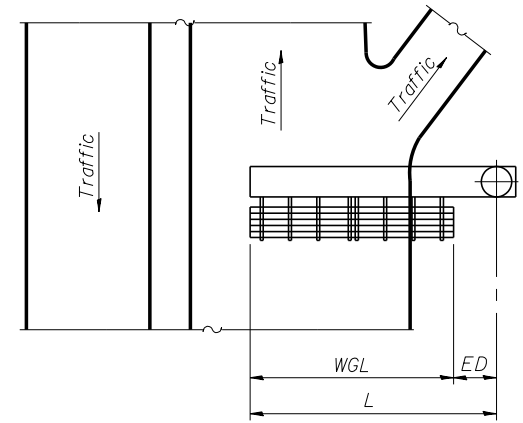
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	834
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

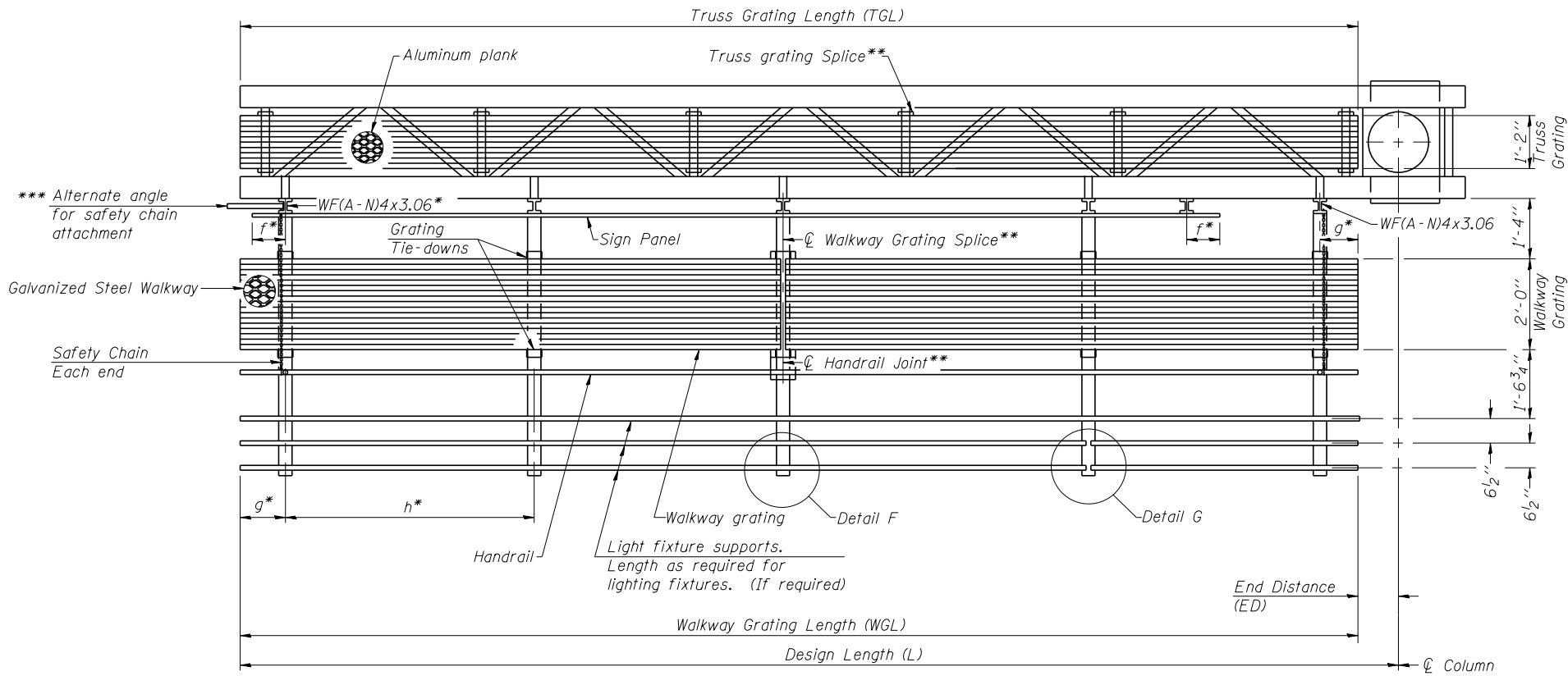




**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



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



**SECTION A-A**

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

Handrail and walkway grating shall span a minimum of three brackets between splices.

\*\* Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

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

Notes:  
\* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

$f = 12''$  maximum,  $4''$  minimum (End of sign to  $\phi$  of nearest bracket)  
 $g = 12''$  maximum,  $4''$  minimum (End of walkway to  $\phi$  of nearest bracket)  
 $h = 6'-0''$  maximum ( $\phi$  to  $\phi$  sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)

\*\*\* 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-7S.  
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

Structure Number	Station	WGL	ED	TGL
2C081I074L001.6	80+90 (I-74)	----	----	31.50'

**BRACKET TABLE**

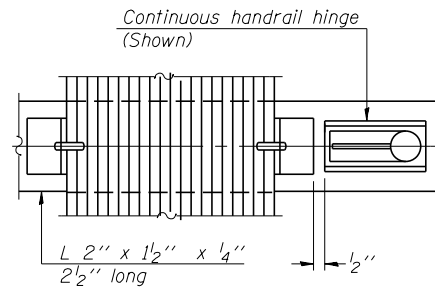
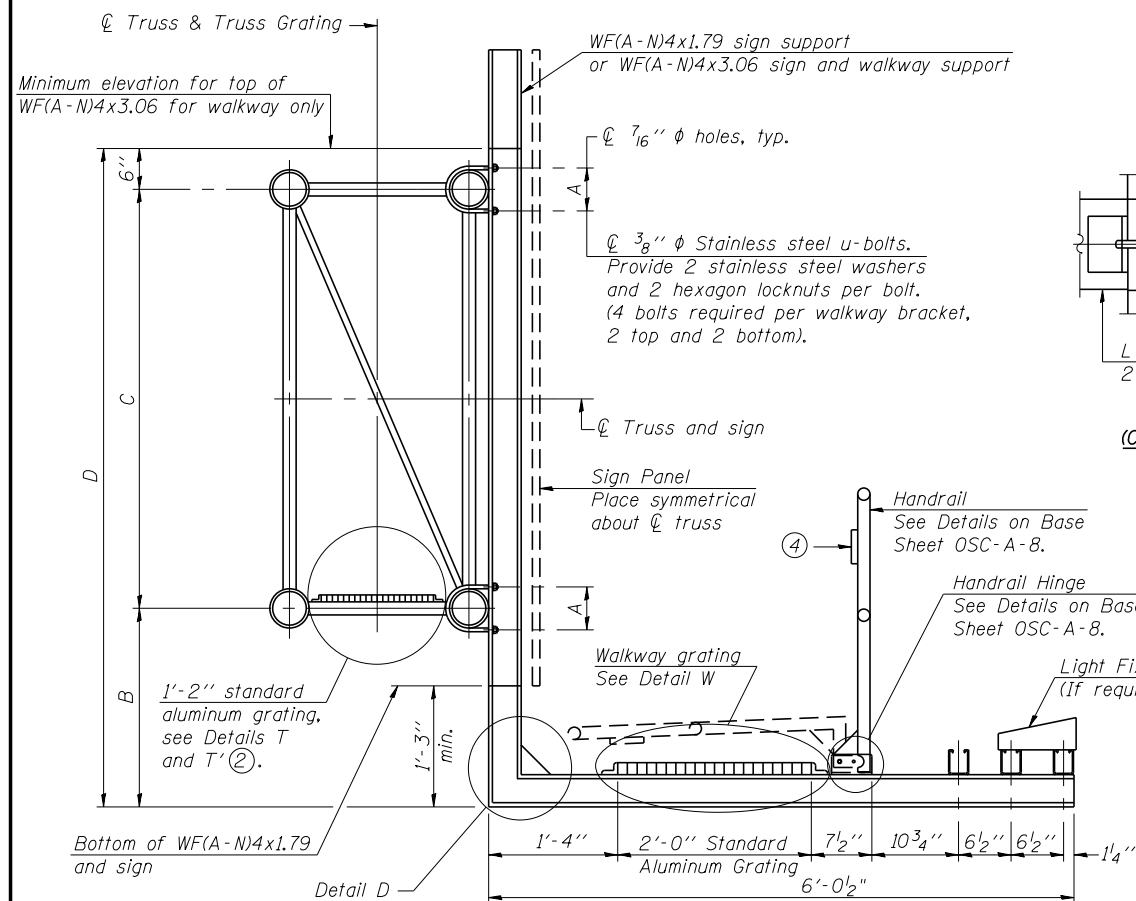
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

**WALKWAY GRATING, WALKWAY SUPPORTS, HANDRAIL AND LIGHTING ARE NOT INCLUDED IN THIS CONTRACT. INFORMATION SHOWN ON THIS SHEET SHALL BE USED FOR TRUSS GRATING AND SIGN BRACKETS ONLY.**

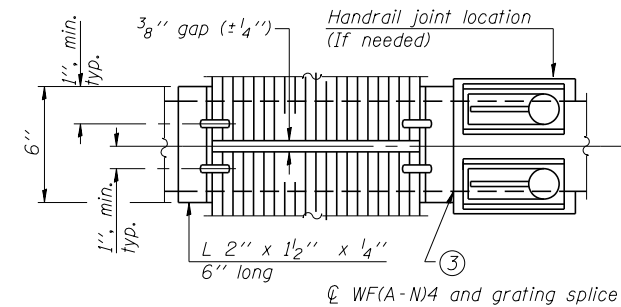
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-L, HBR-2)	ROCK ISLAND	2042	835
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

c:\pwise\_work\do\_not\_delete\dms02542\02CONCD-AB-SHT-Sign-Structures.dgn 8:52:28 AM 3/23/2017

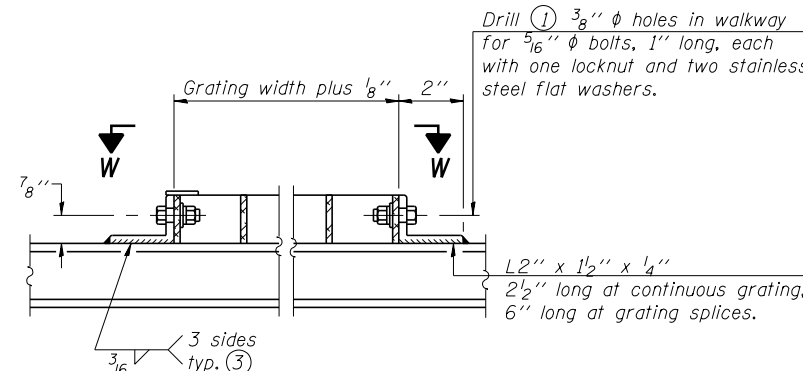


(CONTINUOUS WALKWAY GRATING)

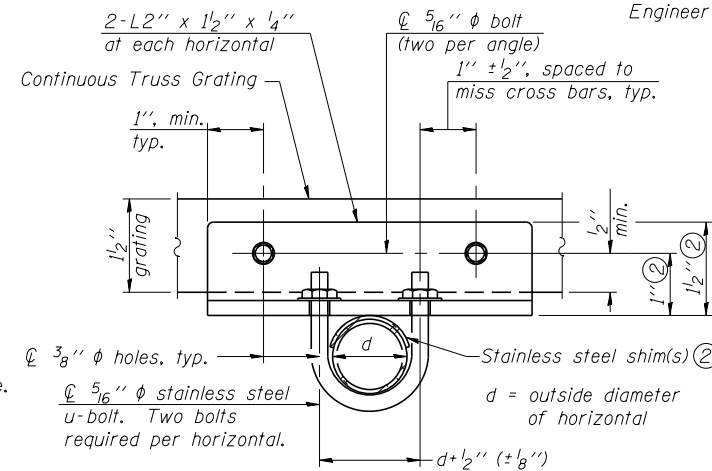


(AT WALKWAY GRATING SPLICE)

SECTION W-W



DETAIL W  
(Walkway grating.)



SECTION T-T



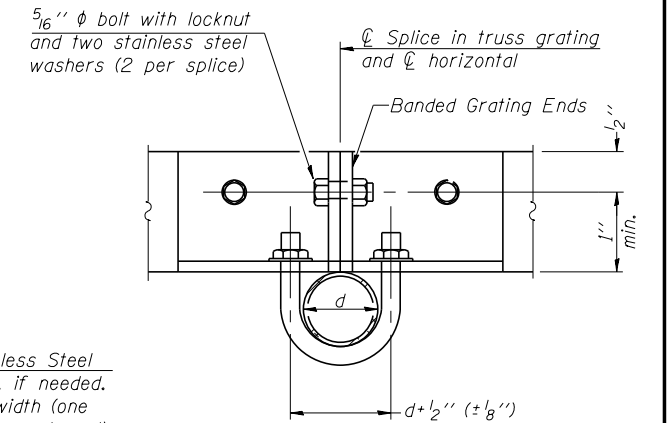
Main Bearing Bars (MBB) shall be  $\frac{3}{16}'' \times 1\frac{1}{2}''$  on  $1\frac{3}{16}''$  centers and conform to ASTM B211 Alloy 6061-T6.  
Cross bars (CB) shall be  $\frac{3}{16}'' \times 1\frac{1}{2}''$  on 4'' centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

**OR**

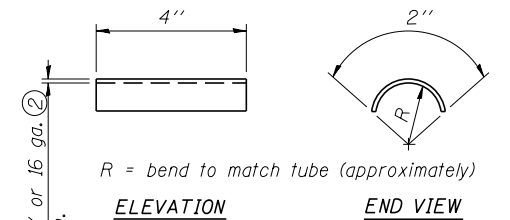
Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.<sup>3</sup> per bar, a depth of 1½", spaced on 13½" centers.

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

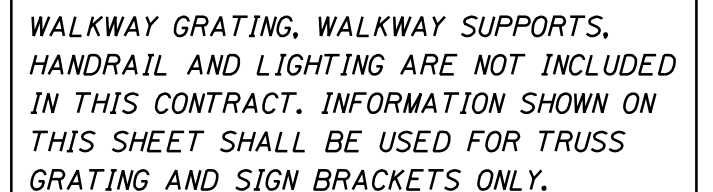


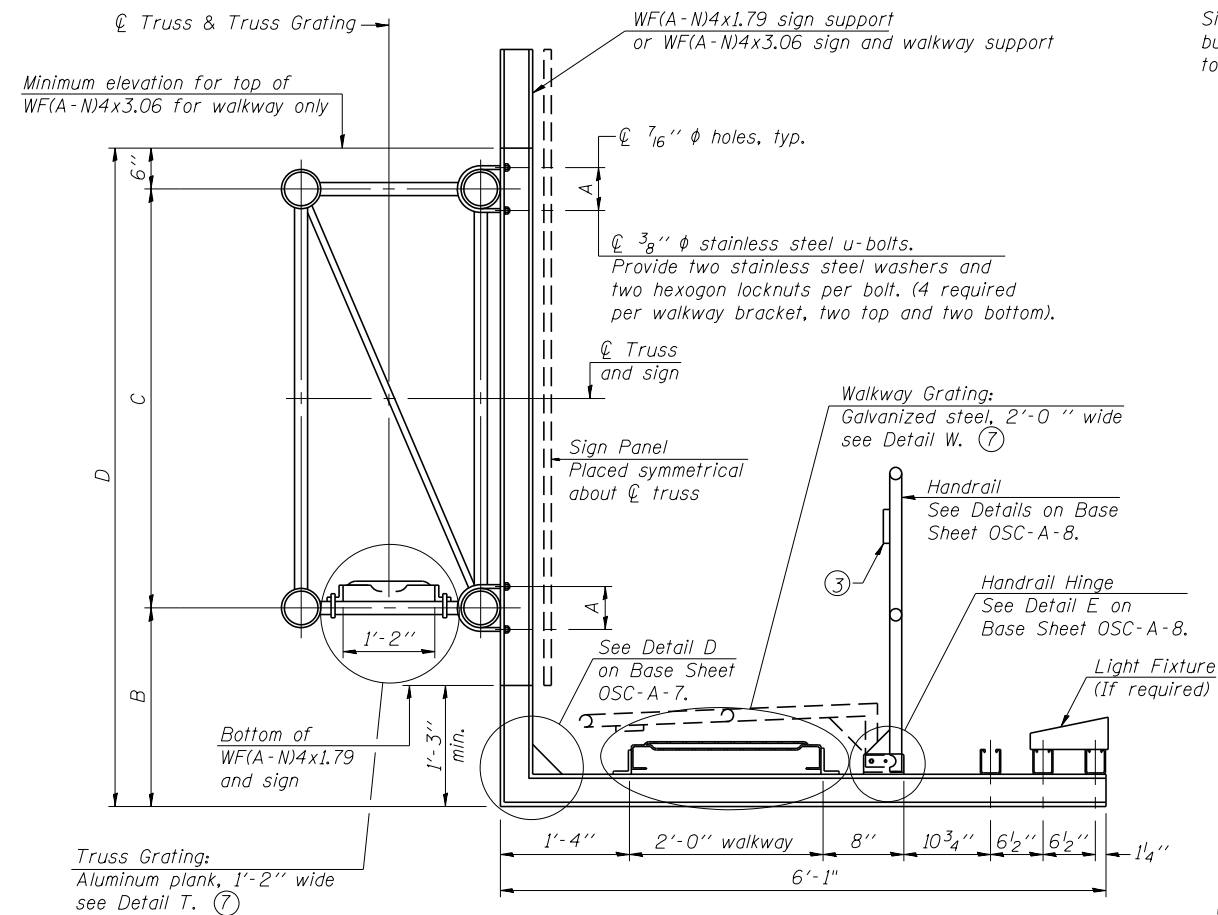
SECTION T'-T'



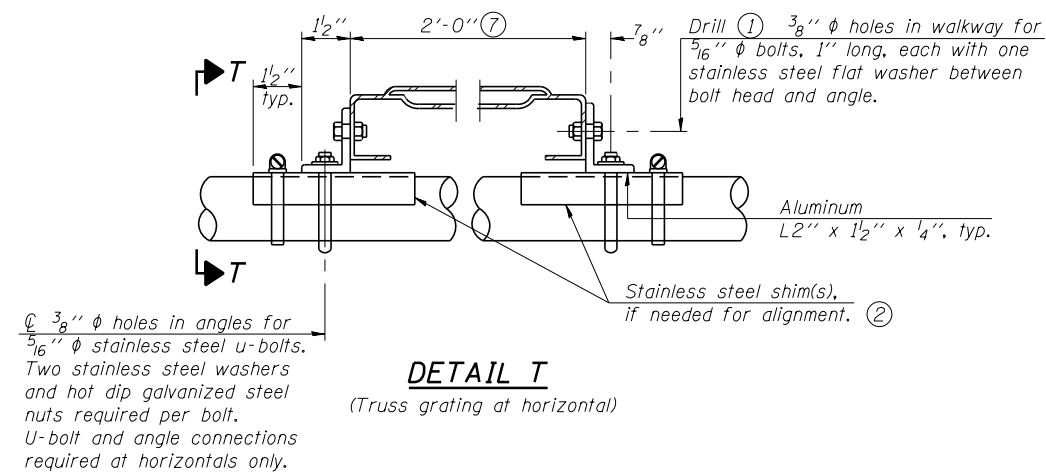
SHIM DETAIL

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

[illegible]

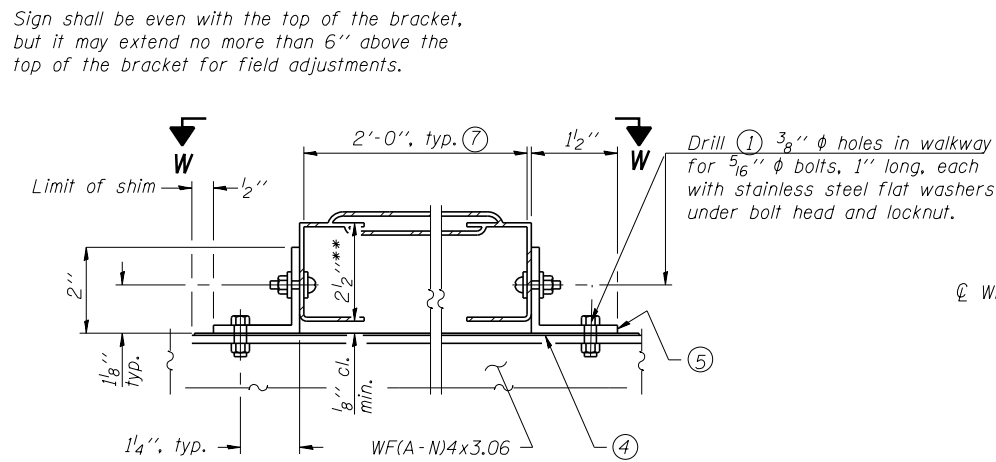


SECTION B-B

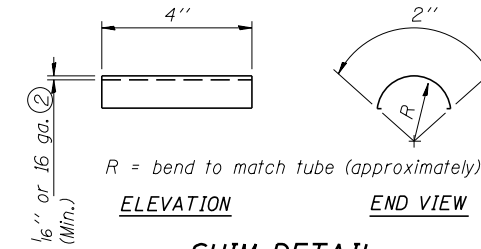


DETAIL T

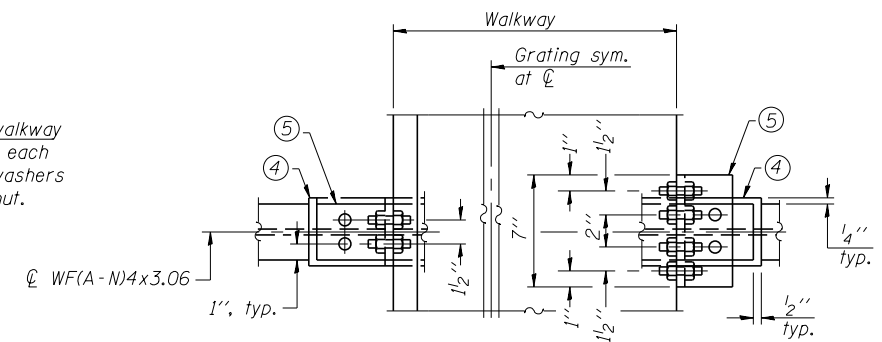
(Truss grating at horizontal)



DETAIL W  
GALVANIZED STEEL WALKWAY GRATING

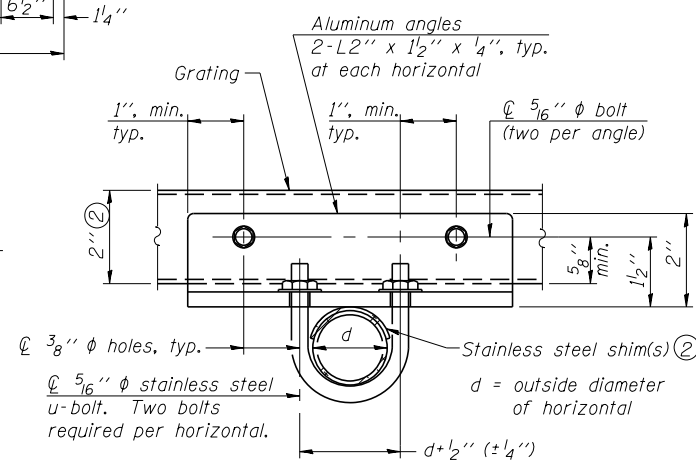


SHIM DETAIL



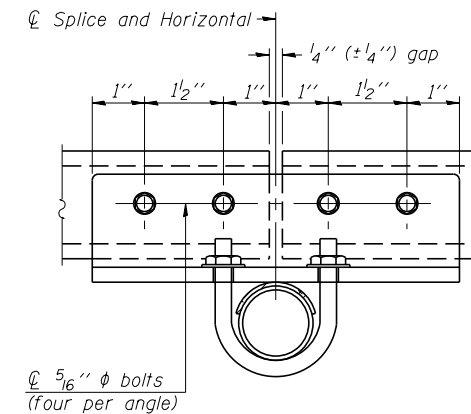
WALKWAY GRATING CONTINUOUS      AT WALKWAY GRATING SPLICE

SECTION W-W



SECTION T-T

(Truss Grating Continuous)



SECTION T-T

(Truss Grating Splice)

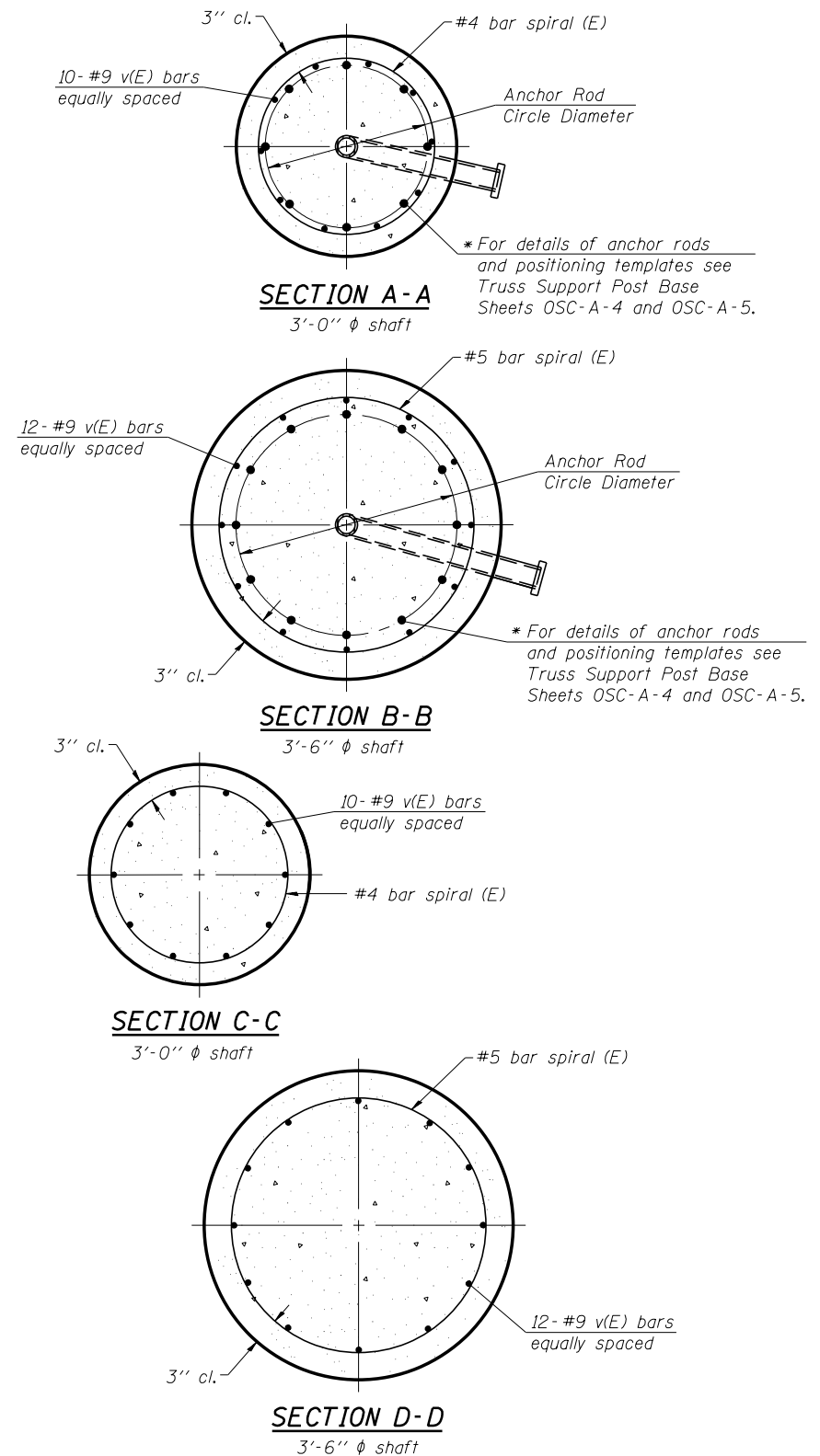
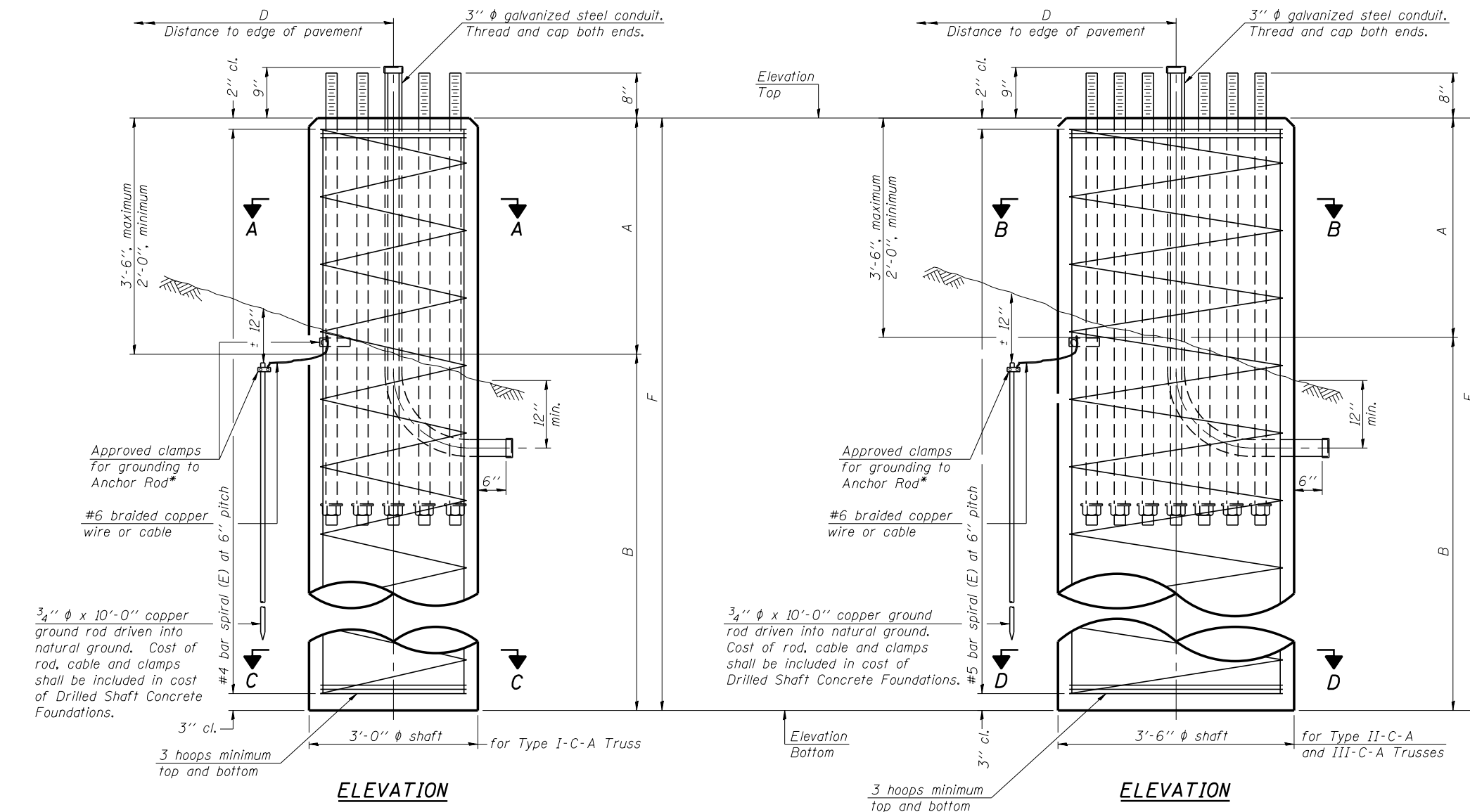
Alternate splice details and locations may be used subject to the Engineer's review and approval.

- 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 under angles at horizontals and horizontal diagonals if needed to compensate for alignment variations and differences in horizontal diagonal pipe sizes beyond adjustment provided by angles. Secure with one stainless steel clamp per location, see "Shim Detail". Thicker shim plates may be used when needed subject to shims performing properly.
- ③  $\frac{1}{8}'' \times \frac{1}{2}'' \times 2''$  welded to handrail posts to protect locations that contact grating.
- ④  $\frac{1}{16}''$  (or 16 ga.)  $\times 2\frac{1}{2}'' \times 4''$  stainless steel shim adhered to top of WFA-N)4x3.06 beneath each galvanized angle, typ. Adhesives for shims shall be suitable for materials joined and full exposure conditions.
- ⑤ Galvanized steel  $L2'' \times 2'' \times \frac{1}{4}''$ ,  $3\frac{1}{2}''$  long with continuous grating  $7''$  long at grating splice.
- ⑥ Details shown are considered equal alternatives to Aluminum Walkway Details and may be substituted by Contractor at no charge in contract cost.
- ⑦ Perforated or expanded metal grating providing a skid resistant (non-serrated) surface and capable of supporting a 500 pound concentrated load with a  $6'-0''$  clear span. Walkway and truss grating dimensions are nominal and may vary (width  $\pm \frac{1}{2}''$ , depth  $\frac{1}{2}''$ ) based on available standard sizes. Cut ends of grating shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.
- ⑧ Based on actual sign height,  $D_s$ , given on OSC-A-1.

[illegible]

**WALKWAY GRATING, WALKWAY SUPPORTS,  
HANDRAIL AND LIGHTING ARE NOT INCLUDED  
IN THIS CONTRACT. INFORMATION SHOWN ON  
THIS SHEET SHALL BE USED FOR TRUSS  
GRATING AND SIGN BRACKETS ONLY.**

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



NOTES:

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

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

*Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.*

Concrete shall be placed monolithically, without construction joints.

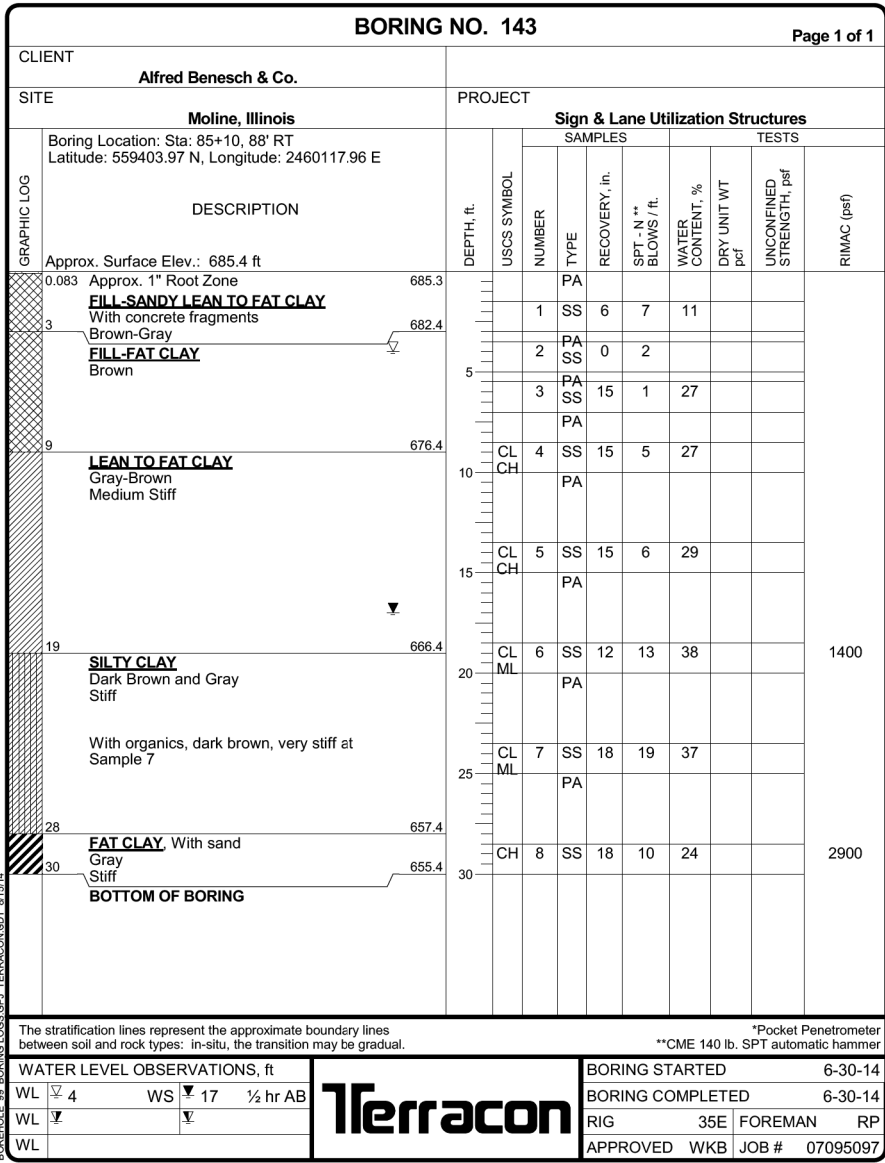
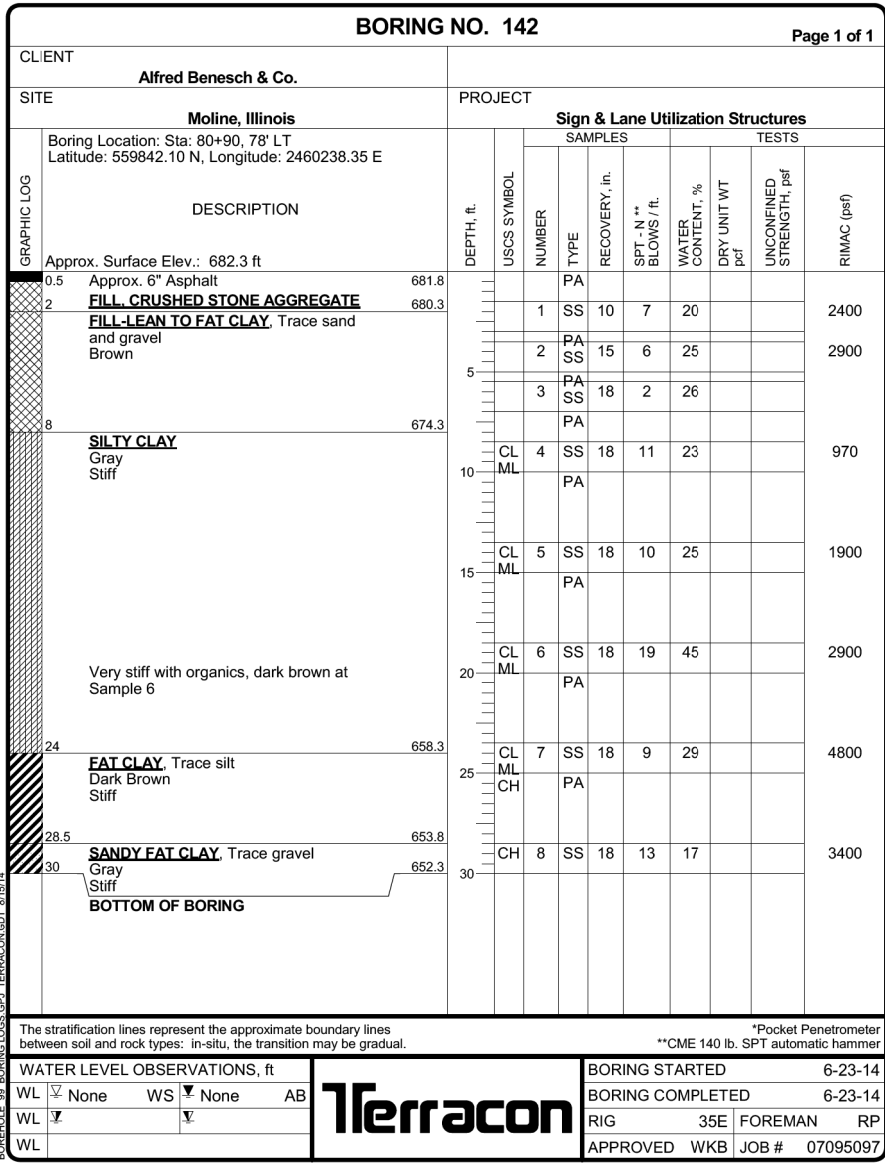
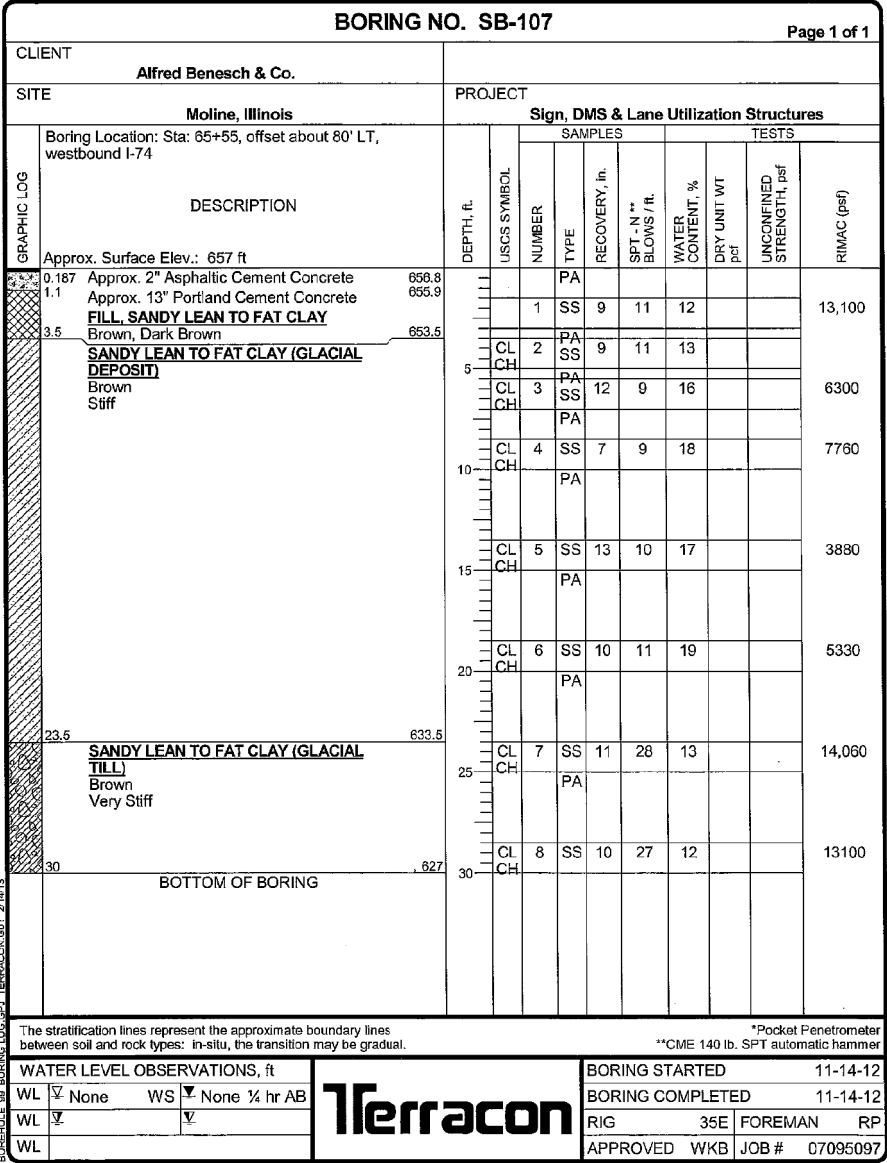
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundations.

**CONDUIT, GROUND ROD, CABLE, CAPS AND CLAMPS ARE INCLUDED IN THIS CONTRACT.**

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		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

[illegible]



NOTE:

For soils information for the sign structure median foundation near I-74 Station 65+55, see Soil Boring Log ILR1003 in the Retaining Wall 10 plans.



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10061.04

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CHECKED - AWH  
PLOT SCALE :  
DRAWN - KMS  
PLOT DATE : 3/23/2017  
CHECKED - KJN

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
SOIL BORING LOGS

SHEET NO. 28 OF 30 SHEETS

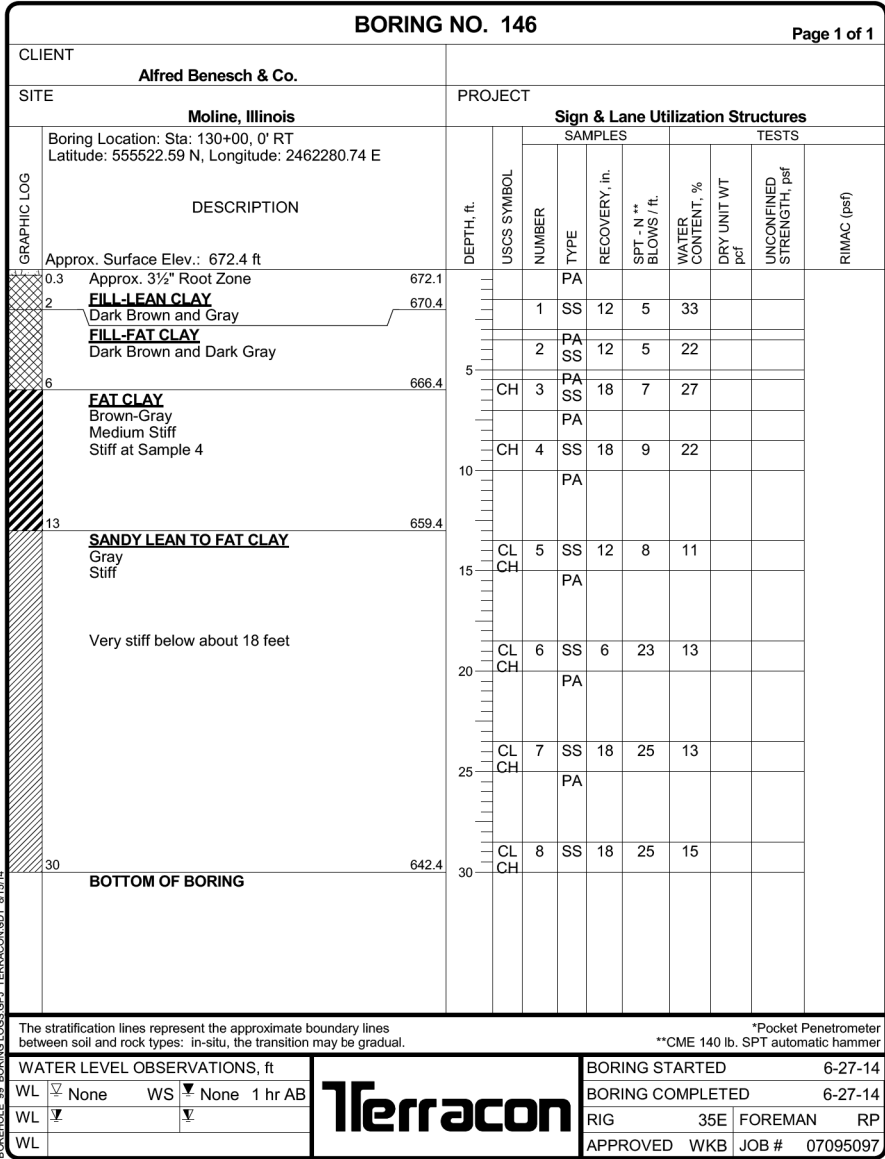
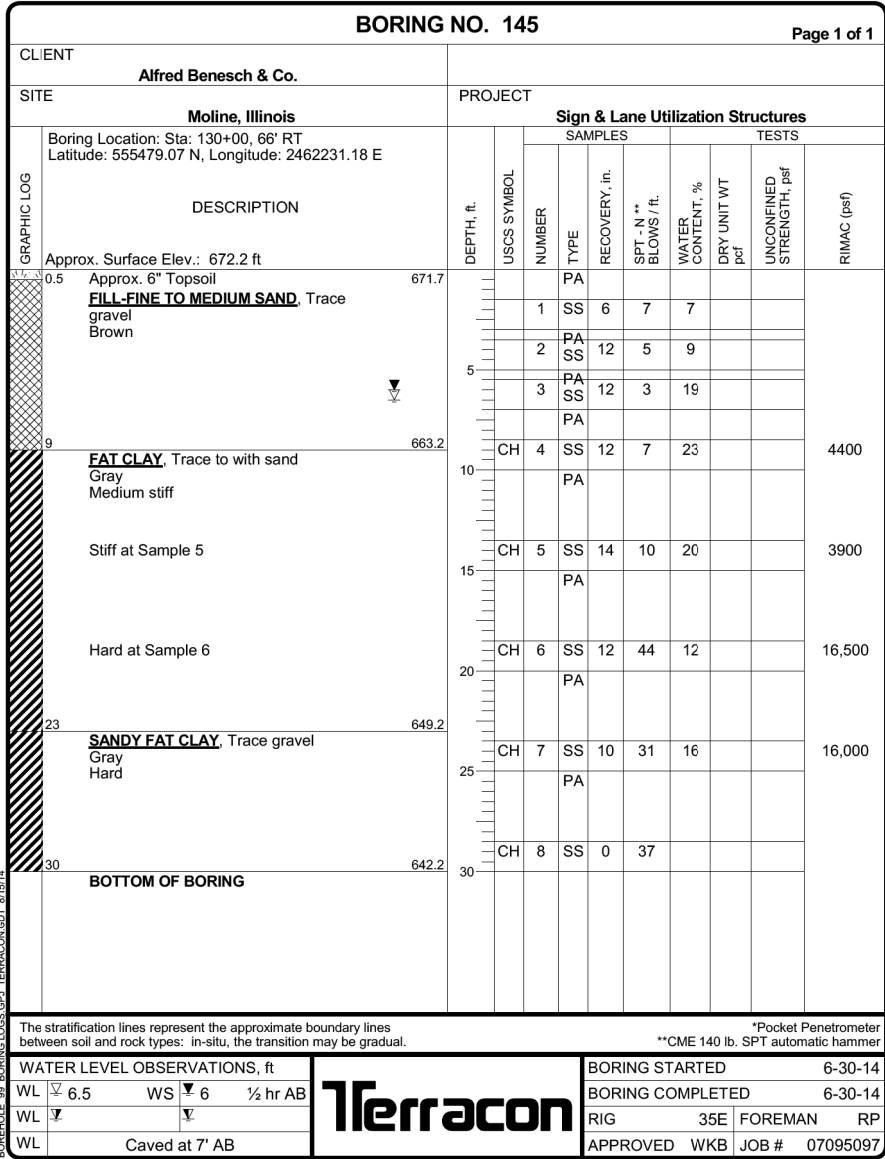
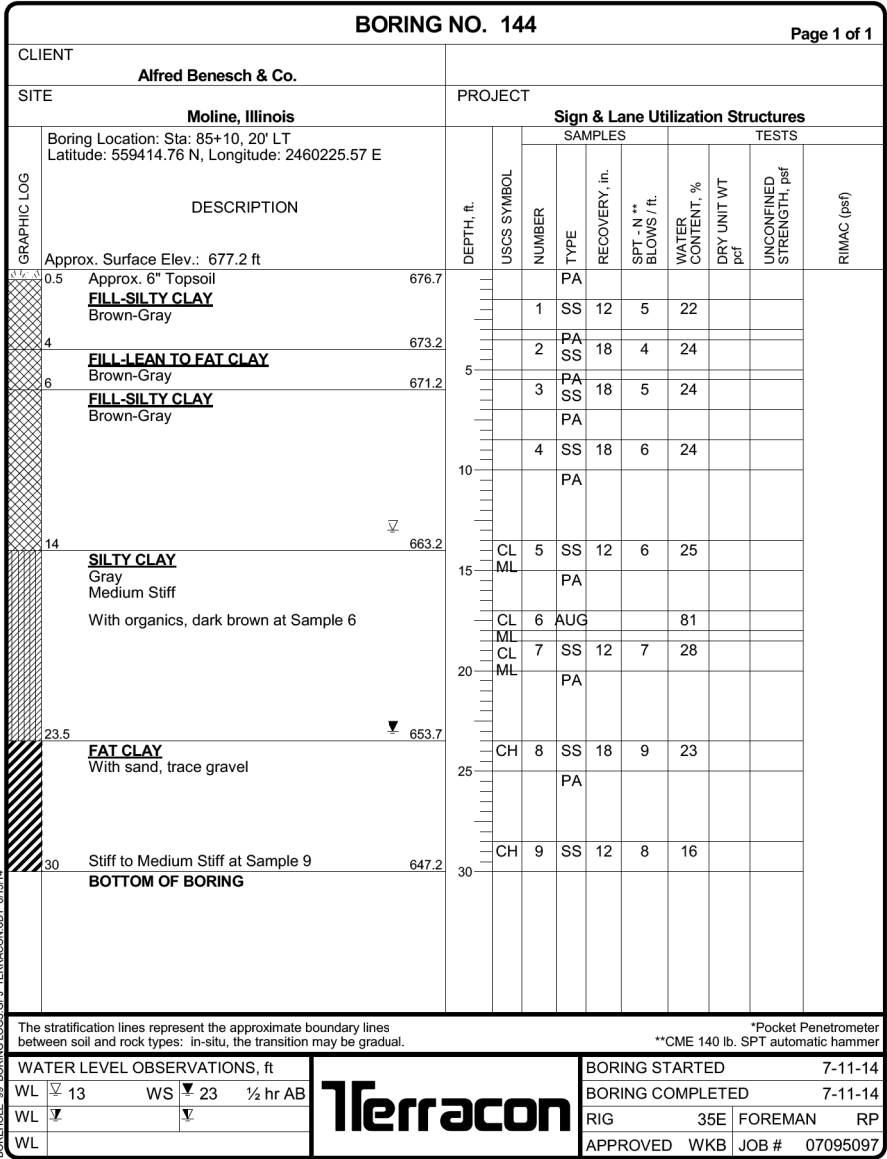
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
74 (81+1)R-1 & 81+1(HBR, HBR-L, HBR-2) ROCK ISLAND 2042 839  
CONTRACT NO. 64E26  
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

OSS-28

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3/23/2017



BORING NO. 147Page 1 of 1

CLIENT

Alfred Benesch & Co.

SITE

Moline, Illinois

PROJECT

Sign & Lane Utilization Structures

GRAPHIC LOG

Boring Location: Sta: 130+50, 0' RT  
Latitude: 555485.13 N, Longitude: 2462313.74 E

DESCRIPTION

Approx. Surface Elev.: 671.8 ft

0.25 Approx. 3" Root Zone 671.6

2.5 FILL-LEAN CLAY 669.3

Dark Brown and Brown-Gray

FAT CLAY

Gray

Medium Stiff

Stiff at Sample 4

13 LEAN TO FAT CLAY. With sand, trace 658.8

gravel

Gray

Stiff

Very stiff below about 18½ feet

Sandy below about 23 feet

30 BOTTOM OF BORING 641.8

DEPTH, ft.

USCS SYMBOL

NUMBER

TYPE

RECOVERY, in.

SPT - N \*\*  
BLOWS / ft.

WATER  
CONTENT, %

DRY UNIT WT  
pcf

UNCONFINED  
STRENGTH, psf

RIMAC (psf)

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

\*Pocket Penetrometer  
\*\*CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

WL 13 WS None AB

WL

WL

Terracon

BORING STARTED 6-27-14

BORING COMPLETED 6-27-14

RIG 35E FOREMAN RP

APPROVED WKB JOB # 07095097

BORING NO. 148Page 1 of 1

CLIENT

Alfred Benesch & Co.

SITE

Moline, Illinois

PROJECT

Sign & Lane Utilization Structures

GRAPHIC LOG

Boring Location: Sta: 130+50, 66' LT  
Latitude: 555528.70 N, Longitude: 2462363.37 E

DESCRIPTION

Approx. Surface Elev.: 672.4 ft

0.333 Approx. 4" Root Zone 672.1

2 FILL-SILTY CLAY. Trace organics 670.4

Dark Brown to Brown

SILTY CLAY

Dark Brown and Dark Gray

Medium Stiff

FAT CLAY

Gray

Medium Stiff

13 SANDY LEAN TO FAT CLAY. Trace 659.4

gravel

Brown and Gray

Stiff

Very stiff below about 18 feet

30 BOTTOM OF BORING 642.4

DEPTH, ft.

USCS SYMBOL

NUMBER

TYPE

RECOVERY, in.

SPT - N \*\*  
BLOWS / ft.

WATER  
CONTENT, %

DRY UNIT WT  
pcf

UNCONFINED  
STRENGTH, psf

RIMAC (psf)

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

\*Pocket Penetrometer  
\*\*CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

WL 13 WS 26 ½ hr AB

WL

WL

Terracon

BORING STARTED 6-27-14

BORING COMPLETED 6-27-14

RIG 35E FOREMAN RP

APPROVED WKB JOB # 07095097

SUMMARY OF ITS QUANTITIES				
Pay Code	Item	Unit	Estimated Total	As Built Quan.
73301600	OVERHEAD SIGN STRUCTURE - BUTTERFLY, TYPE I-B-A	FOOT	14.6	
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	6	
81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	13905	
81400100	HANDHOLE	EACH	26	
X8140105*	HANDHOLE (SPECIAL)	EACH	3	
81702100	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12	FOOT	12070	
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	1235	
X0325482*	REMOVE EXISTING ITS EQUIPMENT	EACH	19	
X0326263*	EQUIPMENT CABINET	EACH	3	
X0327748*	REMOVE AND REPLACE ITS EQUIPMENT	EACH	1	
*2000329*	MVDS COMM CABLE, INSTALL ONLY	FOOT	3030	
*2000330*	MVDS POWER CABLE, INSTALL ONLY	FOOT	1515	
*2000333*	POWER CONNECTION TO EXISTING METER	EACH	2	
*2000334*	45 FT STEEL ITS POLE, BLACK PAINTED	EACH	1	

\* NON-STANDARD PAY ITEM - SEE SPECIAL PROVISIONS

LISTING OF ITS HANDHOLE & JUNCTION BOX WORK							
LABEL	STATION	OFFSET	TYPE	#4 Power Coil	Existing Power Coil	MVDS COMM Cable Coil	MVDS POWER Cable Coil
HH9-1E*	FIELD VERIFY	LOCATION	EXISTING HANDHOLE				
HH8-2	59+78	111 LT	HANDHOLE				
HH8-1	65+51	110 LT	HANDHOLE (SPECIAL)				
HH8-P3	65+61	109 LT	HANDHOLE	2x5FT			
HH8-P2	66+83	95 LT	HANDHOLE				
HH8-P1	66+97	114 RT	HANDHOLE	2x5FT			
HH7-4	71+07	88 LT	HANDHOLE				
HH7-3	72+00	88 LT	HANDHOLE				
HH7-2	84+20	83 LT	HANDHOLE (SPECIAL)				
HH7-P1	84+20	85 LT	HANDHOLE		3x5FT		
HH7-D2	84+20	81 LT	HANDHOLE			2x5FT	1x5FT
HH7-P2E*	FIELD VERIFY	LOCATION	EXISTING HANDHOLE		3x5FT		
HH7-1	84+00	103 RT	HANDHOLE				
HH7-D1	83+93	103 RT	HANDHOLE			2x100FT	1x100FT
HH6-4	89+33	138 RT	HANDHOLE				
HH6-3	89+38	83 RT	HANDHOLE				
HH6-2	97+35	151 RT	HANDHOLE				
HH6-1	97+83	77 RT	HANDHOLE				
HH6-D2	98+88	121 LT	HANDHOLE			2x100FT	1x100FT
HH6-D1	99+34	128 RT	HANDHOLE				
HH5-D1	106+69	176 RT	HANDHOLE			2x5FT	1x5FT
HH5-3	106+74	181 RT	HANDHOLE (SPECIAL)				
HH5-2	108+53	191 RT	HANDHOLE				
HH5-1	113+47	238 RT	HANDHOLE				
HH4-3	129+29	138 RT	HANDHOLE				
HH4-2	129+38	73 LT	HANDHOLE				
HH4-1	130+34	73LT	HANDHOLE				
HH3-3	135+10	69 LT	HANDHOLE				
HH3-2	136+51	69 LT	HANDHOLE				
HH3-1	145+92	69 LT	HANDHOLE				
HH2-1	156+03	67 LT	HANDHOLE				
HH1-1E*	FIELD VERIFY	LOCATION	EXISTING HANDHOLE				

\*EXISTING HANDHOLES BY OTHERS  
NOTE: HANDHOLES IN ORDER OF INCREASING STATION

ITS DELIVERY AND STOCKPILING					110-13
					04-20-10
Item Description	Quantity	Units	Delivery Location	Contact Name & Number	Remarks
DELIVER ITS CABINET AND APPURTENANCES TO IOWA DOT	5	EACH	Iowa DOT Davenport Maintenance Shop 8721 Northwest Blvd, Davenport, IA 52809	Scott Kullerstrand 815-284-5468	
DELIVER AUTOMATED GATES, SIGN PANELS, AND APPURTENANCES TO IOWA DOT	1	EACH			
REMOVE HANDHOLES AND APPURTENANCES. DELIVER TO TO IOWA DOT IF REQUESTED.	13	EACH			

LISTING OF ITS CONDUIT WORK										
Conduit Run	Location		Conduit Length	2" HDPE Conduit		Power Cable		MVDS Cable		Tracer Wire
	From	To		Plowed	Bored	#4	EXISTING*	COMM	POWER	#12
8I	ITS CABINET 4J	SIGN FOUNDATION	10	1		3				1
8H	HH8-1	ITS CABINET 4J	10	1		3				
8G	HH8-P3	HH8-P2	135	1		3				
8F	HH8-P2	HH8-P1	240		1	3				
8E	HH8-P1	POWER SOURCE	10	1		3				
8D	HH9-1E	HH8-2	1040	1						1
8C	HH8-2	HH8-1	565		1					1
8B	HH8-1	ITS CABINET 4J	10	1						1
8A	HH8-1	HH7-4	545	1						1
7I	ITS CABINET 3J	SIGN FOUNDATION	10	2						2
7H	HH7-P1	HH7-P2E	125	1			3			
7G	ITS CABINET 3J	HH7-D2	20	1				2	1	
7F	HH7-D2	HH7-D1	180		1			2	1	
7E	HH7-D1	LIGHT POLE	20	1				2	1	
7D	HH7-4	HH7-3	100		1					1
7C	HH7-3	HH7-2	1180	1						1
7B	HH7-2/HH7-P1	ITS CABINET 3J	20	2			3			1
7A	HH7-2	HH7-1	180		1					1
6F	HH6-D2	LIGHT POLE	20	1				2	1	
6E	HH6-D2	HH6-D1	255		1			2	1	
6D	HH7-1	HH6-4	545	1						1
6C	HH6-4	HH6-3	60		1					1
6B	HH6-3	HH6-2	825	1						1
6A	HH6-2	HH6-1	90		1					1
5G	HH6-D1	HH5-D1	780	1				2	1	
5F	HH5-D1	POLE FOUNDATION	20	1				2	1	
5E	HH6-1	HH5-3	940	1						1
5D	HH5-3	FTC 101	20	1						1
5C	HH5-3	POLE FOUNDATION	20	1						1
5B	HH5-3	HH5-2	180		1					1
5A	HH5-2	HH5-1	510		1					1
4C	HH5-1	HH4-3	1610	1						1
4B	HH4-3	HH4-2	210		1					1
4A	HH4-2	HH4-1	100		1					1
3C	HH4-1	HH3-3	480	1						1
3B	HH3-3	HH3-2	145		1					1
3A	HH3-2	HH3-1	960	1						1
2A	HH3-1	HH2-1	1020	1						1
1B	HH2-1	HH1-1E	685	1						1
1A	HH1-1E	ITS CABINET 1J	15							

LISTING OF ITS CABINET WORK				
Cabinet Label	Sheet Number	Cabinet Size	Pole Mount	Pad Mount
CABINET 4J	ITS-05	36"x24"x17"		X
CABINET 3J	ITS-06	36"x24"x17"		X
CABINET 2J	ITS-08	36"x24"x17"	X	
FTC 101 (EXIST)	ITS-08	UNKNOWN		X
CABINET 1J(EXIST)	ITS-12	UNKNOWN		X

PROJECT DESCRIPTION				
INTELLIGENT TRANSPORTATION SYSTEM (ITS) PROJECT WORK SUMMARY				
THIS PROJECT INVOLVES FURNISHING AND INSTALLING ITS INFRASTRUCTURE. ITS WORK INCLUDES FURNISHING AND INSTALLING CONDUIT, HANDHOLES, CABINETS, ITT POLES, DMS SIGN STRUCTURES, AND ELECTRICAL CIRCUITS. ITS WORK ALSO INCLUDES INSTALLING MVDS CABLING, AND ITS REMOVALS AS SHOWN.				

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	PLOT DATE = 3/22/2017	DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS QUANTITIES

SCALE: NA SHEET NO. 842OF 2042SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	842
				CONTRACT NO. 64E26
ILLINOIS FED. AID PROJECT				

ITS-01



GENERAL NOTES

1. THE CONTRACTOR'S BID SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL ITS INSTALLATION IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
2. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES, WHEN SHOWN, ARE APPROXIMATE ONLY. IN ADDITION, A PORTION OF UTILITY INFORMATION MAY NOT HAVE BEEN PROVIDED. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITIES AND LOCATOR SERVICES AND SCHEDULING THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL ALSO CONTACT ANY AND ALL UTILITIES AND LOCAL GOVERNMENT AGENCIES NOT PARTICIPATING IN LOCATION SERVICES.
3. PROPOSED ITS EQUIPMENT LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION TO AVOID CONFLICTS WITH UNDERGROUND UTILITES OR OTHER OBSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ANY CONFLICTS WITH EXISTING UTILITIES AT SITES IN THE FIELD PRIOR TO INITIATION OF CONSTRUCTION AT THAT SITE. AS THE CCTV AND SENSOR LOCATIONS ARE LOCATION SENSITIVE, THE CONTRACTOR SHALL RECEIVE WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO REVISING THE PLAN LOCATION OF ANY CONDUIT, POLES, FOUNDATIONS, OR CABINETS.
4. ABOVE GROUND RISERS SHALL BE RIGID STEEL CONDUIT. ALL OTHER CONDUIT SHALL BE HDPE CONDUIT. RIGID P.V.C. CONDUIT (SCHEDULE 40 OR AS APPROVED) MAY BE SUBSTITUTED FOR CONDUIT RUNS UNDER 50 FEET.
5. ANY AND ALL IMPROVEMENTS SUCH AS ASPHALT OR CONCRETE PAVEMENTS, CURBS, GUTTERS, WALKS, DRAINAGE DITCHES, CULVERTS, DRAIN TILES, EMBANKMENTS, SHRUBS, TREES, GRASS, SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS (OR BETTER) AS DIRECTED BY THE ENGINEER.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR EXISTING CONDUIT, CONDUCTORS, OR OTHER FACILITIES DAMAGED DURING CONSTRUCTION. ALL EXISTING INFRASTRUCTURE REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY THE CONTRACTOR, WITH NO ADDITIONAL COMPENSATION.
7. THE CONTRACTOR SHALL NOT DISTURB ANY EXISITING UTILITIES EXCEPT AS SPECIFICALLY DEFINED WITHIN THE SCOPE OF WORK FOR THIS CONTRACT. WHERE WORK AFFECTS OR IS AFFECTED BY THE EXISTING UTILITIES, THE WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND/OR OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE DOT.
8. UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE STARTING CONSTRUCTION DATE.
9. ALL CONDUIT SHALL BE PLACED AT A 48 INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED ON THE PLANS.
10. THE CONTRACTOR SHALL BORE UNDER ANY EXISTING ASPHALT OR CONCRETE PAVEMENT, RAILROAD, OR OTHER STRUCTURE.
11. THE CONTRACTOR SHALL PLOW ALL CONDUIT WHERE EXISTING CONDITIONS ALLOW UNLESS OTHERWISE SPECIFIED ON THE PLANS. THE CONTRACTOR MAY BORE IN LIEU OF PLOWING AT THE CONTRACTOR'S EXPENSE.
12. THE MINIMUM BENDING RADIUS OF CONDUIT AND MULTIDUCT SYSTEMS SHALL BE THE LARGER OF THE FIBER OPTIC CABLE MANUFACTURER'S RECOMMENDATION OR NATIONAL ELECTRIC CODE (NEC) REQUIREMENTS. ALL CONDUIT SWEEP RADII SHALL BE GREATER AND/OR EQUAL TO 15 INCHES.
13. ALL WIRING AND GROUNDING SYSTEMS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
14. THIS PROJECT DOES NOT INCLUDE PURCHASING, OR INSTALLTION OF ANY CAMERAS, SENSORS, DYNAMIC MESSAGE SIGNS, OR OTHER ITS DEVICES.

GENERAL NOTES

15. LINEAR MEASUREMENTS ARE TAKEN BETWEEN POLE BASE, AND HANDHOLE CENTERS AND DO NOT INCLUDE ALLOWANCES FOR VERTICAL RISES OR SPLICES.
16. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE '2016 ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION' PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVSIONS.
17. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE, COMMUNICATE, AND COORDINATE THIS WORK WITH ADJACENT CONSTRUCTION PROJECTS THAT INCLUDE BUT ARE NOT LIMITED TO ADJACENT ROADWAY PROJECTS.
18. ALL HANDHOLE LIDS SHALL BE LABELED. HANDHOLES FOR FIBER OPTIC COMMUNICATIONS SHALL BE LABELED 'FIBER OPTIC'. HANDHOLES FOR ITS POWER SHALL BE LABELED 'ELECTRICAL'.
19. POWER IS PROVIDED BY MIDAMERICAN ENERGY AND DESIGN REQUIRES 120/240V SERVICE FROM EXISTING METERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE NECESSARY CONTACTS WITH THE UTILITY COMPANY WITH REGARD TO WORK RELATED TO THE EXISTING METERS.

ITS LEGEND

INFRASTRUCTURE

- PLOWED CONDUIT
- BORED CONDUIT
- ☒ FIBER TERMINATION CABINET
- ☒ CABINET
- DYNAMIC MESSAGE SIGN (STRUCTURE ONLY)
- ⦿ 45 FOOT ITS POLE
- ▣ HANDHOLE (COMM)
- ⦿ HANDHOLE (POWER)
- ⦿ POWER SOURCE
- ⦿ METER PEDESTAL

DEVICES\*

- )) MOTOR VEHICLE DETECTOR SENSOR (MVDS)
- ◀ ITS CLOSED CIRCUIT TELEVISION CAMERA (CCTV)
- DMS— EXISTING OVERHEAD DMS SIGN

\*SEE NOTE 14.

LAYOUT	DRAWN	REVIEWED

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS GENERAL NOTES

SCALE: NA      SHEET NO. 843OF 2042SHEETS      STA.      TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	843
				CONTRACT NO. 64E26
ILLINOIS FED. AID PROJECT				



REMOVE EXISTING  
HANDHOLE SEE NOTES

REMOVE CABLING. CONDUIT TO BE  
ABANDONED IN PLACE. SEE NOTES.

REMOVE EXISTING  
HANDHOLE SEE NOTES

REMOVE CABLING. CONDUIT TO BE  
ABANDONED IN PLACE. SEE NOTES.

REMOVE EXISTING CABINET (POLE MOUNTED) AND ALL APPURTENANCES. SALVAGE TO IOWA DOT. SEE NOTES.

REMOVE EXISTING  
HANDHOLE SEE NOTES

REMOVE CABLING. CONDUIT TO BE  
ABANDONED IN PLACE. SEE NOTES.

REMOVE EXISTING  
HANDHOLE SEE NOTES

REMOVE CABLING. CONDUIT TO BE  
ABANDONED IN PLACE. SEE NOTES.

PROTECT EXISTING  
METER IN PLACE

REMOVE CABLING. CONDUIT TO BE  
ABANDONED IN PLACE. SEE NOTES.

REMOVE EXISTING CABINET (POLE MOUNTED) AND ALL APPURTENANCES (CABINET ATTACHED TO OVERHEAD SIGN TRUSS). SALVAGE TO IOWA DOT. SEE NOTES.

1. CONTRACTOR TO NOTIFY IOWA DOT PRIOR TO CONSTRUCTION TO FACILITATE REMOVAL OF ITS DEVICES AND WIRELESS EQUIPMENT BY ITS MAINTENANCE VENDOR.
2. REMOVE ASSOCIATED CABLING AND SALVAGE CABLING TO IOWA DOT. CONDUIT TO BE ABANDONED IN PLACE. NO SEPARATE PAYMENT FOR THIS WORK SHALL BE MADE. COST TO REMOVE CABLING SHALL BE INCLUDED IN COST TO REMOVE ITS CABINETS, GATES, AND HANDHOLES.
3. CONTRACTOR TO NOTIFY LOCAL FIBER CONTACTS PRIOR TO REMOVAL. SEE REMOVE EXISTING ITS EQUIPMENT IN SPECIAL PROVISIONS.
4. CONTRACTOR SHALL SALVAGE ITS EQUIPMENT TO LOCATION SHOWN IN ITS PLANS OR TO ANOTHER LOCATION AS DIRECTED BY THE ENGINEER.

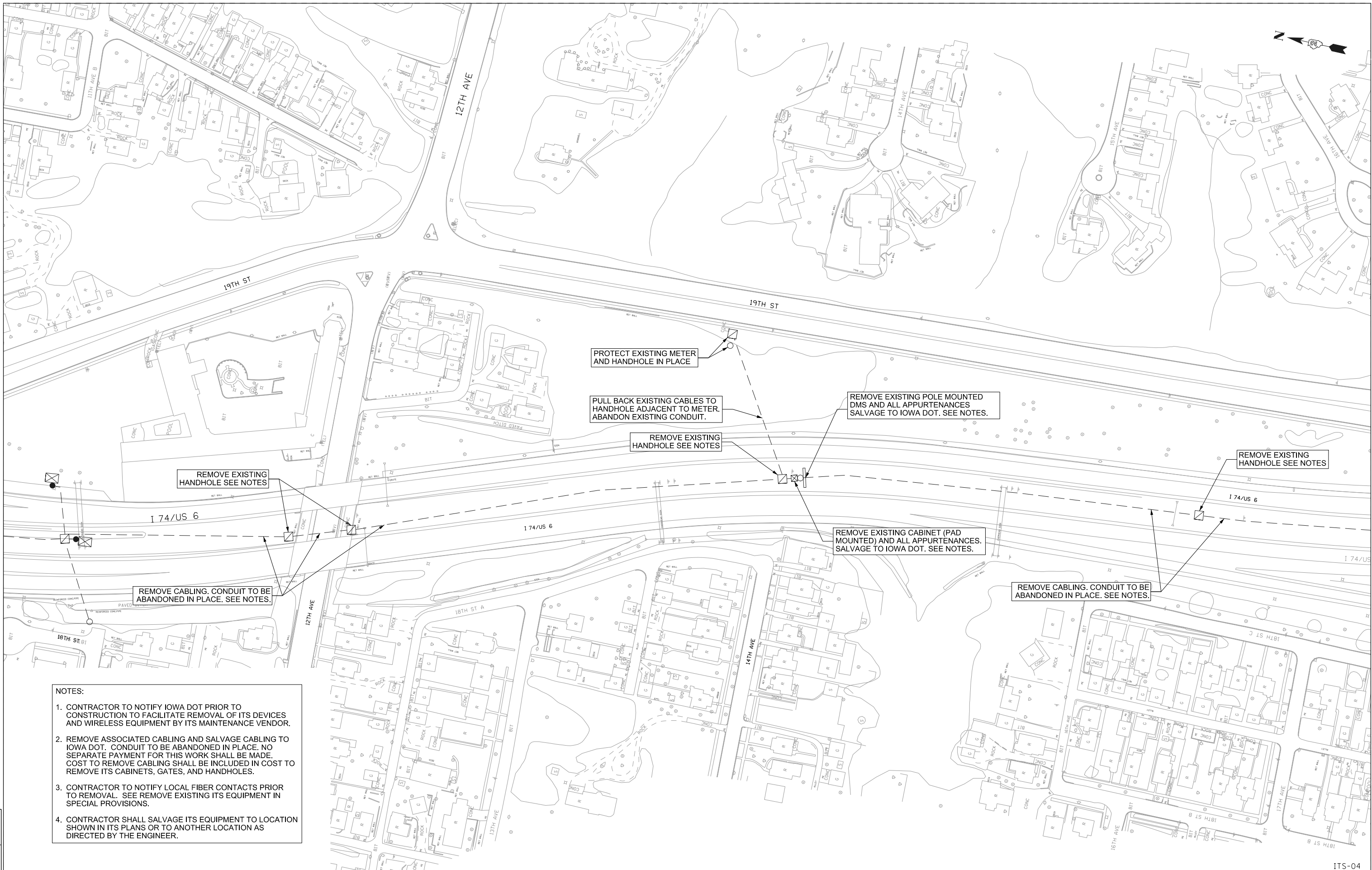
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## ITS PLANS AND DETAILS

## ITS REMOVALS

TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR,	ROCK ISLAND	2042	844
	HBR-1, HBR-2)	CONTRACT NO. 64E26		
ILLINOIS FED. AID PROJECT				



- NOTES:
1. CONTRACTOR TO NOTIFY IOWA DOT PRIOR TO CONSTRUCTION TO FACILITATE REMOVAL OF ITS DEVICES AND WIRELESS EQUIPMENT BY ITS MAINTENANCE VENDOR.
  2. REMOVE ASSOCIATED CABLING AND SALVAGE CABLING TO IOWA DOT. CONDUIT TO BE ABANDONED IN PLACE. NO SEPARATE PAYMENT FOR THIS WORK SHALL BE MADE. COST TO REMOVE CABLING SHALL BE INCLUDED IN COST TO REMOVE ITS CABINETS, GATES, AND HANDHOLES.
  3. CONTRACTOR TO NOTIFY LOCAL FIBER CONTACTS PRIOR TO REMOVAL. SEE REMOVE EXISTING ITS EQUIPMENT IN SPECIAL PROVISIONS.
  4. CONTRACTOR SHALL SALVAGE ITS EQUIPMENT TO LOCATION SHOWN IN ITS PLANS OR TO ANOTHER LOCATION AS DIRECTED BY THE ENGINEER.

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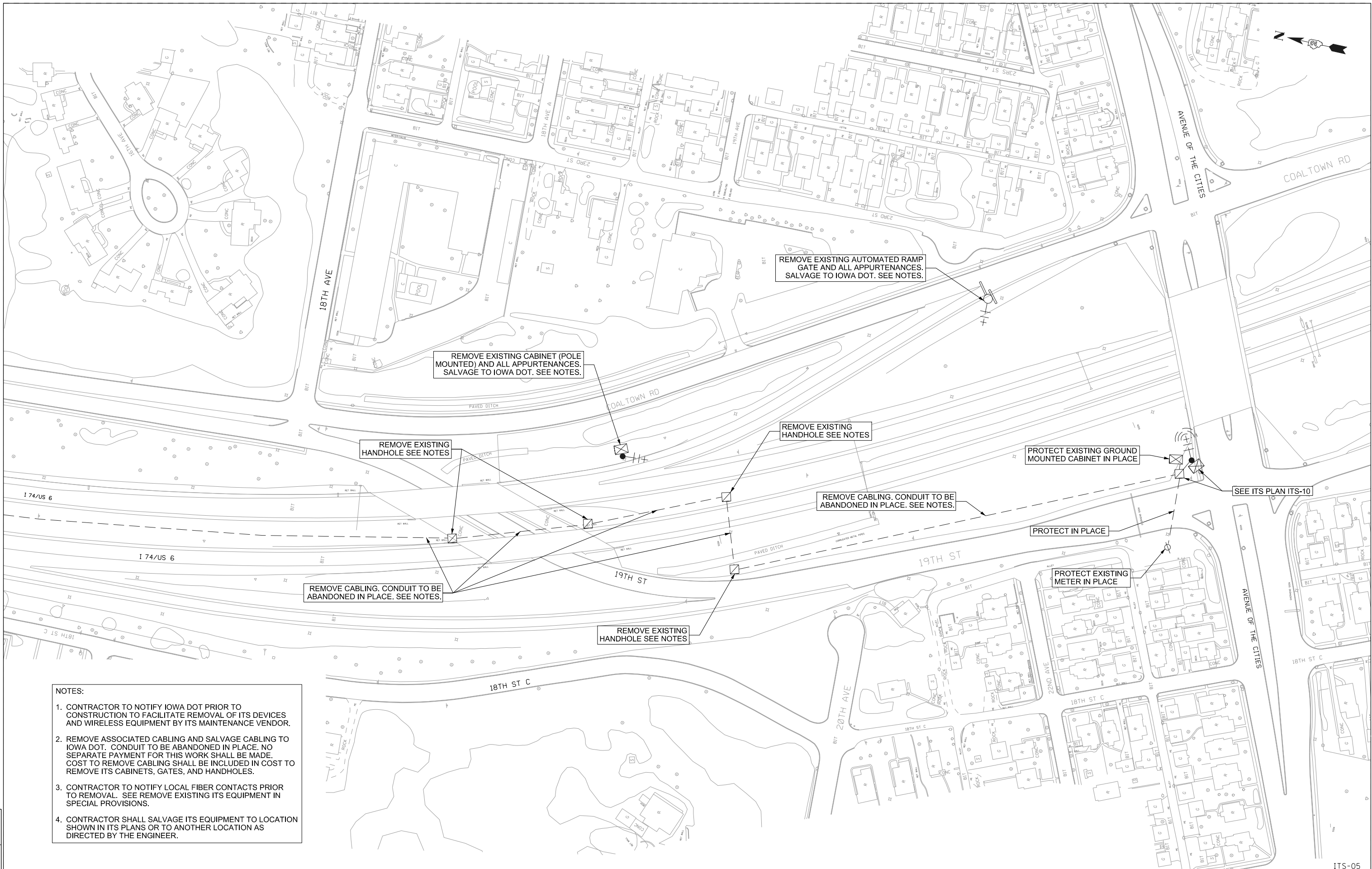
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS REMOVALS

SCALE: NA SHEET NO. 845OF 2042SHEETS STA. TO STA.

ITS-04				
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	845
		CONTRACT NO. 64E26		
ILLINOIS FED. AID PROJECT				

ITS-04



NOTES:

1. CONTRACTOR TO NOTIFY IOWA DOT PRIOR TO CONSTRUCTION TO FACILITATE REMOVAL OF ITS DEVICES AND WIRELESS EQUIPMENT BY ITS MAINTENANCE VENDOR.
2. REMOVE ASSOCIATED CABLING AND SALVAGE CABLING TO IOWA DOT. CONDUIT TO BE ABANDONED IN PLACE. NO SEPARATE PAYMENT FOR THIS WORK SHALL BE MADE. COST TO REMOVE CABLING SHALL BE INCLUDED IN COST TO REMOVE ITS CABINETS, GATES, AND HANDHOLES.
3. CONTRACTOR TO NOTIFY LOCAL FIBER CONTACTS PRIOR TO REMOVAL. SEE REMOVE EXISTING ITS EQUIPMENT IN SPECIAL PROVISIONS.
4. CONTRACTOR SHALL SALVAGE ITS EQUIPMENT TO LOCATION SHOWN IN ITS PLANS OR TO ANOTHER LOCATION AS DIRECTED BY THE ENGINEER.

LAYOUT	
DRAWN	
REVIEWED	

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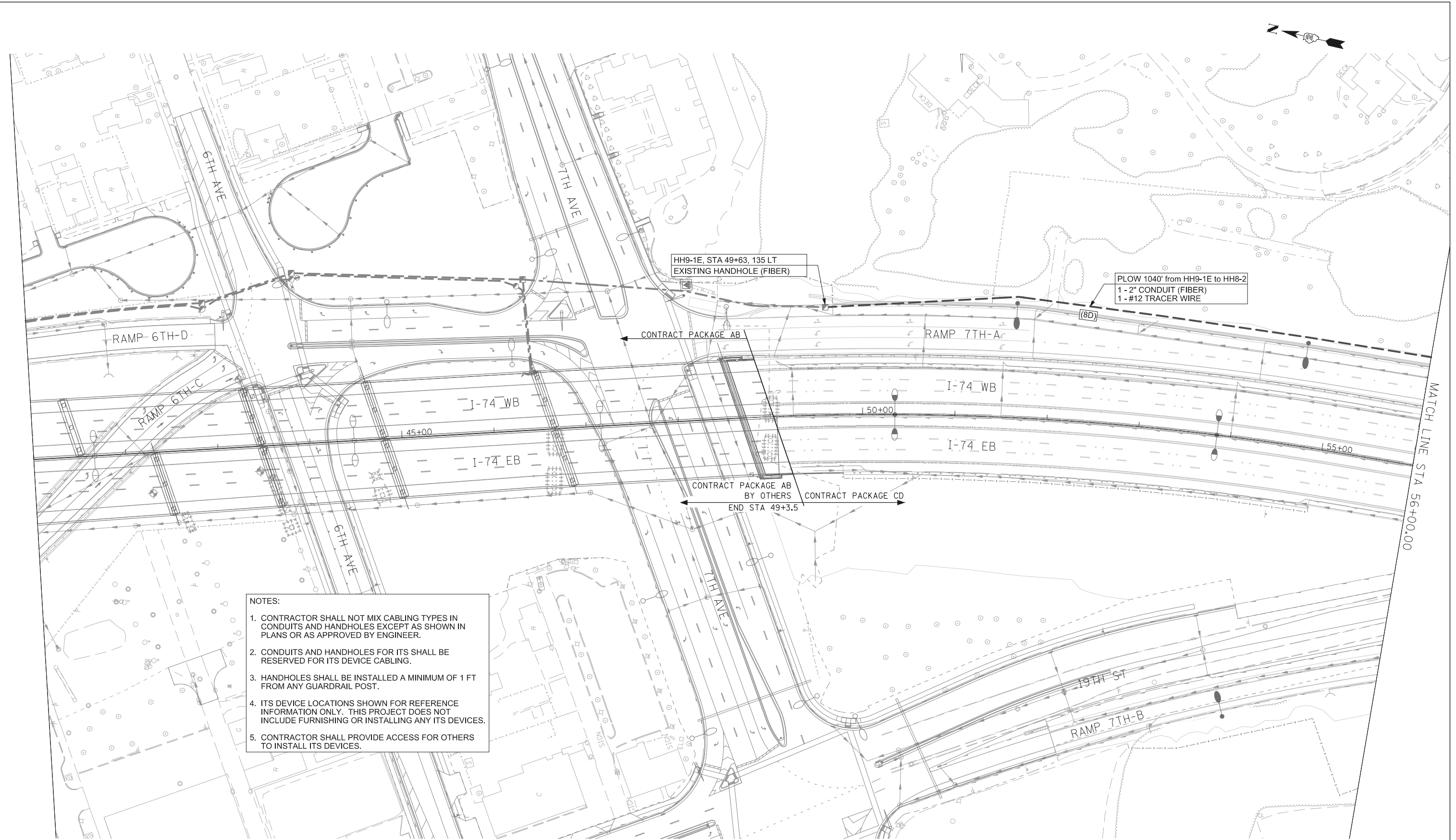
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS REMOVALS

SCALE: NA SHEET NO. 846OF 2042SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	846
CONTRACT NO. 64E26				
ILLINOIS FED. AID PROJECT				

ITS-05



- NOTES:
1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
  2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
  3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
  4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
  5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.

LAYOUT	
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FILE NAME =	USER NAME = dmcointock	DESIGNED - DJM	REVISED -
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PLOT SCALE = 1"=50'		CHECKED - SPG	REVISED -
PLOT DATE = 3/22/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 41+00 TO 56+00

SCALE: 1"=50' SHEET NO. 847OF 2042SHEETS STA. 41+00 TO STA. 56+00

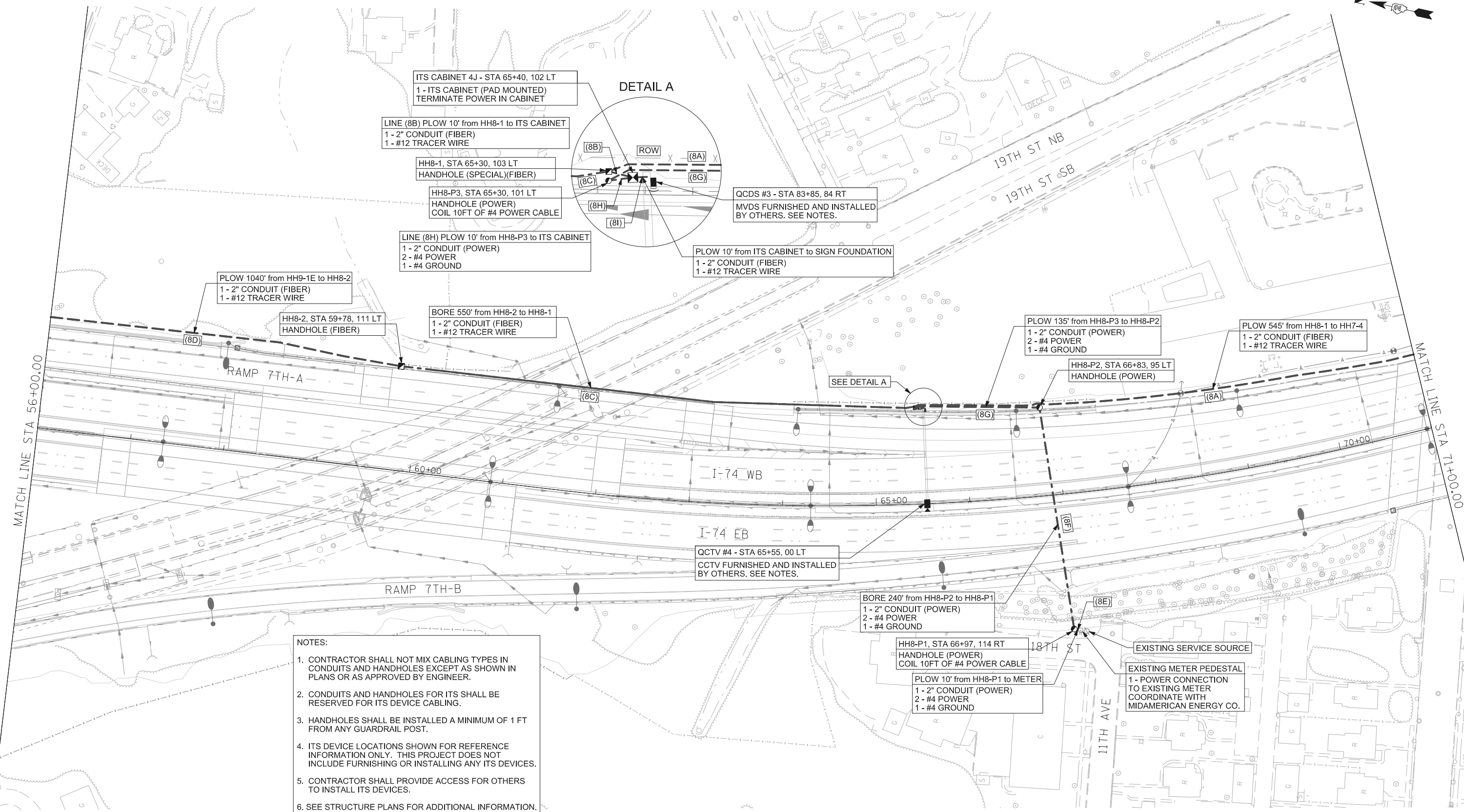


F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	847
				CONTRACT NO. 64E26
ILLINOIS FED. AID PROJECT				

ITS-06



ITERIS



## NOTES:

1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.
6. SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 56+00 TO 71+00

SCALE: 1"=50' SHEET NO. 8480F 2042SHEETS STA. 56+00 TO STA. 71+00

0 50' 100'  
SCALE:

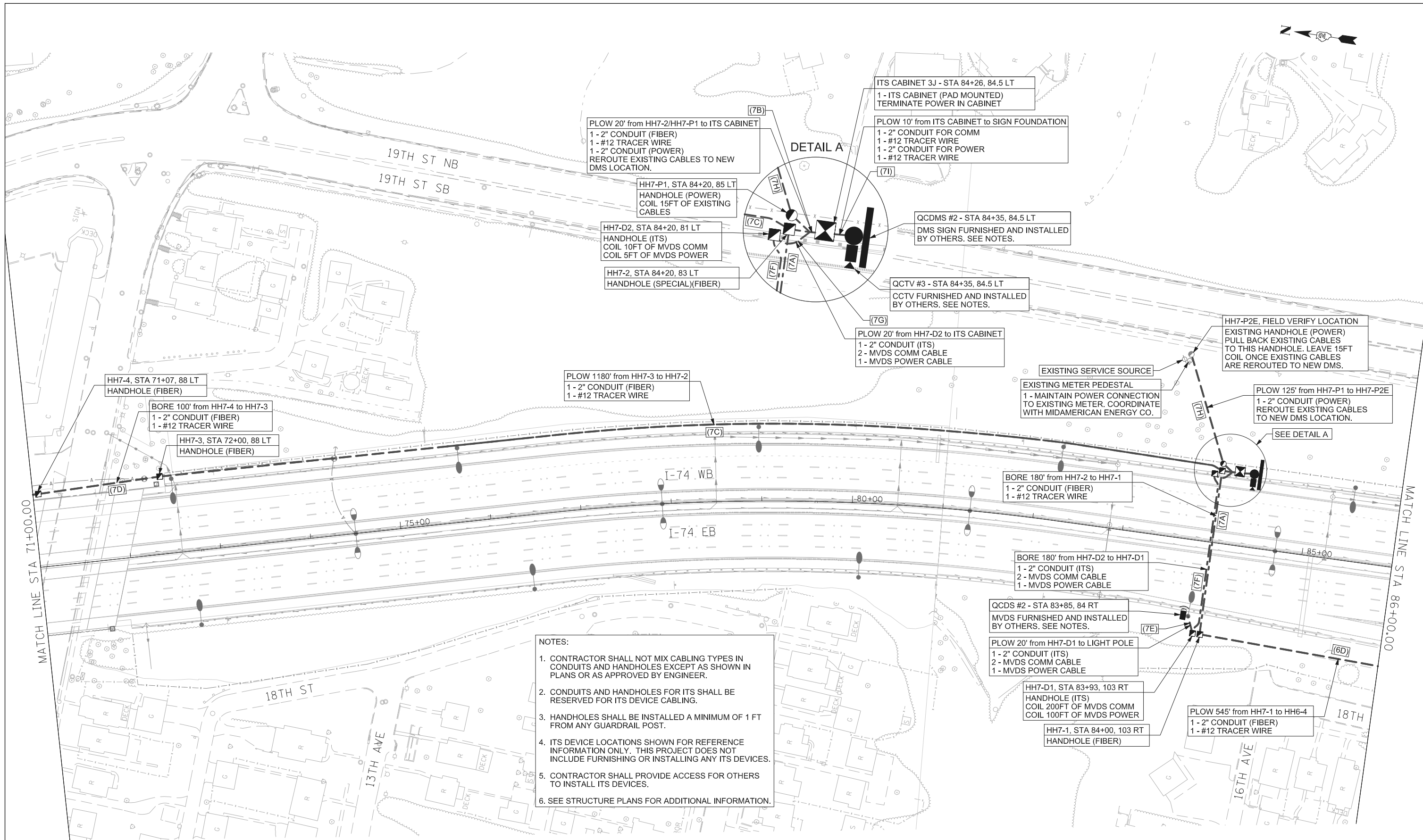
ITS-07

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)/R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	848
				CONTRACT NO. 64E26

ILLINOIS FED. AID PROJECT

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PLOT SCALE = 1"=50'		CHECKED - SPG	REVISED -
PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

ITERIS



LAYOUT	
DRAWN	
REVIEWED	

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PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

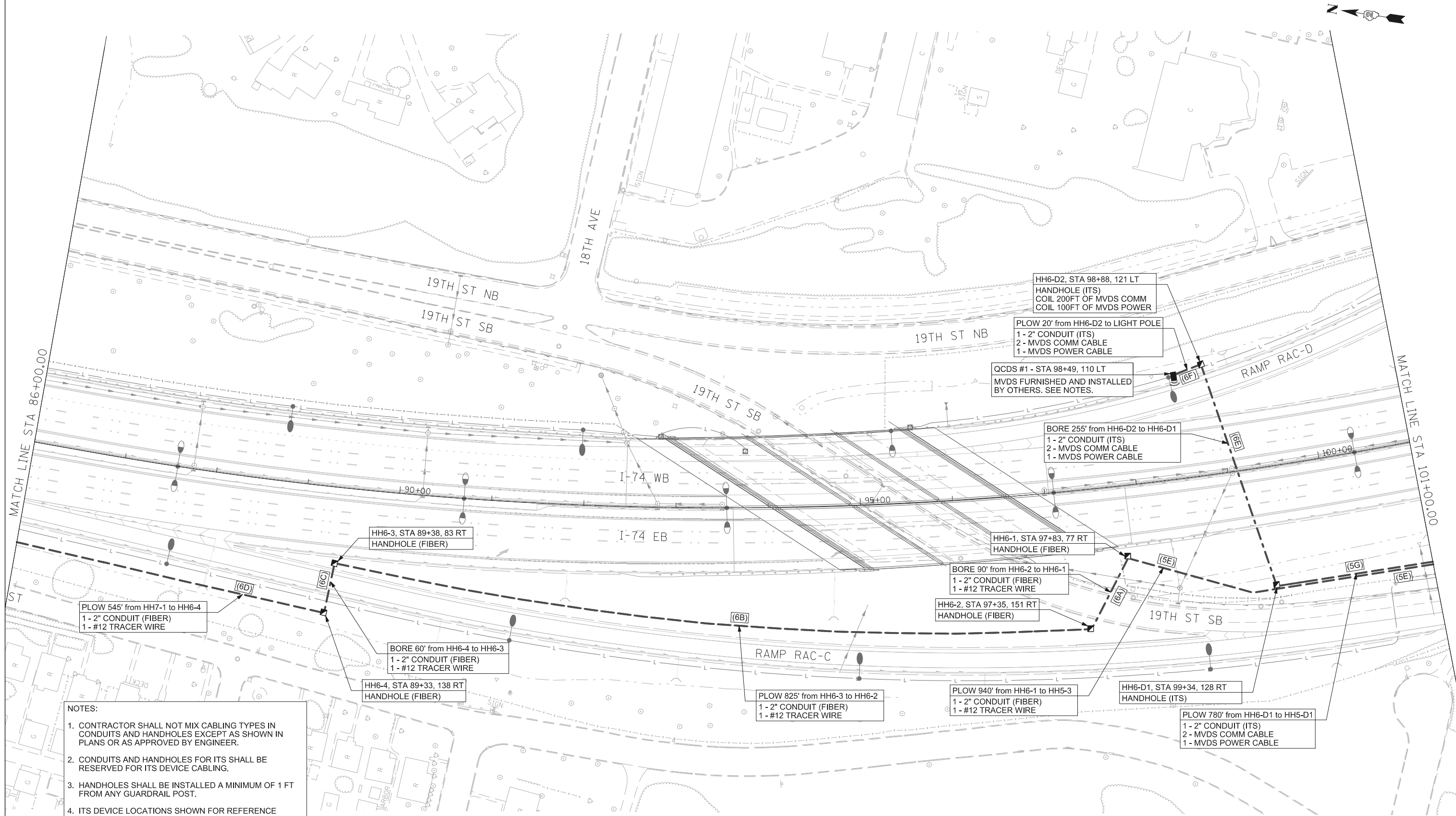
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 71+00 TO 86+00**

SCALE: 1"=50' SHEET NO. 8490F 2042SHEETS STA. 71+00 TO STA. 86+00



F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	849
CONTRACT NO. 64E26				ITS-08
ILLINOIS FED. AID PROJECT				




## NOTES:

1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.

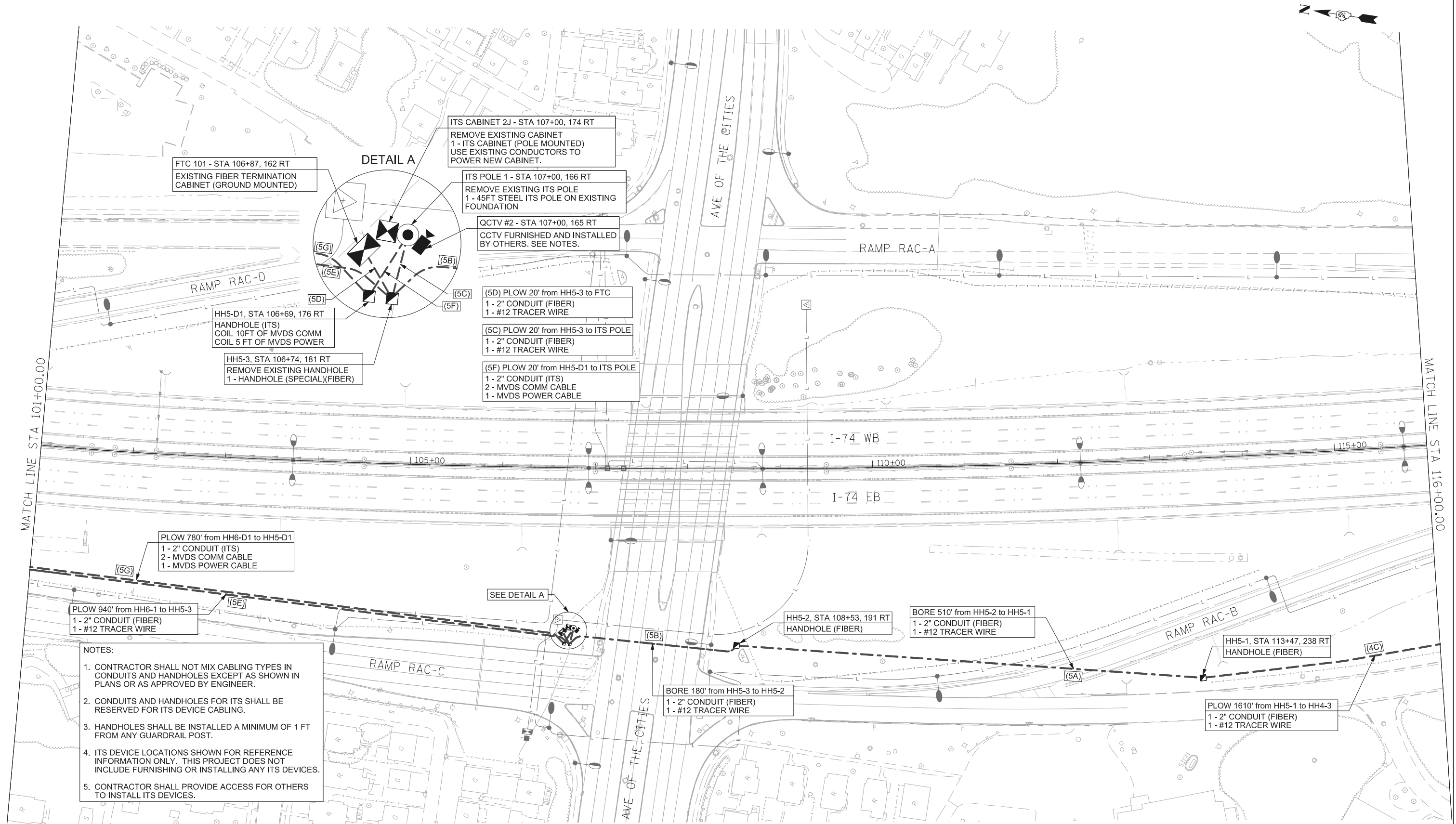
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PLOT SCALE = 1"=50'		CHECKED - SPG	REVISED -
PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATIONITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 86+00 TO 101+00

SCALE: 1"=50' SHEET NO. 8500F 2042SHEETS STA. 86+00 TO STA. 101+00

0		50'		100'	
SCALE:				ITS-09	
F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)		ROCK ISLAND	2042	850
			CONTRACT NO.		64E26
ILLINOIS FED. AID PROJECT					





LAYOUT	
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REVIEWED	

FILE NAME =	USER NAME = dmcolntock	DESIGNED - DJM	REVISED -
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PLOT DATE = 3/22/2017		DATE - 3/23/2017	REVISED -

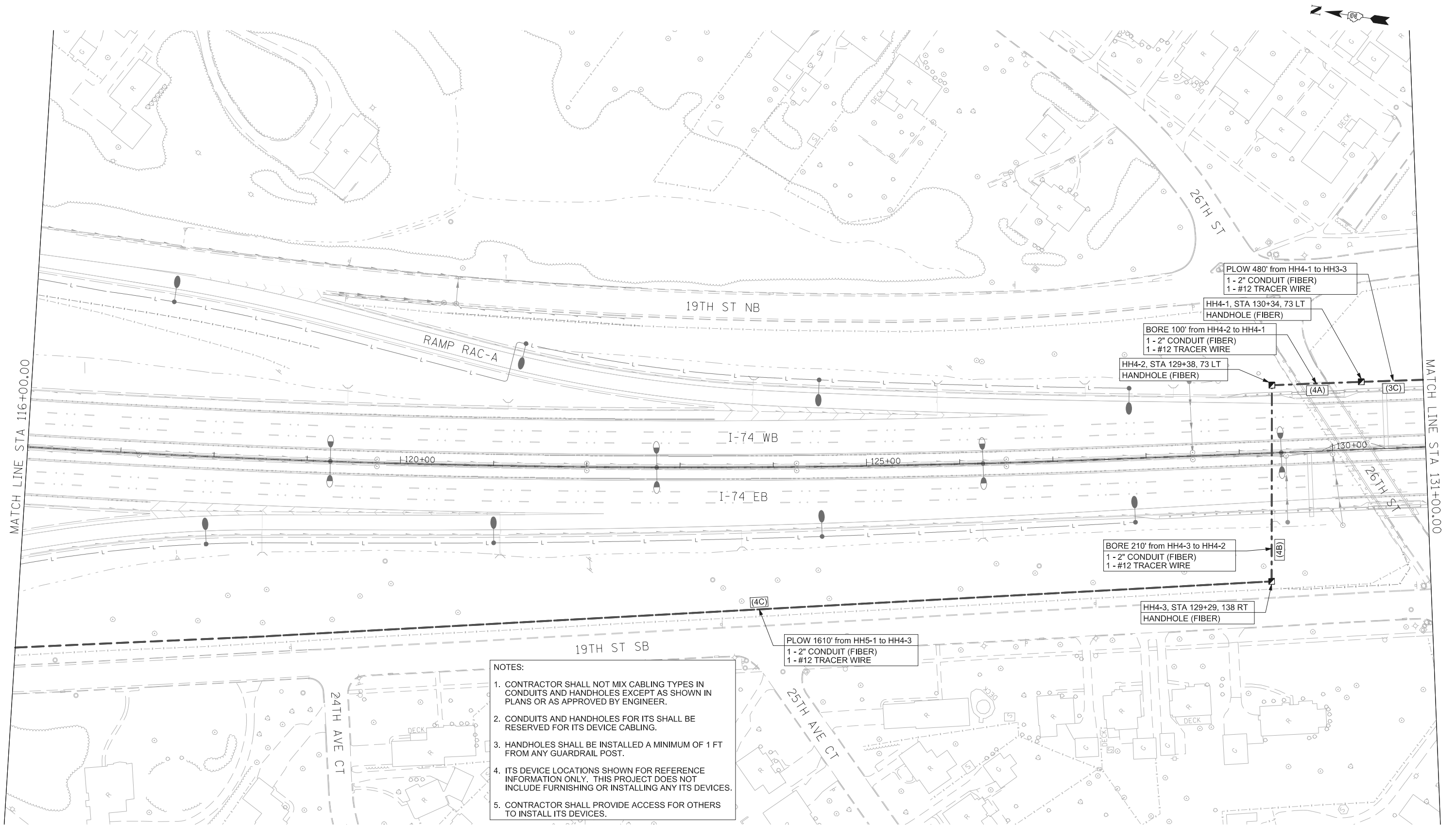
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 101+00 TO 116+00

SCALE: 1"=50' SHEET NO. 851 OF 2042 SHEETS STA. 101+00 TO STA. 116+00

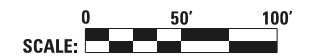


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)/R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	851
CONTRACT NO. 64E26				ITS-10
ILLINOIS FED. AID PROJECT				



NOTES:

1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.



SCALE:

ITS-11

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PLOT SCALE = 1"=50'		CHECKED - SPG	REVISED -
PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

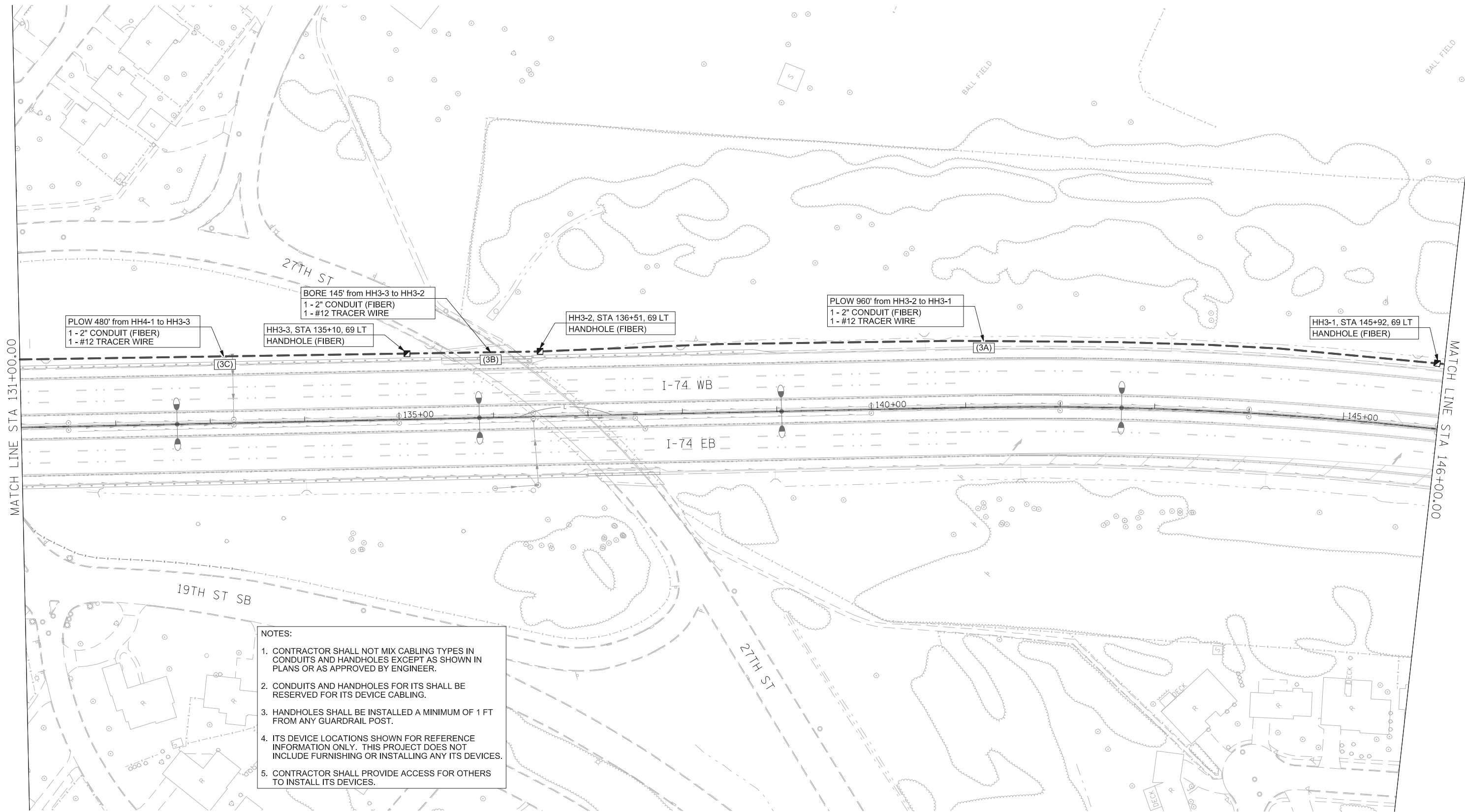
ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 116+00 TO 131+00

SCALE: 1"=50' SHEET NO. 852OF 2042SHEETS STA. 116+00 TO STA. 131+00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	852
				CONTRACT NO. 64E26

ILLINOIS FED. AID PROJECT

ITERIS



NOTES:

1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.

LAYOUT	
DRAWN	
REVIEWED	

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PLOT SCALE = 1"=50'		CHECKED - SPG	REVISED -
PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 131+00 TO 146+00

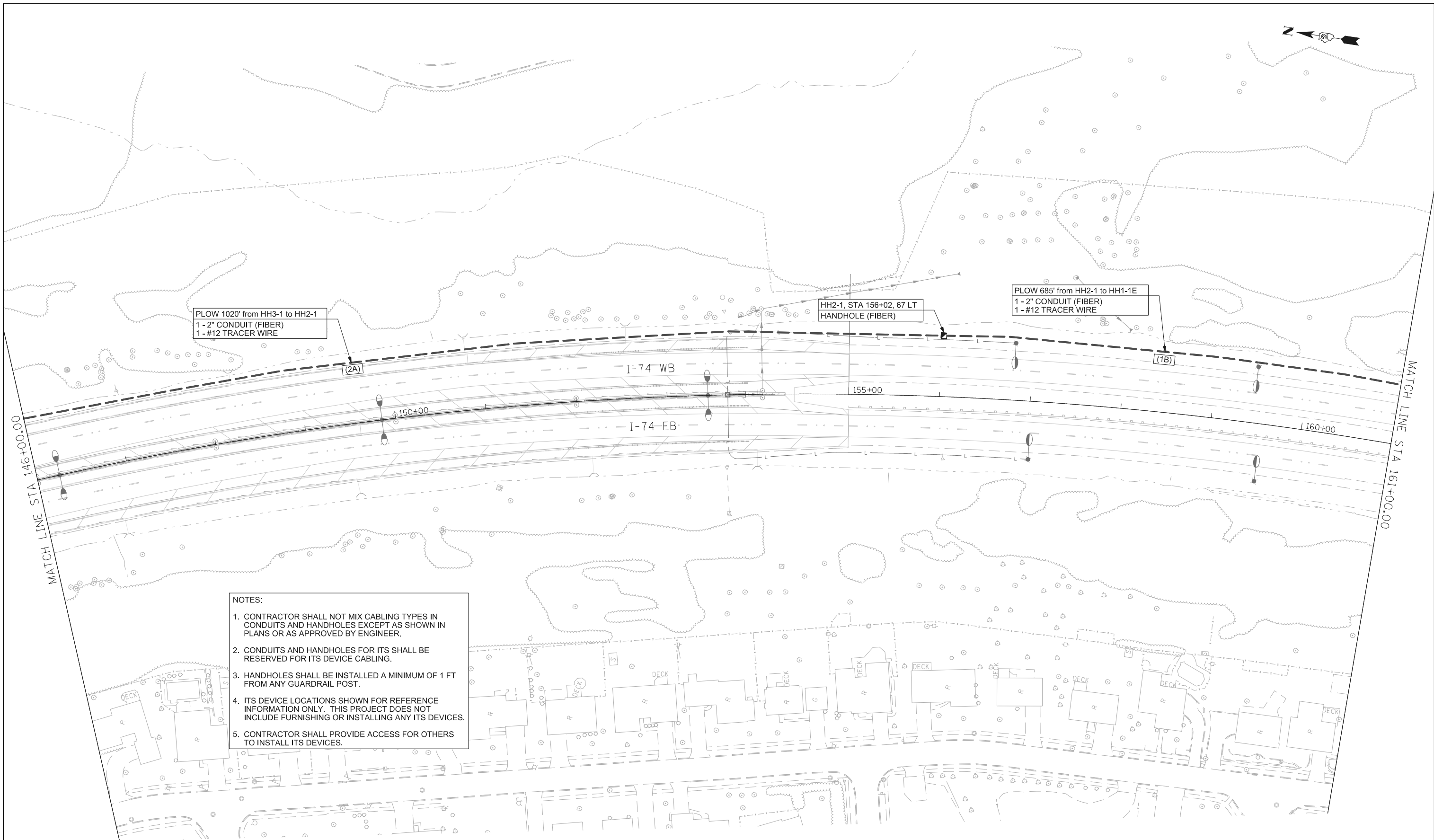
SCALE: 1"=50' SHEET NO. 8530F 2042SHEETS STA. 131+00 TO STA. 146+00



F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	853
				CONTRACT NO. 64E26
ILLINOIS FED. AID PROJECT				

ITS-12

ITERIS



- NOTES:
1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
  2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
  3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
  4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
  5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.

LAYOUT	
DRAWN	
REVIEWED	

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PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 146+00 TO 161+00

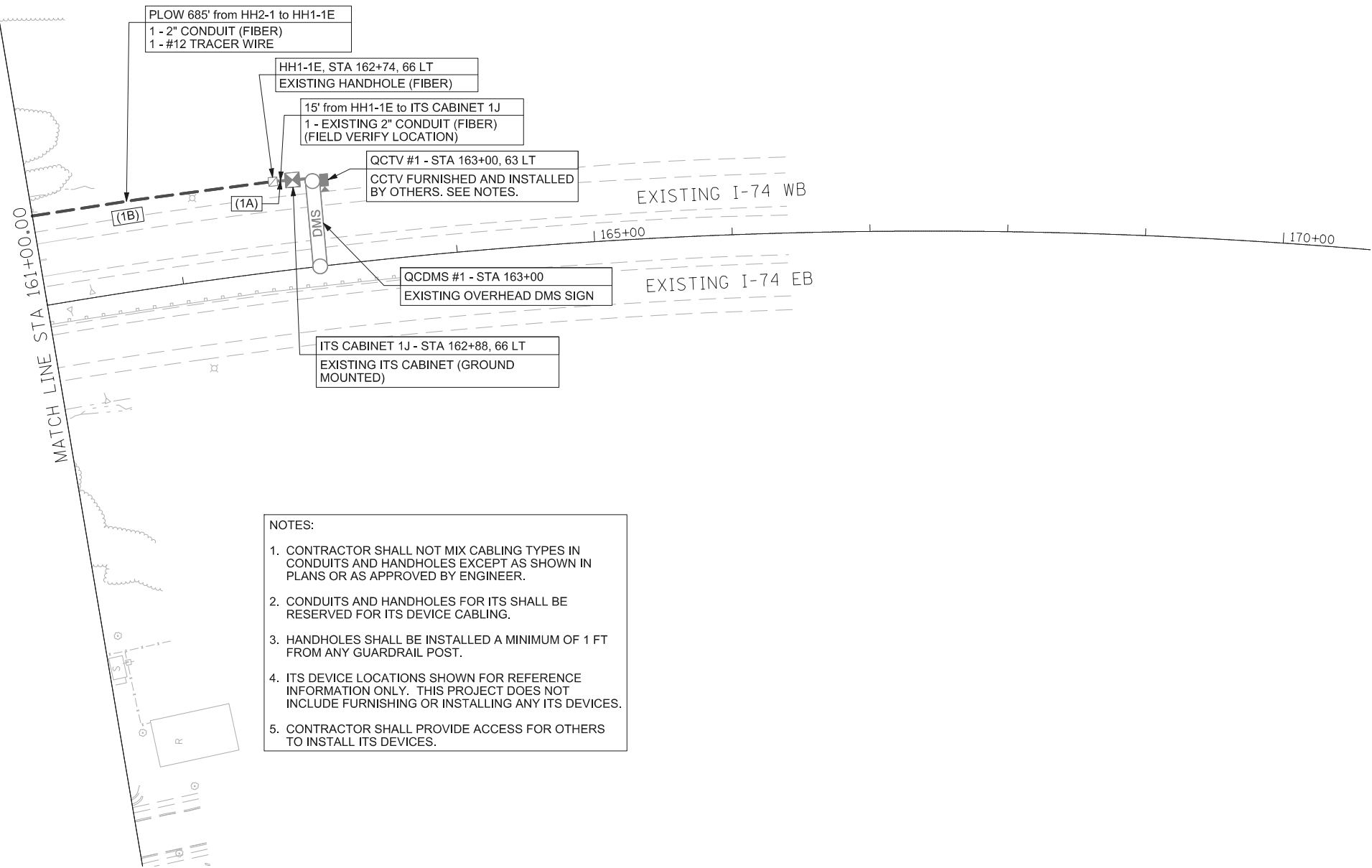
SCALE: 1"=50' SHEET NO. 854OF 2042SHEETS STA. 146+00 TO STA. 161+00



SCALE:

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	854
CONTRACT NO. 64E26				ITS-13
ILLINOIS FED. AID PROJECT				

ITERIS



- NOTES:
1. CONTRACTOR SHALL NOT MIX CABLING TYPES IN CONDUITS AND HANDHOLES EXCEPT AS SHOWN IN PLANS OR AS APPROVED BY ENGINEER.
  2. CONDUITS AND HANDHOLES FOR ITS SHALL BE RESERVED FOR ITS DEVICE CABLING.
  3. HANDHOLES SHALL BE INSTALLED A MINIMUM OF 1 FT FROM ANY GUARDRAIL POST.
  4. ITS DEVICE LOCATIONS SHOWN FOR REFERENCE INFORMATION ONLY. THIS PROJECT DOES NOT INCLUDE FURNISHING OR INSTALLING ANY ITS DEVICES.
  5. CONTRACTOR SHALL PROVIDE ACCESS FOR OTHERS TO INSTALL ITS DEVICES.

LAYOUT	
DRAWN	
REVIEWED	

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PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

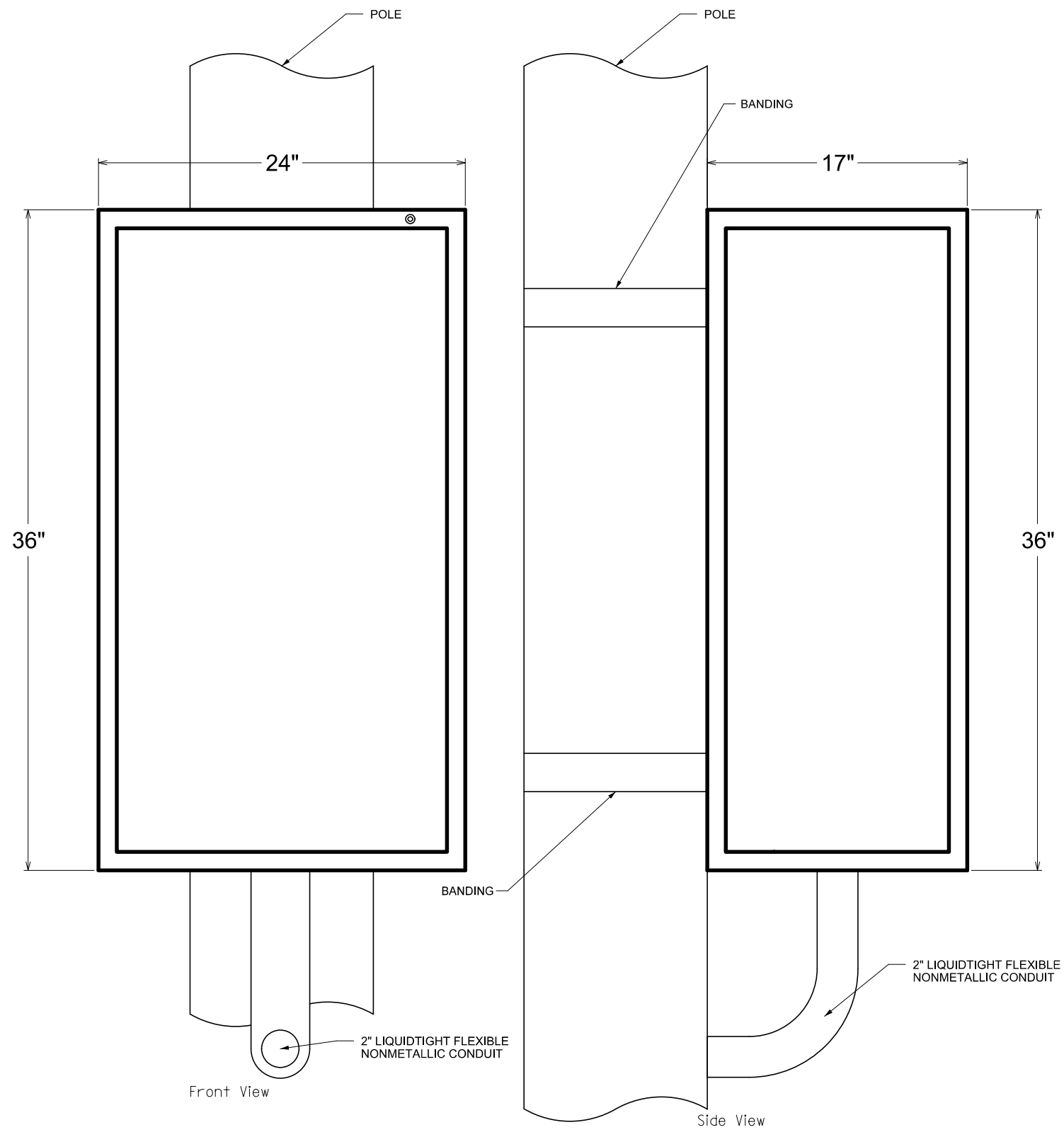
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS PLAN : I-74 MAINLINE AND RAMPS  
STA 161+00 TO 176+00

SCALE: 1"=50'	SHEET NO. 855 OF 2042 SHEETS	STA. 161+00	TO STA. 171+00
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SCALE:		ITS-14	
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042
		CONTRACT NO.	64E26
ILLINOIS FED. AID PROJECT			



- GENERAL NOTES
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.
  2. CABINET HARDWARE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  3. USE TYPE 316 STAINLESS STEEL FOR ALL CABINET MOUNTING HARDWARE.
  4. USE 3/4" WIDE AND 0.03" THICK BANDING FOR POLE MOUNTED CABINETS.

POLE MOUNTED DEVICE CABINET  
NOT TO SCALE

LAYOUT	
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REVIEWED	

FILE NAME =	USER NAME = dmcolintock	DESIGNED - DJM	REVISED -
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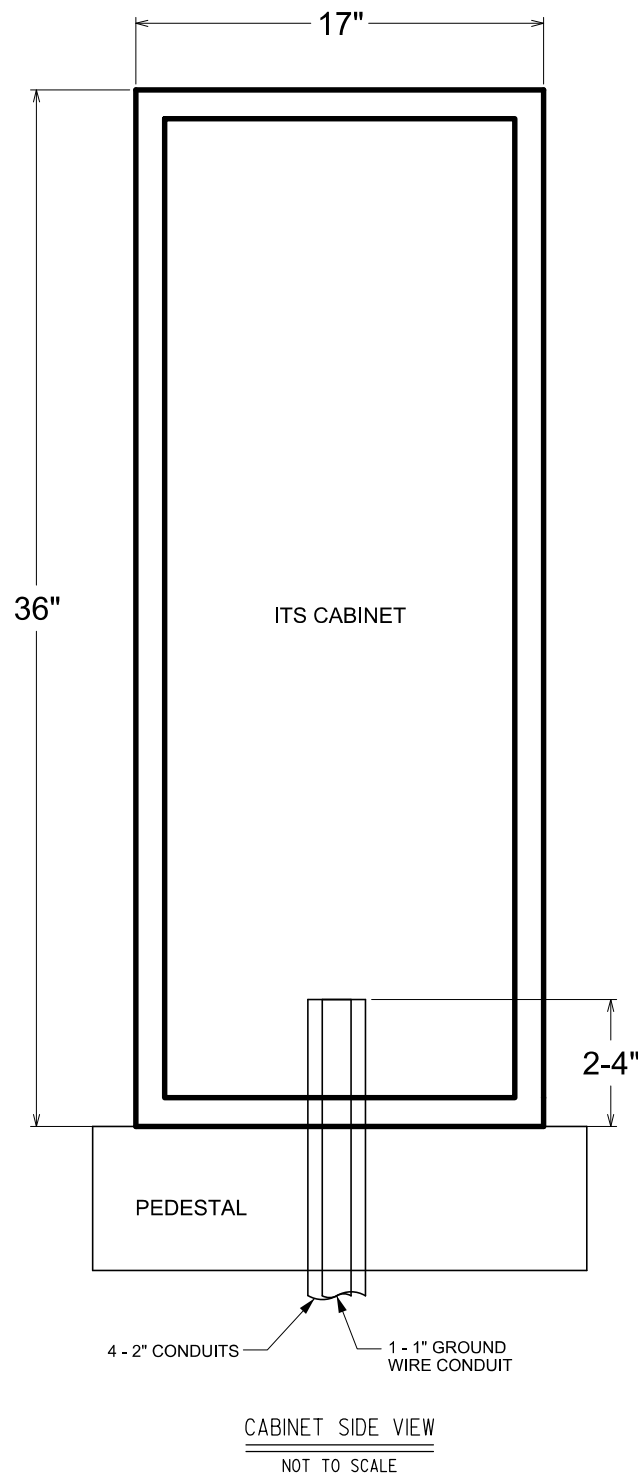
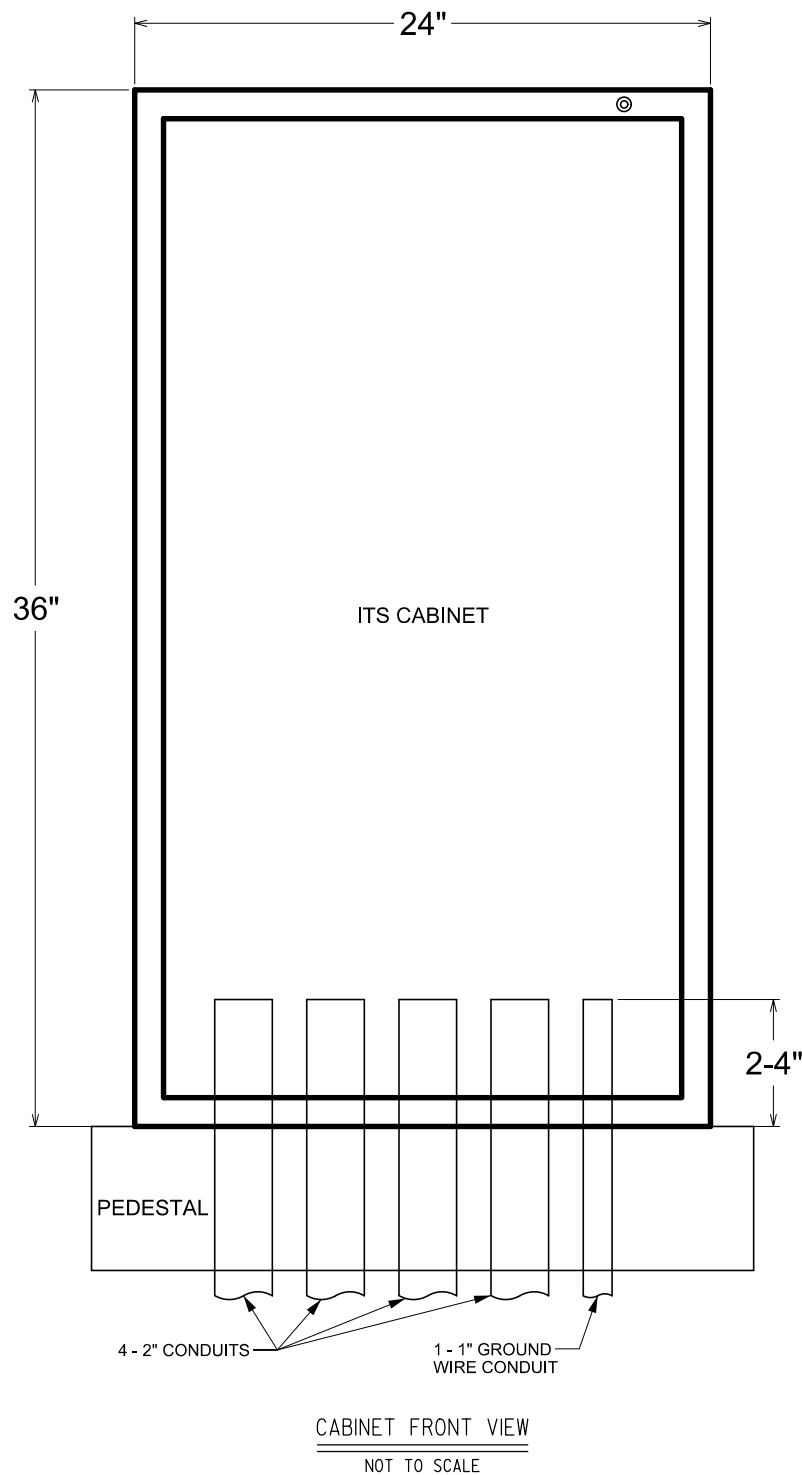
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS DETAILS  
POLE MOUNTED CABINET

SCALE: NA      SHEET NO. 856OF 2042SHEETS      STA.      TO STA.

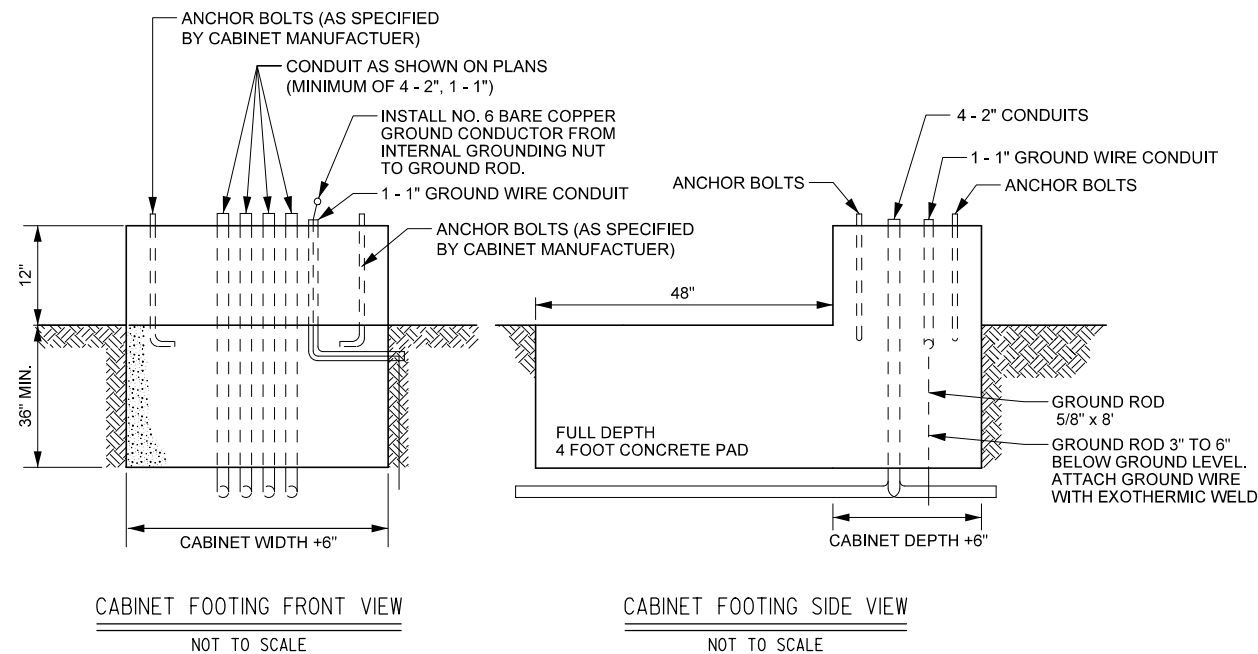
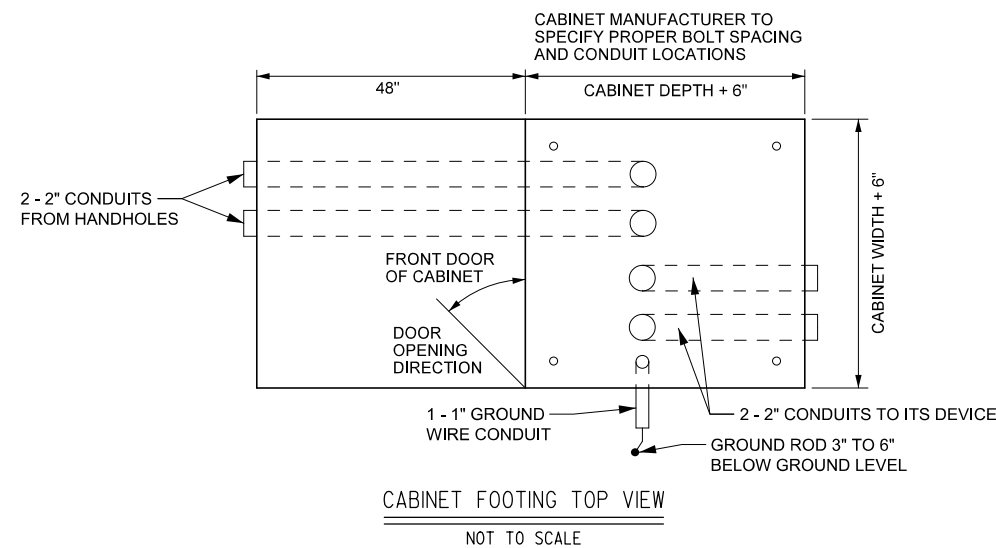
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	856
		CONTRACT NO. 64E26		
ILLINOIS FED. AID PROJECT				

ITS-15



## GENERAL NOTES

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.
2. FOUNDATION MUST BE INSTALLED PRIOR TO TRENCHING AND WITHOUT PILOT HOLE.
3. FOUNDATION MUST BE INSTALLED WITH BASEPLATE LEVEL AND FLUSH WITH FINISHED GRADE.
4. CABINET HARDWARE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
5. USE TYPE 316 STAINLESS STEEL FOR ALL CABINET MOUNTING HARDWARE.
6. FOR INSTALLATION OF CABINET TO PEDESTAL, USE 1/2" X 1 1/4" BOLTS WITH TWO FENDER WASHERS AND ONE LOCK WASHER INSTALLED WITH NUT ON TOP.
7. ALL ITS CABINET FOOTINGS SHALL INCLUDE A FULL DEPTH 4 FEET CONCRETE MAINTENANCE PAD AREA THAT IS CAST AND REINFORCED AS A SINGLE UNIT WITH THE CABINET PEDESTAL.
8. CONTRACTOR SHALL PREPARE AND SUBMIT FOR ENGINEER APPROVAL, DESIGN PLANS AND DETAILS FOR ALL CABINET FOOTINGS AT NO ADDITIONAL COST TO THE ENGINEER. SUCH PLANS AND DETAILS SHALL BE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ILLINOIS.
9. ANY DEVIATION FROM ABOVE INSTALLATION PROCEDURES MUST BE APPROVED BY ENGINEER.



LAYOUT	
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PLOT DATE = 3/21/2017	DATE - 3/23/2017	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS DETAILS  
GROUND MOUNTED CABINET

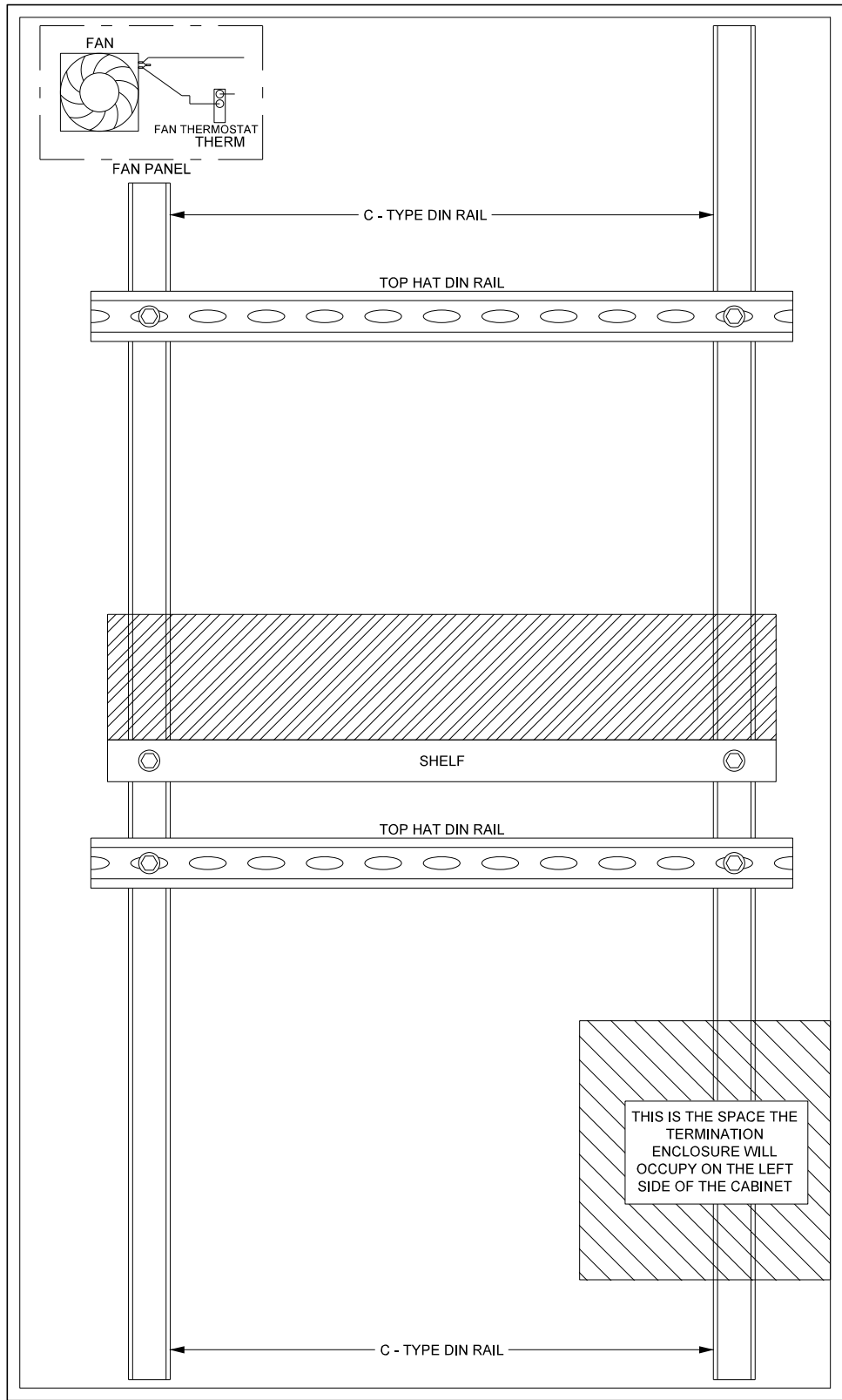
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F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	857
		CONTRACT NO.	64E26	
		ILLINOIS FED. AID PROJECT		

ITS-16

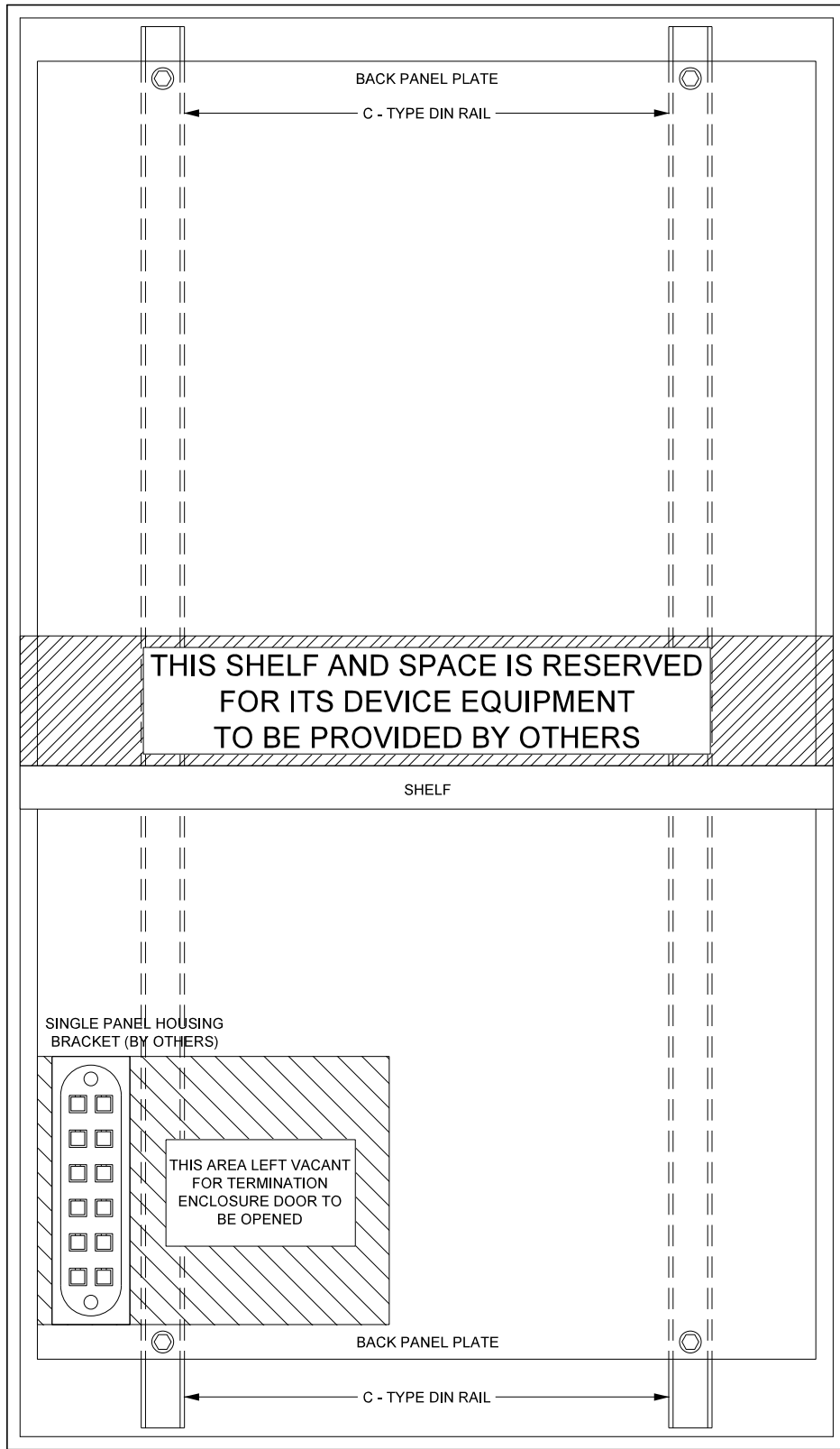


LEFT SIDE



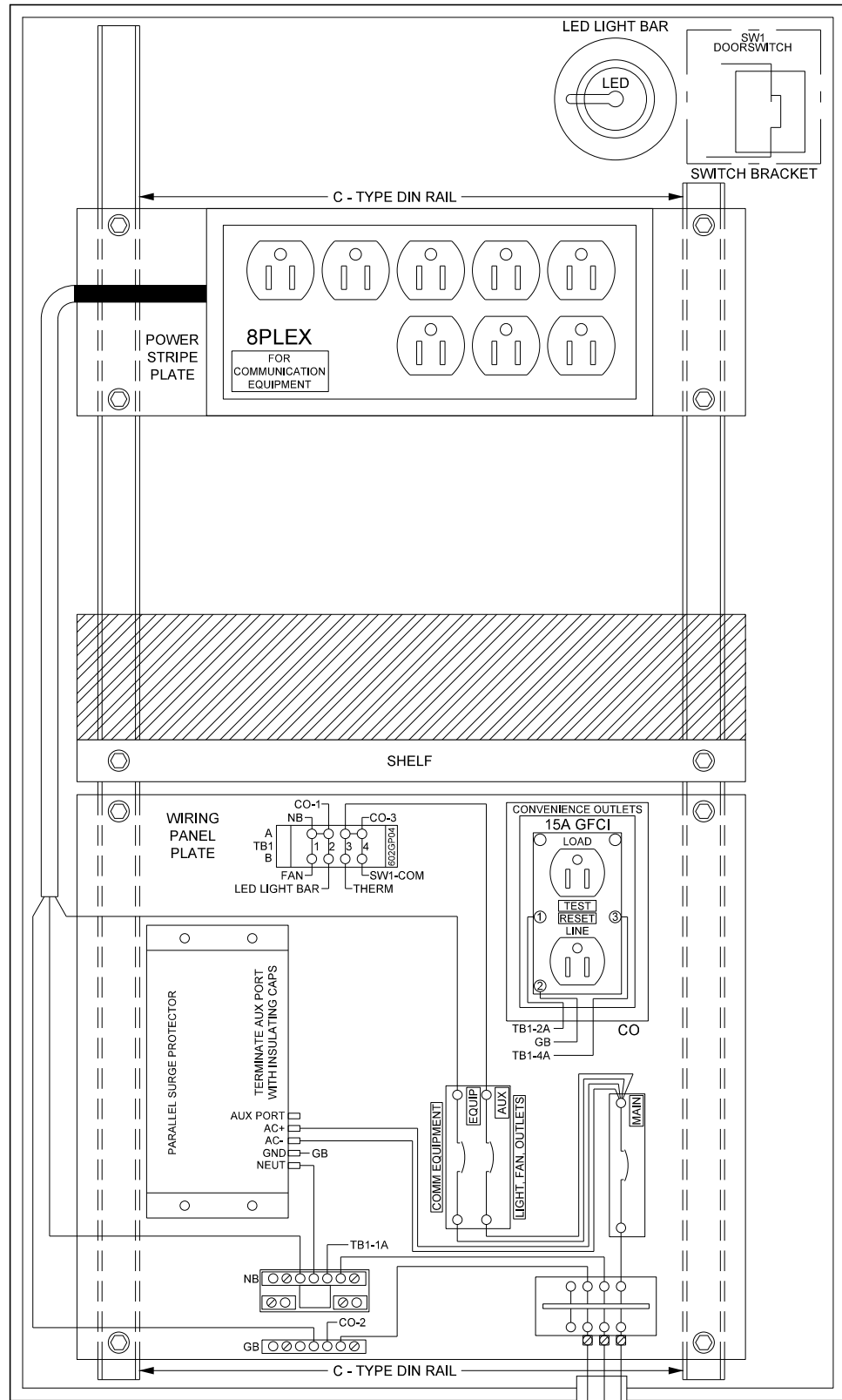
LEFT SIDE

BACK SIDE



BACK SIDE

RIGHT SIDE



RIGHT SIDE

## GENERAL NOTES

- MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.

## DEVICE CABINET LAYOUT

NOT TO SCALE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS DETAILS  
120V CABINET WIRING

SCALE: NA SHEET NO. 8580F 2042SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	858
			CONTRACT NO. 64E26	

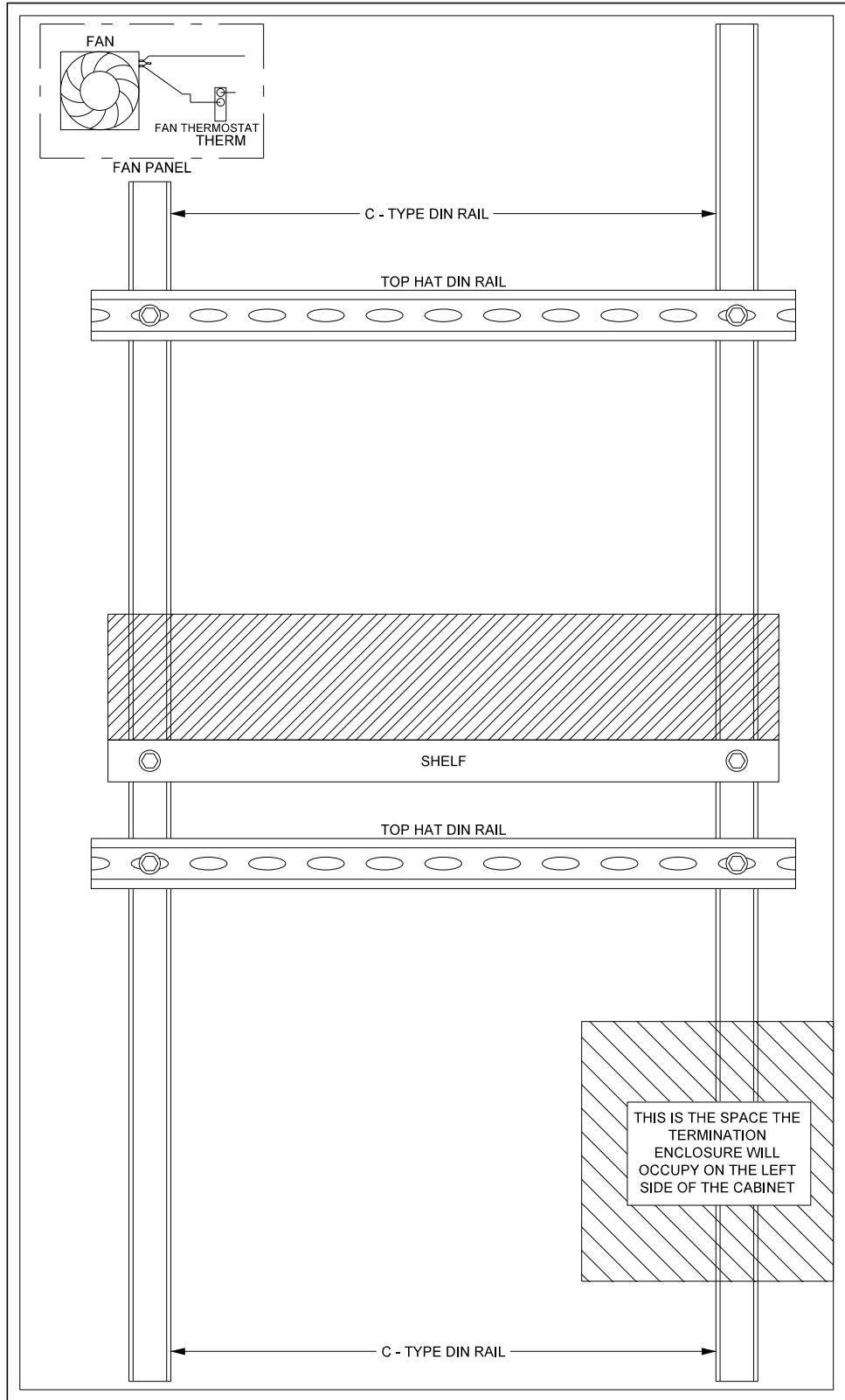
ILLINOIS FED. AID PROJECT

ITS-17

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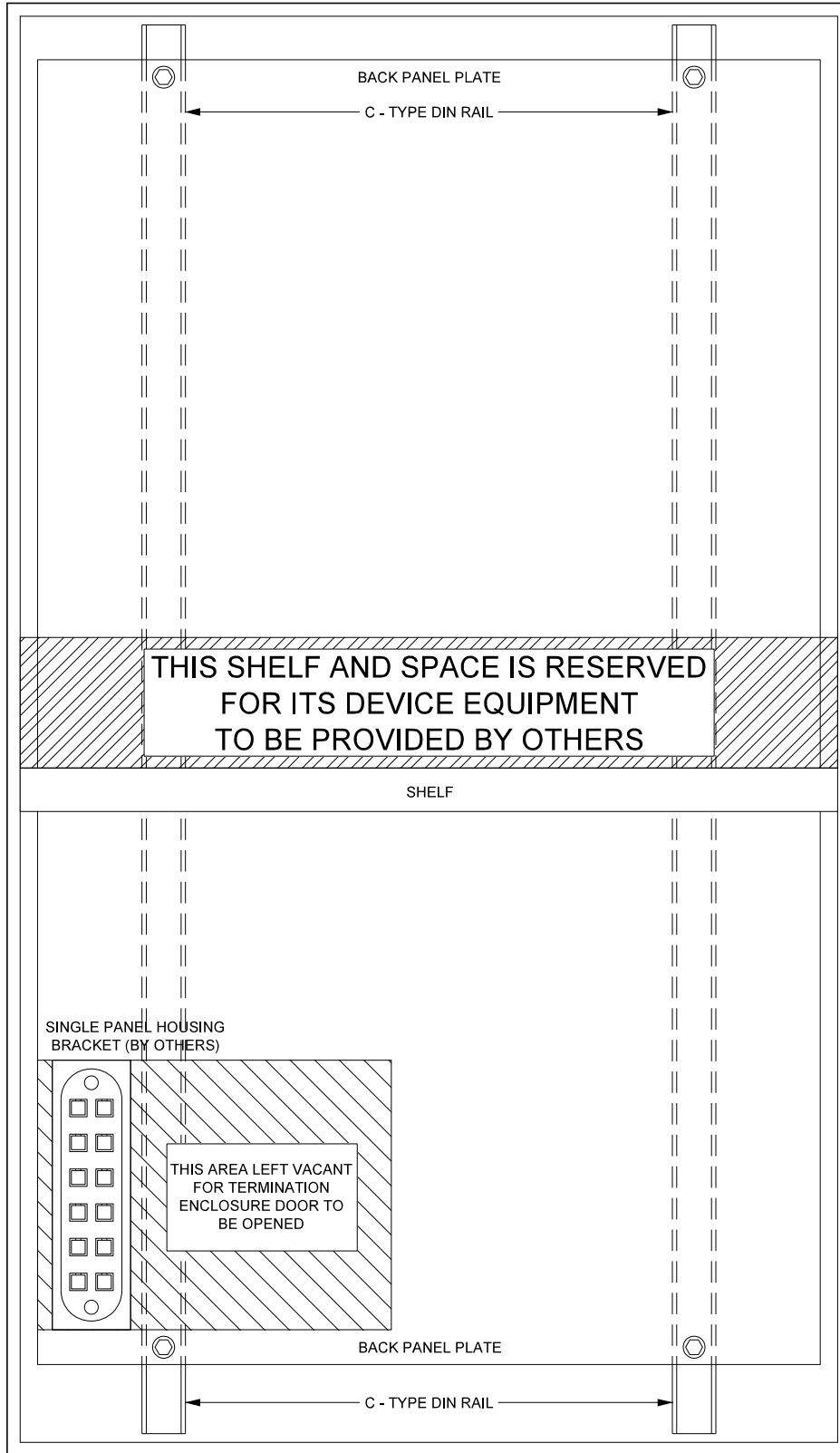


LEFT SIDE



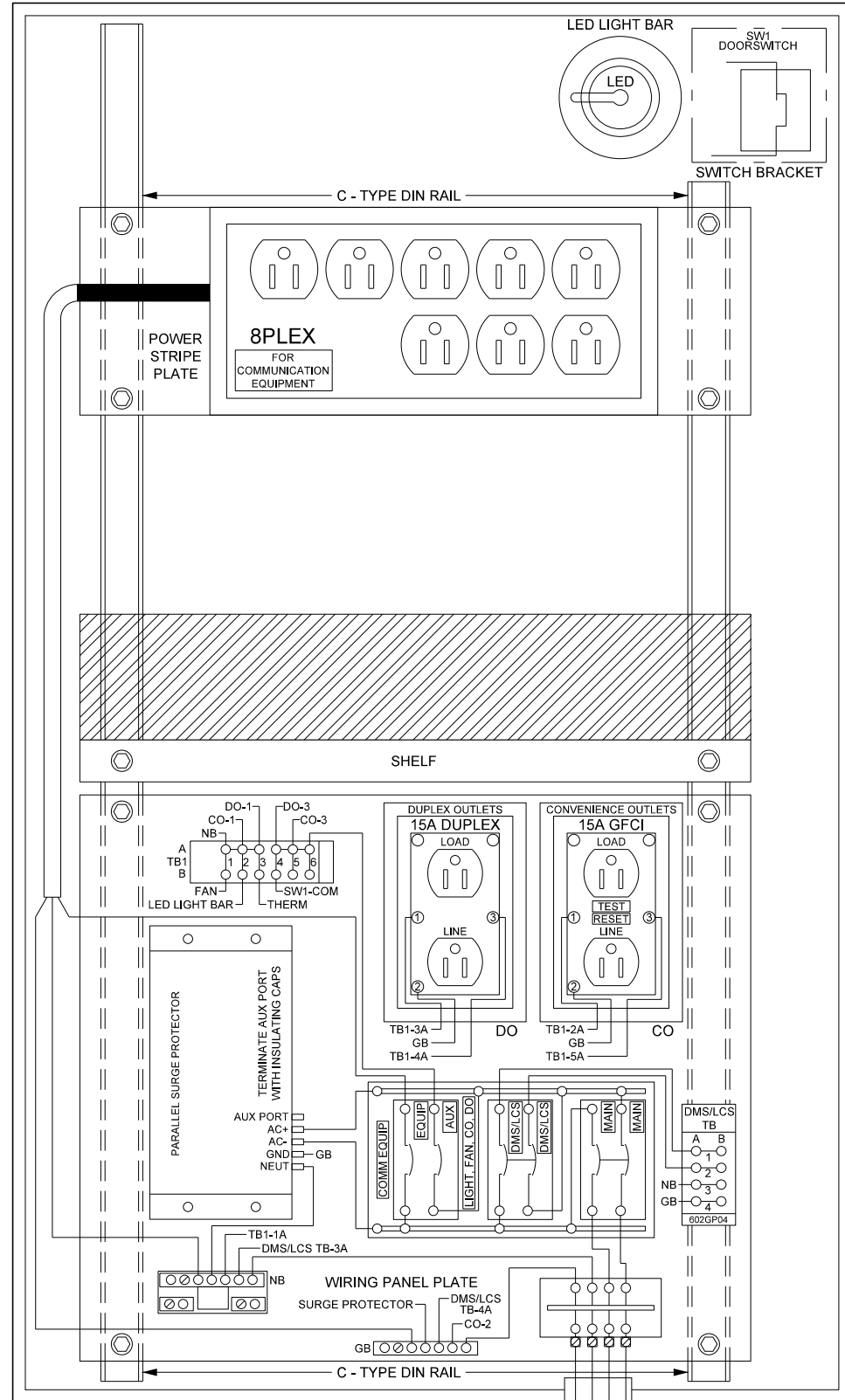
LEFT SIDE

BACK SIDE



BACK SIDE

RIGHT SIDE



RIGHT SIDE

# GENERAL NOTES

- I. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.

## DEVICE CABINET LAYOUT NOT TO SCALE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

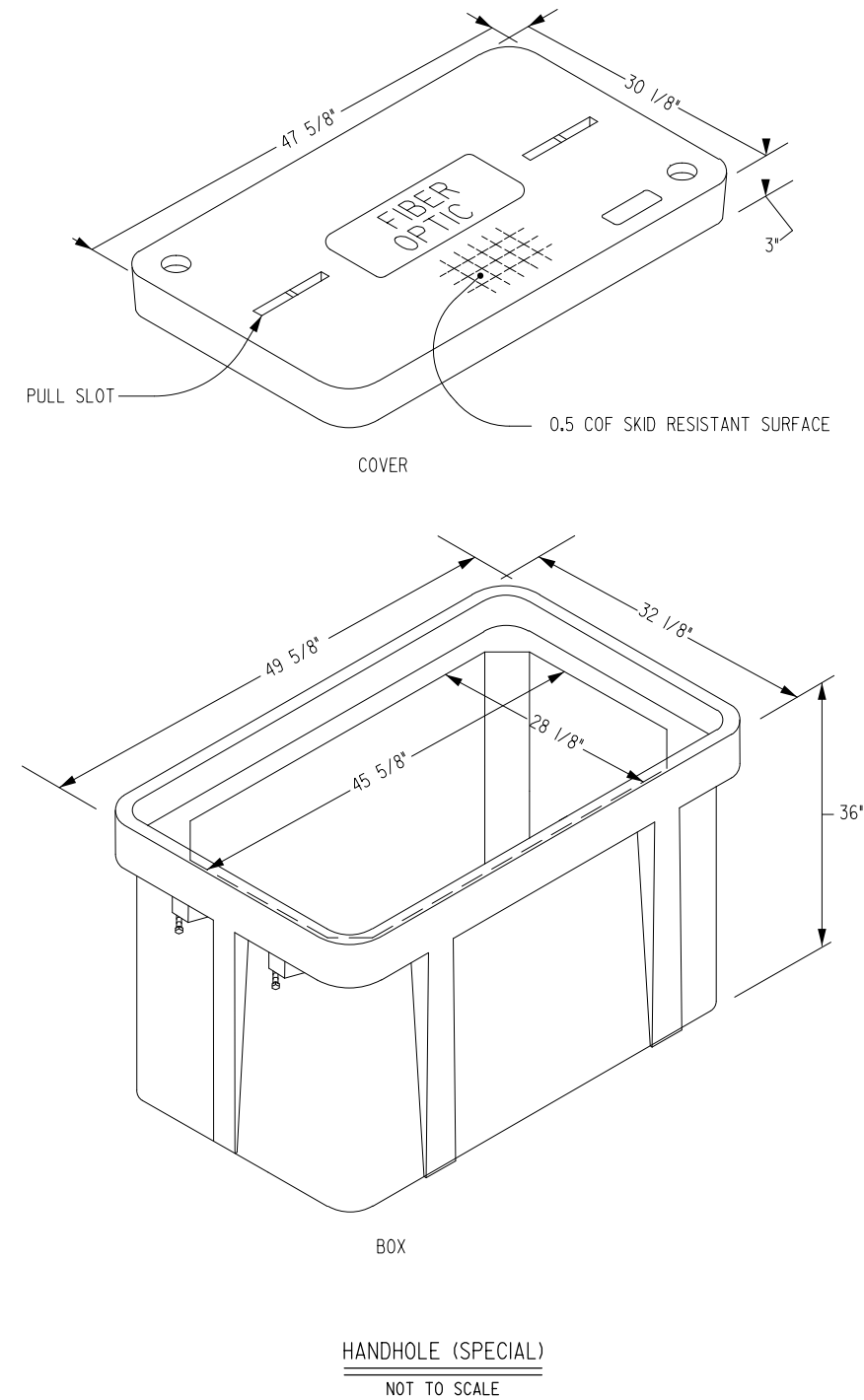
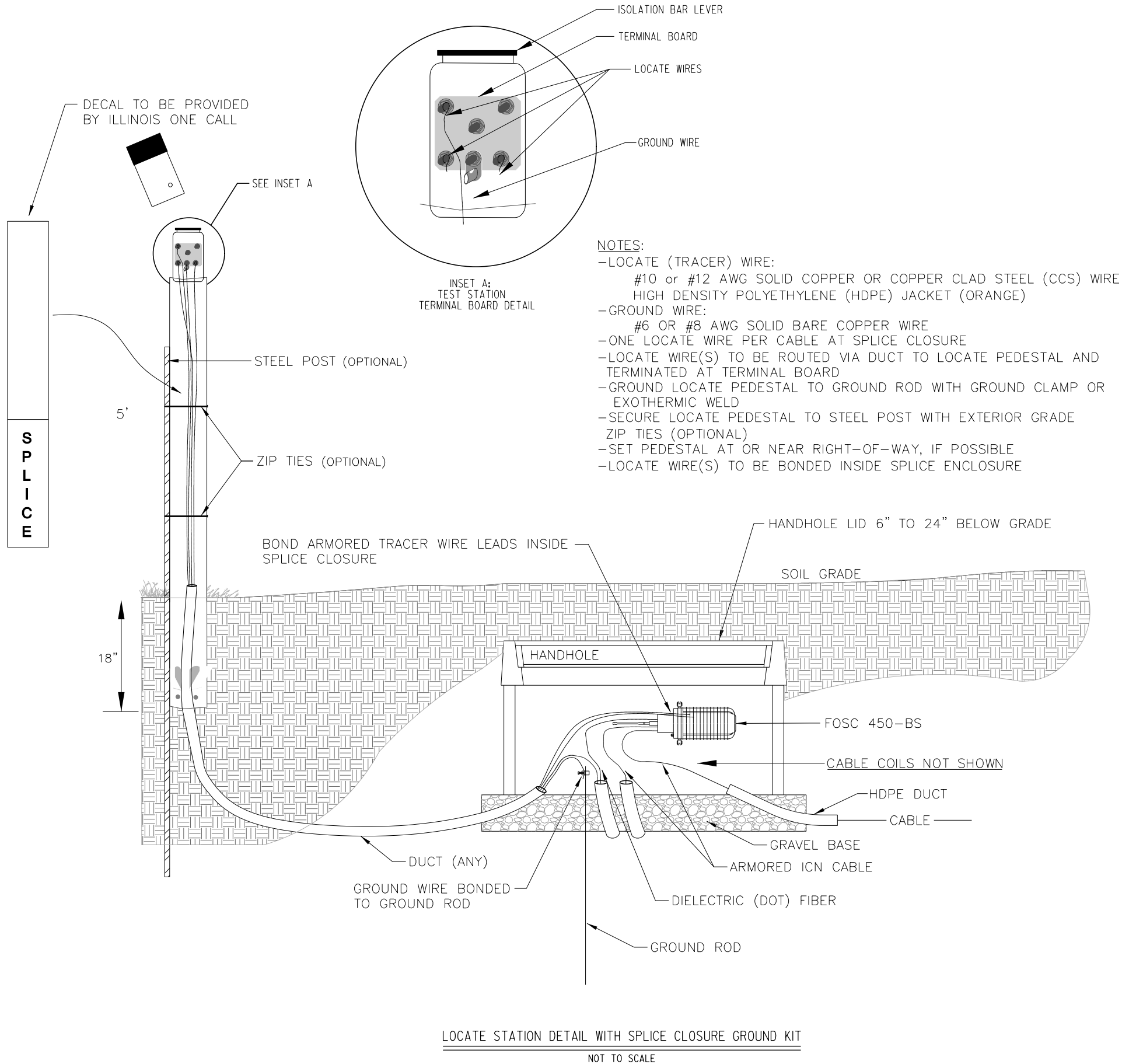
ITS PLANS AND DETAILS  
ITS DETAILS  
120/240V CABINET WIRING

SCALE: NA SHEET NO. 8590F 2042SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	859
CONTRACT NO. 64E26			ILLINOIS FED. AID PROJECT	

ITS-18

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PLOT DATE = 3/21/2017	DATE - 3/23/2017	REVISED -	REVISED -



#### GENERAL NOTES

- HANDHOLES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN IN DETAILS.
- ALL HANDHOLE COVERS SHALL HAVE AN APPROVED ANTI-SKID PATTERN.
- HANDHOLES SHALL REST FIRMLY ON A BED OF 3/4" WASHED CRUSHED LIMESTONE ROCK WITH A MINIMUM DEPTH OF 12" BELOW THE BOTTOM OF THE HANDHOLE, EXTENDING AT LEAST 3' BEYOND THE OUTSIDE EDGES OF THE PULL BOX.
- DO NOT INSTALL LID BOLTS.
- AFTER TRACER WIRE IS INSTALLED, ALL DUCT TERMINALS ENDS IN HANDHOLES SHALL BE SEALED AGAINST ENTRY OF MOISTURE BY METHODS STATED IN SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.
- ALL LIDS SHALL BE LABELED:  
ALL TYPE HANDHOLE (SPECIAL) LIDS SHALL BE LABELED 'FIBER OPTIC'.
- NO CONDUIT SHALL ENTER THROUGH SIDE WALL OF HANDHOLES, THEY MUST ENTER FROM THE BOTTOM.

LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = dmcointock	DESIGNED - DJM	REVISED -
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PLOT SCALE = NA		CHECKED - SPG	REVISED -
PLOT DATE = 3/21/2017		DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: NA	SHEET NO. 8600F 2042SHEETS	STA.	TO STA.
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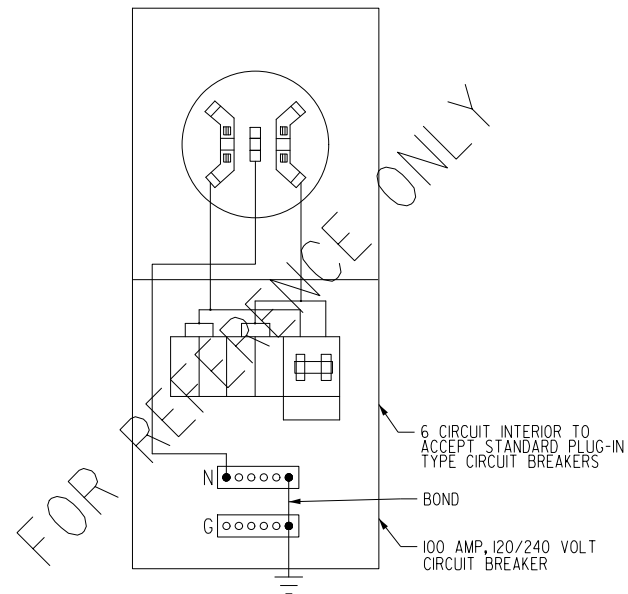
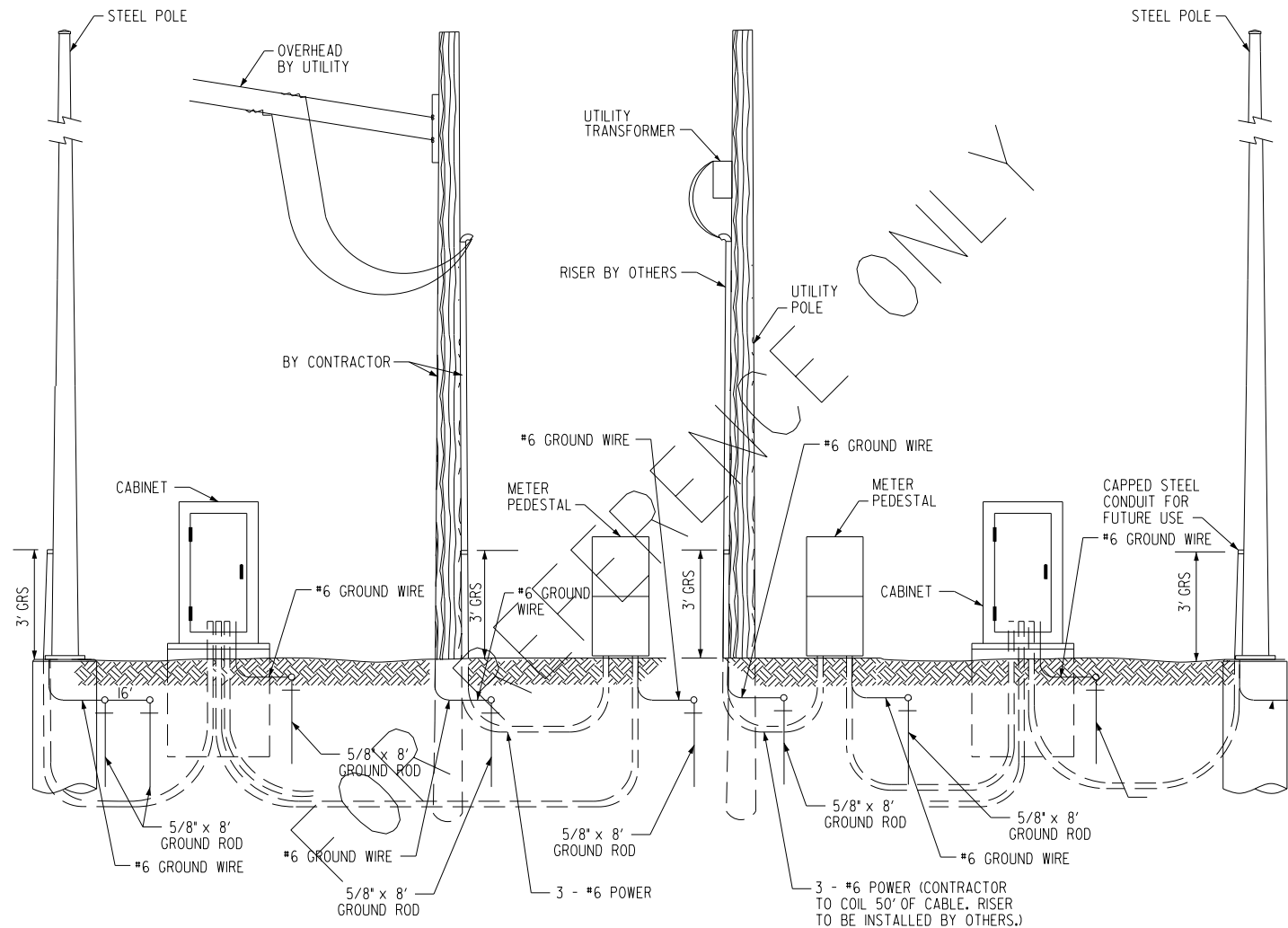
ITS PLANS AND DETAILS  
ITS DETAILS  
TYPICAL IT HANDHOLE

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	860
		CONTRACT NO.	64E26	
		ILLINOIS FED. AID PROJECT		

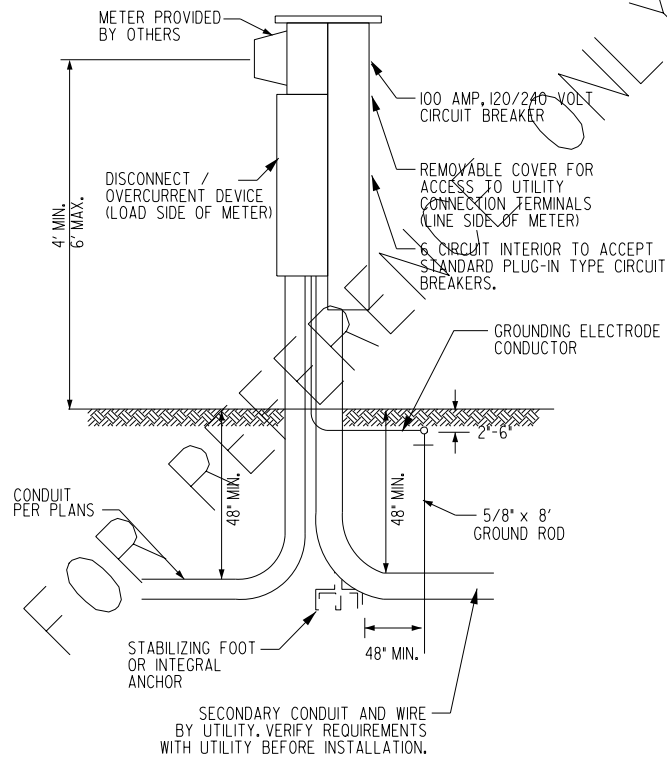
ITS-19

ITERIS

SECONDARY SERVICE OPTIONS  
NOT TO SCALE



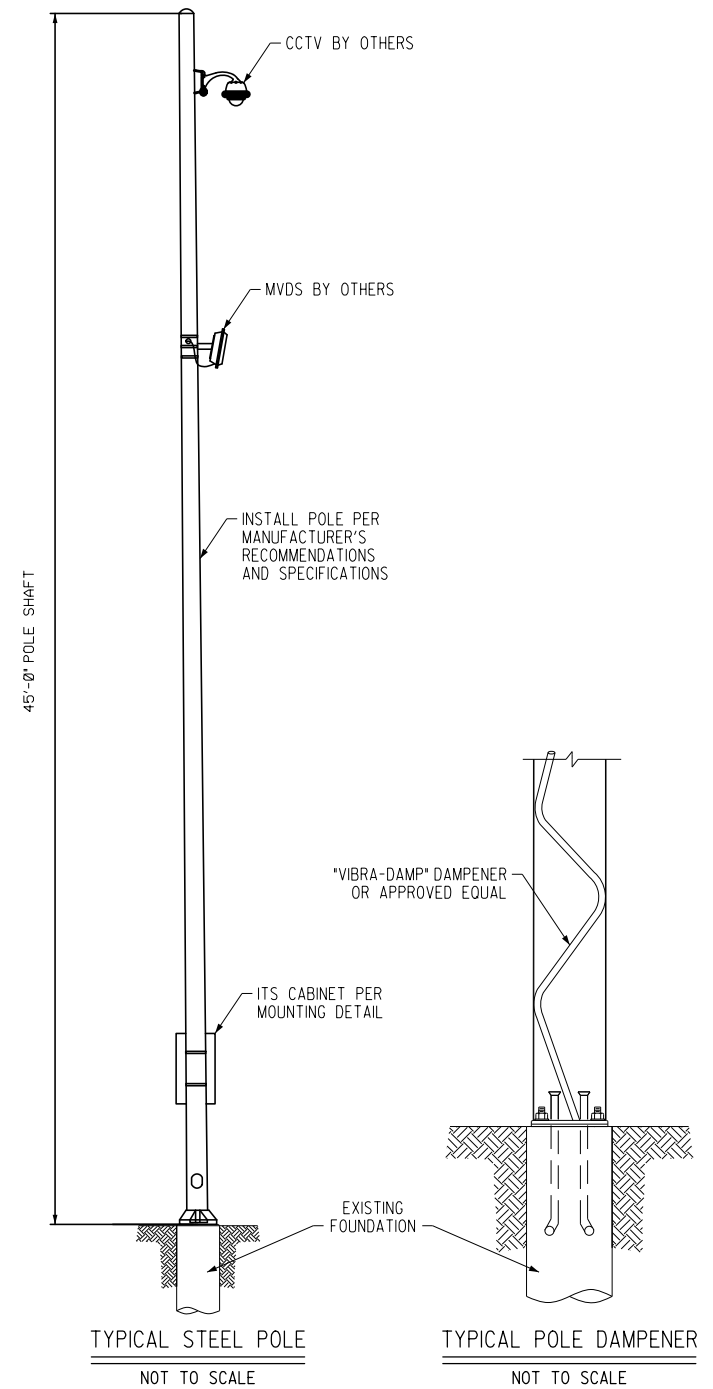
METER SOCKET DETAIL  
NOT TO SCALE



METER PEDESTAL INSTALLATION  
NOT TO SCALE

GENERAL NOTES

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.
2. CONTRACTOR SHALL FURNISH AND INSTALL POLE VIBRATION DAMPENER.

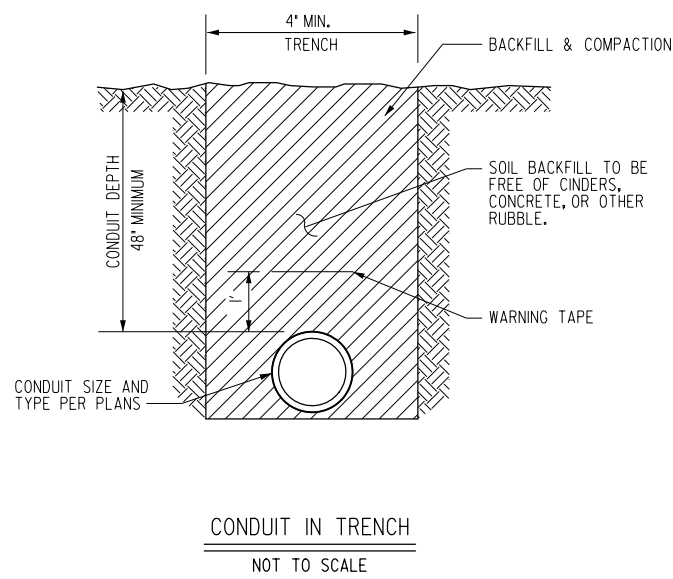


TYPICAL STEEL POLE  
NOT TO SCALE

TYPICAL POLE DAMPENER  
NOT TO SCALE

GENERAL NOTES

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SUPPLEMENTAL SPECIFICATIONS.
2. ALL WIRING AND GROUNDING SYSTEMS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND LOCAL ELECTRICAL CODES.
3. CONTRACTOR SHALL COORDINATE POWER SERVICE INSTALLATION WITH MID AMERICAN ENERGY CO.



CONDUIT IN TRENCH  
NOT TO SCALE

FILE NAME =	USER NAME = dmcclintock	DESIGNED - DJM	REVISED -
ci:\pwise_work\do_not_delete\dms01359\02PACKCD-IT-shr-its100.sht		DRAWN - DJM	REVISED -
	PLOT SCALE = NA	CHECKED - SPG	REVISED -
	PLOT DATE = 3/21/2017	DATE - 3/23/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ITS PLANS AND DETAILS  
ITS DETAILS  
MISCELLANEOUS ITS DETAILS

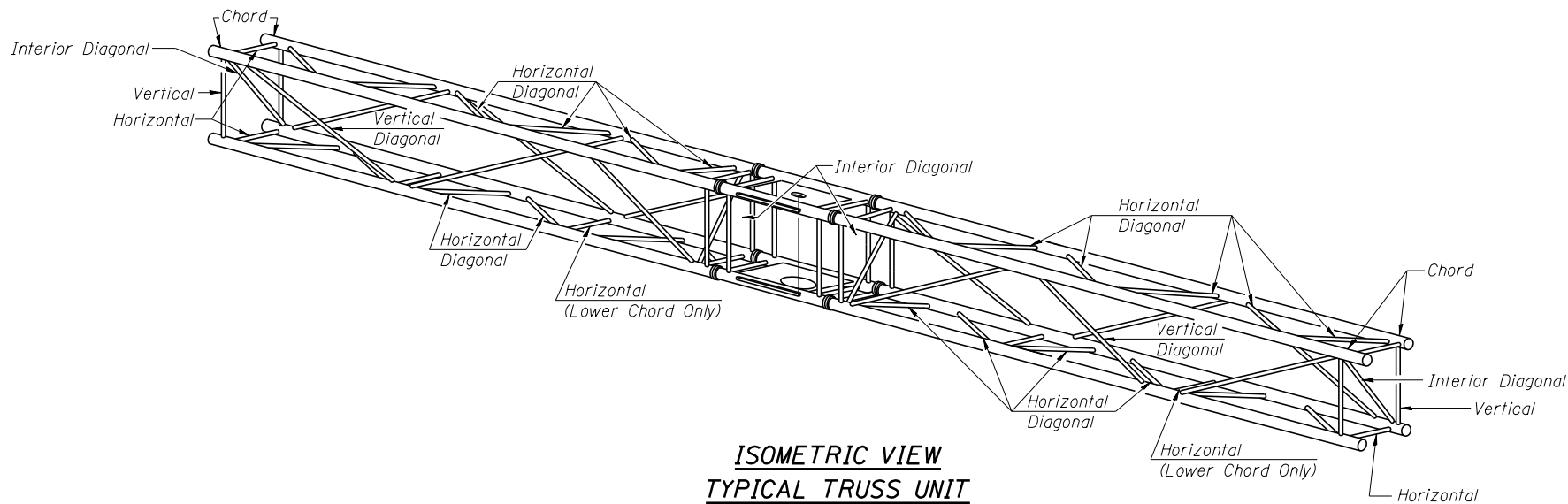
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1/R-1 & 81-1/HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	861
CONTRACT NO. 64E26				ILLINOIS FED. AID PROJECT

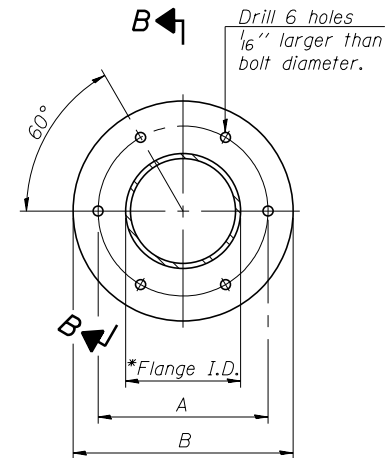
ITS-20



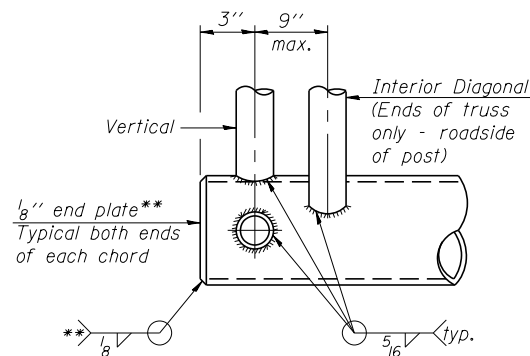




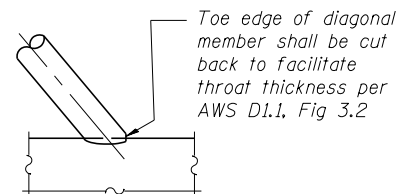
**ISOMETRIC VIEW  
TYPICAL TRUSS UNIT**  
ASTM B221 Alloy 6061 Temper T6



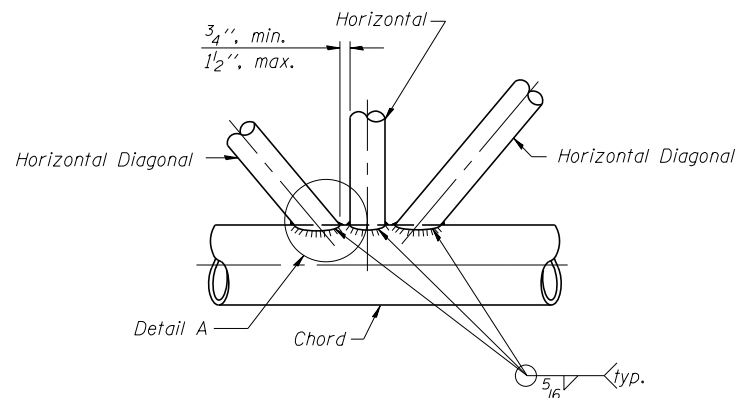
**SPlicing FLANGE**  
ASTM b221, Alloy 6061-T6  
or ASTM B209, Alloy 6061-T651  
\* To fit O.D. of Chord with maximum gap of 1/16".



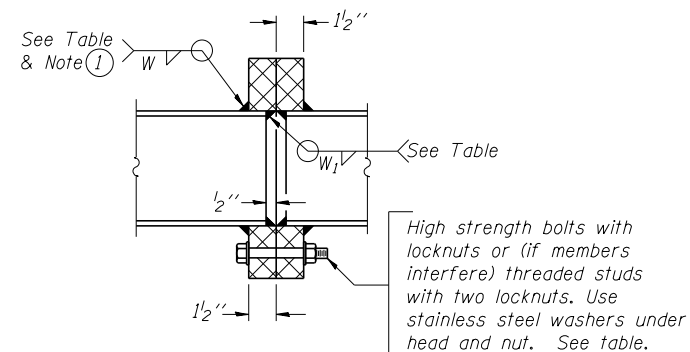
**BUTTERFLY END JOINT DETAIL**  
\*\* Contractor may alternatively use standard aluminum drive-fit cap to close ends.



**DETAIL A**

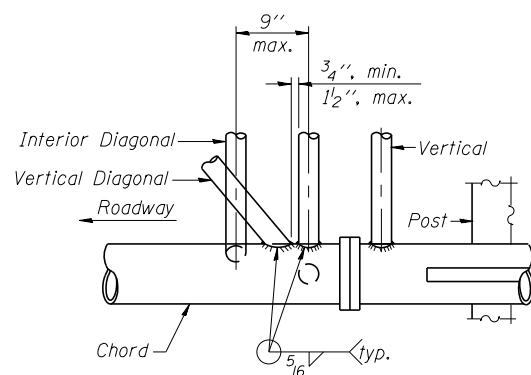


**TRUSS INTERIOR JOINT DETAIL**



**SECTION B-B**

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



**POST END JOINT DETAIL**

Truss Type	Bolts	Weld Sizes		A	B
	Dia.	W	W <sub>1</sub>		
I-F-A	7/8"	5/16"	1/4"	8 3/4"	11 3/4"



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10064.02

OSF-A-2A-VMS 6-1-12

FILE NAME = D:\CONCD-AB-SHT\_DMS\_Structures.dgn

USER NAME = ksnider

DESIGNED - KJN

REVISED -

MODEL: 3 Butterfly Sign Structures

PLOT SCALE =

DRAWN - KMS

REVISED -

PLOT DATE = 3/23/2017

CHECKED - KJN

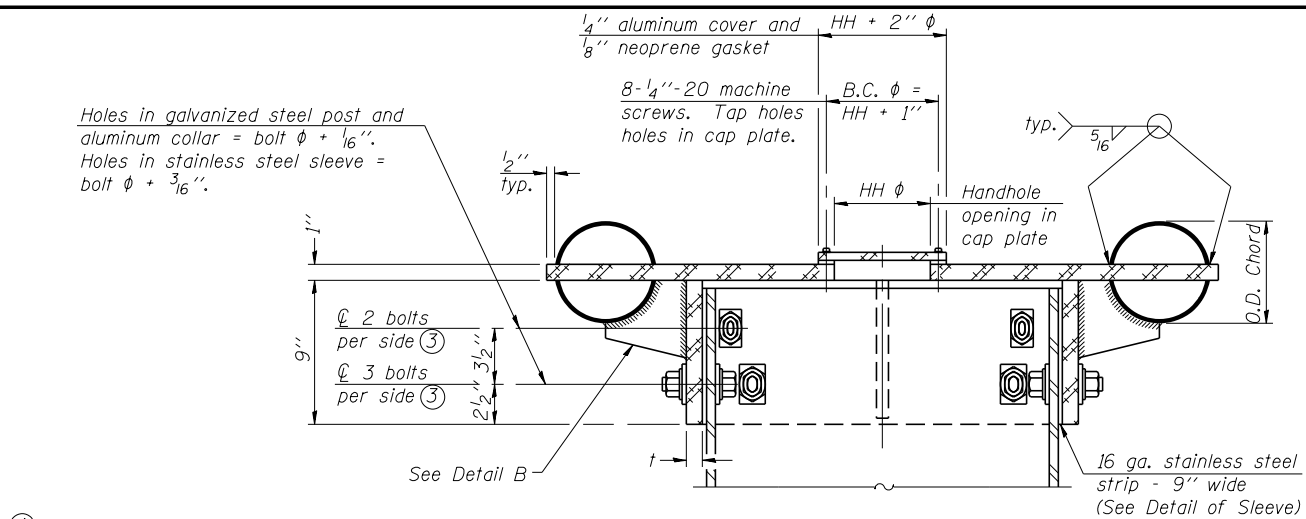
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – TRUSS DETAILS FOR  
FRONT ACCESS VMS – ALUMINUM TRUSS & STEEL POST

SHEET NO. 3 OF 7 SHEETS

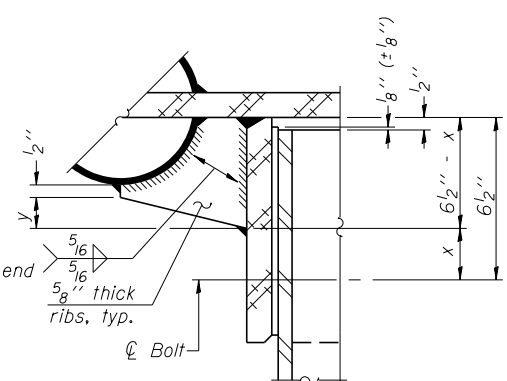
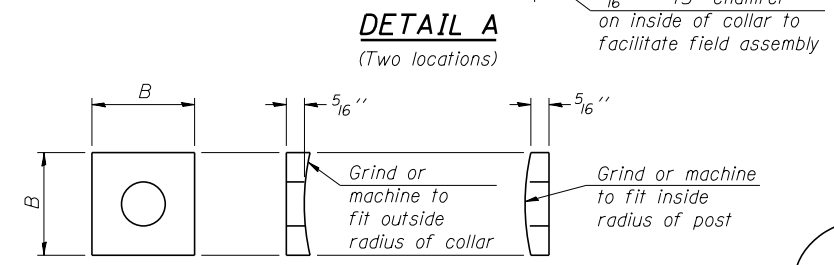
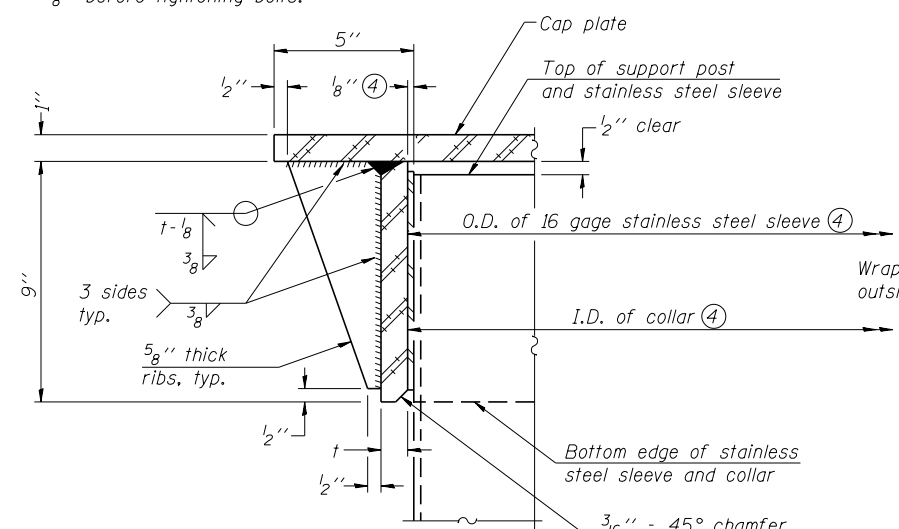
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1R-1 & 81-1HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	864
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	ITS-23	



④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" ( $\pm 1/16$ "). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

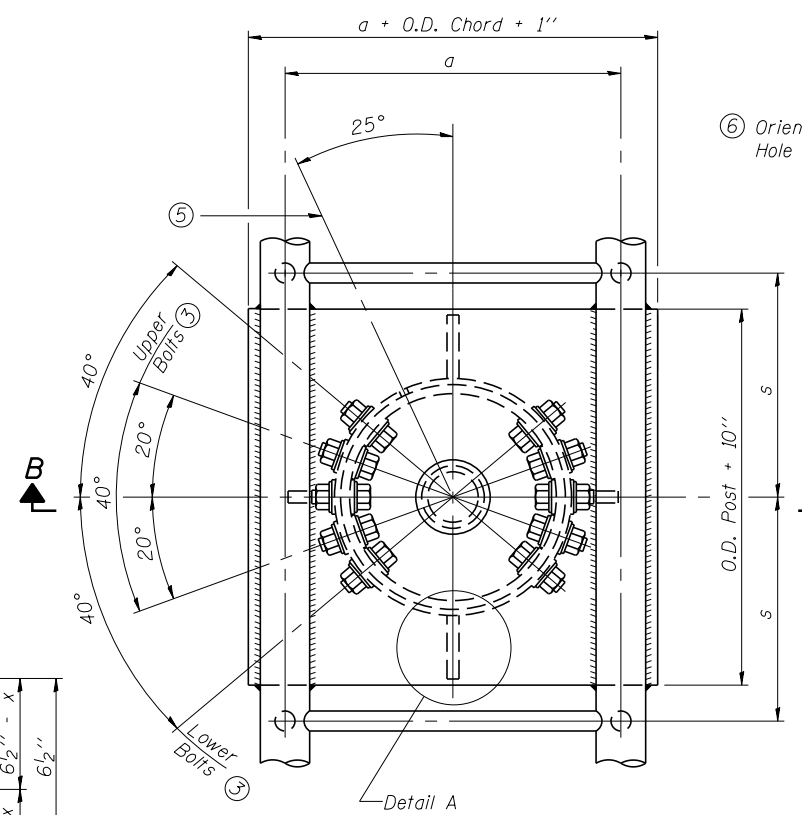
### SECTION B-B

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



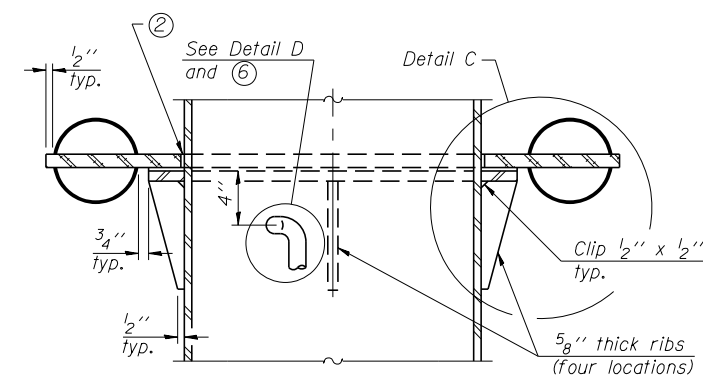
### DETAIL B

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

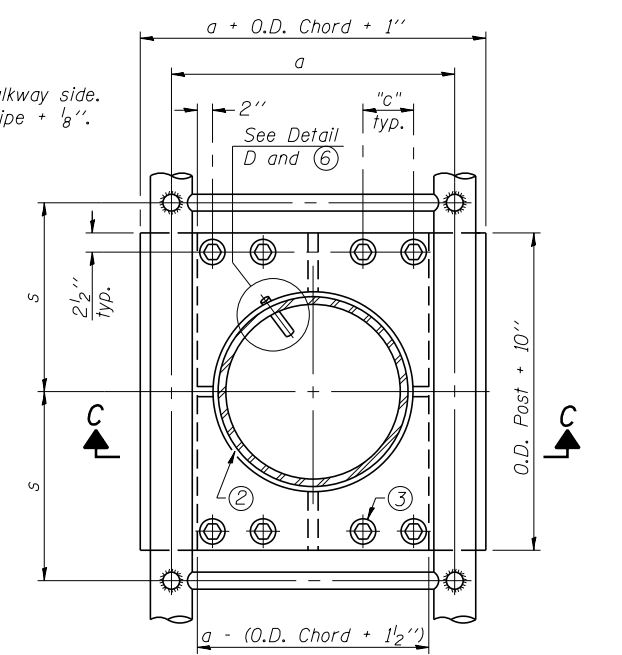


### PLAN VIEW - TOP OF COLUMN

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

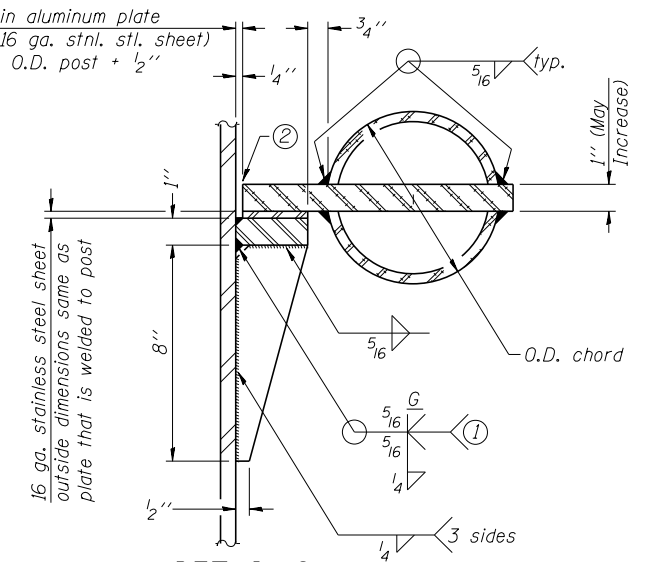


### SECTION C-C



### SECTION THRU POST ABOVE LOWER CHORDS

Hole in aluminum plate (and 16 ga. stnl. stl. sheet) to be O.D. post + 1/2"



### DETAIL C

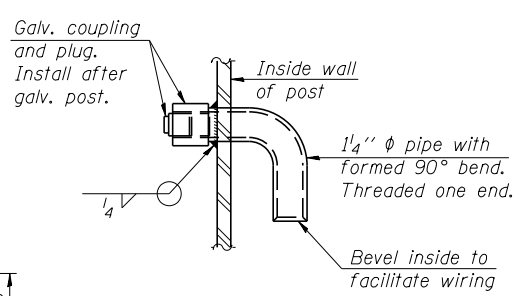
- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Butterfly.

### CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"

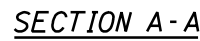
### DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1/2" long at 6" cts. along top edge and at 1/4" opening.

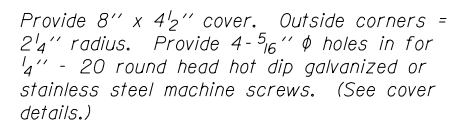


Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
I-F-A	16" $\phi$ (83#1)	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"

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

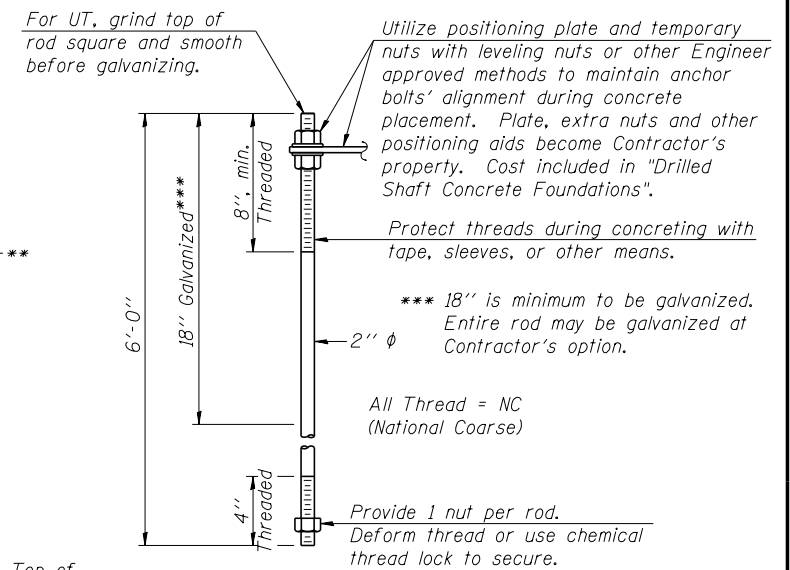


### HANDHOLE COVER



DETAIL A

- SIDE ELEVATION



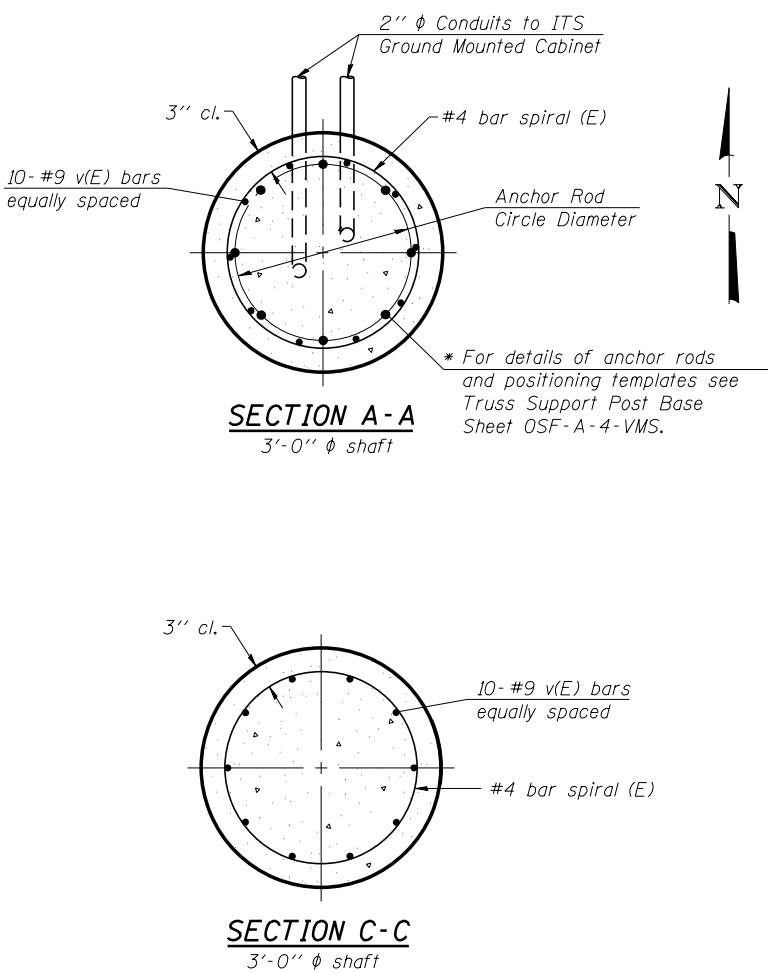
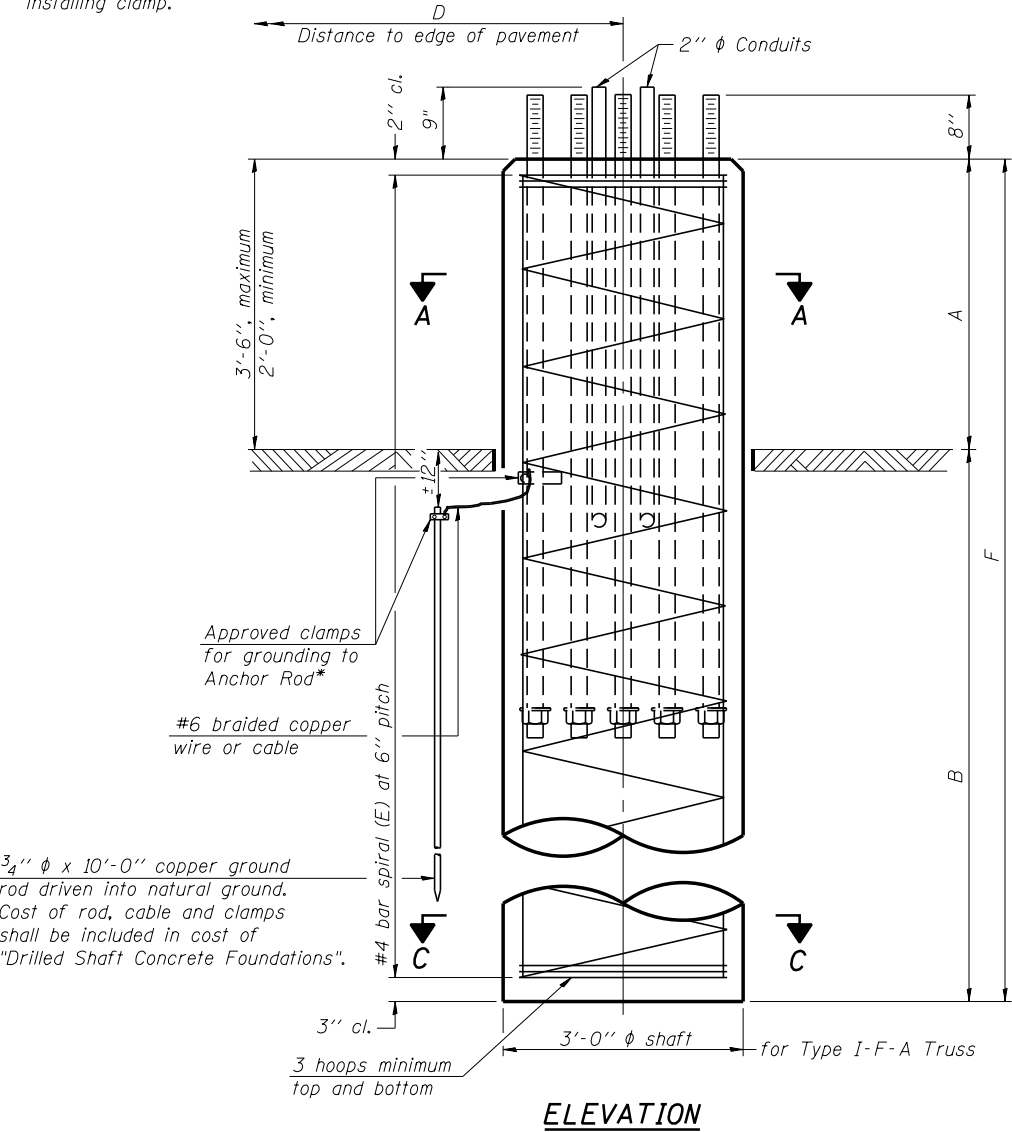
ANCHOR ROD DETAIL

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.

[illegible]



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



NOTES:  
The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.  
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.  
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other 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 Foundations".

FOUNDATION DATA TABLE									
Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class DS Concrete Cubic Yards
2F0811074L001.6	84+35 (I-74)	I-F-A	3.0'	680.15	659.15	3.5'	17.5'	21.0'	6

FOUNDATION DESIGN TABLE								
Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (ft)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-F-A	OSF-A-4-VMS	10	200	3.0	17'-6"	8	2	22

FILE NAME = D2CONCD-AB-SHT_DMS_Structures.dgn  MODEL: 6 Butterfly Sign Structures	USER NAME = ksnider	DESIGNED - KJN	REVISED -
		CHECKED - JLS	REVISED -
	PLOT SCALE =	DRAWN - KMS	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-11R-1 & 81-11HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	867
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

BORING NO. SB-108Page 1 of 1

CLIENT

Alfred Benesch & Co.

SITE

Moline, Illinois

PROJECT

Sign, DMS & Lane Utilization Structures

GRAPHIC LOG

Boring Location: Sta: 84+35, offset about 68' LT

DESCRIPTION

Approx. Surface Elev.: 680 ft

0.25 0.5 5 8 18 21 30

679.8 679.5 675 672 662 659 650

Approx. 3" Asphaltic Cement Concrete

Approx. 3" Crushed Limestone

FILL, SILTY CLAY

Brown

SILTY CLAY (LOESS)\*\*\*

Brown

Medium Stiff

CLAYEY SILT (LOESS)

Brown and Gray

Stiff

Medium stiff at Sample 5

ORGANIC CLAY (ALLUVIUM)

Dark Brown

Stiff

SANDY FAT CLAY (GLACIAL DEPOSIT)

Gray

Stiff

BOTTOM OF BORING

\*\*\*Soil descriptions are based on the driller's field classification of disturbed samples.

DEPTH, ft.

USCS SYMBOL

NUMBER

TYPE

RECOVERY, in.

SPT - N \*\*

BLOWS / ft.

WATER CONTENT, %

DRY UNIT WT

pcf

UNCONFINED STRENGTH, psf

RIMAC (psf)

PA

1 SS 8 8 22

2 PA SS 10 6 25

3 PA SS 0 6

4 ML CL SS 7 9 20

5 ML CL PA

6 OL SS 8 14 64

7 CH SS 12 11 38

8 CH SS 15 10 20

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

\*Pocket Penetrometer

\*\*CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft

WL None WS None ¼ hr AB

WL

WL

WL

BORING STARTED

11-14-12

BORING COMPLETED

11-14-12

RIG

35E FOREMAN RP

APPROVED WKBJOB #

07095097

FILE NAME = D2CONCD-AB-SHT_DMS_Structures.dgn	USER NAME = ksnider	DESIGNED - KJN	REVISED -
		CHECKED - JLS	REVISED -
MODEL: 7 Butterfly Sign Structures	PLOT SCALE =	DRAWN - KMS	REVISED -
	PLOT DATE = 3/23/2017	CHECKED - KJN	REVISED -

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES

SOIL BORING LOG

SHEET NO. 7 OF 7 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1 & 81-1(HBR, HBR-1, HBR-2)	ROCK ISLAND	2042	868
CONTRACT NO. 64E26				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

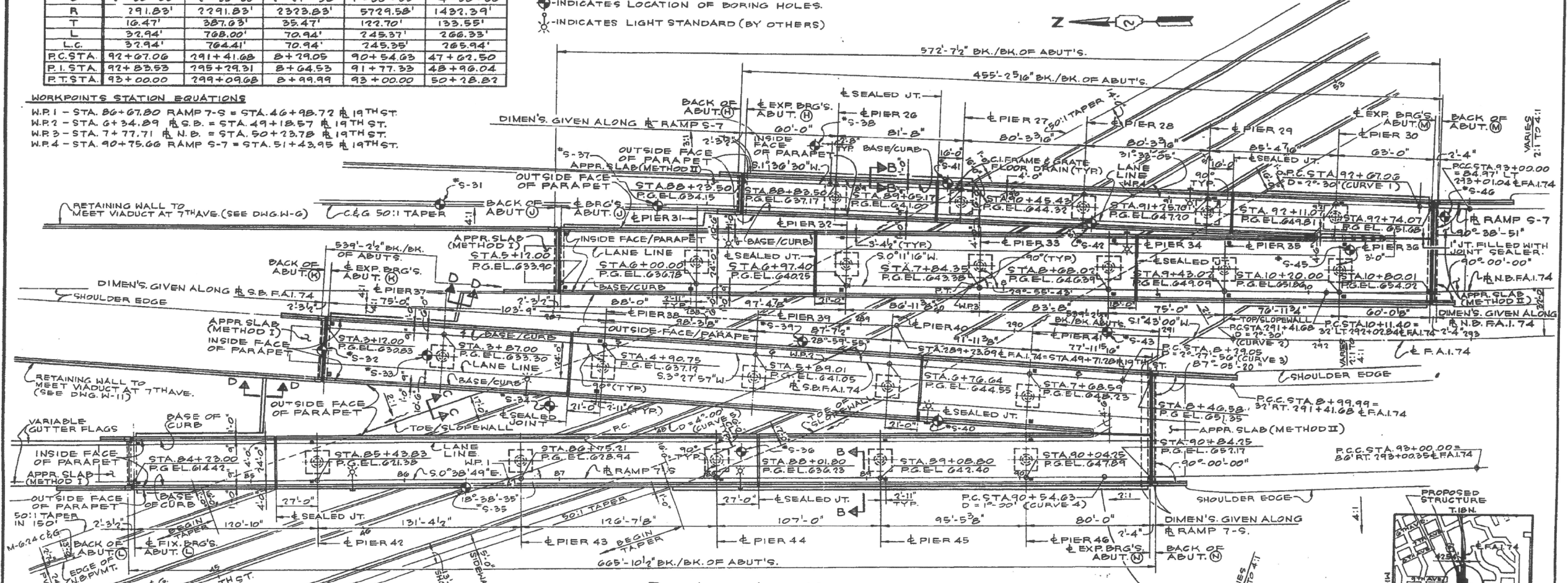
HORIZONTAL CURVE DATA					
ITEM	CURVE 1	CURVE 2	CURVE 3	CURVE 4	CURVE 5
Δ	0°-49'-25"	19°-12'-00"	1°-44'-56"	2°-27'-13"	10°-34'-11"
D	2°-30'-00"	2°-30'-00"	2°-27'-56"	1°-00'-00"	4°-00'-00"
R	291.83'	2291.83'	2323.83'	5729.58'	1432.39'
T	16.47'	387.03'	35.47'	122.70'	133.55'
L	32.94'	768.00'	70.94'	245.37'	266.33'
L.C.	32.94'	768.00'	70.94'	245.37'	266.33'
P.C. STA.	92+07.06	291+41.68	8+29.05	90+54.63	47+62.50
P.I. STA.	92+83.53	295+29.31	8+64.53	91+77.33	48+96.04
P.T. STA.	93+00.00	299+09.68	8+99.99	93+00.00	50+28.87

**WORKPOINTS STATION EQUATIONS**  
 W.P.1 - STA. 86+67.80 RAMP 7-S = STA. 46+98.72 R. 19TH ST.  
 W.P.2 - STA. 6+34.89 R. S.B. = STA. 49+18.57 R. 19TH ST.  
 W.P.3 - STA. 7+77.71 R. N.B. = STA. 50+23.78 R. 19TH ST.  
 W.P.4 - STA. 90+75.66 RAMP 7-S = STA. 51+43.95 R. 19TH ST.

**NOTES:**  
 ALL DIMENSIONS SHOWN ARE BETWEEN POINTS ON A HORIZONTAL PLANE AT A TEMPERATURE OF 50°F.  
 ■ INDICATES FLOOR DRAIN.  
 ○ INDICATES LOCATION OF BORING HOLES.  
 ✕ INDICATES LIGHT STANDARD (BY OTHERS)

**BENCH MARKS**  
 A-4B - CONC. MONUMENT 77' RT. & F.A.I. 74 EL. 600.660  
 A-4C - CONC. MONUMENT 110' LT. & F.A.I. 74 EL. 605.080  
 NO EXISTING STRUCTURE.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-IHB	ROCK ISLAND	389	2/3
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 1-24				

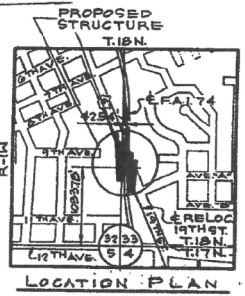
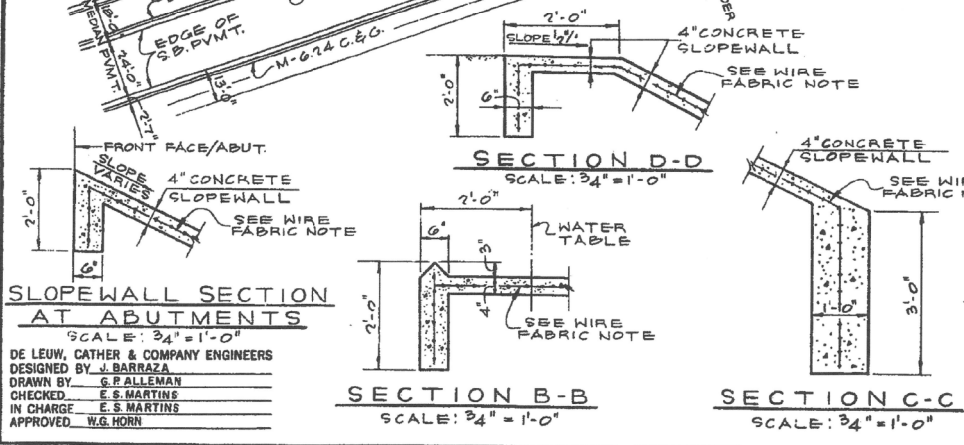


**PLAN**  
 SCALE: 1" = 30'-0"

TOTAL BILL OF MATERIALS - SEC. 81-IHB				
ITEM	UNIT	STRUCTURE	STRUCTURE	TOTAL
CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	1,987	1,987	1,987
CLASS X CONCRETE	CU. YD.	2,484.9	1,288.8	3,773.5
CLASS A CONCRETE	CU. YD.	-	59.1	59.1
PROTECTIVE COAT	SQ. YD.	1,846	-	1,846
ALUMINUM RAILING	LIN. FT.	4,901	-	4,901
REINFORCEMENT BARS	POUND	600,840	119,497	720,337
BITUMINOUS CONCRETE SURFACE COURSE, CLASS I	TON	881	-	881
COAL TAR INTERLAYER PROTECTIVE COAT	SQ. YD.	8,190	-	8,190
FURNISHING CHESNOT PILES UP TO 20 FEET	LIN. FT.	-	620	620
FURNISHING CHESNOT PILES 20.1 TO 30 FEET	LIN. FT.	-	450	450
FURNISH AND ERECT STRUCTURAL STEEL	LUMP SUM	1	-	1
FURNISHING STEEL PILES (100P42)	LIN. FT.	-	17,025	17,025
DRIVING STEEL PILES	LIN. FT.	-	1,070	1,070
DRIVING STEEL PILES	LIN. FT.	-	17,025	17,025
TEST PILE (TIMBER)	EACH	-	8	8
BRIDGE DRAINAGE SYSTEM, 19TH STREET	LUMP SUM	1	-	1
TEST PILE STEEL (100P42)	EACH	-	26	26
NAME PLATES	EACH	3	-	3
STUD SHEAR CONNECTORS, 4"	EACH	15,183	-	15,183
PREFORMED JOINT SEALER 2 1/2"	LIN. FT.	251	-	251
MODULAR PREFORMED EXPANSION JOINT, 3"	LIN. FT.	85	-	85
MODULAR PREFORMED EXPANSION JOINT, 2"	LIN. FT.	217	-	217
IMPACT ATTENUATION DEVICE, 8 BAY, NARROW WIDTH	EACH	1	-	1

**WIRE FABRIC NOTE**  
 WELD WIRE FABRIC, 6" X 6" MESH, 4 WIRES WEIGHTING 58 POUNDS PER 100 SQUARE FEET INCLUDED IN CONTRACT UNIT PRICE FOR SLOPEWALL.  
 SLOPEWALL LAYOUT AND QUANTITIES ARE INCLUDED IN HIGHWAY PLANS FOR SECTION 81-1-2.  
 \* APPROACH SLAB PILES NOT INCLUDED. SEE APPROACH SLAB DRAWINGS.  
 CALCULATED PLAN WEIGHT OF STRUCTURAL STEEL - 3,258,390 LBS.

**SPECIAL NOTE:**  
 ALL PROFILE GRADE ELEVATIONS AND VERTICAL CURVE DATA GIVEN THROUGHOUT THE STRUCTURAL PLANS REFER TO TOP OF CONCRETE AND DO NOT INCLUDE THE 1 1/2" BITUMINOUS CONCRETE SURFACE COURSE.



**DESIGN LOADING:**  
 HS 20-44 & ALT.  
**DESIGN STRESSES:**  
 f<sub>c</sub> = 1200 P.S.I. SUPERSTRUCTURE DECK SLABS.  
 f<sub>c</sub> = 1400 P.S.I. CURBS, PARAPETS AND SUBSTRUCTURE.  
 f<sub>c</sub> = 1000 P.S.I. RETAINING WALLS.  
 f<sub>s</sub> = 20,000 P.S.I. REINFORCING BARS & STRUCT. STEEL (A-36).  
 v = 75 P.S.I. MAX. ALLOW. SHEAR IN FOOTINGS.  
 n = 10  
 ALLOWABLE L.L. DEFLECTION -  
 1/1000 (NON-COMPOSITE), 1/2000 (COMPOSITE)

**GENERAL PLAN**  
 F.A.I. 74 - SECTION 81-IHB  
 F.A.I. 74 & RAMPS OVER RELOC. 19TH ST.  
**ROCK ISLAND COUNTY**  
 STATION 289+23.09  
 SCALE: AS NOTED DATE:

FOR INFORMATION ONLY

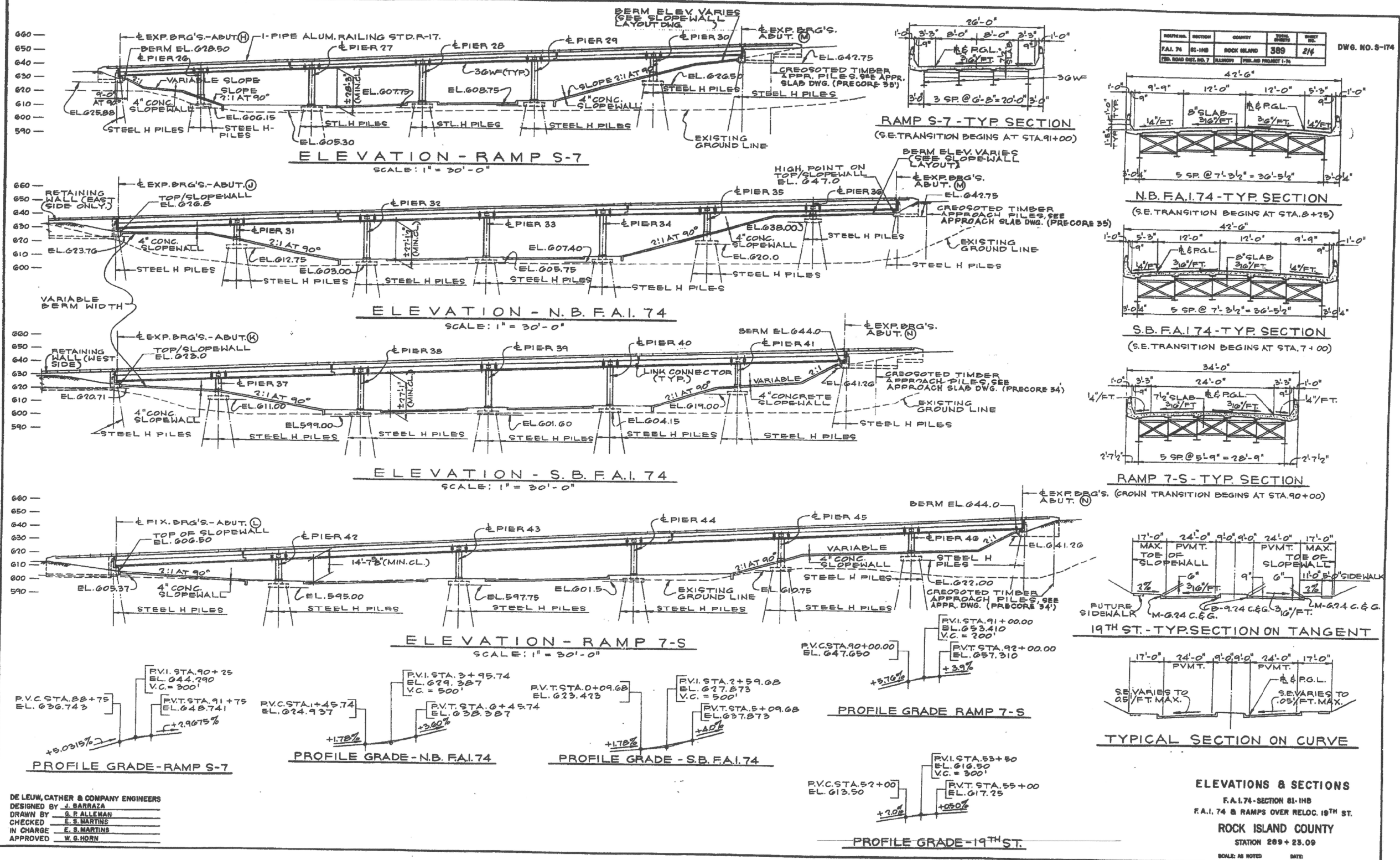


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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - GENERAL PLAN  
 I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
 SHEET NO. 1 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-IHB	ROCK ISLAND	2042	869
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



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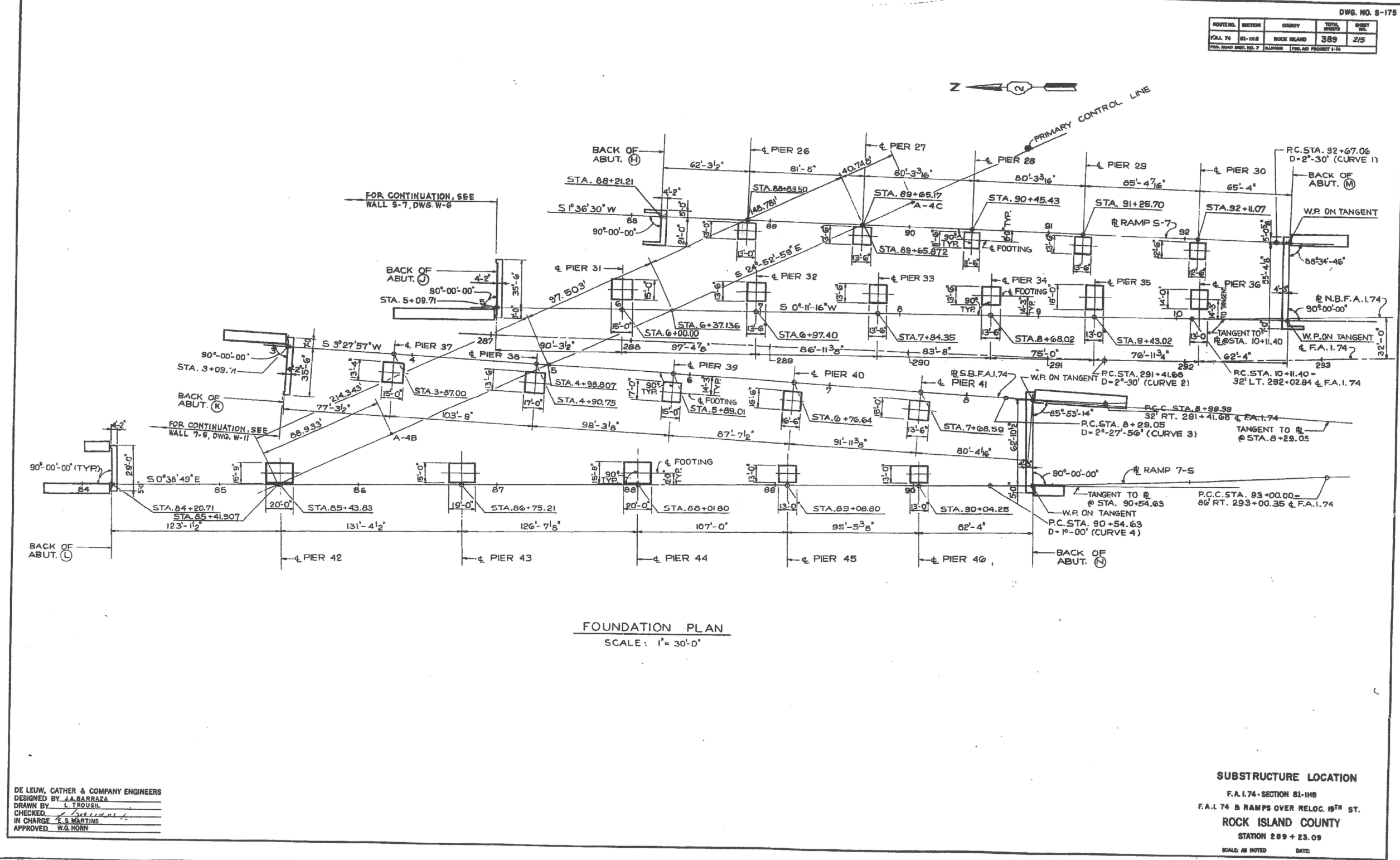
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	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ELEVATION AND SECTIONS  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 2 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	870
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



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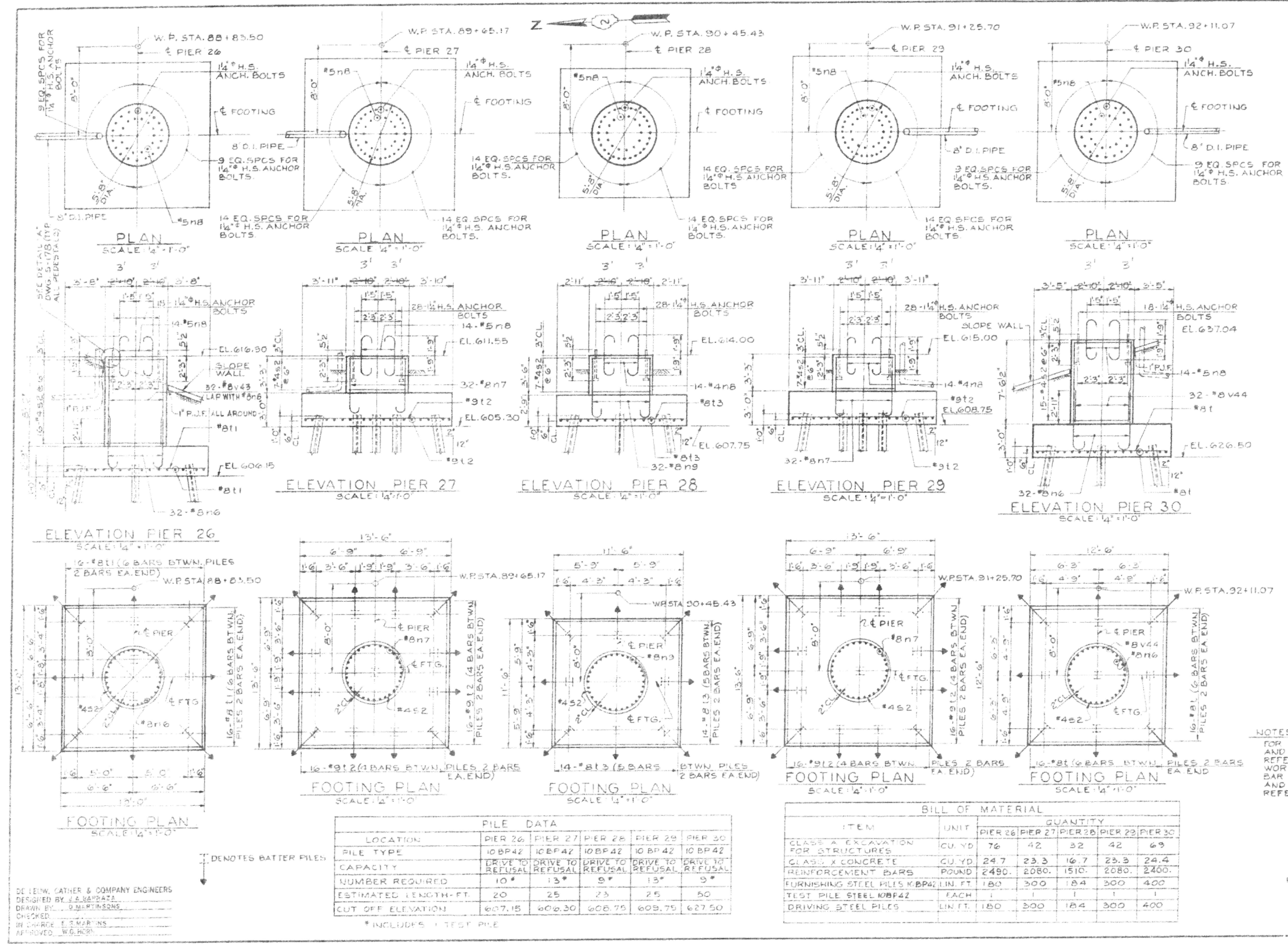
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PLOT DATE = 03/23/2017	CHECKED -	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - SUBSTRUCTURE LOCATION  
 I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
 SHEET NO. 3 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	871
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



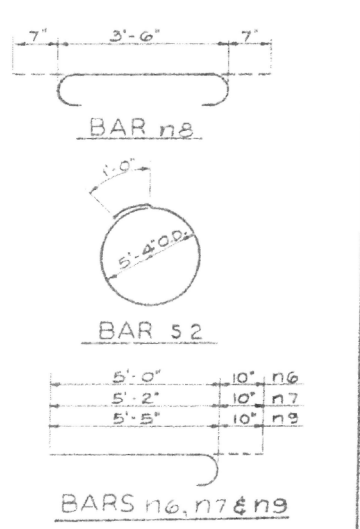


DWG. NO. S-176

PIER NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 74	81-1HB	ROCK ISLAND	389	216

REINFORCING BAR LIST

BAR MARK	QUANTITY	BAR SIZE	LENGTH	SHAPE
PIER 26				
N6	32	8	5'-10"	110J
N8	14	5	4'-8"	
S2	16	4	17'-9"	
T1	32	8	12'-6"	
V43	32	8	7'-9"	
PIER 27				
N7	32	8	6'-0"	103J
N8	14	5	4'-8"	
S2	7	4	17'-9"	
T2	32	9	13'-0"	
PIER 28				
N8	14	5	4'-8"	103J
N9	32	8	6'-3"	
S2	7	4	17'-9"	
T3	28	8	11'-0"	
PIER 29				
N7	32	8	6'-0"	103J
N8	14	5	4'-8"	
S2	7	4	17'-9"	
T2	32	9	13'-0"	
PIER 30				
N6	32	8	5'-10"	110J
N8	14	5	4'-8"	
S2	15	4	17'-9"	
T	32	8	12'-0"	
V44	32	8	7'-4"	



NOTES:  
 FOR DRAINAGE DETAILS, SEE DWG. D-2 AND HIGHWAY PLANS.  
 REFER TO DWG. S-175 FOR LOCATION OF WORK POINTS.  
 BAR MARKS IN LOWER CASE ON DWG. AND IN UPPER CASE ON BAR LIST REFER TO THE SAME BAR.

PILE DATA

LOCATION	PIER 26	PIER 27	PIER 28	PIER 29	PIER 30
PILE TYPE	10BP42	10BP42	10BP42	10BP42	10BP42
CAPACITY	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL
NUMBER REQUIRED	10*	13*	9*	13*	9*
ESTIMATED LENGTH-FT.	20	25	23	25	50
CUT OFF ELEVATION	607.15	606.30	608.75	609.75	627.50

\*INCLUDES 1 TEST PILE

BILL OF MATERIAL

ITEM	UNIT	QUANTITY				
		PIER 26	PIER 27	PIER 28	PIER 29	PIER 30
CLASS A EXCAVATION FOR STRUCTURES	CU. YD	76	42	32	42	69
CLASS X CONCRETE	CU. YD	24.7	23.3	16.7	23.3	24.4
REINFORCEMENT BARS	POUND	2490	2080	1510	2080	2400
FURNISHING STEEL PILES 10BP42	LN. FT.	180	300	184	300	400
TEST PILE STEEL 10BP42	EACH	1	1	1	1	1
DRIVING STEEL PILES	LN. FT.	180	300	184	300	400

PIER FOOTINGS - RAMP S-7  
 PIERS 26 TO 30  
 F.A. 174 - SECTION 81-1HB  
 F.A. 174 B RAMP OVER RELOC. 19TH ST.  
 ROCK ISLAND COUNTY  
 STATION 289+23.09  
 SCALE: AS NOTED DATE:

DE LEW, CATHER & COMPANY ENGINEERS  
 DESIGNED BY J.E. BARTZ  
 DRAWN BY D. MARTINSON  
 CHECKED E. MARTINSON  
 APPROVED W.G. HORN

FOR INFORMATION ONLY



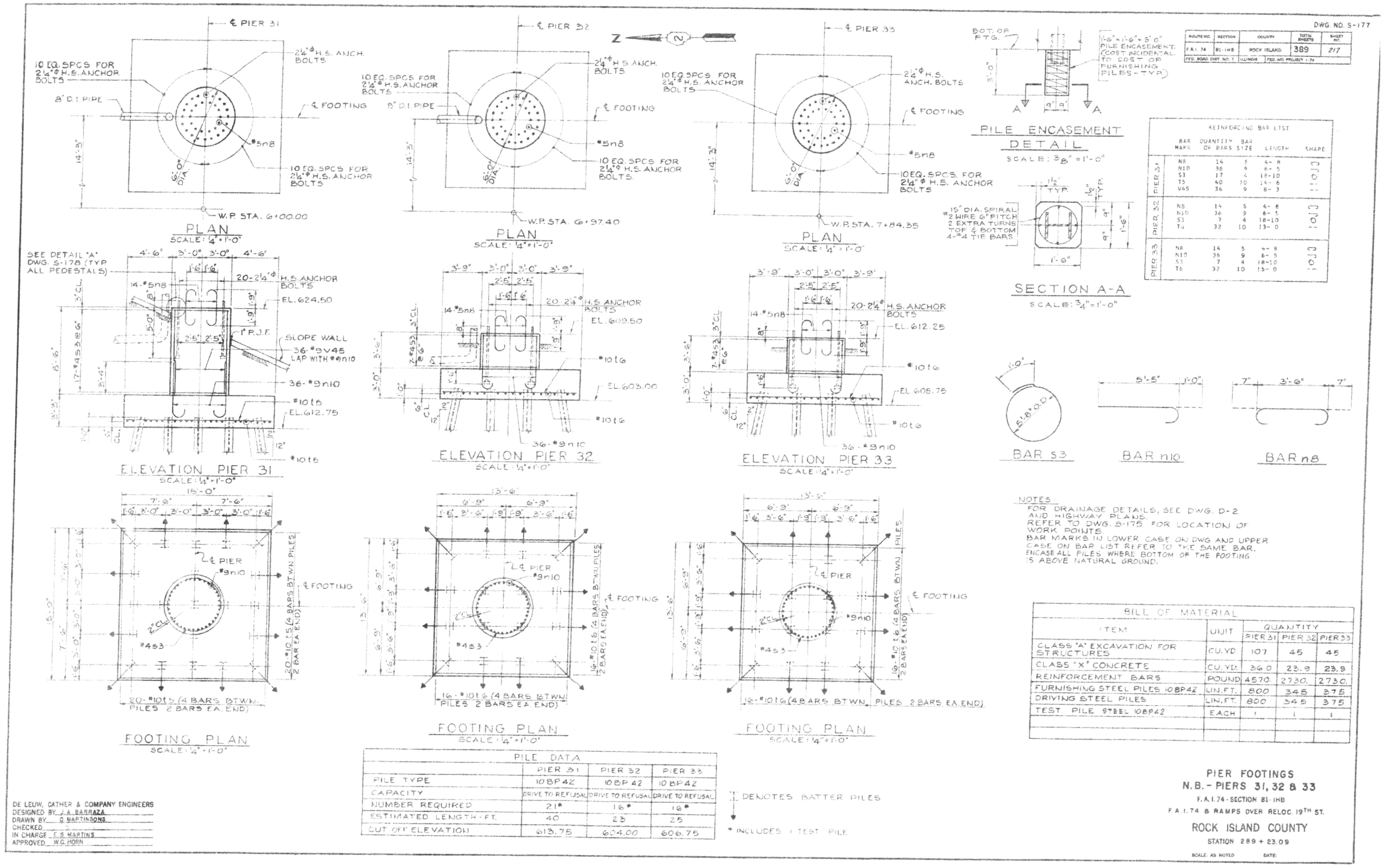
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PLOT DATE = 03/23/2017	DRAWN -	REVISED
	CHECKED -	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - PIER FOOTINGS - RAMP S-7 (PIERS 26 TO 30)  
 I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
 SHEET NO. 4 OF 45 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	872

CONTRACT NO. 64E26  
 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT



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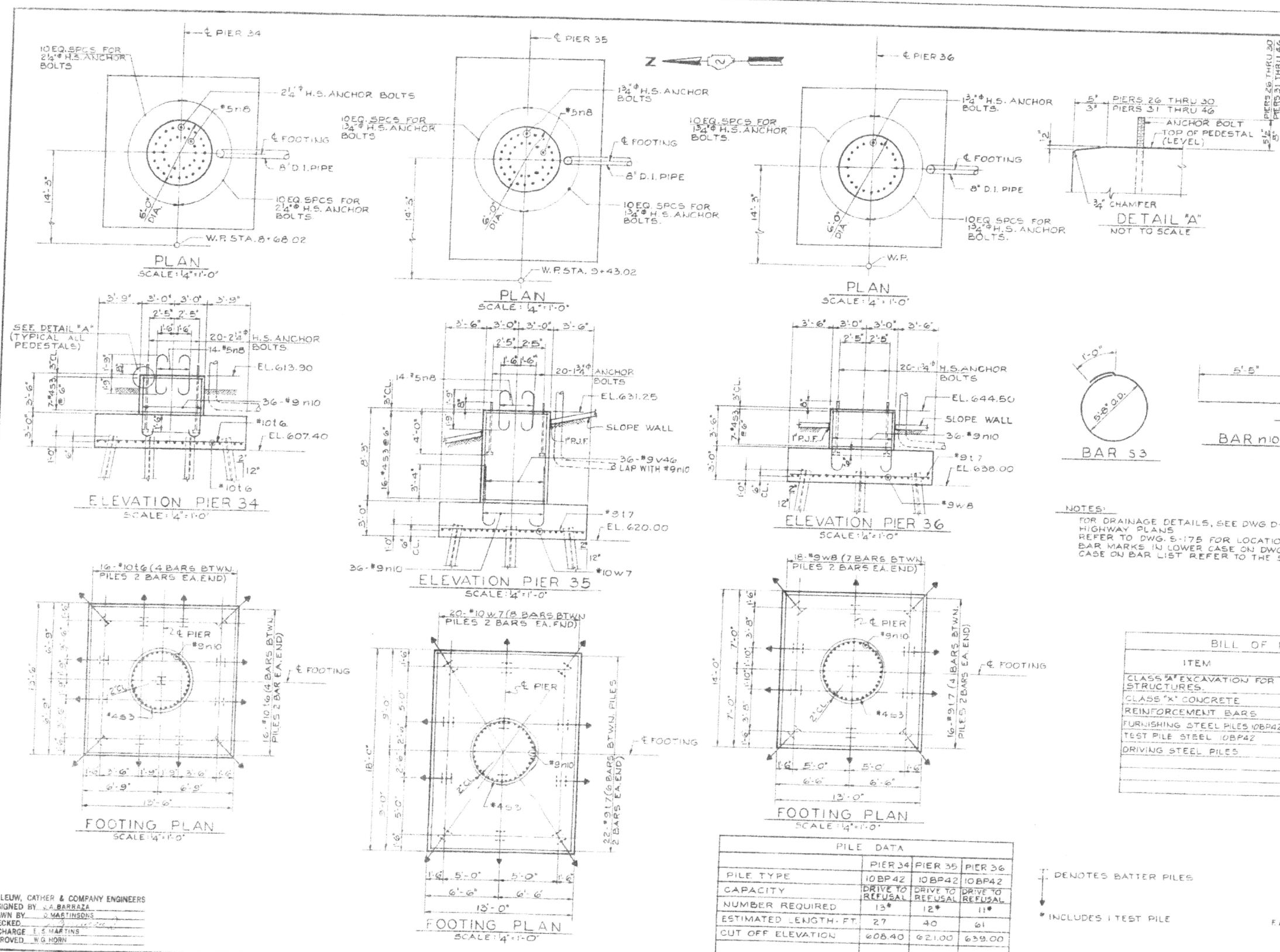


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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

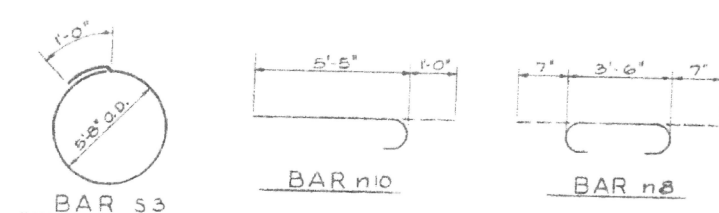
EXISTING PLANS - PIER FOOTINGS (N.B. - PIERS 31, 32 & 33)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 5 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	873
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HB	ROCK ISLAND	389	218

REINFORCING BAR LIST				
BAR MARK	QUANTITY	BAR SIZE	LENGTH	SHAPE
PIER 34	N8	14	5	4-8
	N10	36	9	6-5
	S3	7	4	18-10
	T6	32	10	13-0
PIER 35	N8	14	5	4-8
	N10	36	9	6-5
	S3	16	4	18-10
	T7	22	9	12-6
	V46	36	9	8-0
	W7	20	10	17-6
PIER 36	N10	36	9	6-5
	S3	7	4	18-10
	T7	16	9	12-6
	W8	18	9	13-6



NOTES:  
FOR DRAINAGE DETAILS, SEE DWG D-2 AND HIGHWAY PLANS.  
REFER TO DWG. S-175 FOR LOCATION OF WORK POINTS.  
BAR MARKS IN LOWER CASE ON DWG. AND IN UPPER CASE ON BAR LIST REFER TO THE SAME BAR.

BILL OF MATERIAL				
ITEM	UNIT	QUANTITY		
		PIER 34	PIER 35	PIER 36
CLASS "A" EXCAVATION FOR STRUCTURES	CU. YD.	45	106	49
CLASS "X" CONCRETE	CU. YD.	23.9	34.6	23.9
REINFORCEMENT BARS	POUND	2730.	4480.	2380.
FURNISHING STEEL PILES 10BP42	LIN. FT.	324	440	610
TEST PILE STEEL 10BP42	EACH	1	1	1
DRIVING STEEL PILES	LIN. FT.	324	440	610

PILE DATA			
	PIER 34	PIER 35	PIER 36
PILE TYPE	10BP42	10BP42	10BP42
CAPACITY	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL
NUMBER REQUIRED	13*	12*	11*
ESTIMATED LENGTH - FT.	27	40	61
CUT OFF ELEVATION	608.40	621.00	639.00

PIER FOOTINGS  
N.B. - PIERS 34, 35 & 36  
F.A.I. 74 - SECTION 81-1HB  
F.A.I. 74 & RAMPS OVER RELOC 19TH ST.  
ROCK ISLAND COUNTY  
STATION 289 + 23.09  
SCALE: AS NOTED DATE:

\* DENOTES BATTER PILES  
\* INCLUDES 1 TEST PILE

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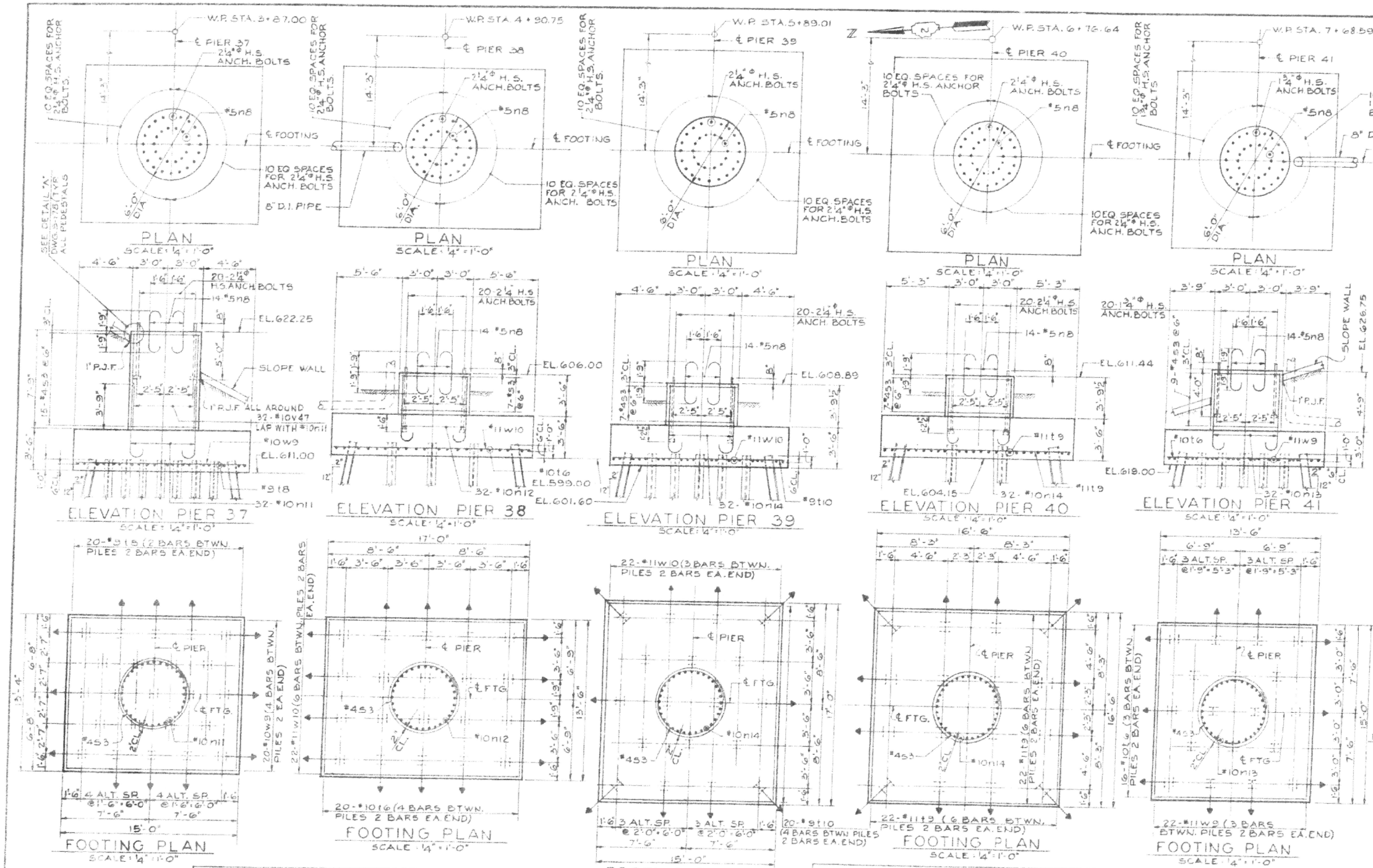
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - PIER FOOTINGS (N.B. - PIERS 34, 35 & 36)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 6 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	874

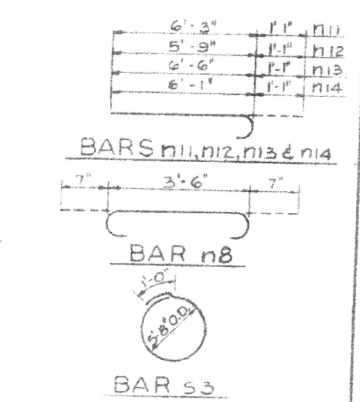
CONTRACT NO. 64E26  
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT





ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HB	ROCK ISLAND	389	219
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1-14		

REINFORCING BAR LIST				
BAR MARK	QUANTITY	BAR SIZE	LENGTH	SHAPE
PIER 37	14	#5	4'-8"	110J
PIER 38	14	#5	4'-8"	110J
PIER 39	14	#5	4'-8"	110J
PIER 40	14	#5	4'-8"	110J
PIER 41	14	#5	4'-8"	110J



NOTES:  
FOR DRAINAGE DETAILS SEE DWG. D-2  
AND HIGHWAY PLANS.  
REFER TO DWG. 5-175 FOR LOCATION  
OF WORK POINT.  
BAR MARKS IN LOWER CASE ON  
DWG. AND IN UPPER CASE ON BAR  
LIST REFER TO THE SAME BAR.

PILE DATA					
LOCATION	PIER 37	PIER 38	PIER 39	PIER 40	PIER 41
PILE TYPE	10BP42	10BP42	10BP42	10BP42	10BP42
CAPACITY	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL	DRIVE TO REFUSAL
NUMBER REQUIRED	23*	20*	18*	16*	18*
ESTIMATED LENGTH FT.	46	30	27	30	49
CUT OFF ELEVATION	612.00	600.00	602.60	605.15	620.00

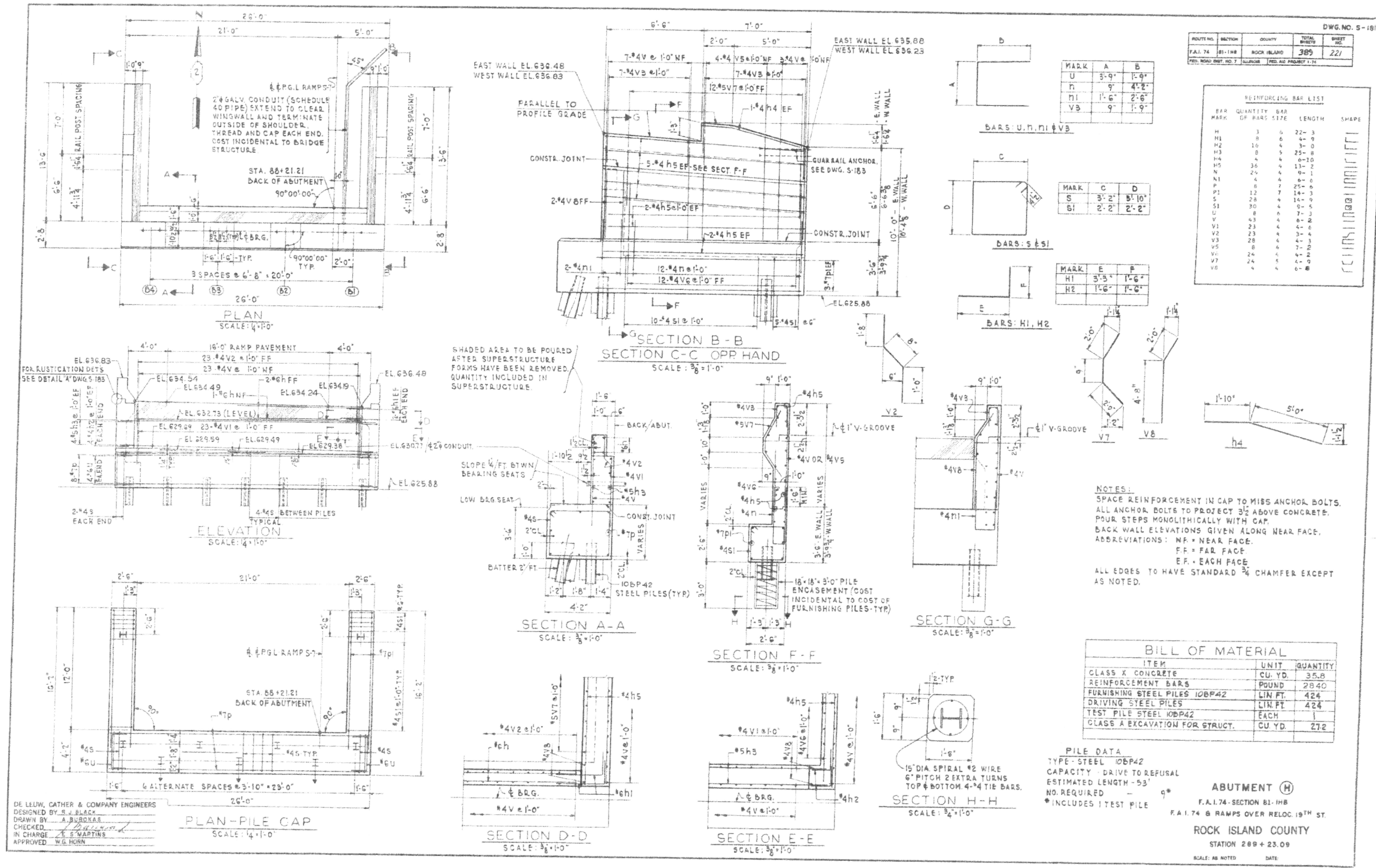
BILL OF MATERIAL						
ITEM	UNIT	QUANTITY				
		PIER 37	PIER 38	PIER 39	PIER 40	PIER 41
CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	5.8	6.1	7.0	7.4	6.8
CLASS X CONCRETE	CU. YD.	34.0	33.4	37.0	39.3	27.5
REINFORCEMENT BARS	POUND	4420	4140	4060	4880	3820
FURNISHING STEEL PILES 10BP42	LINEAL FT.	1012	570	459	450	832
TEST PILE STEEL 10BP42	EACH	1	1	1	1	1
DRIVING STEEL PILES	LINEAL FT.	1012	570	459	450	832

PIER FOOTINGS  
S.B. - PIERS 37 TO 41  
F.A.I. 74 - SECTION 81-1HB  
F.A.I. 74 B RAMP OVER RELOC. 19TH ST.  
ROCK ISLAND COUNTY  
STATION 289 + 23.09  
SCALE: AS NOTED DATE:

DE LEUW, CATHY & COMPANY ENGINEERS  
DESIGNED BY: R.J. BLACK  
DRAWN BY: O. MARTINSON  
CHECKED: J. MARTINSON  
IN CHARGE: E.S. MARTINSON  
APPROVED: W.G. HORN

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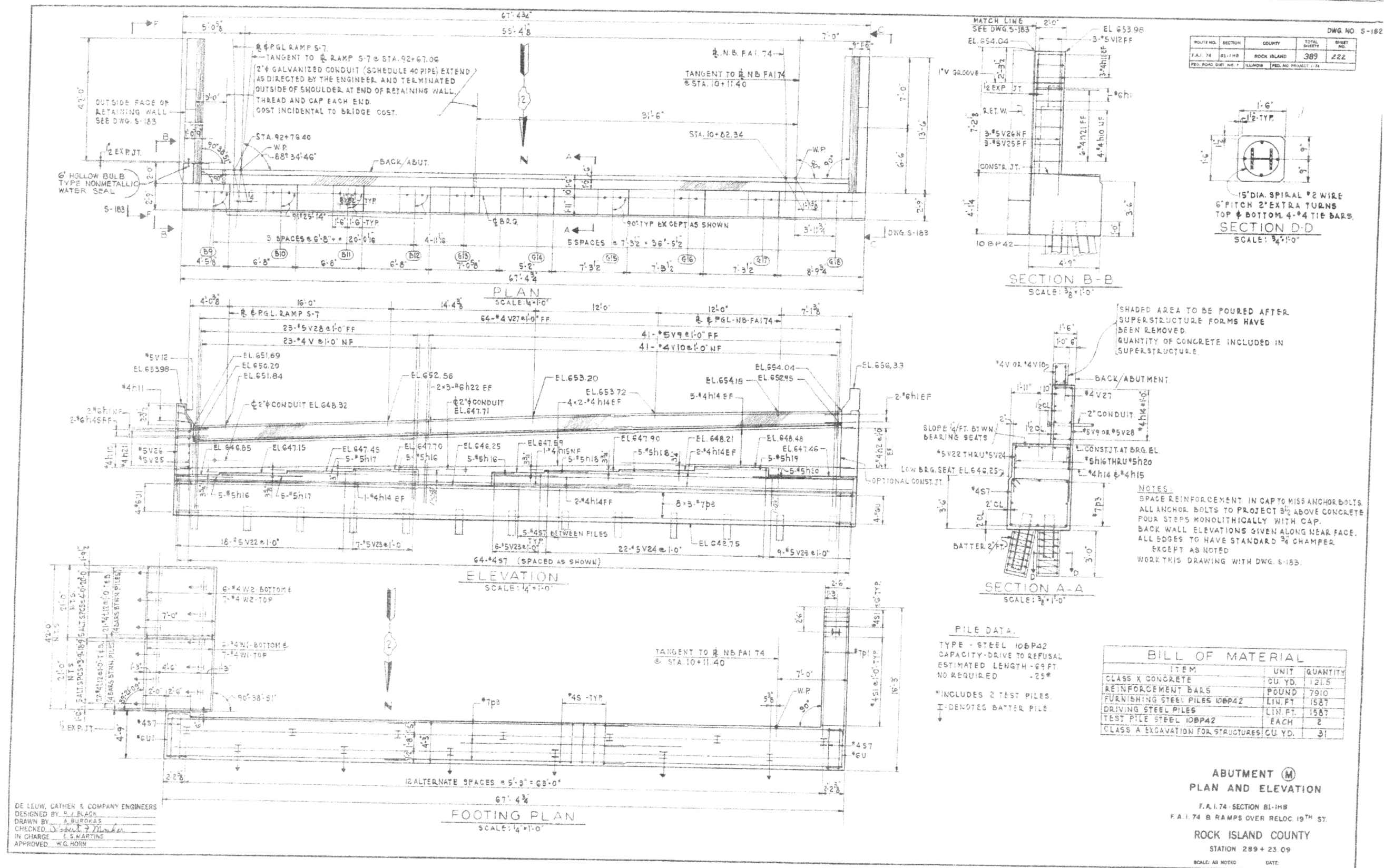
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT H  
 I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
 SHEET NO. 9 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	877
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				





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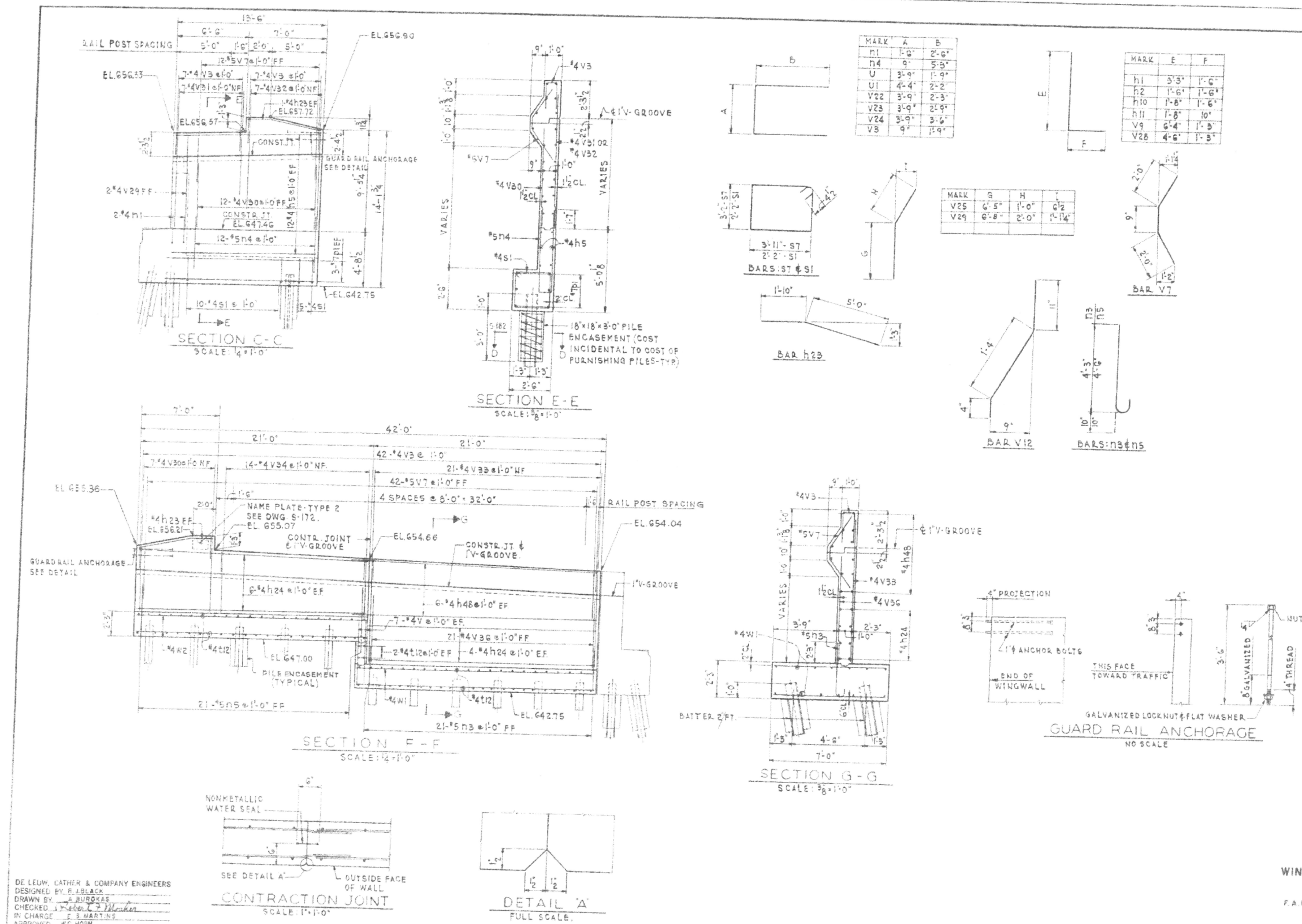
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT M (PLAN AND ELEVATION)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 10 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	878
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



DWG. NO. 5-185

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HB	ROCK ISLAND	389	273

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 1-74

REINFORCING BAR LIST

BAR MARK	QUANTITY	BAR SIZE	LENGTH	SHAPE
H1	6	6	6'-9"	
H2	10	4	3'-0"	
H5	26	4	13'-2"	
H10	4	4	3'-2"	
H11	6	4	2'-6"	
H14	34	4	23'-3"	
H16	1	4	14'-0"	
H17	15	5	1'-1"	
H18	10	5	8'-0"	
H19	5	5	8'-10"	
H20	5	5	10'-3"	
H21	6	4	1'-8"	
H22	12	6	22'-6"	
H23	4	4	20'-8"	
H24	20	4	3'-6"	
H25	2	6	3'-6"	
H26	12	4	22'-2"	
H1	2	4	8'-6"	
N3	21	5	5'-1"	
N4	12	5	11'-3"	
N5	21	5	5'-4"	
P1	6	7	14'-3"	
P3	24	7	24'-0"	
S1	15	4	9'-5"	
S7	64	4	14'-11"	
T12	90	4	6'-8"	
U	4	6	7'-3"	
U1	4	6	8'-8"	
V	37	4	6'-2"	
V3	56	4	4'-3"	
V7	54	5	4'-8"	
V9	41	5	7'-7"	
V40	41	4	8'-2"	
V12	3	5	2'-7"	
V22	18	5	8'-3"	
V23	22	5	9'-3"	
V24	22	5	10'-2"	
V25	3	5	7'-5"	
V26	3	5	8'-5"	
V27	64	4	2'-11"	
V28	23	5	5'-9"	
V29	2	4	8'-8"	
V30	10	4	6'-0"	
V31	7	4	8'-6"	
V32	7	4	9'-2"	
V33	21	4	8'-10"	
V34	14	4	5'-4"	
V36	21	4	7'-2"	
V41	13	4	21'-8"	
V2	13	4	20'-8"	

DE LEUW, CATHY & COMPANY ENGINEERS  
 DESIGNED BY: R. BLACK  
 DRAWN BY: A. BUDOKAS  
 CHECKED BY: J. J. MARTIN  
 IN CHARGE: J. J. MARTIN  
 APPROVED: J. J. MARTIN

ABUTMENT (M)  
 WINGWALLS & MISC. DETAILS  
 F.A.I. 74-SECTION 81-1HB  
 F.A.I. 74 B RAMP OVER RELOC. 15TH ST.  
 ROCK ISLAND COUNTY  
 STATION  
 SCALE: AS NOTED DATE:

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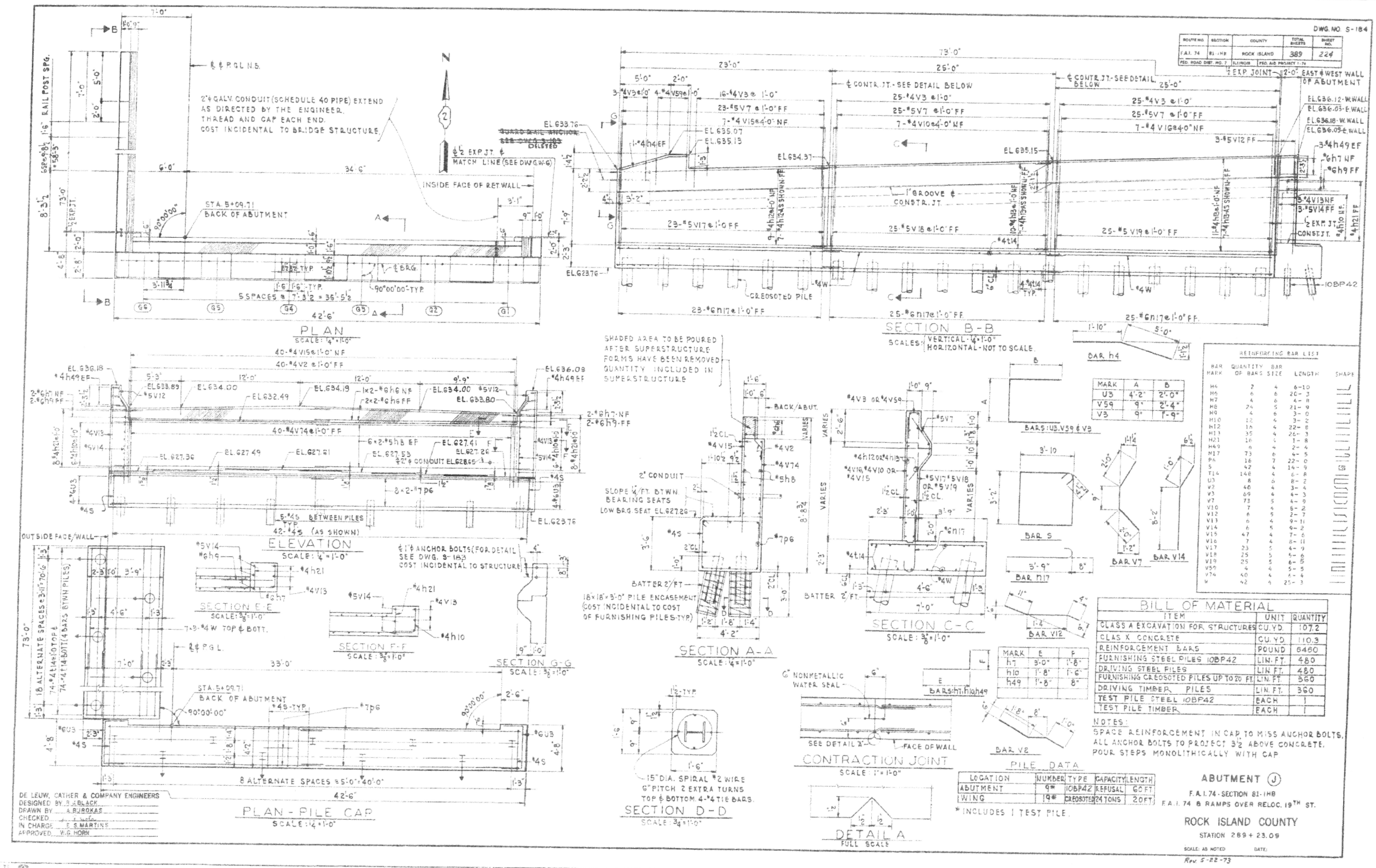


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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT M (WINGWALLS & MISC. DETAILS)  
 I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
 SHEET NO. 11 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	879
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



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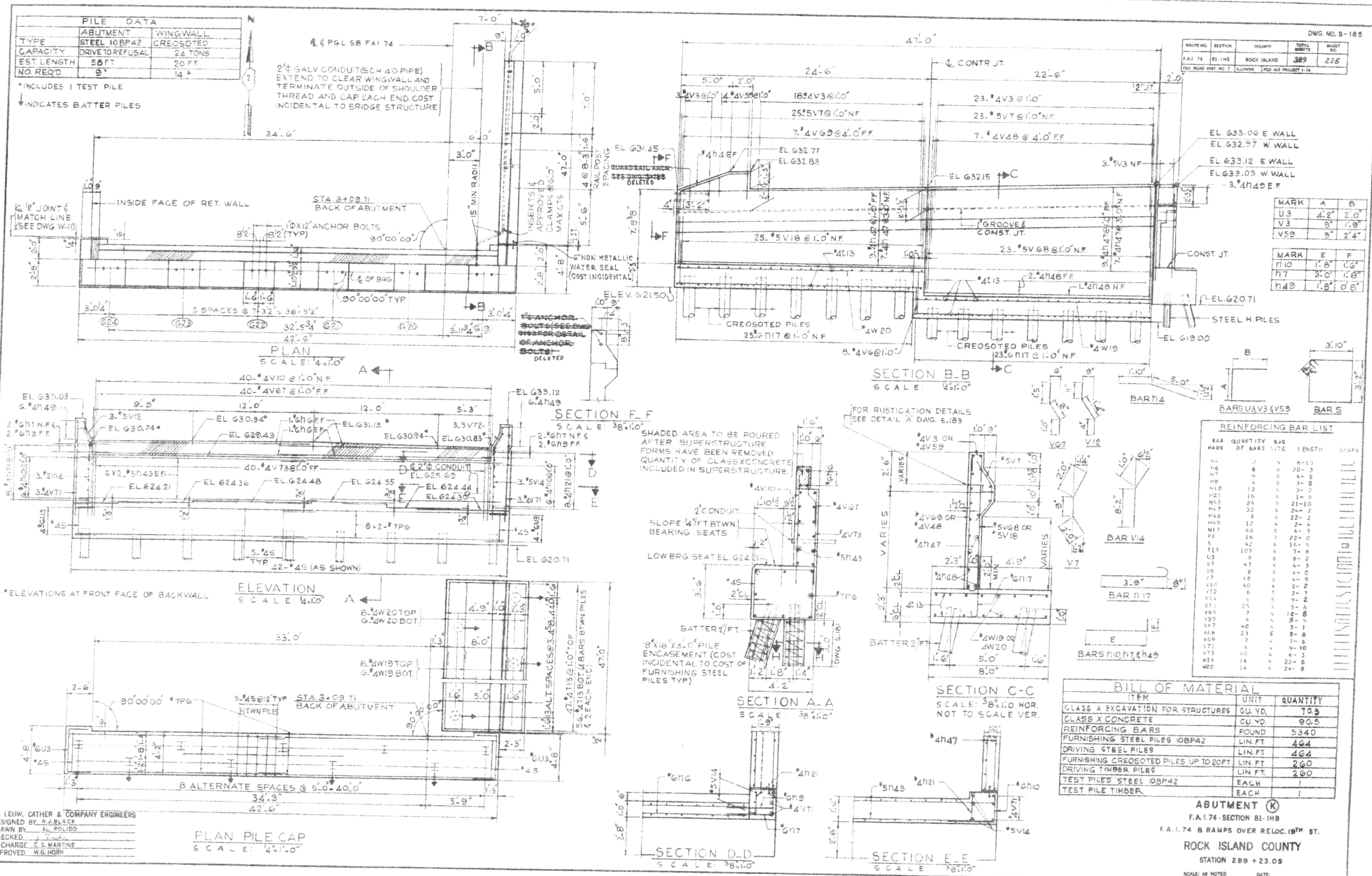
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT J  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 12 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	880
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				





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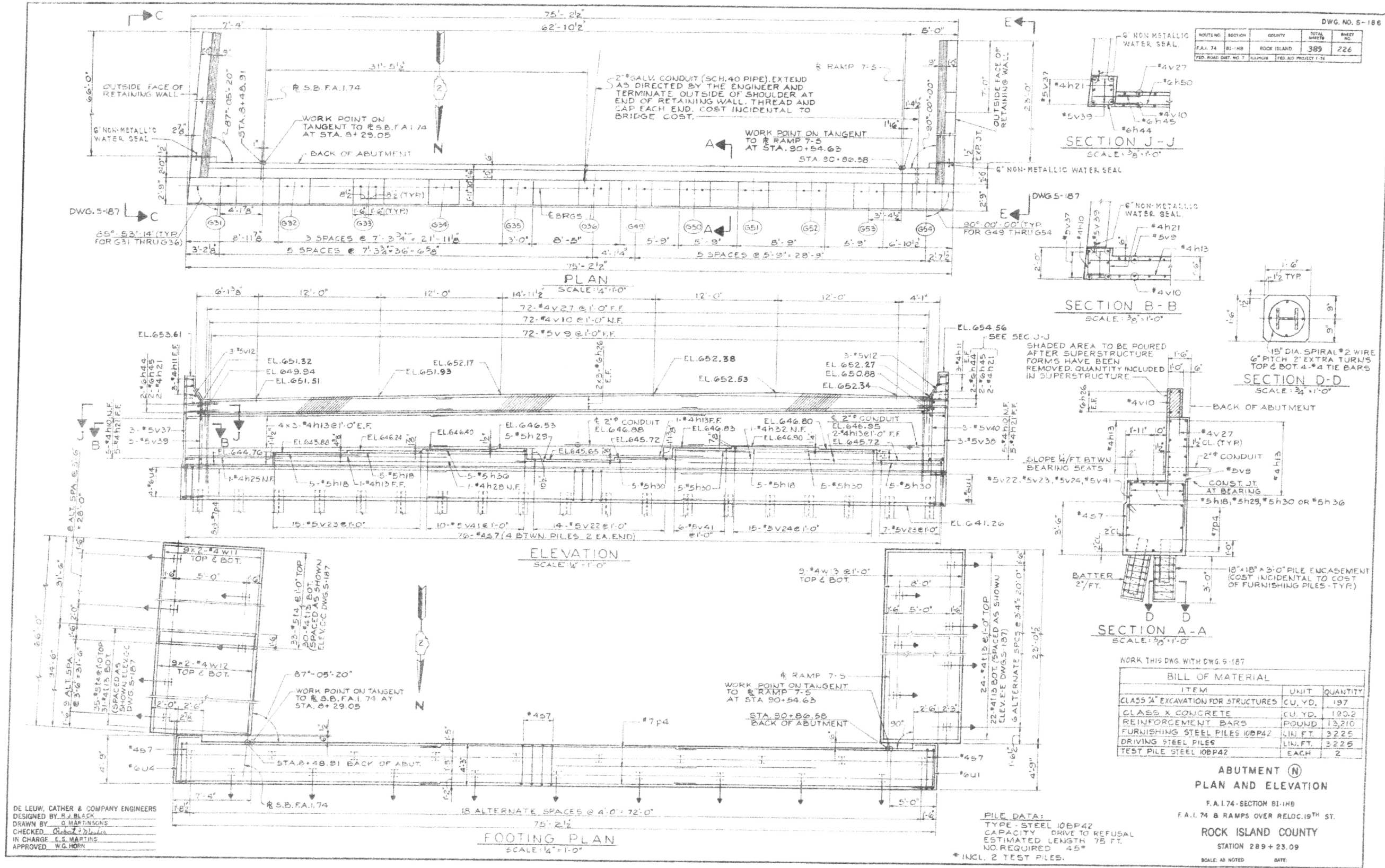


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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT K  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 13 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	881
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

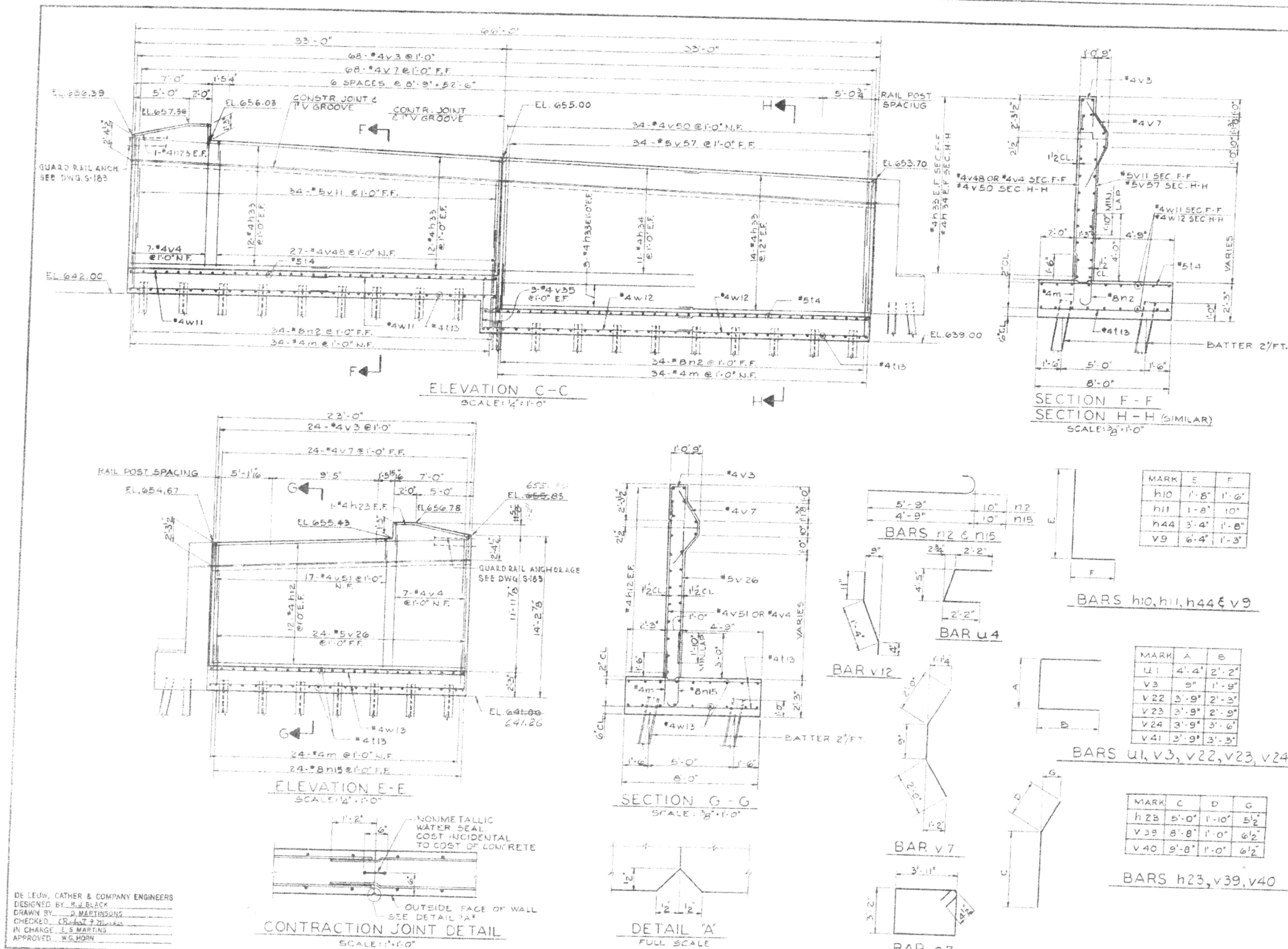
EXISTING PLANS - ABUTMENT N (PLAN AND ELEVATION)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 14 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	882
CONTRACT NO. 64E26				

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT





ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 174	81-1HB	ROCK ISLAND	389	227
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 1-24				

MARK	QUANTITY	BAR SIZE	LENGTH	SHAPE
H10	16	4	3'-2"	
H11	17	4	3'-2"	
H12	24	4	25'-8"	
H13	28	4	24'-4"	
H14	16	5	8'-6"	
H21	14	4	1'-8"	
H22	4	4	8'-10"	
H25	1	4	16'-3"	
H26	12	5	24'-0"	
H28	1	4	25'-0"	
H29	5	5	16'-6"	
H30	20	9	7'-0"	
H32	1	4	20'-4"	
H33	82	4	17'-0"	
H34	22	4	16'-0"	
H36	5	5	10'-0"	
H44	4	5	5'-0"	
H45	4	6	3'-4"	
P	92	4	3'-3"	
N2	43	8	1'-7"	
N15	24	8	5'-7"	
P4	24	7	26'-8"	
T4	58	5	7'-7"	
T13	107	4	7'-8"	
U1	4	6	8'-8"	
U4	4	6	8'-9"	
V3	92	4	4'-3"	
V4	14	4	22'-0"	
V7	92	4	4'-9"	
V9	72	5	7'-7"	
V10	72	4	6'-2"	
V11	34	5	7'-4"	
V12	6	5	2'-7"	
V22	14	5	8'-3"	
V23	22	5	9'-3"	
V24	15	5	10'-0"	
V26	24	5	8'-9"	
V27	72	4	2'-9"	
V35	18	4	4'-9"	
V37	3	5	11'-2"	
V38	3	5	9'-8"	
V39	3	5	9'-8"	
V40	3	5	10'-8"	
V41	16	5	10'-2"	
V42	27	4	10'-8"	
V50	34	4	12'-2"	
V51	17	4	10'-11"	
V57	24	5	8'-11"	
H11	16	4	17'-5"	
H12	36	4	14'-2"	
H13	18	4	27'-8"	

WORK THIS DWG. WITH DWG. S-186

MARK	E	F
h10	1'-8"	1'-6"
h11	1'-8"	1'-0"
h44	3'-4"	1'-8"
v9	6'-4"	1'-3"

BARS h10, h11, h44 & v9

MARK	A	B
U1	4'-4"	2'-2"
V3	9"	1'-9"
V22	3'-9"	2'-3"
V23	3'-9"	2'-9"
V24	3'-9"	3'-6"
V41	3'-9"	3'-3"

BARS U1, V3, V22, V23, V24 & V41

MARK	C	D	G
h23	5'-0"	1'-10"	5'-2"
v39	8'-8"	1'-0"	6'-2"
v40	9'-8"	1'-0"	6'-2"

BARS h23, v39, v40

**ABUTMENT (N)**  
**SECTIONS AND DETAILS**

F.A. 174 - SECTION 81-1HB  
F.A. 174 & RAMPS OVER RELOC. 19TH ST.

**ROCK ISLAND COUNTY**  
STATION 289+23.09

SCALE: AS NOTED DATE:

FOR INFORMATION ONLY



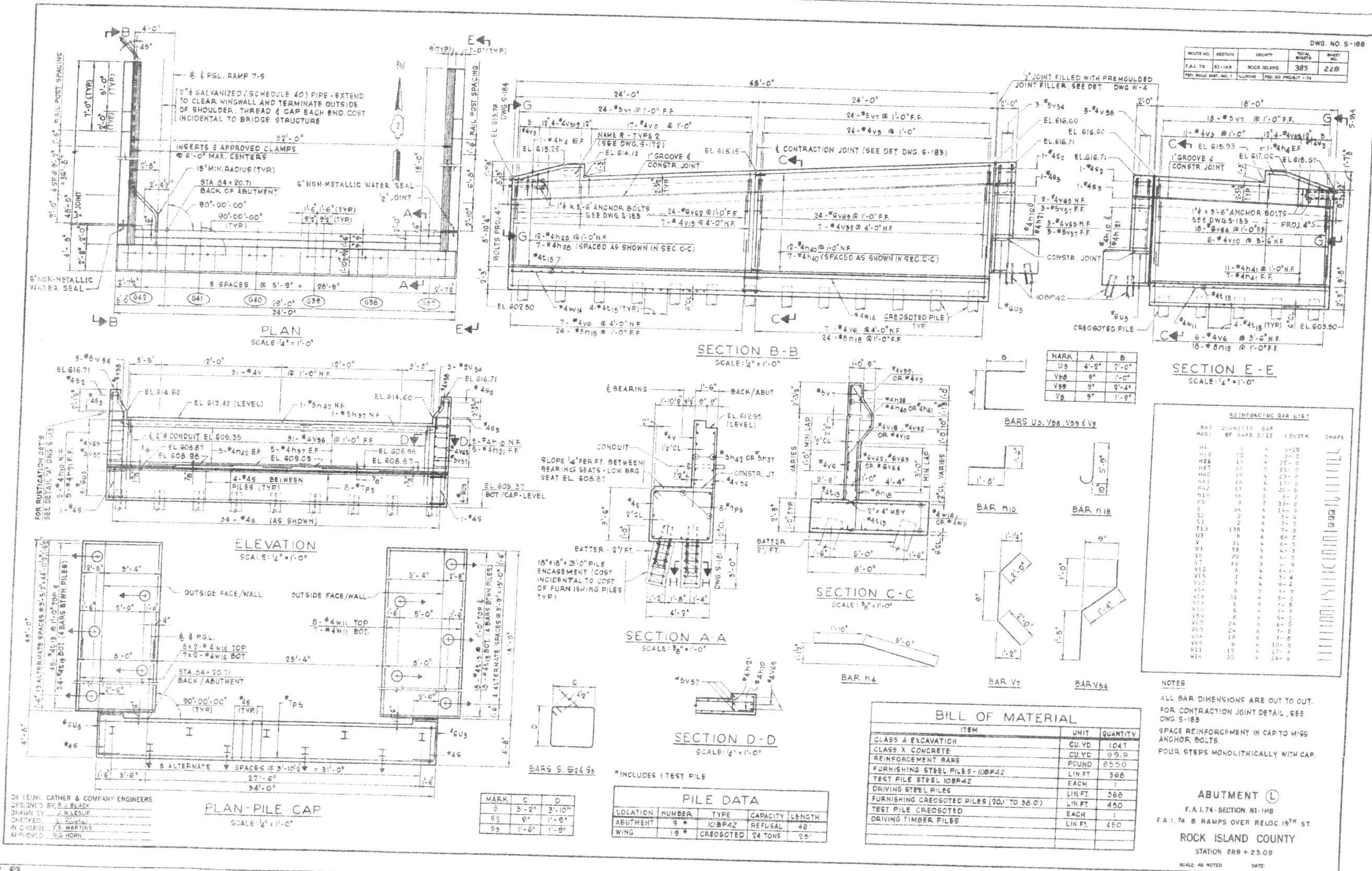
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PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 03/23/2017	DRAWN -	REVISED
	CHECKED -	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - ABUTMENT N (SECTIONS AND DETAILS)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 15 OF 45 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	883
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY



USER NAME =	DESIGNED -	REVISED
PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 03/23/2017	DRAWN -	REVISED
	CHECKED -	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

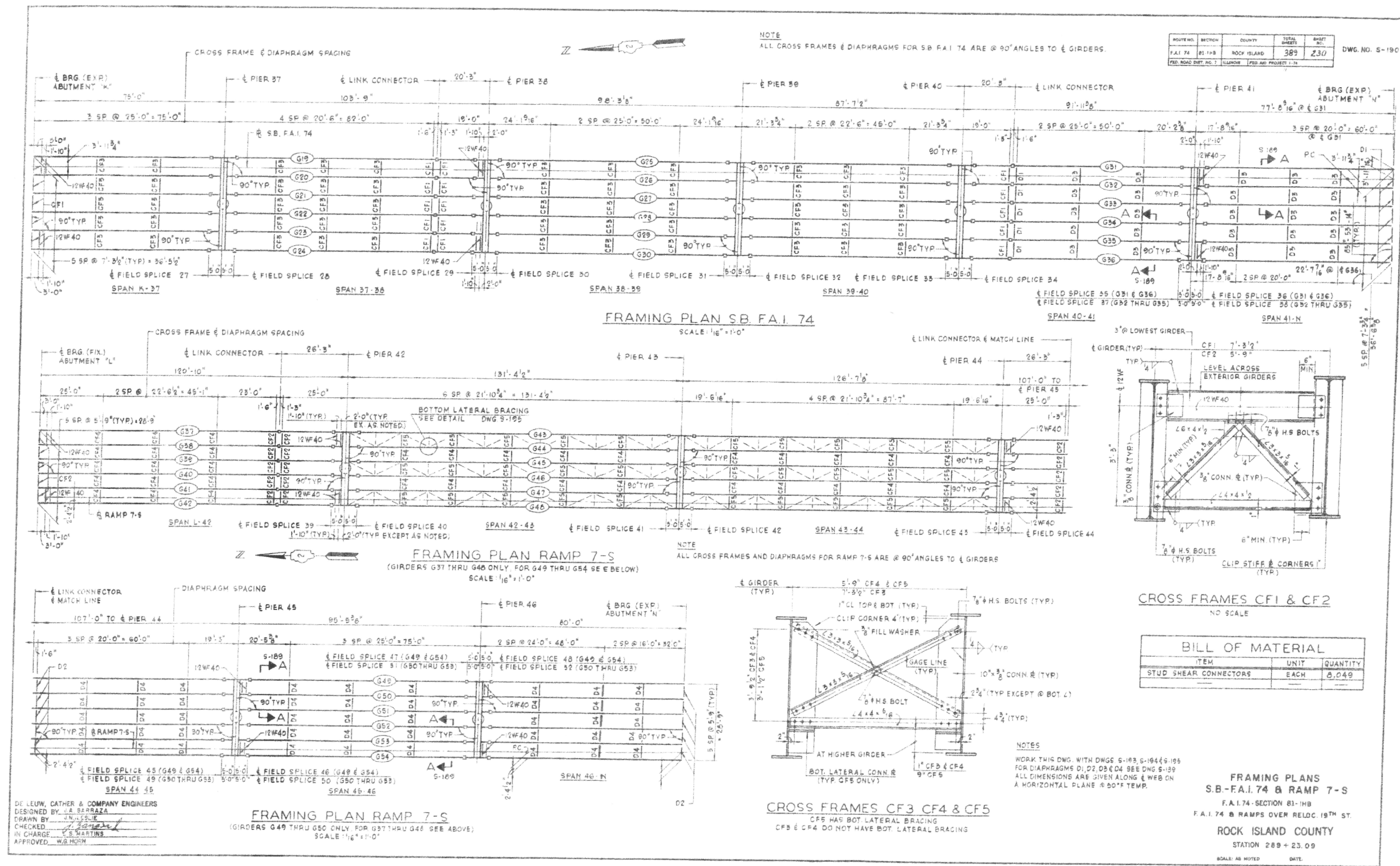
EXISTING PLANS - ABUTMENT L  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 16 OF 45 SHEETS

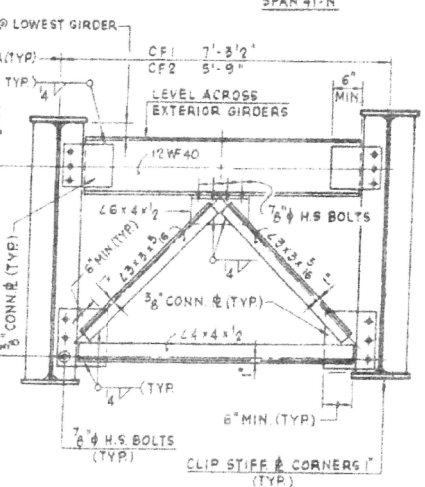
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	884
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



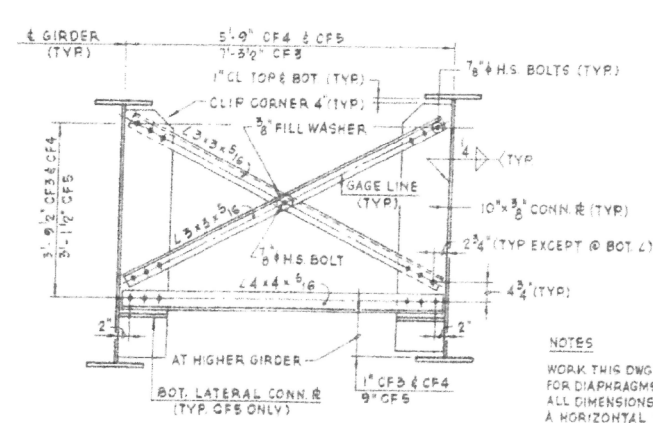




ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	DWG. NO.
F.A.I. 74	81-1HB	ROCK ISLAND	389	230	S-190
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1-74			



BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
STUD SHEAR CONNECTORS	EACH	8,049



FOR INFORMATION ONLY



USER NAME =	DESIGNED -	REVISED
PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 03/23/2017	DRAWN -	REVISED
	CHECKED -	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - FRAMING PLANS (S.B. - F.A.I. 74 & RAMP 7-S)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 18 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	886
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				







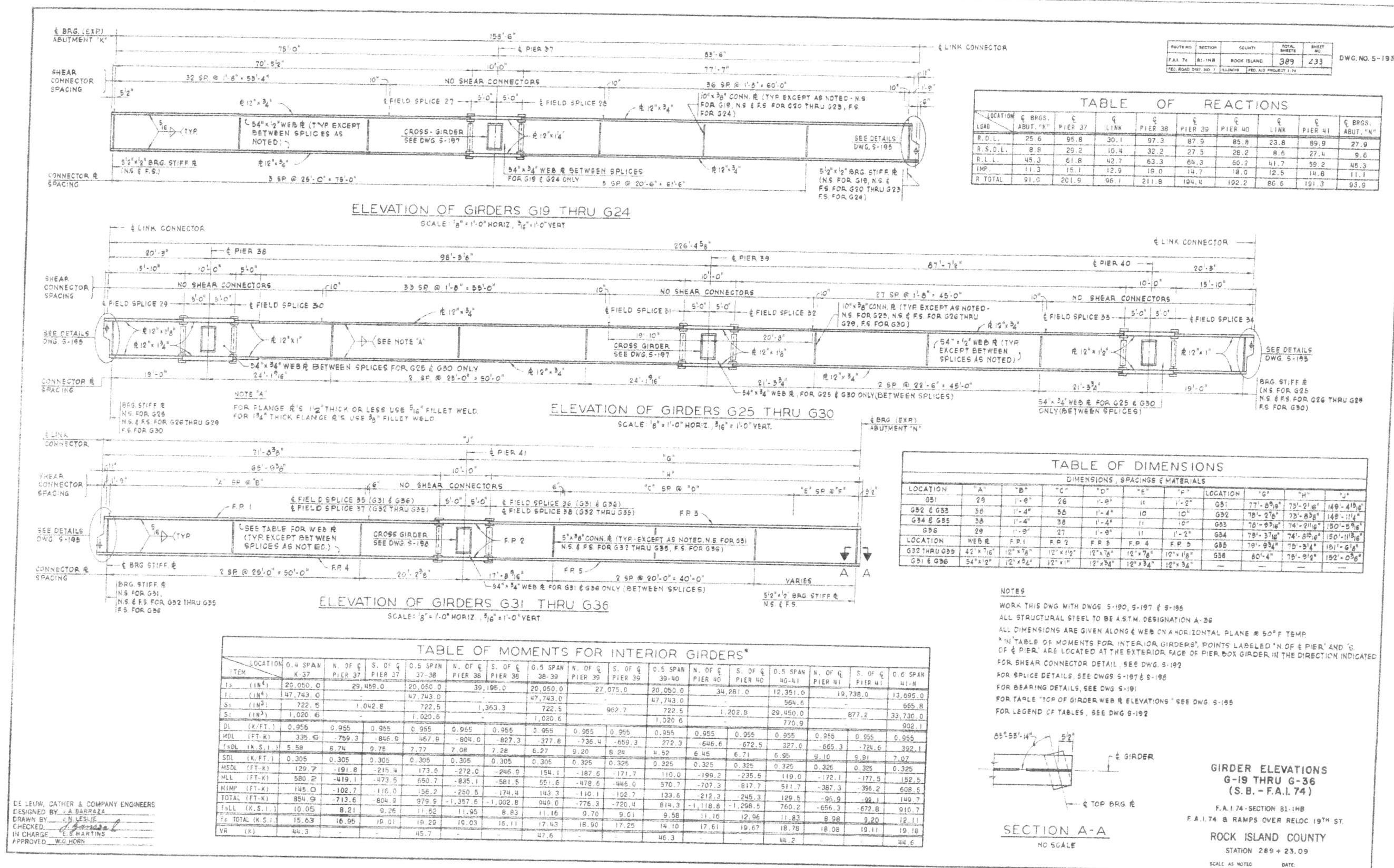
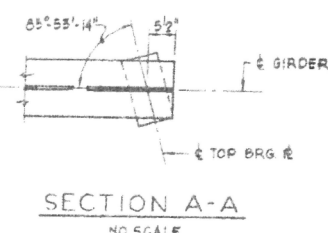


TABLE OF REACTIONS											
LOCATION	ABUT. "K"	PIER 37	LINK	PIER 38	PIER 39	PIER 40	LINK	PIER 41	ABUT. "N"		
R.D.L.	25.6	95.8	30.1	97.3	87.5	85.8	23.8	89.9	27.9		
R.S.D.L.	8.8	29.2	10.4	32.2	27.5	28.2	8.6	27.4	9.6		
R.L.L.	45.3	61.8	42.7	63.3	64.3	60.2	41.7	59.2	45.3		
IMP.	11.3	15.1	12.9	18.0	14.7	18.0	12.5	14.8	11.1		
R TOTAL	91.0	201.9	96.1	211.8	194.4	192.2	86.6	191.3	93.9		

TABLE OF DIMENSIONS											
DIMENSIONS, SPACINGS & MATERIALS											
LOCATION	"A"	"B"	"C"	"D"	"E"	"F"	LOCATION	"G"	"H"	"I"	"J"
G31	29	1'-0"	26	1'-0"	11	1'-2"	G31	77'-0"	73'-2"	149'-4"	149'-4"
G32 & G33	36	1'-4"	36	1'-4"	10	1'-0"	G32	78'-2"	73'-8"	149'-11"	149'-11"
G34 & G35	36	1'-4"	36	1'-4"	11	1'-0"	G33	78'-2"	74'-2"	150'-5"	150'-5"
G36	29	1'-0"	27	1'-0"	11	1'-2"	G34	78'-2"	74'-8"	150'-11"	150'-11"
LOCATION	WEB R	F.P. 1	F.P. 2	F.P. 3	F.P. 4	F.P. 5	G35	79'-0"	74'-8"	151'-6"	151'-6"
G32 THRU G35	42" x 7/16"	12" x 7/8"	12" x 1/2"	12" x 7/8"	12" x 1/8"	12" x 3/8"	G36	80'-4"	75'-9"	152'-0"	152'-0"
G31 & G36	54" x 1/2"	12" x 5/8"	12" x 1"	12" x 3/4"	12" x 3/8"	12" x 3/8"					

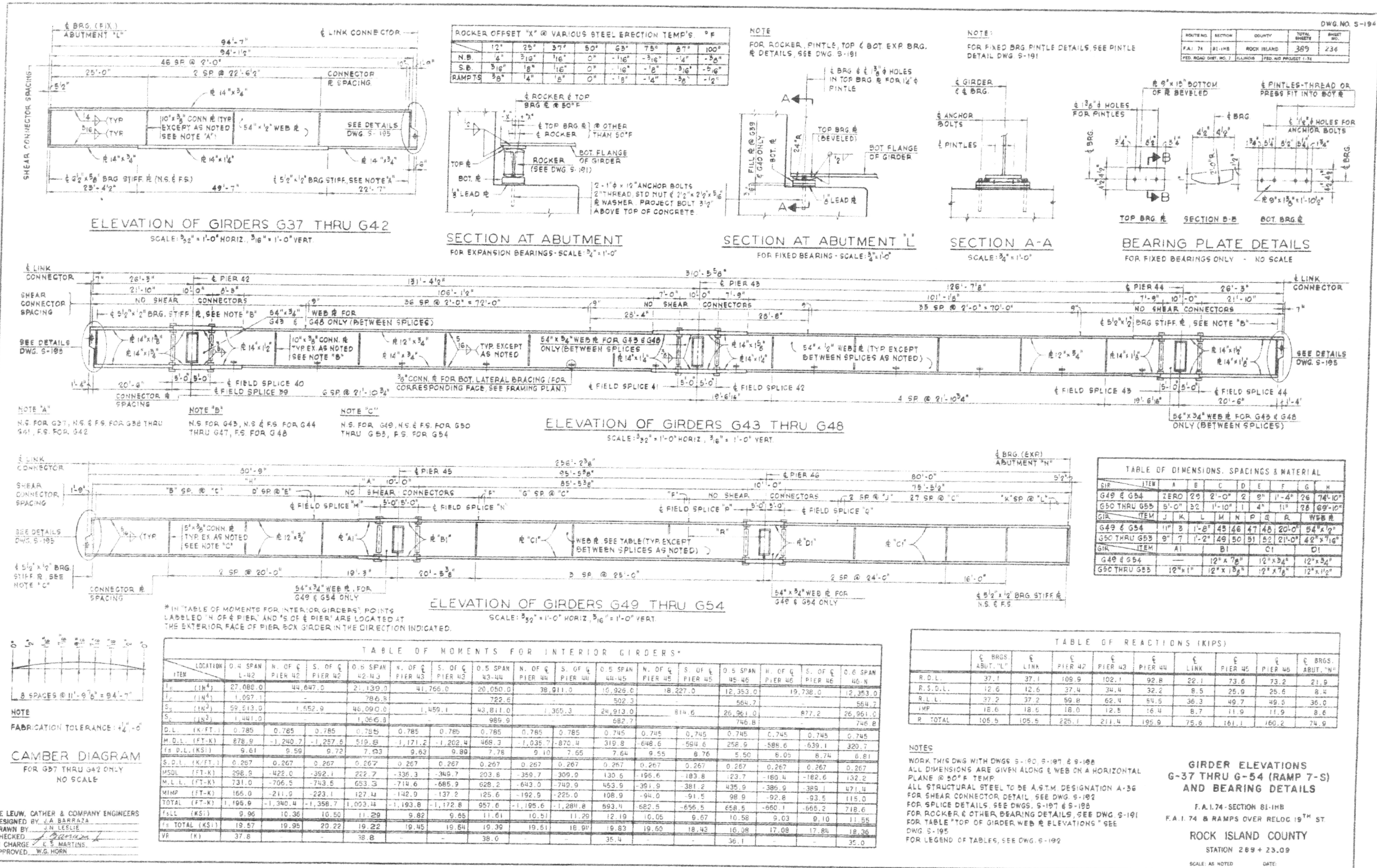
TABLE OF MOMENTS FOR INTERIOR GIRDERS*																	
ITEM	0.4 SPAN K-37	N. OF Q PIER 37	S. OF Q PIER 37	0.5 SPAN PIER 37-38	N. OF Q PIER 38	S. OF Q PIER 38	0.5 SPAN PIER 38-39	N. OF Q PIER 39	S. OF Q PIER 39	0.5 SPAN PIER 39-40	N. OF Q PIER 40	S. OF Q PIER 40	0.5 SPAN PIER 40-41	N. OF Q PIER 41	S. OF Q PIER 41	0.6 SPAN PIER 41-N	
1s (IN <sup>4</sup> )	20,050.0		29,459.0	20,050.0		39,195.0	20,050.0		27,075.0	20,050.0		34,281.0	12,351.0		19,738.0	13,695.0	
1e (IN <sup>4</sup> )	47,743.0			47,743.0			47,743.0			47,743.0			564.6			665.8	
3s (IN <sup>3</sup> )	722.5		1,042.8	722.5		1,353.3	722.5		962.7	722.5		1,202.9	29,450.0		877.2	33,730.0	
3e (IN <sup>3</sup> )	1,020.6			1,020.6			1,020.6			1,020.6			770.9			902.1	
DL (K/FT.)	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	
MDL (FT-K)	335.9	759.3	-846.9	467.9	-804.0	-827.3	-377.8	-736.4	-659.3	272.3	-646.6	-672.5	327.0	-665.3	-724.6	392.1	
MSDL (K.S.I.)	5.58	8.74	9.75	7.77	7.08	7.28	6.27	9.20	8.24	4.52	6.45	6.71	6.95	9.10	9.91	7.07	
SDL (K/FT.)	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	
MSDL (FT-K)	129.7	-191.8	-215.4	173.0	-272.0	-246.9	154.1	-187.6	-171.7	110.0	-199.2	-235.5	119.0	-172.1	-177.5	152.5	
MLL (FT-K)	580.2	-419.1	-473.5	650.7	-835.1	-581.5	551.6	-478.6	-445.0	570.7	-707.3	-817.7	511.7	-387.3	-390.2	608.5	
NIMP (FT-K)	145.0	-102.7	-116.0	156.2	-250.5	-174.4	143.3	-110.1	-102.7	133.6	-212.3	-245.3	129.5	-95.9	-98.1	149.7	
TOTAL (FT-K)	854.9	-713.6	-804.9	979.9	-1,357.6	-1,002.8	940.0	-775.3	-720.4	814.3	-1,118.8	-1,258.5	760.2	-656.3	-672.8	910.7	
ISLL (K.S.I.)	10.05	8.21	9.26	11.52	11.95	8.83	11.16	9.70	9.01	9.58	11.16	12.96	11.83	8.98	9.20	12.11	
1e TOTAL (K.S.I.)	15.63	16.95	19.01	19.20	19.03	15.11	17.43	18.90	17.25	14.10	17.61	19.67	18.78	18.08	19.11	19.18	
VR (K)	44.3			45.7			47.6			46.3			44.2			44.6	

NOTES  
WORK THIS DWG WITH DWGS 5-190, 5-197 & 5-198  
ALL STRUCTURAL STEEL TO BE A.S.T.M. DESIGNATION A-36  
ALL DIMENSIONS ARE GIVEN ALONG & WEB ON A HORIZONTAL PLANE @ 50°F TEMP.  
\* IN TABLE OF MOMENTS FOR INTERIOR GIRDERS, POINTS LABELED "N OF PIER" AND "S OF PIER" ARE LOCATED AT THE EXTERIOR FACE OF PIER BOX GIRDER IN THE DIRECTION INDICATED FOR SHEAR CONNECTOR DETAIL. SEE DWG. 5-192  
FOR SPLICE DETAILS, SEE DWGS 5-197 & 5-198  
FOR BEARING DETAILS, SEE DWG. 5-191  
FOR TABLE "TOP OF GIRDER WEB ELEVATIONS" SEE DWG. 5-195  
FOR LEGEND OF TABLES, SEE DWG. 5-192



GIRDER ELEVATIONS  
G-19 THRU G-36  
(S.B. - F.A.I. 74)  
F.A.I. 74 - SECTION 81-1HB  
F.A.I. 74 & RAMP OVER RELOC 19TH ST.  
ROCK ISLAND COUNTY  
STATION 289 + 23.09  
SCALE AS NOTED DATE:

FOR INFORMATION ONLY



DWG. NO. S-194			
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
F.A.I. 74	81-118	ROCK ISLAND	389
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1-74	SHEET NO. 236

TABLE OF DIMENSIONS, SPACINGS & MATERIAL											
SIP	ITEM	A	B	C	D	E	F	G	H		
G49 & G54	ZERO	29	2'-0"	2	9"	1'-4"	26	74'-10"			
G50 THRU G53	5'-0"	32	1'-10"	1	4"	11"	28	69'-10"			
GIR	ITEM	J	K	L	M	N	P	Q	R	W	W8
G49 & G54	11"	3	1'-0"	45	48	47	48	20'-0"	54"x1/2"		
G50 THRU G53	9"	7	1'-2"	49	50	51	52	21'-0"	42"x1/2"		
GIR	ITEM	A1	B1	C1	D1						
G49 & G54			12"x7/8"	12"x3/4"	12"x3/4"						
G50 THRU G53			12"x1"	12"x1 1/8"	12"x7/8"						

TABLE OF REACTIONS (KIPS)											
	BRGS. ABUT. "L"	LINK	PIER 42	PIER 43	PIER 44	LINK	PIER 45	PIER 46	BRGS. ABUT. "N"		
R.O.L.	37.1	37.1	109.9	102.1	92.8	22.1	73.6	73.2	21.9		
R.S.O.L.			12.6	37.4	34.4	32.2	8.5	25.9	25.6	8.4	
R.L.L.	37.2	37.2	59.8	62.4	54.5	36.3	49.7	49.5	36.0		
IMP	18.6	18.6	18.0	12.5	16.4	8.7	11.9	11.9	8.6		
R. TOTAL	105.5	105.5	225.1	211.4	195.9	75.6	161.1	160.2	74.9		

TABLE OF MOMENTS FOR INTERIOR GIRDERS*																							
ITEM	LOCATION	0.4 SPAN L-42	N. OF C PIER 42	S. OF C PIER 42	0.6 SPAN 42-43	N. OF C PIER 43	S. OF C PIER 43	0.5 SPAN 43-44	N. OF C PIER 44	S. OF C PIER 44	0.5 SPAN 44-45	N. OF C PIER 45	S. OF C PIER 45	0.5 SPAN 45-46	N. OF C PIER 46	S. OF C PIER 46	0.6 SPAN 46-N						
1	(LN)	27,088.0		44,647.0	21,139.0	41,766.0		20,050.0	38,911.0	15,926.0		18,227.0	12,353.0		19,738.0		12,353.0						
2	(LN)	1,097.1			786.8			722.6			502.3			564.7			564.7						
3	(LN)	59,513.0		1,552.9	46,090.0	1,459.1		43,811.0	1,365.3	24,913.0		514.6	26,361.0			877.2	26,961.0						
4	(LN)	1,441.0			1,366.3			984.9			682.7			746.8			746.8						
D.L. (K-FT)		0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785	0.785						
M.D.L. (FT-K)		878.9	-1,240.7	-1,257.6	519.6	-1,171.2	-1,202.4	468.3	-1,035.7	-870.4	319.8	-648.6	-584.6	258.9	-588.6	-639.1	320.7						
IMP D.L. (KSI)		9.61	9.59	9.72	7.93	9.63	9.89	7.76	9.10	7.65	7.64	9.55	8.76	5.50	8.05	8.74	6.81						
S.D.L. (K-FT)		0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267						
M.S.D.L. (FT-K)		298.9	-422.0	-392.1	222.7	-336.3	-349.7	203.8	-359.7	-309.9	130.6	-196.6	-183.8	23.7	-180.4	-182.6	132.2						
M.L.L. (FT-K)		731.0	-706.5	-743.6	653.3	-714.6	-685.9	628.2	-643.0	-749.9	453.9	-391.9	-381.2	435.9	-386.9	-385.1	471.4						
IMP (FT-K)		165.0	-211.0	-223.1	127.4	-142.9	-137.2	125.6	-192.9	-225.0	108.9	-94.0	-91.5	98.9	-92.8	-93.5	115.0						
TOTAL (FT-K)		1,195.9	-1,340.4	-1,358.7	1,093.4	-1,193.8	-1,172.8	957.6	-1,195.6	-1,284.8	593.4	-682.5	-656.5	658.5	-660.1	-665.2	718.6						
1/8" TOTAL (KSI)		9.96	10.36	10.50	11.29	9.82	9.65	11.61	10.51	11.29	12.19	10.05	9.67	10.58	9.03	9.10	11.55						
1/8" TOTAL (K)		37.8			38.8			38.0			35.4			36.1			35.0						

**CAMBER DIAGRAM**  
FOR G37 THRU G42 ONLY  
NO SCALE

DE LEUW, CATHAR & COMPANY ENGINEERS  
DESIGNED BY J.A. BARRAZA  
DRAWN BY J.N. LESLIE  
CHECKED J. MARTINS  
IN CHARGE E.S. MARTINS  
APPROVED W.G. HORN

**NOTES**  
WORK THIS DWG WITH DWGS S-190, S-197 & S-198  
ALL DIMENSIONS ARE GIVEN ALONG & WEB ON A HORIZONTAL PLANE @ 50°F TEMP.  
ALL STRUCTURAL STEEL TO BE A.S.T.M. DESIGNATION A-36  
FOR SHEAR CONNECTOR DETAIL SEE DWG. S-192  
FOR SPICE DETAILS SEE DWGS. S-197 & S-198  
FOR ROCKER & OTHER BEARING DETAILS, SEE DWG. S-191  
FOR TABLE "TOP OF GIRDER WEB & ELEVATIONS" SEE DWG. S-195  
FOR LEGEND OF TABLES, SEE DWG. S-192

**GIRDER ELEVATIONS  
G-37 THRU G-54 (RAMP 7-S)  
AND BEARING DETAILS**

F.A.I. 74-SECTION 81-118  
F.A.I. 74 & RAMP OVER RELOC. 19TH ST.  
**ROCK ISLAND COUNTY**  
STATION 289+23.09  
SCALE: AS NOTED DATE:

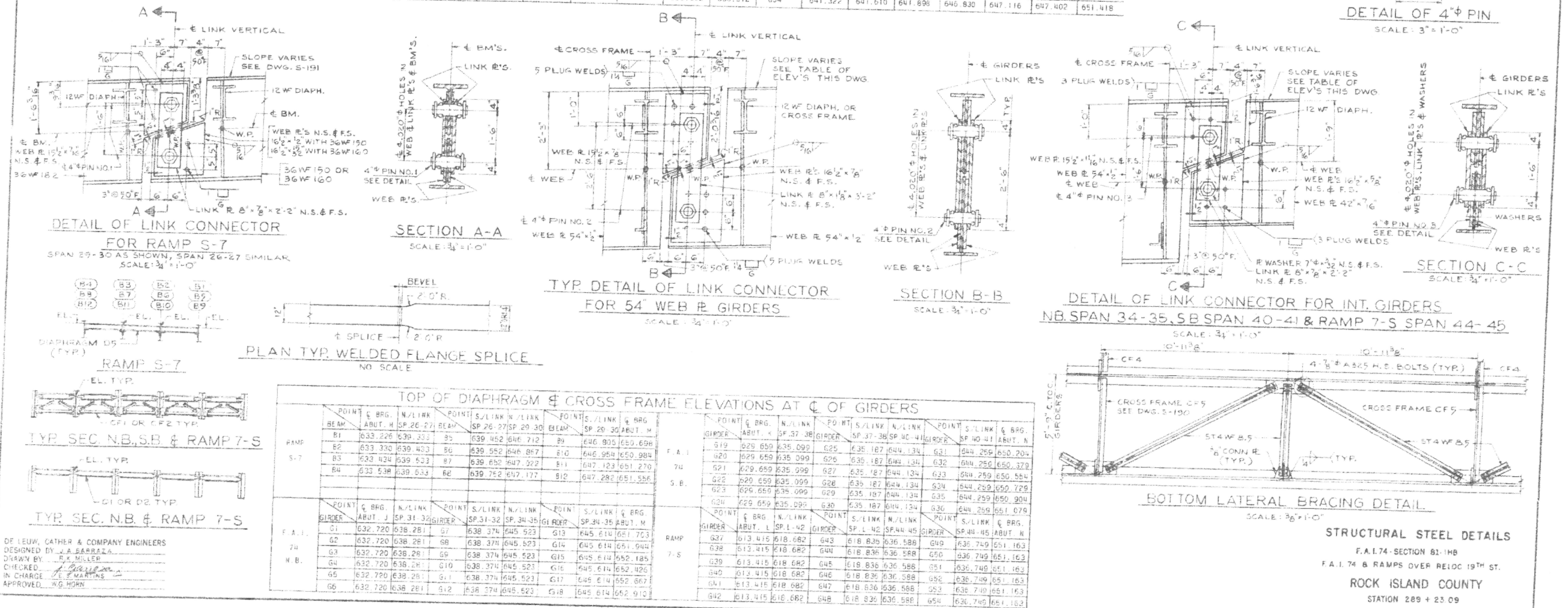
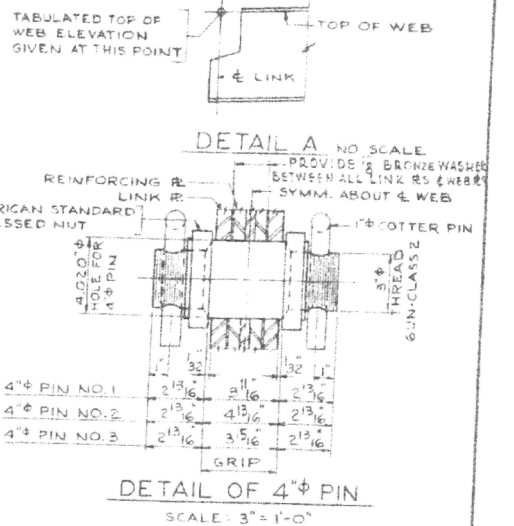
FOR INFORMATION ONLY



\* ELEVATION TABULATED FOR THE POINT SHOWN ON DETAIL A

		TOP OF GIRDER WEB ELEVATION																																	
		GIRDER				LINK*				GIRDER				LINK*						GIRDER				LINK*											
POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	POINT	BRG'S	FIELD	PIER	FIELD	
ABUT. J	SP. 11	31	SP. 12	ABUT. K	SP. 13	32	SP. 14	33	SP. 15	ABUT. L	SP. 16	34	SP. 17	35	ABUT. M	SP. 18	36	SP. 19	37	ABUT. N	SP. 20	38	SP. 21	39	ABUT. O	SP. 22	40	SP. 23	41	ABUT. P	SP. 24	42	SP. 25	43	
F. A. I.	G1	532.970	535.619	535.786	535.957	G7	538.586	539.045	539.231	539.413	542.240	542.427	542.608	545.065	545.220	545.375	545.818	546.003	546.154	546.293	G13	547.436	547.594	547.751	547.893	550.311	550.169	551.953	G19	547.613	547.792	547.952	550.247	550.408	552.250
74	G2	533.242	535.879	536.049	536.218	G8	538.729	539.184	539.377	539.559	542.392	542.572	542.751	545.232	545.391	545.550	546.003	546.155	546.303	G14	547.613	547.792	547.952	548.114	550.247	550.408	552.250	G20	547.613	547.792	547.952	548.114	550.247	552.250	
5 B.	G3	533.313	535.949	536.119	536.288	G9	538.845	539.309	539.492	539.674	542.507	542.687	542.867	545.377	545.540	545.703	546.155	546.307	546.459	G15	547.835	548.000	548.164	550.311	550.474	552.316	554.158	G21	547.835	548.000	548.164	550.311	550.474	552.316	
	G4	533.199	535.839	536.009	536.179	G10	538.806	539.271	539.454	539.636	542.469	542.648	542.828	545.484	545.651	545.819	546.293	546.456	546.619	G16	548.014	548.183	548.352	550.501	550.670	552.507	554.349	G22	548.014	548.183	548.352	550.501	550.670	552.507	
	G5	533.064	535.712	535.882	536.051	G11	538.680	539.143	539.325	539.507	542.340	542.520	542.701	545.334	545.512	545.690	546.169	546.347	546.525	G17	548.081	548.258	548.434	550.788	550.964	552.807	554.649	G23	548.081	548.258	548.434	550.788	550.964	552.807	
	G6	533.002	532.236	532.410	532.584	G12	538.586	539.045	539.231	539.413	542.240	542.427	542.608	545.065	545.220	545.375	545.818	546.003	546.154	G18	548.081	548.258	548.434	550.788	550.964	552.807	554.649	G24	548.081	548.258	548.434	550.788	550.964	552.807	
F. A. I.	G19	530.002	532.236	532.410	532.584	G25	535.499	535.967	536.155	536.337	539.163	539.345	539.527	542.350	542.532	542.714	543.193	543.375	543.557	G31	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G37	547.130	547.309	547.488	547.667	550.109	552.129	
74	G20	530.137	532.362	532.536	532.711	G26	535.628	536.096	536.284	536.466	539.292	539.474	539.656	542.479	542.661	542.843	543.322	543.504	543.686	G32	547.260	547.439	547.618	547.797	550.239	550.418	552.259	G38	547.260	547.439	547.618	547.797	550.239	552.259	
5 B.	G21	530.261	532.470	532.644	532.819	G27	535.736	536.204	536.392	536.574	539.400	539.582	539.764	542.507	542.689	542.871	543.350	543.532	543.714	G33	547.423	547.602	547.781	547.960	550.401	550.580	552.421	G39	547.423	547.602	547.781	547.960	550.401	552.421	
	G22	530.181	532.400	532.574	532.749	G28	535.666	536.134	536.322	536.504	539.330	539.512	539.694	542.450	542.632	542.814	543.293	543.475	543.657	G34	547.423	547.602	547.781	547.960	550.401	550.580	552.421	G40	547.423	547.602	547.781	547.960	550.401	552.421	
	G23	530.061	532.286	532.460	532.634	G29	535.551	536.019	536.207	536.389	539.215	539.397	539.579	542.392	542.574	542.756	543.235	543.417	543.599	G35	547.423	547.602	547.781	547.960	550.401	550.580	552.421	G41	547.423	547.602	547.781	547.960	550.401	552.421	
	G24	529.909	532.142	532.317	532.491	G30	535.405	535.873	536.061	536.243	539.069	539.251	539.433	542.392	542.574	542.756	543.235	543.417	543.599	G36	547.423	547.602	547.781	547.960	550.401	550.580	552.421	G42	547.423	547.602	547.781	547.960	550.401	552.421	
RAMP	G37	513.665	514.017	514.198	514.379	G43	527.789	528.078	528.260	528.442	531.268	531.450	531.632	534.455	534.637	534.819	535.298	535.480	535.662	G49	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G55	547.130	547.309	547.488	547.667	550.109	552.129	
7.5	G38	513.768	514.120	514.301	514.482	G44	527.887	528.176	528.358	528.540	531.366	531.548	531.730	534.553	534.735	534.917	535.396	535.578	535.760	G50	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G56	547.130	547.309	547.488	547.667	550.109	552.129	
	G39	513.857	514.209	514.390	514.571	G45	527.973	528.262	528.444	528.626	531.452	531.634	531.816	534.637	534.819	535.001	535.480	535.662	535.844	G51	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G57	547.130	547.309	547.488	547.667	550.109	552.129	
	G40	513.957	514.309	514.490	514.671	G46	528.061	528.350	528.532	528.714	531.540	531.722	531.904	534.735	534.917	535.099	535.578	535.760	535.942	G52	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G58	547.130	547.309	547.488	547.667	550.109	552.129	
	G41	513.768	514.120	514.301	514.482	G47	527.887	528.176	528.358	528.540	531.366	531.548	531.730	534.553	534.735	534.917	535.396	535.578	535.760	G53	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G59	547.130	547.309	547.488	547.667	550.109	552.129	
	G42	513.665	514.017	514.198	514.379	G48	527.789	528.078	528.260	528.442	531.268	531.450	531.632	534.455	534.637	534.819	535.298	535.480	535.662	G54	547.130	547.309	547.488	547.667	550.109	550.288	552.129	G60	547.130	547.309	547.488	547.667	550.109	552.129	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HB	ROCK ISLAND	389	235
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1-24		



FOR INFORMATION ONLY



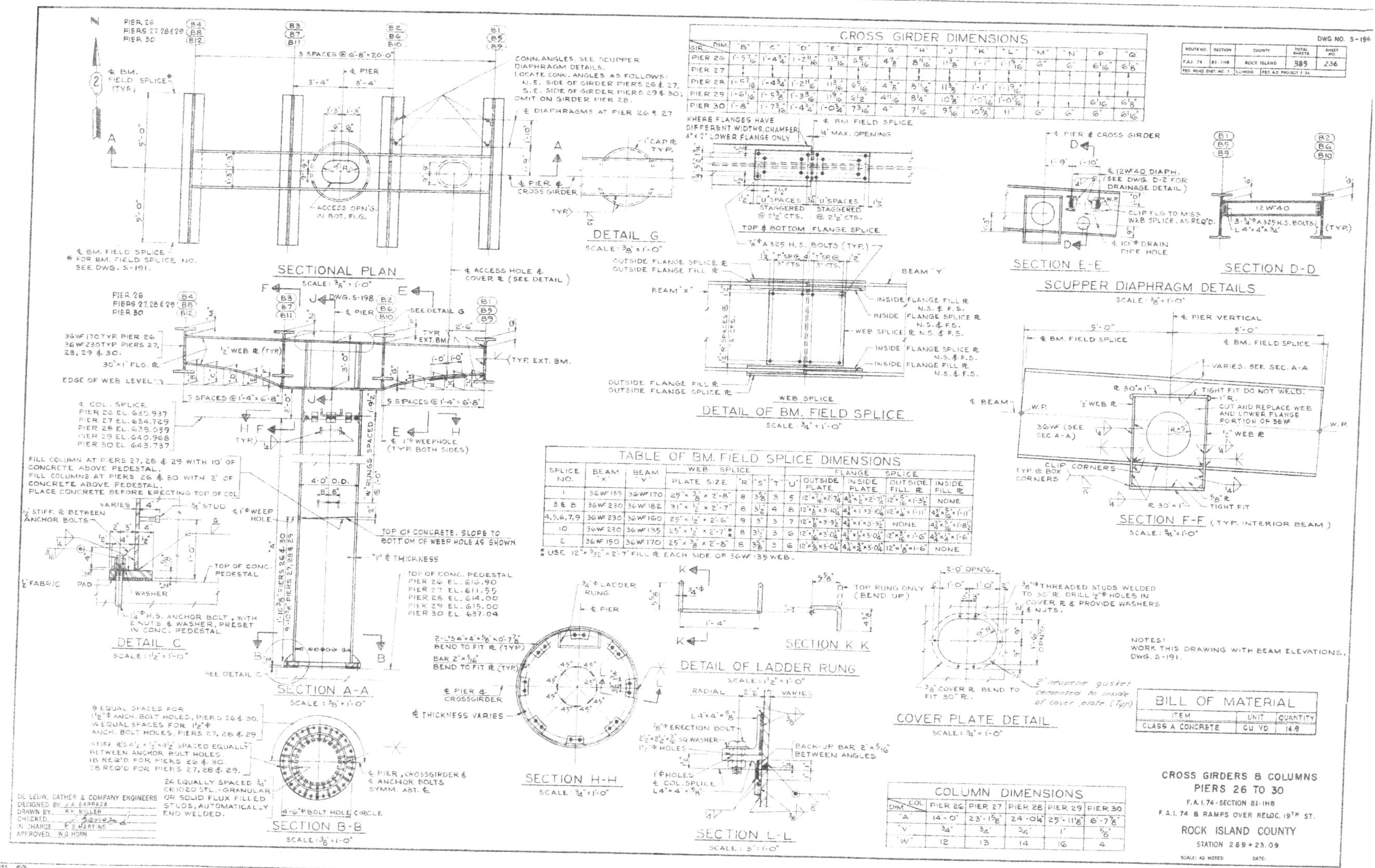
USER NAME =	DESIGNED -	REVISED -
CHECKED -	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE = 03/23/2017	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - STRUCTURAL STEEL DETAILS  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 23 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	891
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY



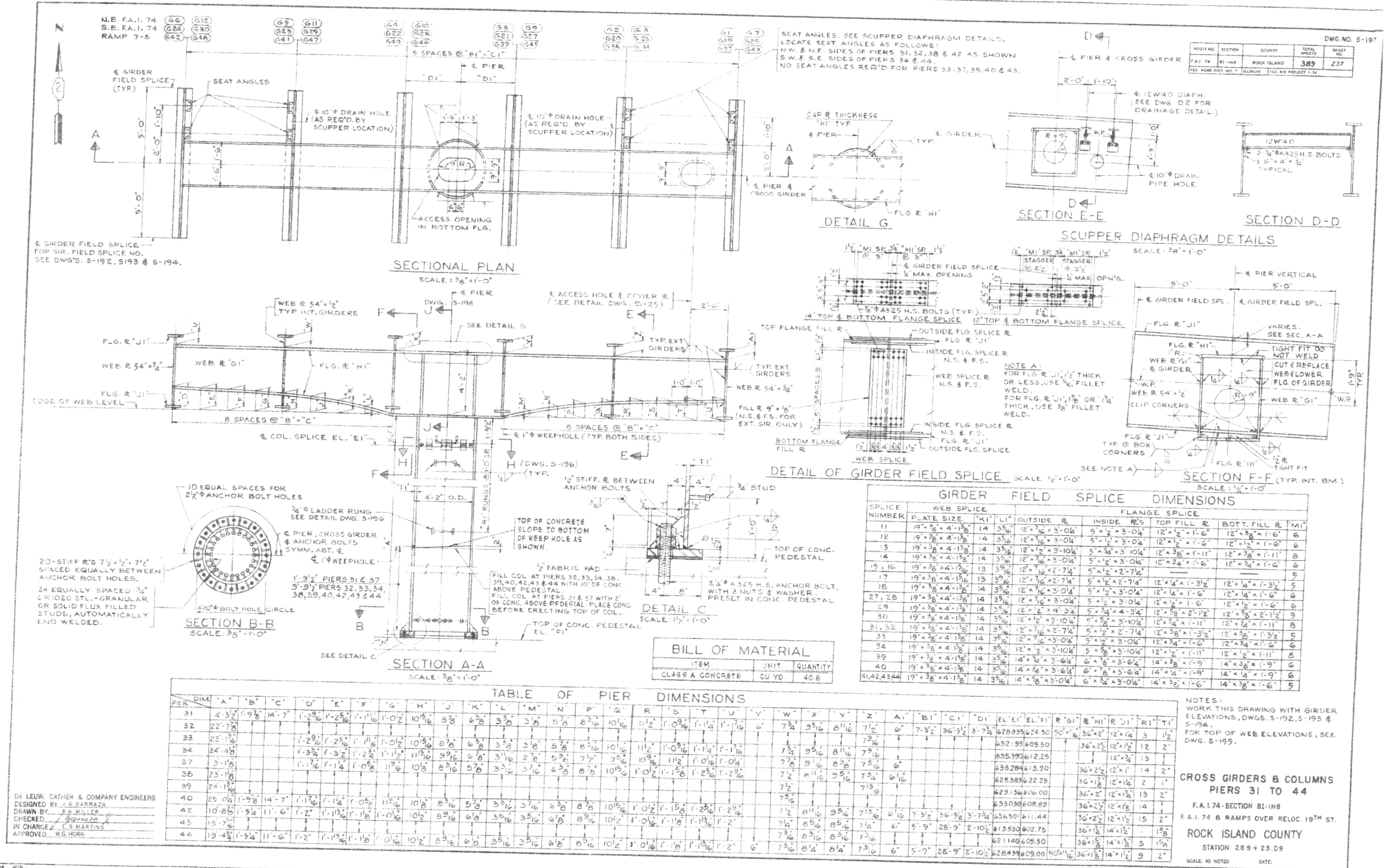
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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 03/23/2017	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - CROSS GIRDER & COLUMNS (PIERS 26 TO 30)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

SHEET NO. 24 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	892
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY



USER NAME =	DESIGNED -	REVISED
CHECKED -		REVISED
PLOT SCALE =	DRAWN -	REVISED
PLOT DATE = 03/23/2017	CHECKED -	REVISED

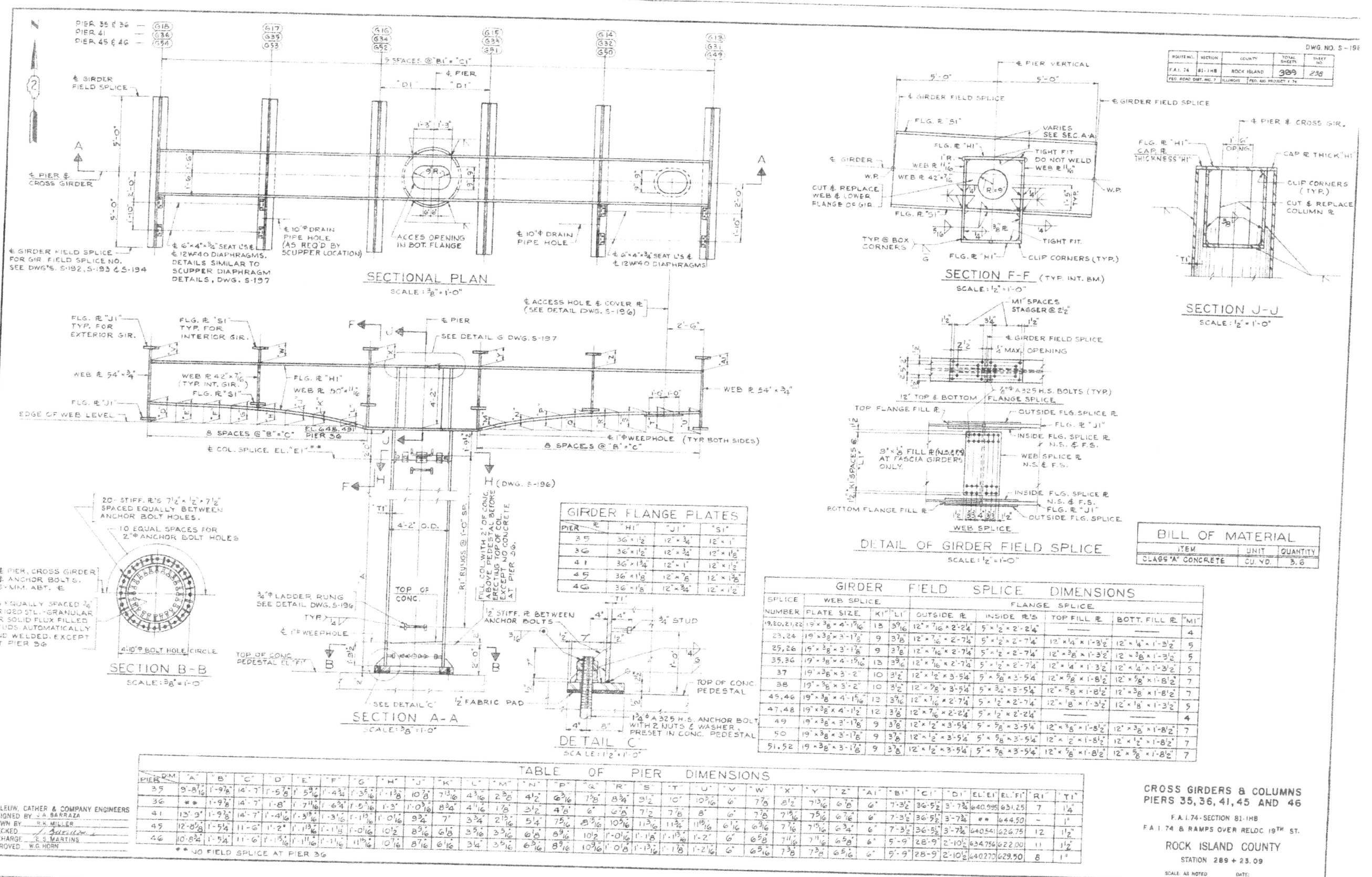
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - CROSS GIRDERS & COLUMNS (PIERS 31 TO 44)  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A

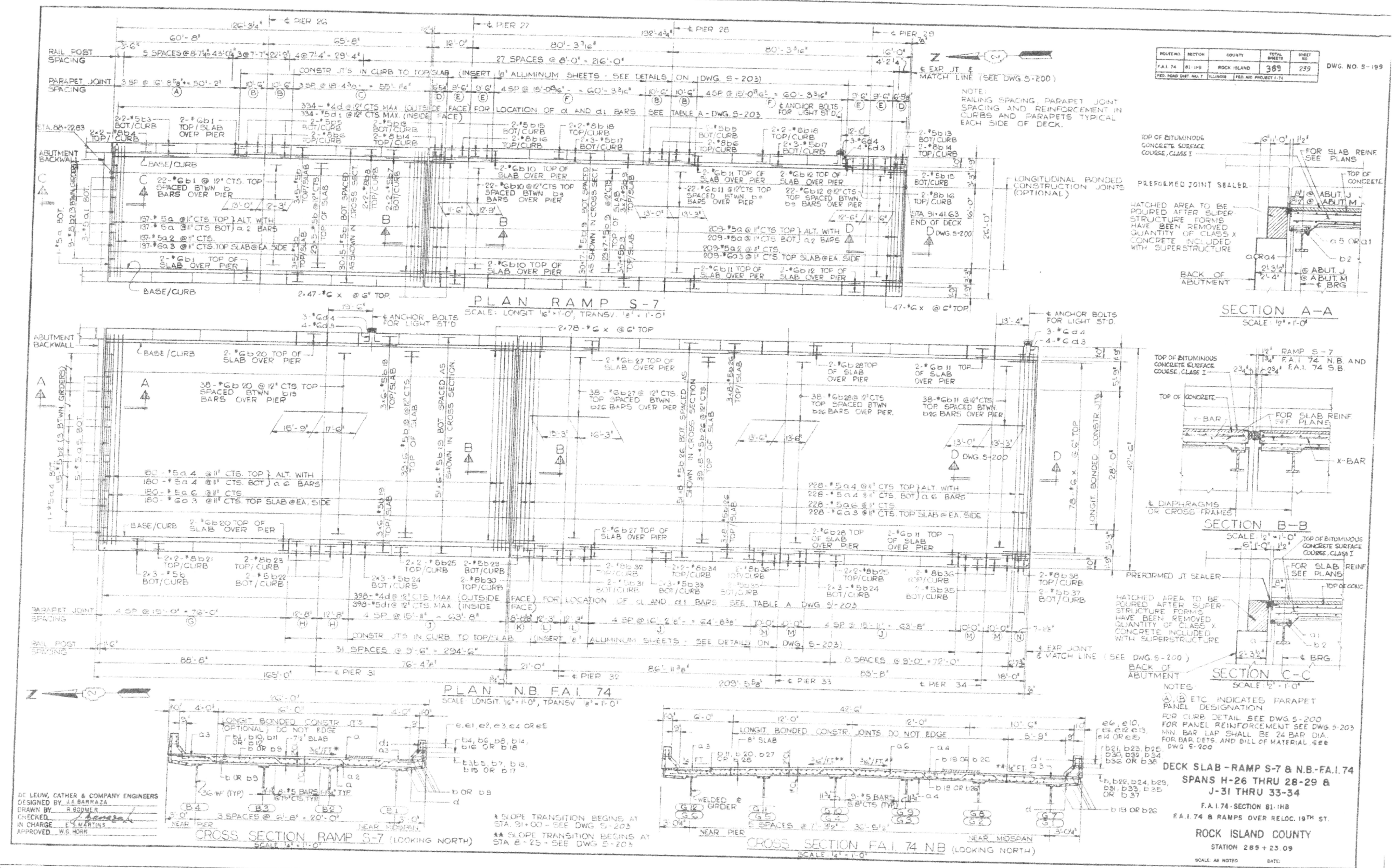
SHEET NO. 25 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-IHR	ROCK ISLAND	2042	893
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				





FOR INFORMATION ONLY



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HB	ROCK ISLAND	385	259
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 1-71				

DE LEUW, CATHAR & COMPANY ENGINEERS  
DESIGNED BY J.A. BARRAZA  
DRAWN BY R. BODURA  
CHECKED BY E. MARTINS  
IN CHARGE E. MARTINS  
APPROVED W.S. HORN

NOTES:  
A, B, ETC. INDICATES PARAPET PANEL DESIGNATION  
FOR CURB DETAIL SEE DWG. S-200  
FOR PANEL REINFORCEMENT SEE DWG. S-203  
MIN. BAR LAP SHALL BE 24 BAR DIA.  
FOR BAR CUTS AND BILL OF MATERIAL, SEE DWG. S-200

DECK SLAB - RAMP S-7 & N.B. FA.I. 74  
SPANS H-26 THRU 28-29 & J-31 THRU 33-34  
F.A.I. 74 - SECTION 81-1HB  
F.A.I. 74 & RAMP OVER RELOC. 19TH ST.  
ROCK ISLAND COUNTY  
STATION 289+23.09  
SCALE: AS NOTED DATE:

FOR INFORMATION ONLY

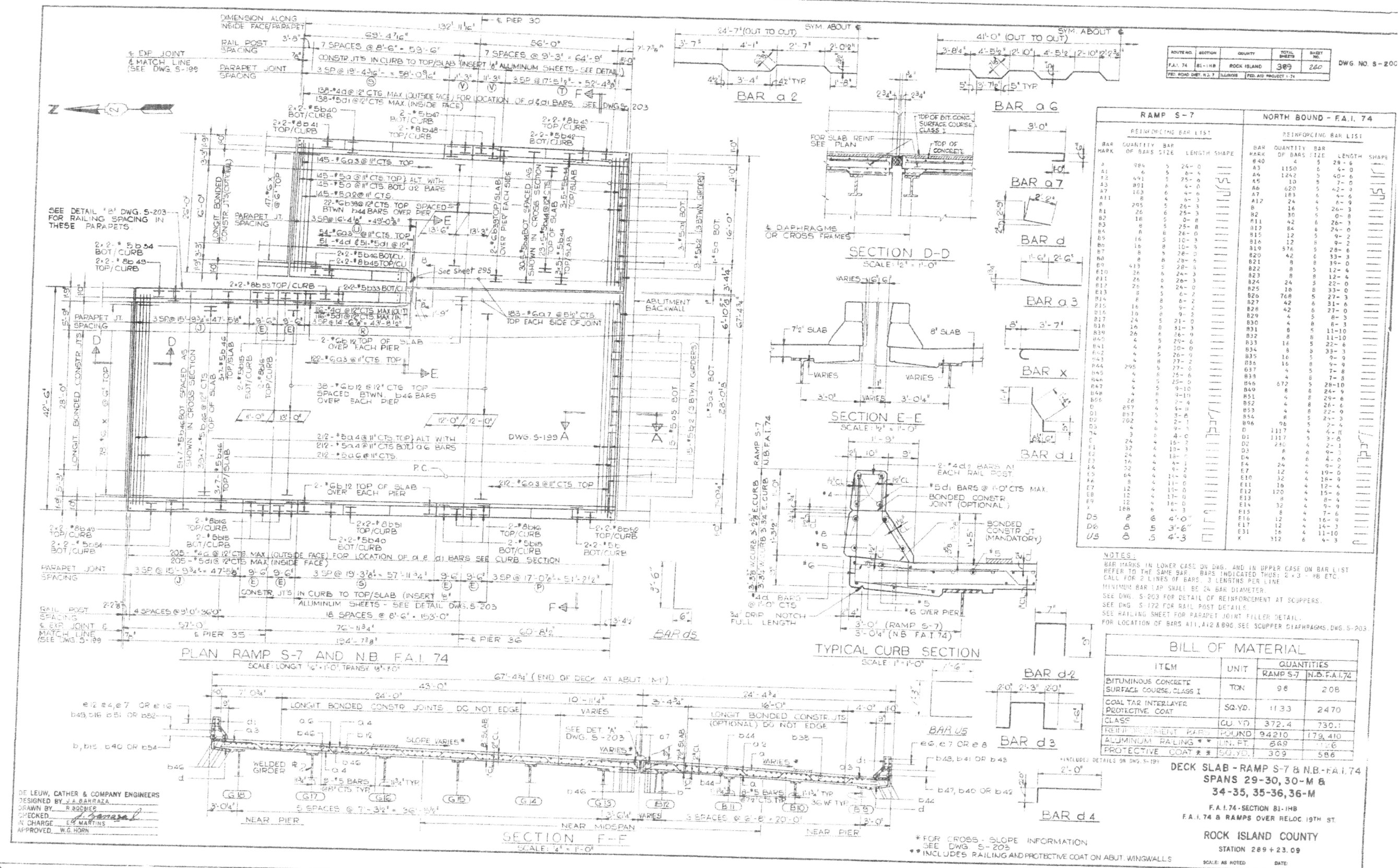


USER NAME =	DESIGNED -	REVISED
PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 03/23/2017	DRAWN -	REVISED
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

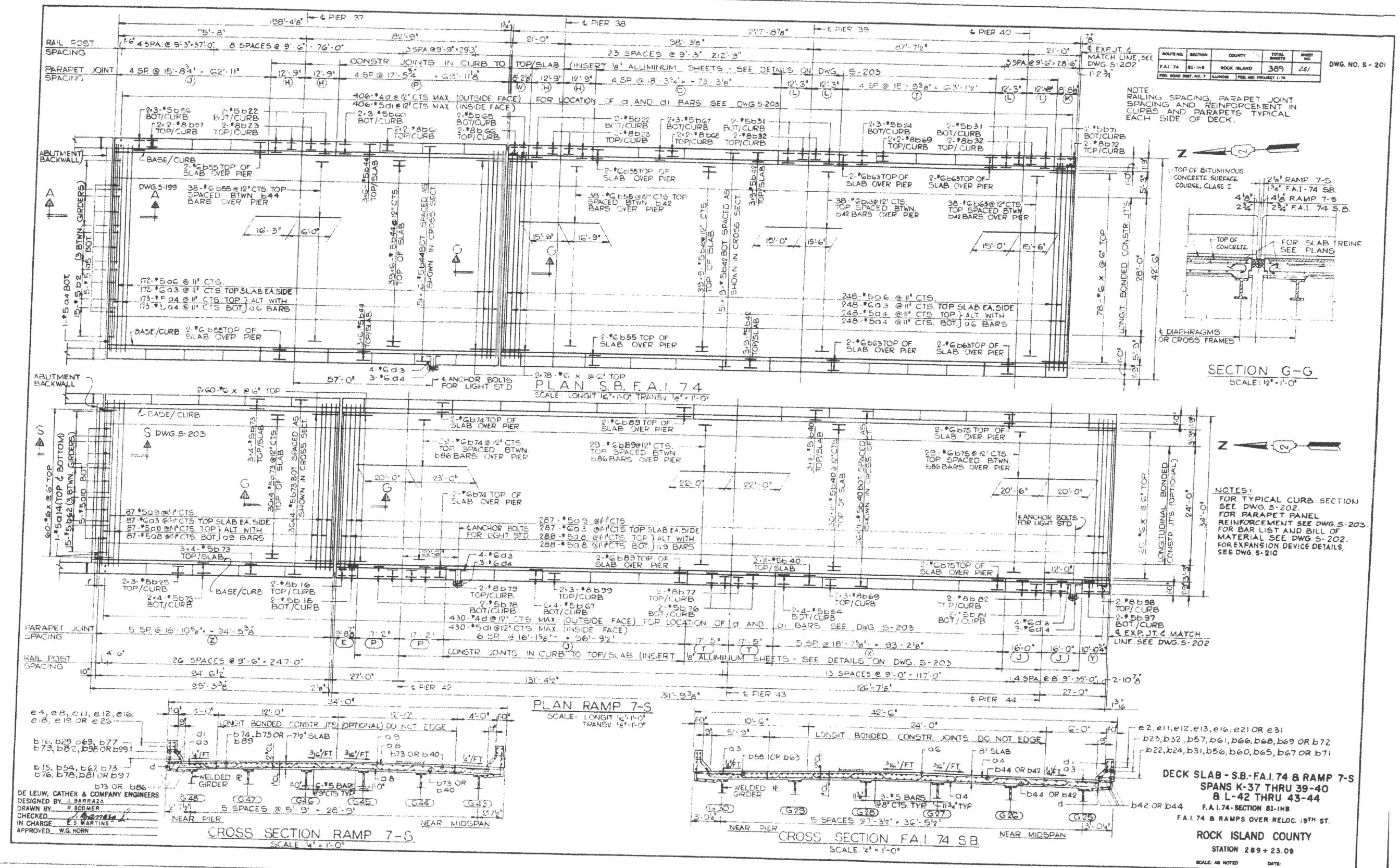
EXISTING PLANS - DECK SLAB - RAMP S-7 & N.B. - F.A.I. 74  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 27 OF 45 SHEETS

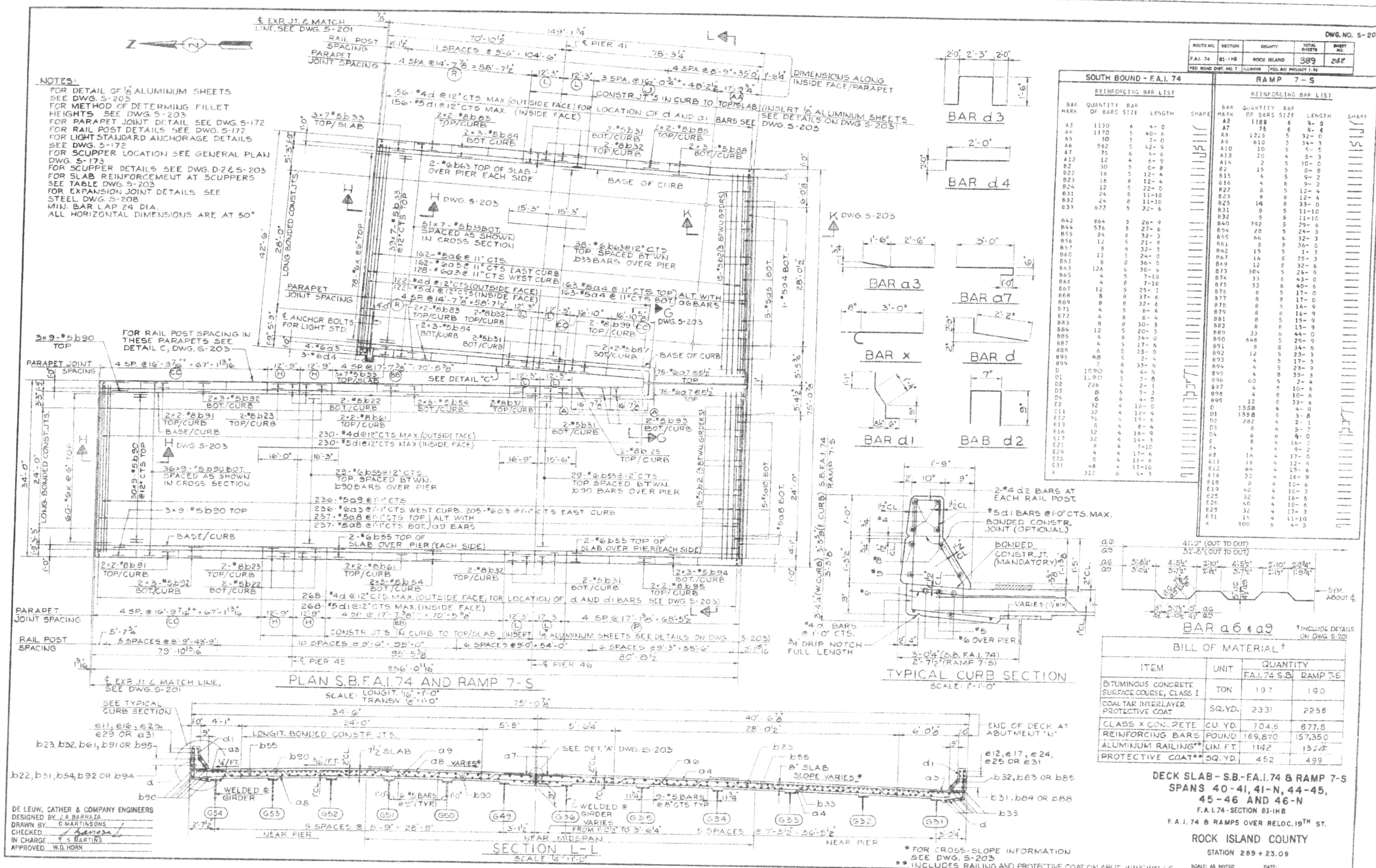
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HB	ROCK ISLAND	2042	895
CONTRACT NO. 64E26				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY

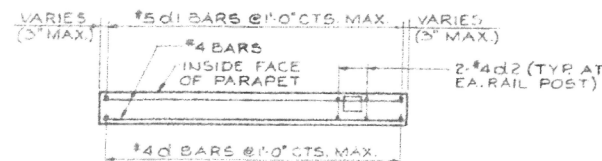






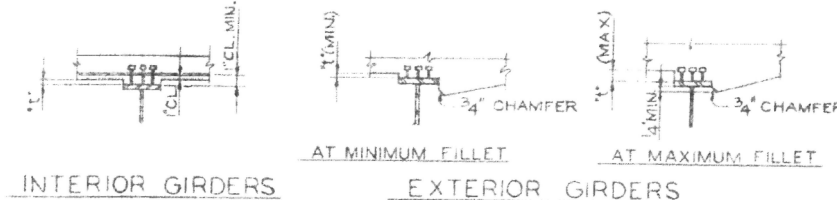
FOR INFORMATION ONLY





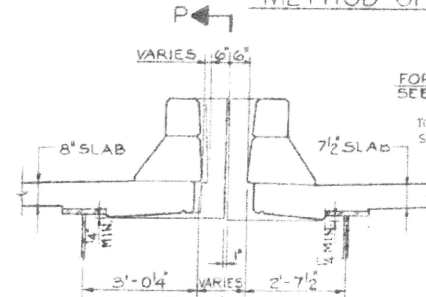
PLAN-TYPICAL FASCIA PARAPET  
PANEL REINFORCEMENT  
(SEE TABLE 'A')

TABLE 'A'		NO. OF BARS PER PANEL		NO. OF BARS PER PANEL	
LOCATION	PANEL	NO. OF PANELS	#4	#5	#4 @ BARS
RAMP 5-7	A	6	17	17	2-#6 E.F.
	B	8	11	11	2-#6 E.F.
	C	6	19	19	2-#6 E.F.
	D	4	7	7	2-#6 E.F.
	E	8	10	10	2-#6 E.F.
	F	16	16	16	2-#6 E.F.
	G	3	20	20	2-#6 E.F.
	H	3	18	18	2-#6 E.F.
	I	3	17	17	2-#6 E.F.
	J	2	12	12	2-#6 E.F.
F.A.I. 74 N.B.	K	6	10	10	2-#6 E.F.
	L	8	20	20	2-#6 E.F.
	M	4	13	13	2-#6 E.F.
	N	2	9	9	2-#6 E.F.
	O	3	18	18	2-#6 E.F.
	P	3	15	15	2-#6 E.F.
	Q	3	20	20	2-#6 E.F.
	R	8	19	19	2-#6 E.F.
	S	4	13	13	2-#6 E.F.
	T	19	17	17	2-#6 E.F.
F.A.I. 74 S.B.	U	2	9	9	2-#6 E.F.
	V	12	13	13	2-#6 E.F.
	W	8	18	18	2-#6 E.F.
	X	2	9	9	2-#6 E.F.
	Y	1	19	19	2-#6 E.F.
	AA	2	18	18	2-#6 E.F.
	BB	2	17	17	2-#6 E.F.
	CC	2	10	10	2-#6 E.F.
	DD	4	13	13	2-#6 E.F.
	EE	4	18	18	2-#6 E.F.
RAMP 7-5	FF	4	13	13	2-#6 E.F.
	GG	4	18	18	2-#6 E.F.
	HH	4	18	18	2-#6 E.F.
	II	4	18	18	2-#6 E.F.
	JJ	10	20	20	2-#6 E.F.
	KK	2	12	12	2-#6 E.F.
	LL	10	20	20	2-#6 E.F.
	MM	8	18	18	2-#6 E.F.
	NN	8	18	18	2-#6 E.F.
	OO	8	18	18	2-#6 E.F.

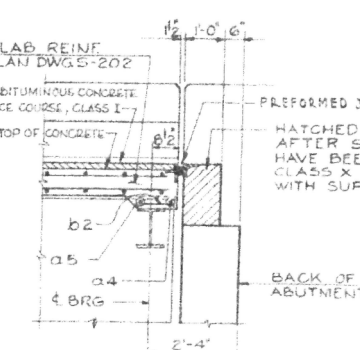


AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGE OF THE BEAMS OR THE GIRDERS SHALL BE TAKEN AT THE POINTS SHOWN IN RESPECTIVE TABLE OF DECK ELEVATIONS. THESE ELEVATIONS, SUBTRACTED FROM THE TABULATED THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION IN SAME TABLE, MINUS SLAB THICKNESS EQUALS THE FILLET HEIGHTS ABOVE THE TOP FLANGE OF THE BEAMS AND THE GIRDERS.

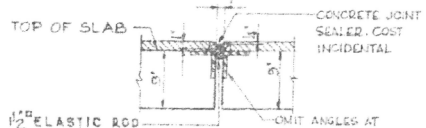
METHOD OF DETERMINING FILLET HEIGHT "f"



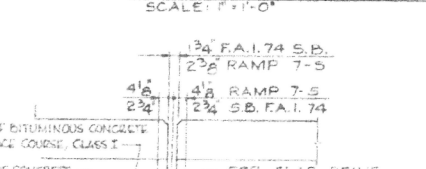
SECTION G-G (DWG. S-202)  
SCALE: 1/2" = 1'-0"



SECTION K-K (DWG. S-202)  
SCALE: 1/2" = 1'-0"



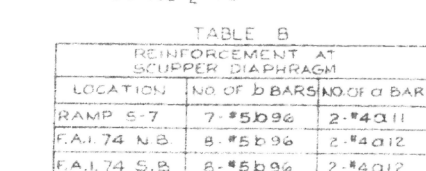
DETAIL 'A' (DWG. S-200 & S-202)  
SCALE: 1/2" = 1'-0"



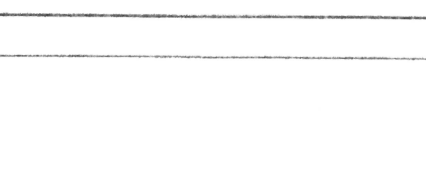
SECTION H-H (DWG. S-202)  
SCALE: 1/2" = 1'-0"



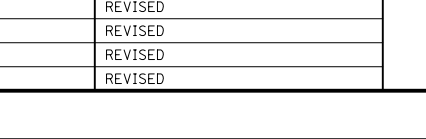
SECTION S-S (DWG. S-201)  
SCALE: 1/2" = 1'-0"



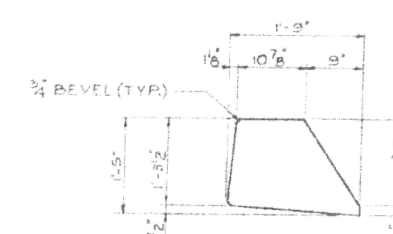
SECTION M-M  
SCALE: 3/8" = 1'-0"



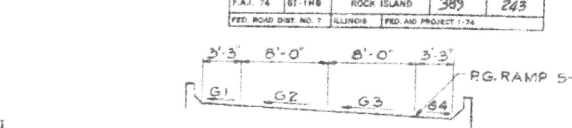
SECTION J-J  
SCALE: 3/8" = 1'-0"



SECTION J-J  
SCALE: 3/8" = 1'-0"

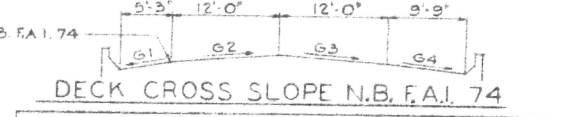


DETAIL OF 1/8" ALUMINUM SHEET  
(A.S.T.M. B209 ALLOY 3003 H14)  
SCALE: 1" = 1'-0"



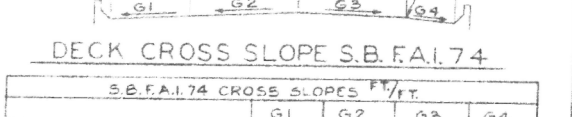
DECK CROSS SLOPE RAMP 5-7

RAMP 5-7 CROSS SLOPES FT./FT.		G1	G2	G3	G4
UP TO STA. 91+00		+0156	+0156	+0156	+0156
FROM STA. 91+00 TO STA. 91+95		TRANSITION			
AT STA. 91+95		+0352	+0352	+0352	+0352
FROM STA. 91+95 TO STA. 93+00		TRANSITION			
AT STA. 93+00		+0473	+0473	+0473	+0473



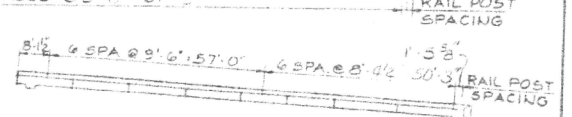
DECK CROSS SLOPE N.B. F.A.I. 74

N.B. F.A.I. 74 CROSS SLOPES FT./FT.		G1	G2	G3	G4
UP TO STA. 8+25		-0208	+0156	-0156	-0208
FROM STA. 8+25 TO STA. 10+00		TRANSITION			
AT STA. 10+00		-0208	-0219	-0352	-0352
FROM STA. 10+00 TO STA. 11+31.85		TRANSITION			
AT STA. 11+31.85		-0208	-0500	-0500	-0500



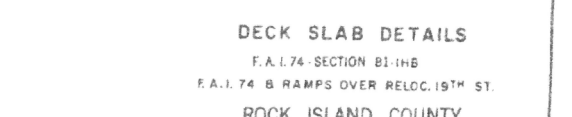
DECK CROSS SLOPE S.B. F.A.I. 74

S.B. F.A.I. 74 CROSS SLOPES FT./FT.		G1	G2	G3	G4
UP TO STA. 7+00		-0208	-0156	+0156	-0208
FROM STA. 7+00 TO STA. 10+00		TRANSITION			
AT STA. 10+00		+0500	+0500	+0500	+0500



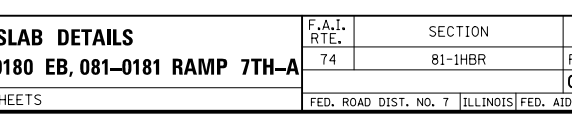
DECK CROSS SLOPE RAMP 7-5

RAMP 7-5 CROSS SLOPE FT./FT.		G1	G2	G3	G4
UP TO STA. 90+00		-0208	+0156	-0156	-0208
FROM STA. 90+00 TO STA. 90+25		TRANSITION			
AT STA. 90+25		-0208	+0156	-0100	-0100
FROM STA. 90+25 TO STA. 90+50		TRANSITION			
AT STA. 90+50		-0208	+0156	-0060	-0070
FROM STA. 90+50 TO STA. 90+75		TRANSITION			
AT STA. 90+75		-0208	+0156	-0100	-0100



DECK CROSS SLOPE S.B. F.A.I. 74

S.B. F.A.I. 74 CROSS SLOPES FT./FT.		G1	G2	G3	G4
UP TO STA. 7+00		-0208	-0156	+0156	-0208
FROM STA. 7+00 TO STA. 10+00		TRANSITION			
AT STA. 10+00		+0500	+0500	+0500	+0500



DECK CROSS SLOPE RAMP 7-5

DE LEU, CATHY & COMPANY ENGINEERS  
DESIGNED BY: J.A. BARRAZA  
DRAWN BY: J. MARTINSON  
CHECKED: E.S. MARTINSON  
IN CHARGE: E.S. MARTINSON  
APPROVED: W.G. HORN

FOR INFORMATION ONLY



USER NAME =	DESIGNED -	REVISED
PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 03/23/2017	DRAWN -	REVISED
	CHECKED -	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - DECK SLAB DETAILS  
I-74 AT 19TH ST. - SN 081-0179 WB, 081-0180 EB, 081-0181 RAMP 7TH-A  
SHEET NO. 31 OF 45 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	81-1HBR	ROCK ISLAND	2042	899
CONTRACT NO. 64E26				

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	81-1HR	ROCK ISLAND	389	244
FED. ROAD DIST. NO. 7 ILLINOIS (FED. AID PROJECT - 74)				

	BEAM B1					BEAM B2					BEAM B3					BEAM B4				
	DISTANCE FROM SUPPORT (FT)	NORMAL OFFSET (FEET)	THEORETICAL GRADE ELEVATION	DEAD LOAD DEFLECTION (FEET)	THEO. ELEV. ADJ FOR DEFLECTION	DISTANCE FROM SUPPORT (FT)	NORMAL OFFSET (FEET)	THEORETICAL GRADE ELEVATION	DEAD LOAD DEFLECTION (FEET)	THEO. ELEV. ADJ FOR DEFLECTION	DISTANCE FROM SUPPORT (FT)	NORMAL OFFSET (FEET)	THEORETICAL GRADE ELEVATION	DEAD LOAD DEFLECTION (FEET)	THEO. ELEV. ADJ FOR DEFLECTION	DISTANCE FROM SUPPORT (FT)	NORMAL OFFSET (FEET)	THEORETICAL GRADE ELEVATION	DEAD LOAD DEFLECTION (FEET)	THEO. ELEV. ADJ FOR DEFLECTION
SPAN H-26	0.00	-2.000	634.119	0.000	634.119	0.00	-2.000	634.223	0.000	634.223	0.00	-2.000	634.327	0.000	634.327	0.00	-2.000	634.431	0.000	634.431
	10.00	-2.000	634.622	0.015	634.637	10.00	-2.000	634.726	0.014	634.740	10.00	-2.000	634.830	0.015	634.845	10.00	-2.000	634.934	0.015	634.949
	20.00	-2.000	635.125	0.024	635.150	20.00	-2.000	635.229	0.022	635.252	20.00	-2.000	635.333	0.023	635.357	20.00	-2.000	635.437	0.024	635.462
	30.00	-2.000	635.628	0.024	635.653	30.00	-2.000	635.732	0.021	635.754	30.00	-2.000	635.836	0.023	635.860	30.00	-2.000	635.940	0.024	635.965
	40.00	-2.000	636.132	0.017	636.149	40.00	-2.000	636.236	0.013	636.249	40.00	-2.000	636.340	0.015	636.355	40.00	-2.000	636.444	0.017	636.461
	50.00	-2.000	636.635	0.008	636.643	50.00	-2.000	636.739	0.003	636.742	50.00	-2.000	636.843	0.004	636.847	50.00	-2.000	636.947	0.008	636.955
	59.99	-2.000	637.136	0.005	637.141	59.99	-2.000	637.240	0.000	637.240	59.99	-2.000	637.344	0.000	637.344	59.99	-2.000	637.448	0.005	637.453
SPAN 26-27 (PIER 26 TO & LINK)	0.00	-2.000	637.136	0.005	637.141	0.00	-2.000	637.240	0.000	637.240	0.00	-2.000	637.344	0.000	637.344	0.00	-2.000	637.448	0.005	637.453
	10.00	-2.000	637.639	0.013	637.653	10.00	-2.000	637.733	0.010	637.744	10.00	-2.000	637.837	0.010	637.848	10.00	-2.000	637.941	0.014	637.956
	20.00	-2.000	638.116	0.026	638.143	20.00	-2.000	638.220	0.025	638.246	20.00	-2.000	638.324	0.025	638.350	20.00	-2.000	638.428	0.027	638.458
	30.00	-2.000	638.597	0.037	638.634	30.00	-2.000	638.701	0.036	638.739	30.00	-2.000	638.805	0.036	638.843	30.00	-2.000	638.909	0.041	638.951
	40.00	-2.000	639.070	0.041	639.111	40.00	-2.000	639.174	0.043	639.217	40.00	-2.000	639.278	0.043	639.321	40.00	-2.000	639.382	0.044	639.428
	50.00	-2.000	639.536	0.036	639.573	50.00	-2.000	639.640	0.036	639.677	50.00	-2.000	639.744	0.036	639.781	50.00	-2.000	639.848	0.039	639.886
	60.00	-2.000	639.996	0.023	640.019	60.00	-2.000	640.100	0.020	640.121	60.00	-2.000	640.204	0.020	640.225	60.00	-2.000	640.308	0.024	640.332
	66.41	-2.000	640.287	0.012	640.299	66.41	-2.000	640.391	0.007	640.399	66.41	-2.000	640.495	0.007	640.503	66.41	-2.000	640.599	0.012	640.611
	SPAN 26-27 (& LINK TO PIER 27)	0.00	-2.000	640.287	0.012	640.299	0.00	-2.000	640.391	0.007	640.399	0.00	-2.000	640.495	0.007	640.503	0.00	-2.000	640.599	0.012
10.00		-2.000	640.735	0.008	640.744	10.00	-2.000	640.839	0.003	640.843	10.00	-2.000	640.943	0.003	640.947	10.00	-2.000	641.047	0.008	641.056
15.24		-2.000	640.968	0.005	640.973	15.24	-2.000	641.072	0.000	641.073	15.24	-2.000	641.176	0.000	641.177	15.24	-2.000	641.280	0.005	641.285
0.00		-2.000	640.968	0.005	640.974	0.00	-2.000	641.072	0.000	641.073	0.00	-2.000	641.176	0.000	641.177	0.00	-2.000	641.280	0.005	641.286
10.00		-2.000	641.406	0.011	641.417	10.00	-2.000	641.510	0.006	641.516	10.00	-2.000	641.614	0.006	641.620	10.00	-2.000	641.718	0.011	641.729
20.00		-2.000	641.837	0.022	641.859	20.00	-2.000	641.941	0.018	641.959	20.00	-2.000	642.045	0.018	642.063	20.00	-2.000	642.149	0.022	642.171
30.00		-2.000	642.260	0.032	642.293	30.00	-2.000	642.364	0.028	642.393	30.00	-2.000	642.468	0.028	642.497	30.00	-2.000	642.572	0.032	642.605
40.00		-2.000	642.678	0.036	642.714	40.00	-2.000	642.782	0.032	642.814	40.00	-2.000	642.886	0.032	642.918	40.00	-2.000	642.990	0.036	643.026
50.00		-2.000	643.088	0.032	643.120	50.00	-2.000	643.192	0.028	643.220	50.00	-2.000	643.296	0.028	643.324	50.00	-2.000	643.400	0.032	643.432
60.00		-2.000	643.491	0.022	643.513	60.00	-2.000	643.595	0.018	643.613	60.00	-2.000	643.699	0.018	643.717	60.00	-2.000	643.803	0.022	643.825
SPAN 27-28	70.00	-2.000	643.888	0.010	643.898	70.00	-2.000	643.992	0.006	643.998	70.00	-2.000	644.096	0.006	644.102	70.00	-2.000	644.200	0.010	644.210
	80.00	-2.000	644.277	0.005	644.282	80.00	-2.000	644.381	0.000	644.382	80.00	-2.000	644.485	0.000	644.486	80.00	-2.000	644.589	0.005	644.594
	80.26	-2.000	644.267	0.005	644.293	80.26	-2.000	644.391	0.000	644.392	80.26	-2.000	644.495	0.000	644.496	80.26	-2.000	644.599	0.005	644.605
	0.00	-2.000	644.267	0.005	644.293	0.00	-2.000	644.391	0.000	644.392	0.00	-2.000	644.495	0.000	644.496	0.00	-2.000	644.599	0.005	644.605
	10.00	-2.000	644.670	0.010	644.680	10.00	-2.000	644.774	0.006	644.780	10.00	-2.000	644.878	0.006	644.884	10.00	-2.000	644.982	0.010	644.992
	20.00	-2.000	645.045	0.021	645.067	20.00	-2.000	645.149	0.017	645.167	20.00	-2.000	645.253	0.017	645.271	20.00	-2.000	645.357	0.021	645.379
	30.00	-2.000	645.414	0.031	645.446	30.00	-2.000	645.518	0.027	645.545	30.00	-2.000	645.622	0.027	645.650	30.00	-2.000	645.726	0.031	645.758
	40.00	-2.000	645.776	0.035	645.812	40.00	-2.000	645.880	0.032	645.912	40.00	-2.000	645.984	0.032	646.016	40.00	-2.000	646.088	0.035	646.124
	50.00	-2.000	646.131	0.031	646.163	50.00	-2.000	646.235	0.028	646.263	50.00	-2.000	646.339	0.028	646.367	50.00	-2.000	646.443	0.031	646.475
	60.00	-2.000	646.477	0.022	646.499	60.00	-2.000	646.581	0.018	646.606	60.00	-2.000	646.685	0.018	646.711	60.00	-2.000	646.811	0.022	646.834
SPAN 28-29	70.00	-2.000	646.814	0.011	646.825	70.00	-2.000	646.939	0.006	646.946	70.00	-2.000	647.064	0.006	647.071	70.00	-2.000	647.189	0.011	647.201
	80.00	-2.000	647.144	0.005	647.149	80.00	-2.000	647.263	0.000	647.263	80.00	-2.000	647.382	0.000	647.382	80.00	-2.000	647.501	0.005	647.506
	80.26	-2.000	647.153	0.005	647.158	80.26	-2.000	647.292	0.000	647.293	80.26	-2.000	647.431	0.000	647.432	80.26	-2.000	647.571	0.005	647.576
	0.00	-2.000	647.153	0.005	647.158	0.00	-2.000	647.292	0.000	647.293	0.00	-2.000	647.431	0.000	647.432	0.00	-2.000	647.571	0.005	647.577
	10.00	-2.000	647.476	0.009	647.485	10.00	-2.000	647.574	0.004	647.579	10.00	-2.000	647.672	0.004	647.677	10.00	-2.000	647.770	0.009	647.777
	15.24	-2.000	647.643	0.013	647.656	15.24	-2.000	647.747	0.008	647.752	15.24	-2.000	647.851	0.008	647.856	15.24	-2.000	647.955	0.013	647.963
	0.00	-2.000	647.643	0.013	647.656	0.00	-2.000	647.747	0.008	647.752	0.00	-2.000	647.851	0.008	647.856	0.00	-2.000	647.955	0.013	647.963
	10.00	-2.000	648.150	0.024	648.174	10.00	-2.000	648.254												