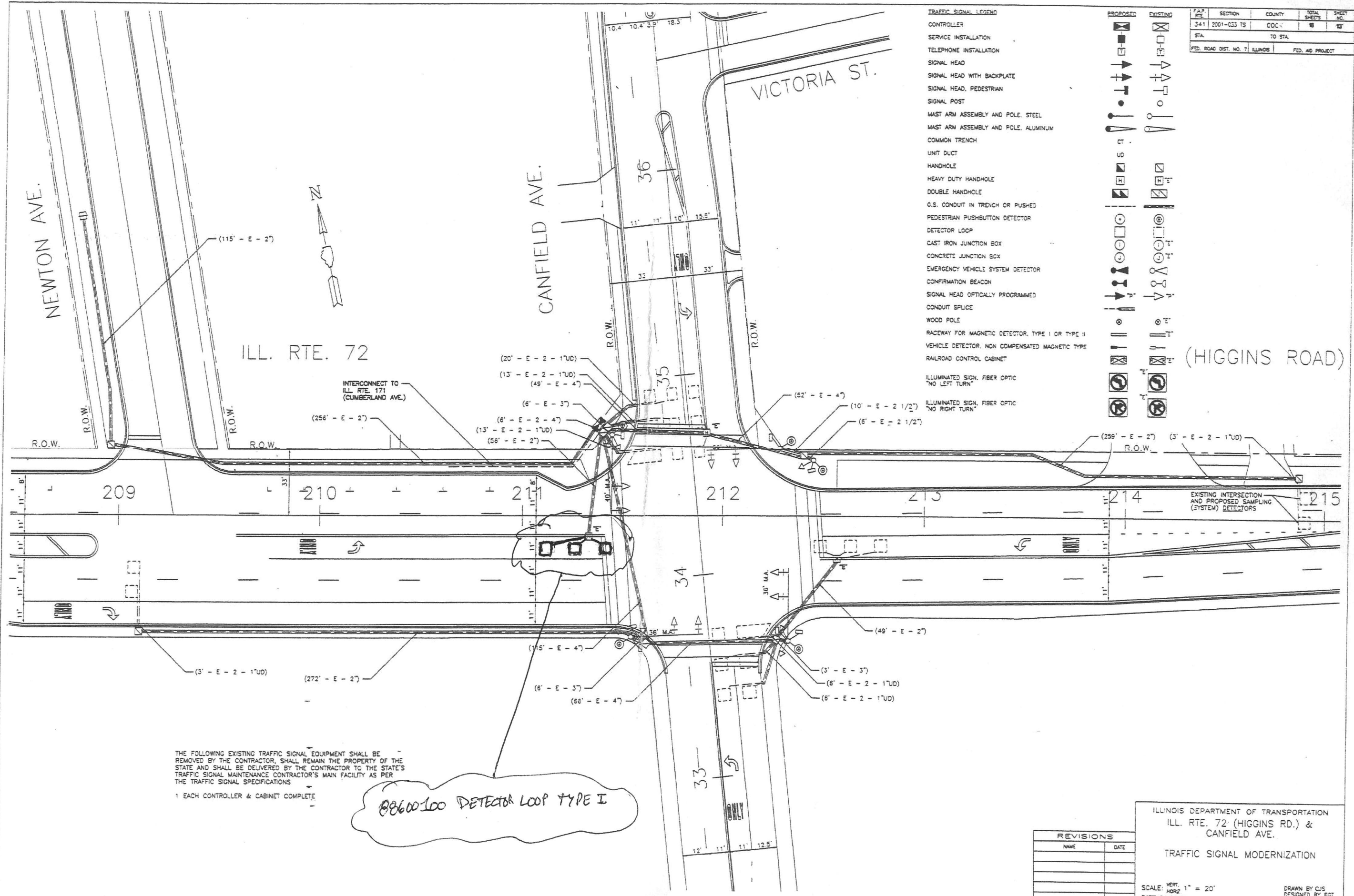
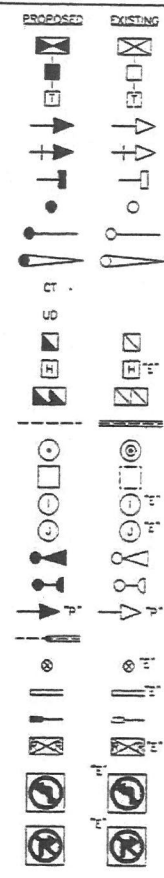


F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	2001-033 TS	COC	18	13
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

**TRAFFIC SIGNAL LEGEND**

- CONTROLLER
- SERVICE INSTALLATION
- TELEPHONE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMMON TRENCH
- UNIT DUCT
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- CONCRETE JUNCTION BOX
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
- ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS

1 EACH CONTROLLER & CABINET COMPLETE

8860100 DETECTOR LOOP TYPE I

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILL. RTE. 72 (HIGGINS RD.) & CANFIELD AVE.  
TRAFFIC SIGNAL MODERNIZATION

SCALE: VERT. 1" = 20'  
DATE: 04-01-02

DRAWN BY CJS  
DESIGNED BY EDT  
CHECKED BY JPH

PLOTTED 10-26-01

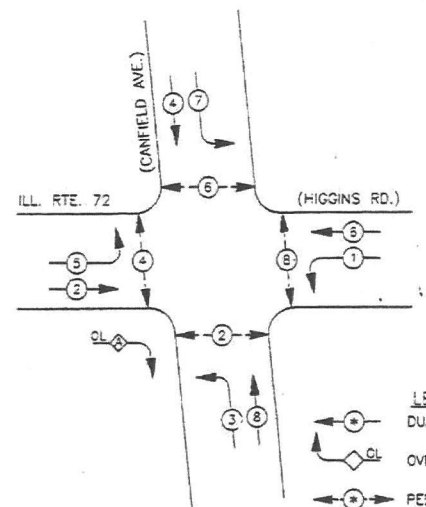
D:\WORK\99\1172\01-033\01-034.DWG

**CABLE PLAN**  
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
402	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
3	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
1	EACH	TRANSMITTER - FIBER OPTIC
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
80	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
131	FOOT	DETECTOR LOOP, TYPE 1

**CONTROLLER SEQUENCE**



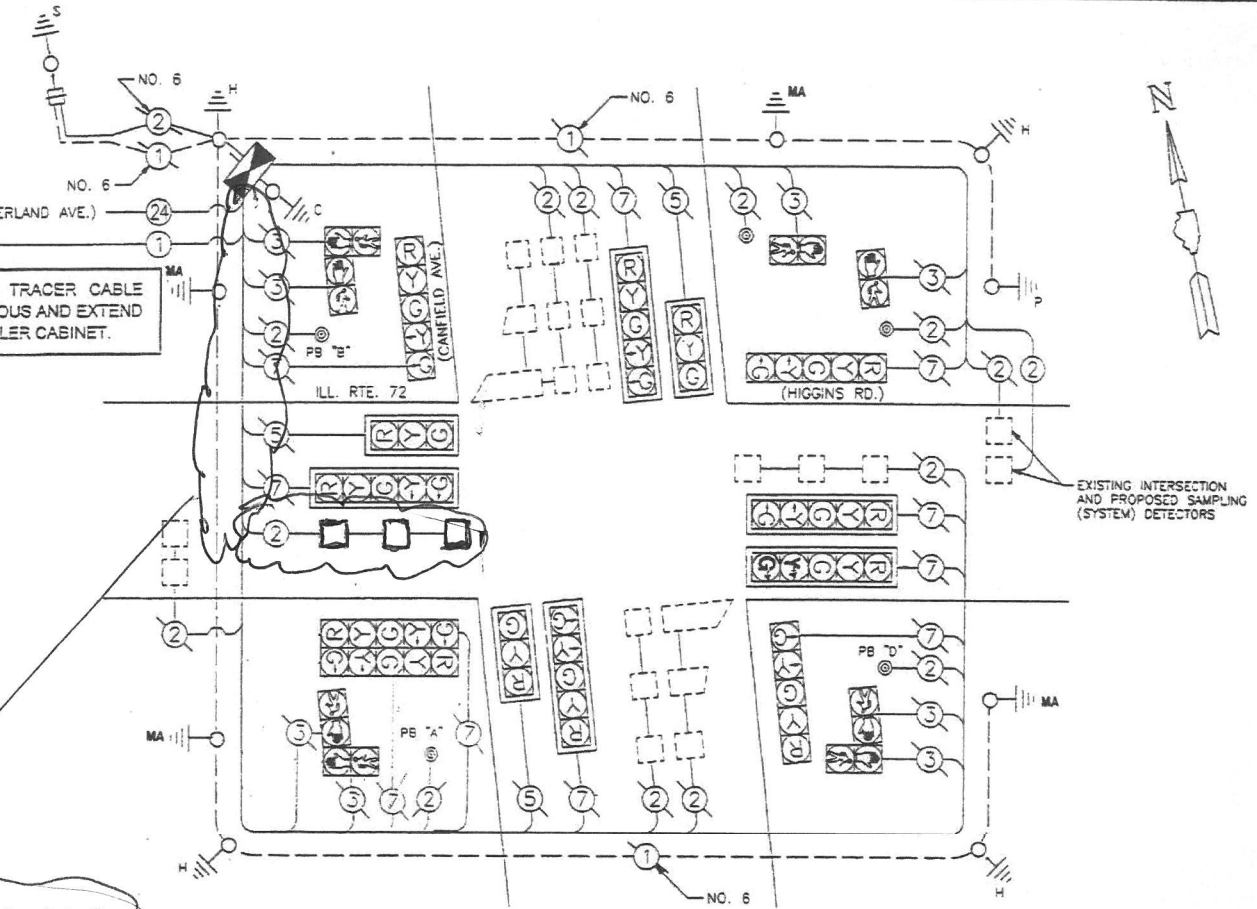
**LEGEND**  
 DUAL ENTRY PHASE  
 OVERLAP  
 PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**  
(NOT TO SCALE)

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
 A = 2 + 3

*ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR*

INTERCONNECT TO ILL. RTE. 171 (CUMBERLAND AVE.)  
 TRACER CABLE  
 THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



**PUSH BUTTON NOTES:**  
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 8  
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		8" (200 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) PEDESTRIAN SIGNAL SECTION
		12" (300 mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SMTZ

*FOR INFORMATION ONLY*

I.D.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	877.50
(YELLOW)	13	135	25	0.25	438.75
(GREEN)	13	135	15	0.25	438.75
ARROW	20	135	12	0.10	270.00
PED. SIGNAL	8	90	25	1.00	720.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN	-	84	-	0.05	-
TOTAL =					2845.00

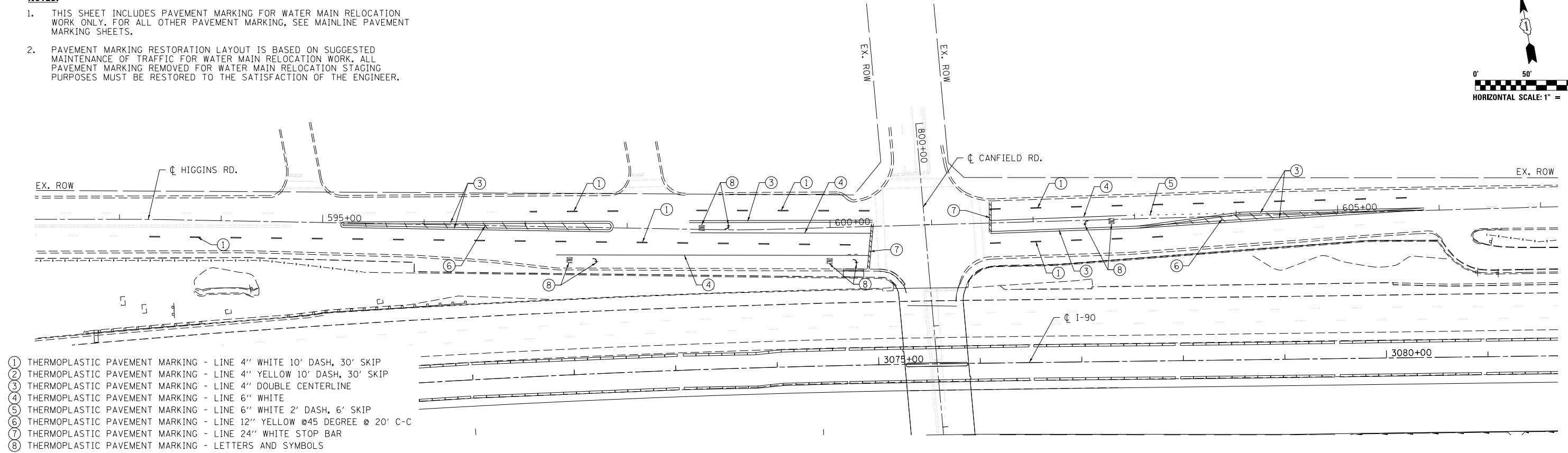
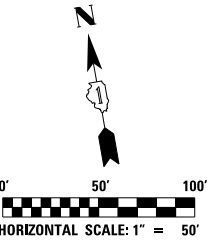
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - PILE	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	35 (1.0)
TYPE B - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	12 (4.0)	MAST ARM (L) POLE	20'-L-2"
TYPE C - M. ARM PILE	4 (1.2)	SIGNAL PILE	2 (1.0)	(6mm-0.6m)	
24" (600mm)	10 (3.0)	CONTROLLER CAB	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.5)	FIBER OPTIC	13 (4.0)	PILE DISTRIBUTION	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	5 (1.5)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILL. RTE. 72 (HIGGINS RD.) & CANFIELD AVE.  
**CABLE PLAN**  
 PHASE DESIGNATION DIAGRAM  
 SCHEDULE OF QUANTITIES  
 SCALE: VERT. NONE  
 DATE: 04-01-02  
 DRAWN BY: CJS  
 DESIGNED BY: ECT  
 CHECKED BY: JPH

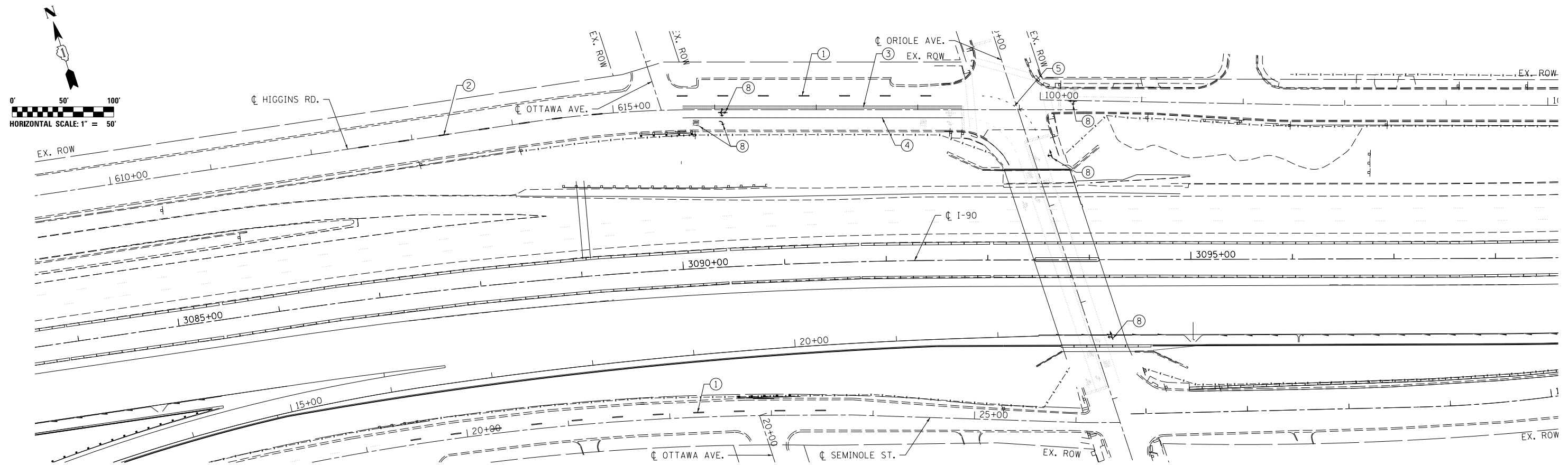
**NOTES:**

1. THIS SHEET INCLUDES PAVEMENT MARKING FOR WATER MAIN RELOCATION WORK ONLY. FOR ALL OTHER PAVEMENT MARKING, SEE MAINLINE PAVEMENT MARKING SHEETS.
2. PAVEMENT MARKING RESTORATION LAYOUT IS BASED ON SUGGESTED MAINTENANCE OF TRAFFIC FOR WATER MAIN RELOCATION WORK. ALL PAVEMENT MARKING REMOVED FOR WATER MAIN RELOCATION STAGING PURPOSES MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER.



- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE 10' DASH, 30' SKIP
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW 10' DASH, 30' SKIP
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" DOUBLE CENTERLINE
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE
- ⑤ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @ 20' C-C
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE STOP BAR
- ⑧ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS

**LOCATION NO. 1**



**LOCATION NO. 2**



USER NAME = mksrby	DESIGNED MJK	REVISED -
	DRAWN MJK	REVISED -
PLOT SCALE = 1/80' / in.	CHECKED MAM	REVISED -
PLOT DATE = 6/6/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

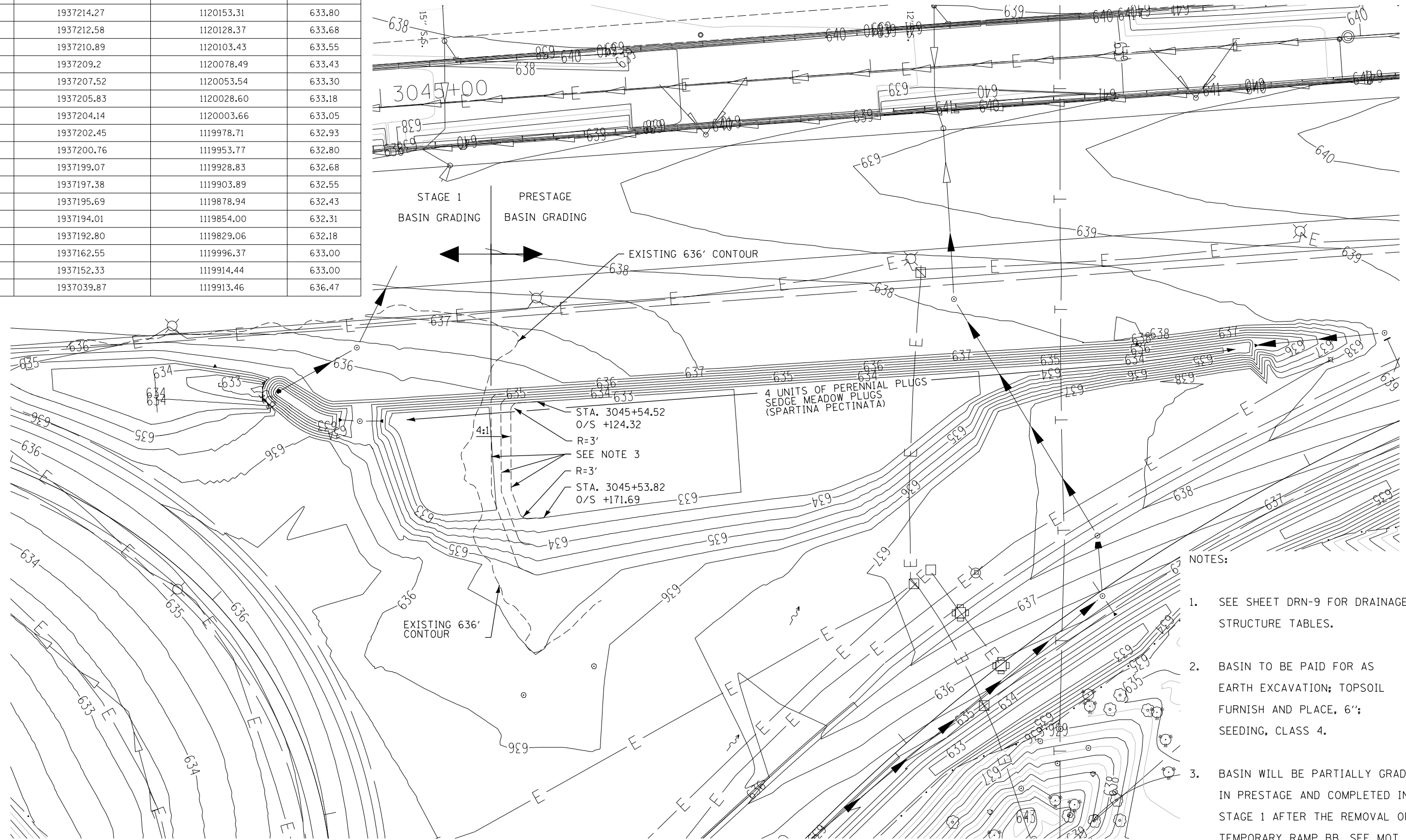
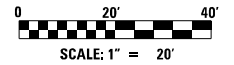
**WATER MAIN RELOCATION  
PAVEMENT MARKING RESTORATION**

SCALE: 1:20 SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	203
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

INFIELD PROPOSED ELEVATIONS

POINT	N	E	ELEVATION
1	1937220.67	1120202.90	634.05
2	1937217.34	1120178.12	633.93
3	1937214.27	1120153.31	633.80
4	1937212.58	1120128.37	633.68
5	1937210.89	1120103.43	633.55
6	1937209.2	1120078.49	633.43
7	1937207.52	1120053.54	633.30
8	1937205.83	1120028.60	633.18
9	1937204.14	1120003.66	633.05
10	1937202.45	1119978.71	632.93
11	1937200.76	1119953.77	632.80
12	1937199.07	1119928.83	632.68
13	1937197.38	1119903.89	632.55
14	1937195.69	1119878.94	632.43
15	1937194.01	1119854.00	632.31
16	1937192.80	1119829.06	632.18
17	1937162.55	1119996.37	633.00
18	1937152.33	1119914.44	633.00
19	1937039.87	1119913.46	636.47



NOTES:

1. SEE SHEET DRN-9 FOR DRAINAGE STRUCTURE TABLES.
2. BASIN TO BE PAID FOR AS EARTH EXCAVATION; TOPSOIL FURNISH AND PLACE, 6"; SEEDING, CLASS 4.
3. BASIN WILL BE PARTIALLY GRADED IN PRESTAGE AND COMPLETED IN STAGE 1 AFTER THE REMOVAL OF TEMPORARY RAMP BB. SEE MOT PLANS FOR TEMPORARY DRAINAGE.

DRN-GRAD-1



USER NAME = mamiller	DESIGNED GS	REVISED -
PLOT SCALE = 1:8000' / in.	DRAWN GS	REVISED -
PLOT DATE = 5/2/2016	CHECKED YO	REVISED -
	DATE 5/6/2016	REVISED -

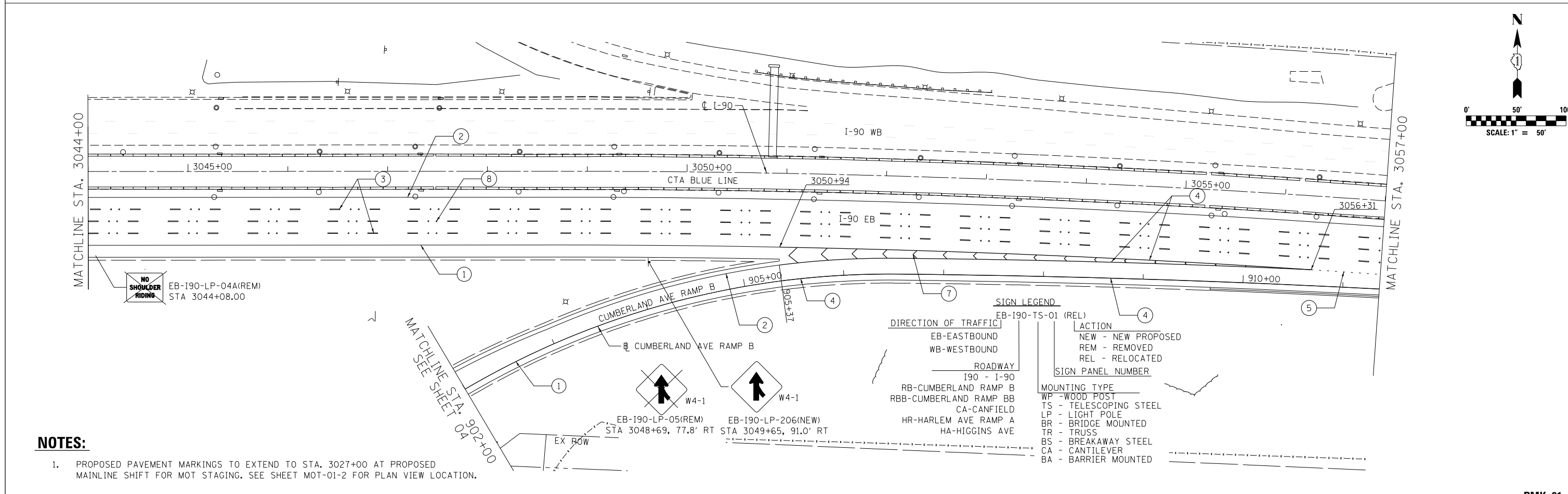
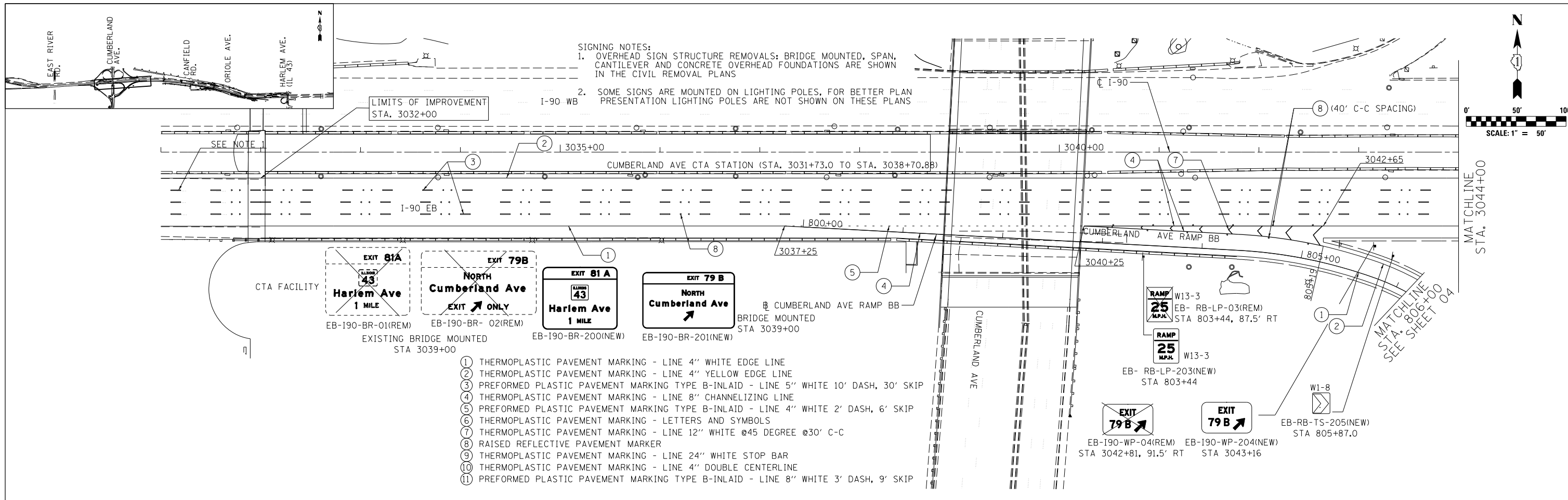
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
PROPOSED GRADING PLAN

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

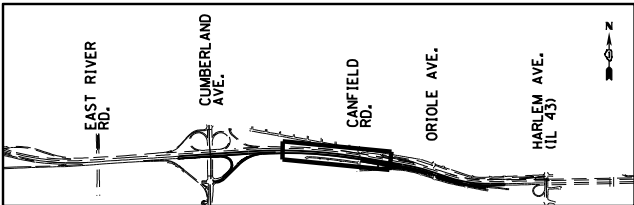
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	204
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



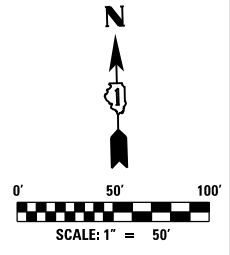
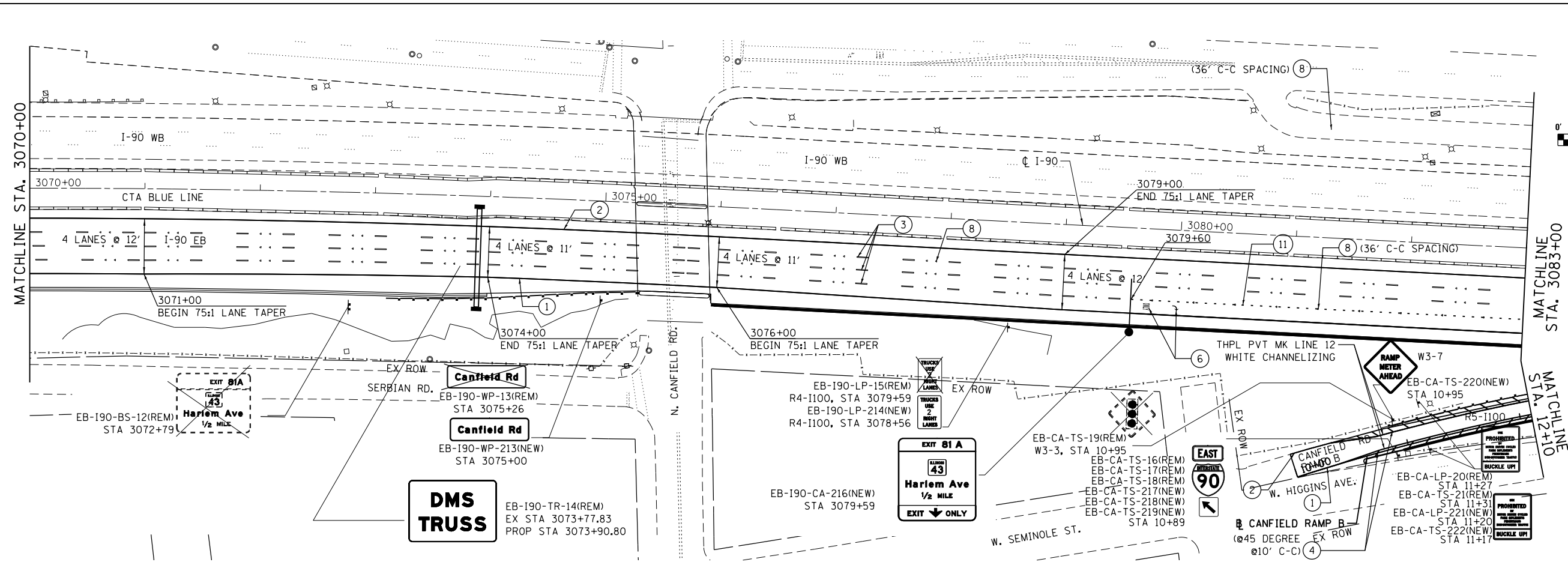
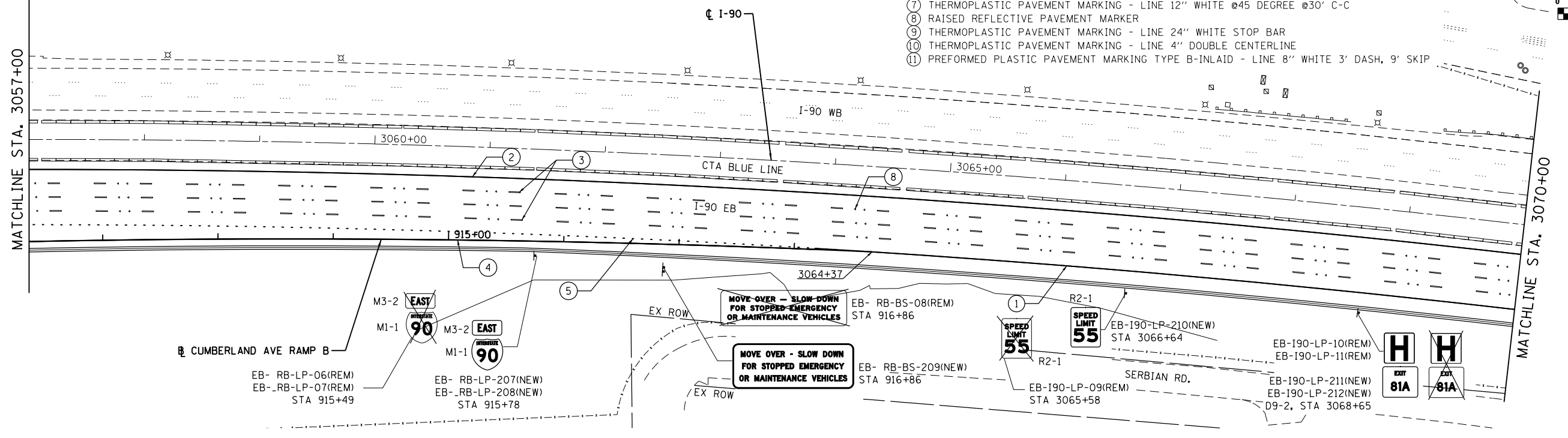
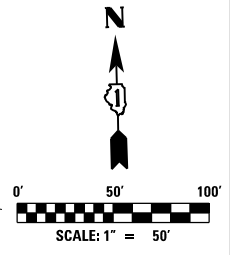


**NOTES:**

- PROPOSED PAVEMENT MARKINGS TO EXTEND TO STA. 3027+00 AT PROPOSED MAINLINE SHIFT FOR MOT STAGING. SEE SHEET MOT-01-2 FOR PLAN VIEW LOCATION.



- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ③ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5" WHITE 10' DASH, 30' SKIP
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 8" CHANNELIZING LINE
- ⑤ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 4" WHITE 2' DASH, 6' SKIP
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @30' C-C
- ⑧ RAISED REFLECTIVE PAVEMENT MARKER
- ⑨ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE STOP BAR
- ⑩ THERMOPLASTIC PAVEMENT MARKING - LINE 4" DOUBLE CENTERLINE
- ⑪ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8" WHITE 3' DASH, 9' SKIP



USER NAME = #USER#	DESIGNED GS	REVISED -
	DRAWN GS	REVISED -
PLOT SCALE = #SCALE#	CHECKED YO	REVISED -
PLOT DATE = #DATE#	DATE 5/6/2016	REVISED -

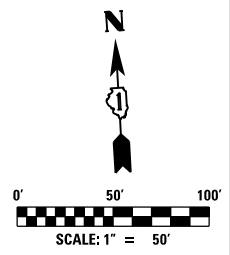
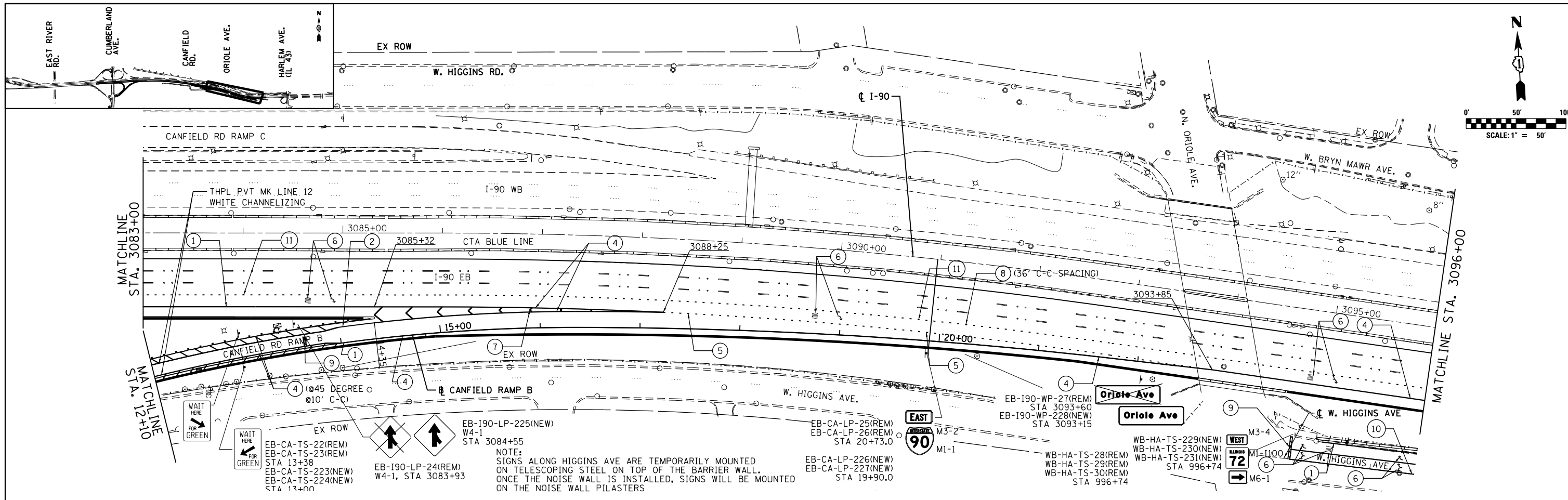
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
PROPOSED PAVEMENT MARKING PLAN

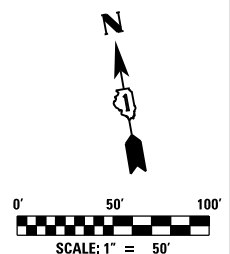
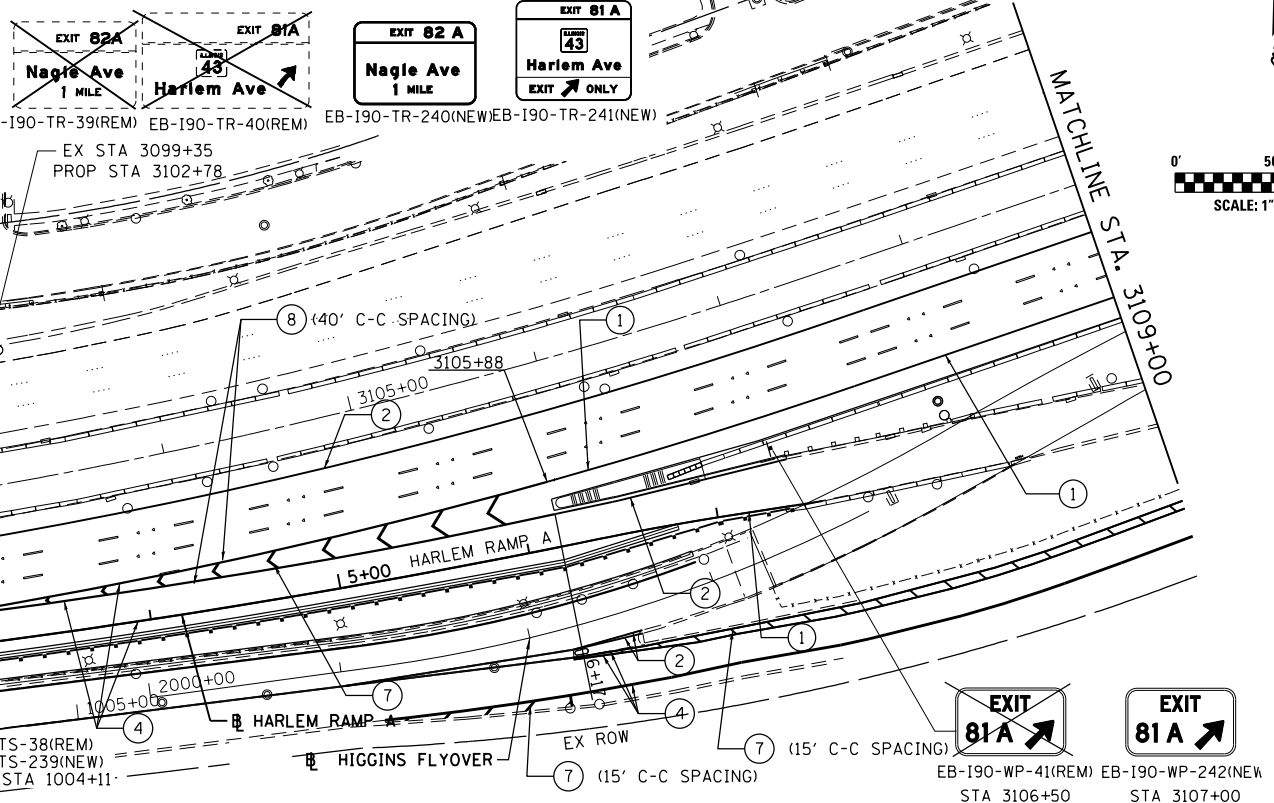
SCALE: 1" = 50' SHEET NO. 2 OF 4 SHEETS STA. 3057+00 TO STA. 3083+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	206
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

PMK-02



- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ③ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5" WHITE 10' DASH, 30' SKIP
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 8" CHANNELIZING LINE
- ⑤ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 4" WHITE 2' DASH, 6' SKIP
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @30' C-C
- ⑧ RAISED REFLECTIVE PAVEMENT MARKER
- ⑨ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE STOP BAR
- ⑩ THERMOPLASTIC PAVEMENT MARKING - LINE 4" DOUBLE CENTERLINE
- ⑪ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8" WHITE 3' DASH, 9' SKIP



**NOTES:**

1. PROPOSED PAVEMENT MARKINGS FOR HIGGINS AVE RESURFACING SHALL BE REPLACED IN-KIND AND SHALL COMPLY WITH DISTRICT 1 PAVEMENT STANDARD DETAILS.



USER NAME = *USER*	DESIGNED GS	REVISED -
	DRAWN GS	REVISED -
PLOT SCALE = *SCALE*	CHECKED YO	REVISED -
PLOT DATE = *DATE*	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
PROPOSED PAVEMENT MARKING PLAN  
SCALE: 1" = 50' SHEET NO. 3 OF 4 SHEETS STA. 3083+00 TO STA. 3109+00

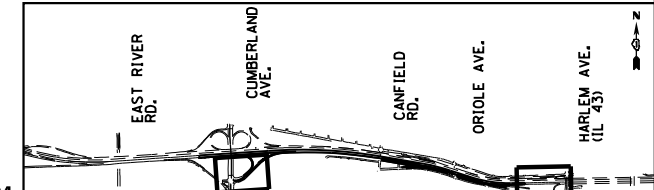
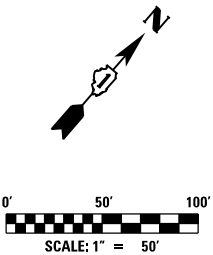
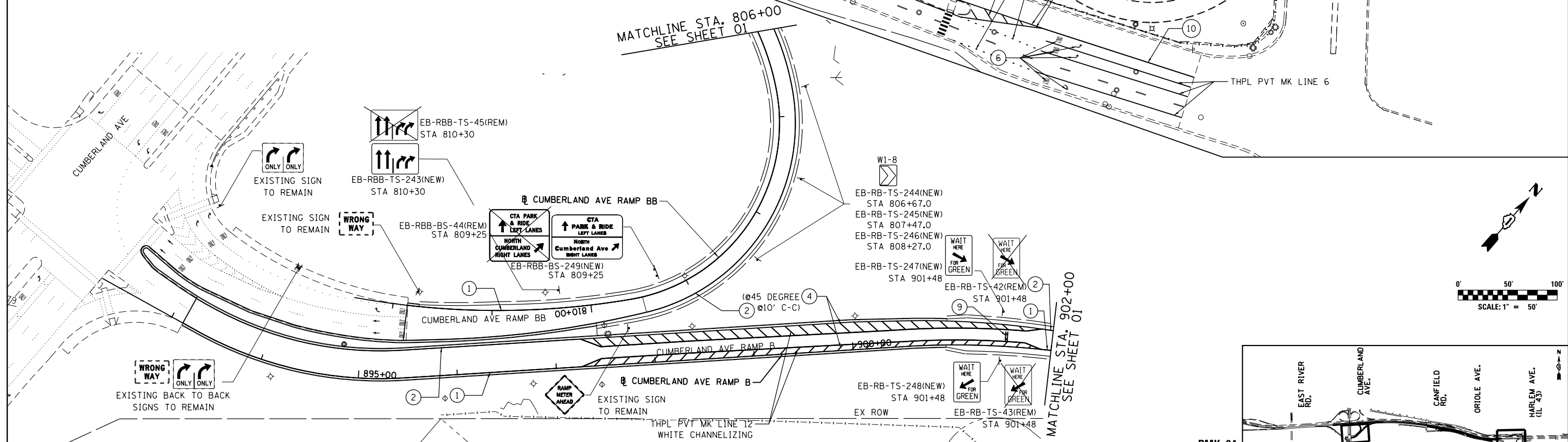
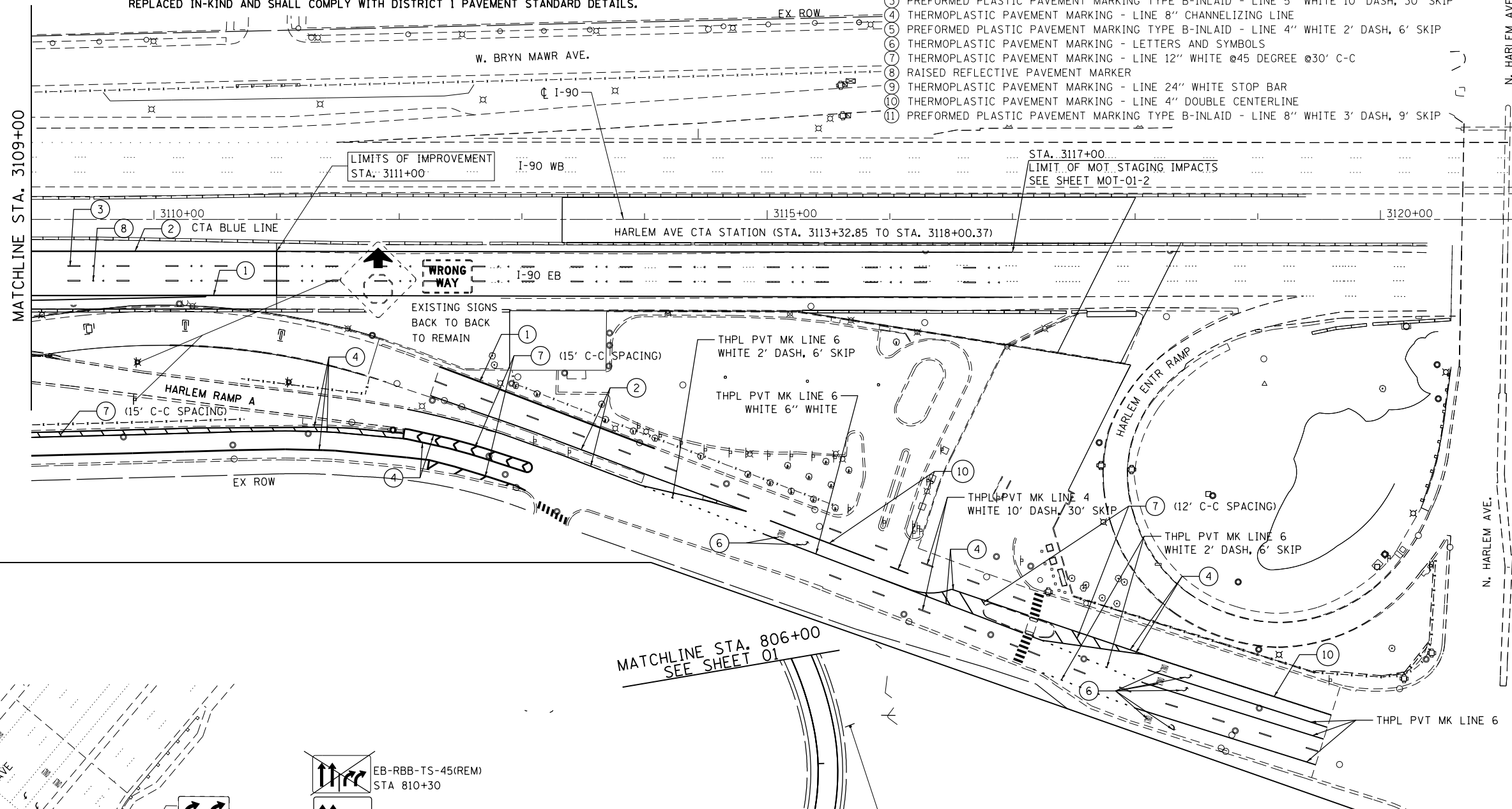
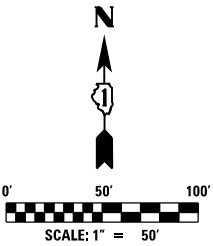
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 207
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

PMK-03

**NOTES:**

1. PROPOSED PAVEMENT MARKINGS FOR HIGGINS AVE RESURFACING SHALL BE REPLACED IN-KIND AND SHALL COMPLY WITH DISTRICT 1 PAVEMENT STANDARD DETAILS.

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
- ③ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 5" WHITE 10' DASH, 30' SKIP
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 8" CHANNELIZING LINE
- ⑤ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 4" WHITE 2' DASH, 6' SKIP
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @30' C-C
- ⑧ RAISED REFLECTIVE PAVEMENT MARKER
- ⑨ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE STOP BAR
- ⑩ THERMOPLASTIC PAVEMENT MARKING - LINE 4" DOUBLE CENTERLINE
- ⑪ PREFORMED PLASTIC PAVEMENT MARKING TYPE B-INLAID - LINE 8" WHITE 3' DASH, 9' SKIP



USER NAME = #USER#	DESIGNED GS	REVISED -
DRAWN GS	REVISED -	
PLOT SCALE = #SCALE#	CHECKED YO	REVISED -
PLOT DATE = #DATE#	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
PROPOSED PAVEMENT MARKING PLAN

SCALE: 1" = 50' SHEET NO. 4 OF 4 SHEETS STA. 3109+00 TO STA. 3111+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	208
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

FILE NAME = #FILE#



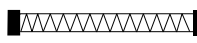
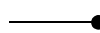
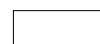



SIGNING REMOVAL-SCHEDULE OF QUANTITIES							72400100	72400310	72400320	72400330	73700100	73700200
SIGN DESIGNATION	STATION	OFFSET	LOCATION	PANEL LEGEND DESCRIPTION	SIGN SIZE	PANEL AREA	REMOVE SIGN PANEL ASSEMBLY-TYPE A	REMOVE SIGN PANEL-TYPE 1	REMOVE SIGN PANEL-TYPE 2	REMOVE SIGN PANEL-TYPE 3	REMOVE GROUND MOUNTED SIGN SUPPORT	REMOVE CONCRETE FOUNDATION GROUND MOUNT
							EACH	SQ FT	SQ FT	SQ FT	EACH	EACH
EB-190-BR-01 (REM)	3039+00	BRIDGE MOUNTED	I 90 EB	HARLEM AVE 1 MILE	15 13	195				195		
EB-190-BR-02 (REM)	3039+00	BRIDGE MOUNTED	I 90 EB	CUMBERLAND AVE	20.5 12.5	256.25				256.25		
EB-RB-LP-03 (REM)	804+10	87.5 RT	CUMBERLAND AVE RAMP B	RAMP 25	2 2.5	5		5			LP	
EB-190-WP-04 (REM)	3042+81	91.5 RT	I 90 EB	EXIT 79B	9 5	45				45	1	
EB-190-LP-04A (REM)	3044+08	82.8 RT	I 90 EB	NO SHOULDER RIDING	3 2.5	7.5		7.5			LP	
EB-190-LP-05 (REM)	3048+69	77.8 RT	I 90 EB	MERGE ARROW	4 4	16			16		LP	
EB-RB-LP-06 (REM)	915+49	5 LT	CUMBERLAND AVE RAMP B	EAST	3 1.5	4.5		4.5			LP	
EB-RB-LP-07 (REM)	915+49	5 LT	CUMBERLAND AVE RAMP B	INTERSTATE 90	3 3	9		9			LP	
EB-RB-BS-08 (REM)	916+86	7 RT	CUMBERLAND AVE RAMP B	MOVE OVER	17.5 6.5	113.75				113.75	2	2
EB-190-LP-09 (REM)	3065+58	75 RT	I 90 EB	SPEED LIMIT 55	3 4	12			12		LP	
EB-190-LP-10 (REM)	3068+65	75 RT	I 90 EB	H	2.5 2.5	6.25		6.25			LP	
EB-190-LP-11 (REM)	3068+65	75 RT	I 90 EB	EXIT 81A	2.5 2	5		5			LP	
EB-190-BS-12 (REM)	3072+79	84 RT	I 90 EB	EXIT 81A HARLEM AVE	15.5 13.5	209.25				209.25	2	2
EB-190-WP-13 (REM)	3075+00	82 RT	I 90 EB	CANFIELD RD	11.5 3.5	40.25			40.25		2	
EB-190-WP-14 (REM)	3073+77.83		I 90 EB	DMS TRUSS		0						
EB-190-LP-15 (REM)	3079+59	76 RT	I 90 EB	TRUCKS USE 2 RT LNS	3 4	12			12		LP	
EB-CA-TS-16 (REM)	10+89	4.5 RT	CANFIELD AVE RAMP	EAST	2.0 1.0	2		2			1	
EB-CA-TS-17 (REM)	10+89	4.5 RT	CANFIELD AVE RAMP	INTERSTATE 90	2 2	4		4				
EB-CA-TS-18 (REM)	10+89	4.5 RT	CANFIELD AVE RAMP	ARROW	1.75 1.25	2.1875		2.1875				
EB-CA-TS-19 (REM)	10+95	25 LT	CANFIELD AVE RAMP	SIGNAL	2.5 2.5	6.25		6.25			1	
EB-CA-LP-20 (REM)	11+27	31 LT	CANFIELD AVE RAMP	PROHIBITED	4 5	20			20		LP	
EB-CA-TS-21 (REM)	11+31	7 RT	CANFIELD AVE RAMP	PROHIBITED	4 5	20			20		1	
EB-CA-TS-22 (REM)	13+38	23 LT	CANFIELD AVE RAMP	WAIT HERE	2 2.5	5		5			1	
EB-CA-TS-23 (REM)	13+38	2 RT	CANFIELD AVE RAMP	WAIT HERE	2 2.5	5		5			1	
EB-190-LP-24 (REM)	3083+93	75 RT	I 90 EB	MERGE ARROW	4 4	16			16		LP	
EB-CA-LP-25 (REM)	20+73	0 RT	CANFIELD AVE RAMP	EAST	2 1	2		2			LP	
EB-CA-LP-26 (REM)	20+73	0 RT	CANFIELD AVE RAMP	INTERSTATE 90	2 2	4		4			LP	
EB-190-WP-27 (REM)	3093+60	82 RT	I 90 EB	ORIOLE AVE	11 3.5	38.5			38.5		2	
WB-HA-TS-28 (REM)	996+74	26 LT	HIGGINGS AVE	WEST	2 1	2	1	2			1	
WB-HA-TS-29 (REM)	996+74	26 LT	HIGGINGS AVE	IL 72	2 2.17	4.34						
WB-HA-TS-30 (REM)	996+74	26 LT	HIGGINGS AVE	ARROW	1.75 1.25	2.1875						
EB-190-LP-31 (REM)	3097+87	79 RT	I 90 EB	SPEED LIMIT 55	3 4	12			12		1	
WB-HA-TS-32 (REM)	997+65	26 LT	HIGGINGS AVE	2 THRU ONLY	6 2.5	15			15		1	
EB-HR-LP-33 (REM)	02+29	15.5 RT	HARLEM RAMP A	RAMP 30 MPH	2 2.5	5		5			1	
WB-HA-TS-34 (REM)	1001+91	23.5 LT	HARLEM RAMP A	WEST	2 1	2		2			1	
WB-HA-TS-35 (REM)	1001+91	23.5 LT	HARLEM RAMP A	IL 72	2 2.17	4.34		4.34				
WB-HA-TS-36 (REM)	1001+91	23.5 LT	HARLEM RAMP A	ARROW	1.75 1.25	2.1875		2.1875				
WB-HA-TS-37 (REM)	1003+20	24 LT	HIGGINGS AVE	NO PARKING	2 2.5	5		5			1	
WB-HA-TS-38 (REM)	1004+11	24 LT	HIGGINGS AVE	NO PARKING	2 2.5	5		5			1	
EB-190-TR-39 (REM)	3099+35	TRUSS	I 90 EB	EXIT 82A NAGLE AVE	14 9.5	133				133		
EB-190-TR-40 (REM)	3099+35	TRUSS	I 90 EB	EXIT 81A HARLEM AVE	15 12.5	187.5				187.5		
EB-190-WP-41 (REM)	3106+45	77 RT	I 90 EB	EXIT 81A	9 5	45				45	1	
EB-RB-TS-42 (REM)	901+48	27 LT	CUMBERLAND AVE RAMP B	WAIT HERE	2 2.5	5		5			1	
EB-RB-TS-43 (REM)	901+48	0 RT	CUMBERLAND AVE RAMP B	WAIT HERE	2 2.5	5		5			1	
EB-RBB-BS-44 (REM)	809+25	55 RT	CUMBERLAND AVE RAMP BB	CTA PARK A RIDE	15 13	195				195	2	2
EB-RBB-TS-45 (REM)	810+30	18.5 RT	CUMBERLAND AVE RAMP BB	2 THRU 2 LEFT	6 2.5	15			15		1	
				TOTAL			1	103	217	1,380	27	6

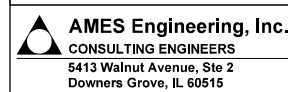
## SIGNING PAY ITEM NOTES

- OVERHEAD SIGN STRUCTURE REMOVALS: BRIDGE MOUNTED, SPAN, CANTILEVER AND CONCRETE OVERHEAD FOUNDATIONS ARE SHOWN IN THE CIVIL REMOVAL PLANS

## SIGNING LEGEND

-  PROPOSED SIGN GROUND MOUNTED
-  EXISTING SIGN GROUND MOUNTED
-  PROPOSED OVERHEAD SIGN STRUCTURE, SPAN TYPE
-  PROPOSED OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE
-  PROPOSED SIGN PANEL
-  REMOVE SIGN PANEL

SIGNING PROPOSED-SCHEDULE OF QUANTITIES							72000100	72000200	72000300	72800100	73000100	72700100				73400100	50800205
SIGN DESIGNATION	STATION	OFFSET	LOCATION	MUTCD CODE OR DESCRIPTION	SIGN SIZE	PANEL AREA	SIGN PANEL, TYPE 1	SIGN PANEL, TYPE 2	SIGN PANEL, TYPE 3	TELESCOPING STEEL SIGN SUPPORT	WOOD SIGN SUPPORT	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY				CONCRETE FOUNDATIONS	REINFORCEMENT BARS, EPOXY COATED
							SQ FT	SQ FT	SQ FT	FOOT	FOOT	POST	P1	P2	POUND	CU YD	POUND
EB-I90-BR-200 (NEW)	3039+00	40	RT	I 90 EB	HARLEM AVE	15 12.5	187.5		187.5								
EB-I90-BR-201 (NEW)	3039+00		RT	I 90 EB	CUMBERLAND AVE	20.5 12.5	256.25		256.25								
EB-I90-BR-202 (NEW)	NOT USED		RT	NOT USED	EXIT 79 B				0								
EB-RB-LP-203 (NEW)	803+44	12	RT	CUMBERLAND AVE RAMP BB	W13-3	3 4	12		12		LP						
EB-I90-WP-204 (NEW)	3043+16	94.5	RT	I 90 EB	EXIT 79 B	9 5	45		45		37						
EB-RB-TS-205 (NEW)	805+87	28	LT	I 90 EB	W1-8	3 2.5	7.5		7.5		14.5						
EB-I90-LP-206 (NEW)	3049+65	91	RT	I 90 EB	W4-1	4 4	16		16								
EB-RB-LP-207 (NEW)	915+78	12.7	RT	CUMBERLAND AVE RAMP B	M3-2	3 1.5	4.5		4.5		LP						
EB-RB-LP-208 (NEW)	915+78	12.7	RT	CUMBERLAND AVE RAMP B	M1-1	4 4	16		16		LP						
EB-RB-BS-209 (NEW)	916+86	99	RT	CUMBERLAND AVE RAMP B	MOVER OVER	17.5 6.5	113.75		113.75			W6X15	7.21	7.07	487	1.4	156
EB-I90-LP-210 (NEW)	3066+64	93.5	RT	I 90 EB	R2-1	3 4	12		12		LP						
EB-I90-LP-211 (NEW)	3068+65	92	RT	I 90 EB	D9-2	2.5 2.5	6.25		6.25		LP						
EB-I90-LP-212 (NEW)	3068+65	92	RT	I 90 EB	EXIT 81A	2.5 2	5		5		LP						
EB-I90-BS-213 (NEW)	3075+00	86	RT	I 90 EB	CANFIELD RD	11 3.5	38.5		38.5			W6X15	8.22	5.00	427	1.4	156
EB-I90-LP-214 (NEW)	3078+56		RT	I 90 EB	R4-1100	4 5	20		20		LP						
EB-I90-CA-215 (NEW)	NOT USED		RT	NOT USED													
EB-I90-CA-216(NEW)	3079+59		RT	I 90 EB	HARLEM AVE 1/2 MILE	15 16	240		240								
EB-CA-TS-217 (NEW)	10+89	6.2	RT	CANFIELD AVE RAMP	M3-2	2.0 1.0	2		2		15.3						
EB-CA-TS-218 (NEW)	10+89	6.2	RT	CANFIELD AVE RAMP	M1-1	2 2	4		4								
EB-CA-TS-219 (NEW)	10+89	6.2	RT	CANFIELD AVE RAMP	M6-2	1.75 1.25	2.19		2.19								
EB-CA-TS-220(NEW)	10+95	27.5	LT	CANFIELD AVE RAMP	W3-7	3 3	9		9		15						
EB-CA-LP-221 (NEW)	11+20	34	LT	CANFIELD AVE RAMP	R5-1100	4 5	20		20		LP						
EB-CA-TS-222 (NEW)	11+17	8.5	RT	CANFIELD AVE RAMP	R5-1100	4 5	20		20		17						
EB-CA-TS-223 (NEW)	13+00	28	LT	CANFIELD AVE RAMP	WAIT HERE	2 2.5	5		5		14.5						
EB-CA-TS-224 (NEW)	13+00	9	RT	CANFIELD AVE RAMP	WAIT HERE	2 2.5	5		5		14.5						
EB-I90-LP-225(NEW)	3084+55	90.5	RT	I 90 EB	W4-1	4 4	16		16		LP						
EB-CA-LP-226 (NEW)	19+90.00	13	RT	CANFIELD AVE RAMP	M3-2	2 1	2		2		LP						
EB-CA-LP-227 (NEW)	19+90.00	13	RT	CANFIELD AVE RAMP	M1-1	2 2	4		4								
EB-I90-BS-228 (NEW)	3093+15	91	RT	I 90 EB	ORIOLE AVE	10.5 3.5	36.75		36.75			W6X9	7.10	5.00	231.5	1.4	156
WB-HA-TS-229 (NEW)	996+74	26.3	LT	HIGGINGS AVE	M3-4	2 1	2		2		16.42						
WB-HA-TS-230 (NEW)	996+74	26.3	LT	HIGGINGS AVE	M1-1100	2 2.17	4.34		4.34								
WB-HA-TS-231 (NEW)	996+74	26.3	LT	HIGGINGS AVE	M6-1	1.75 1.25	2.19		2.19								
EB-I90-LP-232 (NEW)	3097+15	91	RT	I 90 EB	R2-1	3 4	12		12		LP						
WB-HA-TS-233 (NEW)	997+65	25.5	LT	HIGGINGS AVE	R3-8	5 2.5	12.5		12.5		14.5						
EB-HR-LP-234 (NEW)	01+32	17.5	RT	HARLEM RAMP A	W13-3	3 4	12		12		LP						
WB-HA-TS-235 (NEW)	1001+91	24	LT	HIGGINGS AVE	M3-4	2 1	2		2		16.42						
WB-HA-TS-236 (NEW)	1001+91	24	LT	HIGGINGS AVE	M1-1100	2 2.17	4.34		4.34								
WB-HA-TS-237 (NEW)	1001+91	24	LT	HIGGINGS AVE	M5-1	1.75 1.25	2.19		2.19								
WB-HA-TS-238 (NEW)	1003+20	24	LT	HIGGINGS AVE	R8-3A	2 2.5	5		5		14.5						
WB-HA-TS-239 (NEW)	1004+11	24	LT	HIGGINGS AVE	R8-3A	2 2.5	5		5		14.5						
EB-I90-TR-240 (NEW)	3102+78		RT	I 90 EB	EXIT 82A NAGLE AVE	14 9.5	133		133								
EB-I90-TR-241 (NEW)	3102+78		RT	I 90 EB	EXIT 81A HARLEM AVE	15 13	195		195								
EB-I90-WP-242(NEW)	3107+00	76	RT	I 90 EB	EXIT 81 A	9 5	45		45		37						
EB-RBB-TS-243 (NEW)	810+30	18	RT	CUMBERLAND AVE RAMP BB	R3-8	5 2.5	12.5		12.5		14.5						
EB-RB-TS-244 (NEW)	806+67	28	LT	CUMBERLAND AVE RAMP BB	W1-8	3 2.5	7.5		7.5		14.5						
EB-RB-TS-245 (NEW)	807+47	28	LT	CUMBERLAND AVE RAMP BB	W1-8	3 2.5	7.5		7.5		14.5						
EB-RB-TS-246 (NEW)	808+27	28	LT	CUMBERLAND AVE RAMP B	W1-8	3 2.5	7.5		7.5		14.5						
EB-RB-TS-247 (NEW)	901+48	34	LT	CUMBERLAND AVE RAMP B	WAIT HERE	1.5 2	3		3		14						
EB-RB-TS-248 (NEW)	901+48	15.5	RT	CUMBERLAND AVE RAMP B	WAIT HERE	1.5 2	3		3		14						
EB-RBB-BS-249 (NEW)	809+25	17.5	RT	CUMBERLAND AVE RAMP BB	CTA PARK A RIDE	15 13	195		195			W12X26	7.59	7.92	1244	2.82	214
					TOTAL			112	181	1,486	253	74			2,390	7.0	690



USER NAME = mamiller	DESIGNED AS	REVISED -
	DRAWN RV	REVISED -
PLOT SCALE = 0.0833' / in.	CHECKED AS	REVISED -
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
SIGNING SCHEDULES - 2

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

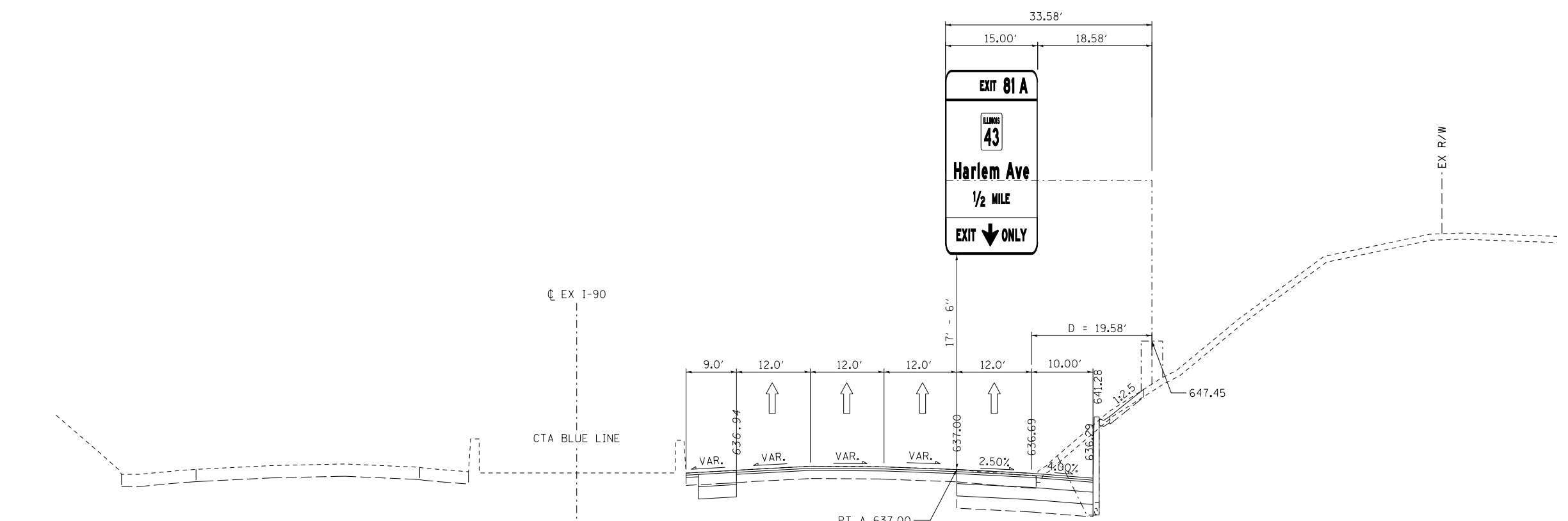
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	210
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

SGCH-02

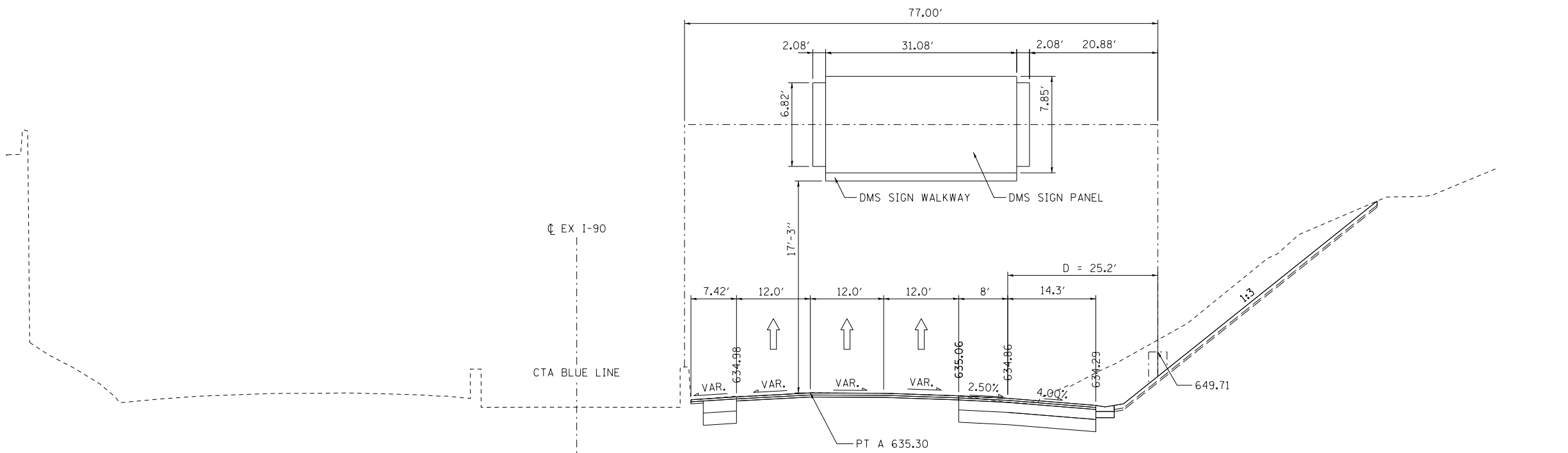








EB-190-CA-215(NEW)  
EB-190-CA-216(NEW)  
PROPOSED SIGN STRUCTURE - CANTILEVER  
EB I-90 STA. 3075+59.00  
(LOOKING EAST)



EB-190-TR-18(REL)  
PROPOSED DMS SIGN STRUCTURE - SPAN  
EB I-90 STA. 3073+90.80  
(LOOKING EAST)



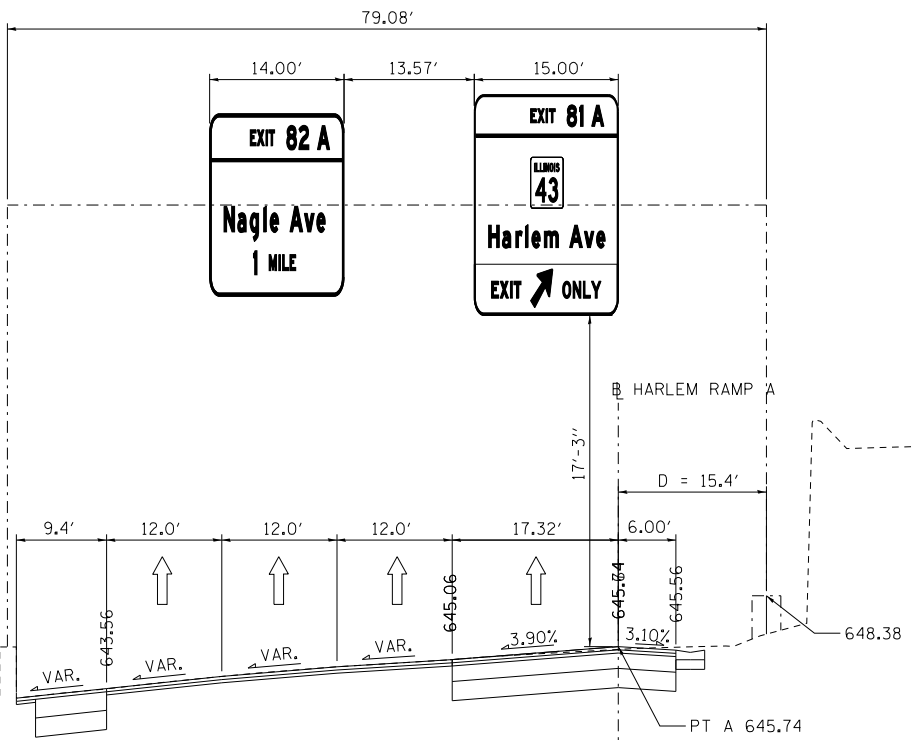
USER NAME = areoss	DESIGNED APR	REVISED -
	DRAWN APR	REVISED -
PLOT SCALE = 1/80' / in.	CHECKED MM	REVISED -
PLOT DATE = 6/8/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
OVERHEAD SIGN STRUCTURES  
SIGN LAYOUT - 1

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	213
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

SGN-DET-01



EB-190-TR-240(NEW)  
 EB-190-TR-241(NEW)  
 PROPOSED SIGN STRUCTURE - SPAN  
 EB I-90 STA. 3079+59.00  
 (LOOKING EAST)

3102+64.57  
 EB WIDENING



USER NAME = mmiller	DESIGNED APR	REVISED -
	DRAWN APR	REVISED -
PLOT SCALE = 1/80' / 1/8"	CHECKED MM	REVISED -
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

I-90 EASTBOUND FROM CUMBERLAND AVE TO HARLEM AVE  
 OVERHEAD SIGN STRUCTURES  
 SIGN LAYOUT - 2

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	214
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

SGN-DET-02

**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.

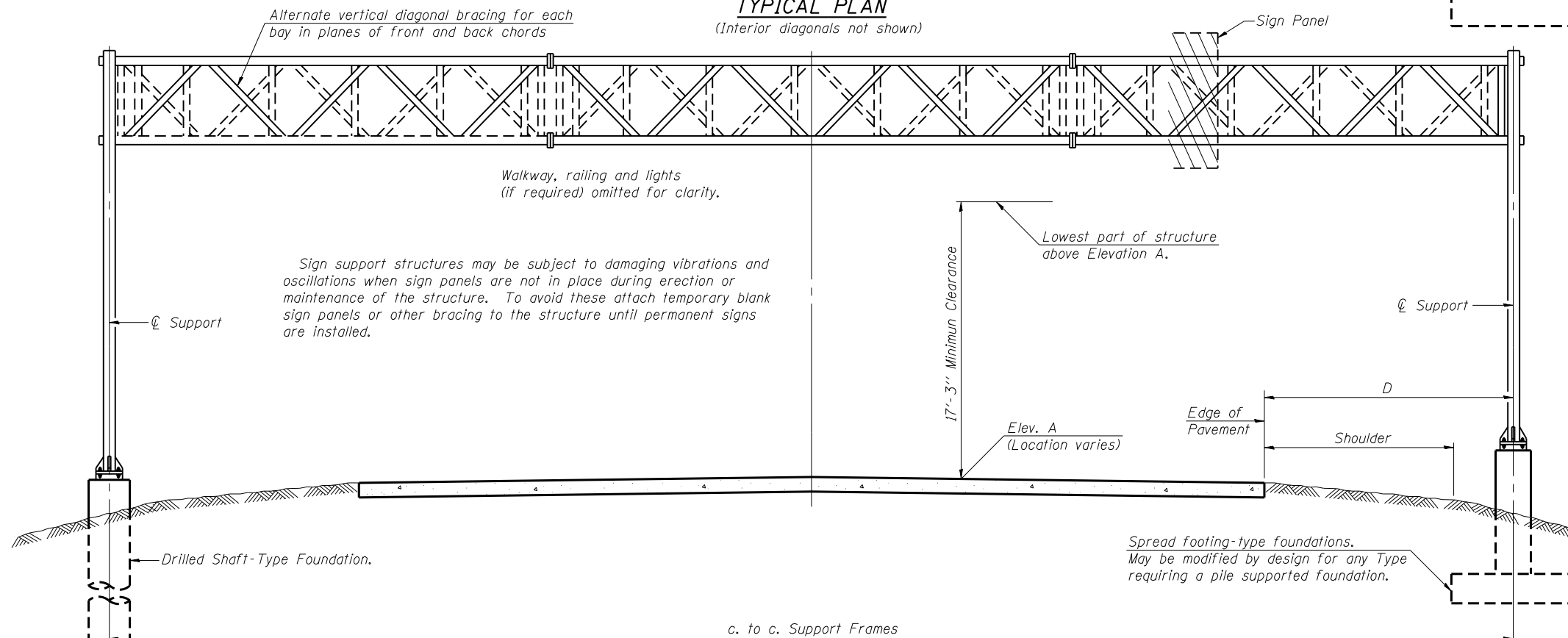
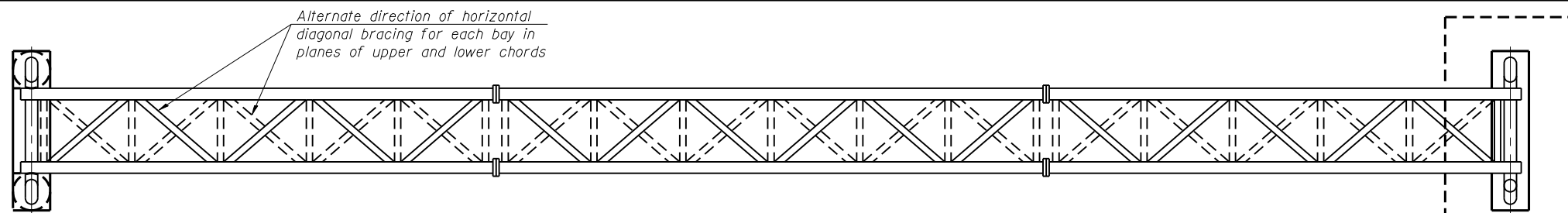
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

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

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

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	---
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	---
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	157
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
CONCRETE FOUNDATIONS	Cu. Yds.	67.0
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	39.8



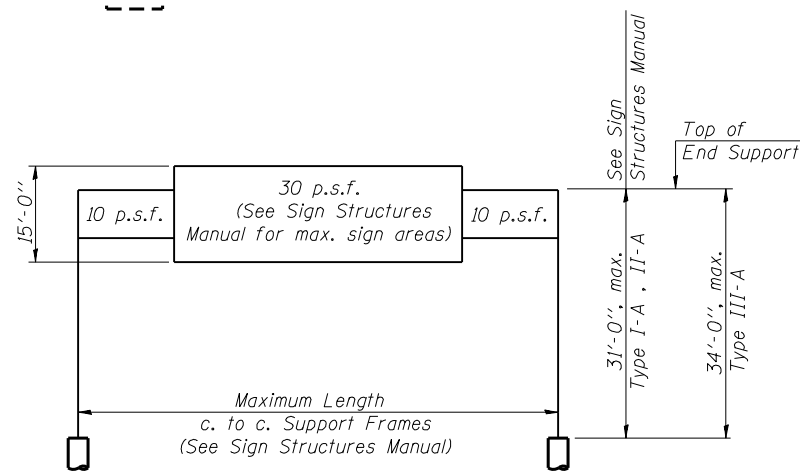
**TYPICAL ELEVATION**  
(Looking at Face of Signs\*\*)

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

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
IS0161090R080.0	3073+91	III-A	77'-0"	635.30	25'-2 <sup>5</sup> / <sub>8</sub> "	7'-10 <sup>3</sup> / <sub>16</sub> "	228 Sq Ft
IS0161090R080.6	3102+78	III-A	80'-0"	645.74	15'-5 <sup>1</sup> / <sub>8</sub> "	13'-0"	364 Sq Ft

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

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



**DESIGN WIND LOADING DIAGRAM**

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

OS-A-1

8-21-13



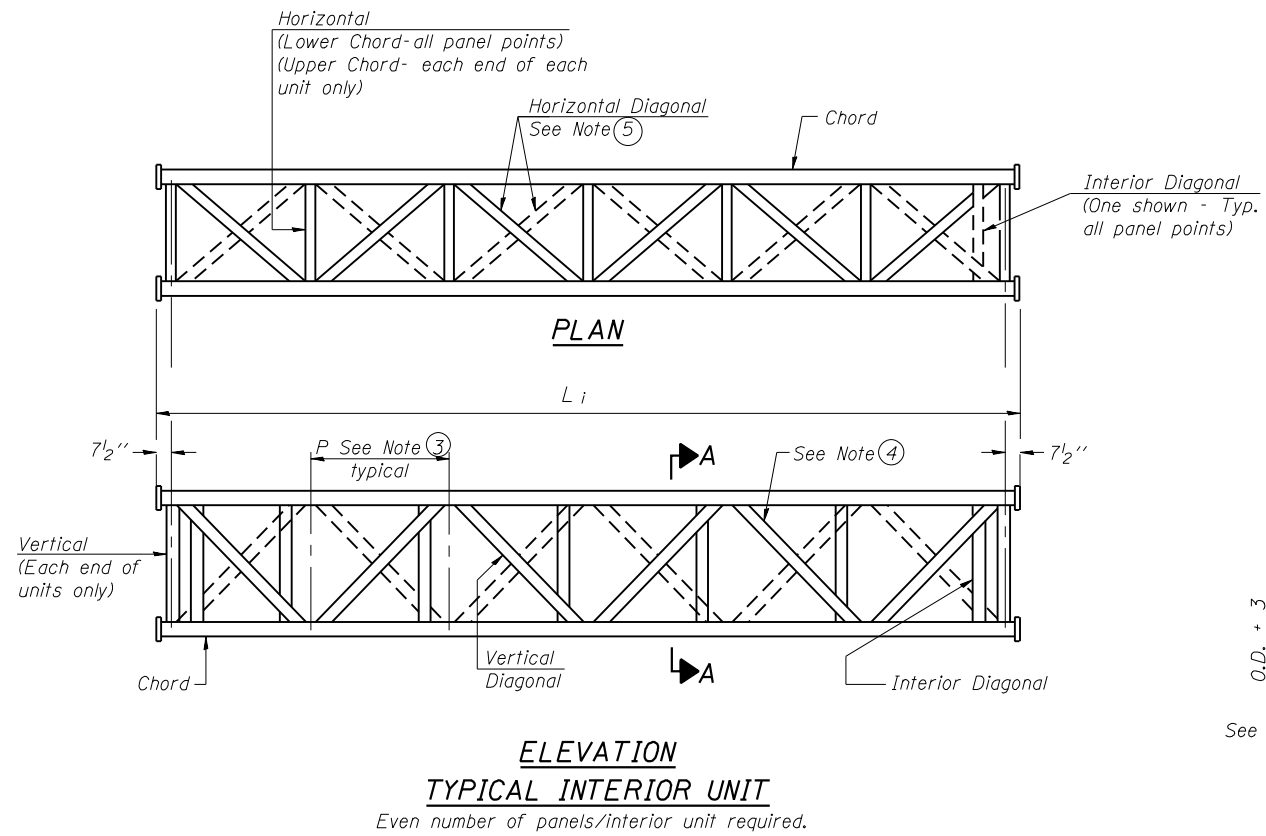
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CHECKED MRI	REVISED	
PLOT SCALE = 0.1" = 1'-0"	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

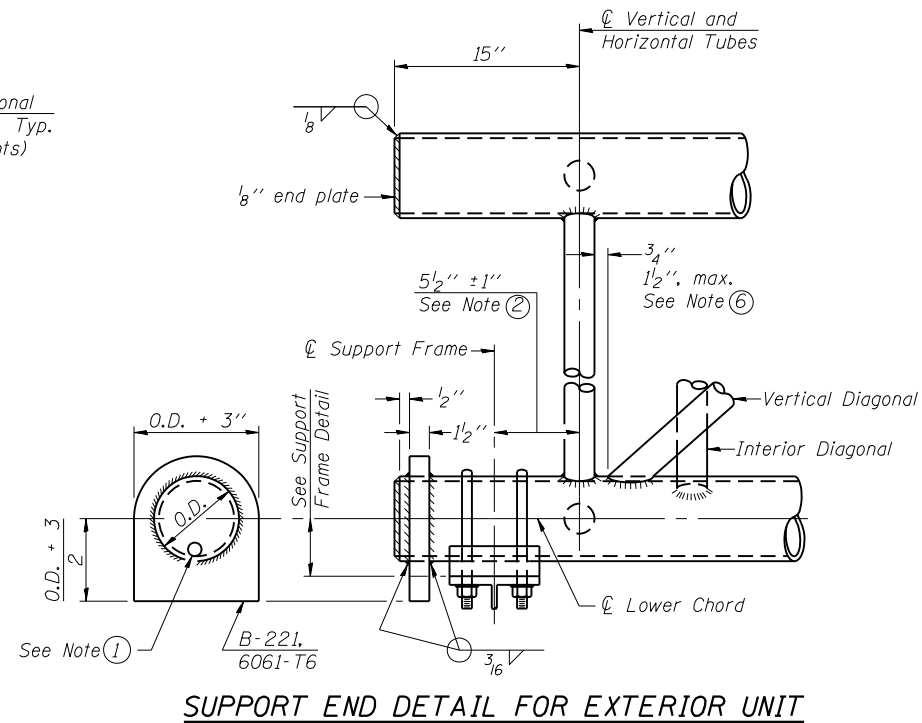
OVERHEAD SIGN STRUCTURES - GENERAL PLAN &  
ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	215
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

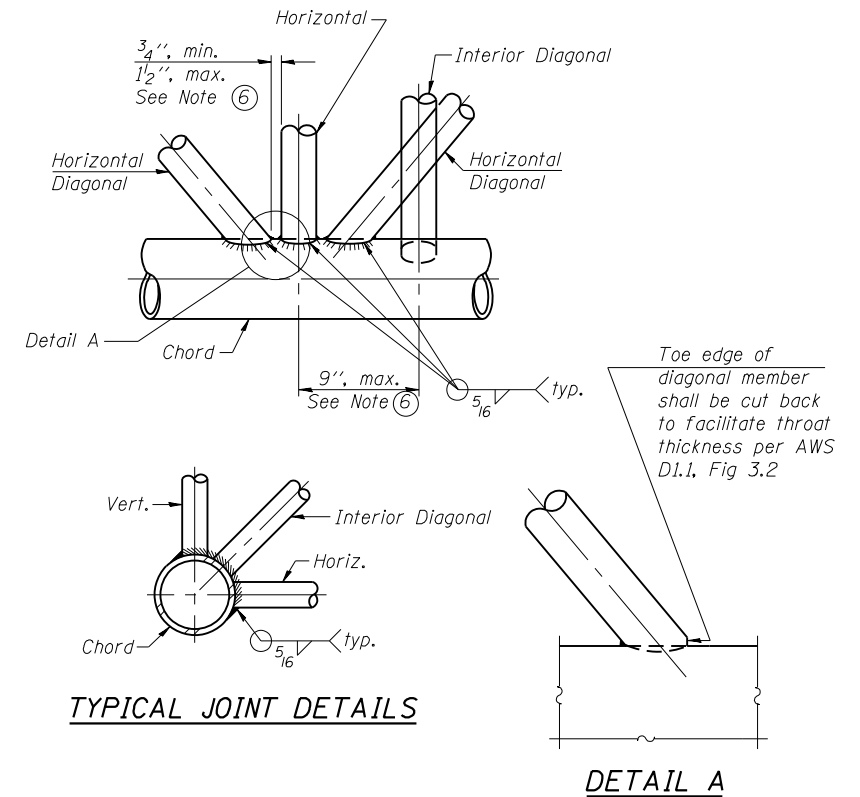
SHEET NO. 1 OF 13 SHEETS



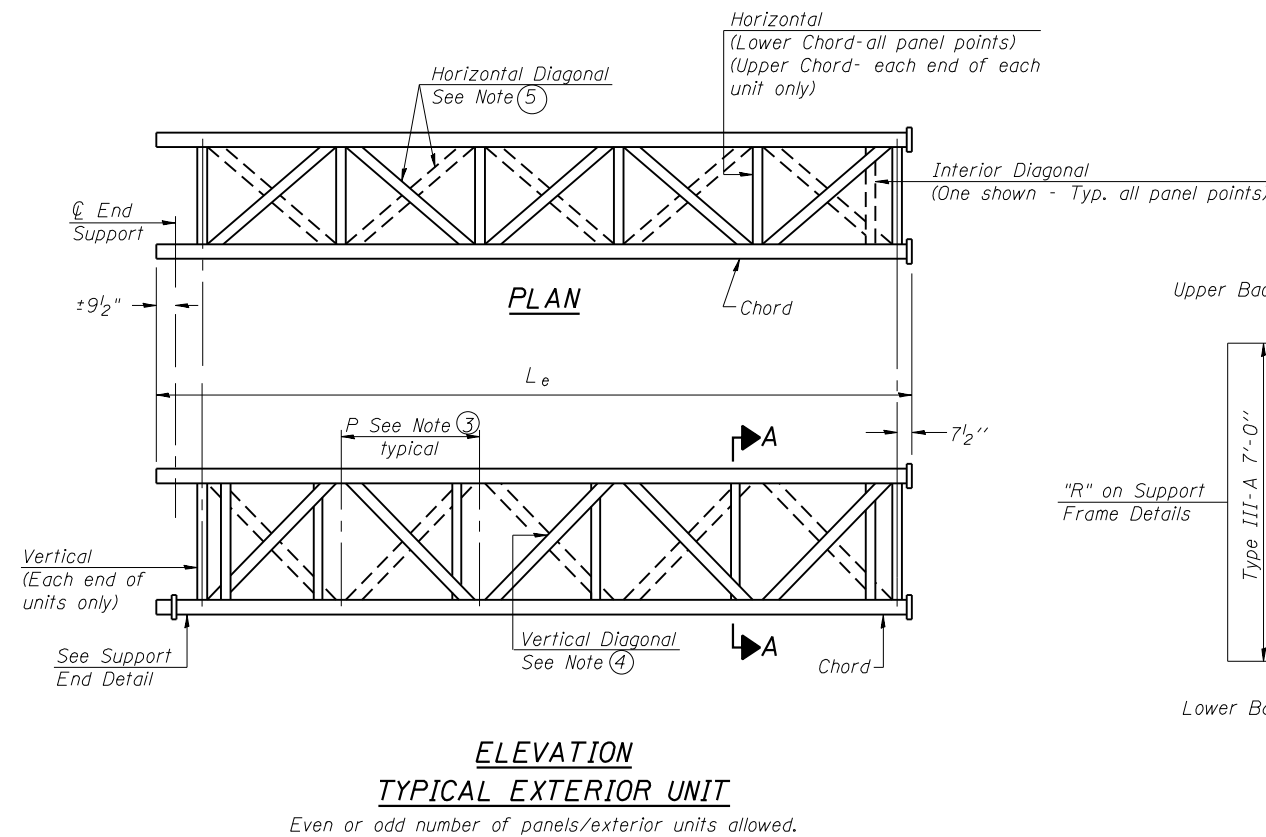
**ELEVATION  
TYPICAL INTERIOR UNIT**  
Even number of panels/interior unit required.



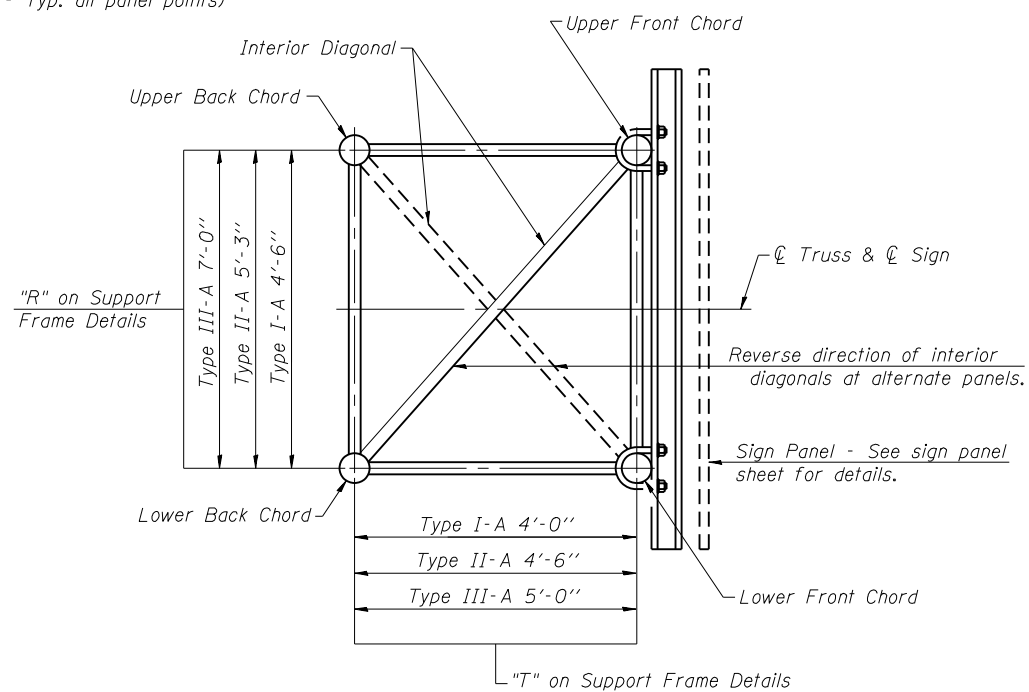
**SUPPORT END DETAIL FOR EXTERIOR UNIT**



**TYPICAL JOINT DETAILS**



**ELEVATION  
TYPICAL EXTERIOR UNIT**  
Even or odd number of panels/exterior units allowed.



**SECTION A-A**

- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2"  $\phi$  drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ② 5 1/2" end dimension may vary by  $\pm 1"$  to provide uniform panel spacing (P).
- ③ Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- ④ Vertical Diagonals in front and back face shall alternate.
- ⑤ Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- ⑥ All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2

6-1-12

**HNTB**

USER NAME = kkalite	DESIGNED APC	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.1" = 1"	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

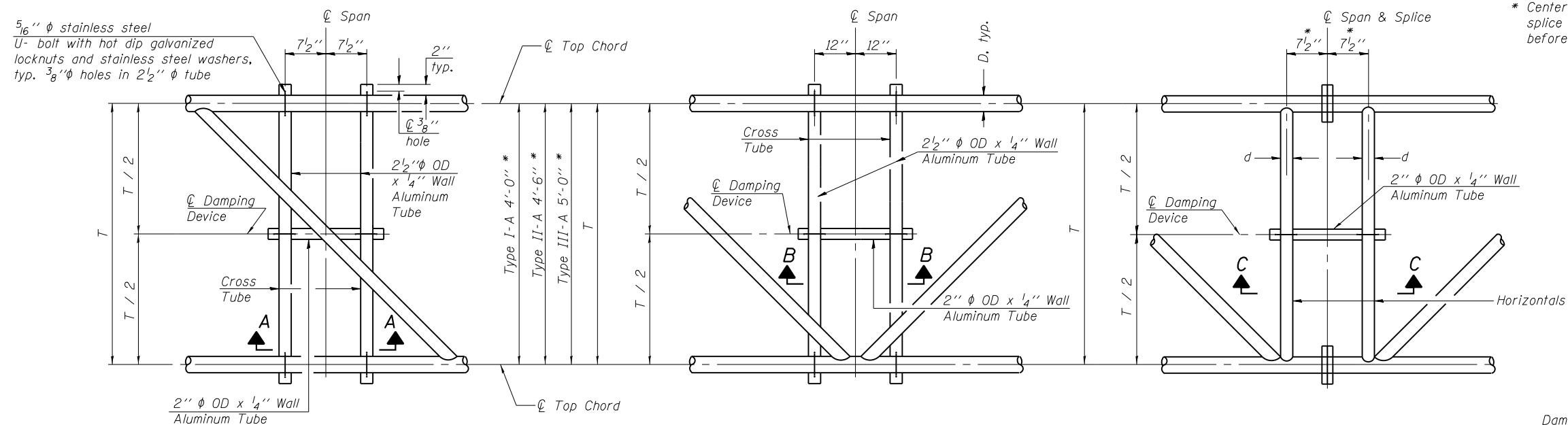
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	216
CONTRACT NO. 60Y38				

SHEET NO. 2 OF 13 SHEETS

ILLINOIS FED. AID PROJECT







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

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

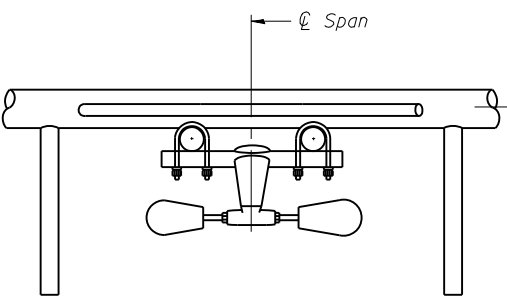
**PLAN DETAIL "C"**  
 ☐ Span at ☐ Chord Splice

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

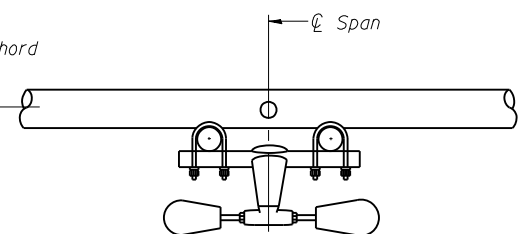
**NOTES**

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

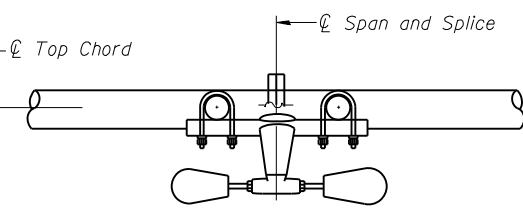
**Materials:** Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



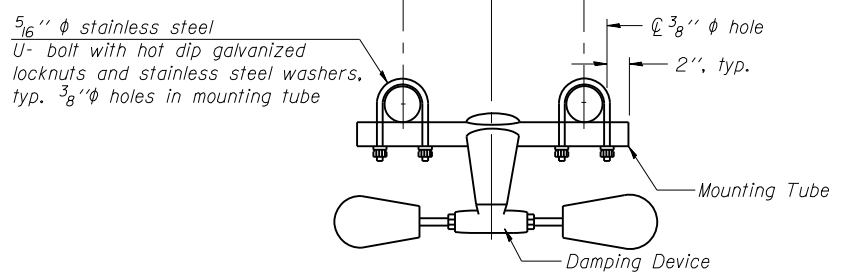
**SECTION A-A**



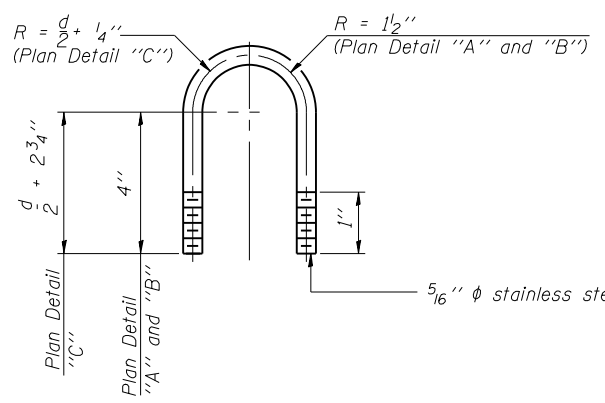
**SECTION B-B**



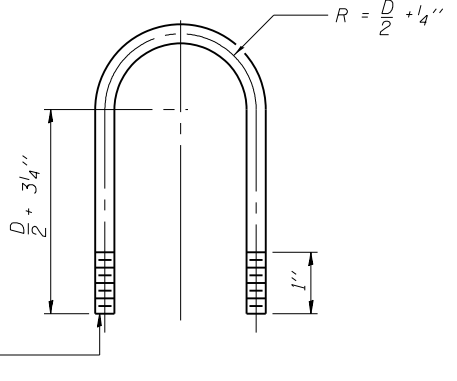
**SECTION C-C**



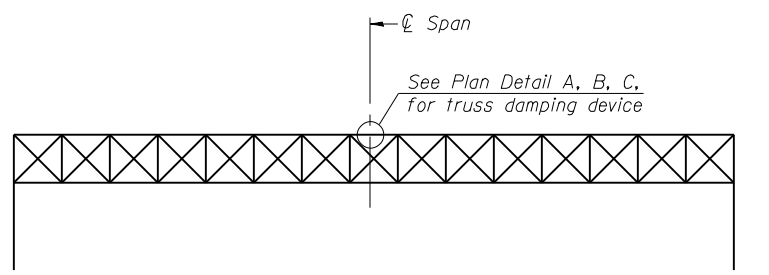
**TRUSS DAMPING DEVICE CONNECTION DETAIL**  
 (Typical)



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



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



**ELEVATION**  
 Aluminum Overhead Sign Truss

OS-A-D

6-1-12



USER NAME = Ikelite	DESIGNED APC	REVISED
PLOT SCALE = 0:1' = 1/4" = 1/4"	CHECKED MRI	REVISED
PLOT DATE = 5/2/2016	DRAWN LK	REVISED
	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

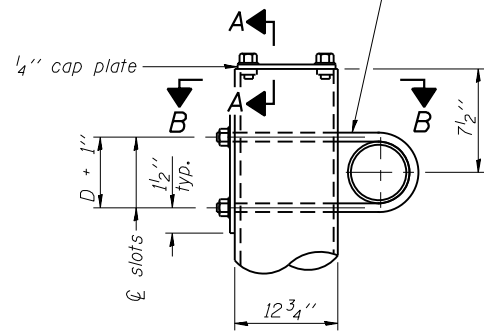
OVERHEAD SIGN STRUCTURE  
 DAMPING DEVICE

SHEET NO. 4 OF 13 SHEETS

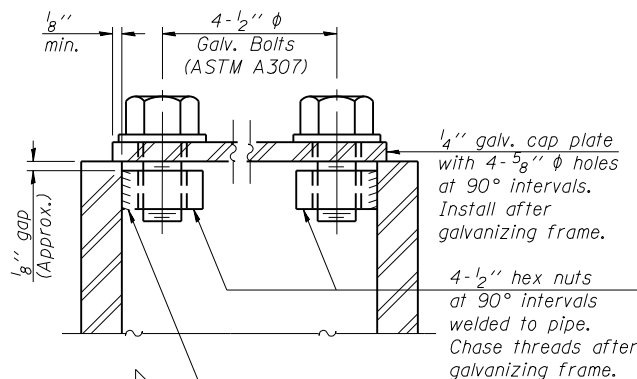
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	218
CONTRACT NO. 60Y38				

ILLINOIS FED. AID PROJECT

3/4" φ stainless steel U-bolt.  
Provide two washers and two hexagon locknuts. (4)  
1 3/16" x 2" slots on 12" φ pipe.  
(4 slots required per pipe)

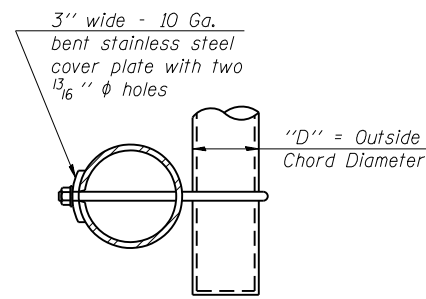


DETAIL A

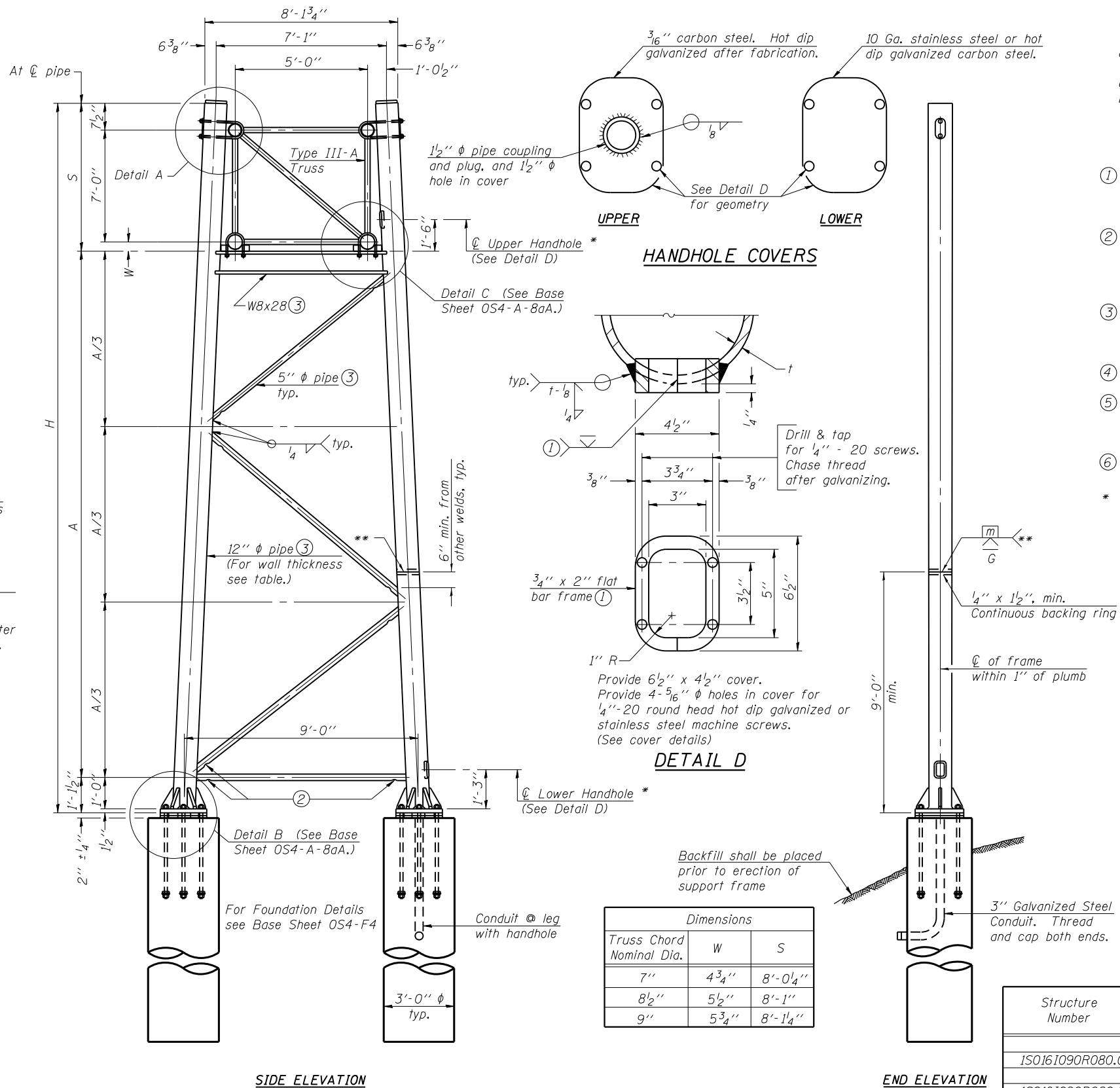


SECTION A-A

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



SECTION B-B



SIDE ELEVATION

END ELEVATION

TRUSS SUPPORT DETAILS

(12" φ 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.

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 μin 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.

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

Structure Number	Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
ISO161090R080.0	3073+91		X	0.33	26'-7 7/16"	17'-5 1/16"
ISO161090R080.0	3073+91	X		0.33	27'-10 1/4"	18'-8 1/2"
ISO161090R080.6	3102+78		X	0.33	27'-3 3/16"	18'-2 1/16"
ISO161090R080.6	3102+78	X		0.33	29'-11 1/2"	20'-9 3/4"

OS4-A-8a

6-1-12



USER NAME = kkalite	DESIGNED APC	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0=1' / 1"	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

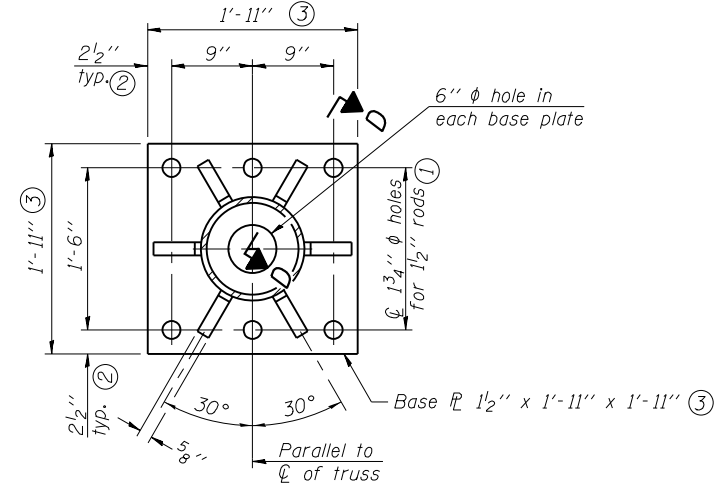
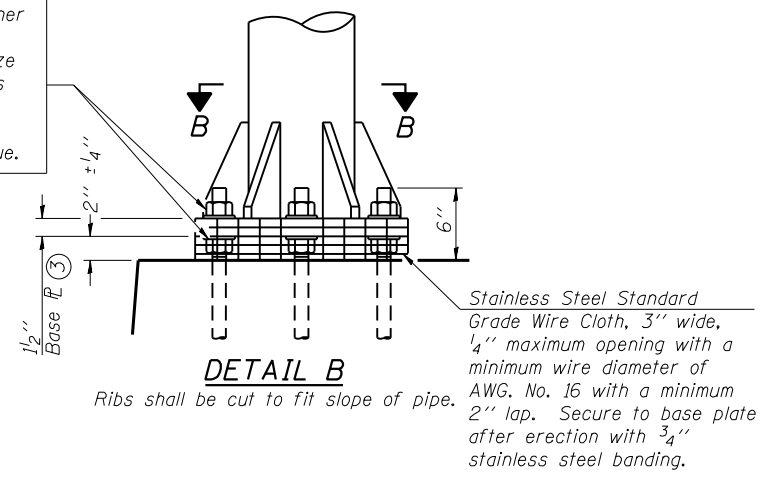
OVERHEAD SIGN STRUCTURES - SUPPORT FRAME  
FOR TYPE III-A ALUMINUM TRUSS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	219
CONTRACT NO. 60Y38				

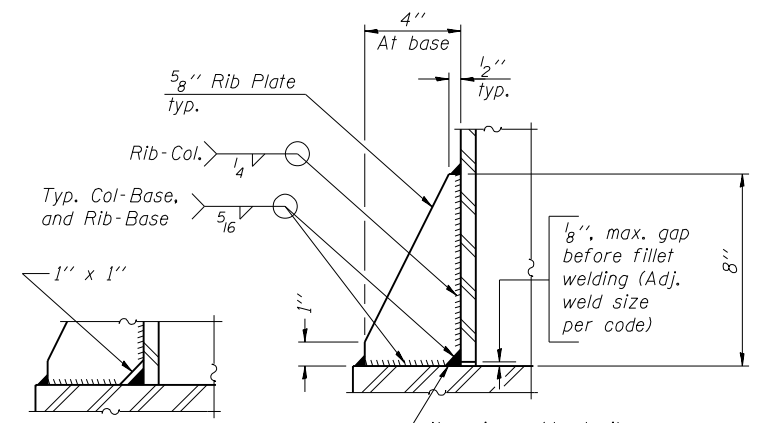
SHEET NO. 5 OF 13 SHEETS

ILLINOIS FED. AID PROJECT

Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.

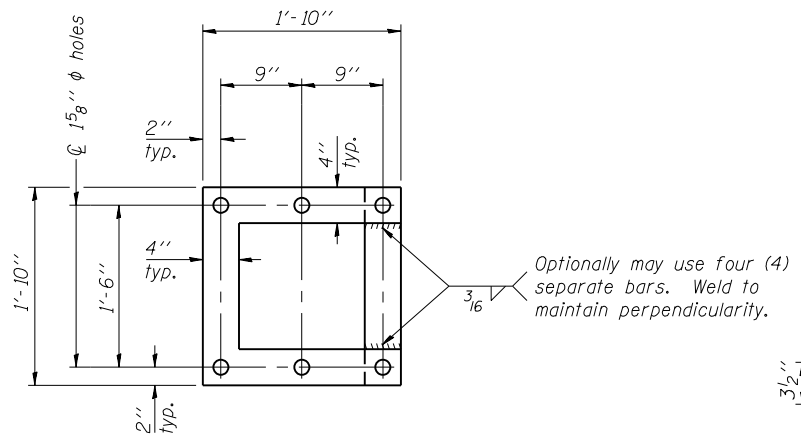


**SECTION B-B**

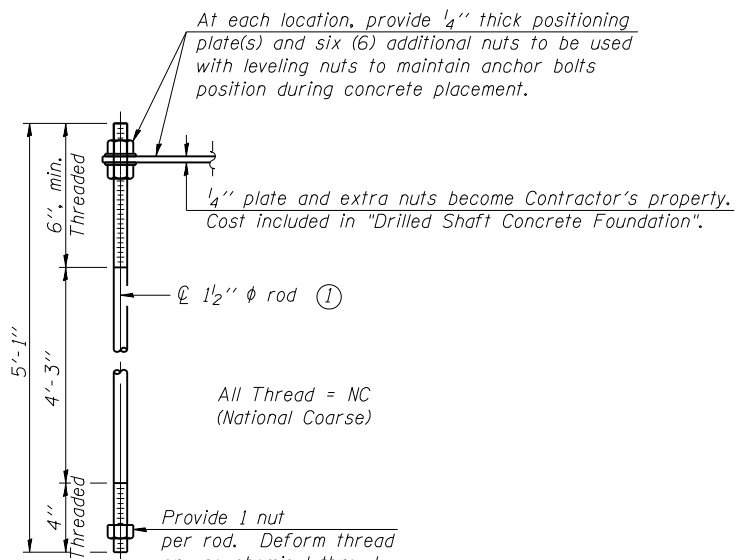


**SECTION D-D**

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



**POSITIONING PLATE(S)**



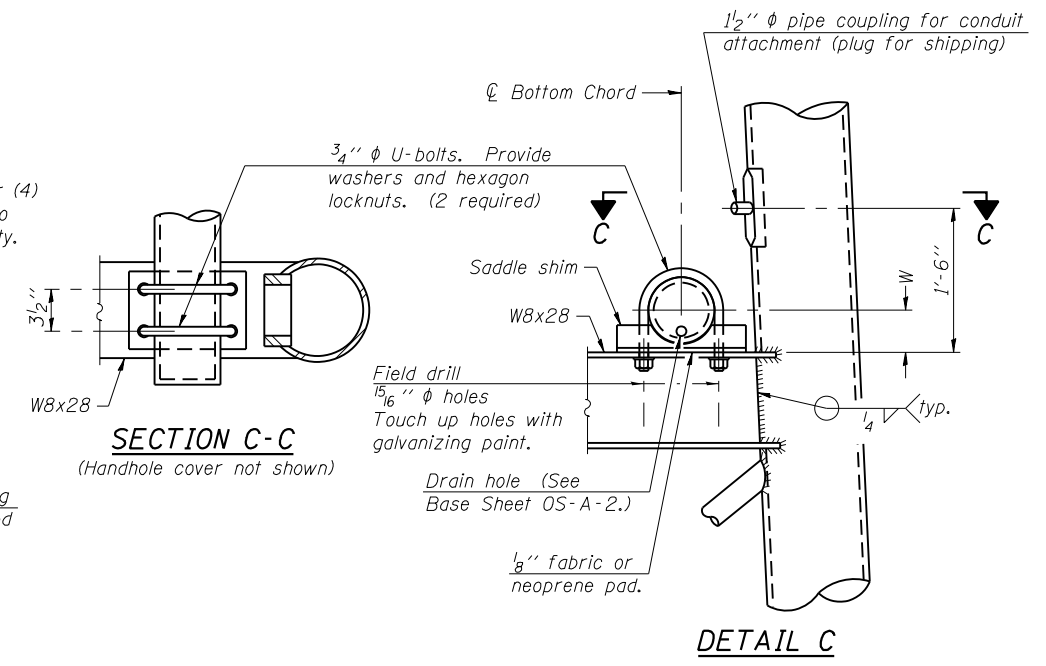
**ANCHOR ROD DETAIL**

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

**TYPE III-A TRUSS  
12 inch diameter PIPE SUPPORT FRAME DETAILS**

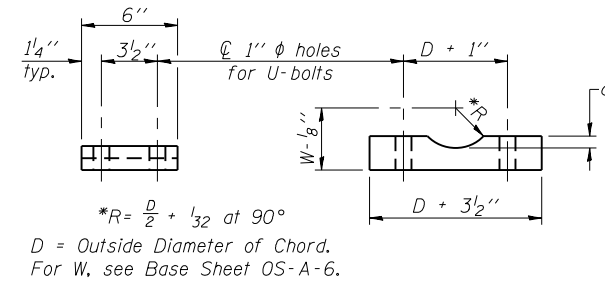
Notes:  
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

- ① 1 3/4 inch diameter rod, 2 inch diameter holes
- ② 2 3/4 inch edge distance
- ③ Base Pl 1 5/8 inch x 1 11/2 inch x 1 11/2 inch



**SECTION C-C**

**DETAIL C**



**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 1/2"	1 1/4"
9"	1 3/8"

OS4-A-8aA

6-1-12



USER NAME = kcolito	DESIGNED APC	REVISED
PLOT SCALE = 0:1' = 1/4"	CHECKED MRI	REVISED
PLOT DATE = 5/2/2016	DRAWN LK	REVISED
	DATE 5/6/2016	REVISED

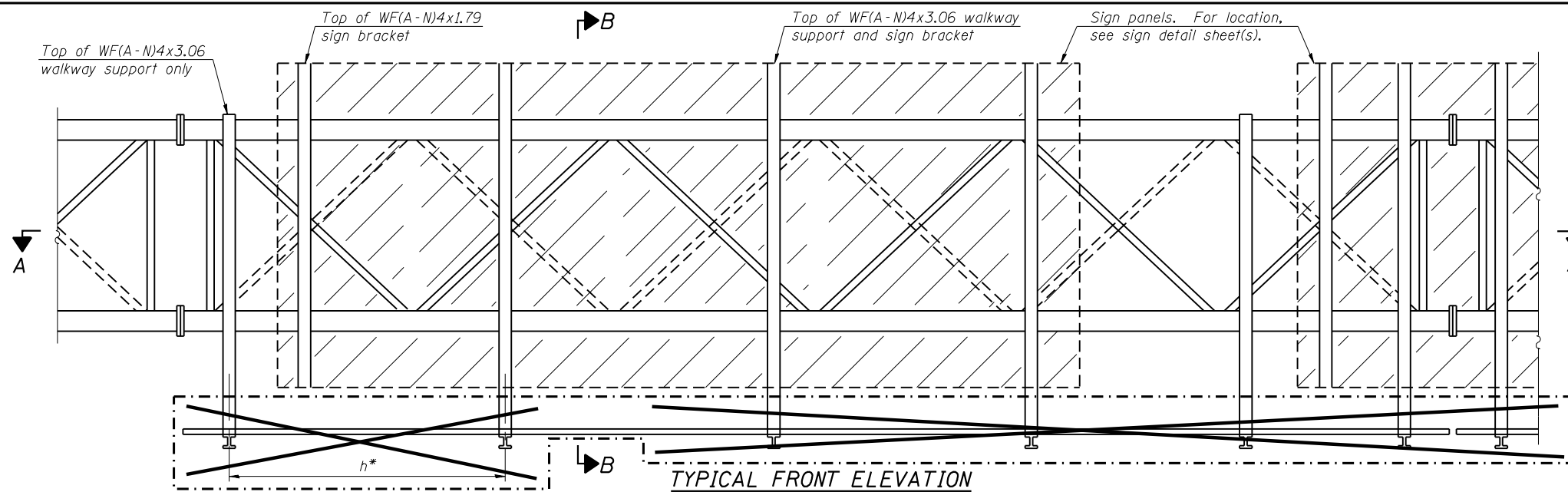
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

SHEET NO. 6 OF 13 SHEETS

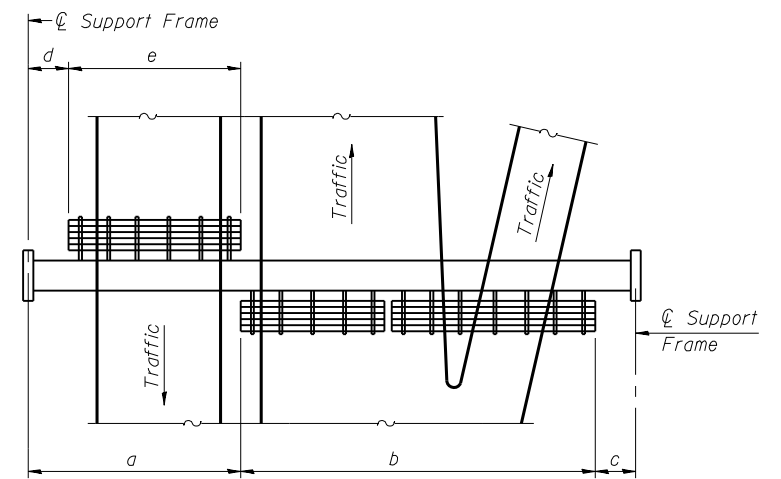
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	220
CONTRACT NO. 60Y38				





**TYPICAL FRONT ELEVATION**

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



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

**BRACKET TABLE**

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

**Notes:**

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

f = 12" maximum, 4" minimum (End of sign to  $\phi$  of nearest bracket)  
g = 12" maximum, 4" minimum (End of walkway grating to  $\phi$  of nearest support bracket)

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

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

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

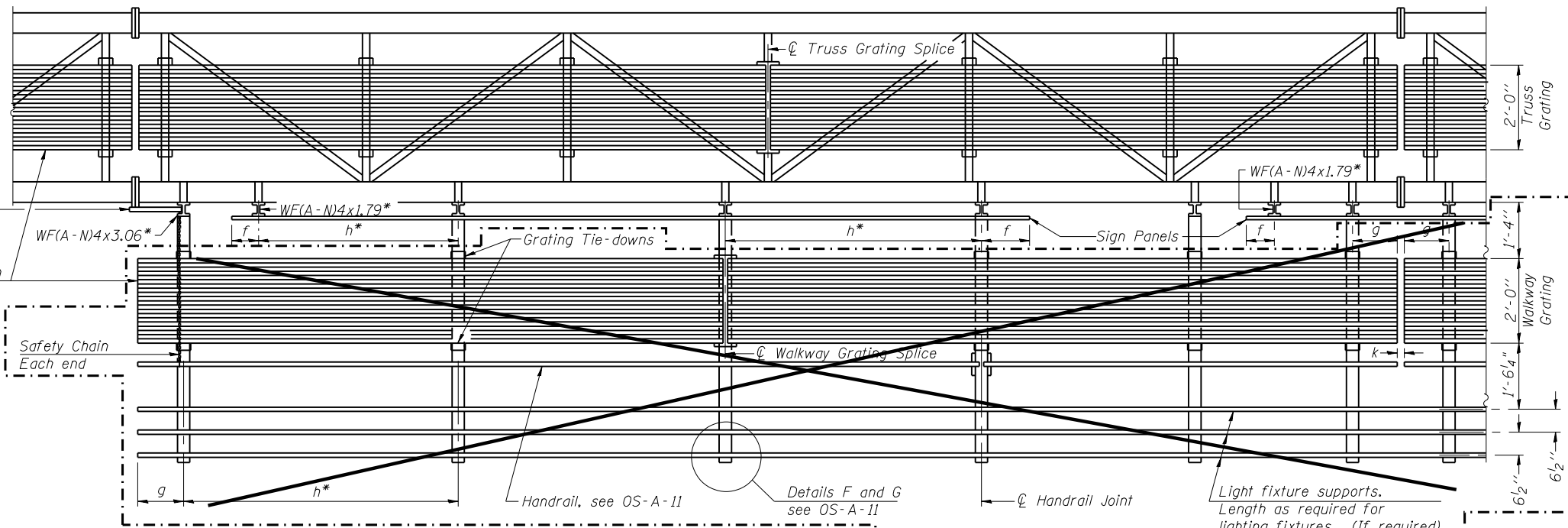
For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.

For Handrail Details see Base Sheet OS-A-11.

Walkway in front of sign panel is not required and is to be omitted.

\*\* Alternate angle for safety chain attachment

Standard Aluminum Grating, see Details T and W



**SECTION A-A**

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

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
ISO16I090R080.6	3102+78	22'-0 <sup>7</sup> / <sub>8</sub> "	42'-0 <sup>7</sup> / <sub>8</sub> "	15'-10 <sup>1</sup> / <sub>4</sub> "	---	---	42'-0 <sup>7</sup> / <sub>8</sub> "

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

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



USER NAME = kelite	DESIGNED APC	REVISED
PLOT SCALE = 0.1" / 1'	CHECKED MRI	REVISED
PLOT DATE = 5/2/2016	DRAWN LK	REVISED
	DATE 5/6/2016	REVISED

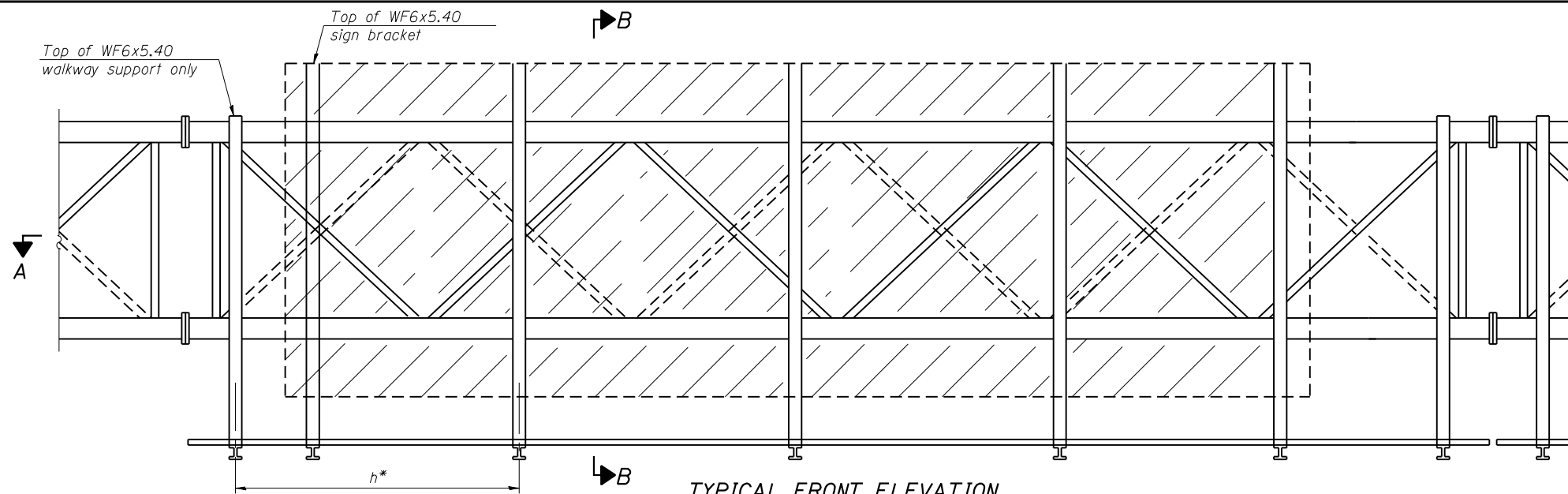
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES  
ALUMINUM WALKWAY DETAILS**

SHEET NO. 7 OF 13 SHEETS

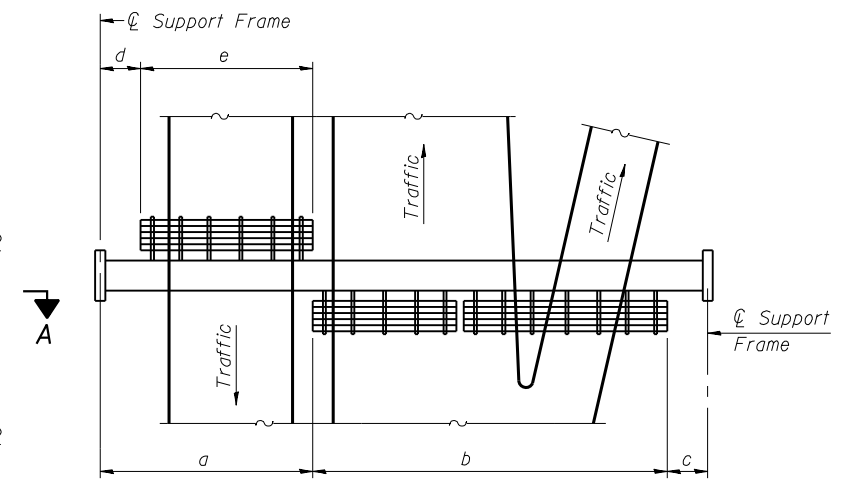
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	221
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				





**TYPICAL FRONT ELEVATION**

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



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

**BRACKET TABLE**

WF6x5.40 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

**Notes:**

\* Space walkway brackets WF6x5.40 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to  $\phi$  of nearest bracket)  
g = 12" maximum, 4" minimum (End of walkway grating to  $\phi$  of nearest support bracket)

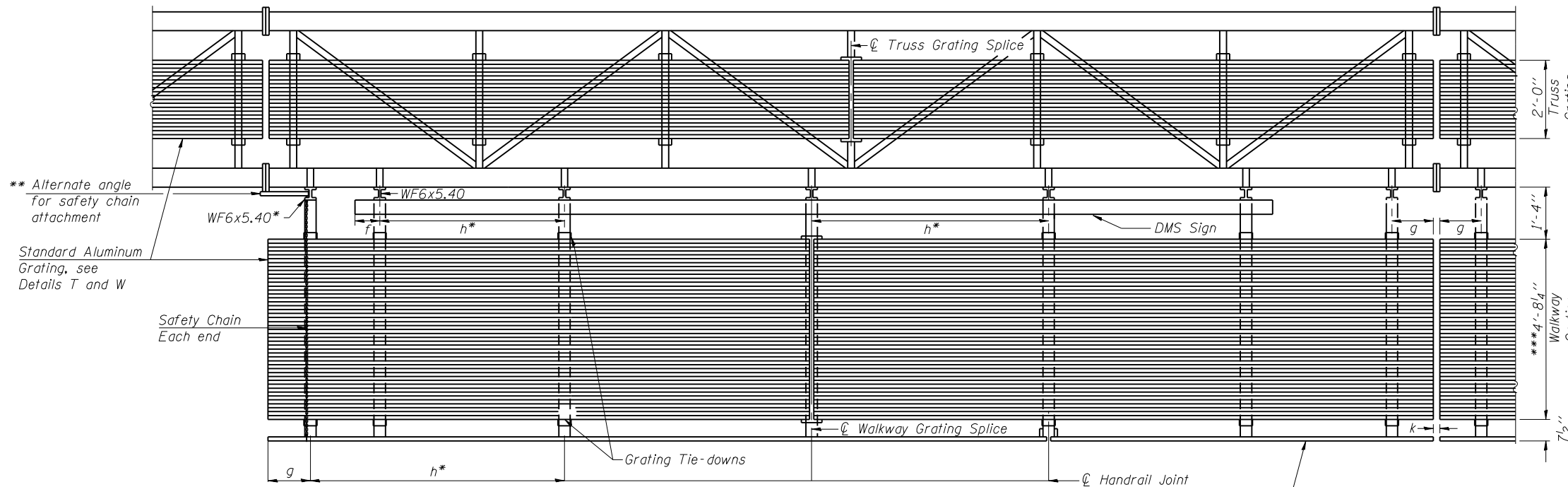
h = 6'-0" maximum ( $\phi$  to  $\phi$  sign and/or walkway support brackets, WF6x5.40)

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 Sheet 11 of 13.



**SECTION A-A**

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

\*\* Alternate angle for safety chain attachment

Standard Aluminum Grating, see Details T and W

Safety Chain Each end

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

\*\*\*Walkway and Truss Grating are nominal and may vary based on actual DMS Cabinet dimensions plus mounting devices.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
ISO161090R080.0	3073+91	15'-3 <sup>3</sup> / <sub>4</sub> "	36'-7 <sup>1</sup> / <sub>4</sub> "	25'-1"	---	---	36'-7 <sup>1</sup> / <sub>4</sub> "



USER NAME = kelite	DESIGNED APC	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.1" / 1"	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

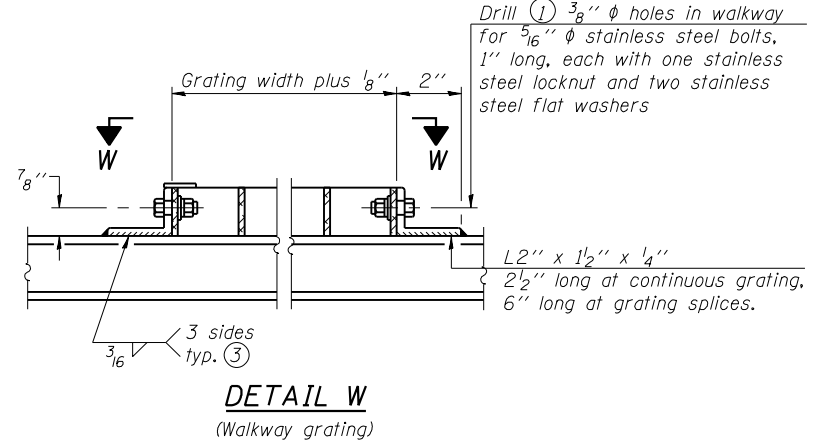
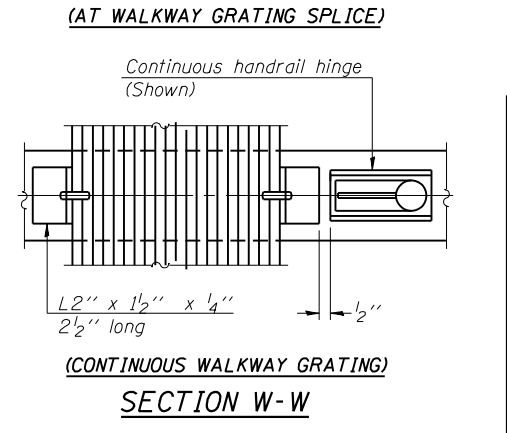
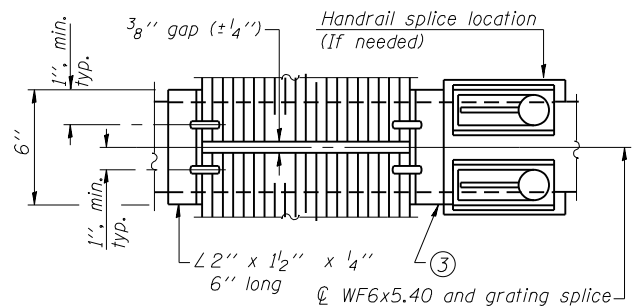
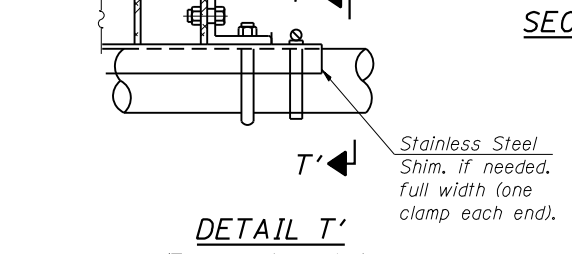
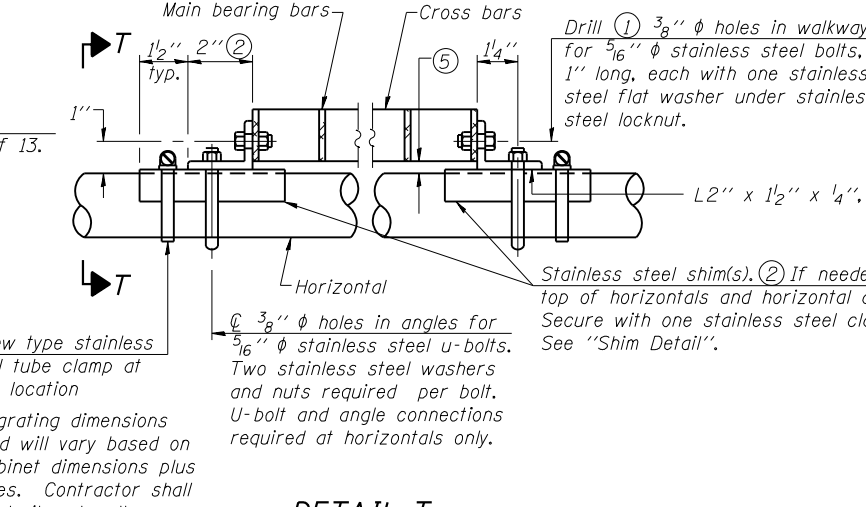
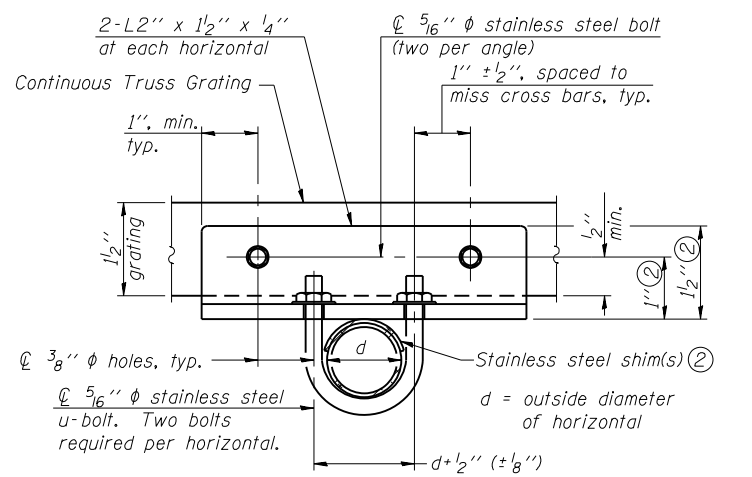
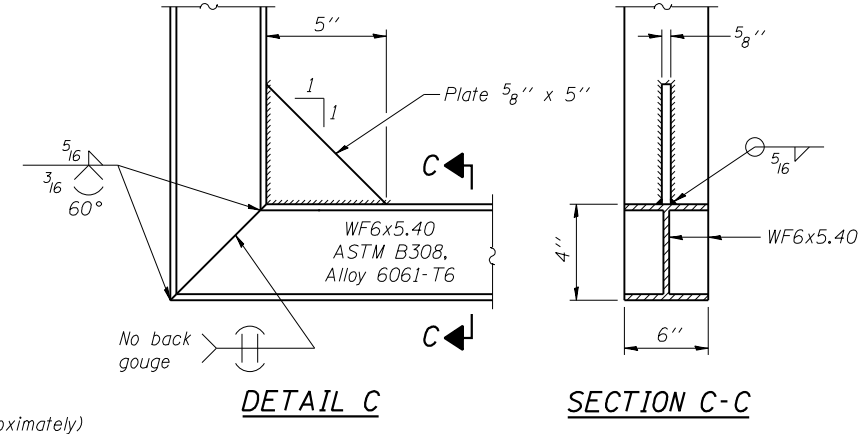
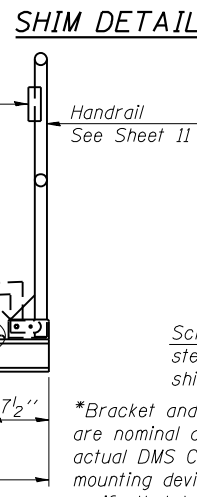
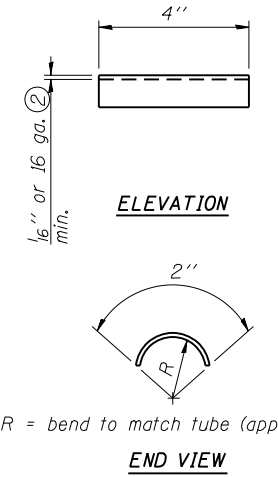
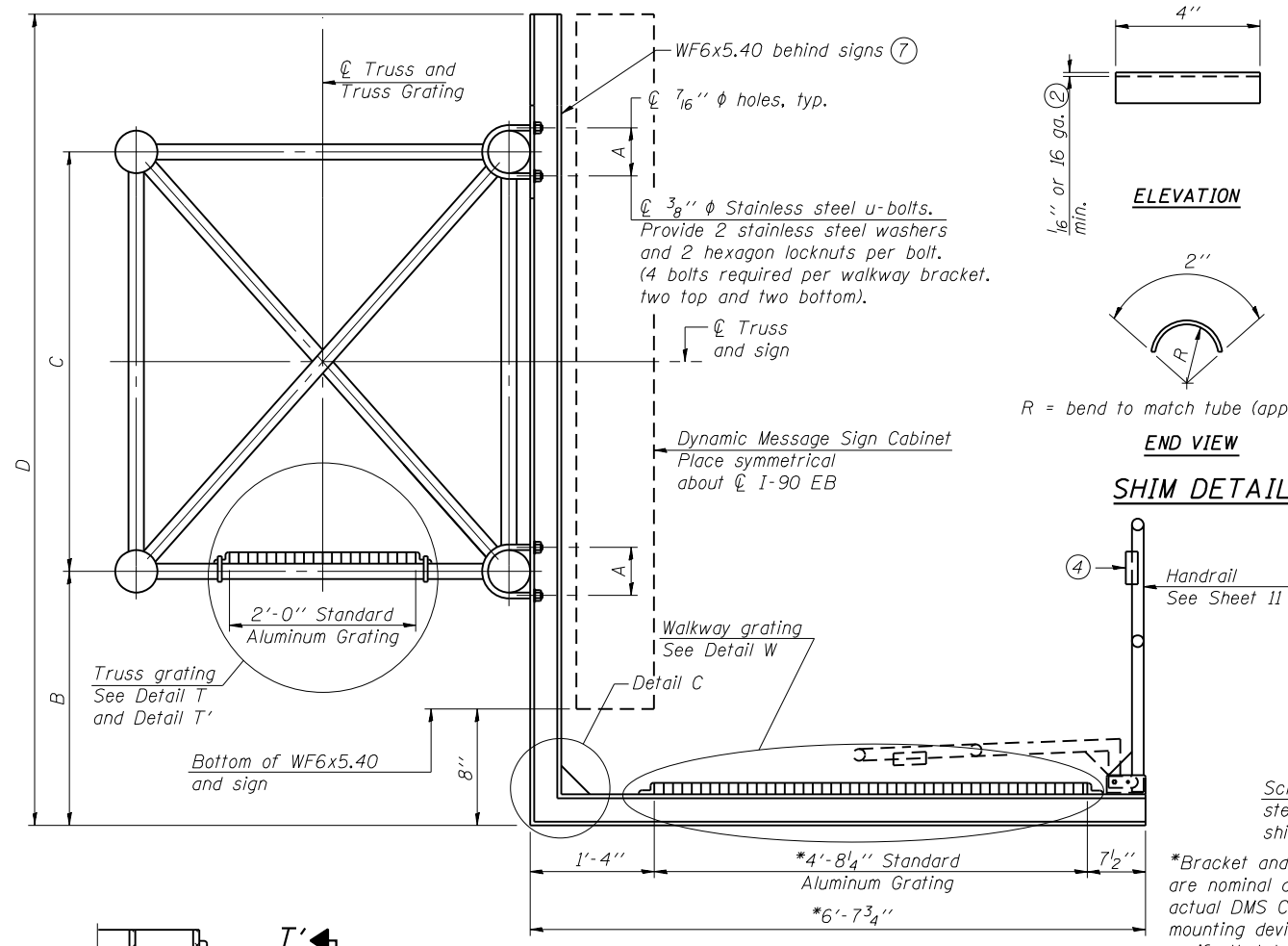
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES  
ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	223
CONTRACT NO. 60Y38				

SHEET NO. 9 OF 13 SHEETS

ILLINOIS FED. AID PROJECT



**SPECIFICATIONS FOR STANDARD ALUMINUM GRATING**

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

OR

Aluminum Grating with modified "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", spaced on 1 3/16" centers.  
 Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	⑥ B	C	⑥ D
ISO161090R080.0	3073+91	7 3/8"	1'-8 1/2"	7'-0"	9'-2 1/8"

- 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 WF6x5.40 and 1/4" extension bars. (See Sheet 11 of 13.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- Based on actual height of tallest sign given on OS-A-1.
- Contractor must design and supply hardware for connection of cabinet to WF6's. Bolts must be stainless steel or hot dip galvanized high strength per IDOT specifications. Contractor shall coordinate with existing cabinet manufacturer to determine appropriate connection methods.



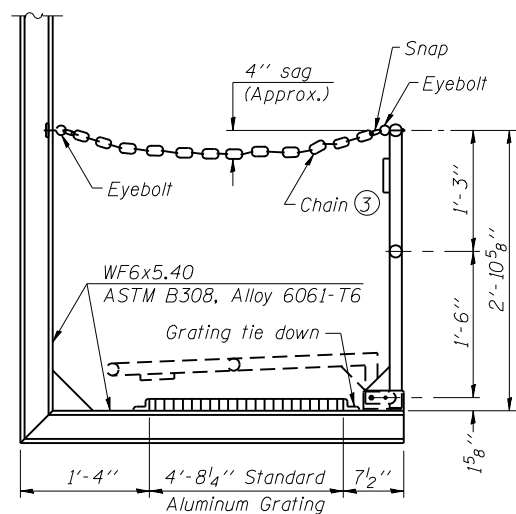
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PLOT SCALE = 0=1' / 1=1"	CHECKED MRI	REVISED
PLOT DATE = 5/2/2016	DRAWN LK	REVISED
	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

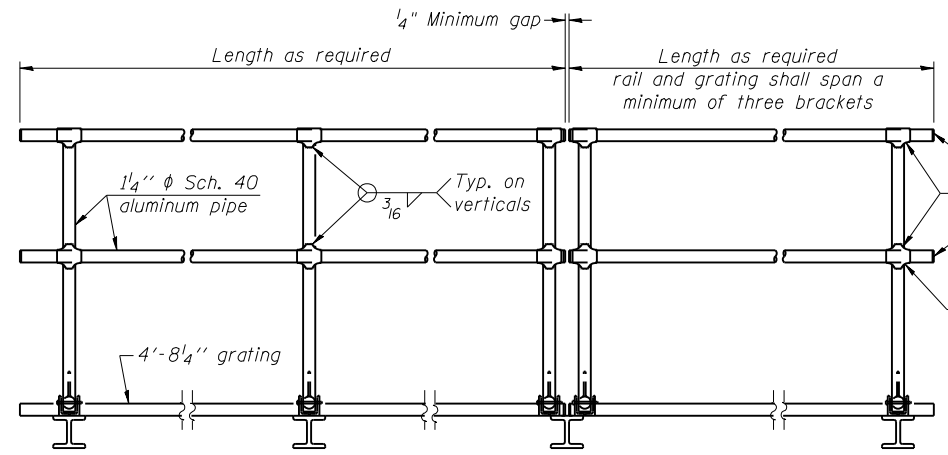
OVERHEAD SIGN STRUCTURES  
 ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS

SHEET NO. 10 OF 13 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	224
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



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

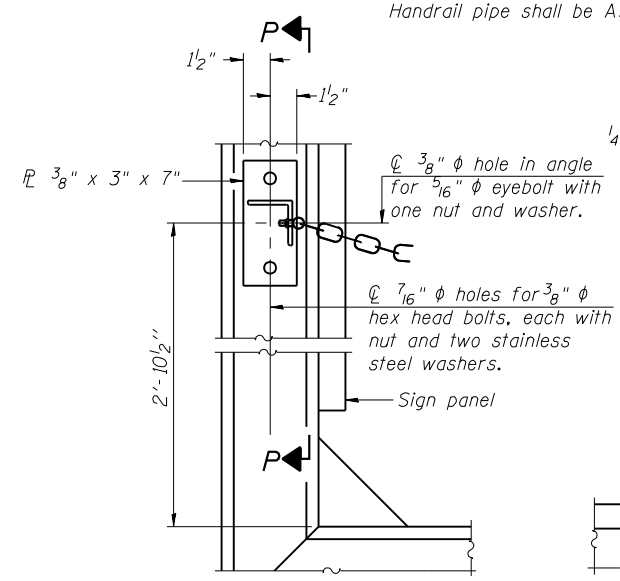


**FRONT ELEVATION**

**HANDRAIL DETAILS**

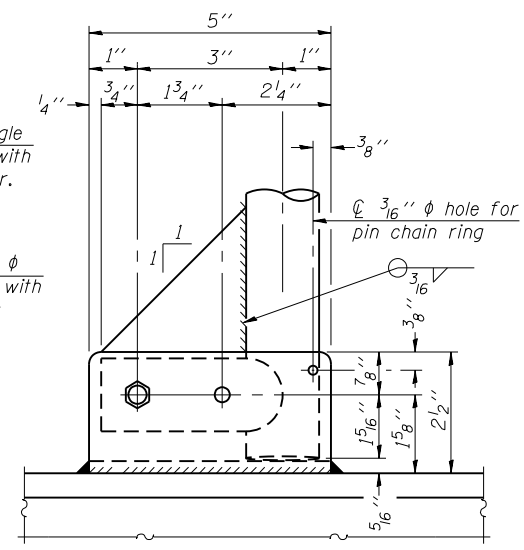
Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

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

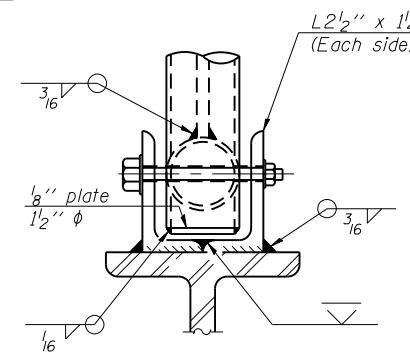


**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

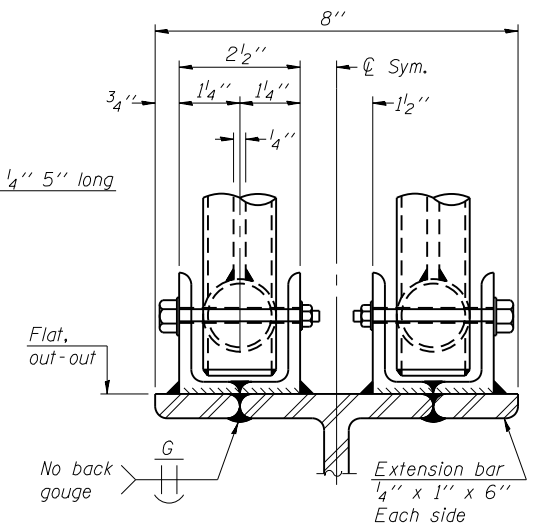


**SIDE ELEVATION**

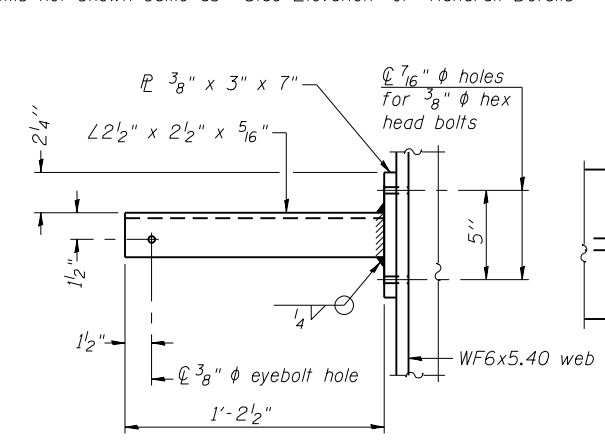


**FRONT ELEVATION**

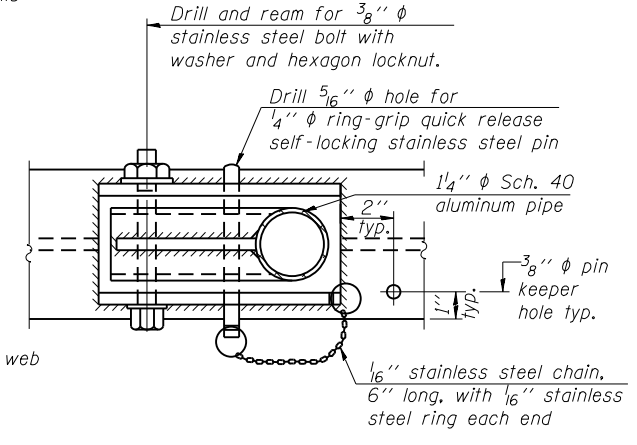
See "Elevation" at right for dimensions.



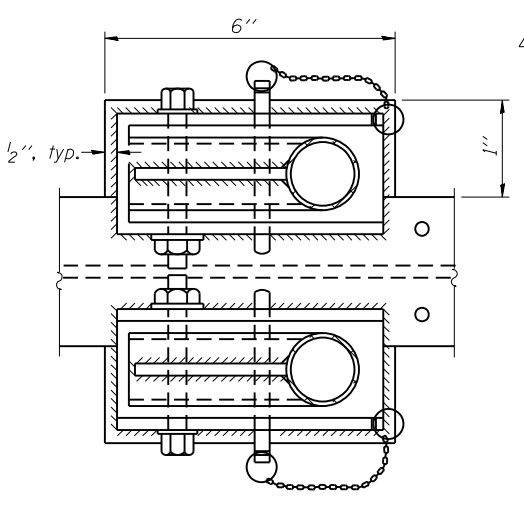
**ELEVATION AT HANDRAIL JOINT**



**SECTION P-P**

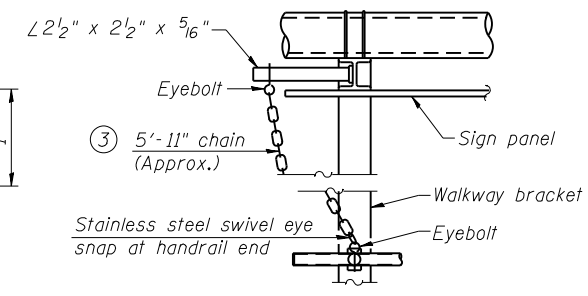


**PLAN DETAIL E HANDRAIL HINGE**



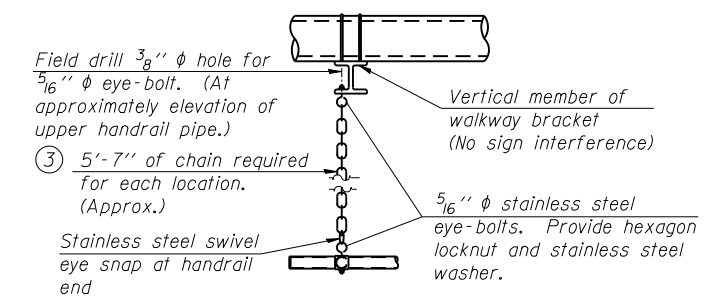
**PLAN AT HANDRAIL JOINT**

Details not shown same as "PLAN"



**ALTERNATE SAFETY CHAIN ATTACHMENT**

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



**SAFETY CHAIN**

One required for each end of each walkway.

- ③ 3/16" Type 304L stainless steel chain, approximately 12 links per foot.
- ④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



USER NAME = kelite	DESIGNED APC	REVISED
CHECKED MRI	REVISED	
PLOT SCALE = 0:1' = 1/8"	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
ALTERNATE ALUMINUM HANDRAIL DETAILS FOR DMS

SHEET NO. 11 OF 13 SHEETS

F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	225
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**BAR LIST - EACH FOUNDATION**

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

**NOTES:**

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (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.

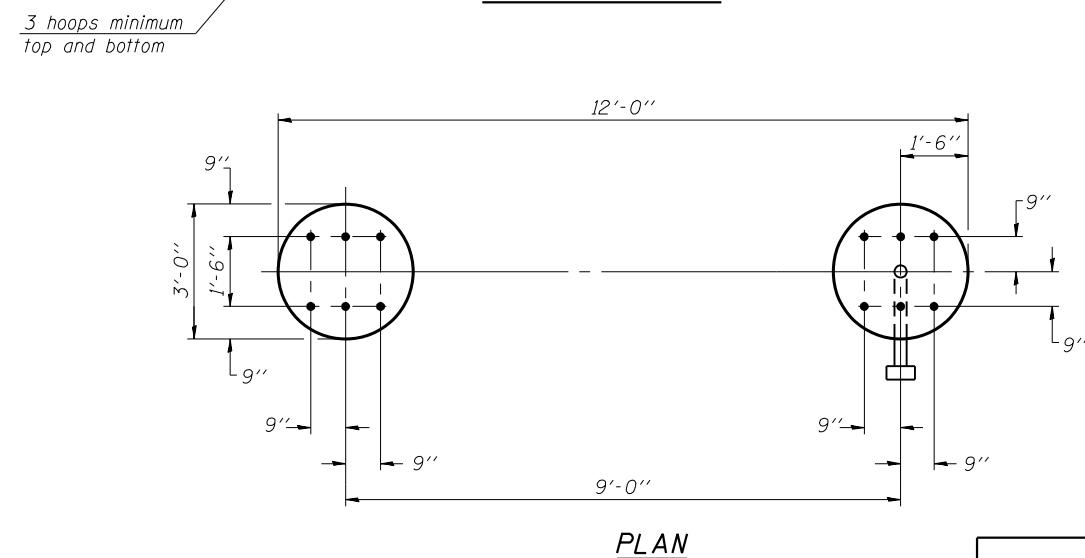
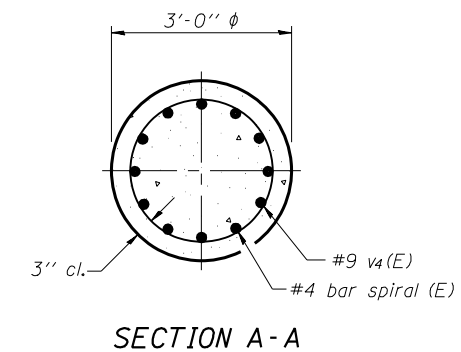
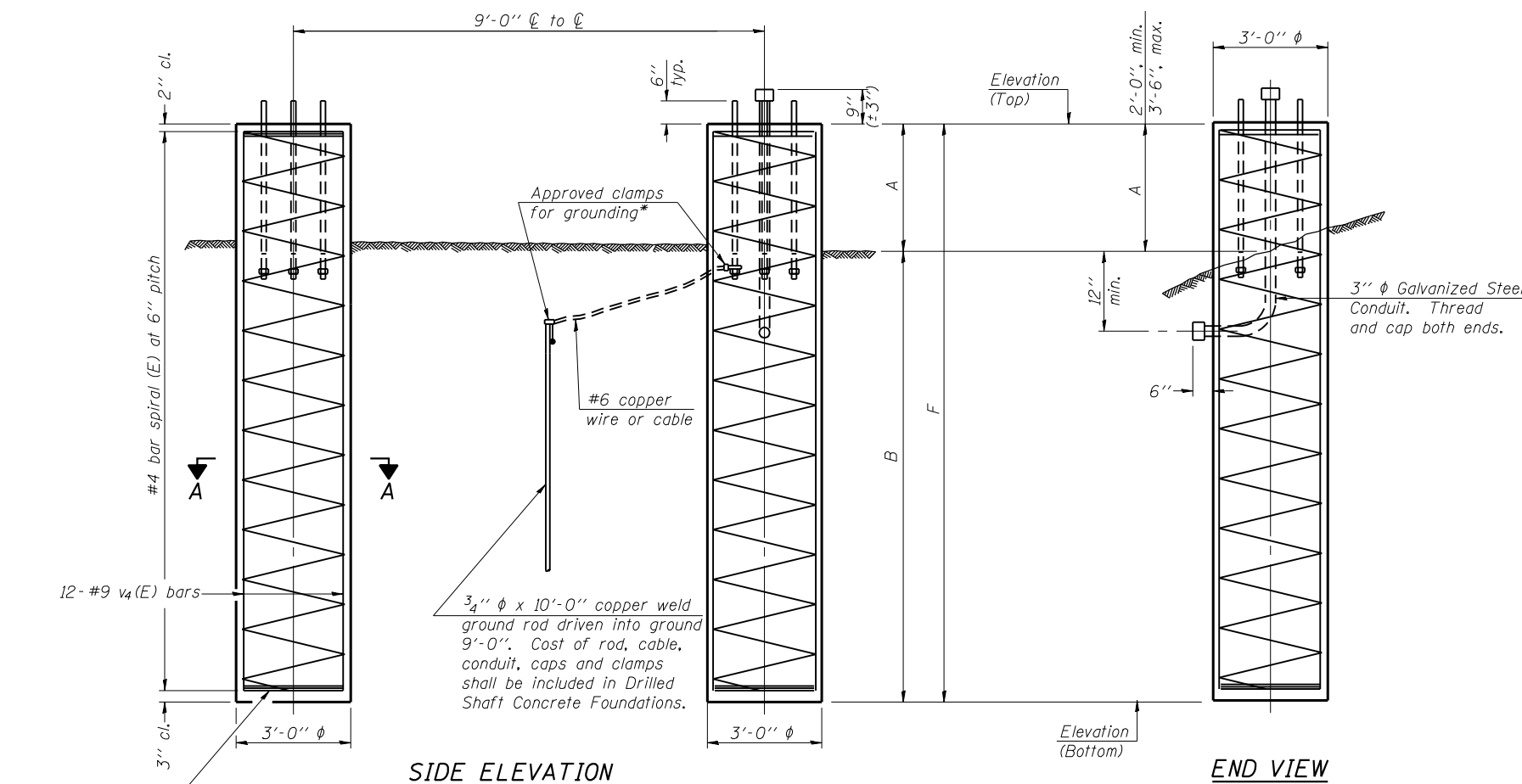
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District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



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

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

**DETAILS FOR 12" Ø SUPPORT FRAME  
TYPE III-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	
ISO161090R080.0	3073+91	---	---	---	---	---	638.64	618.64	2'-0"	18'-0"	20'-0"	10.5
ISO161090R080.6	3102+78	---	---	---	---	---	648.38	628.38	2'-0"	18'-0"	20'-0"	10.5

OS4-F4

8-21-13



USER NAME = kcolito	DESIGNED APC	REVISED
CHECKED MRI	REVISIED	
PLOT SCALE = 0:1' = 1/4" IN.	DRAWN LK	REVISED
PLOT DATE = 5/2/2016	DATE 5/6/2016	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES  
DRILLED SHAFT DETAILS**

SHEET NO. 12 OF 13 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	226
CONTRACT NO. 60Y38				

ILLINOIS FED. AID PROJECT

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

**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.

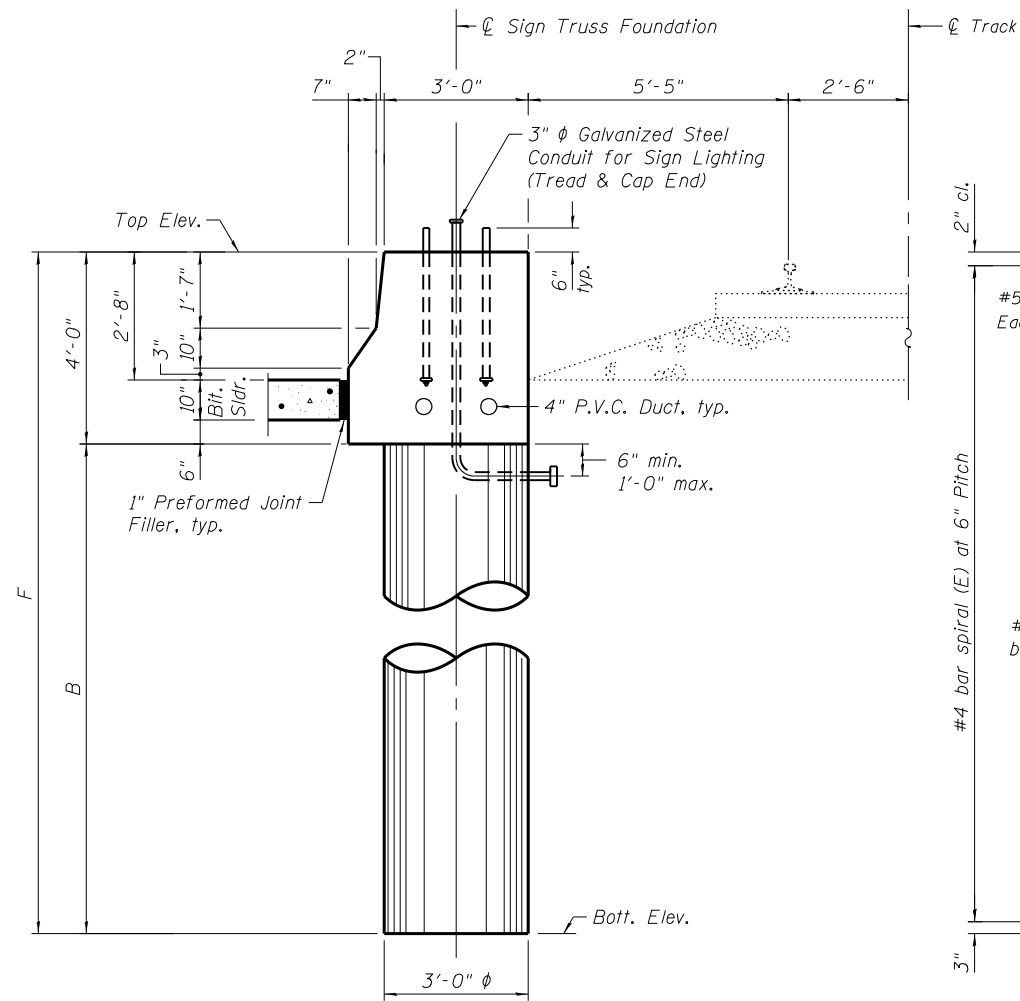
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District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

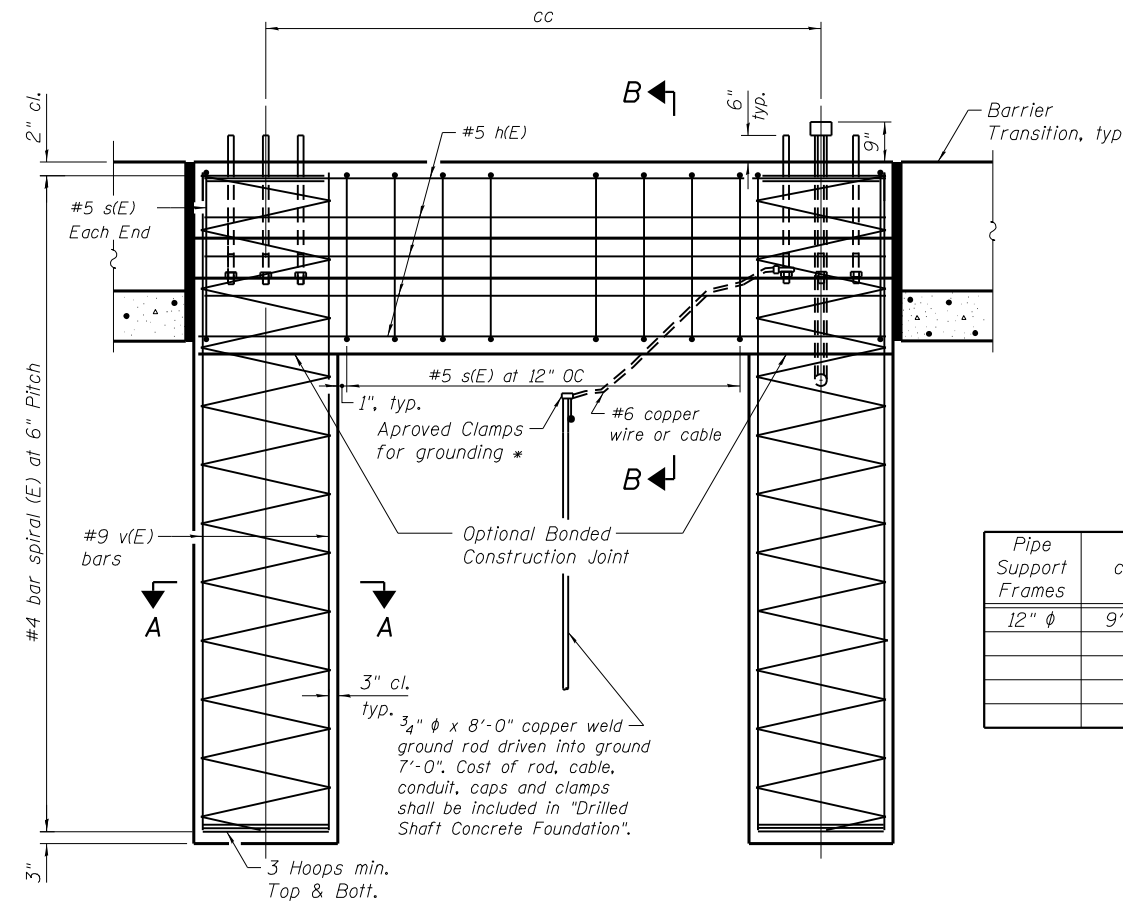
Concrete shall be placed monolithically, without construction joints.

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 Foundation.



**END VIEW**



**SIDE ELEVATION**

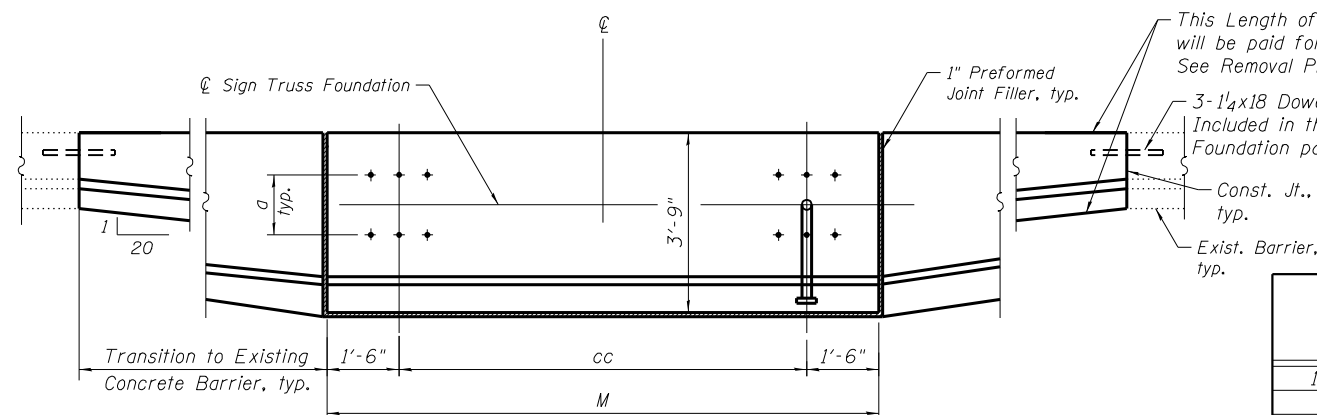
Concrete Foundation poured monolithically with no construction joint.

**BAR LIST - EACH FOUNDATION**

Pipe Support Frames	cc	M	a	a/2
12" φ	9'-0"	12'-0"	1'-6"	9"

Bar	Number	Size	Length	Shape
h(E)	12	#5	M less 4"	—
s(E)	Varies	#5	13'-5"	□
v(E)	16	#9	F less 0'-5"	—
v(E)	24	#9	F less 0'-5"	—

#4(E) bar spiral - see Side Elevation



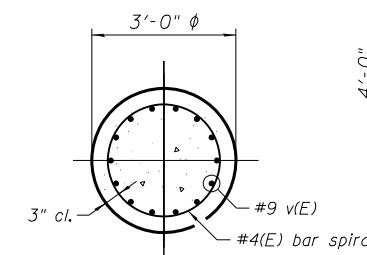
**PLAN**

This Length of Barrier Transition will be paid for as Concrete Foundations, typ. See Removal Plans for barrier removal limits.

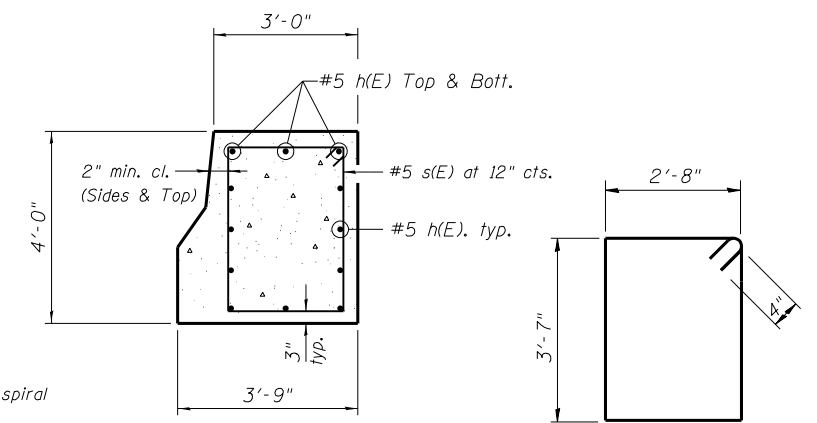
3-1/4x18 Dowel bars, typ. Included in the Concrete Foundation paid item.

Const. Jt., typ.

Exist. Barrier, typ.



**SECTION A-A**



**SECTION B-B**

**BAR s(E)**

Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
ISO161090R080.0	3073+91	637.41	615.41	18'-0"	22'-0"	---	---	---	---	9.4
ISO161090R080.6	3102+78	645.74	623.74	18'-0"	22'-0"	---	---	---	---	9.4



USER NAME = kelite	DESIGNED APC	REVISED
PLOT SCALE = 0.083333' / 1"	CHECKED MRI	REVISED
PLOT DATE = 5/2/2016	DRAWN LK	REVISED
	DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
MEDIAN SUPPORT FOUNDATION DETAILS

SHEET NO. 13 OF 13 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	227
CONTRACT NO. 60Y38				

ILLINOIS FED. AID PROJECT



**GENERAL NOTES**

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

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

LOADING: 90 M.P.H. WIND VELOCITY

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

DESIGN STRESSES:

Field Units  
 $f'_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i. (reinforcement)

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

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

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

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

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

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

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

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

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

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

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

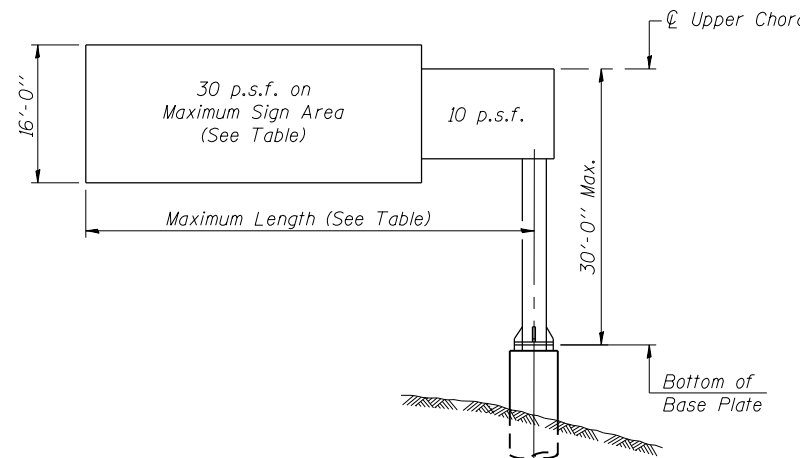
WALKWAY: Walkway in front of sign panel is not required and is to be omitted.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	34
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	8.7

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D <sub>s</sub>	Total Sign Area
1C0161090R080.4	3079+59	III-C-A	33'-7"	637.00	19'-7"	16'-0"	240 Sq. Ft.

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



**DESIGN WIND LOADING DIAGRAM**

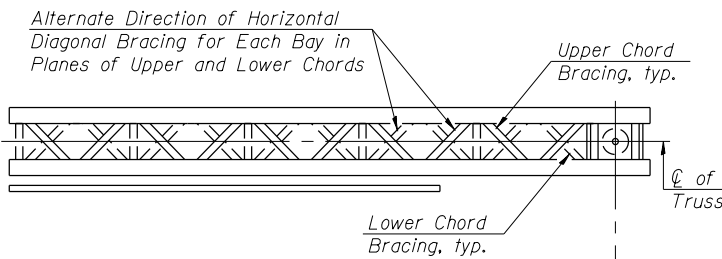
Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

Note:

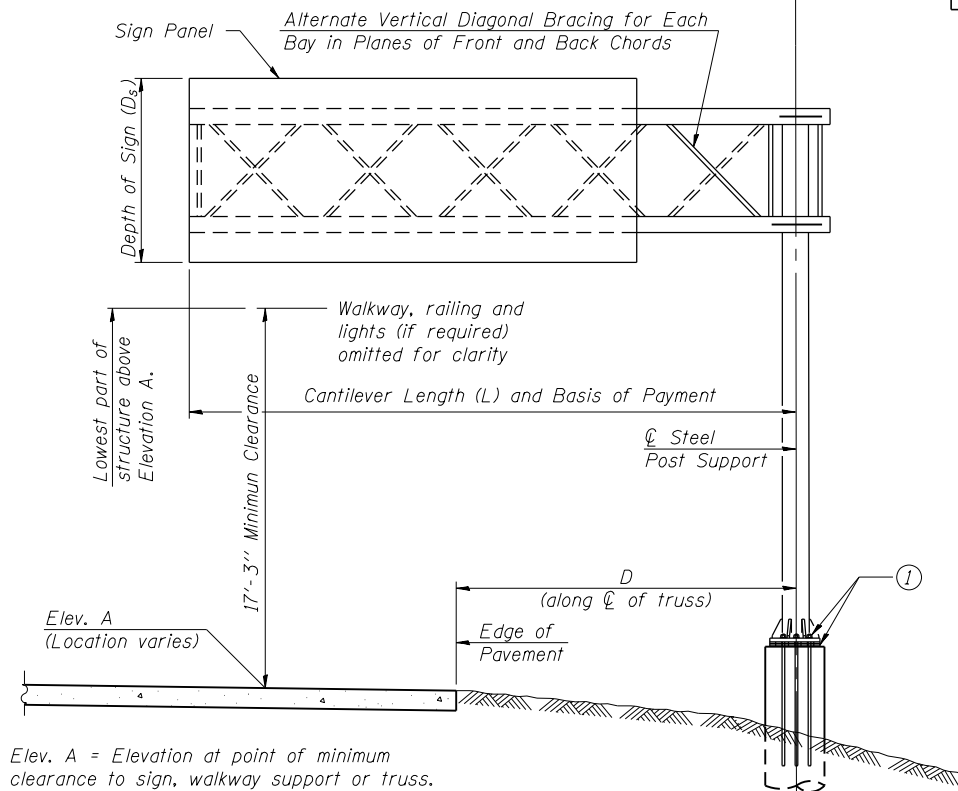
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of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

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

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



**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.

8-21-13

exp U.S. Services Inc.  
 Chicago, IL  
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY  
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED STD	REVISED
PLOT SCALE = *SCALE*	CHECKED KK	REVISED
PLOT DATE = 5-24-2016	DRAWN STD	REVISED
	DATE 5/6/2016	REVISED

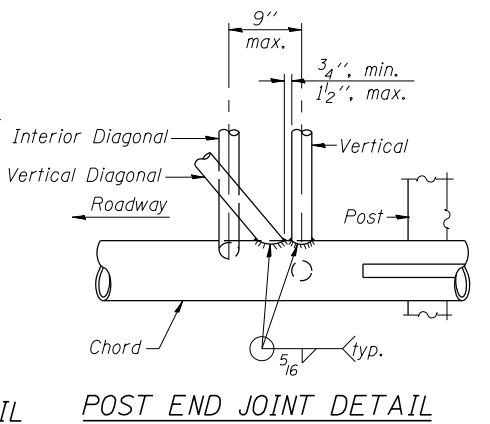
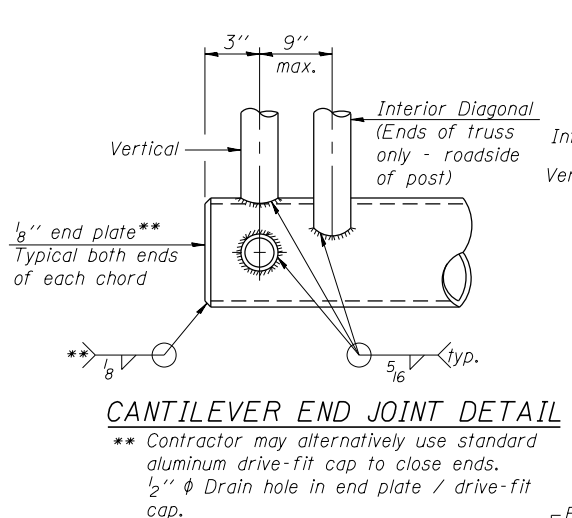
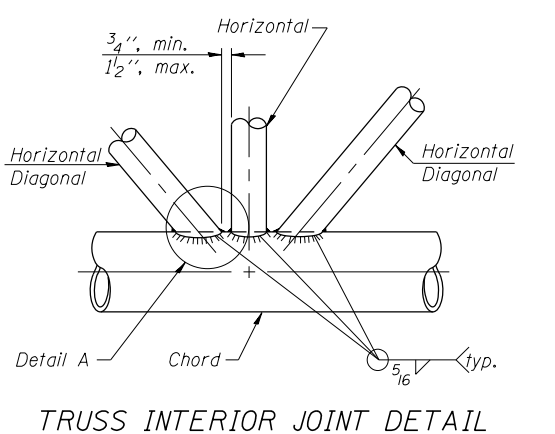
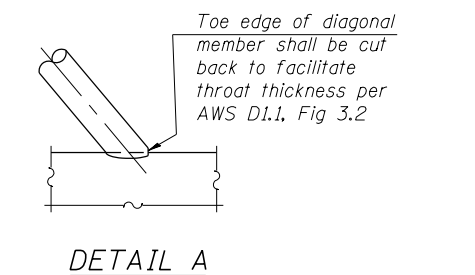
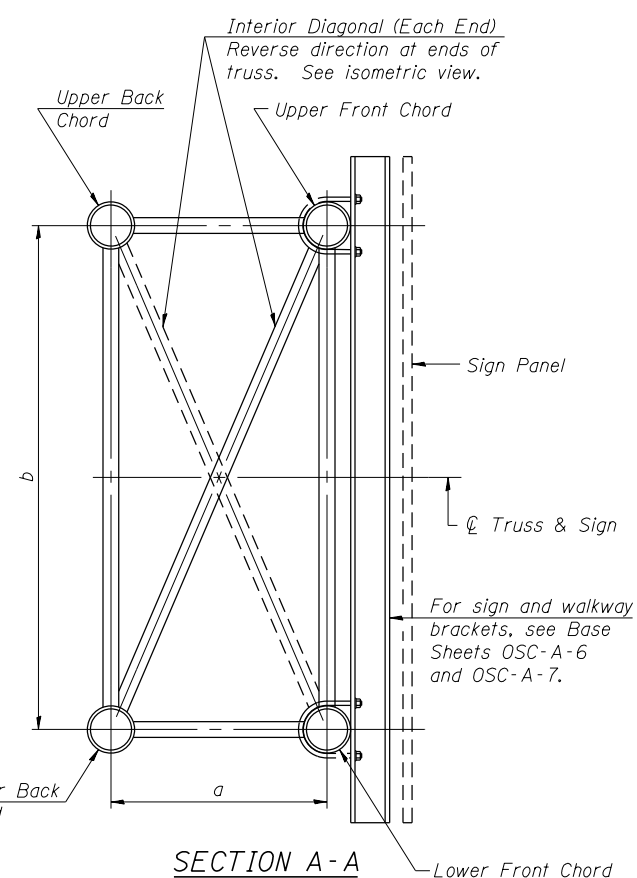
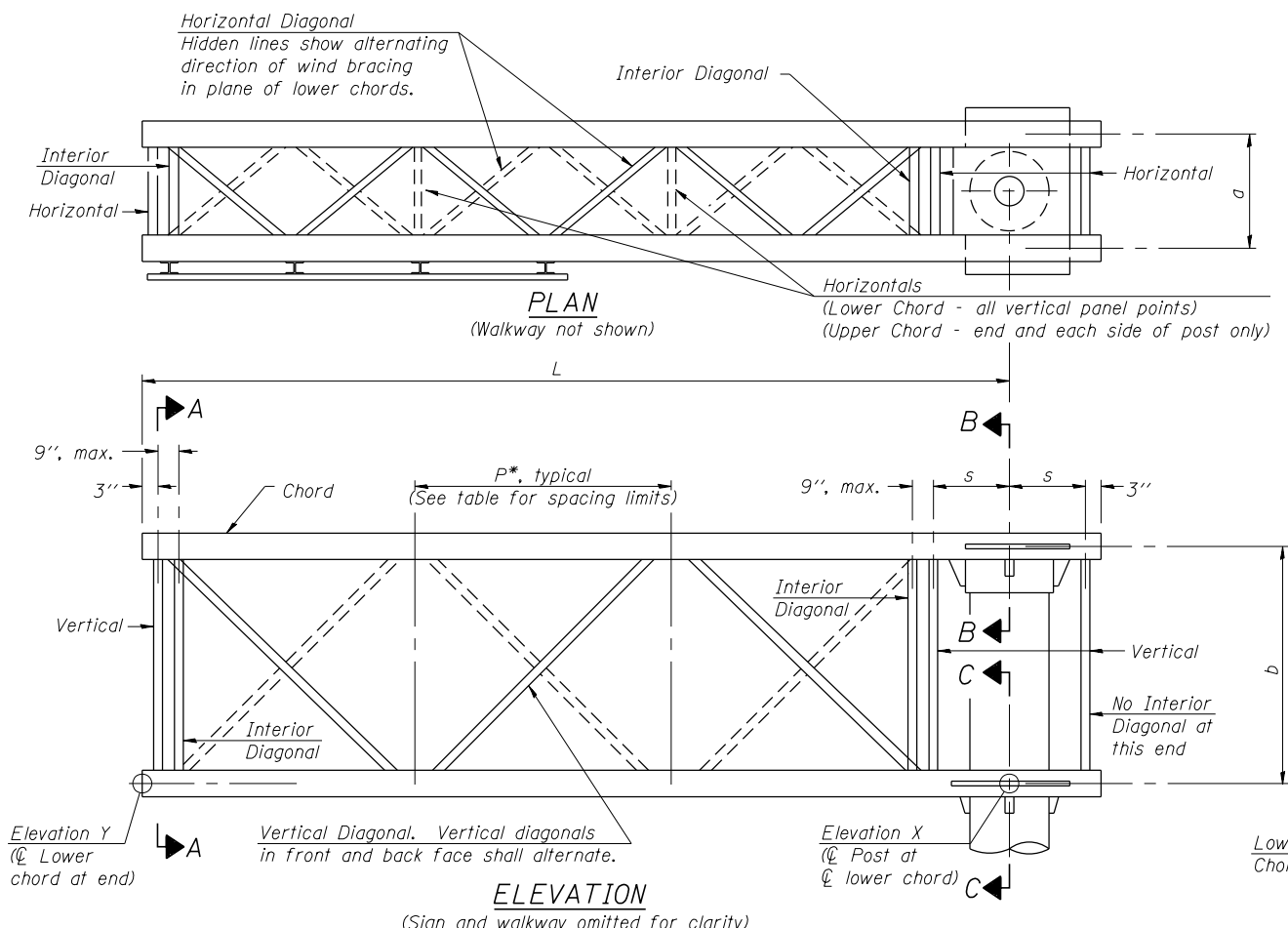
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
 CANTILEVER SIGN STRUCTURE - GENERAL PLAN & ELEVATION  
 ALUMINUM TRUSS & STEEL POST

SHEET NO. 1 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-3	COOK	557	228
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

FILE NAME = #FILE#



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

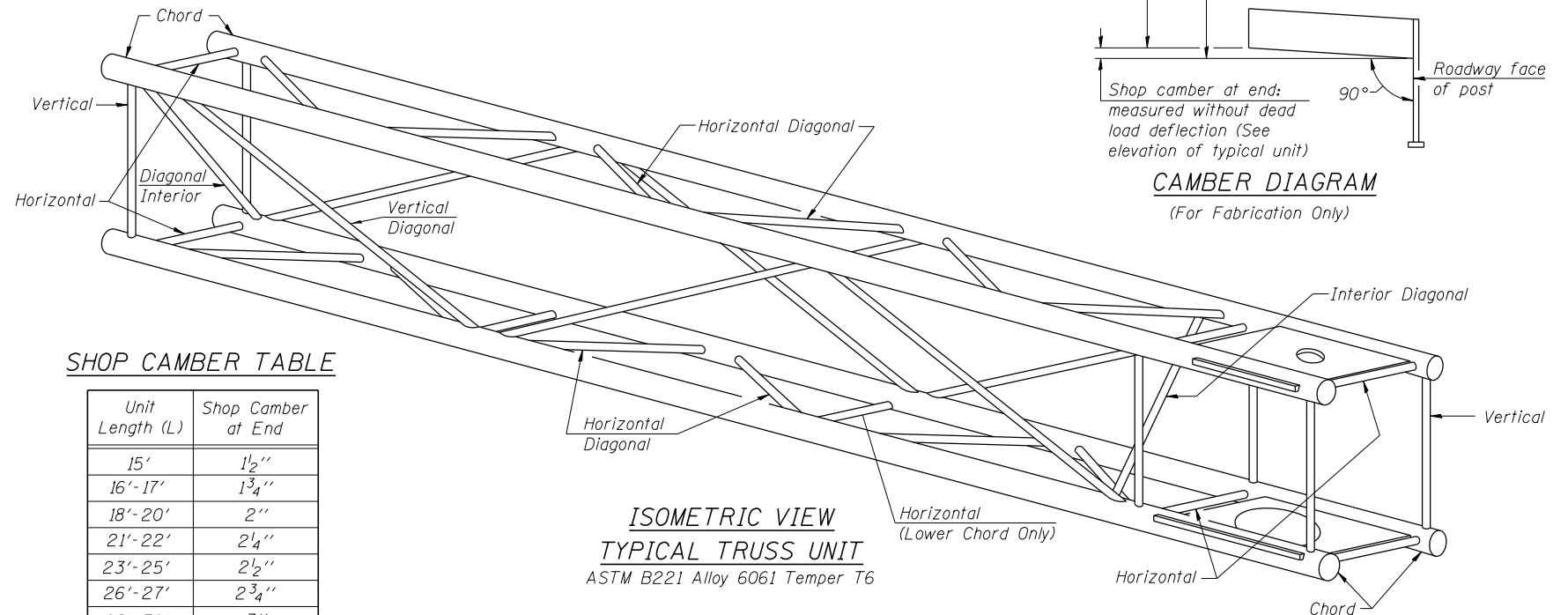
For Section B-B and Section C-C, see Base Sheet OSC-A-3.

**TRUSS UNIT TABLE**

Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	
					O.D.	Wall	O.D.	Wall
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"
H-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"

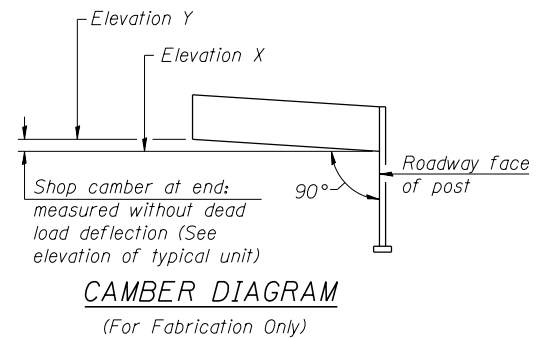
\*P =  $\frac{L-s-3''}{\# \text{ Panels}}$

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
10161090R080.4	3079+59	III-C-A	33'-7"	6	5'-3 3/16"



**SHOP CAMBER TABLE**

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



OSC-A-2

6-1-12

exp U.S. Services Inc.  
Chicago, IL  
BUILDINGS-EARTH & ENVIRONMENT-ENERGY  
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME	DESIGNED	CHECKED	DRAWN	DATE
*USER*	STD	KK	STD	5/6/2016
PLOT SCALE = *SCALE*				
PLOT DATE = 5-27-2016				

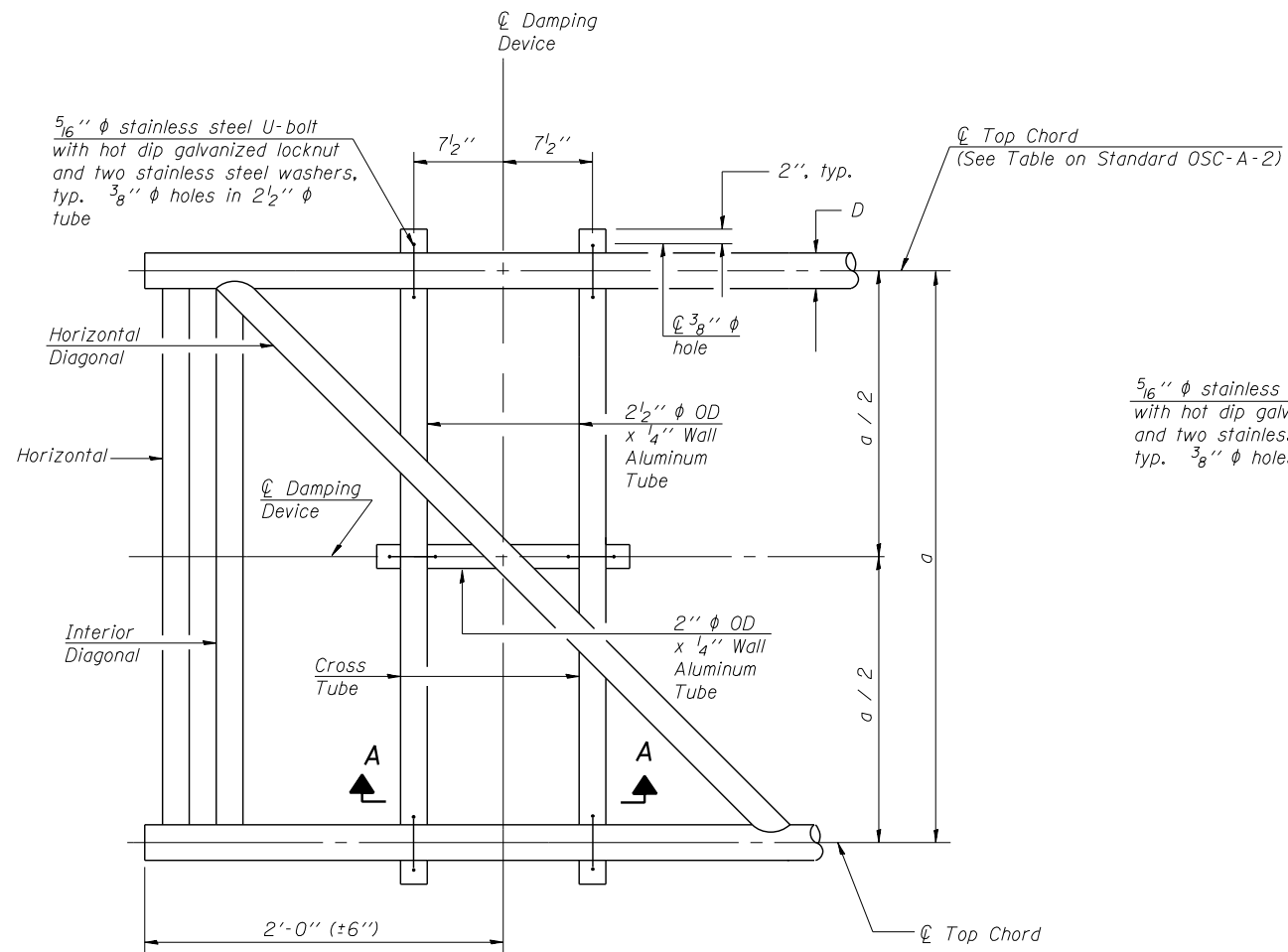
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
CANTILEVER SIGN STRUCTURE - TRUSS DETAILS  
ALUMINUM TRUSS & STEEL POST  
SHEET NO. 2 OF 8 SHEETS

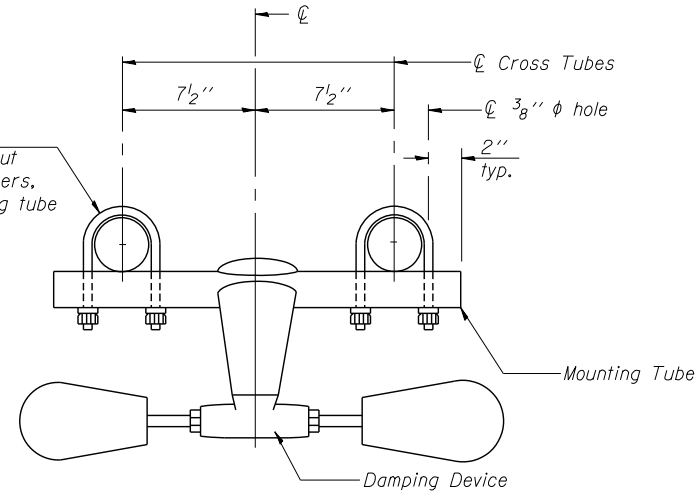
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-3	COOK	557	229
CONTRACT NO. 60Y38				

ILLINOIS FED. AID PROJECT

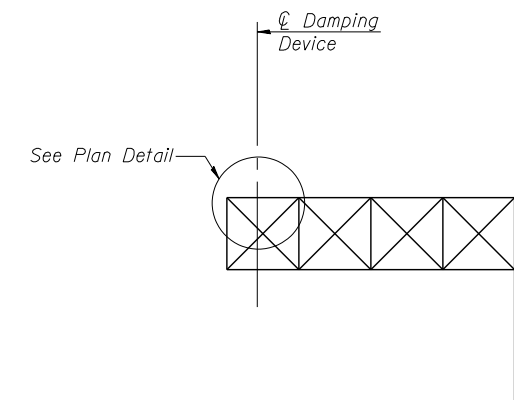
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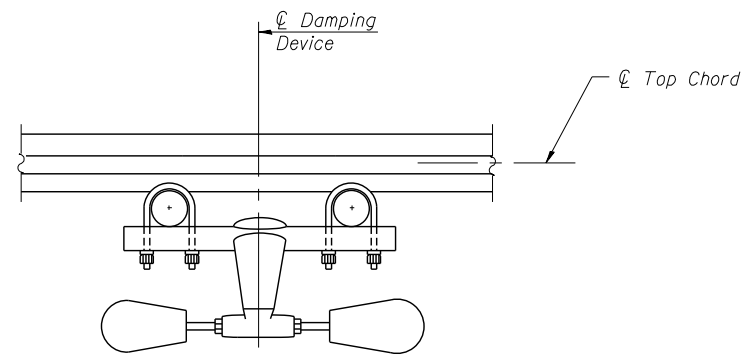
**PLAN DETAIL**



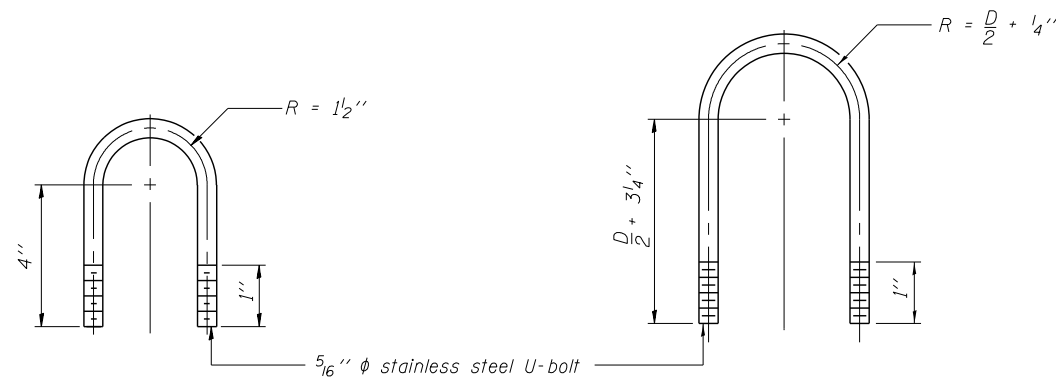
**TRUSS DAMPING DEVICE CONNECTION DETAIL**



**ELEVATION**  
Aluminum Cantilever Sign Structure



**SECTION A-A**



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

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

**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

OSC-A-D

6-1-12

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Chicago, IL  
BUILDINGS-EARTH & ENVIRONMENT-ENERGY  
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = dhatkors	DESIGNED STD	REVISD
PLOT SCALE = 0.08" / 1"	CHECKED KK	REVISD
PLOT DATE = 5/2/2016	DRAWN STD	REVISD
	DATE 5/6/2016	REVISD

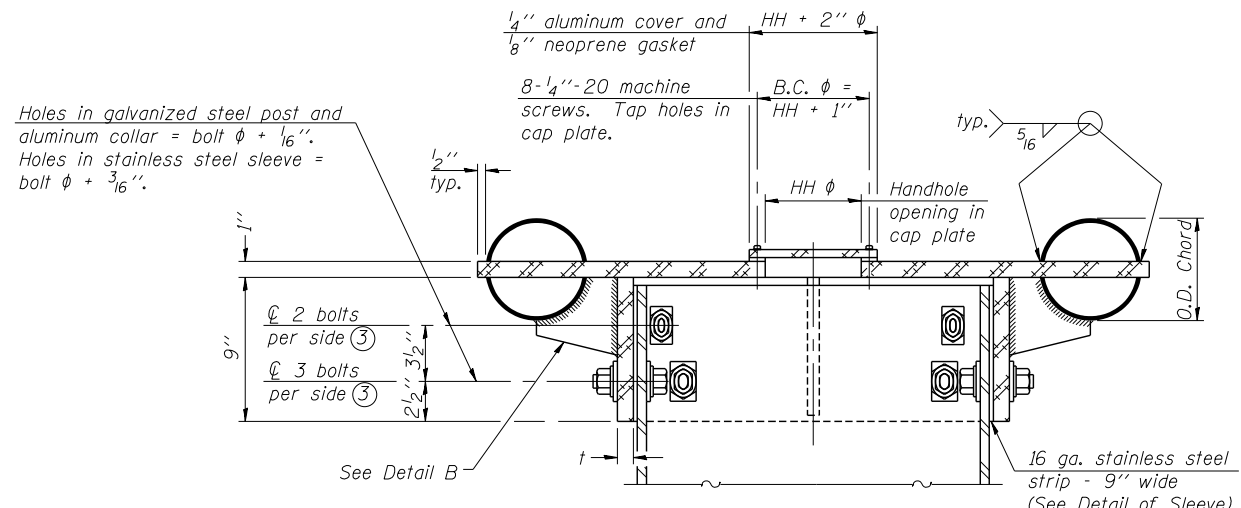
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
CANTILEVER SIGN STRUCTURE  
DAMPING DEVICE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-3	COOK	557	230
				CONTRACT NO. 60Y38

SHEET NO. 3 OF 8 SHEETS

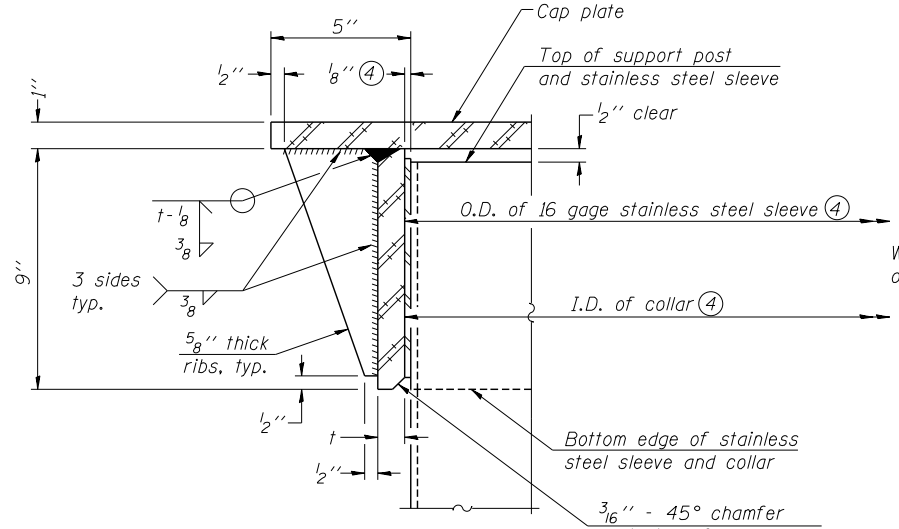
ILLINOIS FED. AID PROJECT



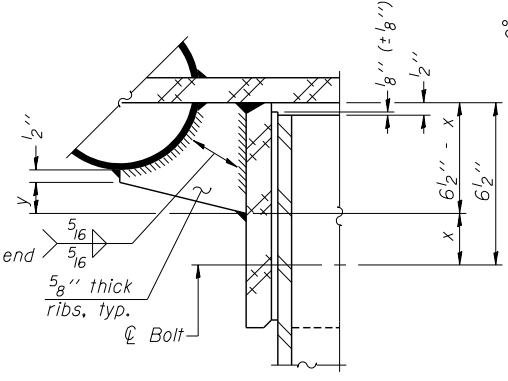
④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (±1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

**SECTION B-B**

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

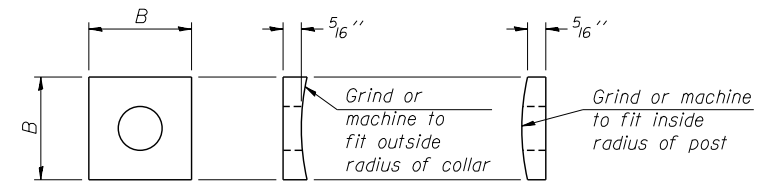


**DETAIL A**  
(Two locations)



**DETAIL B**

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

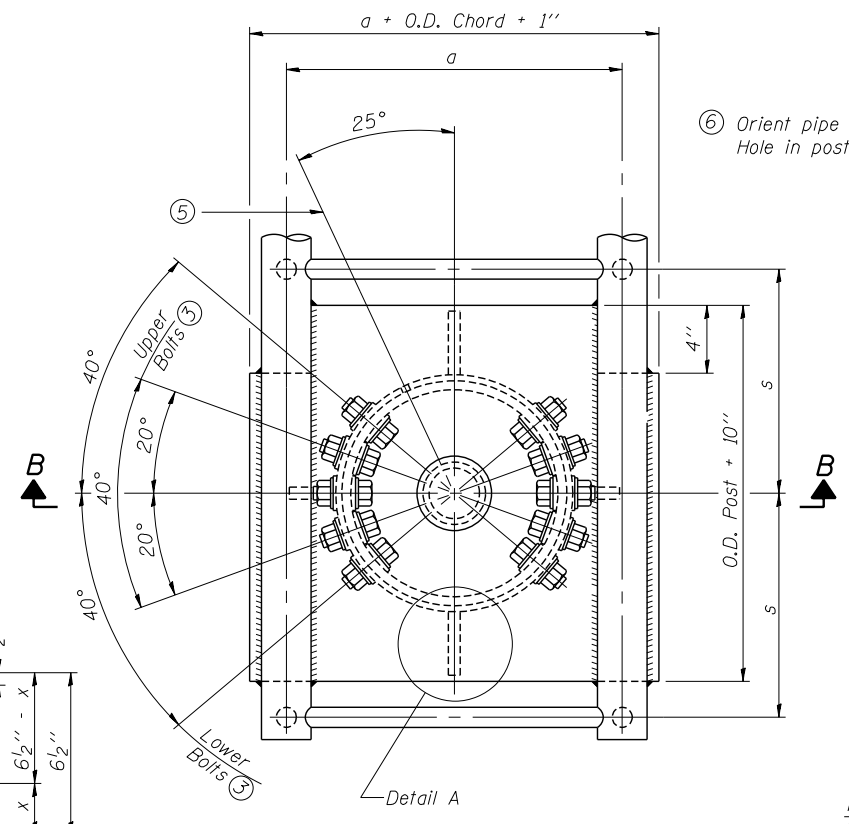


**CONTOURED WASHERS**

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"

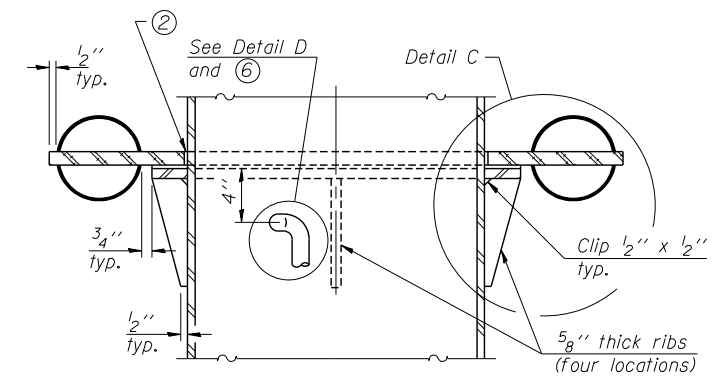
**DETAIL OF STAINLESS STEEL SLEEVE**

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.

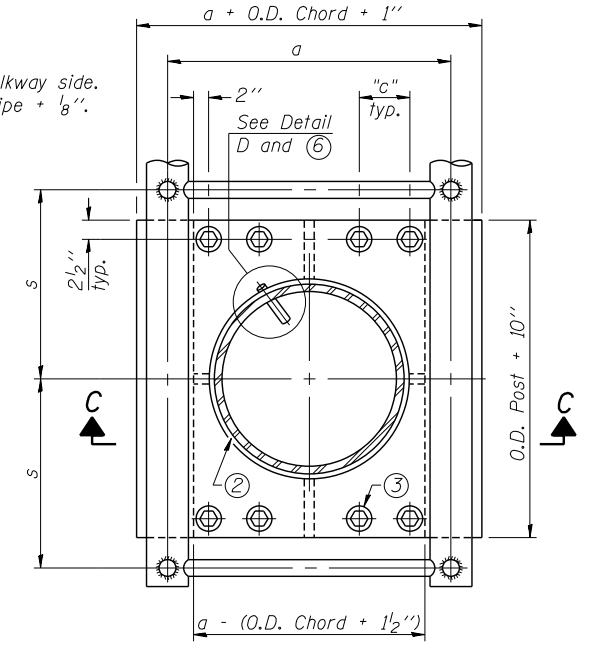


**PLAN VIEW - TOP OF COLUMN**

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

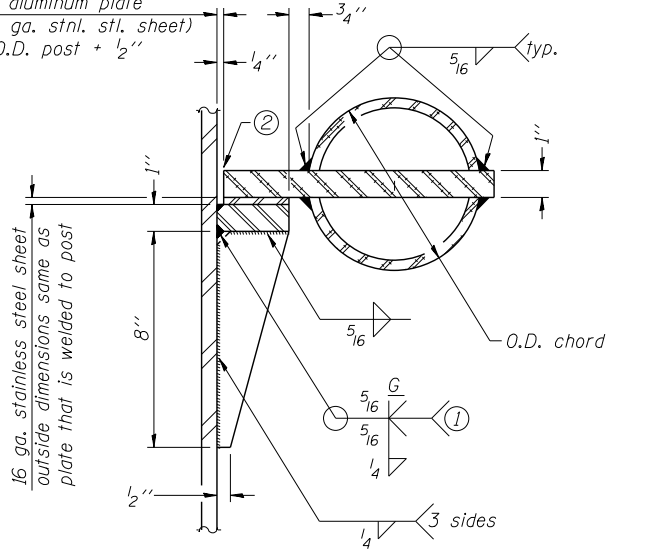


**SECTION C-C**



**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**

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	
						x	y
I-C-A	16" φ (83#/')	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" φ (125#/')	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' max.)	24" φ (125#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" φ (171#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"

- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.
- ③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

OSC-A-3

6-1-12



USER NAME	DESIGNED	REVISIONS
dhatkors	STD	
	CHECKED	KK
	DRAWN	STD
	DATE	5/6/2016

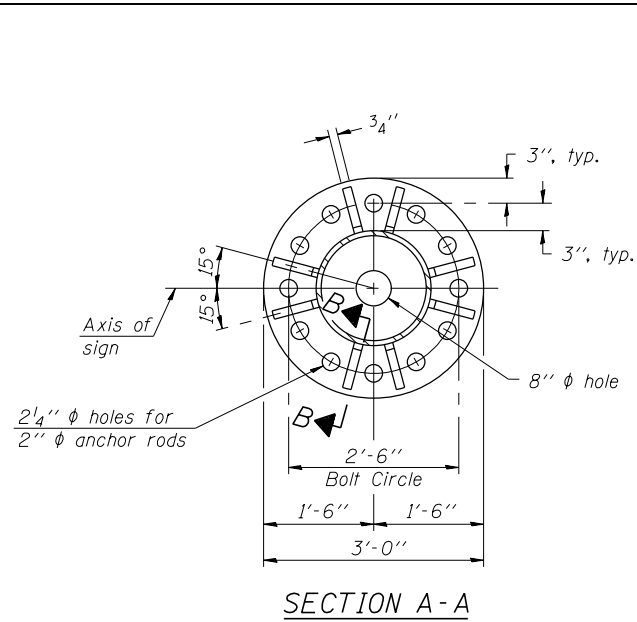
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
CANTILEVER SIGN STRUCTURE - JUNCTURE DETAILS  
ALUMINUM TRUSS & STEEL POST

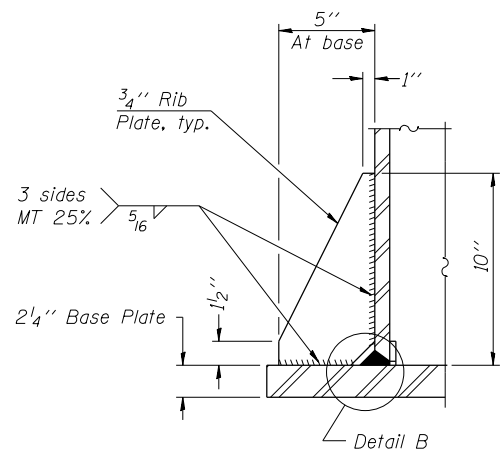
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I-90	(1517 & 1415) R-3	COOK	557	231

SHEET NO. 4 OF 8 SHEETS

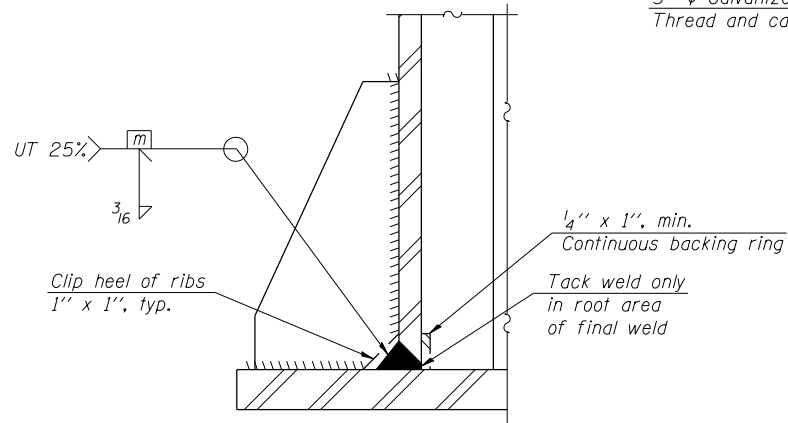
ILLINOIS FED. AID PROJECT



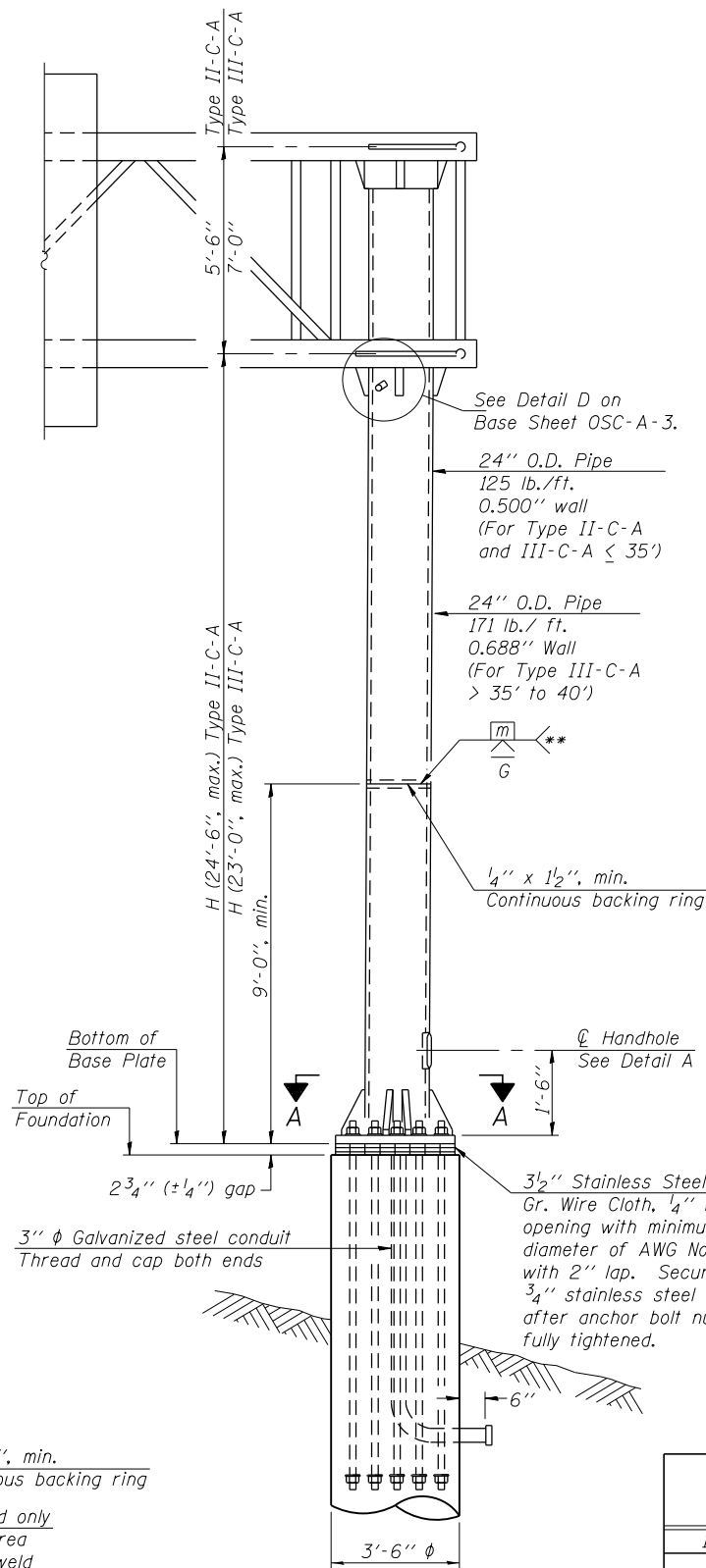
SECTION A-A



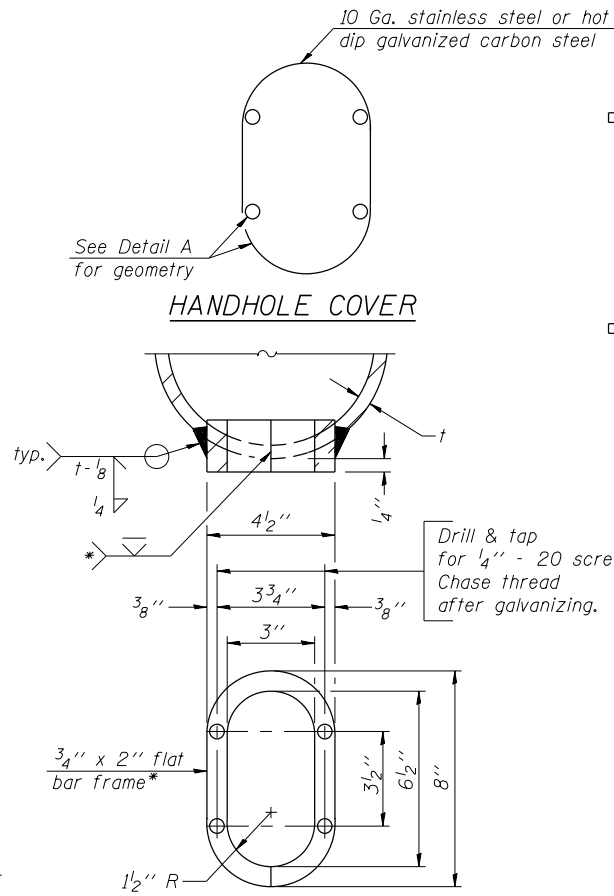
SECTION B-B



DETAIL B  
(Typical rib)



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

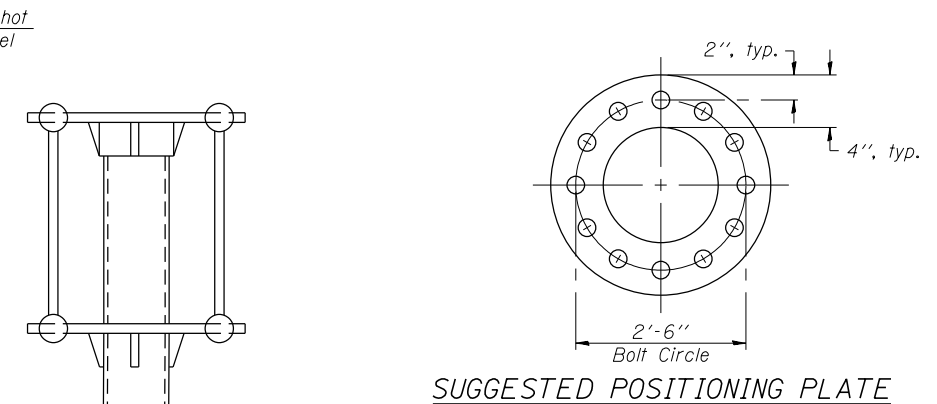


DETAIL A

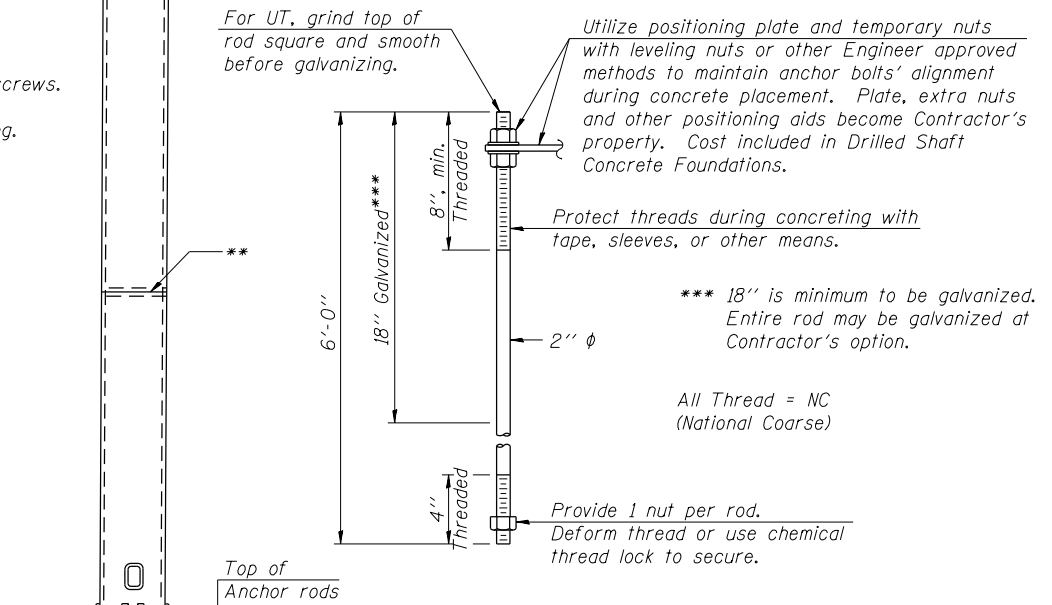
- \* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 min or less.
- \*\* Butt welded joint in post is only allowed for post heights (H) over 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
1C0161090R080.4	3079+59	13'-1"

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



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

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

OSC-A-5

6-1-12

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INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED	STD	REVISED
CHECKED KK	CHECKED	KK	REVISED
PLOT SCALE = *SCALE*	DRAWN	STD	REVISED
PLOT DATE = 5-24-2016	DATE	5/6/2016	REVISED

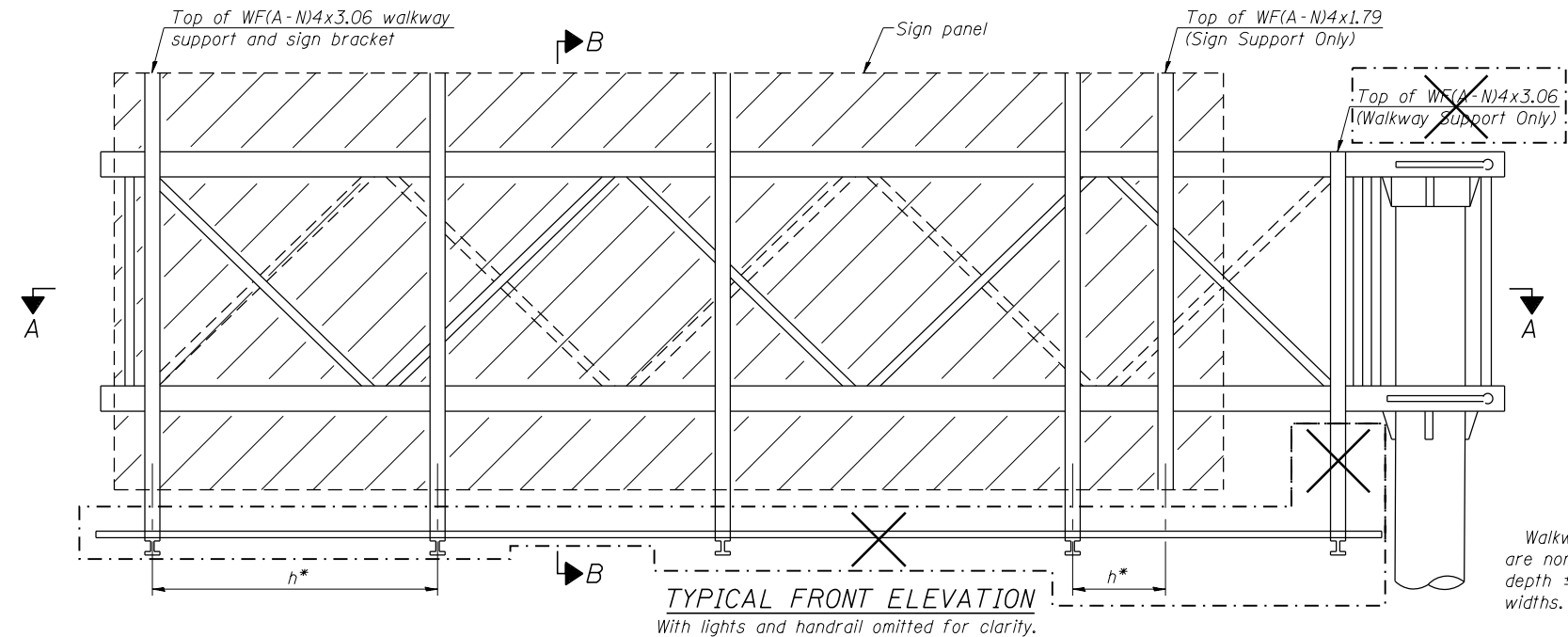
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
CANTILEVER SIGN STRUCTURE - TYPE III-C-A TRUSS  
SUPPORT POST - ALUMINUM TRUSS & STEEL POST

SHEET NO. 5 OF 8 SHEETS

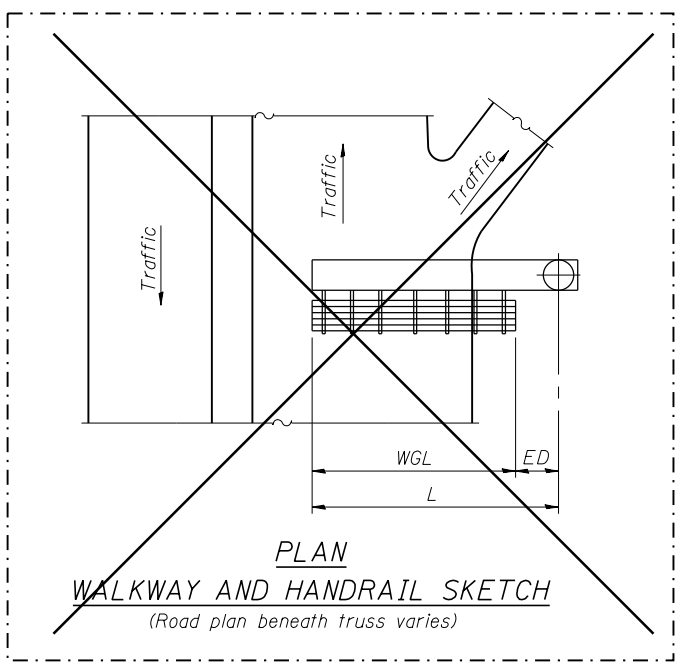
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-3	COOK	557	232
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

FILE NAME = #FILE#

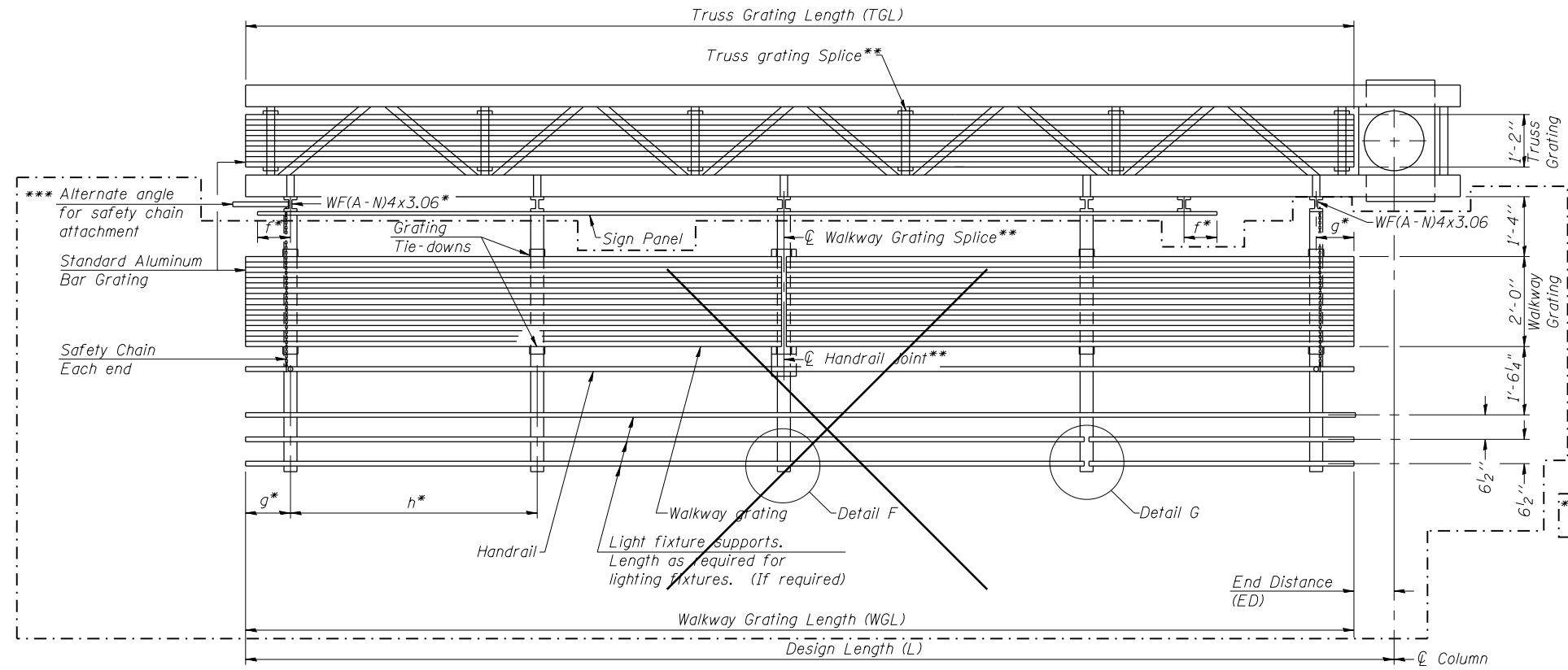


**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ± 1/2", depth ± 1/2") based on available standard widths.



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



**SECTION A-A**

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

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

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

Structure Number	Station	WGL	ED	TGL
IC016I090R080.4	3079+59	N/A	N/A	32'-1"

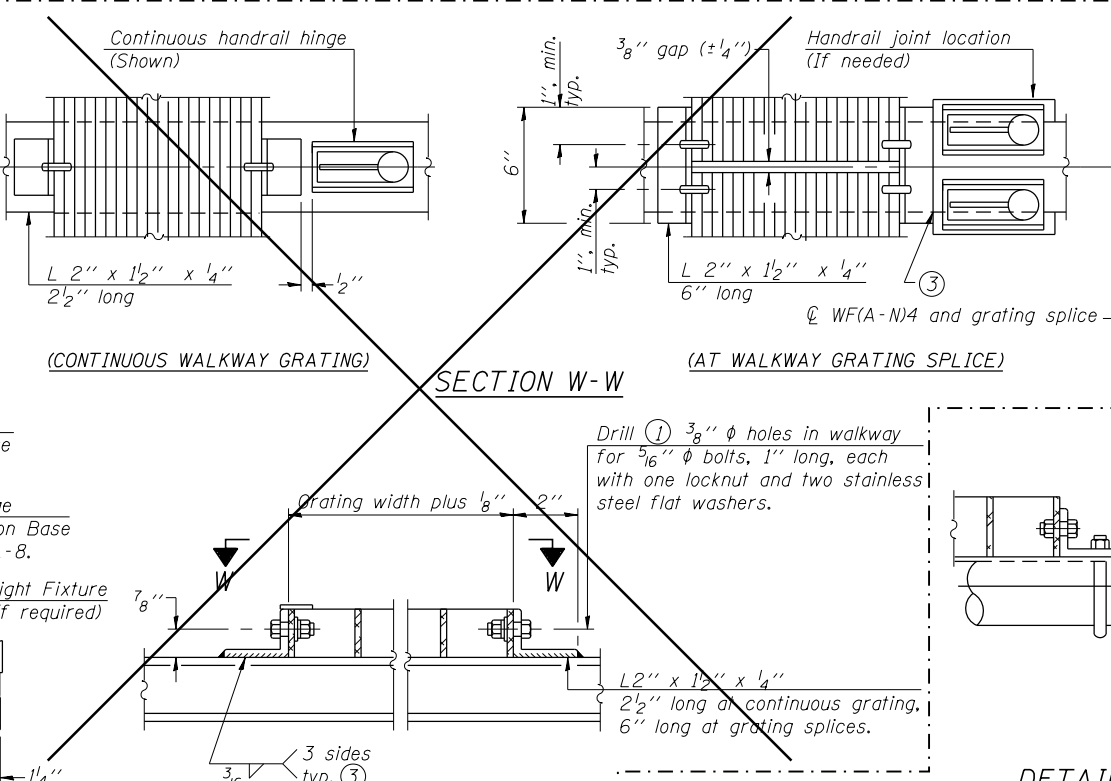
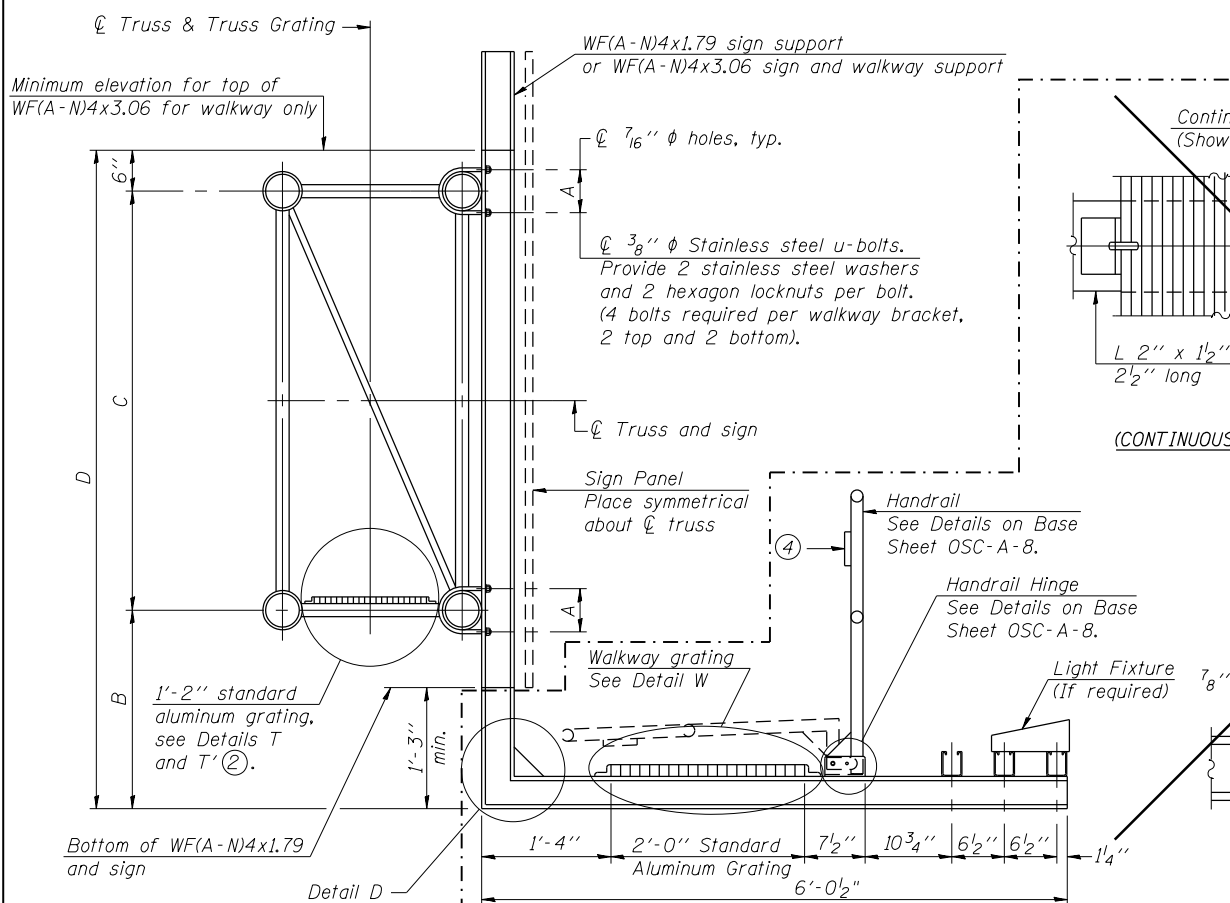
Notes:  
Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:  
f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)  
g = 12" maximum, 4" minimum (End of walkway to center of nearest bracket)  
h = 6'-0" maximum (center to center sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)  
\*\*\* If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8.  
For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.  
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.  
Walkway in front of sign panel is not required and is to be omitted.

**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

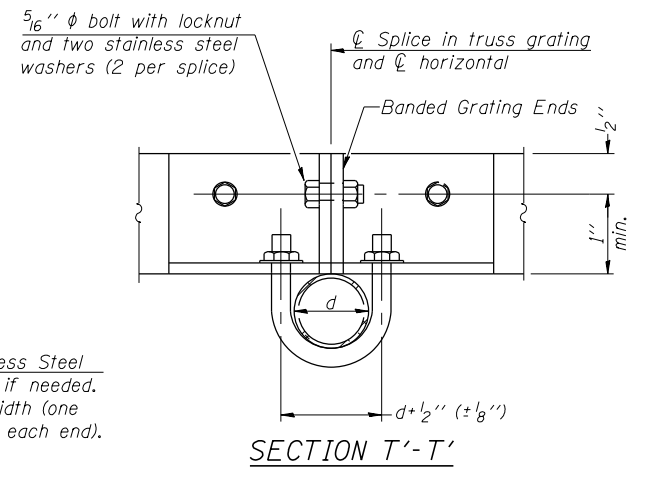
6-1-12

USER NAME : *USER*	DESIGNED STD	REVISED
PLOT SCALE : *SCALE*	CHECKED KK	REVISED
PLOT DATE : 5-24-2016	DRAWN STD	REVISED
	DATE 5/6/2016	REVISED



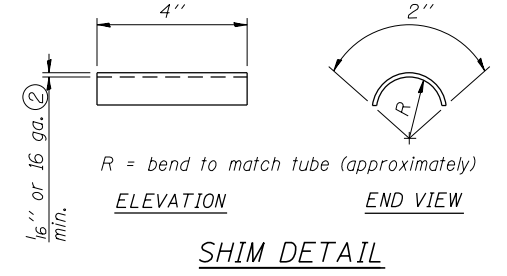
**SPECIFICATIONS FOR STANDARD ALUMINUM GRATING**  
 Main Bearing Bars (MBB) shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.  
 Cross bars (CB) shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

**OR**  
 Aluminum Grating with modified "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 1 1/2", spaced on 1 3/16" centers.  
 Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.



**DETAIL T'**

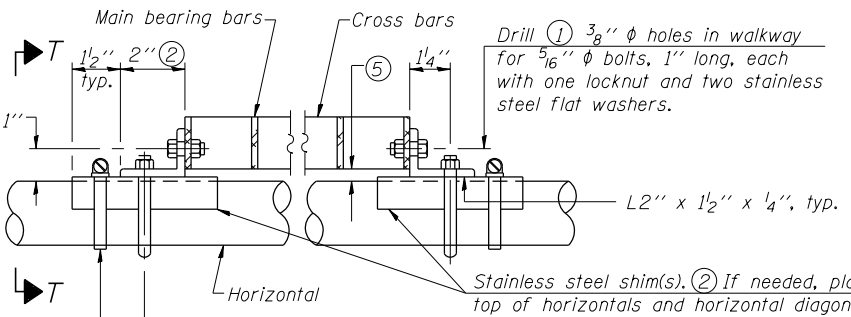
(Truss grating splice)  
 Details not shown same as Detail T.  
 Alternate materials may be used subject to the Engineer's review and approval.



**SHIM DETAIL**

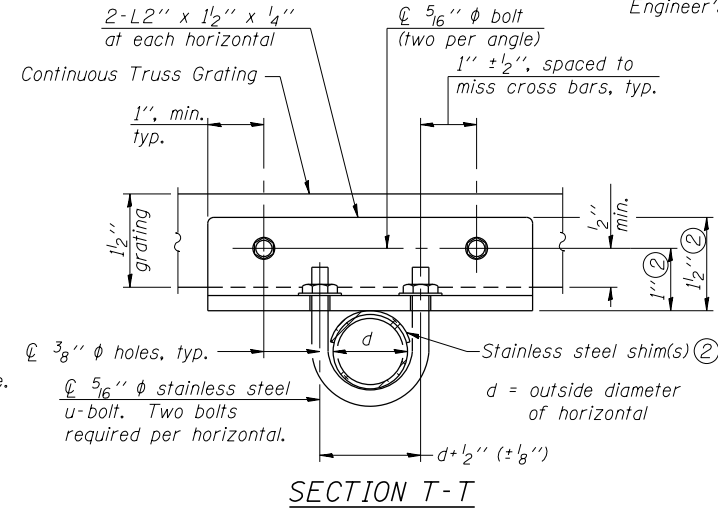
**SECTION B-B**

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**

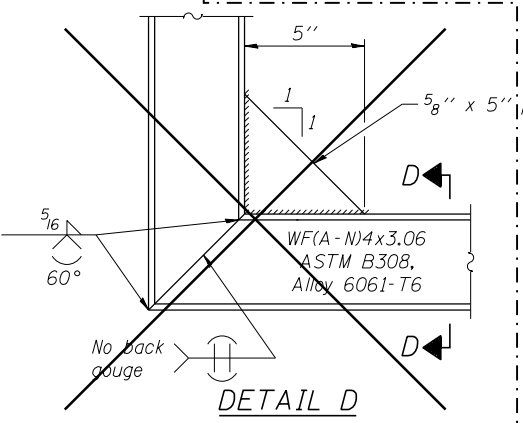
(Walkway grating)



**SECTION T-T**

**SECTION D-D**

Screw type stainless steel tube clamp at shim location



**DETAIL T**

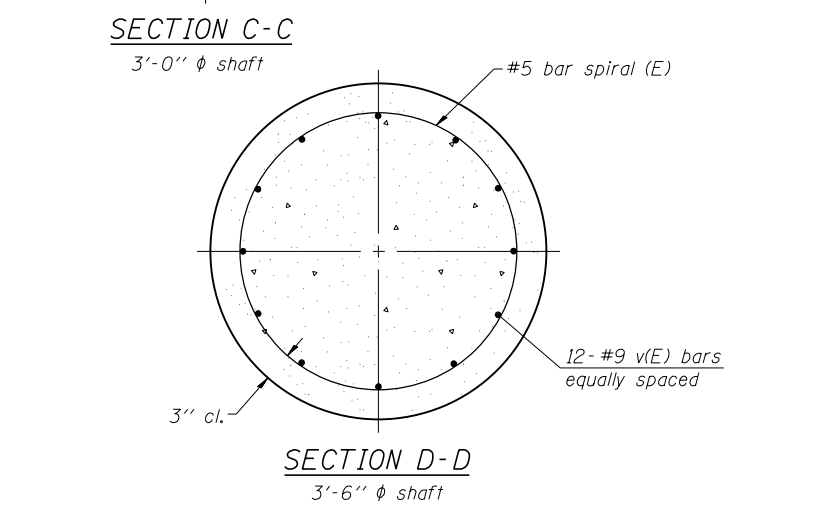
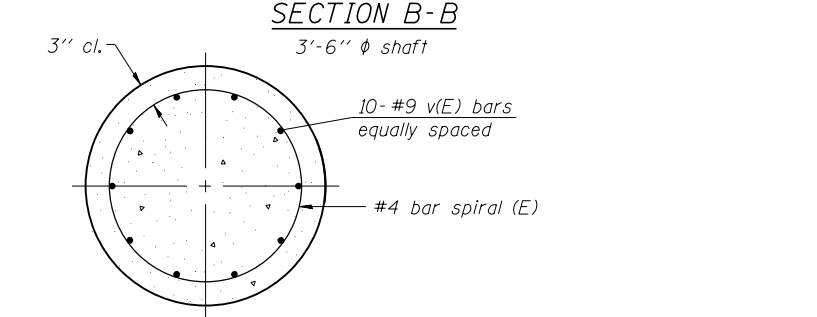
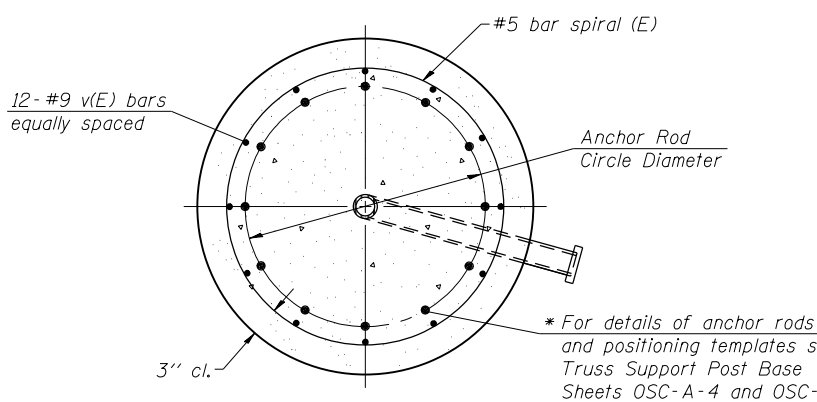
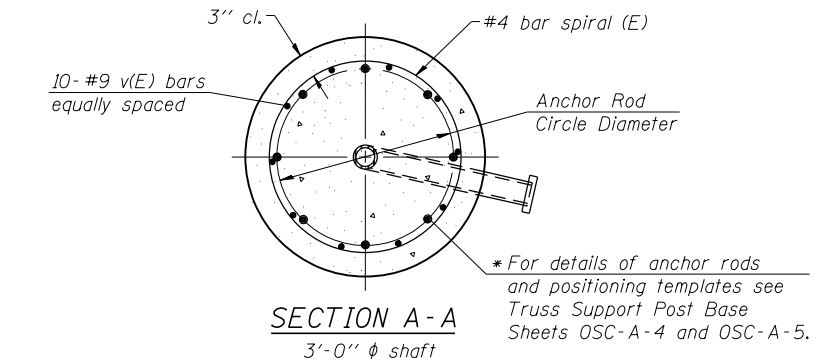
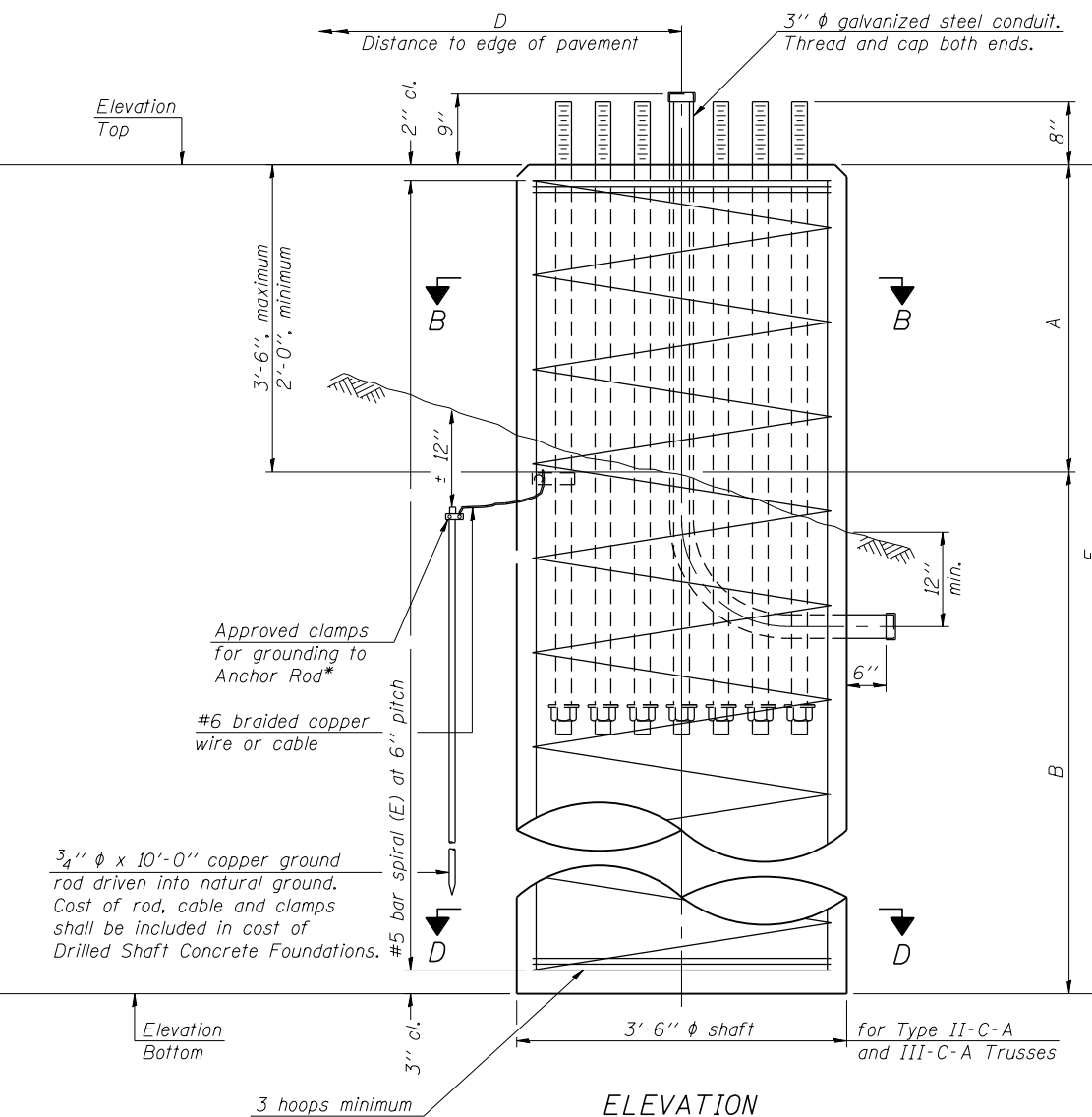
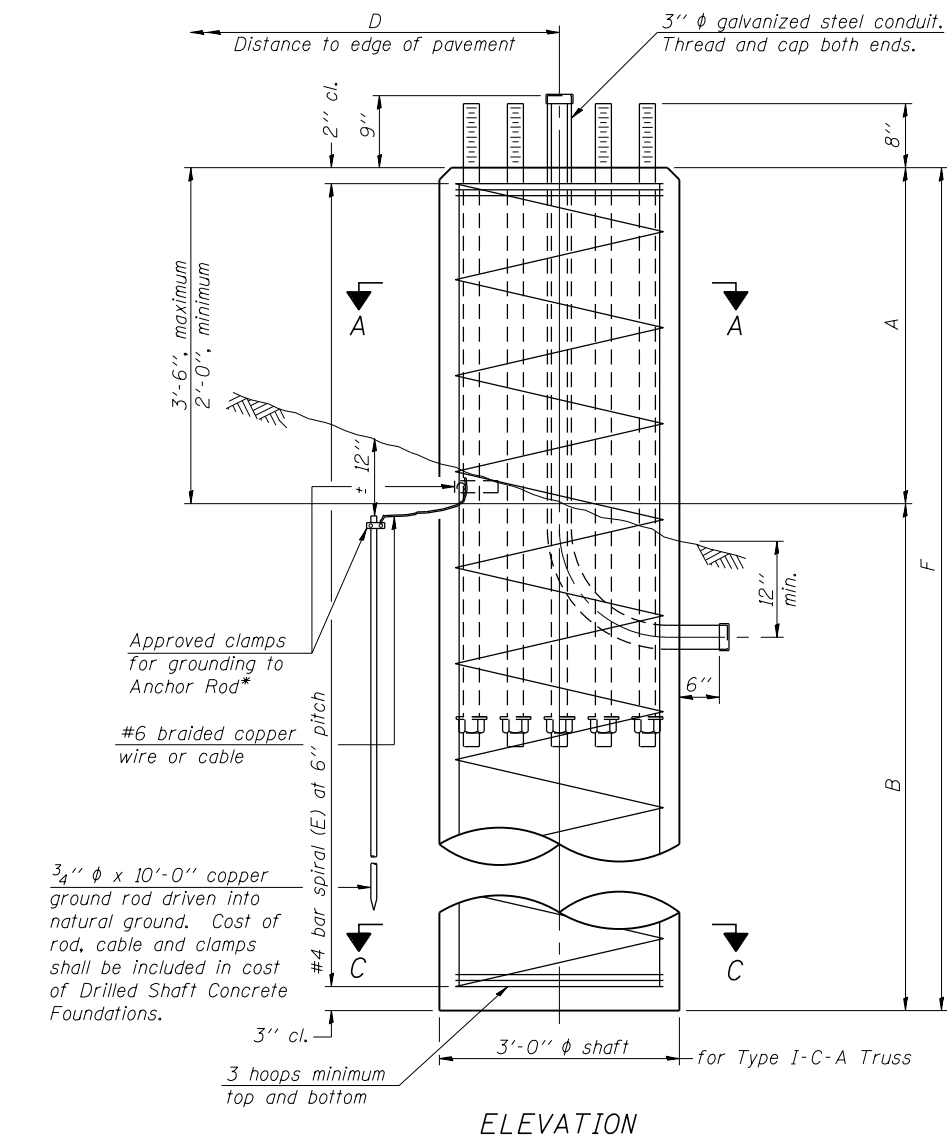
(Continuous Truss grating)

Structure Number	Station	A	⑥ B	C	⑥ D
1C016109R080.4	3079+59	6 1/2"	4'-6"	7'-0"	12'-0"

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- ③ If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8.)
- ④ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ⑤ Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- ⑥ Based on actual sign height. D<sub>s</sub> given on OSC-A-1.
- ⑦ Walkway in front of sign panel is not required and is to be omitted.



\* 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 Foundation".

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
III-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
II-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
II-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete Cubic Yards
1C0161090R080.4	3079+59	III-C-A	3'-6"	645.95	621.45	1.88	2'-0"	22'-6"	24'-6"	8.7

OSC-A-9 8-21-13

DESIGNED	STD	REVISIONS	
CHECKED	KK	REVISIONS	
DRAWN	STD	REVISIONS	
DATE	5/6/2016	REVISIONS	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
 CANTILEVER SIGN STRUCTURE - DRILLED SHAFT  
 ALUMINUM TRUSS & STEEL POST

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-3	COOK	557	235
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

**SPECIFICATIONS:**

**DESIGN:** AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

**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 ~~X~~ 500 lbs. concentrated live load.

**MINIMUM CLEARANCE:** 3" greater than bridge members at all locations. (All Obstructions)

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

**MATERIALS:** All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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 (M183, M223 Gr. 50.).

**HIGH STRENGTH BOLTS:** All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

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

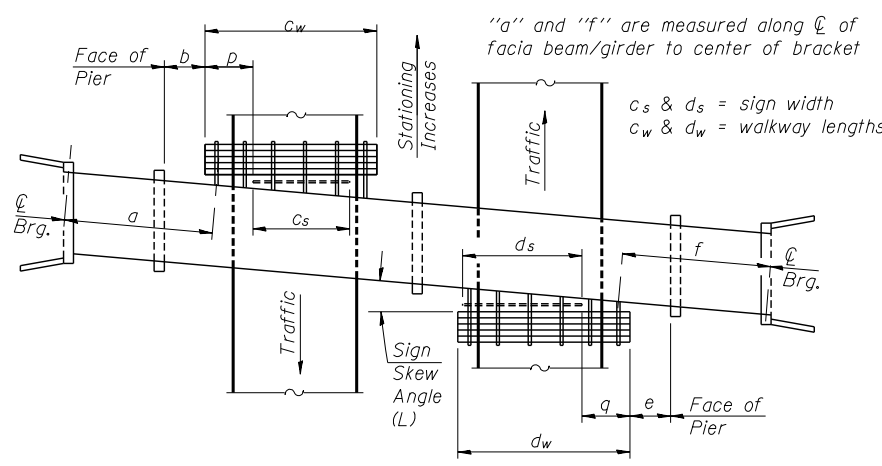
**ANCHOR RODS:** All-threaded rod shall conform to ASTM F1554 Grade 105, 3/4"  $\phi$  x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- ① Bracket spacing  $g \leq 6'-0"$ , max. Spacing shall be uniform if possible but may vary  $\pm 6"$  to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- ② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- ③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length ( $c_w$ ,  $d_w$ ) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.

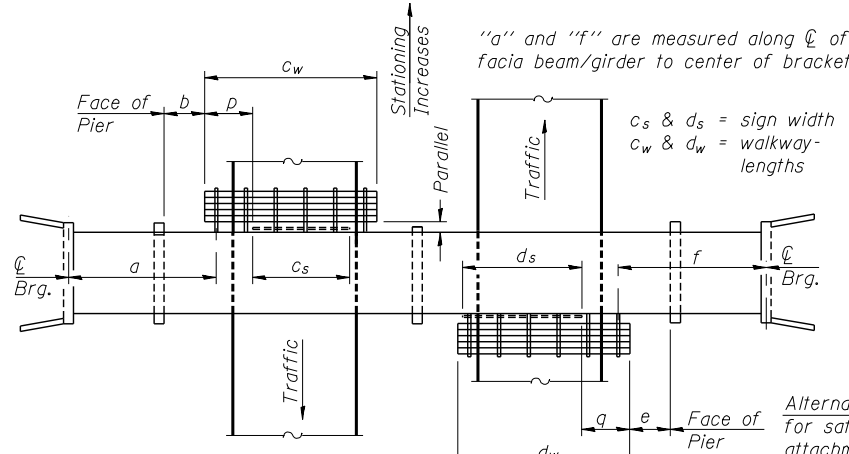
- ④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.
- ⑤ Walkway in front of sign panel is not required and is to be omitted.

**TOTAL BILL OF MATERIAL**

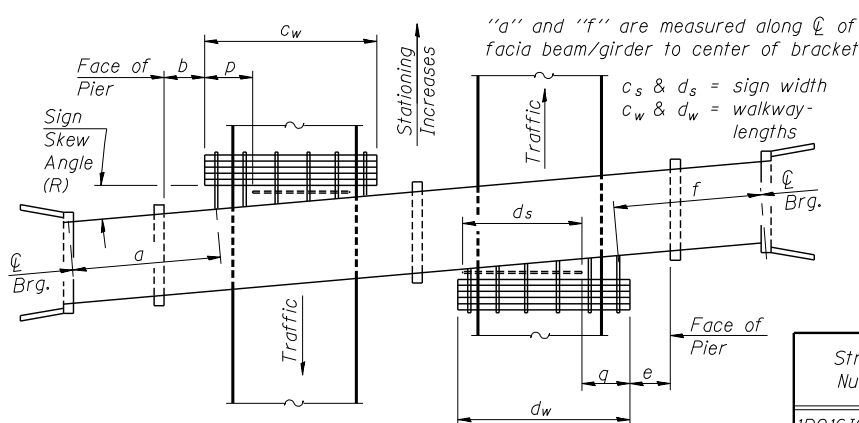
③ OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	Foot	21.5
OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	Each	1



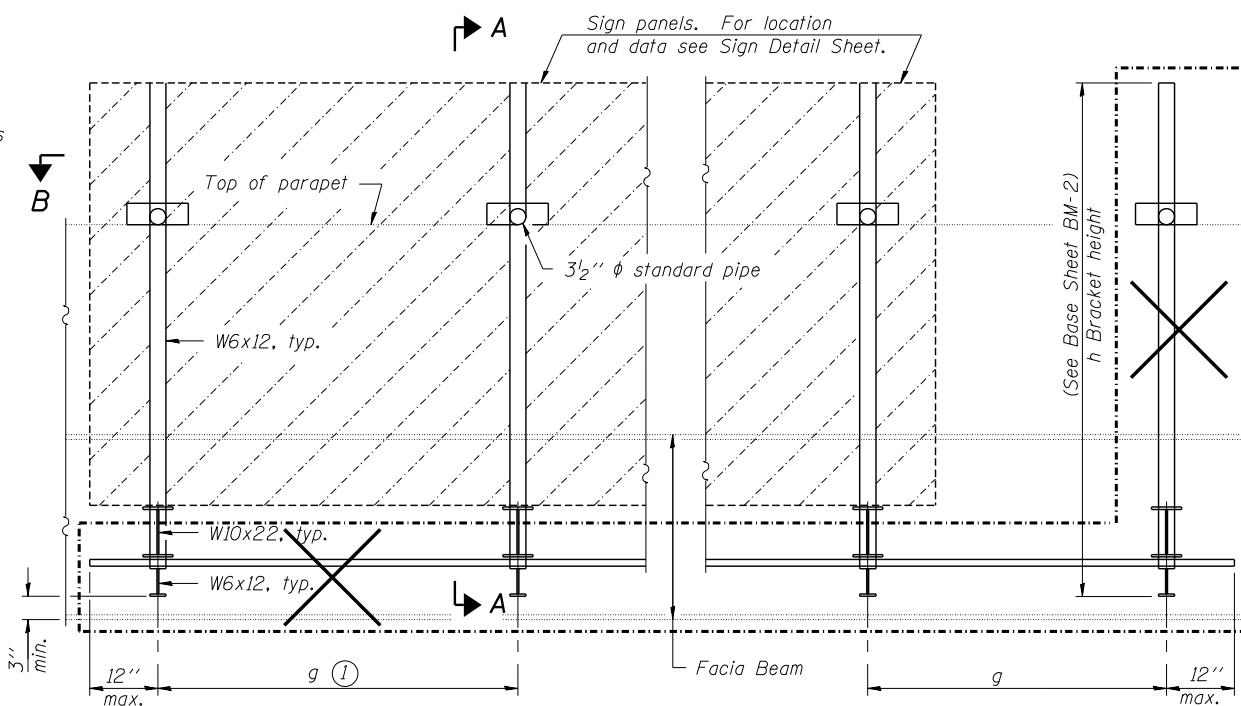
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



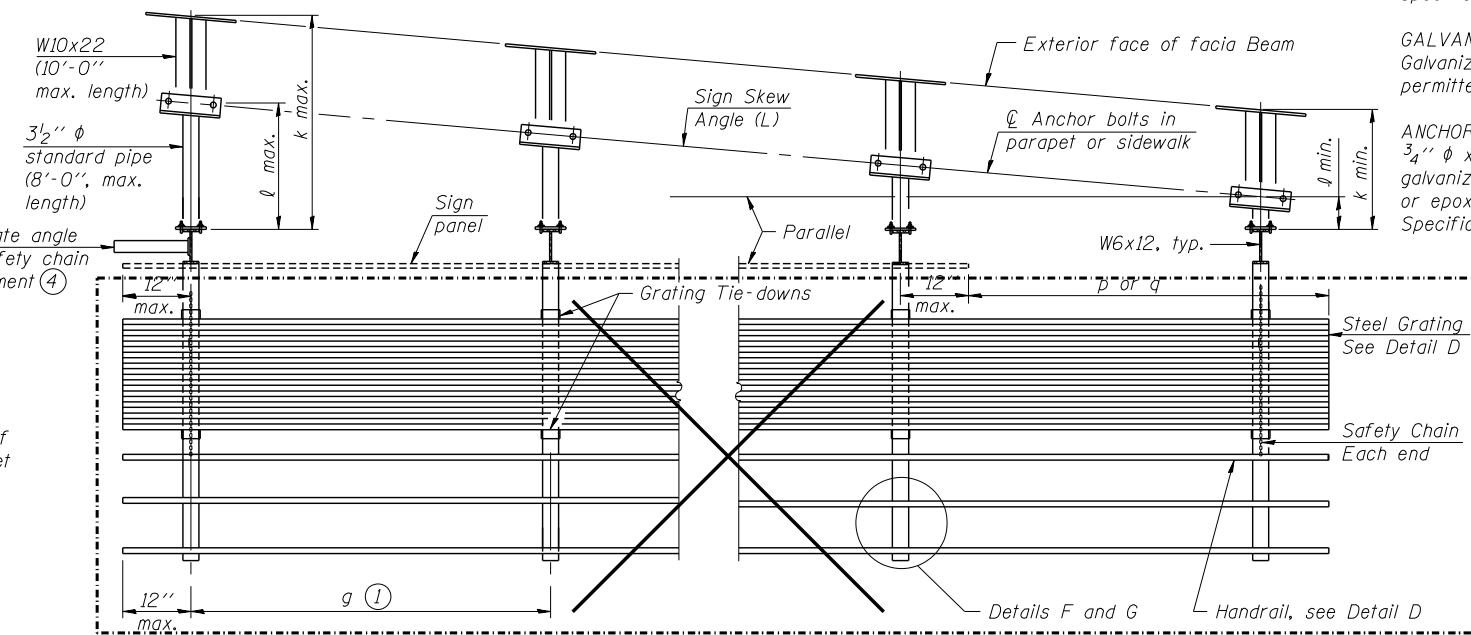
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



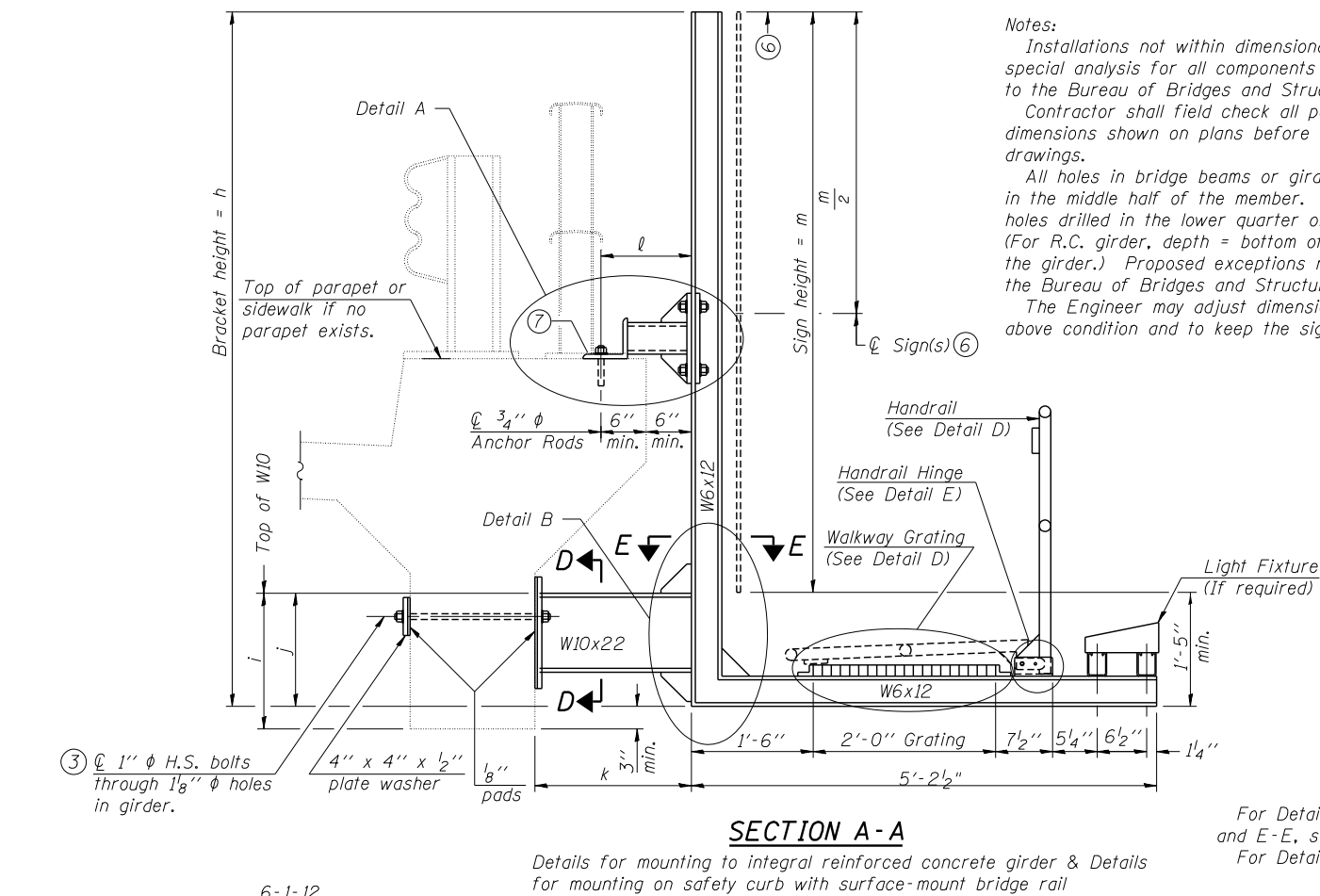
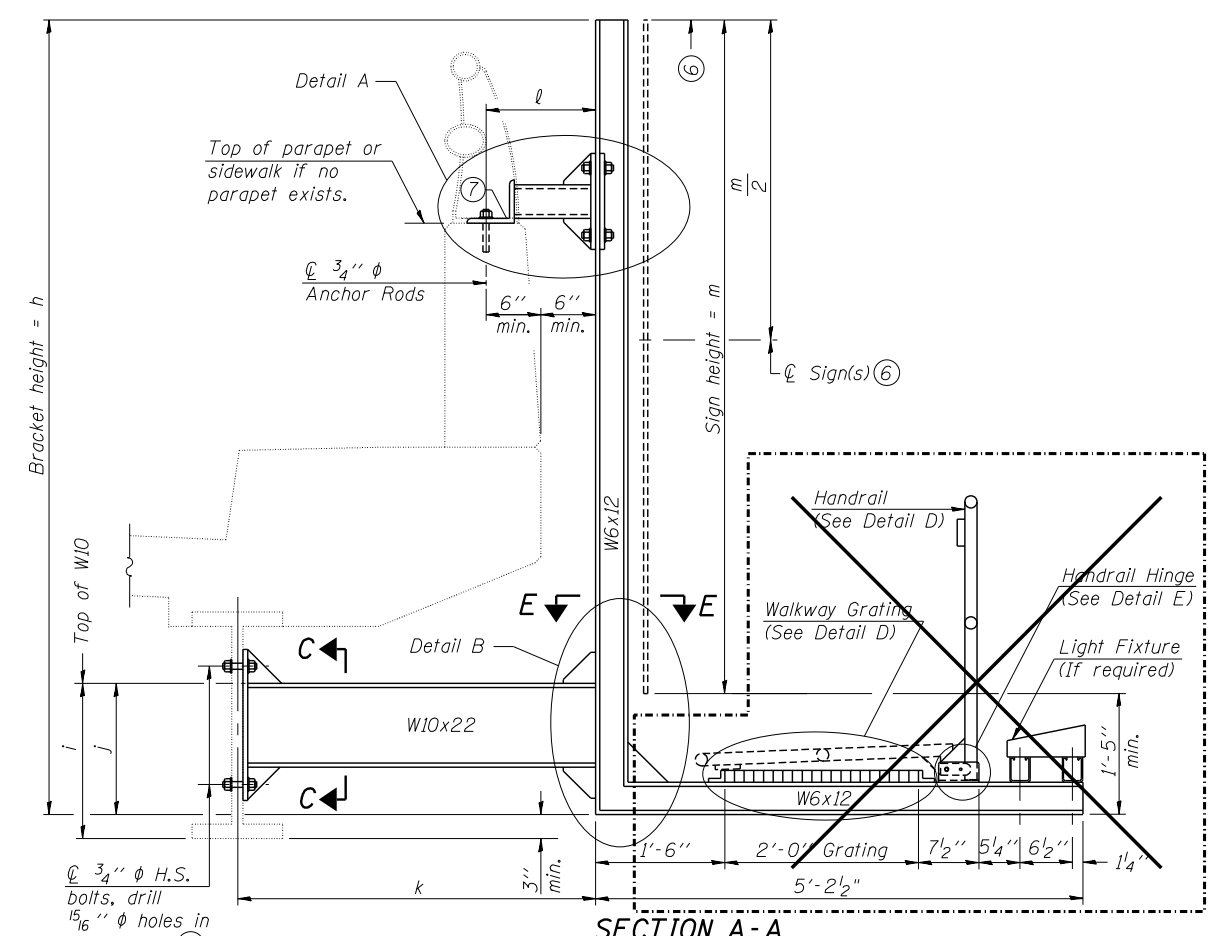
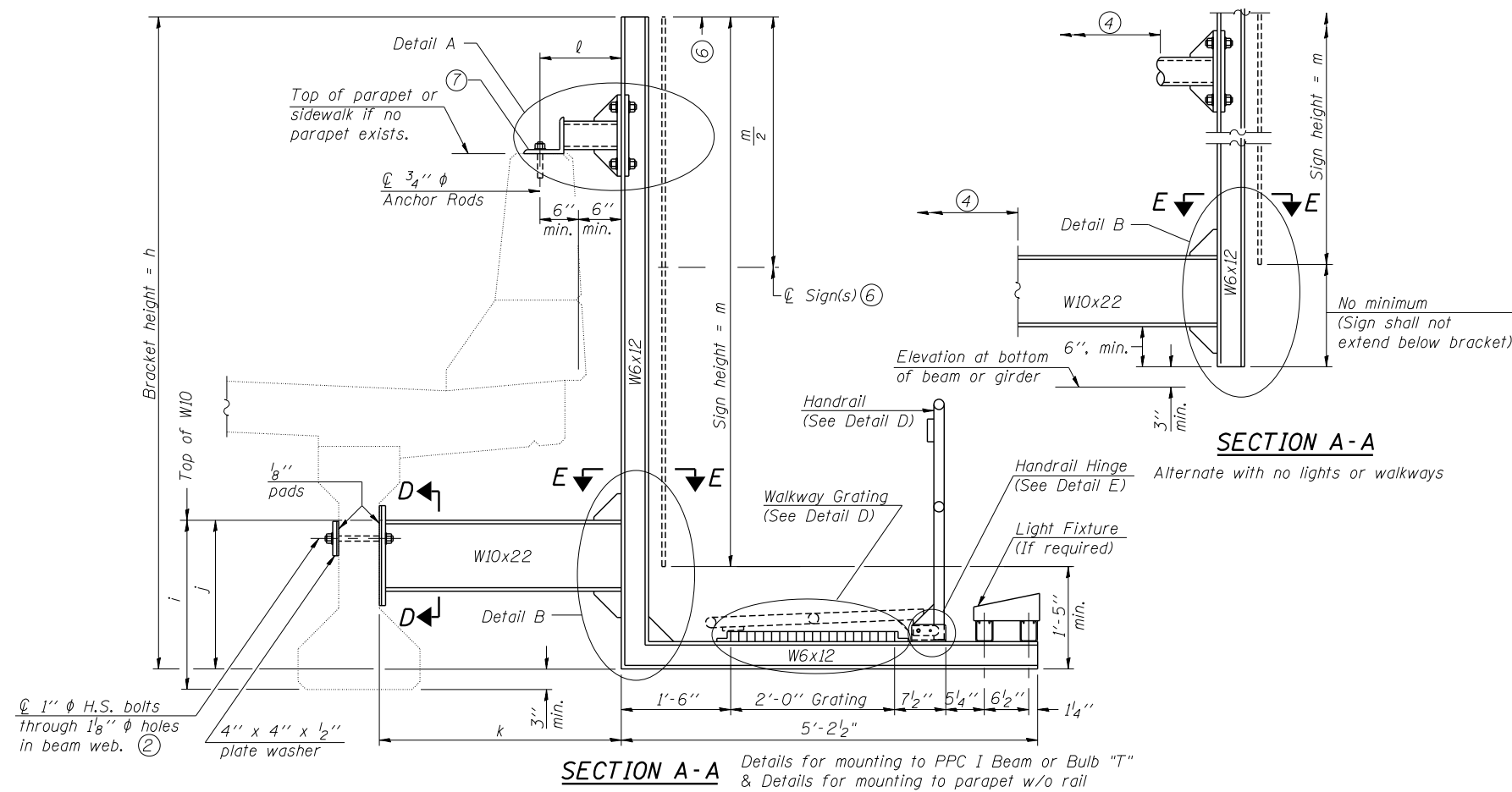
**TYPICAL FRONT ELEVATION**  
(With lights, safety chain and handrail omitted for clarity.)



**SECTION B-B**  
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c <sub>s</sub>	c <sub>w</sub>	d <sub>s</sub>	d <sub>w</sub>	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths (c <sub>w</sub> + d <sub>w</sub> )
1B0161090R079.7	3°0'0"	3038+85	016-1250	I 90	N/A	N/A	N/A	N/A	21'-6"	0	N/A	N/A	4'-0"	5	N/A	0"	0

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.  
When  $c_w < c_s$  and/or  $d_w < d_s$ , use alternate brackets without walkway supports where applicable, see ③.



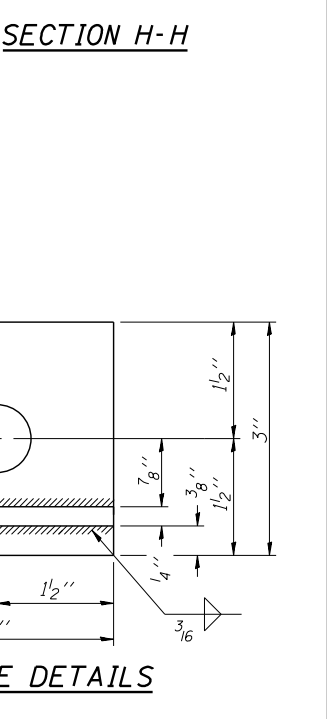
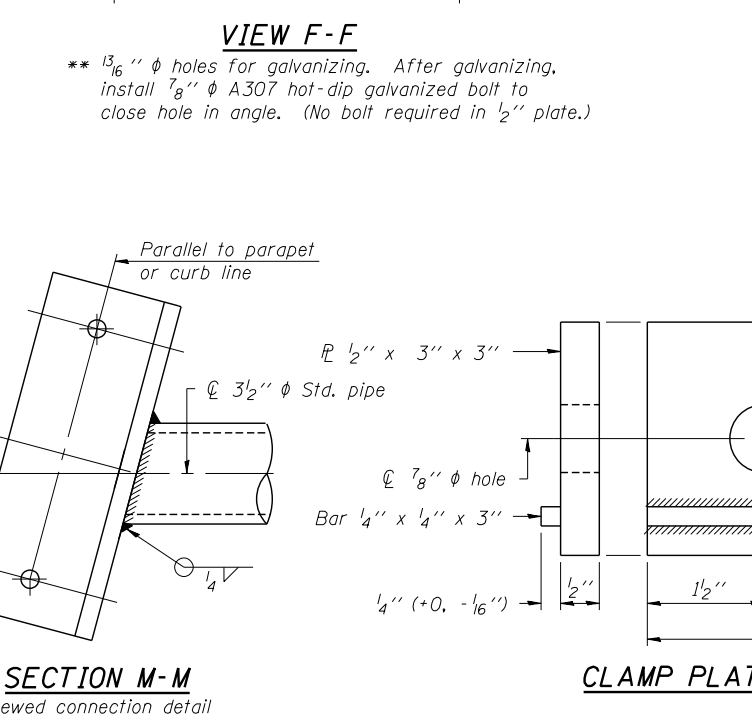
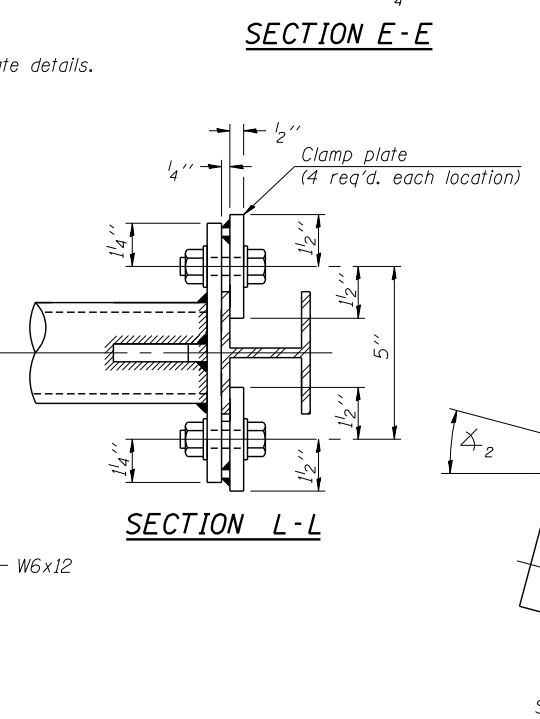
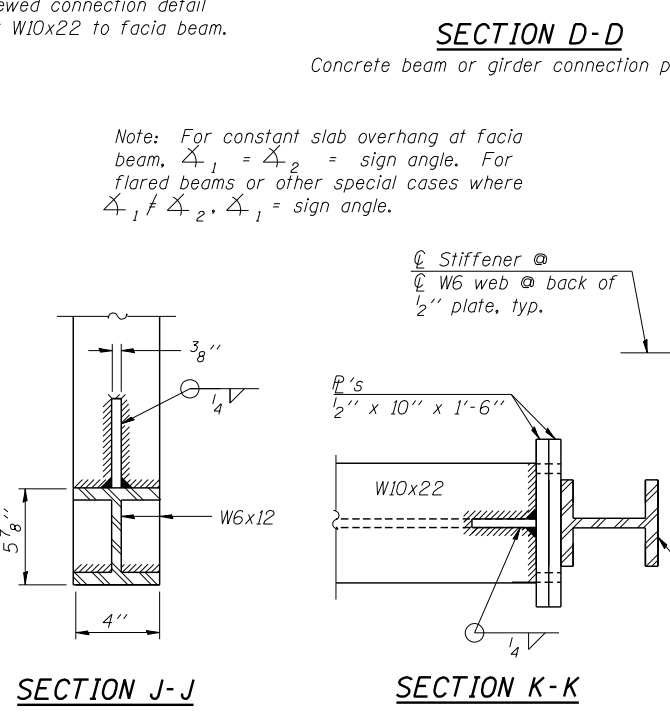
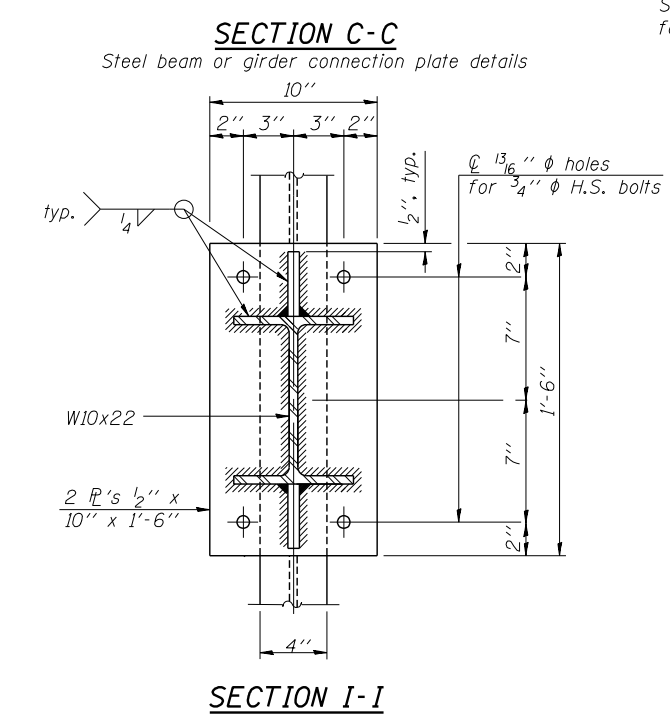
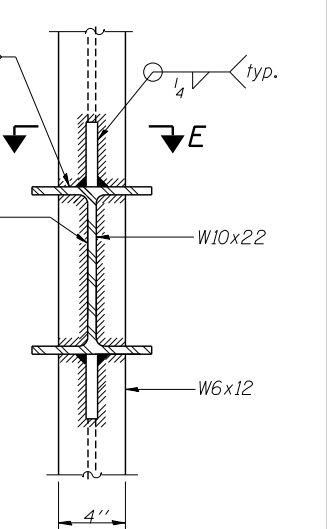
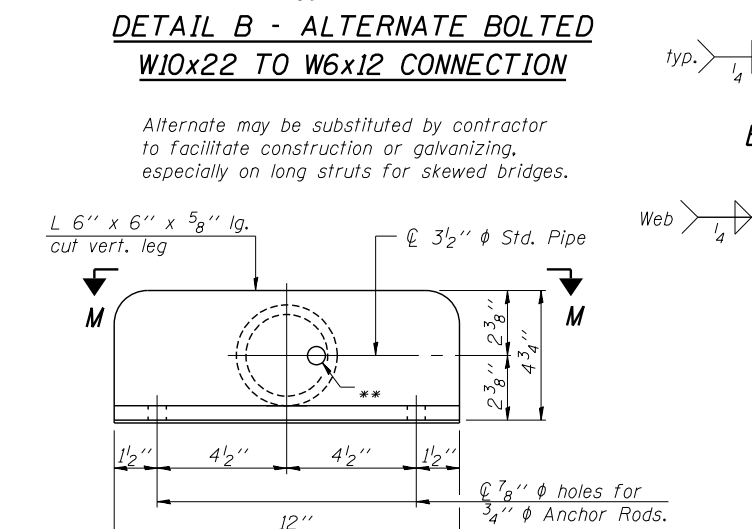
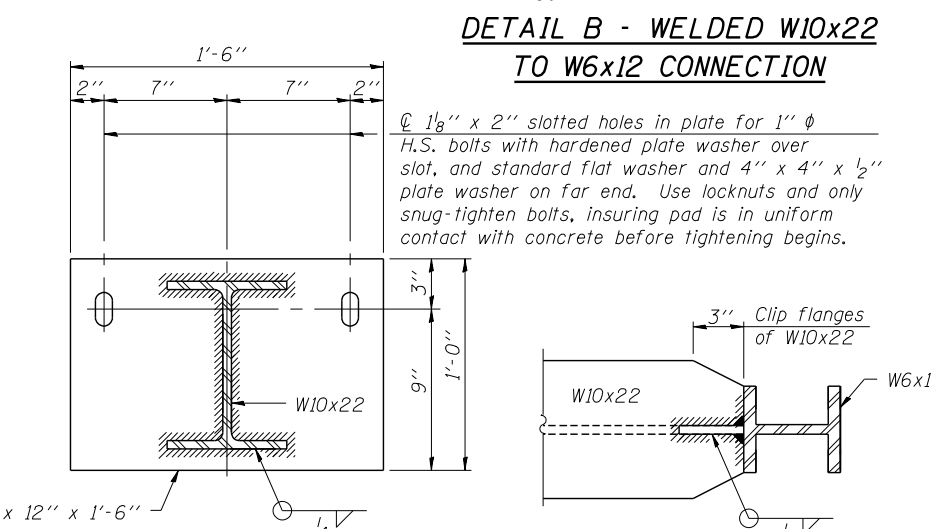
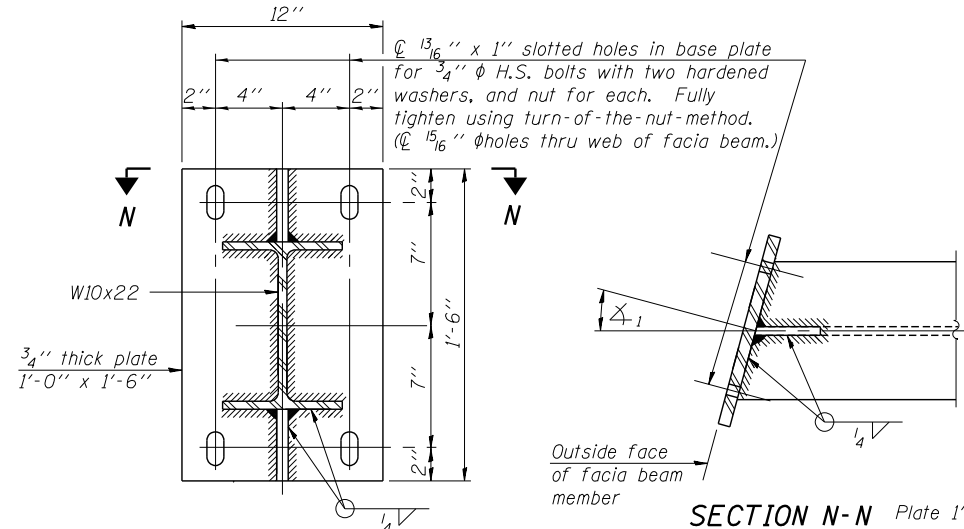
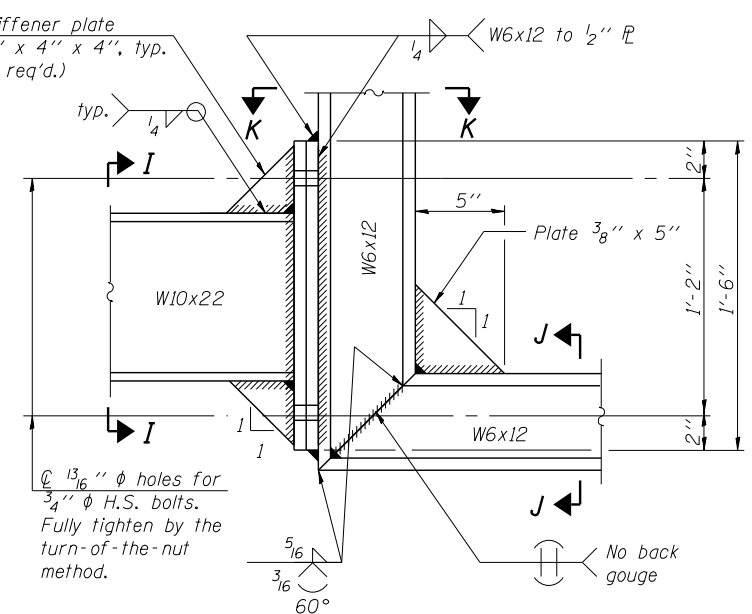
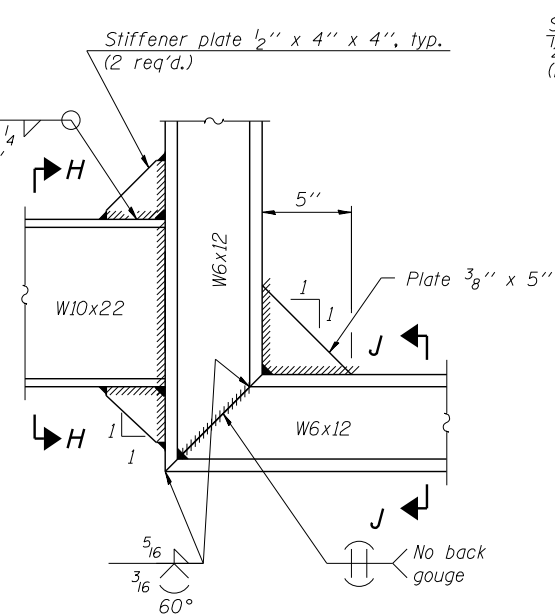
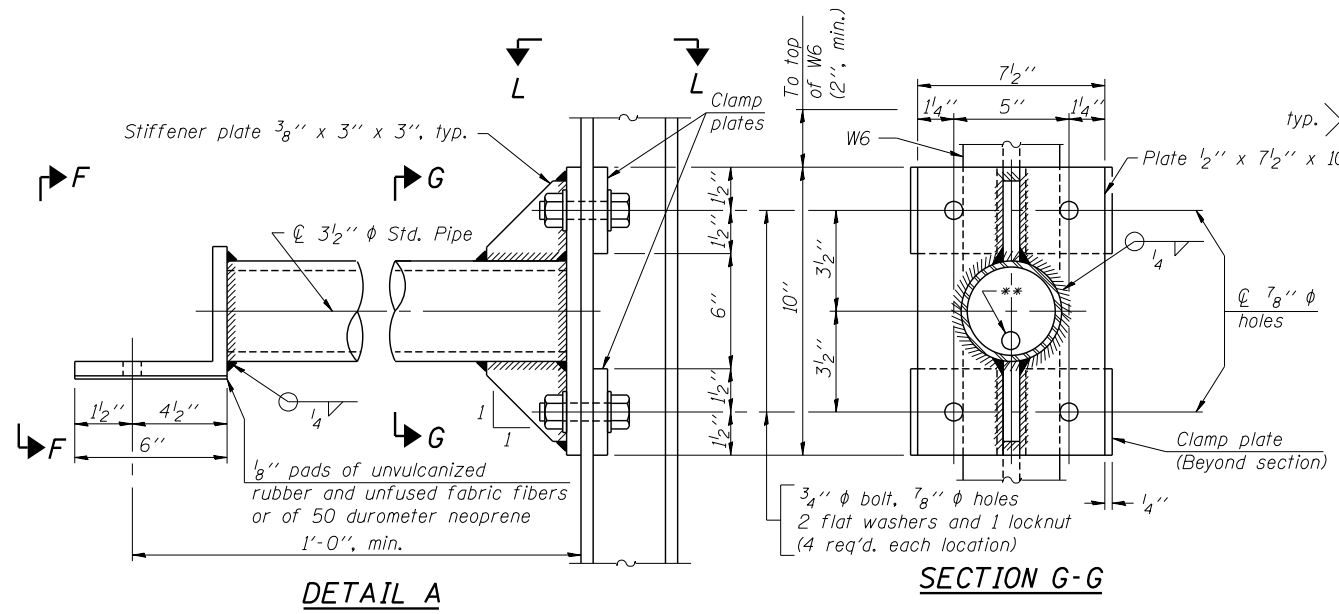
**Notes:**  
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.  
 Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.  
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.  
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
- ⑤ Walkway in front of sign panel is not required and is to be omitted.
- ⑥ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑦ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
1B0161090R079.7	3038+85	12'-0"	2'-6"	2'-3"	3'-6"	1'-0"	12'-0"

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.  
 For Details D & E, see Base Sheet BM-4.

USER NAME = dhatkars	DESIGNED STD	REVISD
PLOT SCALE = 0.08" / 1"	CHECKED KK	REVISD
PLOT DATE = 5/2/2016	DRAWN STD	REVISD
DATE = 5/6/2016	DATE = 5/6/2016	REVISD



BM-3

6-1-12

exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME = dhatkors	DESIGNED STD	REVISED
	PLOT SCALE = 0.08" / 1"	CHECKED KK	REVISED
	PLOT DATE = 5/2/2016	DRAWN STD	REVISED
		DATE 5/6/2016	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-90 SIGN STRUCTURE  
BRIDGE MOUNT SIGN STRUCTURE  
CONNECTION DETAILS  
SHEET NO. 3 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-3	COOK	557	238
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

## INDEX OF SHEETS

E-01 - E-46 IDOT LIGHTING PLANS  
E-47 - E-51 CDOT LIGHTING PLANS

## ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION
AMP	AMPERE
AWG	AMERICAN WIRE GAUGE
BC	BOLT CIRCLE
C	CONDUIT
DIA	DIAMETER
FBC	FRONT OF BARRIER CURB
GRD/GND	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
LED	LIGHT-EMITTING DIODE
MA	MAST ARM
MH	MOUNTING HEIGHT
N	NEUTRAL
PH	PHASE
PVC	POLYVINYL CHLORIDE
PVCC	PVC COATED RIGID GALVANIZED STEEL
RGS	RIGID GALVANIZED STEEL
USE	UNDERGROUND SERVICE ENTRANCE
W	WATTS
XLP	CROSS-LINKED POLYETHYLENE

## ComEd COORDINATION – (REFERENCE ONLY)

CONTROLLER F INFORMATION:  
METER NO. : 141-114-751  
ACCOUNT NO. : 1310075007  
ComEd Contact: ROBERT CHRISTMAS  
ComEd Phone NO. : 1-773-509-3243

## LIGHTING GENERAL NOTES

- PRIOR TO ANY WORK IN FIELD, THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING CONDUITS, CABLE AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123 OR 811) TO AID IN THIS TASK.
- THE CONTRACTOR MUST VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT PLANS WHICH WOULD EFFECT HIS WORK UNDER THIS CONTRACT FOR THE OPERATION OF THE EXISTING ROADWAY LIGHTING SYSTEM.
- NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE WITHOUT PRIOR INSPECTION AND APPROVAL BY THE ENGINEER. ANY MATERIAL AND EQUIPMENT NOT APPROVED BY THE ENGINEER MUST BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR MAY ADJUST POLE LOCATIONS UP TO 10' IN ANY DIRECTION EXCEPT CLOSER TO THE ROAD, IN ORDER TO ADJUST FOR FIELD CONDITIONS.
- THE ELECTRIC SERVICE SHALL BE SINGLE PHASE, 3 WIRE 240/480V. UTILITY CONNECTION CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED.
- ALL ELECTRICAL SYSTEMS, EQUIPMENT AND APPURTENANCES SHALL BE PROPERLY GROUNDED IN STRICT CONFORMANCE WITH NATIONAL ELECTRICAL CODE EVEN THOUGH EVERY DETAIL OF REQUIREMENTS IS NOT SPECIFIED OR SHOWN.
- GROUNTING OF POLE INCLUDING GROUND ROD, CONDUCTOR, LUGS INCLUDING EXOTHERMIC WELD TO GROUND ROD SHALL NOT BE PAID SEPARATELY. COST MUST BE INCLUDED IN UNIT PRICE OF EACH POLE.
- ALL UNDERGROUND WIRING SHALL BE 30 INCHES MINIMUM BELOW GRADE.
- THE NEW ELECTRICAL MATERIALS MUST MEET REQUIREMENTS OF STANDARDS BY THE FOLLOWING ORGANIZATIONS.
  - NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION. (NEMA)
  - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS. (IEEE)
  - ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. (IES)
  - AMERICAN ASSOCIATION OF TRANSPORTATION OFFICIALS. (AASHTO)
  - U.S. DEPARTMENT OF TRANSPORTATION. (U.S.D.O.T)
  - UNDERWRITERS LABORATORIES. (UL)
  - AMERICAN STANDARD INSTITUTE. (ANSI)
  - INSULATED NATIONAL POWER AND CABLE ENGINEERS ASSOCIATION. (IPCEA)
  - NATIONAL ELECTRICAL SAFETY CODE (NEC)
  - NATIONAL ELECTRICAL CODE
  - AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING (ANSI/IESNA RP-8-14)
- ALL LIGHT POLES EXCEPT POLES MOUNTED ON CONCRETE BARRIER WALL/BRIDGE PARAPET WALL/ABUTMENT WALL/BEHIND GUARD RAIL/RETAINING WALL, SHALL HAVE AASHTO APPROVED FRANGIBLE TYPE BREAKAWAY TRANSFORMER BASE.
- ALL SPLICING MUST BE IN POLE BASES OR JUNCTION BOXES ABOVE GRADE WITH WATERPROOF SEALANT AND HEAT SHRINKABLE PLASTIC CAPS.
- LIGHT POLES INSTALLED BEHIND GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 3 FEET SETBACK FROM THE BACK OF GUARDRAIL OR WALL OR AS OTHERWISE DIRECTED BY THE ENGINEER.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY THE INDICATED LIGHTING CONTROLLER. NO LIGHT SHALL BE INDIVIDUALLY CONTROLLED BY PHOTOCELL.
- COMMENCEMENT OF WORK SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING ROADWAY FOR THIS WORK, AND ACCESS TO WORK SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR ADDITIONAL LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, REINSTALLING, REPAIRING, OR REPLACING EQUIPMENT.
- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL REVIEW THE CONTRACT DRAWINGS AND ASCERTAIN EXISTING SITE CONDITIONS TO VERIFY THE EXTENT OF DEMOLITION AND REMODELING WORK. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING ALL RELOCATIONS AND REMOVALS REQUIRED IN THIS CONTRACT. CONTRACTOR SHALL VERIFY IN THE FIELD THE EXISTING CONDITIONS AND COORDINATE AS REQUIRED.

## PROPOSED LIGHTING GENERAL NOTES

- ALL NEW UNIT DUCT, CONDUIT, JUNCTION BOXES AND APPURTENANCES ARE SHOWN DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD MUST MEET THE APPROVAL OF THE ENGINEER.
- CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH UNDER DRAINS AND UTILITIES.
- EXISTING LIGHTING ON WESTBOUND I-90 SHALL REMAIN UNCHANGED DURING AND AFTER CONSTRUCTION.
- CONTRACTOR SHALL ENSURE THAT THE PROPOSED UNDERPASS LED LUMINAIRES ARE COMPATIBLE WITH IDOT STANDARD BE-900 DETAILS, DEVIATIONS FROM THIS INSTALLATION DETAIL MUST BE APPROVED BY IDOT. CONTRACTOR WILL NOT BE PAID EXTRA FOR ADDITIONAL MOUNTING HARDWARE.

## TEMPORARY LIGHTING GENERAL NOTES

- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY COMPANY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED; APPROVAL DOESN'T RELIEVE CONTRACTOR OF RESPONSIBILITY FOR CONFLICTS.
- THE TEMPORARY LIGHT POLE SETBACK FROM THE FURTHEST EDGE OF TRAVEL PAVEMENT (PER MOT PLANS) SHALL BE 18 FT MIN. UNLESS OTHERWISE NOTED BY OFFSET FROM EXISTING EDGE OF PAVEMENT FOR THAT STAGE.
- THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE. PER STANDARD DETAIL BE-801
- THE CONTRACTOR SHALL PROVIDE ALL CONDUITS AND WIRES OF THE SAME TYPE AND SIZE REQUIRED TO MAINTAIN THE CONTINUITY OF THE CIRCUIT TO EXISTING LIGHT POLES TO REMAIN WHICH MAY BE AFFECTED BY REMOVALS PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE MAINTENANCE OF LIGHTING SYSTEM. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE ENGINEER; AND THEN ONLY FOR THE DATE AND DURATION AGREED UPON.
- WHERE THE CONTINUITY OF CIRCUITS OR CONDUITS SERVING ANY EXISTING LIGHTING/EQUIPMENT TO REMAIN IN OPERATION IS INTERFERED WITH, RE-ROUTE AND RECONNECT SUCH CIRCUITS OR CONDUITS.
- UNLESS NOTED OTHERWISE UNDERGROUND CONDUCTORS FOR TEMPORARY WORK SHALL BE 3-1/C#2, 1-1/C#4 GND; XLP-TYPE USE, COPPER; TEMPORARY OVERHEAD CONDUCTORS SHALL BE 3-1/C#2 AL WITH MESSENGER WIRE.
- THE CONTRACTOR SHALL INSTALL TEMPORARY LIGHTING UNITS IN THE PRESTAGE AND MAKE OPERATIONAL BEFORE THE START OF STAGE 1. TEMPORARY LIGHTING MUST BE FULLY OPERATIONABLE BEFORE THE EXISTING LIGHTING ON I-90 MAY BE REMOVED.
- EVERY THIRD TEMPORARY LIGHTING POLE SHALL BE FURNISHED WITH A GROUND ROD CONNECTION. THIS GROUND ROD IS NOT SHOWN IN PLAN. 5/8" X 10' COPPER CLAD STEEL GROUND ROD, #2 BARE TINNED COPPER DOWN CONDUCTOR, CABLE GUARD TO 10' ABOVE GRADE ARE INCLUDED IN THE TEMPORARY LIGHTING WOOD POLE PAY ITEM. WHERE THERE ARE THREE TEMPORARY POLES CONNECTED TOGETHER, INSTALL A GROUND ROD AT BACK POLE.
- IN ACCORDANCE WITH NEC 225.18 AERIAL CONDUCTOR TO MAINTAIN 18' MIN. CLEARANCE ABOVE ROAD SURFACE AT ALL TIMES.
- CONTRACTOR SHALL TURN OFF CIRCUITS AT THE CONTROLLER BEFORE WORKING ON EXISTING LIGHTING UNITS. CONTRACTOR MUST COORDINATE A POWER OUTAGE WITH COMED AT LEAST TWO WEEKS PRIOR TO OUTAGE.

## LIGHTING REMOVAL GENERAL NOTES

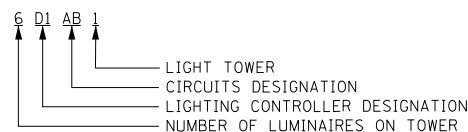
- BRANCH CIRCUIT WIRING FOR EXISTING EQUIPMENT TO BE REMOVED SHALL BE DISCONNECTED AT SOURCE AND REMOVED. REMOVAL OF EXISTING WIRING IS INCLUDED IN THE REMOVAL OF EXISTING EQUIPMENT.
- ALL EXISTING EQUIPMENT THAT ARE TO BE REMOVED SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- LOCATIONS SELECTED FOR COLLECTION OF DEBRIS AND/OR STORAGE OF EQUIPMENT SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.
- THE REMOVAL OF THE EXISTING CABLE DUCT SHALL BE INCLUDED IN ROADWAY CONSTRUCTION.
- TEMPORARY LIGHTS SHALL BE REMOVED AFTER ALL PROPOSED LIGHT POLES HAVE BEEN INSTALLED AND FULLY FUNCTIONAL OR AS DIRECT BY ENGINEER. REMOVAL OF TEMPORARY LIGHTING UNIT SHALL BE AT NO ADDITIONAL COST TO THIS CONTRACT. REMOVAL WILL INCLUDE ALL ITEMS SUCH AS LUMINAIRE'S, MAST ARM, AERIAL CABLE, WOOD POLES, CABLE DUCT AND MOUNTING HARDWARE.
- EXISTING LIGHT POLES TO BE REMOVED ONLY AFTER TEMPORARY LIGHTING IS INSTALLED AND ENERGIZED.

<b>HNTB</b>	USER NAME = konjkw	DESIGNED KFA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IDOT LIGHTING ELECTRICAL SHEET INDEX, GENERAL NOTES, AND ABBREVIATIONS EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN KFA	REVISED -		90	(1517 & 1415) R-3	COOK	557	239			
	PLOT SCALE = 1:8000' / 1in.	CHECKED MCD	REVISED -		CONTRACT NO. 60Y38							
	PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00	ILLINOIS FED. AID PROJECT				

**IDOT LEGEND**

	PROPOSED LIGHTING UNIT 47.5 FT MH ALUMINUM POLE, 15 FT DAVIT ARM, LED, TYPE C, IES TYPE II, 240V, ON NEW FOUNDATION
	PROPOSED LIGHTING UNIT 47.5 FT MH ALUMINUM POLE, 2-15 FT DAVIT ARM, LED, TYPE C, IES TYPE II, 240V, ON NEW FOUNDATION
	PROPOSED LIGHTING UNIT 35 FT MH, ALUMINUM POLE, 8 FT MAST ARM, LED, TYPE C, IES TYPE II, 240V, ON EXISTING PARAPET WALL.
	PROPOSED UNDERPASS LUMINAIRE, LED, TYPE B, IES TYPE IV, 240V, 750mA
	EXISTING UNDERPASS LUMINAIRE HPS TO REMAIN
	EXISTING LIGHTING UNIT TO BE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED, (INCLUDING FOUNDATION, UNO)
	EXISTING LIGHTING UNIT TO REMAIN
	EXISTING STANDARD LIGHTING UNIT AND FOUNDATION TO BE REMOVED
	EXISTING LUMINAIRE TO BE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED
	PROPOSED TEMPORARY LIGHTING UNIT, 750W HIGH MAST LUMINAIRE, 240V, MCIII HPS, 15 FT MA, 80 FT MH ON 100 FT. WOOD POLE, CLASS 2 (INCLUDING REMOVAL)
	PROPOSED TEMPORARY LIGHTING UNIT, 400W LUMINAIRE, 240V, MCIII HPS, 15 FT MA, 50 FT MH ON 60 FT. WOOD POLE, CLASS 4 (INCLUDING REMOVAL)
	EXISTING ELECTRICAL JUNCTION BOX ATTACHED TO STRUCTURE TO BE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED
	EXISTING ELECTRICAL JUNCTION BOX ATTACHED TO STRUCTURE TO REMAIN
	ELECTRICAL JUNCTION BOX 24" X 24" X 10" ATTACHED TO STRUCTURE (STAINLESS STEEL)
	ELECTRICAL JUNCTION BOX 12" X 10" X 6" ATTACHED TO STRUCTURE (STAINLESS STEEL)
	ELECTRICAL JUNCTION BOX 6" X 6" X 4" ATTACHED TO STRUCTURE (STAINLESS STEEL)
	ELECTRICAL JUNCTION BOX 18" X 18" X 8" ATTACHED TO STRUCTURE (STAINLESS STEEL)
	EXISTING LIGHT TOWER TO REMAIN

**LIGHT TOWER DESIGNATION**



**IDOT LEGEND CONT'D**

	GROUND FIELD FOR CONTROLLERS GROUND RODS 5/8" x 10'-0" #2/0 AWG BARE COPPER WIRE
	GROUND ROD 5/8" DIA. X 10'
	3" RIGID GALVANIZED STEEL CONDUIT SLEEVE BELOW PAVEMENT L-LENGTH U-UNDERGROUND R-RIGID S-STEEL C-CONDUIT
	UNIT DUCT, 1 1/4" DIA POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE), (UNLESS NOTED OTHERWISE)
	AERIAL CABLE, 3-1/C #2, ALUMINIUM, WITH MESSENGER WIRE
	PROPOSED IDOT LIGHTING CONTROLLER, AND FOUNDATION, RADIO CONTROL DUPLEX CONSOLE TYPE WITH SCADA, AND NEW 240/480V, 1PH, 3 WIRE SERVICE
	EXISTING IDOT LIGHTING CONTROLLER TO REMAIN
	TEMPORARY WOOD POLE - 100 FT, CLASS 2 (INCLUDING REMOVAL)
	TEMPORARY WOOD POLE - 60 FT, CLASS 4 (INCLUDING REMOVAL)
	EXISTING IDOT LIGHTING CONTROLLER AND FOUNDATION TO BEUSED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED

**LIGHT POLE DESIGNATION**



IDOT LIGHTING BILL OF MATERIALS		
PAY ITEM DESCRIPTION	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	1000
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	800
CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	500
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	1715
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	29
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	14
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 18" X 8"	EACH	6
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	1
UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	12730
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2400
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	460
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	1225
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C 350MCM	FOOT	100
AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	8910
LIGHT POLE, ALUMINUM, 35 FT. M.H., 8 FT. MAST ARM	EACH	2
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM	EACH	63
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 2-15 FT. DAVIT ARMS	EACH	2
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	797
REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	43
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	81
REMOVAL OF POLE FOUNDATION	EACH	79
REMOVAL OF LIGHTING CONTROLLER	EACH	1
TEMPORARY FILL MATERIAL	CU YD	8
WOOD POLE, 60 FT, CLASS 4	EACH	2
WOOD POLE, 100 FT, CLASS 2	EACH	31
REMOVAL OF CABLE IN CONDUIT	FOOT	300
TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 750 WATT	EACH	29
TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	1
LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL), RADIO SCADA	EACH	1
REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE	EACH	34
TEMPORARY MAST ARM, ALUMINUM, 15FT	EACH	30
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	80
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	24
LUMINAIRE, UNDERPASS, LED, TYPE B	EACH	29
LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE C	EACH	80

• LUMINAIRE SAFETY CABLE MUST BE INSTALLED WITH ALL PROPOSED LUMINAIRES

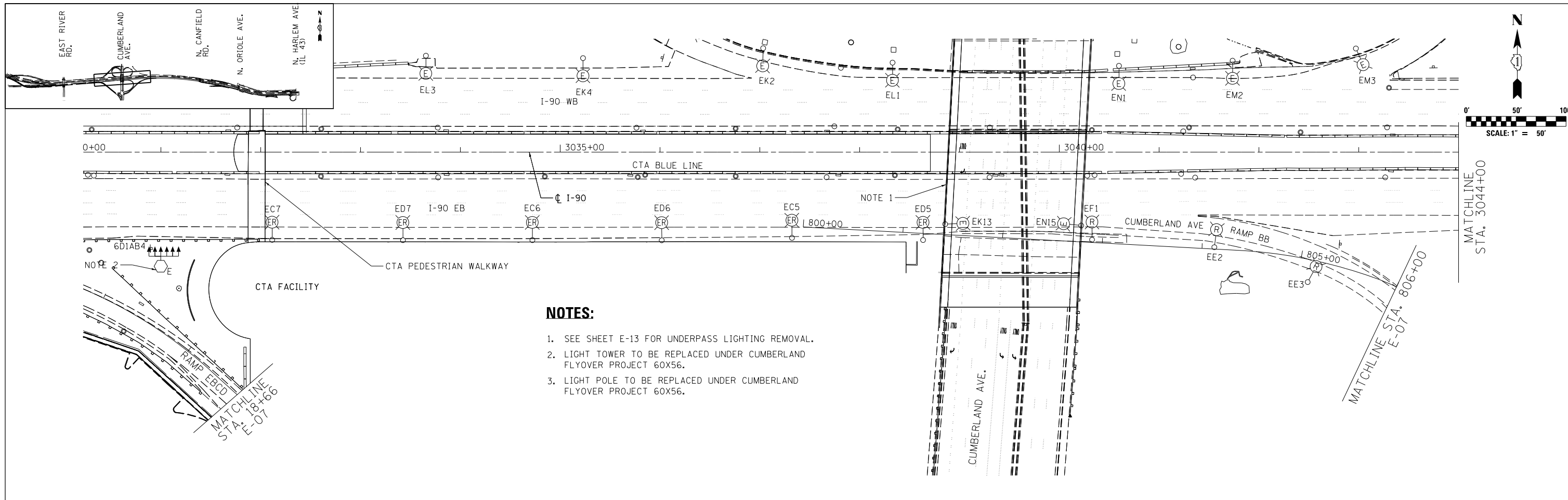


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	DRAWN AA	REVISED -
PLOT SCALE = 1:8000' / in.	CHECKED MCD	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

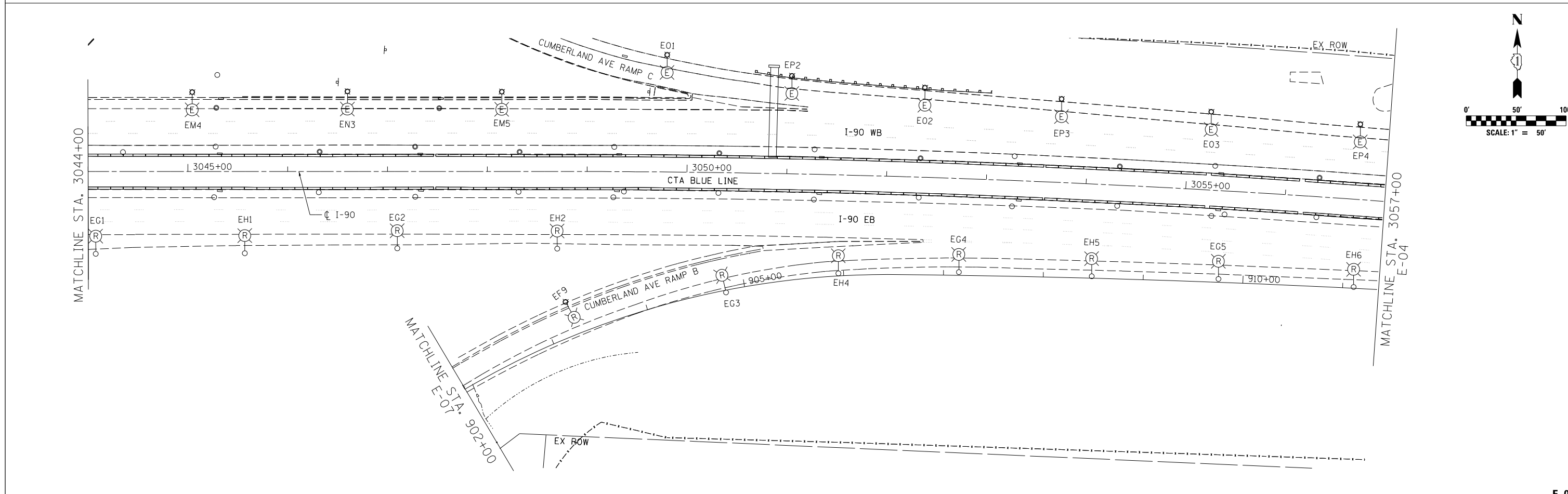
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IDOT LIGHTING GENERAL LEGEND AND BILL OF MATERIALS EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE</b>			
SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00	

F.A.I. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	240
				CONTRACT NO. 60Y38
				ILLINOIS FED. AID PROJECT

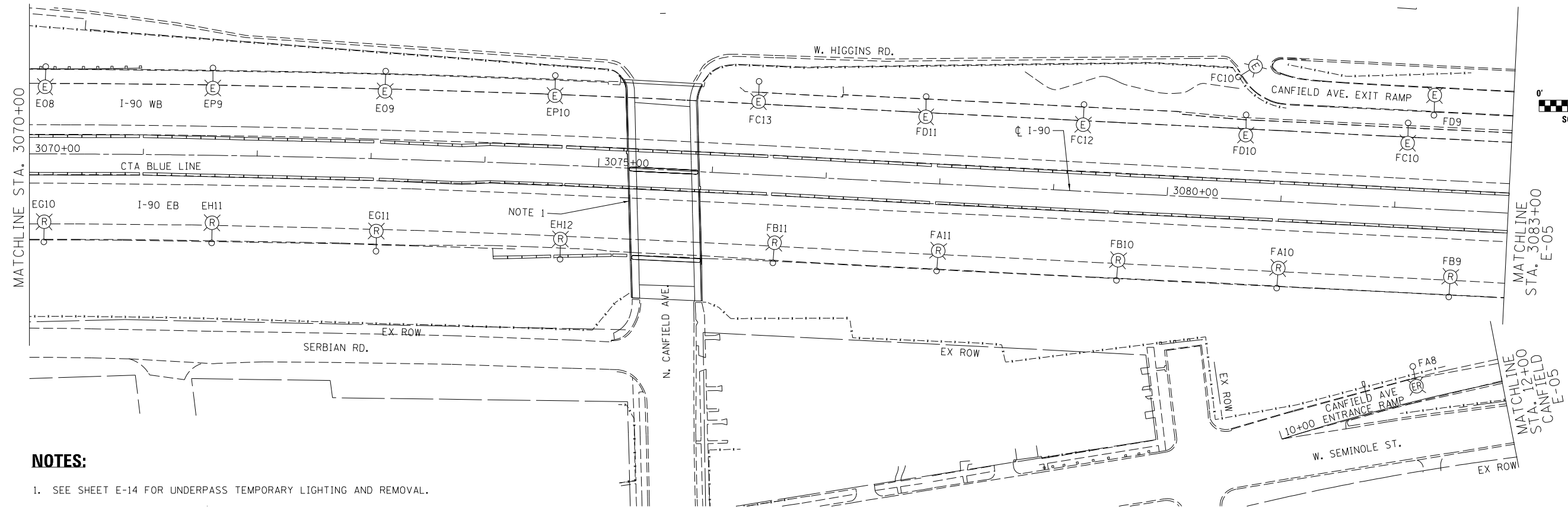
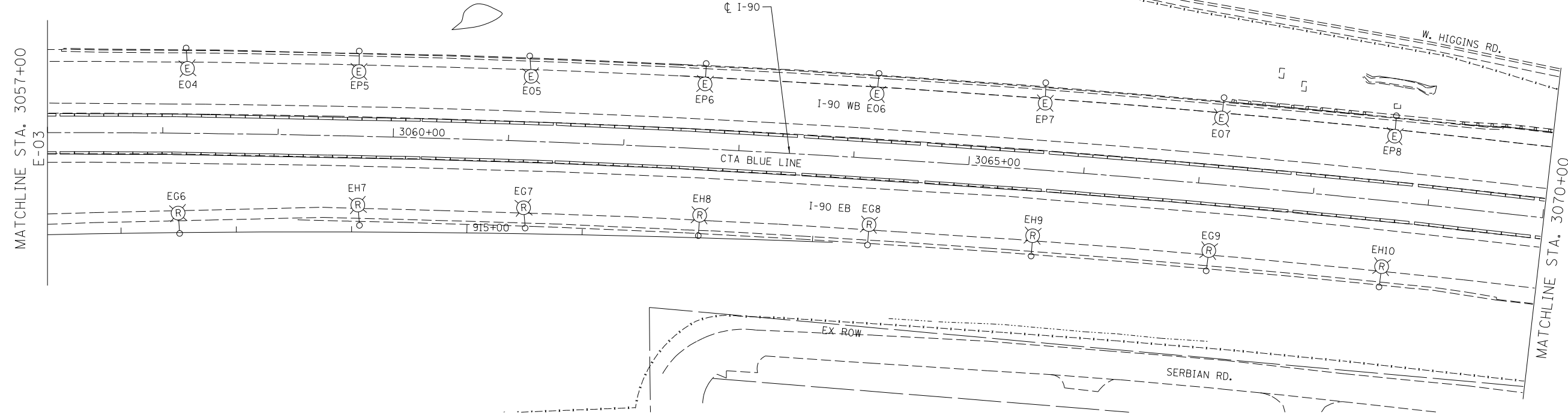
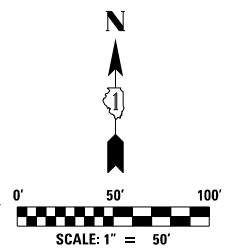
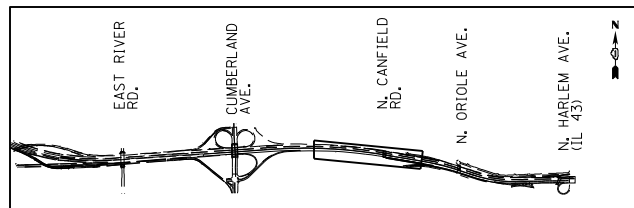


- NOTES:**
1. SEE SHEET E-13 FOR UNDERPASS LIGHTING REMOVAL.
  2. LIGHT TOWER TO BE REPLACED UNDER CUMBERLAND FLYOVER PROJECT 60X56.
  3. LIGHT POLE TO BE REPLACED UNDER CUMBERLAND FLYOVER PROJECT 60X56.

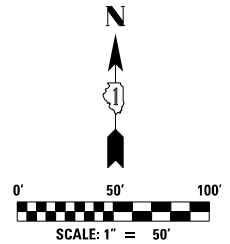


	USER NAME = konyikwo	DESIGNED KFA	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IDOT LIGHTING REMOVAL PLAN</b> <b>EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE</b>			F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 241	
	PLOT SCALE = 1/80" = 1/8"	CHECKED MCD	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 5 SHEETS	STA. TO STA. 3057+00	CONTRACT NO. 60Y38					
	PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -		ILLINOIS FED. AID PROJECT								
	FILE NAME = ...D160Y38-shr-1tg-E03.dgn												

E-03



**NOTES:**  
 1. SEE SHEET E-14 FOR UNDERPASS TEMPORARY LIGHTING AND REMOVAL.



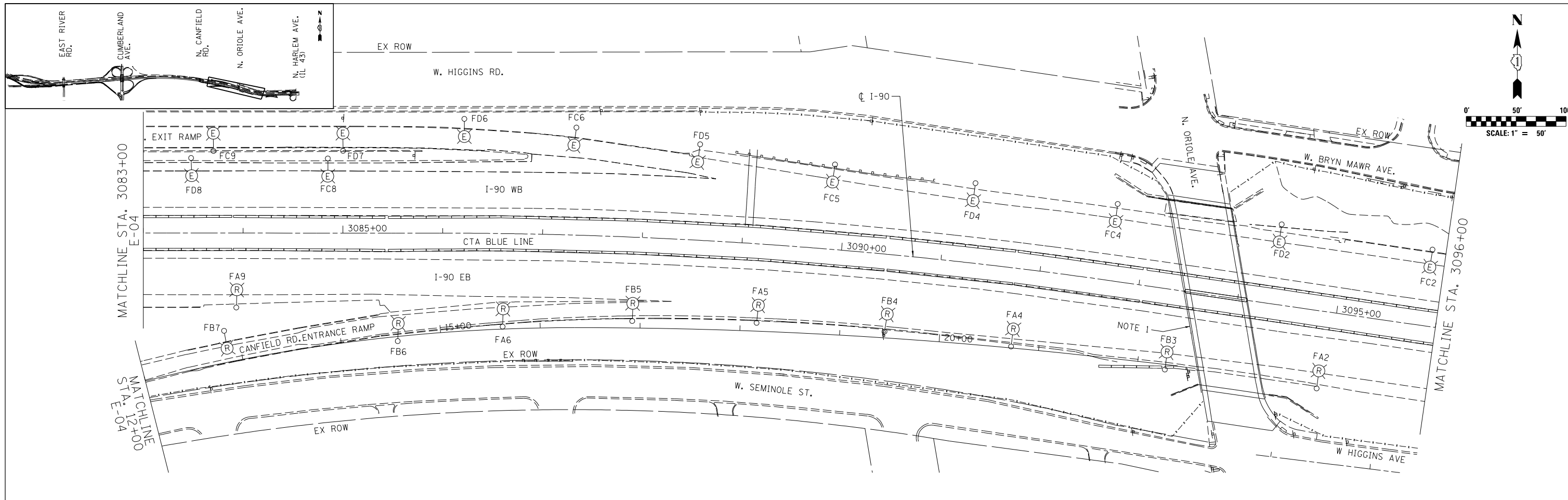
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PLOT SCALE = 1.00' / 1in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IDOT LIGHTING REMOVAL PLAN  
 EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

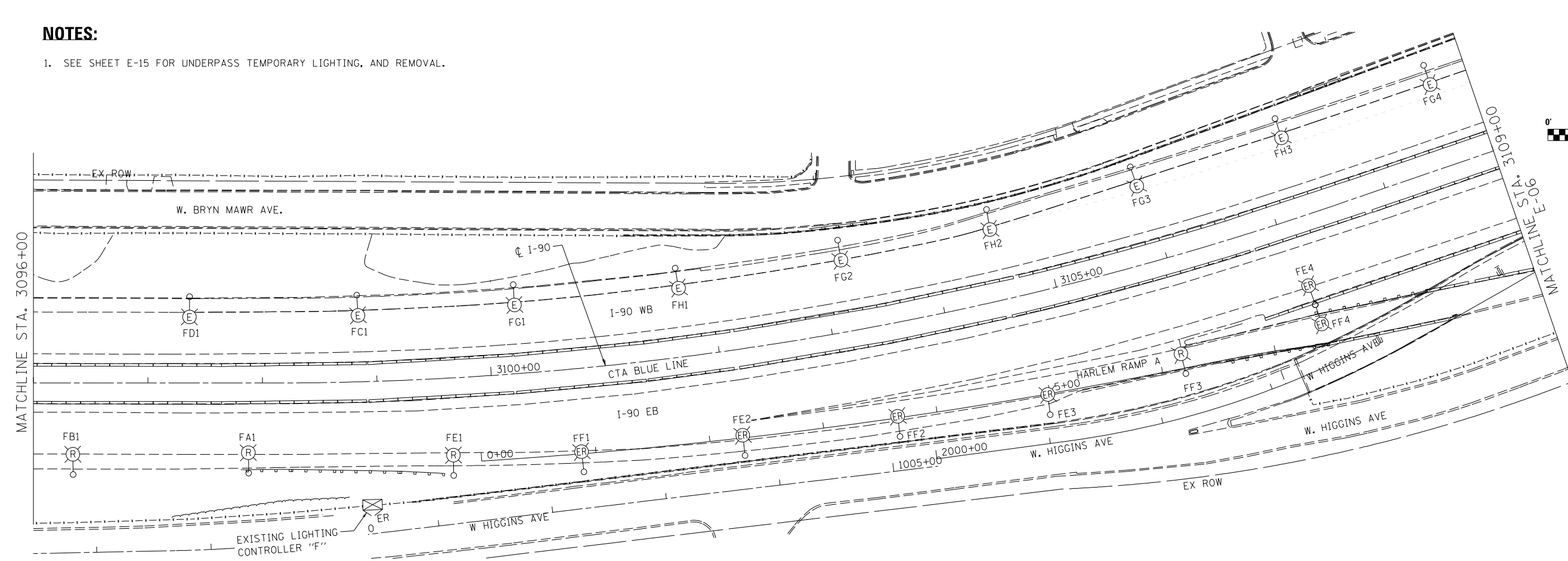
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	242
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				





**NOTES:**

- 1. SEE SHEET E-15 FOR UNDERPASS TEMPORARY LIGHTING, AND REMOVAL.



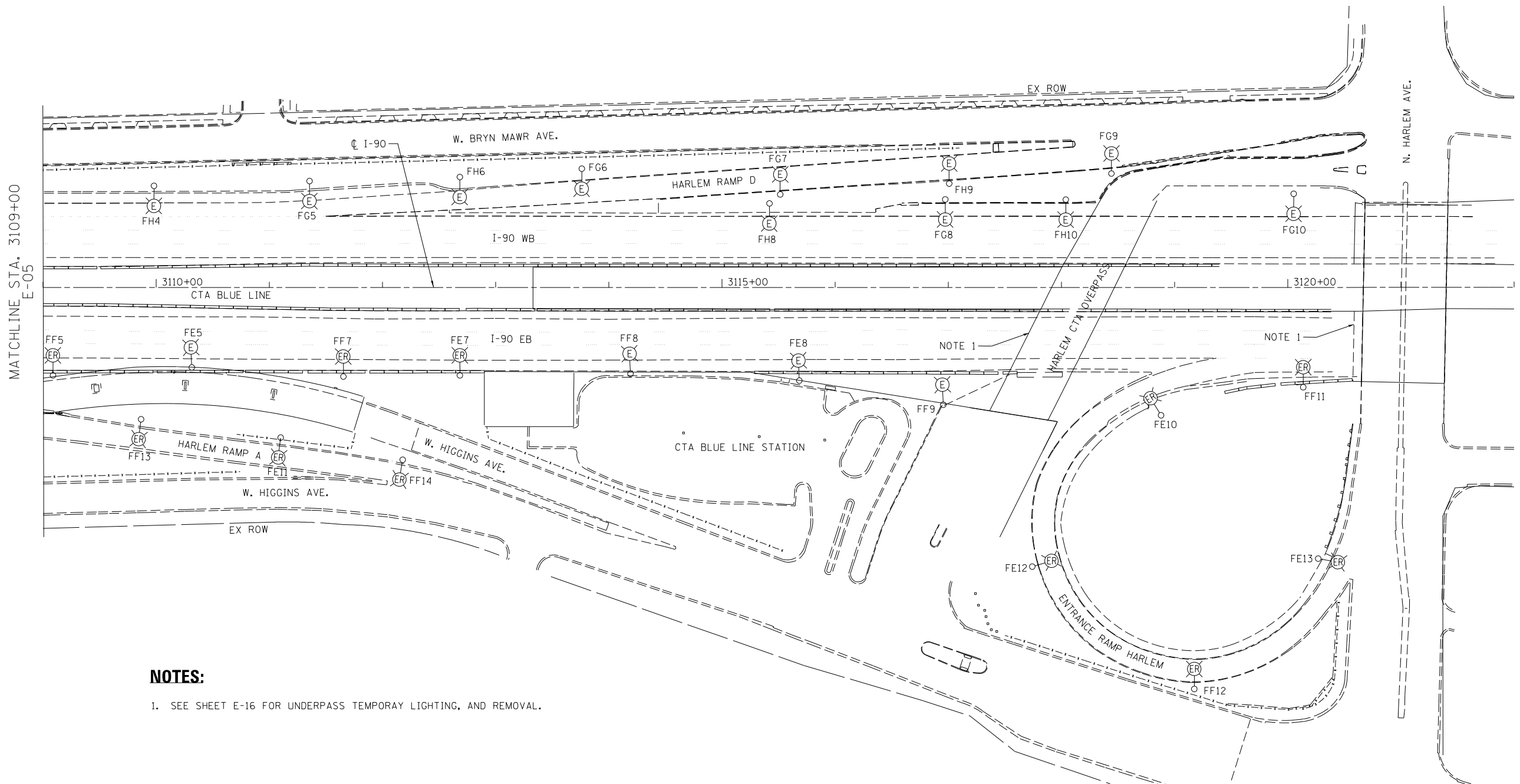
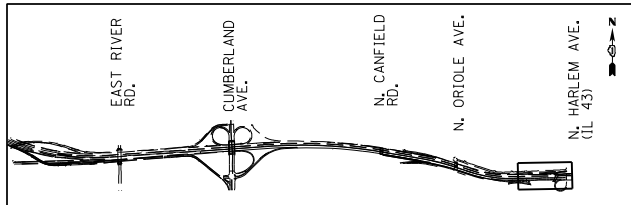
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT LIGHTING REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

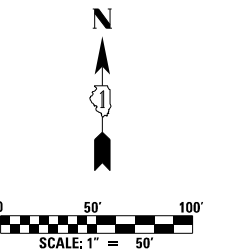
SCALE: 1"=50' SHEET NO. 3 OF 5 SHEETS STA. 3083+00 TO STA. 3109+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	243
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SEE SHEET E-16 FOR UNDERPASS TEMPORAY LIGHTING, AND REMOVAL.



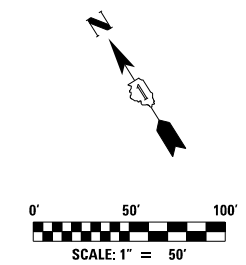
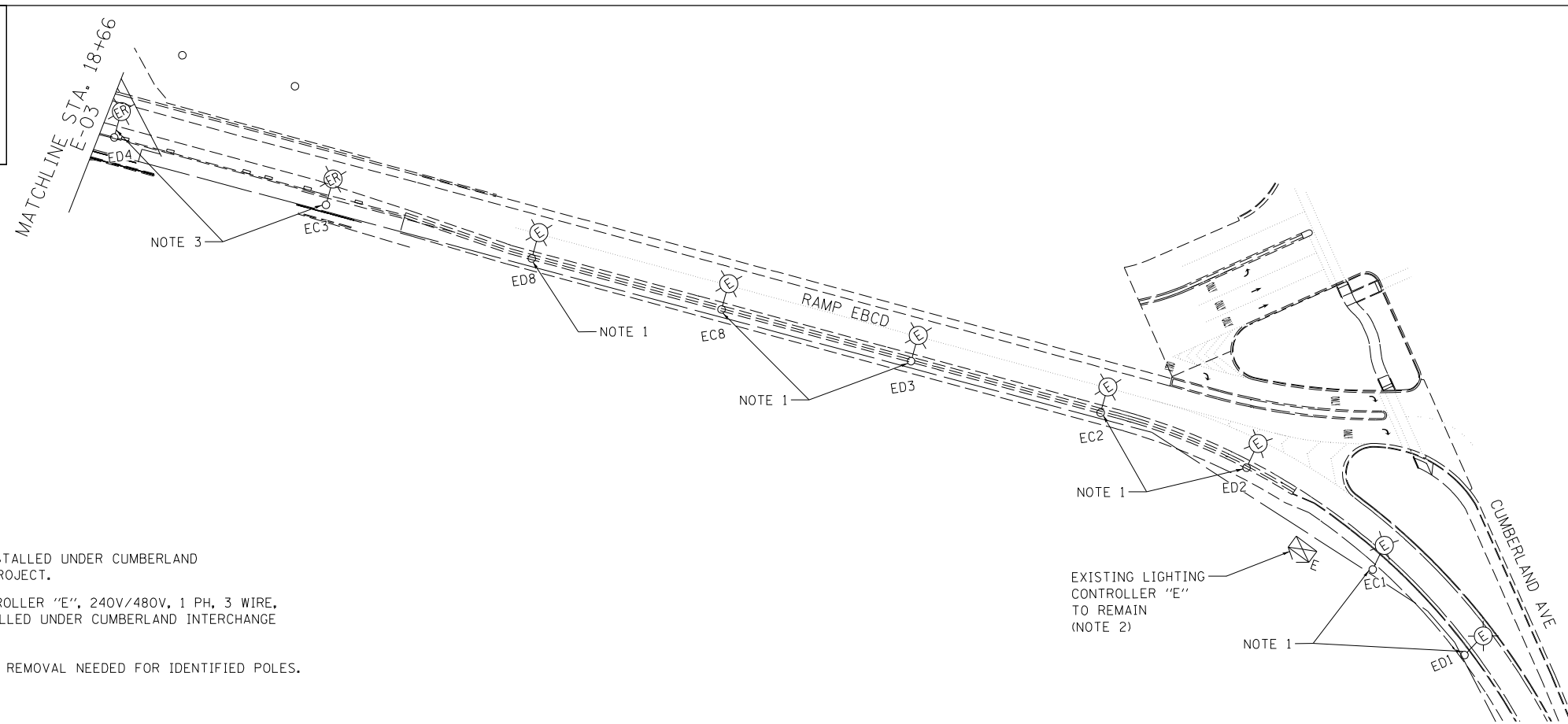
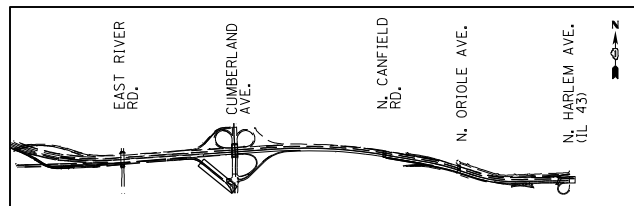
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT LIGHTING REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

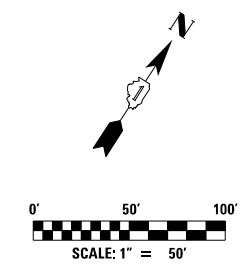
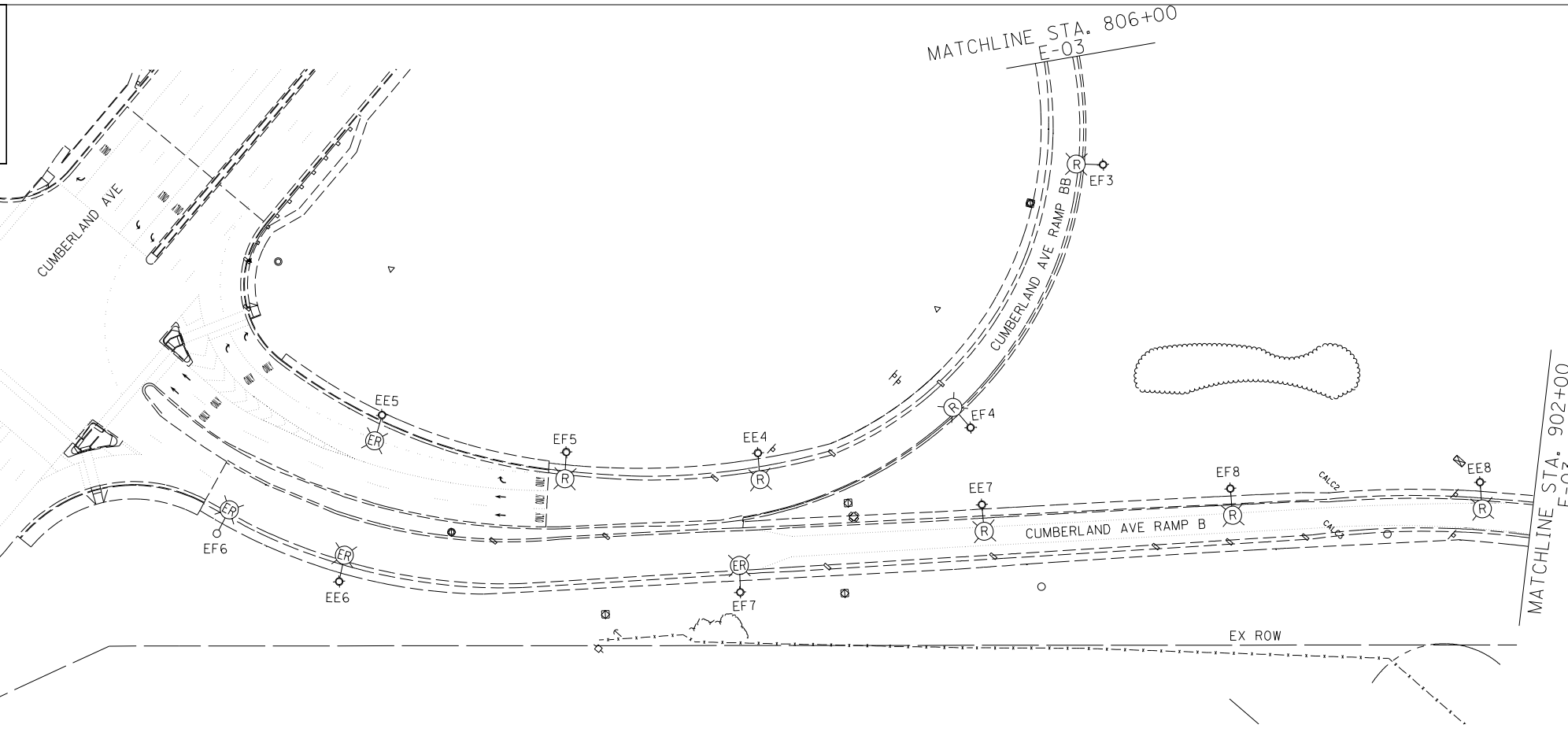
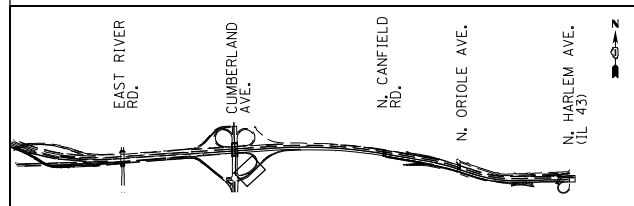
SCALE: 1"=50' SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	244
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. LIGHT POLE INSTALLED UNDER CUMBERLAND INTERCHANGE PROJECT.
2. LIGHTING CONTROLLER "E", 240V/480V, 1 PH, 3 WIRE, 200 AMP INSTALLED UNDER CUMBERLAND INTERCHANGE PROJECT.
3. NO FOUNDATION REMOVAL NEEDED FOR IDENTIFIED POLES.



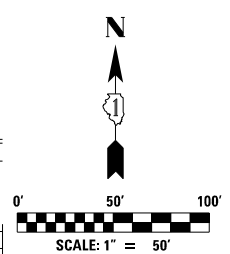
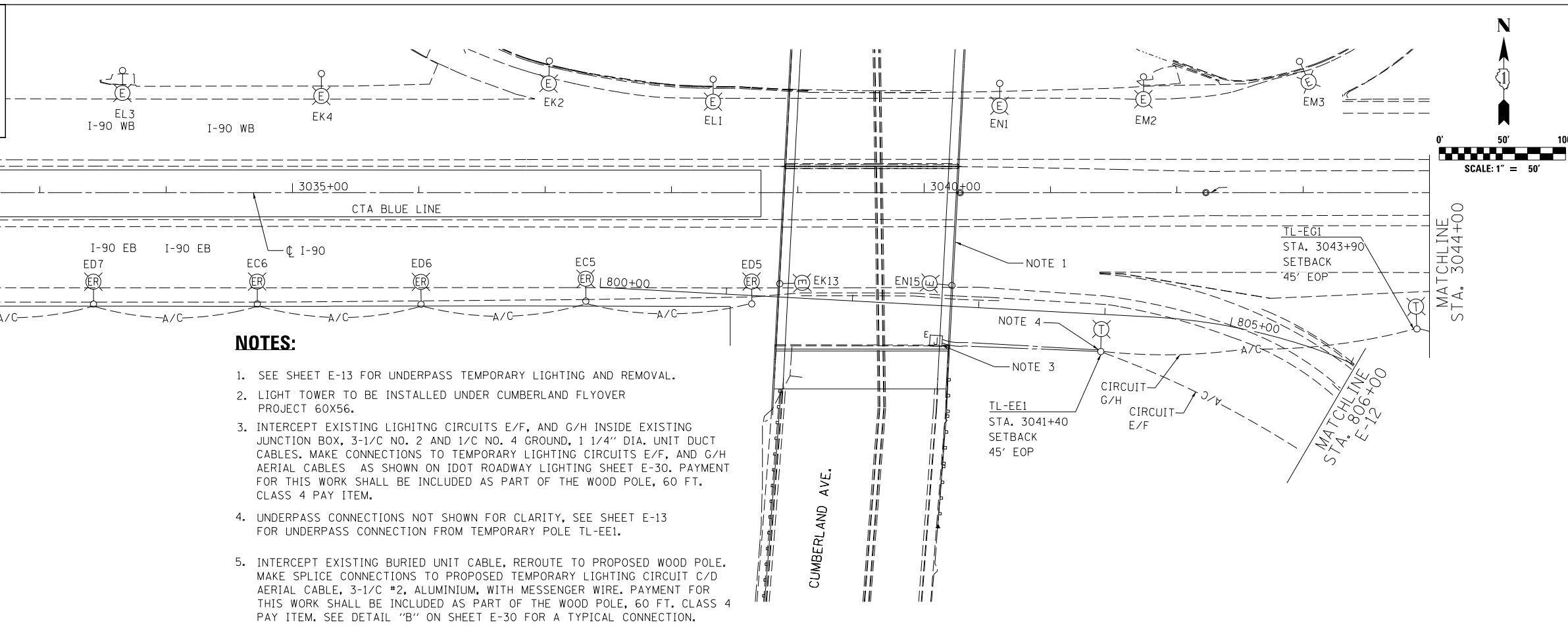
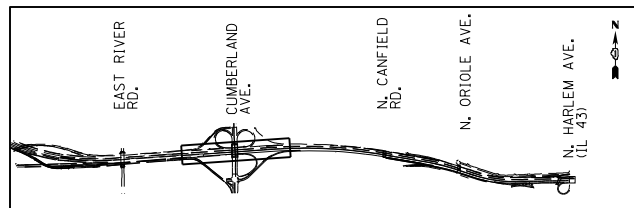
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PLOT SCALE = 1/80' / 1in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT LIGHTING REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

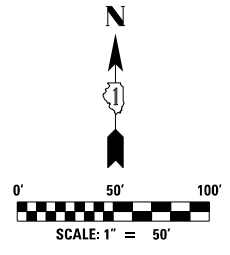
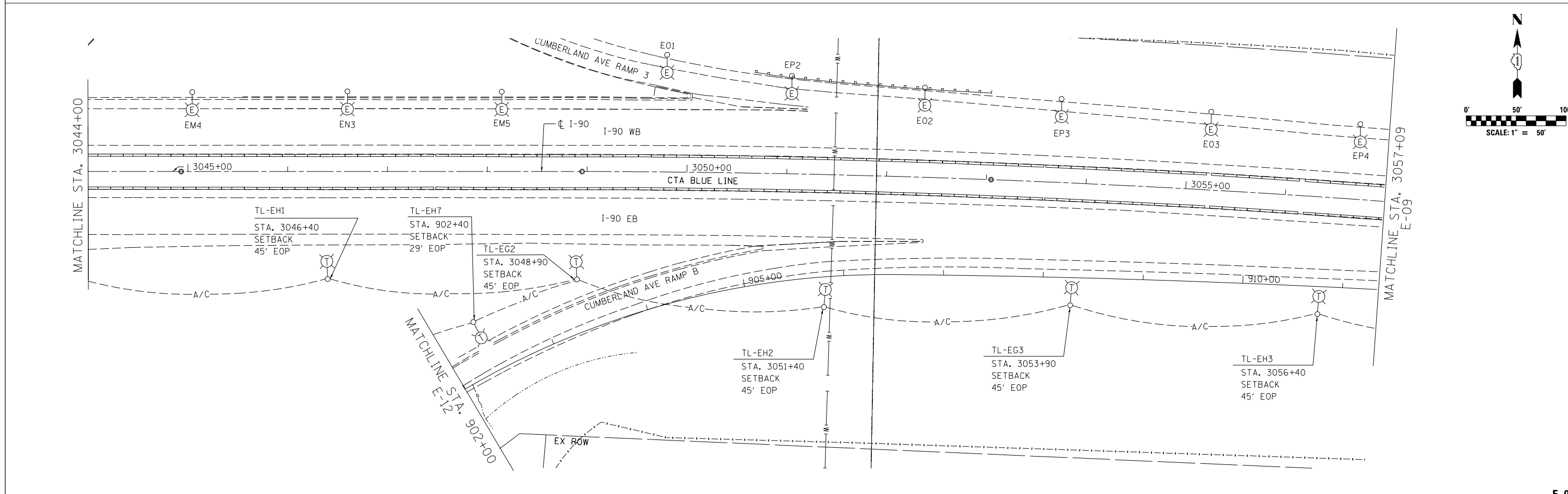
SCALE: 1"=50" SHEET NO. 5 OF 5 SHEETS STA. 3109+00 TO STA. 3111+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	245
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SEE SHEET E-13 FOR UNDERPASS TEMPORARY LIGHTING AND REMOVAL.
2. LIGHT TOWER TO BE INSTALLED UNDER CUMBERLAND FLYOVER PROJECT 60X56.
3. INTERCEPT EXISTING LIGHTING CIRCUITS E/F, AND G/H INSIDE EXISTING JUNCTION BOX, 3-1/C NO. 2 AND 1/C NO. 4 GROUND, 1 1/4" DIA. UNIT DUCT CABLES. MAKE CONNECTIONS TO TEMPORARY LIGHTING CIRCUITS E/F, AND G/H AERIAL CABLES AS SHOWN ON IDOT ROADWAY LIGHTING SHEET E-30. PAYMENT FOR THIS WORK SHALL BE INCLUDED AS PART OF THE WOOD POLE, 60 FT. CLASS 4 PAY ITEM.
4. UNDERPASS CONNECTIONS NOT SHOWN FOR CLARITY, SEE SHEET E-13 FOR UNDERPASS CONNECTION FROM TEMPORARY POLE TL-EE1.
5. INTERCEPT EXISTING BURIED UNIT CABLE, REROUTE TO PROPOSED WOOD POLE. MAKE SPLICE CONNECTIONS TO PROPOSED TEMPORARY LIGHTING CIRCUIT C/D AERIAL CABLE, 3-1/C #2, ALUMINIUM, WITH MESSENGER WIRE. PAYMENT FOR THIS WORK SHALL BE INCLUDED AS PART OF THE WOOD POLE, 60 FT. CLASS 4 PAY ITEM. SEE DETAIL "B" ON SHEET E-30 FOR A TYPICAL CONNECTION.



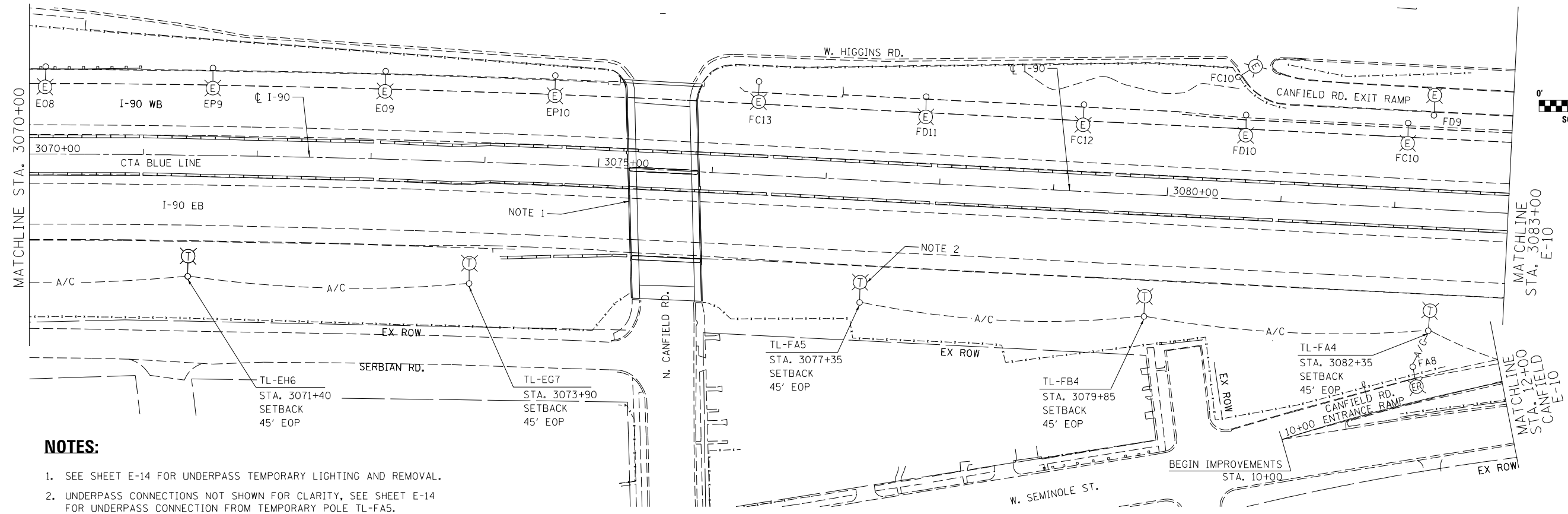
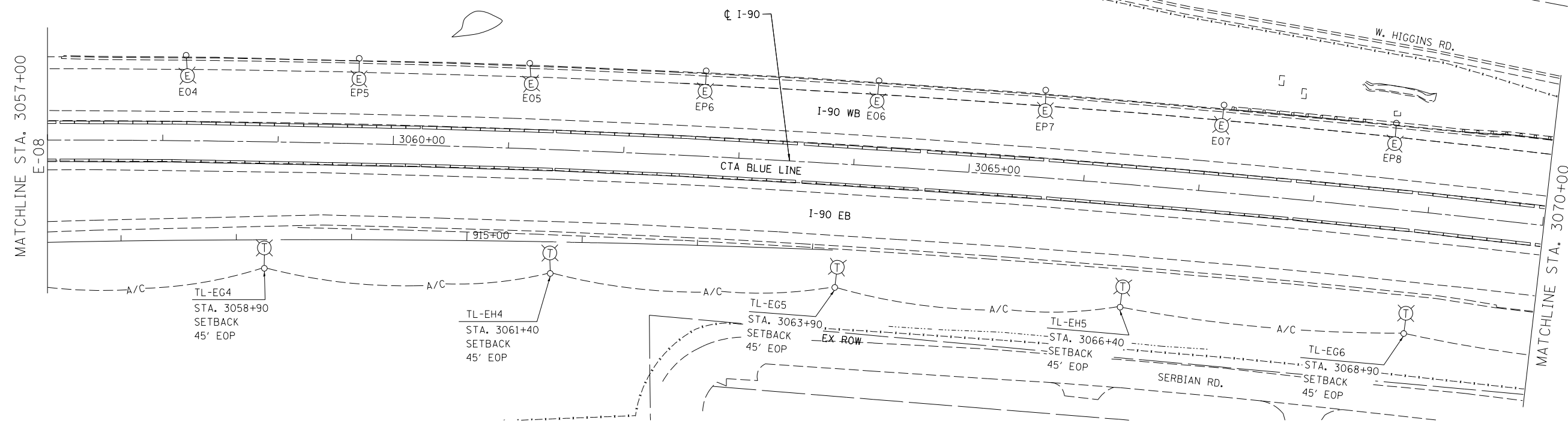
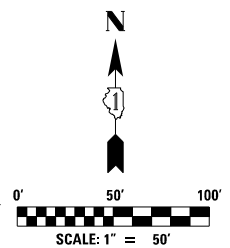
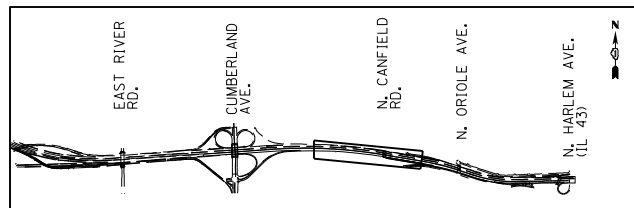
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

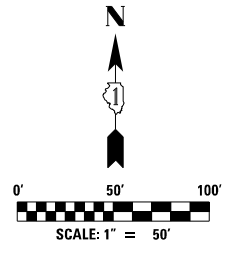
SCALE: 1"=50' SHEET NO. 1 OF 9 SHEETS STA. TO STA. 3057+00

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 246
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE SHEET E-14 FOR UNDERPASS TEMPORARY LIGHTING AND REMOVAL.
- UNDERPASS CONNECTIONS NOT SHOWN FOR CLARITY, SEE SHEET E-14 FOR UNDERPASS CONNECTION FROM TEMPORARY POLE TL-FA5.



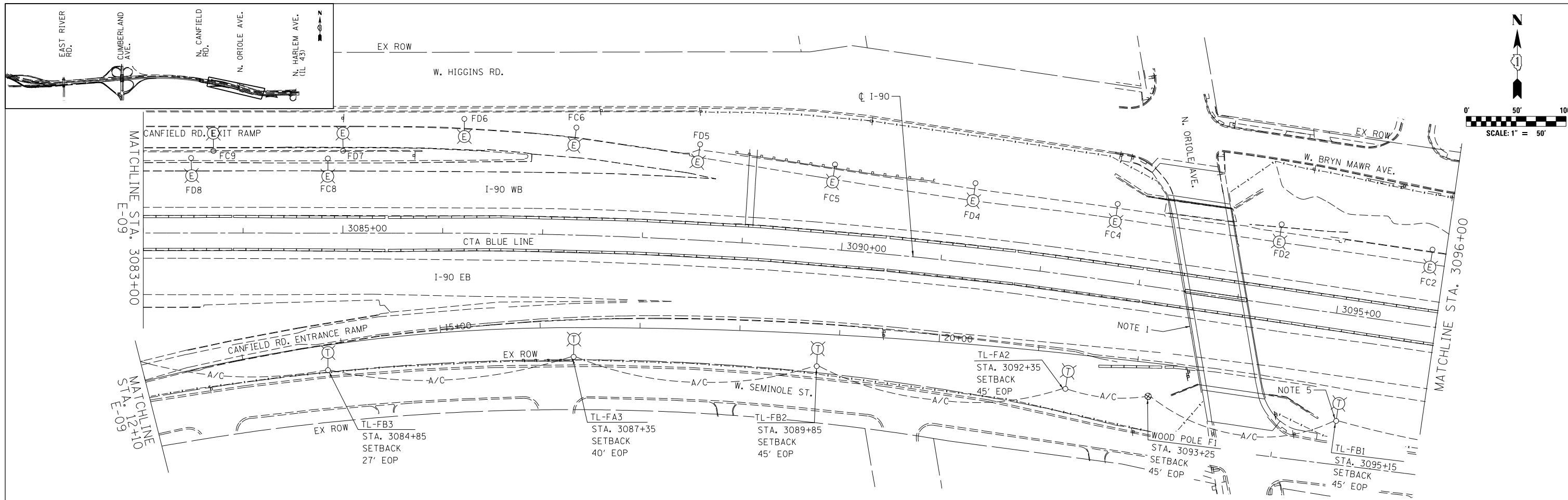
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

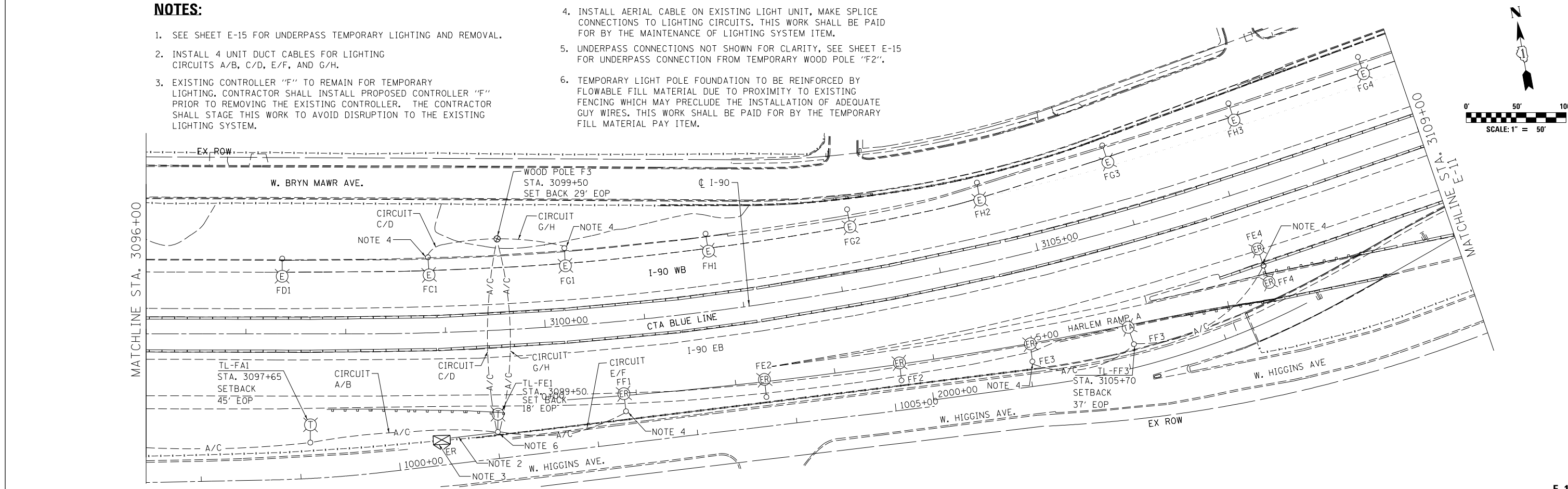
SCALE: 1"=50' SHEET NO. 2 OF 9 SHEETS STA. 3057+00 TO STA. 3083+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	247
CONTRACT NO. 60Y38			ILLINOIS FED. AID PROJECT	



**NOTES:**

- SEE SHEET E-15 FOR UNDERPASS TEMPORARY LIGHTING AND REMOVAL.
- INSTALL 4 UNIT DUCT CABLES FOR LIGHTING CIRCUITS A/B, C/D, E/F, AND G/H.
- EXISTING CONTROLLER "F" TO REMAIN FOR TEMPORARY LIGHTING. CONTRACTOR SHALL INSTALL PROPOSED CONTROLLER "F" PRIOR TO REMOVING THE EXISTING CONTROLLER. THE CONTRACTOR SHALL STAGE THIS WORK TO AVOID DISRUPTION TO THE EXISTING LIGHTING SYSTEM.
- INSTALL AERIAL CABLE ON EXISTING LIGHT UNIT, MAKE SPLICE CONNECTIONS TO LIGHTING CIRCUITS. THIS WORK SHALL BE PAID FOR BY THE MAINTENANCE OF LIGHTING SYSTEM ITEM.
- UNDERPASS CONNECTIONS NOT SHOWN FOR CLARITY, SEE SHEET E-15 FOR UNDERPASS CONNECTION FROM TEMPORARY WOOD POLE "F2".
- TEMPORARY LIGHT POLE FOUNDATION TO BE REINFORCED BY FLOWABLE FILL MATERIAL DUE TO PROXIMITY TO EXISTING FENCING WHICH MAY PRECLUDE THE INSTALLATION OF ADEQUATE GUY WIRES. THIS WORK SHALL BE PAID FOR BY THE TEMPORARY FILL MATERIAL PAY ITEM.



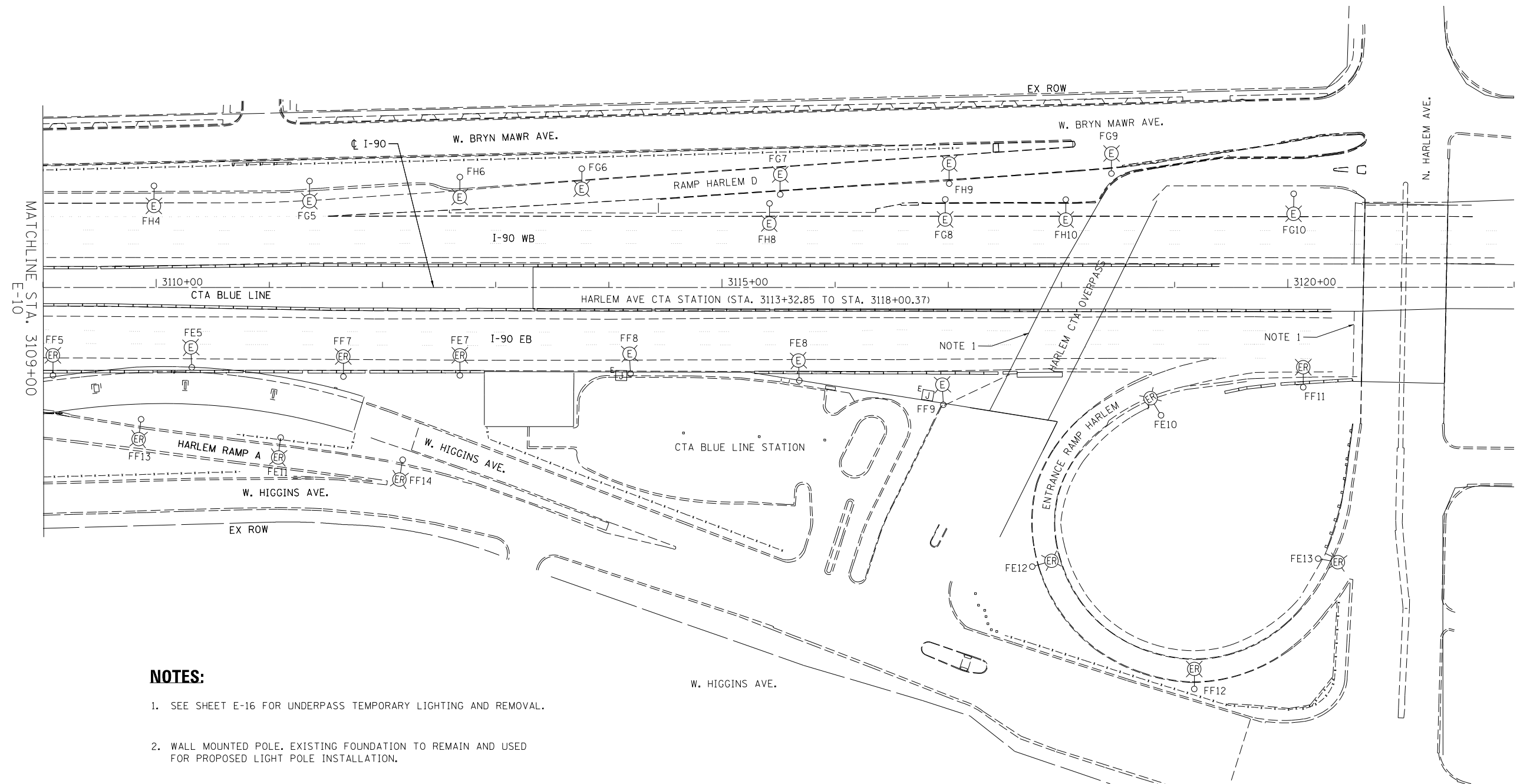
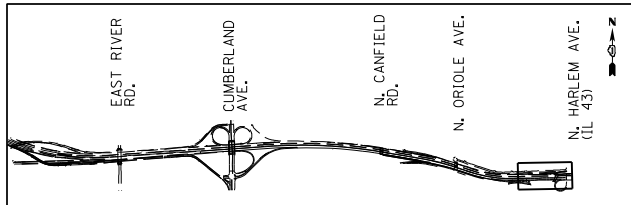
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

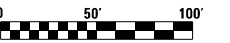
SCALE: 1"=50' SHEET NO. 3 OF 9 SHEETS STA. 3083+00 TO STA. 3109+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	248
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SEE SHEET E-16 FOR UNDERPASS TEMPORARY LIGHTING AND REMOVAL.
2. WALL MOUNTED POLE, EXISTING FOUNDATION TO REMAIN AND USED FOR PROPOSED LIGHT POLE INSTALLATION.



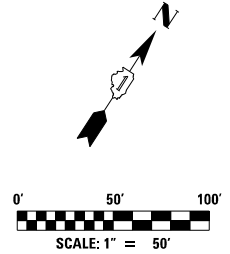
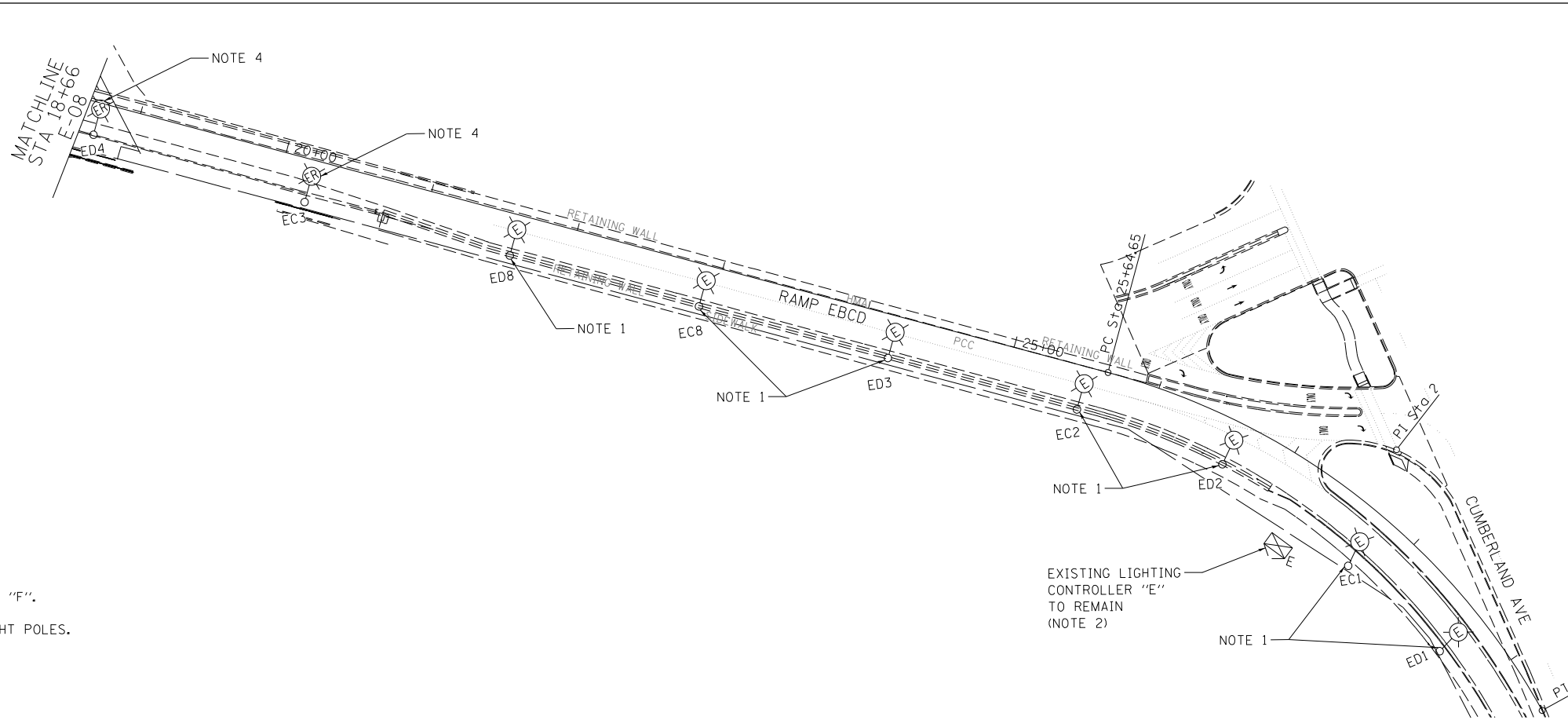
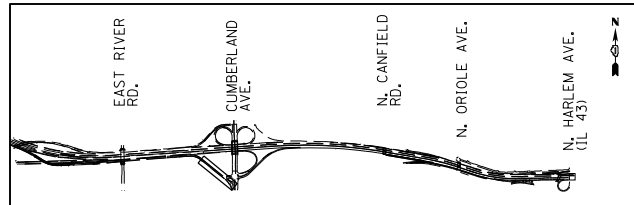
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PLOT SCALE = 1:8000' / 1/8"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

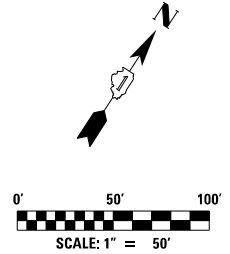
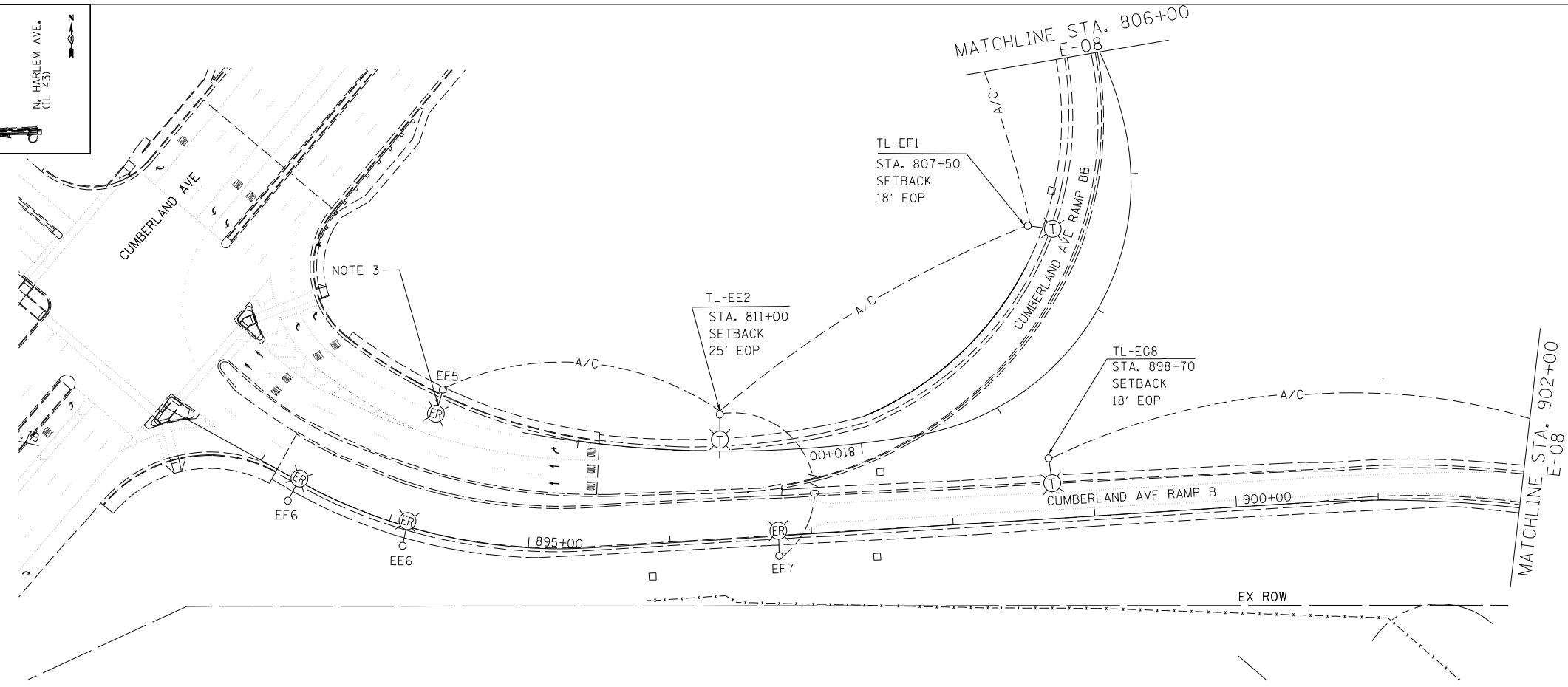
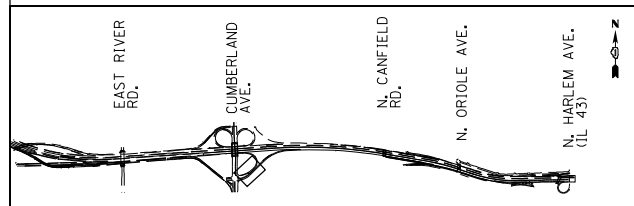
SCALE: 1"=50' SHEET NO. 4 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	249
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. LIGHT POLE INSTALLED UNDER CUMBERLAND INTERCHANGE PROJECT.
2. LIGHTING CONTROLLER "E", 240V/480V, 1 PH, 3 WIRE, 200 AMP INSTALLED UNDER CUMBERLAND INTERCHANGE PROJECT.
3. REWIRE EXISTING LIGHTING UNIT EE5 TO LIGHTING CIRCUIT "F".
4. NO FOUNDATION REMOVAL NEEDED FOR THESE EXISTING LIGHT POLES.



USER NAME = konjiko	DESIGNED KFA	REVISED -
	DRAWN KFA	REVISED -
PLOT SCALE = 1/80' / 1"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

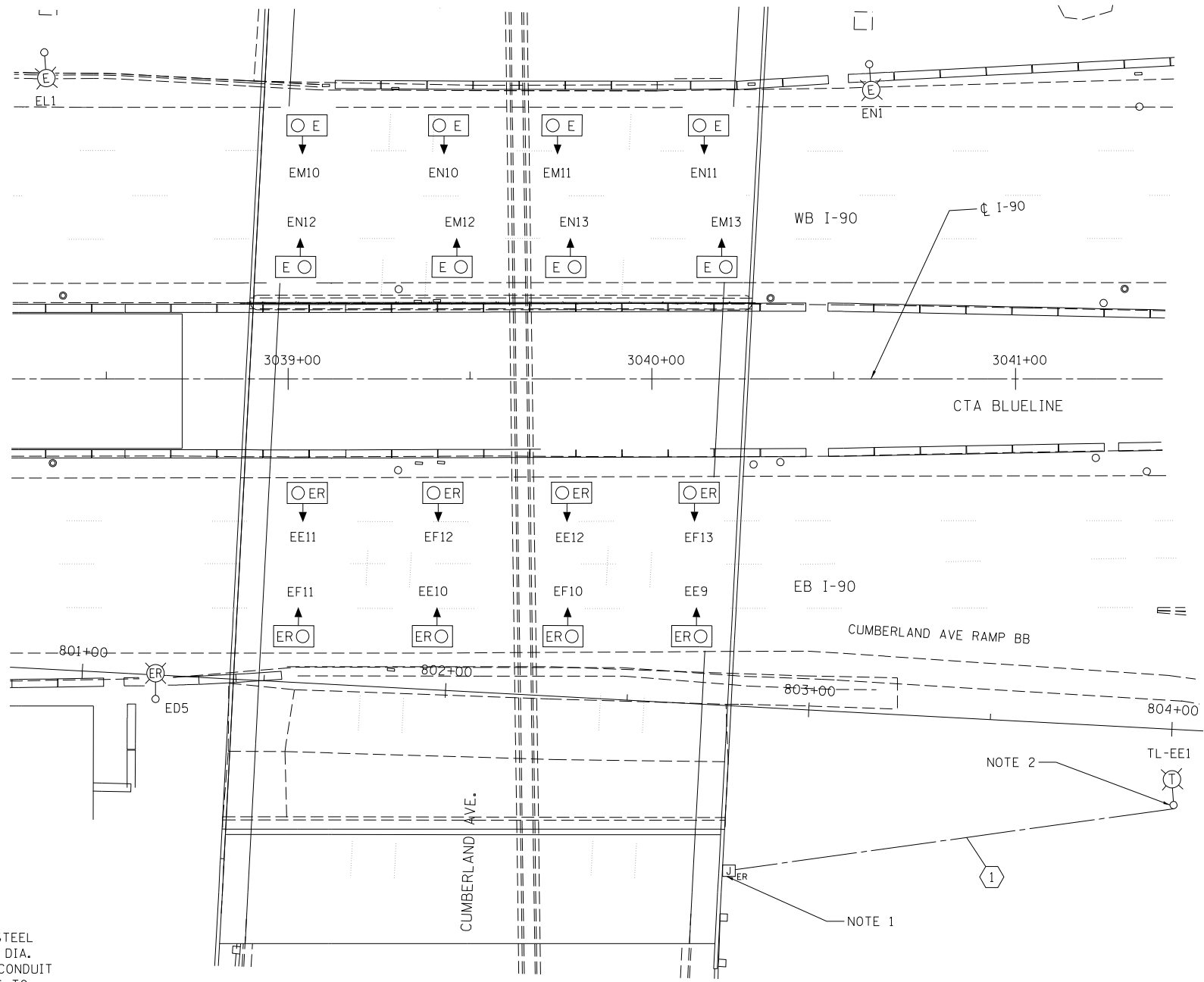
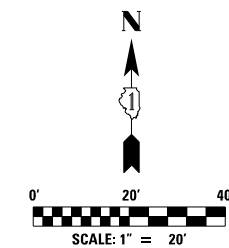
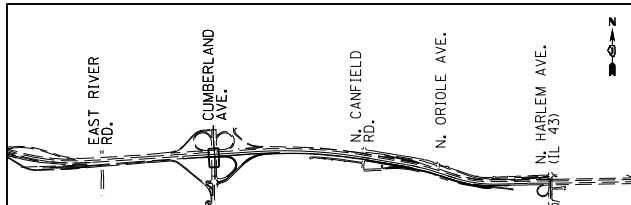
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

SCALE: 1"=50' SHEET NO. 5 OF 9 SHEETS STA. 3109+00 TO STA. 3111+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	250
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				





**NOTES:**

1. REMOVE EXISTING CONDUIT AND INSTALL 3" DIA. PVCC GALVANIZED STEEL CONDUIT ELBOW AND ROUTE TEMPORARY LIGHTING UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND THROUGH CONDUIT ELBOW INTO THE EXISTING JUNCTION BOX. MAKE SPLICE CONNECTIONS TO EXISTING LIGHTING CIRCUIT A/B CONDUCTORS FOR TEMPORARY LIGHTING FEED TO UNDERPASS LUMINAIRES.
2. PROPOSED TEMPORARY CABLE CONNECTIONS FOR CIRCUITS G/H OMITTED FOR CLARITY, SEE SHEET E-08 FOR CONTINUATION.
3. THE REMOVAL OF UNDERPASS LUMINAIRES SHALL INCLUDE THE REMOVAL OF LIGHTING CONDUCTORS, CONDUITS, JUNCTION BOX, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. SOME EXISTING JUNCTION BOXES SHALL REMAIN AND BE USED FOR FUTURE UNDERPASS LIGHTING CONNECTION. SEE FINAL LIGHTING PLANS FOR DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS UNIT, NO SALVAGE."

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
1	TEMPORARY LIGHTING CONDUIT, UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE)



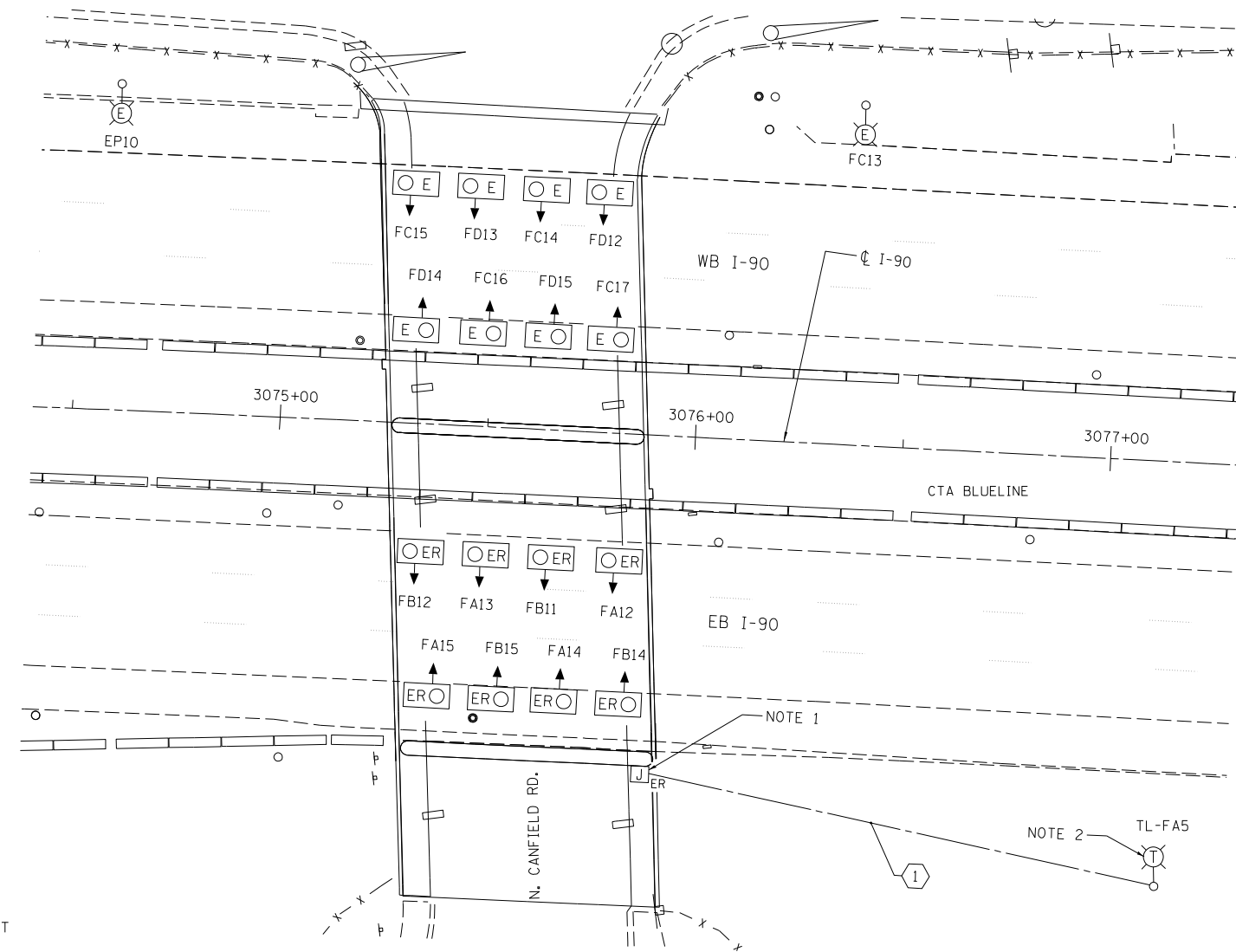
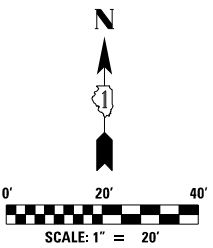
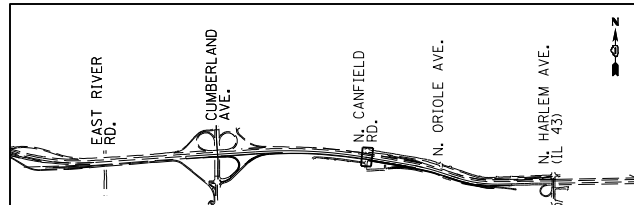
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS TEMPORARY LIGHTING AND REMOVAL PLAN  
CANFIELD AVENUE OVER EASTBOUND I-90**

SCALE: 1"=20" SHEET NO. 6 OF 9 SHEETS STA. 3057+00 TO STA. 3083+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	251
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. REMOVE EXISTING CONDUIT AND INSTALL 3" DIA. PVCC GALVANIZED STEEL CONDUIT ELBOW AND ROUTE TEMPORARY LIGHTING UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND THROUGH CONDUIT ELBOW INTO THE EXISTING JUNCTION BOX. MAKE SPLICE CONNECTIONS TO EXISTING LIGHTING CIRCUIT A/B CONDUCTORS FOR TEMPORARY LIGHTING FEED TO UNDERPASS LUMINAIRES.
2. PROPOSED TEMPORARY CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-09 FOR CONTINUATION.
3. THE REMOVAL OF UNDERPASS LUMINAIRES SHALL INCLUDE THE REMOVAL OF LIGHTING CONDUCTORS, CONDUITS, JUNCTION BOX, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. SOME EXISTING JUNCTION BOXES SHALL REMAIN AND BE USED FOR FUTURE UNDERPASS LIGHTING CONNECTION. SEE FINAL LIGHTING PLANS FOR DETAIL. THIS WORK SHALL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS UNIT, NO SALVAGE."

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	TEMPORARY LIGHTING CONDUIT, UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE)



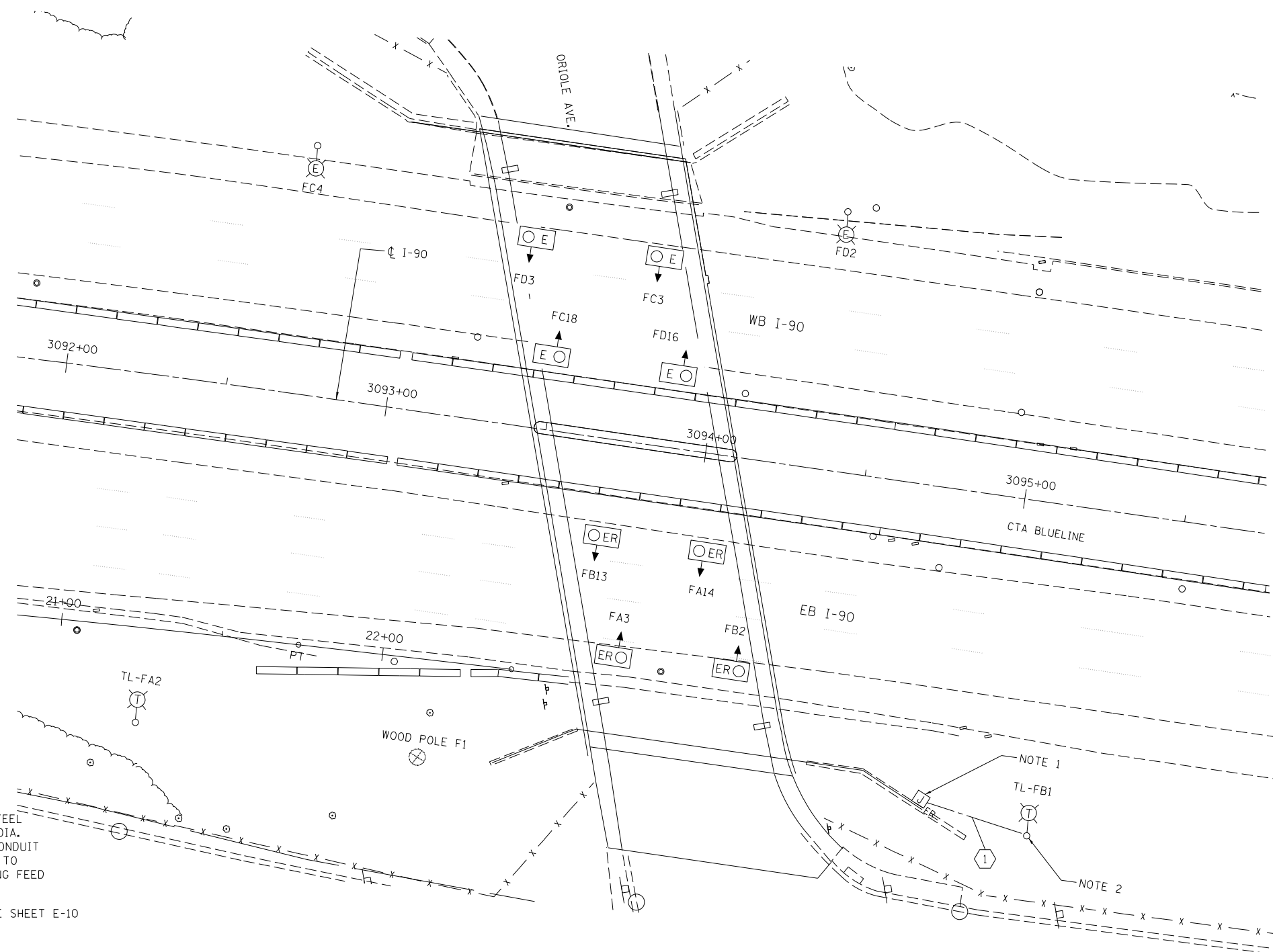
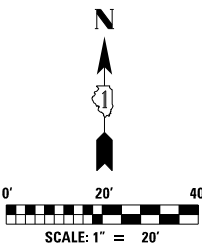
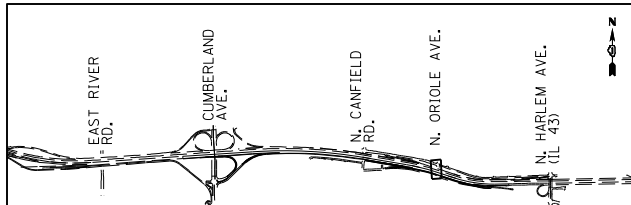
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS TEMPORARY LIGHTING AND REMOVAL PLAN  
CANFIELD ROAD OVER EASTBOUND I-90**

SCALE: 1"=20" SHEET NO. 14 OF 25 SHEETS STA. 3057+00 TO STA. 3083+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	252
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. REMOVE EXISTING CONDUIT AND INSTALL 3" DIA. PVCC GALVANIZED STEEL CONDUIT ELBOW AND ROUTE TEMPORARY LIGHTING UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND THROUGH CONDUIT ELBOW INTO THE EXISTING JUNCTION BOX. MAKE SPLICE CONNECTIONS TO EXISTING LIGHTING CIRCUIT E/F CONDUCTORS FOR TEMPORARY LIGHTING FEED TO UNDERPASS LUMINAIRES.
2. PROPOSED TEMPORARY CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-10 FOR CONTINUATION.
3. THE REMOVAL OF UNDERPASS LUMINAIRES SHALL INCLUDE THE REMOVAL OF LIGHTING CONDUCTORS, CONDUITS, JUNCTION BOX, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. SOME EXISTING JUNCTION BOXES SHALL REMAIN AND BE USED FOR FUTURE UNDERPASS LIGHTING CONNECTION. SEE FINAL LIGHTING PLANS FOR DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS UNIT, NO SALVAGE."

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	TEMPORARY LIGHTING CONDUIT, UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE)



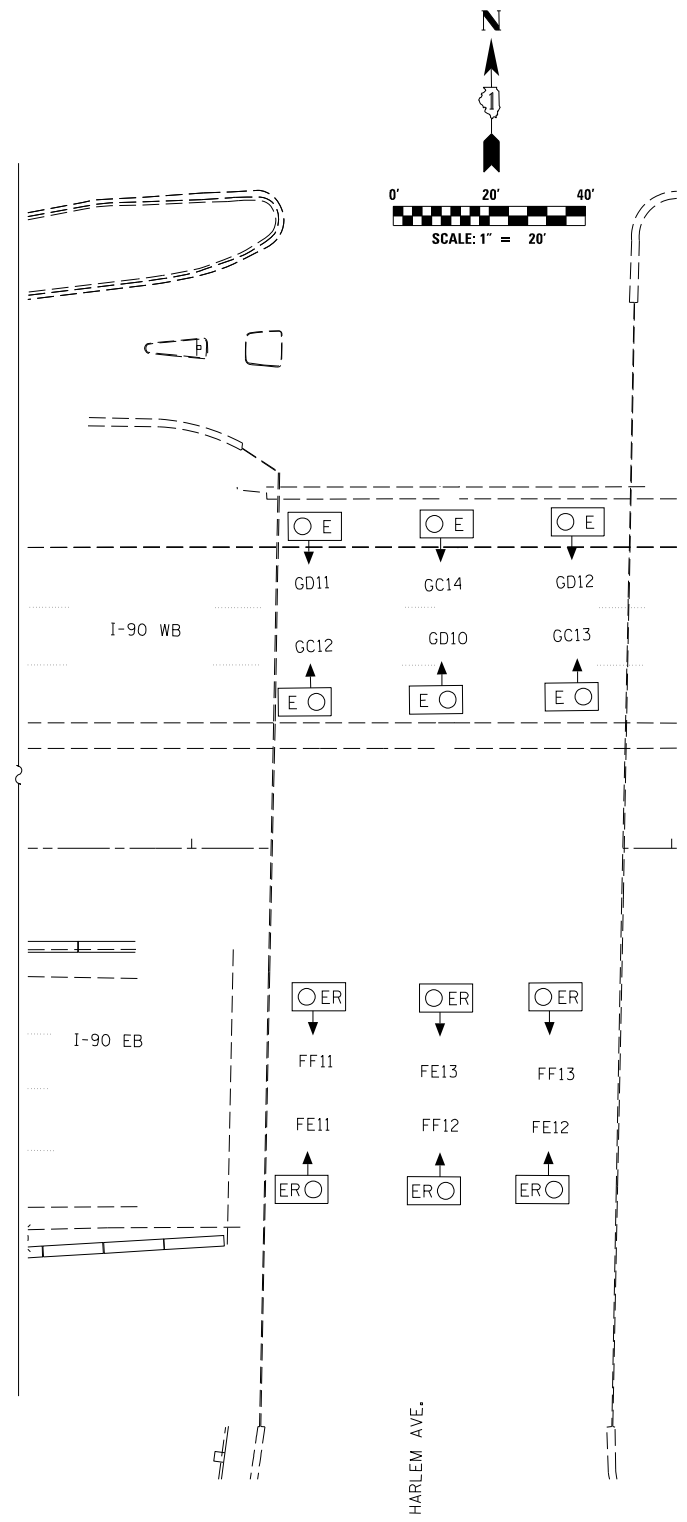
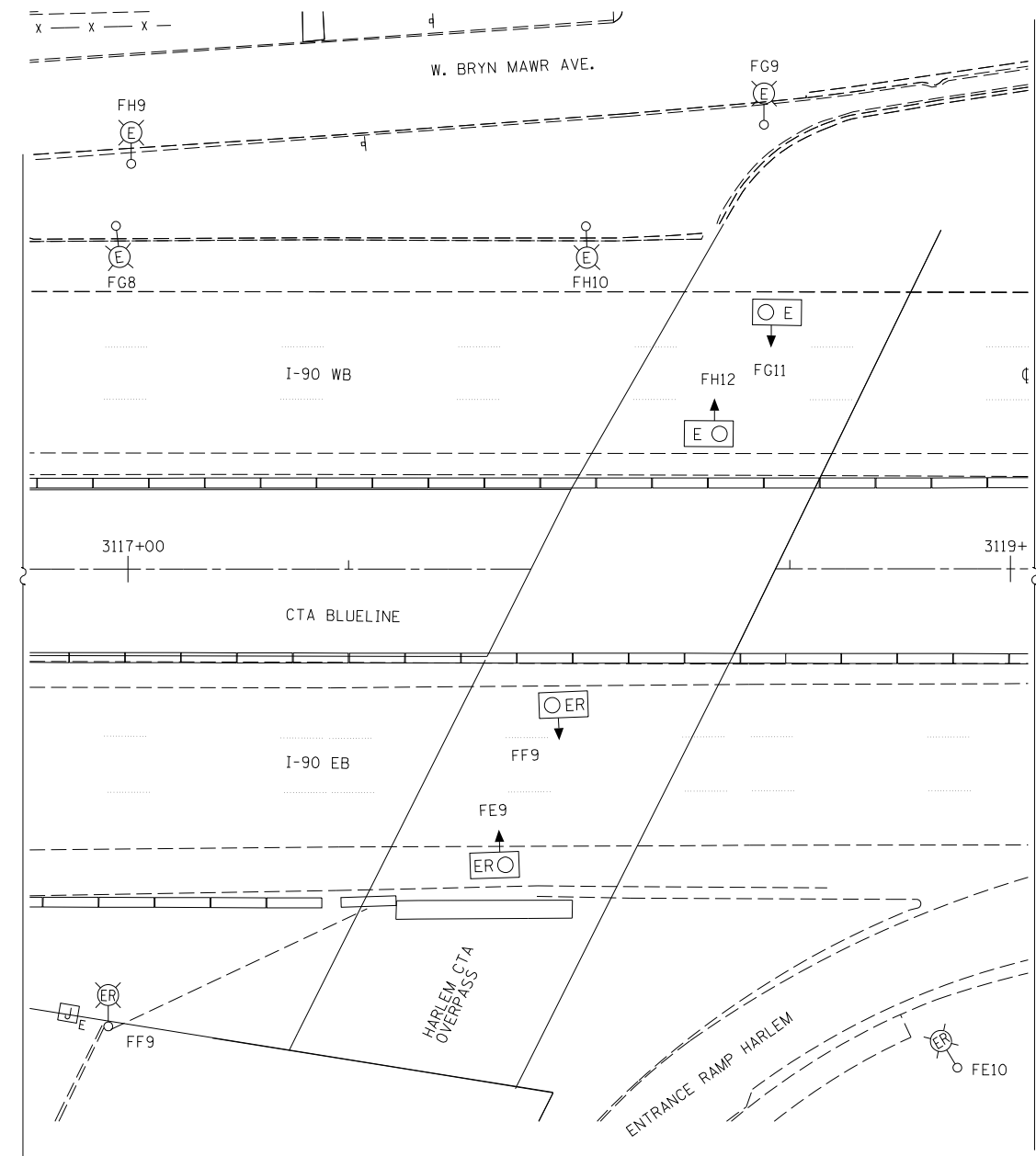
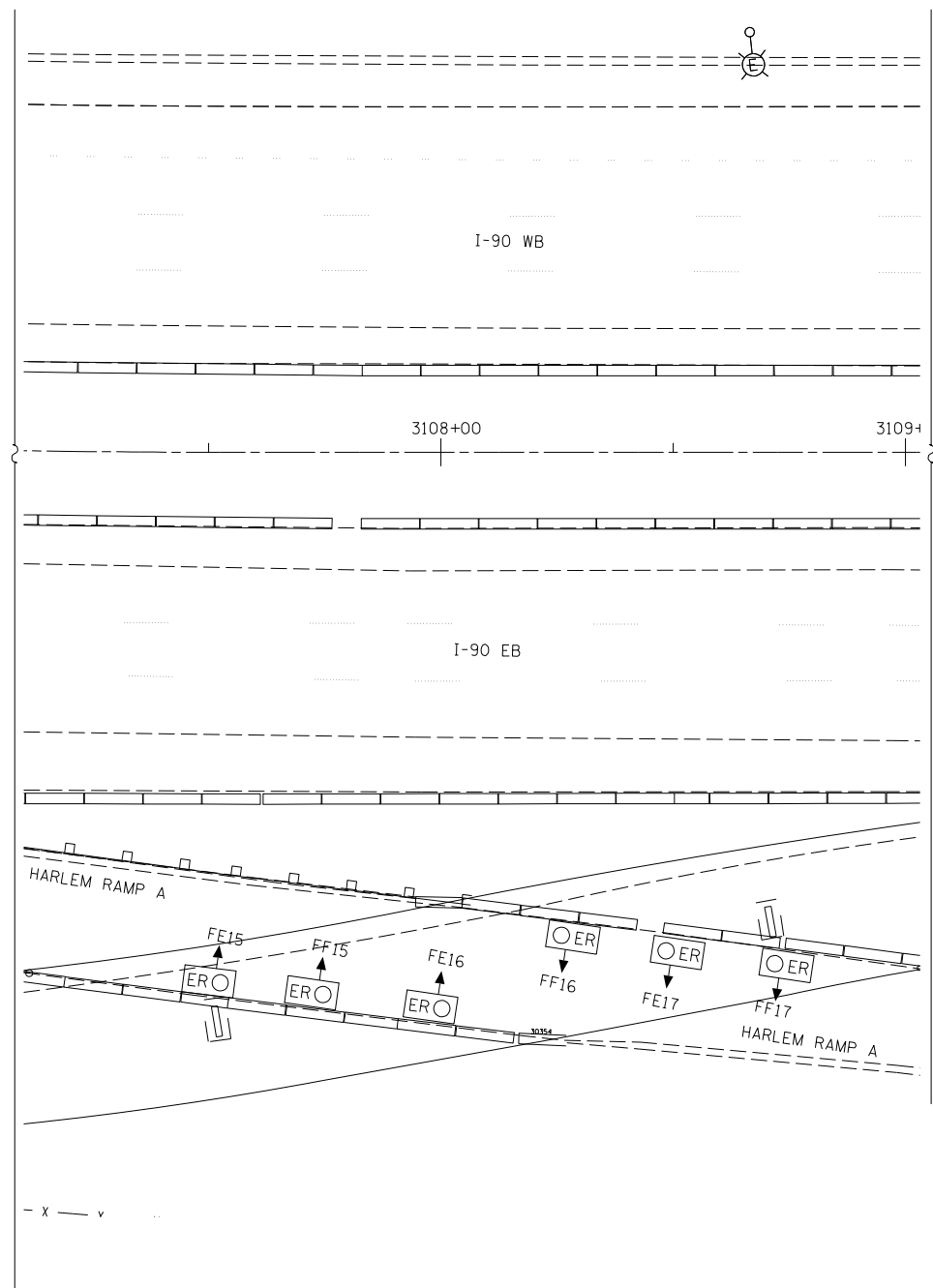
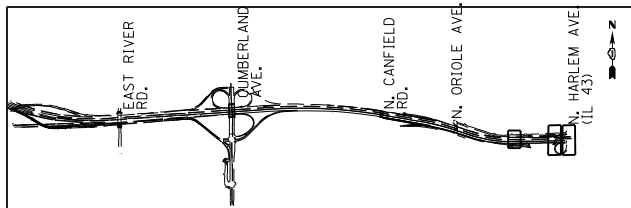
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS TEMPORARY LIGHTING AND REMOVAL PLAN  
ORIOLE AVENUE OVER EASTBOUND I-90**

SCALE: 1"=50" SHEET NO. 15 OF 25 SHEETS STA. 3083+00 TO STA. 3109+00

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 253
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SEE SHEET E-11 FOR CONTINUATION.
2. THE REMOVAL OF UNDERPASS LUMINAIRES SHALL INCLUDE THE REMOVAL OF LIGHTING CONDUCTORS, CONDUITS, JUNCTION BOX, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. SOME EXISTING JUNCTION BOXES SHALL REMAIN AND BE USED FOR FUTURE UNDERPASS LIGHTING CONNECTION. SEE FINAL LIGHTING PLANS FOR DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS UNIT, NO SALVAGE."



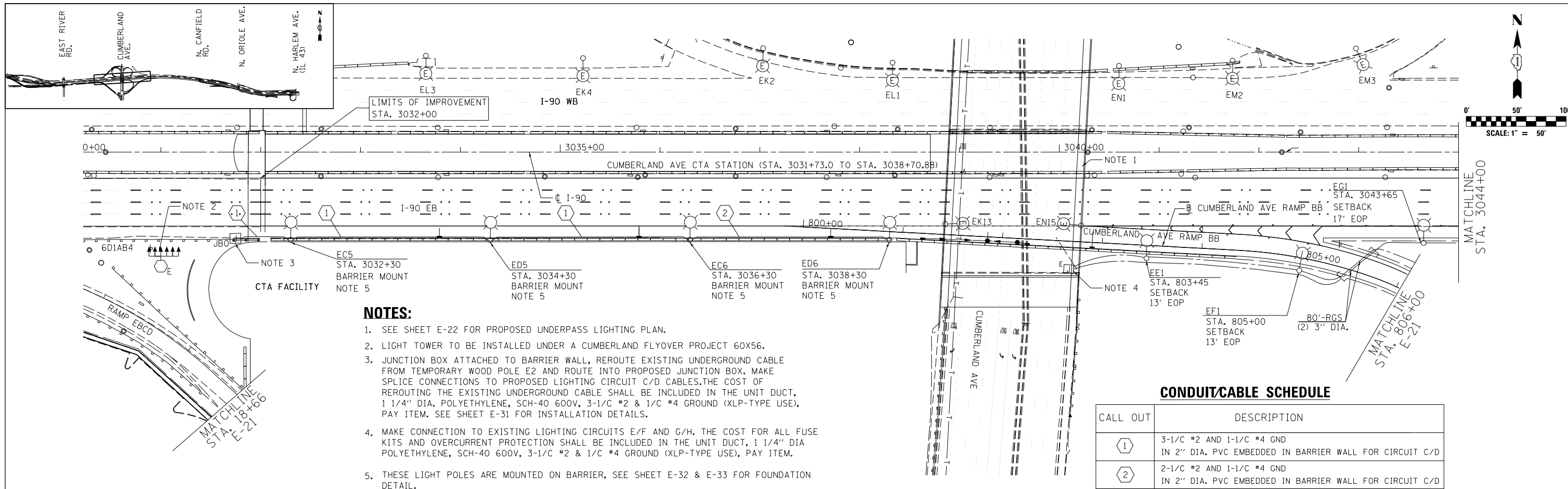
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS TEMPORARY LIGHTING AND REMOVAL PLAN  
HARLEM CTA, AND HARLEM AVENUE OVER EASTBOUND I-90, AND**

SCALE: 1"=20' SHEET NO. 16 OF 25 SHEETS STA. TO STA.

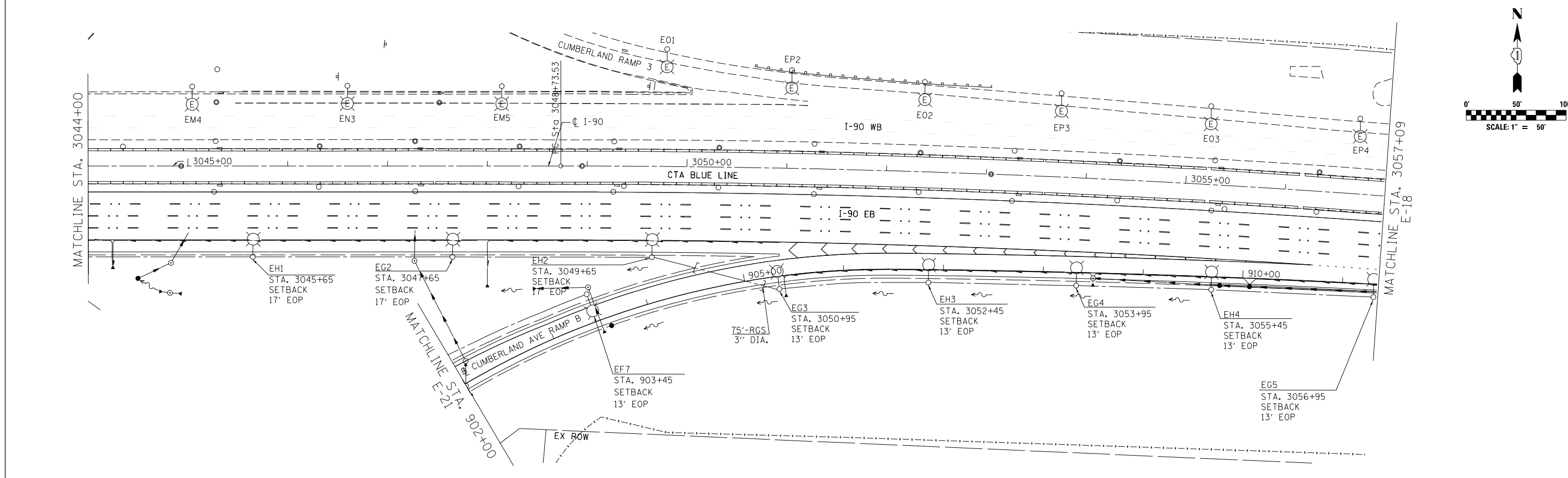
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	254
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

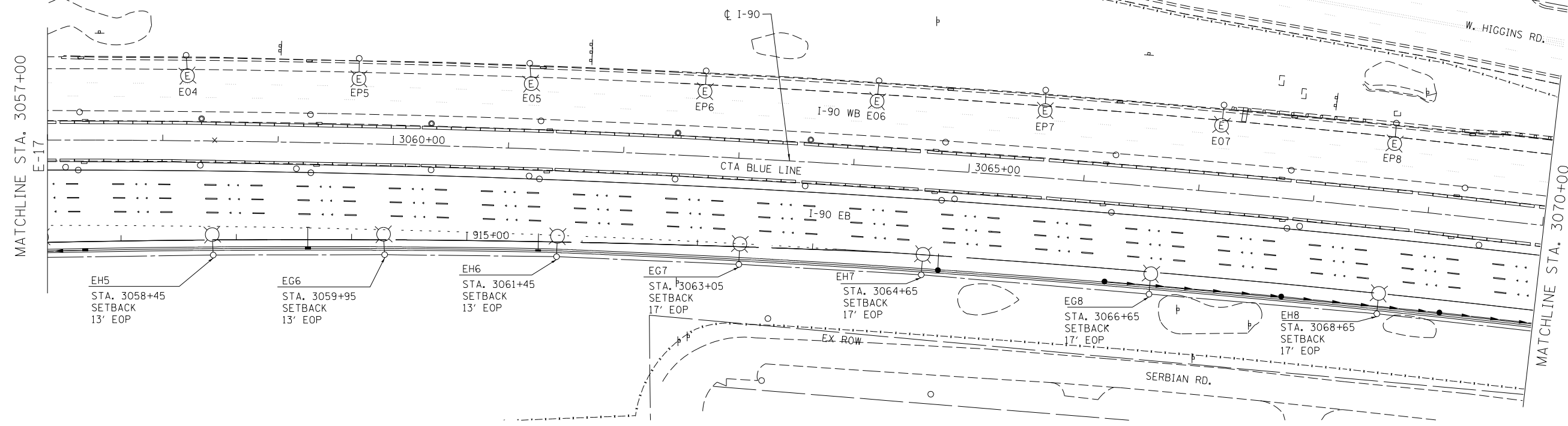
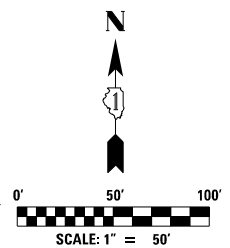
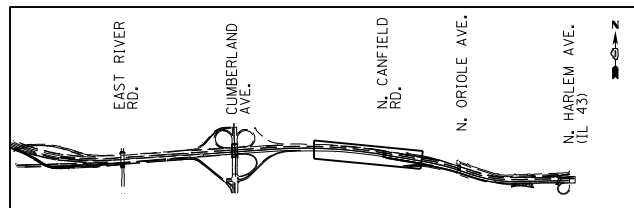


- NOTES:**
1. SEE SHEET E-22 FOR PROPOSED UNDERPASS LIGHTING PLAN.
  2. LIGHT TOWER TO BE INSTALLED UNDER A CUMBERLAND FLYOVER PROJECT 60X56.
  3. JUNCTION BOX ATTACHED TO BARRIER WALL, REROUTE EXISTING UNDERGROUND CABLE FROM TEMPORARY WOOD POLE E2 AND ROUTE INTO PROPOSED JUNCTION BOX. MAKE SPLICE CONNECTIONS TO PROPOSED LIGHTING CIRCUIT C/D CABLES. THE COST OF REROUTING THE EXISTING UNDERGROUND CABLE SHALL BE INCLUDED IN THE UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE), PAY ITEM. SEE SHEET E-31 FOR INSTALLATION DETAILS.
  4. MAKE CONNECTION TO EXISTING LIGHTING CIRCUITS E/F AND G/H. THE COST FOR ALL FUSE KITS AND OVERCURRENT PROTECTION SHALL BE INCLUDED IN THE UNIT DUCT, 1 1/4" DIA POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE), PAY ITEM.
  5. THESE LIGHT POLES ARE MOUNTED ON BARRIER, SEE SHEET E-32 & E-33 FOR FOUNDATION DETAIL.

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	3-1/C #2 AND 1-1/C #4 GND IN 2" DIA. PVC EMBEDDED IN BARRIER WALL FOR CIRCUIT C/D
②	2-1/C #2 AND 1-1/C #4 GND IN 2" DIA. PVC EMBEDDED IN BARRIER WALL FOR CIRCUIT C/D





- NOTES:**
- SEE SHEET E-23 FOR PROPOSED UNDERPASS LIGHTING PLAN.
  - UNDERPASS CONNECTIONS NOT SHOWN FOR CLARITY, SEE SHEET E-23.



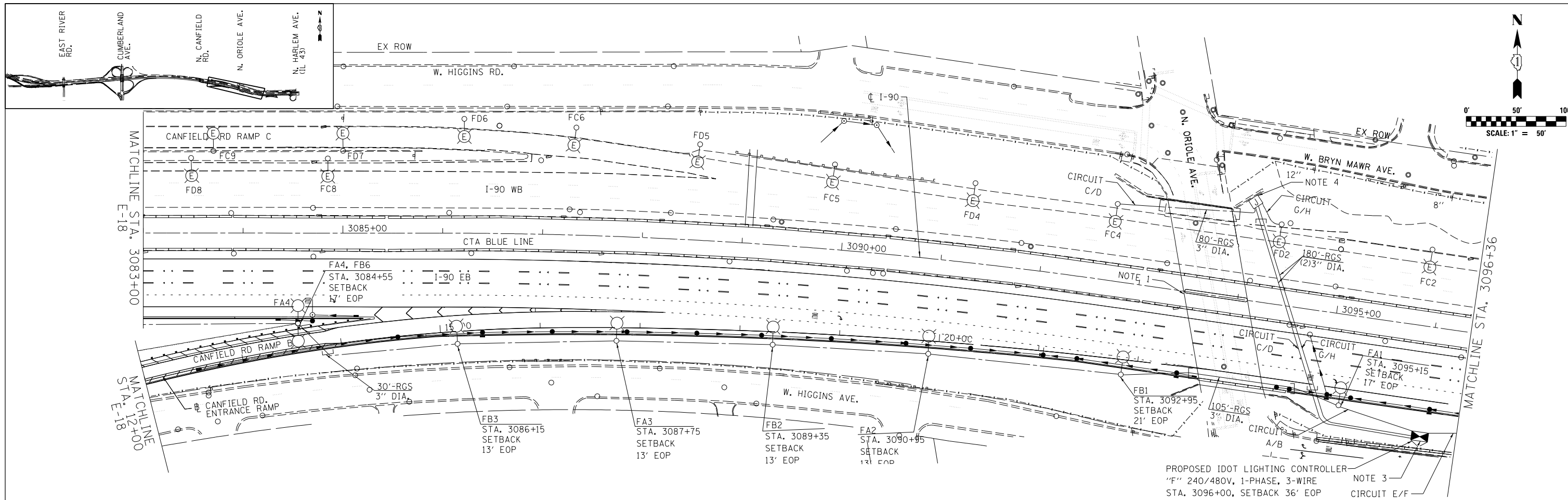
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT PROPOSED LIGHTING PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

SCALE: 1"=50' SHEET NO. 18 OF 25 SHEETS STA. 3057+00 TO STA. 3083+00

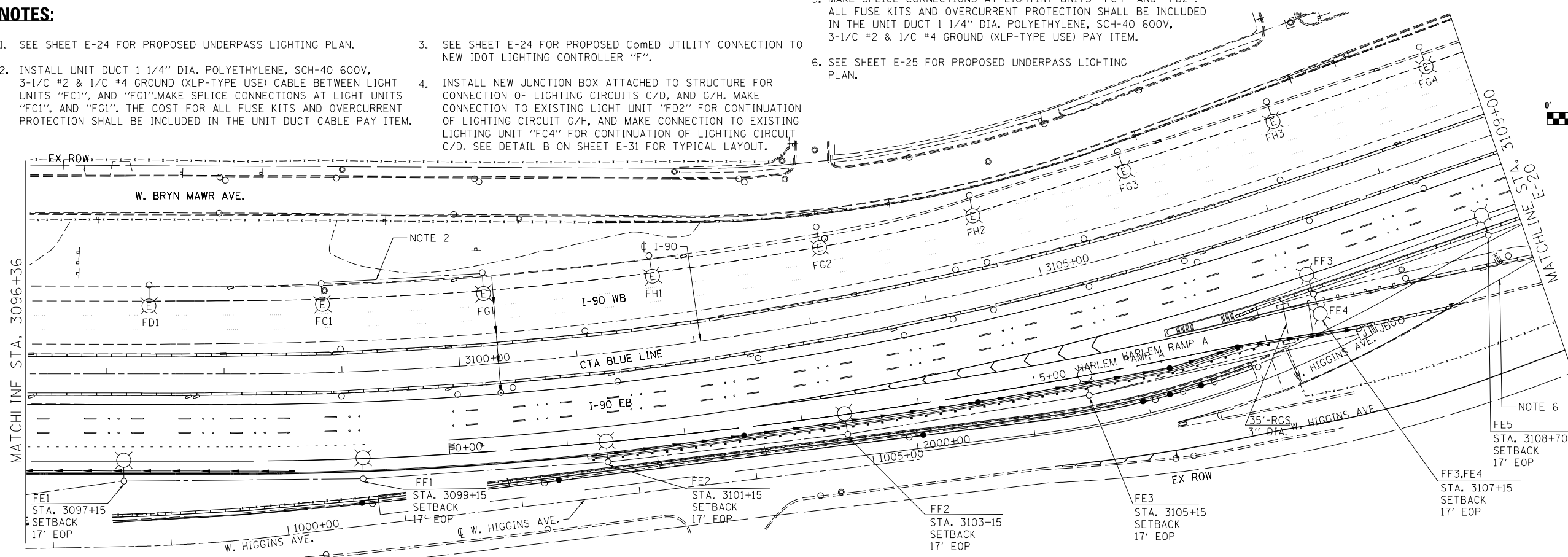
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 256
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60Y38



**NOTES:**

- SEE SHEET E-24 FOR PROPOSED UNDERPASS LIGHTING PLAN.
- INSTALL UNIT DUCT 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) CABLE BETWEEN LIGHT UNITS "FC1", AND "FG1". MAKE SPLICE CONNECTIONS AT LIGHT UNITS "FC1", AND "FG1". THE COST FOR ALL FUSE KITS AND OVERCURRENT PROTECTION SHALL BE INCLUDED IN THE UNIT DUCT CABLE PAY ITEM.
- SEE SHEET E-24 FOR PROPOSED ComED UTILITY CONNECTION TO NEW IDOT LIGHTING CONTROLLER "F".
- INSTALL NEW JUNCTION BOX ATTACHED TO STRUCTURE FOR CONNECTION OF LIGHTING CIRCUITS C/D, AND G/H. MAKE CONNECTION TO EXISTING LIGHT UNIT "FD2" FOR CONTINUATION OF LIGHTING CIRCUIT G/H, AND MAKE CONNECTION TO EXISTING LIGHTING UNIT "FC4" FOR CONTINUATION OF LIGHTING CIRCUIT C/D. SEE DETAIL B ON SHEET E-31 FOR TYPICAL LAYOUT.

- MAKE SPLICE CONNECTIONS AT LIGHTING UNITS "FC4" AND "FD2". ALL FUSE KITS AND OVERCURRENT PROTECTION SHALL BE INCLUDED IN THE UNIT DUCT 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) PAY ITEM.
- SEE SHEET E-25 FOR PROPOSED UNDERPASS LIGHTING PLAN.



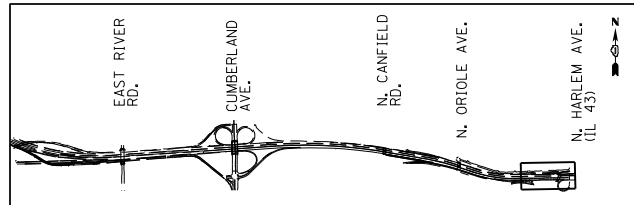
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PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT PROPOSED LIGHTING PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

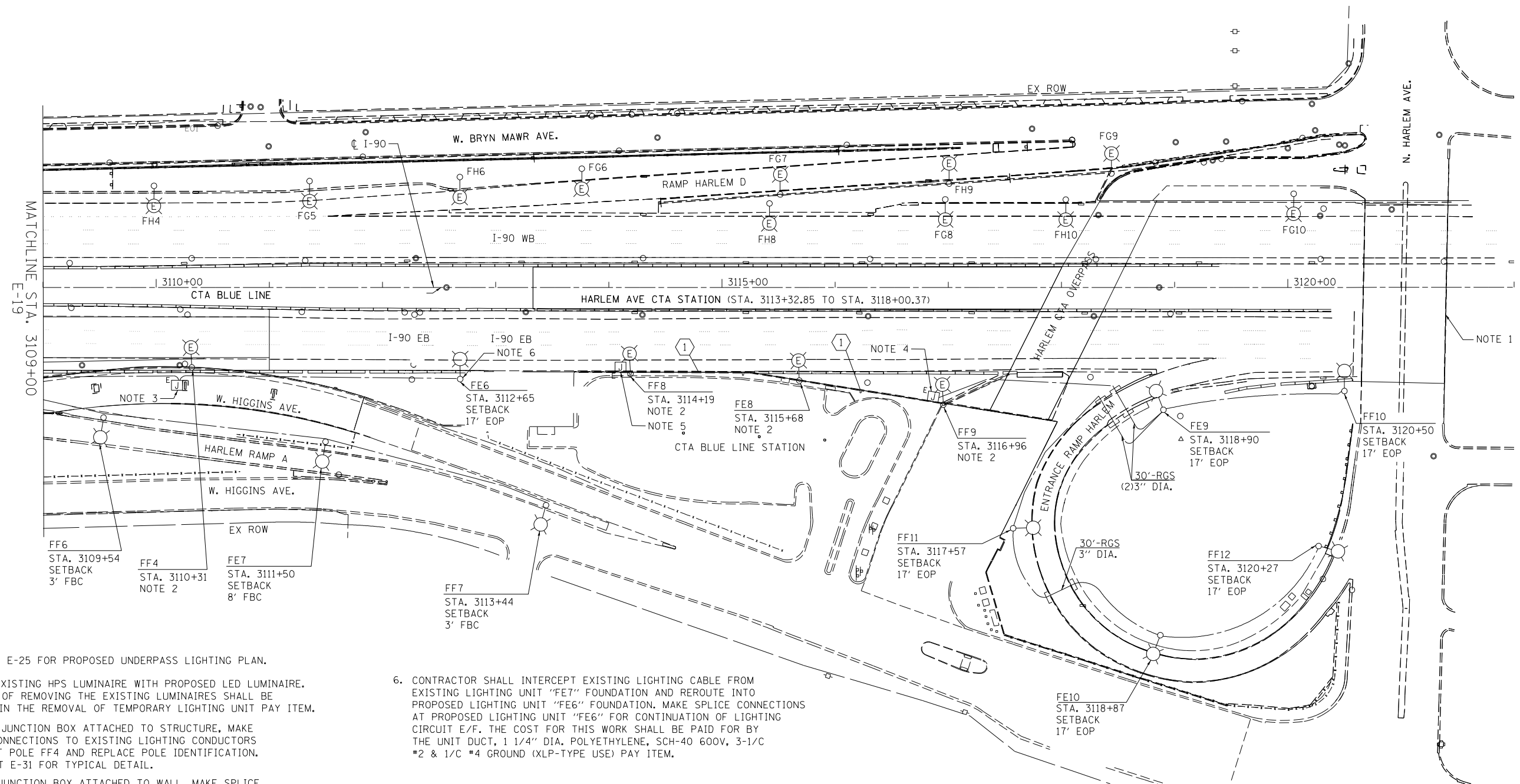
SCALE: 1"=50' SHEET NO. 19 OF 25 SHEETS STA. 3083+00 TO STA. 3109+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	257
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



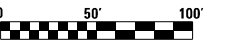
**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
1	3-1/2 #2 AND 1-1/2 #4 GND IN EXISTING CONDUIT CONCEALED WALL FOR CIRCUIT E/F (SEE NOTE 5)



**NOTES:**

- SEE SHEET E-25 FOR PROPOSED UNDERPASS LIGHTING PLAN.
- REPLACE EXISTING HPS LUMINAIRE WITH PROPOSED LED LUMINAIRE. THE COST OF REMOVING THE EXISTING LUMINAIRES SHALL BE INCLUDED IN THE REMOVAL OF TEMPORARY LIGHTING UNIT PAY ITEM.
- EXISTING JUNCTION BOX ATTACHED TO STRUCTURE, MAKE SPLICE CONNECTIONS TO EXISTING LIGHTING CONDUCTORS FOR LIGHT POLE FF4 AND REPLACE POLE IDENTIFICATION. SEE SHEET E-31 FOR TYPICAL DETAIL.
- EXISTING JUNCTION BOX ATTACHED TO WALL, MAKE SPLICE CONNECTIONS IN EXISTING JUNCTION BOX, ALL SPLICES TO BE INCLUDED IN THE UNDERGROUND CABLE PAY ITEM. SEE SHEET E-31 FOR TYPICAL DETAILS.
- CONTRACTOR SHALL INVESTIGATE EXISTING CONDUIT TO DETERMINE THE FEASIBILITY OF PULLING/INSTALLING NEW CONDUCTORS IN THE EXISTING CONDUIT AND PROVIDE RECOMMENDATION TO IDOT. THE COST FOR THIS WORK SHALL BE PAID FOR BY THE REMOVAL OF CABLE IN CONDUIT PAY ITEM.
- CONTRACTOR SHALL INTERCEPT EXISTING LIGHTING CABLE FROM EXISTING LIGHTING UNIT "FE7" FOUNDATION AND REROUTE INTO PROPOSED LIGHTING UNIT "FE6" FOUNDATION. MAKE SPLICE CONNECTIONS AT PROPOSED LIGHTING UNIT "FE6" FOR CONTINUATION OF LIGHTING CIRCUIT E/F. THE COST FOR THIS WORK SHALL BE PAID FOR BY THE UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/2 #2 & 1/2 #4 GROUND (XLP-TYPE USE) PAY ITEM.



USER NAME = konjiko	DESIGNED KFA	REVISED -
	DRAWN KFA	REVISED -
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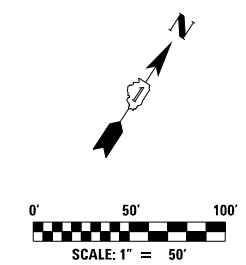
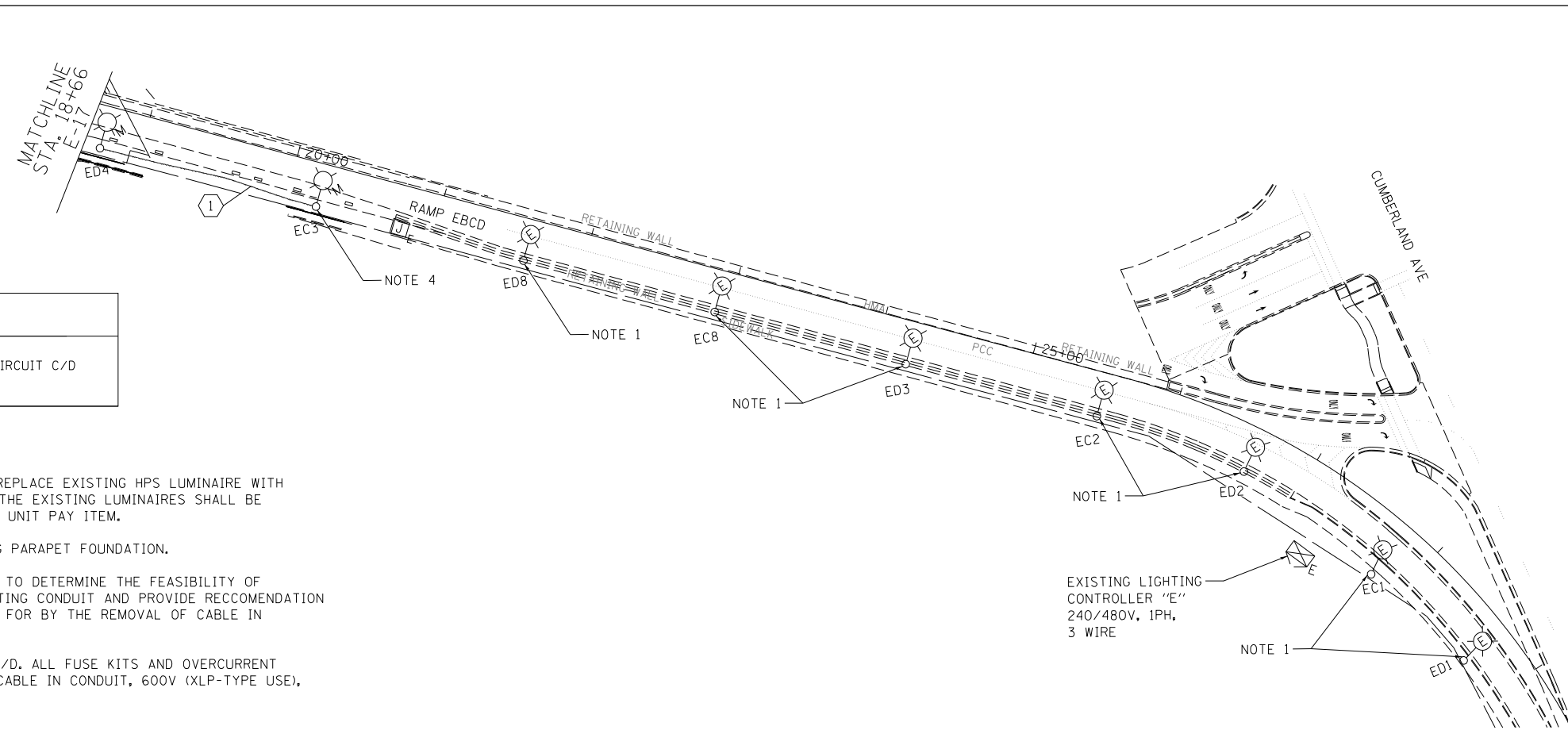
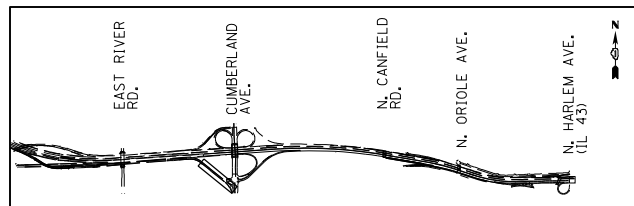
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT PROPOSED LIGHTING PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

SCALE: 1"=50' SHEET NO. 20 OF 25 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	258
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



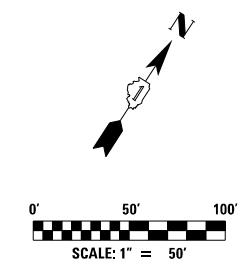
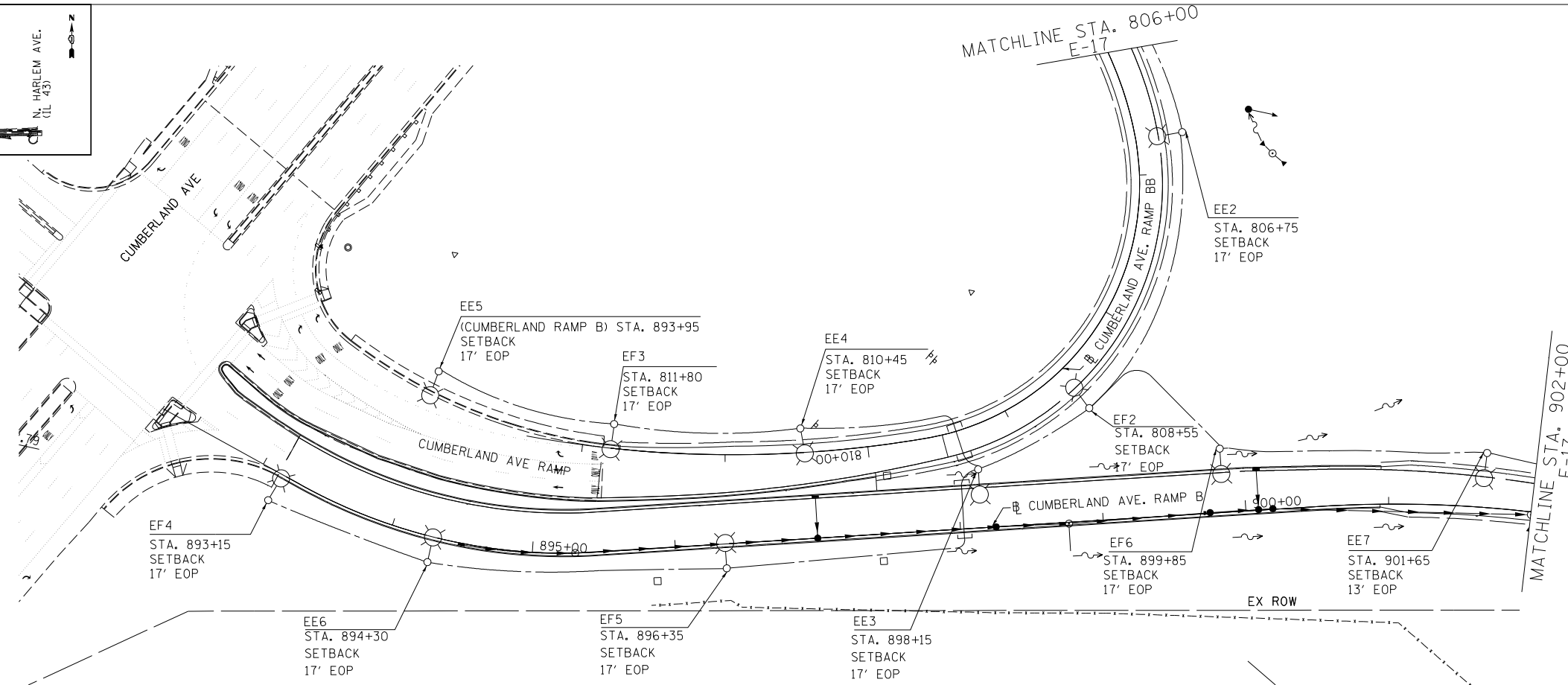
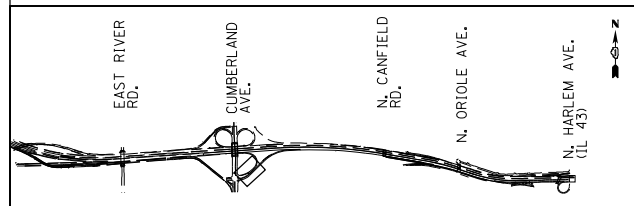


**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	3-1/C #2 AND 1-1/C #4 GND IN EXISTING CONDUIT CONCEALED WALL FOR CIRCUIT C/D (SEE NOTE 3)

**NOTES:**

- LIGHT POLE INSTALLED IN A SEPERATE CONTRACT, REPLACE EXISTING HPS LUMINAIRE WITH PROPOSED LED LUMINAIRE. THE COST OF REMOVING THE EXISTING LUMINAIRES SHALL BE INCLUDED IN THE REMOVAL OF TEMPORARY LIGHTING UNIT PAY ITEM.
- PROPOSED LIGHT POLE TO BE MOUNTED ON EXISTING PARAPET FOUNDATION.
- CONTRACTOR SHALL INVESTIGATE EXISTING CONDUIT TO DETERMINE THE FEASIBILITY OF PULLING/INSTALLING NEW CONDUCTORS IN THE EXISTING CONDUIT AND PROVIDE RECCOMENDATION TO IDOT. THE COST FOR THIS WORK SHALL BE PAID FOR BY THE REMOVAL OF CABLE IN CONDUIT PAY ITEM.
- MAKE CONNECTION TO EXISTING LIGHTING CIRCUIT C/D. ALL FUSE KITS AND OVERCURRENT PROTECTION SHALL BE INCLUDED IN THE ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 2 PAY ITEM.



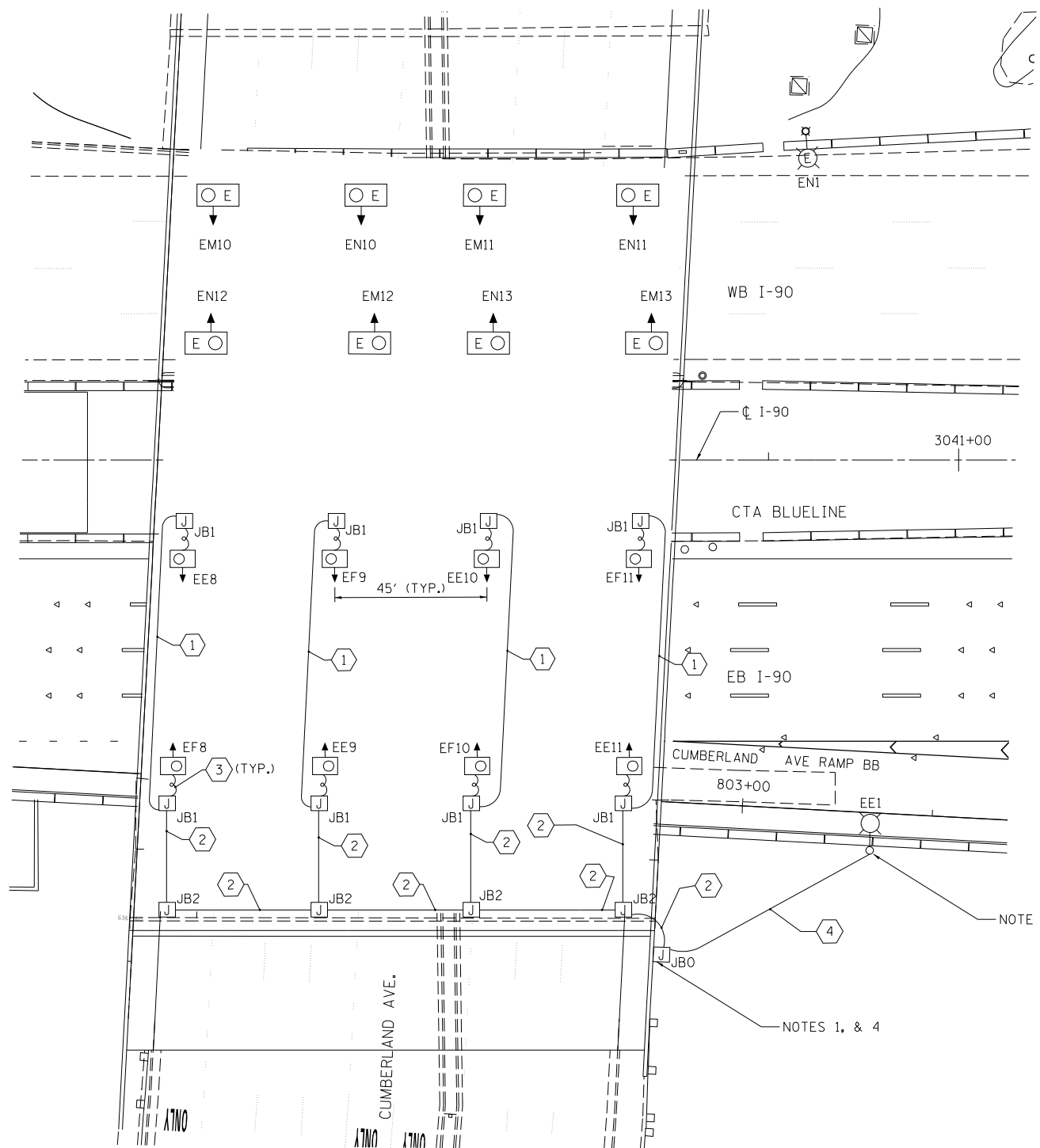
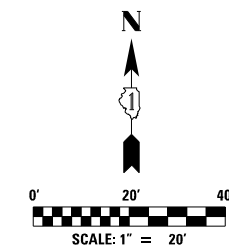
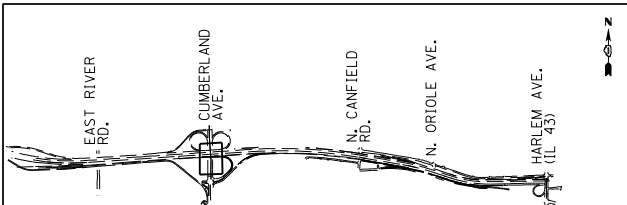
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT PROPOSED LIGHTING PLAN  
EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE**

SCALE: 1"=50" SHEET NO. 21 OF 25 SHEETS STA. 3109+00 TO STA. 3111+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	259
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN PROPOSED JUNCTION BOX. THIS WORK SHALL INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B PAY ITEM.
2. ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELLED PAVEMENT.
3. PROPOSED CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-17 FOR CONTINUATION.
4. INSTALL PROPOSED 3" DIA. PVCC RGS CONDUIT INTO PROPOSED JUNCTION BOX, AND ROUTE LIGHTING UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND THROUGH 3" DIA. RGS PVCC CONDUIT INTO THE PROPOSED JUNCTION BOX (SEE DETAIL C ON SHEET 31 FOR PROPOSED JUNCTION BOX CONNECTION DETAIL).

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
1	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
2	3-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
3	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. LIQUID TIGHT FLEXIBLE CONDUIT (CIRCUITS AS INDICATED ON THIS DRAWING)
4	1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) (CIRCUITS AS INDICATED ON THIS DRAWING)



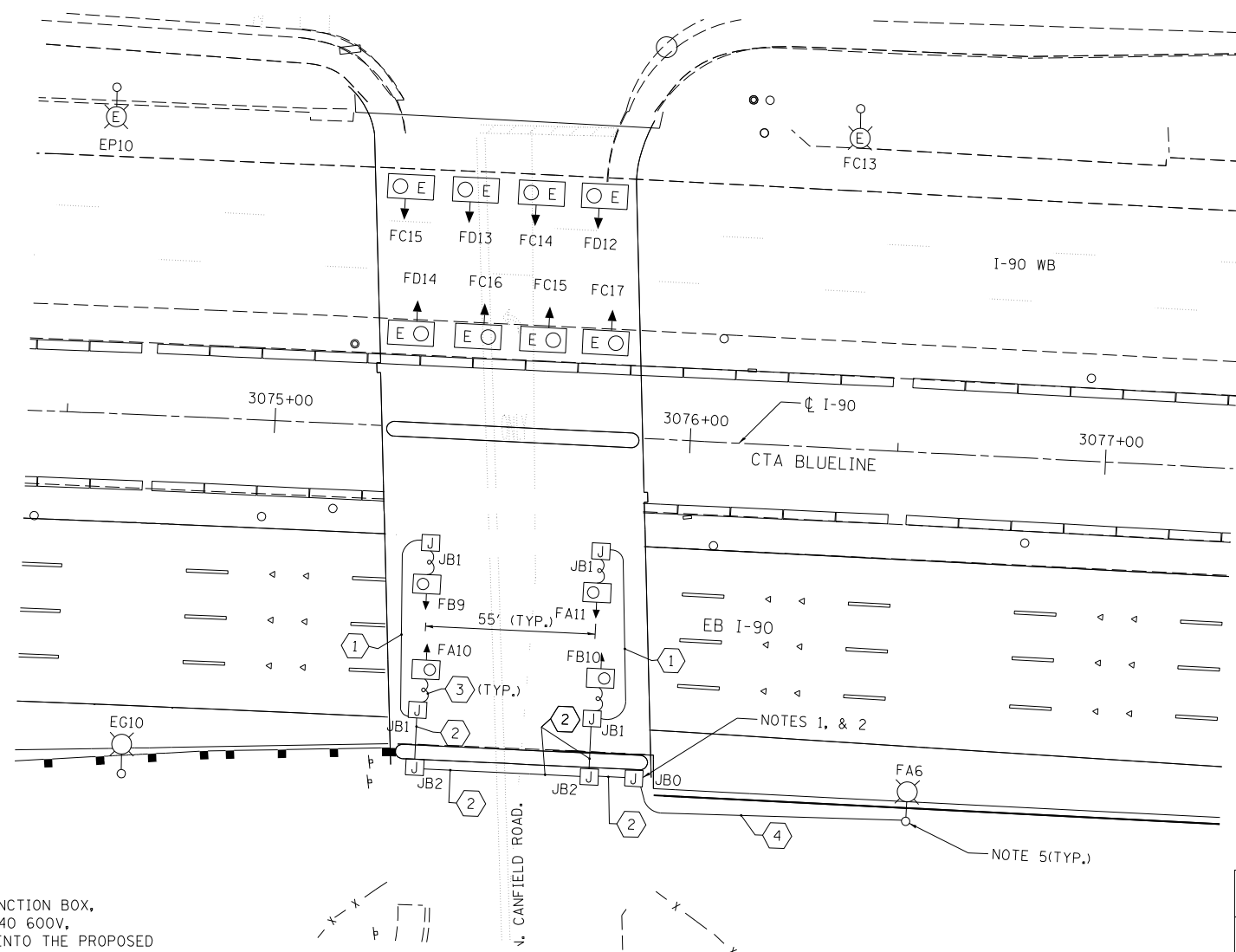
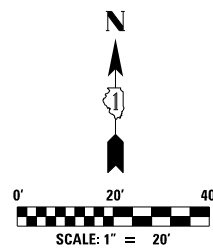
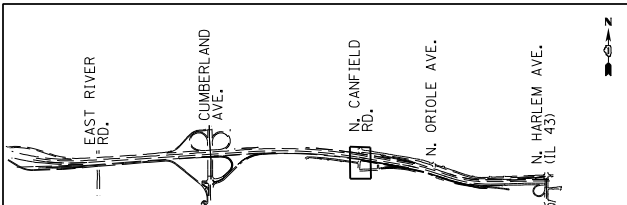
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS LIGHTING PLAN  
CUMBERLAND AVENUE OVER EASTBOUND I-90**

SCALE: 1"=20' SHEET NO. 22 OF 25 SHEETS STA. TO STA. 3057+00

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 260
CONTRACT NO. 60Y38				ILLINOIS FED. AID PROJECT



**NOTES:**

1. INSTALL PROPOSED 3" DIA. PVCC RGS CONDUIT INTO PROPOSED JUNCTION BOX, AND ROUTE LIGHTING UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND THROUGH 3" DIA. RGS PVCC CONDUIT INTO THE PROPOSED JUNCTION BOX (SEE TYPICAL UNDERPASS CONNECTION DETAIL ON SHEET E-30). MAKE SPLICE CONNECTIONS TO PROPOSED LIGHTING CIRCUIT A/B CONDUCTORS FOR FINAL LIGHTING FEED TO UNDERPASS LUMINAIRES.
2. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN PROPOSED JUNCTION BOX. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B PAY ITEM.
3. ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELLED PAVEMENT.
4. ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELLED PAVEMENT.
5. PROPOSED CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-18 FOR CONTINUATION.

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
②	3-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
③	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. LIQUID TIGHT FLEXIBLE CONDUIT (CIRCUITS AS INDICATED ON THIS DRAWING)
④	1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) (CIRCUITS AS INDICATED ON THIS DRAWING)



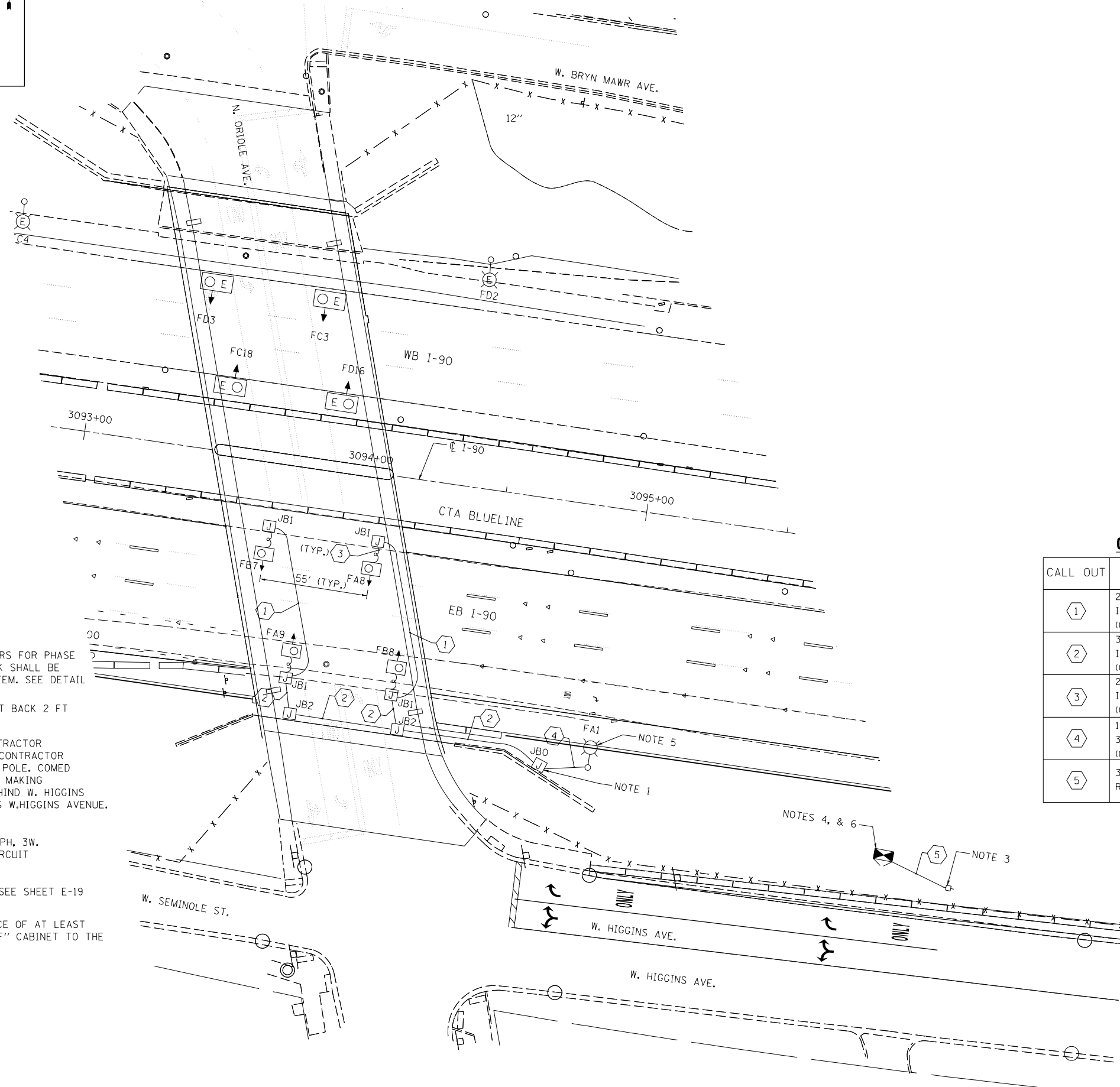
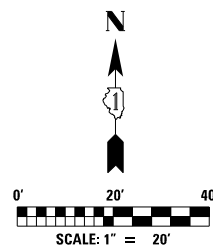
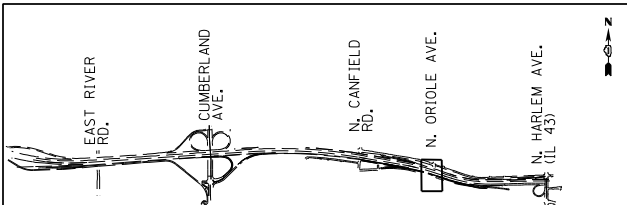
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	DRAWN KFA	REVISED -
PLOT SCALE = 1:80' / in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**IDOT UNDERPASS LIGHTING PLAN  
CANFIELD ROAD OVER EASTBOUND I-90**

SCALE: 1"=20" SHEET NO. 23 OF 25 SHEETS STA. 3057+00 TO STA. 3083+00

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 261
CONTRACT NO. 60Y38				ILLINOIS FED. AID PROJECT



**NOTES:**

1. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN NEW JUNCTION BOX. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B ITEM. SEE DETAIL A ON SHEET E-31 FOR CONNECTION.
2. ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELLED PAVEMENT.
3. PROPOSED COMED UTILITY SERVICE POLE LOCATION. CONTRACTOR SHALL COORDINATE WITH COMED FOR ACTUAL LOCATION. CONTRACTOR SHALL COORDINATE WITH COMED AND PROVIDE A WOODEN POLE. COMED PROVIDE SERVICE AERIALLY OVER W. HIGGINS AVENUE BY MAKING CONNECTION TO TRANSFORMER LOCATED IN ALLEYWAY BEHIND W. HIGGINS AVENUE AND ROUTING THE POWER SERVICE CABLE ACROSS W.HIGGINS AVENUE. SEE SHEET E-34 FOR TYPICAL CONNECTION DETAIL.
4. PROPOSED IDOT LIGHTING CONTROLLER "F" 240V/480V, 1PH, 3W. SEE PROPOSED LIGHTING SHEET E-19 FOR LIGHT POLE CIRCUIT DISTRIBUTION CABLE CONNECTIONS.
5. PROPOSED CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-19 FOR CONTINUATION.
6. CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCE SPACE OF AT LEAST 3.5' FROM THE FRONT OF PROPOSED IDOT CONTROLLER "F" CABINET TO THE EXISTING FENCE.

**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
1	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
2	3-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
3	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. LIQUID TIGHT FLEXIBLE CONDUIT (CIRCUITS AS INDICATED ON THIS DRAWING)
4	1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) (CIRCUITS AS INDICATED ON THIS DRAWING)
5	3-1/C 350MCM XLP-TYPE USE IN 3" DIA. RGS UNDER-GROUND SERVICE



USER NAME = konyikwo	DESIGNED KFA	REVISED -
	DRAWN KFA	REVISED -
PLOT SCALE = 1:80' / in.	CHECKED MCD	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

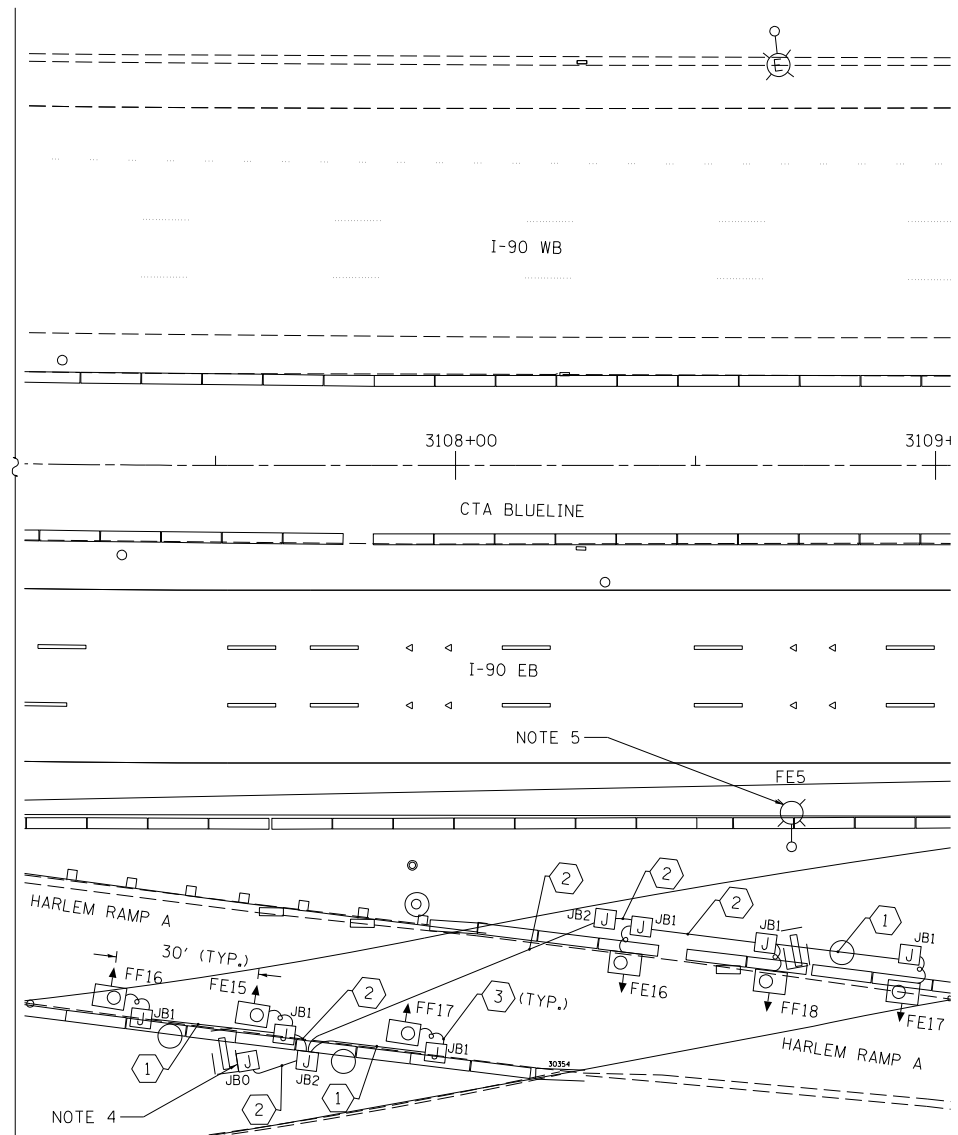
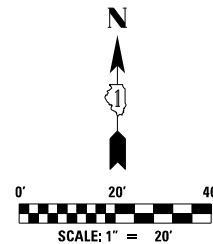
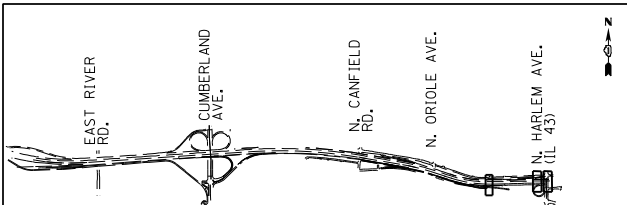
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS LIGHTING PLAN  
ORIOLE AVENUE OVER EASTBOUND I-90**

SCALE: 1"=20" SHEET NO. 24 OF 25 SHEETS STA. 3083+00 TO STA. 3109+00

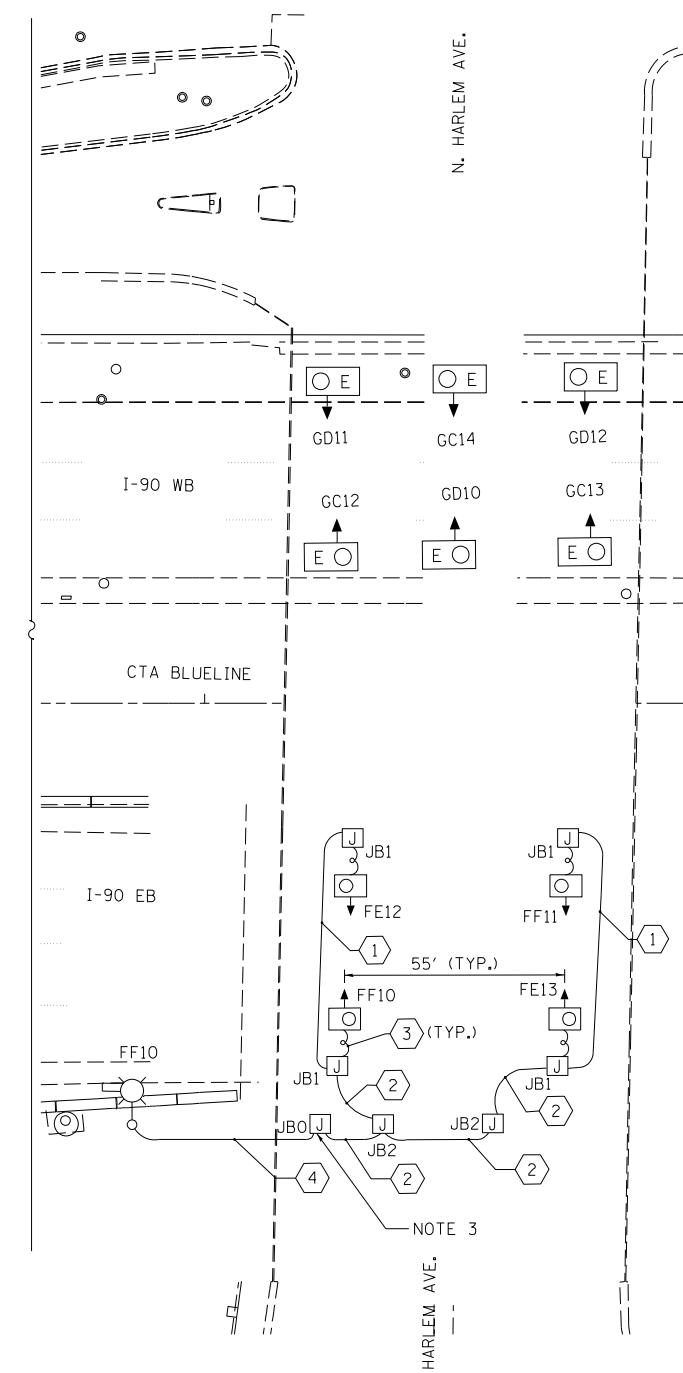
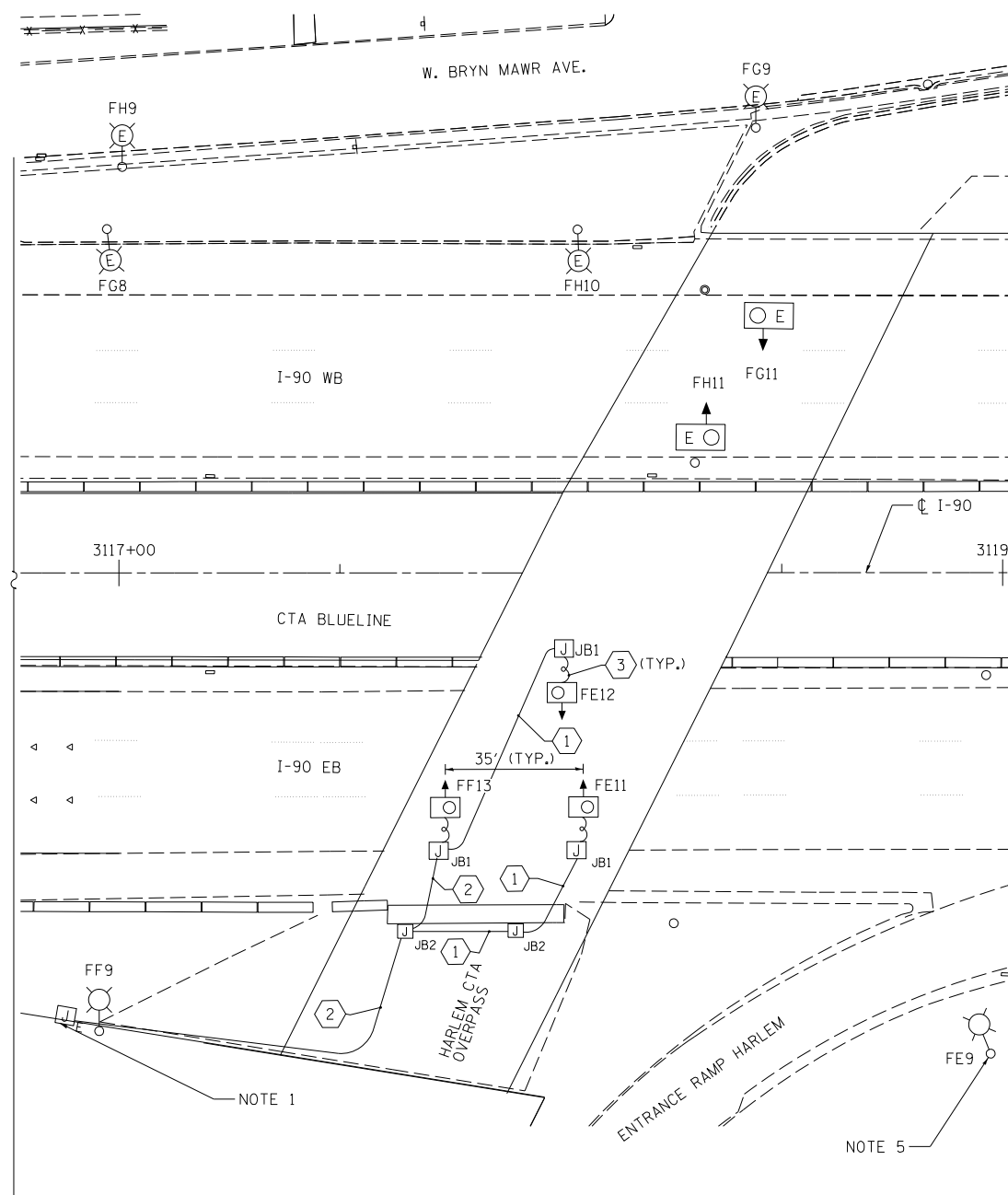
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	262
CONTRACT NO. 60Y38				

ILLINOIS FED. AID PROJECT



**NOTES:**

1. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN PROPOSED JUNCTION BOX. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B PAY ITEM.
2. ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELLED PAVEMENT.
3. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN PROPOSED JUNCTION BOX. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B PAY ITEM. SEE "DETAIL A" ON SHEET E-31 FOR JUNCTION BOX CONNECTION.
4. INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN PROPOSED JUNCTION BOX. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMINAIRE, UNDERPASS, LED TYPE B PAY ITEM. SEE "RAMP A PIER CONNECTION DETAIL" ON SHEET E-31 FOR JUNCTION BOX CONNECTION.
5. PROPOSED FINAL CABLE CONNECTIONS OMITTED FOR CLARITY, SEE SHEET E-20 FOR CONTINUATION.



**CONDUIT/CABLE SCHEDULE**

CALL OUT	DESCRIPTION
①	2-1/2" #10 AND 1-1/2" #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
②	3-1/2" #10 AND 1-1/2" #10 GND IN 1" DIA. PVCC RGC, ATTACHED TO STRUCTURE (CIRCUITS AS INDICATED ON THIS DRAWING)
③	2-1/2" #10 AND 1-1/2" #10 GND IN 1" DIA. LIQUID TIGHT FLEXIBLE CONDUIT (CIRCUITS AS INDICATED ON THIS DRAWING)
④	1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/2" #2 & 1/2" #4 GROUND (XLP-TYPE USE) (CIRCUITS AS INDICATED ON THIS DRAWING)



USER NAME = konykwo	DESIGNED KFA	REVISED -
	DRAWN KFA	REVISED -
PLOT SCALE = 1:8000 / 1"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

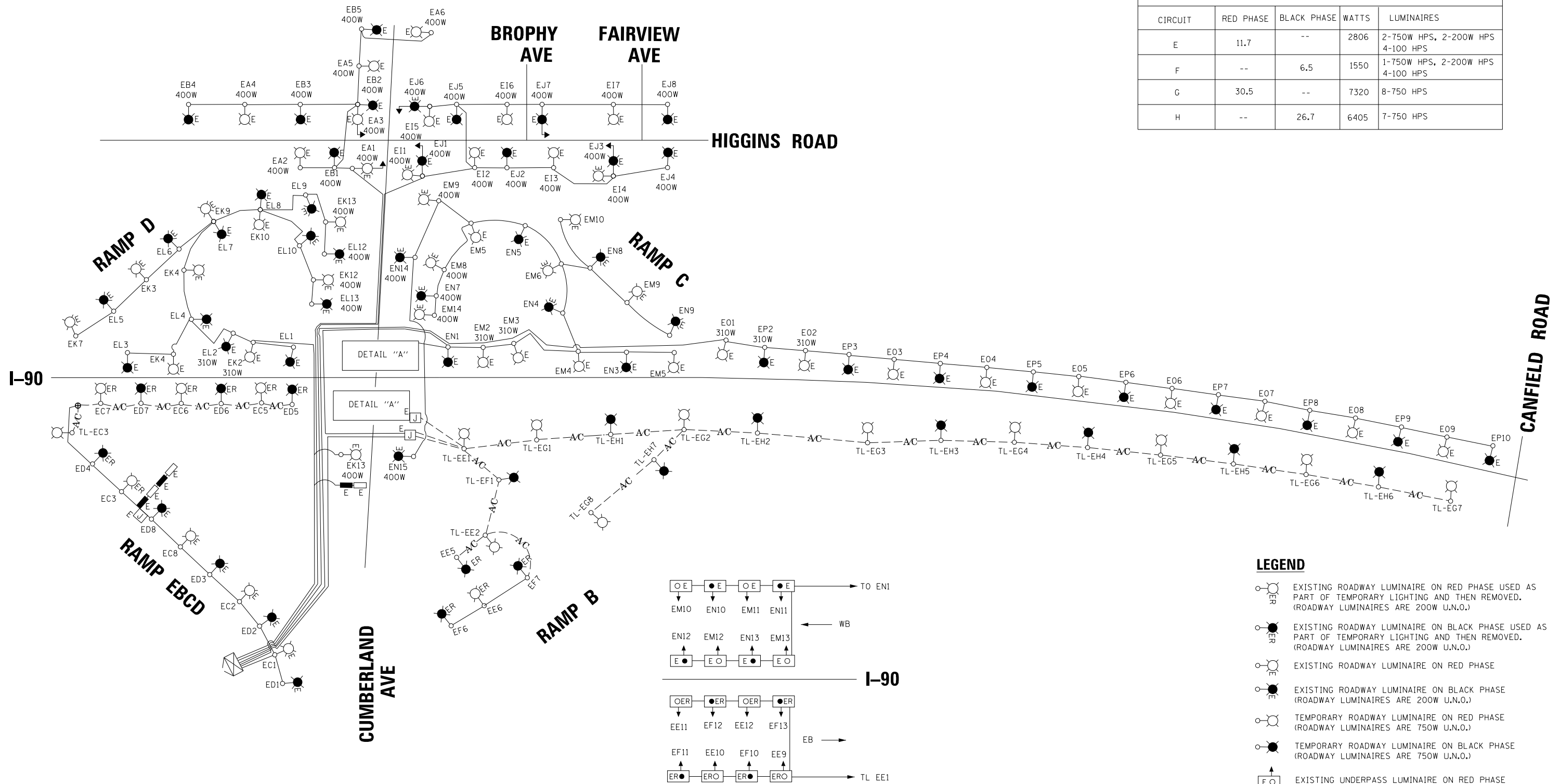
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS LIGHTING PLAN  
HARLEM CTA, AND HARLEM AVENUE OVER EASTBOUND I-90, AND  
HARLEM RAMP A UNDER HIGGINS AVENUE**

SCALE: 1"=20' SHEET NO. 25 OF 25 SHEETS STA. TO STA.

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 263
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60Y38

LOAD TABLE TEMPORARY LIGHTING CONTROLLER "E"				
CIRCUIT	RED PHASE	BLACK PHASE	WATTS	LUMINAIRES
E	11.7	--	2806	2-750W HPS, 2-200W HPS 4-100 HPS
F	--	6.5	1550	1-750W HPS, 2-200W HPS 4-100 HPS
G	30.5	--	7320	8-750 HPS
H	--	26.7	6405	7-750 HPS



**DETAIL "A"  
CUMBERLAND AVENUE UNDERPASS**

**LEGEND**

- EXISTING ROADWAY LUMINAIRE ON RED PHASE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED. (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- EXISTING ROADWAY LUMINAIRE ON BLACK PHASE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED. (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- EXISTING ROADWAY LUMINAIRE ON RED PHASE
- EXISTING ROADWAY LUMINAIRE ON BLACK PHASE (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- TEMPORARY ROADWAY LUMINAIRE ON RED PHASE (ROADWAY LUMINAIRES ARE 750W U.N.O.)
- TEMPORARY ROADWAY LUMINAIRE ON BLACK PHASE (ROADWAY LUMINAIRES ARE 750W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE ON RED PHASE (UNDERPASS LUMINAIRES ARE 100W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE ON BLACK PHASE
- EXISTING SIGN LUMINAIRE ON RED PHASE
- EXISTING SIGN LUMINAIRE ON BLACK PHASE
- EXISTING LIGHTING CONTROLLER "E"
- AC-- TEMPORARY AERIAL CABLE



USER NAME = konyikwo	DESIGNED KFA	REVISED -
	DRAWN KFA	REVISED -
PLOT SCALE = 1:8000 / 1/8"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING CONTROLLER "E"  
WIRING DIAGRAM**

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. 10+00.00 TO STA. 24+00.00

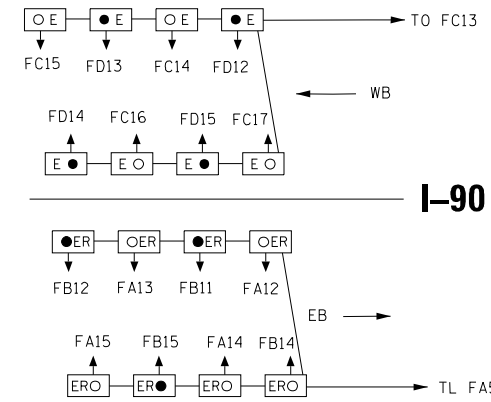
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CONTRACT NO. 60Y38				ILLINOIS FED. AID PROJECT

CANFIELD ROAD

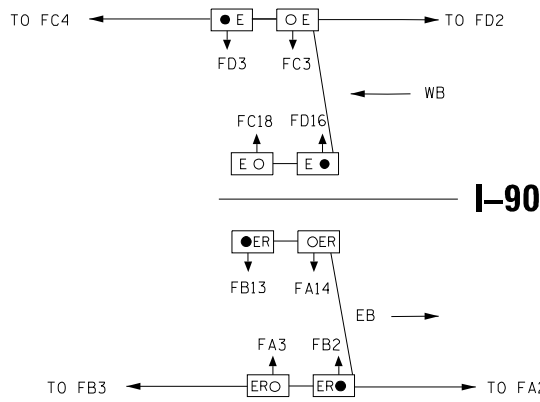
ORIOLE AVE

HARLEM AVENUE

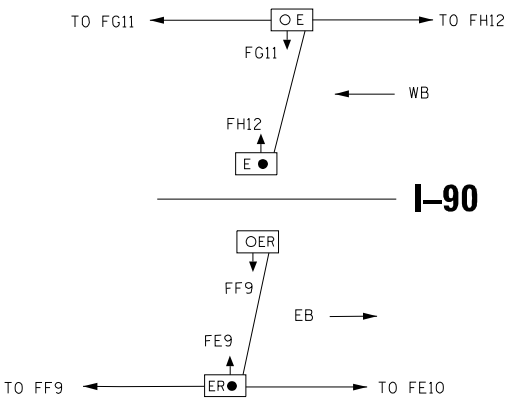
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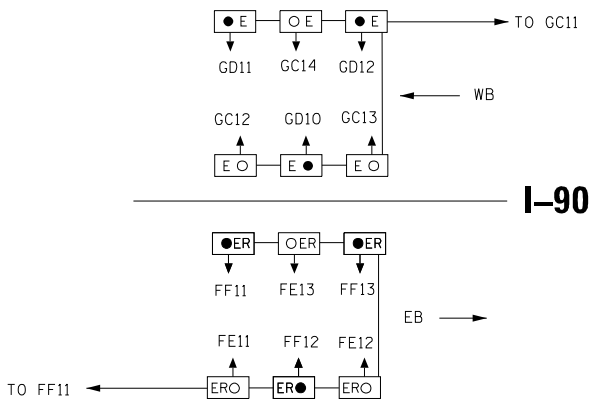
**DETAIL "A"**  
**CANFIELD AVENUE UNDERPASS**



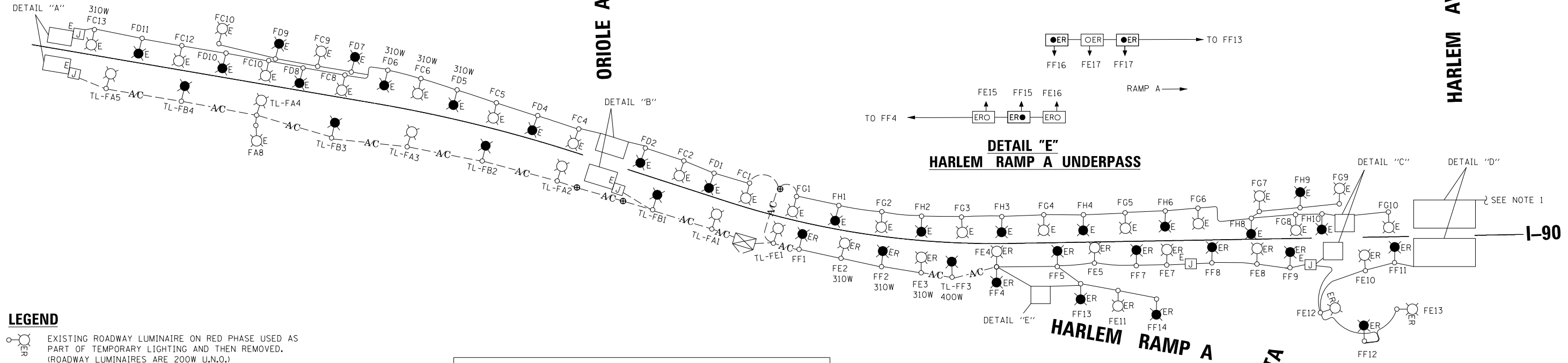
**DETAIL "B"**  
**ORIOLE AVENUE UNDERPASS**



**DETAIL "C"**  
**HARLEM CTA UNDERPASS**



**DETAIL "D"**  
**HARLEM AVENUE UNDERPASS**



**DETAIL "E"**  
**HARLEM RAMP A UNDERPASS**

**LEGEND**

- EXISTING ROADWAY LUMINAIRE ON RED PHASE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED. (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- EXISTING ROADWAY LUMINAIRE ON BLACK PHASE USED AS PART OF TEMPORARY LIGHTING AND THEN REMOVED. (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- EXISTING ROADWAY LUMINAIRE ON RED PHASE
- EXISTING ROADWAY LUMINAIRE ON BLACK PHASE (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- TEMPORARY ROADWAY LUMINAIRE ON RED PHASE (ROADWAY LUMINAIRES ARE 750W U.N.O.)
- TEMPORARY ROADWAY LUMINAIRE ON BLACK PHASE (ROADWAY LUMINAIRES ARE 750W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE ON RED PHASE (UNDERPASS LUMINAIRES ARE 100W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE ON BLACK PHASE
- EXISTING SIGN LUMINAIRE ON RED PHASE
- EXISTING SIGN LUMINAIRE ON BLACK PHASE
- EXISTING LIGHTING CONTROLLER "F"
- AC-- TEMPORARY AERIAL CABLE

LOAD TABLE				
TEMPORARY LIGHTING CONTROLLER "F"				
CIRCUIT	RED PHASE	BLACK PHASE	WATTS	LUMINAIRES
A	18.3	--	4320	4-750W HPS 6-100W HPS
B	--	22.8	5460	5-750W HPS, 1-200W HPS 6-100W HPS
E	18.35	--	4404	1-750W HPS, 2-310W HPS 8-200W HPS, 7-100W HPS
F	--	17.05	4092	1-310W HPS, 10-200W HPS 7-100W HPS, 1-400W HPS

**NOTES:**

1. WB UNDERPASS LUMINAIRES AT HARLEM AVENUE POWERED BY EXISTING LIGHTING CONTROLLER "G" CIRCUIT C/D.



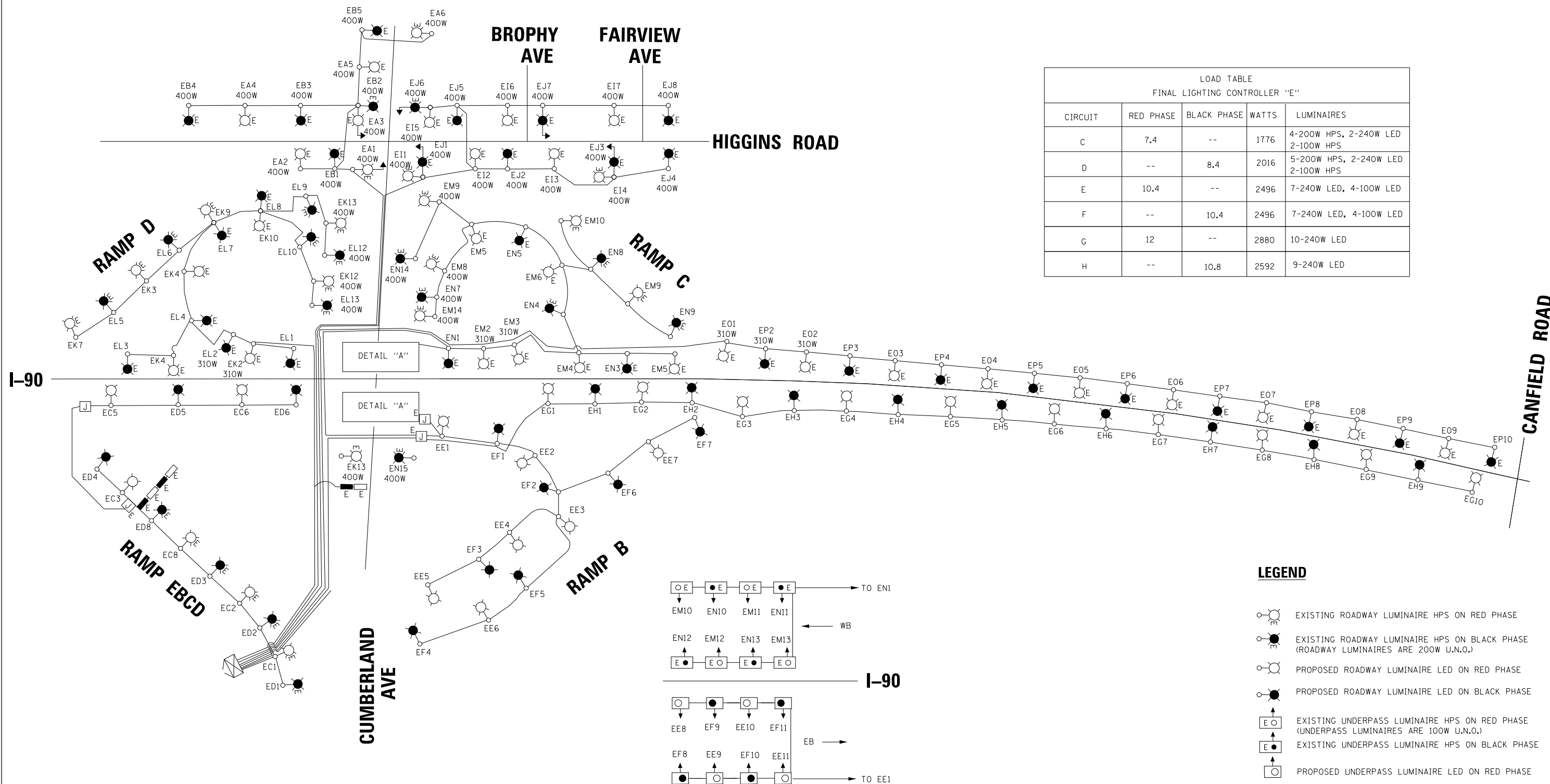
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PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

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

**IDOT TEMPORARY LIGHTING CONTROLLER "F"**  
**WIRING DIAGRAM**

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. 10+00.00 TO STA. 24+00.00

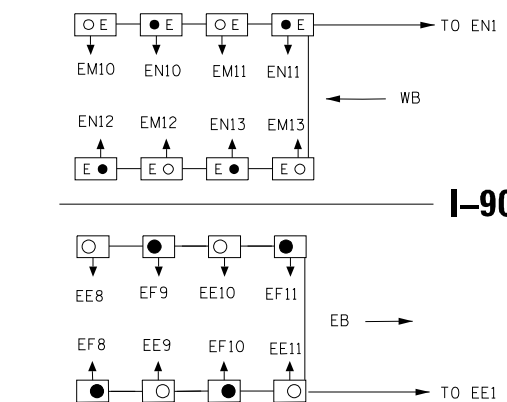
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 265
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



LOAD TABLE				
FINAL LIGHTING CONTROLLER "E"				
CIRCUIT	RED PHASE	BLACK PHASE	WATTS	LUMINAIRES
C	7.4	--	1776	4-200W HPS, 2-240W LED 2-100W HPS
D	--	8.4	2016	5-200W HPS, 2-240W LED 2-100W HPS
E	10.4	--	2496	7-240W LED, 4-100W LED
F	--	10.4	2496	7-240W LED, 4-100W LED
G	12	--	2880	10-240W LED
H	--	10.8	2592	9-240W LED

DETAIL "A"

DETAIL "A"



**DETAIL "A"**  
**CUMBERLAND AVENUE UNDERPASS**

**LEGEND**

- EXISTING ROADWAY LUMINAIRE HPS ON RED PHASE
- EXISTING ROADWAY LUMINAIRE HPS ON BLACK PHASE (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- PROPOSED ROADWAY LUMINAIRE LED ON RED PHASE
- PROPOSED ROADWAY LUMINAIRE LED ON BLACK PHASE
- EXISTING UNDERPASS LUMINAIRE HPS ON RED PHASE (UNDERPASS LUMINAIRES ARE 100W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE HPS ON BLACK PHASE
- PROPOSED UNDERPASS LUMINAIRE LED ON RED PHASE
- PROPOSED UNDERPASS LUMINAIRE LED ON BLACK PHASE
- EXISTING SIGN LUMINAIRE ON RED PHASE
- EXISTING SIGN LUMINAIRE ON BLACK PHASE
- EXISTING LIGHTING CONTROLLER "E", 240/480V 1-PHASE, 3 WIRE



USER NAME = konyikwo	DESIGNED KFA/SM	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1:8000' / 1"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED [1]-03/06/2015 CR 01

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

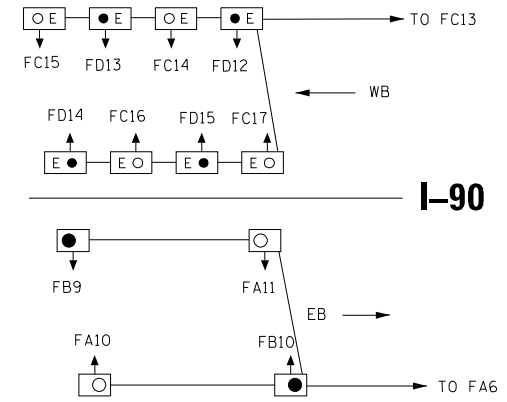
**IDOT LIGHTING CONTROLLER "E"**  
**WIRING DIAGRAM**

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. 10+00.00 TO STA. 24+00.00

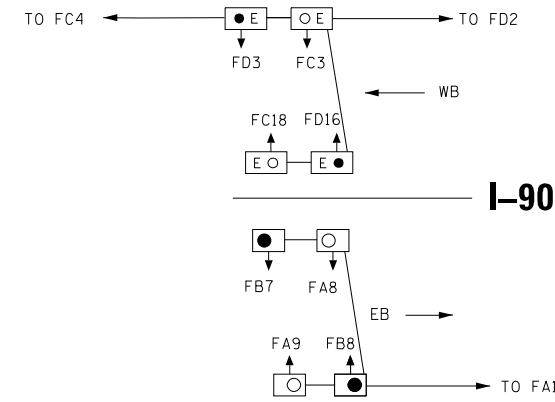
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	266
CONTRACT NO. 60Y38			ILLINOIS FED. AID PROJECT	



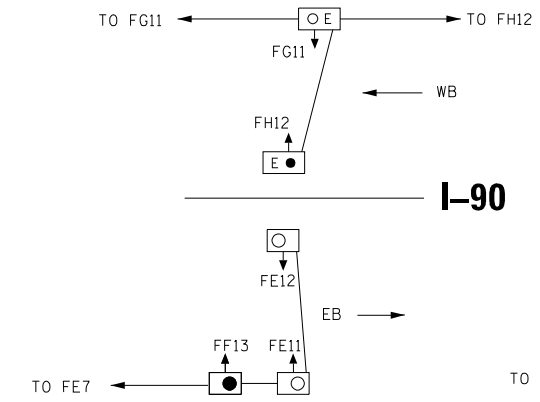
**CANFIELD AVENUE**



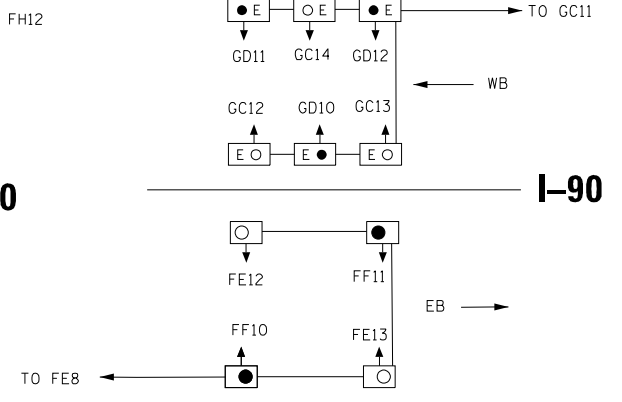
**DETAIL "A" (ON THIS SHEET)  
CANFIELD AVENUE UNDERPASS**



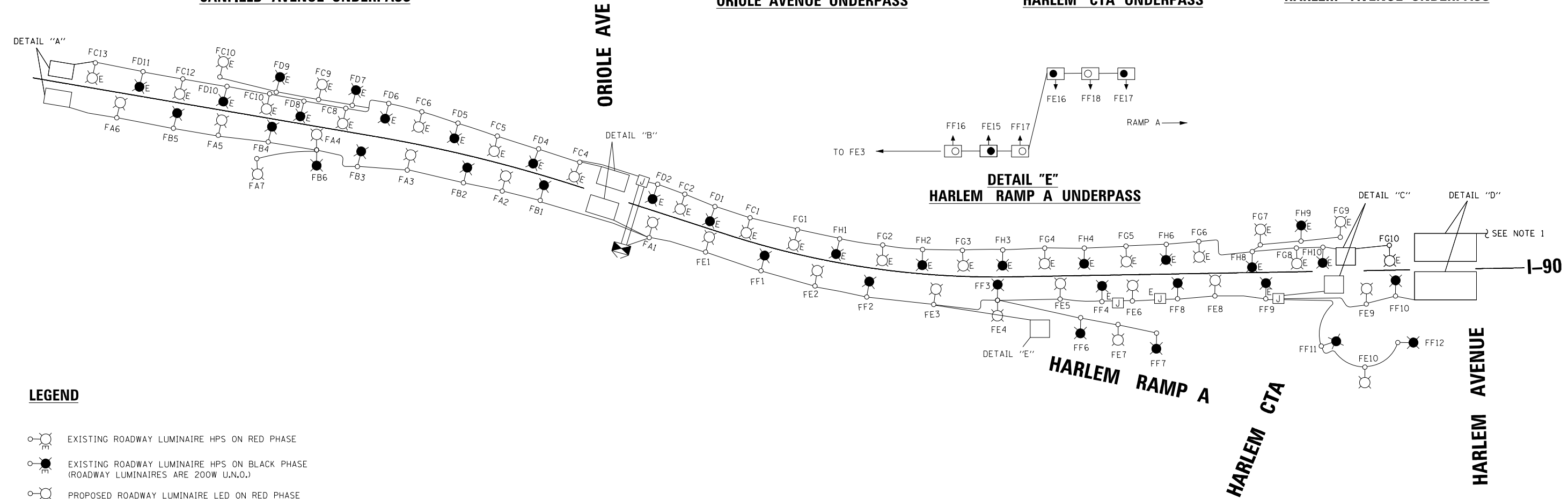
**DETAIL "B" (ON THIS SHEET)  
ORIOLE AVENUE UNDERPASS**



**DETAIL "C" (ON THIS SHEET)  
HARLEM CTA UNDERPASS**



**DETAIL "D" (ON THIS SHEET)  
HARLEM AVENUE UNDERPASS**



**LEGEND**

- EXISTING ROADWAY LUMINAIRE HPS ON RED PHASE
- EXISTING ROADWAY LUMINAIRE HPS ON BLACK PHASE (ROADWAY LUMINAIRES ARE 200W U.N.O.)
- PROPOSED ROADWAY LUMINAIRE LED ON RED PHASE
- PROPOSED ROADWAY LUMINAIRE LED ON BLACK PHASE
- EXISTING UNDERPASS LUMINAIRE HPS ON RED PHASE (UNDERPASS LUMINAIRES ARE 100W U.N.O.)
- EXISTING UNDERPASS LUMINAIRE HPS ON BLACK PHASE
- PROPOSED UNDERPASS LUMINAIRE LED ON RED PHASE
- PROPOSED UNDERPASS LUMINAIRE LED ON BLACK PHASE
- EXISTING SIGN LUMINAIRE ON RED PHASE
- EXISTING SIGN LUMINAIRE ON BLACK PHASE
- PROPOSED LIGHTING CONTROLLER "F"

LOAD TABLE FINAL LIGHTING CONTROLLER "F"				
CIRCUIT	RED PHASE	BLACK PHASE	WATTS	LUMINAIRES
A	10.4	--	2496	7-240W LED 4-100W LED
B	--	9.2	2208	6-240W LED, 4-100W LED
E	12.8	--	3072	9-240W LED, 4-100W LED
F	--	12.3	2952	9-240W LED, 3-100W LED

**NOTES:**

- WB UNDERPASS LUMINAIRES AT HARLEM AVENUE POWERED BY EXISTING LIGHTING CONTROLLER "G" CIRCUIT C/D.

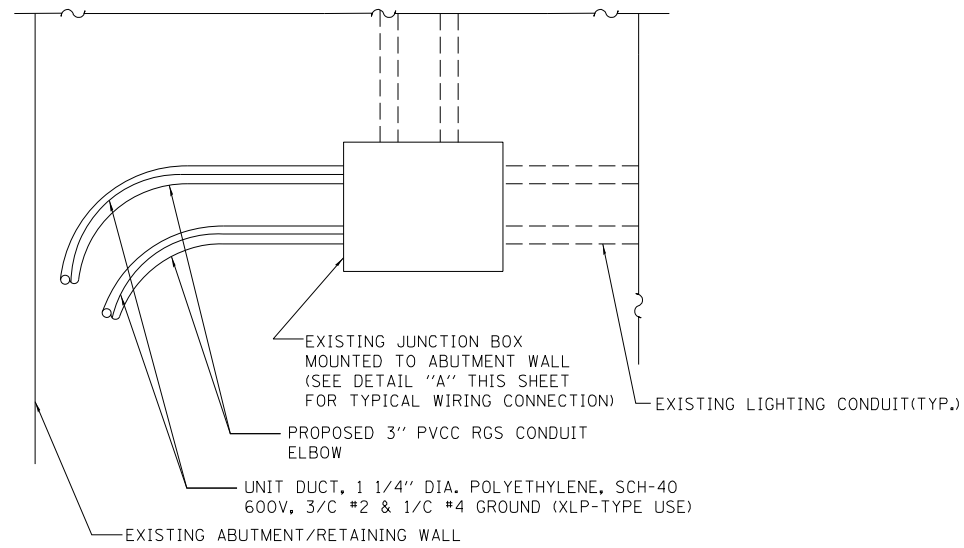


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PLOT SCALE = 1:8000' / 1"	DRAWN AA	REVISED -
PLOT DATE = 5/4/2016	CHECKED MCD	REVISED -
	DATE 5/6/2016	REVISED [1]-03/06/2015 CR 01

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

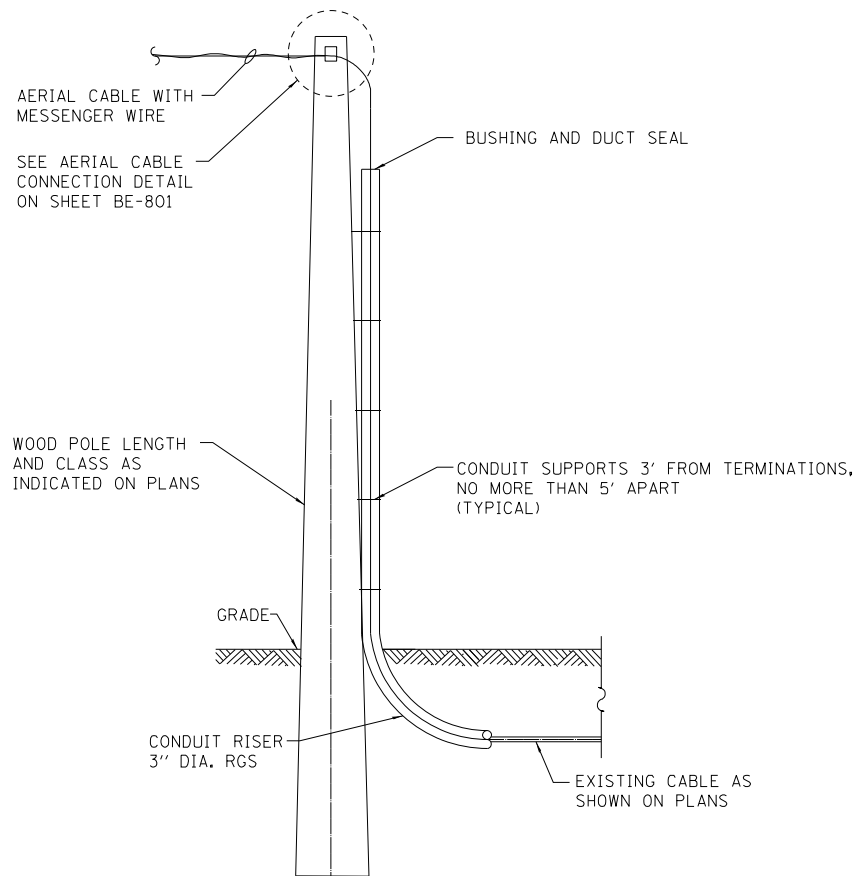
<b>IDOT LIGHTING CONTROLLER "F" WIRING DIAGRAM</b>			
SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00	

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 267
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60Y38



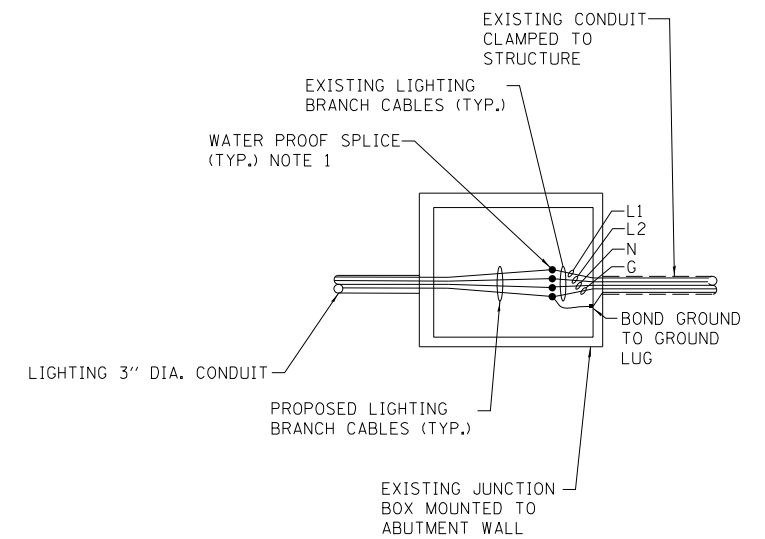
**TEMPORARY LIGHTING CONDUIT CONNECTION TO EXISTING JUNCTION BOX**

N.T.S.



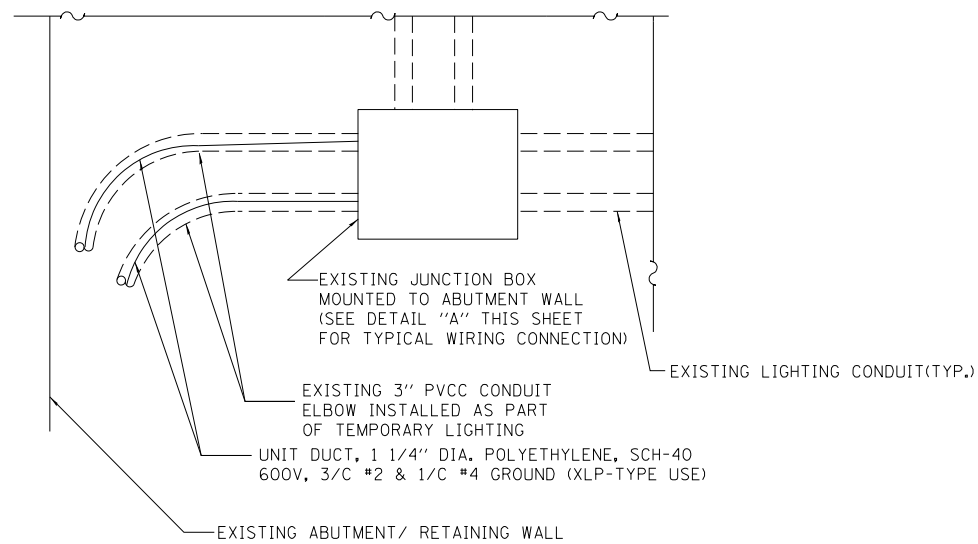
**DETAIL "B" TEMPORARY LIGHTING CONDUIT CONNECTION TO EXISTING LIGHTING CABLE TYPICAL**

N.T.S.



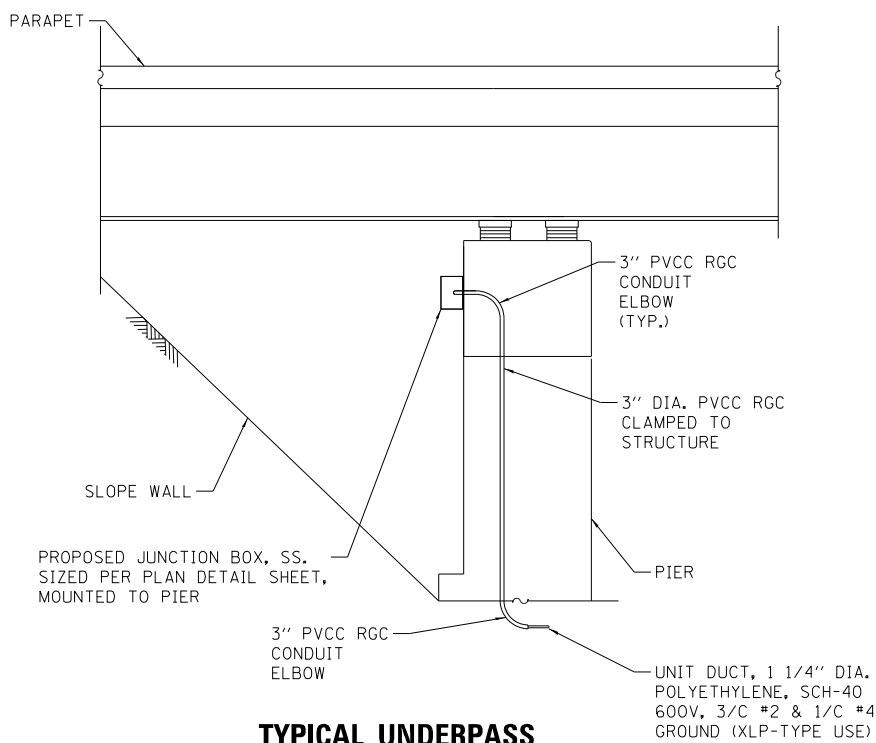
**DETAIL "A" WIRING CONNECTION TO EXISTING JUNCTION BOX (TYP.)**

N.T.S.



**PROPOSED LIGHTING CONDUIT CONNECTION TO EXISTING JUNCTION BOX**

N.T.S. (SEE SHEET E-17)

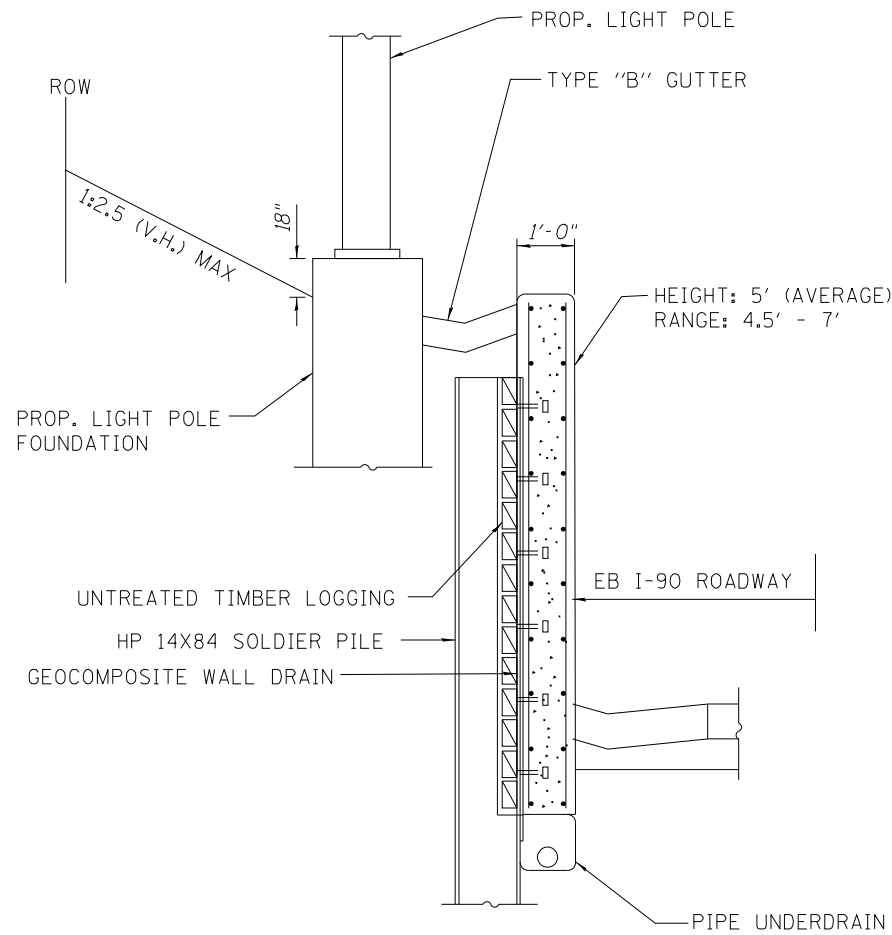


**TYPICAL UNDERPASS CONDUIT CONNECTION DETAIL**

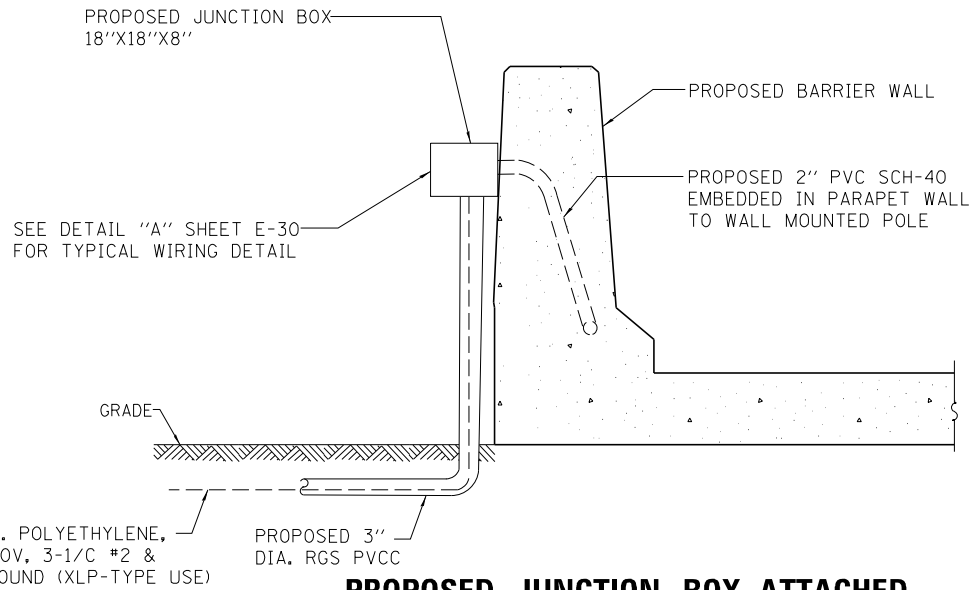
N.T.S.

**NOTES:**

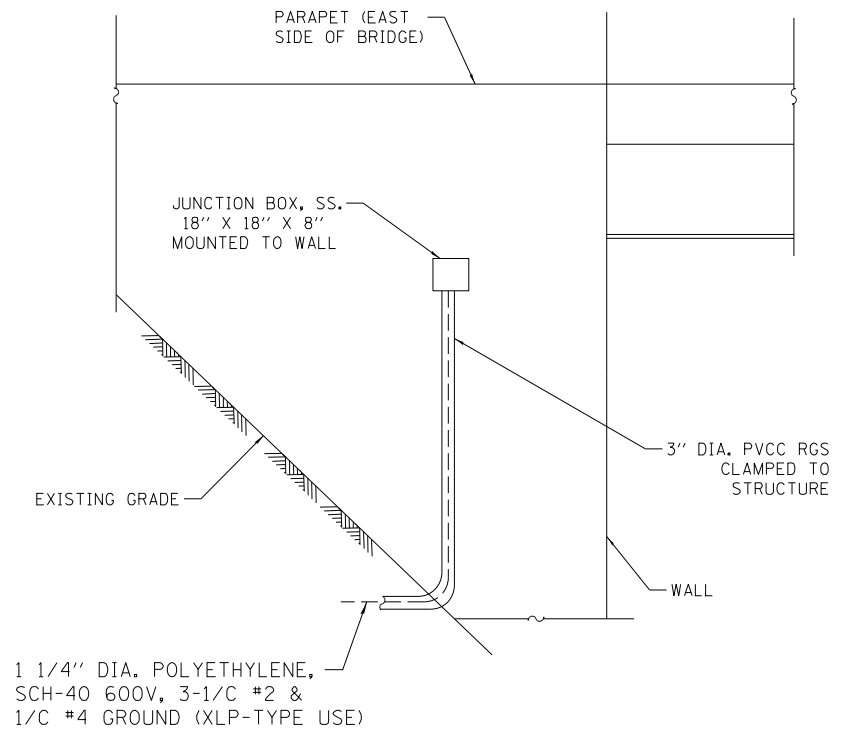
1. ALL SPLICES AT LIGHT POLE, AND JUNCTION BOX SHALL BE INCLUDED AS PART OF THE UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) PAY ITEM.
2. ALL FUSES AND SOLID LUG MATERIALS INCLUDED AS PART OF THE UNIT DUCT, 1 1/4" DIA. POLYETHYLENE, SCH-40 600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE) PAY ITEM.
3. CONTRACTOR SHALL USE EXISTING FUSES AND SOLID LUG FOR TEMPORARY LIGHTING CONNECTIONS ONLY, WHEN CONNECTING FINAL LIGHTING CIRCUITS CONTRACTOR SHALL PROVIDE NEW FUSES AND SOLID LUGS.
4. ALL RISERS AND MATERIALS NEEDED TO ATTACH UNIT DUCT CABLE TO WOOD POLE SHALL BE INCLUDED IN THE MAINTENANCE OF LIGHTING SYSTEM PAY ITEM.



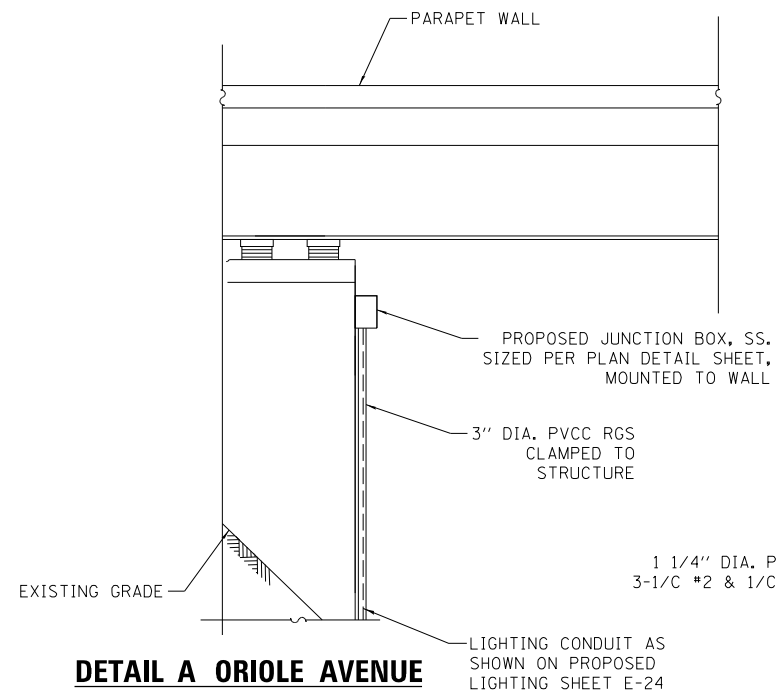
**SECTION THRU PROPOSED SOLDIER PILE RETAINING WALL AND PROPOSED LIGHT POLE**  
N.T.S.



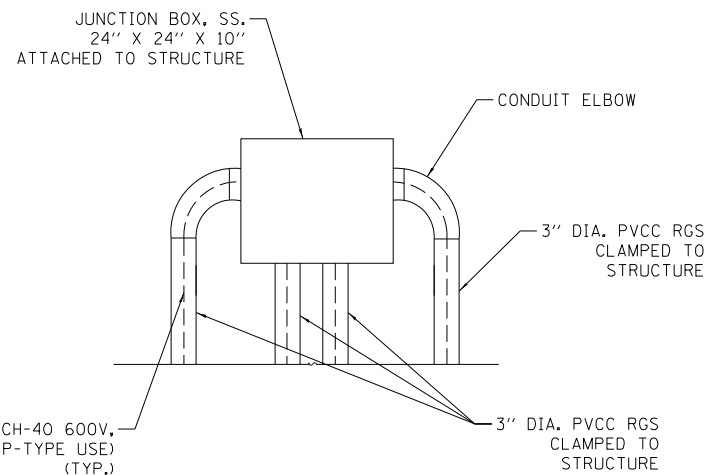
**PROPOSED JUNCTION BOX ATTACHED TO PROPOSED BARRIER WALL (CUMBERLAND AVENUE/RAMP EBCD)**  
N.T.S.



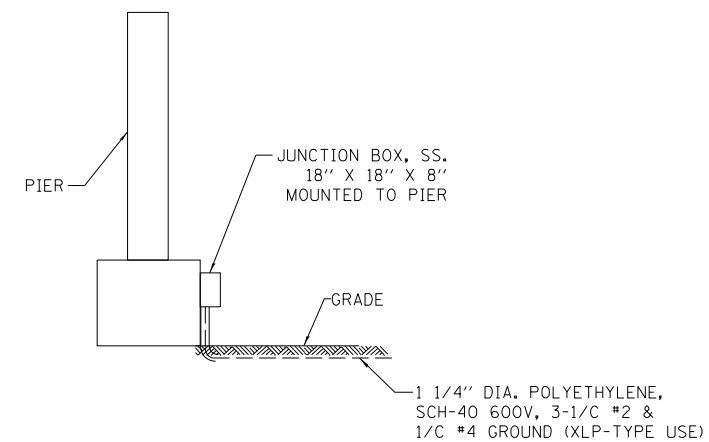
**DETAIL C - PROPOSED JUNCTION BOX CONNECTION (CUMBERLAND AVENUE)**  
N.T.S.



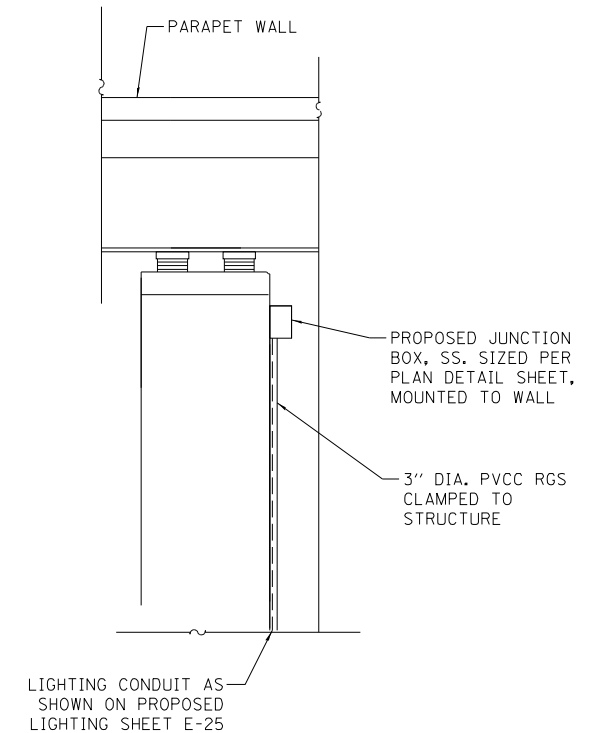
**DETAIL A ORIOLE AVENUE JUNCTION BOX CONNECTION**  
N.T.S.



**DETAIL B ORIOLE AVE/I-90WB PROPOSED JUNCTION BOX CONNECTION**  
N.T.S.



**RAMP A PIER CONNECTION DETAIL (I-90EB/EXIT RAMP A)**  
N.T.S.



**DETAIL D HARLEM AVENUE JUNCTION BOX CONNECTION**  
N.T.S.



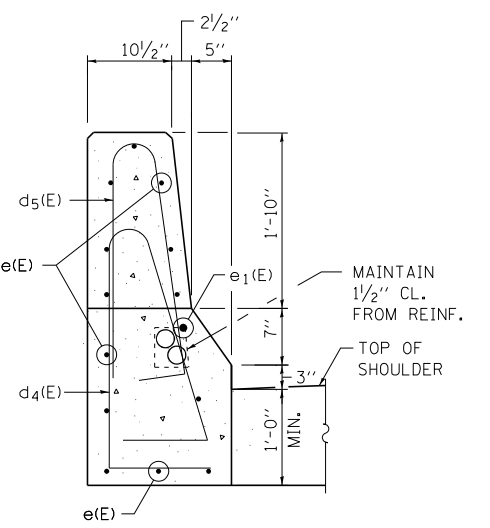
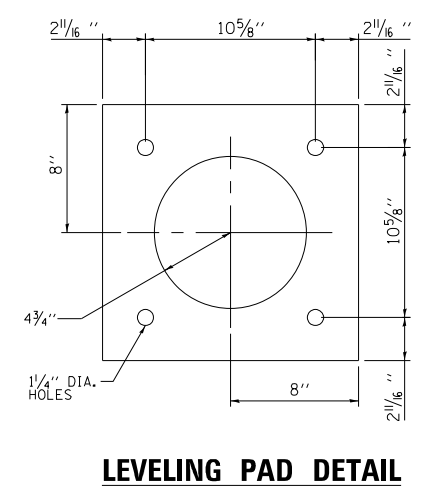
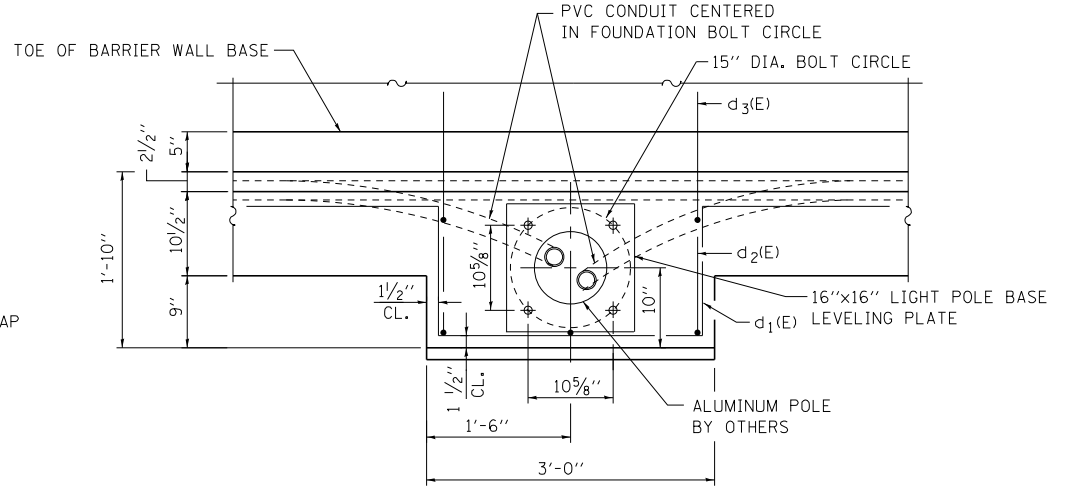
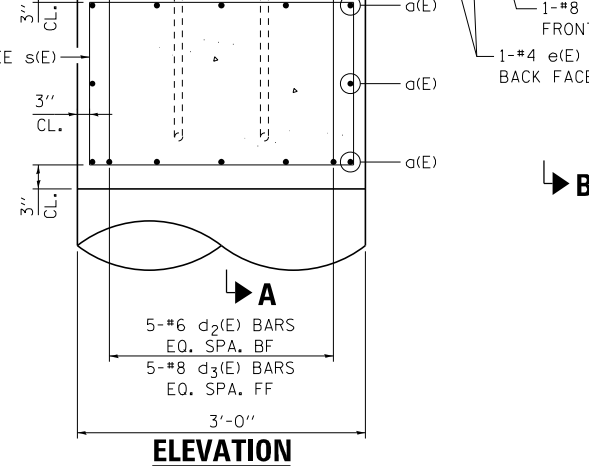
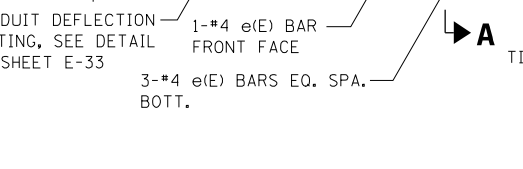
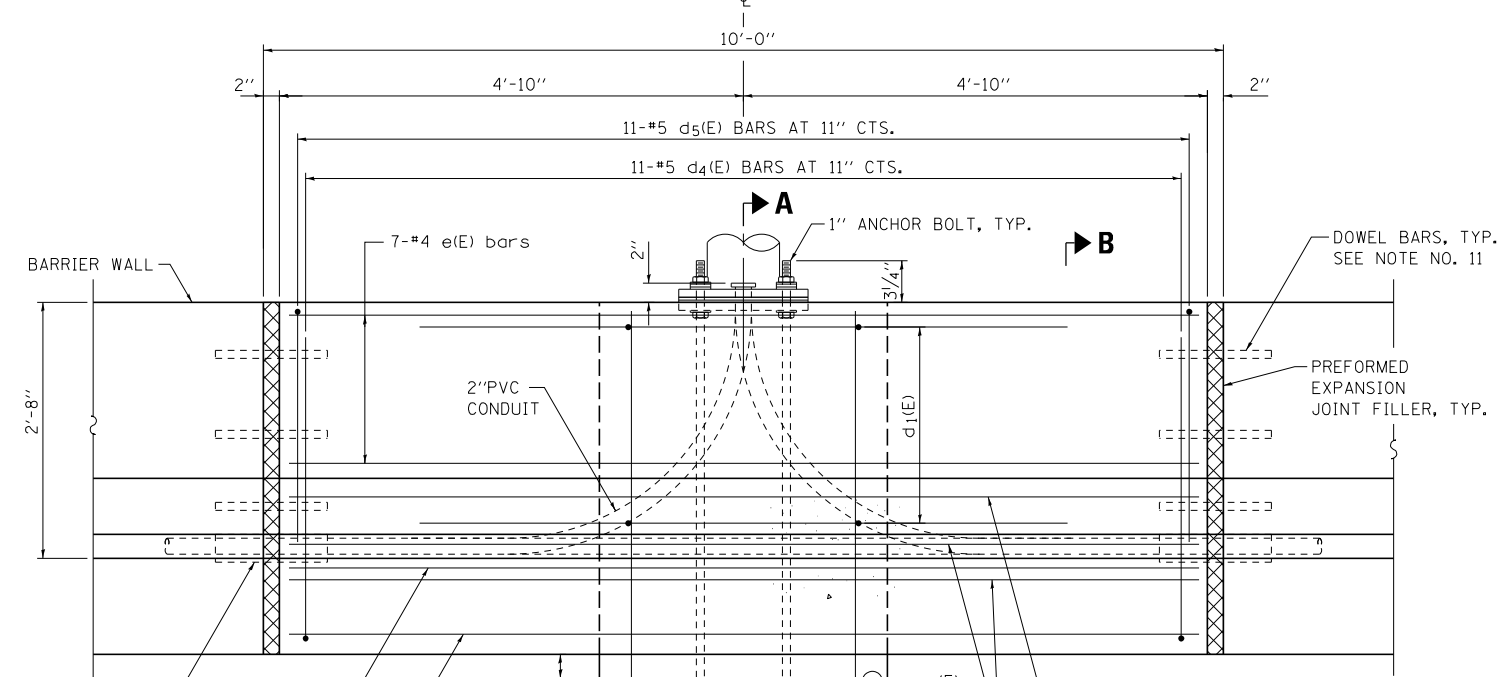
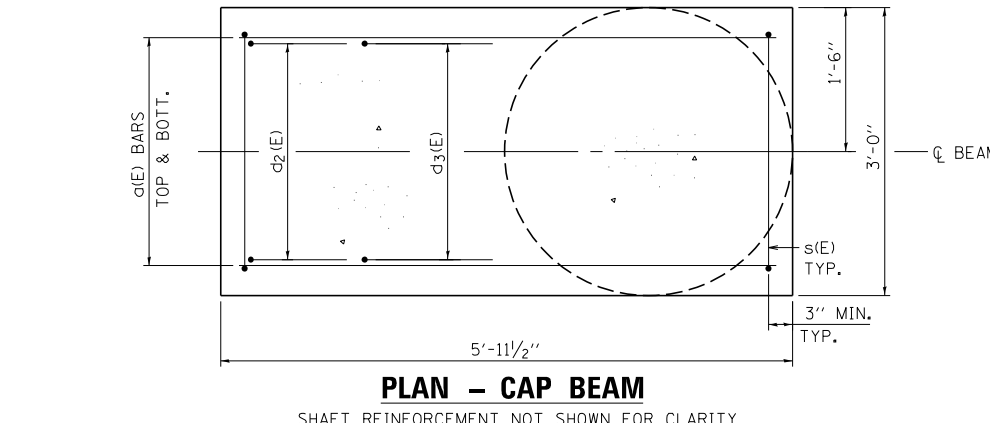
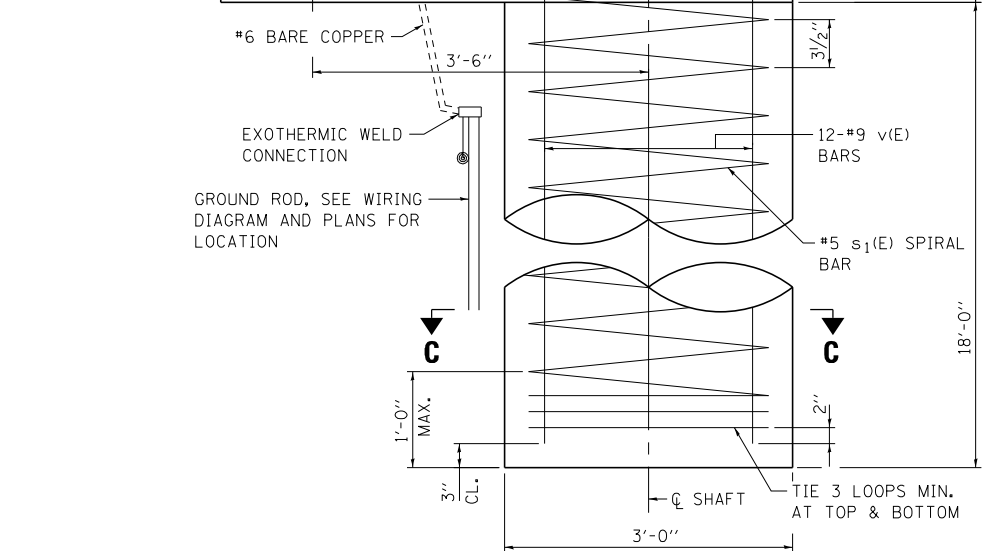
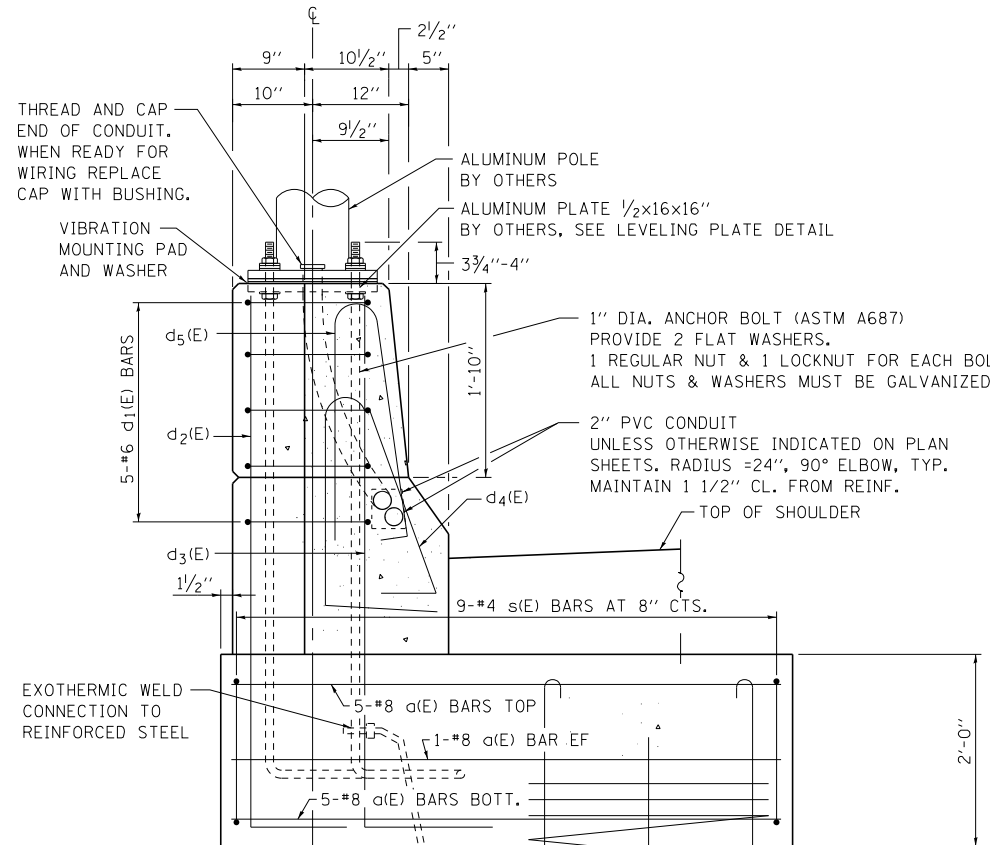
USER NAME = kangikwa	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1.0000' / 1in.	CHECKED MCD	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHT POLE INSTALLATION DETAILS

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. 10+00.00 TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	269
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
STRUCTURE EXCAVATION	CU YD	20
CONCRETE STRUCTURES	CU YD	16
REINFORCEMENT BARS, EPOXY COATED	POUND	8520
DRILLED SHAFT IN SOIL	CU YD	20

**NOTES:**  
FOR NOTES SEE SHEET E-33.



USER NAME = konjiko	DESIGNED EPP	REVISED -
	DRAWN LK	REVISED -
PLOT SCALE = 1:8000 / 1/8"	CHECKED MRI	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

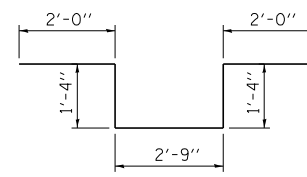
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED LIGHT POLE</b>			
<b>BARRIER FOUNDATION DETAILS - 1</b>			
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00	

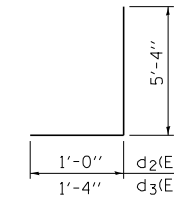
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 270
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**NOTES:**

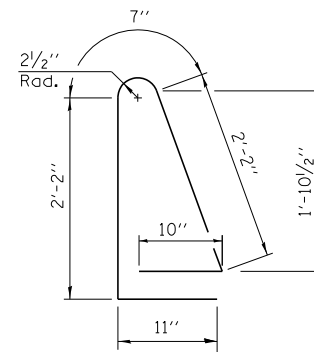
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 36" IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 426.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM BOLT EXTENSION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.
- BARRIER WALL EXPANSION AND CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL 637001-02 AND 637006 AS APPLICABLE.
- LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
- THE COST OF ANCHOR BOLTS, CONDUIT, LEVELING PLATE AND EXCAVATION IS INCLUDED IN THE COST OF THE LIGHT POLE.



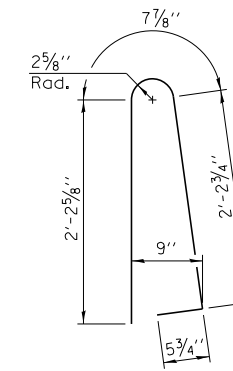
**BAR d1(E)**



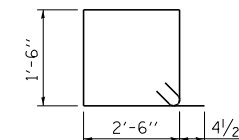
**BAR d2(E) d3(E)**



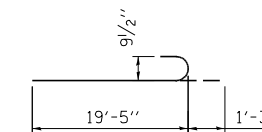
**BAR d4(E)**



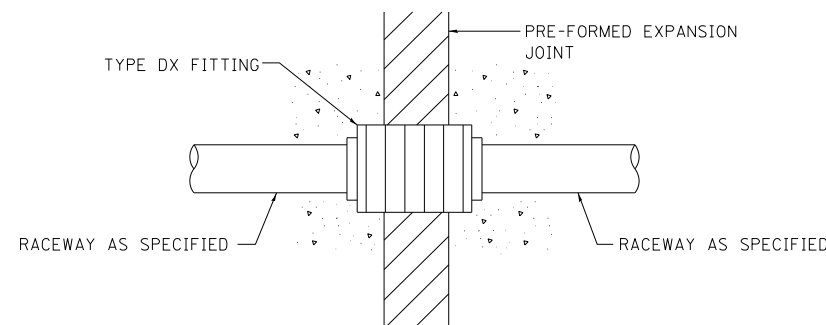
**BAR d5(E)**



**BARS s(E)**



**BAR v(E)**



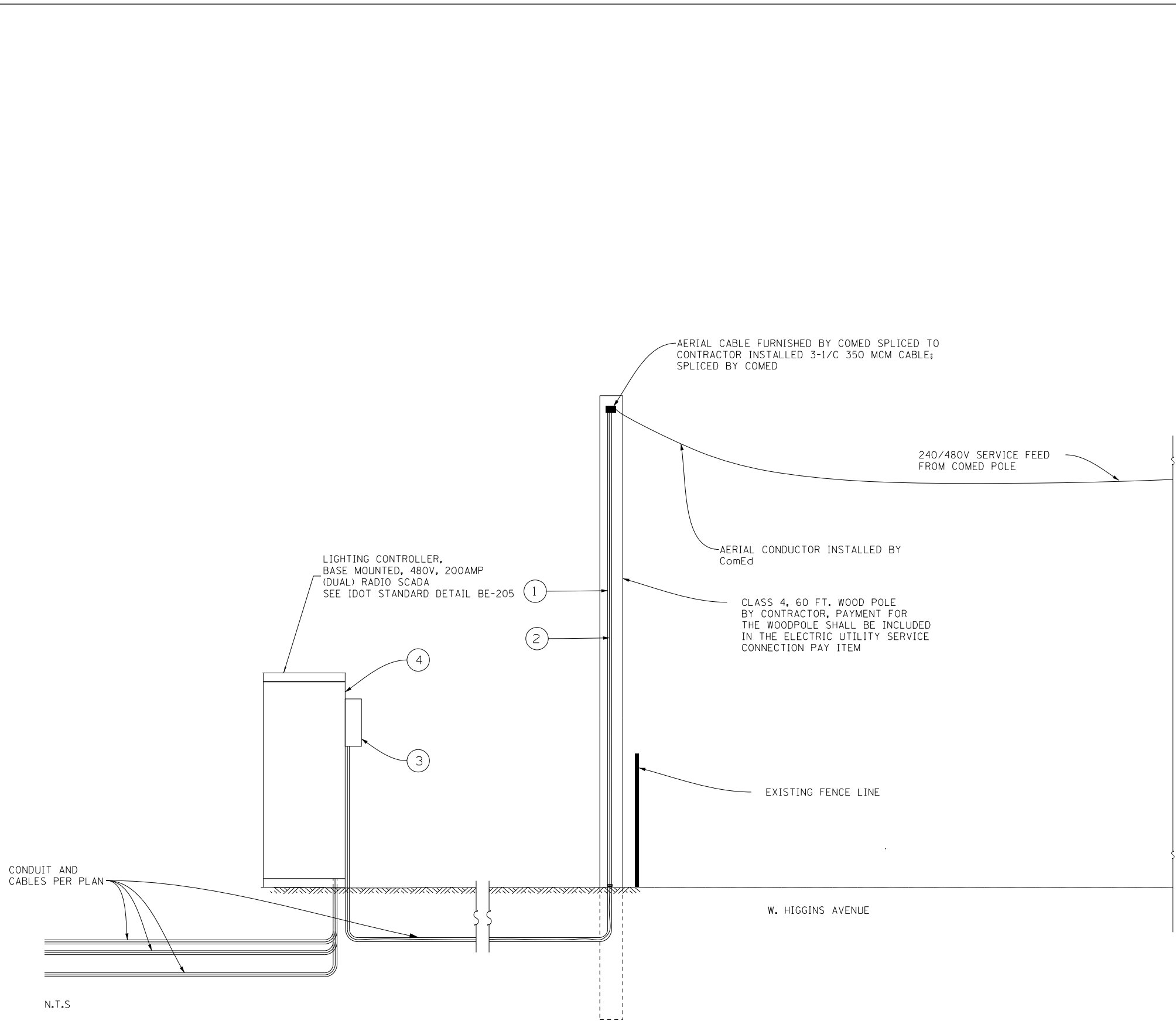
**CONDUIT DEFLECTION FITTING DETAIL**

**BILL OF MATERIAL  
FOR ONE MOUNTED LIGHT POLE**

MARK	NO.	SIZE	LENGTH	SHAPE
a(E)	12	#8	5'-5"	—
d1(E)	5	#6	9'-5"	┌┐
d2(E)	5	#6	6'-4"	└┘
d3(E)	5	#8	6'-8"	┌┐
d4(E)	11	#5	6'-8"	└┘
d5(E)	11	#5	5'-7"	└┘
e(E)	13	#4	9'-5"	—
e1(E)	1	#8	9'-5"	—
s(E)	9	#4	8'-9"	□
s1(E)	1	#5	19'-3"	▧
v(E)	12	#9	20'-8"	—

STRUCTURE EXCAVATION	CU YD	5
CONCRETE STRUCTURES	CU YD	4
REINFORCEMENT BARS, EPOXY COATED	POUND	2130
DRILLED SHAFT IN SOIL	CU YD	5

SEE SHEET E-17 FOR MOUNTED POLE LOCATIONS.



- ① 3" DIA. RIGID GALVANIZED STEEL (RGS) ATTACHED AS RISER ON POLE.
- ② 3-1/8" 350MCM XLP-TYPE USE IN RISER
- ③ METER AND DISCONNECT PER IDOT STANDARD DETAIL BE-205
- ④ CONTRACTOR SHALL PROVIDE A RED WARNING NAMEPLATE WITHIN THE LIGHTING CONTROLLER AND CLOSE TO THE MAIN BREAKER INDICATING "LIVE CIRCUITS EVEN WHEN MAIN CIRCUIT BREAKER IS IN OFF POSITION". PAYMENT FOR THE NAMEPLATE SHALL BE INCLUDED IN THE LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL), RADIO SCADA PAY ITEM

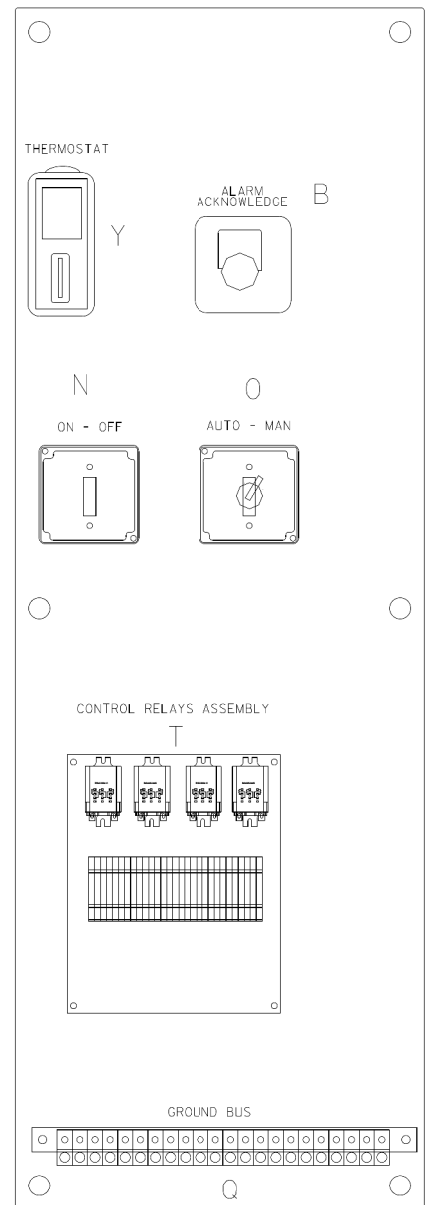
CONDUIT AND CABLES PER PLAN  
N.T.S

<b>HNTB</b>	USER NAME = konyikwo	DESIGNED KFA	REVISED -
		DRAWN AA	REVISED -
	PLOT SCALE = 1:8000' / 1in.	CHECKED MCD	REVISED -
	PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

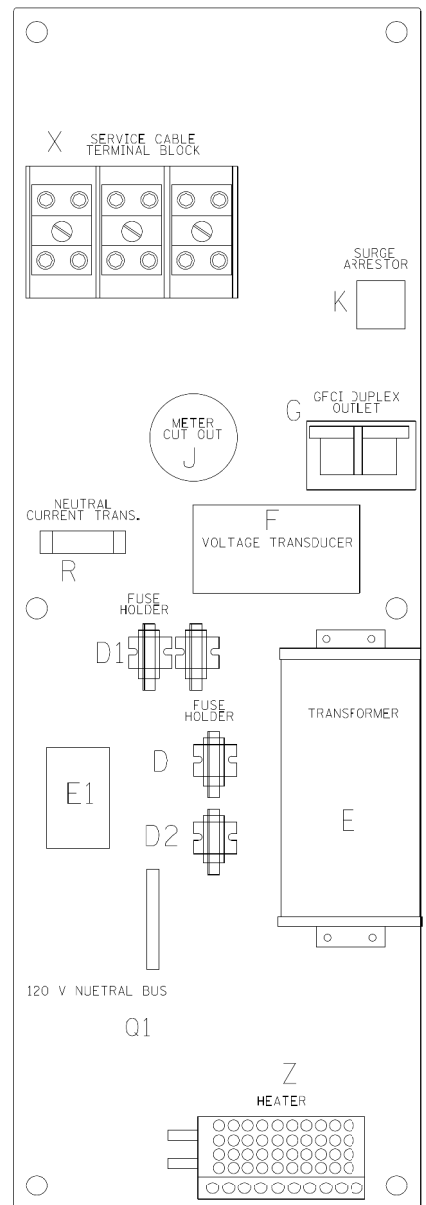
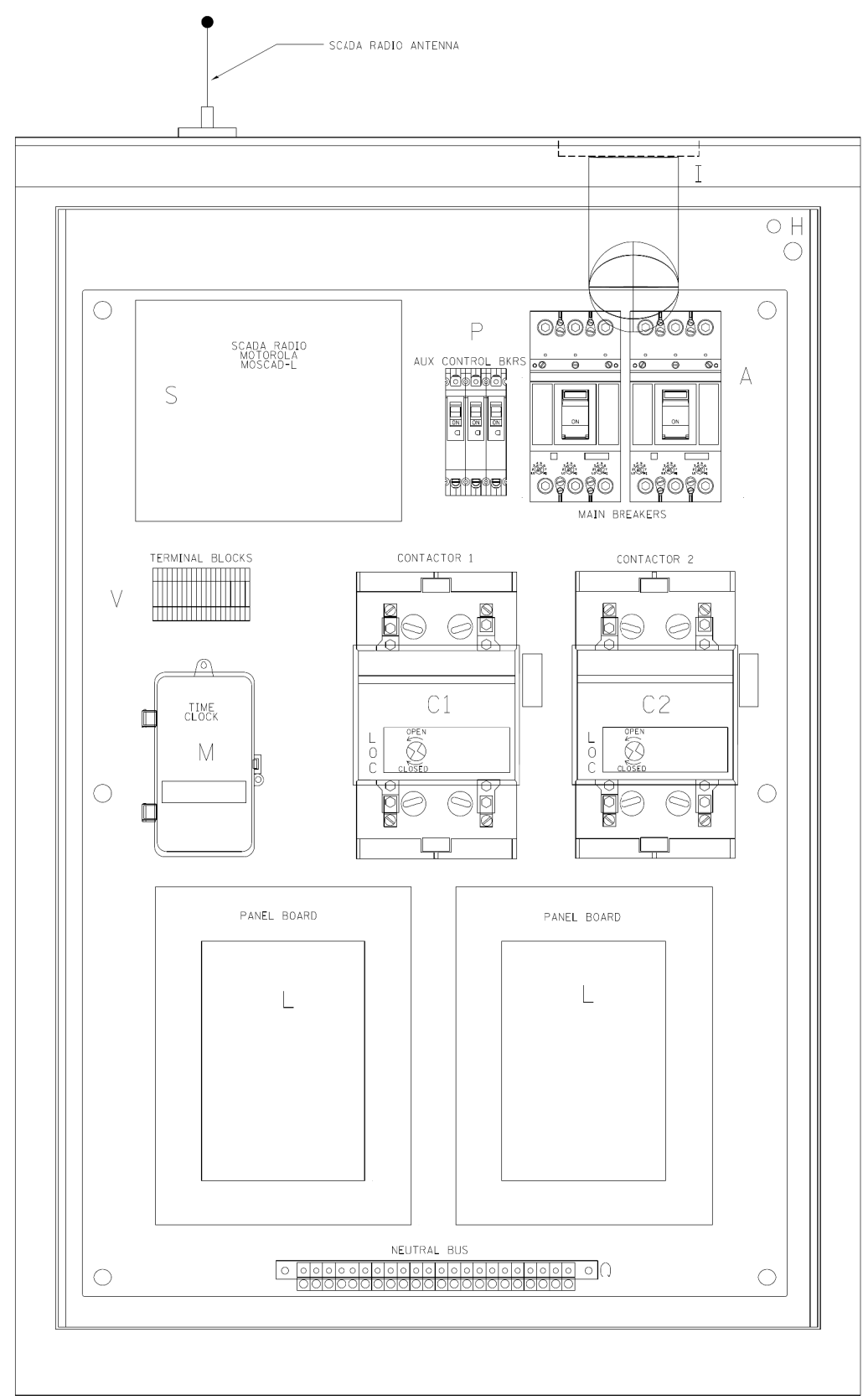
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED UTILITY SERVICE DISCONNECT DETAIL</b>	
SCALE: N.T.S.	SHEET NO. 1 OF 4 SHEETS
STA. 10+00.00 TO STA. 24+00.00	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	272
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60Y38	



LEFT SIDE PANEL



RIGHT SIDE PANEL

BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK-2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900IKS11BH13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE OR APPROVED EQUAL
P	2	BREAKER IP 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T*	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X*	1	620 AMP SLPICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

\* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04
ca:\pwwork\pwwork\drvakosgn\10108315\10108315.dgn	205.dgn	DRAWN -	REVISED - R. TOMSONS 05-11-09
PLOT SCALE = 50.000 ' / 1in.		CHECKED -	REVISED - R. TOMSONS 03-10-10
PLOT DATE = 3/29/2012		DATE -	REVISED - R. TOMSONS 03-29-12

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA  
SCALE: NONE SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BE-205			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

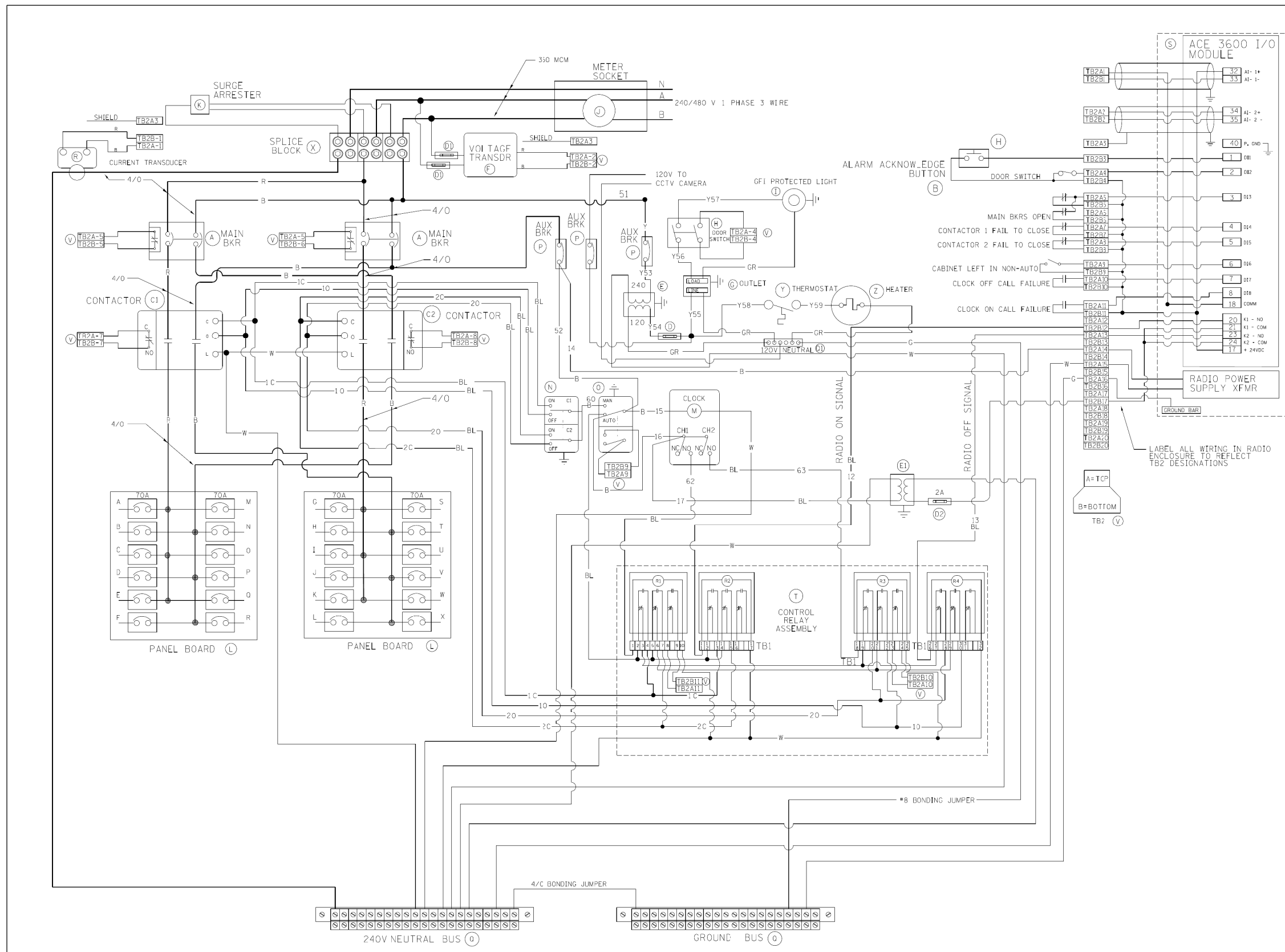


USER NAME = konjiko	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1.0000 ' / 1in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IDOT ROADWAY LIGHTING  
LIGHTING CONTROLLER DETAILS  
SCALE: N.T.S. SHEET NO. 1 OF 4 SHEETS STA. 10+00.00 TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	273
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

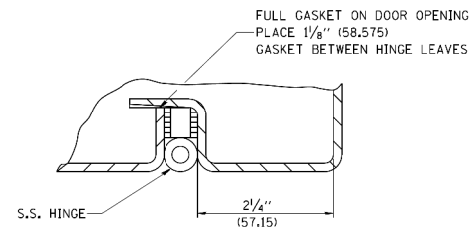


BILL OF MATERIALS		
ITEM #	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20A FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK- 2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120-24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH A-20G0-B7-K
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900IKS1BH13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE
P	2	BREAKER IP 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 1/0 AND *B CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA ACE 3600
T	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) - QTY 32
V	20	TERMINAL BLOCKS
X	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

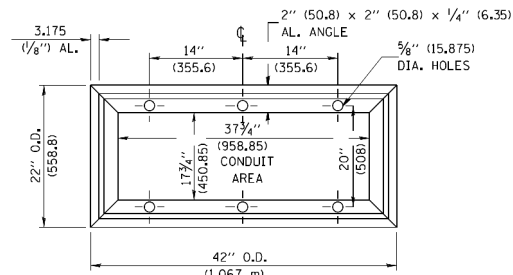
FILE NAME = c:\work\p\dot\drvakosgn\d0128315\be205.dgn	USER NAME = drsvakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 5/8" = 1' / in.	DESIGNED -	REVISED - R. TOMSONS 05-11-09	<b>BE-205</b>			CONTRACT NO.				
PLOT DATE = 3/29/2012	CHECKED -	REVISED - R. TOMSONS 03-10-10	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
	DATE -	REVISED - R. TOMSONS 03-29-12	SCALE: NONE			SHEET NO. 2 OF 4 SHEETS	STA. TO STA.			

<b>HNTB</b>	USER NAME = konjiko	DESIGNED KFA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IDOT ROADWAY LIGHTING LIGHTING CONTROLLER DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 1' / in.	DRAWN AA	REVISED -			<b>90</b>		CONTRACT NO.		
	PLOT DATE = 5/4/2016	CHECKED MCD	REVISED -			ILLINOIS FED. AID PROJECT				
		DATE 5/6/2016	REVISED -			SCALE: N.T.S.	SHEET NO. 2 OF 4 SHEETS	STA. 10+00.00 TO STA. 24+00.00		

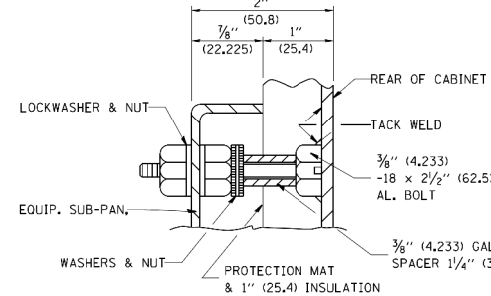




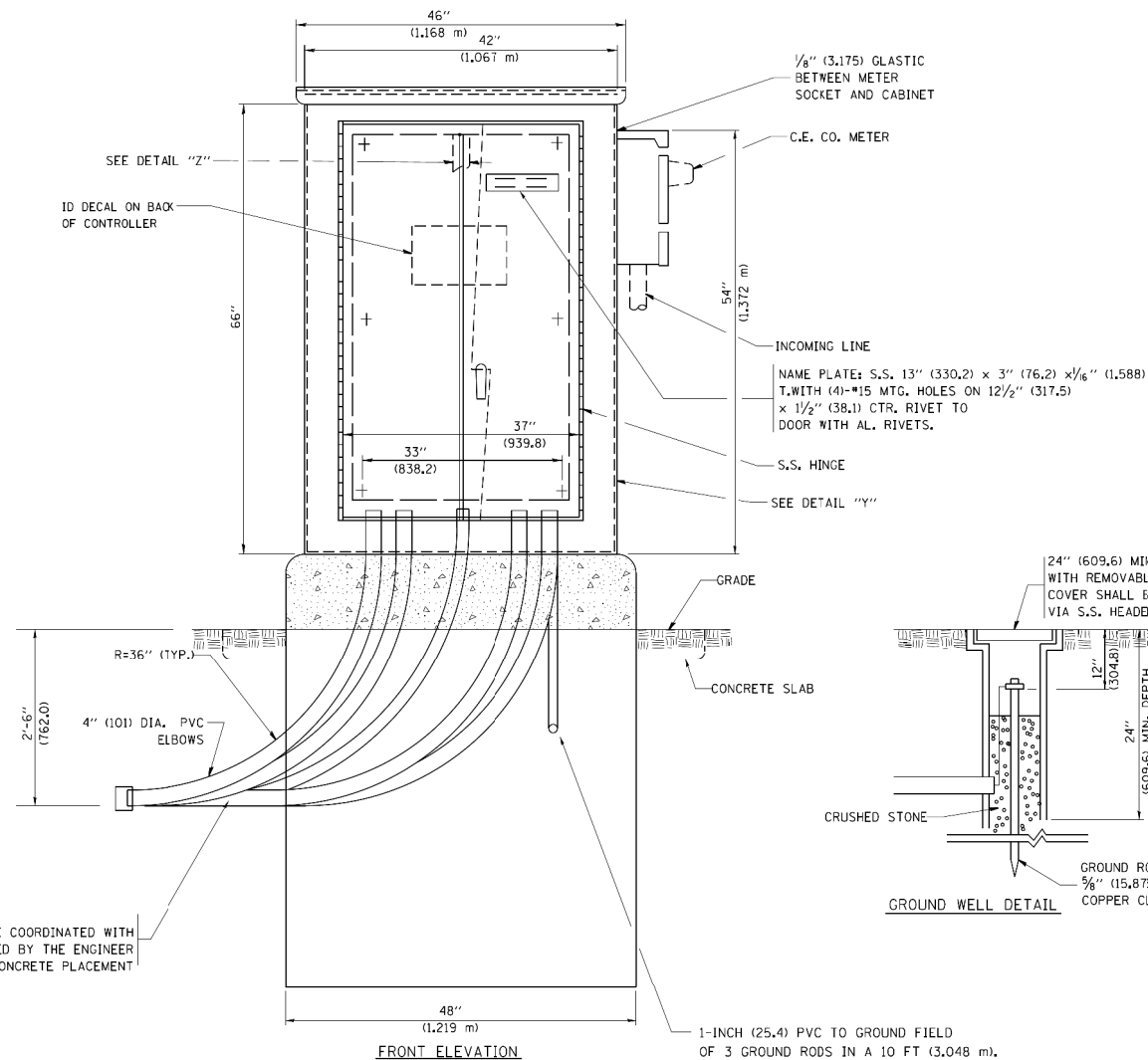
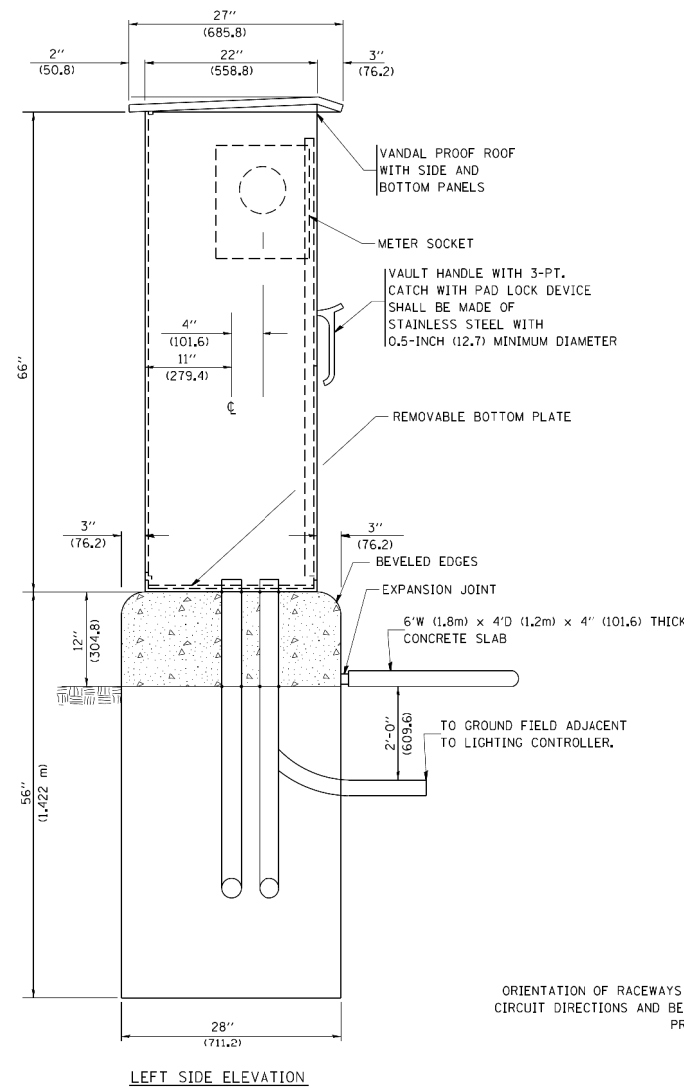
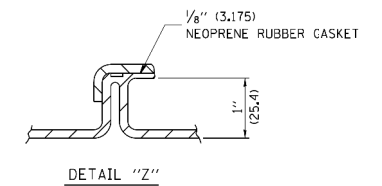
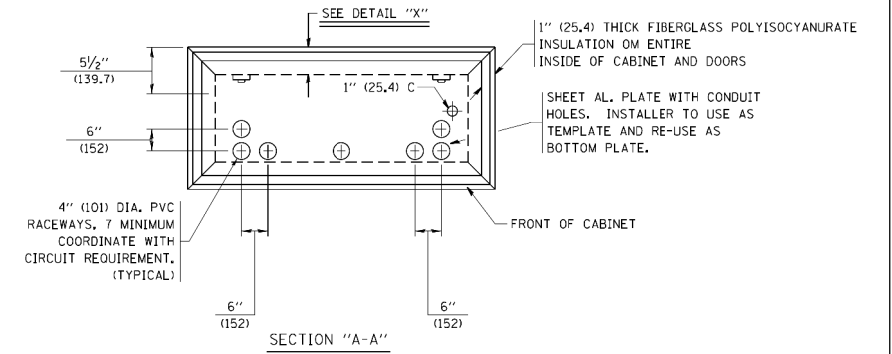
DETAIL "Y"



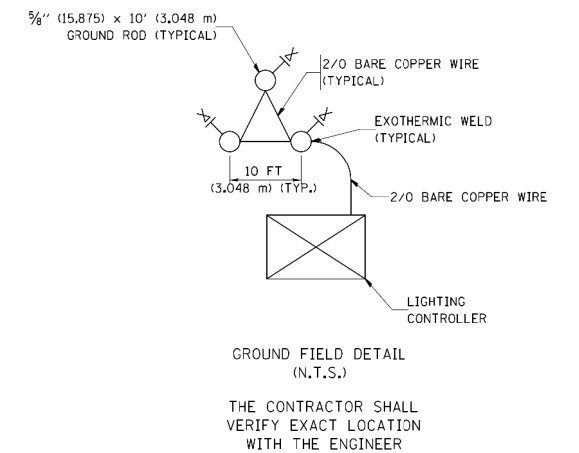
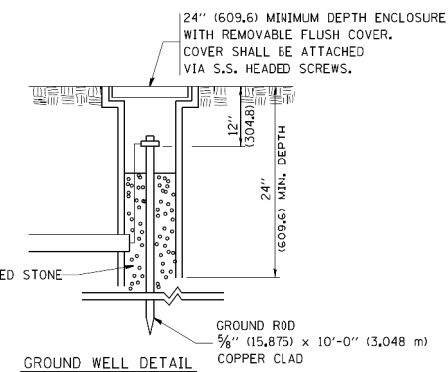
BASE MTG. DETAIL



DETAIL "X"



1-INCH (25.4) PVC TO GROUND FIELD OF 3 GROUND RODS IN A 10 FT (3,048 m). TRIANGLE CONNECTED VIA BARE COPPER WIRE. VERIFY EXACT LOCATION OF GROUND FIELD WITH THE ENGINEER. NO GROUND WELL SHALL BE PLACED IN CONCRETE PAD IN FRONT OF CONTROLLER.



FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04
c:\pwork\pudot\drvakosgn\d0108315\08205.dgn		DRAWN -	REVISED - R. TOMSONS 05-11-09
		PLOT SCALE = 50,000' / in.	REVISED - R. TOMSONS 03-10-10
		PLOT DATE = 3/27/2012	REVISED - R. TOMSONS 03-29-12

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BE-205			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

HNTB

USER NAME = konjiko	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1,0000' / in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

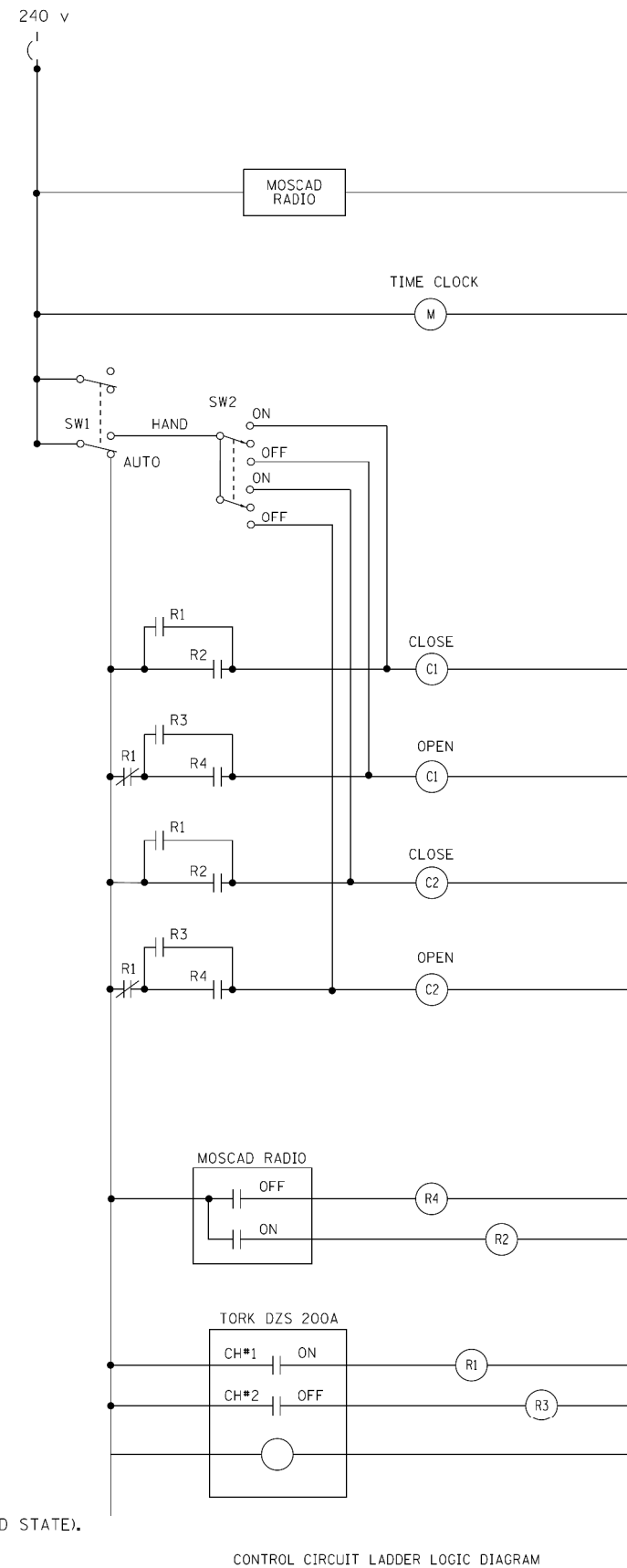
IDOT ROADWAY LIGHTING  
LIGHTING CONTROLLER DETAILS

SCALE: N.T.S. SHEET NO. 3 OF 4 SHEETS STA. 10+00.00 TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	275
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

NOTES

- CABINET SHALL BE FABRICATED FROM 0.125-INCH (3.175) SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH (19.05) HIGH LETTERS FILLED IN BLACK; "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CASINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH (3.175) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES. SET CH.1 TO 23 MINUTES AFTER ASTRONOMICAL SUNSET, 50 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +28 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW, SCADA WIRING SHALL BE #18.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:  
 R - RED      Y - YELLOW  
 B - BLACK    W - WHITE  
 BL - BLUE    G - GREEN  
             G - GREY
- MOSCAD I/O WIRING SHALL BE:  
 DIGITAL INPUT (DI) WIRING SHALL BE #18 MTW PURPLE.  
 ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.  
 AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSE, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	DIGITAL INPUT 1	ALARM KNOWLEDGE
2	DIGITAL INPUT 2	DOOR OPEN
3	DIGITAL INPUT 3	MAINS(B) BREAKER OPEN
4	DIGITAL INPUT 4	CONTACTOR 1 OPEN
5	DIGITAL INPUT 5	CONTACTOR 2 OPEN
6	DIGITAL INPUT 6	CABINET IN NON-AUTO
7	DIGITAL INPUT 7	BACK-UP CLOCK OFF CALL
8	DIGITAL INPUT 8	BACK-UP CLOCK ON CALL
17	24 V+	24+VDC
18	DI COMMON	COMMON
21	K1 C	K1 COMMON
22	K1 NO	LIGHTS ON CALL
24	K2 C	K2 COMMON
25	K2 NO	LIGHTS OFF CALL
32	ANALOG INPUT 1 (+)	CABINET NEUTRAL CURRENT
33	ANALOG INPUT 1 (-)	CABINET NEUTRAL CURRENT
34	ANALOG INPUT 2 (+)	CABINET SERVICE VOLTAGE
35	ANALOG INPUT 2 (-)	CABINET SERVICE VOLTAGE
40	P. GROUND	GROUND

ALL ANALOG INPUTS WILL BE 4-20 MA ONLY. DIGITAL OUTPUT RELAYS WILL BE ELECTRICALLY ENERGIZED AND MOMENTARILY HELD  
 MIXED I/O MODULE MODEL NUMBER V436

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04
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	PLOT SCALE = 50.0000 ' / 1in.	CHECKED -	REVISED - R. TOMSONS 03-10-10
	PLOT DATE = 3/29/2012	DATE -	REVISED - R. TOMSONS 03-29-12

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

SCALE: NONE SHEET NO. 4 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BE-205			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



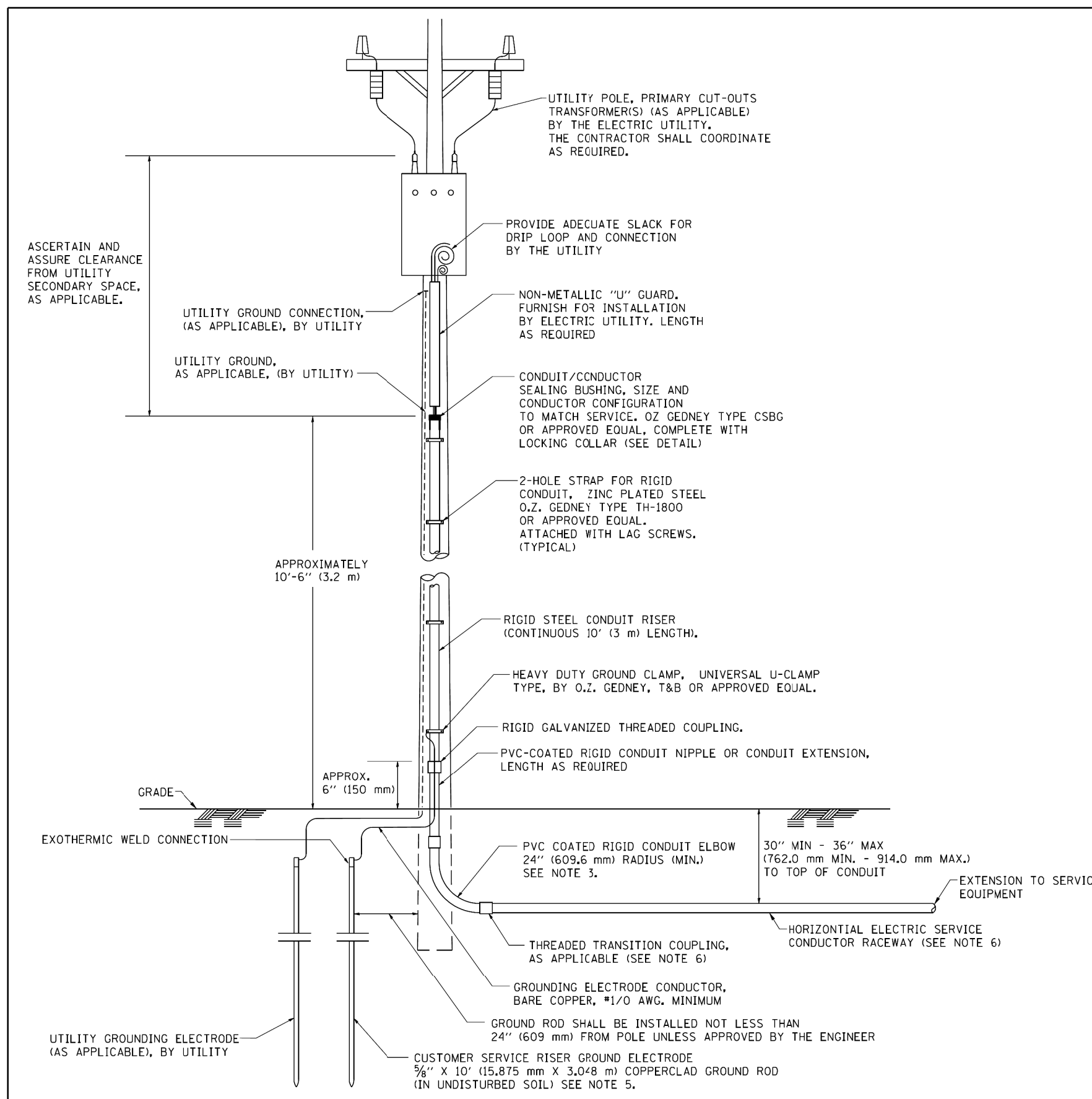
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	DRAWN AA	REVISED -
	CHECKED MCD	REVISED -
	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IDOT ROADWAY LIGHTING  
LIGHTING CONTROLLER DETAILS

SCALE: N.T.S. SHEET NO. 4 OF 4 SHEETS STA. 10+00.00 TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	276
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

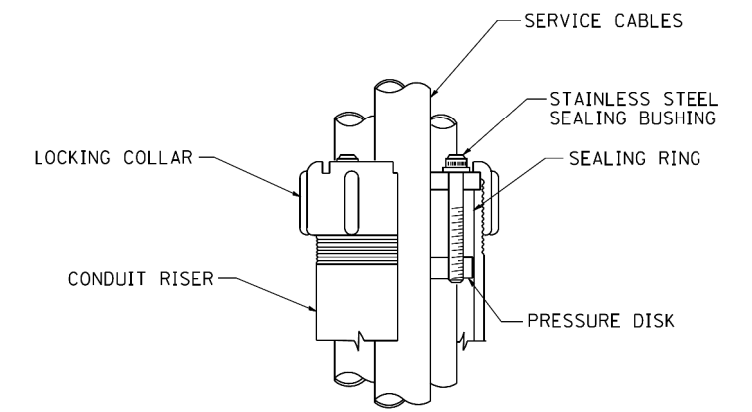


**APPLICATION**

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

**NOTES**

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALLIC TO NON METALLIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



**SEALING BUSHING DETAIL**

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	PLOT SCALE = 50,0000 ' / IN.	CHECKED - MEA	REVISED -		SCALE: NONE			SHEET NO. 1 OF 1 SHEETS			STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE			SHEET NO. 1 OF 1 SHEETS			STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



USER NAME = kangikwa	DESIGNED - KFA	REVISED -
	DRAWN - AA	REVISED -
	CHECKED - MCD	REVISED -
	DATE - 5/6/2016	REVISED -

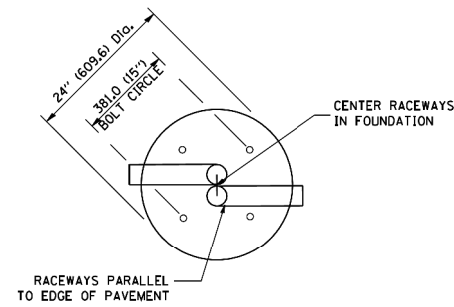
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IDOT ROADWAY LIGHTING ELECTRIC SERVICE DETAILS</b>		
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00

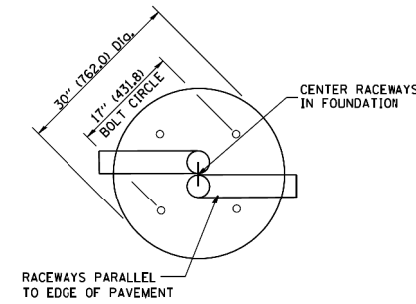
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	277
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**LIGHT POLE FOUNDATION DEPTH TABLE**  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

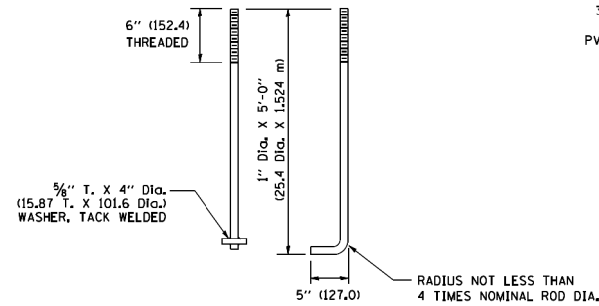
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O <sub>u</sub> = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O <sub>u</sub> = 0.75 TON/SQ. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O <sub>u</sub> = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



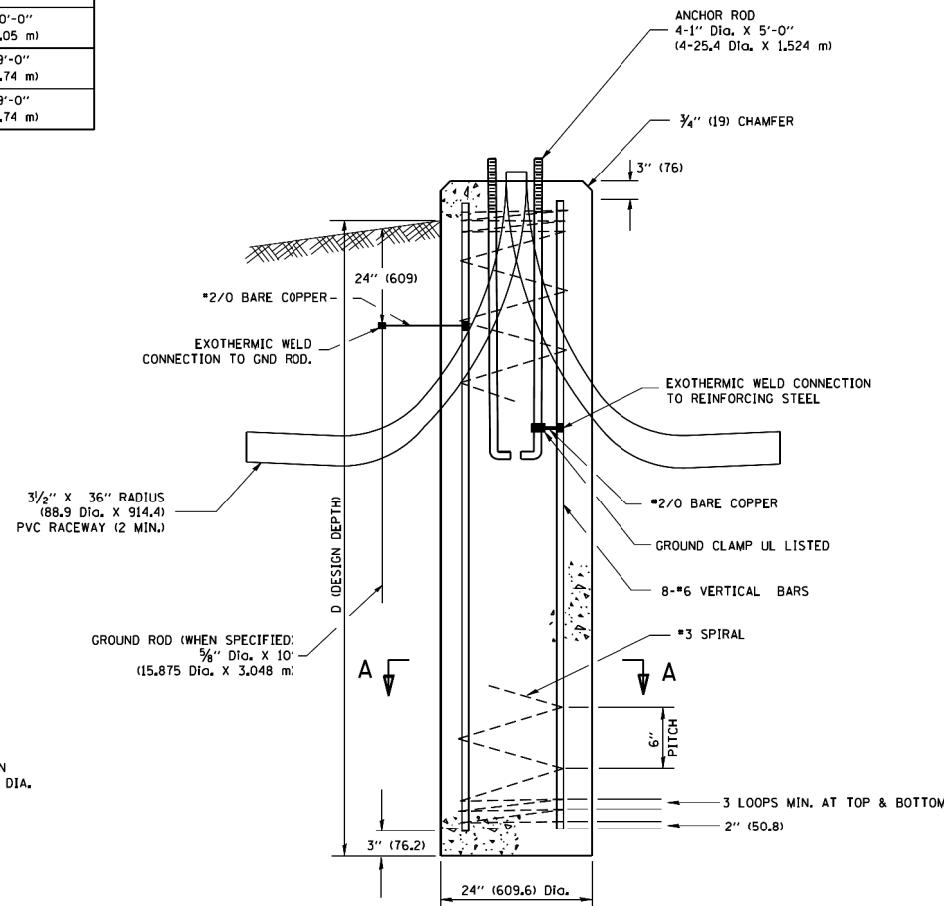
**TOP VIEW**



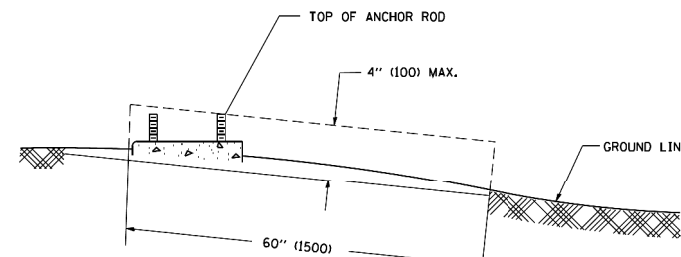
**TOP VIEW**



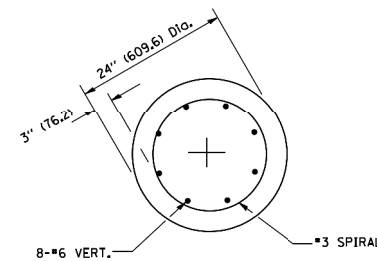
**ANCHOR ROD DETAIL**



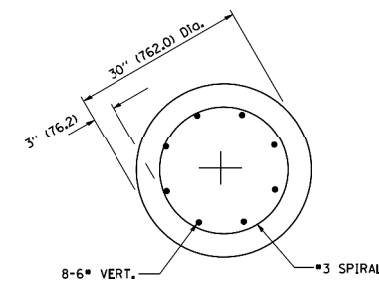
**FOUNDATION DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



**SECTION A-A**

**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES, IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

FILE NAME = W:\dststd\22x34\be301.dgn	USER NAME = goglianobt	DESIGNED -	REVISED - 04-22-02
		DRAWN -	REVISED -
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

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

**LIGHT POLE FOUNDATION**  
**40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BE-301			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

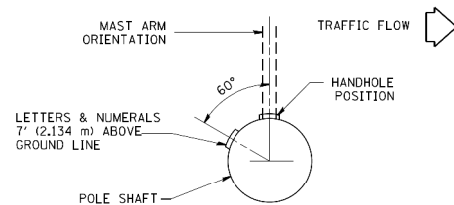


USER NAME = kangikwa	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
	CHECKED MCD	REVISED -
	DATE 5/6/2016	REVISED -

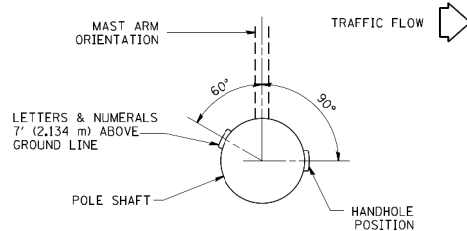
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IDOT ROADWAY LIGHTING**  
**LIGHT POLE FOUNDATION DETAILS**

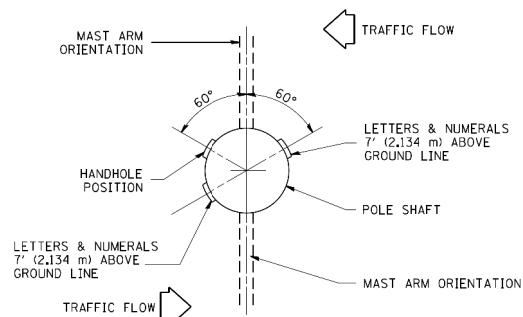
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	278
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



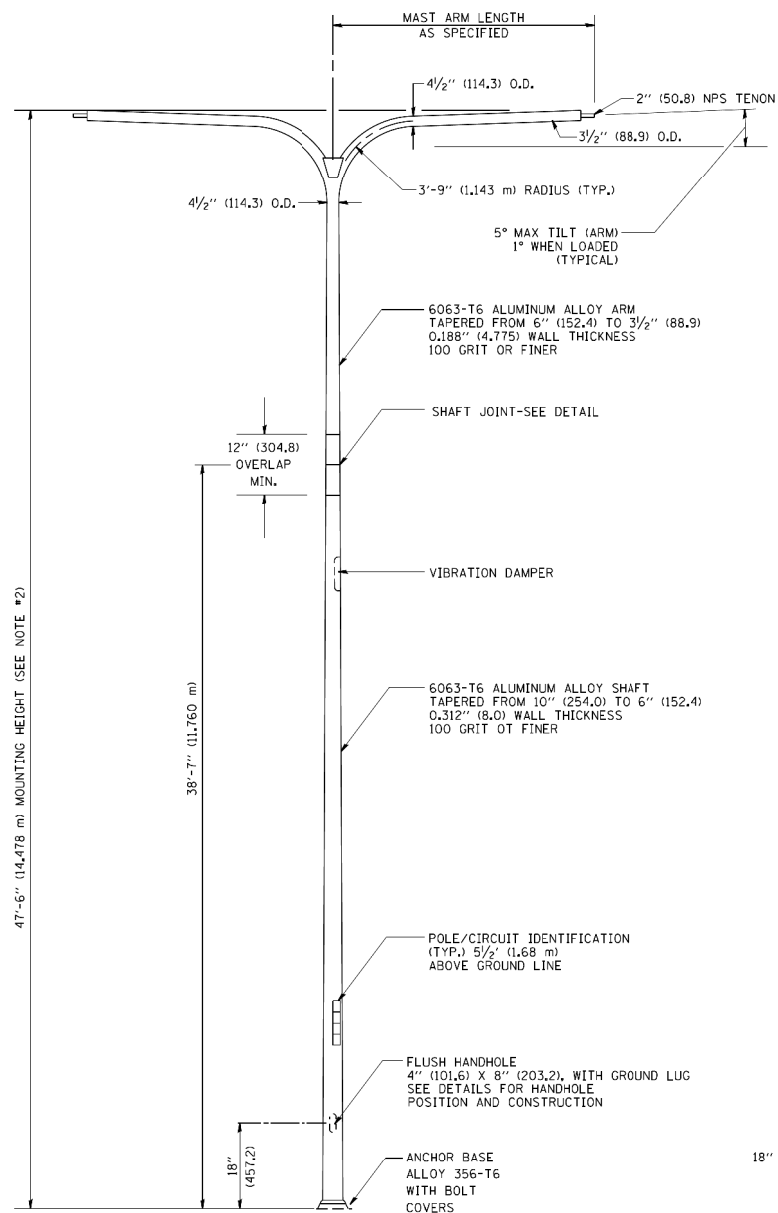
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



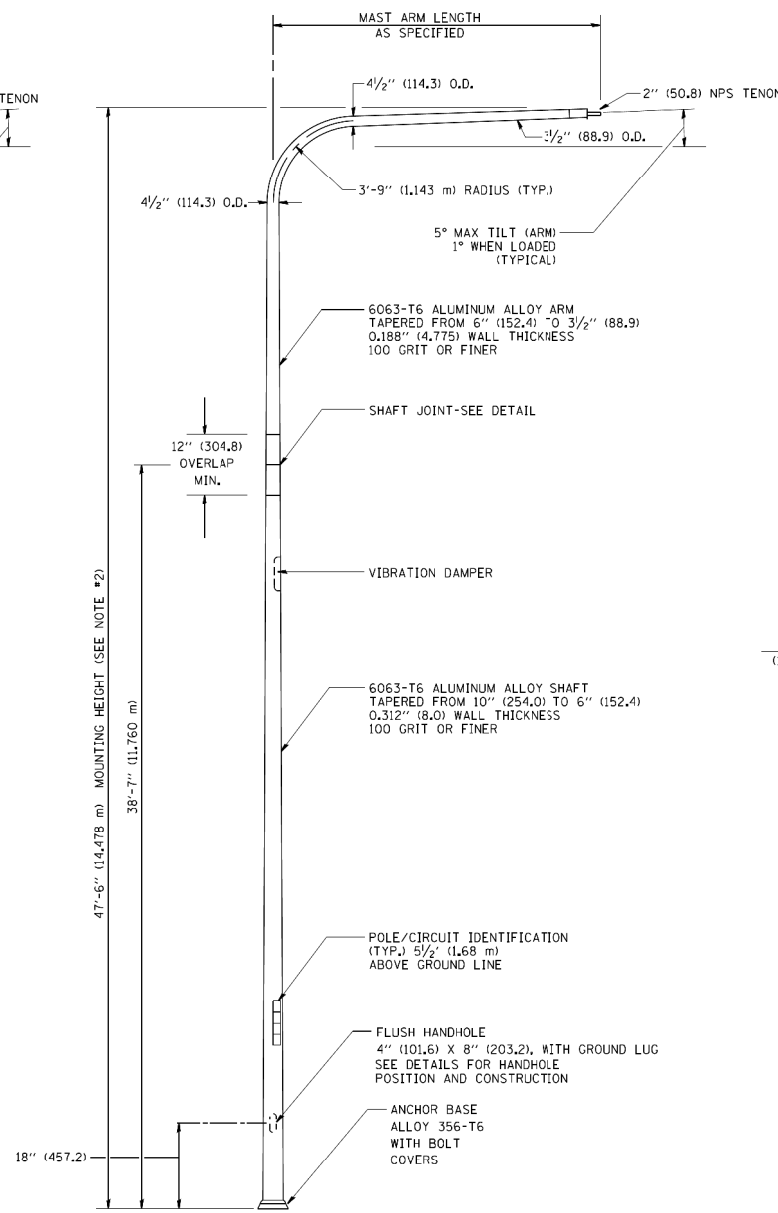
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



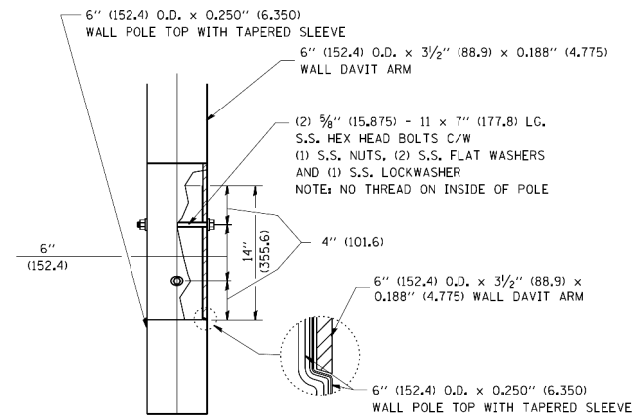
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



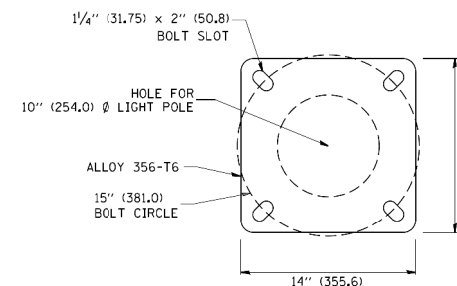
TWIN ARM POLE



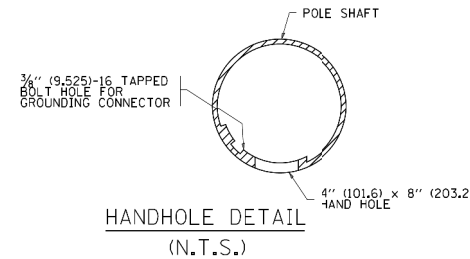
SINGLE ARM POLE



DAVIT ARM CONNECTION  
[14" (355.6) OVERLAP SHOWN]



LIGHT POLE BASE PLATE DETAIL  
(FOR POLE MOUNTED ON 15 INCH (381.0) BOLT CIRCLE FOUNDATION)



HANDHOLE DETAIL  
(N.T.S.)

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
  4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

FILE NAME = c:\pwork\pwork\1eysa\d0108315\be410.dgn	USER NAME = leysa	DESIGNED -	REVISED - [L. DREW 05-07-92]
		DRAWN - LEY	REVISED - R. TOMSONS 09-06-00
	PLOT SCALE = 50,0000' / in.	CHECKED -	REVISED - R. TOMSONS 09-02-03
	PLOT DATE = 4/4/2013	DATE -	REVISED - R. TOMSONS 01-18-13

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DAVIT LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-410			
CONTRACT NO.				

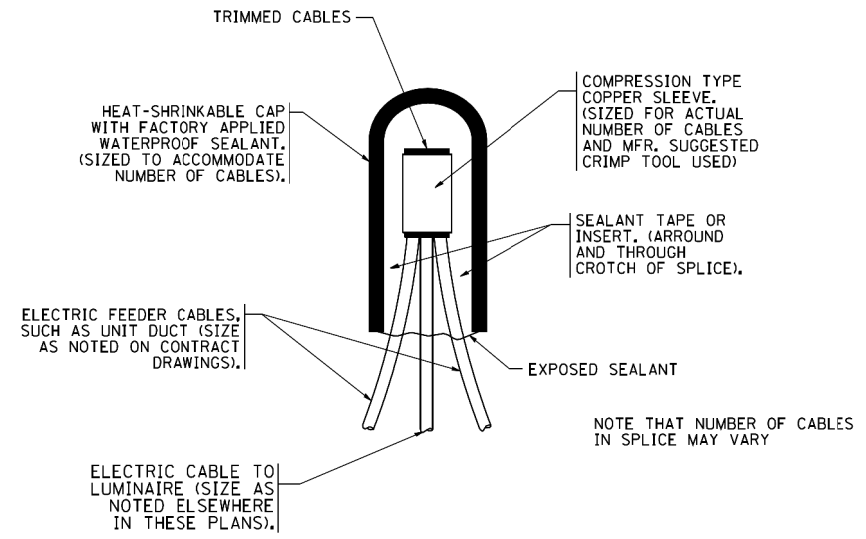


USER NAME = kangikwa	DESIGNED - KFA	REVISED -
	DRAWN - AA	REVISED -
	CHECKED - MCD	REVISED -
	DATE - 5/6/2016	REVISED -

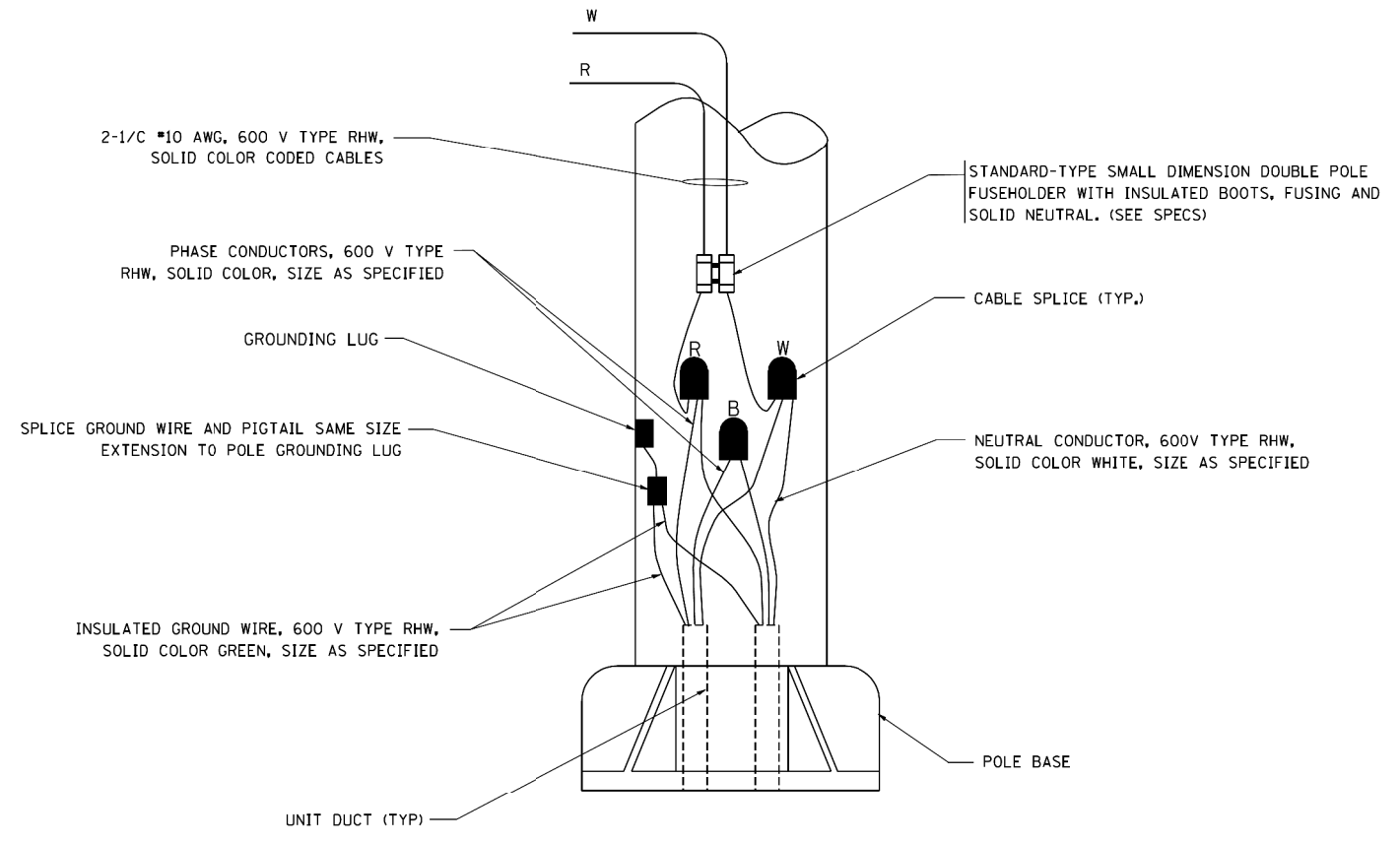
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IDOT ROADWAY LIGHTING			
DAVIT LIGHT POLE DETAILS			
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00 TO STA. 24+00.00	ILLINOIS FED. AID PROJECT

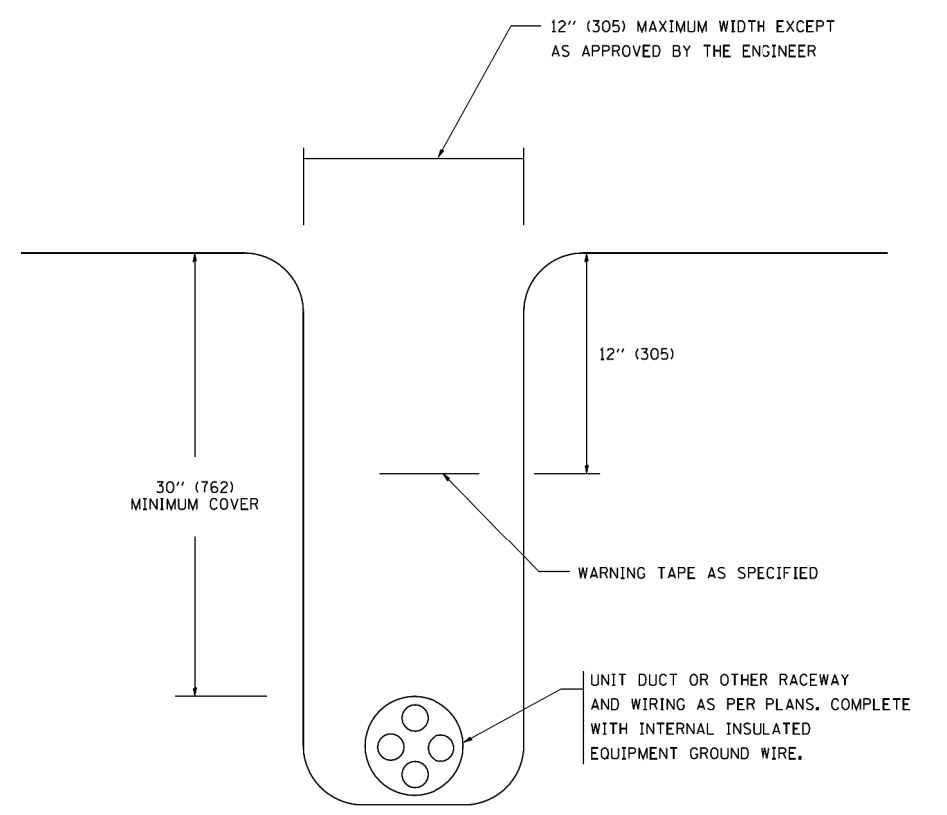
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	279
CONTRACT NO. 60Y38				



TYPICAL SPLICE DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.

FILE NAME = W:\diststd\22x34\be702.dgn	USER NAME = geglianobt	DESIGNED -	REVISED - 08-08-03
		DRAWN -	REVISED -
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MISC. ELECTRICAL DETAILS SHEET A</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>BE-702</b>		<b>CONTRACT NO.</b>		
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

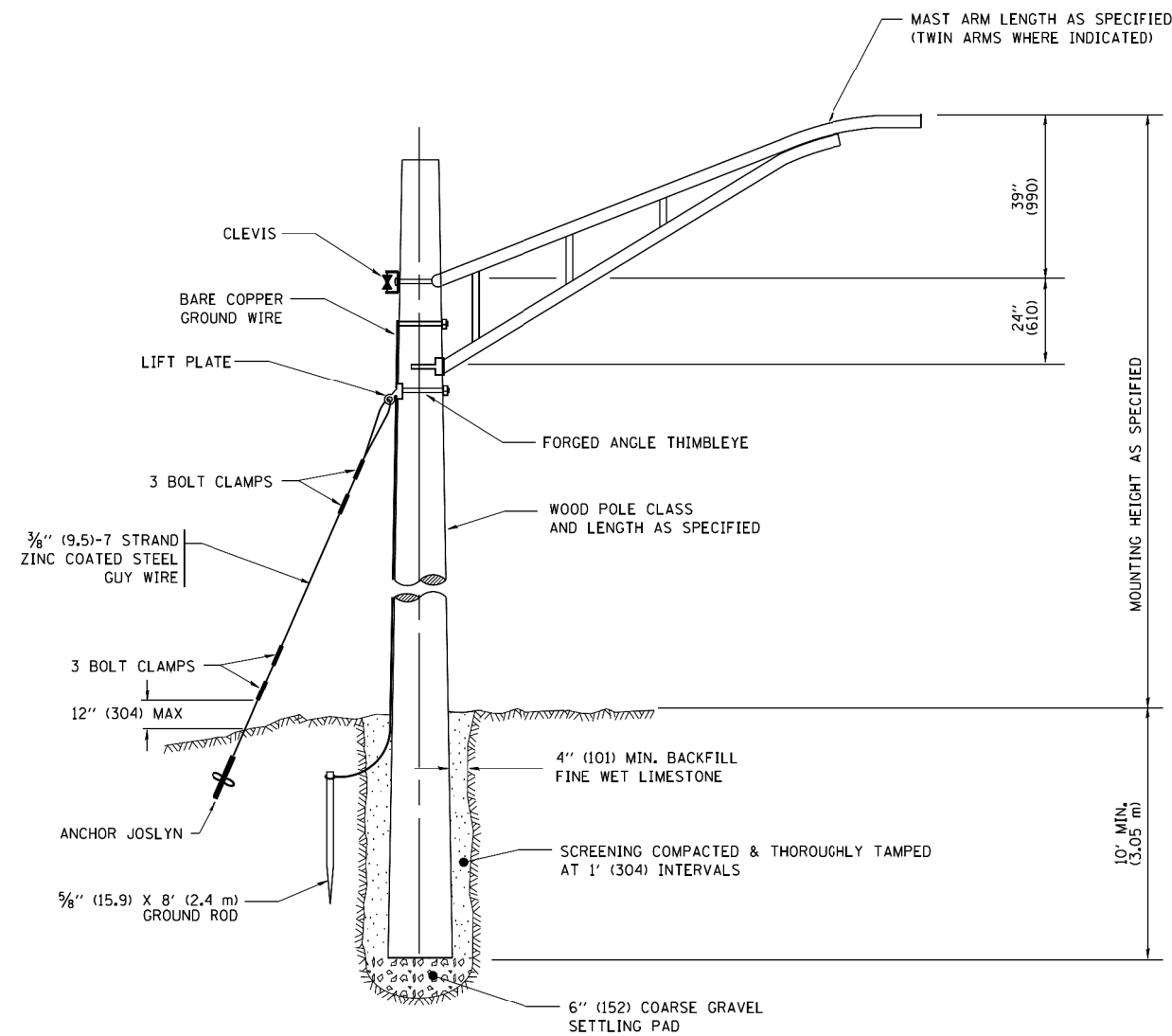


USER NAME = konjiko	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
	CHECKED MCD	REVISED -
	DATE 5/6/2016	REVISED -

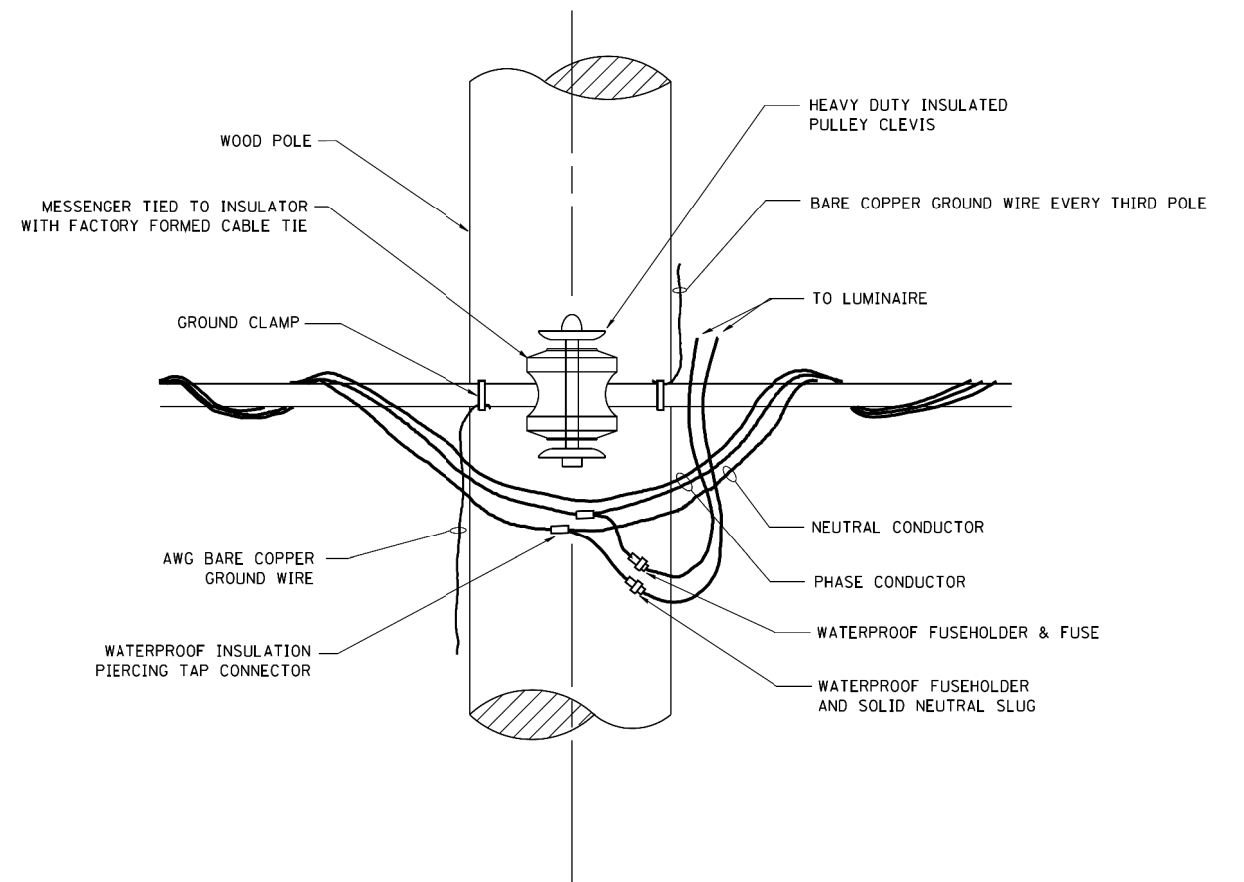
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IDOT ROADWAY LIGHTING MISC. ELECTRICAL DETAILS</b>			
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00	TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	280
<b>CONTRACT NO. 60Y38</b>		ILLINOIS FED. AID PROJECT		



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

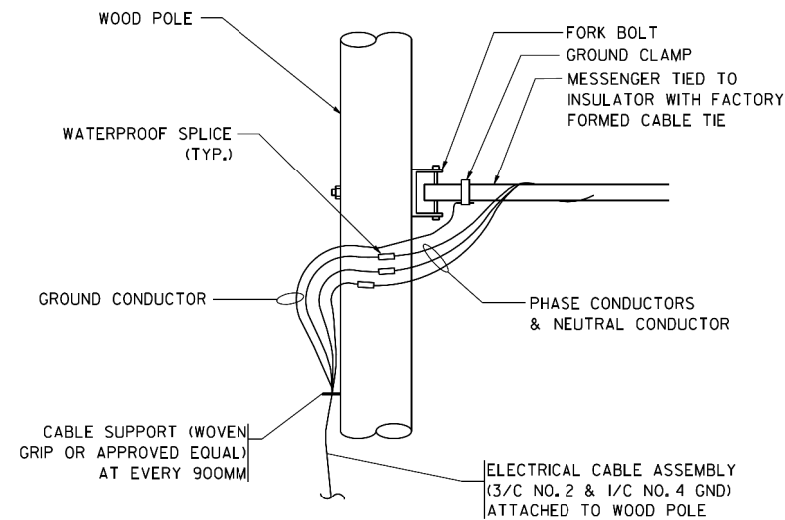
FILE NAME = W:\distata\22x34\be800.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 38-08-03	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY LIGHT POLE DETAILS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BE-800</b>		<b>CONTRACT NO.</b>	
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT							
		DATE -	REVISED -									



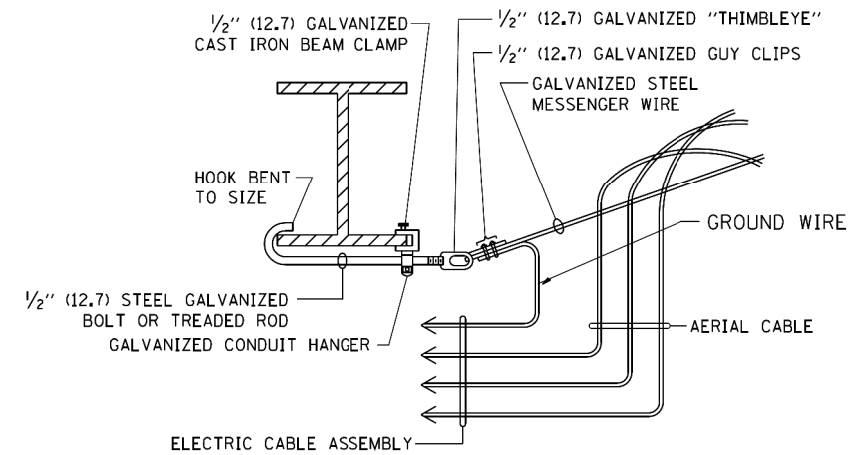
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	DRAWN - AA	REVISED -
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PLOT DATE = 5/4/2016	DATE - 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IDOT ROADWAY LIGHTING TEMPORARY LIGHT POLE DETAILS</b>					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. 10+00.00	TO STA. 24+00.00		90	(1517 & 1415) R-3	COOK	557	281
					ILLINOIS FED. AID PROJECT				



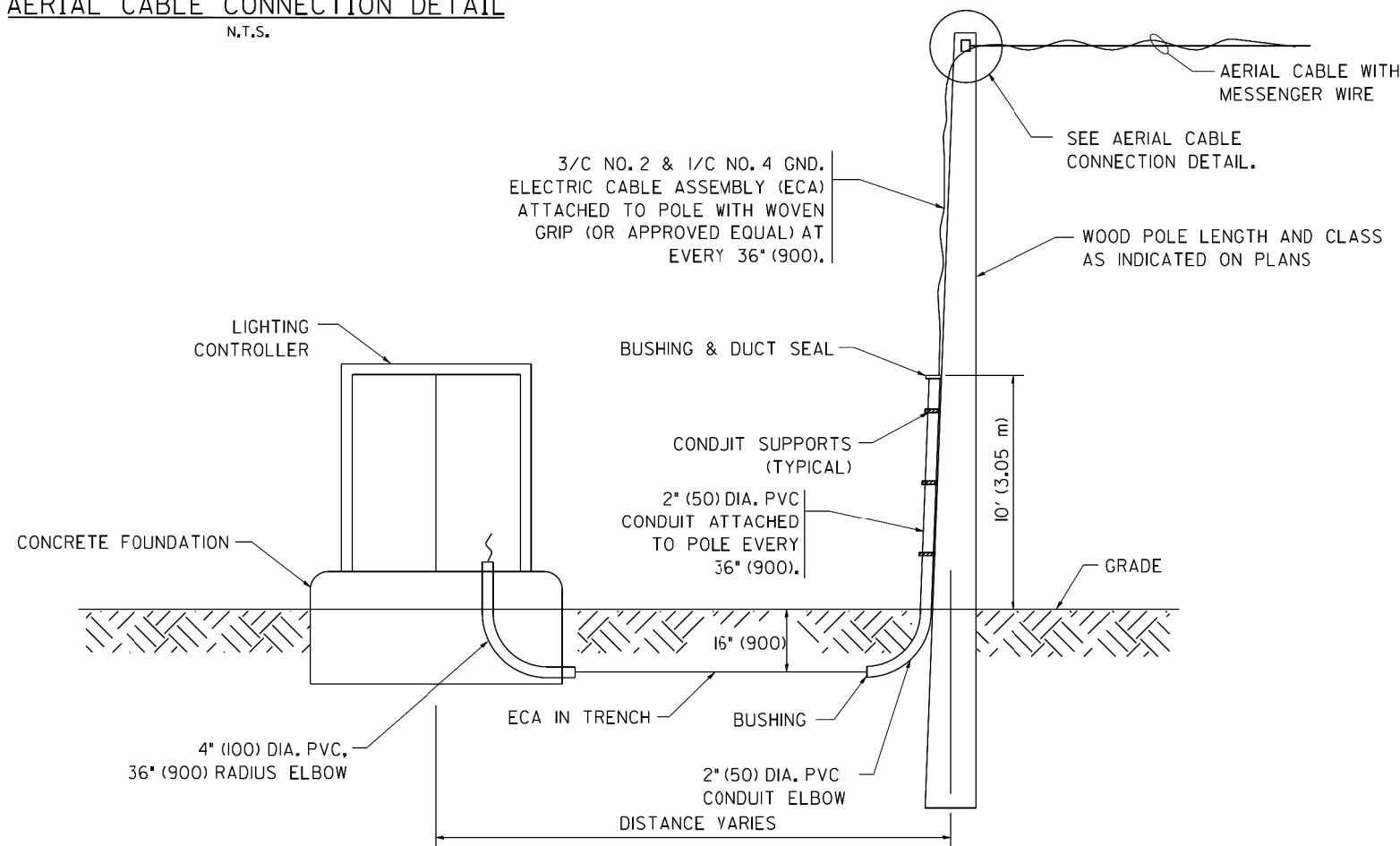
**AERIAL CABLE CONNECTION DETAIL**  
N.T.S.



**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.

FILE NAME = W:\diststd\22x34\be80\dgn	USER NAME = gaglionobt	DESIGNED - -	REVISED - 06-08-03
		DRAWN - -	REVISED - -
	PLOT SCALE = 50,000' / IN.	CHECKED - -	REVISED - -
	PLOT DATE = 1/4/2009	DATE - -	REVISED - -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY AERIAL CABLE INSTALLATION**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BE-801		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.



USER NAME = kongikwa	DESIGNED - KFA	REVISED - -
	DRAWN - AA	REVISED - -
PLOT SCALE = 1,0000' / IN.	CHECKED - MCD	REVISED - -
PLOT DATE = 5/4/2016	DATE - 5/6/2016	REVISED - -

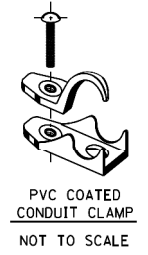
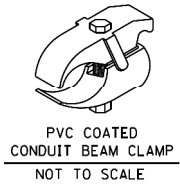
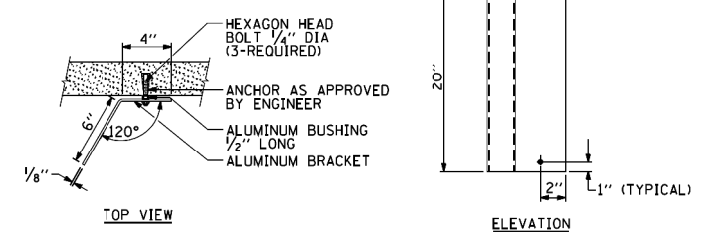
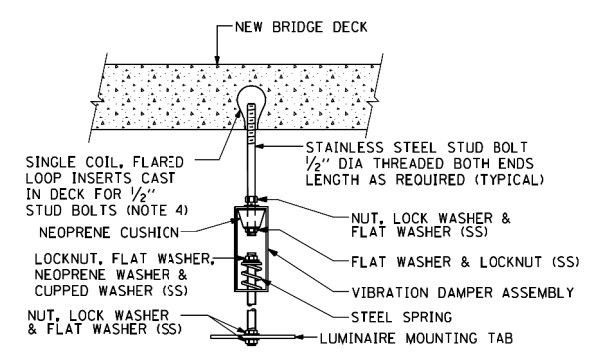
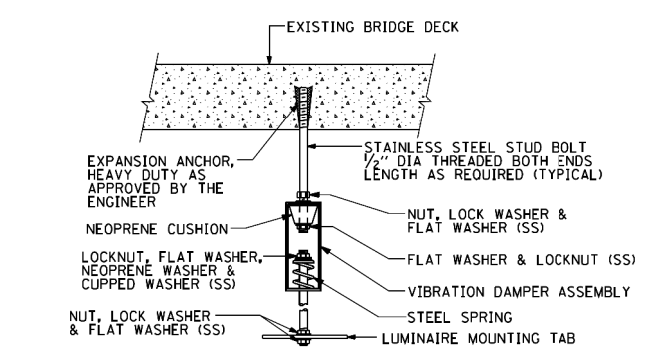
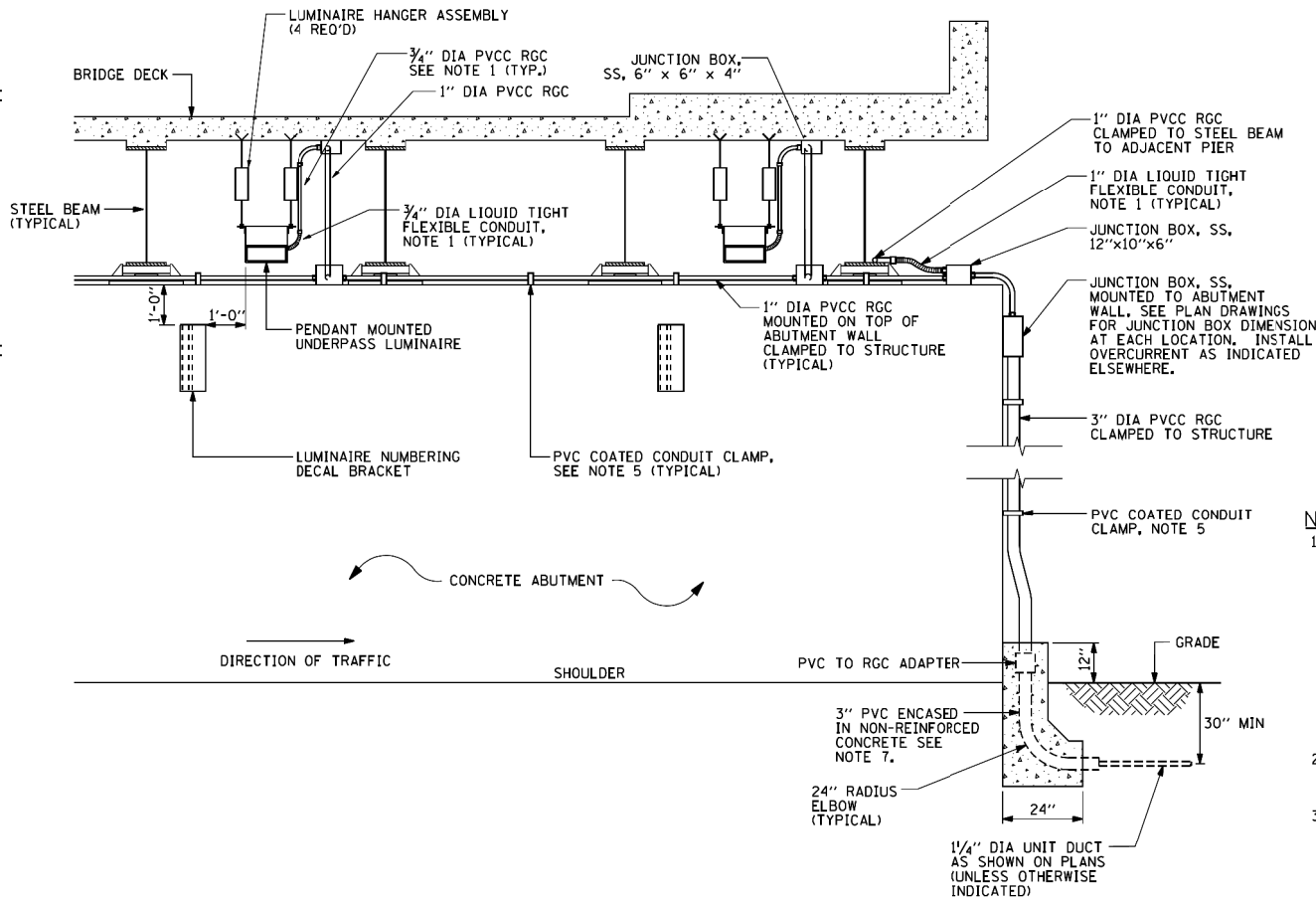
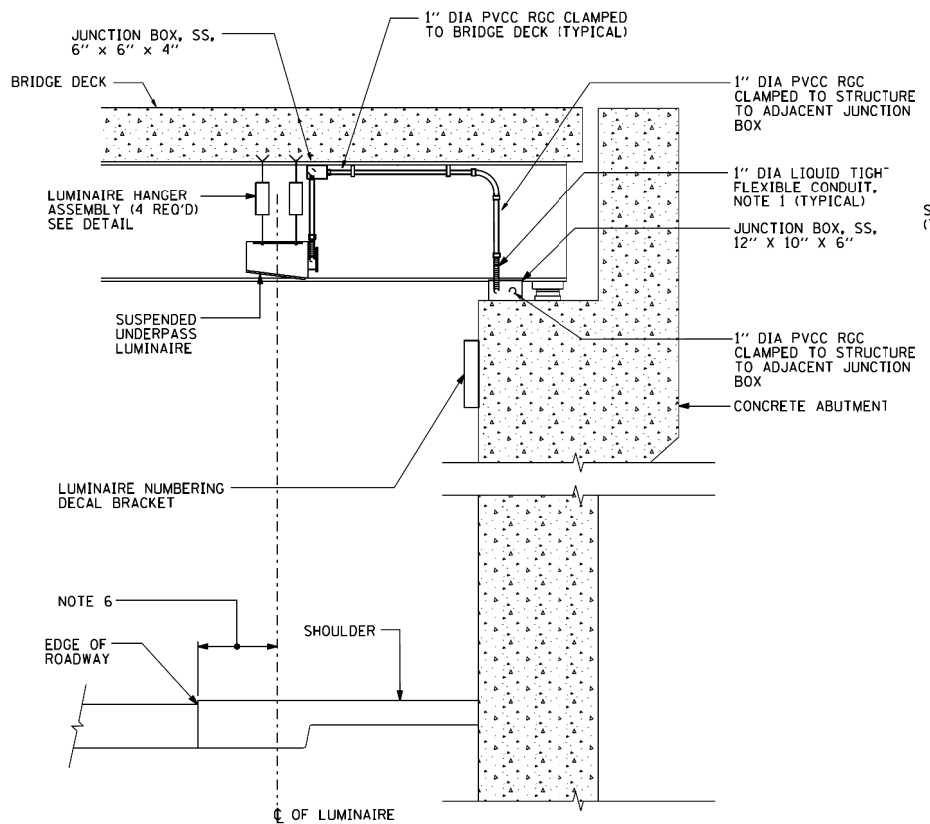
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IDOT ROADWAY LIGHTING  
TEMPORARY AERIAL CABLE INSTALLATION DETAILS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	282
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. 10+00.00 TO STA. 24+00.00





- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN, PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 1/2" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
  - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
  - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
  - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
  - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
  - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS.
  - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
  - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

FILE NAME = W:\diststd\22x34\be900.dgn	USER NAME = gaglanabt	DESIGNED -	REVISED - 12-12-05
		DRAWN -	REVISED -
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUSPENDED MOUNT UNDERPASS  
LUMINAIRE INSTALLATION DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT			CONTRACT NO.	

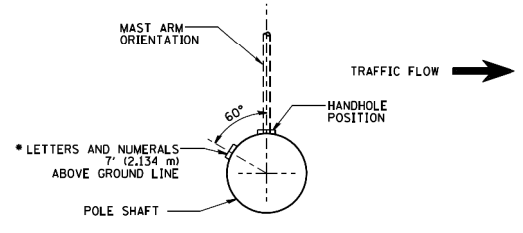


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	DRAWN - AA	REVISED -
PLOT SCALE = 1,0000' / IN.	CHECKED - MCD	REVISED -
PLOT DATE = 5/4/2016	DATE - 5/6/2016	REVISED -

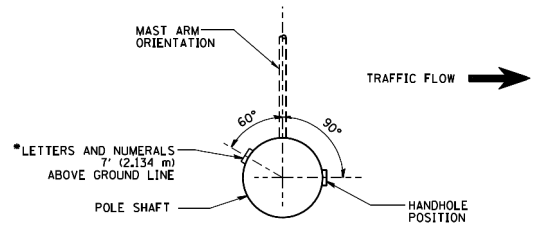
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IDOT ROADWAY LIGHTING  
UNDERPASS LUMINAIRE INSTALLATION DETAILS

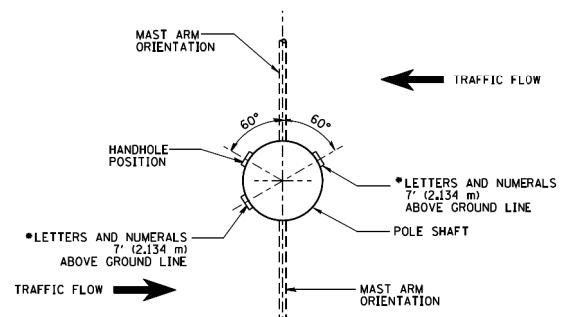
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	283
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60Y38	



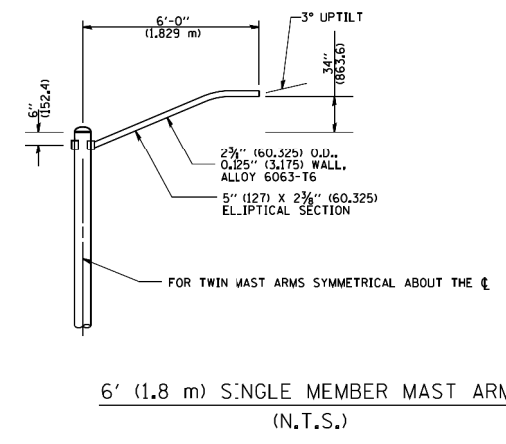
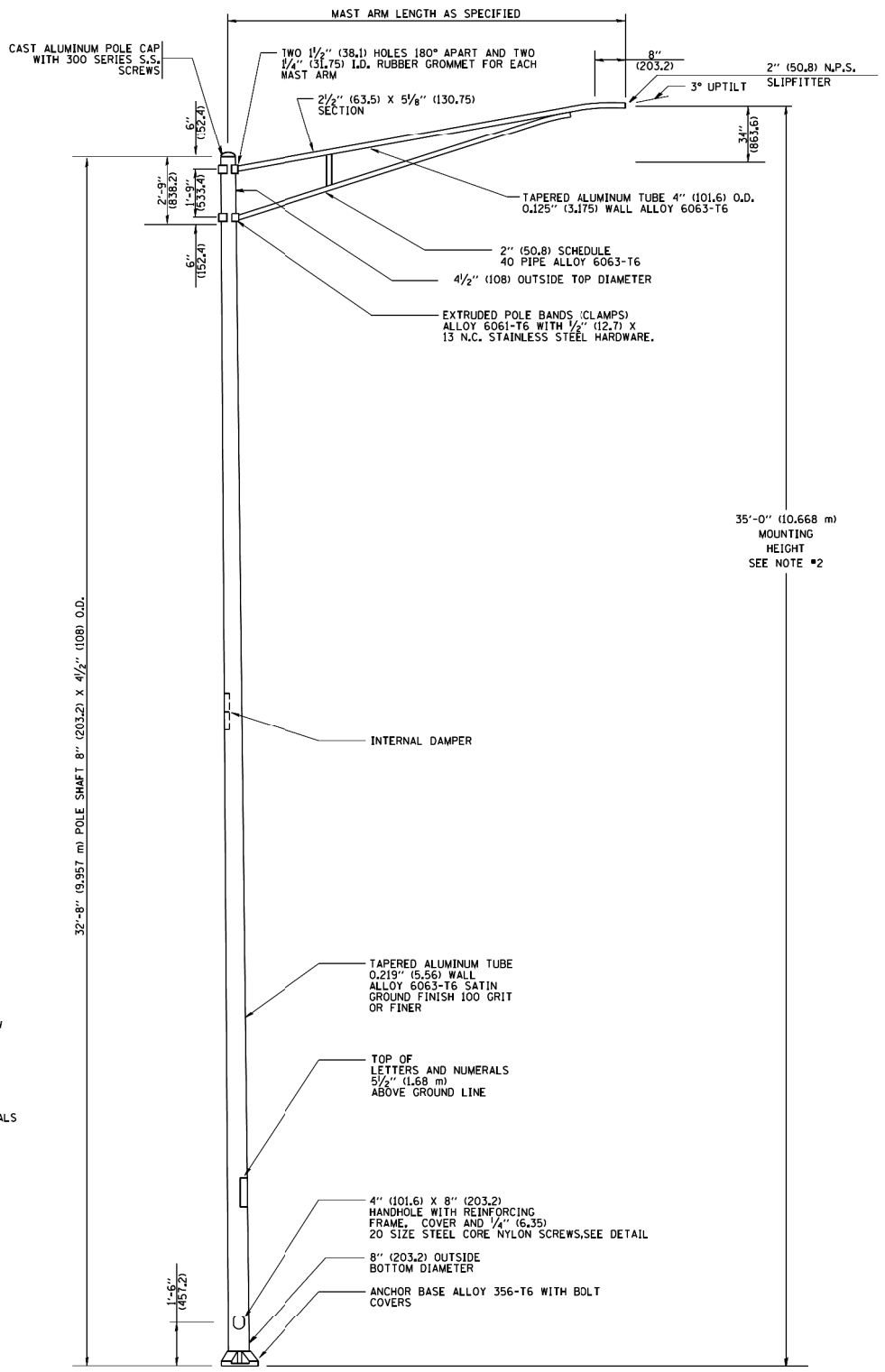
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



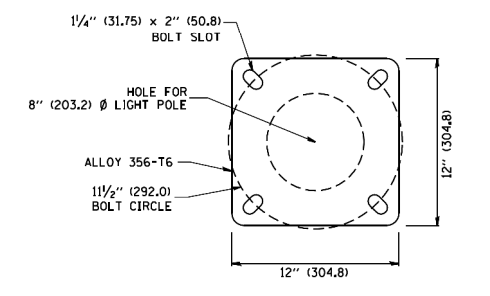
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



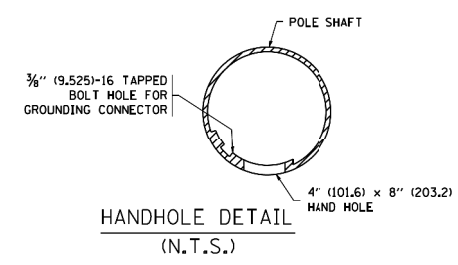
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE. CRITERIA AS SPECIFIED.
  3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BRANDY K2C23, T&B SP40L OR APPROVED EQUAL.
  5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL  
11 1/2\"/>



HANDHOLE DETAIL  
(N.T.S.)

FILE NAME = W:\dststd\22x34\be402.dgn	USER NAME = gaglianob	DESIGNED -	REVISED - R. TOMSONS 09-06-00	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ALUMINUM LIGHT POLE 35'-0" (10.668 m) MOUNTING HEIGHT</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. TOMSONS 09-02-03		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BE-402</b>				
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -		CONTRACT NO.							
		DATE -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



USER NAME = kangikwa	DESIGNED KFA/SM	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1,0000' / IN.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IDOT ROADWAY LIGHTING ALUMINUM LIGHT POLE 35'-0" MOUNTING HEIGHT</b>			
SCALE: NONE	SHEET NO. OF 1 SHEETS	STA. 10+00.00	TO STA. 24+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	284
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

PROPOSED	PRESENT	
		SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL OPTICALLY PROGRAMMED
		SIGNAL, PEDESTRIAN, DON'T WALK/WALK
		SIGNAL FACE ARROW, 12" COLOR AS NOTED
		SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION
		PUSH BUTTON, PEDESTRIAN
		SIGN, ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED
		MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED
		CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)
		CONTROLLER, STREET LIGHTING. POLE MOUNTED (DWG. #11940)
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA., 10" DI A. AND 15" B.C. 24"x7" FND. W/1 1/4" ANCHOR RODS DRG. #818.
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA., 10" DIA. AND 15" B.C. 24"x9" FND. W/1 1/4" ANCHOR RODS DRG. #818 (16", 20" or 26" M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA., 11" DIA. AND 17 1/4" B.C. 30"x9" FND. W/1 1/4" ANCHOR RODS DRG. #816. (30" M.A.)
		POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA., 12 1/2" DIA. AND 16 1/2" B.C. 30"x11" FND. W/1 1/2" ANCHOR RODS DRG. #817. (35", 40" or 44" M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4" B.C. ON 30"x9" FND. W/ 1 1/4" ANCHOR RODS DRG. #816.
		POLE, CITY STEEL, ANCHOR BASE, 20', 27'-6", 29'-6", 7 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.
		POLE, CITY STEEL, ANCHOR BASE, 20', 27'-6", 29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #719.
		POLE, CITY STEEL, ANCHOR BASE, 20', 27'-6", 29'-6" 7 GA., AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #114088.
		POLE, CITY STEEL, ANCHOR BASE, 20', 27'-6", 29'-6" 3 GA., AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #114088.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"x7" WITH 1" ANCHOR RODS DRG. #691.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"x7" WITH 1" ANCHOR RODS DWG. #691.
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND. WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 7 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 3 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)
		COLUMN, ELEVATED STRUCTURE
		POLE, WOOD. (SIZE AS NOTED)
		POLE, FOUNDATION WITH ELBOWS AS INDICATED. (SIZE AS NOTED)
		POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS

PROPOSED	PRESENT	
		HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866)
		HANDHOLE, CIRCULAR WITH 24" FRAME & COVER, 30" I.D. (#867)
		MANHOLE, CITY 3'X4'X4' DWG. #729 or 730; 4'X6'X6' DWG. #732 or 733.
		FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C., 20"X5' (DWG. #709)
		FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972
		FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)
		FOUNDATION, CONTROLLER STREET LIGHT, SPECIAL, 100A & 200A. (DWG.#876 & # 880)
		FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891)
		CONTROLLER, UNDERPASS LIGHTING 120V. & 240V. (DWG. #862 & #861)
		MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL. BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A.; S=SEWER
		JUNCTION BOX, IN PAVEMENT (DWG. #815)
		DETECTOR LOOP IN PAVEMENT
		CONDUIT or P.V.C., NUMBER, SIZE & TYPE. (AS NOTED)
		CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED)
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI-CUTOFF
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 310W LAMP, 240V
		LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 150W LAMP, 240V
		LUMINAIRE, H.P.S.V. 150W LAMP, 120V
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V. (ALLEY LIGHT)
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V
		TERMINAL, CABINET F.A. & P.C.
		FIRE ALARM BOX, MOUNTED
		FIRE ALARM BOX, POLE MOUNTED
		CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 10/C-#12 or #14, 600V, EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 14/C-#12 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 19/C-#12 or #14, 600V, EPR IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED, IN CONDUIT
		CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
		WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL
		WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL
		CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR
		WIRE, F.A. & P.C. AERIAL, 1/C-#10. NUMERAL DENOTES QUANTITY
		CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT

ORNAMENTAL LUMINAIRES		
PROPOSED	EXISTING	
		310W PENDANT (240V)
		400W PENDANT (240V)
		250W PENDANT (240V)
		150W ACORN (120V)
		150W ACORN (240V)
		50W ACORN (240V)
		100W ACORN (240V)
		150W GLOBE (240V)
		100W GLOBE (240V)
		50W GLOBE (240V)

C 04-01-02	REVISED/REDRAW	R. POOL/B. I.
B 12-4-01	ADDED ORNAMENTAL SYMBOLS	
A 8-6-96	REDRAWN	
DATE	REVISION	
<b>STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING</b>		
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
DRAFTSMAN: R. IVY	CHIEF DRAFTSMAN: R. CARTER	ENGINEER: R. POOL/R.C/W.T.
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.	DWG. NO. 826
ENGINEER OF ELECTRICITY:		DATE:
GEN'L. SUPV. OF CONSTRUCTION:		
DEPUTY COMMISSIONER:		
SIZE: 22" x 36"	SCALE:	

**EXISTING SYMBOL LEGEND:**

- EXISTING GROUND MOUNTED POLE FOUNDATION AND POLE
- EXISTING LUMINAIRE H.P.S.V. 310W LAMP, 240V
- EXISTING PARAPET MOUNTED POLE

**PROPOSED SYMBOL LEGEND:**

- PROPOSED LUMINAIRE COBRA-HEAD, AERIAL, LED 157 WATT IES CUTOFF TYPE II/III DISTRIBUTION
- PROPOSED ALUMINUM DAVIT POLE FOR BRIDGE PARAPET WALL SEE BOE STANDARD DRAWING #975
- 2" PVC IN PARAPET WALL
- 3TC - PROPOSED 2#6 & 1#8 CONDUCTOR, EPR/HYPCON IN CONDUIT

**CDOT LIGHTING BILL OF MATERIALS**

PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	QUANTITY
X0324571	MAINTENANCE OF STREET LIGHTING SYSTEM (CITY OF CHICAGO)	L SUM	1
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	35
X0326326	CABLE IN CONDUIT, TRIPLEX, 2-1/C NO. 6 AND 1-1/C NO. 8 GROUND	FOOT	135
X8211125	LIGHTING UNIT COMPLETE, SPECIAL	EACH	1
X8250500	LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	1
X8300001	LIGHT POLE, SPECIAL	EACH	1



USER NAME = konykwo	DESIGNED KFA	REVISED -
	DRAWN AA	REVISED -
PLOT SCALE = 1:8000' / 1/8"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

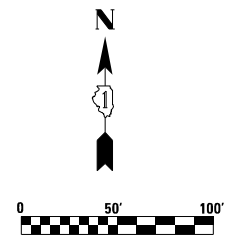
**CDOT LIGHTING GENERAL LEGEND  
WEST HIGGINS AVENUE**

S	SHEET NO.1	OF 1 SHEETS	STA. 10+00.00	TDD SSTA. 24+00.00
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	285
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**LEGEND:**

- "E" EXISTING TO REMAIN.
- "F1" REMOVE AND SALVAGE EXISTING LIGHT POLE, LUMINAIRE AND MAST ARM. (SEE NOTE 2)

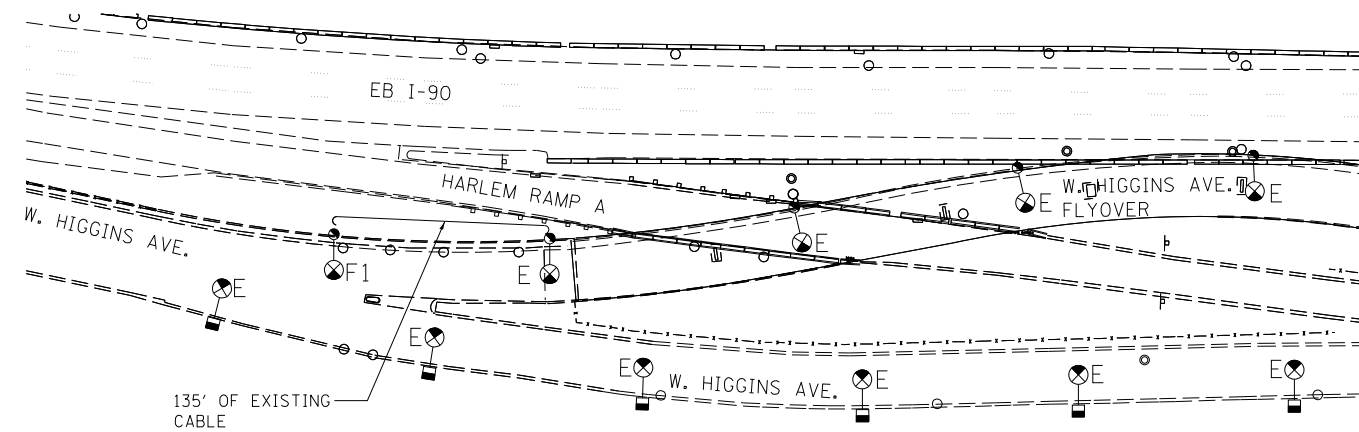


**REMOVAL NOTES:**

1. THE REMOVAL OF CABLE AND CONDUIT SHALL NOT BE PAID FOR SEPERATELY. IT SHALL BE INCIDENTAL TO THE REMOVAL OF THE EXISTING PARAPET WALL. CONTRACTOR SHALL CAP AND SEAL THE EXISTING CONDUIT FOR FUTURE CONNECTION TO NEW EMBEDDED 2" CONDUIT. (SEE SHEET E-49)
2. THE REMOVAL AND SALVAGE OF THE EXISTING LIGHT POLE, LUMINAIRE, AND MAST ARM SHALL BE PAID FOR BY THE LIGHT POLE SPECIAL PAY ITEM.

**DEMOLITION NOTES:**

1. CONTRACTOR SHALL FIELD INSPECT THE LOCATIONS AND CONDITIONS OF THE STREET LIGHTING EQUIPMENT TO BE REMOVED IN PRESENCE OF COMMISSIONER'S REPRESENTATIVE AND NOTE ANY DEFECTIVE PARTS PRIOR TO REMOVING ANY ITEM.
2. CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DAMAGE ANY EQUIPMENT DURING THE REMOVAL OPERATION. IF ANY ITEMS ARE DAMAGED BY THE CONTRACTOR DURING THE REMOVAL, THEY SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE COMMISSIONER.
3. REMOVE THE STREET LIGHTING EQUIPMENT SHOWN ON THE REMOVAL PLANS BEFORE BRIDGE DEMOLITION WORK IS STARTED, TRANSPORT THEM TO THE BOE YARD AFTER MAKING ARRANGEMENTS WITH BOE.
4. THE W. HIGGINS AVENUE FLYOVER RAMP WILL BE CLOSED DURING CONSTRUCTION, NO TEMPORARY LIGHTINGS IS NEEDED.



**ELECTRICAL REMOVAL PLAN**



USER NAME = kangikwa	DESIGNED KFA/SM	REVISED -
	DRAWN AHS	REVISED -
PLOT SCALE = 1,0000' / 1in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CDOT LIGHTING REMOVAL PLAN  
WEST HIGGINS AVENUE**

SCALE: NTS SHEET NO. OF 1 SHEETS STA. 66+00.00 TO STA. 81+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	286
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60Y38	

**LEGEND:**

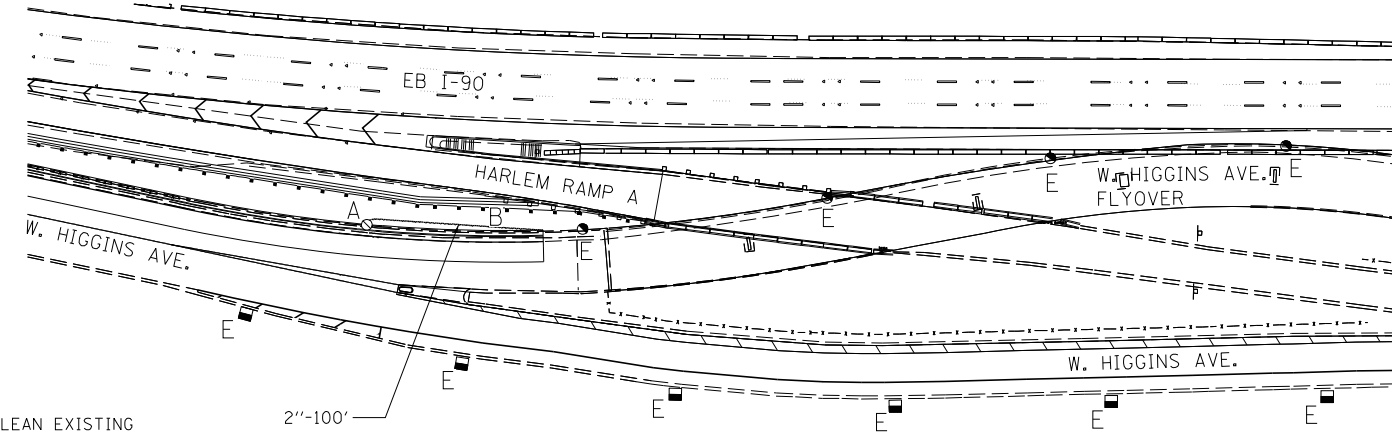
"A" INSTALL FOUNDATION PER STRUCTURAL PLANS, 1" ANCHOR RODS, 11-1/2" BOLT CIRCLE.

"E" EXISTING TO REMAIN.

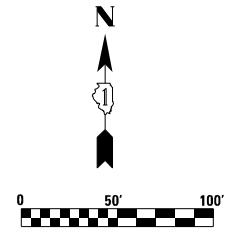
INSTALL EMBEDDED CONDUIT PER STRUCTURAL PLANS (SEE NOTE 1)

**INSTALLATION NOTES:**

1. CONNECT EXISTING CONDUIT TO NEW EMBEDDED 2" USING A CONDUIT ADAPTER, CLEAN EXISTING CONDUIT. CONDUIT AND ADAPTER INCLUDED IN STRUCTURE QUANTITIES. CLEANING OF EXISTING CONDUIT INCLUDED IN ELECTRICAL QUANTITIES.



**CONDUIT PLAN**



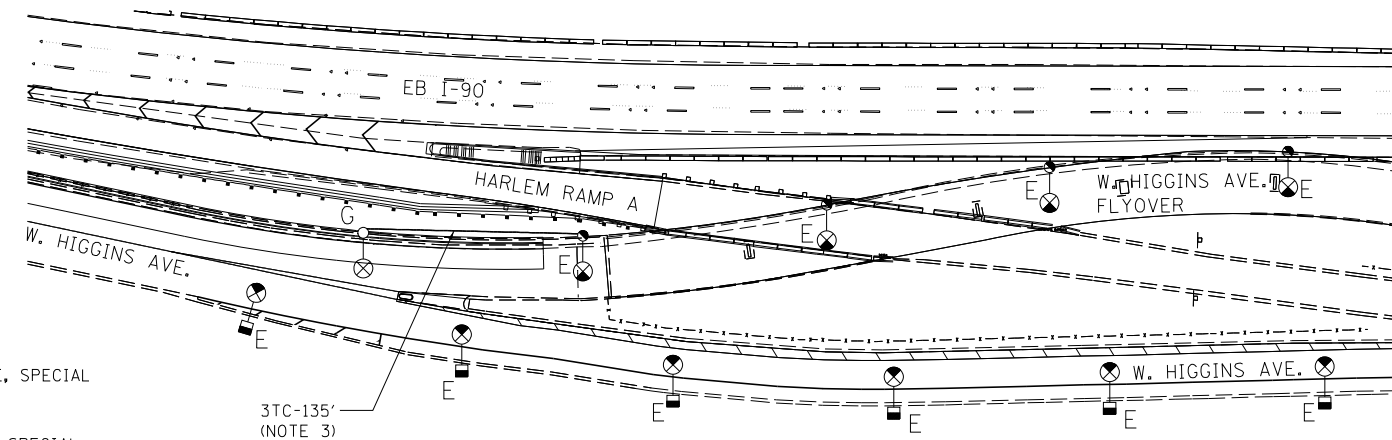
**LEGEND:**

"G" INSTALL 32'-6" POLE, 8' MAST ARM, WITH 157 WATT LED LUMINAIRE

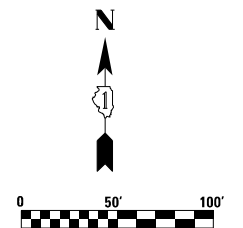
"E" EXISTING TO REMAIN

**INSTALLATION NOTES:**

1. LIGHT POLE AND MAST ARM SHALL BE PAID FOR BY THE LIGHTING UNIT COMPLETE, SPECIAL PAY ITEM.
2. LED LUMINAIRE SHALL BE PAID FOR BY THE LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL PAY ITEM.
3. TERMINATION OF THE 3TC CABLE IS INCIDENTAL TO THE CABLE PAY ITEM; TERMINATION INCLUDES SPLICE KITS, FUSES, AND ANY OTHER REQUIRED INCIDENTALS.



**WIRING PLAN**



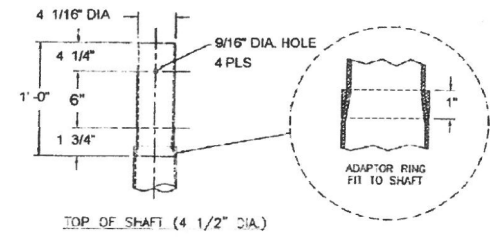
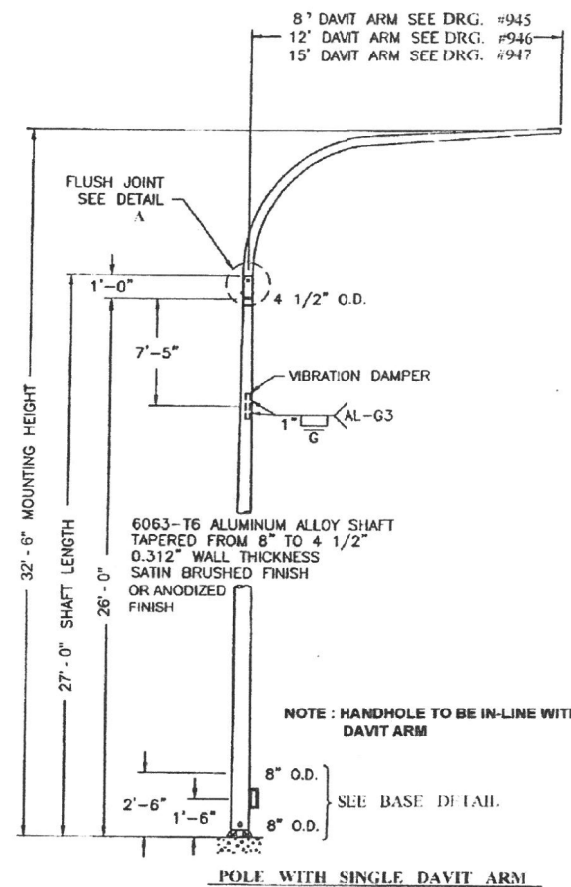
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	DRAWN AHS	REVISED -
PLOT SCALE = 1:8000 / 1/8"	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

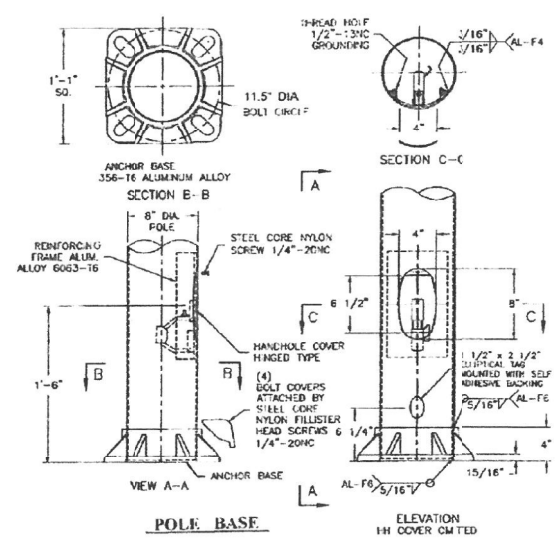
CDOT LIGHTING PROPOSED PLAN  
WEST HIGGINS AVENUE

SCALE: NTS SHEET NO. OF 1 SHEETS STA. 66+00.00 TO STA. 81+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	287
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				



DETAIL A



A	DATE	REVISION
<b>ALUMINUM DAVIT POLE</b> <b>8" x 4.5" x 27'</b> <b>FOR BRIDGE PARAPET WALL</b>		
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING		
DRAFTSMAN :	G. M. PADIYAR	DWG. NO.
ENGINEER :	O. LETAMENDI	975
SUPERVISING ENGINEER :	R. POOL	
ENGINEER OF ELECTRICITY :	<i>J. J. Kot</i>	
DEPUTY COMMISSIONER :	<i>Daniel Burke</i>	
SIZE:	SCALE: NONE	DATE: 10/02/13

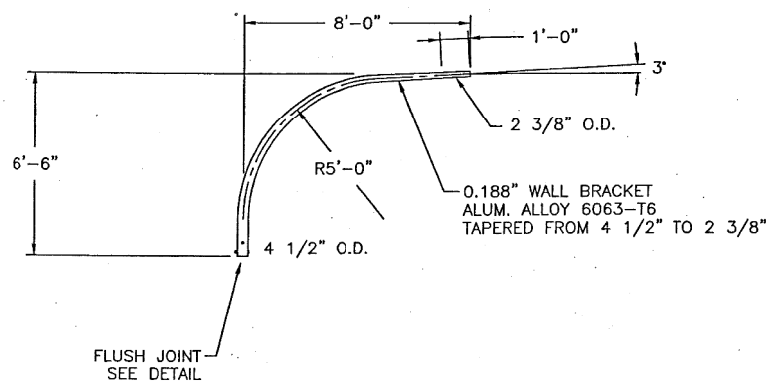


USER NAME = konyikwa	DESIGNED KFA/SM	REVISED -
PLOT SCALE = 1.0000 1/16" = 1"	DRAWN AHS	REVISED -
PLOT DATE = 5/4/2016	CHECKED MCD	REVISED -
	DATE 5/6/2016	REVISED -

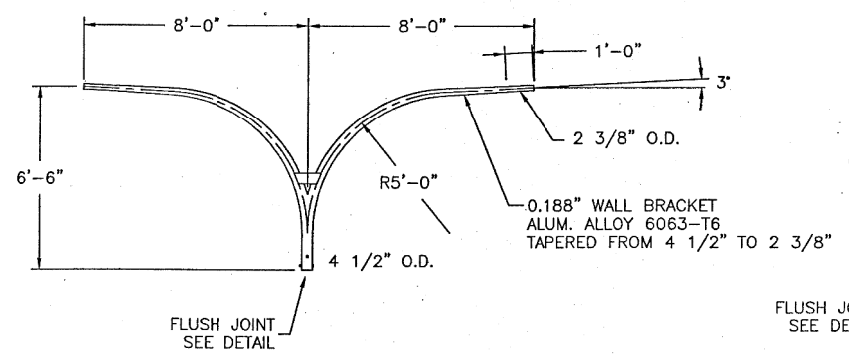
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ALUMINUM DAVIT POLE 8" X 4.5" X 27'	
SCALE:	SHEET NO. OF 1 SHEETS STA. 66+00.00 TO STA. 81+00.00

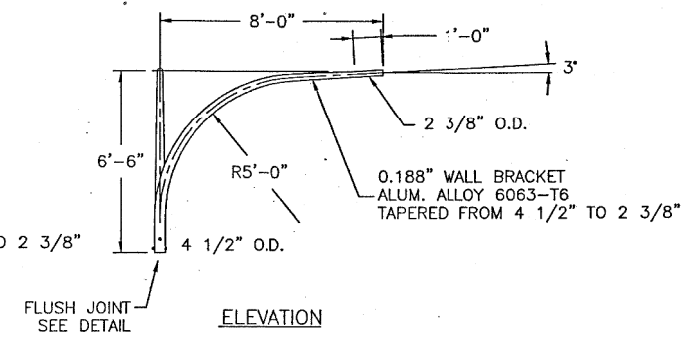
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 288
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				



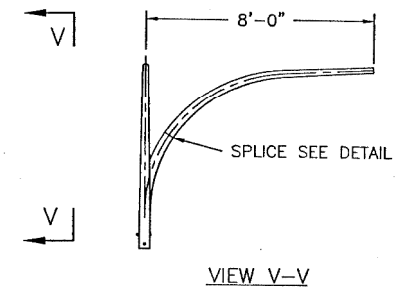
SINGLE DAVIT ARM



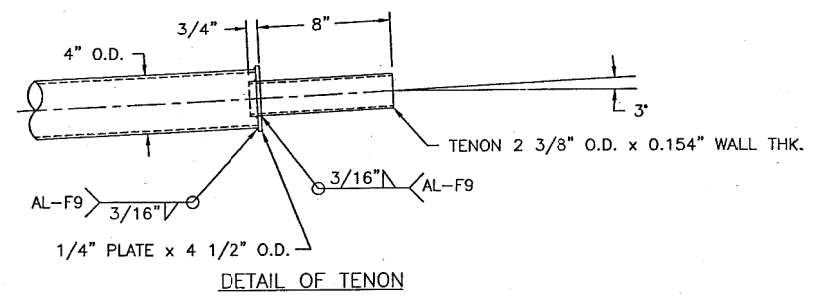
TWIN DAVIT ARM AT 180°



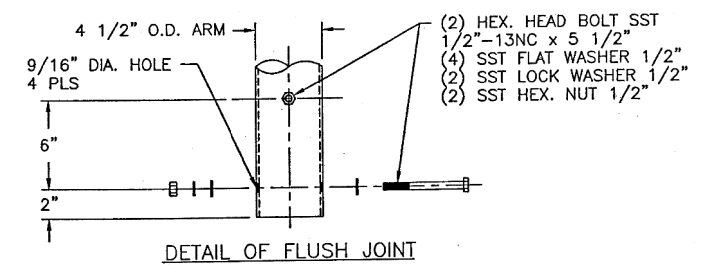
TWIN DAVIT ARM AT 90°



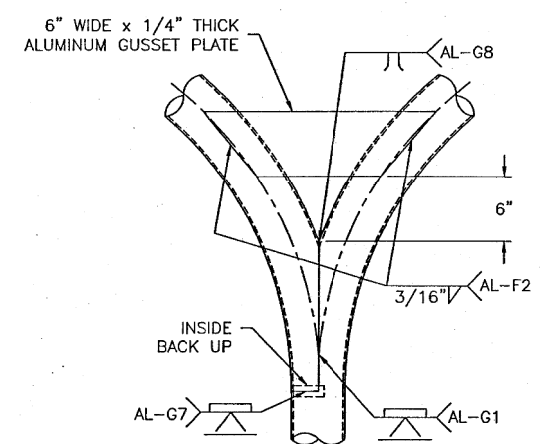
VIEW V-V



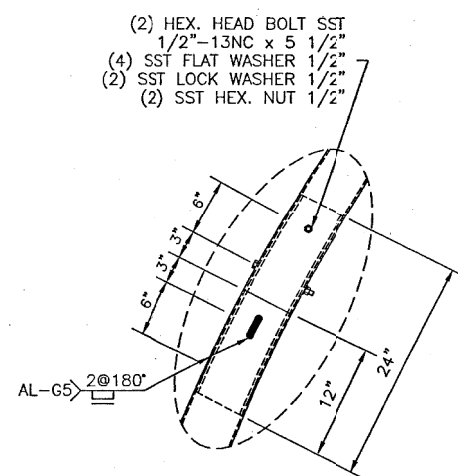
DETAIL OF TENON



DETAIL OF FLUSH JOINT



TWIN ARM (180°) WELD DETAIL



SPLICE DETAIL

<b>ALUMINUM DAVIT ARM</b>			
4.5" x 8'-0"			
CITY OF CHICAGO			
DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING			
DRAFTSMAN	CHIEF DRAFTSMAN	ENGINEER	
SUPERVISING ENGINEER	ELEC. DESIGN ENGR.		DWG. NO.
ENGINEER OF ELECTRICITY			<b>945</b>
GEN'L. Supt. of CONSTRUCTION			
DEPUTY COMMISSIONER			
SIZE: 1	SCALE: 1	DATE: 1-29-02	



USER NAME = konyikwa	DESIGNED KFA/SM	REVISED -
	DRAWN AHS	REVISED -
PLOT SCALE = 1.0000 "/ in.	CHECKED MCD	REVISED -
PLOT DATE = 5/4/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CDOT PROPOSED LIGHTING PLAN  
WEST HIGGINS AVENUE**

SCALE:	SHEET NO. OF 1 SHEETS	STA. 66+00.00 TO STA. 81+00.00
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	289
			CONTRACT NO. 60Y38	
ILLINOIS FED. AID PROJECT				

GENERAL ITS NOTES

- THE CONTRACTOR SHALL EXERCISE CARE WITH THE INSTALLATION OF UNDERGROUND EQUIPMENT AS THERE MAY BE EXISTING PRIVATELY OWNED FACILITIES WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ANY UTILITIES IN THE WORK ZONE AND REQUEST UTILITY LOCATES.
- FIBER OPTIC CABLE SLACK SHALL BE AS FOLLOWS: 100 FEET FOR EACH CABLE (96 AND 12 FIBER) AT COMMUNICATIONS VAULTS WHERE SPLICING IS INDICATED. FIBER OPTIC CABLE SLACK SHALL BE 50 FEET FOR EACH CABLE AT COMMUNICATIONS VAULTS WHERE NO SPLICING IS INVOLVED.
- WHERE 96 FIBER TRUNK AND DISTRIBUTION CABLES ARE INSTALLED, EACH SHALL BE INSTALLED IN SEPARATE FIBER OPTIC INNERDUCTS.
- THE ELECTRICAL MAINTENANCE CONTRACTOR (EMC) SHALL BE CONTACTED FOR EXISTING STATE OWNED FACILITY LOCATES.
- THE 96 STRAND FIBER OPTIC TRUNK CABLE SHALL BE INSTALLED CONTINUOUS. NO END TO END SPLICES OF THE 96 STRAND FIBER OPTIC TRUNK CABLE SHALL BE PERMITTED.
- ALL CONDUIT SHALL BE INSTALLED A MINIMUM OF 30" BELOW GRADE.
- CONDUIT CROSSING OVER/UNDER OTHER UTILITIES SHALL MAINTAIN A SEPARATION OF AT LEAST 12 INCHES OR AS SPECIFIED BY OWNING UTILITY.
- PROPOSED CONDUIT ROUTES SHOWN IN THE PLANS ARE SCHEMATIC ONLY. CONTRACTOR TO VERIFY EXACT ROUTE WITH FIELD ENGINEER.
- TEMPORARY WOOD POLES NOT SPECIFICALLY CALLED OUT IN THE "ITS REMOVAL PLANS AND ADVANCE WORK" ARE INSTALLED AS PART OF THE TEMPORARY LIGHTING AND WILL NOT BE PAID FOR AS PART OF TEMPORARY ITS WORK.
- EXISTING ITS EQUIPMENT AND CABLING SHALL REMAIN IN PLACE AND OPERATIONAL UNTIL ADVANCE DEVICES ARE INSTALLED AND INTEGRATED. ADVANCE ITS EQUIPMENT AND CABLING SHALL REMAIN IN PLACE AND OPERATIONAL UNTIL PERMANENT DEVICES ARE INSTALLED AND INTEGRATED.
- FOR BOTH TELEPHONE AND ELECTRIC SERVICE CONNECTIONS WHERE CONNECTING TO AN EXISTING SERVICE DROP, ALL CONNECTIONS REQUIRED ARE TO BE PAID FOR IN THE COST OF THE NEW CABLE.

ABBREVIATIONS AND ACRONYMS

NOTATION	DESCRIPTION
AMW	AERIAL MESSENGER WIRE (INTEGRATED WITH AERIAL CABLE)
CMV	COMMUNICATIONS VAULT
COMM	COMMUNICATIONS
CSF	CABLE SPLICE, FIBER OPTIC, FUSION
CCTV	CLOSED CIRCUIT TELEVISION
CNC	COILABLE NONMETALLIC CONDUIT
DCF	DISTRIBUTION CABLE, FIBER OPTIC
ECC	ELECTRICAL CABLE IN CONDUIT
EMB	CONDUIT EMBEDDED IN STRUCTURE
ETH	ETHERNET CABLE
FOC	FIBER OPTIC CABLE
FOTP	FIBER OPTIC TERMINATION PANEL
FOSC	FIBER OPTIC SPLICE CLOSURE
FOSE	FIBER OPTIC SPLICE ENCLOSURE
GSC	GALVANIZED STEEL CONDUIT (RIGID)
HHH	HEAVY-DUTY HANDHOLE
IDT	INNERDUCT
LCF	LATERAL CABLE, FIBER OPTIC
TDCF	TEMPORARY DISTRIBUTION CABLE, FIBER OPTIC
SURV	SURVEILLANCE
SWE	ETHERNET SWITCH
TEMP	TEMPORARY
TCF	TRUNK CABLE, FIBER OPTIC
RVDS	RADAR VEHICLE DETECTION SYSTEM
E	EXISTING TO REMAIN
R	REMOVE
A	ABANDON IN PLACE
S	REMOVE AND SALVAGE
I	INSTALL
I90	FIBER OPTIC CABLE DESIGNATOR, I-90
I190	FIBER OPTIC CABLE DESIGNATOR, I-190
P19	FIBER OPTIC CABLE DESIGNATOR, PLAZA 19
PS24	FIBER OPTIC CABLE DESIGNATOR, PUMP STATION 24
KE-04	FIBER OPTIC CABLE DESIGNATOR, KENNEDY EXPY

ITS SHEET INDEX

291 - 296	ITS REMOVAL PLANS AND ADVANCE WORK
297 - 306	ITS PROPOSED CONDUIT AND CABLE PLANS
307 - 311	ITS SITE INSTALLATION PLANS
312 - 315	ITS COMMUNICATIONS PLANS
316 - 327	ITS FIBER OPTIC CABLE ASSIGNMENT TABLES
328 - 334	ITS COMMUNICATIONS SHELTER DETAILS
335 - 363	ITS INSTALLATION DETAILS

ComEd COORDINATION - (REFERENCE ONLY)

ITS POWER SERVICE INFORMATION:  
ACCOUNT NO. : 1310075007  
ComEd Contact: ROBERT CHRISTMAS  
ComEd Phone NO. : 1-773-509-3243

PLAN CALLOUT/PAY ITEM LEGEND

PLAN CALLOUT	PAY ITEM DESCRIPTION
2 IN. GSC	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
3 IN. GSC	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
4 IN. GSC	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
1/4 IN. CNC	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1/4" DIA.
1/C NO. 12	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12
1/C NO. 8	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8
1/C NO. 8 GROUND	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8
1/C NO. 6	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6
1/C NO. 6 GROUND	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6
1/C NO. 2	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2
1/C NO. 2 GROUND	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2
1/C NO. 1/0	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0
1/C NO. 1/0 GROUND	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0
2-1/C NO. 6 AERIAL	AERIAL CABLE, 2-1/C NO. 6 WITH MESSENGER WIRE
CONCRETE FOUNDATION, TYPE A	CONCRETE FOUNDATION, TYPE A
CONCRETE FOUNDATION, TYPE D	CONCRETE FOUNDATION, TYPE D
INDUCTION LOOP CABLE	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED
INDUCTION LOOP DETECTOR	DIGITAL LOOP DETECTOR SENSOR UNIT (4 CHANNEL)
CABINET, MODEL 334	CABINET, MODEL 334
CABINET, MODEL 336	EQUIPMENT CABINET
1/4 IN. IDT	FIBER OPTIC INNERDUCT 1/4" DIA.
ETHERNET SWITCH	ETHERNET SWITCH
CCTV CAMERA EQUIPMENT	CLOSED CIRCUIT TELEVISION CAMERA EQUIPMENT
TEMP. RVDS	RADAR VEHICLE DETECTION SYSTEM
CCTV CAMERA	CLOSED CIRCUIT TELEVISION CAMERA, HD
CCTV CAMERA POLE FOUNDATION	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, FOUNDATION, 80 FT. MOUNTING HEIGHT
CCTV CAMERA POLE	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, GALVANIZED STEEL, 80 FT. MOUNTING HEIGHT
CONCRETE FOUNDATION, CABINET MODEL 334	CONCRETE FOUNDATIONS (SPECIAL)
CABINET, TYPE IV	CABINET HOUSING EQUIPMENT, TYPE IV
96 FOC	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE
12 FOC	FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE
CSF-L	FIBER OPTIC SPLICE-LATERAL
CSF-M	FIBER OPTIC SPLICE-MAINLINE
FOC (R)	REMOVE FIBER OPTIC CABLE FROM CONDUIT
FOTP	FIBER OPTIC TERMINATION PANEL, 12F OR 24F
DRILL EXISTING HDHH	DRILL EXISTING HEAVY DUTY HANDHOLE
DRILL EXISTING JB	DRILL EXISTING JUNCTION BOX
DRILL EXISTING FDN	DRILL EXISTING FOUNDATION
UTILITY CONNECTION, POWER	ELECTRIC UTILITY SERVICE CONNECTION
POWER SERVICE	ELECTRIC SERVICE DISCONNECT
tone EQUIPMENT, RECEIVER	tone EQUIPMENT - 3 FREQUENCY RECEIVER PROGRAMMABLE
tone EQUIPMENT, TRANSMITTER	tone EQUIPMENT - 3 FREQUENCY TRANSMITTER PROGRAMMABLE
tone EQUIPMENT, POWER SUPPLY	tone EQUIPMENT - POWER SUPPLY
tone EQUIPMENT, MOUNTING FRAME	tone EQUIPMENT - MOUNTING FRAME
DYNAMIC MESSAGE SIGN (I)	DYNAMIC MESSAGE SIGN REMOVAL AND INSTALLATION
HHH (R)	REMOVE EXISTING HANDHOLE
CABINET (R)	REMOVE EXISTING SURVEILLANCE CAMERA EQUIPMENT
6 PAIR NO. 19 (I)	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 19 6 PAIR
FLASHING BEACON SIGN (I)	LED FLASHING BEACON AND FLASHER CONTROLLER
FLASHING BEACON SIGN (R)	SIGN REMOVAL
RAMP GATE (I)	DROP GATE
RAMP GATE (R)	REMOVE EXISTING GATE
CONCRETE FOUNDATION (R)	REMOVE EXISTING CONCRETE FOUNDATION
CONDUIT RISER (I)	CONDUIT RISER, GALV STEEL
WOOD POST (I)	WOOD POST
SIGNAL HEAD AND PEDESTAL (I)	TRAFFIC CONTROL LED SIGNAL HEAD (2 SECTION, 1 FACE) AND PEDESTAL
SIGNAL HEAD AND PEDESTAL (R)	REMOVE EXISTING SIGNAL HEAD AND POST
COMMUNICATIONS SHELTER (I)	ILLINOIS DEPARTMENT OF TRANSPORTATION COMMUNICATIONS NODE
FIBER CABINET AND FOUNDATION (I)	FIBER OPTIC INTERCONNECT CABINET

PLAN LEGEND

EXISTING	PROPOSED	
		CONDUIT/INNERDUCT AS LABELED ON PLANS
		AERIAL MESSENGER WIRE
		FIBER OPTIC CABLE AS LABELED ON PLANS
		POWER CABLES AS LABELED ON PLANS
		AERIAL ELECTRICAL CABLE
		INDUCTION LOOP CABLES
		TELEPHONE BACKHAUL CABLES AS LABELED ON PLANS
		CCTV COMPOSITE CABLE
		DYNAMIC MESSAGE SIGN COMM CABLE
		CABLE TO BE REMOVED OR ABANDONED
		CCTV CAMERA
		SURVEILLANCE/INDUCTION LOOP
		RADAR VEHICLE DETECTION SYSTEM
		GROUND-MOUNTED CABINET (TYPE SPECIFIED ON PLANS)
		POLE-MOUNTED CABINET (CABINET, MODEL 336)
		UTILITY POWER/TELEPHONE SERVICE
		HEAVY-DUTY HANDHOLE
		COMMUNICATIONS VAULT
		RAMP GATE
		RAMP SIGNAL
		ADVANCE FLASHER SIGN
		JUNCTION BOX
		80' CCTV CAMERA POLE
		TEMPORARY WOOD POLE (SEE LIGHTING PLANS)
		COMMUNICATIONS SHELTER



USER NAME = jbakley	DESIGNED RJ	REVISED -
	DRAWN RJ	REVISED -
PLOT SCALE = 1:80' / in.	CHECKED YJ	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

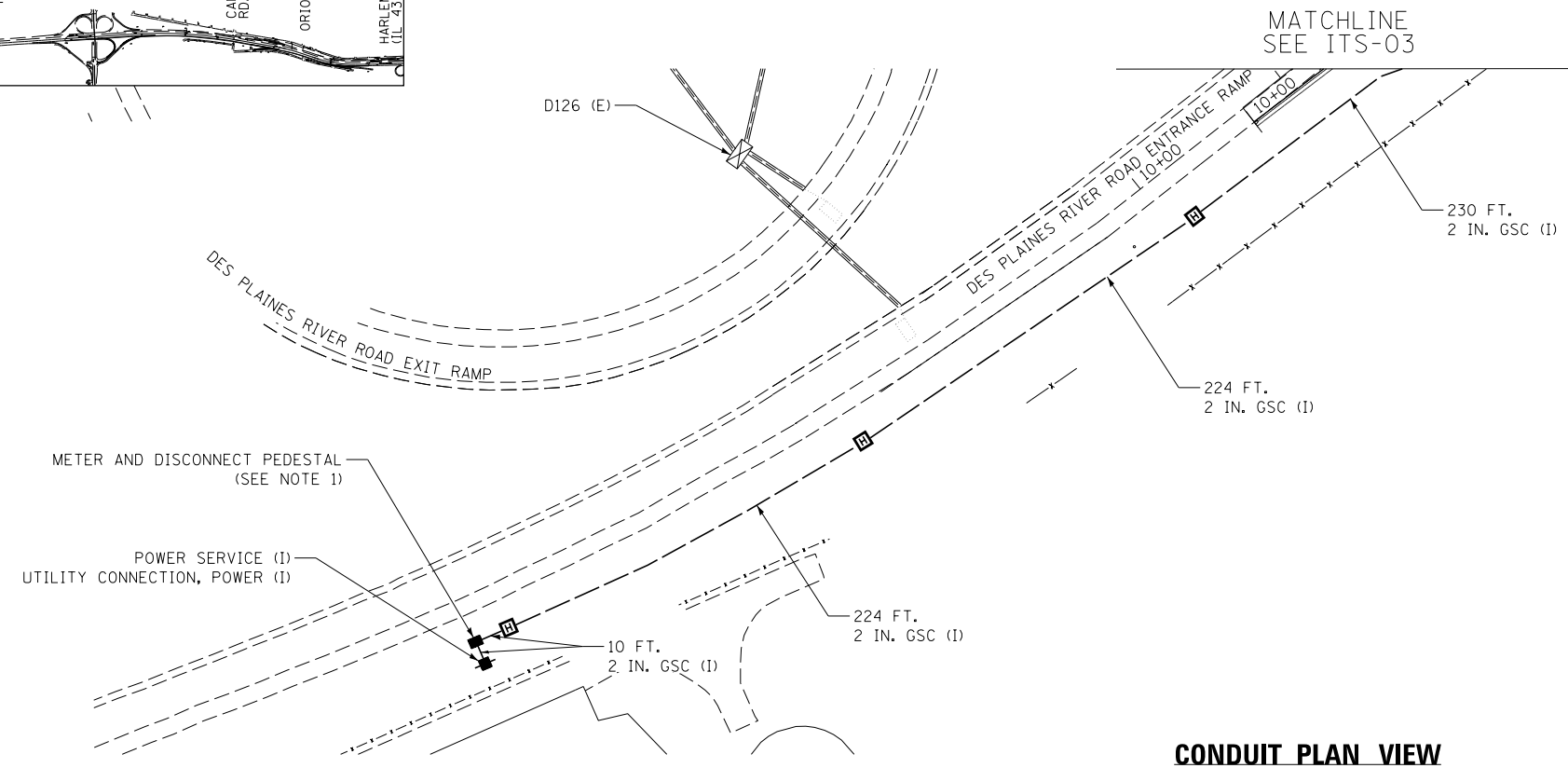
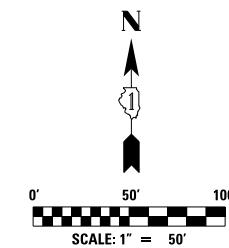
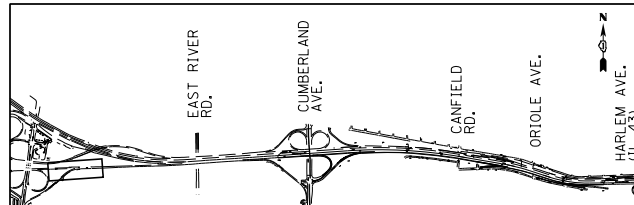
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ITS NOTES AND LEGENDS EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE

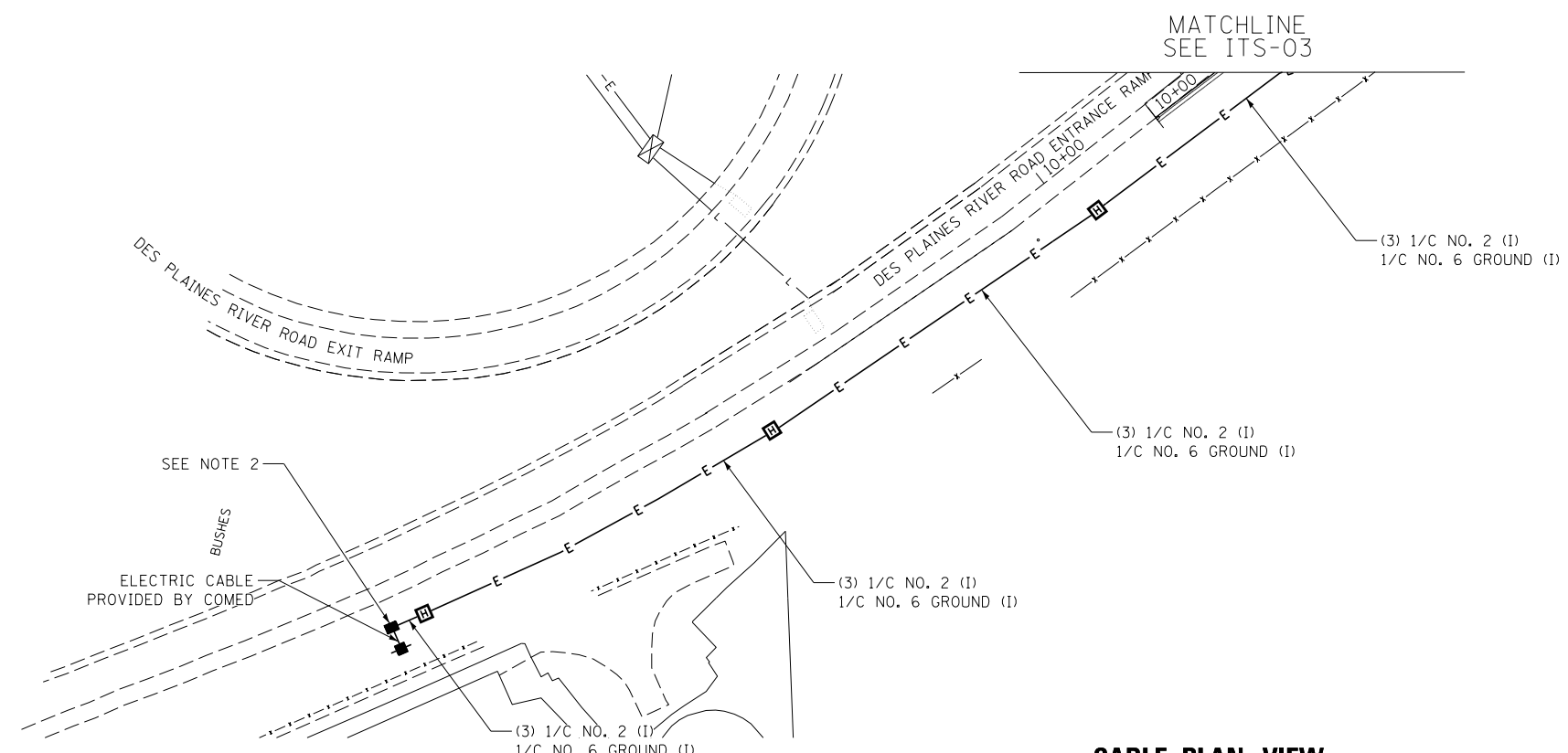
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	290
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				

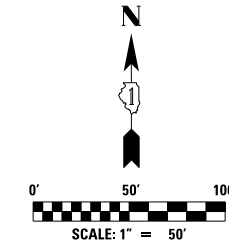




**CONDUIT PLAN VIEW**



**CABLE PLAN VIEW**



- NOTES:**
- CONTRACTOR TO FURNISH AND INSTALL METER AND DISCONNECT STAND NEAR COMED TRANSFORMER AND FACING ROADWAY. SEE SHEET ITS-40 FOR CONSTRUCTION OF METER AND DISCONNECT STAND, WHICH SHALL BE PAID FOR AS PART OF 'ILLINOIS DEPARTMENT OF TRANSPORTATION COMMUNICATIONS NODE' PAY ITEM.
  - IT IS ANTICIPATED THAT COMED WILL PROVIDE A NEW 480V POWER FEED FROM LOAD SIDE OF EXISTING TRANSFORMER TO NEW METER AND DISCONNECT PEDESTAL. CONTRACTOR TO COORDINATE WITH COMED FOR MAKING ALL ELECTRICAL CONNECTIONS. COMED TO TERMINATE CONDUCTORS ON THE POWER SOURCE AND IN THE PROPOSED METER SOCKET. ALL WORK INCLUDED IN THE LUMP SUM ITEM 'ELECTRIC UTILITY SERVICE CONNECTION (COMED)'.



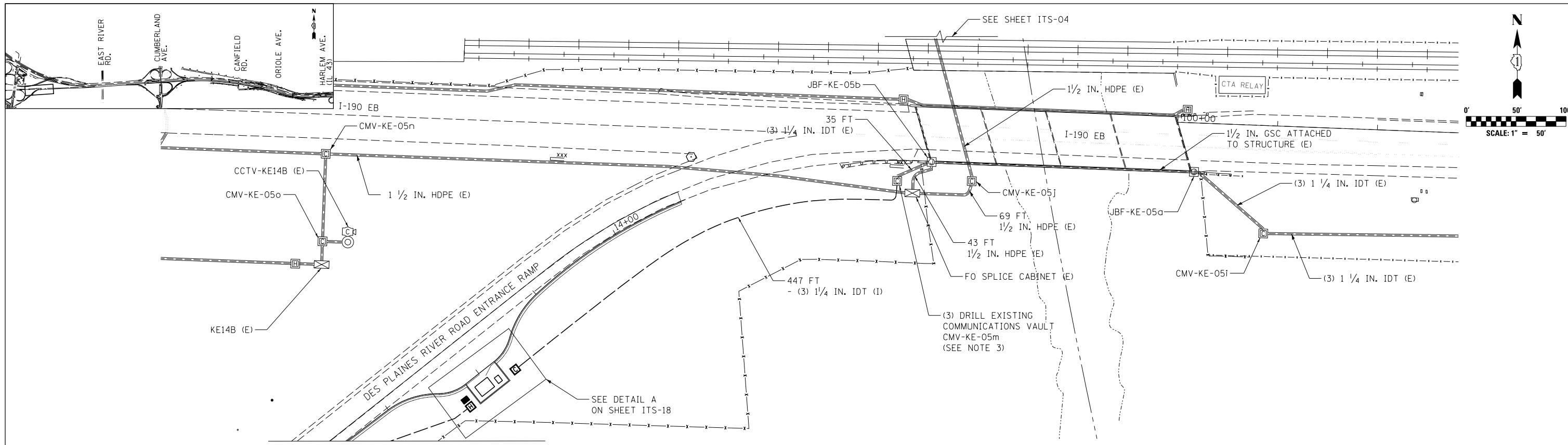
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PLOT SCALE = 1:8000' / in.	CHECKED YJ	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

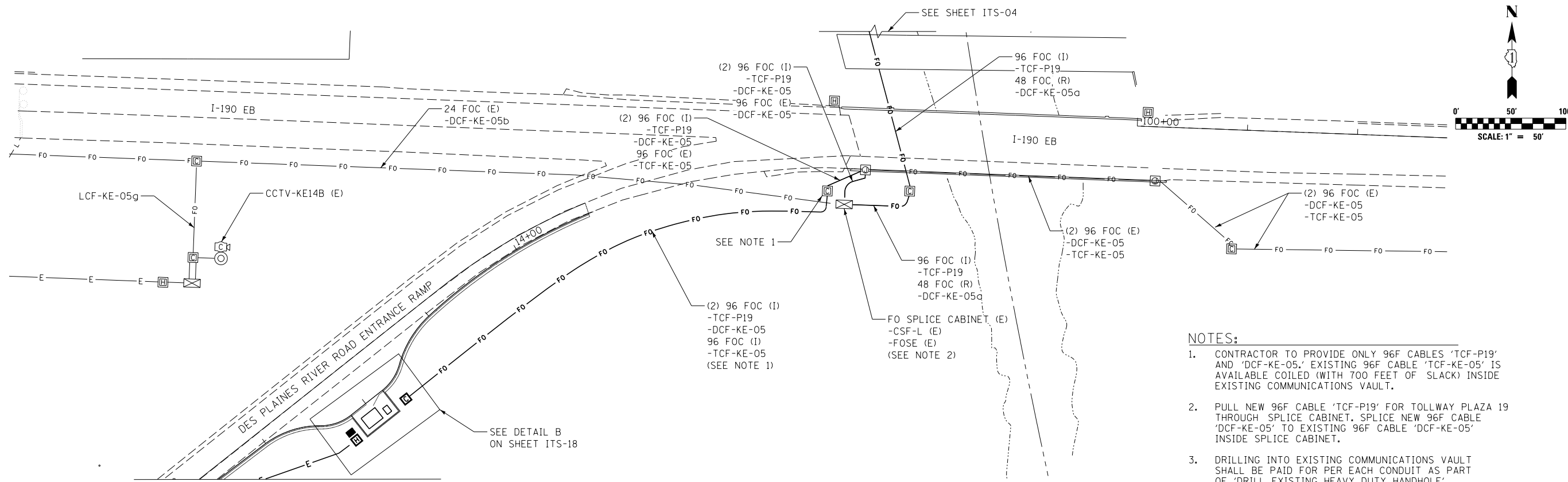
**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	291
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

SCALE: 1"=50' SHEET NO. 1 OF 5 SHEETS STA. TO STA.



**CONDUIT PLAN VIEW**



**CABLE PLAN VIEW**

- NOTES:**
- CONTRACTOR TO PROVIDE ONLY 96F CABLES 'TCF-P19' AND 'DCF-KE-05.' EXISTING 96F CABLE 'TCF-KE-05' IS AVAILABLE COILED (WITH 700 FEET OF SLACK) INSIDE EXISTING COMMUNICATIONS VAULT.
  - PULL NEW 96F CABLE 'TCF-P19' FOR TOLLWAY PLAZA 19 THROUGH SPLICE CABINET. SPLICE NEW 96F CABLE 'DCF-KE-05' TO EXISTING 96F CABLE 'DCF-KE-05' INSIDE SPLICE CABINET.
  - DRILLING INTO EXISTING COMMUNICATIONS VAULT SHALL BE PAID FOR PER EACH CONDUIT AS PART OF 'DRILL EXISTING HEAVY DUTY HANDHOLE'.
  - SEE SHEETS ITS-39 TO ITS-45 FOR ADDITIONAL COMMUNICATIONS SHELTER INFORMATION.



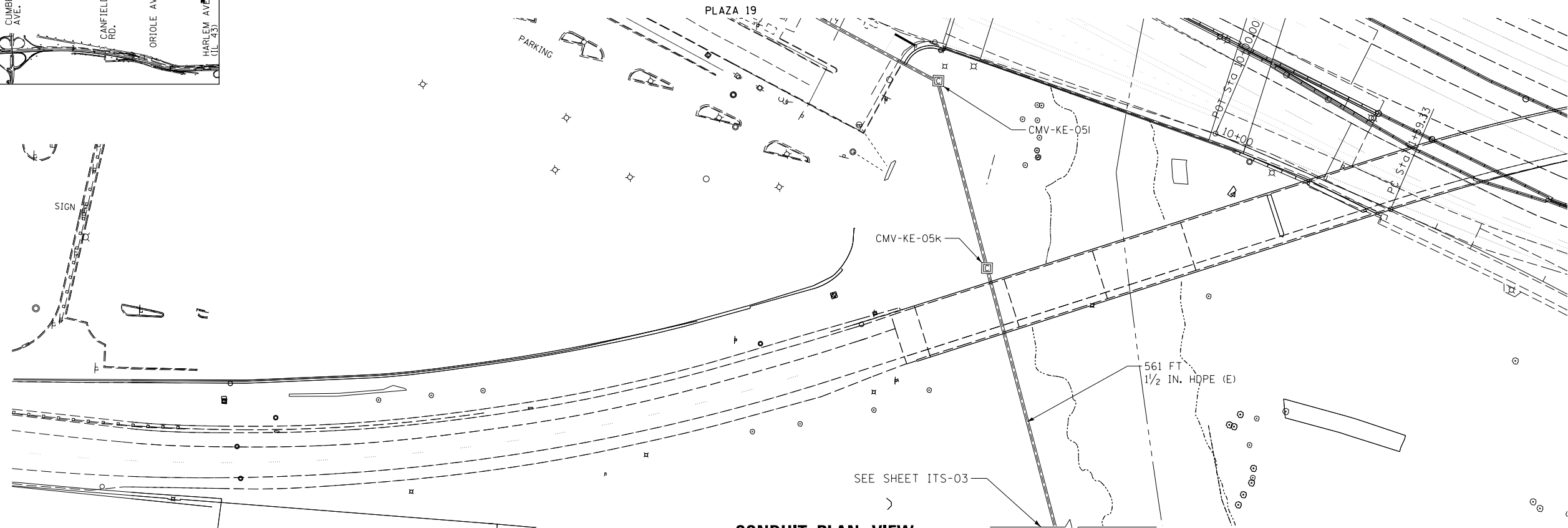
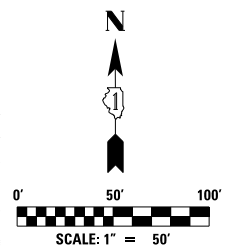
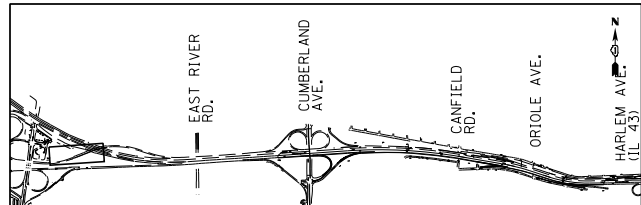
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

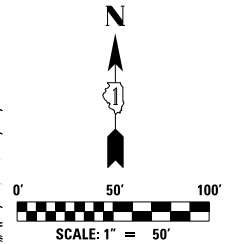
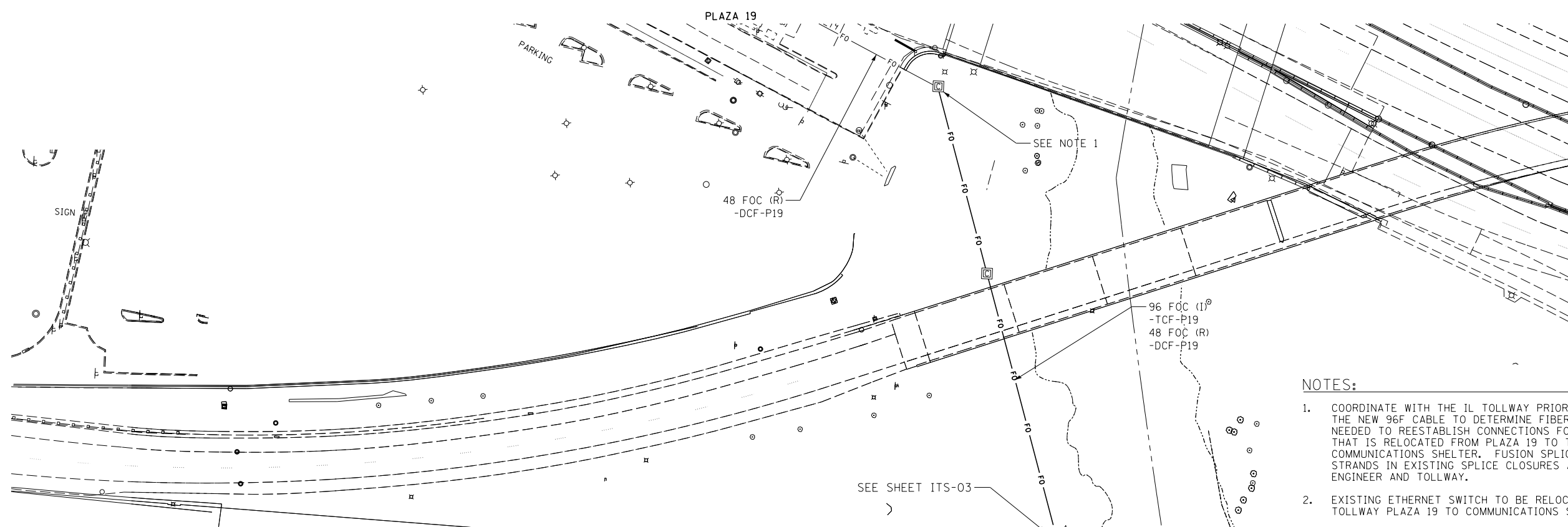
**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

SCALE: 1"=50' SHEET NO. 2 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	292
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



**CONDUIT PLAN VIEW**



**CABLE PLAN VIEW**

- NOTES:**
- COORDINATE WITH THE IL TOLLWAY PRIOR TO INSTALLING THE NEW 96F CABLE TO DETERMINE FIBER ASSIGNMENTS NEEDED TO REESTABLISH CONNECTIONS FOR THE IDOT SWITCH THAT IS RELOCATED FROM PLAZA 19 TO THE NEW COMMUNICATIONS SHELTER. FUSION SPLICE NEW 96F CABLE STRANDS IN EXISTING SPLICE CLOSURES AS DIRECTED BY ENGINEER AND TOLLWAY.
  - EXISTING ETHERNET SWITCH TO BE RELOCATED FROM TOLLWAY PLAZA 19 TO COMMUNICATIONS SHELTER.



USER NAME = jblakley	DESIGNED RJ	REVISED -
	DRAWN RJ	REVISED -
PLOT SCALE = 1:8000' / in.	CHECKED YJ	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

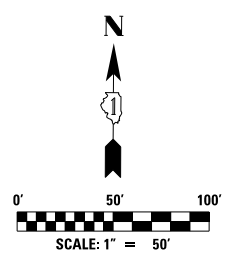
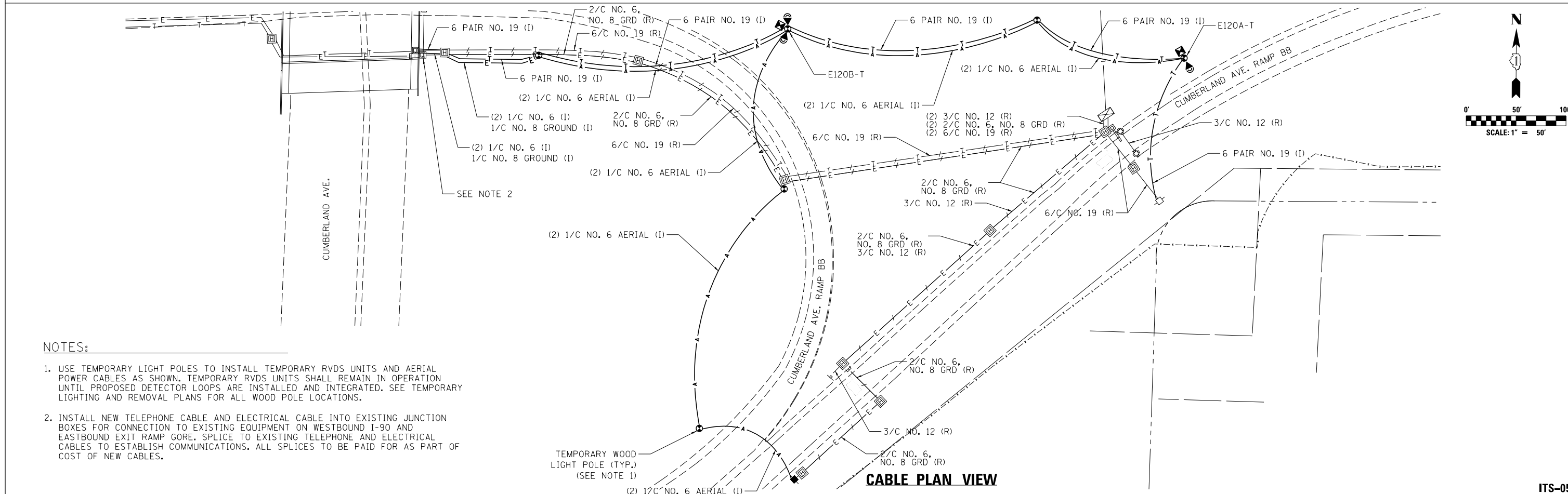
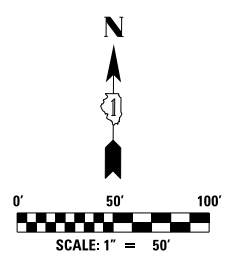
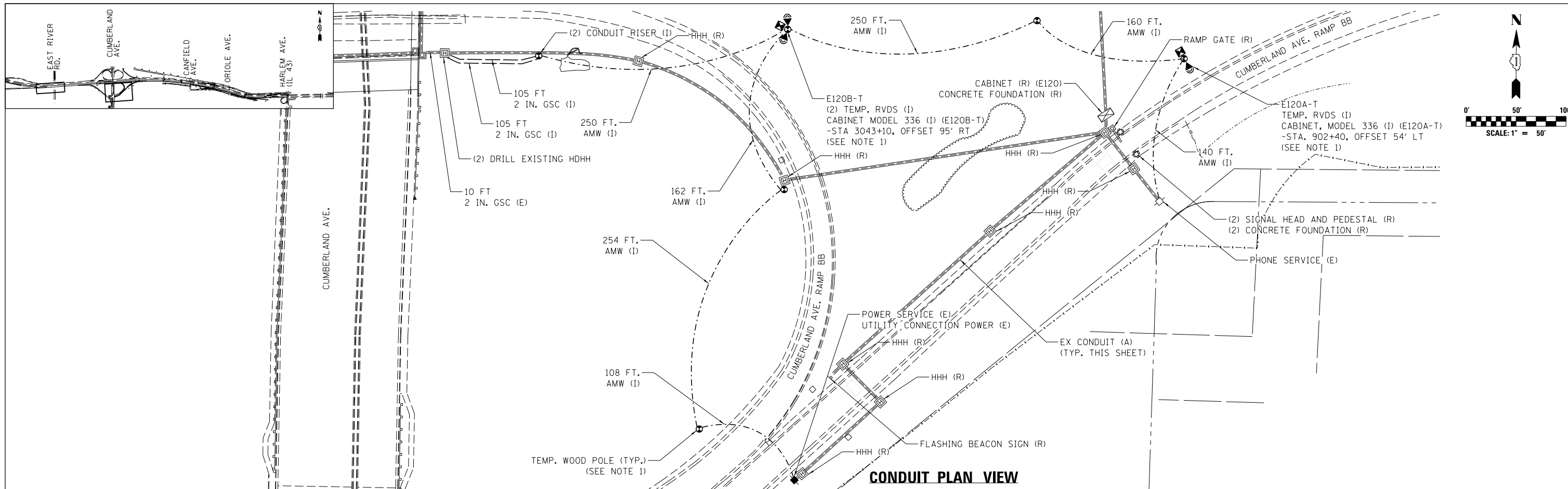
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

SCALE: 1"=50' SHEET NO. 2 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	293
				CONTRACT NO. 60Y38
ILLINOIS FED. AID PROJECT				

**ITS-04**



**NOTES:**

1. USE TEMPORARY LIGHT POLES TO INSTALL TEMPORARY RVDS UNITS AND AERIAL POWER CABLES AS SHOWN. TEMPORARY RVDS UNITS SHALL REMAIN IN OPERATION UNTIL PROPOSED DETECTOR LOOPS ARE INSTALLED AND INTEGRATED. SEE TEMPORARY LIGHTING AND REMOVAL PLANS FOR ALL WOOD POLE LOCATIONS.
2. INSTALL NEW TELEPHONE CABLE AND ELECTRICAL CABLE INTO EXISTING JUNCTION BOXES FOR CONNECTION TO EXISTING EQUIPMENT ON WESTBOUND I-90 AND EASTBOUND EXIT RAMP GORE. SPLICE TO EXISTING TELEPHONE AND ELECTRICAL CABLES TO ESTABLISH COMMUNICATIONS. ALL SPLICES TO BE PAID FOR AS PART OF COST OF NEW CABLES.



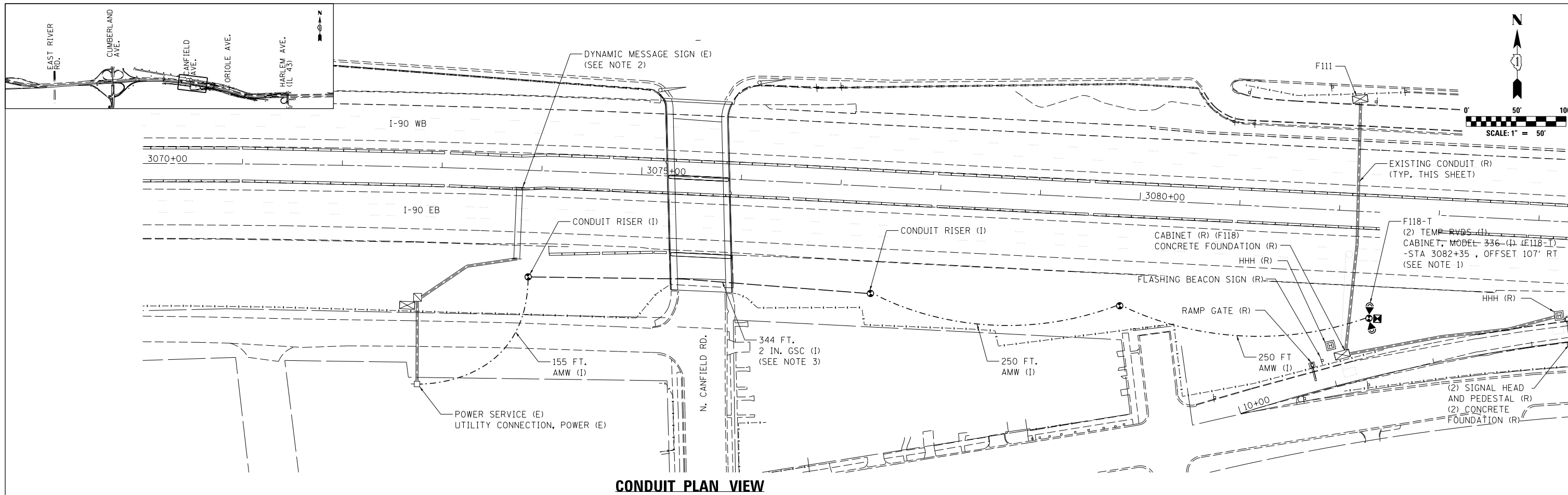
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PLOT DATE = 6/6/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

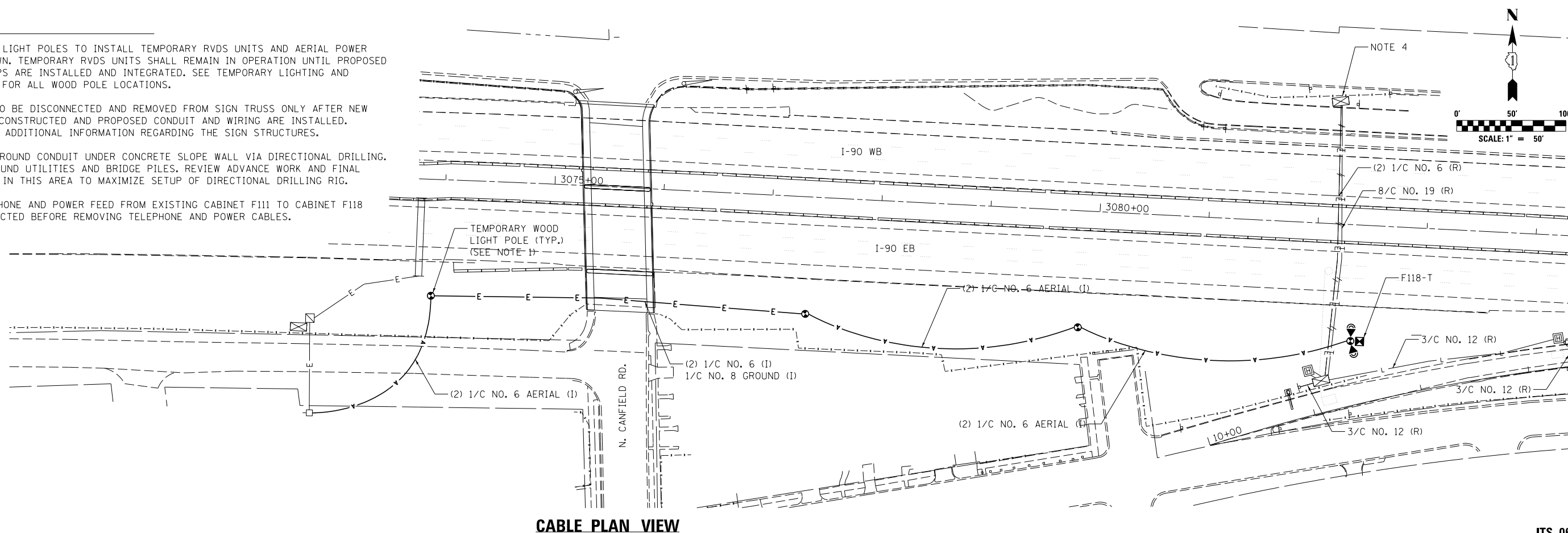
SCALE: 1"=50' SHEET NO. 3 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	294
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. USE TEMPORARY LIGHT POLES TO INSTALL TEMPORARY RVDS UNITS AND AERIAL POWER CABLES AS SHOWN. TEMPORARY RVDS UNITS SHALL REMAIN IN OPERATION UNTIL PROPOSED DETECTOR LOOPS ARE INSTALLED AND INTEGRATED. SEE TEMPORARY LIGHTING AND REMOVAL PLANS FOR ALL WOOD POLE LOCATIONS.
2. EXISTING DMS TO BE DISCONNECTED AND REMOVED FROM SIGN TRUSS ONLY AFTER NEW SIGN TRUSS IS CONSTRUCTED AND PROPOSED CONDUIT AND WIRING ARE INSTALLED. SEE ITS-20 FOR ADDITIONAL INFORMATION REGARDING THE SIGN STRUCTURES.
3. INSTALL UNDERGROUND CONDUIT UNDER CONCRETE SLOPE WALL VIA DIRECTIONAL DRILLING. AVOID UNDERGROUND UTILITIES AND BRIDGE PILES. REVIEW ADVANCE WORK AND FINAL PROPOSED WORK IN THIS AREA TO MAXIMIZE SETUP OF DIRECTIONAL DRILLING RIG.
4. EXISTING TELEPHONE AND POWER FEED FROM EXISTING CABINET F111 TO CABINET F118 TO BE DISCONNECTED BEFORE REMOVING TELEPHONE AND POWER CABLES.



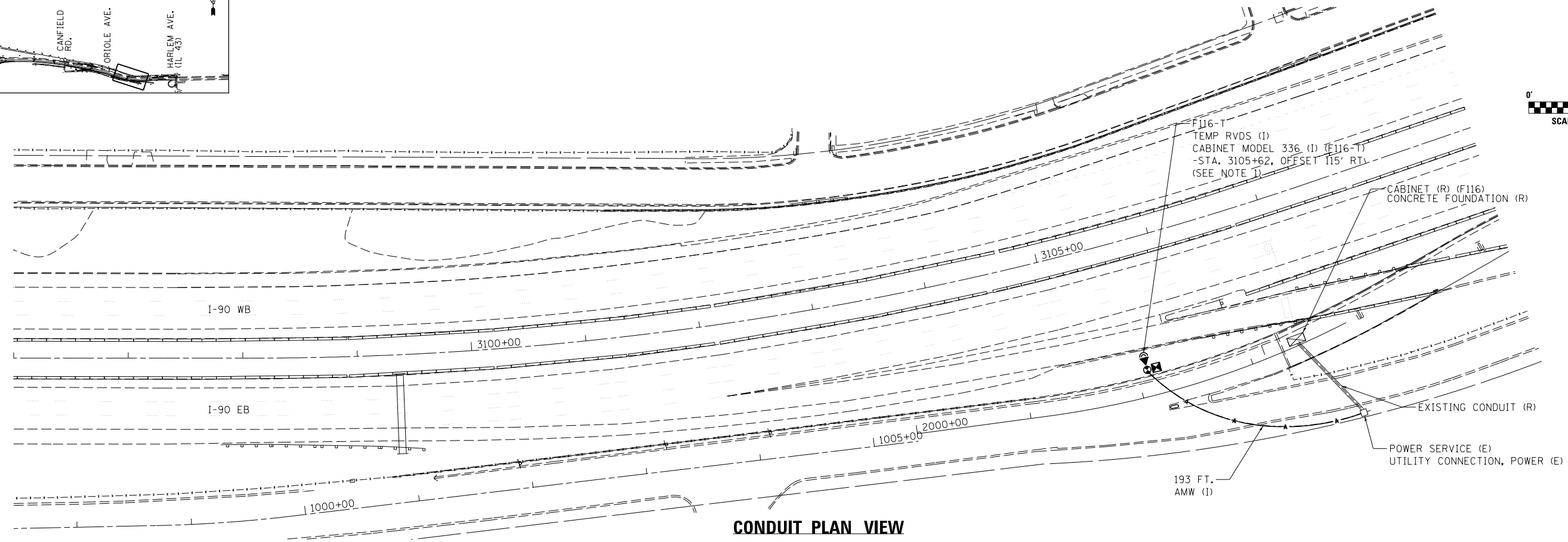
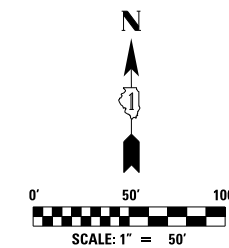
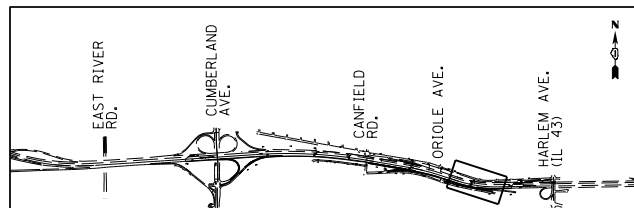
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PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

SCALE: 1"=50' SHEET NO. 4 OF 5 SHEETS STA. 3070+00 TO STA. 3084+39

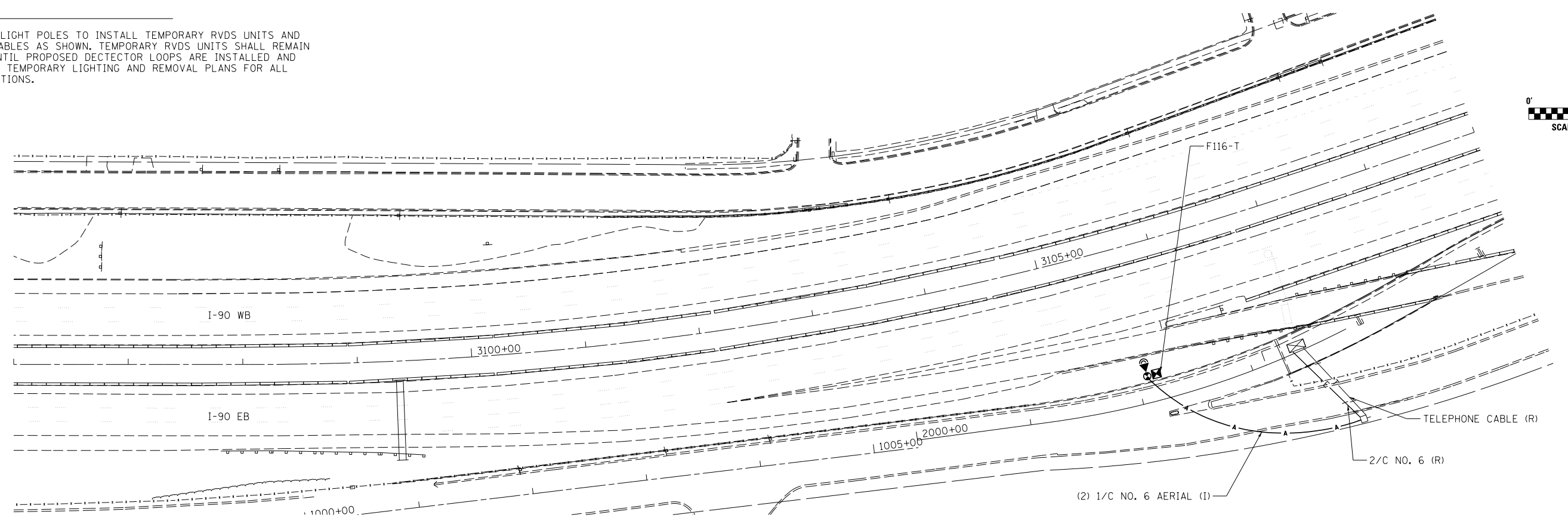
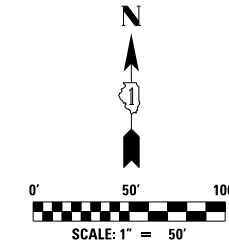
F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 295
CONTRACT NO. 60Y38				ILLINOIS FED. AID PROJECT



**CONDUIT PLAN VIEW**

**NOTES:**

1. USE TEMPORARY LIGHT POLES TO INSTALL TEMPORARY RVDS UNITS AND AERIAL POWER CABLES AS SHOWN. TEMPORARY RVDS UNITS SHALL REMAIN IN OPERATION UNTIL PROPOSED DETECTOR LOOPS ARE INSTALLED AND INTEGRATED. SEE TEMPORARY LIGHTING AND REMOVAL PLANS FOR ALL WOOD POLE LOCATIONS.



**CABLE PLAN VIEW**



USER NAME = jblakley	DESIGNED RJ	REVISED -
	DRAWN RJ	REVISED -
PLOT SCALE = 1:8000' / in.	CHECKED YJ	REVISED -
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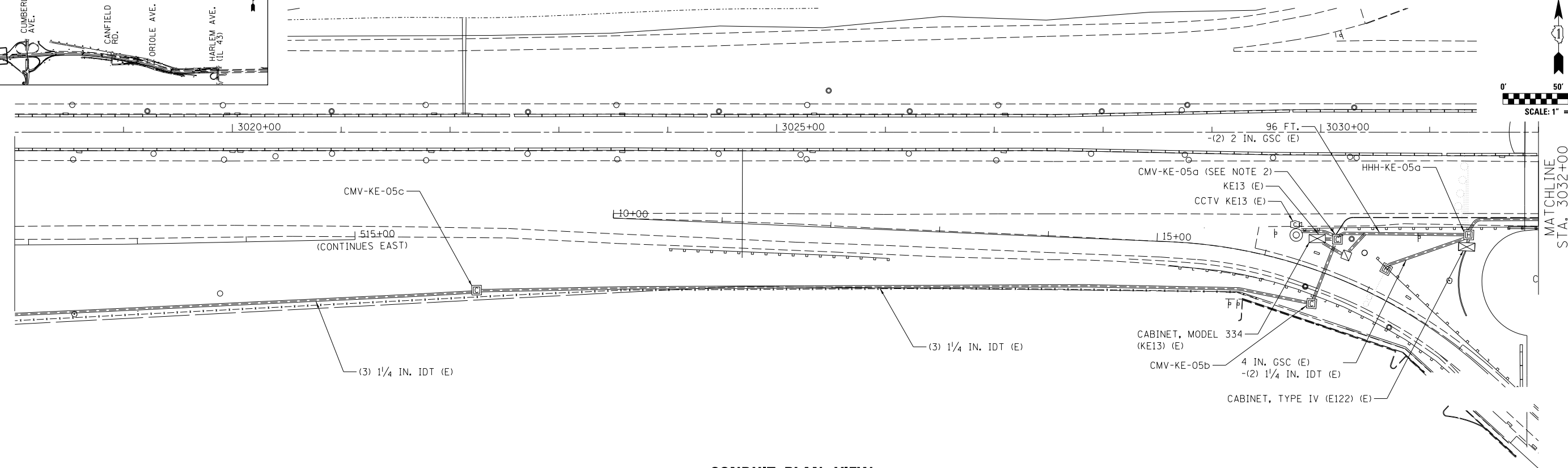
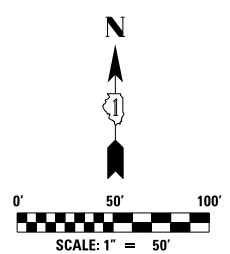
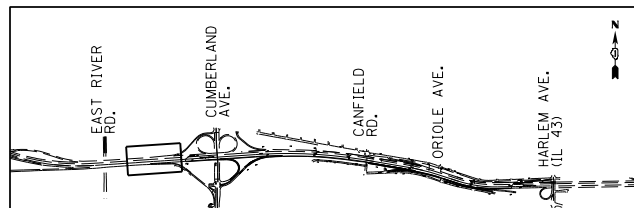
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS REMOVAL PLANS AND ADVANCE WORK**

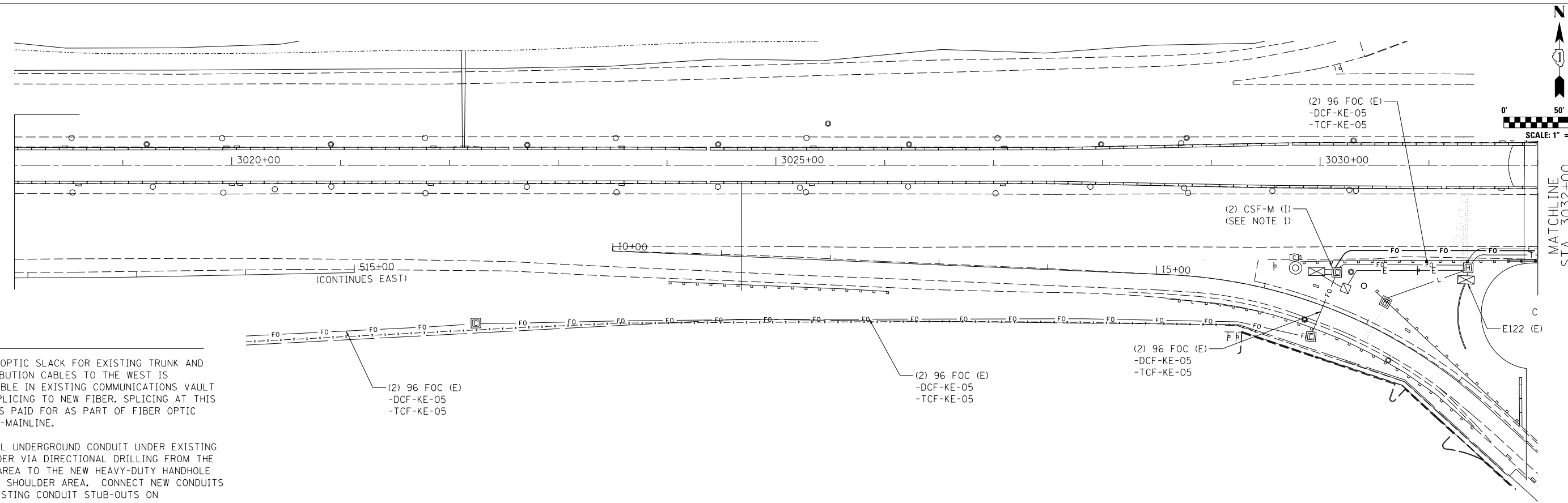
SCALE: 1"=50' SHEET NO. 5 OF 5 SHEETS STA. 3096+00 TO STA. 3109+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	296
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

**ITS-07**



**CONDUIT PLAN VIEW**



**CABLE PLAN VIEW**

**NOTES:**

- FIBER OPTIC SLACK FOR EXISTING TRUNK AND DISTRIBUTION CABLES TO THE WEST IS AVAILABLE IN EXISTING COMMUNICATIONS VAULT FOR SPLICING TO NEW FIBER. SPLICING AT THIS SITE IS PAID FOR AS PART OF FIBER OPTIC SPLICE-MAINLINE.
- INSTALL UNDERGROUND CONDUIT UNDER EXISTING SHOULDER VIA DIRECTIONAL DRILLING FROM THE GORE AREA TO THE NEW HEAVY-DUTY HANDHOLE IN THE SHOULDER AREA. CONNECT NEW CONDUITS TO EXISTING CONDUIT STUB-OUTS ON COMMUNICATIONS VAULT, CMV-KE-05a, IN THE GORE AREA.



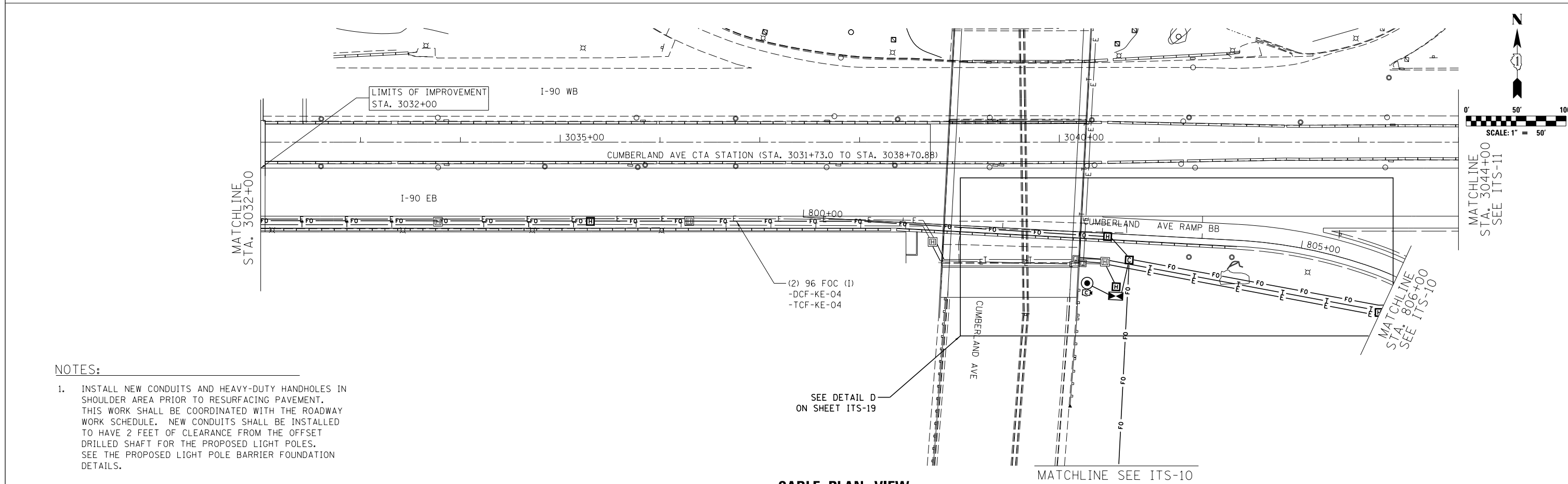
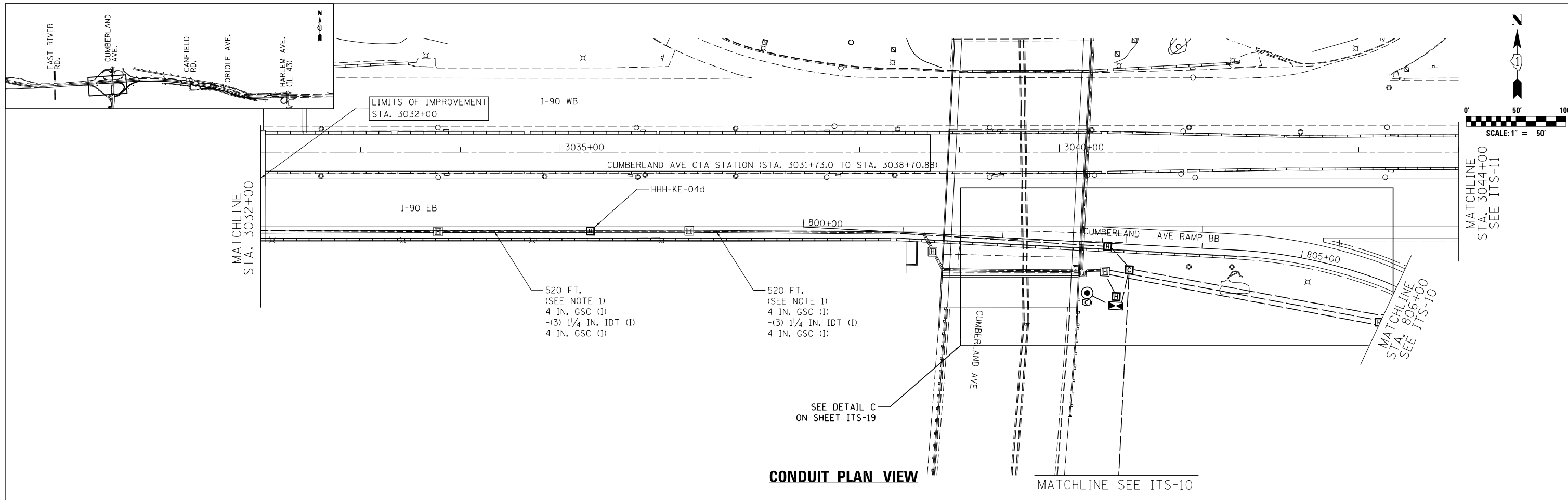
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PLOT DATE = 6/6/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS PROPOSED CONDUIT AND CABLE PLAN**

SCALE: 1" = 50' SHEET NO. 1 OF 10 SHEETS STA. 3018+00 TO STA. 3032+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	297
CONTRACT NO. 60Y38			ILLINOIS FED. AID PROJECT	



**NOTES:**

- INSTALL NEW CONDUITS AND HEAVY-DUTY HANDHOLES IN SHOULDER AREA PRIOR TO RESURFACING PAVEMENT. THIS WORK SHALL BE COORDINATED WITH THE ROADWAY WORK SCHEDULE. NEW CONDUITS SHALL BE INSTALLED TO HAVE 2 FEET OF CLEARANCE FROM THE OFFSET DRILLED SHAFT FOR THE PROPOSED LIGHT POLES. SEE THE PROPOSED LIGHT POLE BARRIER FOUNDATION DETAILS.



USER NAME = jblakley	DESIGNED RJ	REVISED -
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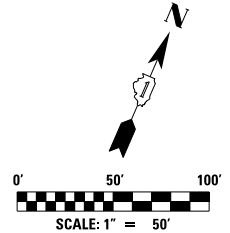
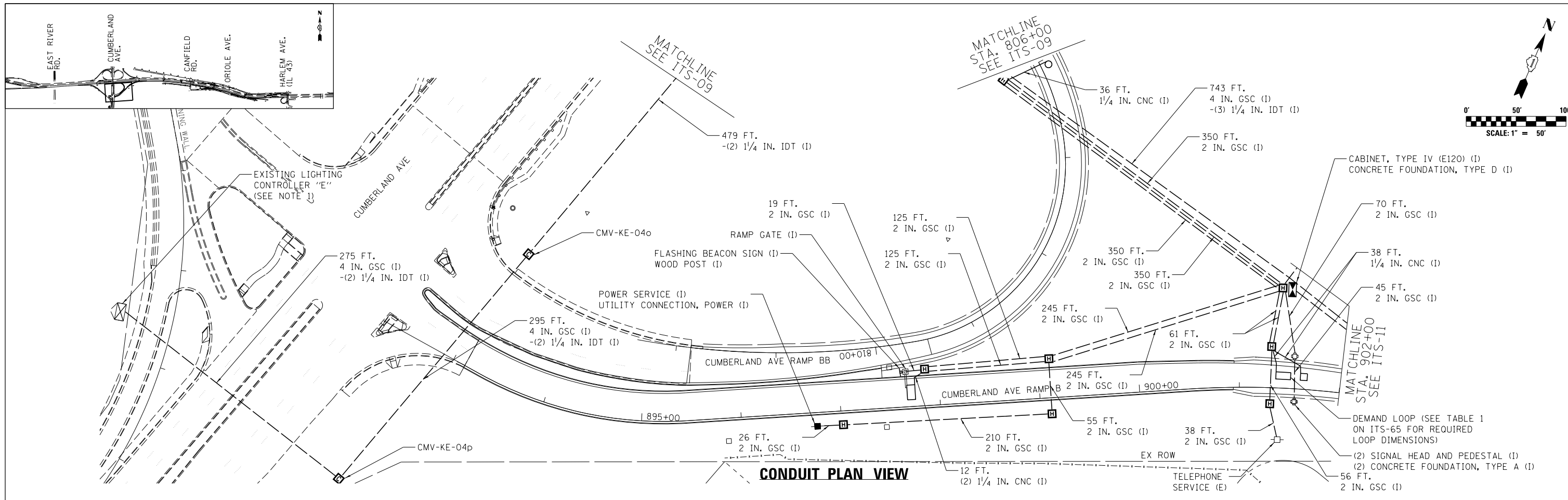
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS PROPOSED CONDUIT AND CABLE PLANS**

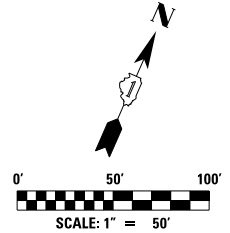
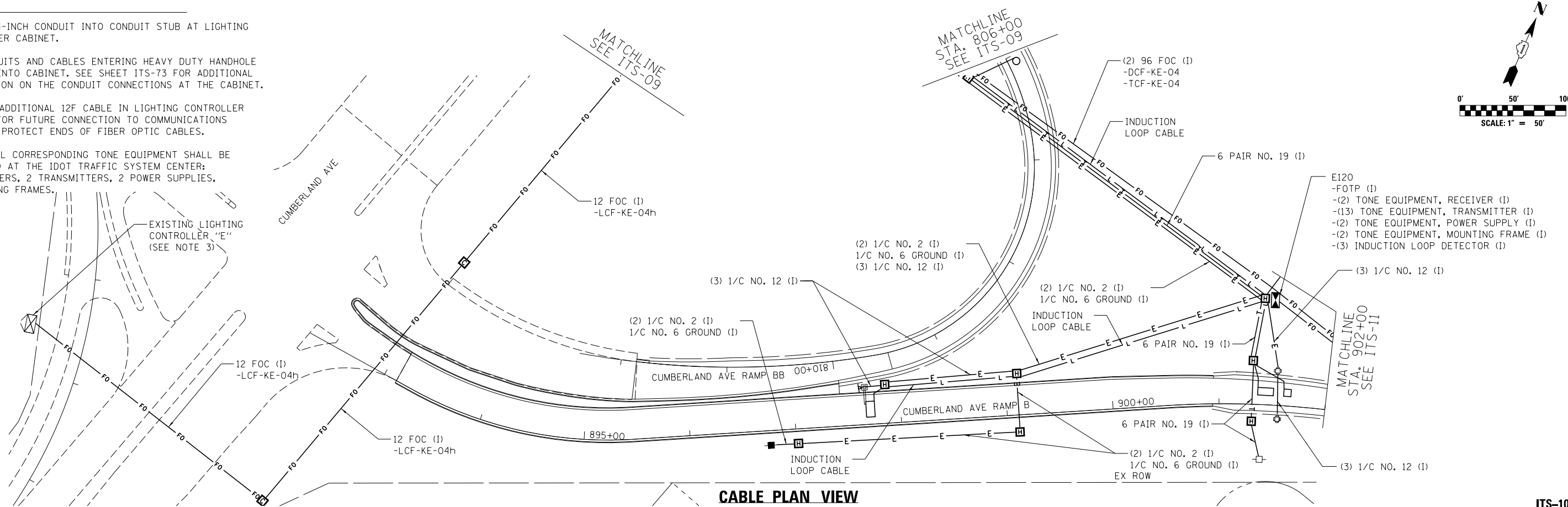
SCALE: 1"=50' SHEET NO. 2 OF 10 SHEETS STA. 3032+00 TO STA. 3044+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	298
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				





- NOTES:**
1. INSTALL 4-INCH CONDUIT INTO CONDUIT STUB AT LIGHTING CONTROLLER CABINET.
  2. ALL CONDUITS AND CABLES ENTERING HEAVY DUTY HANDHOLE PROCEED INTO CABINET. SEE SHEET ITS-73 FOR ADDITIONAL INFORMATION ON THE CONDUIT CONNECTIONS AT THE CABINET.
  3. COIL 20' ADDITIONAL 12F CABLE IN LIGHTING CONTROLLER CABINET FOR FUTURE CONNECTION TO COMMUNICATIONS NETWORK. PROTECT ENDS OF FIBER OPTIC CABLES.
  4. ADDITIONAL CORRESPONDING TONE EQUIPMENT SHALL BE INSTALLED AT THE IDOT TRAFFIC SYSTEM CENTER:  
13 RECEIVERS, 2 TRANSMITTERS, 2 POWER SUPPLIES, 2 MOUNTING FRAMES.



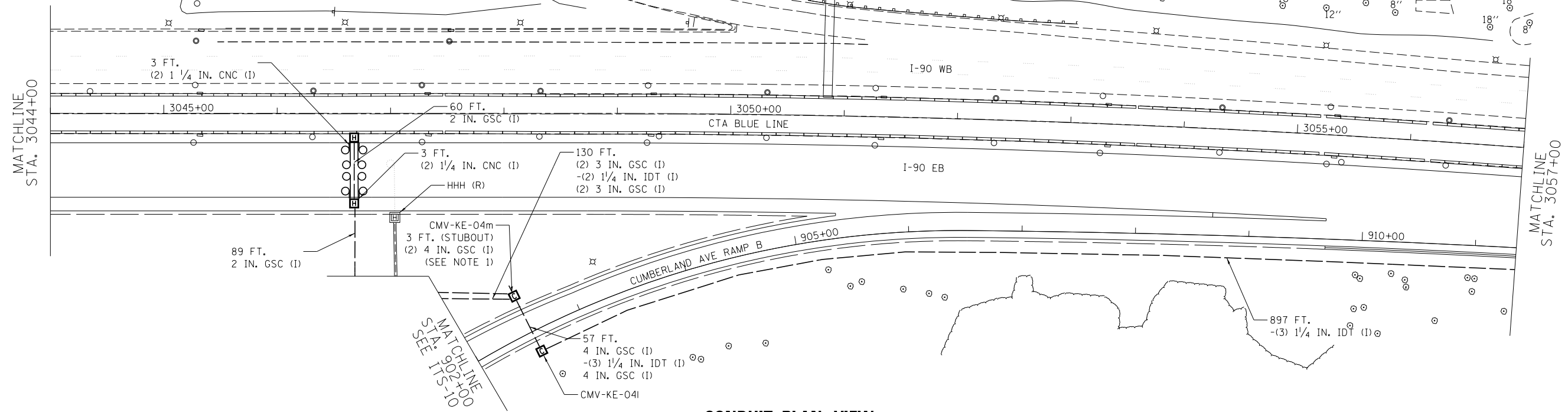
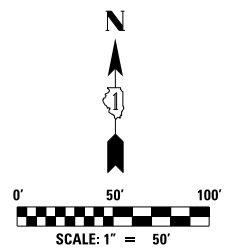
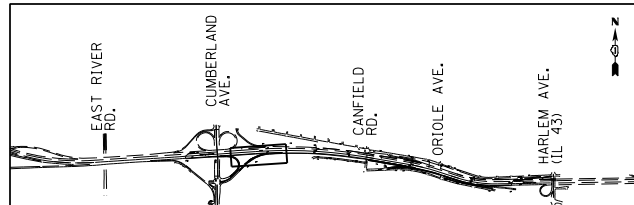
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PLOT DATE = 6/6/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

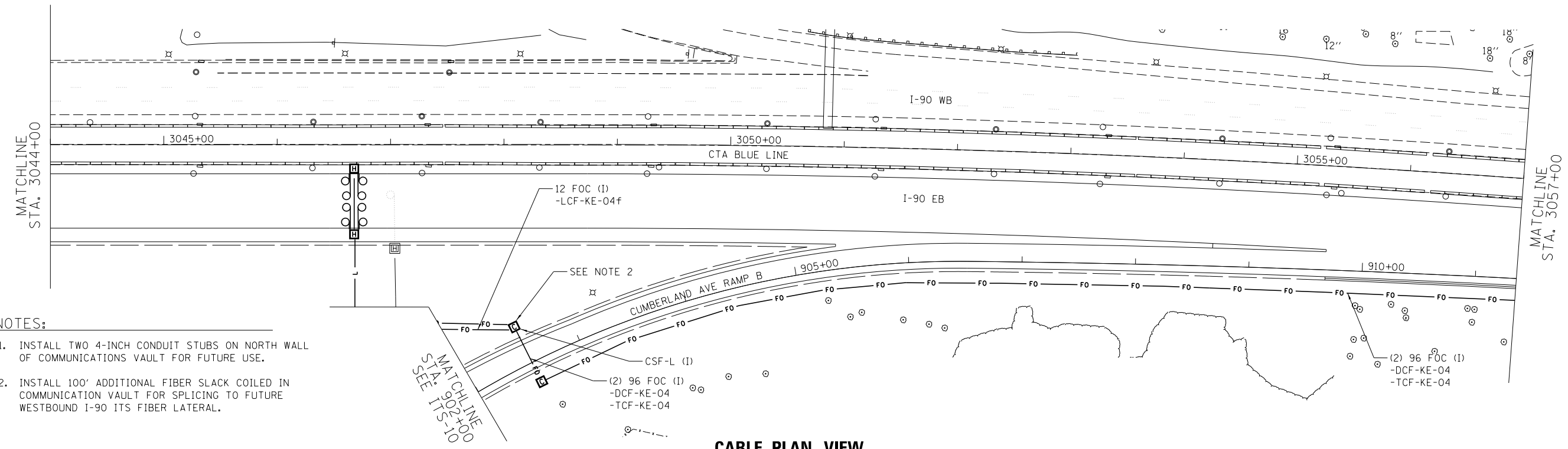
**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS PROPOSED CONDUIT AND CABLE PLANS**

SCALE: 1"=50' SHEET NO. 3 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	557	299
CONTRACT NO. 60Y38				
ILLINOIS FED. AID PROJECT				

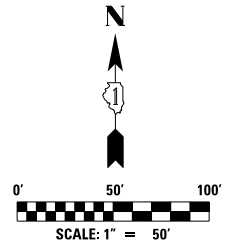


**CONDUIT PLAN VIEW**



**CABLE PLAN VIEW**

- NOTES:**
- INSTALL TWO 4-INCH CONDUIT STUBS ON NORTH WALL OF COMMUNICATIONS VAULT FOR FUTURE USE.
  - INSTALL 100' ADDITIONAL FIBER SLACK COILED IN COMMUNICATION VAULT FOR SPLICING TO FUTURE WESTBOUND I-90 ITS FIBER LATERAL.



USER NAME = jblakley	DESIGNED RJ	REVISED -
	DRAWN RJ	REVISED -
PLOT SCALE = 1:8000 / in.	CHECKED YJ	REVISED -
PLOT DATE = 6/3/2016	DATE 5/6/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EASTBOUND I-90 FROM CUMBERLAND AVE TO HARLEM AVE  
ITS PROPOSED CONDUIT AND CABLE PLANS**

SCALE: 1"=50' SHEET NO. 4 OF 10 SHEETS STA. 3044+00 TO STA. 3057+00

F.A.I. RTE. 90	SECTION (1517 & 1415) R-3	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 300
CONTRACT NO. 60Y38				ILLINOIS FED. AID PROJECT