

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60X25	
*42 + 3 = 45				

FUNCTIONAL CLASSIFICATION		ADT	SPEED
IL ROUTE 50	OTHER PRICIPAL ARTERIAL / SRA ROUTE	43,500	35MPH
SOUTHWEST HWY WEST OF IL RTE 50	MINOR ARTERIAL	27,400	30MPH
SOUTHWEST HWY EAST OF IL RTE 50	MAJOR COLLECTOR	17,700	30MPH

DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

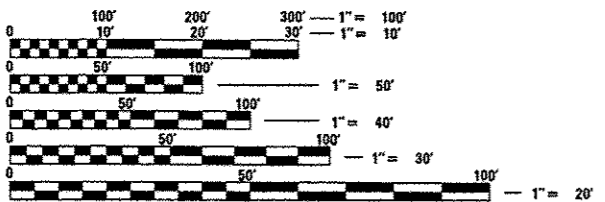
FAP 350 (IL ROUTE 50 /CICERO AVENUE)  
AT SOUTHWEST HIGHWAY  
SECTION 461TS-2(13)  
PROJECT: ACHSIP-0350(040)  
INTERSECTION IMPROVEMENT AND  
TRAFFIC SIGNAL MODERNIZATION  
COOK COUNTY  
C-91-046-14

**THIS PROJECT IS LOCATED IN THE VILLAGE OF OAK LAWN**

FOR LIST OF INDEX SHEETS, SEE SHEET NO. 2

**IDOT HIGHWAY STANDARDS:**

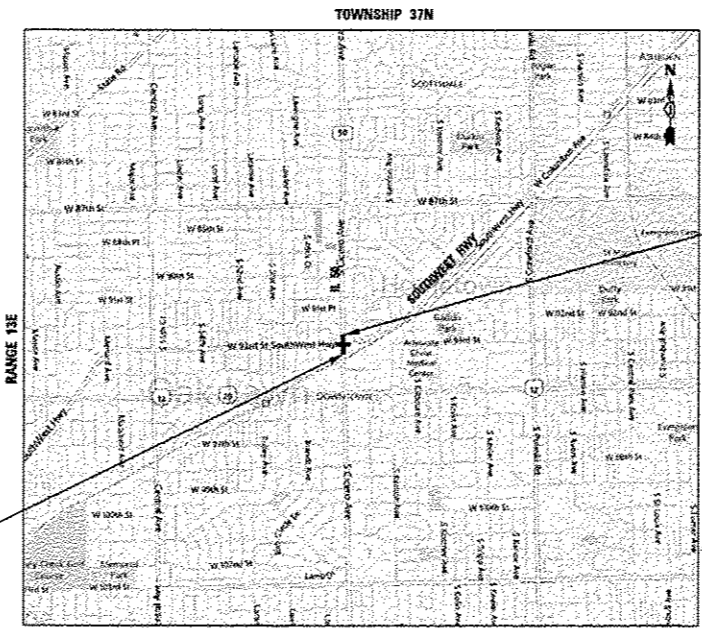
STD. No.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
424001-07	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-01	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701101-04	OFF-RD OPERATIONS, MULTI-LANE 15, (4.5 m) TO 24" (60 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTI-LANE, MORE THAN 15' (4.5 m) AWAY
701427-02	LANE CLOSURE, MULTI-LANE, INTERMITTENT OR MOVING OPERATION FOR < 40 MPH
701602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
814001-02	HANDHOLES
814006-02	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
857006-01	SUPERVISED RAILROAD INTERCONNECT CIRCUIT
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
878001-09	CONCRETE FOUNDATION DETAILS
877011-05	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
877012-02	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56' THROUGH 75'
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS



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

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

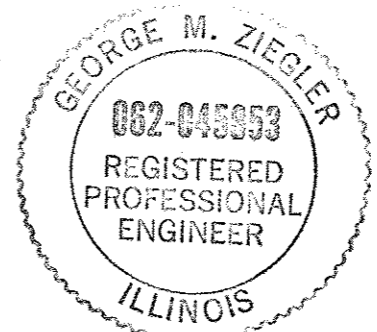
CONTRACT NO. 60X25



LOCATION MAP  
GROSS LENGTH = 1700 FEET (0.32 MILES)  
NET LENGTH = 1700 FEET (0.32 MILES)

PROJECT ENDS STA 117+00

PROJECT BEGINS STA 110+00



*George M. Ziegler*  
12-11-2013

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED *Dec 13 2013*  
*John D. Baranzelli*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*Jan 24 2014*  
*John D. Baranzelli, PE, PE*  
ENGINEER OF DESIGN AND ENVIRONMENT

*Jan 24 2014*  
*Omer Osman, PE, PE*  
DIRECTOR OF HIGHWAYS/CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

BUREAU OF TRAFFIC DISTRICT ONE, SUBUD MAHMOUD (847) 705-4420, SCHAUMBURG, IL







DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West 89th Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 924-0200  


CODE NO.	ITEM	UNIT	TOTAL QUANTITY	IL ROUTE 50 AT SOUTHWEST HIGHWAY			INTERCONNECT
				CONSTRUCTION CODE			
				0005	0021	0021	0021
				HSIP FUNDS 90% FED 10% STATE	HSIP FUNDS 90% FED 10% STATE	LOCAL FUNDS 100% LOCAL	HSIP FUNDS 90% FED 10% STATE
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	45		45		
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	225		225		
78300100	PAVEMENT MARKING REMOVAL	SO FT	1375		1375		
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1		1		
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1787		1579		208
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	78		78		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	88		88		
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	569		569		
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	100		100		
81400100	HANDHOLE	EACH	6		6		
81400200	HEAVY-DUTY HANDHOLE	EACH	5		5		
81400300	DOUBLE HANDHOLE	EACH	3		3		
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2680		2680		
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	880		880		

\* SPECIALITY ITEM

Rev.

FILE NAME : W:\dot\130116\Work Order 13016 - JL5054	USER NAME : ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b> <b>SHEET 3 OF 7</b>	F.A.R. RTE. 350	SECTION 46175-2(13)	COUNTY COOK	TOTAL SHEETS 42	SHEET NO. 5		
PLOT SCALE # 2'	PLOT DATE # 12/11/2013	DRAWN - FPB / FCP	REVISED -			SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 60X25			
CHECKED - GMZ	DATE -	REVISED -	REVISED -			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT						



PROFILE  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHANGES CHECKED BY \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 STRUCTURE NOTATION OFFD

PLAN  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_

SURVEYED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 ALIGNED TO ORDER NO. \_\_\_\_\_  
 JOB FILE NAME \_\_\_\_\_

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8275 West Higgins Road, Suite 600  
 Oak Brook, IL 60455  
 (847) 822-4400

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	IL ROUTE 50 AT SOUTHWEST HIGHWAY			INTERCONNECT
				CONSTRUCTION CODE			
				0005	0021	0021	0021
				HSIP FUNDS 90% FED 10% STATE	HSIP FUNDS 90% FED 10% STATE	LOCAL FUNDS 100% LOCAL	HSIP FUNDS 90% FED 10% STATE
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	343		343		
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1024		1024		
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3		3		
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4		4		
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1		1		
87702980	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1		1		
87703000	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	2		2		
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	28		28		
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4		4		
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60		60		
87900200	DRILL EXISTING HANDHOLE	EACH	1				1
88030012	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	1		1		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11		11		
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5		5		

URBAN

\* SPECIALITY ITEM

DATE	BY	DATE	BY
DATE	BY	DATE	BY

SUBMITTED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 FILE NO.: \_\_\_\_\_

PLAN NO.: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_

**CHRISTOPHER B. BURKE**  
 ENGINEERING LTD.  
 8525 47th Street, Suite 100  
 Rosemont, Illinois 60018  
 (847) 823-0900

PROFILE  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 FILE NO.: \_\_\_\_\_

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	IL ROUTE 50 AT SOUTHWEST HIGHWAY			INTERCONNECT
				CONSTRUCTION CODE			
				0005	0021	0021	0021
				HSIP FUNDS 90% FED 10% STATE	HSIP FUNDS 90% FED 10% STATE	LOCAL FUNDS 100% LOCAL	HSIP FUNDS 90% FED 10% STATE
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1		1		
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3		3		
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	8		8		
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	16		16		
88500100	INDUCTIVE LOOP DETECTOR	EACH	10		10		
88600100	DETECTOR LOOP, TYPE I	FOOT	955		955		
88700200	LIGHT DETECTOR	EACH	3			3	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1			1	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8		8		
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	5722		3300		2422
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1		
89502380	REMOVE EXISTING HANDHOLE	EACH	14		14		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9		9		
X0323927	MAINTENANCE OF LIGHTING SYSTEM	EACH	1		1		

\* SPECIALITY ITEM

FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b> <b>SHEET 6 OF 7</b>	F.A.E. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
M:\1001\130116\Work Order 13010 - ILS05M	W:\Traffic\SUM\130116_06.sht	DRAWN - FPB / FCP	REVISED -			350	461TS-2113	COOK	42	6	
PLOT SCALE = 2"		CHECKED - CMZ	REVISED -			CONTRACT NO. 60X25					
PLOT DATE = 12/11/2013		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

SCALE: \_\_\_\_\_ SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_



DATE	BY	DESIGNED	CHECKED	DATE	BY
		PLANNED	ALIGNED		
		NOTED	FILED		
		NO.	NO.		

**CHRISTOPHER B. BURKE**  
 ENGINEERING LTD.  
 9525 W. 119th St., Suite 600  
 Rosemont, IL 60018  
 (617) 823-0900

DATE	BY	DESIGNED	CHECKED	DATE	BY
		PLANNED	ALIGNED		
		NOTED	FILED		
		NO.	NO.		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	IL ROUTE 50 AT SOUTHWEST HIGHWAY			INTERCONNECT
				CONSTRUCTION CODE			
				0005	0021	0021	0021
				HSIP FUNDS 90% FED 10% STATE	HSIP FUNDS 90% FED 10% STATE	LOCAL FUNDS 100% LOCAL	HSIP FUNDS 90% FED 10% STATE
			<i>URBAN</i>				
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	645			645	
X4402805	ISLAND REMOVAL	SQ FT	551	551			
X8100105	CONDUIT SPLICE	EACH	6		6		
X8571215	RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1		1		
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1		1		
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2407				2407
X0327698	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4			4	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1				1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		1		
∅ Z0076600	<i>TRAINEES</i>	<i>HOURL</i>	<i>500</i>	<i>500</i>			
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1		
∅ Z0076604	<i>TRAINEES-TRAINING PROGRAM GRADUATE</i>	<i>HOURL</i>	<i>500</i>	<i>500</i>			

∅ 0042

\* SPECIALITY ITEM

Rev.

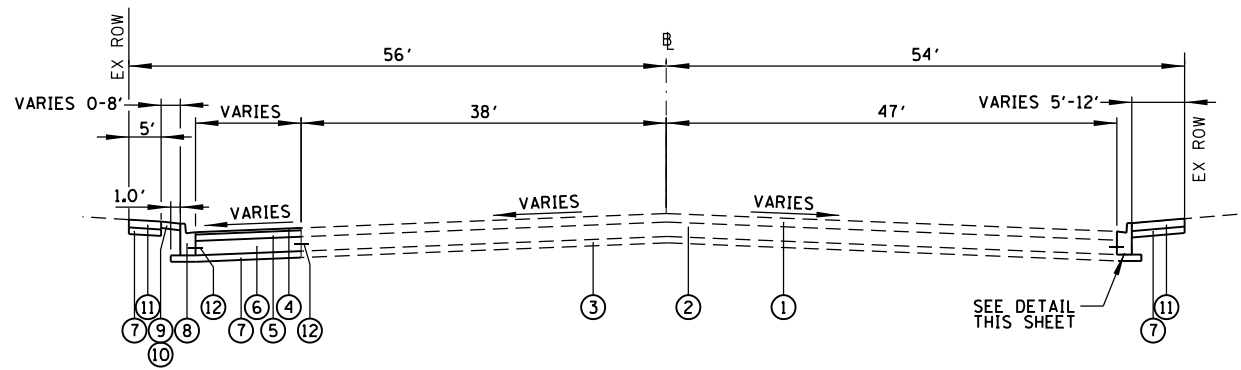
FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b> <b>SHEET 7 OF 7</b>	F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\\dot\130118\Work Order 13019 - IL505W	myTraffic\SUM-130116-07.xls	DRAWN - FPB / FCP	REVISED -			350	461TS-2413)	COOK	42	9
PLOT SCALE = 2"		CHECKED - CMZ	REVISED -			CONTRACT NO. 60X25				
PLOT DATE = 12/11/2013		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLAN ALIGNED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_  
 FILE NO. \_\_\_\_\_  
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 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
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 E.M. NOTED \_\_\_\_\_  
 STRUCTURE NOTATIONS OKWD  
 NO. \_\_\_\_\_

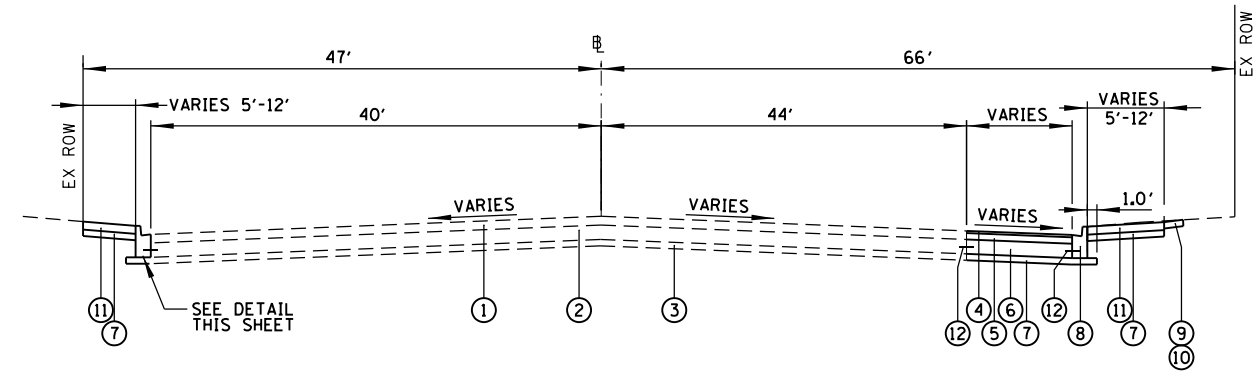
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 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (647) 923-5938

**LEGEND**

- ① EXISTING HMA PAVEMENT
- ② EXISTING PCC BASE COURSE
- ③ EXISTING SUBBASE GRANULAR MATERIAL
- ④ HMA SURFACE COURSE, MIX D, N70, 1-1/2"
- ⑤ HMA BINDER COURSE, IL-19.0, 4"
- ⑥ PCC BASE COURSE, 9"
- ⑦ SUBBASE GRANULAR MATERIAL, 4"
- ⑧ COMBINATION CONCRETE CURB AND GUTTER, TY B-6.12
- ⑨ TOPSOIL, FURNISHED AND PLACED, 4"
- ⑩ SODDING, SALT TOLERANT
- ⑪ PCC SIDEWALK, 5"
- ⑫ EPOXY COATED TIE BAR, #6, 24" OC, INCLUDED IN COST OF CONCRETE BASE COURSE



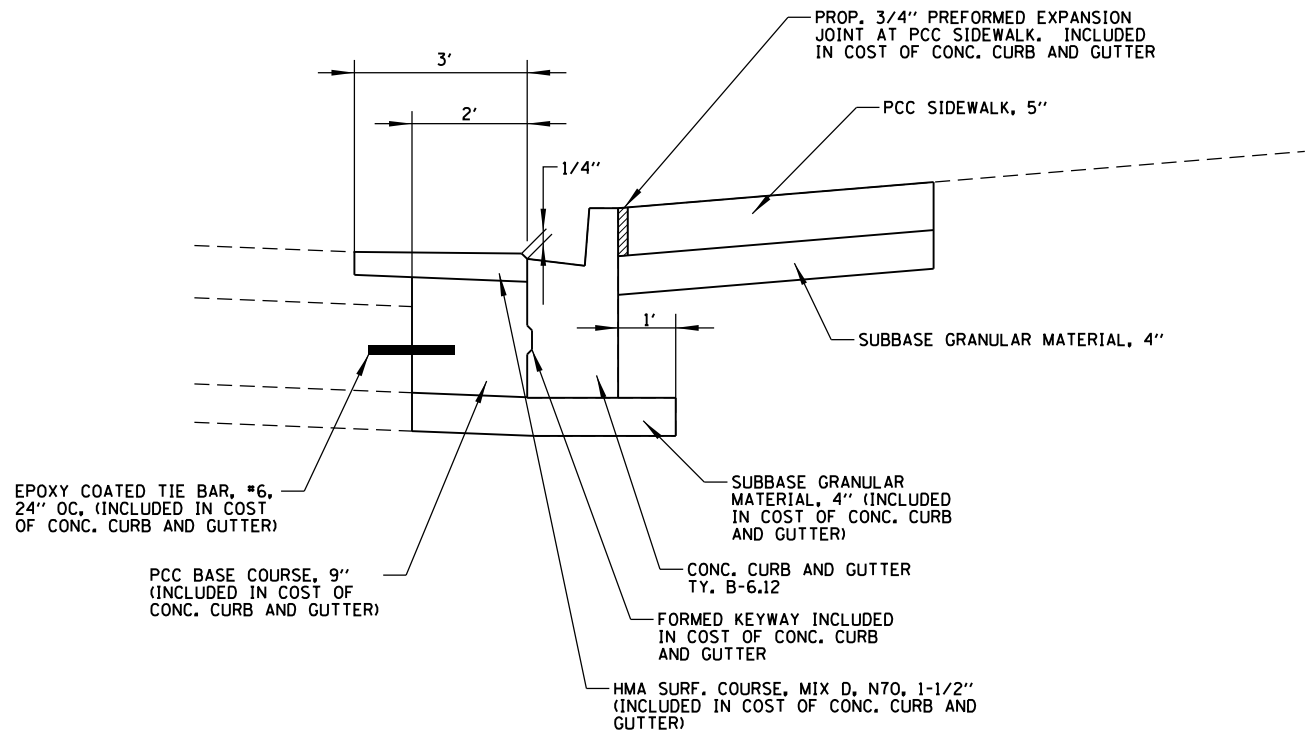
**PROPOSED TYPICAL SECTION**  
IL 50 (CICERO AVE.) STA 113+85 - STA 114+88



**PROPOSED TYPICAL SECTION**  
IL 50 (CICERO AVE.) STA 112+29 - STA 113+00

HOT-MIX ASPHALT REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ NDES
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL 9.5mm)	4% @ 70 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 Gyr.

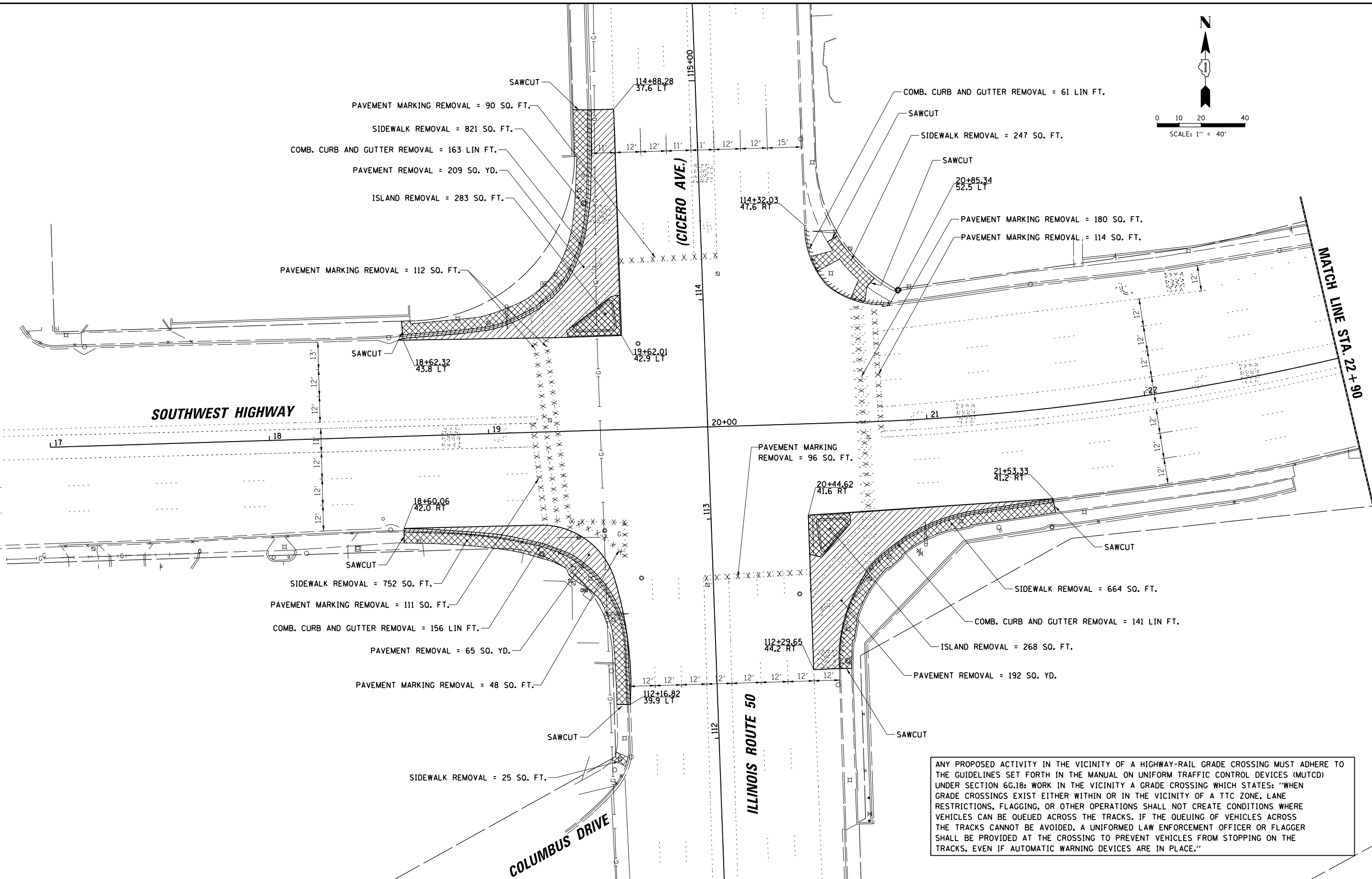
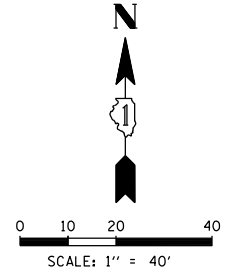
THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SOYD/IN  
 THE AC TYPE FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 76-22" AND  
 FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-28" UNLESS MODIFIED  
 BY DISTRICT ONE SPECIAL PROVISIONS"  
 FOR USE OF RECYCLED MATERIALS SEE DISTRICT ON SPECIAL PROVISIONS



NOTE:  
 ALL NECESSARY HMA SURFACE REMOVAL SHALL  
 BE INCLUDED IN THE COST OF THE ADJACENT  
 CONC. CURB AND GUTTER.

**CURB ADJACENT TO EXISTING PAVEMENT DETAIL**

PROFILE SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE NOTATIONS OKWD  
 PLAN SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 ALIGNMENT CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 CAD FILE NAME \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (647) 923-5900

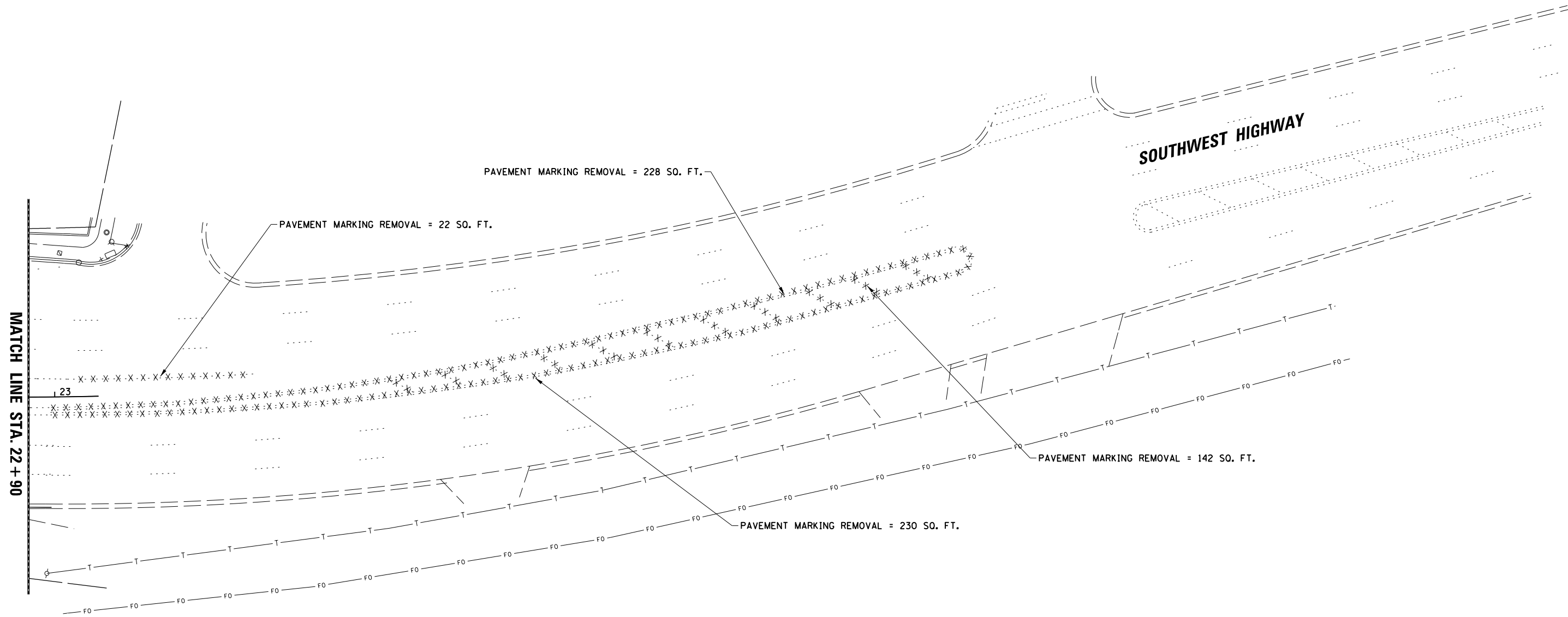
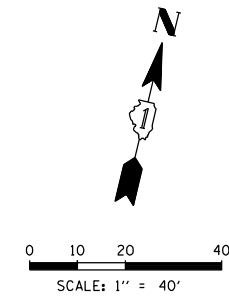


ANY PROPOSED ACTIVITY IN THE VICINITY OF A HIGHWAY-RAIL GRADE CROSSING MUST ADHERE TO THE GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) UNDER SECTION 6C.18: WORK IN THE VICINITY A GRADE CROSSING WHICH STATES: "WHEN GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE."

FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL PLAN (SHEET 1 OF 2) ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\dot\130116\Work Order 13018 - IL505WHwyTraffic\REM_IL50-Swhg_01.sht		DRAWN - FPB / FCP	REVISED -			350	461TS-2(13)	COOK	42	11
PLOT SCALE = 48"		CHECKED - GMZ	REVISED -			CONTRACT NO. 60X25				
PLOT DATE = 12/11/2013		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROFILE	SURVEYED	DATE	BY
NOTE BOOK	GRADES CHECKED		
NO.	BLM. NOTED		
	STRUCTURE NOTATIONS		
	CHKD		
PLAN	SURVEYED	DATE	BY
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		
	ADD. FILE NAME		

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (617) 923-5930



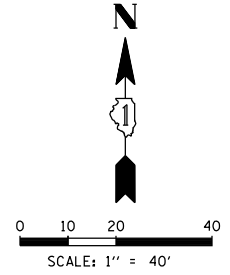
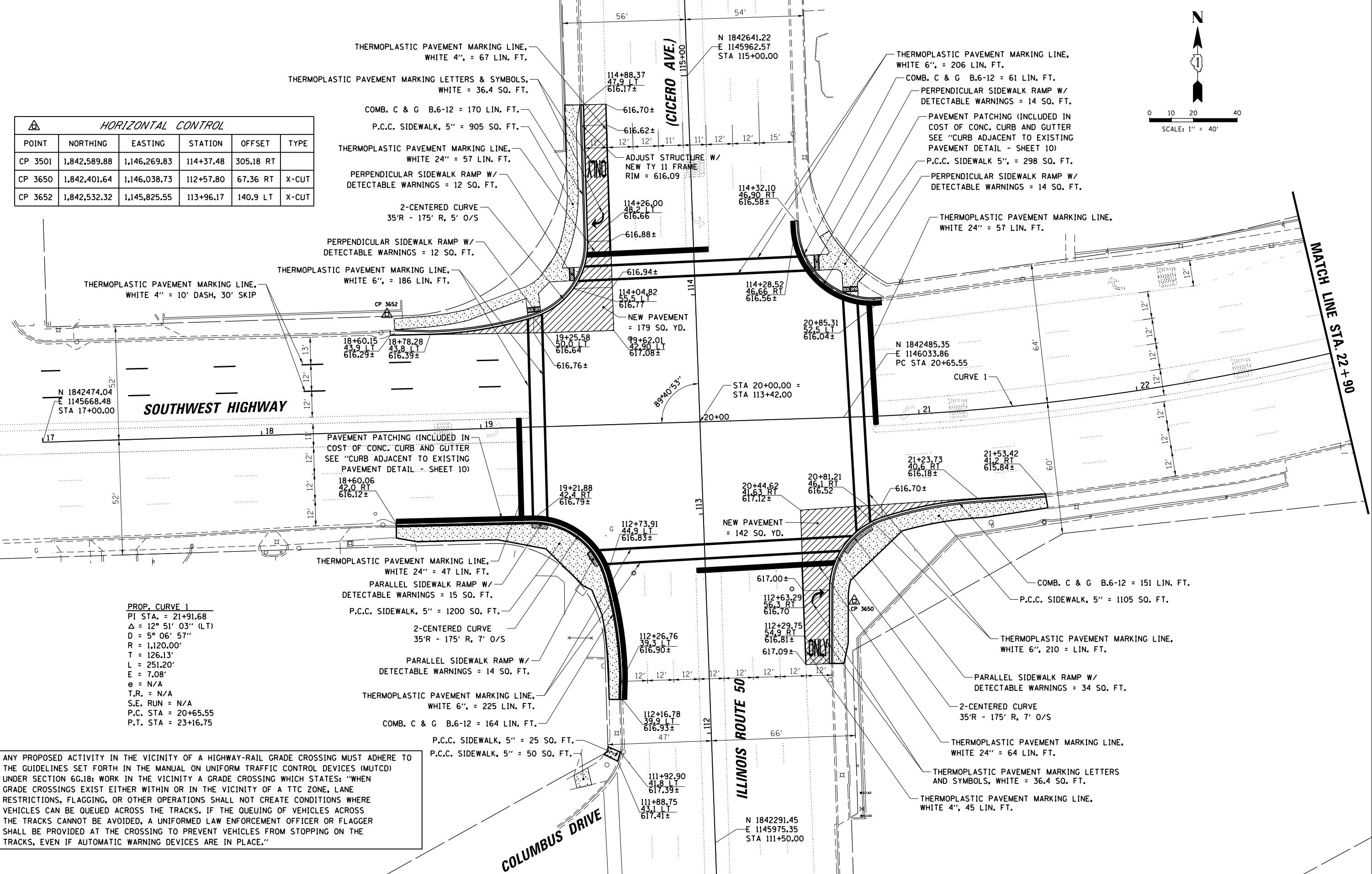
FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL PLAN (SHEET 2 OF 2) ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Idot\130116\Work Order 13018 - IL505W	g:\Traffic\REM_IL50-5why_02.sht	DRAWN - FPB / FCP	REVISED -			350	461TS-2(13)	COOK	42	12
	PLOT SCALE = 48'	CHECKED - GMZ	REVISED -			CONTRACT NO. 60X25				
	PLOT DATE = 12/11/2013	DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ ALIGNED: \_\_\_\_\_ CHECKED: \_\_\_\_\_  
 PLAN: \_\_\_\_\_ NO. \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ GRADES CHECKED: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_ STRUCTURE NOTATIONS: \_\_\_\_\_

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (630) 922-5500

HORIZONTAL CONTROL					
POINT	NORTHING	EASTING	STATION	OFFSET	TYPE
CP 3501	1,842,589.88	1,146,269.83	114+37.48	305.18 RT	
CP 3650	1,842,401.64	1,146,038.73	112+57.80	67.36 RT	X-CUT
CP 3652	1,842,532.32	1,145,825.55	113+96.17	140.9 LT	X-CUT

**PROP. CURVE 1**  
 PI STA. = 21+91.68  
 $\Delta = 12^\circ 51' 03''$  (LT)  
 $R = 5^\circ 06' 57''$   
 $R = 1,120.00'$   
 $T = 126.13'$   
 $L = 251.20'$   
 $E = 7.08'$   
 $e = N/A$   
 $T.R. = N/A$   
 $S.E. RUN = N/A$   
 $P.C. STA = 20+65.55$   
 $P.T. STA = 23+16.75$



ANY PROPOSED ACTIVITY IN THE VICINITY OF A HIGHWAY-RAIL GRADE CROSSING MUST ADHERE TO THE GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) UNDER SECTION 6G.18; WORK IN THE VICINITY A GRADE CROSSING WHICH STATES: "WHEN GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE."

FILE NAME = N:\dot\130116\Work Order 13018 - IL585M\Traffic\RDWY-MOD_IL50-Swhy_01.sht	USER NAME = fbariso	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND SIDEWALK MODIFICATION PLAN (SHEET 1 OF 2) ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY</b>	F.A.P. RTE. = 350	SECTION = 461TS-2(13)	COUNTY = COOK	TOTAL SHEETS = 42	SHEET NO. = 13	
PLOT SCALE = 48'	CHECKED - GMZ	REVISED -	SCALE: _____			SHEET NO. _____	OF SHEETS _____	STA. _____	TO STA. _____	FED. ROAD DIST. NO. _____	ILLINOIS FED. AID PROJECT _____
PLOT DATE = 1/22/2014	DATE -	REVISED -	CONTRACT NO. 60X25								

DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY

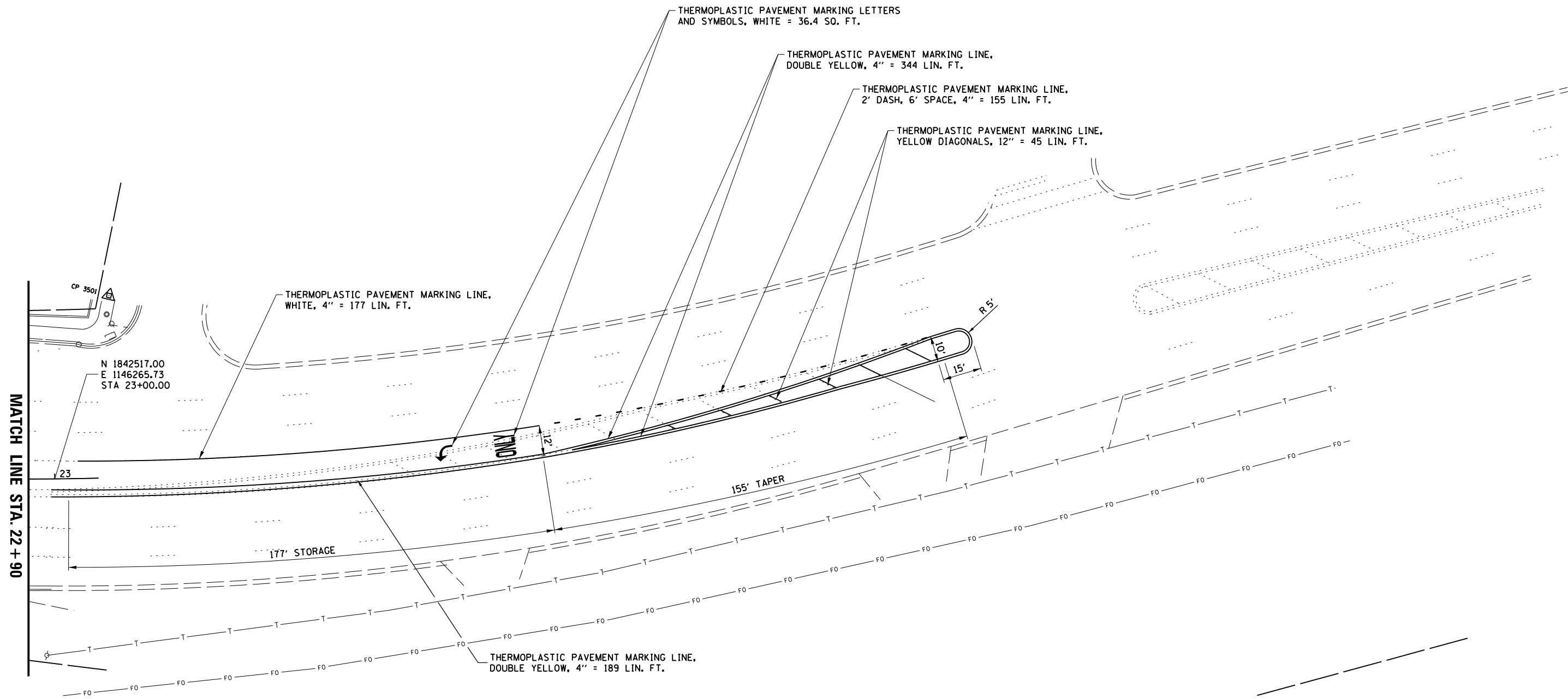
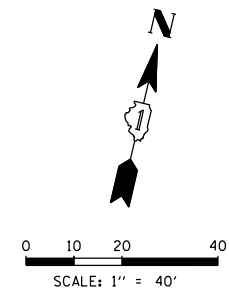
SURVEYED \_\_\_\_\_  
 ALIGNMENT CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 PLOTTING FILE NAME \_\_\_\_\_

PLAN  
 NOTE BOOK NO. \_\_\_\_\_

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PROFILE  
 SURVEYED \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 E.M. NOTED \_\_\_\_\_  
 STRUCTURE NOTATIONS CHECKED \_\_\_\_\_



FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -
N:\dot\130116\Work Order 13018 - IL505W	g:\Traffic\RDWY-MOD_IL50-Swhy_02.sht	DRAWN - FPB / FCP	REVISED -
	PLOT SCALE = 48"	CHECKED - GMZ	REVISED -
	PLOT DATE = 12/11/2013	DATE -	REVISED -

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

**ROADWAY AND SIDEWALK MODIFICATION PLAN (SHEET 2 OF 2)**  
**ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY**

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	14
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X25	

## LIGHTING NOTES

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
2. ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC.
3. EXISTING UNIT DUCT IS 1/4" DIAMETER SCH 40 HDPE WITH 3/C #4 & 1/C #6 GROUND XLP-TYPE USE CABLES, OR AS SHOWN ON PLANS.
4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE VILLAGE OF OAK LAWN BEFORE THE START OF WORK, ANY COST FOR PERMIT SHALL BE INCIDENTAL.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
  - "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
  - "THE NATIONAL ELECTRICAL CODE".
  - MUNICIPAL CODES & STANDARDS.
6. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE OWNER'S REPRESENTATIVE.
7. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE PROPOSED SIDEWALK ELEVATION WITH THE FINISHED GRADE AND TOP OF CURB ELEVATIONS.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE VILLAGE OF OAK LAWN FOR MAINTAINING SERVICE TO THE LIGHTNG SYSTEM.
10. THE CONTRACTOR SHALL LABEL ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY CONTROLLER, POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT. WIRE MARKERS SHALL BE MECHANICALLY FASTENED WHITE PLASTIC, TYPE "PLM" AS MANUFACTURED BY PANDUIT OR APPROVED EQUAL.
11. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
12. ALL DISTURBED AREA WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. THE WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS INCLUDING ALL ABOVE AND BELOW GRADE APPURTENANCES. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
14. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF THE EXISTING LIGHTING SYSTEM. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
15. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO SETS OF FULL SIZE RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF ALL LIGHT POLES, UNDERGROUND CONDUITS/WIRING, HANDHOLES, JUNCTION BOXES & CONTROLLER CABINETS. THE DRAWINGS WILL BE REVIEWED BY THE OWNER'S REPRESENTATIVE.
16. THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLTION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS AND VILLAGE OF OAK LAWN STREET LIGHTING ORDINANCE.

## ROADWAY LIGHTING BILL OF MATERIALS

Code No.	Description	Unit	Quantity
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	100
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP TYPE USE) 1/C NO. 10	FOOT	2680
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP TYPE USE) 1/C NO. 6	FOOT	880
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP TYPE USE) 1/C NO. 4	FOOT	2640
84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	7
84200804	REMOVAL OF POLE FOUNDATION	EACH	7
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3300
•X0323927	MAINTENANCE OF LIGHTING SYSTEM	EACH	1
•X8100105	CONDUIT SPLICE	EACH	6

PROFILE SURVEYED _____ GRADES CHECKED _____ ELEM. NOTED _____ STRUCTURE NOTATIONS OKWD _____ NOTE BOOK _____ NO. _____	DATE _____ BY _____
PLAN SURVEYED _____ ALIGNMENT CHECKED _____ RT. OF WAY CHECKED _____ ADD. FILE NAME _____ NOTE BOOK _____ NO. _____	DATE _____ BY _____

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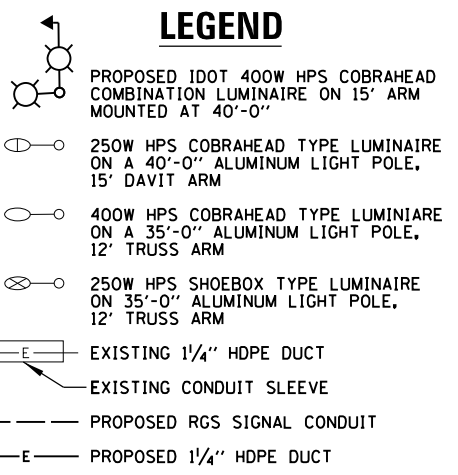
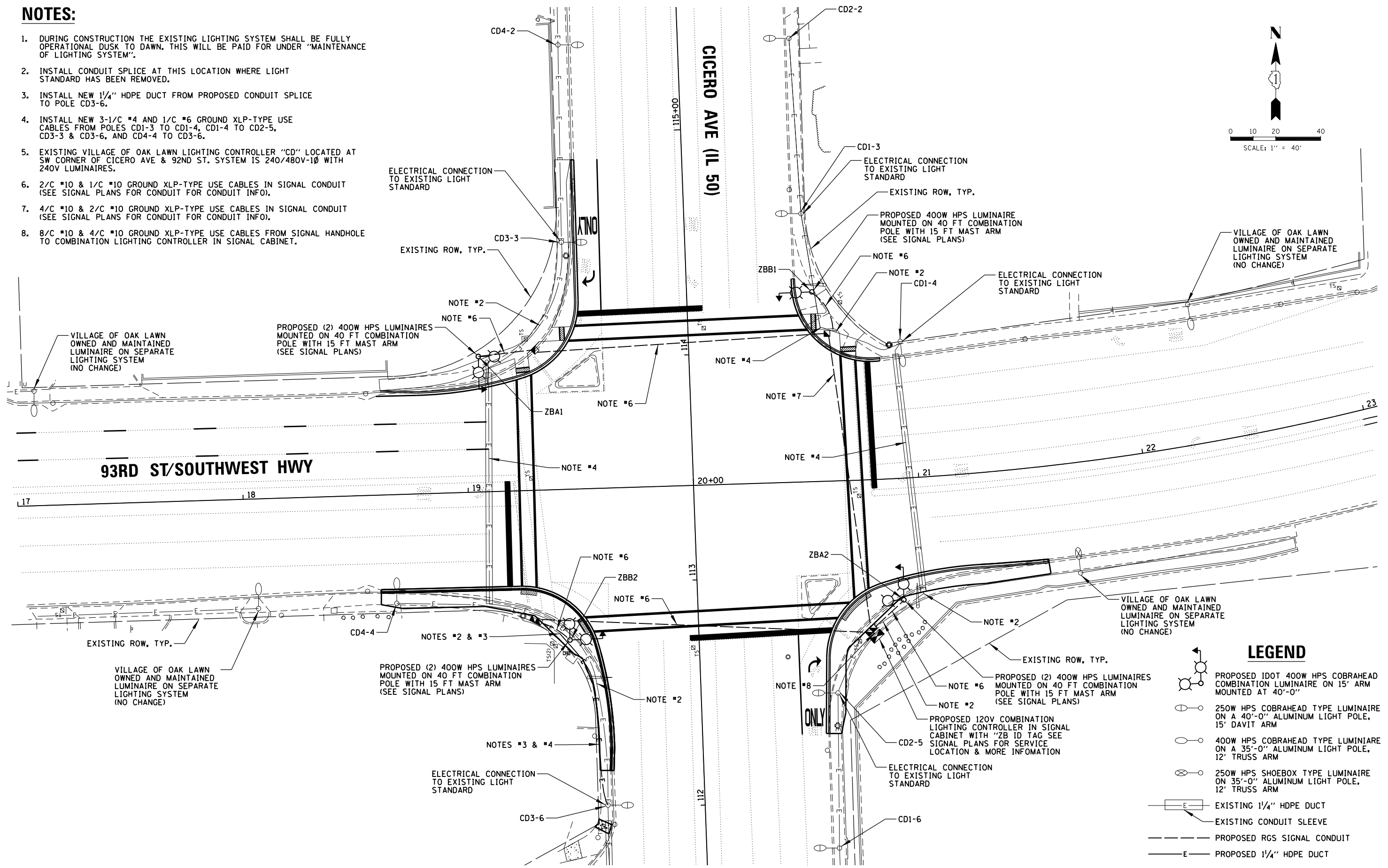
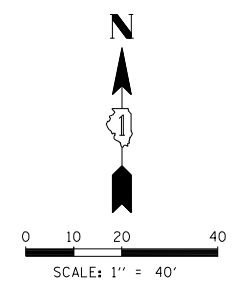
PROFILE SURVEYED _____ GRADES CHECKED _____ ELEM. NOTED _____ STRUCTURE NOTATIONS OKWD _____ NOTE BOOK _____ NO. _____	DATE _____ BY _____
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**NOTES:**

1. DURING CONSTRUCTION THE EXISTING LIGHTING SYSTEM SHALL BE FULLY OPERATIONAL DUSK TO DAWN. THIS WILL BE PAID FOR UNDER "MAINTENANCE OF LIGHTING SYSTEM".
2. INSTALL CONDUIT SPLICE AT THIS LOCATION WHERE LIGHT STANDARD HAS BEEN REMOVED.
3. INSTALL NEW 1/4" HDPE DUCT FROM PROPOSED CONDUIT SPLICE TO POLE CD3-6.
4. INSTALL NEW 3-1/2" #4 AND 1/2" #6 GROUND XLP-TYPE USE CABLES FROM POLES CD1-3 TO CD1-4, CD1-4 TO CD2-5, CD3-3 & CD3-6, AND CD4-4 TO CD3-6.
5. EXISTING VILLAGE OF OAK LAWN LIGHTING CONTROLLER "CD" LOCATED AT SW CORNER OF CICERO AVE & 92ND ST. SYSTEM IS 240/480V-1Ø WITH 240V LUMINAIRES.
6. 2/C #10 & 1/C #10 GROUND XLP-TYPE USE CABLES IN SIGNAL CONDUIT (SEE SIGNAL PLANS FOR CONDUIT FOR CONDUIT INFO).
7. 4/C #10 & 2/C #10 GROUND XLP-TYPE USE CABLES IN SIGNAL CONDUIT (SEE SIGNAL PLANS FOR CONDUIT FOR CONDUIT INFO).
8. 8/C #10 & 4/C #10 GROUND XLP-TYPE USE CABLES FROM SIGNAL HANDHOLE TO COMBINATION LIGHTING CONTROLLER IN SIGNAL CABINET.



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DATE	BY	DATE	BY

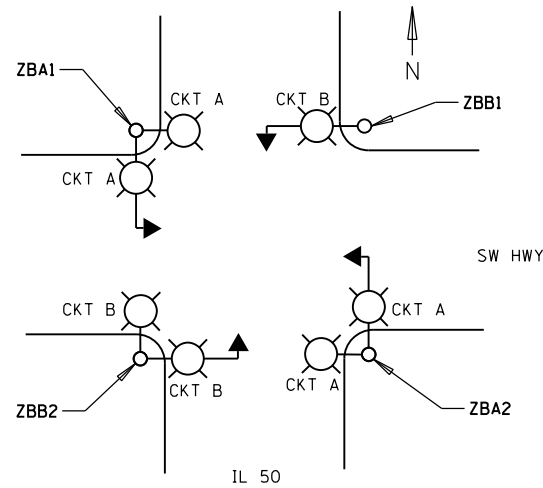
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9575 West Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(647) 623-5930

FILE NAME =	USER NAME = fbariso	DESIGNED - GAH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED ROADWAY LIGHTING MODIFICATION PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\idot\130116\Work Order 13018 - IL505W	Wj\Mech\LTG_130116_01.SHT	DRAWN - LRR	REVISED -			350	461TS-2(13)	COOK	42	17	
	PLOT SCALE = 48"	CHECKED - AJD	REVISED -			CONTRACT NO. 60X25					
	PLOT DATE = 1/22/2014	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ ALIGNED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 CAD FILE NAME \_\_\_\_\_  
 PLAN \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (647) 923-5930  
 DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ GRADES CHECKED \_\_\_\_\_  
 ELEM. NOTED \_\_\_\_\_ STRUCTURE NOTATIONS CHECKED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_

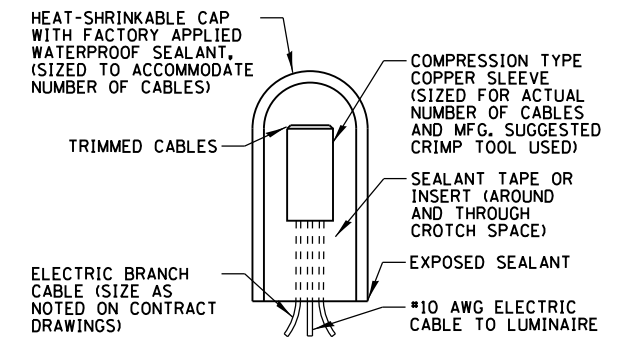
### PANEL EQUIPMENT

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
A	1	CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 1 POLE, 120 VOLT 100 AMP FRAME, 40 AMP TRIP, INTERRUPTING RATING 10K RMS SYMMETRICAL AMP
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 60 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT
C	2	CIRCUIT BREAKERS, 1 POLE, 100 AMP. FRAME 30 AMP NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 10K AMP
D	1	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE 100 AMP FRAME, 15 AMP NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 10K RMS SYMMETRICAL AMP
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH)
F	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
G	1	COPPER NEUTRAL BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
H	1	H-O-A SWITCH
I	1	RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTRACTOR
J	1	FIBERGLASS ENCLOSURE, APPROX. 20"W X 24"H X 8"D WITH HINGED COVER & 3 POINT LATCH, NEMA 4X, GRAY



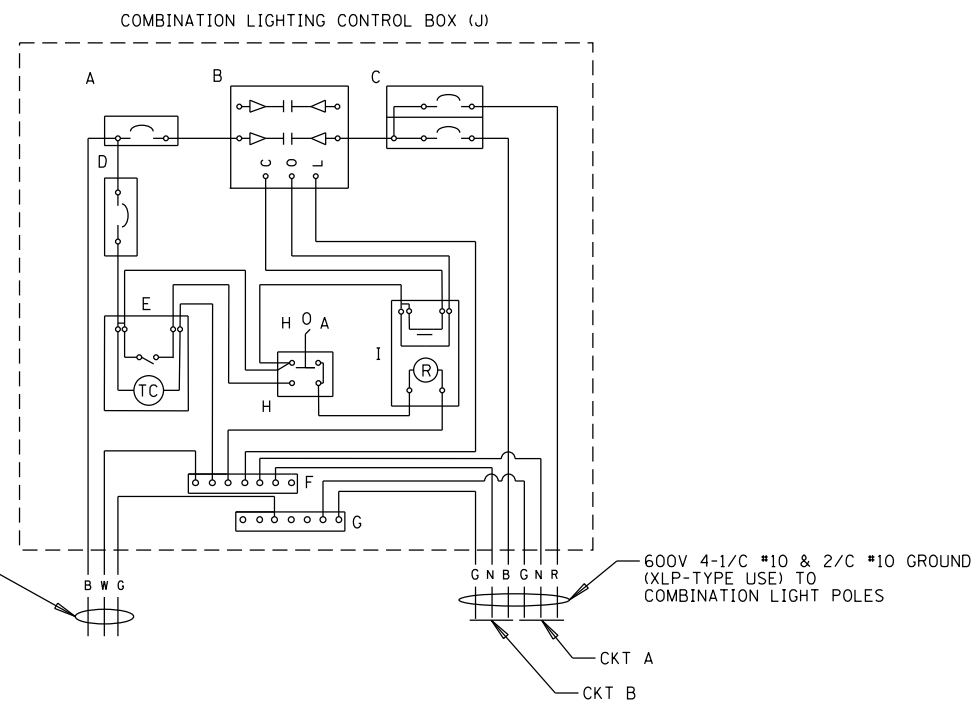
### LIGHTING LAYOUT

N.T.S



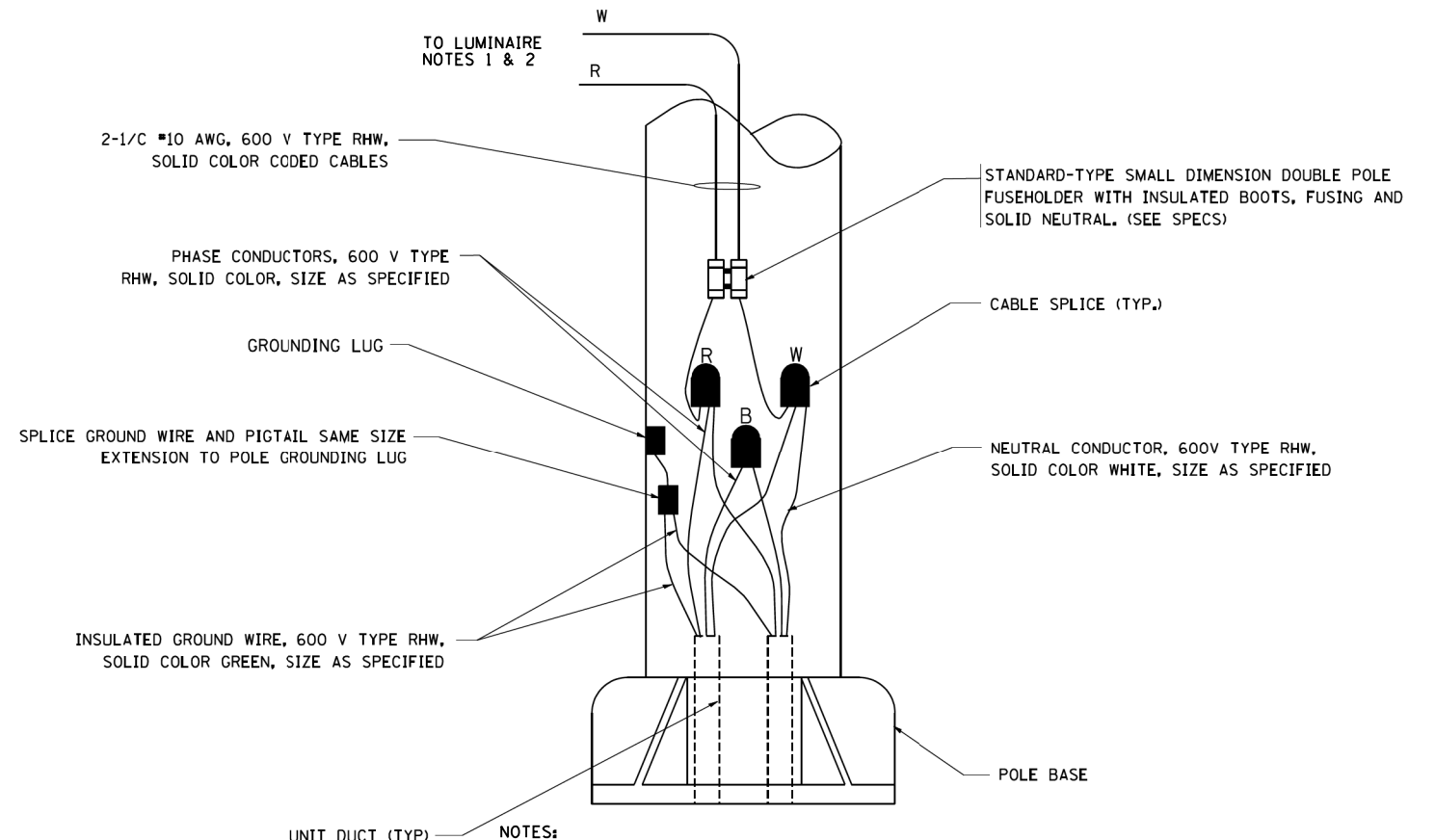
### SPlicing ELECTRIC CABLE

N.T.S.



### COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM

N.T.S



### HANDHOLE WIRING DIAGRAM

N.T.S.

### HANDHOLE WIRING DIAGRAM

N.T.S.

FILE NAME =	USER NAME = fbariso	DESIGNED - GAH	REVISED - ADDENDUM
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	PLOT SCALE = 48"	CHECKED - AJD	REVISED -
	PLOT DATE = 1/22/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY LIGHTING DETAILS

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

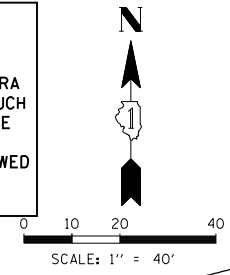
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	17A
CONTRACT NO. 60X25			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

**GENERAL NOTES:**

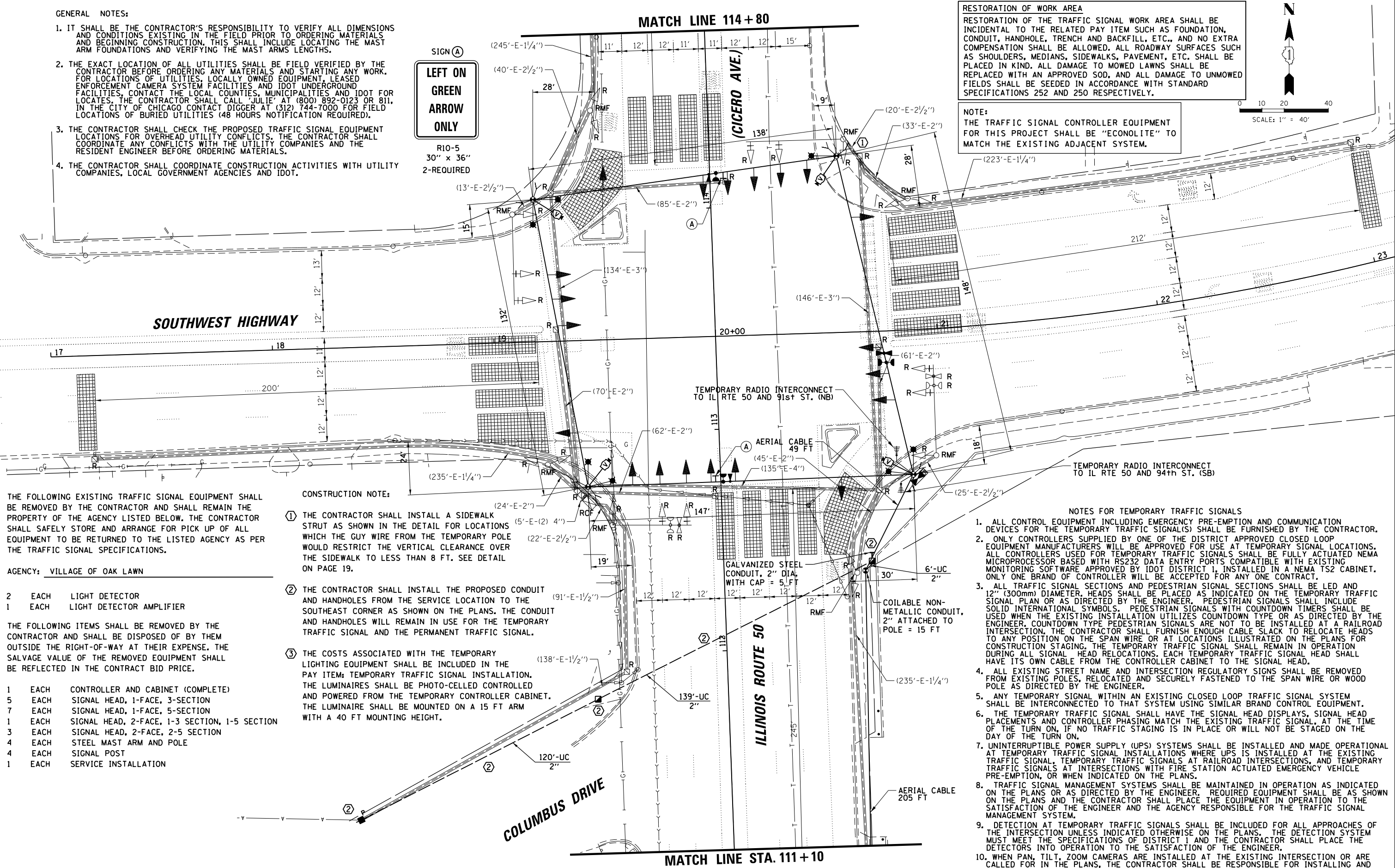
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS, THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

**RESTORATION OF WORK AREA**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE PLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



DATE	BY	DATE	BY
PLAN	NOTE BOOK	PROFILE	NOTE BOOK
NO.	NO.	NO.	NO.
SURVEYED		SURVEYED	
ALLOWED		ALLOWED	
RT. OF WAY CHECKED		RT. OF WAY CHECKED	
ADD. FILE NAME		ADD. FILE NAME	
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GRADES CHECKED ELEM. NOTED STRUCTURE NOTATIONS OKWD			



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- AGENCY: VILLAGE OF OAK LAWN
- 2 EACH LIGHT DETECTOR
  - 1 EACH LIGHT DETECTOR AMPLIFIER

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 7 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 3 EACH SIGNAL HEAD, 2-FACE, 2-5 SECTION
- 4 EACH STEEL MAST ARM AND POLE
- 4 EACH SIGNAL POST
- 1 EACH SERVICE INSTALLATION

**CONSTRUCTION NOTE:**

- THE CONTRACTOR SHALL INSTALL A SIDEWALK STRUT AS SHOWN IN THE DETAIL FOR LOCATIONS WHICH THE GUY WIRE FROM THE TEMPORARY POLE WOULD RESTRICT THE VERTICAL CLEARANCE OVER THE SIDEWALK TO LESS THAN 8 FT. SEE DETAIL ON PAGE 19.
- THE CONTRACTOR SHALL INSTALL THE PROPOSED CONDUIT AND HANDHOLES FROM THE SERVICE LOCATION TO THE SOUTHEAST CORNER AS SHOWN ON THE PLANS. THE CONDUIT AND HANDHOLES WILL REMAIN IN USE FOR THE TEMPORARY TRAFFIC SIGNAL AND THE PERMANENT TRAFFIC SIGNAL.
- THE COSTS ASSOCIATED WITH THE TEMPORARY LIGHTING EQUIPMENT SHALL BE INCLUDED IN THE PAY ITEM: TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE LUMINAIRES SHALL BE PHOTO-CELLED CONTROLLED AND POWERED FROM THE TEMPORARY CONTROLLER CABINET. THE LUMINAIRE SHALL BE MOUNTED ON A 15 FT ARM WITH A 40 FT MOUNTING HEIGHT.

**NOTES FOR TEMPORARY TRAFFIC SIGNALS**

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL. AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

FILE NAME =	USER NAME = fbariso	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION (SHEET 1 OF 2)</b> <b>ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY</b>	F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\Idot\130116\Work Order 13018 - IL505W	W:\Traffic\TMP_IL50-Swhg_01.sht	DRAWN - FPB / FCP	REVISED -			350	461TS-2(13)	COOK	42	18	
PLOT SCALE = 48"	CHECKED - GMZ	REVISIED -	REVISIED -			CONTRACT NO. 60X25					
PLOT DATE = 1/22/2014	DATE -	REVISIED -	REVISIED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
SCALE:		SHEET NO. OF SHEETS		STA. TO STA.							



BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: LEONARD B ANDERSON  
 PHONE: 708-235-2346  
 COMPANY: COMED

PROFILE SURVEYED \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: LEONARD B ANDERSON  
 PHONE: 708-235-2346  
 COMPANY: COMED

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	20		15	0.25	75.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUMINATED SIGN	-		25	0.05	-
VIDEO SYSTEM	1		150	1.00	150.00
LUMINAIRE	7	400		0.50	1400.00
BATTERY BACKUP	1	25		1.00	25.00
FLASHER	1		25	0.50	12.50
ENERGY COSTS TO:					TOTAL = 2067.10

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: LEONARD B ANDERSON  
 PHONE: 708-235-2346  
 COMPANY: COMED

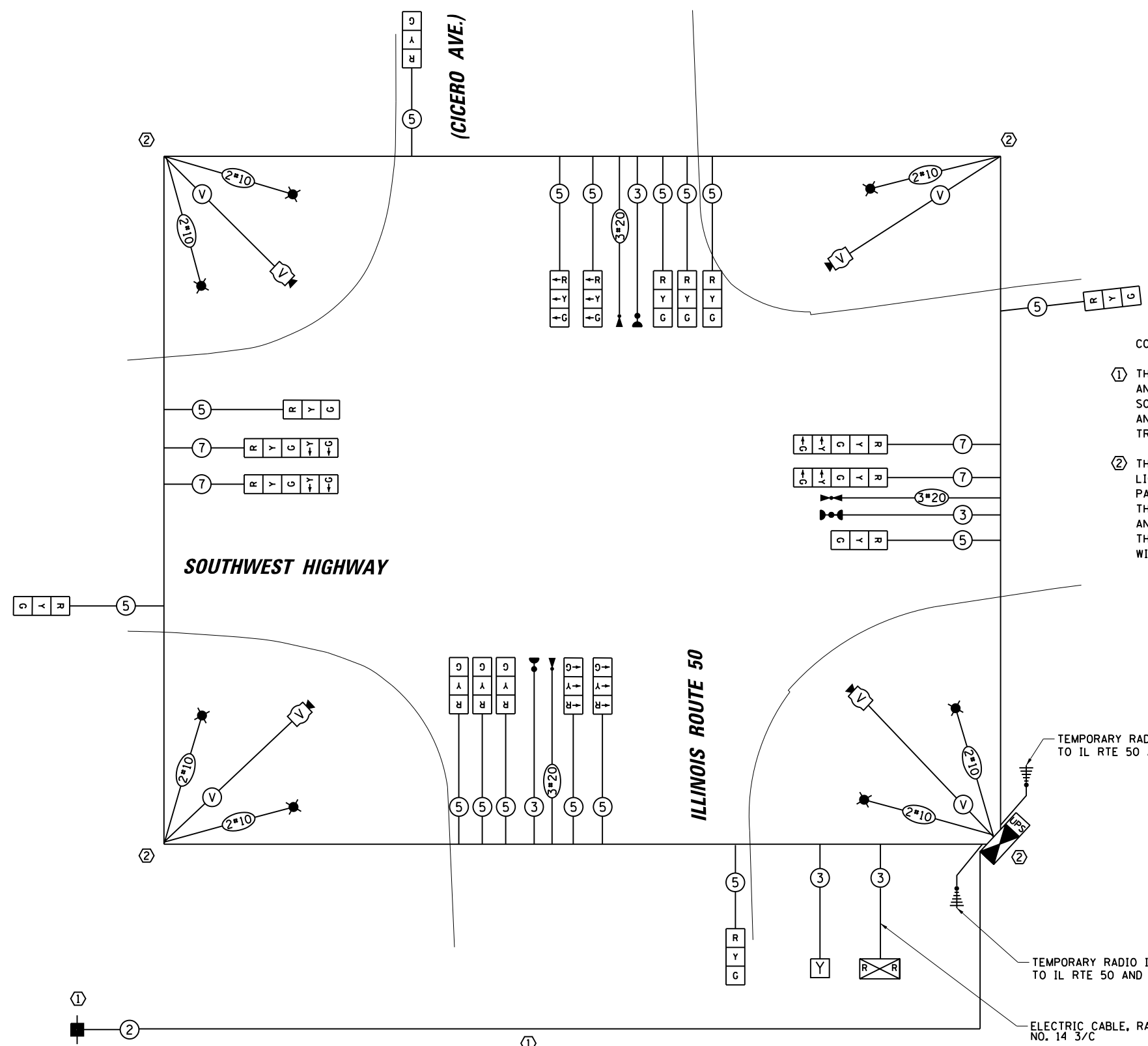
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	PLOT SCALE = 48"	CHECKED - GMZ	REVISED -
	PLOT DATE = 1/22/2014	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN  
 ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY

SCALE: \_\_\_\_\_ SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ SHEETS \_\_\_\_\_ STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	20
CONTRACT NO. 60X25				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTE:
- THE CONTRACTOR SHALL INSTALL THE PROPOSED CONDUIT AND HANDHOLES FROM THE SERVICE LOCATION TO THE SOUTHEAST CORNER AS SHOWN ON THE PLANS. THE CONDUIT AND HANDHOLES WILL REMAIN IN USE FOR THE TEMPORARY TRAFFIC SIGNAL AND THE PERMANENT TRAFFIC SIGNAL.
  - THE COSTS ASSOCIATED WITH THE TEMPORARY LIGHTING EQUIPMENT SHALL BE INCLUDED IN THE PAY ITEM: TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE LUMINAIRES SHALL BE PHOTO-CELLED CONTROLLED AND POWERED FROM THE TEMPORARY CONTROLLER CABINET. THE LUMINAIRE SHALL BE MOUNTED ON A 15 FT ARM WITH A 40 FT MOUNTING HEIGHT.

TEMPORARY RADIO INTERCONNECT TO IL RTE 50 AND 91st STREET (NB)

TEMPORARY RADIO INTERCONNECT TO IL RTE 50 AND 94th STREET (SB)

ELECTRIC CABLE, RAILROAD, NO. 14 3/C





**TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION**

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		1		1		5		5		7		7		9		9		9		13		17		17		20		20		23		23		PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	CLEAR TO NORMAL SEQUENCE	
	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	2	3	4							
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	3	1F	4	1H	2 OR 4	3	2	1M	3 OR 4	1P	2	1R	3	1T	4	2,3 OR 4	1W	2 OR 3	4	1Z	2 OR 3	4	1CC	2 OR 3	4											
IL ROUTE 50 (CICERO AVENUE) NEAR RIGHT AND 3 FAR RIGHT SPAN WIRE SIGNALS	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	◇		
IL ROUTE 50 (CICERO AVENUE) 2 FAR LEFT SPAN WIRE SIGNALS	←G	←G	←Y	←R	←Y	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇			
IL ROUTE 50 (CICERO AVENUE) NEAR RIGHT AND 3 FAR RIGHT SPAN WIRE SIGNALS	R	R	R	R	R	R	Y	R	G	R	R	R	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇		
IL ROUTE 50 (CICERO AVENUE) 2 FAR LEFT SPAN WIRE SIGNALS	←Y	←R	←G	←G	←Y	←R	←Y	←R	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇			
SOUTHWEST HIGHWAY NEAR AND FAR RIGHT SPAN WIRE SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	◇		
SOUTHWEST HIGHWAY 2 FAR LEFT SPAN WIRE SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	◇		
SOUTHWEST HIGHWAY NEAR AND FAR RIGHT SPAN WIRE SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	◇		
SOUTHWEST HIGHWAY 2 FAR LEFT SPAN WIRE SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	◇		
IL ROUTE 50 (CICERO AVENUE) YELLOW FLASHER	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	DARK	FL	FL	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2, 3 OR 4 IS TERMINATED.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

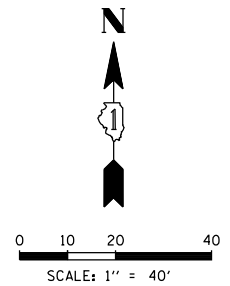
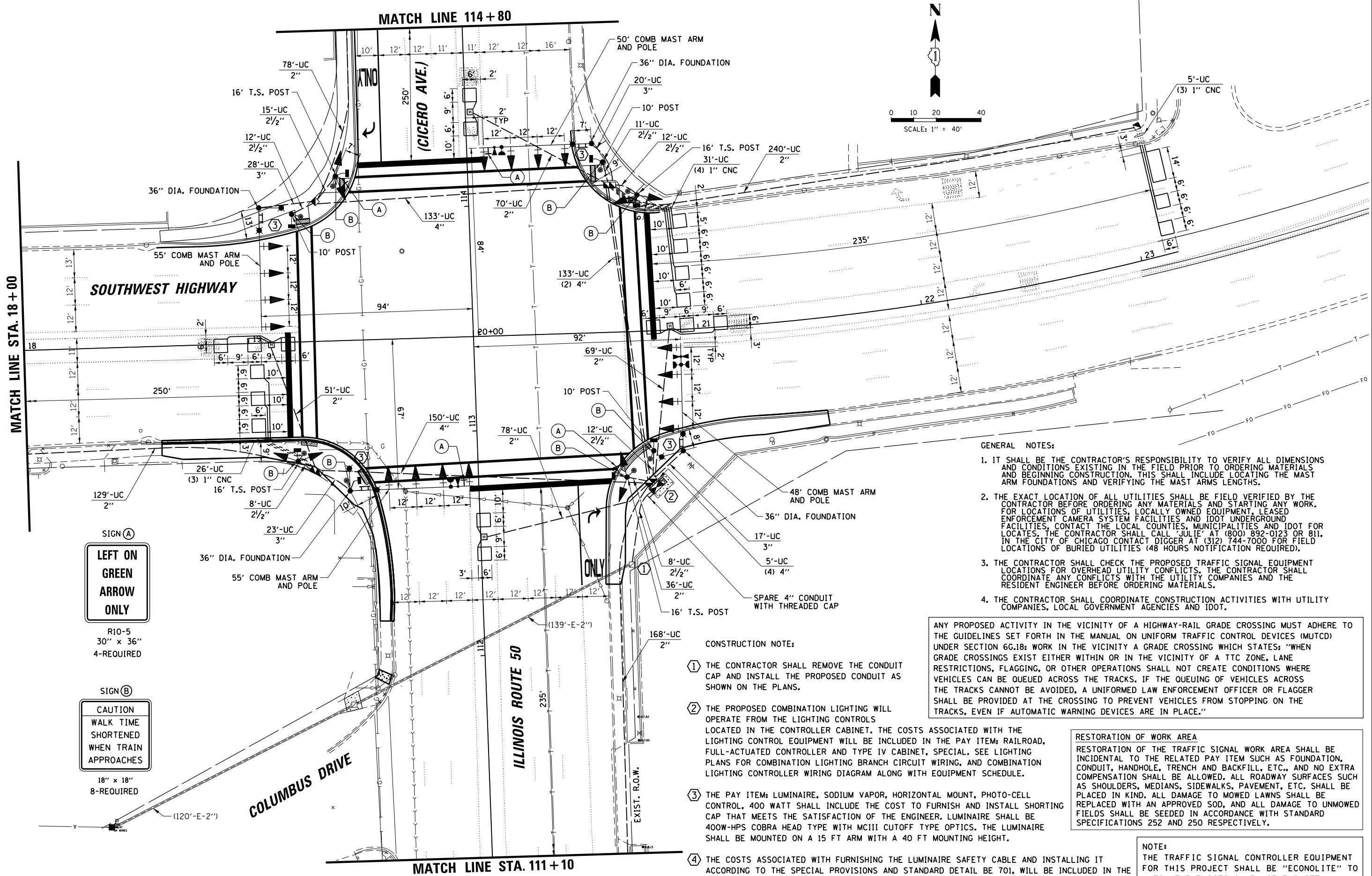
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DATE	BY	GRADES	CHECKED	FILED	
DATE	BY	STRUCTURE	NOTATION	CHKD	

PLAN SURVEYED BY: \_\_\_\_\_  
NOTE BOOK NO. \_\_\_\_\_  
FILED BY: \_\_\_\_\_

PROFILE SURVEYED BY: \_\_\_\_\_  
NOTE BOOK NO. \_\_\_\_\_  
FILED BY: \_\_\_\_\_

**CHRISTOPHER B. BURKE**  
ENGINEERING LTD.  
3575 West Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(617) 923-5930

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 ALIGNED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 CAD FILE NAME: \_\_\_\_\_  
 PLAN NO.: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (617) 923-5930  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 E.M. NOTED \_\_\_\_\_  
 STRUCTURE NOTATIONS OKWD



- GENERAL NOTES:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
  - THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
  - THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
  - THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

ANY PROPOSED ACTIVITY IN THE VICINITY OF A HIGHWAY-RAIL GRADE CROSSING MUST ADHERE TO THE GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) UNDER SECTION 6C.18; WORK IN THE VICINITY A GRADE CROSSING WHICH STATES: "WHEN GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE."

- CONSTRUCTION NOTE:**
- THE CONTRACTOR SHALL REMOVE THE CONDUIT CAP AND INSTALL THE PROPOSED CONDUIT AS SHOWN ON THE PLANS.
  - THE PROPOSED COMBINATION LIGHTING WILL OPERATE FROM THE LIGHTING CONTROLS LOCATED IN THE CONTROLLER CABINET. THE COSTS ASSOCIATED WITH THE LIGHTING CONTROL EQUIPMENT WILL BE INCLUDED IN THE PAY ITEM: RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL. SEE LIGHTING PLANS FOR COMBINATION LIGHTING BRANCH CIRCUIT WIRING, AND COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM ALONG WITH EQUIPMENT SCHEDULE.
  - THE PAY ITEM: LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT SHALL INCLUDE THE COST TO FURNISH AND INSTALL SHORTING CAP THAT MEETS THE SATISFACTION OF THE ENGINEER. LUMINAIRE SHALL BE 400W-HPS COBRA HEAD TYPE WITH MCIII CUTOFF TYPE OPTICS. THE LUMINAIRE SHALL BE MOUNTED ON A 15 FT ARM WITH A 40 FT MOUNTING HEIGHT.
  - THE COSTS ASSOCIATED WITH FURNISHING THE LUMINAIRE SAFETY CABLE AND INSTALLING IT ACCORDING TO THE SPECIAL PROVISIONS AND STANDARD DETAIL BE 701, WILL BE INCLUDED IN THE STEEL COMBINATION MAST ARM AND POLE ASSEMBLY PAY ITEM FOR THE PLAN SPECIFIED LENGTH.

**RESTORATION OF WORK AREA**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE PLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = fbariso	DESIGNED - LJ	REVISED -
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		CHECKED - GMZ	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION (SHEET 1 OF 2)  
ILLINOIS ROUTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY**

SCALE: \_\_\_\_\_ SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	23
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X25	





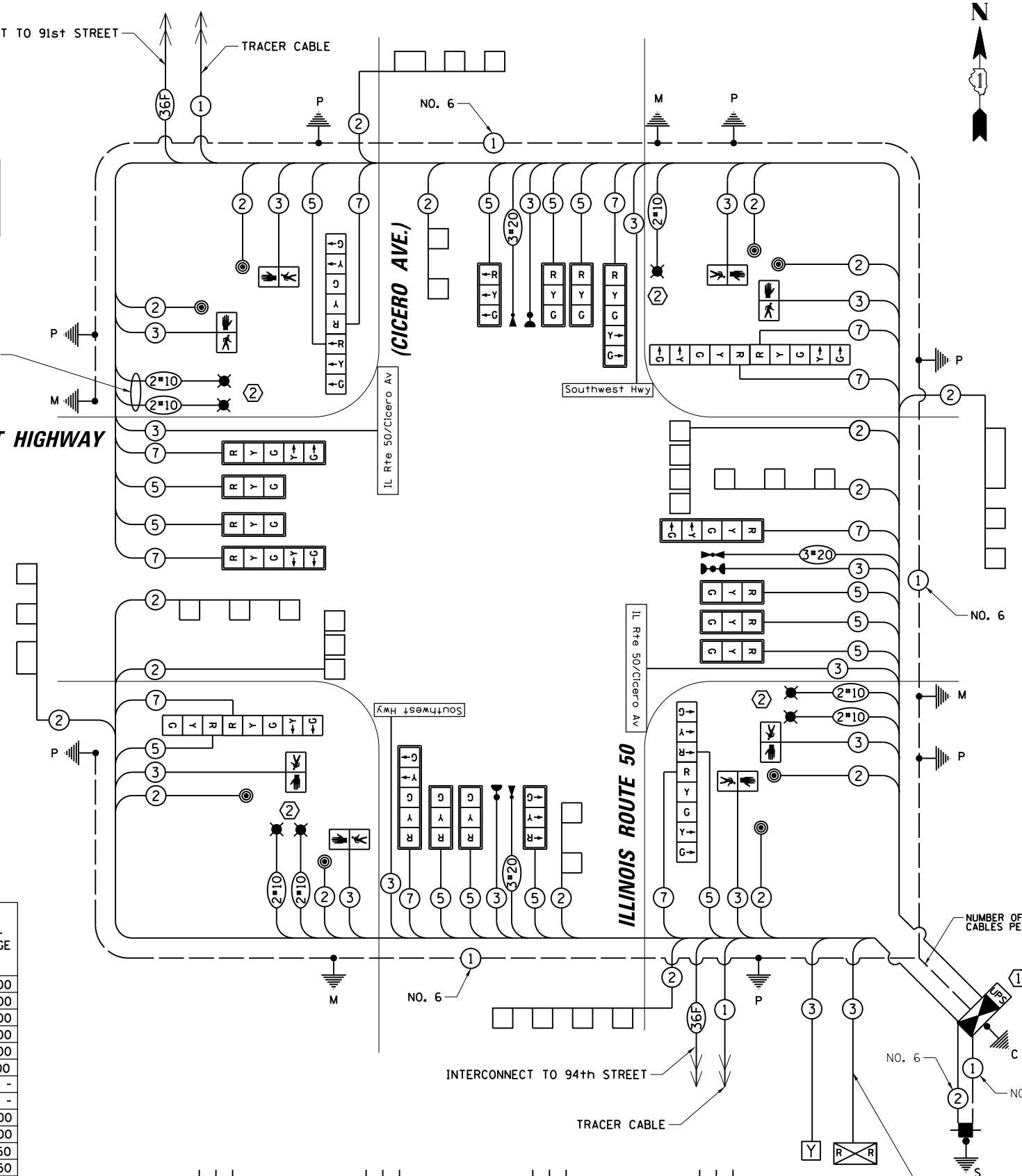
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 SURVEYED: \_\_\_\_\_ ALIGNED: \_\_\_\_\_  
 PLAN: \_\_\_\_\_ NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (617) 823-5500  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ GRADES CHECKED: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_ NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

SEE ROADWAY LIGHTING PLAN FOR COMBINATION LIGHTING BRANCH CIRCUIT WIRING, (TYP).

**CONSTRUCTION NOTE:**

- THE PROPOSED COMBINATION LIGHTING WILL OPERATE FROM THE LIGHTING CONTROLS LOCATED IN THE CONTROLLER CABINET. THE COSTS ASSOCIATED WITH THE LIGHTING CONTROL EQUIPMENT WILL BE INCLUDED IN THE PAY ITEM: RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL. SEE LIGHTING PLANS FOR COMBINATION LIGHTING BRANCH CIRCUIT WIRING, AND COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM ALONG WITH EQUIPMENT SCHEDULE.
- THE PAY ITEM: LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT SHALL INCLUDE THE COST TO FURNISH AND INSTALL SHORTING CAP THAT MEETS THE SATISFACTION OF THE ENGINEER. LUMINAIRE SHALL BE 400W-HPS COBRA HEAD TYPE WITH MCIII CUTOFF TYPE OPTICS. THE LUMINAIRE SHALL BE MOUNTED ON A 15 FT ARM WITH A 40 FT MOUNTING HEIGHT.



MAXIMUM CABINET ELECTRICAL LOAD = 5.0 KW (41.8 AMPS AT 120 VOLTS)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	24	17	0.50	204.00	
(YELLOW)	24	25	0.25	150.00	
(GREEN)	24	15	0.25	90.00	
ARROW	20	12	0.10	24.00	
PED. SIGNAL	8	25	1.00	200.00	
CONTROLLER	1	100	1.00	100.00	
ILLUMINATED SIGN	-	25	0.05	-	
VIDEO SYSTEM	-	150	1.00	-	
LUMINAIRE	7	400	0.50	1400.00	
BATTERY BACKUP	1	25	1.00	25.00	
FLASHER	1	25	0.50	12.50	
ENERGY COSTS TO:				TOTAL =	2205.50

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: LEONARD B ANDERSON  
 PHONE: 708-235-2346  
 COMPANY: COMED

SCHEDULE OF QUANTITIES ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	48
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1579
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	78
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	88
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	569
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	100
HANDHOLE	EACH	6
HEAVY-DUTY HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	3
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	7
PAINT NEW TRAFFIC SIGNAL POST	EACH	7
PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER	EACH	4
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2466
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2587
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3213
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2369
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2422
ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C	FOOT	310
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	343
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1024
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	28
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	16
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	955
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	14
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	645
RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

FILE NAME = \_\_\_\_\_ USER NAME = fbariso  
 No:\Idot\130116\Work Order 13018 - IL585M\wg\Traffic\CAB\_IL50-Swhy.sht  
 DRAWN - FPB / FCP  
 PLOT SCALE = 48"  
 CHECKED - GMZ  
 PLOT DATE = 1/22/2014  
 DATE - \_\_\_\_\_

DESIGNED - LJ  
 REVISIONS:  
 REVISIONS:  
 REVISIONS:  
 REVISIONS:

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

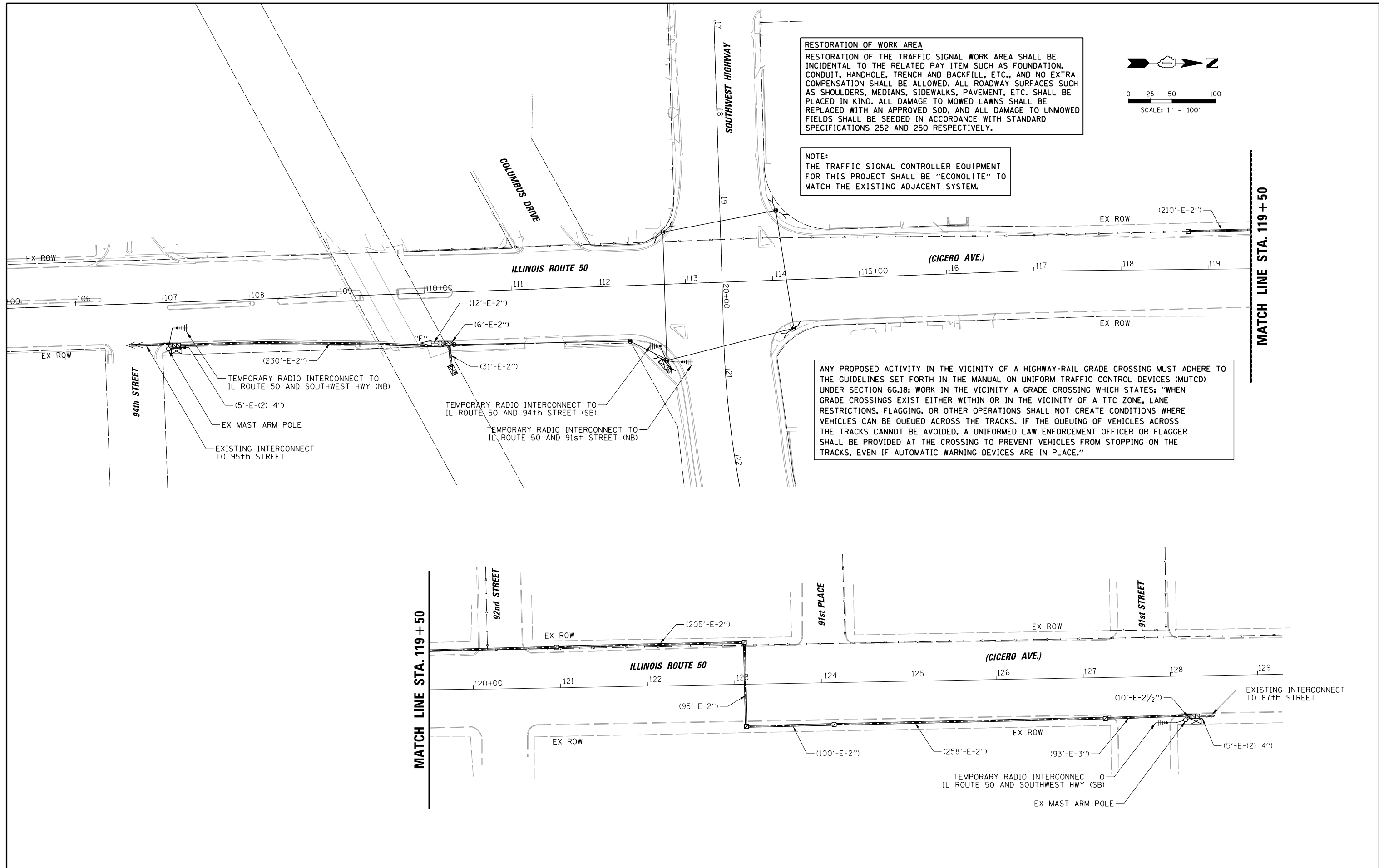
SCHEDULE OF QUANTITIES AND CABLE PLAN  
 IL RTE 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY  
 SCALE: \_\_\_\_\_ SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_ SHEETS  
 STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	25
CONTRACT NO. 60X25				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



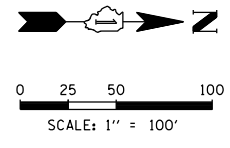


PROFILE SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 E.M. NOTED \_\_\_\_\_  
 STRUCTURE NOTATIONS OKWD  
 PLAN SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 ALIGNMENT CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 CAD FILE NAME \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (617) 923-5930



**RESTORATION OF WORK AREA**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

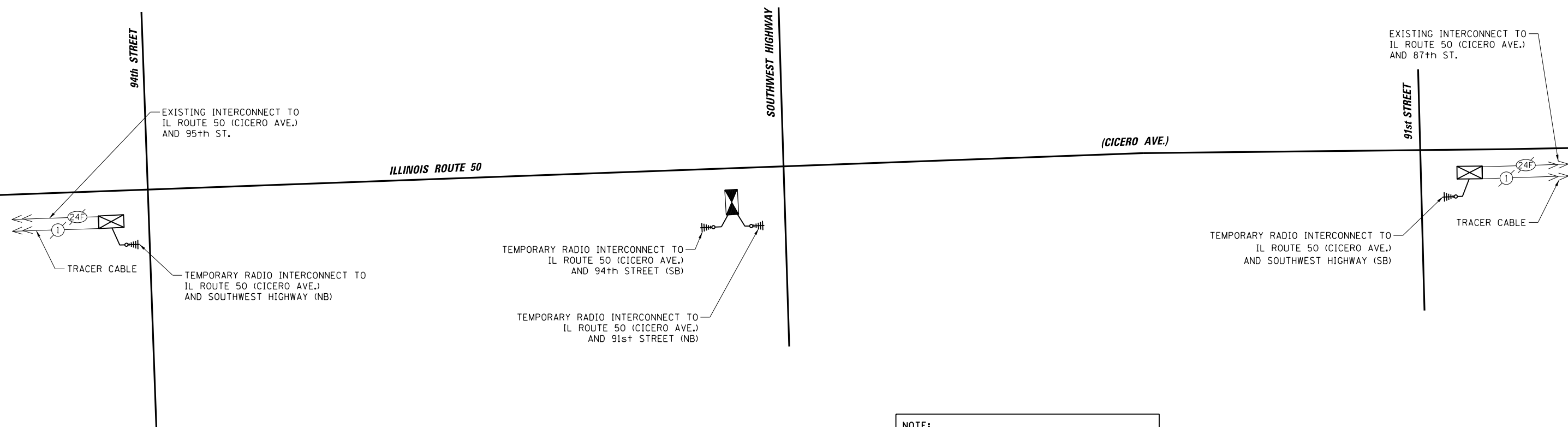
**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



ANY PROPOSED ACTIVITY IN THE VICINITY OF A HIGHWAY-RAIL GRADE CROSSING MUST ADHERE TO THE GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) UNDER SECTION 6G.18: WORK IN THE VICINITY A GRADE CROSSING WHICH STATES: "WHEN GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE."

FILE NAME = N:\dot\130116\Work Order 13018 - IL505W\wy\Traffic\TMP_Int_IL50-Swhy.sht	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY INTERCONNECT PLAN IL ROUTE 50 (CICERO AVENUE) FROM 94th STREET TO 91st STREET</b>	F.A.P. RTE. = 350	SECTION = 461TS-2(13)	COUNTY = COOK	TOTAL SHEETS = 42	SHEET NO. = 28
PLOT SCALE = 100'	CHECKED - GMZ	REVISIED -	REVISIED -			CONTRACT NO. 60X25				
PLOT DATE = 12/11/2013	DATE -	REVISIED -	REVISIED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
						SCALE: SHEET NO. OF SHEETS STA. TO STA.				

PROFILE	SURVEYED	DATE
	BLM. NOTED	
NOTE BOOK	NO.	
	STRUCTURE NOTATIONS	CHKD
PLAN	SURVEYED	DATE
	ALIGNED	
NOTE BOOK	NO.	
	STRUCTURE NOTATIONS	CHKD
<b>CHRISTOPHER B. BURKE</b> ENGINEERING LTD. 9575 West Higgins Road, Suite 600 Rosemont, Illinois 60018 (647) 923-9303		

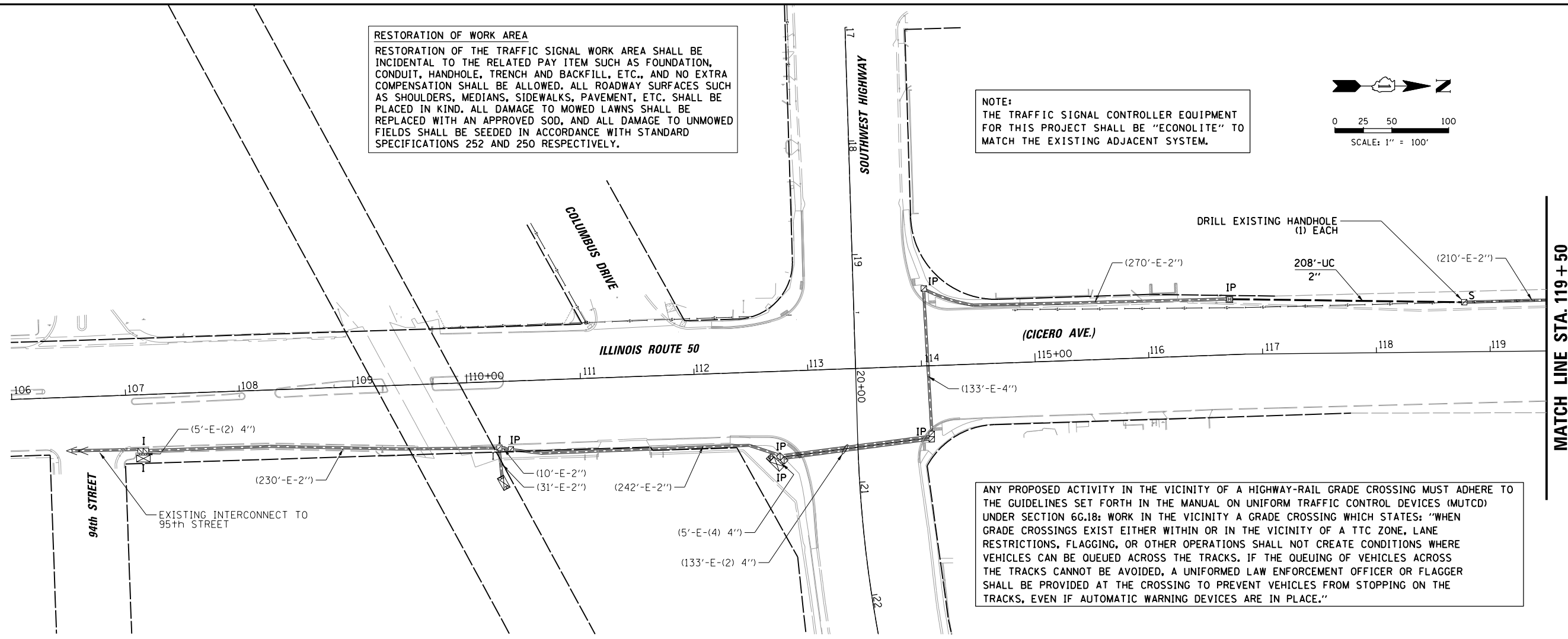
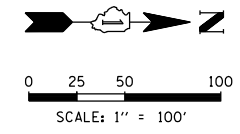


NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

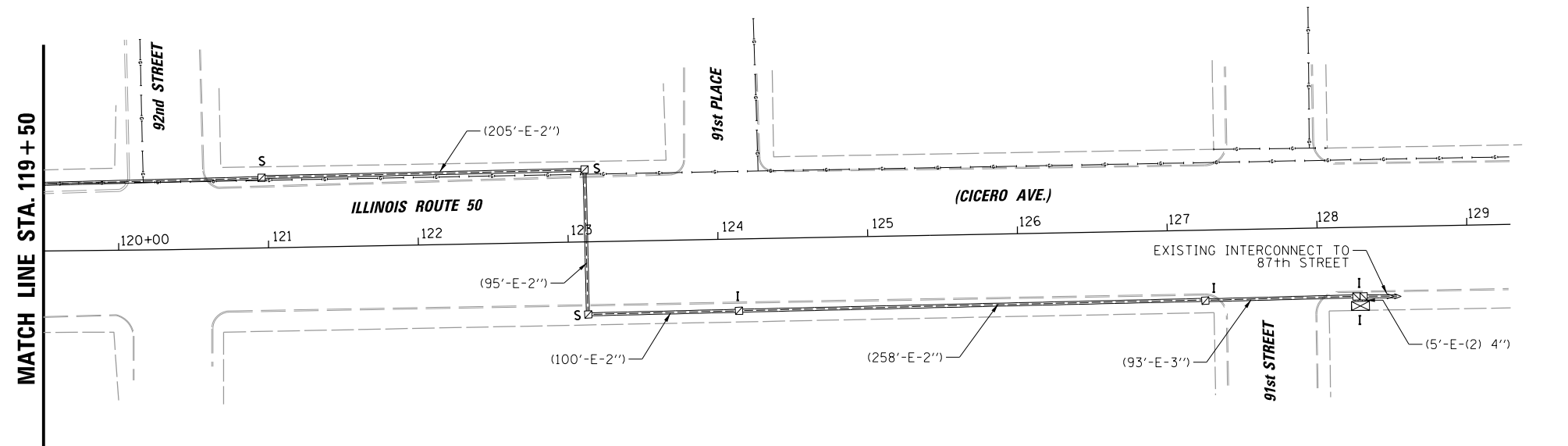
FILE NAME = N:\dot\130116\Work Order 13018 - IL505W	USER NAME = ejensen	DESIGNED - LJ	REVISED -	<b>STATE OF ILLINOIS          DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY INTERCONNECT SCHEMATIC          IL ROUTE 50 (94th STREET TO 91st STREET)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - FPB / FCP	REVISED -			350	461TS-2(13)	COOK	42	29	
		CHECKED - GMZ	REVISED -			CONTRACT NO. 60X25					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		PLOT SCALE = 1/8"		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.	
		PLOT DATE = 12/11/2013									

**RESTORATION OF WORK AREA**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE PLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



ANY PROPOSED ACTIVITY IN THE VICINITY OF A HIGHWAY-RAIL GRADE CROSSING MUST ADHERE TO THE GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) UNDER SECTION 6G.18; WORK IN THE VICINITY A GRADE CROSSING WHICH STATES: "WHEN GRADE CROSSINGS EXIST EITHER WITHIN OR IN THE VICINITY OF A TTC ZONE, LANE RESTRICTIONS, FLAGGING, OR OTHER OPERATIONS SHALL NOT CREATE CONDITIONS WHERE VEHICLES CAN BE QUEUED ACROSS THE TRACKS. IF THE QUEUING OF VEHICLES ACROSS THE TRACKS CANNOT BE AVOIDED, A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER SHALL BE PROVIDED AT THE CROSSING TO PREVENT VEHICLES FROM STOPPING ON THE TRACKS, EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE."



DATE	BY	DATE	BY
DATE	BY	DATE	BY

PLAN  
 SURVEYED  
 ALIGNED  
 RT. OF WAY CHECKED  
 SADDY FILE NAME

ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (647) 923-5930



PROFILE  
 SURVEYED  
 GRADES CHECKED  
 E.L.M. NOTED  
 STRUCTURE NOTATIONS OK'KD

FILE NAME =	USER NAME = ejensen	DESIGNED - LJ	REVISED -
N:\Idot\130116\Work Order 13018 - IL585W	Wg\Traffic\INT_IL50-Swhy.sht	DRAWN - FPB / FCP	REVISED -
	PLOT SCALE = 100'	CHECKED - GMZ	REVISED -
	PLOT DATE = 12/11/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

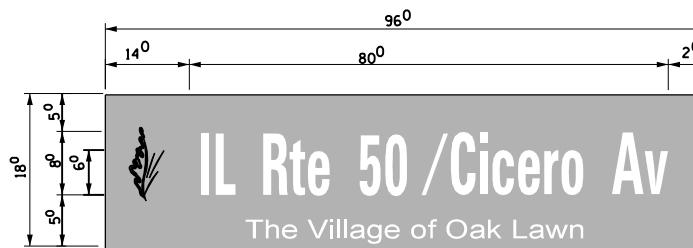
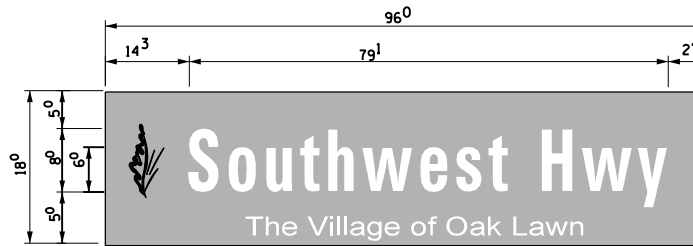
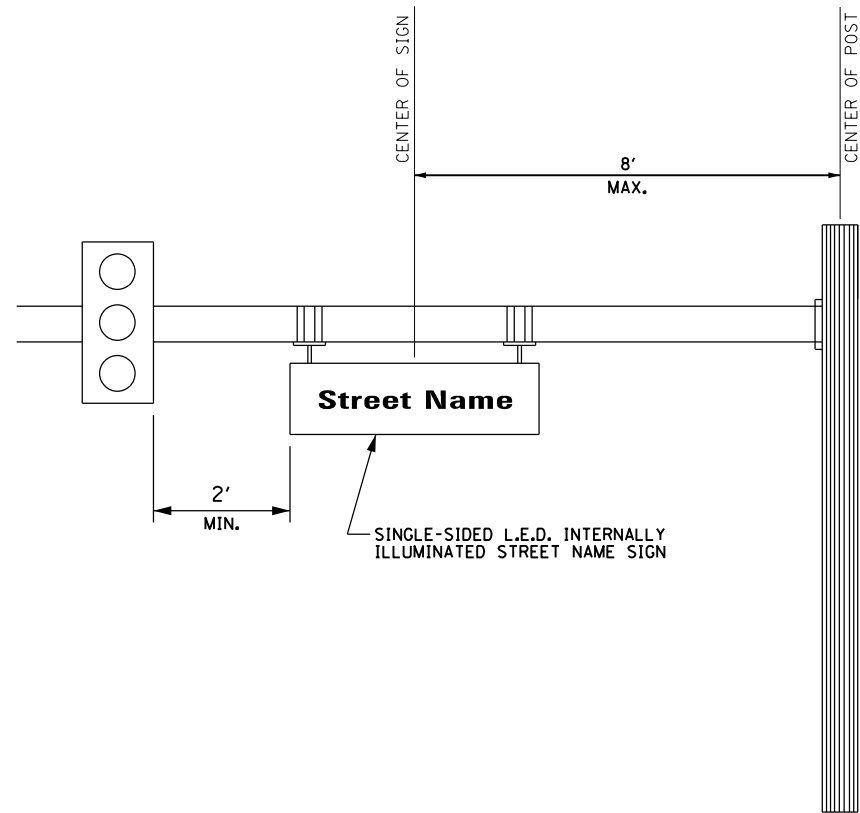
<b>INTERCONNECT PLAN    IL ROUTE 50 (CICERO AVENUE)    FROM 94th STREET TO 91st STREET</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	30
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 60X25





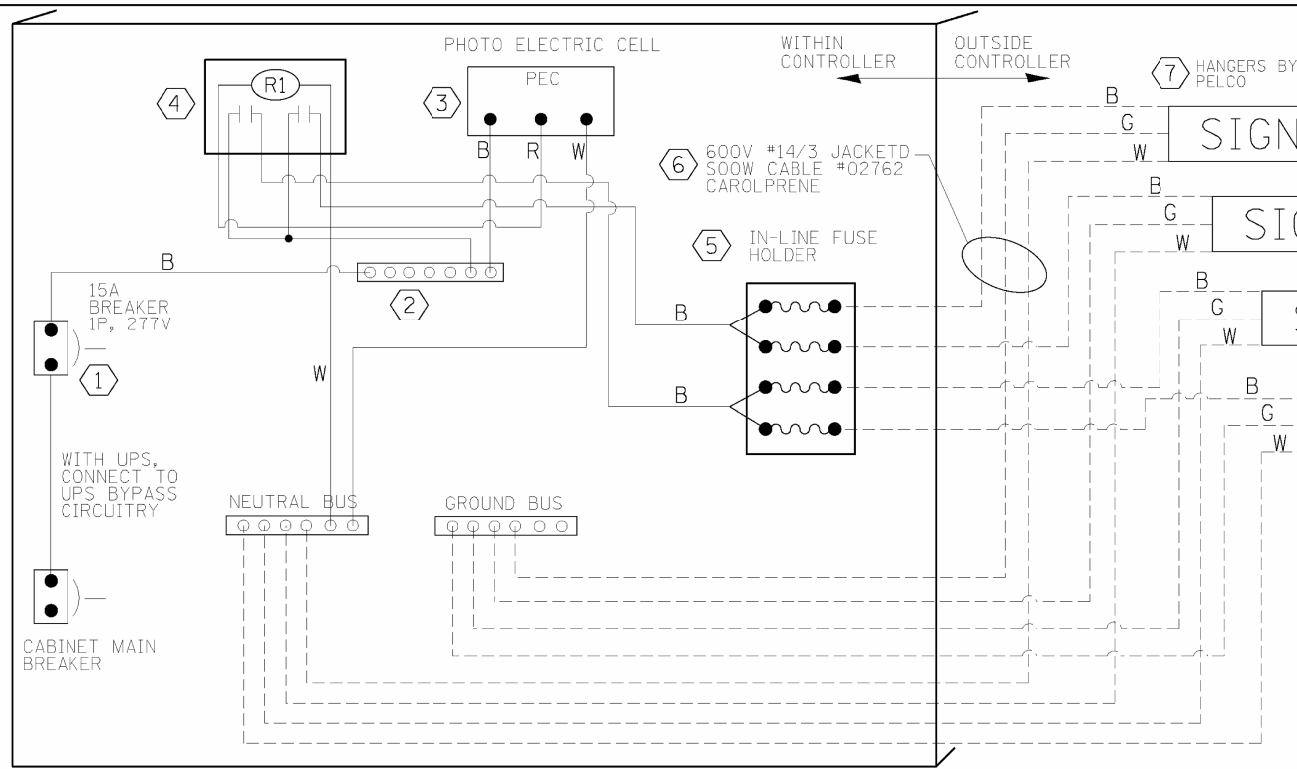


C & D SERIES FHWA STANDARD ALPHABET  
 8" LOGO IN GREEN EC FILM OVER 3M DIAMOND GRADE TRANSLUCENT (DC<sup>3</sup> SERIES)  
 PRODUCT CODE 4090T REFLECTIVE MATERIAL

**ILLUMINATED SIGNS**

SIGN DIMENSIONS	SIGN NAME	SIGN WATTAGE	QUANTITY
8'-0"	Southwest Hwy	45	2
8'-0"	IL Rte 50/Cicero Av	45	2

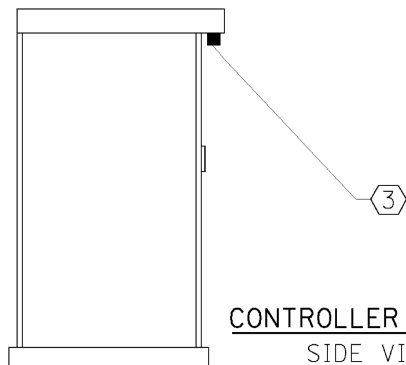
1. THIS SHEET FOR INFORMATION ONLY.  
TO BE USED WITH INTERNALLY ILLUMINATED STREET NAME SIGNS  
MANUFACTURED BY TRAFFIC SIGNS, INC., OR APPROVED EQUAL.
2. SIGNS SHALL BE SINGLE SIDED AND PLACED ON THE MAST ARM AS  
INDICATED IN THE PLANS.



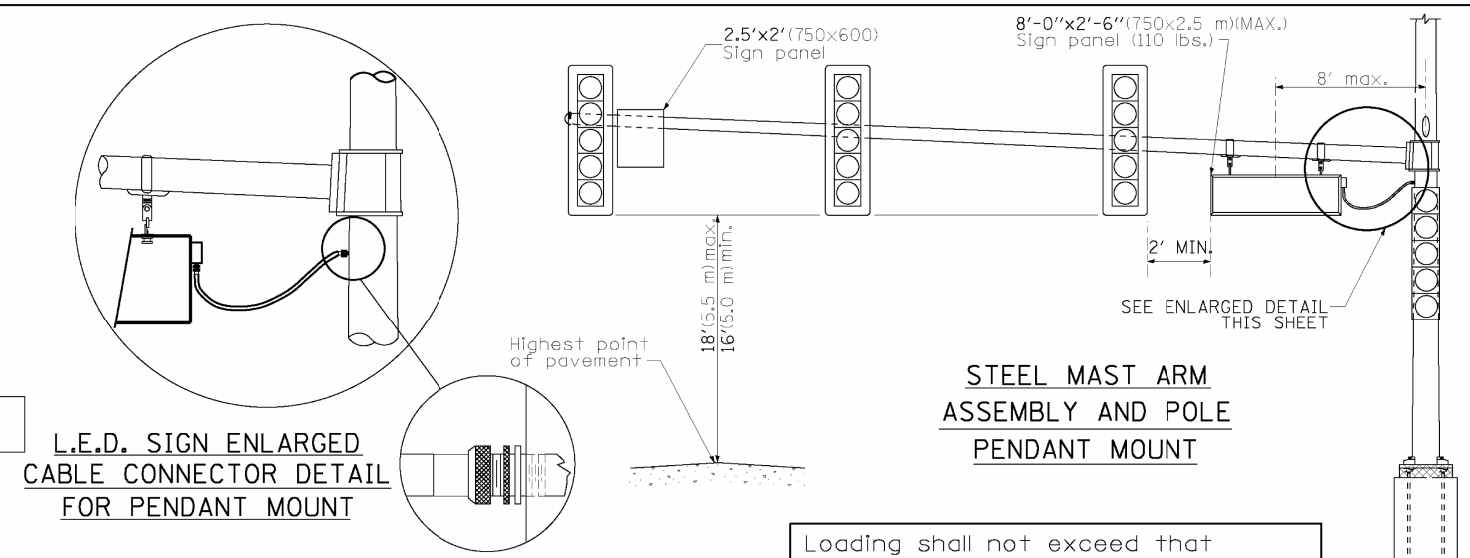
LED SIGN WIRING DETAIL

BILL OF MATERIALS

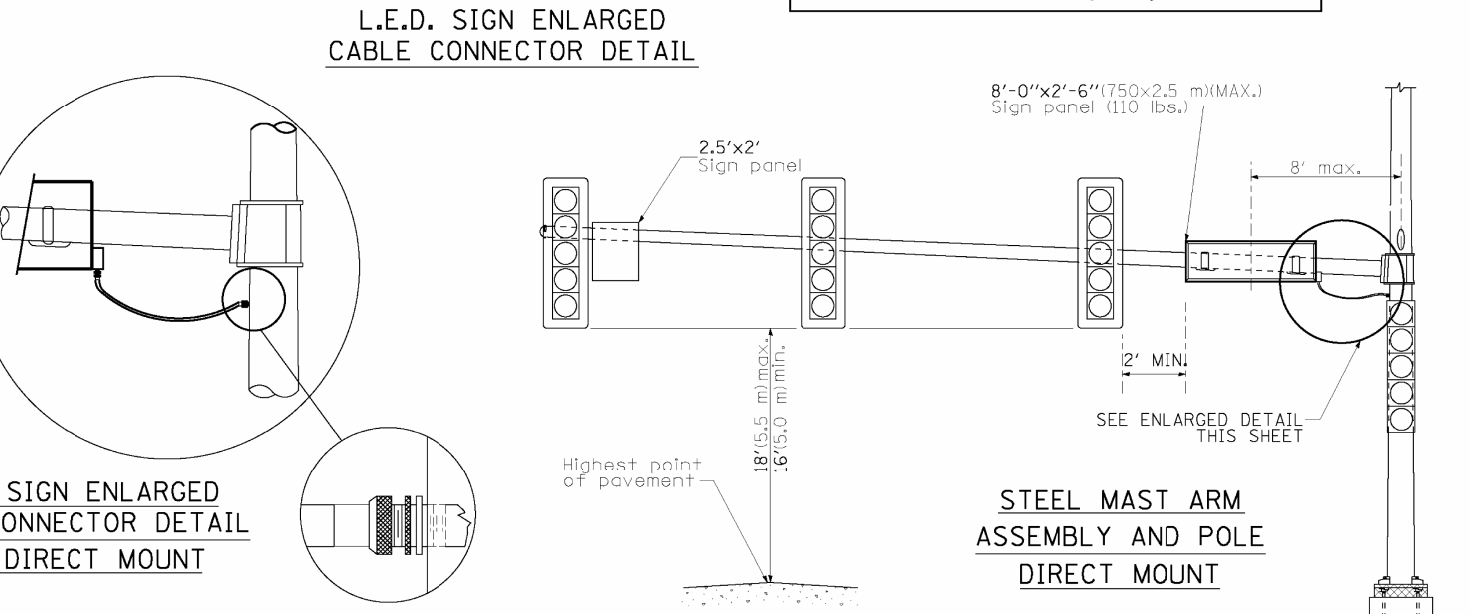
DESCRIPTION	MANUFACTURER	MODEL	NOTES
① CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag. min. R.I. of 14K R.M.S. symmetrical ampere at 277V.
② TERMINAL BLOCK	MARATHON	1502 DJSV	
③ PHOTO ELECTRIC CONTROL	FISHER PIERCE	B124-1.5-07762	
④ CONTROL RELAY	SQUARE D	8501X020V02	BOLT ON W/SCREW TERMINAL
⑤ INLINE FUSE HOLDER WITH 5 AMP FUSE	BUSSMAN	S-8000 BK/S-8-3-4-R	
⑥ ELECTRIC CABLE, NO. 14, 3/C (BLACK, WHITE, GREEN)	CAROLPRENE/S00W	02762	
⑦ SIGN MOUNTING HARDWARE	PELCO	Pendant (SE-5015) Direct mount (AB-0104-L-SP) Additional sign stiffeners may be required for direct mounted signs.	S.S. HARDWARE



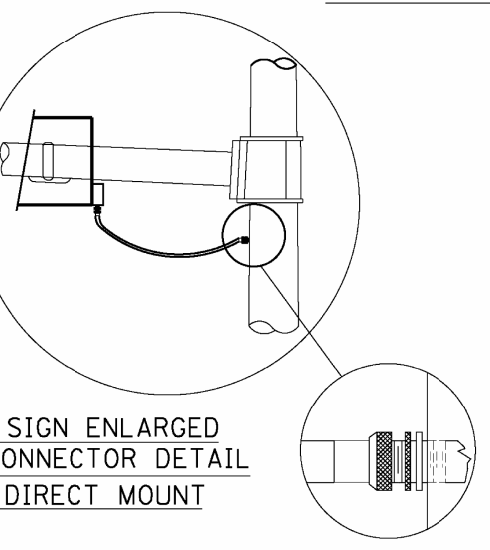
CONTROLLER CABINET SIDE VIEW



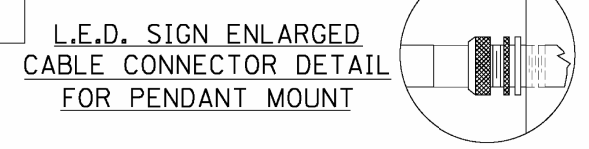
STEEL MAST ARM ASSEMBLY AND POLE PENDANT MOUNT



STEEL MAST ARM ASSEMBLY AND POLE DIRECT MOUNT



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL FOR DIRECT MOUNT



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL FOR PENDANT MOUNT

L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



LED ILLUMINATED SIGN PANEL

8'0 x 2'6" (750 mm x 2.5 mm)(MAX)  
C or D FONT

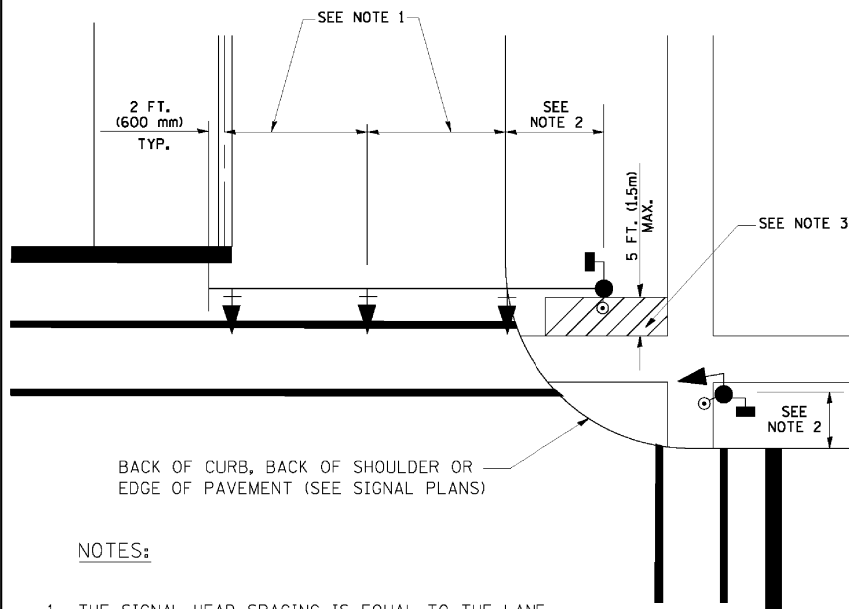
NOTES:

- SIGNS SHALL BE SINGLE SIDED FOR DIRECT MOUNT AND DOUBLE SIDED FOR PENDANT MOUNT.
- CERTAIN ADDITIONAL INFORMATION MAY BE ALLOWED ON THE SIGN. VERIFY WITH ENGINEER.
- SIGNS SHALL NOT BE ENERGIZED WHEN TRAFFIC SIGNALS ARE POWERED BY THE UPS. THE SIGNS SHALL BE CONNECTED TO THE UPS BYPASS CIRCUITRY.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:  
R = RED      BL = BLUE      W = WHITE  
B = BLACK      Y = YELLOW      G = GREEN
- ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #14AWG STRANDED UNLESS OTHERWISE INDICATED.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

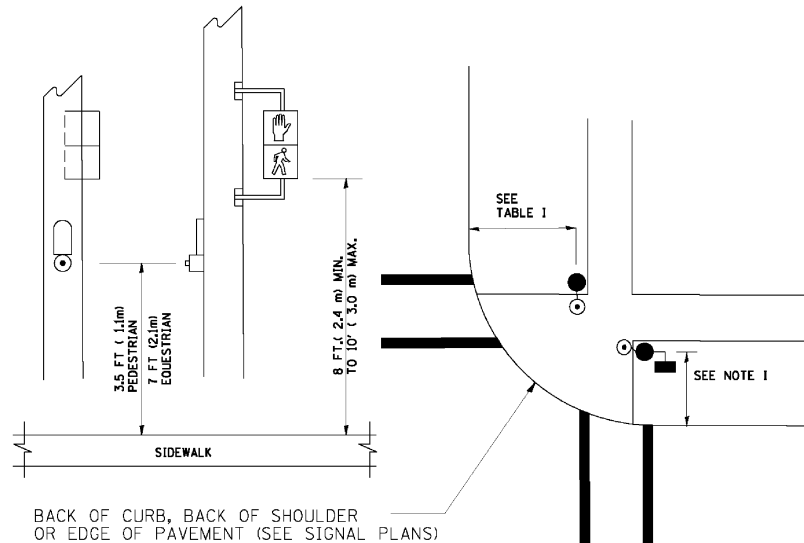
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

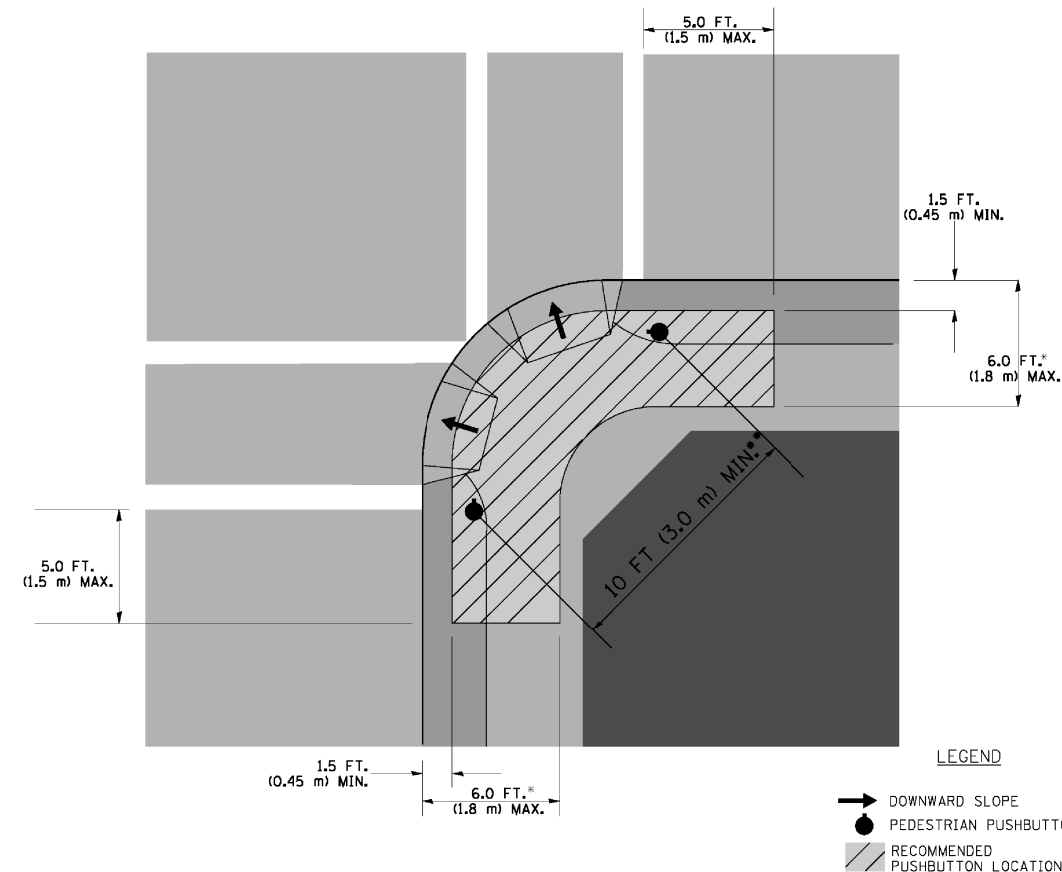
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

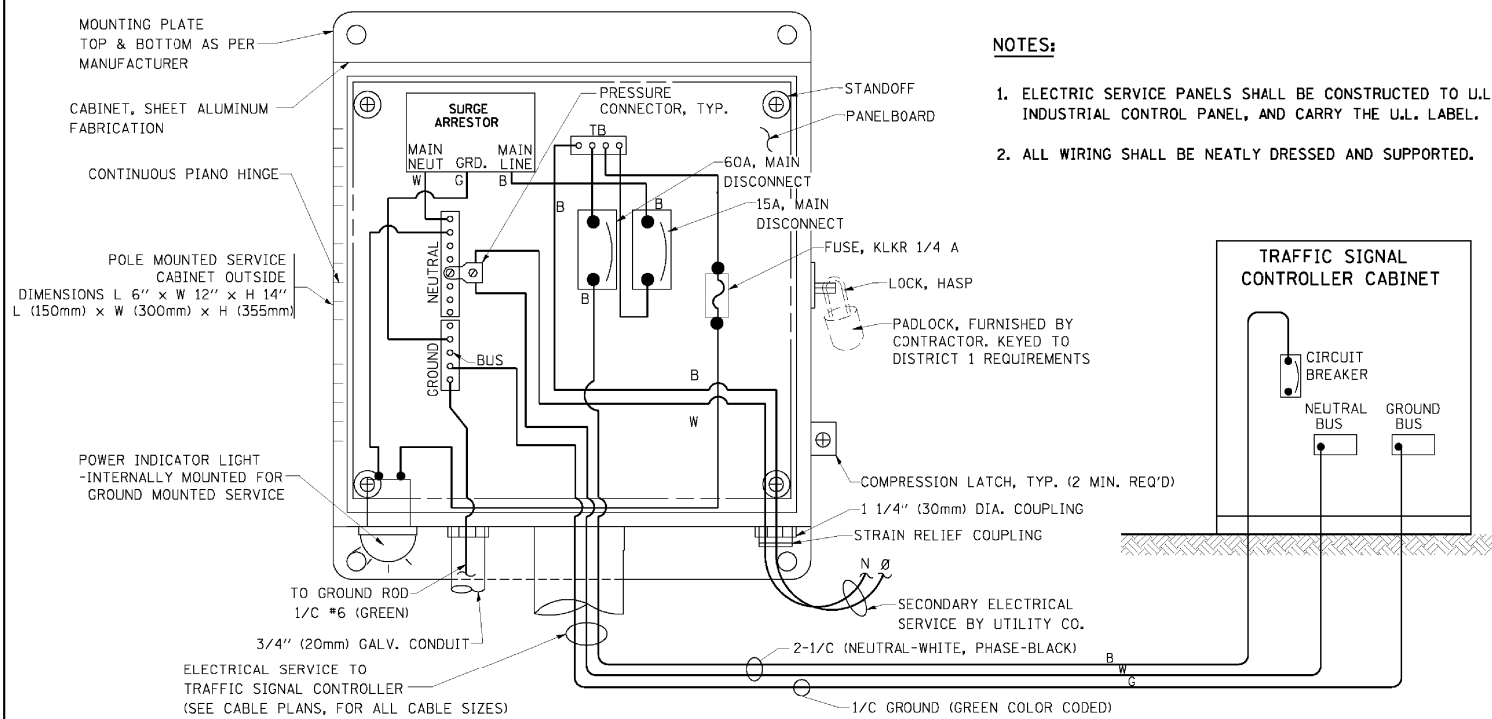
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

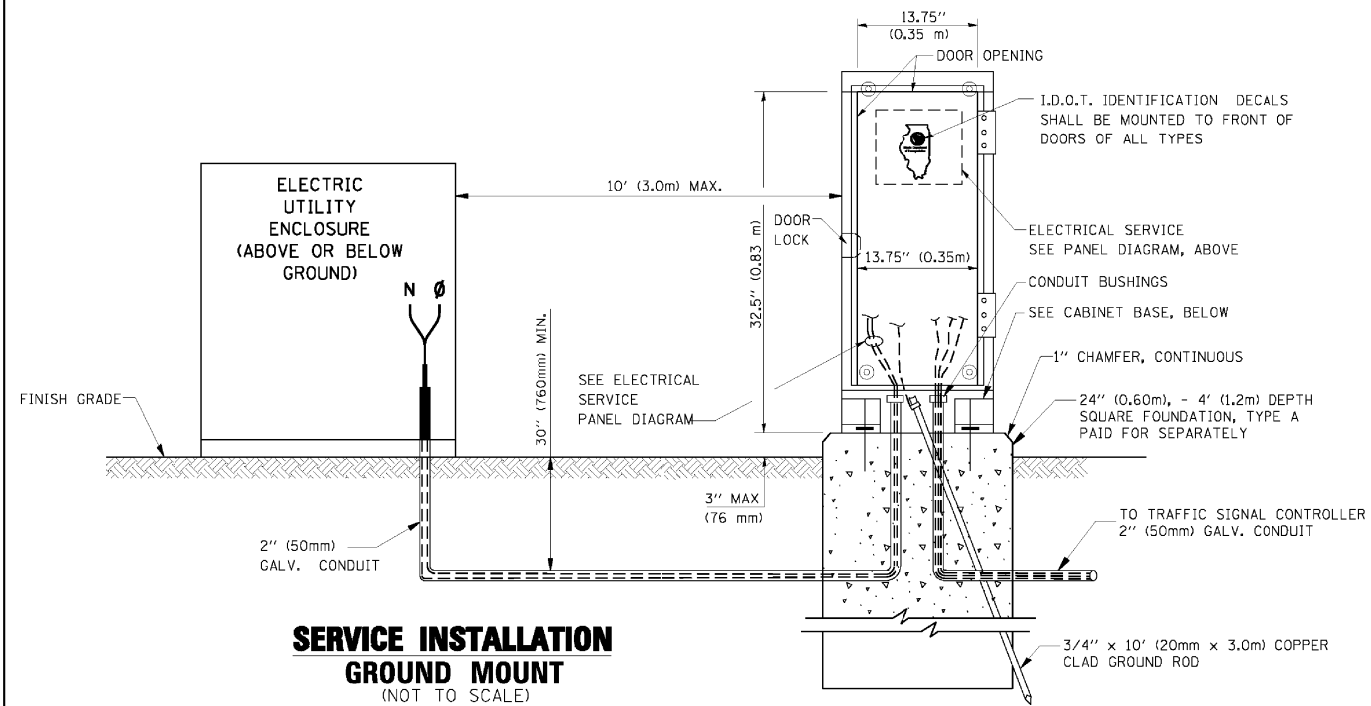
**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



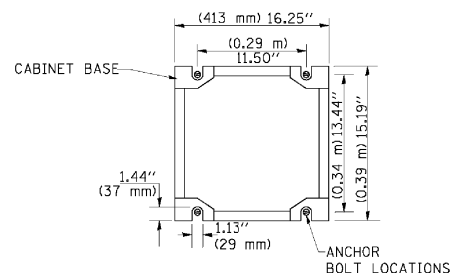
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**

**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
(NOT TO SCALE)



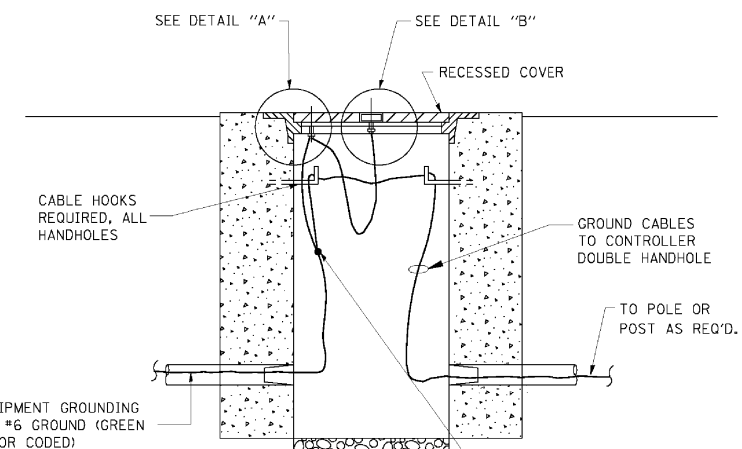
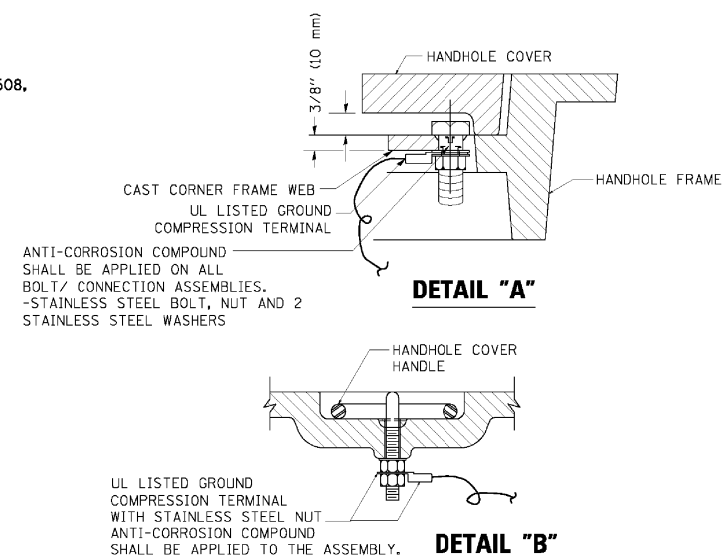
**SERVICE INSTALLATION GROUND MOUNT**  
(NOT TO SCALE)

**CABINET - BASE BOLT PATTERN**  
(NOT TO SCALE)

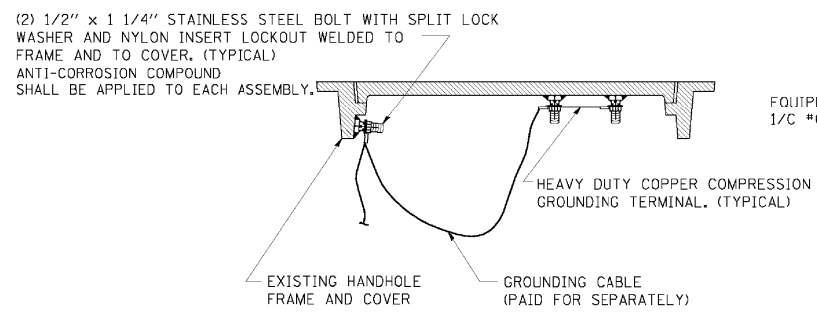


**NOTES:**

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
(NOT TO SCALE)

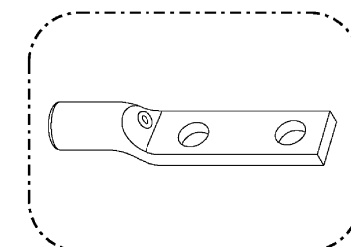


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
(NOT TO SCALE)

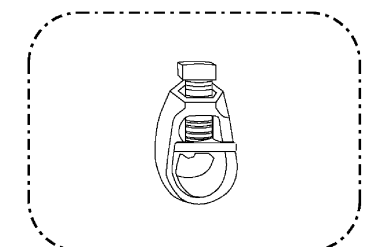
**NOTES:**

**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



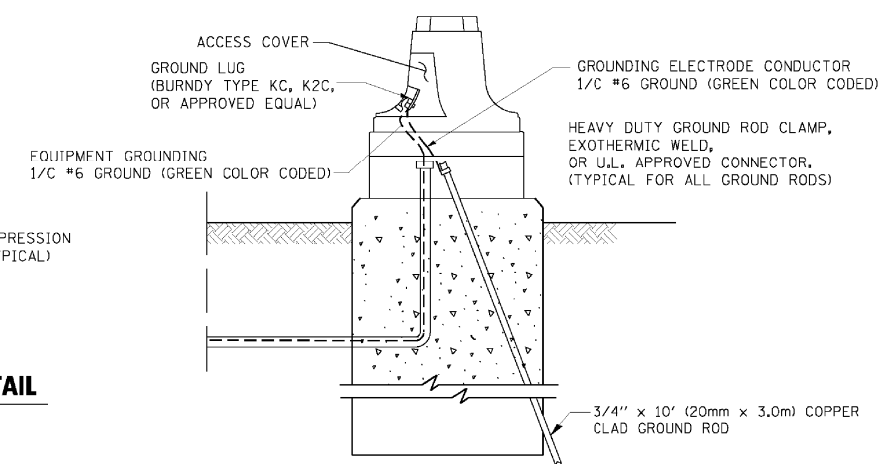
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**MAST ARM POLE / POST-GROUNDING DETAIL**  
(NOT TO SCALE)

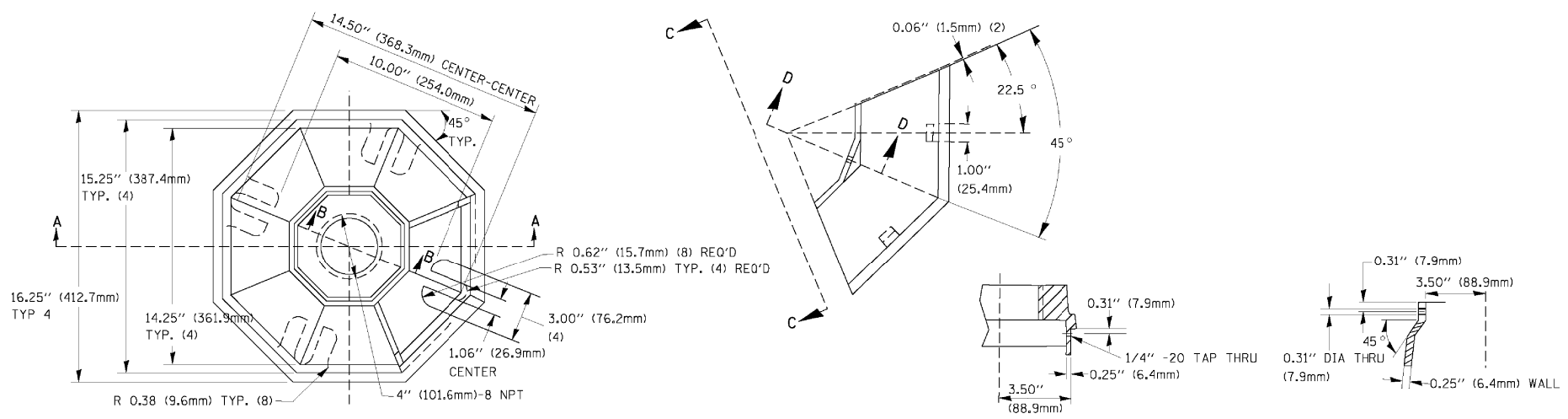
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		CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

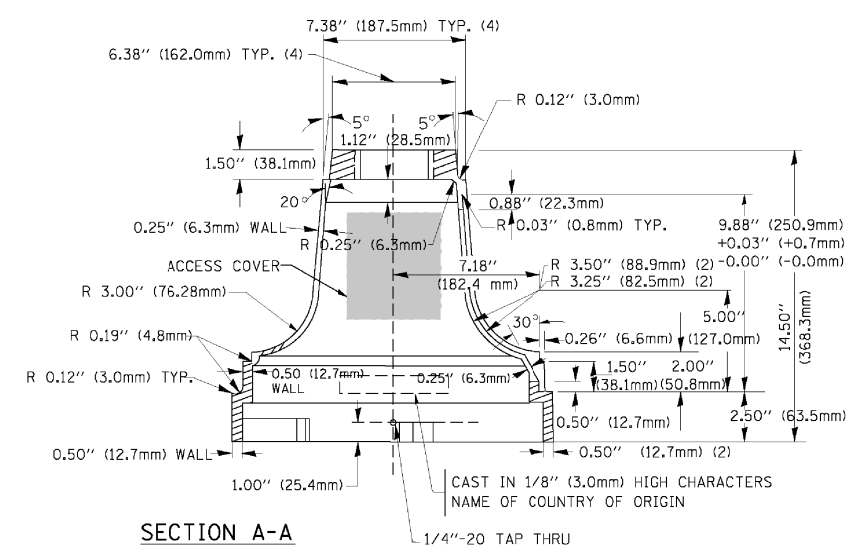
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	36
<b>TS-05</b>		CONTRACT NO.60X25		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



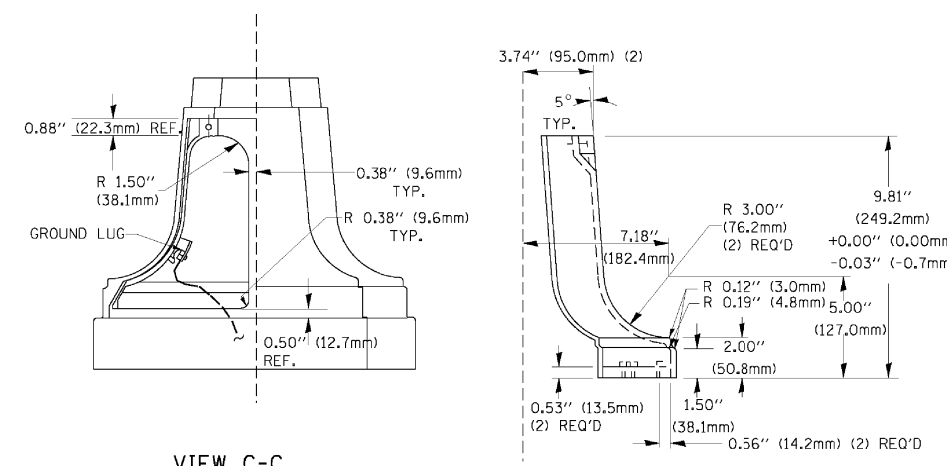
TOP VIEW

SECTION B-B

SECTION D-D

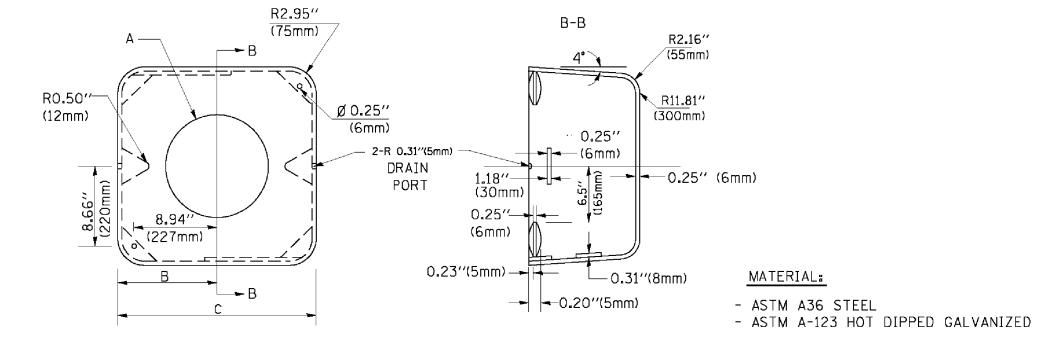


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

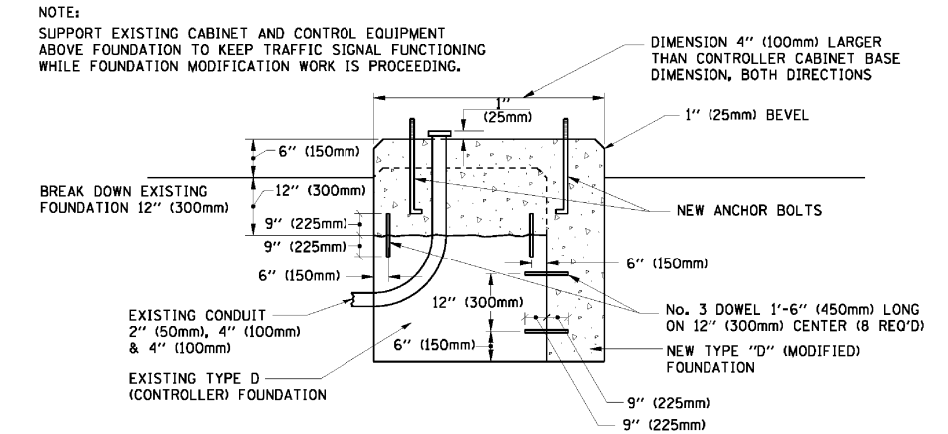


SHROUD

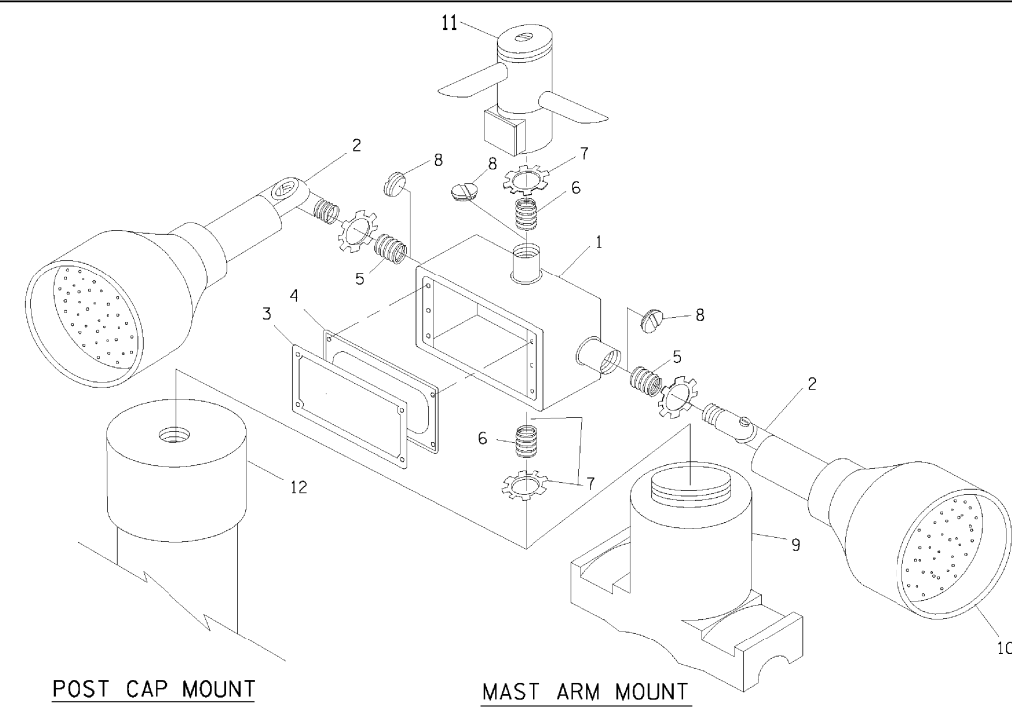
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIABLES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIABLES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIABLES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126 lbs (57 kg)

NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



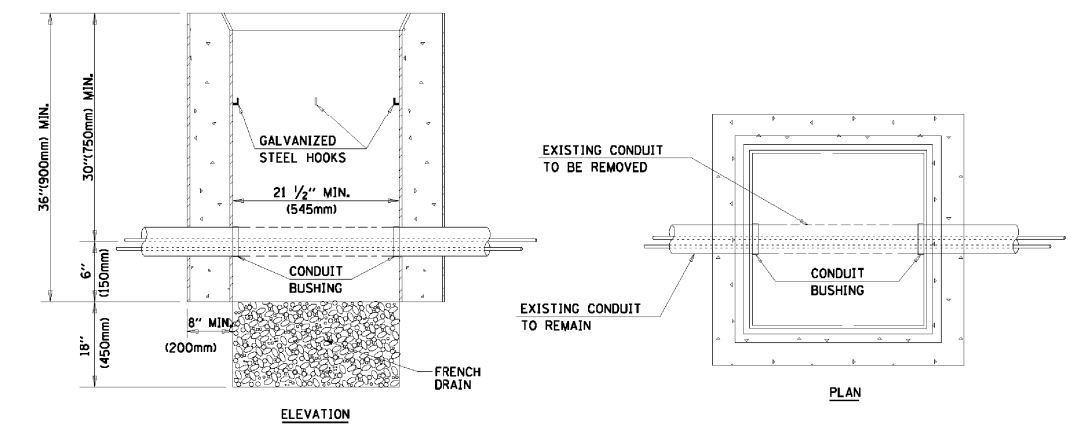
MODIFY EXISTING TYPE "D" FOUNDATION



ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

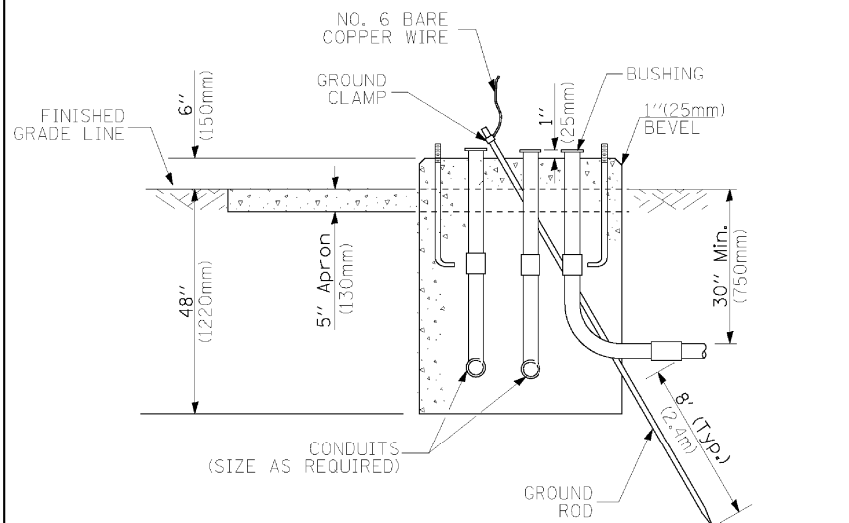
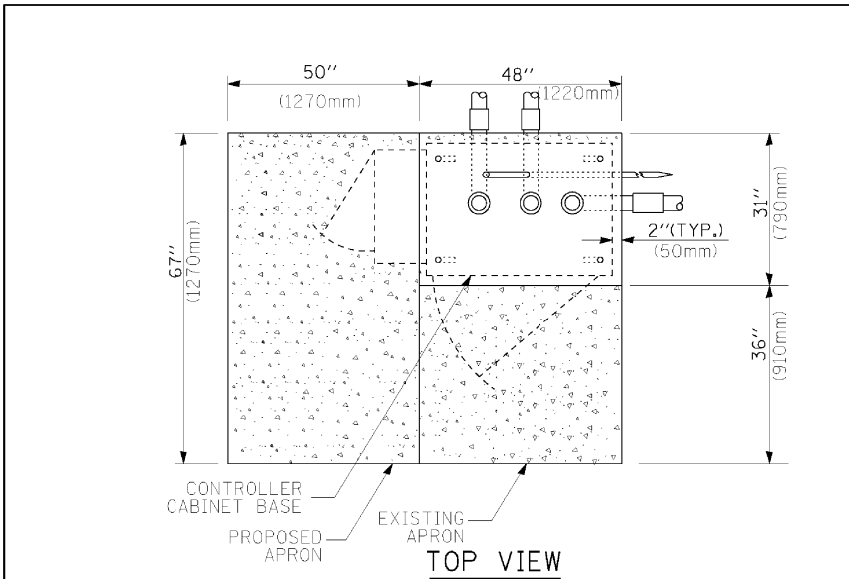
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



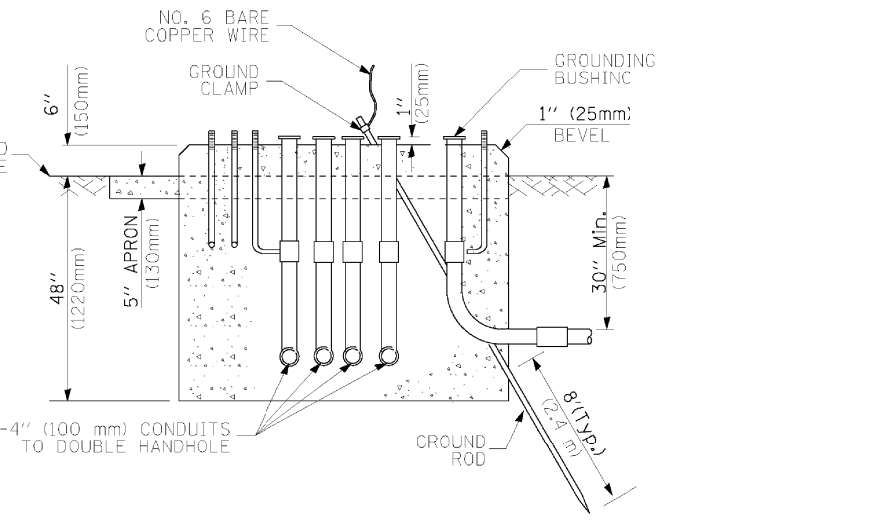
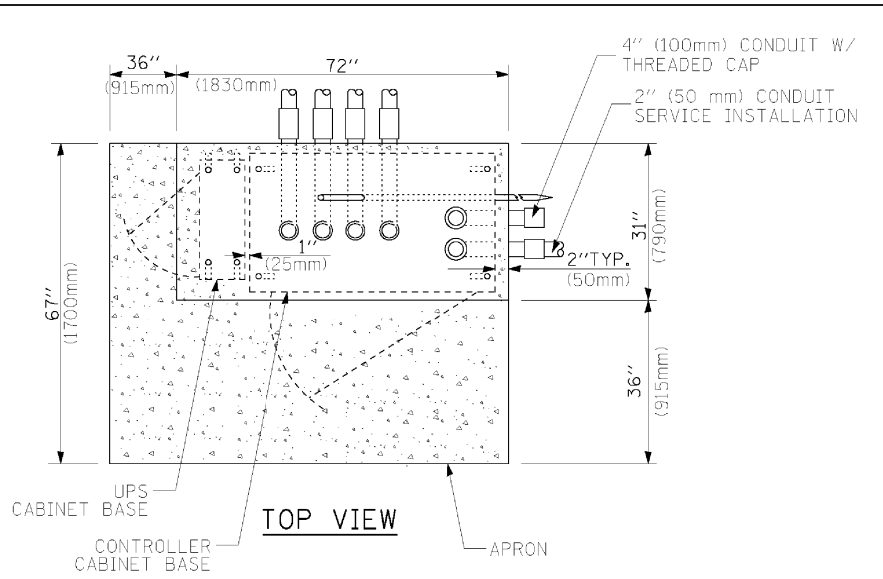
NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

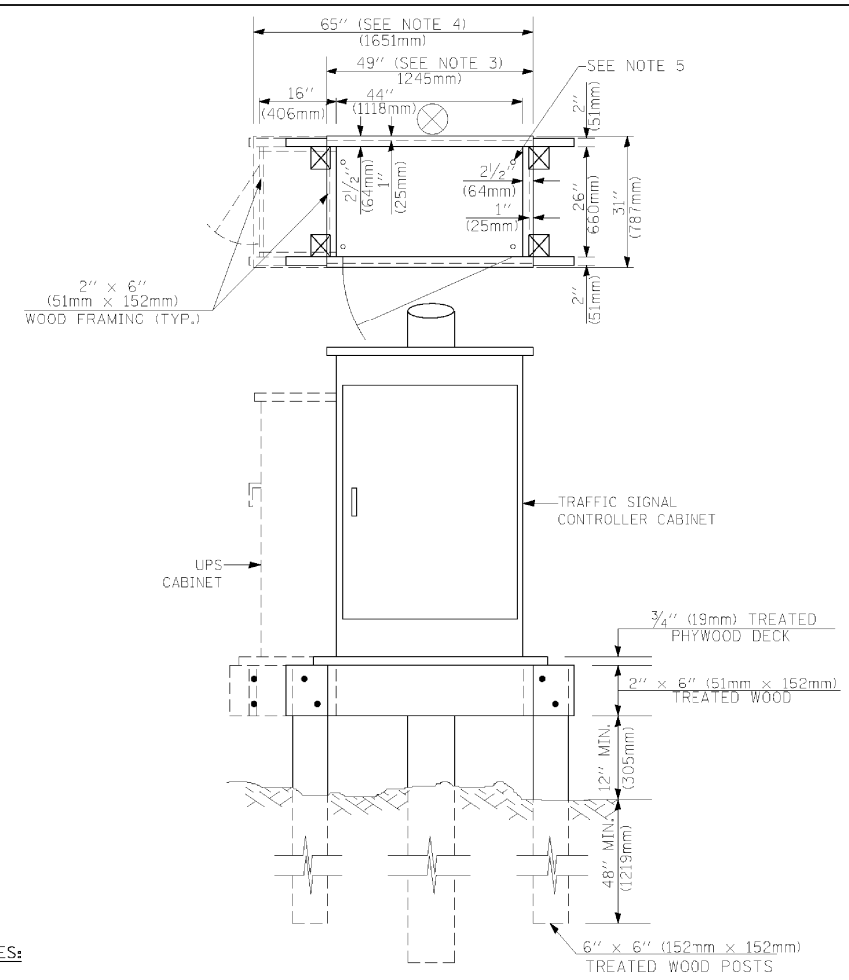
HANDHOLE TO INTERCEPT EXISTING CONDUIT



**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TYPE C  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

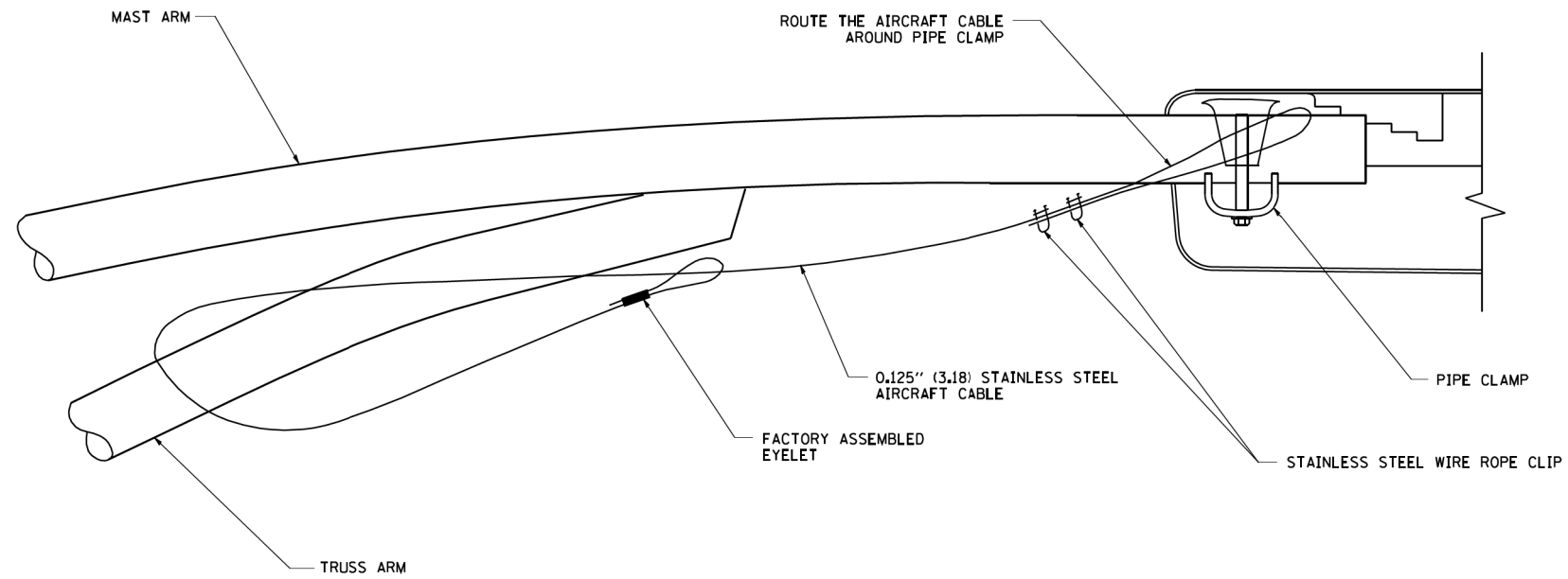
- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
  - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  - For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

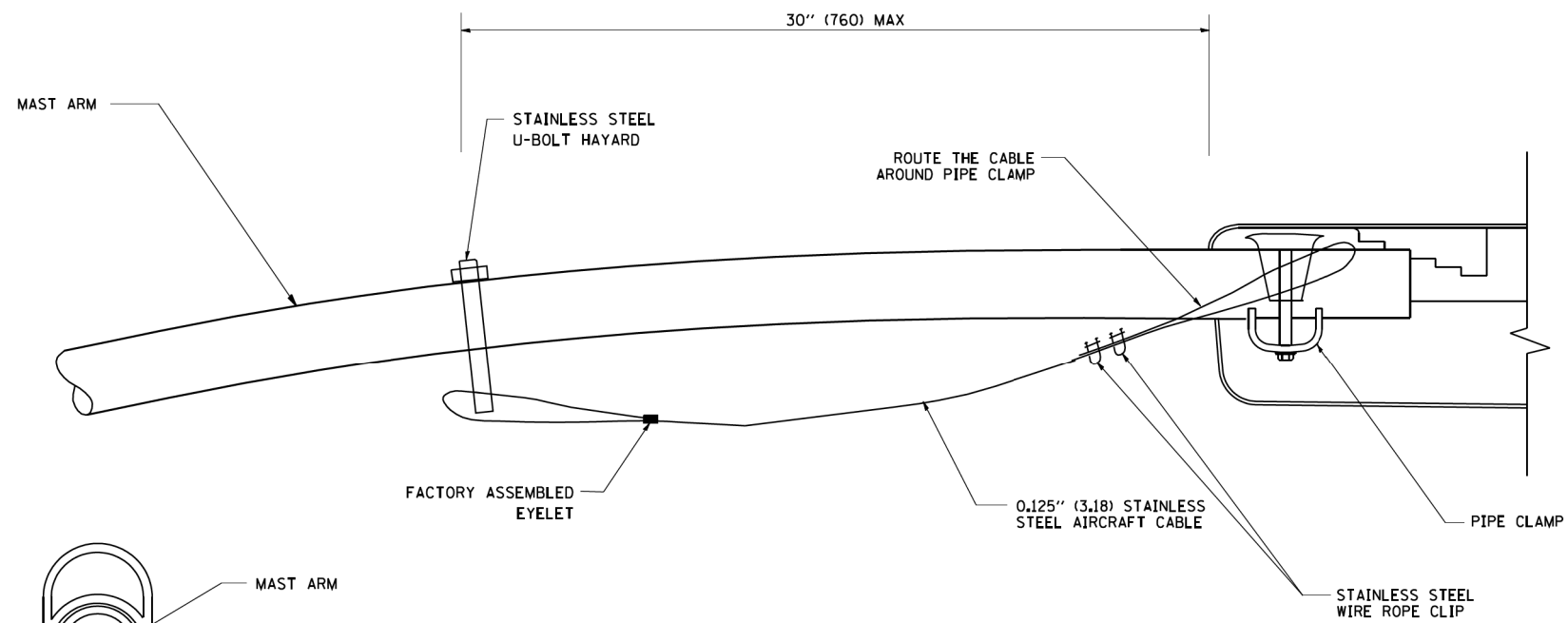
# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM21F			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			SIGNAL POST AND FOUNDATION TO BE REMOVED			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				<b>RAILROAD SYMBOLS</b>			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				FLASHING SIGNAL			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSING GATE			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				CROSSBUCK			
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

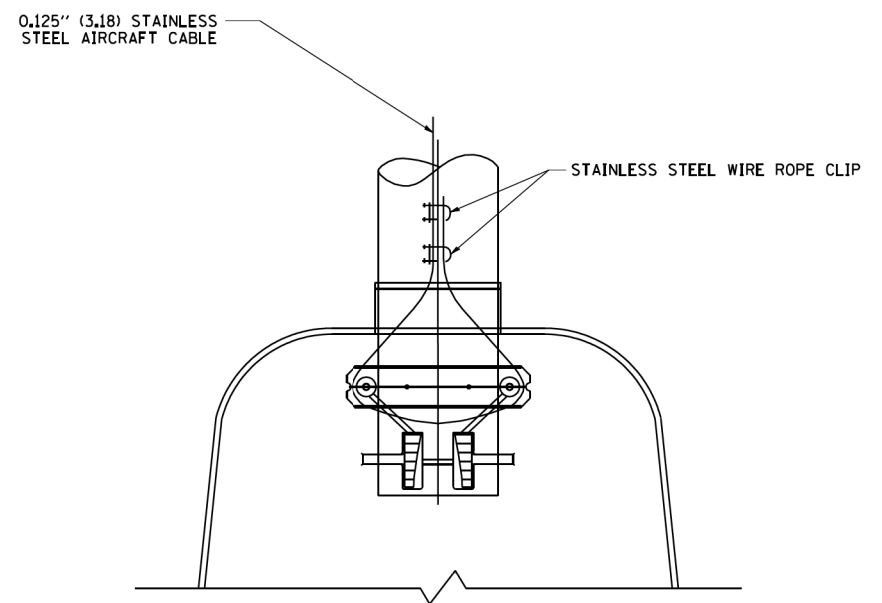
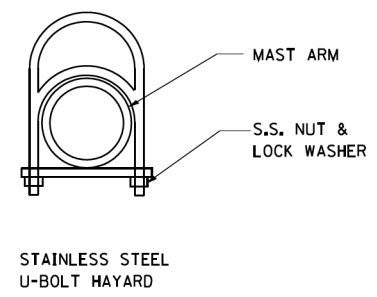




**SIDE VIEW (TRUSS ARM)**  
N.T.S.



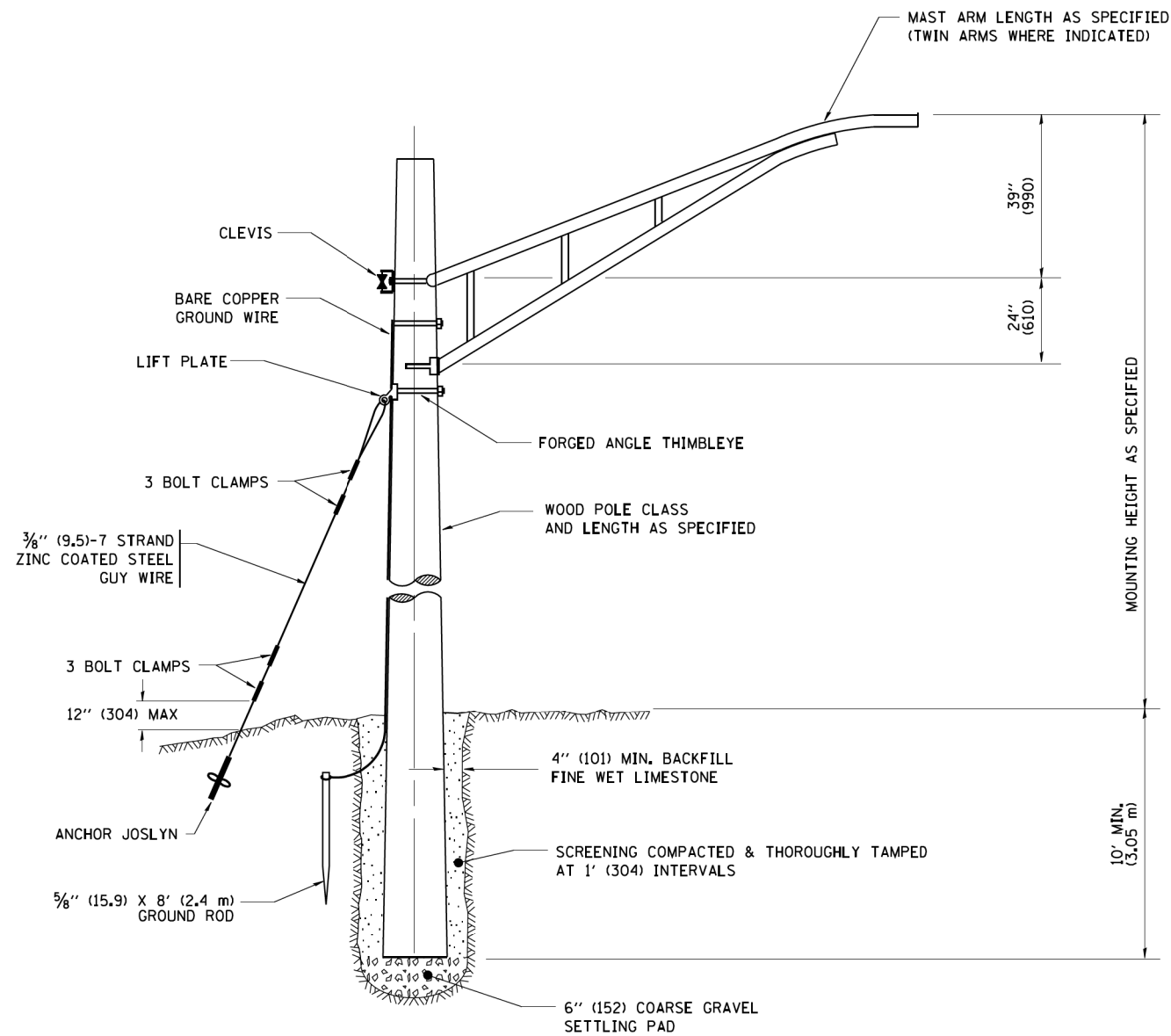
**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
N.T.S.



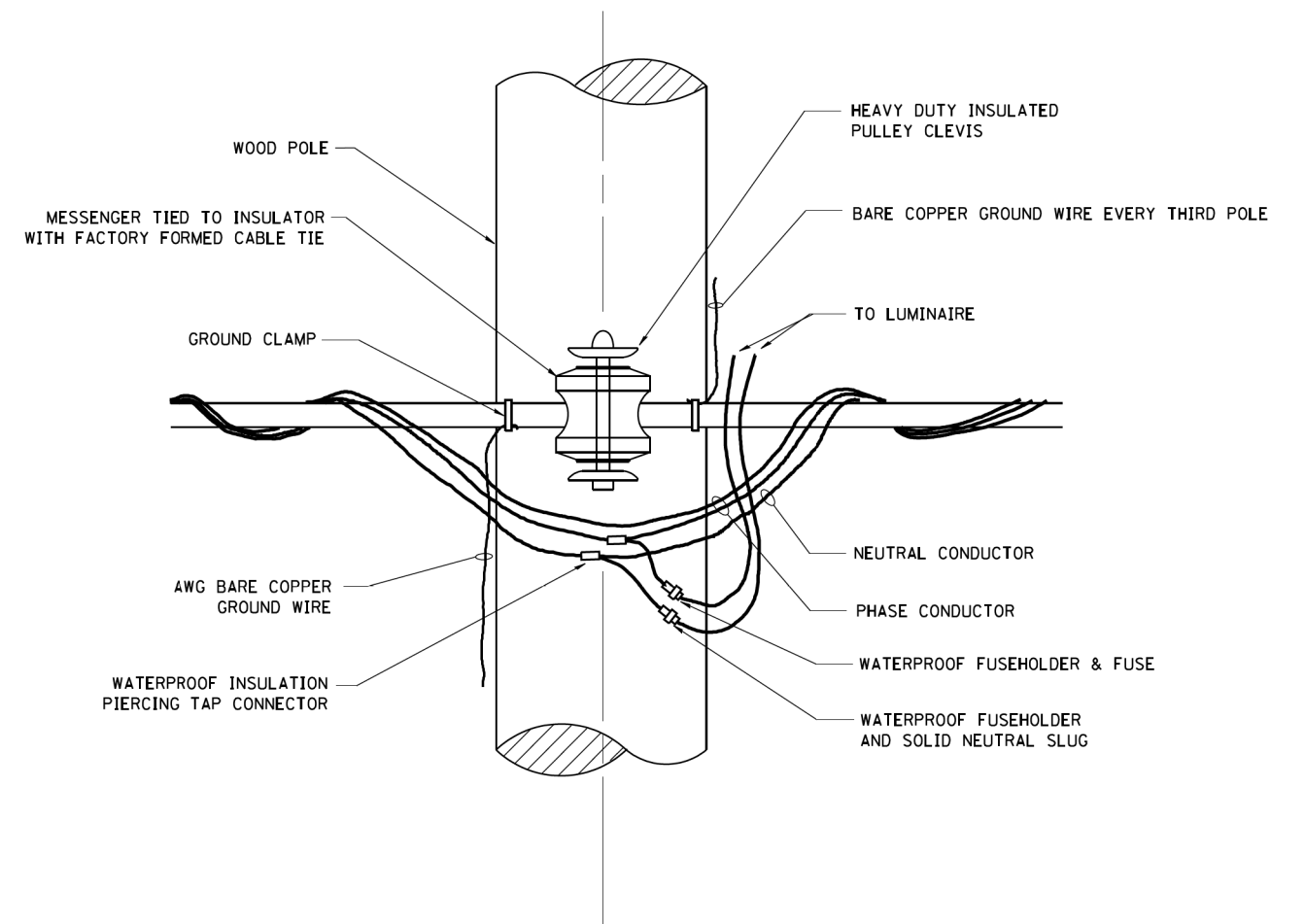
**BOTTOM VIEW**  
N.T.S.

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
  2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
  3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
  4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

FILE NAME = W:\diststd\22x34\be701.dgn	USER NAME = gegl1enobt	DESIGNED -	REVISED - 08-08-03	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LUMINAIRE SAFETY CABLE ASSEMBLY</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -					350	461TS-2(13)	COOK	42	39A
PLOT DATE = 1/4/2008	DATE -	REVISED -	REVISED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BE-701</b>		CONTRACT NO. 60X25		
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TEMPORARY LIGHT POLE DETAIL

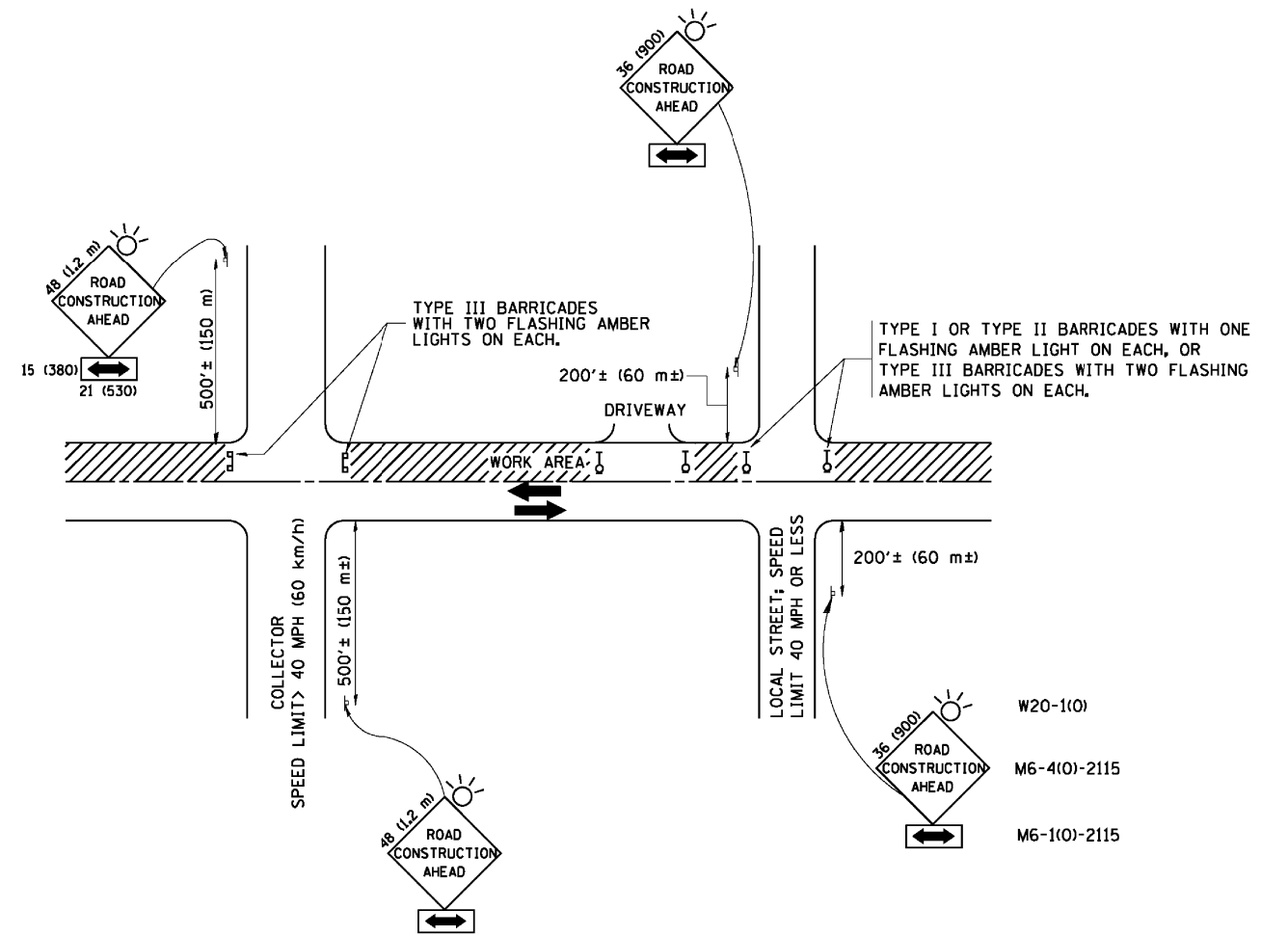


TEMPORARY LIGHT POLE ATTACHMENT DETAIL

**NOTES:**

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

FILE NAME = W:\distad\22x34\be800.dgn	USER NAME = geglennobt	DESIGNED -	REVISED - 08-08-03	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY LIGHT POLE DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



## TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

### NOTES:

#### A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

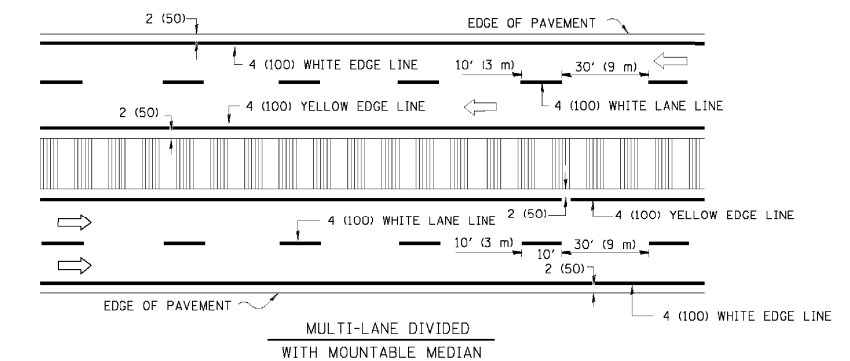
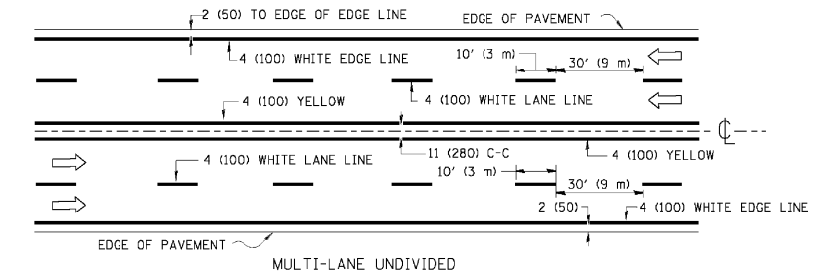
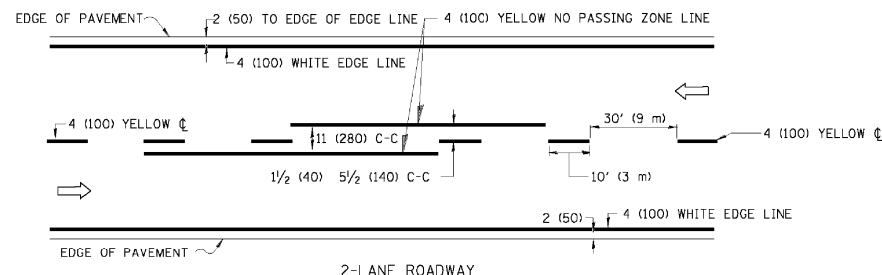
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	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

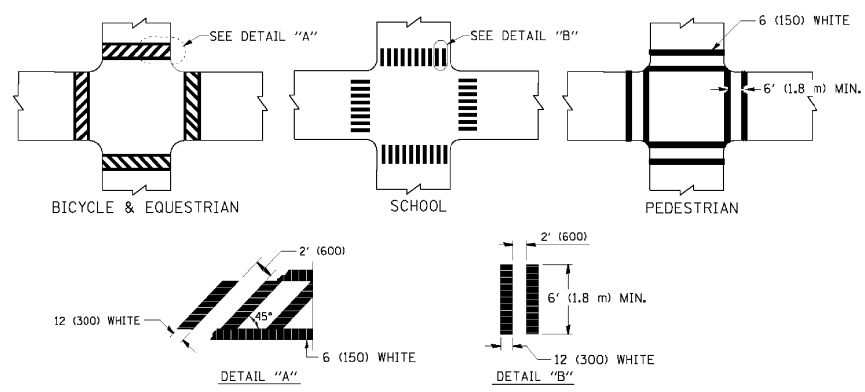
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	461TS-2(13)	COOK	42	40
TC-10		CONTRACT NO. 60X25		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

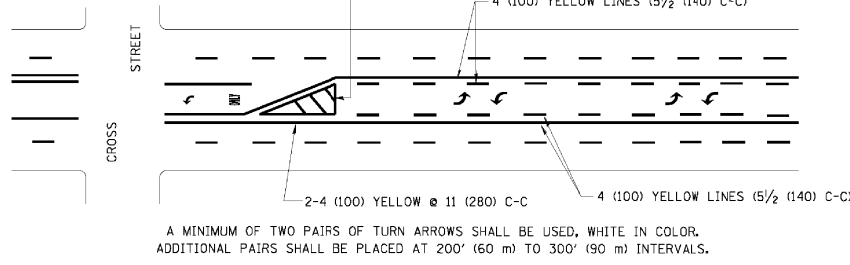
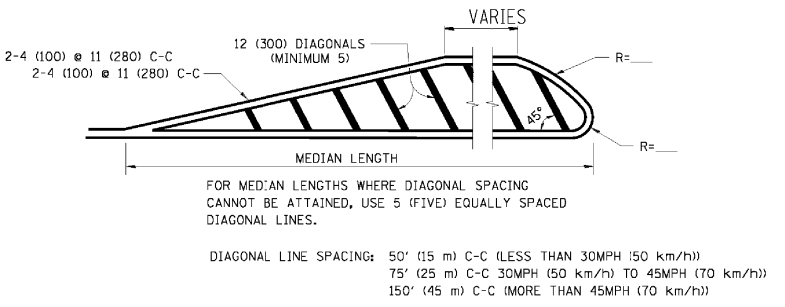
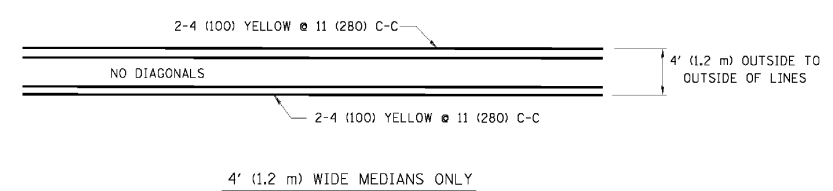


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

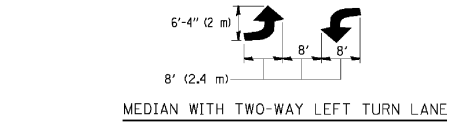
**TYPICAL LANE AND EDGE LINE MARKING**



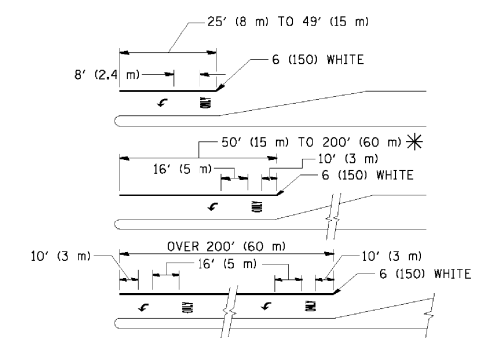
**TYPICAL CROSSWALK MARKING**



**TYPICAL PAINTED MEDIAN MARKING**



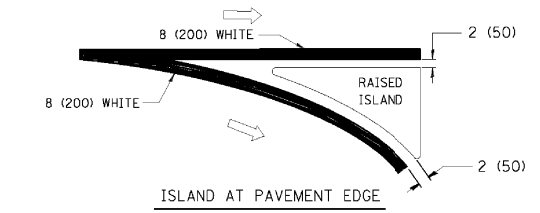
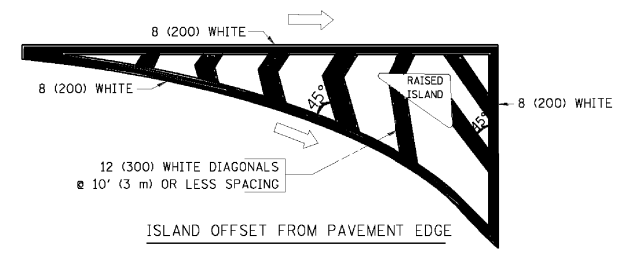
**MEDIAN WITH TWO-WAY LEFT TURN LANE**



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

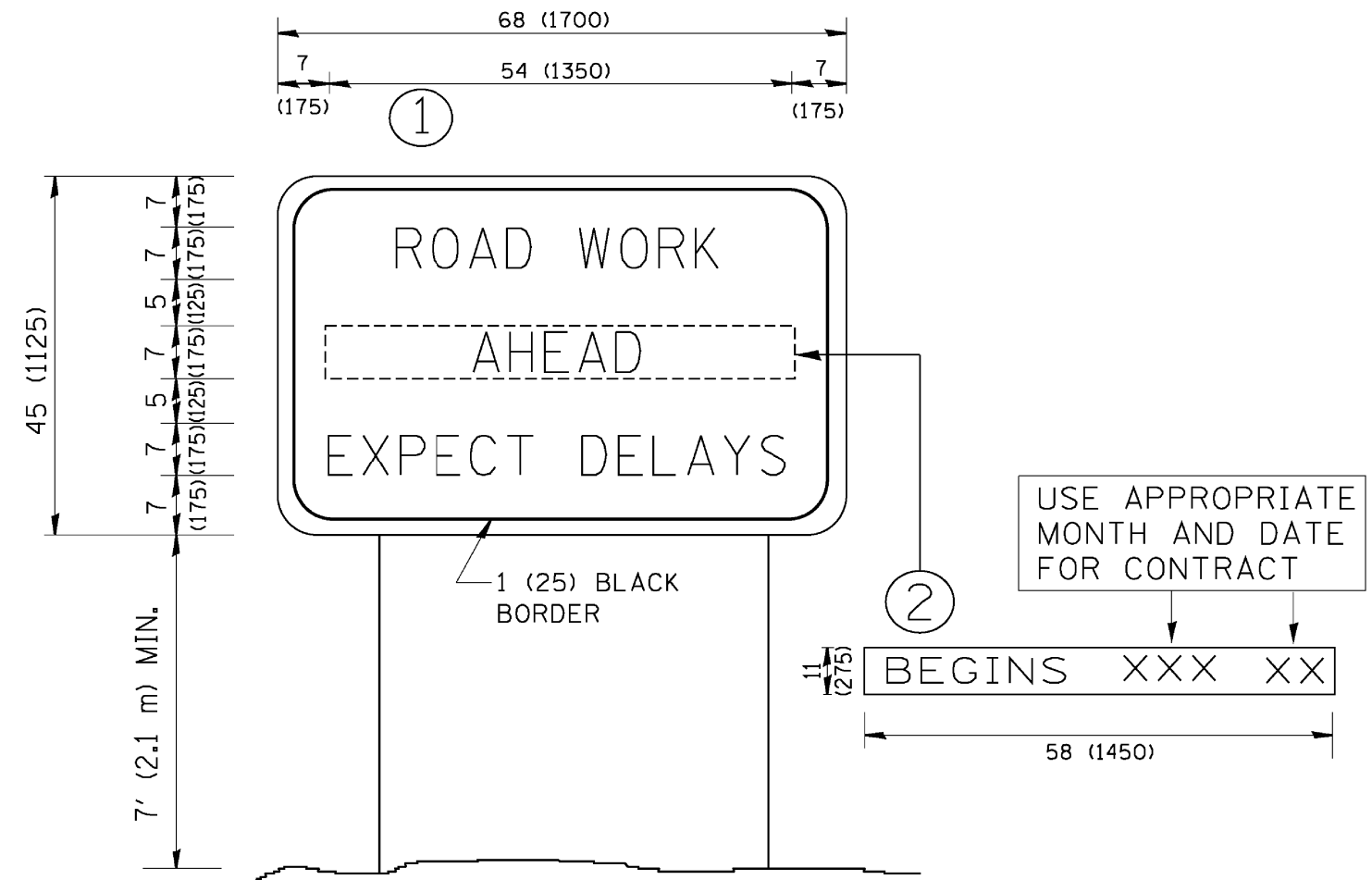


**TYPICAL ISLAND MARKING**

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl1enobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97 REVISED - R. MIRS 12-11-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	350	461TS-2(13)	COOK	42 42
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		TC-22		CONTRACT NO. 60X25		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			