

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	1
		ILLINOIS	CONTRACT NO. 62J06	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

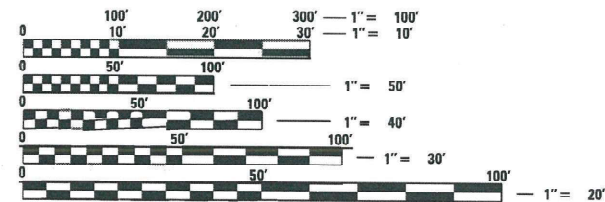
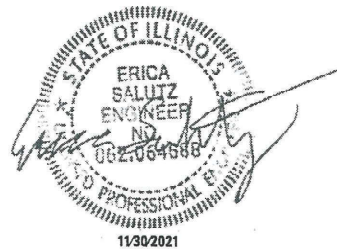
PROJECT LOCATED IN THE  
CITY OF NORTH CHICAGO

# PROPOSED HIGHWAY PLANS

FAU ROUTE 2711: IL RTE 131 (GREEN BAY RD)  
AT AUDREY NIXON BLVD /CASIMIR PULASKI DR  
SECTION: 2019-028-TS  
PROJECT: HSIP-ZAI0(651)  
TRAFFIC SIGNAL MODERNIZATION  
LAKE COUNTY

IL RTE 131 (GREEN BAY RD)  
URBAN MINOR ARTERIAL  
AADT: 27,000  
SPEED LIMIT: 45 MPH

AUDREY NIXON BLVD /CASIMIR PULASKI DR  
MINOR ARTERIAL  
AADT: 9,400 VPD  
SPEED LIMIT: 30 MPH



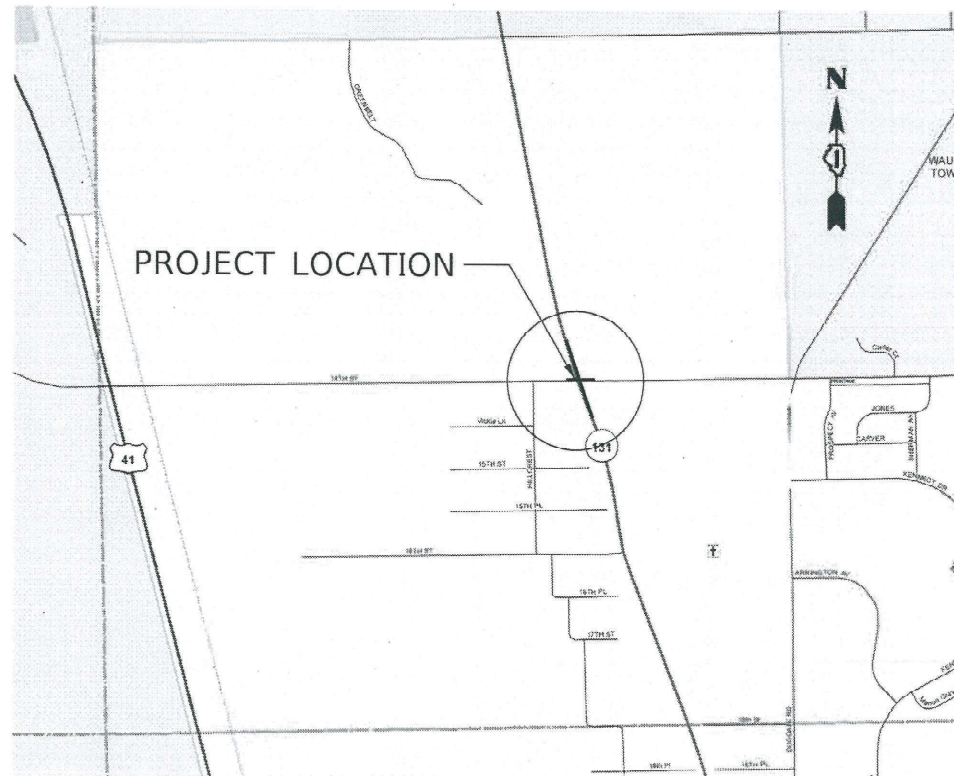
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

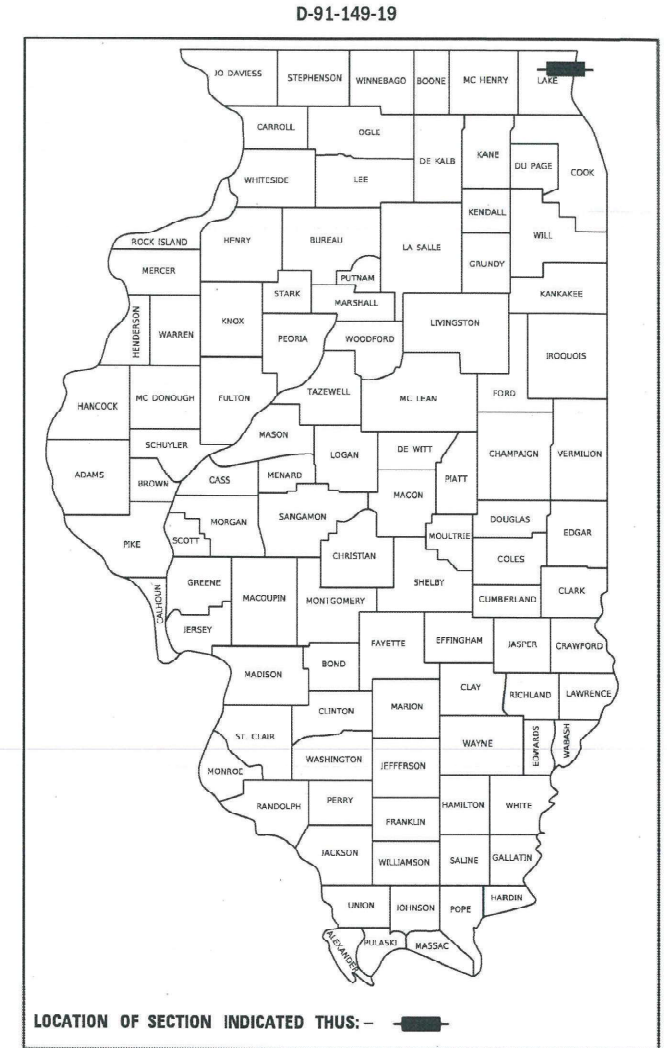
PROJECT ENGINEER: STEVEN NGUYEN (847) 705-4184  
PROJECT MANAGER: LUKASZ POCIECHA (847) 705-4420

CONTRACT NO. 62J06

C-91-353-19



LOCATION MAP  
NOT TO SCALE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 5 2020  
Mythia J. Wampler REGIONAL ENGINEER

June 26, 2020  
Eric A. Etk  
ENGINEER OF DESIGN AND ENVIRONMENT

June 26, 2020  
James J. [Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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OF THE STATE OF ILLINOIS

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- 886006-01 TYPICAL LAYOUTS FOR DETECTION LOOPS

**GENERAL NOTES**

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800)-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION IS REQUIRED).
2. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (574) 705-4470 72 HOURS IN ADVANCE OF BEGINNING WORK.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGGINING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTH.
4. 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 SAHLL 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 HRS NOTIFICATION REQUIRED).
5. IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK. ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.
6. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR UNDERGROUND AND OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE AREA ENGINEER, THE RESIDENT ENGINEER AND ANY IMPACTED UTILITY COMPANY OF THE CONFLICT, AND SHALL COORDINATE AND RESOLVE THE ISSUE PRIOR TO ORDERING MATERIALS, AND PRIOR TO POURING THE FOUNDATIONS.
7. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPNAIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
8. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, 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 FIELD SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
9. PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.
10. ALL EXISTING ROW SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD. ANY ROW CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER.
11. LOCATIONS WITH PEDESTRIAN EQUIPMENT HAVE BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THE PLANS FOR TRAFFIC SIGNAL MAST ARM/POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.

**RLR NOTES**

DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMPER COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

RLR CAMERA LOCATION  
IL RTE 131 AT AUDREY NIXON BLVD / CASIMIR PULASKI DR

CITY OF NORTH CHICAGO POLICE DEPARTMENT  
1850 LEWIS AVE,  
NORTH CHICAGO, IL 60064  
P: (847) 596-8711

REFLEX TRAFFIC SYSTEMS, INC  
5651 WEST TALAVI BLVD, SUITE 200  
GLENDALE, AZ 85306  
P: (866) 703-8097

FILE NAME: M:\2019\3\_Civil\18-03-5500 IDOT DTB\_190 - Various Traffic Signal Design\Graphics\20-001\_08a.dwg, 131 at 14th Street General Notes.dgn

**Sam Schwartz**  
223 W. JACKSON  
SUITE 1101  
CHICAGO, IL 60606  
TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES  
IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE: NTS      SHEET      OF      SHEETS      STA.      TO      STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	2
CONTRACT NO. 62J06				
		ILLINOIS	FED. AID PROJECT	

FILE NAME: M:\2019\3\_Civil\18-03-5500 DOT FTB\_190 - Various Traffic Signal Design\Graphics\WO\_20-001\_Rev01L\_131 at 14th Sheet\_500.dgn

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	100% CITY OF WAUKEGAN
				TRAFFIC SIGNAL 0021 TS 9375	INTERCONNECT 0021 EAGLE 4P	EVP 0021
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	15	15		
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1		
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	1		
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	1		
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	4	4		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
72000200	SIGN PANEL - TYPE 2	SQ FT	33	33		
72400720	RELOCATE SIGN PANEL - TYPE 2	SQ FT	68	68		
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	403	403		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	157	157		
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	25	25		
81400200	HEAVY-DUTY HANDHOLE	EACH	2	2		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1		1	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1		1	

REV-SEP

\* SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	3
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

FILE NAME: M:\2019\3\_Civil\18-03-5500 DOT FTB\_190 - Various Traffic Signal Design\Graphics\WO\_20-001\_131 at 14th Sheet\_500.dgn

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	100% CITY OF WAUKEGAN
				TRAFFIC SIGNAL 0021 TS 9375	INTERCONNECT 0021 EAGLE 4P	EVP 0021
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2,680	0	2,680	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	683	683		
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,002	1,002		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,242	2,242		
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,543	1,543		
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,087	1,087		
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	23	23		
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	625	625		
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4	4		
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2	2		
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1	1		
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1	1		
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16	16		
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4		
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	46	46		
87900200	DRILL EXISTING HANDHOLE	EACH	16	16		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8	8		

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PLOT DATE = 5/7/2020

DESIGNED - ERICA SALUTZ	REVISED -
DRAWN - ERICA SALUTZ	REVISED -
CHECKED - PETER WOJTKIEWICZ	REVISED -
DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	4
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				



CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	100% CITY OF WAUKEGAN
				TRAFFIC SIGNAL 0021 TS 9375	INTERCONNECT 0021 EAGLE 4P	EVP 0021
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4	4		
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4	4		
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	4		
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	12	12		
88500100	INDUCTIVE LOOP DETECTOR	EACH	6	6		
88600100	DETECTOR LOOP, TYPE I	FOOT	196	196		
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1		
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4	4		
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4	4		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	8,763	3,523	5,240	
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	927	927		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1		
89502376	REBUILD EXISTING HANDHOLE	EACH	2	2		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8	8		
89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2			2
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1			1

FILE NAME: M:\2019\3\_Civil\18-03-5500 DOT FTB\_190 - Various Traffic Signal Design\Graphics\20-001 - Resill\_131 at 14th Sheet\_500.dgn

**Sam Schwartz**  
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 PLOT DATE = 5/7/2020

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 DRAWN - ERICA SALUTZ  
 CHECKED - PETER WOJTKIEWICZ  
 DATE - 04/28/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	5
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

FILE NAME: M1\_201913\_CH118-03-5500 DDT FTB 190 - Various Traffic Signal Design\Graphics\WD 20-001 -file.dwg 131 at 14th Sheet 500.dgn

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	100% CITY OF WAUKEGAN
				TRAFFIC SIGNAL 0021 TS 9375	INTERCONNECT 0021 EAGLE 4P	EVP 0021
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	289			289
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	2,615		2,615	
X0326104	RELOCATE RADAR DETECTOR SYSTEM	EACH	2	2		
X0327211	RELOCATE SWITCH	EACH	2	2		
X1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1	1		
X1400102	OUTDOOR RATED NETWORK CABLE	FOOT	172	172		
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1		
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2,706		2,706	
X1400217	TERMINATE FIBER IN CABINET	EACH	3	3		
X1400322	RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM	EACH	2	2		
X1400219	SPLICE FIBER IN CABINET	EACH	3	3		
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51	51.4		
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1		
Ø Z0076600	TRAINEES	HOUR	500	500		
Ø Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500		

Ø 0042

REV-SEP

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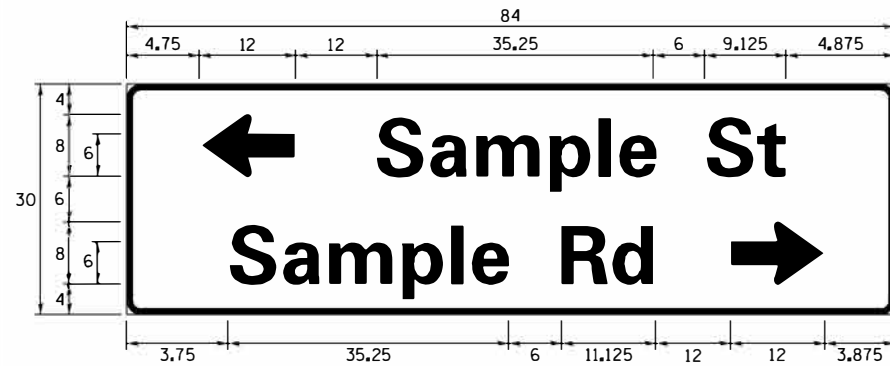
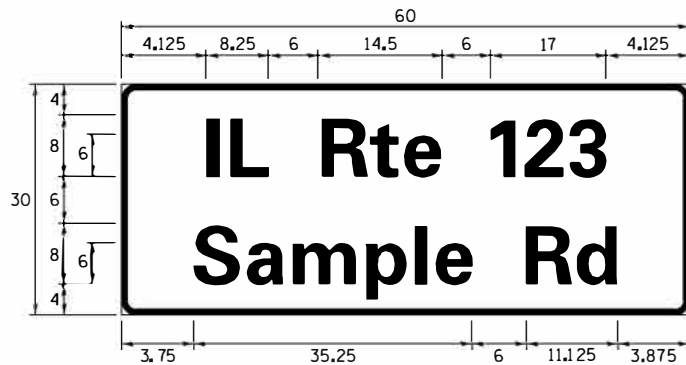
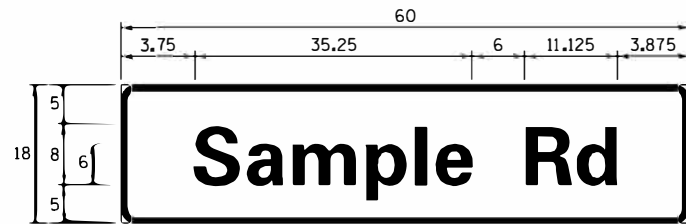
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SCALE:	SHEET	OF SHEETS	STA. TO STA.

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2711	2019-028-TS	LAKE	34	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62J06	

**SIGN PANEL – TYPE 1 OR TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15,000	18,250
BOULEVARD	Blvd	17,125	20,000
CIRCLE	Cir	11,125	13,000
COURT	Ct	8,250	9,625
DRIVE	Dr	8,625	10,125
HIGHWAY	Hwy	18,375	22,000
ILLINOIS	IL	7,000	8,250
LANE	Ln	9,125	10,750
PARKWAY	Pkwy	23,375	27,375
PLACE	Pl	7,125	7,750
ROAD	Rd	9,625	11,125
ROUTE	Rte	12,625	14,500
STREET	St	8,000	9,125
TERRACE	Ter	12,625	14,625
TRAIL	Tr	7,750	9,125
UNITED STATES	US	10,375	12,250

**GENERAL NOTES**

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

**LOCAL SUPPLIERS:**

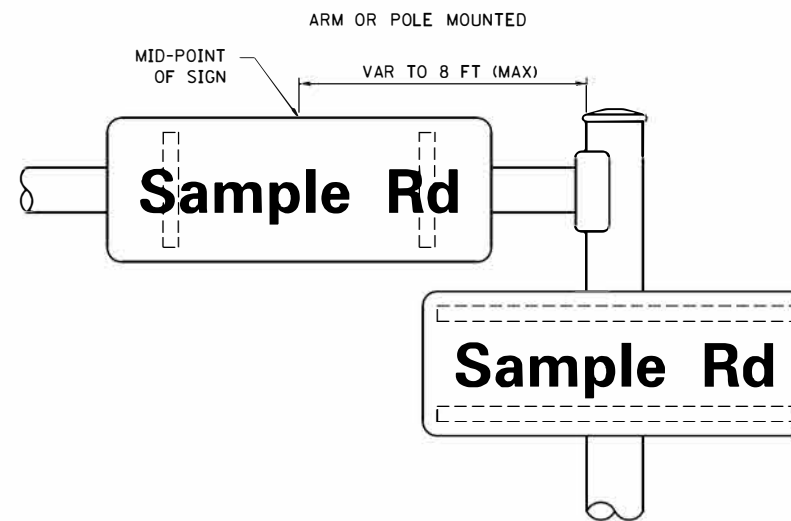
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

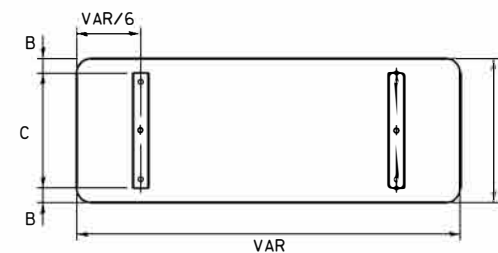
- SIGN CHANNEL PART \*HPNO53 (MED. CHANNEL)  
SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- BRACKETS PART \*HPNO34 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BACKET OF THE ABOVE PRODUCT.

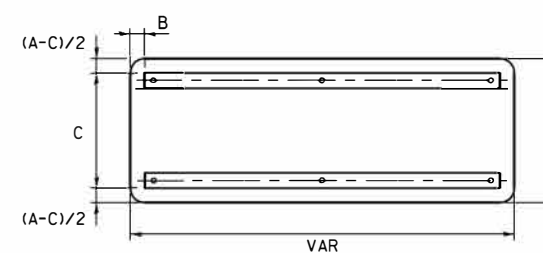
**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

**STANDARD ALPHABETS SPACING CHART**

( 8" ) UPPER CASE AND ( 6" ) LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )	CHARACTER	LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

TS SHT NO. 01

FILE NAME =	USER NAME = d-ivakosgn	DESIGNED - LP/IP	REVISED - LP 07/01/2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS	F.A.U. RTE. 2711	SECTION 2019-028-TS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 7
	PLOT SCALE = 50,0000 / in.	CHECKED - IP	REVISED -			SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	
	PLOT DATE = 7/31/2015	DATE - 10/01/2014	REVISED -			CONTRACT NO. 62J06				

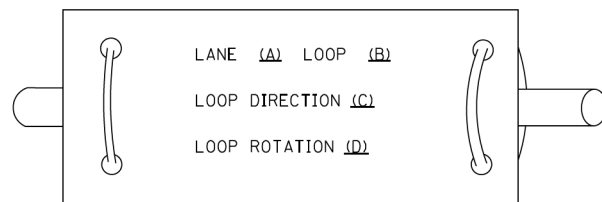




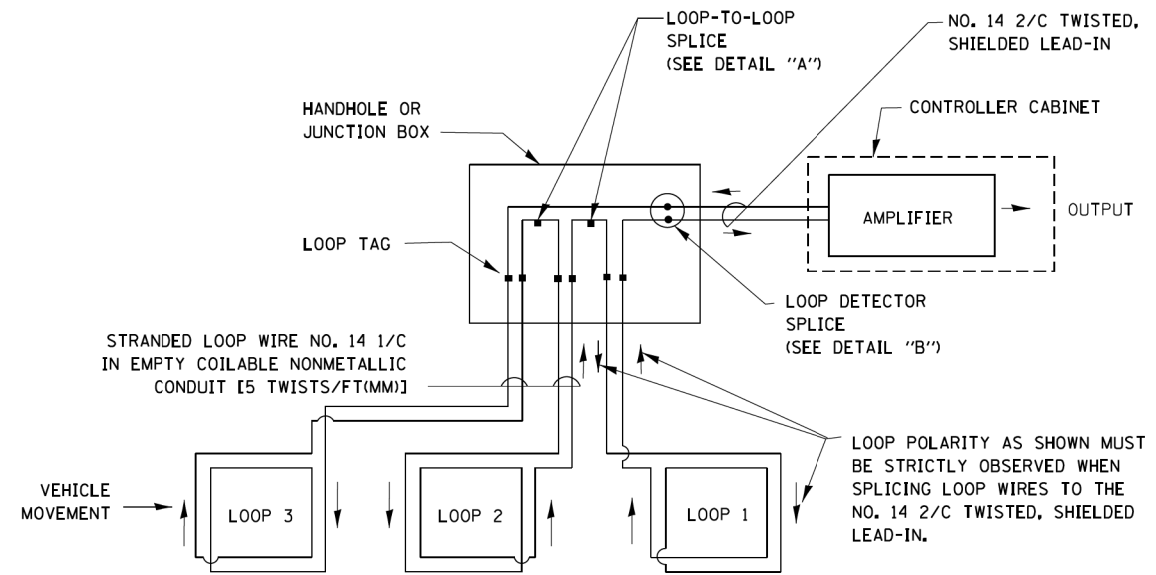
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

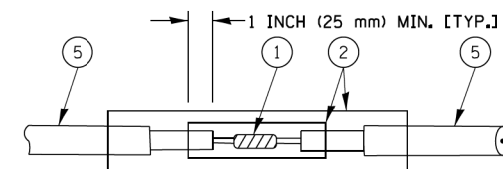


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

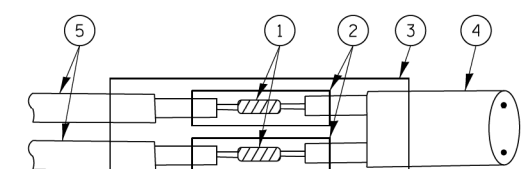


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

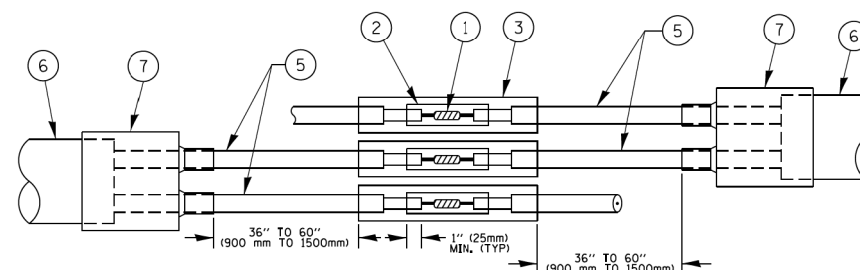


DETAIL "A"  
LOOP-TO-LOOP SPLICE

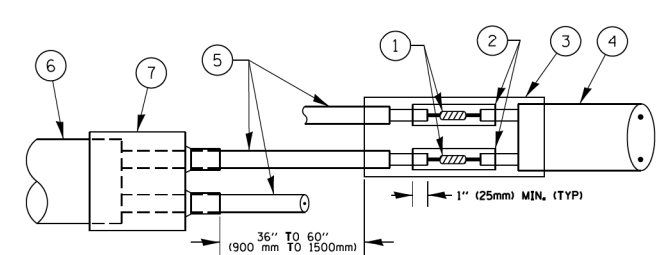


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

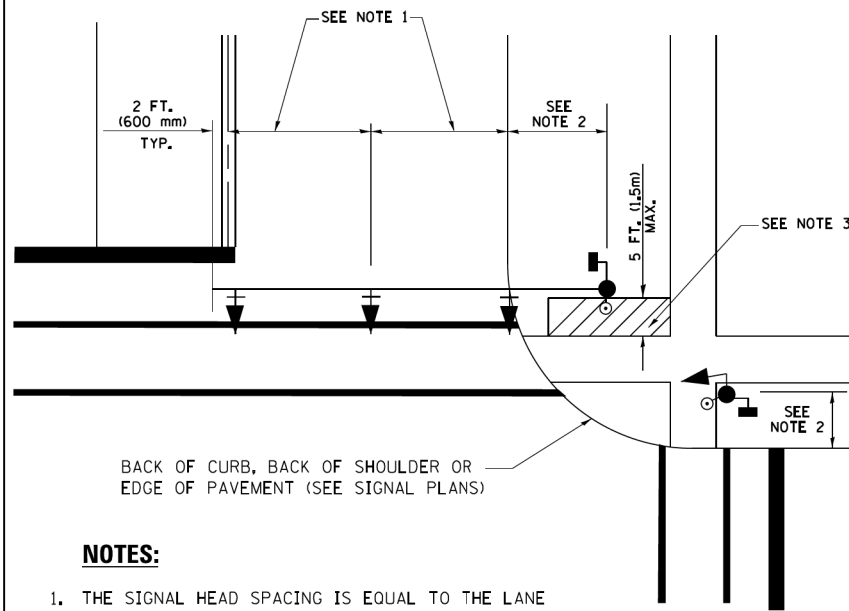
**LOOP DETECTOR SPLICE**

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

TS SHT NO. 03

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\p\work\p\dot\Footemj\00108315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	2711	2019-028-TS	LAKE	34	9
		CHECKED - DAD	REVISED -					<b>TS-05</b>		CONTRACT NO. 62J06			
		DATE - 10-28-09	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

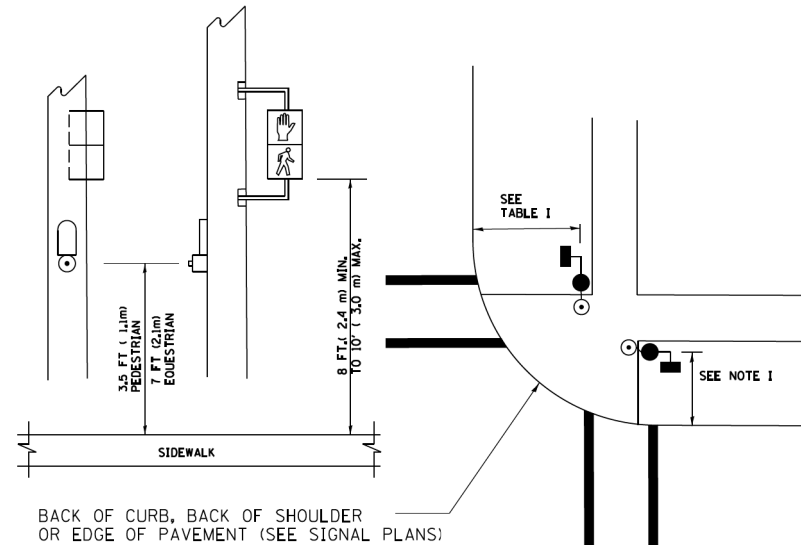
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

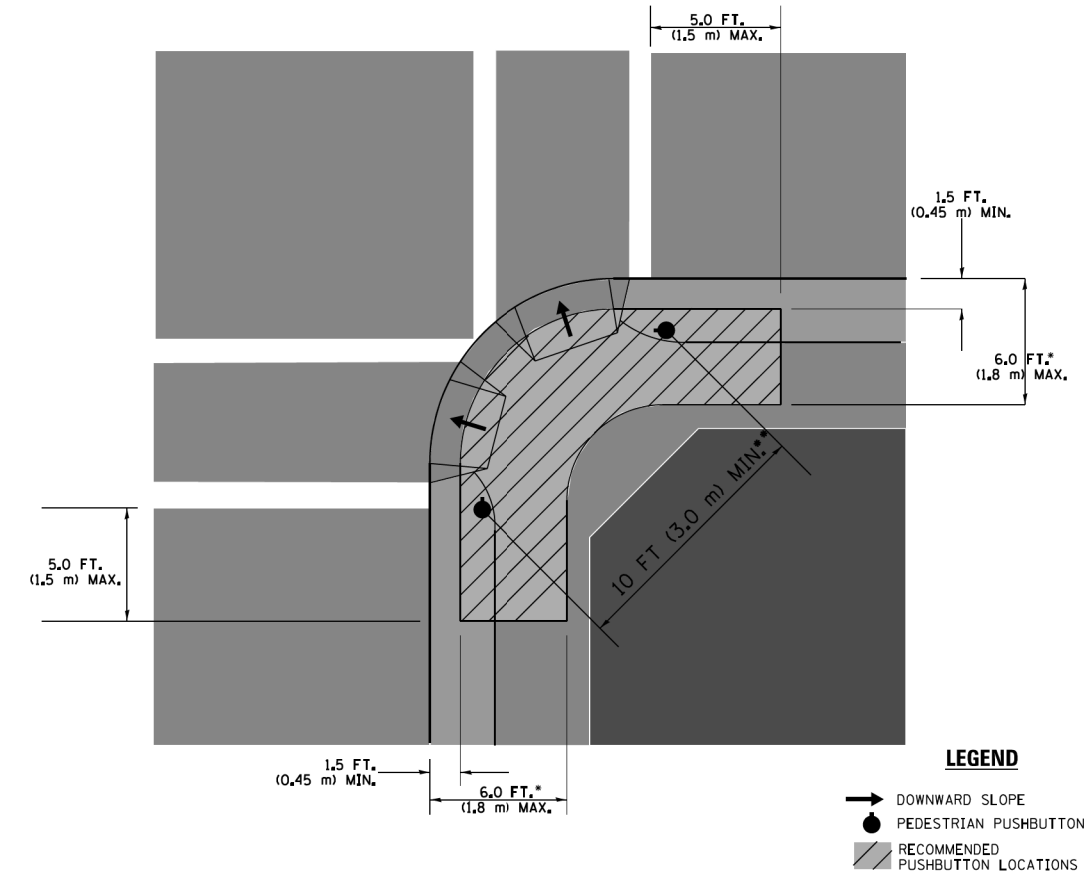
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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**

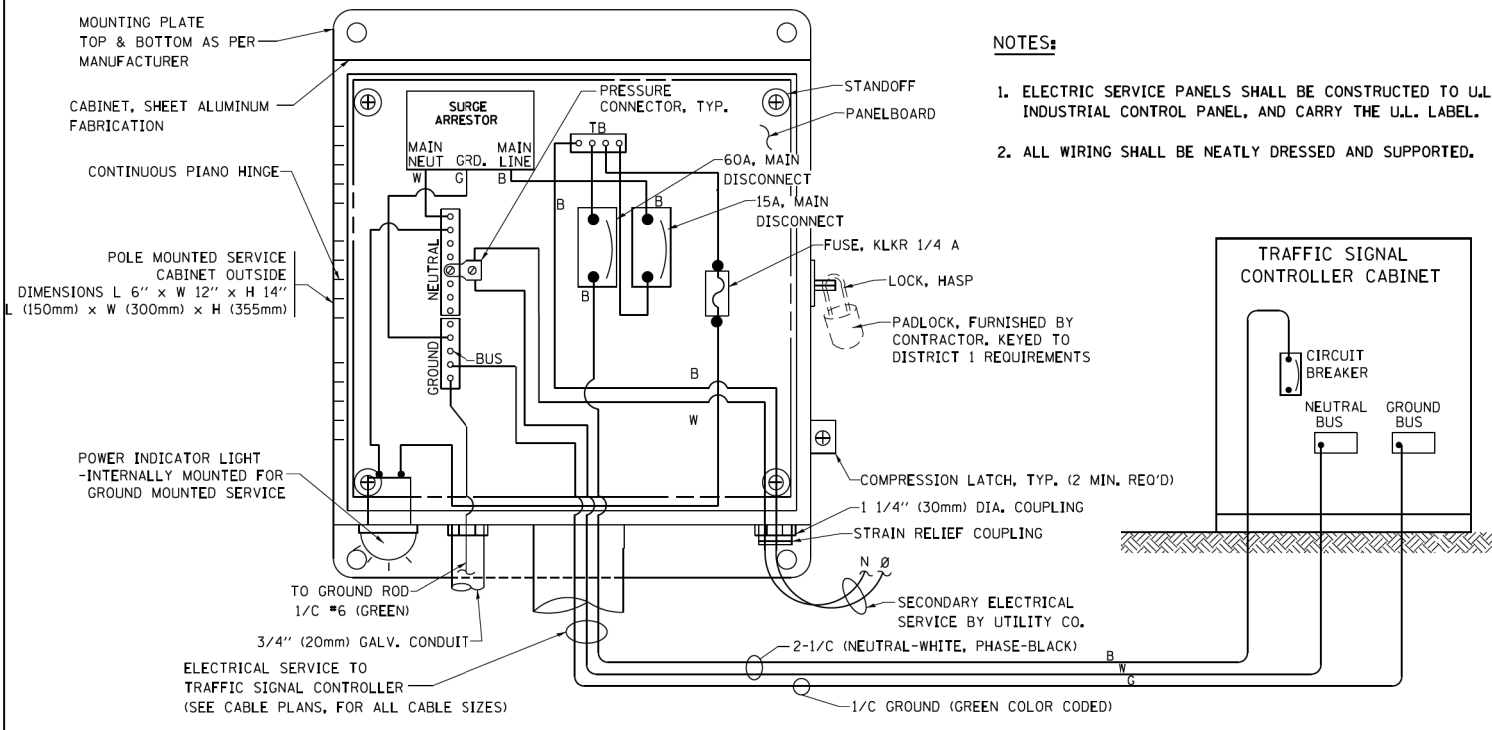
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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:**

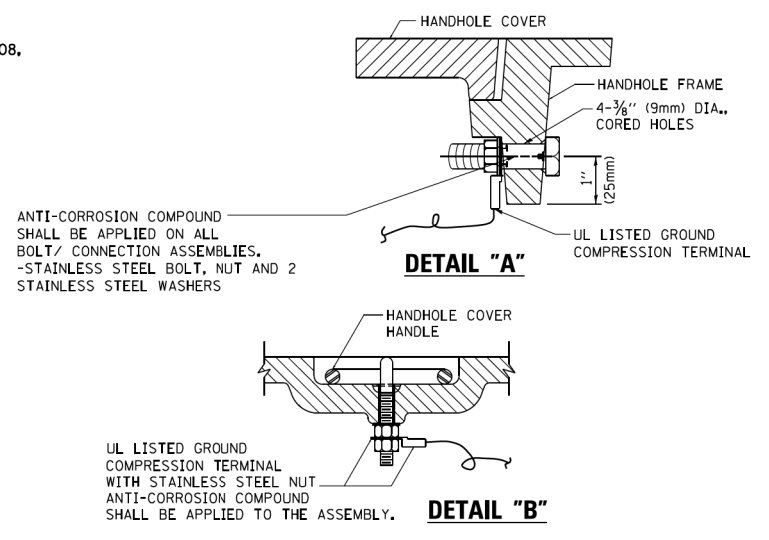
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM 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.

TS SHT NO. 04

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\pex\work\pexdot\footemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -			2711	2019-028-TS	LAKE	34	10	
PLOT SCALE = 50.0000' / in.		CHECKED - DAD	REVISED -			<b>TS-05</b>		CONTRACT NO. 62J06			
PLOT DATE = 1/13/2014		DATE - 10-28-09	REVISED -			SCALE: NONE		SHEET NO. 3 OF 7 SHEETS		STA. TO STA.	

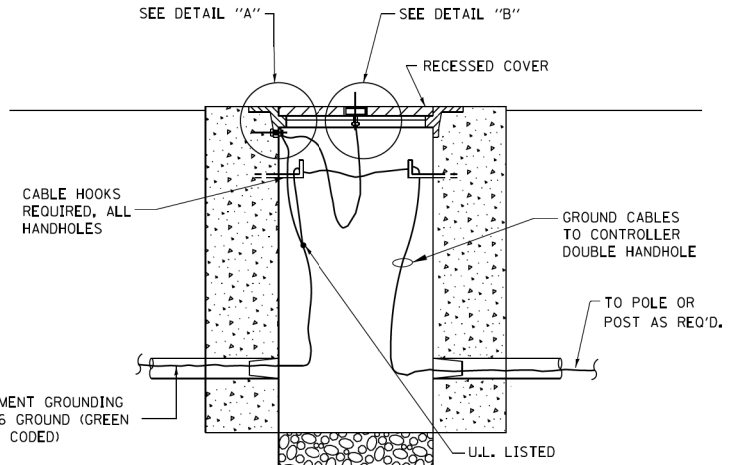


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**

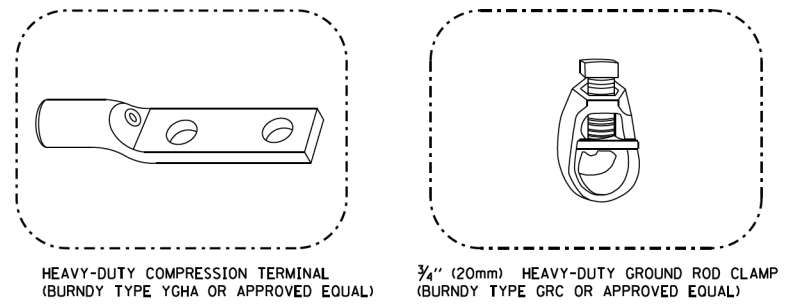


**NOTES:**  
**GROUNDING SYSTEM**

- 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.
- 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.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

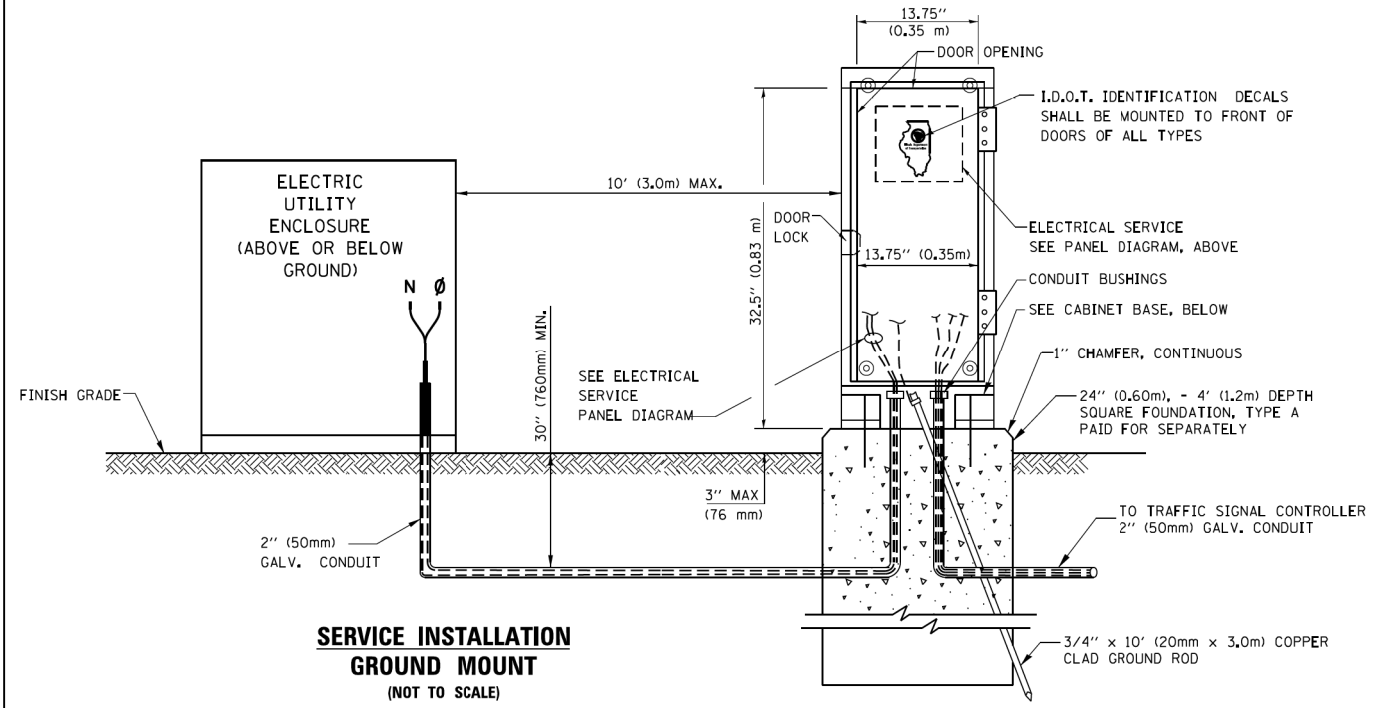


**HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)**

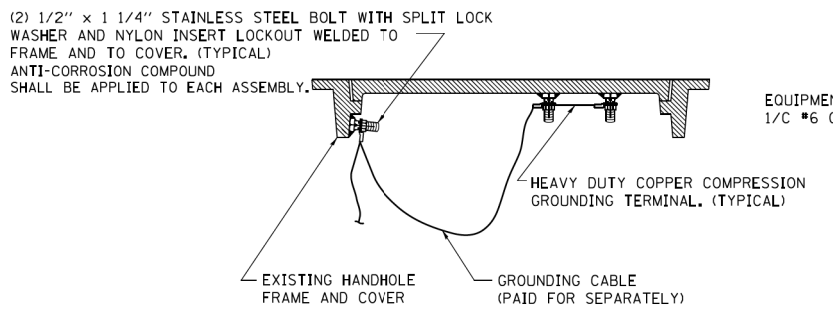


**NOTES:**

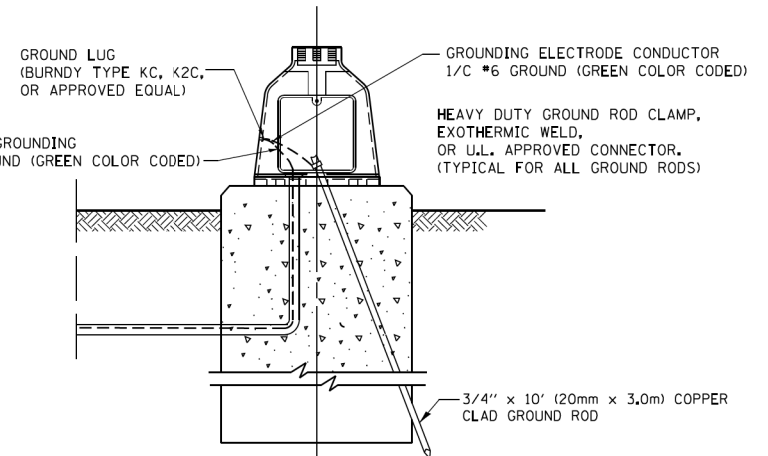
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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

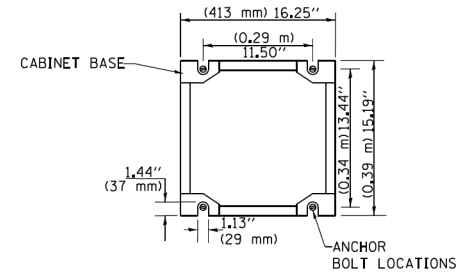


**EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)**



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

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



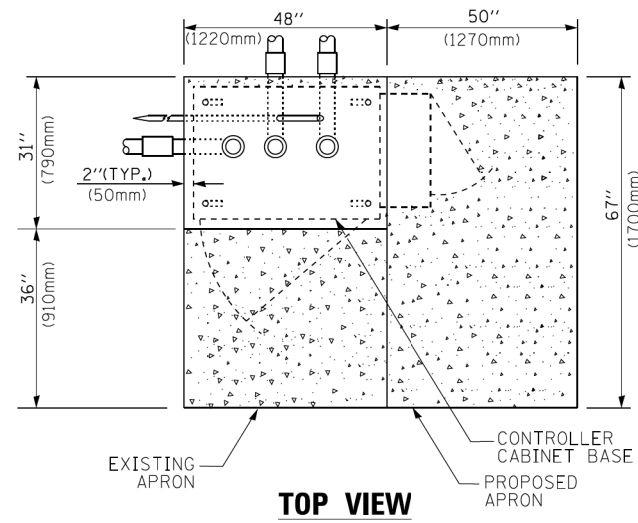
TS SHT NO. 05

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
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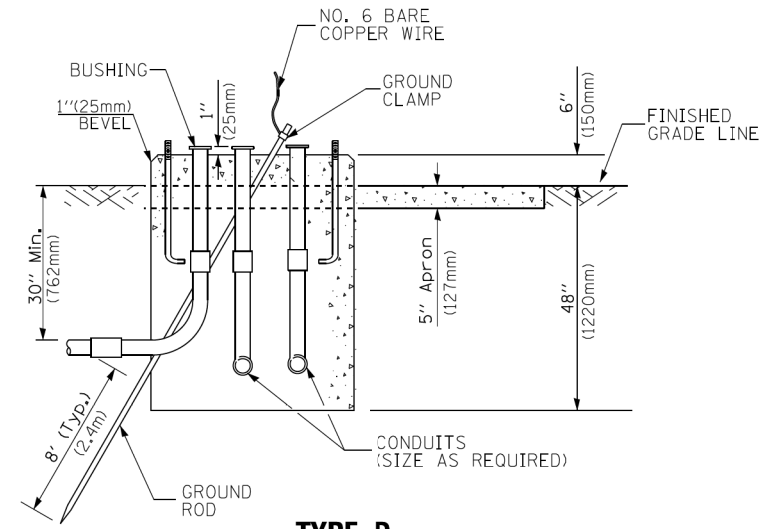
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>	
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS
STA.	TO STA.

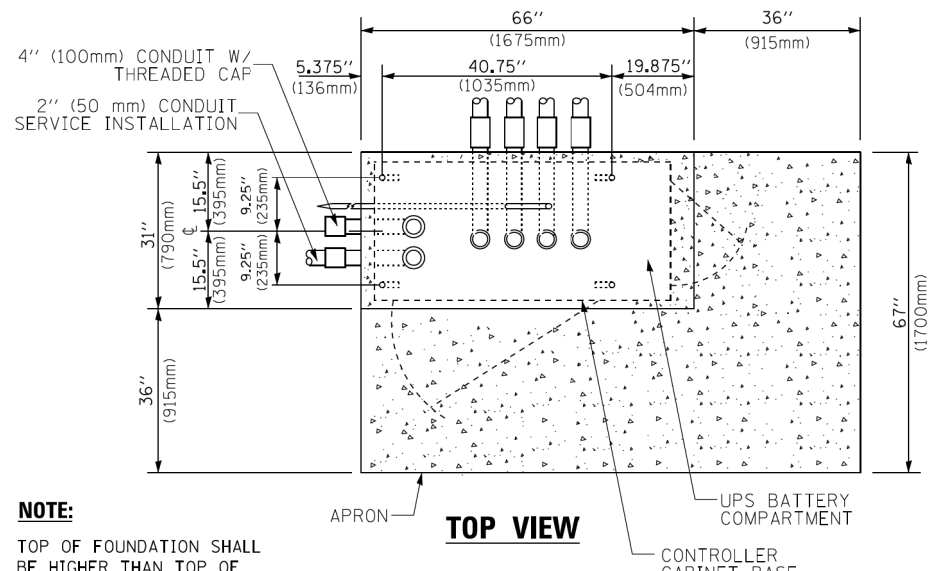
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	11
<b>TS-05</b>		<b>CONTRACT NO. 62J06</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TOP VIEW**

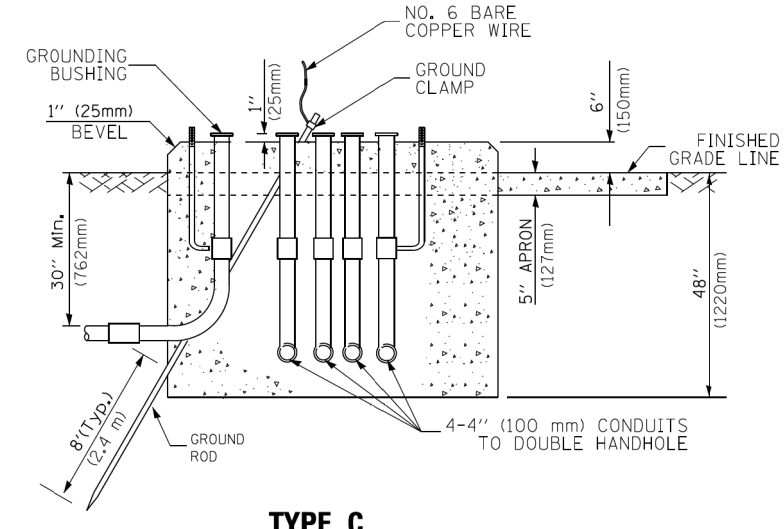


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

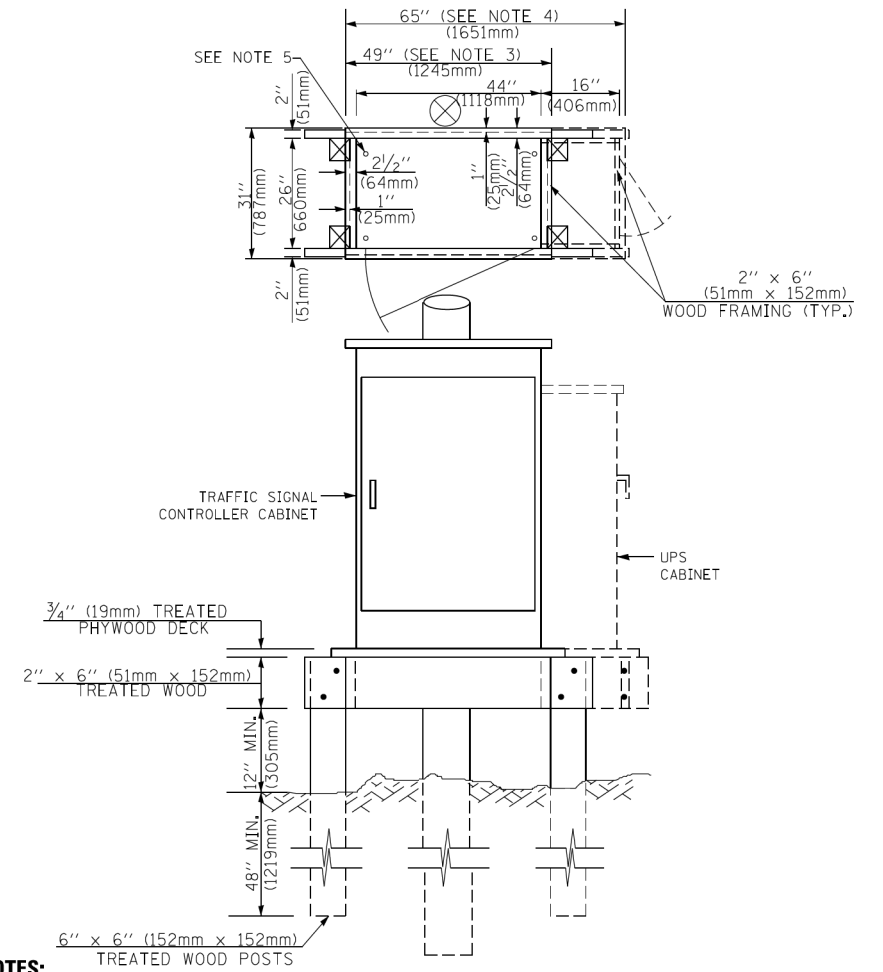


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**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)	30" (750mm)	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)

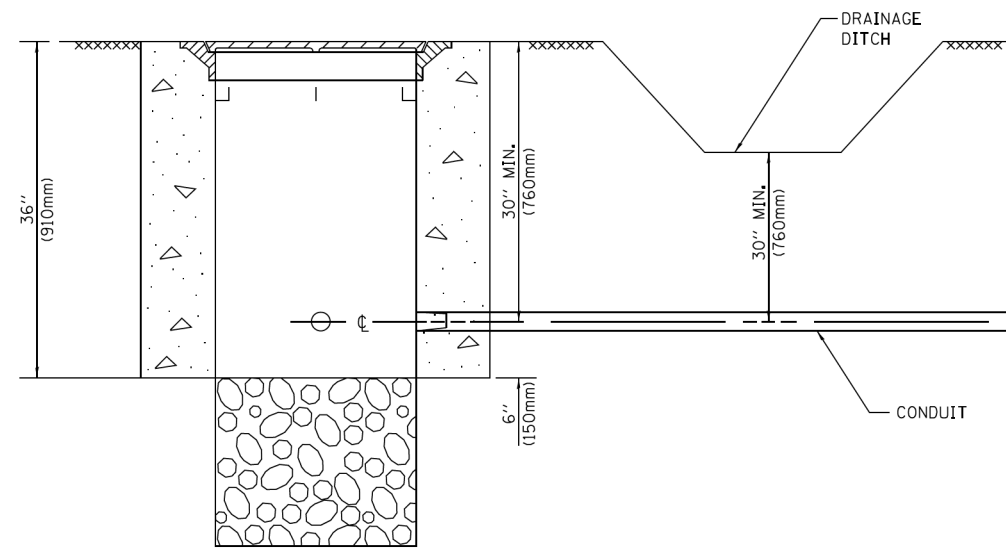
**NOTES:**

- 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**

TS SHT NO. 06

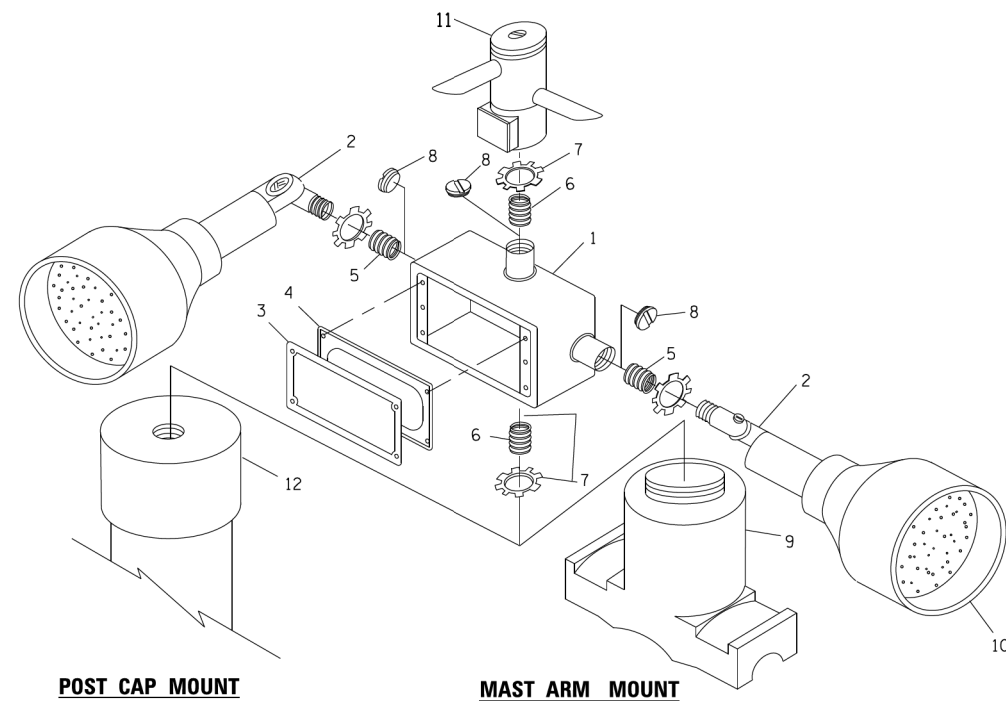




**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

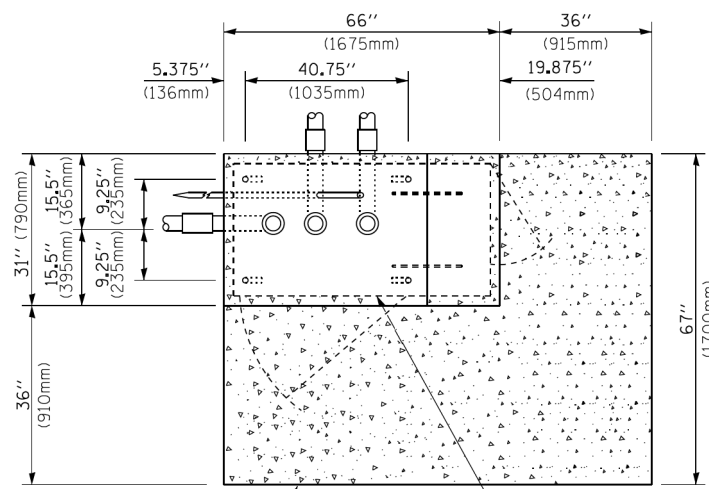
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



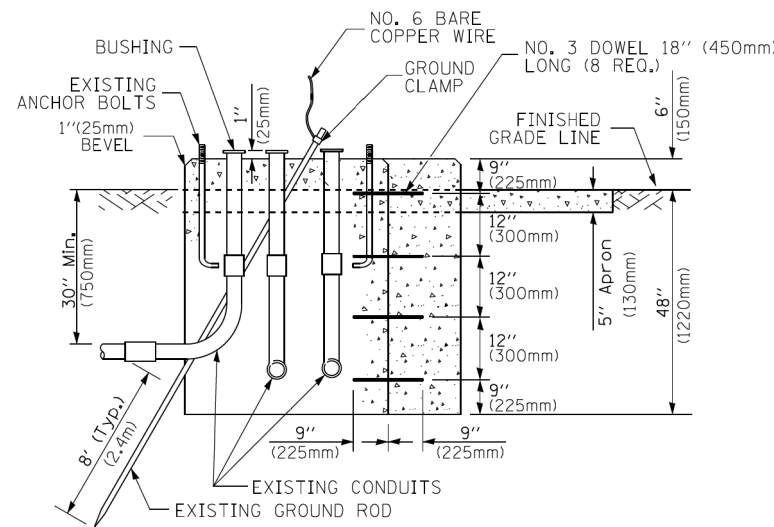
**POST CAP MOUNT**

**MAST ARM MOUNT**

**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**TOP VIEW**  
(NOT TO SCALE)

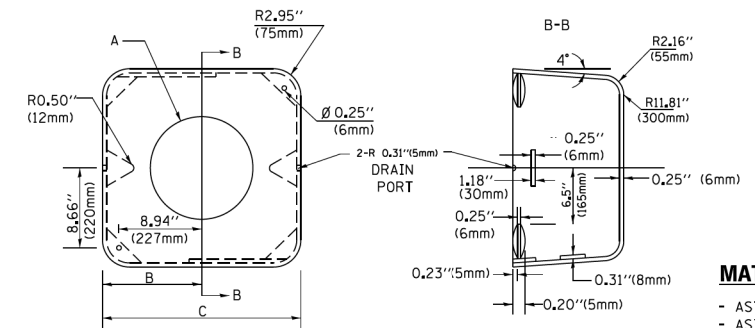


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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:**

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. 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.



**MATERIAL:**

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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)

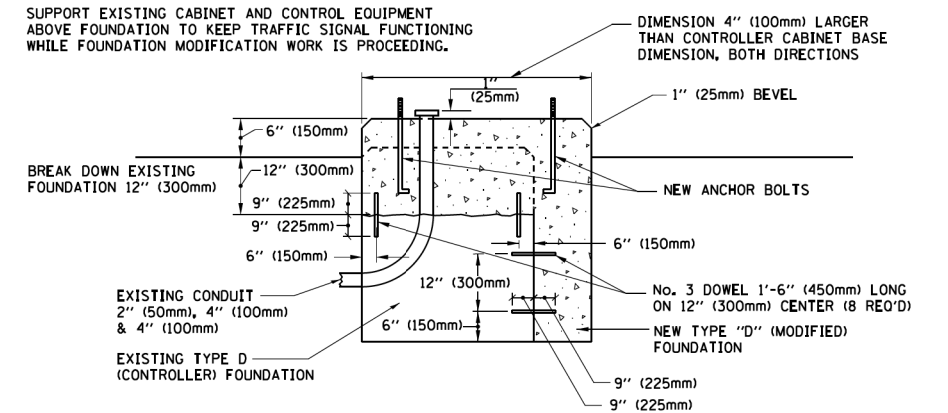
**SHROUD**

**NOTES:**

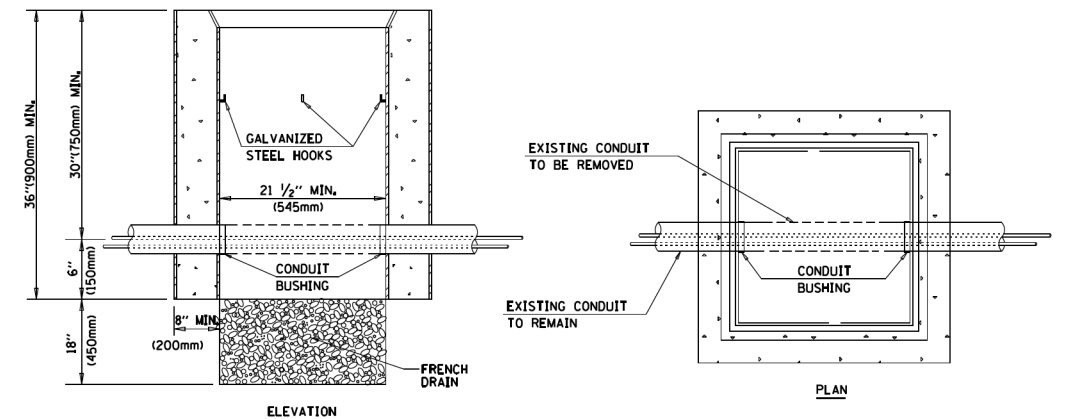
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

TS SHT NO. 07

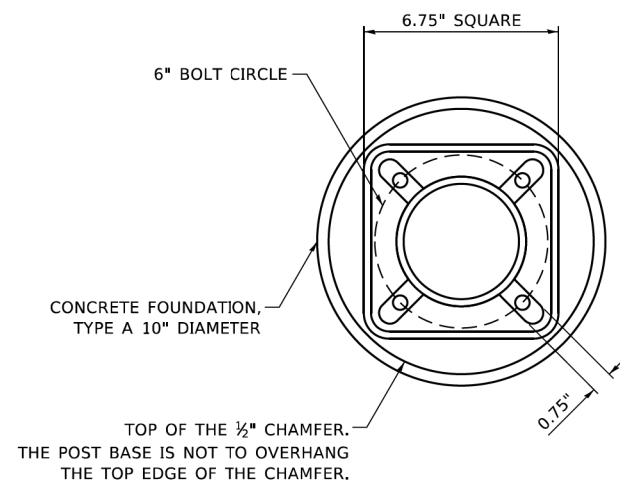
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

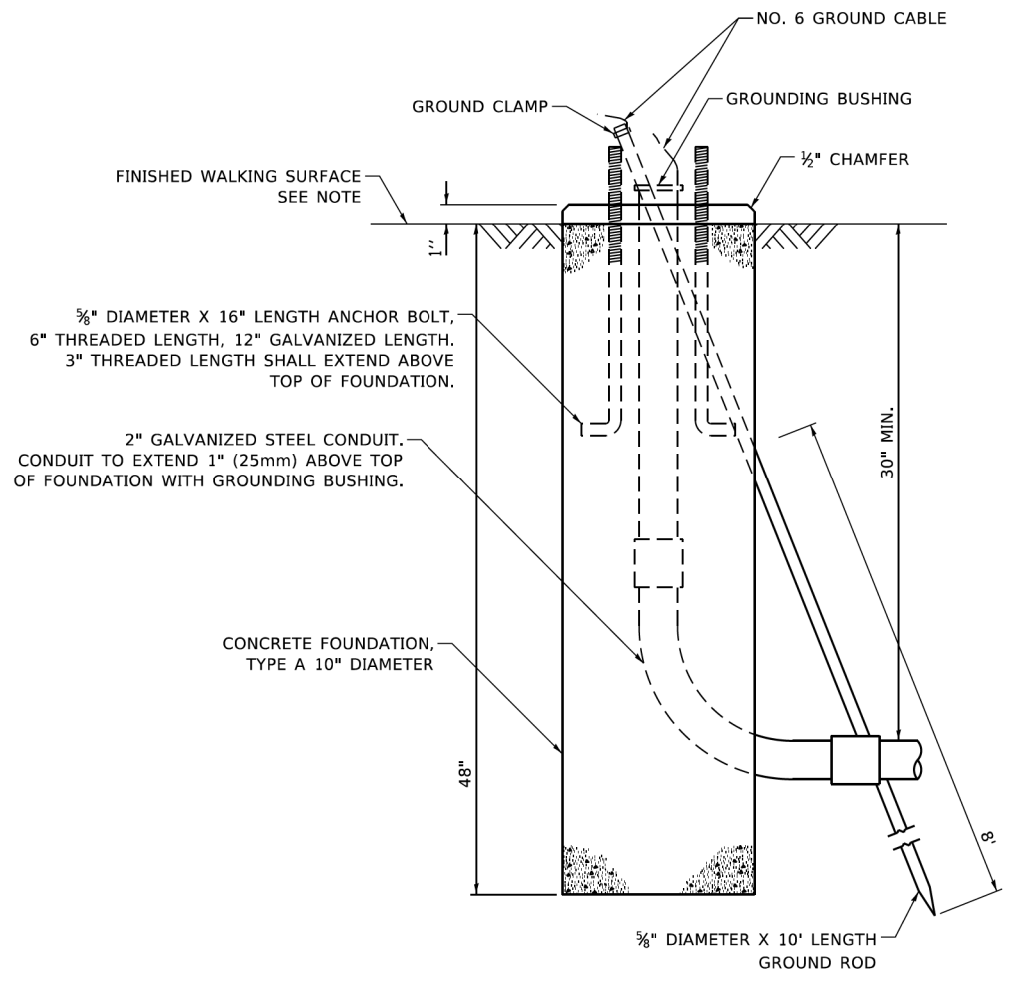
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	13
<b>TS-05</b>		CONTRACT NO. 62J06		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

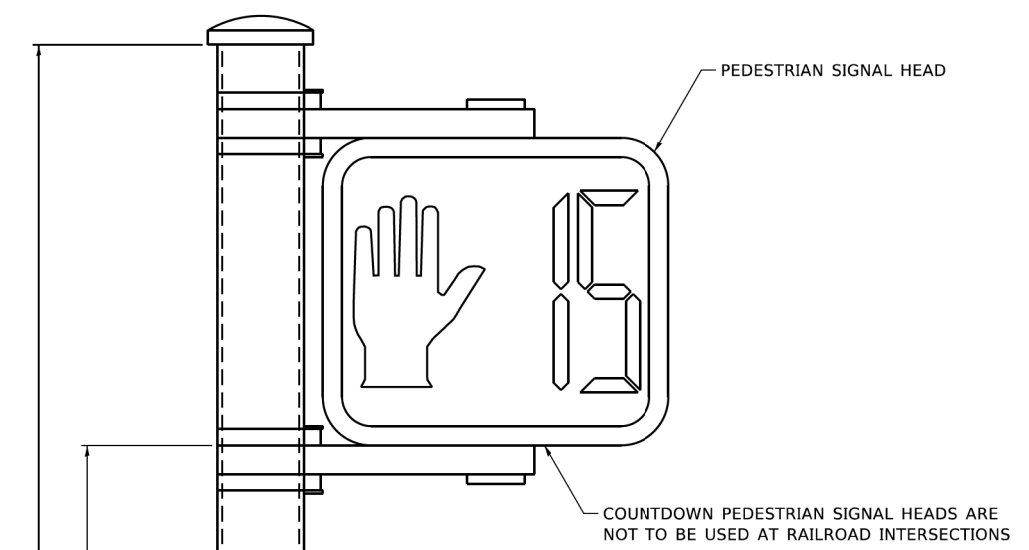


**BOLT PATTERN**

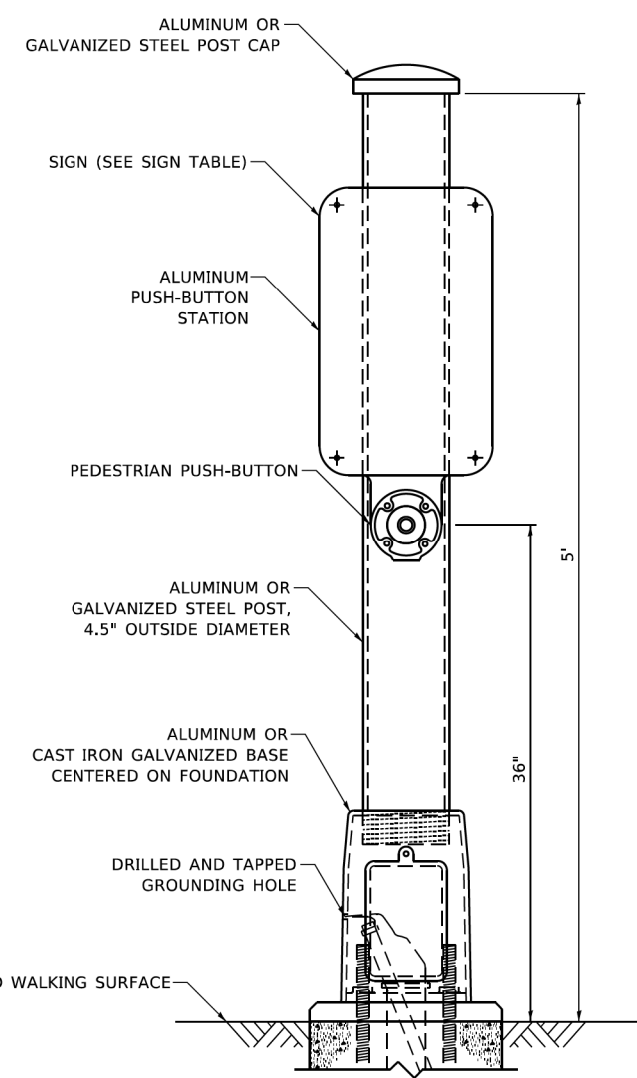
NOTE:  
 1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



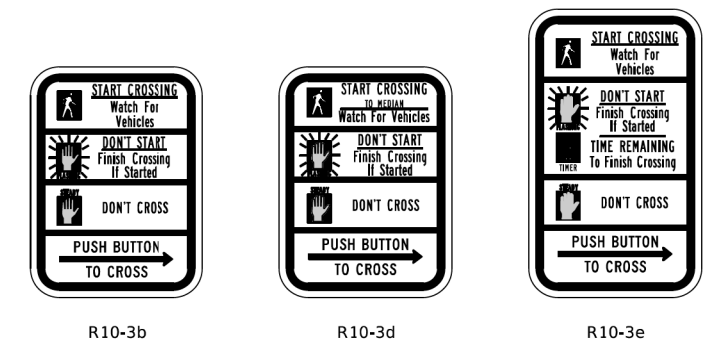
**CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**



**PEDESTRIAN SIGNAL POST, 5 FT.**



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

NOTES:  
 1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.  
 2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.  
 3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

MODEL: Default  
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 TS SHT NO. 08

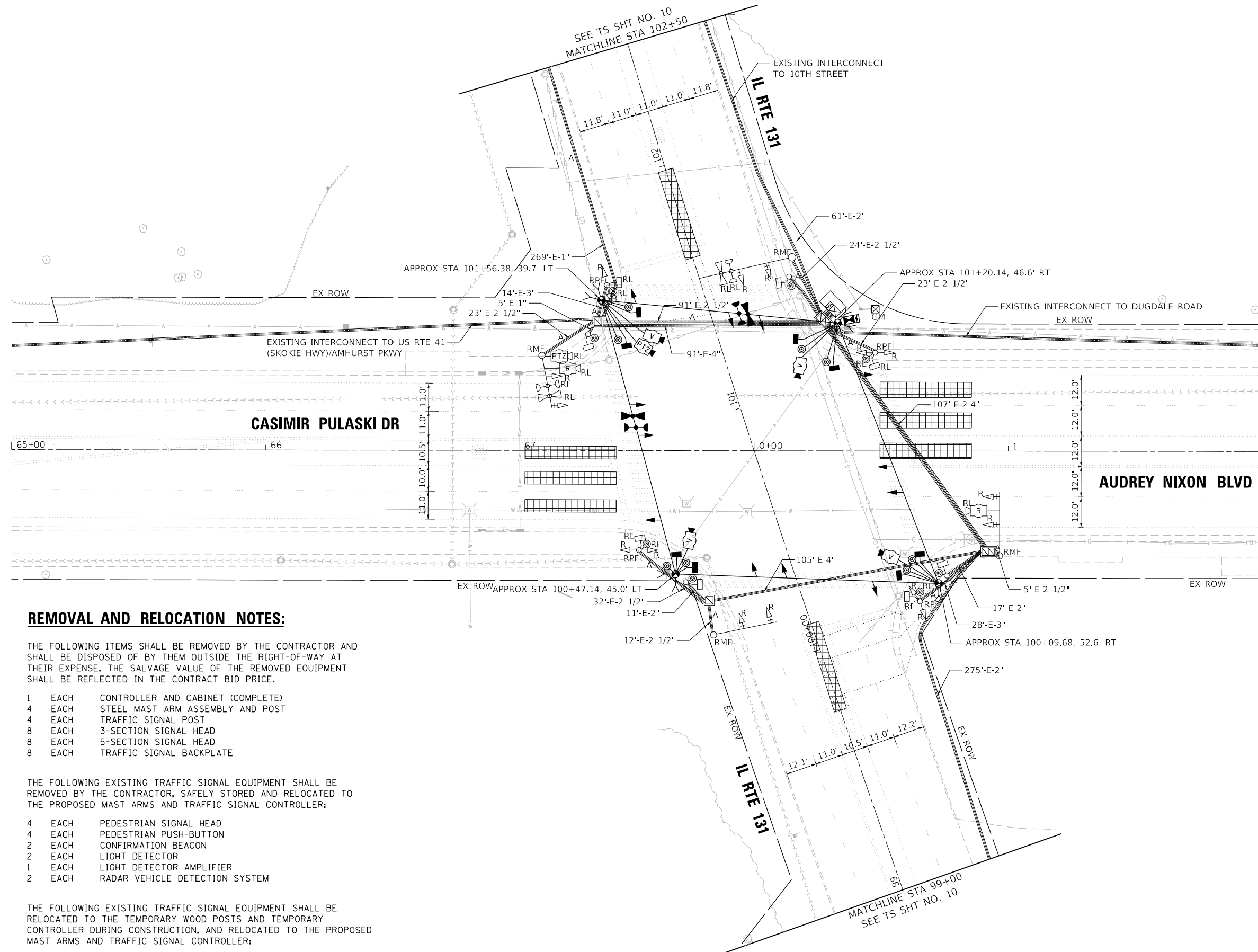
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	DATE - 10/15/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 7 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	14
<b>TS-05</b>		CONTRACT NO. 62J06		
ILLINOIS FED. AID PROJECT				



**REMOVAL AND RELOCATION NOTES:**

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)
- 4 EACH STEEL MAST ARM ASSEMBLY AND POST
- 4 EACH TRAFFIC SIGNAL POST
- 8 EACH 3-SECTION SIGNAL HEAD
- 8 EACH 5-SECTION SIGNAL HEAD
- 8 EACH TRAFFIC SIGNAL BACKPLATE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARMS AND TRAFFIC SIGNAL CONTROLLER:

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER
- 2 EACH RADAR VEHICLE DETECTION SYSTEM

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE RELOCATED TO THE TEMPORARY WOOD POSTS AND TEMPORARY CONTROLLER DURING CONSTRUCTION, AND RELOCATED TO THE PROPOSED MAST ARMS AND TRAFFIC SIGNAL CONTROLLER:

- 1 EACH REMOTE-CONTROLLED VIDEO SYSTEM
- 1 EACH LAYER II (DATALINK) SWITCH

TS SHT NO. 09

FILE NAME: M:\2019\31-0118-03-2500 DCG 1719 190 - Various Traffic Signal Design\Graphics\20-001-103a11-131 at 14th Street Temp Plan.dgn

**Sam Schwartz**  
 223 W. JACKSON  
 SUITE 1101  
 CHICAGO, IL 60606  
 TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND  
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 1 OF 2)  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	15
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

**LAKE COUNTY PASSAGE  
 TS 9375  
 FORMER EAGLE 4P**

SCALE: 1"=20' SHEET OF SHEETS STA. TO STA.

TS SHT NO. 10

FILE NAME: M:\2019\31\_Civil\18-03-2500\_DOT\_ITB\_190 - Various Traffic\_Signal\_Design\Graphics\WO\_20-001\_18a\IL\_131 at 14th Sheet Temp Plan.dgn

**Sam Schwartz**  
 223 W. JACKSON  
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 TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

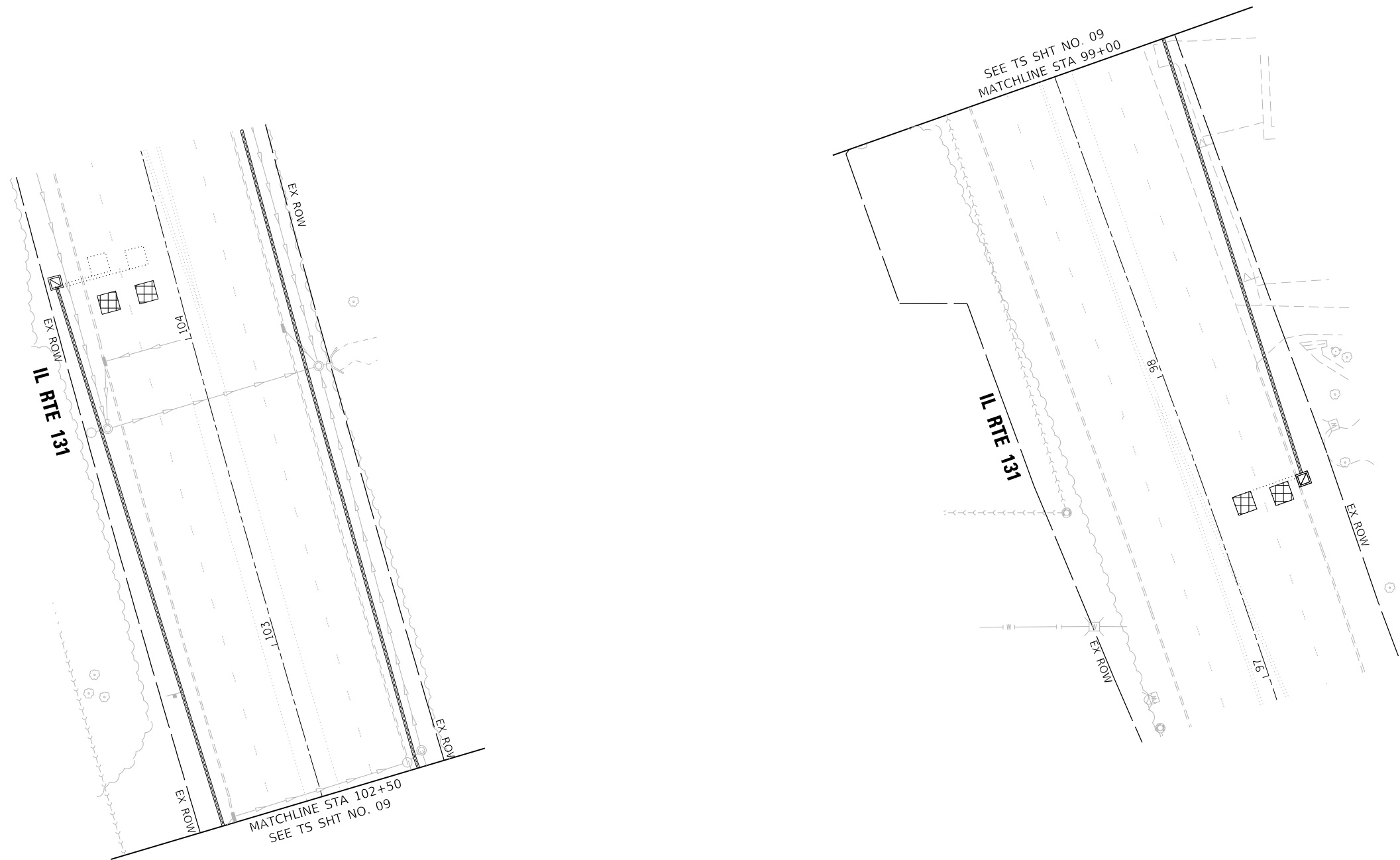
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND  
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 2 OF 2)  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE: 1"=20' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	16
			CONTRACT NO. 62J06	
		ILLINOIS	FED. AID PROJECT	

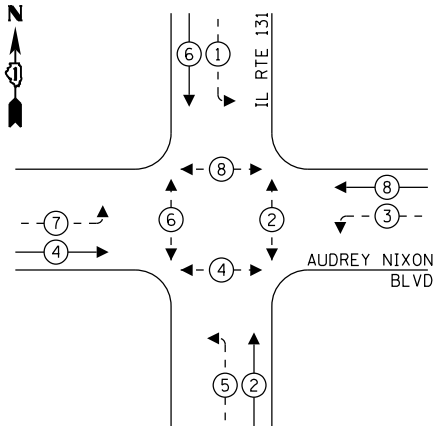
**LAKE COUNTY PASSAGE  
 TS 9375  
 FORMER EAGLE 4P**







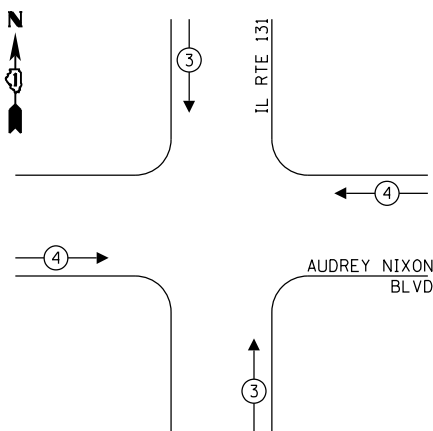
**TEMPORARY CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← - \* - → PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

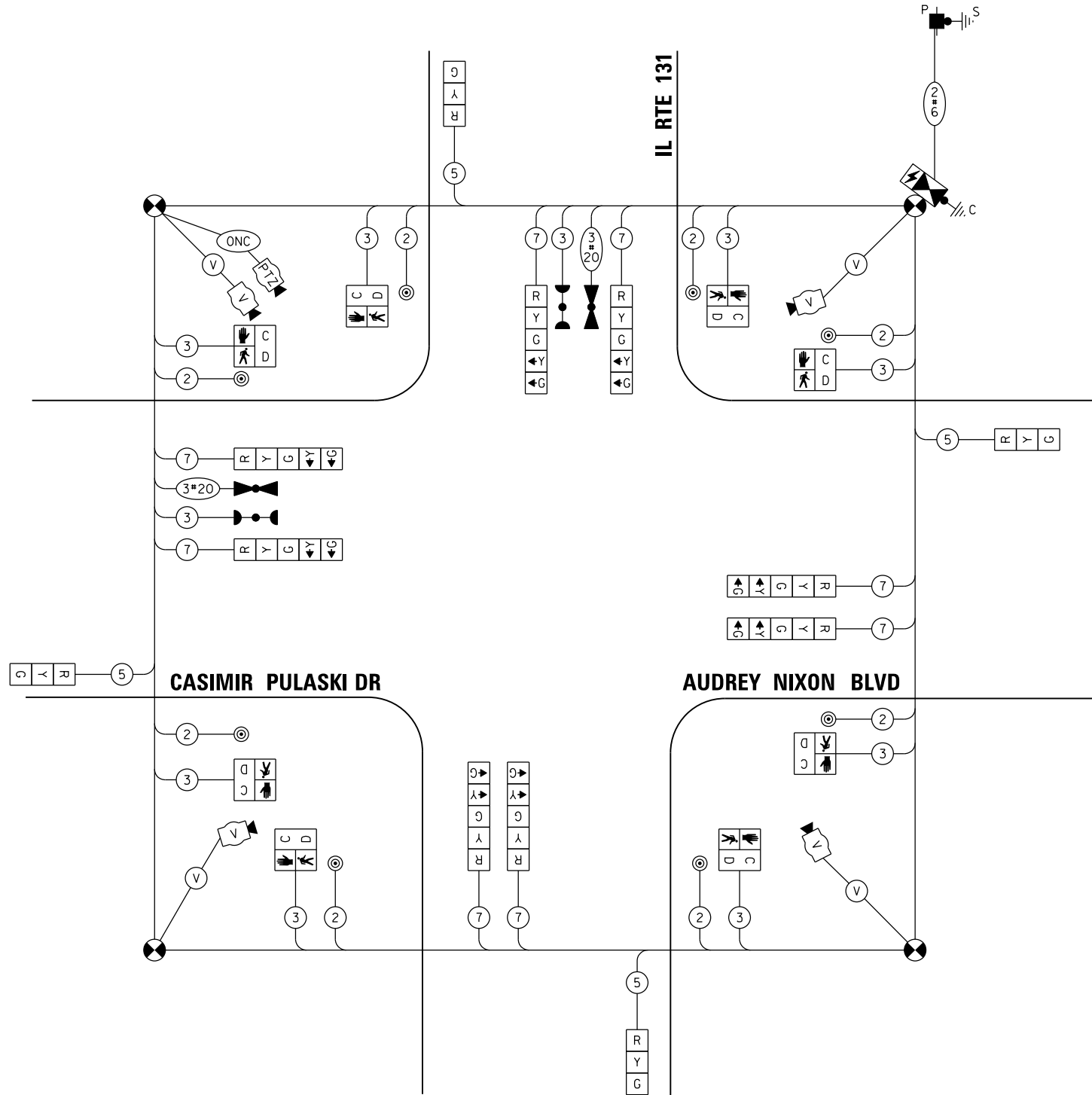
**TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				593.8

ENERGY COSTS TO:  
 CITY OF WAUKEGAN  
 100 N MARTIN LUTHER KING JR. AVENUE  
 WAUKEGAN, IL 60085  
 ENERGY SUPPLY: CONTACT: TERRI BLECK  
 PHONE: (847) 816-5239  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,  
AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR

LAKE COUNTY PASSAGE  
TS 9375  
FORMER EAGLE 4P

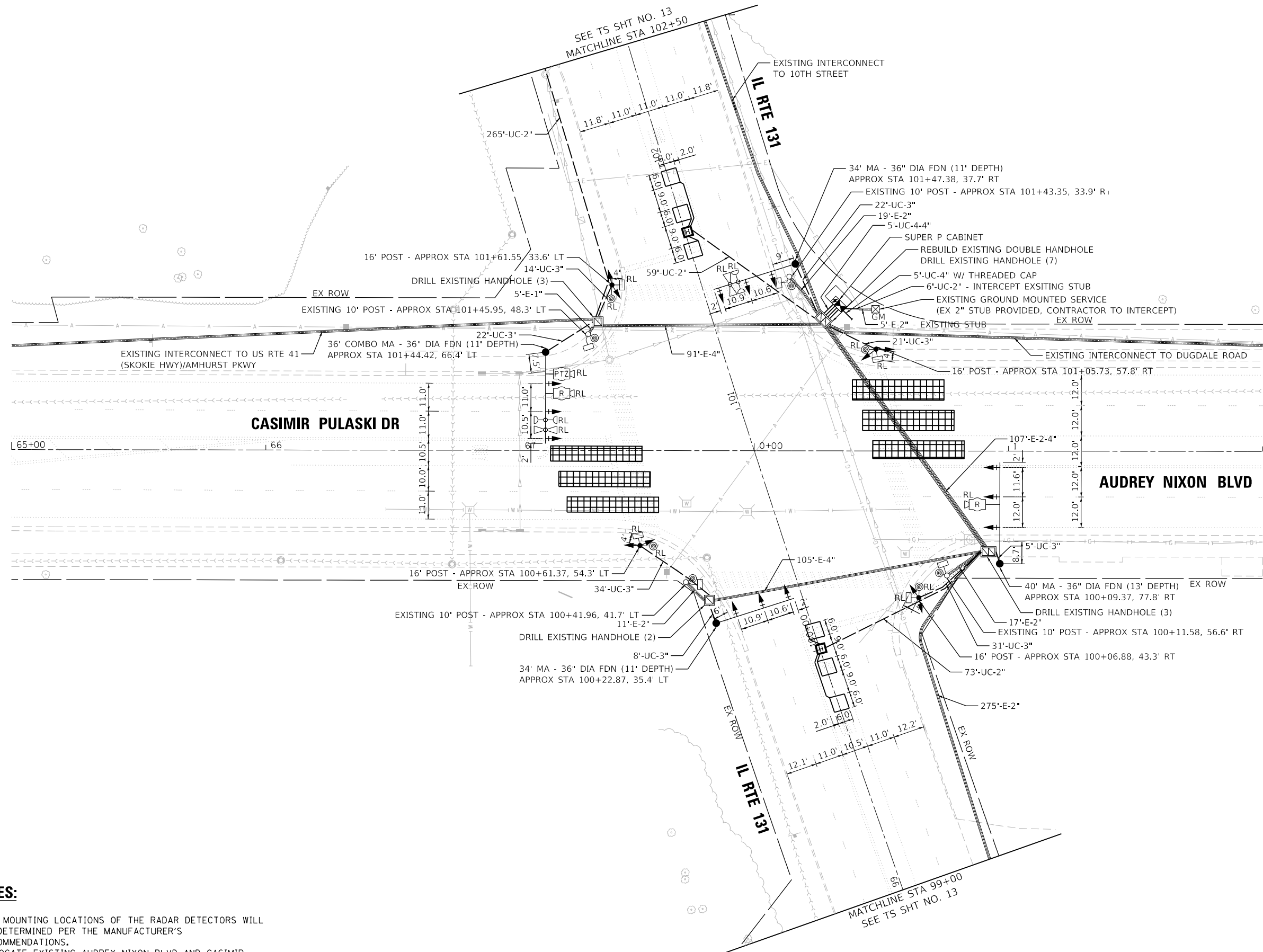
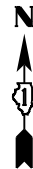
TS SHT NO.11  
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**Sam Schwartz**  
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CHICAGO, IL 60606  
TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000" / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	17
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET OF SHEETS STA. TO STA.



**NOTES:**

1. THE MOUNTING LOCATIONS OF THE RADAR DETECTORS WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.
2. RELOCATE EXISTING AUDREY NIXON BLVD AND CASIMIR PULASKI DR MAST ARM SIGNS ONTO NEW MAST ARMS.

TS SHT NO. 12

FILE NAME: M:\2019\31\_CMI18-03-2500\_DCGI\_17B\_190 - Various Traffic Signal Design\Graphics\20-001 - final\12\_131 at 14th Street Proposed Plan.dgn

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 TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

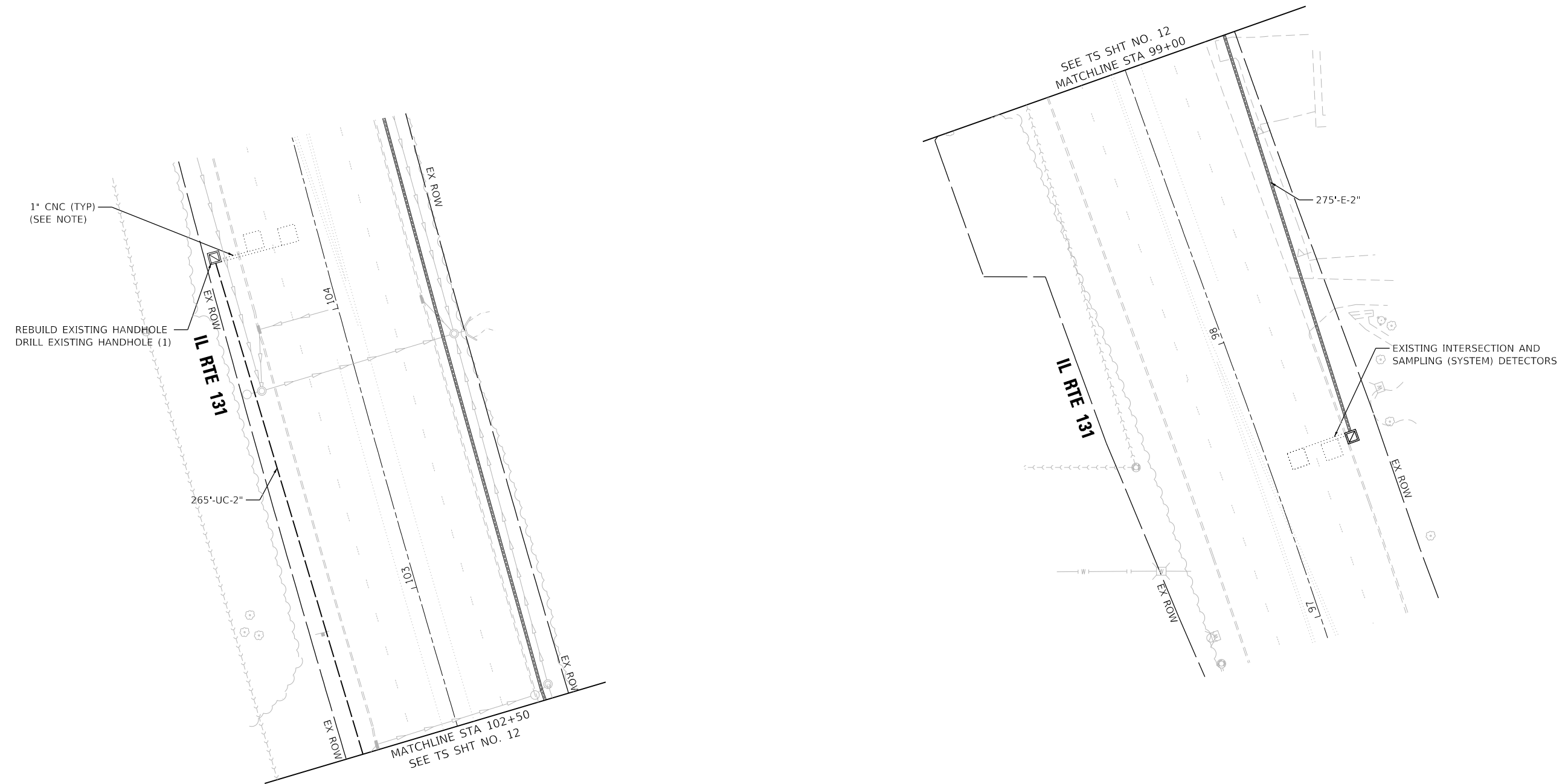
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE: 1"=20' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	18
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

**LAKE COUNTY PASSAGE  
 TS 9375  
 FORMER EAGLE 4P**



**NOTES:**

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

TS SHT NO 13

FILE NAME: M:\2019\31\_Civil\18-03-2500\_DOT\_ITB\_190 - Various Traffic\_Signal\_Design\Graphics\W0\_20-001\_18a\IL\_131 at 14th Sheet Proposed Plan.dgn

**Sam Schwartz**  
 223 W. JACKSON  
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 TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

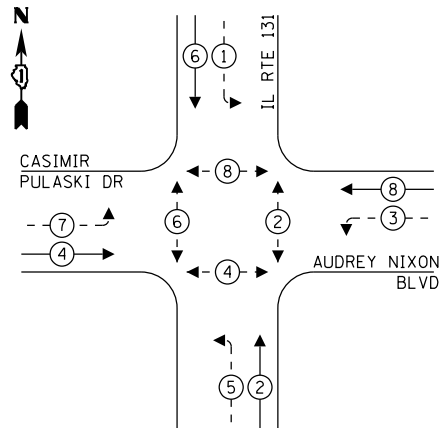
**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

SCALE: 1"=20' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	19
CONTRACT NO. 62J06				
ILLINOIS		FED. AID PROJECT		

**LAKE COUNTY PASSAGE  
 TS 9375  
 FORMER EAGLE 4P**

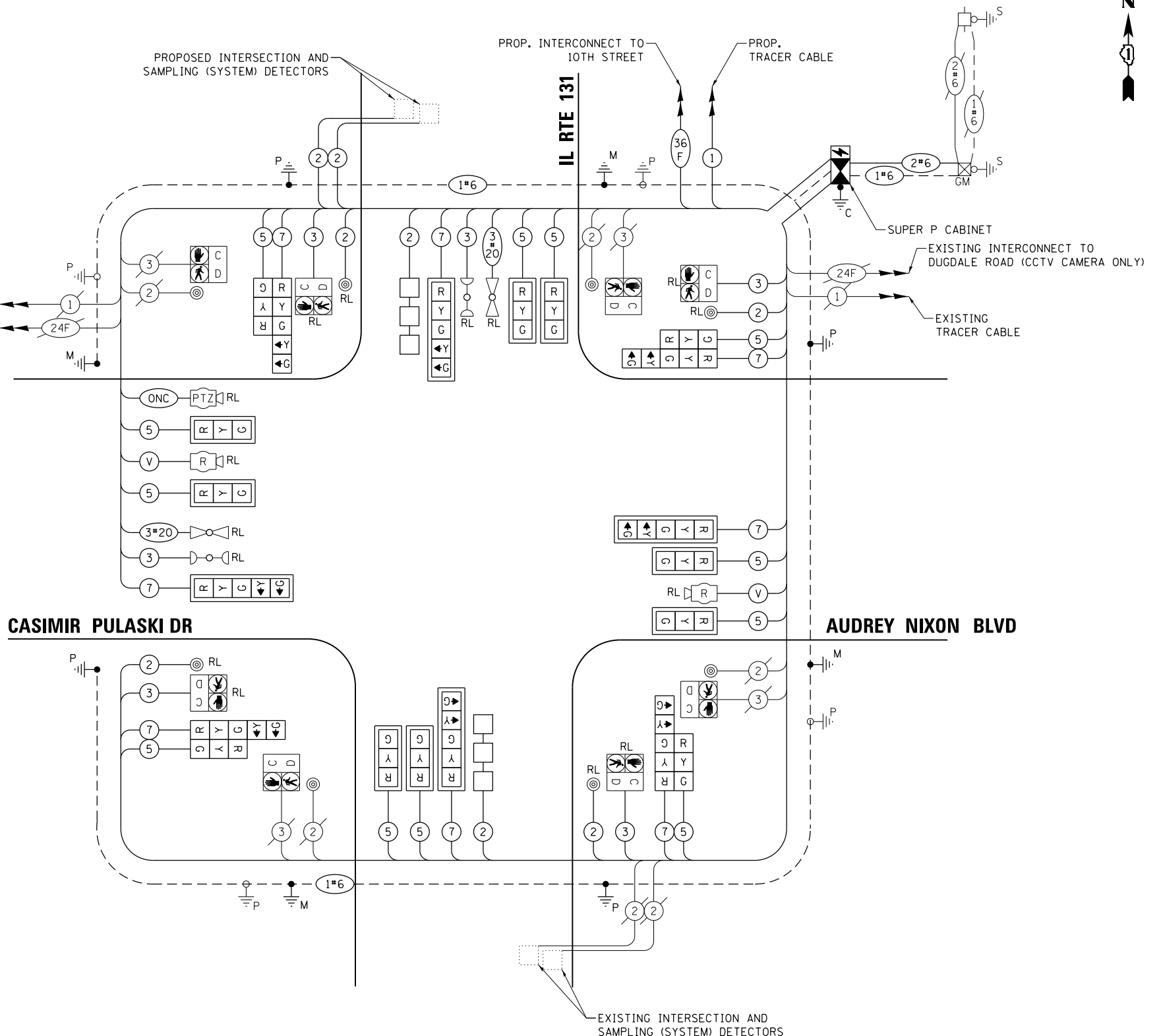
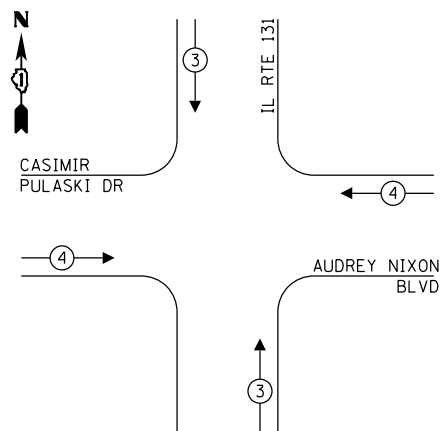
**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* → OL OVERLAP

**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CASIMIR PULASKI DR**

**AUDREY NIXON BLVD**

**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>689.0</b>

ENERGY COSTS TO:  
 CITY OF WAUKEGAN  
 100 N MARTIN LUTHER KING JR. AVENUE  
 WAUKEGAN, IL 60085  
 ENERGY SUPPLY: CONTACT: TERRI BLECK  
 PHONE: (847) 816-5239  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

**Sam Schwartz**  
 223 W. JACKSON  
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 TEL: (773) 305-0800

DESIGNED - ERICA SALUTZ	REVISED -
DRAWN - ERICA SALUTZ	REVISED -
CHECKED - PETER WOJTKIEWICZ	REVISED -
DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL RTE 131 AT AUDREY NIXON BLVD /CASIMIR PULASKI DR**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	20
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

TS SHT NO. 14  
 FILE NAME: M:\2019\31\_Civil\18-03-2500\_DGT\_PFB\_190 - Various Traffic Signal Design\Graphics\20-001 - Rte131\_131 at 14th Street Cable Plan.dgn





TS SHT NO. 16

FILE NAME: M:\2019\18-03-2500 DGT\_17B\_190 - Various Traffic Signal Design\Graphics\W0\_20-001\_18a\IL\_131 at 14th Street Temporary Interconnect Plan.dgn

**Sam Schwartz**  
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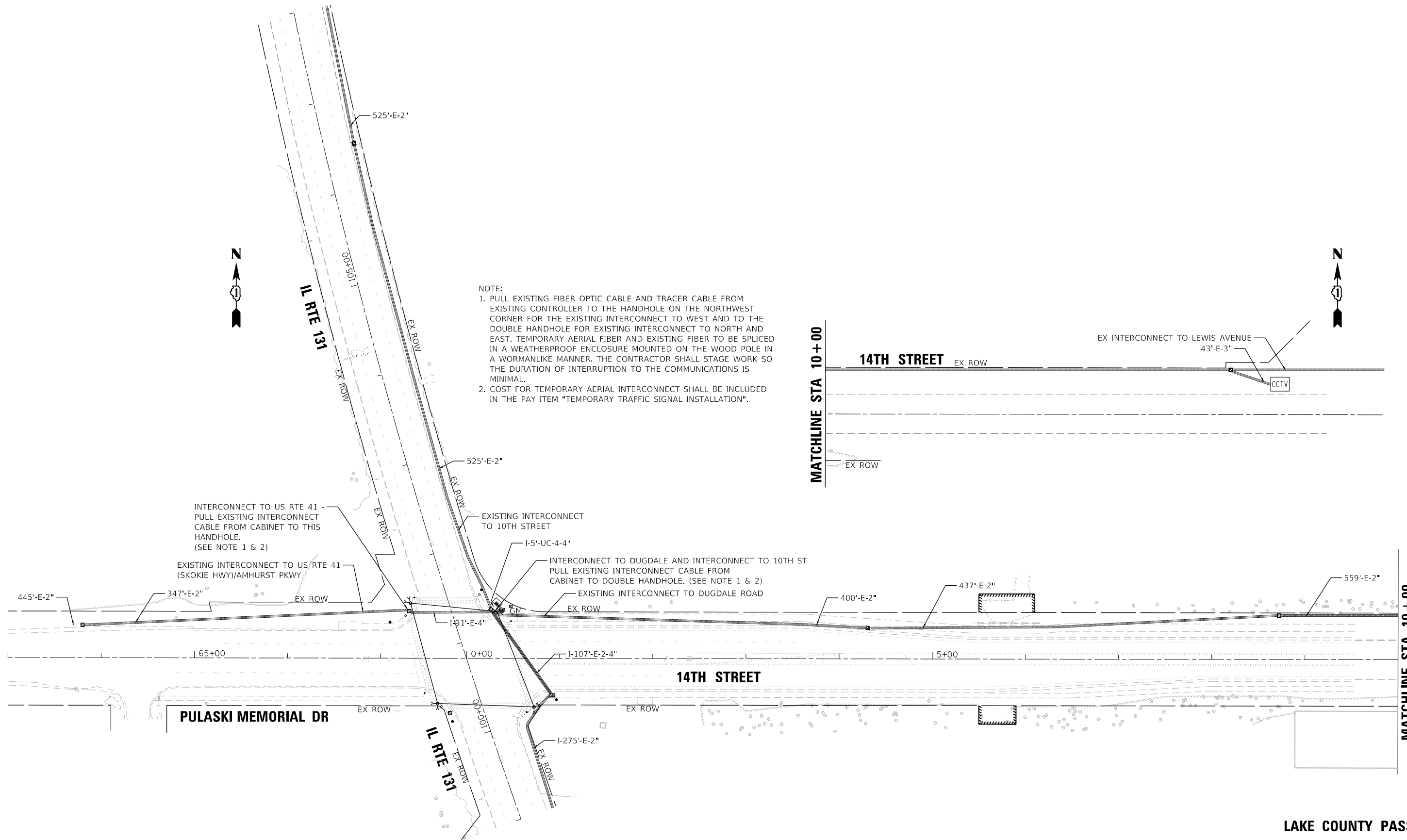
USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN  
 IL RTE 131 - AUDREY NIXON BLVD TO CRESCENT AVE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	22
CONTRACT NO. 62J06			ILLINOIS FED. AID PROJECT	



NOTE:  
 1. PULL EXISTING FIBER OPTIC CABLE AND TRACER CABLE FROM EXISTING CONTROLLER TO THE HANDHOLE ON THE NORTHWEST CORNER FOR THE EXISTING INTERCONNECT TO WEST AND TO THE DOUBLE HANDHOLE FOR EXISTING INTERCONNECT TO NORTH AND EAST. TEMPORARY AERIAL FIBER AND EXISTING FIBER TO BE SPLICED IN A WEATHERPROOF ENCLOSURE MOUNTED ON THE WOOD POLE IN A WORMANLIKE MANNER. THE CONTRACTOR SHALL STAGE WORK SO THE DURATION OF INTERRUPTION TO THE COMMUNICATIONS IS MINIMAL.  
 2. COST FOR TEMPORARY AERIAL INTERCONNECT SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

INTERCONNECT TO US RTE 41 - PULL EXISTING INTERCONNECT CABLE FROM CABINET TO THIS HANDHOLE. (SEE NOTE 1 & 2)

EXISTING INTERCONNECT TO US/RTE 41 (SKOKIE HWY)/AMHURST PKWY

EXISTING INTERCONNECT TO 10TH STREET

INTERCONNECT TO DUGDALE AND INTERCONNECT TO 10TH ST PULL EXISTING INTERCONNECT CABLE FROM CABINET TO DOUBLE HANDHOLE. (SEE NOTE 1 & 2)

EXISTING INTERCONNECT TO DUGDALE ROAD

EX INTERCONNECT TO LEWIS AVENUE

43'-E-3"

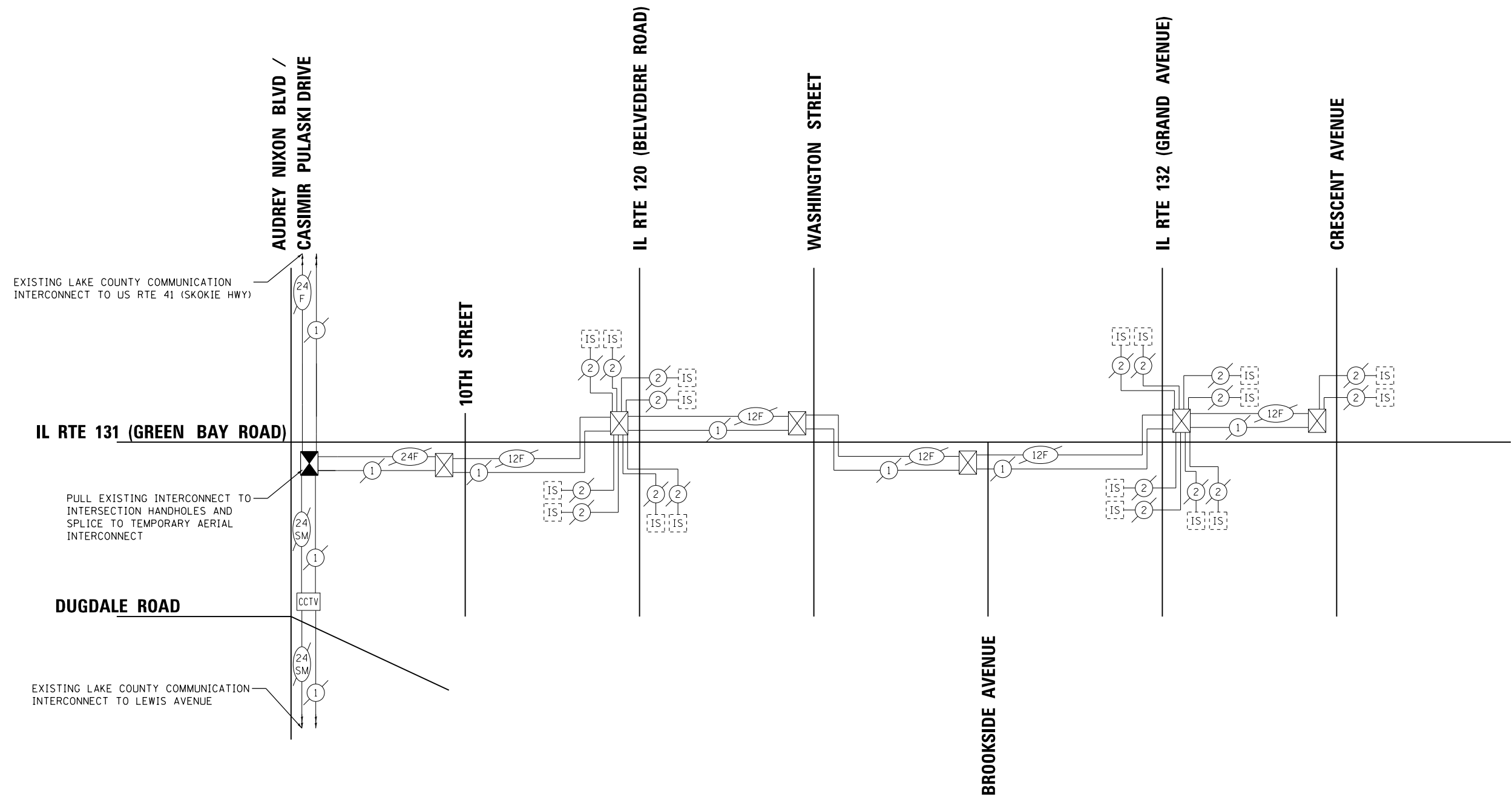
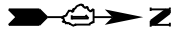
CCTV

PULASKI MEMORIAL DR

14TH STREET

IL RTE 131

LAKE COUNTY PASSAGE  
 FORMER EAGLE 4P



TS SHT NO. 17

FILE NAME: M:\2019\31\_Civil\18-03-5500\_DGT\_17B\_190 - Various Traffic Signal Design\Graphics\20-001\_18a\IL\_131 at 14th Street Temporary Interconnect Schematic.dgn

**Sam Schwartz**  
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USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC  
 IL RTE 131 (GREEN BAY RD) - AUDREY NIXON BLVD TO CRESCENT AVE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	23
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

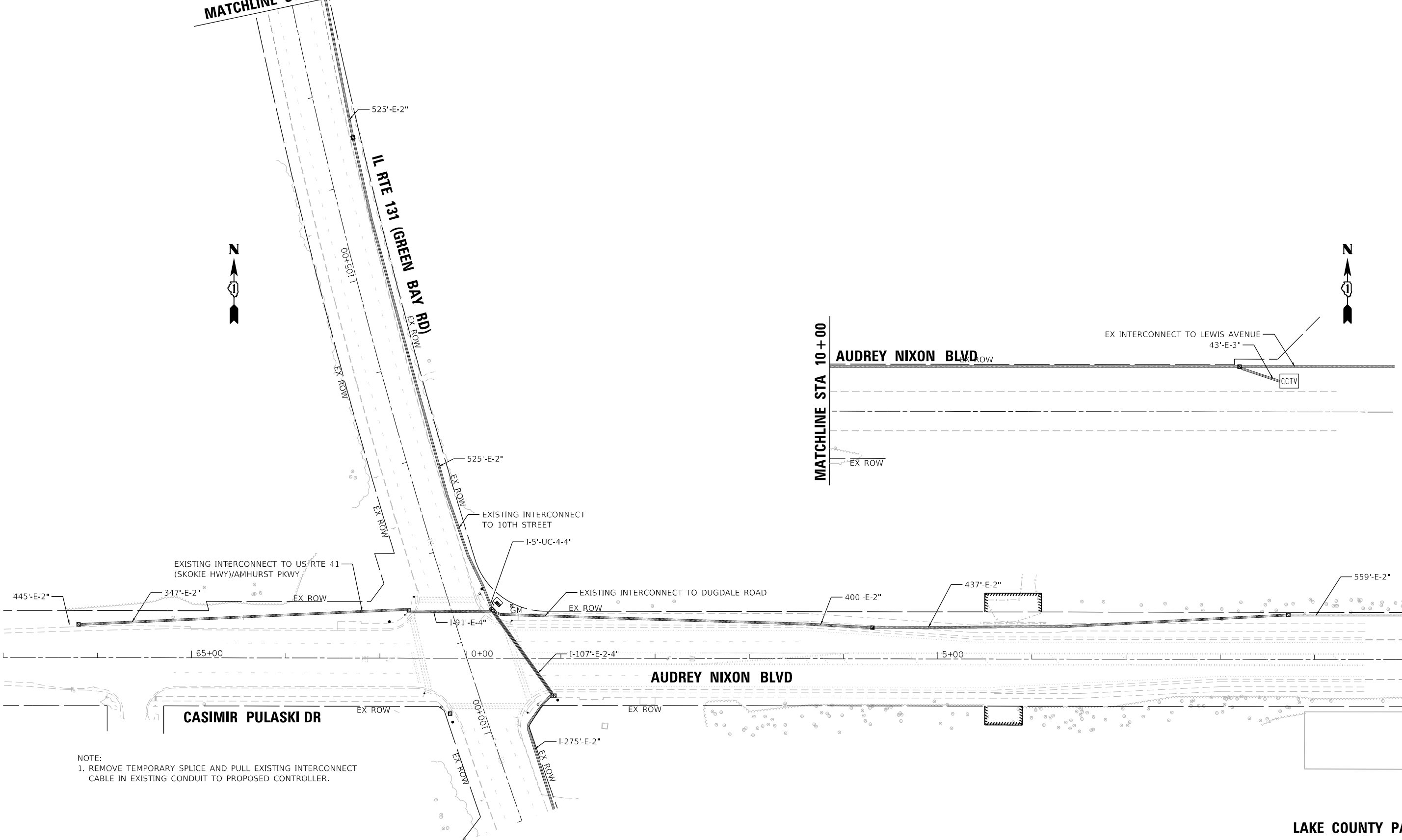
SCALE: SHEET OF SHEETS STA. TO STA.

LAKE COUNTY PASSAGE  
 FORMER EAGLE 4P

TS SHT NO 18

FILE NAME: M:\2019\18\_03\18-03-2500 DGT\_18\_190 - Various Traffic Signal Design\Graphics\W0\_20-001 -Rte131\_131 at 14th Sheet Interconnect Plan.dgn

MATCHLINE STA 108+00



NOTE:  
1. REMOVE TEMPORARY SPLICE AND PULL EXISTING INTERCONNECT CABLE IN EXISTING CONDUIT TO PROPOSED CONTROLLER.

MATCHLINE STA 10+00

MATCHLINE STA 10+00



LAKE COUNTY PASSAGE  
FORMER EAGLE 4P

**Sam Schwartz**  
223 W. JACKSON  
SUITE 1101  
CHICAGO, IL 60606  
TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

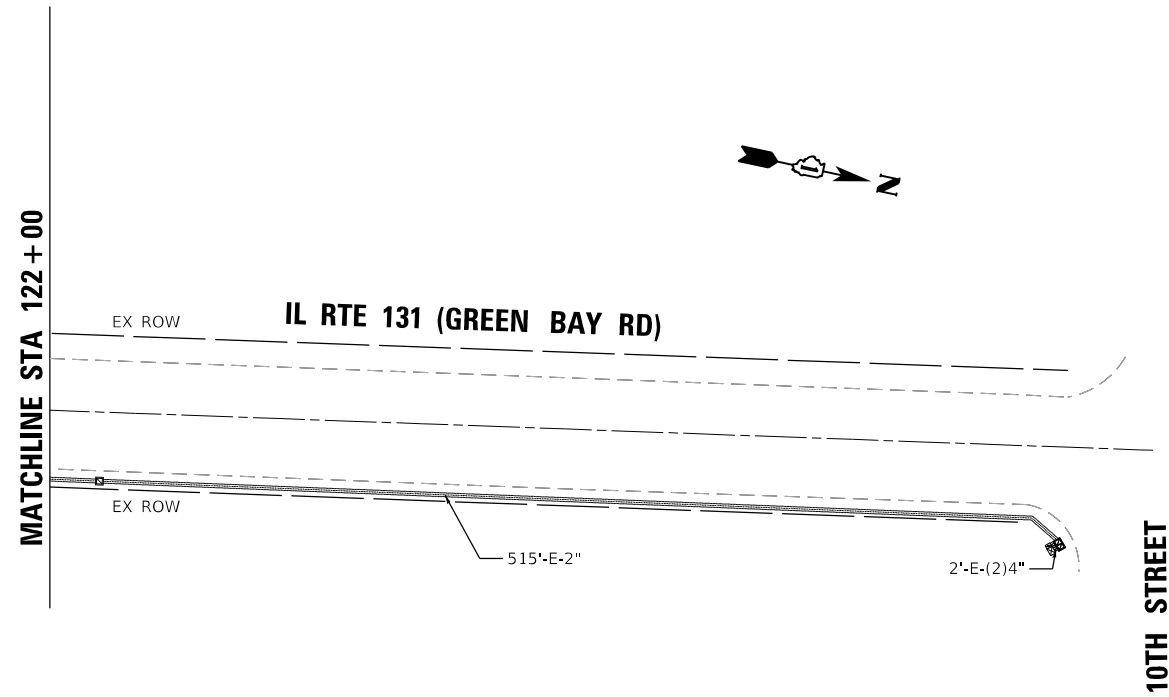
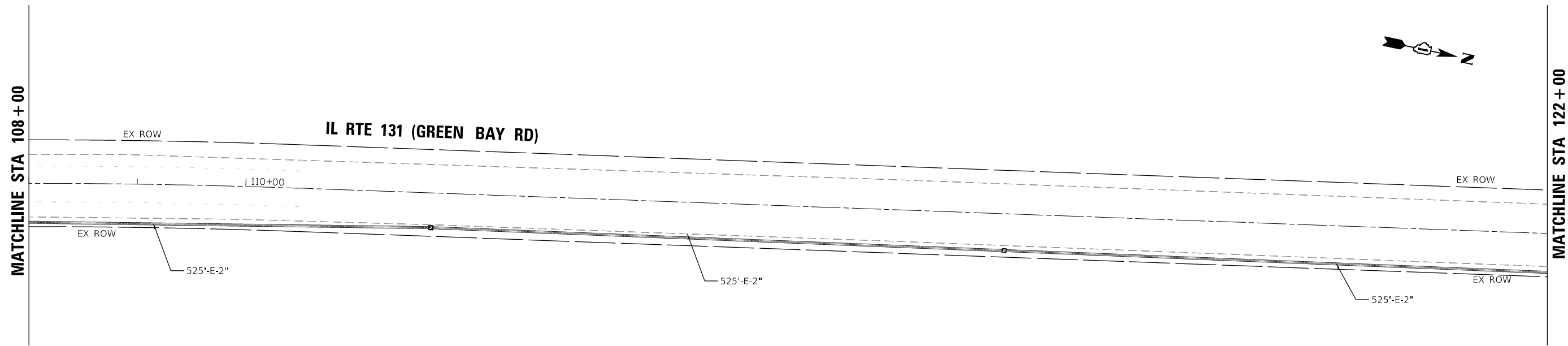
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 1 OF 2)  
IL RTE 131 - AUDREY NIXON BLVD TO CRESCENT AVE  
SCALE: 1"=50' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE. 2711	SECTION 2019-028-T5	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 24
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				

TS SHT NO. 19

FILE NAME: M:\2019\310118-03-5500 DGT\_17B\_190 - Various Traffic Signs Design\Graphics\20-001 - final\11\_131 at 14th Street Interconnect Plan.dgn



**Sam Schwartz**  
 223 W. JACKSON  
 SUITE 1101  
 CHICAGO, IL 60606  
 TEL: (773) 305-0800

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
	DRAWN - ERICA SALUTZ	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - PETER WOJTKIEWICZ	REVISED -
PLOT DATE = 5/7/2020	DATE - 04/28/2020	REVISED -

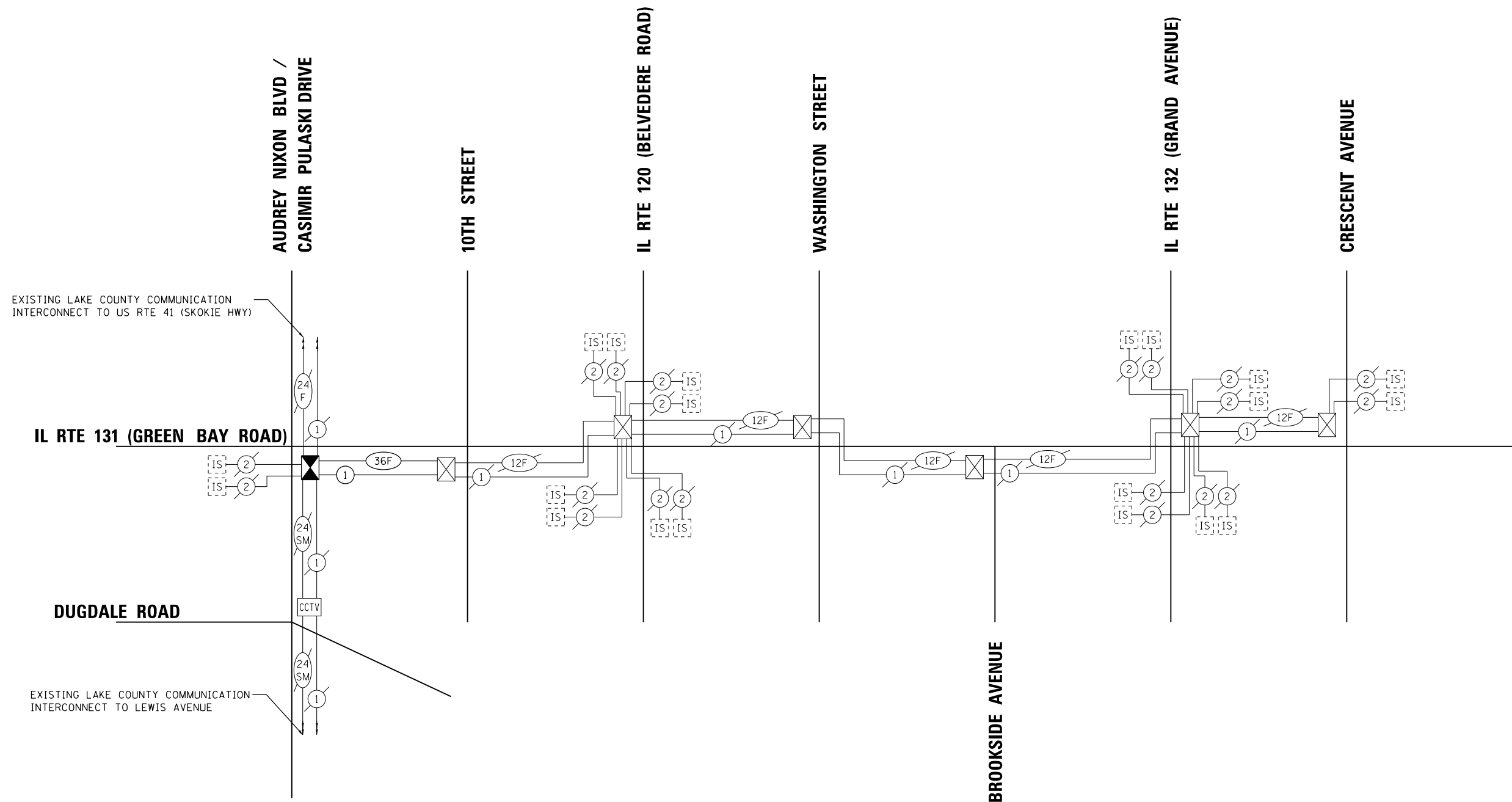
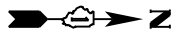
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 2 OF 2)  
 IL RTE 131 - AUDREY NIXON BLVD TO CRESCENT AVE**

SCALE: 1"=50' SHEET OF SHEETS STA. TO STA.

**LAKE COUNTY PASSAGE  
 FORMER EAGLE 4P**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	25
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2,680
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	5,240
* ROD AND CLEAN EXISTING CONDUIT	FOOT	2,615
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2,706
TERMINATE FIBER IN CABINET (LCDOT)	EACH	3
SPLICE FIBER IN CABINET (LCDOT)	EACH	3
TRANSCEIVER - FIBER OPTIC	EACH	1

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER

**LAKE COUNTY PASSAGE  
FORMER EAGLE 4P**

TS SHT NO. 20  
FILE NAME: M:\2019\31\_C11118-03-5500\_D01\_F19\_190 - Various Traffic Signal Design\Graphics\20-001\_118a11\_131 at 14th Street Interconnect\_Schematic.dgn

**Sam Schwartz**  
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USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

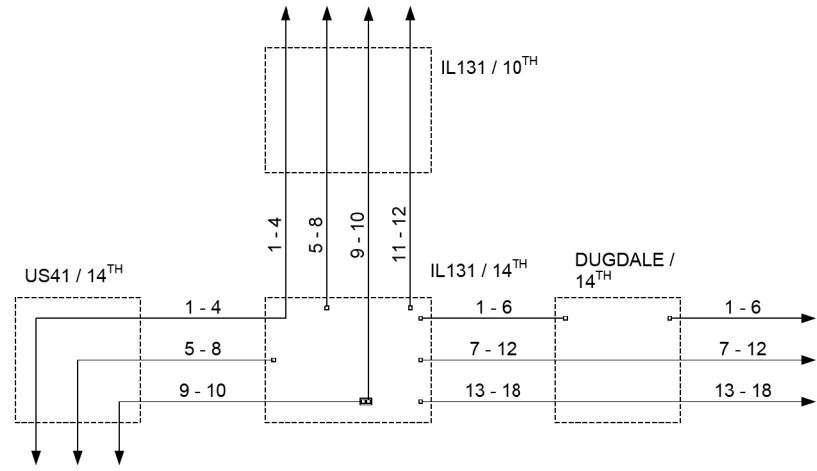
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
IL RTE 131 (GREEN BAY RD) - AUDREY NIXON BLVD TO CRESCENT AVE**

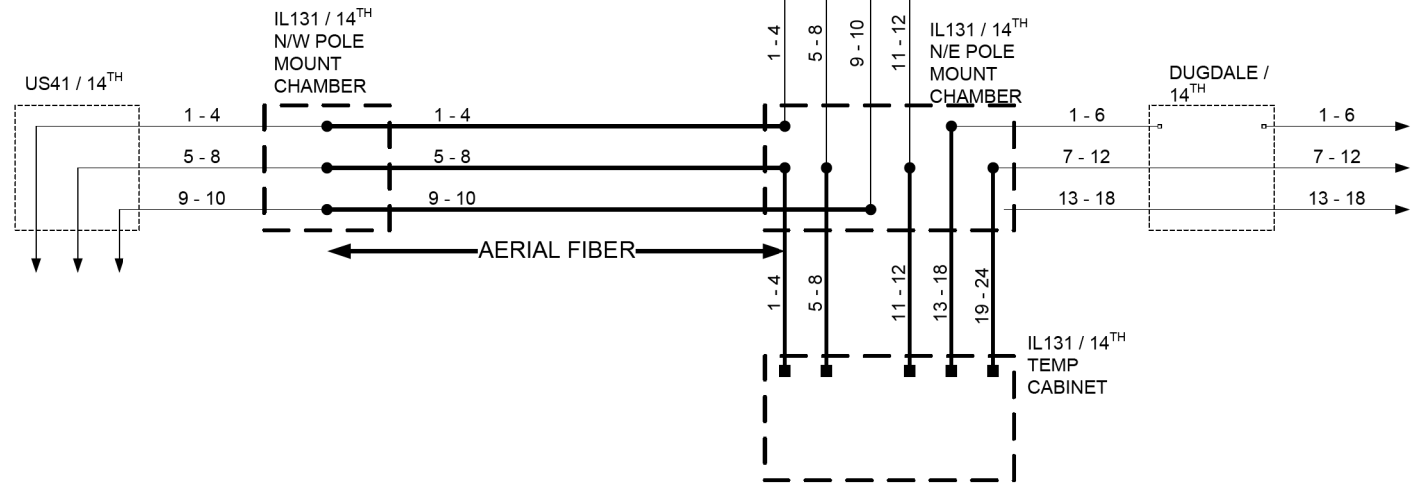
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	26
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62J06	

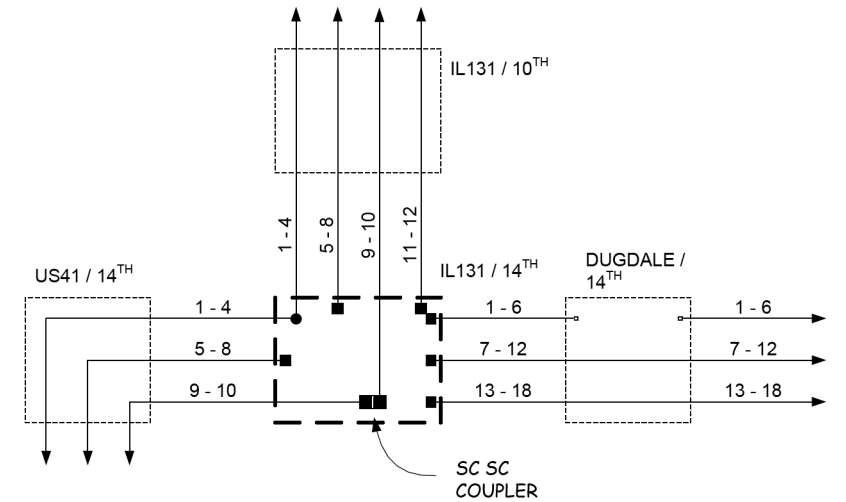
EXISTING



TEMP



FINAL



- ○ — EXISTING CONNECTOR / EXISTING FIBER
- ■ — NEW CONNECTOR / EXISTING FIBER
- — EXISTING FUSION SPLICE / EXISTING FIBER
- ● — NEW FUSION SPLICE / EXISTING FIBER
- ■ — NEW CONNECTOR / NEW FIBER
- ● — NEW FUSION SPLICE / NEW FIBER

DESIGNED - DG	REVISED -
DRAWN - YM	REVISED -
CHECKED - DG	REVISED -
DATE 2020.03.19	REVISED -

LAKE COUNTY  
DIVISION OF TRANSPORTATION

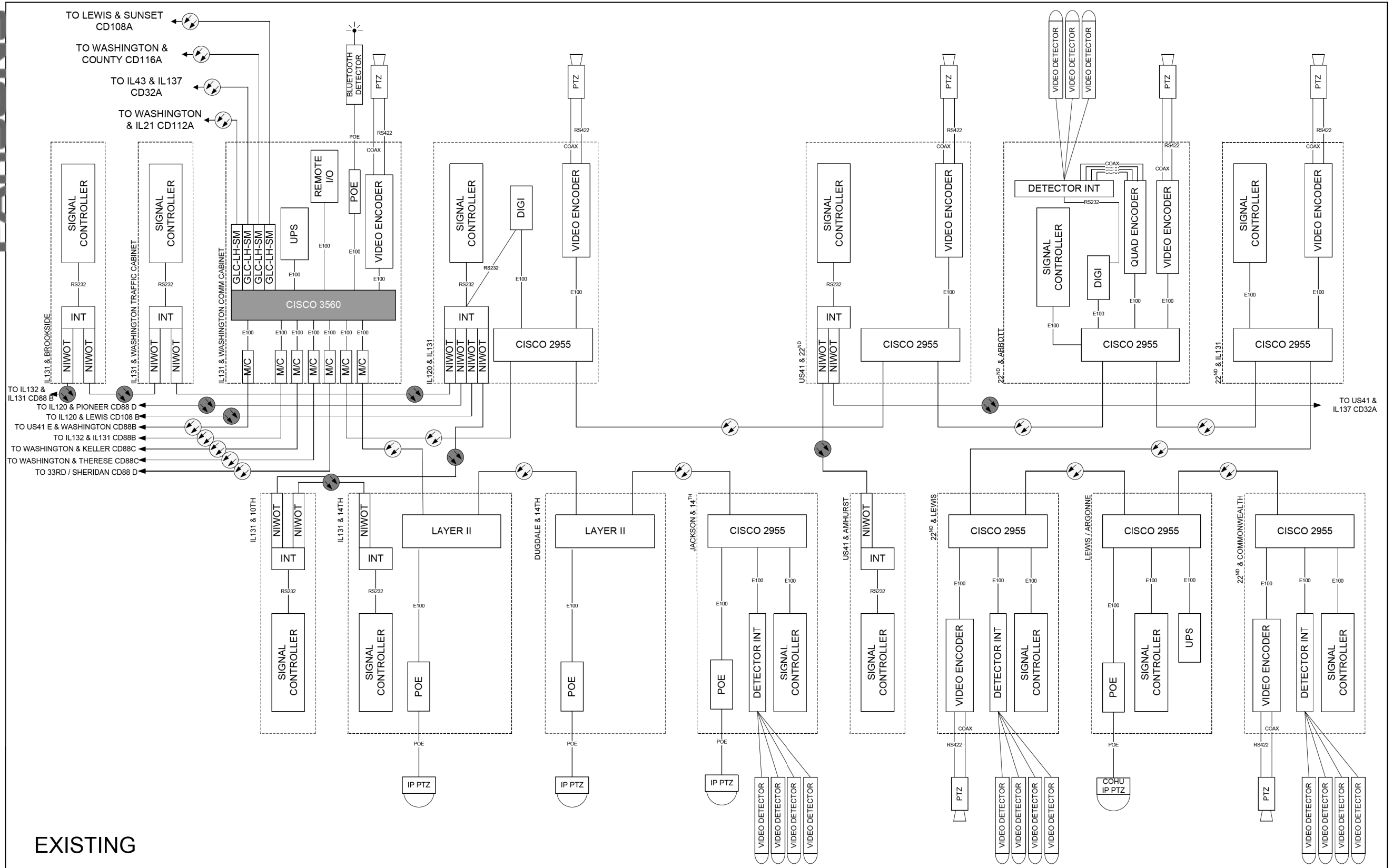
IL60 / FREMONT CENTER  
FIBER SPLICING DIAGRAM 1

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS

FILE NAME: M:\2019\3\_Civil\18-03-2500 DDOT FTB\_190 - Various Traffic Signal Design\Graphics\20-001\_IL60\_131 at 14th\_LC DOT PASSAGE.dgn

USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000 ' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -





EXISTING

DESIGNED - DG	REVISED -
DRAWN - YM	REVISED -
CHECKED - DG	REVISED -
DATE 2020.03.19	REVISED -

LAKE COUNTY  
DIVISION OF TRANSPORTATION

88A  
EXISTING  
IL131 / WASHINGTON

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS

FILE NAME: M:\2019\3\_Civil\18-03-2500 DDOT PFTB 190 - Various Traffic Signal Design\Graphics\DWG\_20-001\_88a\IL\_131\_at\_14th\_LCDOT\_PASSAGE.dgn

**Sam Schwartz**  
223 W. JACKSON  
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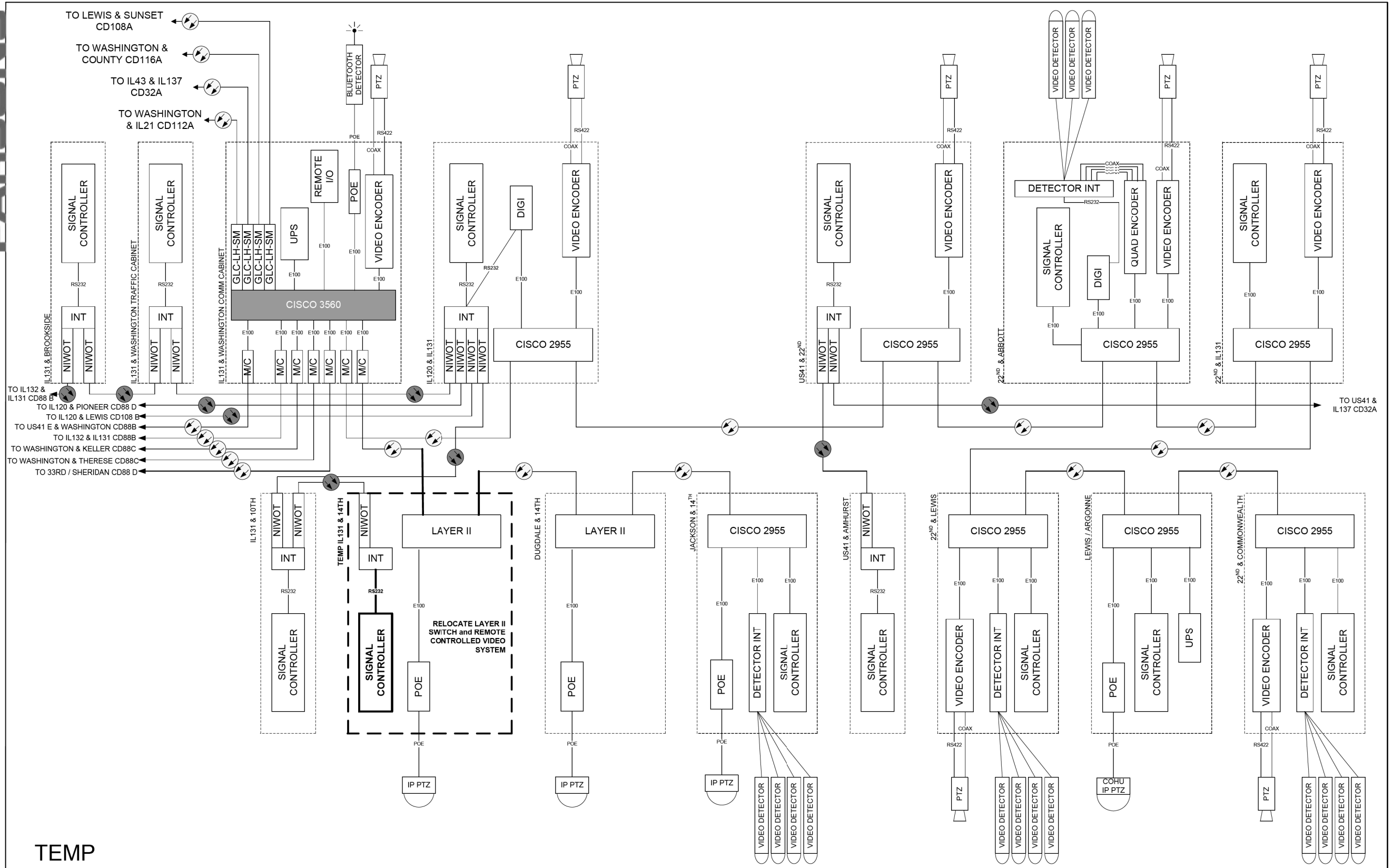
USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000 ' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LCDOT PASSAGE DIAGRAM  
SHEET 2 OF 4

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	28
CONTRACT NO. 62J06				
ILLINOIS		FED. AID PROJECT		



TEMP

DESIGNED - DG	REVISED -
DRAWN - YM	REVISED -
CHECKED - DG	REVISED -
DATE 2020.03.19	REVISED -

LAKE COUNTY  
DIVISION OF TRANSPORTATION

88A  
TEMP  
IL131 / WASHINGTON

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS

FILE NAME: M:\2019\3\_Civil\8-03-25\00 DDOT\_PTB\_190 - Various Traffic Signal Design\Graphics\W0\_20-001\_08a\IL\_131\_at\_14th\_LCDOT\_PASSAGE.dgn

**Sam Schwartz**  
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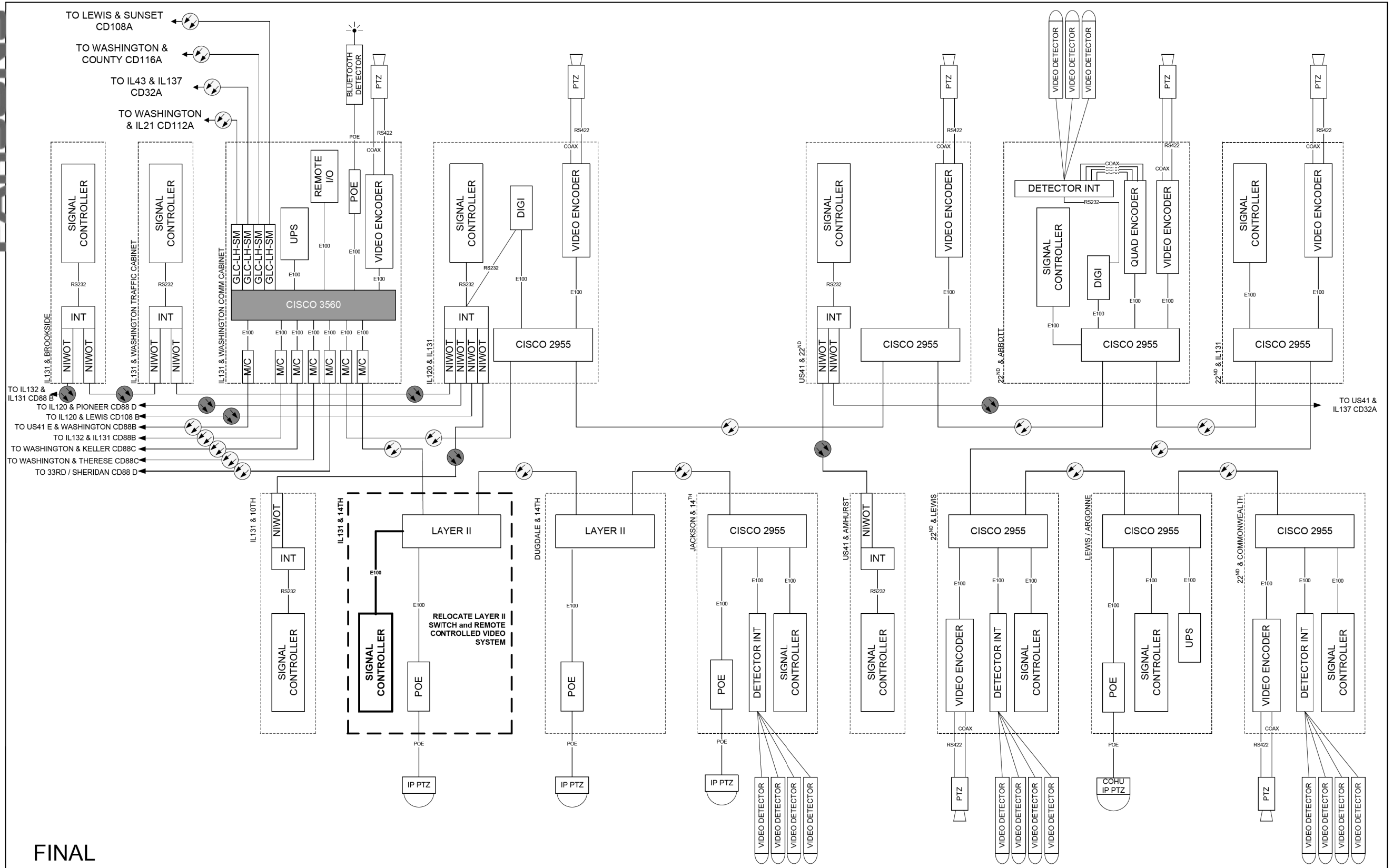
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PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LCDOT PASSAGE DIAGRAM  
SHEET 3 OF 4**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	29
CONTRACT NO. 62J06				
ILLINOIS		FED. AID PROJECT		



**FINAL**

DESIGNED - DG	REVISED -
DRAWN - YM	REVISED -
CHECKED - DG	REVISED -
DATE 2020.03.19	REVISED -

LAKE COUNTY  
DIVISION OF TRANSPORTATION

88A  
FINAL  
IL131 / WASHINGTON

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS

FILE NAME: M:\2019\3\_Civil\8-03-25\00 DDOT PFTB 190 - Various Traffic Signal Design\Graphics\W0\_20-001\_88a\IL\_131\_at\_14th\_LCDOT\_PASSAGE.dgn

**Sam Schwartz**  
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TEL: (773) 305-0800

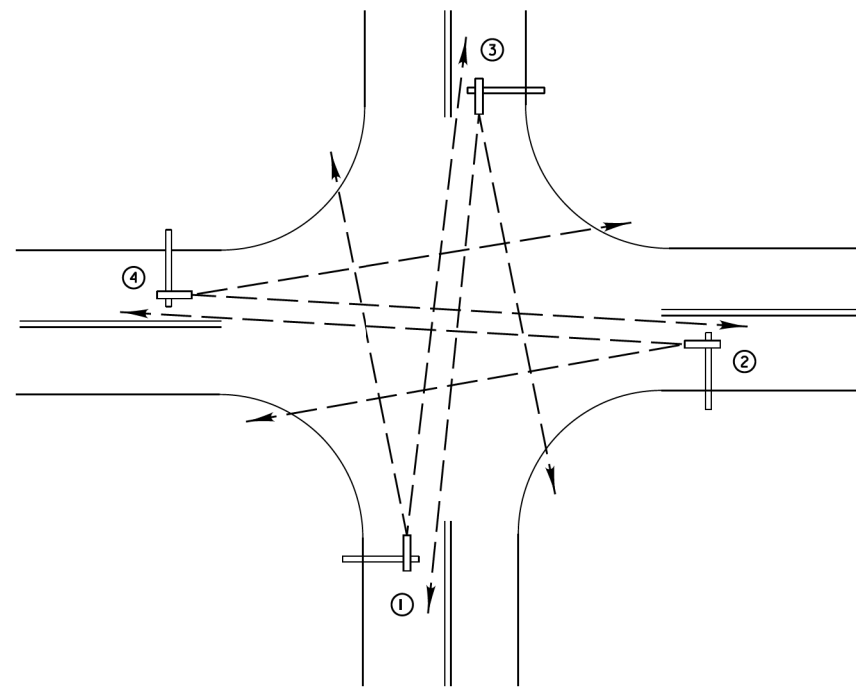
USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000 ' / in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LCDOT PASSAGE DIAGRAM  
SHEET 4 OF 4**

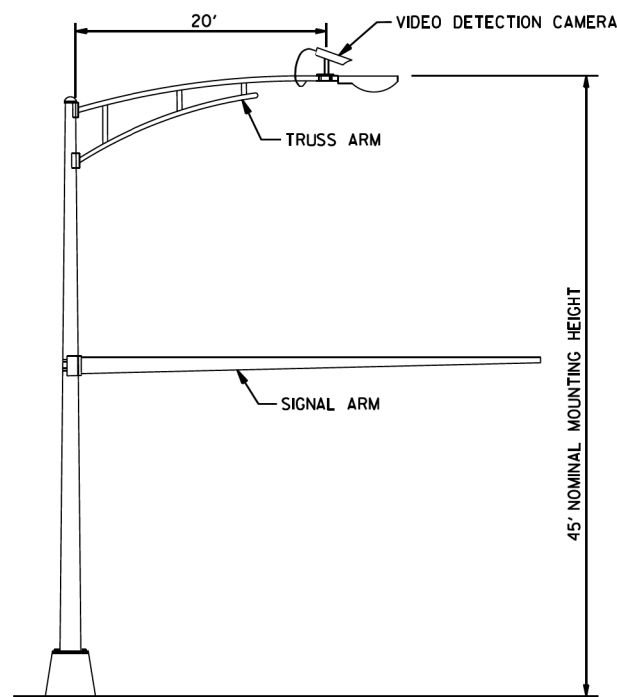
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	30
CONTRACT NO. 62J06				
ILLINOIS		FED. AID PROJECT		

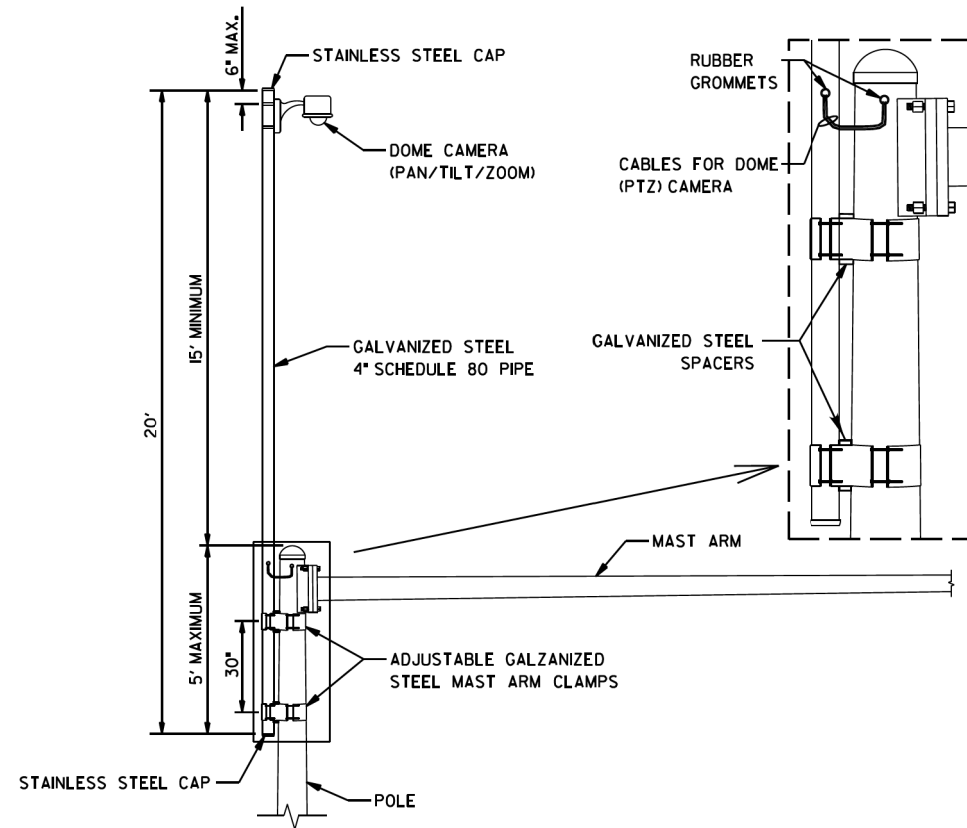


TYPICAL VIDEO VEHICLE  
DETECTION SYSTEM  
(NOT TO SCALE)

(4) VIDEO DETECTION CAMERA ASSEMBLIES AND BRACKETS ① ② ③ ④

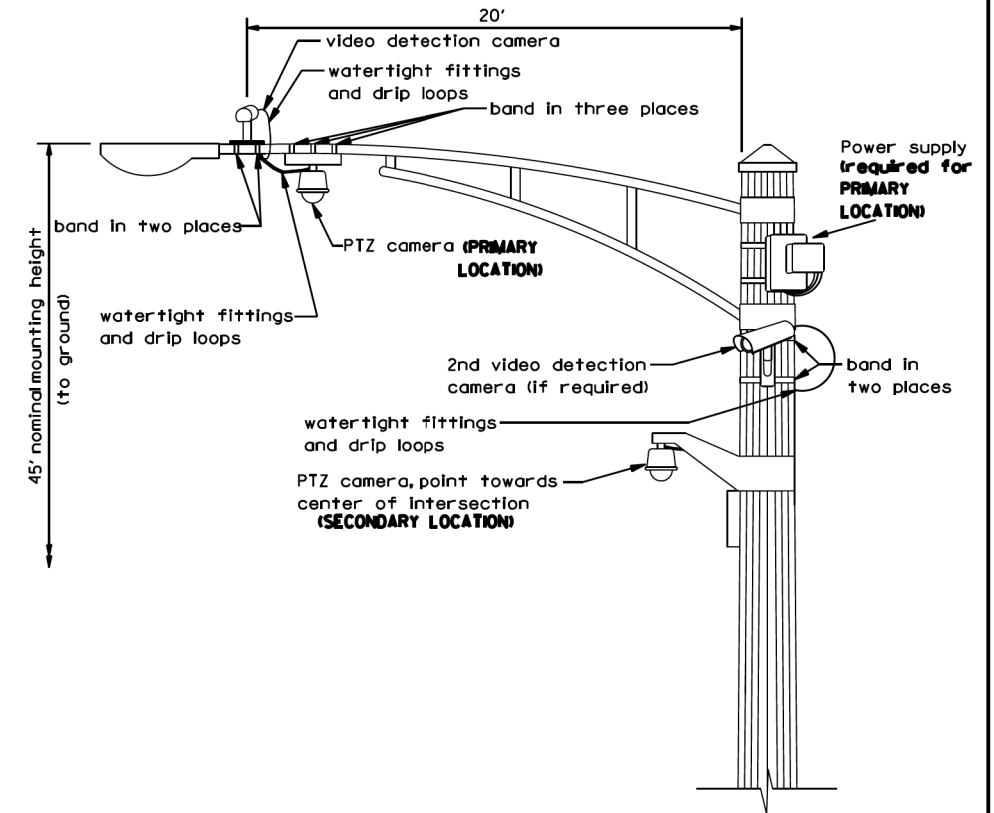


COMBINATION MAST ARM ASSEMBLY  
AND POLE DIMENSIONS  
(NOT TO SCALE)



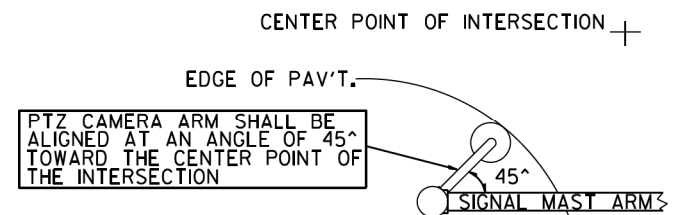
CAMERA MOUNTING ASSEMBLY DETAIL  
(NOT TO SCALE)

- NOTES:
- THE MAST ARM IS TAPERED.
  - INSTALL EXTENSION POLE VERTICAL AND PLUMB BY MODIFYING/INSTALLING BRACKETS AS NECESSARY. ADDITIONAL SPACERS REQUIRED ARE INCLUDED IN THE COST OF THE CAMERA MOUNTING ASSEMBLY OF THE TYPE SPECIFIED.
  - SPACERS ARE TO BE INTEGRATED OR MANUFACTURED WITH THE MAST ARM BRACKETS



VIDEO DETECTION CAMERA(S) AND  
DOME (PTZ) CAMERA MOUNTING DETAIL  
(NOT TO SCALE)

- NOTES FOR SINGLE, DUAL AND MULTIPLE CAMERA MOUNTING:
- MOUNT LUMINAIRE MOUNTING BRACKET AS HIGH AS POSSIBLE.
  - MOUNT VIDEO DETECTION CAMERA AIMING DOWN TOWARD THE DIRECTION OF TRAFFIC TO BE DETECTED.



PTZ CAMERA MOUNTING DETAILS  
(SECONDARY LOCATION)  
(NO SCALE)

REVISIONS	DATE		APPROVED BY: J. P. NELSON DATE: JUNE 13, 2014
Mounting Details Revised	05/01/08		
2nd Camera Locat. added	01/14/09		
Mast Arm Taper Detail	06/01/12		
Mounting Details Revised	06/13/14		
<b>CAMERA MOUNTING DETAILS</b>		<b>LC8900</b>	

REVISIONS / REMARKS				
NO.	DESCRIPTION	DATE	BY	SURVEYOR / DSGNR/LIAISON

FILE NAME: C:\Users\hdmrc\Desktop\LC8900 VIDEO DETECTION DETAILS REVISION-JUNE 2014.DGN

**Sam Schwartz**  
223 W. JACKSON  
SUITE 1101  
CHICAGO, IL 60606  
TEL: (773) 305-0800

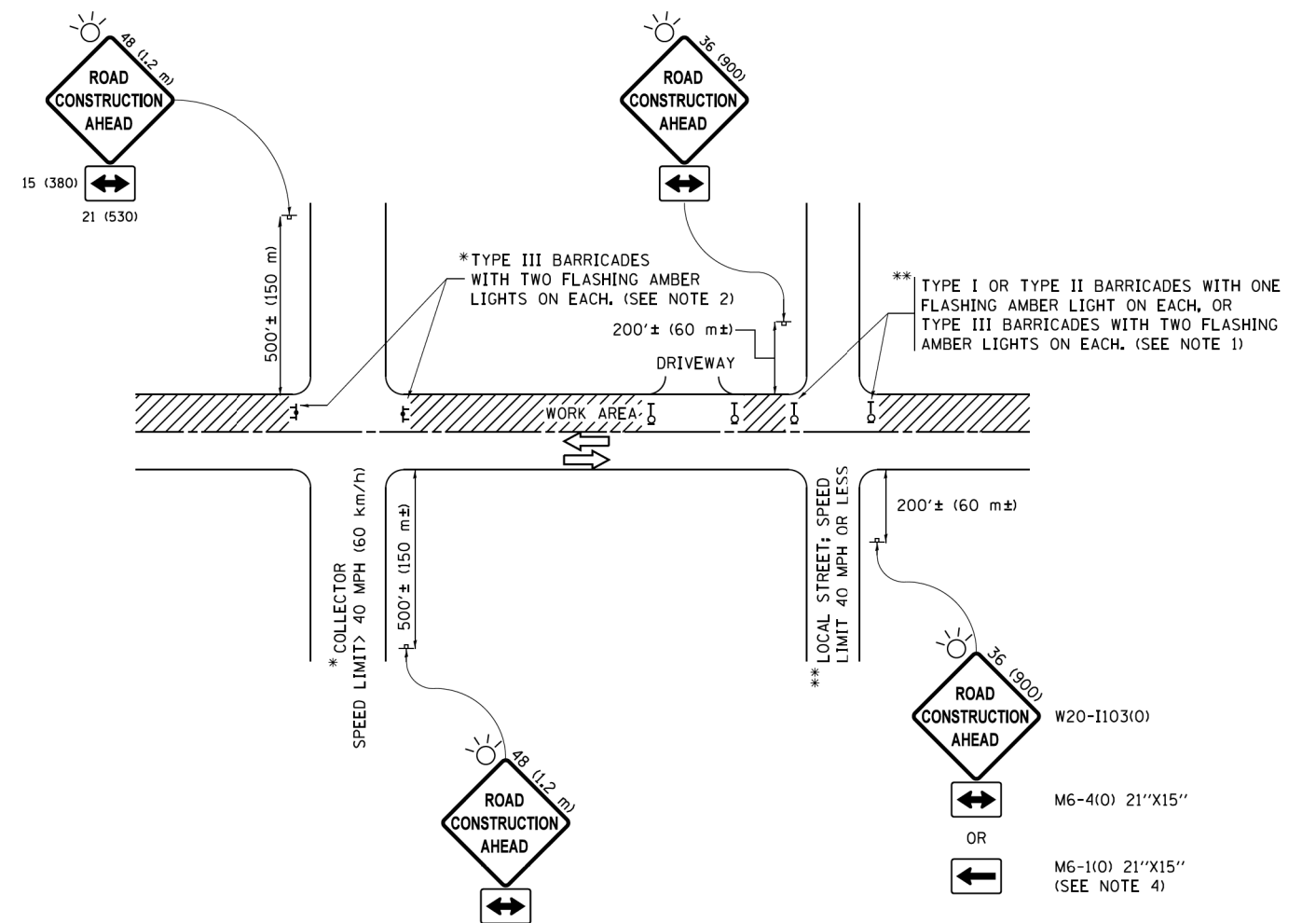
USER NAME = esalutz	DESIGNED - ERICA SALUTZ	REVISED -
PLOT SCALE = 40.0000 "/in.	DRAWN - ERICA SALUTZ	REVISED -
PLOT DATE = 5/7/2020	CHECKED - PETER WOJTKIEWICZ	REVISED -
	DATE - 04/28/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS - SHEET 1  
IL RTE 131 (GREEN BAY RD) AT CASIMIR PULASKI DR

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-T5	LAKE	34	31
CONTRACT NO. 62J06				
ILLINOIS FED. AID PROJECT				



**NOTES:**

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 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. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
pw1\1L084E8ID\INTEG\illinois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist1\1000\1000\CADD\cadd\CADsheets\1010.dgn		DRAWN	REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 50,000' / 1" =	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

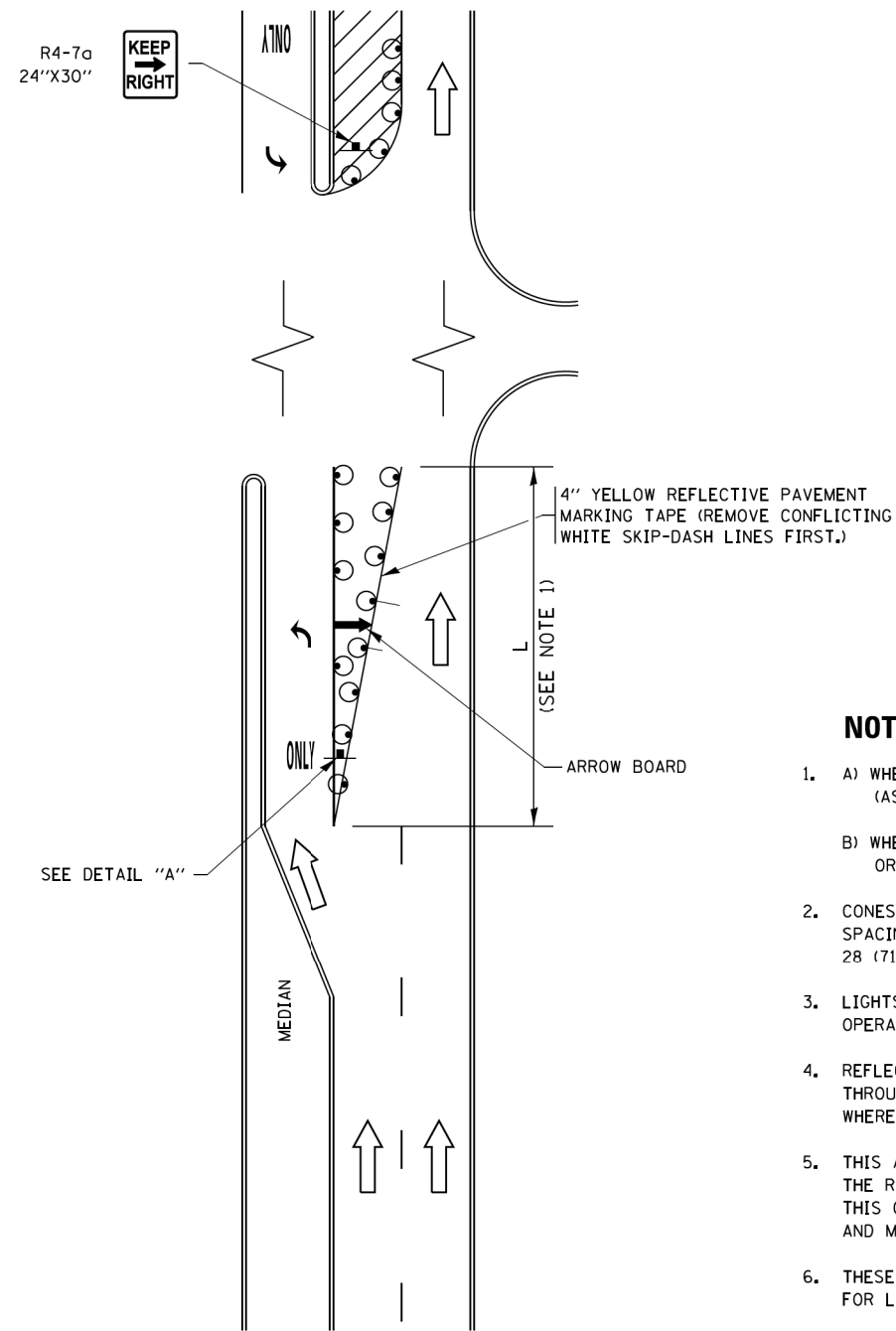
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

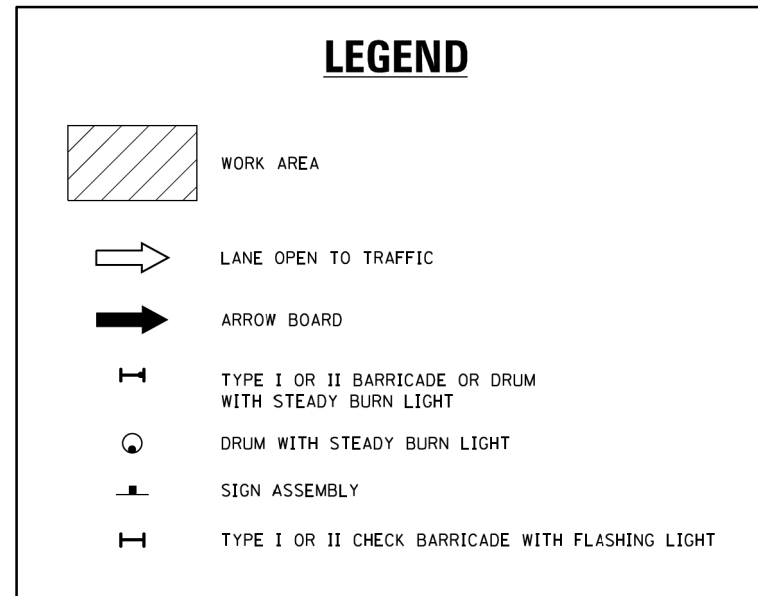
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2711	2019-028-TS	LAKE	34	32
TC-10		CONTRACT NO. 62J06		
ILLINOIS FED. AID PROJECT				

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



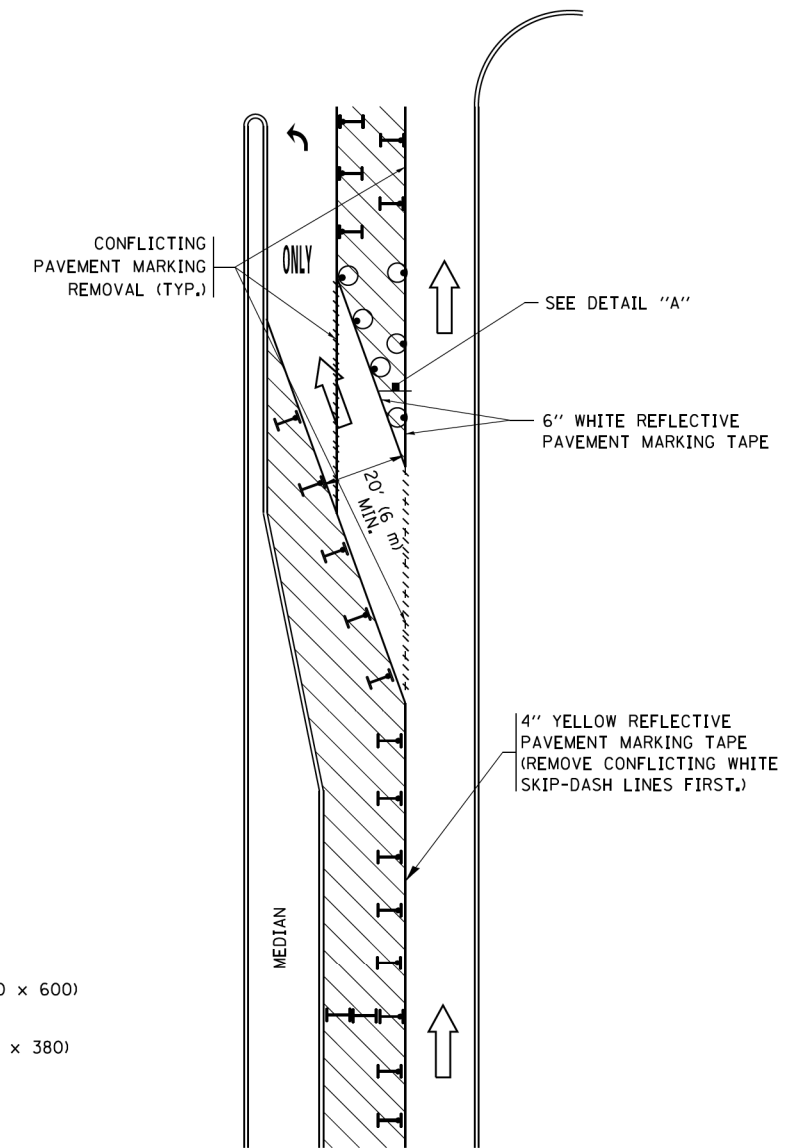
**FIGURE 1**



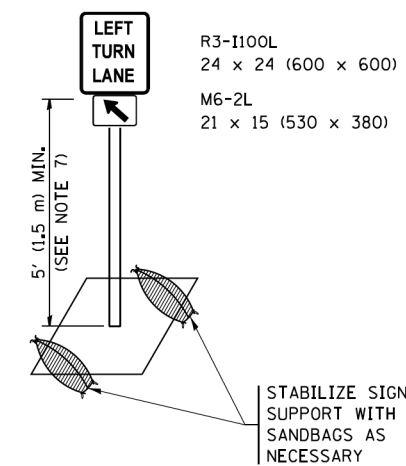
### NOTES:

1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PRE REQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



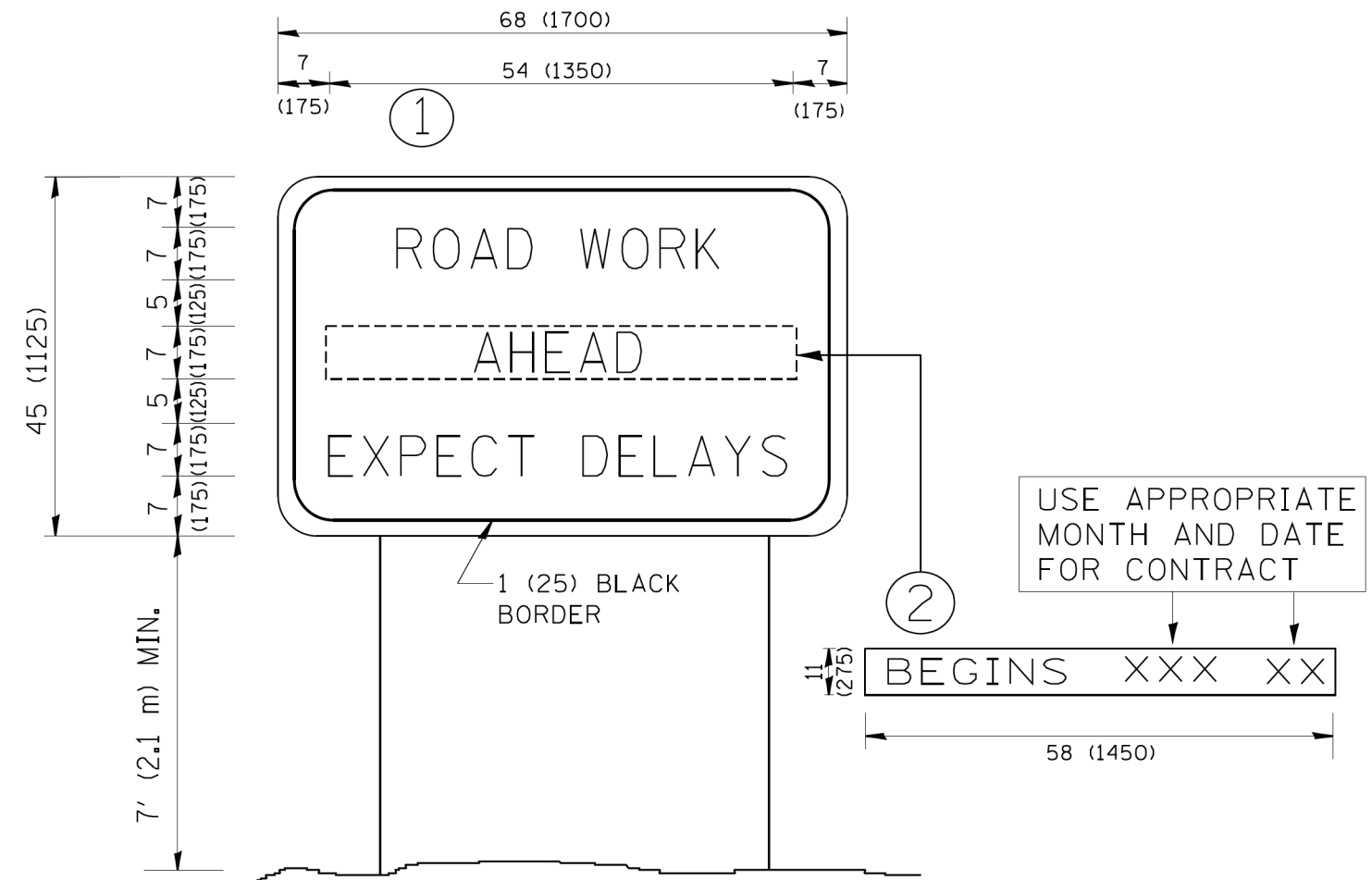
**FIGURE 2**



**DETAIL A**

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

FILE NAME =	USER NAME = footemj	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Default	REVISED - A. HOUSEH 10-07-95	REVISED - A. SCHUETZE 07-01-13					2711	2019-028-TS	LAKE	34	33
	PLOT SCALE = 50,0000' / 1"	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16		<b>TC-14</b>		<b>CONTRACT NO. 62J06</b>					
	PLOT DATE = 9/15/2016	REVISED - T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE		SHEET 1 OF 1 SHEETS		STA. TO STA.		ILLINOIS FED. AID PROJECT	



**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.U. RTE. 2711	SECTION 2019-028-TS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 34
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	CONTRACT NO. 62J06	
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT							