

06-15-2018 LETTING ITEM 024

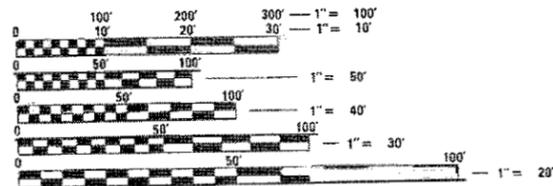
FOR INDEX OF SHEETS, SEE SHEET NO. 2



Signed *Daniel Wiktorzak*  
DANIEL WIKTORZAK, P.E. IL Lic. No. 062-060950  
Expires 11-30-2019  
Date 3-23-18  
FOR PAGES: 1-22, 29-31, 40-42, 65-86



Signed *Kirankumar G. Prajapati*  
KIRANKUMAR G. PRAJAPATI, P.E. IL Lic. No. 062-069492  
Expires 11-30-2019  
Date 3-23-18  
FOR PAGES: 23-28, 38-39, 43-45, 57-64, 89-95, 99-110



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

PROJECT ENGINEER: IOVAN PLASCENCIA (847) 705-4504  
PROJECT MANAGER: LUKASZ POCIECHA (847) 705-4420

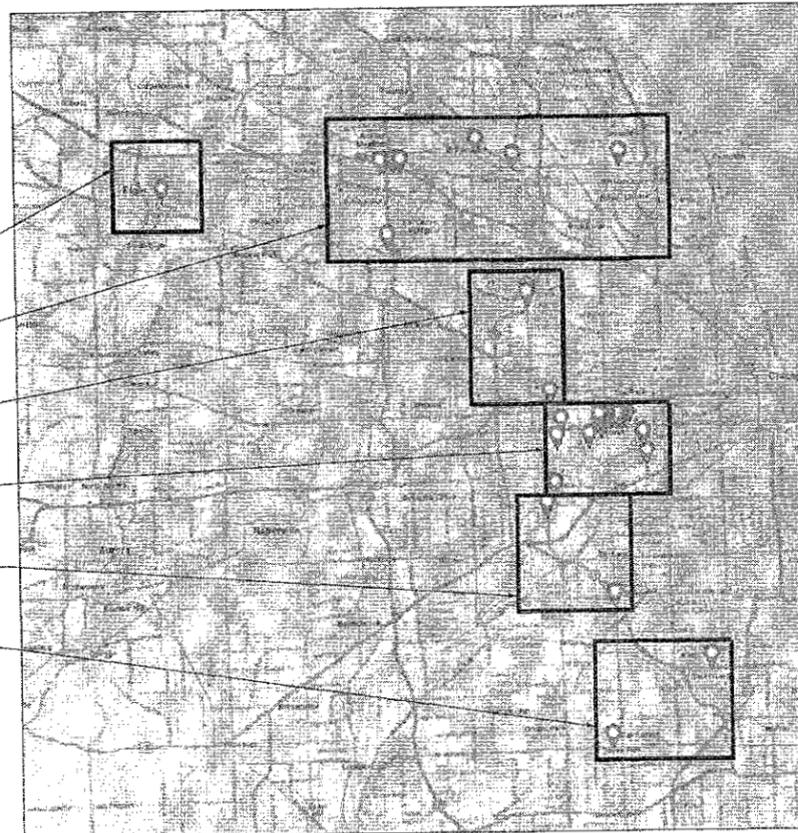
CONTRACT NO. 62G12

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PROPOSED  
HIGHWAY PLANS**  
VARIOUS LOCATIONS IN DISTRICT 1  
CONTRACT NO. 2  
PROJECT STP-1Q7C(061)  
2018-001-TS  
**TROMBONE MAST ARM REPLACEMENT  
COOK AND KANE COUNTIES**

C-91-144-18

REGION "A"  
REGION "B"  
REGION "C"  
REGION "D"  
REGION "E"  
REGION "F"



VARIOUS TOWNSHIPS  
FOR LOCATION MAPS SEE SHEET NO. 3 - 5



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	1
ILLINOIS			CONTRACT NO. 62G12	

D-91-256-18

\* 111 + 5 = 116 TOTAL SHEETS



LOCATION OF SECTION INDICATED THIS: - [black rectangle]

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED *March 23 2018*  
*Anthony J. ...* REGIONAL ENGINEER  
*May 11 2018*  
*... A. ETC* ENGINEER OF DESIGN AND ENVIRONMENT  
*May 11 2018*  
*Daniel P. ...* DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

REV

**INDEX OF SHEETS**

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 2 INDEX OF SHEETS AND GENERAL NOTES  
 3-5 LOCATION MAPS  
 6-11 SUMMARY OF QUANTITIES  
 12-18 STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
 19 MAST ARM MOUNTED STREET NAME SIGNS DETAIL

TRAFFIC SIGNAL MODERNIZATION PLANS

20-22 SCHEDULE OF QUANTITIES  
 23-25 TS 670 - IL RTE 25 (LIBERTY ST) AT VILLA ST  
 26-28 TS 8780 - IL RTE 58 (GOLF RD) AT WOODFIELD MIDDLE ENTRANCE / ROOSEVELT BLVD  
 29-31 TS 8790 - IL RTE 58 (GOLF RD) AT WOODFIELD EAST ENTRANCE / EAST DR  
 32-34 TS 2860 - IL RTE 58 (GOLF RD) AT RING RD / FOREST PRESERVE ENTRANCE  
 35-37 TS 2770 - IL RTE 58 (GOLF) RD AT GALLAGHER WAY  
 38-39 TS 9660 - IL RTE 83 (MAIN ST) AT CENTRAL RD  
 40-42 TS 375 - US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD)  
 43-45 TS 14270 - GOLF RD AT OVERLOOK DR  
 46-48 TS 5715 - IL RTE 53 (ROHLWING RD) AT DEVON AVE  
 49-51 TS 11030 - US RTE 12-45 (MANNHEIM RD) AT SEYMOUR AVE  
 52-53 TS 11035 - US RTE 12-45 (MANNHEIM RD) AT WAVELAND AVE  
 54-56 TS 3720 - 25TH AVE AT LEXINGTON ST  
 57-59 TS 22121 - 17TH AVE AT 23RD ST  
 60-62 TS 3760 - 31ST ST AT DES PLAINES AVE  
 63-64A TS 3750 - 26TH ST AT VETERAN DR (NORTH RIVERSIDE PLAZA SOUTH ENTRANCE)  
 65-66 TS 2115 - IL RTE 43 (HARLEM AVE) AT 23RD ST  
 67-68A TS 4820 - 22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA WEST ENTRANCE  
 69-70A TS 4825 - 22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA EAST ENTRANCE  
 71-73 TS 9360 - 22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA/PRIVATE ENTRANCE  
 74-75 TS 4795 - 22ND ST (CERMAK RD) AT CERMAK PLAZA NORTH ENTRANCE/WENONAH AVE  
 76-77 TS 4810 - 22ND ST (CERMAK RD) AT HOME AVE  
 78-79 TS 4830 - 22ND ST (CERMAK RD) AT OAK PARK AVE  
 80-81 TS 4840 - 22ND ST (CERMAK RD) AT RIVERSIDE DR/WESLEY AVE  
 82-84 TS 4805 - 22ND ST (CERMAK RD) AT EAST AVE  
 85-86 TS 4835 - 22ND ST (CERMAK RD) AT RIDGELAND AVE  
 87-88 TS 13930 - 31ST ST BETWEEN HARRISON AVE AND RAYMOND AVE  
 89-91 TS 5555 - OGDEN AVE AT 31ST ST  
 92-95 TS 3780 - 39TH ST (PERSHING RD) AT CENTRAL AVE  
 96-98 TS 5070 - EAST AVE AT PLAINFIELD RD  
 99-101 TS 1055 - US RTE 12-20-45 (LA GRANGE RD) AT COUNTRYSIDE PLAZA ENTRANCE  
 102-103A TS 2200 - IL RTE 43 (HARLEM AVE) AT 99TH ST  
 104-107 TS 3995 - 127TH ST AT KEDZIE AVE  
 108-110 TS 180 - US RTE 6 (159TH ST) AT 76TH AVE  
 110A TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)  
 111 ARTERIAL ROAD INFORMATION SIGN (TC-22)

**HIGHWAY STANDARDS**

000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
 001001-02 AREAS OF REINFORCEMENT BARS  
 001006 DECIMAL OF AN INCH AND OF A FOOT  
 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE  
 701101-05 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE  
 701701-10 URBAN LANE CLOSURE MULTILANE INTERSECTION  
 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE  
 701901-07 TRAFFIC CONTROL DEVICES  
 720001-01 SIGN PANEL MOUNTING DETAIL  
 814001-03 HANDHOLES  
 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES  
 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)  
 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING  
 877001-07 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'  
 878001-10 CONCRETE FOUNDATION DETAILS  
 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS  
 886001-01 DETECTOR LOOP INSTALLATIONS

**GENERAL NOTES:**

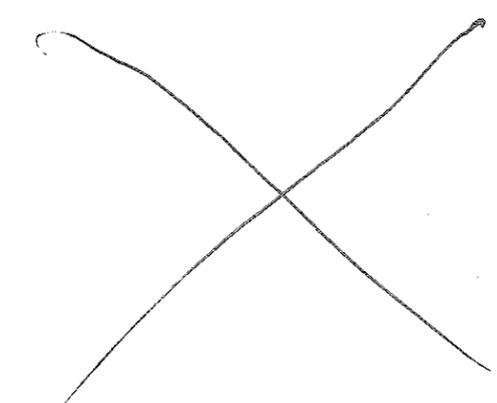
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS. 48 HOUR NOTIFICATION IS REQUIRED.
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470, 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 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 ARM LENGTHS.
- ALL EXISTING R.O.W. SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD. ANY R.O.W. CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER.
- 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).
- 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.
- 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 FOUNDATIONS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
- 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 FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
- PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.
- AT LOCATIONS ON THE PLANS WHERE TRAFFIC SIGNAL POST AND/OR MAST ARM AND POLE REMOVAL IS IDENTIFIED AND NEW TRAFFIC SIGNAL POST INSTALLATIONS ARE SPECIFIED, THE CONTRACTOR SHALL INSPECT THE EXISTING FOUNDATIONS. PRIOR TO REMOVING THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL VERIFY THAT THE PATTERN, SPACING, AND CONDITION OF THE EXISTING ANCHOR BOLT IS ACCEPTABLE FOR REUSE WITH A NEW POST. IF THE EXISTING ANCHOR BOLT CONDITION IS NOT ACCEPTABLE, THE CONTRACTOR SHALL REPLACE ANCHOR BOLT AS DIRECTED BY THE ENGINEER. ANCHOR BOLT REPLACEMENT WILL BE PAID FOR AS "REMOVE AND REPLACE ANCHOR BOLTS". "REMOVE AND REPLACE ANCHOR BOLTS" PAY ITEM QUANTITIES SHOWN ARE NOMINAL AND ONLY TO BE UTILIZED AS APPROVED BY THE ENGINEER.
- SOME LOCATIONS MAY REQUIRE COMPLETE REMOVAL OF EXISTING FOUNDATION. THE STANDARD REMOVAL OF 3' BELOW ADJACENT GRADE WILL NOT BE SUFFICIENT IN LOCATIONS WHERE PROPOSED FOUNDATIONS WILL BE PLACED ON TOP OF EXISTING.
- NOMINAL QUANTITY PROVIDED FOR PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH AND UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA., TO BE USED WHEN APPROVED BY THE ENGINEER.

14. DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA 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:  
 375 - US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD)  
 CITY OF DES PLAINES 1420 MINER ST DES PLAINES, IL 60016 847-391-5390  
 REDSPEED USA CORP. 400 EISENHOWER LANE NORTH LOMBARD, IL 60148 630-317-5720

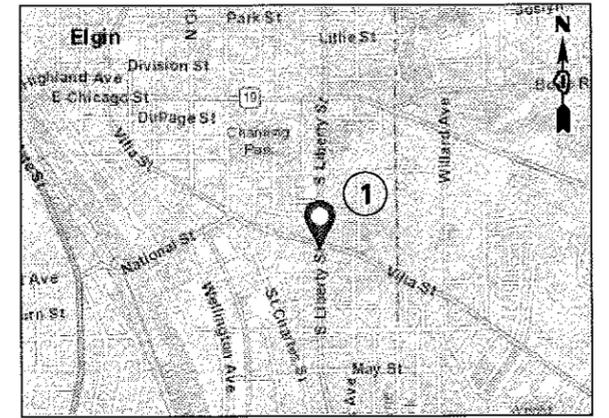
3995 - 127TH ST AT KEDZIE AVE  
 CITY OF BLUE ISLAND 13051 GREENWOOD AVE BLUE ISLAND, IL 60406 708-597-8603  
 REDSPEED USA CORP. 400 EISENHOWER LANE NORTH LOMBARD, IL 60148 630-317-5720

4835 - 22ND ST (CERMAK RD) AT RIDGELAND AVE  
 CITY OF BERWYN 6700 26TH ST BERWYN, IL 60402 708-788-2660  
 REDSPEED USA CORP. 400 EISENHOWER LANE NORTH LOMBARD, IL 60148 630-317-5720

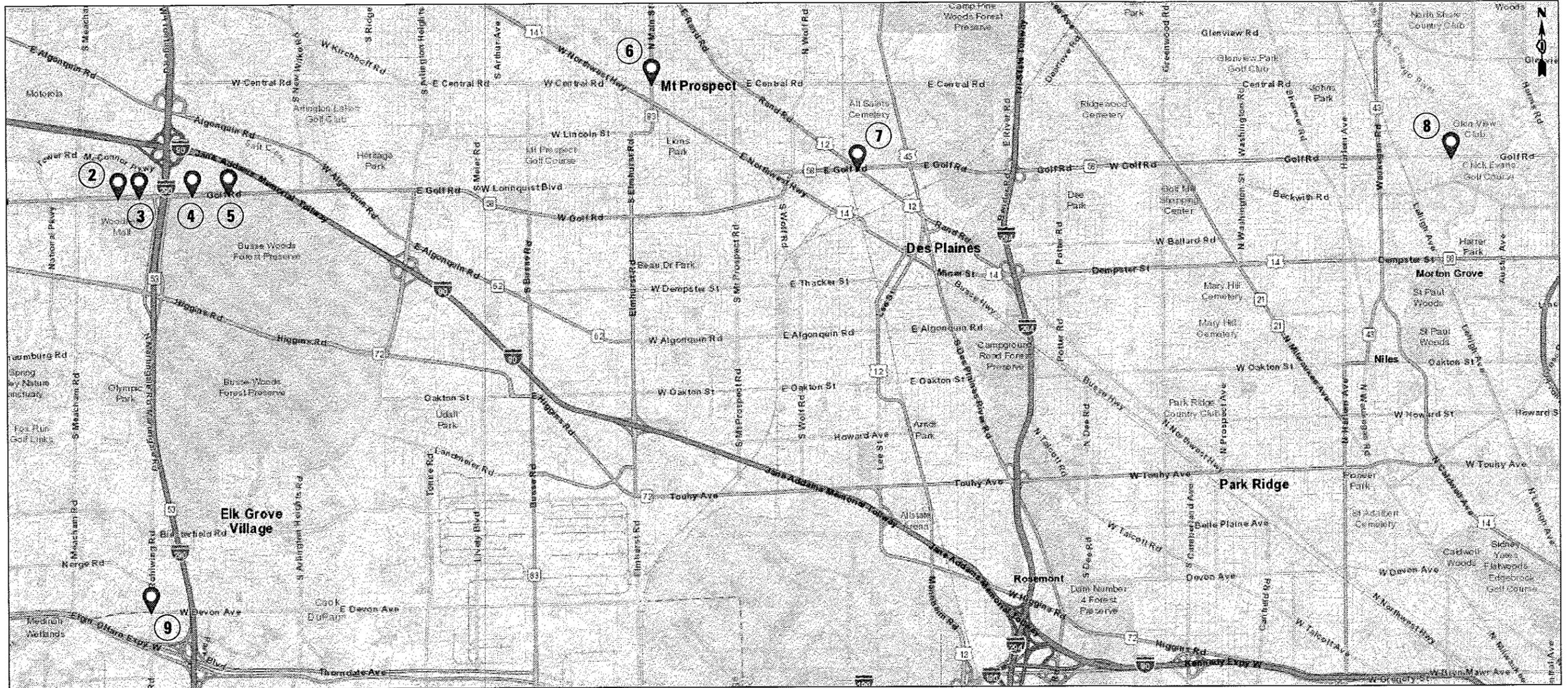


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	PLOT SCALE = 40.0000' / in.	DRAWN - RG	CHECKED - ZH		REVISED -	SCALE: NTS	SHEET	OF	SHEETS	STA.	TO STA.	VAR	2018-001-TS	COOK/KANE	111	2
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -													CONTRACT NO. 62G12

**REGION "A"**



**REGION "B"**



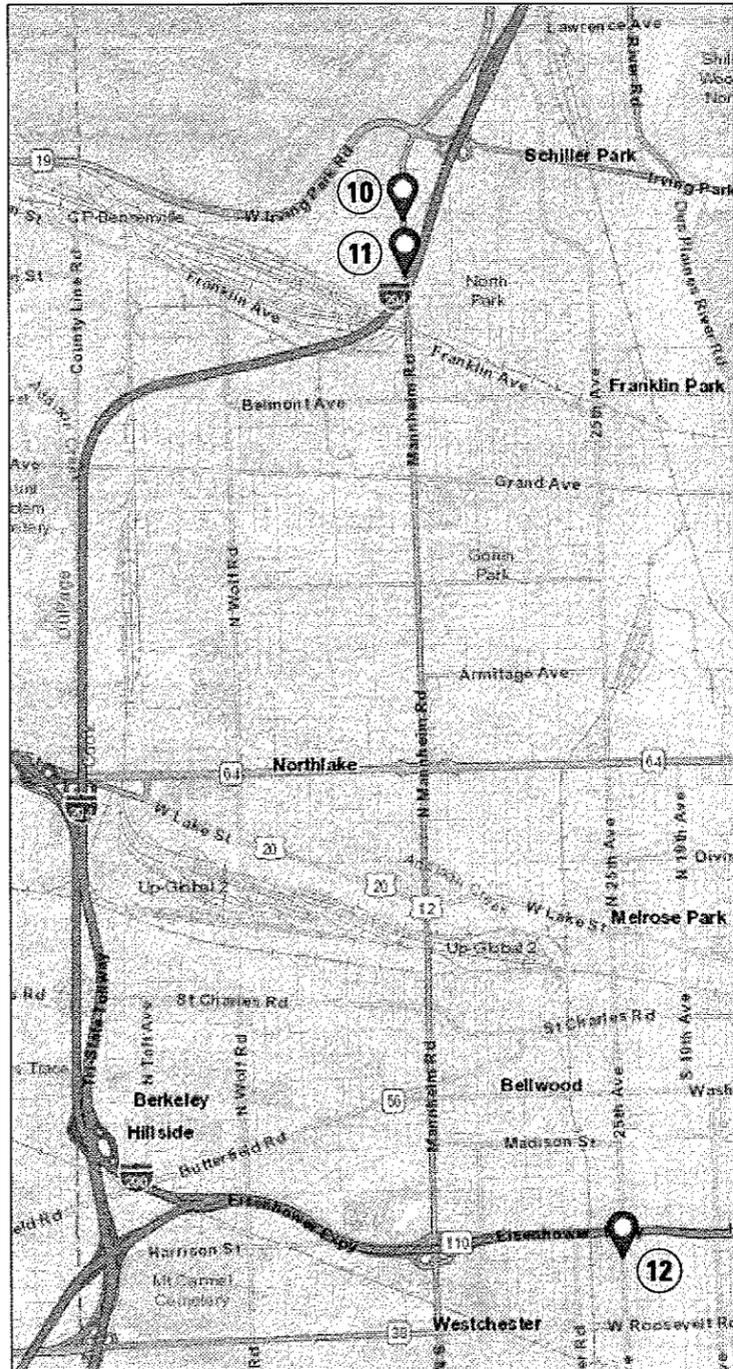
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PLOT SCALE = 40.0000" / in.	DRAWN - RG	REVISED -
PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

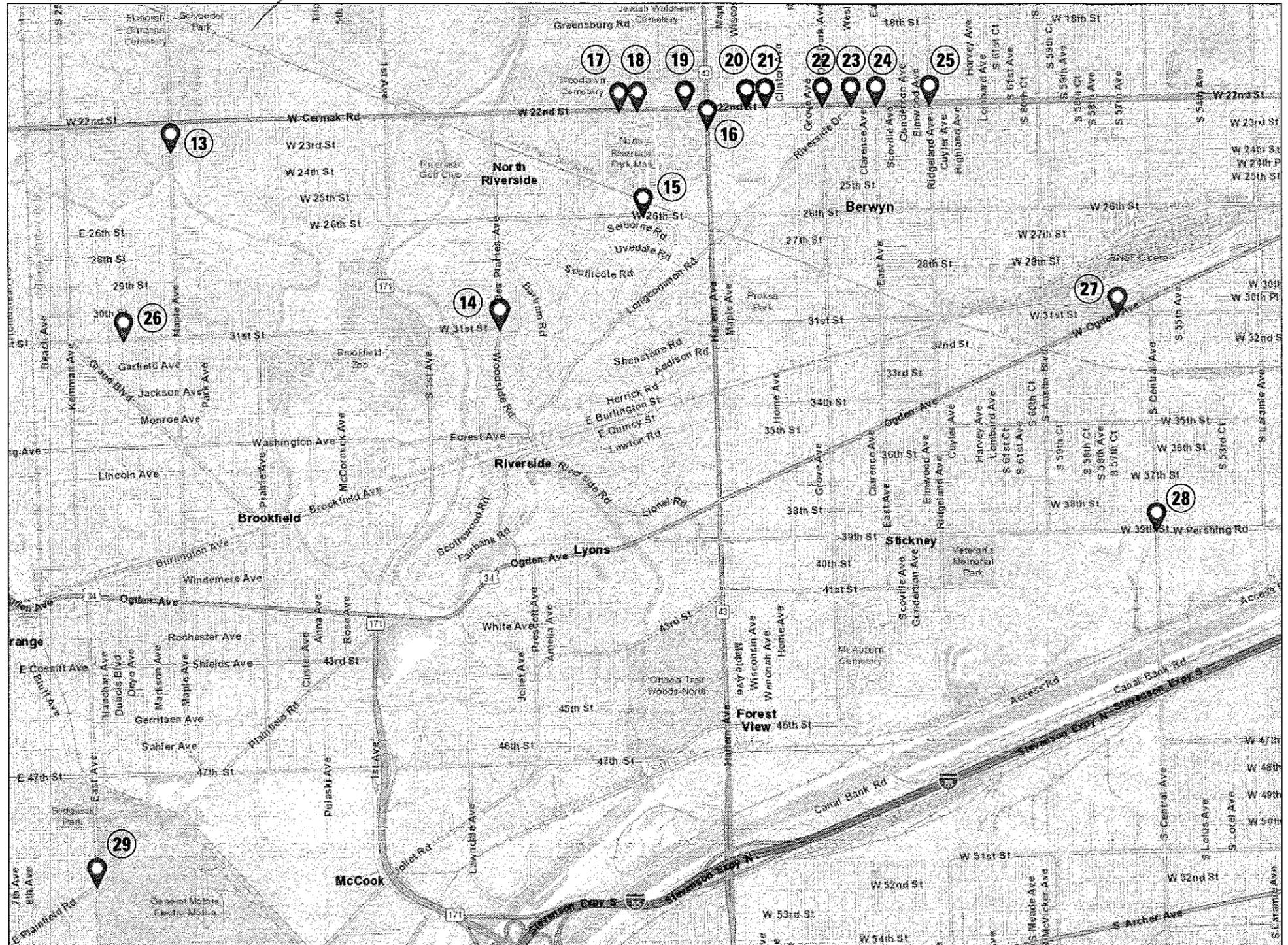
**LOCATION MAP**

SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK/KANE	111	3
CONTRACT NO. 62G12				



**REGION "C"**



**REGION "D"**



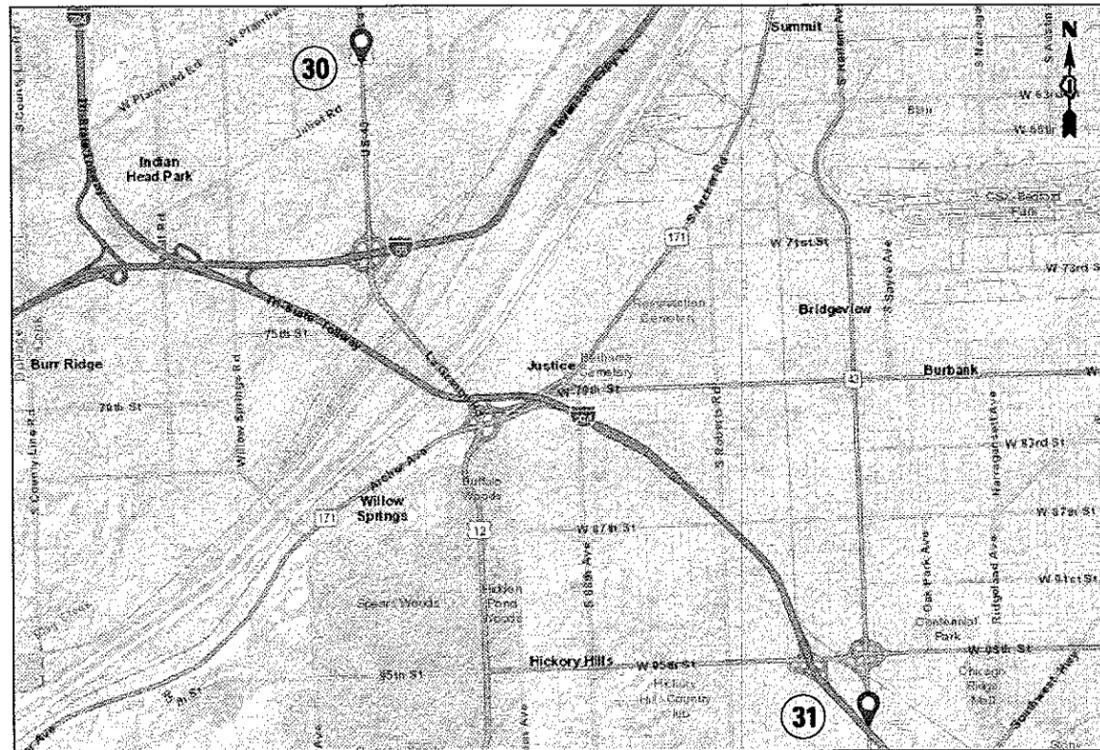
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DRAWN - RG	REVISED -	
PLOT SCALE = 40,0000' / in.	CHECKED - ZH	REVISED -
PLOT DATE = 3/23/2018	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

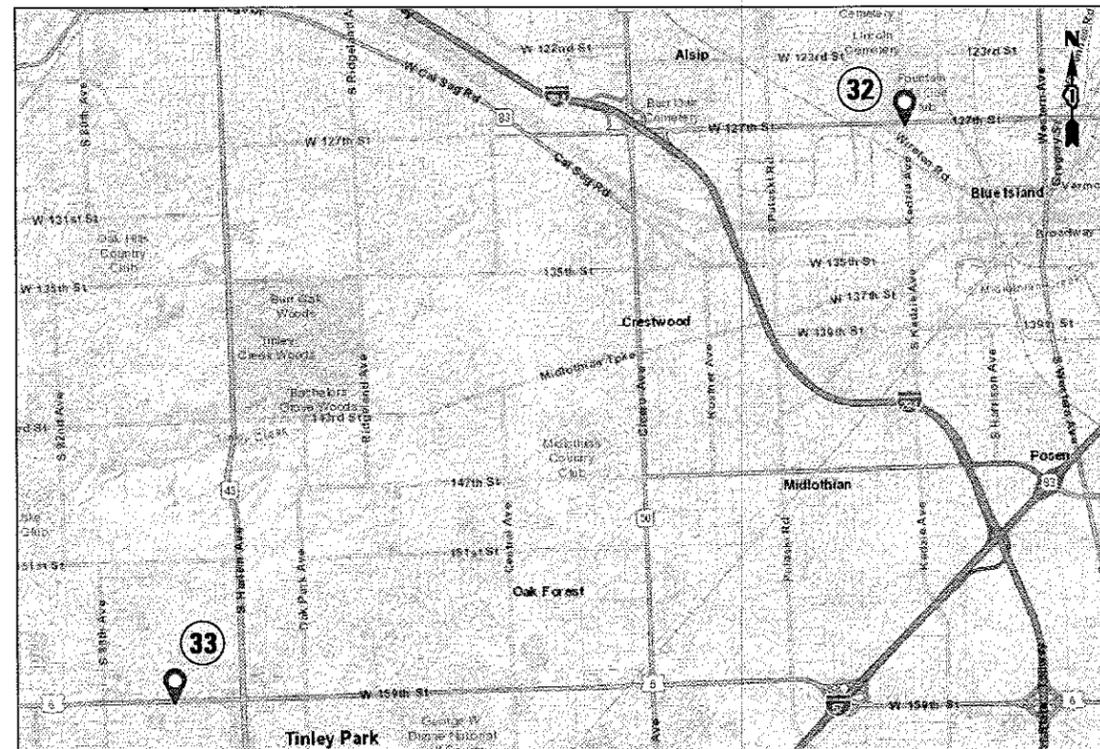
**LOCATION MAP**

SCALE: MTS = 20' SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	4
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

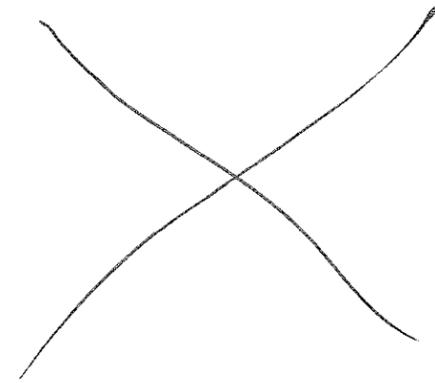


**REGION "E"**



**REGION "F"**

LOCATION NO.	REGION	PAGE NO.	TS NO.	LOCATION	MUNICIPALITY	COUNTY
1.	A	23	670	IL RTE 25 (LIBERTY ST) AT VILLA ST	ELGIN	KANE
2.	B	26	8780	IL RTE 58 (GOLF RD) AT WOODFIELD MIDDLE ENTRANCE / ROOSEVELT BLVD	SCHAUMBURG	COOK
3.	B	29	8790	IL RTE 58 (GOLF RD) AT WOODFIELD EAST ENTRANCE / EAST DR	SCHAUMBURG	COOK
4.	B	32	2860	IL RTE 58 (GOLF RD) AT RING RD / FOREST PRESERVE ENTRANCE	ROLLING MEADOWS	COOK
5.	B	35	2770	IL RTE 58 (GOLF RD) AT GALLAGHER WAY	ROLLING MEADOWS	COOK
6.	B	38	9660	IL RTE 83 (MAIN ST) AT CENTRAL RD	MT. PROSPECT	COOK
7.	B	40	375	US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD)	DES PLAINES	COOK
8.	B	43	14270	GOLF RD AT OVERLOOK DR	MORTON GROVE	COOK
9.	B	46	5715	IL RTE 53 (ROHLWING RD) AT DEVON AVE	ELK GROVE	COOK
10.	C	49	11030	US RTE 12-45 (MANNHEIM RD) AT SEYMOUR AVE	FRANKLIN PARK	COOK
11.	C	52	11035	US RTE 12-45 (MANNHEIM RD) AT WAVELAND AVE	FRANKLIN PARK	COOK
12.	C	54	3720	25TH AVE AT LEXINGTON ST	BROADVIEW	COOK
13.	D	57	22121	17TH AVE AT 23RD ST	NORTH RIVERSIDE	COOK
14.	D	60	3760	31ST ST AT DES PLAINES AVE	NORTH RIVERSIDE	COOK
15.	D	63	3750	26TH ST AT VETERAN DR (NORTH RIVERSIDE PLAZA SOUTH ENTRANCE)	NORTH RIVERSIDE	COOK
16.	D	65	2115	IL RTE 43 (HARLEM AVE) AT 23RD ST	NORTH RIVERSIDE	COOK
17.	D	67	4820	22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA WEST ENTRANCE	NORTH RIVERSIDE	COOK
18.	D	69	4825	22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA EAST ENTRANCE	NORTH RIVERSIDE	COOK
19.	D	71	9360	22ND ST (CERMAK RD) AT NORTH RIVERSIDE PLAZA/PRIVATE ENTRANCE	NORTH RIVERSIDE	COOK
20.	D	74	4795	22ND ST (CERMAK RD) AT CERMAK PLAZA NORTH ENTRANCE/WENONAH AVE	BERWYN	COOK
21.	D	76	4810	22ND ST (CERMAK RD) AT HOME AVE	BERWYN	COOK
22.	D	78	4830	22ND ST (CERMAK RD) AT OAK PARK AVE	BERWYN	COOK
23.	D	80	4840	22ND ST (CERMAK RD) AT RIVERSIDE DR/WESLEY AVE	BERWYN	COOK
24.	D	82	4805	22ND ST (CERMAK RD) AT EAST AVE	BERWYN	COOK
25.	D	85	4835	22ND ST (CERMAK RD) AT RIDGELAND AVE	BERWYN	COOK
26.	D	87	13930	31ST ST BETWEEN HARRISON AVE AND RAYMOND AVE	LAGRANGE PARK	COOK
27.	D	89	5555	OGDEN AVE AT 31ST ST	CICERO	COOK
28.	D	92	3780	39TH ST (PERSHING RD) AT CENTRAL AVE	STICKNEY	COOK
29.	D	96	5070	EAST AVE AT PLAINFIELD RD	MCCOOK	COOK
30.	E	99	1055	US RTE 12-20-45 (LA GRANGE RD) AT COUNTRYSIDE PLAZA ENTRANCE	COUNTRYSIDE	COOK
31.	E	102	2200	IL RTE 43 (HARLEM AVE) AT 99TH ST	CHICAGO RIDGE	COOK
32.	F	104	3995	127TH ST AT KEDZIE AVE	BLUE ISLAND	COOK
33.	F	108	180	US RTE 6 (159TH ST) AT 76TH AVE	TINLEY PARK	COOK



100% COST TO VILLAGE OF MOUNT PROSPECT

\* SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				COOK CO.	KANE CO.
				80% FED 20% STATE	80% FED 20% STATE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	220	200	20
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	100	100	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	11.82	0.18
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1	
67100100	MOBILIZATION	L SUM	1	0.97	0.03
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	3	3	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.97	0.03
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.97	0.03
* 72000100	SIGN PANEL - TYPE 1	SQ FT	84.00	84.00	
* 72000200	SIGN PANEL - TYPE 2	SQ FT	255.00	232.50	22.50
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	439	439	
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	2,258	2,220	38
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,026	1,026	
81400100	HANDHOLE	EACH	1	1	
81400200	HEAVY-DUTY HANDHOLE	EACH	11	11	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	33	32	1
<input type="checkbox"/> 85100600	PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	4	4	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1	



USER NAME = USERNAME	DESIGNED - DW	REVISED -
DRAWN - RG	CHECKED - ZH	REVISED -
PLOT SCALE = 300.0000" / in.	DATE -	REVISED -
PLOT DATE = 3/23/2018		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 6 SHEETS STA TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	8
CONTRACT NO. 62G12			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				COOK CO.	KANE CO.
				80% FED 20% STATE	80% FED 20% STATE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	8750	8218	532
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	19,104	18,537	567
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	52,109	50,089	2020
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	17,426	17,426	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1933	1933	
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	4447	4337	110
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	10	9	1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	16	16	
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2	2	
87700130	STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH	3	2	1
87700140	STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	3	3	
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	3	3	
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	5	4	1
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	11	9	2
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	12	12	



USER NAME = USERNAME	DESIGNED - DW	REVISED -
	DRAWN - RG	REVISED -
PLOT SCALE = 100.0000" / in.	CHECKED - ZH	REVISED -
PLOT DATE = 3/23/2018	DATE	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES	
SCALE:	SHEET 2 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK/KANE	111	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

REV 5-8-18

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				COOK CO.	KANE CO.
				80% FED 20% STATE	80% FED 20% STATE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	12	12	
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	10	10	
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	10	10	
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	10	10	
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	10	10	
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	4	4	
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	5	5	
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	5	5	
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2	2	
87700290	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	2	2	
87700300	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	2	2	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	68	64	4
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	1058.5	1018.5	40.0
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	279.0	279.0	



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	8
			CONTRACT NO. 62G12	

REV 5/9/18

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				COOK CO.	KANE CO.
				80% FED 20% STATE	80% FED 20% STATE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN
87900200	DRILL EXISTING HANDHOLE	EACH	148	143	5
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	174	170	4
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	10	10	
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2	2	
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	6	6	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	18	18	
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	3	
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	9	9	
88055200	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	6	6	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6	6	
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	209	205	4
88500100	INDUCTIVE LOOP DETECTOR	EACH	7	7	
88600100	DETECTOR LOOP, TYPE I	FOOT	1334	1334	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	6	6	



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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

F.A. RTE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	9
CONTRACT NO. 62G12			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				COOK CO.	KANE CO.
				80% FED 20% STATE	80% FED 20% STATE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	163	157	6
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	64	59	5
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	63	58	5
89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	6	6	
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	32	31	1
89502200	MODIFY EXISTING CONTROLLER	EACH	8	7	1
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	32	31	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	59,285	57,585	1700
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	763	763	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	33	32	1
89502376	REBUILD EXISTING HANDHOLE	EACH	1	1	
89502380	REMOVE EXISTING HANDHOLE	EACH	13	13	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	127	122	5
X0320021	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1	1	
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	9618	9618	
X1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1	1	
X1400201	RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	1	1	



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK/KANE	111	10
CONTRACT NO. 62G12			[ILLINOIS] FED. AID PROJECT	



# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

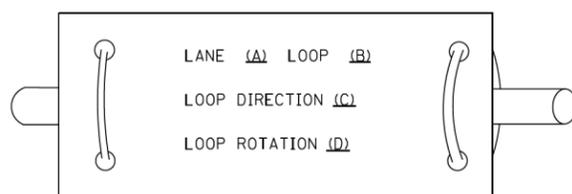
ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND			SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED			RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM			FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM			GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM					
SIGNAL HEAD			RELOCATE ITEM					
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM					
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
FLASHER INSTALLATION -(FS) SOLAR POWERED			MAST ARM POLE AND FOUNDATION TO BE REMOVED					
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED					
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

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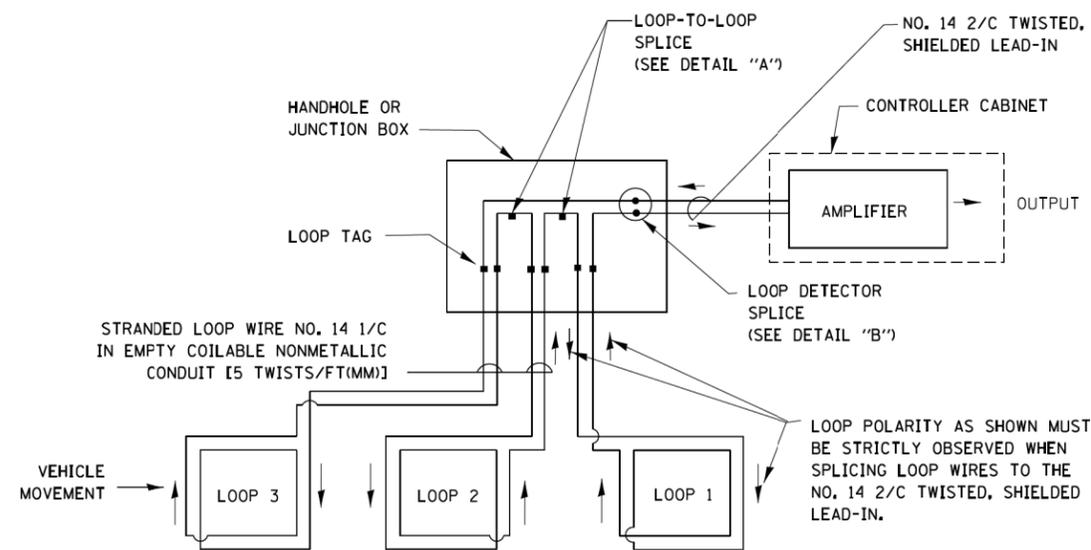
**LOOP DETECTOR NOTES**

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**

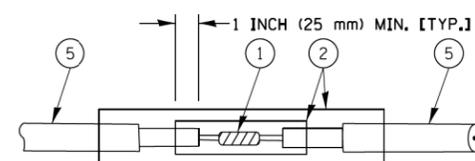


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

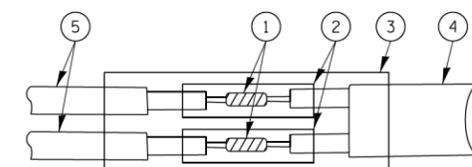


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

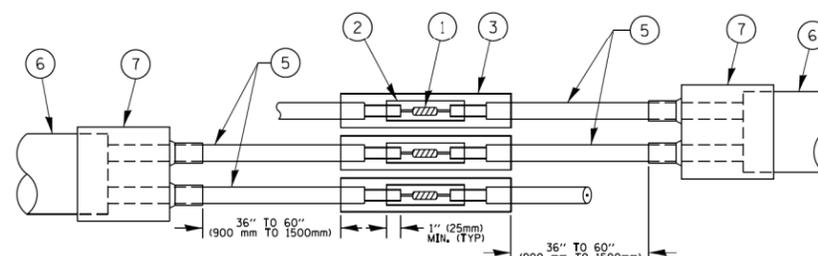


DETAIL "A"  
LOOP-TO-LOOP SPLICE

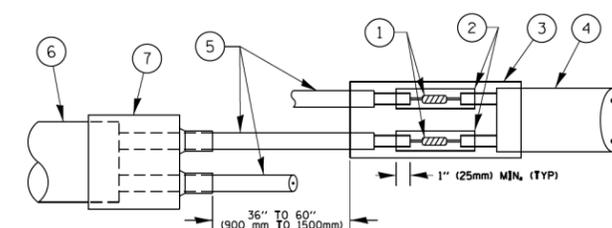


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



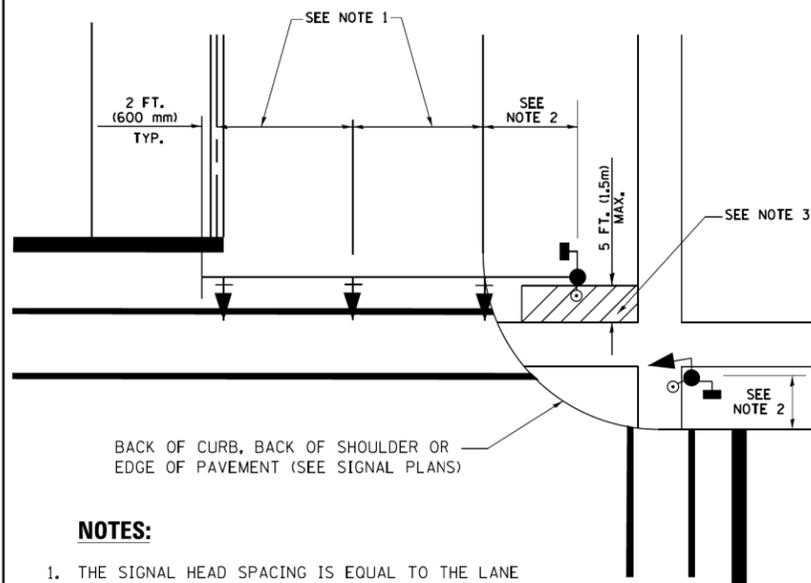
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED 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 PRE-FORMED LOOP
- ⑦ XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

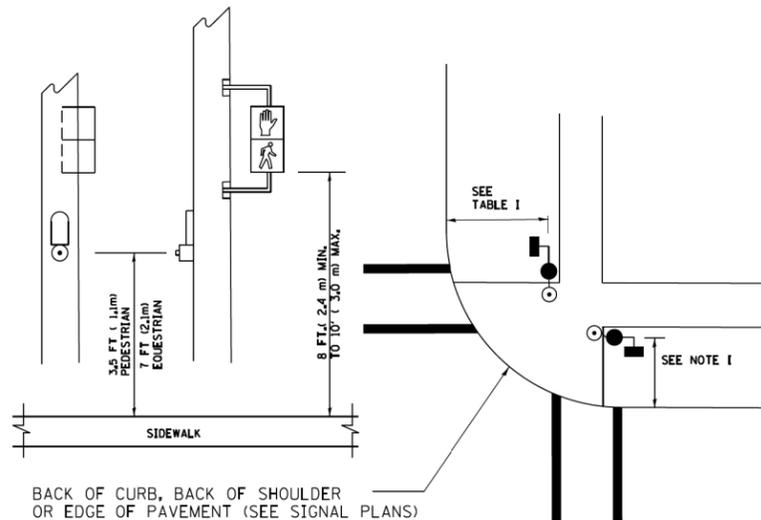
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

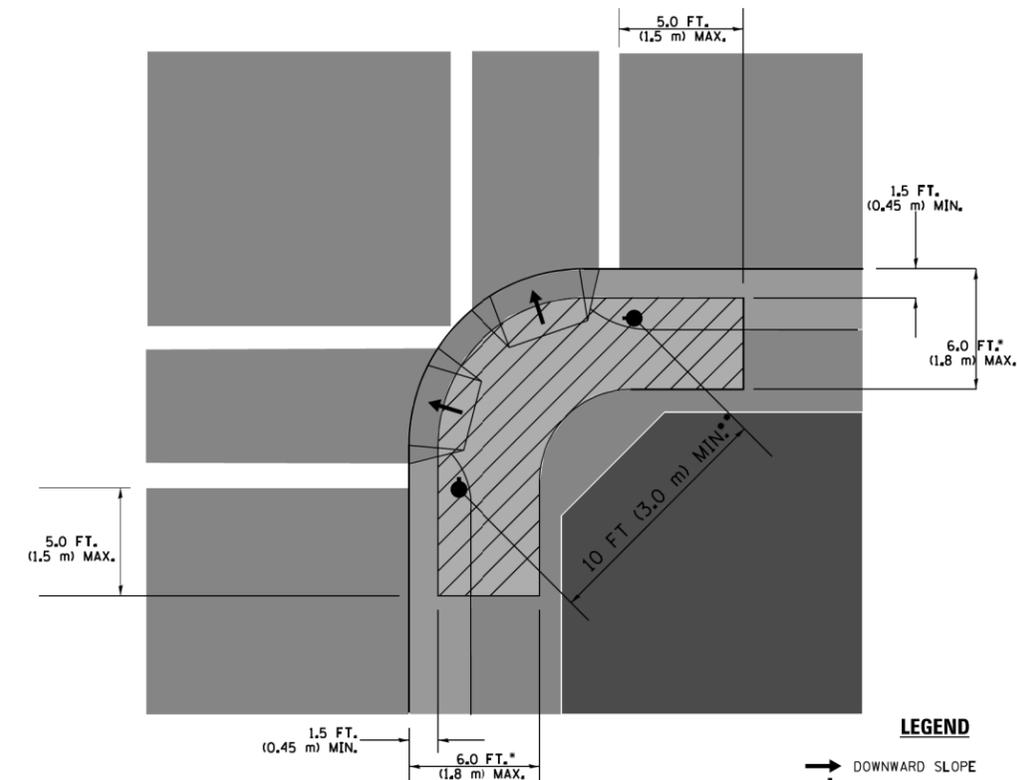
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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.



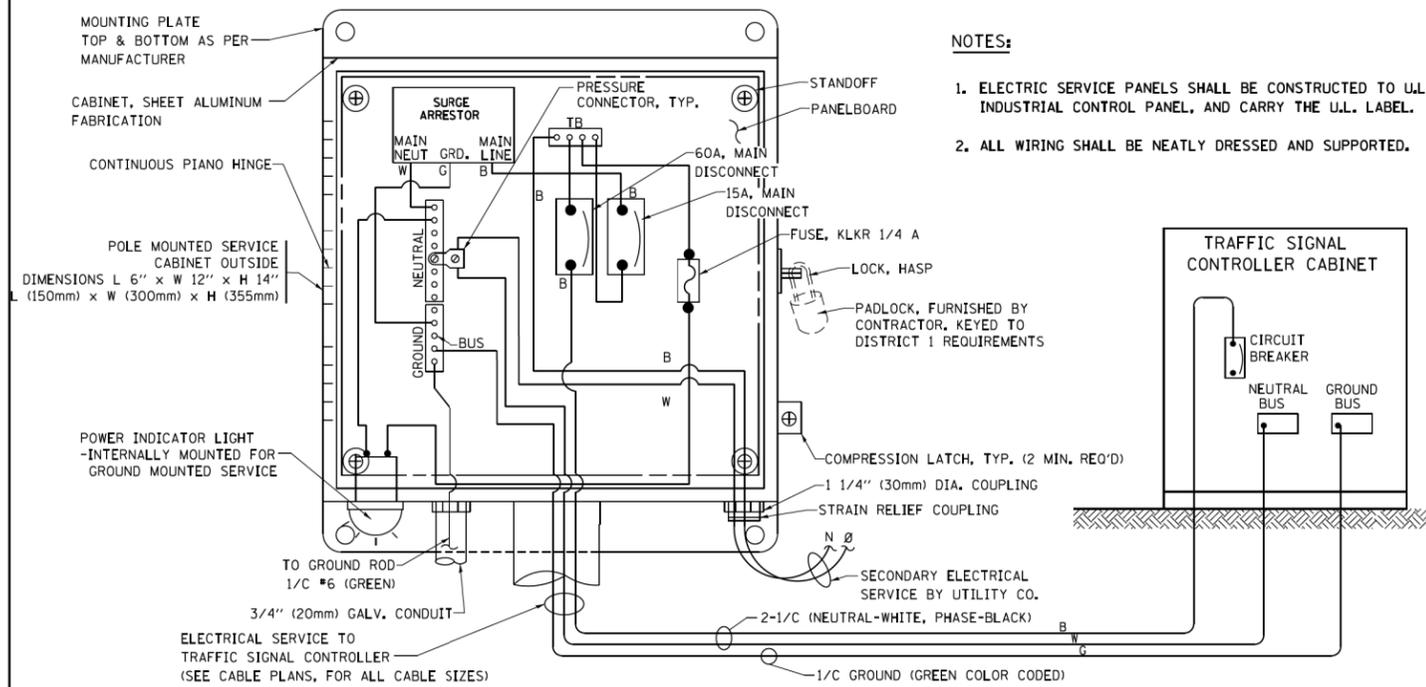
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PLOT SCALE = 2,000' / in.	DRAWN - RG	REVISED -
PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

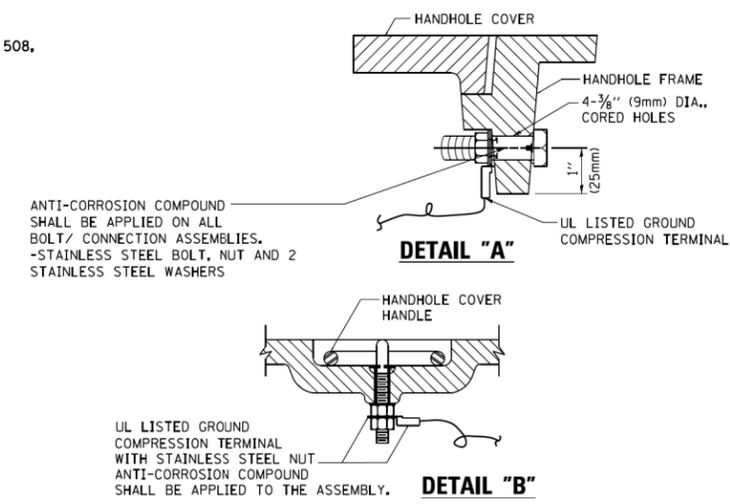
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NTS SHEET 3 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	14
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

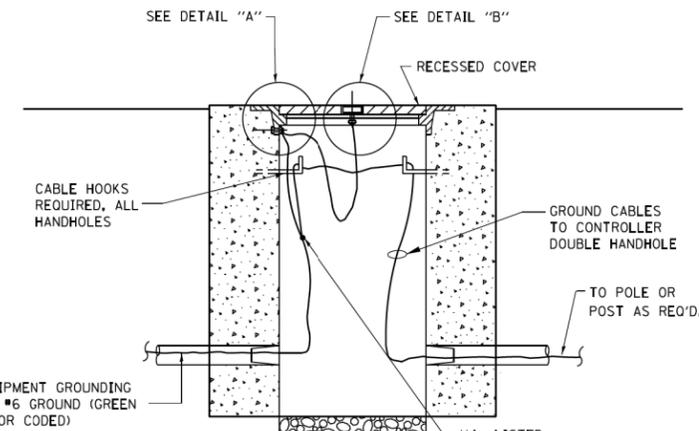


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)  
SERVICE INSTALLATION POLE MOUNT (SHOWN)  
(NOT TO SCALE)**

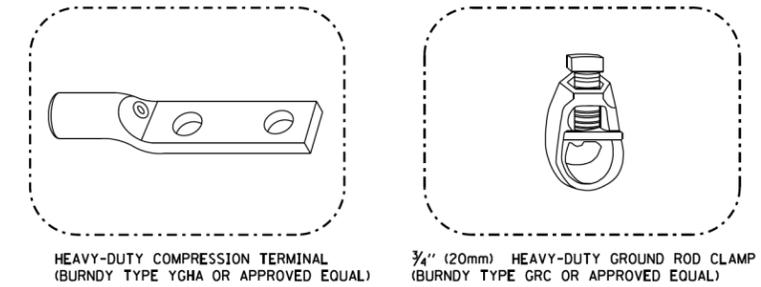


**NOTES:  
GROUNDING SYSTEM**

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.

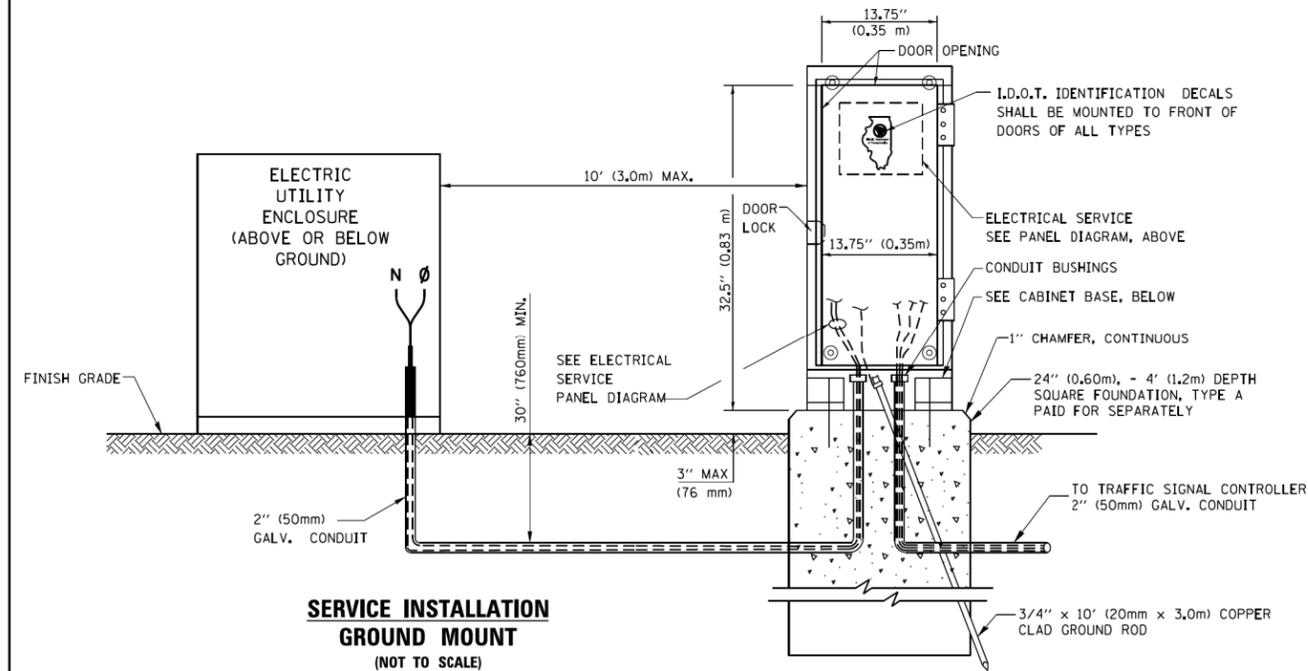


**HANDHOLE COVER & FRAME – GROUNDING DETAIL  
(NOT TO SCALE)**

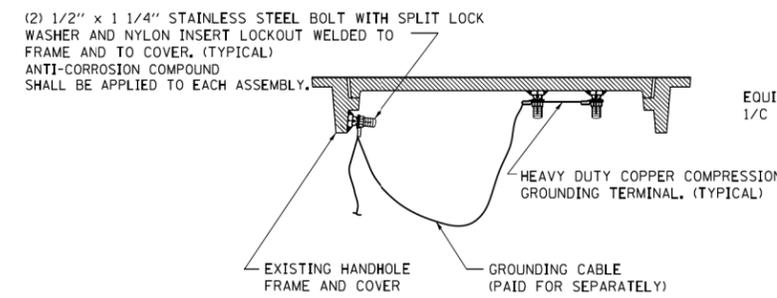


**NOTES:**

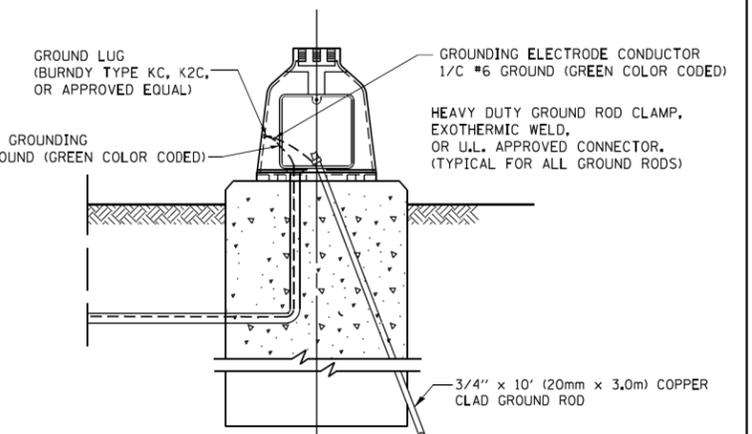
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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

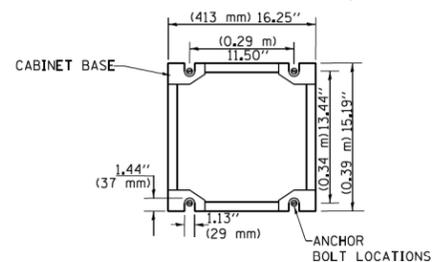


**EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL  
(NOT TO SCALE)**



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

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



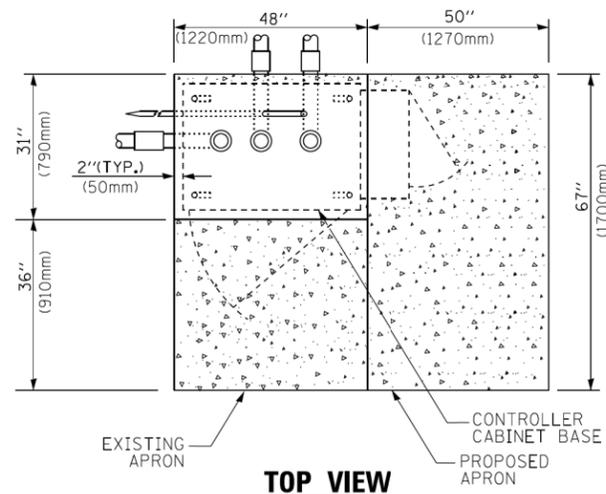
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PLOT SCALE = 2,000' / in.	DRAWN - RG	REVISED -
PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

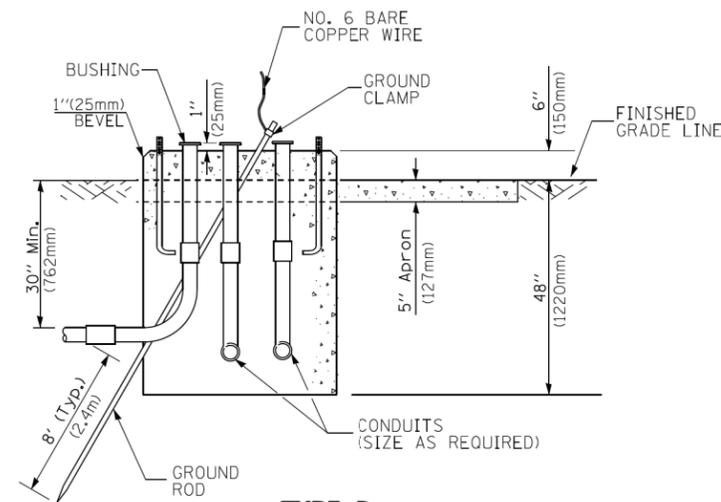
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NTS SHEET 4 OF 7 SHEETS STA. TO STA.

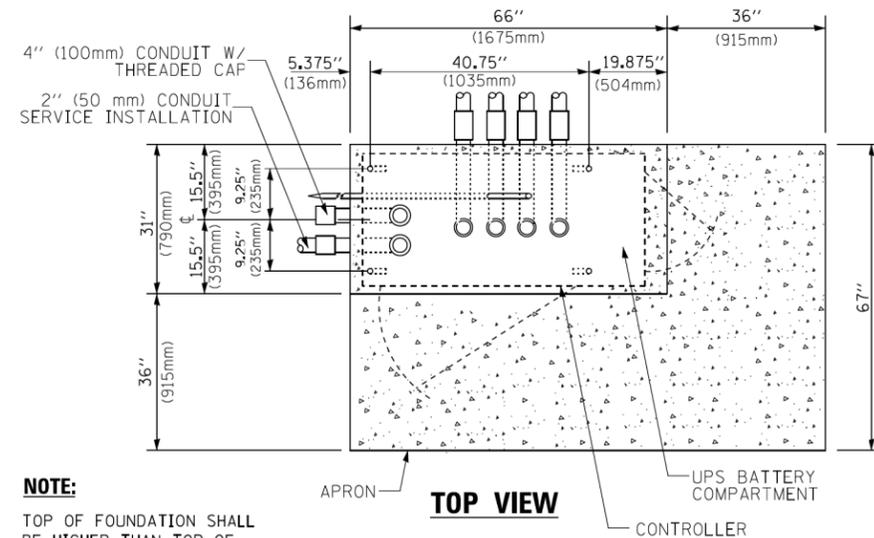
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	15
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				



**TOP VIEW**

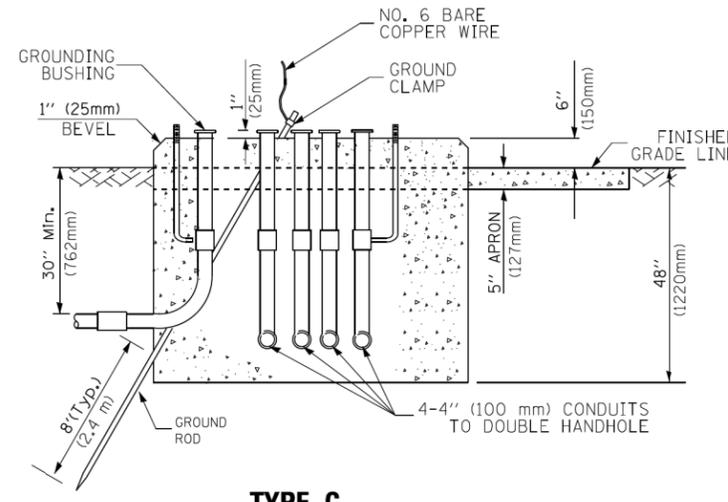


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

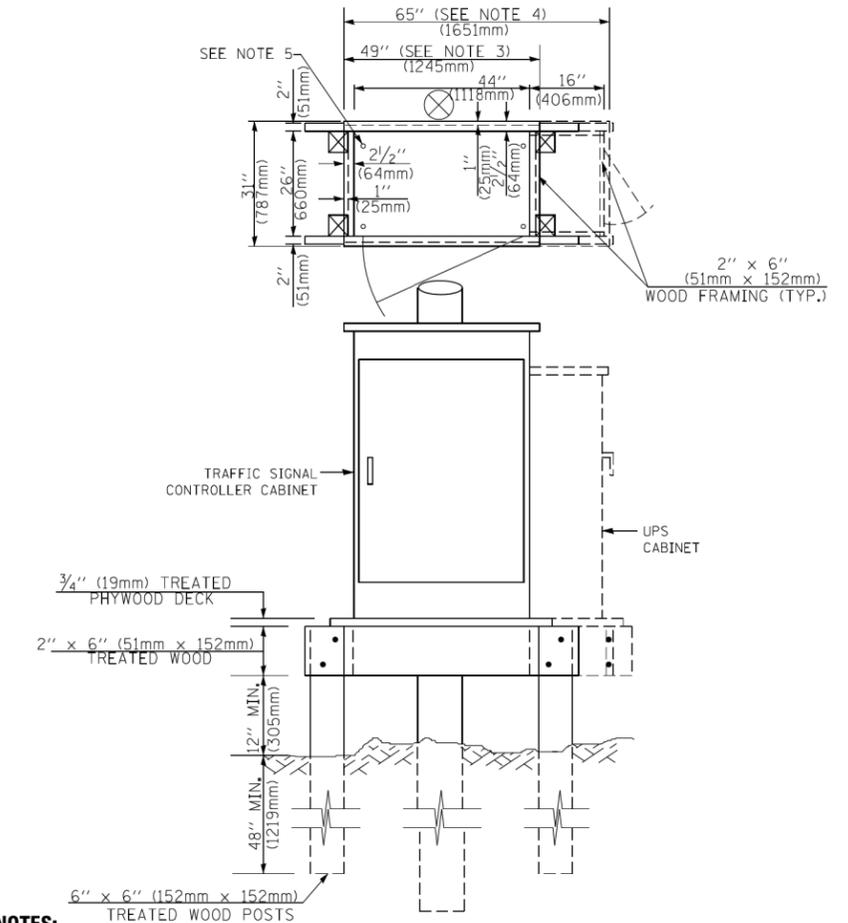


**TOP VIEW**

**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:**

1. 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.
2. 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.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. 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.
6. 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 up to 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:**

1. 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.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

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



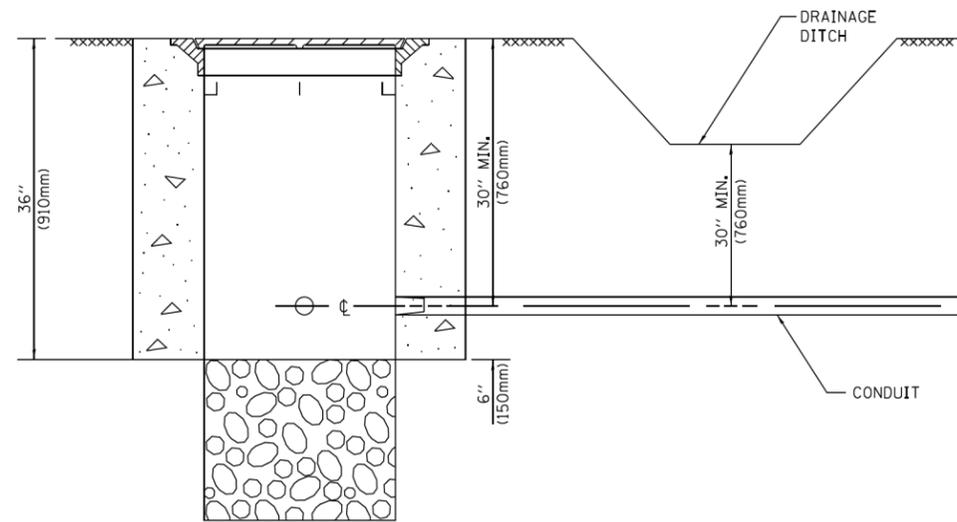
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PLOT SCALE = 2,000' / in.	DRAWN - RG	REVISED -
PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NTS SHEET 5 OF 7 SHEETS STA. TO STA.

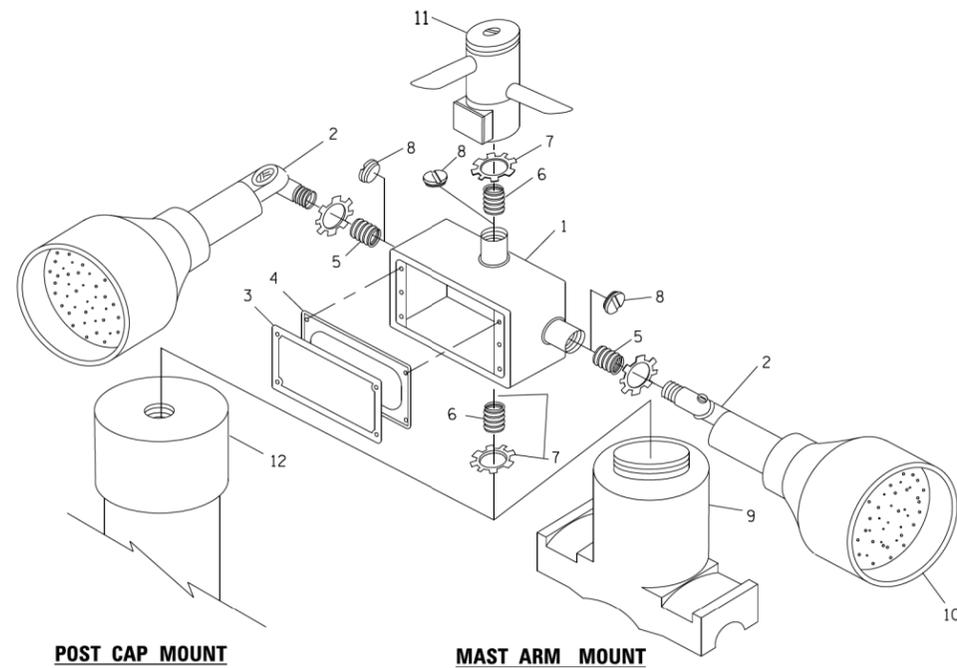
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	16
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				



**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.

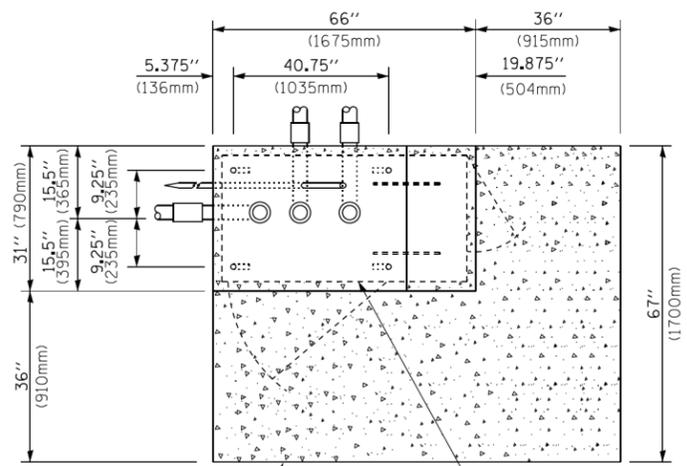
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



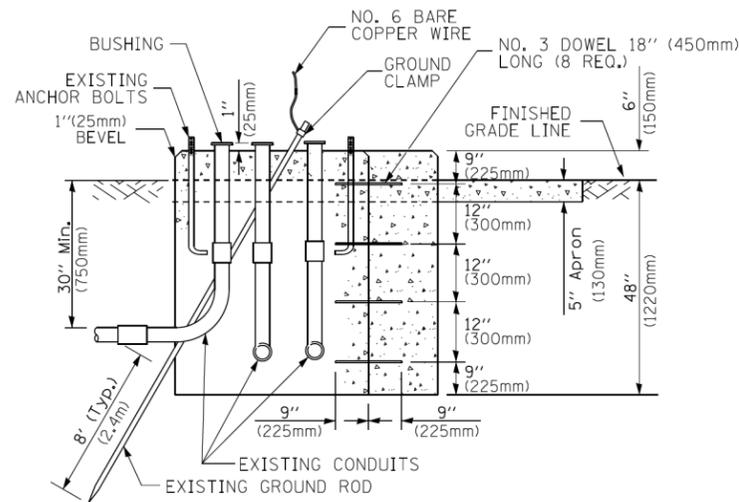
**POST CAP MOUNT**

**MAST ARM MOUNT**

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



**TOP VIEW**  
(NOT TO SCALE)

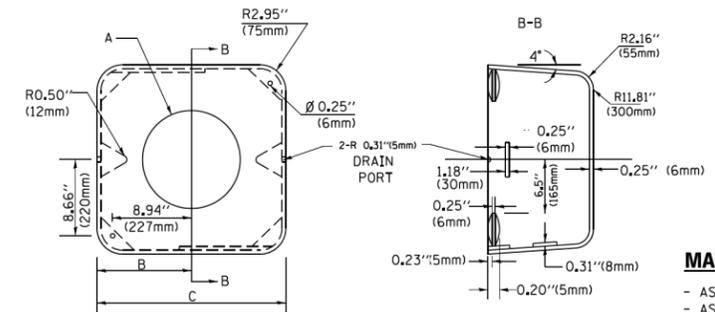


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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)

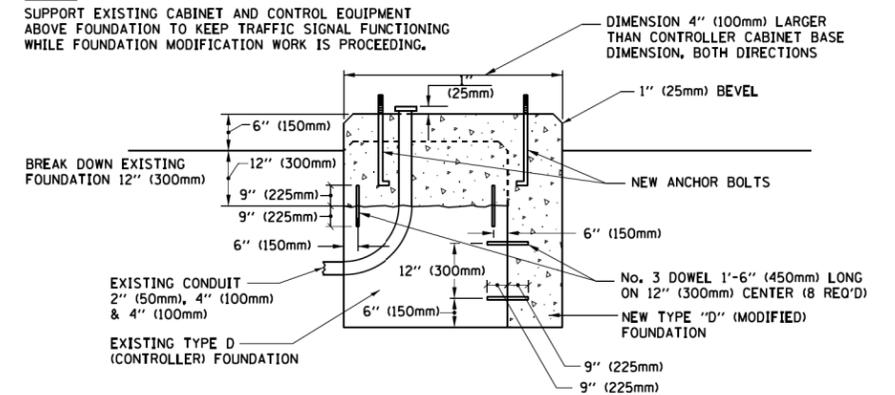
**SHROUD**

**NOTES:**

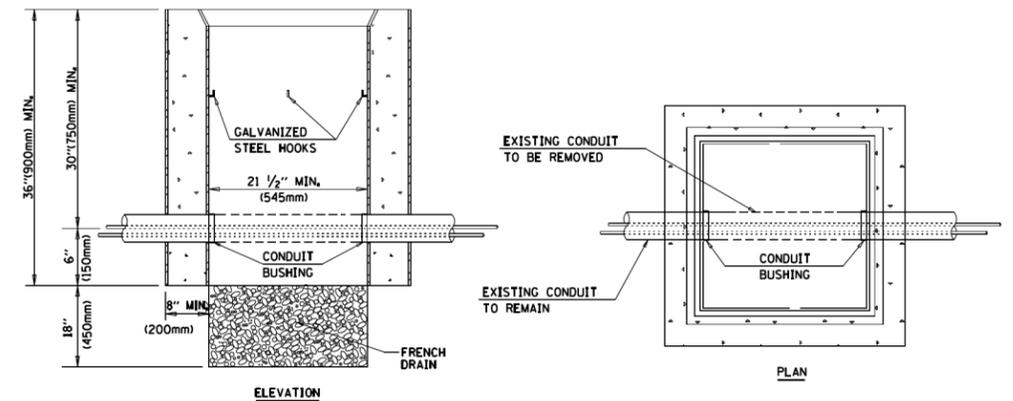
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**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**



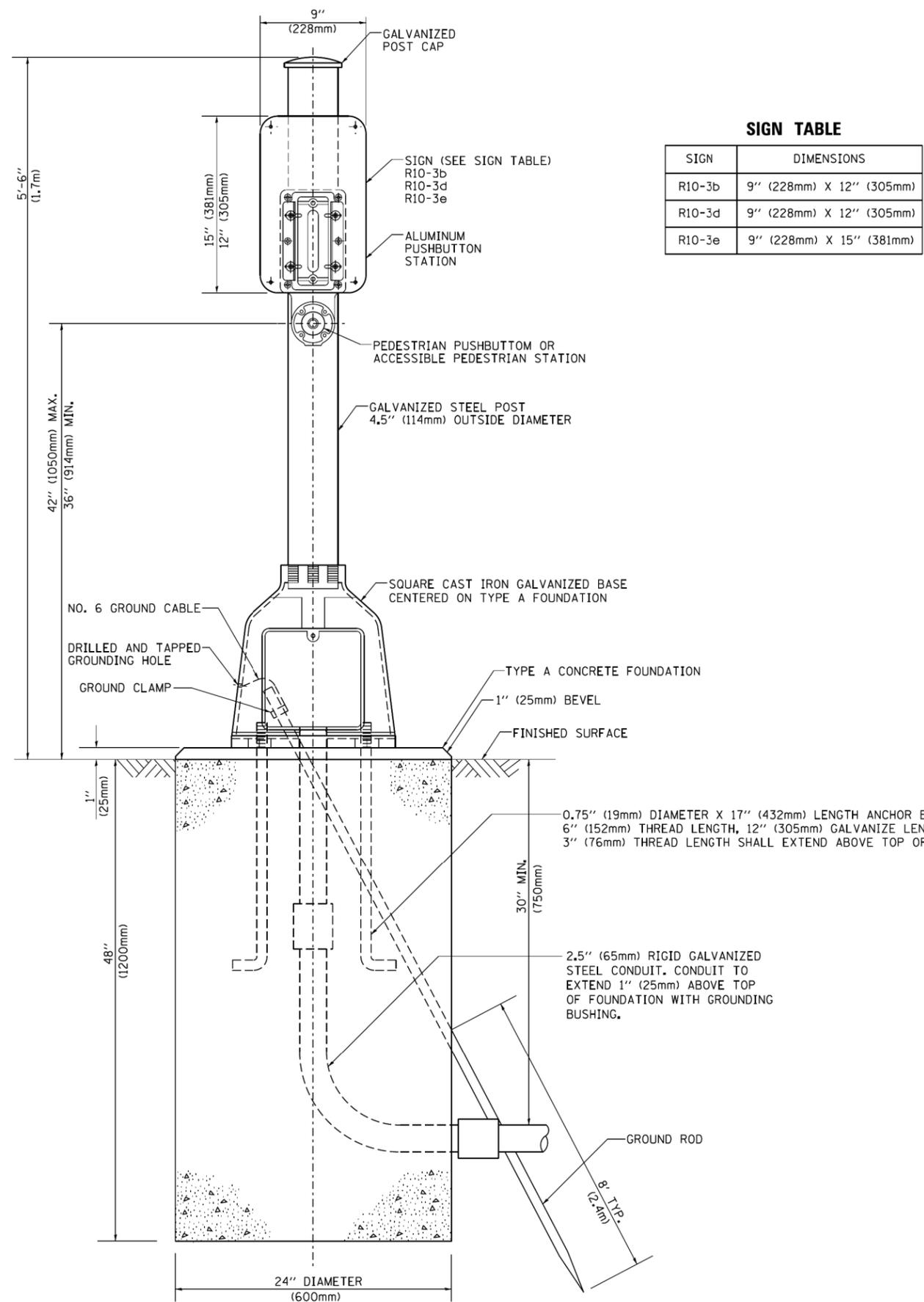
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PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

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

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

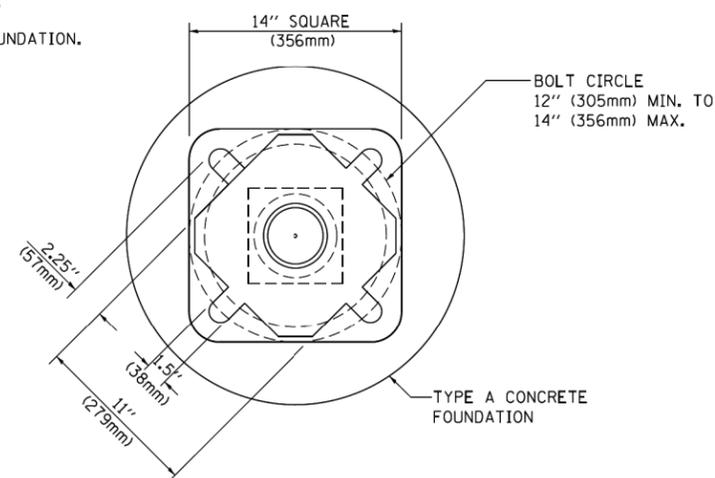
SCALE: NONE SHEET 6 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	17
CONTRACT NO. 62G12			ILLINOIS / FED. AID PROJECT	



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**



USER NAME = _USERNAME_	DESIGNED - DW	REVISED -
PLOT SCALE = 2,000' / in.	DRAWN - RG	REVISED -
PLOT DATE = 3/23/2018	CHECKED - ZH	REVISED -
	DATE -	REVISED -

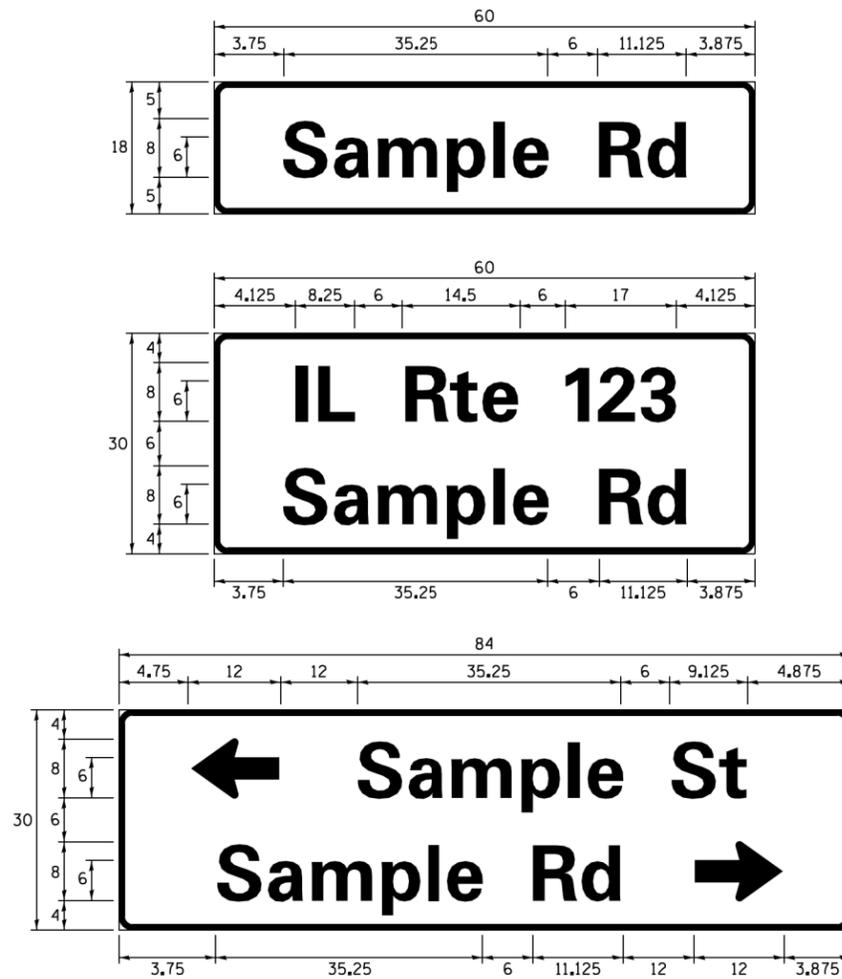
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	18
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

SCALE: NTS SHEET 7 OF 7 SHEETS STA. TO STA.

**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 SYMBOLOGY 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:**

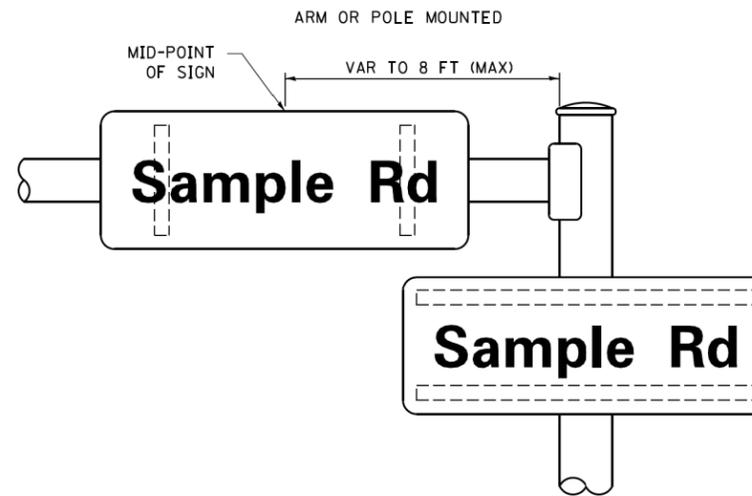
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

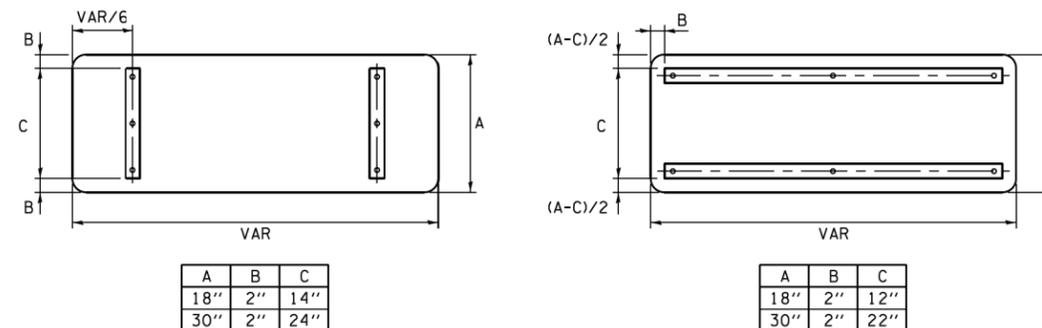
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

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

**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



**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



PAY ITEM NO.	ITEM DESCRIPTION	UNIT	INTERSECTION NUMBER																																	
			TS670	TS8780	TS8790	TS2860	TS2770	TS9660	TS375	TS14270	TS5715	TS11030	TS11035	TS3720	TS22121	TS3760	TS3750	TS2115	TS4820	TS4825	TS9360	TS4795	TS4810	TS4830	TS4840	TS4805	TS4835	TS19930	TS5555	TS3780	TS5070	TS1055	TS2200	TS3995	TS180	
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH							3			1																		2			1	3		
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH		1	1		1	1	1													2						1					1		1	
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH				1																				1				2						
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH									1	1									1					1	1									
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH			2													1														1			1	
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH		2																																
87700290	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH				1												1																		
87700300	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH				2																														
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4				8		12	8								4							8			4	4	4	12					
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40.0	23.5	27.0		23.5	54.0	54.0	47.0	37.0	13.5	13.5	40.0	50.5	10.0	37.0		33.5	33.5	37.0	27.0	33.5	54.0	37.0	20.0	33.5	20.0	37.0	27.0	30.0	37.0	37.0	54.0	37.0	
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT		26.0	26.0	58.0	11.0					13.0	13.0														26.0	13.0			26.0		13.0			13.0
87900200	DRILL EXISTING HANDHOLE	EACH	5	4	4	3	6	8	7	6	5	4	4	6	4	1	4	3	3	3	4	2	5	6	3	4	4	3	4	5	6	6	6	4	6	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4	10	7	8	5	8	2	10	3	7	5	6	6	2	3	5	4	4	9	3	4	6	4	4	4	4	2		7	4	8	4	8	8
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH									8					2																				
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST-ARM MOUNTED	EACH				2																														
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH			1					1						2											2									
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH		1	3					2							1	2	1	1		1		2			2					1			1	
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH																														3				
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH							2																1									6		
88055200	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH							4																									2		
88102717	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH							4												2															
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4	11	10	10	5	8	8	10	5	7	5	6	6	2	4	7	5	5	9	4	4	8	5	6	4	2	8	8	4	8	5	8	8	
88500100	INDUCTIVE LOOP DETECTOR	EACH								5																	2									
88600100	DETECTOR LOOP, TYPE I	FOOT					100	402								101								210			219						201	101		
88800100	PEDESTRIAN PUSH-BUTTON	EACH							4												2															
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	6	3	2	6	5	6	8		4	5	3	4	6	3	6	7	6	8	4	4	8	4	10	6	2	6	6	5	2	5	4	3		
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	5	1	2	2	4	6						3	6	1					2	1	5	6	2	8	4	1	4							
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	5	1	2	2	4	5						3	6	1					2	1	5	6	2	8	4	1	4							
89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH													1						1						2									



USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	DRAWN - RG	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - ZH	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES</b>			
SCALE:	SHEET 2 OF 3 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK/KANE	111	21
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

PAY ITEM NO.	ITEM DESCRIPTION	UNIT	INTERSECTION NUMBER																																		
			TS670	TS8780	TS8790	TS2860	TS2770	TS9660	TS375	TS14270	TS5715	TS11030	TS11035	TS3720	TS22121	TS3760	TS3750	TS2115	TS4820	TS4825	TS9360	TS4795	TS4810	TS4830	TS4840	TS4805	TS4835	TS19930	TS5555	TS3780	TS5070	TS1055	TS2200	TS3995	TS180		
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
89502200	MODIFY EXISTING CONTROLLER	EACH	1		1				1			1		1						1																	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,700	2,585	3,007	1,355	1,700	2,465	2,744	1,355	445	2,250	1,080	1,665	2,941	355	335	2,046	849	940	1,938	1,600	2,000	3,250	2,500	3,470	2,659	120	4,080	1,793	1,015	1,015	2,000	1,218	810		
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT			40														35		62		65				371								190		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
89502376	REBUILD EXISTING HANDHOLE	EACH		1																																	
89502380	REMOVE EXISTING HANDHOLE	EACH		4	5	1											1				1														1		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5	8	7	4	3	4	4	4	3	3	3	5	6	2	3	4	3	3	5	2	4	5	3	4	4	2	3	4	4	3	4	4	2		
X0320021	MODIFY EXISTING TYPE "D" FOUNDATION	EACH									1																										
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT		670	680			256	327	413	290	470	375	390	397	195	289	229	262	280	459	244	227	253	659	397	271		529	353			429		274		
X1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH								1																											
X1400201	RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH									1																										
X8100105	CONDUIT SPLICE	EACH				1																															
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH								1																											
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	25.7	25.7	25.7	25.7	102.8	102.8	51.4	77.1	25.7	25.7	51.4	51.4	77.1	51.4	51.4	25.7		25.7	25.7		51.4		51.4	77.1	51.4	102.8	102.8	77.1	51.4	51.4	102.8	51.4		
Z0050400	REMOVE AND REPLACE ANCHOR BOLTS	EACH				1		1		2						2			1		1		1	1		4			2		1						

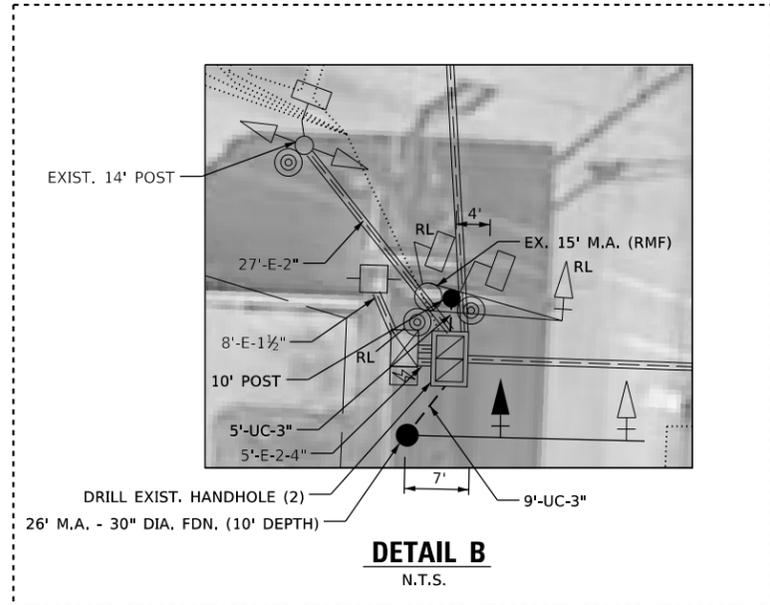
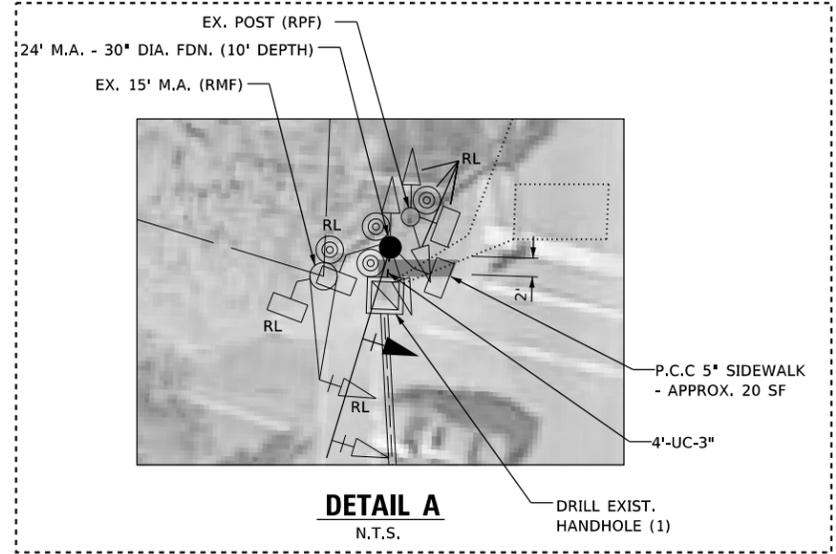
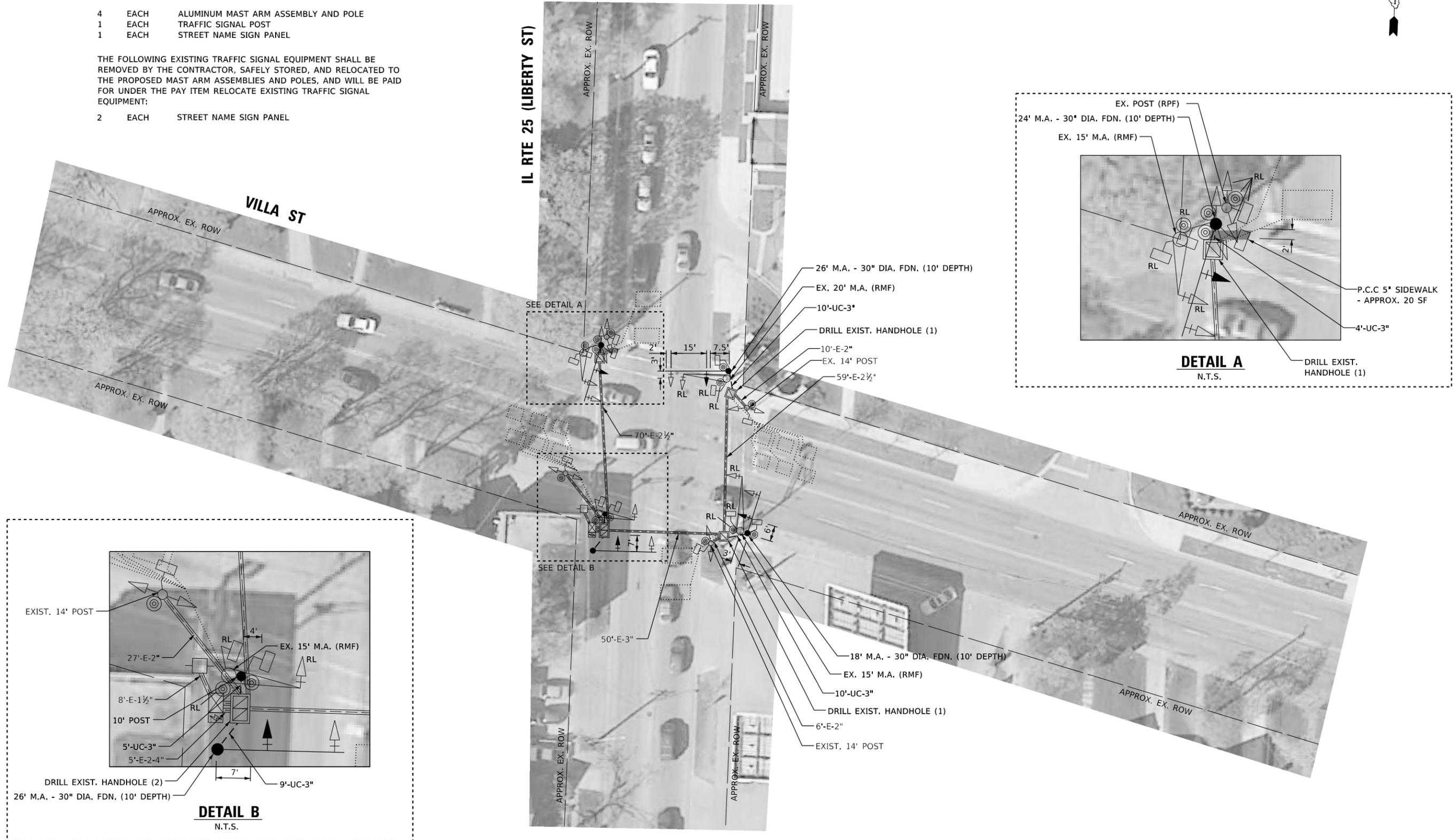
## REMOVAL AND RELOCATION NOTES

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 CONTRACTOR'S BID PRICE.

4	EACH	ALUMINUM MAST ARM ASSEMBLY AND POLE
1	EACH	TRAFFIC SIGNAL POST
1	EACH	STREET NAME SIGN PANEL

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

2	EACH	STREET NAME SIGN PANEL
---	------	------------------------



MODEL: D:\m\h\... FILE NAME: 20181115\W018-002\DC\G\CADD\_Sheets\01\_D160G12-RTS\1\_25 at Villa.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

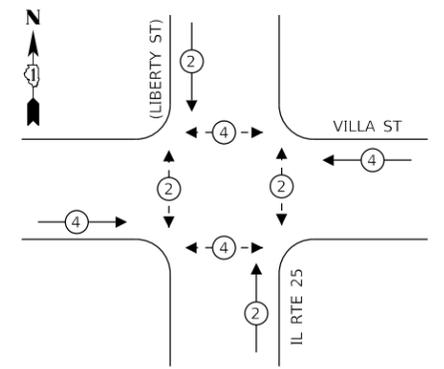
TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 25 (LIBERTY ST) AT VILLA ST

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	KANE	111	23
			CONTRACT NO. 62G12	
		ILLINOIS FED. AID PROJECT		

TS 670

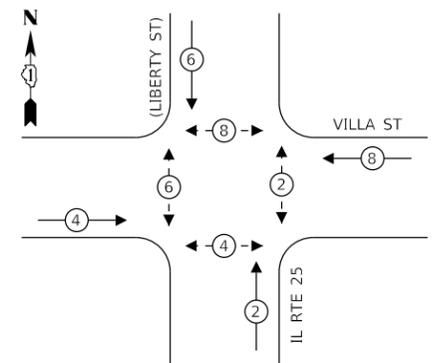
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊛ → PROTECTED PHASE
- ← ⊛ - PROTECTED/ PERMITTED PHASE
- ← ⊛ → PEDESTRIAN PHASE
- ⊛ OL OVERLAP

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊛ → PROTECTED PHASE
- ← ⊛ - PROTECTED/ PERMITTED PHASE
- ← ⊛ → PEDESTRIAN PHASE
- ⊛ OL OVERLAP

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

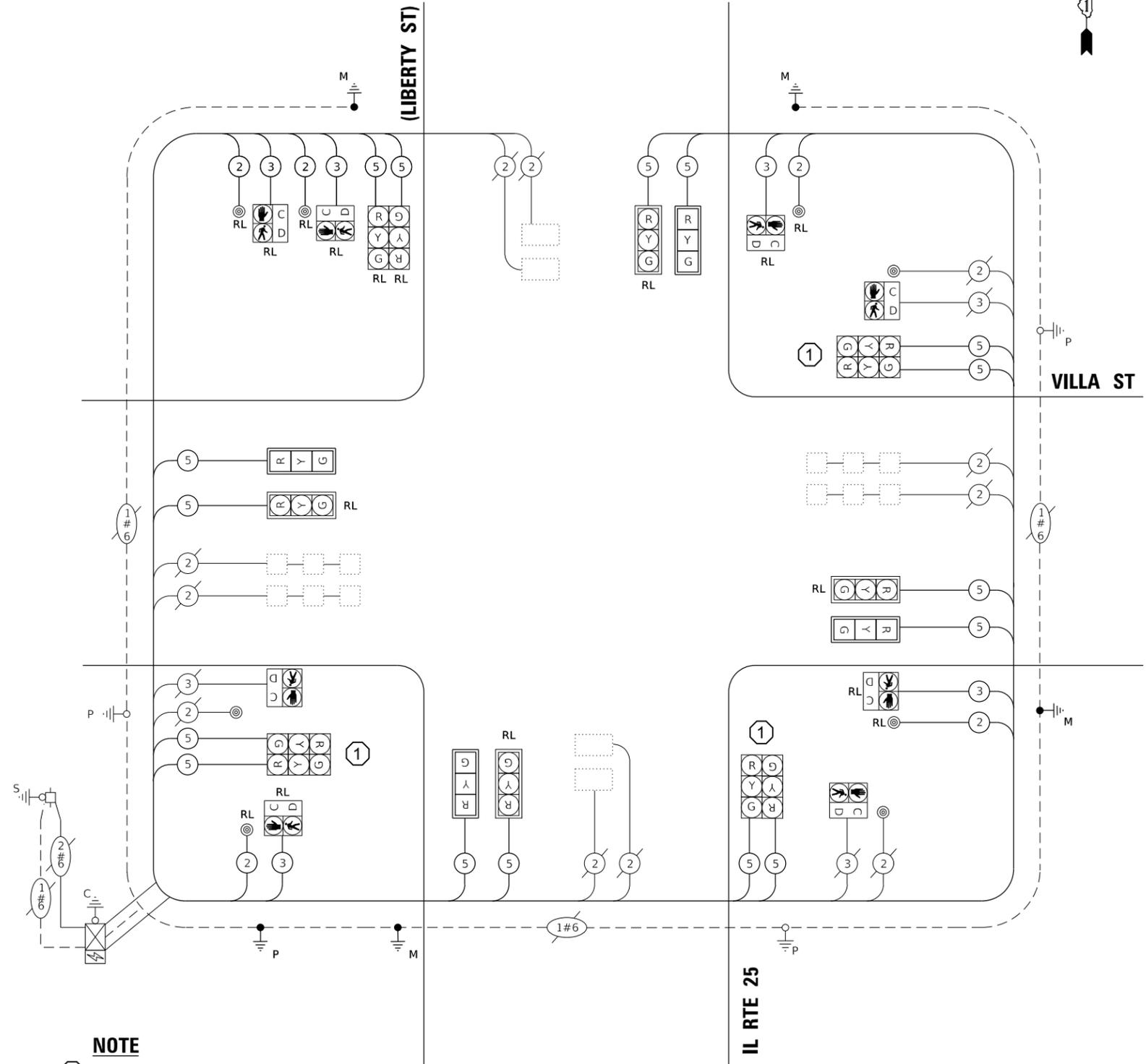
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				475.4

ENERGY COSTS TO:

**CITY OF ELGIN**

150 DEXTER CT.  
ELGIN, IL 60120

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---



**NOTE**

- ① REMOVE EXISTING SHARED MULTI CONDUCTOR CABLE AND REPLACE WITH SEPARATE 5 CONDUCTOR CABLE AS SHOWN.

**CABLE PLAN**  
(NOT TO SCALE)

MODEL: Default  
FILE NAME: P:\13153\W018-002\DC\G\CADD\_Sheets\03\_D160G12-RTS\1\_25 St Villa Cable Plan.dgn



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
IL RTE 25 (LIBERTY ST) AT VILLA ST**

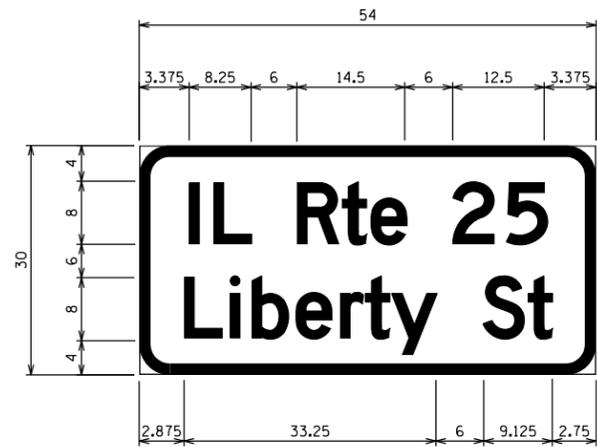
SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	KANE	111	24
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 670**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	20
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	38
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	532
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	567
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2020
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	110
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	5
RELOCATE EXISTING PUSH-BUTTON	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1700
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
TEMPORARY INFORMATION SIGNING	SQ FT	51.4

MODEL: Default  
FILE NAME: P:\1315\1315\W018-002\DC\DCADD\_Sheets\02A\_D180G12-rht-5-IL\_25\_at\_Villa\_Mast\_Arm\_Mounted & 500.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -

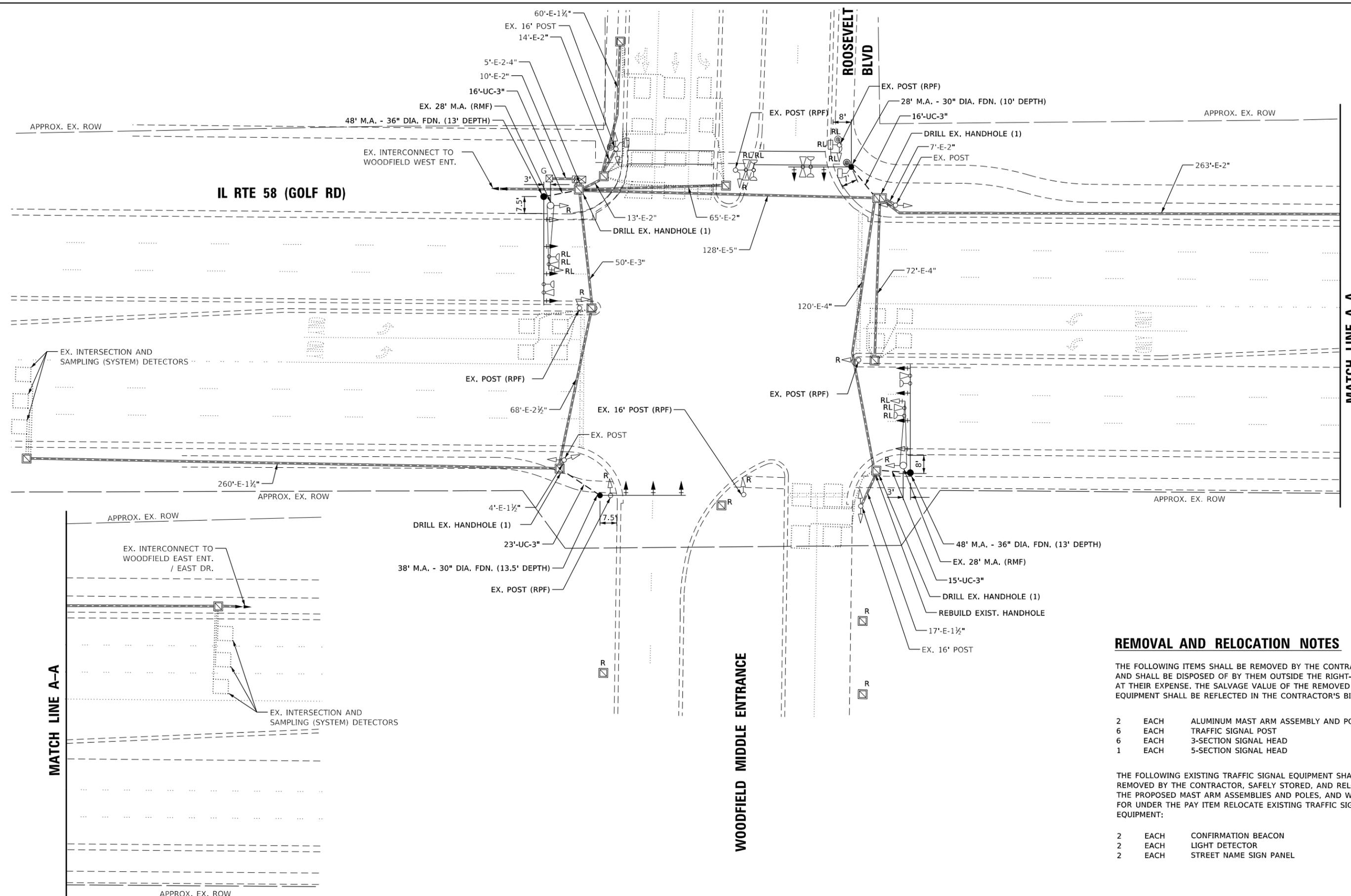
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
IL RTE 25 (LIBERTY ST) AT VILLA ST

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	KANE	111	25
			CONTRACT NO. 62G12	
			ILLINOIS FED. AID PROJECT	

TS 670



**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 CONTRACTOR'S BID PRICE.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 6 EACH TRAFFIC SIGNAL POST
- 6 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

**TS 8780  
ECON 78**

MODEL: Default  
FILE NAME: C:\1063.01\DNICADD\_Sheets\05\_D180C12-shr-Golf at Roosevelt.dgn



USER NAME = echo1	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

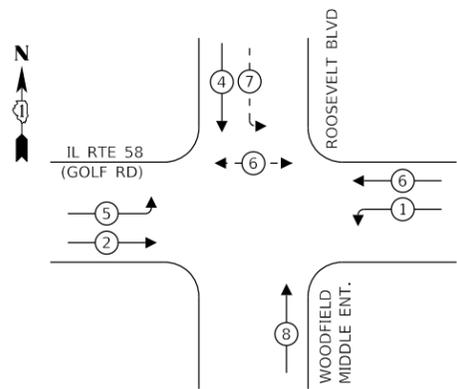
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 58 (GOLF RD) AT WOODFIELD MIDDLE ENTRANCE /ROOSEVELT BLVD**

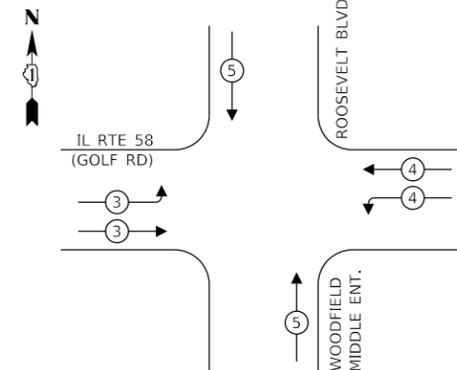
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	26
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

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

**EXISTING CONTROLLER SEQUENCE**

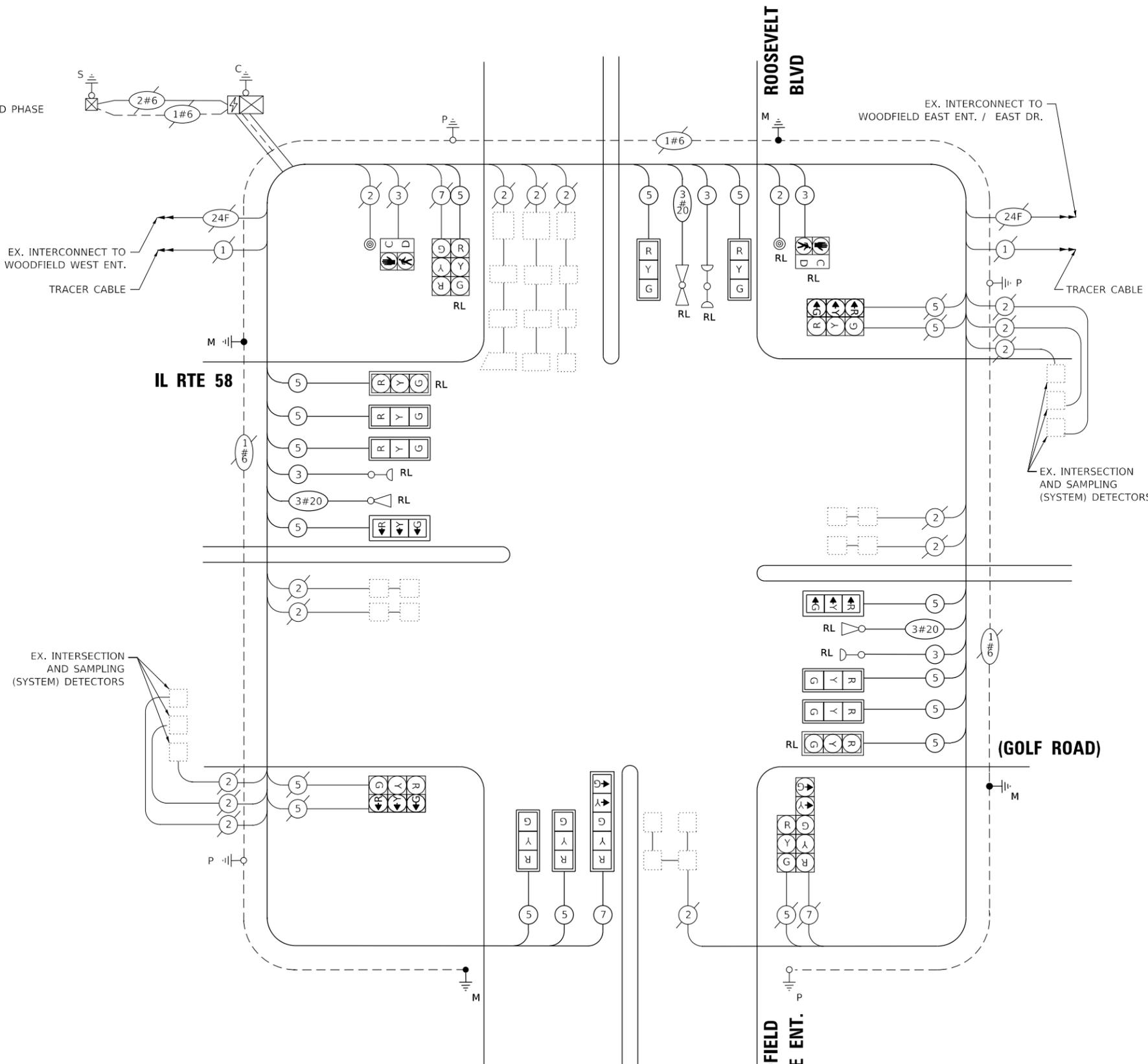


**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

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



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	21	11	50	115.5
(YELLOW)	21	20	5	21.0
(GREEN)	21	12	45	113.4
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	418.9

ENERGY COSTS TO:

VILLAGE OF SCHAUMBURG  
101 SCHAUMBURG CT.  
SCHAUMBURG, IL

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

MODEL: Default  
FILE NAME: I:\1063.01\DN\CADD\_Sheets\07\_D180G12\_rpt-Golf at Roosevelt Cable Plan.dgn



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
**IL RTE 58 (GOLF RD) AT WOODFIELD MIDDLE ENTRANCE / ROOSEVELT BLVD**  
SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	27
			CONTRACT NO. 62G12	
ILLINOIS FED. AID PROJECT				

**TS 8780**  
**ECON 78**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	70
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	184
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	860
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2667
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	235
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	125
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	23.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	11
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2585
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
REMOVE EXISTING HANDHOLE	EACH	4
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	670

MODEL: Default  
FILE NAME: I:\1063.01\IGN\CADD\_Sheets\08\_D160C12-shr-Golf at Roosevelt\_Mast Arm Mounted & SQO.dgn



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40.0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>	
<b>IL RTE 58 (GOLF RD) AT WOODFIELD MIDDLE ENTRANCE /ROOSEVELT BLVD</b>	
SCALE: NTS	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	28
			CONTRACT NO. 62G12	
		ILLINOIS FED. AID PROJECT		

**TS 8780  
ECON 78**

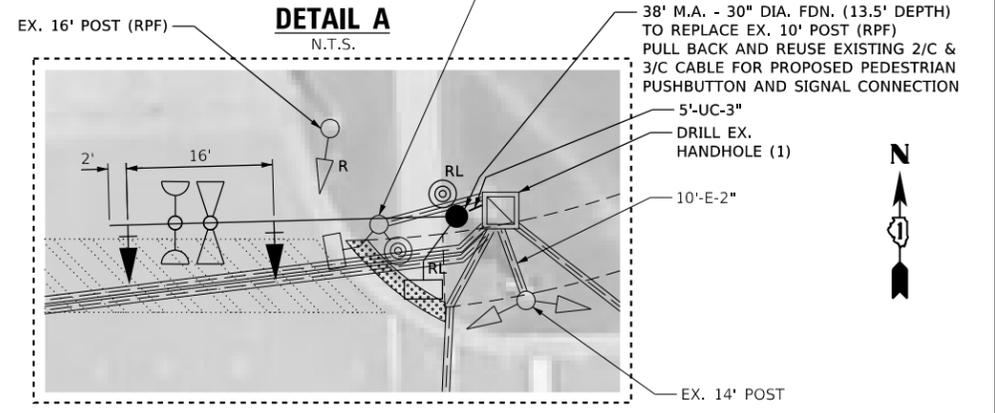
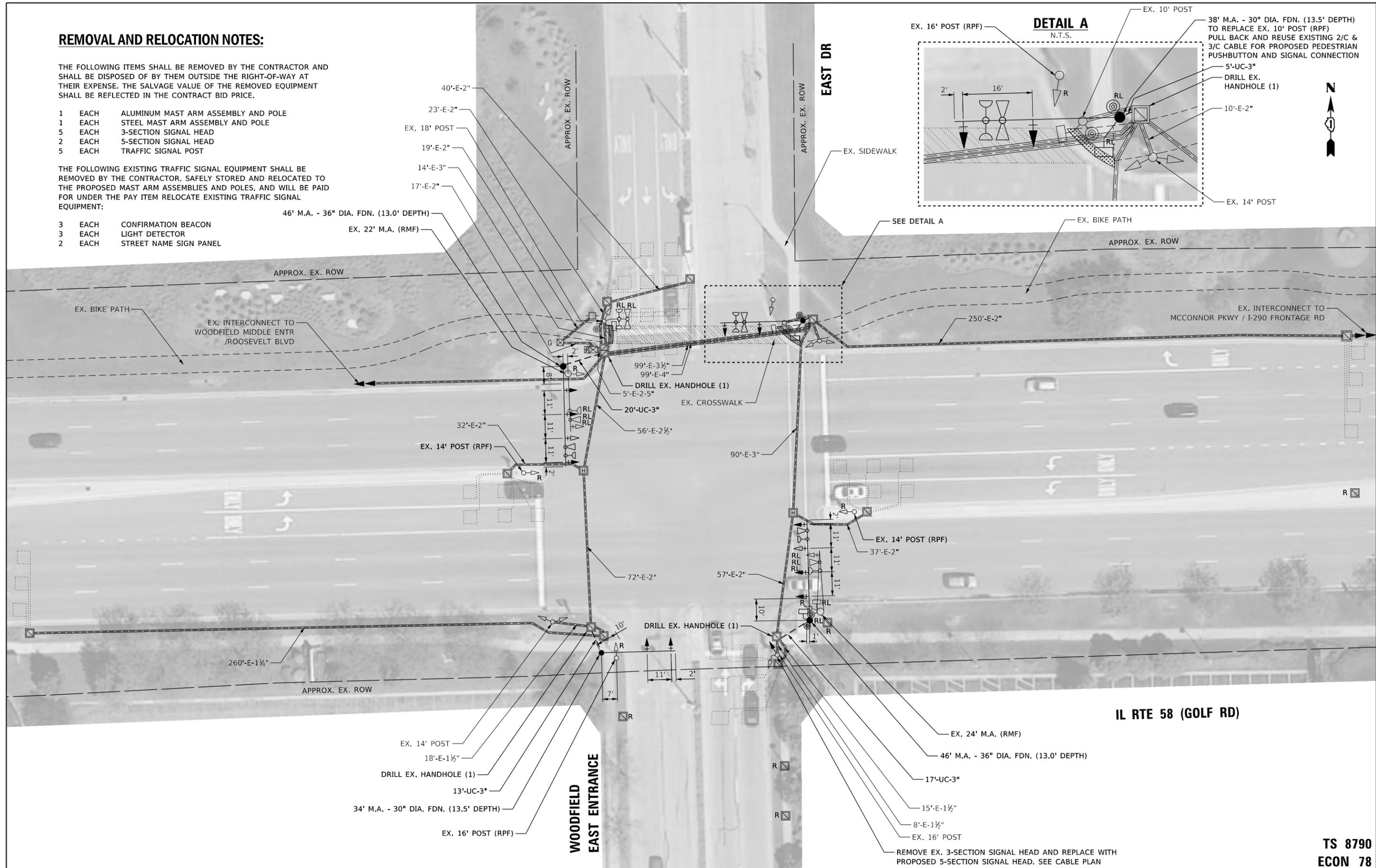
**REMOVAL AND RELOCATION NOTES:**

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 5 EACH 3-SECTION SIGNAL HEAD
- 2 EACH 5-SECTION SIGNAL HEAD
- 5 EACH TRAFFIC SIGNAL POST

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



**IL RTE 58 (GOLF RD)**

**TS 8790  
ECON 78**



USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	DRAWN - RG	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

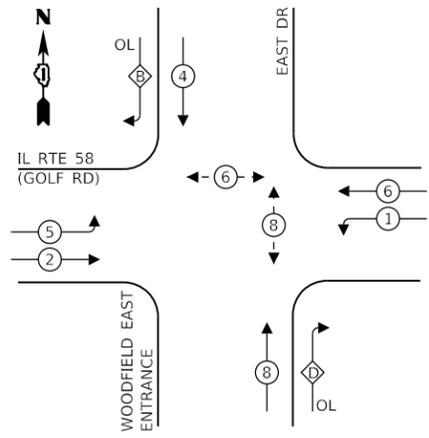
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 58 (GOLF RD) AT WOODFIELD EAST ENTRANCE / EAST DR**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	29
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

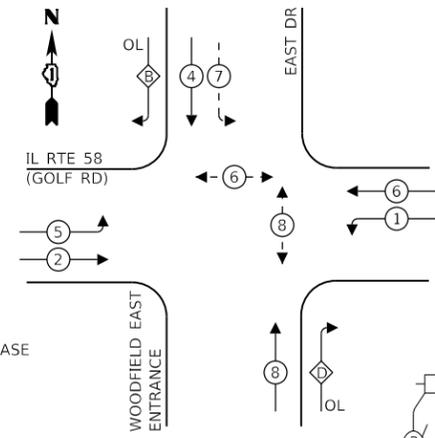
FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481210918-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-ts8790-plan.dgn  
SMODELNAME

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

**EXISTING CONTROLLER SEQUENCE**



**PROPOSED CONTROLLER SEQUENCE**



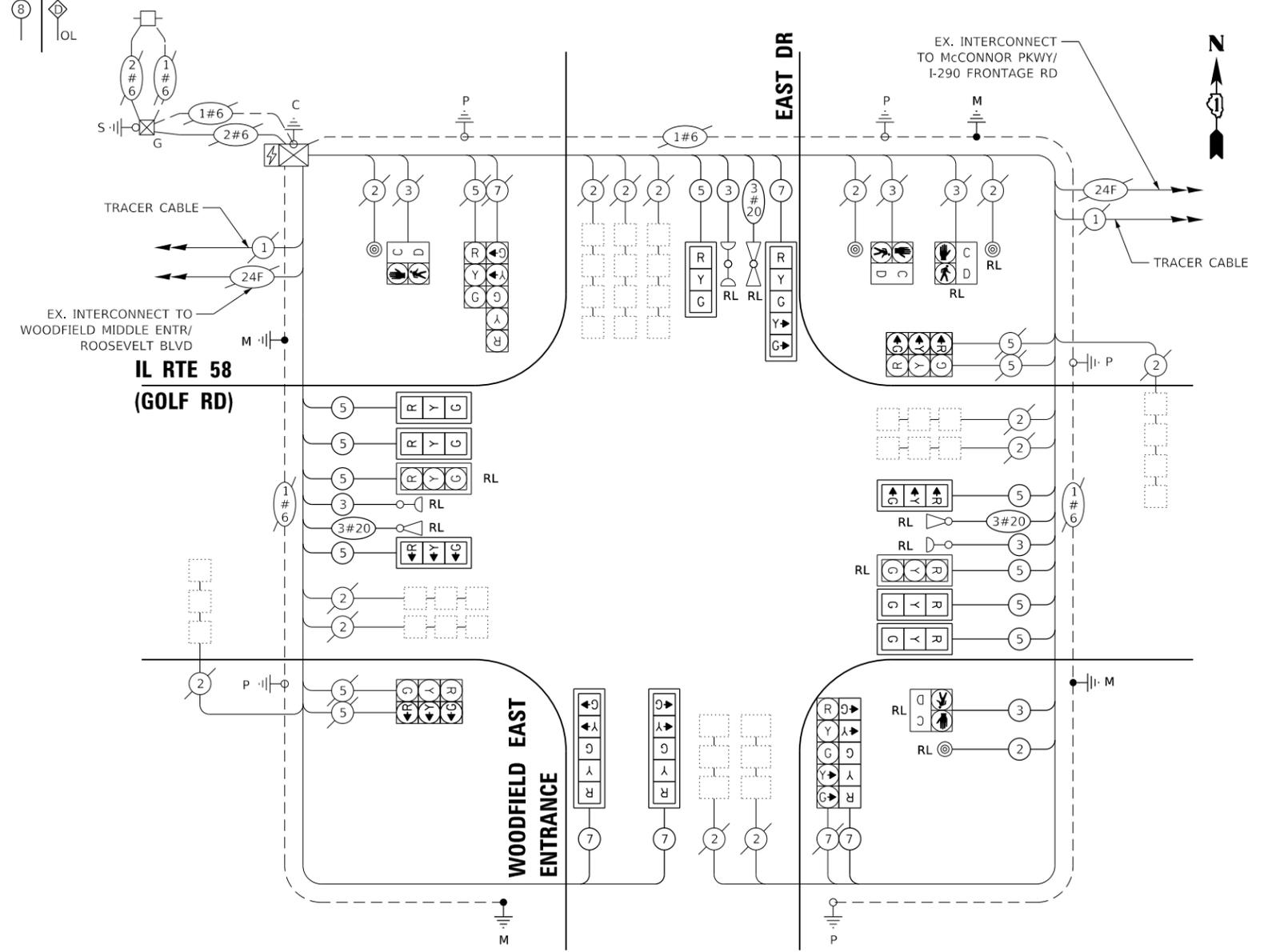
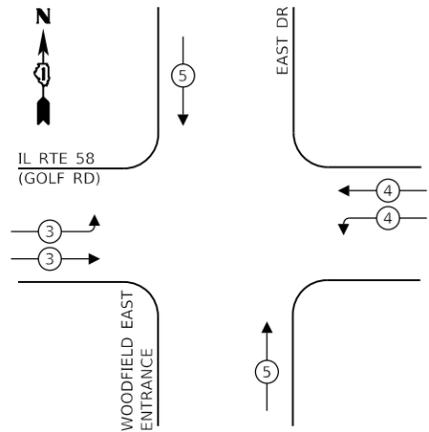
**RIGHT TURN OVERLAP  
PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

**LEGEND:**

- ←(\*) PROTECTED PHASE
- ←(\*)- PERMITTED PHASE
- ←(\*)→ PEDESTRIAN PHASE
- ←(\*) OL OVERLAP

**EXISTING EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



**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	12	10	10	12.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				455.0

ENERGY COSTS TO:  
**VILLAGE OF SCHAUMBURG**  
 101 SCHAUMBURG COURT  
 SCHAUMBURG, IL 60193  
 ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
 PHONE: (630)-437-2129  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: \_\_\_\_\_

<b>DLZ</b>	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	PLOT SCALE = 40.0000' / in.	DRAWN - RG	REVISED -
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
		DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL RTE 58 (GOLF RD) AT WOODFIELD EAST ENTRANCE / EAST DR**

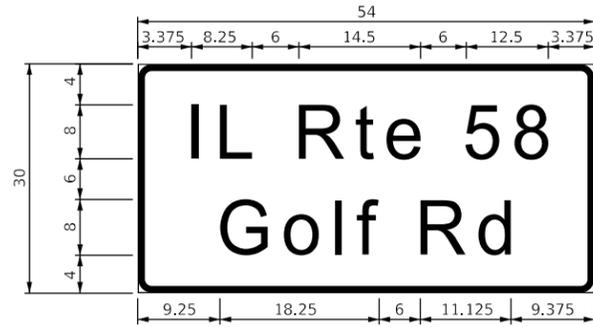
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	30
			CONTRACT NO. 62G12	
		ILLINOIS FED. AID PROJECT		

**TS 8790  
ECON 78**

FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\148\12109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-ts8790-cable.dgn  
 SMODELNAME\$

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2

NOTE:  
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION  
PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME  
SIGNS DETAIL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	55
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	316
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1003
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2004
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	948
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	99
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	27
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
RELOCATE EXISTING SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3007
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	40
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	680

**TS 8790  
ECON 78**

<b>DLZ</b>	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	DRAWN - RG	REVISIONS -		SCALE: NTS	SHEET OF SHEETS	STA. TO STA.	VAR	2018-001-TS	COOK	111
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISIONS -		<b>IL RTE 58 (GOLF RD) AT WOODFIELD EAST ENTRANCE /EAST DR</b>				CONTRACT NO. 62G12		
		DATE - 3/23/2018	REVISIONS -				ILLINOIS		FED. AID PROJECT		

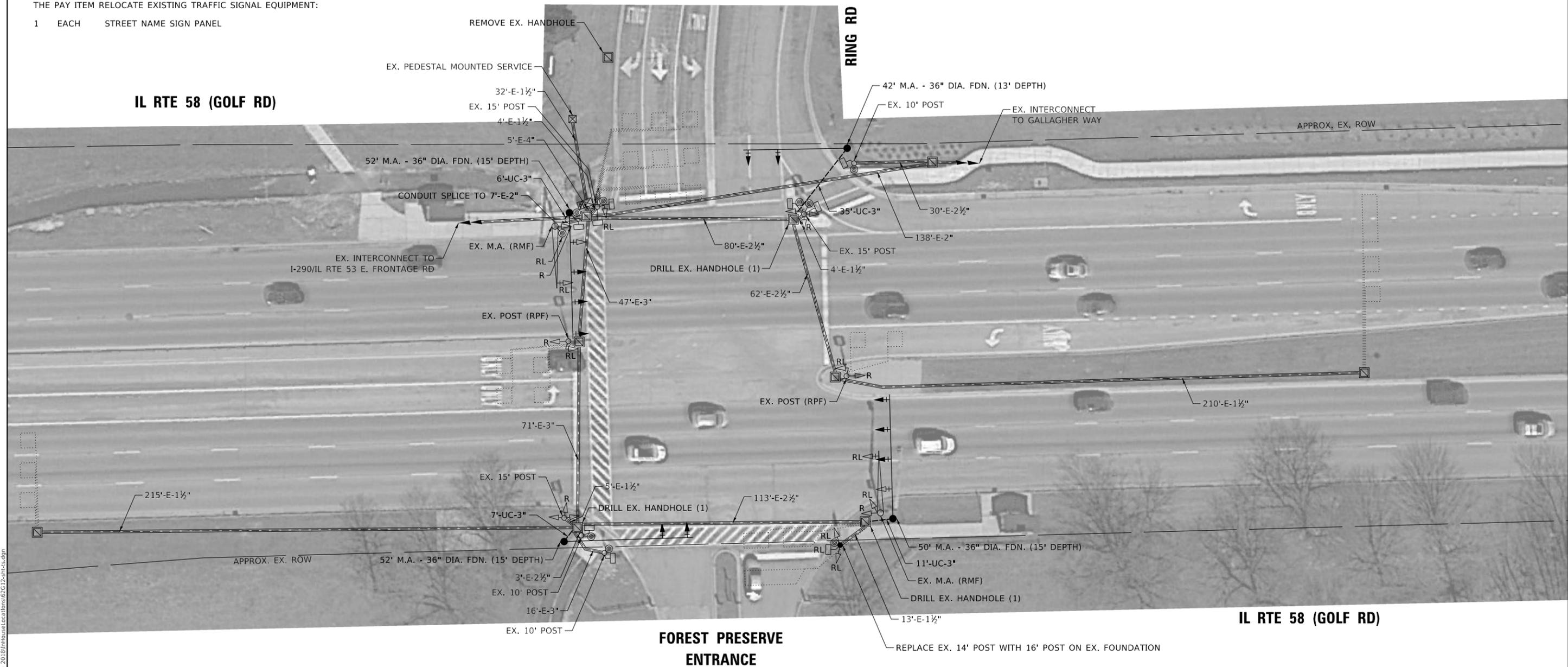
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD
- 2 EACH 4-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH STREET NAME SIGN PANEL



MODEL: D:\s\it... FILE: 20180110\ts\it... CONTRACT NO. 62G12-RT-15-SDM

**TS 2860  
ECON 78**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
DRAWN - IP	REVISIONS -	
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/8/2018	DATE - 3/15/2018	REVISED -

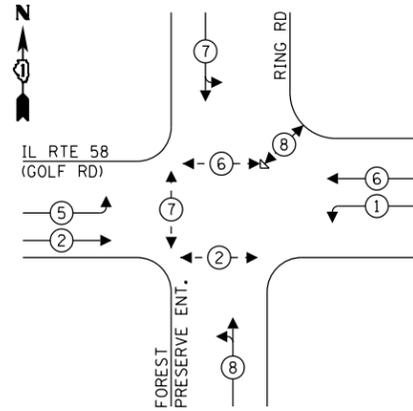
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 58 (GOLF RD) AT RING RD/FORREST PRESERVE ENTRANCE**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2018-001-TS	COOK	111	32	
CONTRACT NO. 62G12			ILLINOIS FED. AID PROJECT	

**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

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

EX. INTERCONNECT TO I-290/IL RTE 53 E. FRONTAGE RD

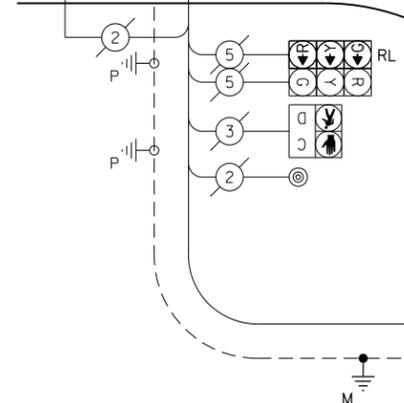
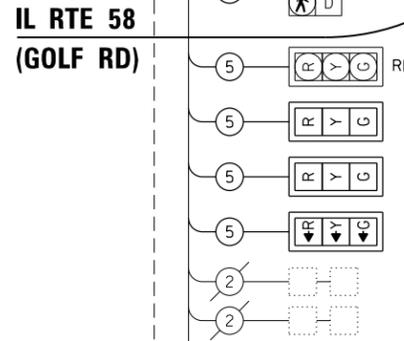
TRACER CABLE

**IL RTE 58  
(GOLF RD)**

**RING RD**

EX. INTERCONNECT TO GALLAGHER WAY

TRACER CABLE



**FOREST PRESERVE  
ENTRANCE**

**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)	24	12	45	129.6
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>544.6</b>

ENERGY COSTS TO:

CITY OF ROLLING MEADOWS  
3900 BERNICK ST  
ROLLING MEADOWS, IL 60008

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: (630) 437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -
	DATE - 3/15/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
IL RTE 58 (GOLF RD) AT RING RD/FOREST PRESERVE ENTRANCE**

SCALE: SHEET OF SHEETS STA. TO STA.

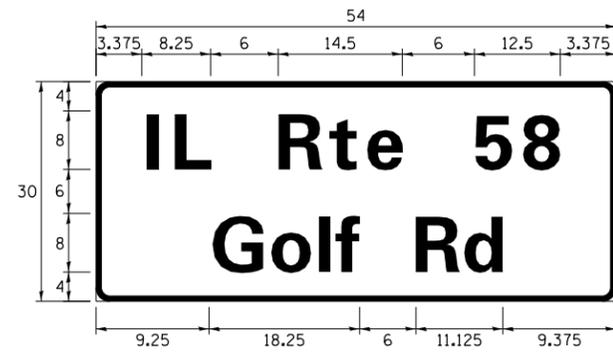
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	33
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

**TS 2860  
ECON 78**

MODEL: D:\p1\... FILE: 20180110\... CONTRACT: 62G12-RT-15.dwg

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	59
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	35
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	40
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,060
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	740
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	105
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	58
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,355
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
CONDUIT SPLICE	EACH	1
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1

MODEL: D:\s\p\Design\Ivan\MASTArm\Contract\62G12 - June 2018\Ivan\MASTArm\Contract\62G12-2ht-45.dgn

**TS 2860  
ECON 78**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -		<b>IL RTE 58 (GOLF RD) AT RING RD/FOREST PRESERVE ENTRANCE</b>		VAR	2018-001-T5	COOK	111	34
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
	DATE - 3/15/2018	REVISED -		CONTRACT NO. 62G12						

**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.

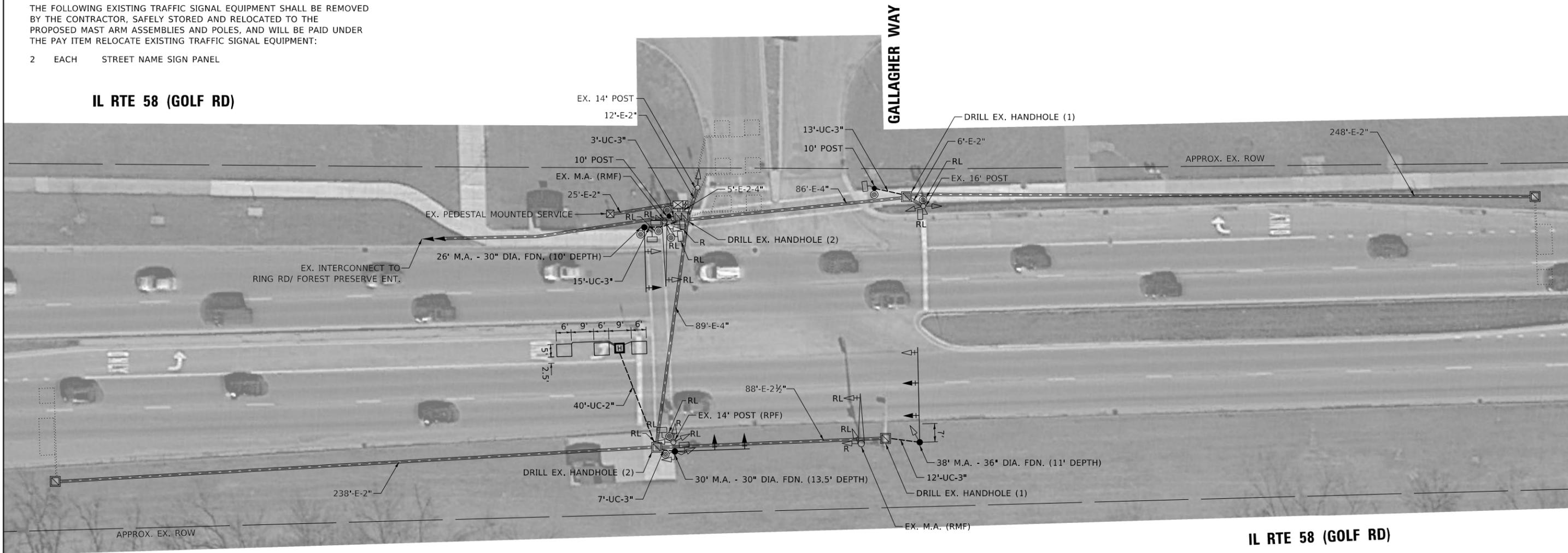
- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH TRAFFIC SIGNAL POST
- 3 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH STREET NAME SIGN PANEL



**IL RTE 58 (GOLF RD)**



**IL RTE 58 (GOLF RD)**

MODEL: Default  
FILE: Model58\_SignageDesign\Ivan\MainArm\Contract62G12 - June 2018\InHouse\Cad\Drawings\62G12-211-15.dgn

**TS 2770  
ECON 78**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
DRAWN - IP	REVISIONS -	
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISIONS -
PLOT DATE = 5/8/2018	DATE - 3/15/2018	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 58 (GOLF RD) AT GALLAGHER WAY**

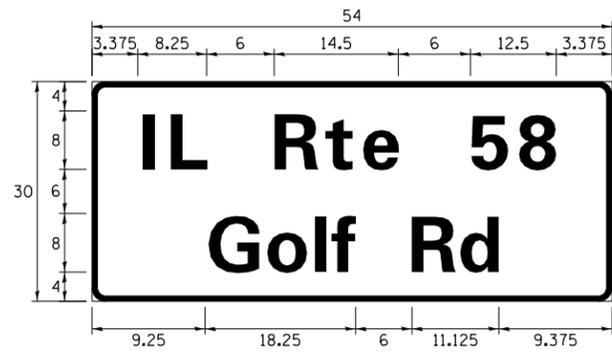
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	35
CONTRACT NO. 62G12			ILLINOIS FED. AID PROJECT	



**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	1

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	11.25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	40
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	50
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	365
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	380
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,575
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	290
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	165
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	125
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	23.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	11
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
DETECTOR LOOP, TYPE I	FOOT	100
RELOCATE EXISTING SIGNAL HEAD	EACH	5
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,700
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	25.7

MODEL: D:\sfp\Design\Ivan\MASTArm\Contract\62G12 - June 2018\101\MASTArm\Locations\62G12-shr-14-1.dgn

**TS 2770  
ECON 78**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES IL RTE 58 (GOLF RD) AT GALLAGHER WAY</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-001-TS	COOK	111	37	
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -			CONTRACT NO. 62G12					
	DATE - 3/15/2018	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO

ILLINOIS FED. AID PROJECT

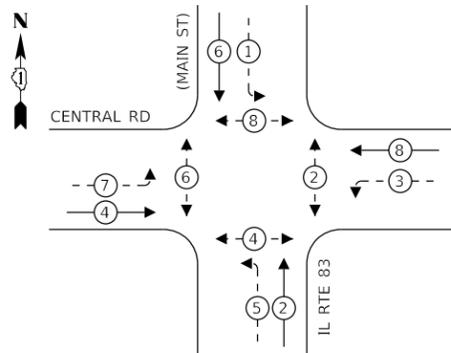


**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	132
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	50
HEAVY-DUTY HANDHOLE	EACH	4
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
* PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	522
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1184
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1264
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	929
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	613
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	105
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54
DRILL EXISTING HANDHOLE	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
DETECTOR LOOP, TYPE I	FOOT	402
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2465
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	256

\* 100% COST TO THE VILLAGE OF MOUNT PROSPECT

**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

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

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

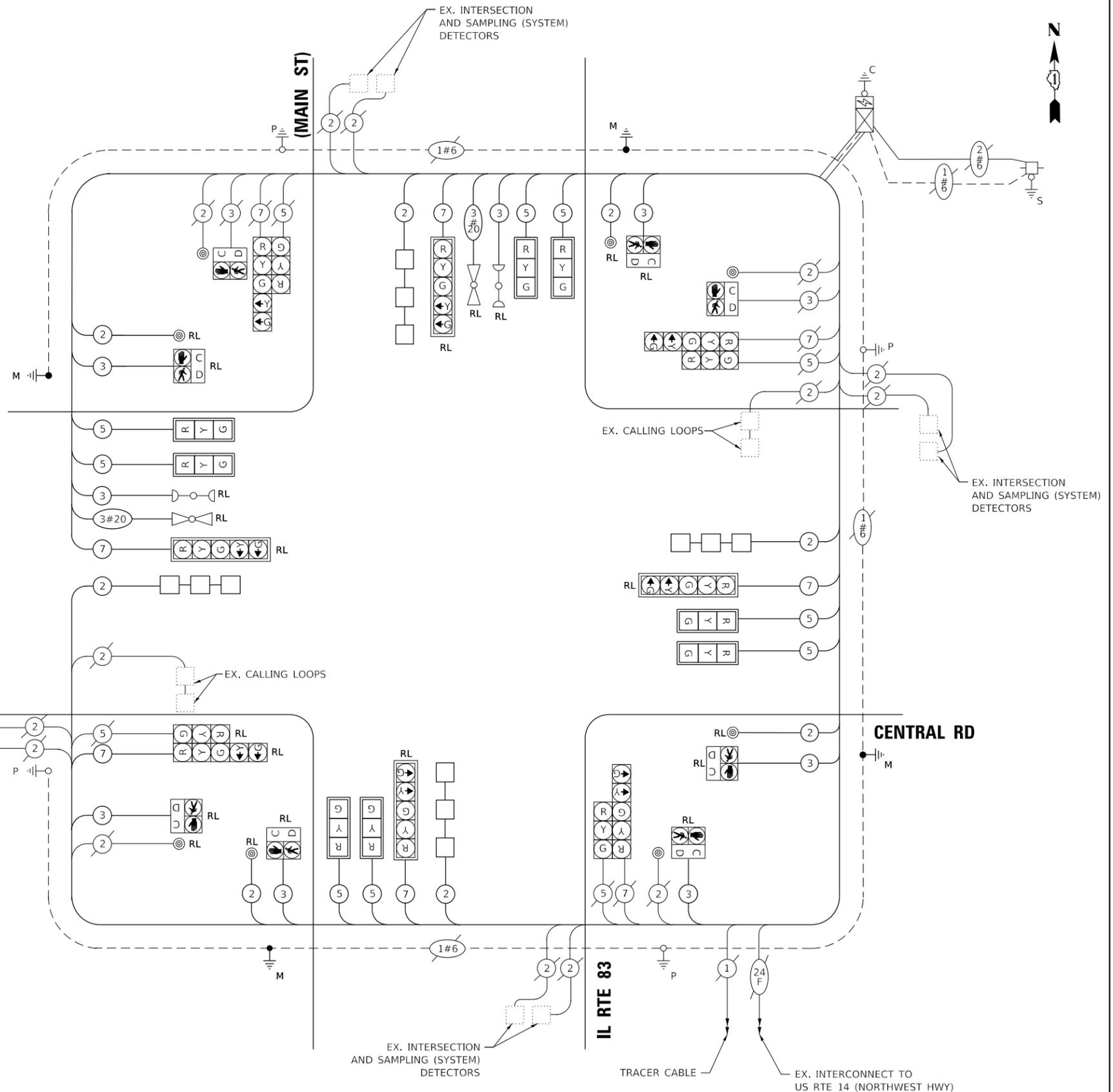
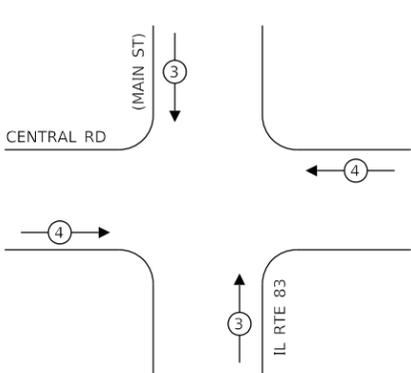
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>539.0</b>

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/DISTRICT 1  
201 WEST CENTER COURT/ SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: (630) 437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES**  
**IL RTE 83 (MAIN ST) AT CENTRAL RD**

SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	39
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 9660**  
**ECON 197**

MODEL: Default  
FILE NAME: I:\1063.01\DNICADD\_Sheets\10\_D18G12\_rpt444in\_St.at\_Central\_Cabls\_Rls.dwg



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

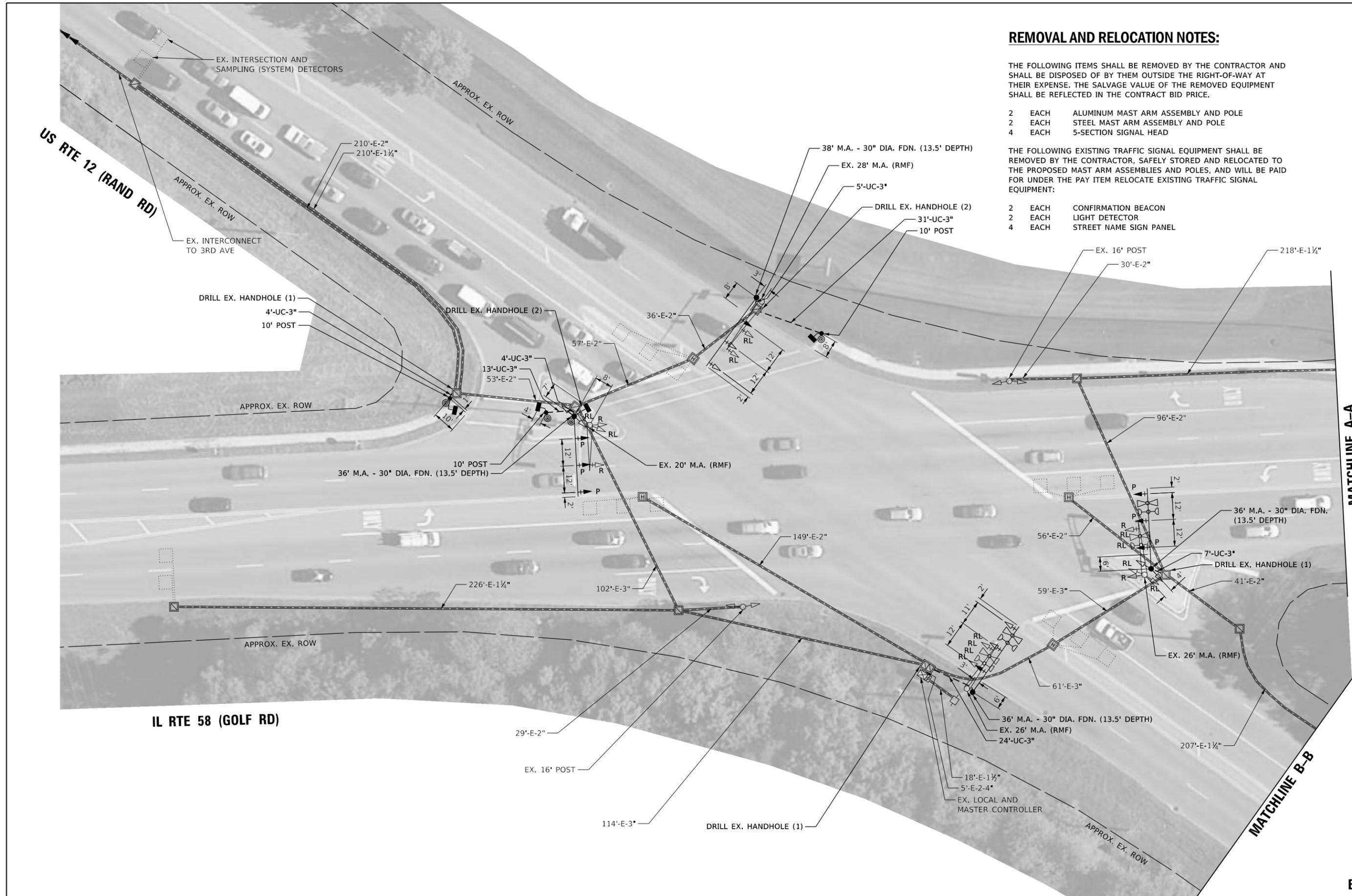
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 4 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL

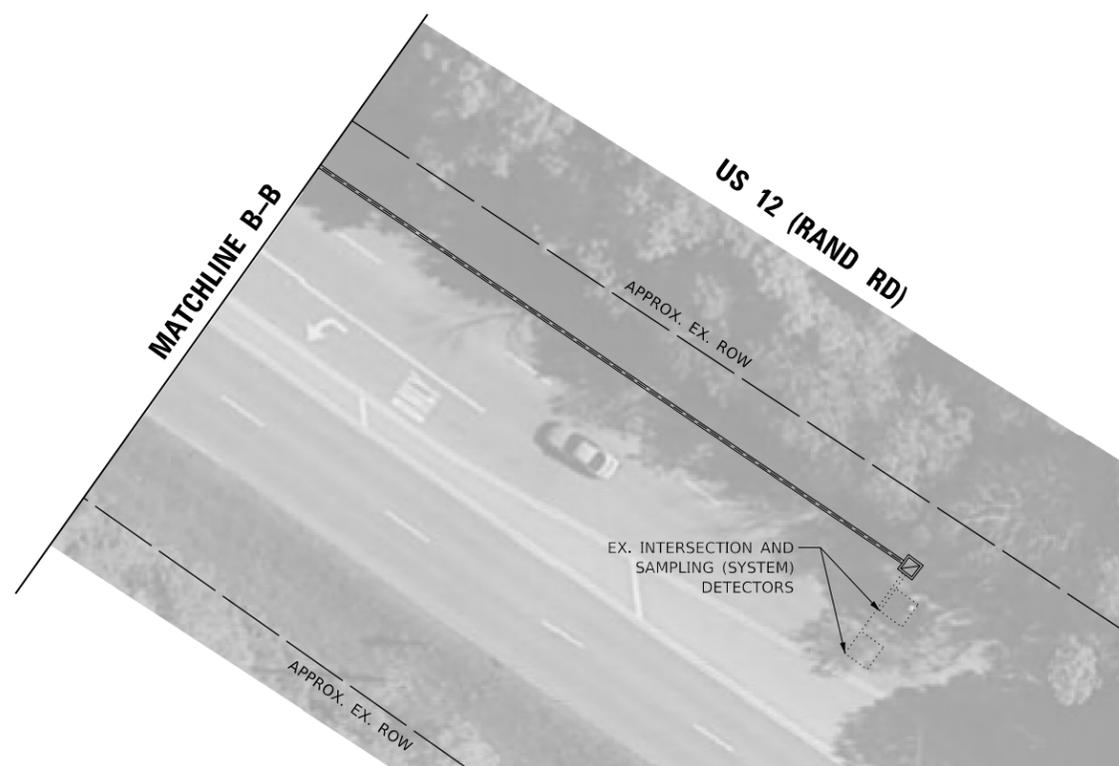
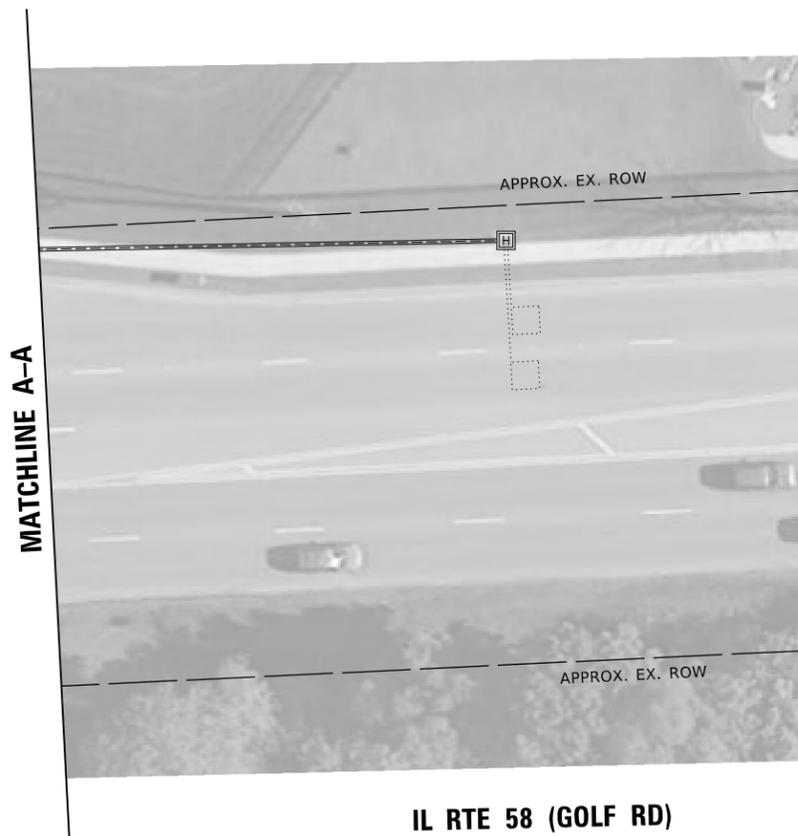


MATCHLINE A-A

MATCHLINE B-B

**TS 375  
ECON 201**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD) - SHEET 1 OF 2</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -		VAR	2018-001-TS	COOK	111	40		
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -		CONTRACT NO. 62G12			ILLINOIS	FED. AID PROJECT		
	FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\14812109\18-001 Trombone Mast Arm Replacement #2\CADD_Sheets\162G12-sht-4s375-plan.dgn					SCALE: 1" = 20'	SHEET 1 OF 2 SHEETS	STA.	TO STA.		



**TS 375  
ECON 201**



USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	DRAWN - RG	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

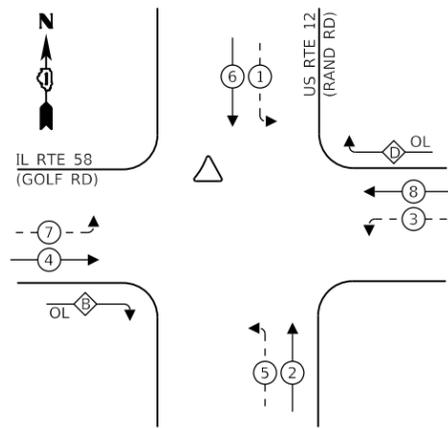
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD) - SHEET 2 OF 2**

SCALE: 1" = 20'    SHEET 2 OF 2 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	41
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4s375-b-plan.dgn  
SMODELNAME\$

**EXISTING CONTROLLER SEQUENCE**



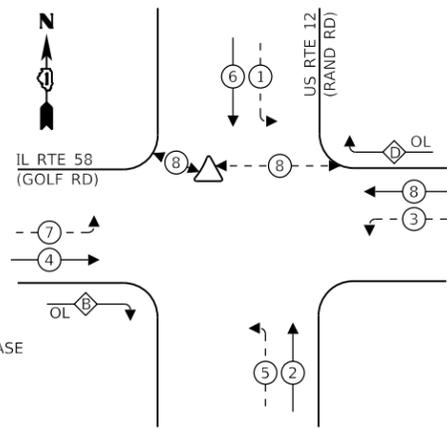
**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

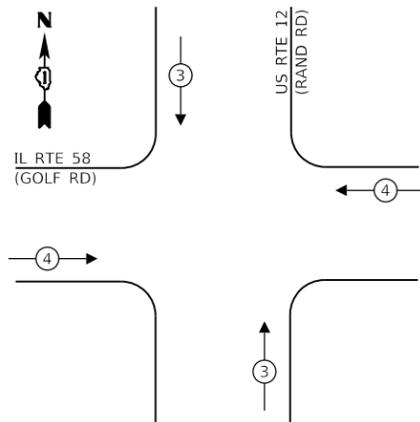
**LEGEND:**

- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - ⊙ → PROTECTED/PERMITTED PHASE
- ← ⊙ ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL → OVERLAP

**PROPOSED CONTROLLER SEQUENCE**



**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**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	24	10	10	24.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				387.0

ENERGY COSTS TO:

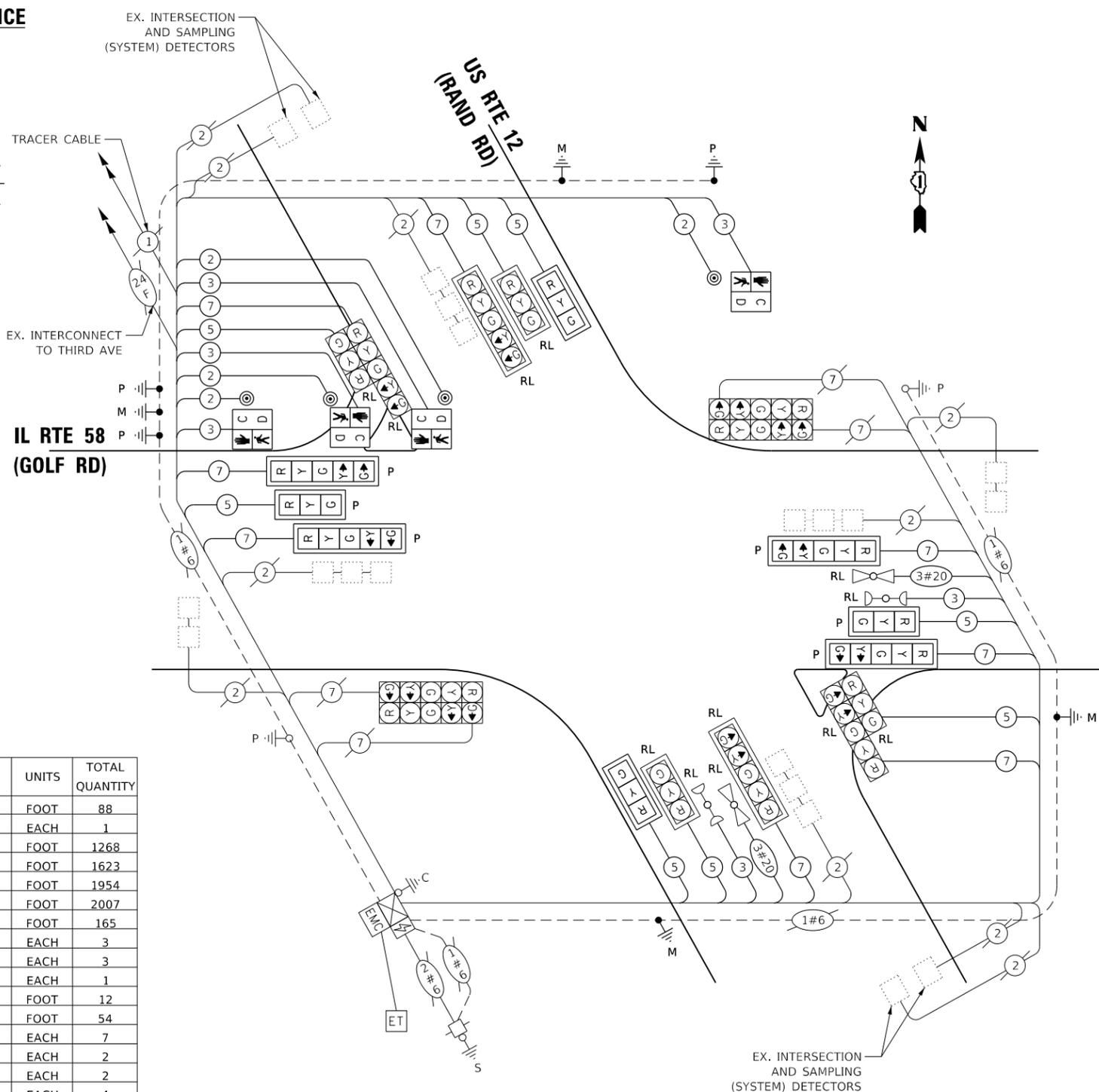
**CITY OF DES PLAINES**

1420 MINER STREET  
DES PLAINES, IL 60016

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: (630)-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	88
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1268
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1623
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1954
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2007
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	165
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54
DRILL EXISTING HANDHOLE	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	8
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2744
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	327



**CABLE PLAN**  
(NOT TO SCALE)



USER NAME = USERNAME  
DRAWN - RG  
PLOT SCALE = 40.0000 ' / in.  
PLOT DATE = 5/7/2018

DESIGNED - DW  
CHECKED - ZH  
DATE = 3/23/2018  
REVISED - 5/4/2018  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
US RTE 12 (RAND RD) AT IL RTE 58 (GOLF RD)**

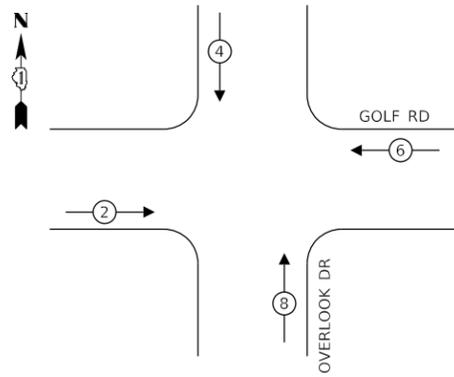
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	42
CONTRACT NO. 62G12			ILLINOIS FED. AID PROJECT	

**TS 375  
ECON 201**



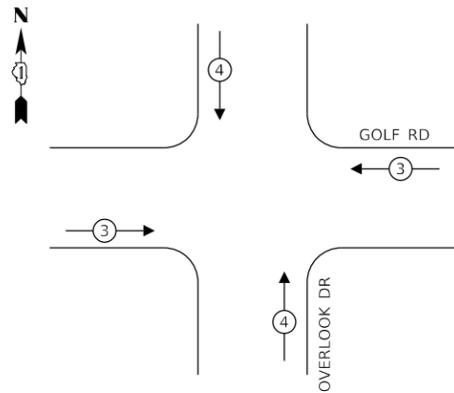
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - ⊙ → PROTECTED/PERMITTED PHASE
- ← ⊙ ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL → OVERLAP

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

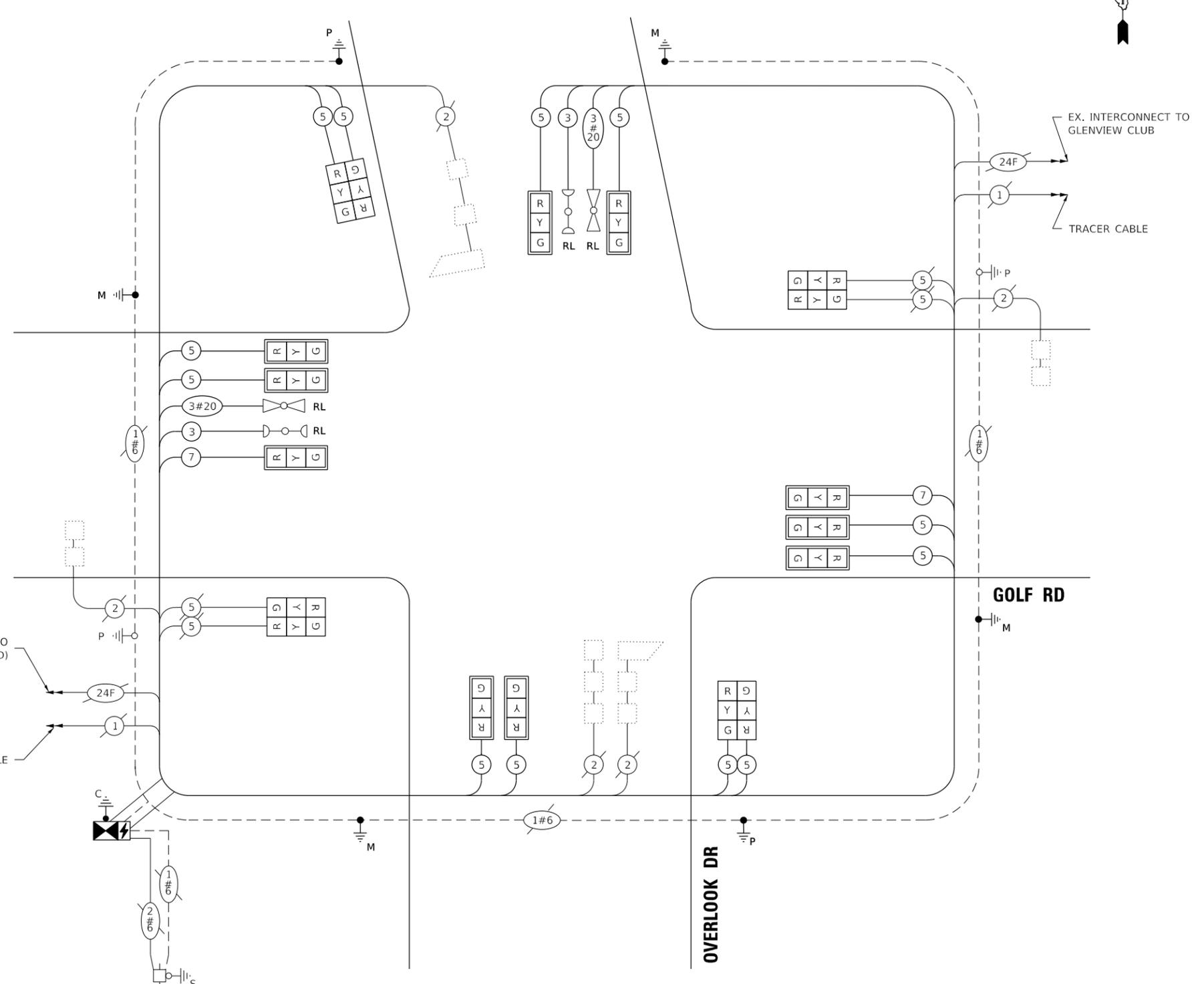
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				339.2

ENERGY COSTS TO:

**VILLAGE OF MORTON GROVE**

6101 CAPULINA AVE  
MORTON GROVE, IL 60053

ENERGY SUPPLY: CONTACT: TERRI BLECK  
PHONE: (847) 816-5239  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

MODEL: D:\mfg\... FILE NAME: 20181115\W018-002\DC\DCADD\_Sheets\04\_D160G12-INTS.CADD\_Rd at Overlook Dr Cable Plan.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

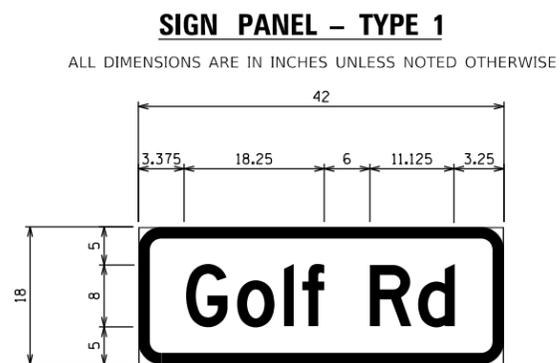
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
**GOLF RD AT OVERLOOK DR**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	44
			CONTRACT NO. 62G12	
ILLINOIS FED. AID PROJECT				

**TS 14270**  
**ECON 8**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	5.25	1	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	10.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	98
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	413
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1820
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	340
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	175
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	47
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1355
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
REMOVE AND REPLACE ANCHOR BOLTS	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	413
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

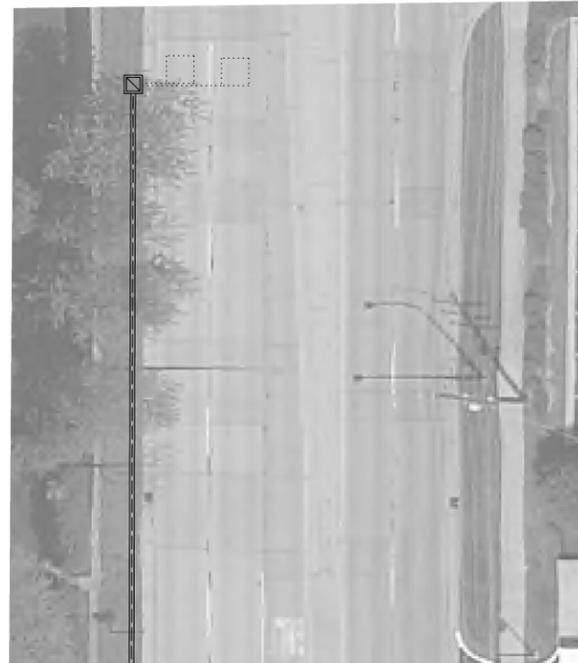
MODEL: D:\m\h\... FILE NAME: 20181115\W018-002\DC\NCADD\_Sheets\05\_D160G12-INTS-Golf Rd at Overlook Dr Mast Arm Mounted & 500.dgn

**TS 14270  
ECON 8**

	USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES GOLF RD AT OVERLOOK DR</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -					2018-001-T5	COOK	111	45	
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -	SCALE: NTS		SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62G12												

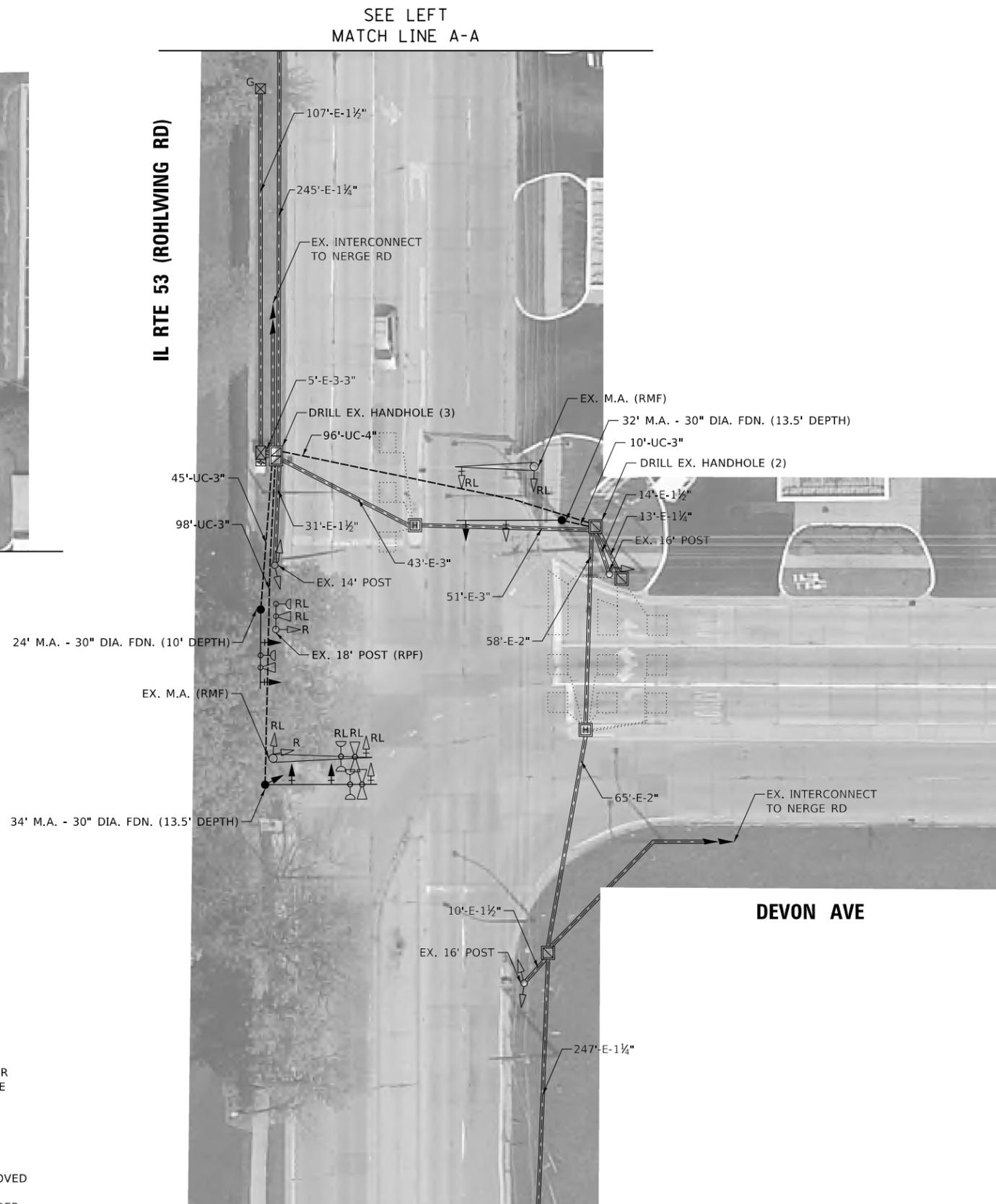


IL RTE 53 (ROHLWING RD)



MATCH LINE A-A  
SEE RIGHT

IL RTE 53 (ROHLWING RD)



MATCH LINE B-B  
SEE RIGHT

SEE LEFT  
MATCH LINE B-B

IL RTE 53 (ROHLWING RD)



**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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH TRAFFIC SIGNAL POST
- 2 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 1 EACH STREET NAME SIGN PANEL

MODEL: D:\info\... FILE NAME: S:\WP\Design\Ivan\Main\Main\Contract\62G12-211-15.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -
	DATE - 3/15/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

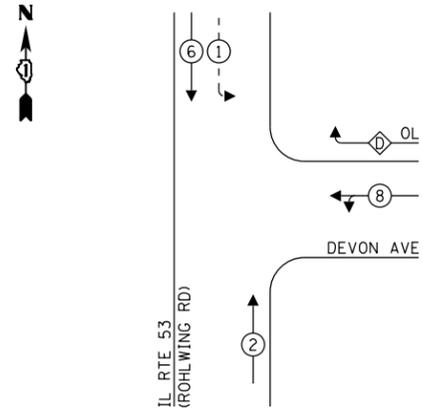
TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 53 (ROHLWING RD) AT DEVON AVE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	46
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

TS 5715  
ECON 145

**EXISTING CONTROLLER SEQUENCE**



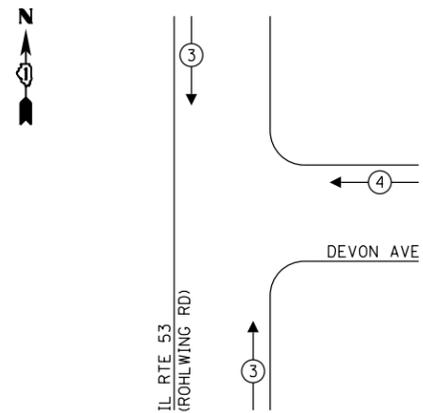
**LEGEND:**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
 D = 8 + 1

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



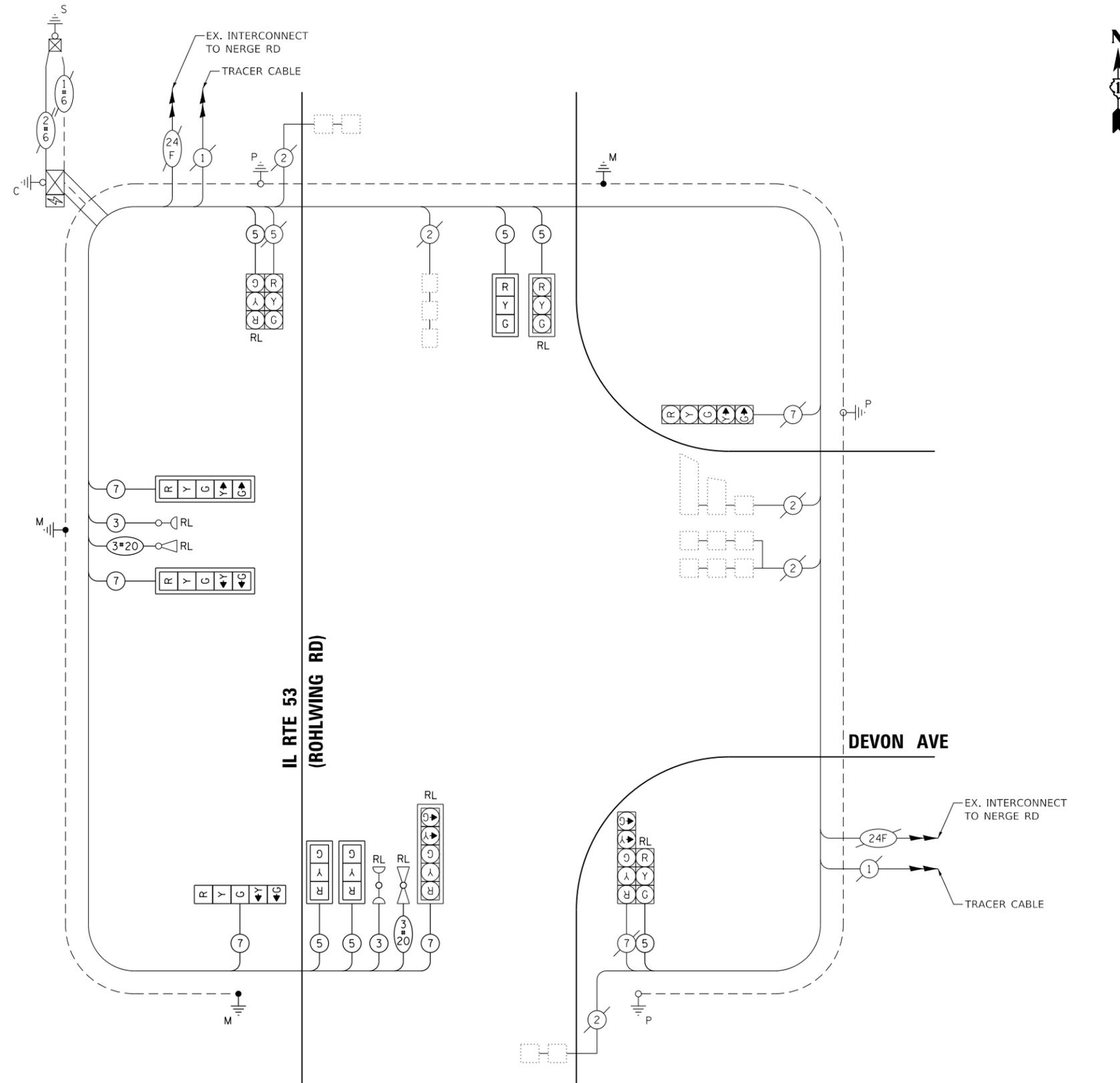
**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				291.7

ENERGY COSTS TO:

ELK GROVE VILLAGE  
 901 WELLINGTON AVE  
 ELK GROVE VILLAGE, IL 60007

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
 PHONE: (630) 437-2129  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL RTE 53 (ROHLWING RD) AT DEVON AVE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2018-001-T5	COOK	111	47
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 5715  
 ECON 145

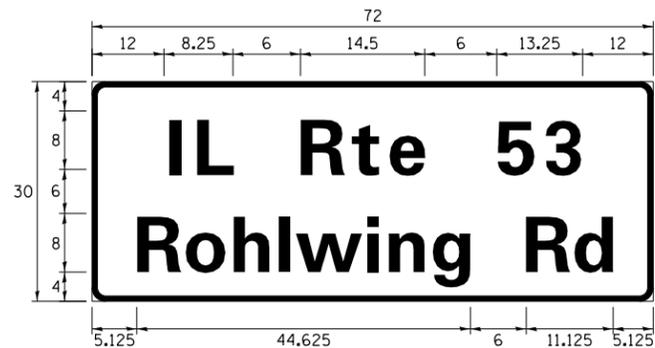
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 FILE: 2018-001-T5\...  
 DATE: 5/8/2018

DESIGNED - IP	REVISD - 5/4/2018
DRAWN - IP	REVISD -
CHECKED - LP	REVISD -
DATE - 3/15/2018	REVISD -

SCALE: SHEET OF SHEETS STA. TO STA.

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	15.0	2	ZZ	1

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	15
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	153
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	96
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	290
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,055
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	535
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	300
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	445
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	290
TEMPORARY INFORMATION SIGNING	SQ FT	77.1

MODEL: D:\s\p\Design\Ivan\mastArm\Contract62G12 - June 2018\Ivan\mastArm\Contract62G12-2ht-45.dgn

**TS 5715  
ECON 145**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES IL RTE 53 (ROHLWING RD) AT DEVON AVE</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-001-T5	COOK	111	48	
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -			CONTRACT NO. 62G12					
	DATE - 3/15/2018	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
					ILLINOIS FED. AID PROJECT					

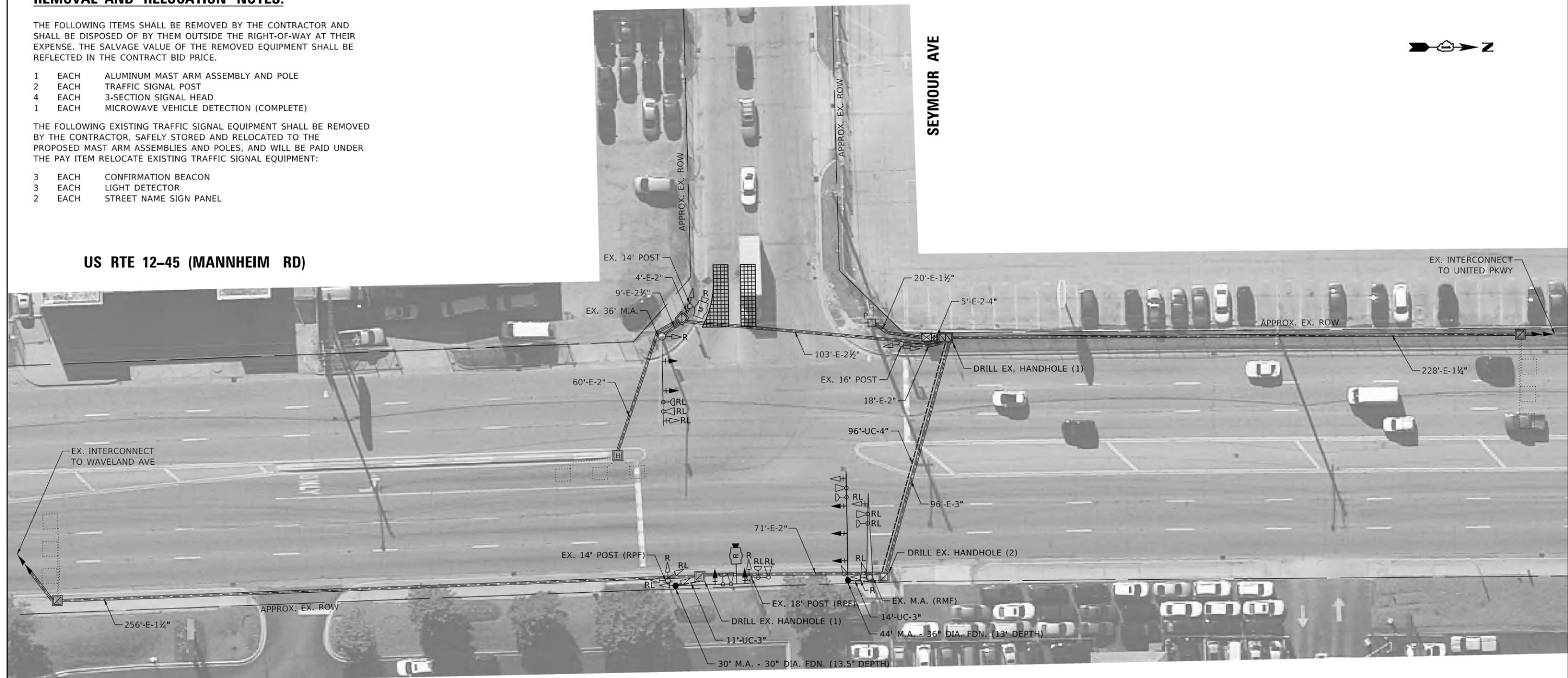
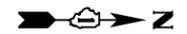
**REMOVAL AND RELOCATION NOTES:**

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD
- 1 EACH MICROWAVE VEHICLE DETECTION (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



**US RTE 12-45 (MANNHEIM RD)**

MODEL: Default  
 FILE NAME: S:\WP\Design\Ivan\Main\Arm\Contract\62G12 - June 2018\HourlyLocations\62G12-sh-15.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
DRAWN - IP	CHECKED - LP	REVISOR -
PLOT SCALE = 40,0000 ' / in.	DATE - 3/15/2018	REVISIONS -
PLOT DATE = 5/8/2018		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

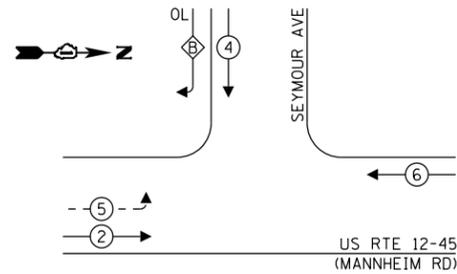
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
US RTE 12-45 (MANNHEIM RD) AT SEYMOUR AVE**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	49
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 11030  
EAGLE 2C**

**EXISTING CONTROLLER SEQUENCE**



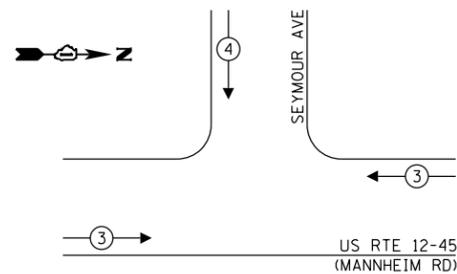
**LEGEND:**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
 B = 4 + 5

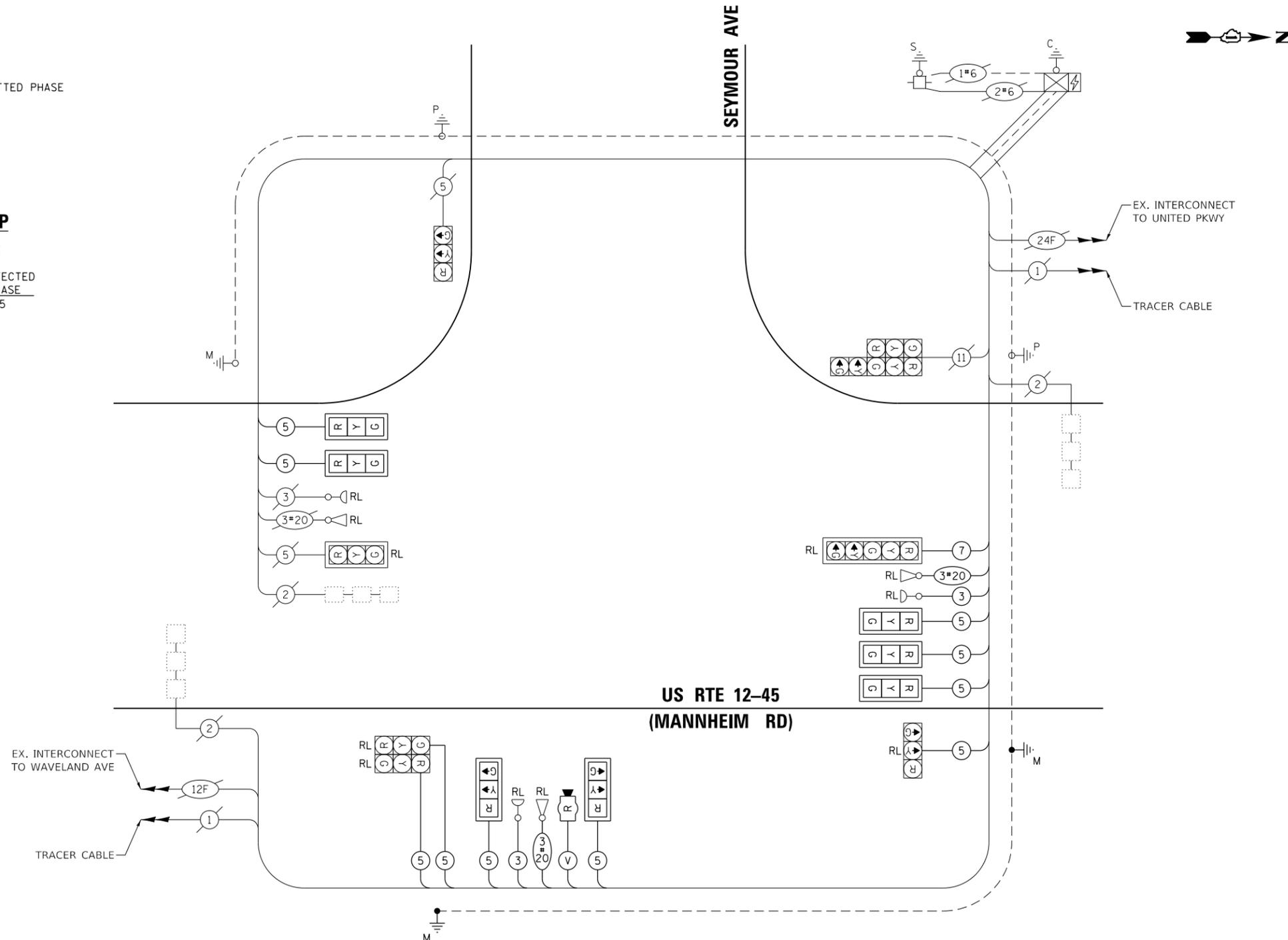
**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	15	12	45	81.0
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
RADAR SYSTEM	1	50	100	50.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				357.5

ENERGY COSTS TO:  
 SCHILLER PARK  
 9526 W IRVING PARK RD  
 SCHILLER PARK, IL 60176  
 ENERGY SUPPLY: CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

MODEL: D:\dtd\11...  
 FILE: 2018-001-TS...  
 DATE: 5/8/2018

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -
	DATE - 3/15/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 US RTE 12-45 (MANNHEIM RD) AT SEYMOUR AVE**

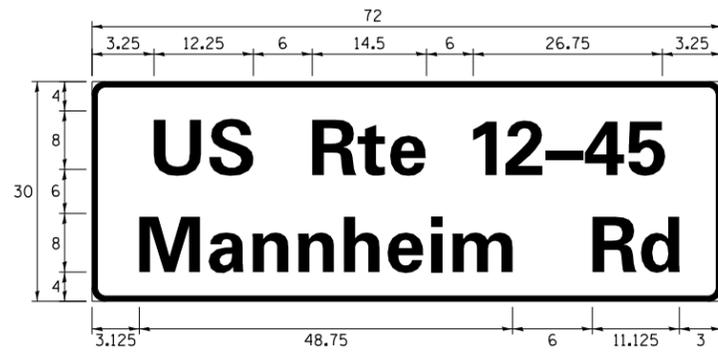
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	50
			CONTRACT NO. 62G12	
		ILLINOIS FED. AID PROJECT		

**TS 11030  
 EAGLE 2C**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	15.0	2	ZZ	1

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	15
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	96
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	470
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,060
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	210
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	160
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	7
RELOCATE EXISTING SIGNAL HEAD	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,250
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	470
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	1
TEMPORARY INFORMATION SIGNING	SQ FT	25.7

MODEL: D:\s\p\Design\Ivan\MAstArm\Contract\62G12 - June 2018\Ivan\MAstArm\Contract\62G12-2ht-45.dgn

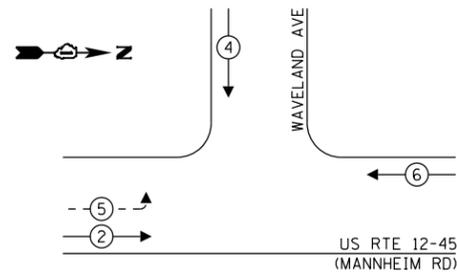
**TS 11030  
EAGLE 2C**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES US RTE 12-45 (MANNHEIM RD) AT SEYMOUR AVE</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-001-TS	COOK	111	51	
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -			CONTRACT NO. 62G12					
	DATE - 3/15/2018	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO

ILLINOIS FED. AID PROJECT



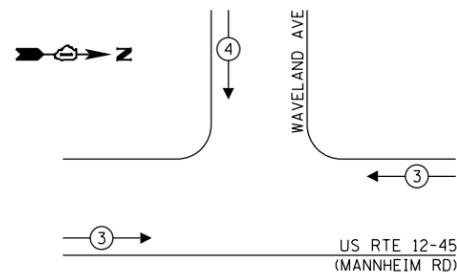
**EXISTING CONTROLLER SEQUENCE**



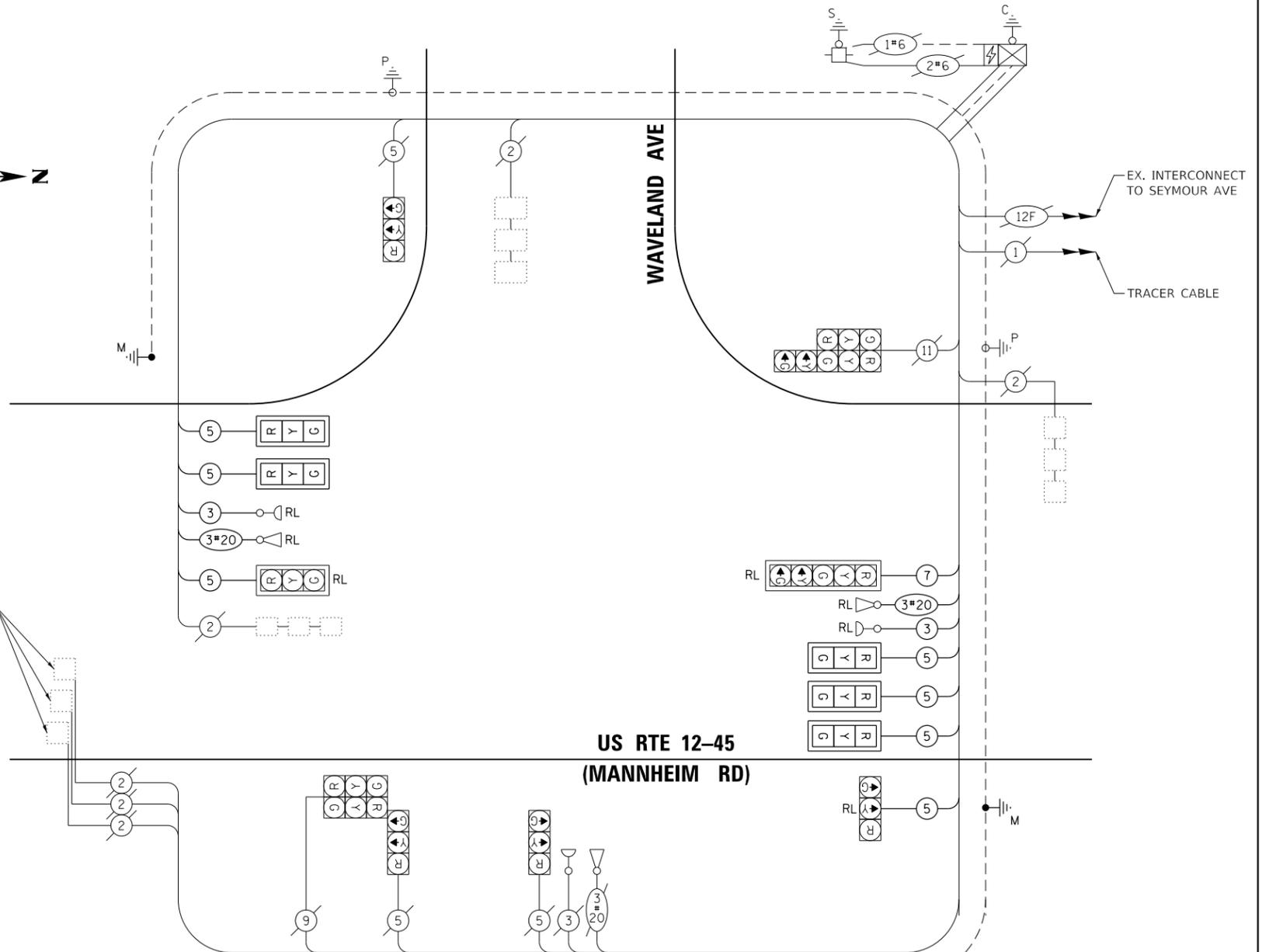
**LEGEND:**

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

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	14
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	90
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	375
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,180
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	200
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	130
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,080
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	375
TEMPORARY INFORMATION SIGNING	SO FT	25.7

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	15	12	45	81.0
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>307.5</b>

ENERGY COSTS TO:

SCHILLER PARK  
9526 W IRVING PARK RD  
SCHILLER PARK, IL 60176

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

USER NAME = plascenciai
PLOT SCALE = 40,0000 ' / in.
PLOT DATE = 5/8/2018

DESIGNED - IP	REVISED - 5/4/2018
DRAWN - IP	REVISED -
CHECKED - LP	REVISED -
DATE - 3/15/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
US RTE 12-45 (MANNHEIM RD) AT WAVELAND AVE**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	53
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 11035  
EAGLE 2C**

MODEL: D:\p1\11035\11035.dwg  
FILE: 11035.dwg  
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USER: plascenciai  
PLOT: 5/8/2018 10:45:40 AM  
PLOT SCALE: 40,0000 ' / in.  
PLOT DATE: 5/8/2018

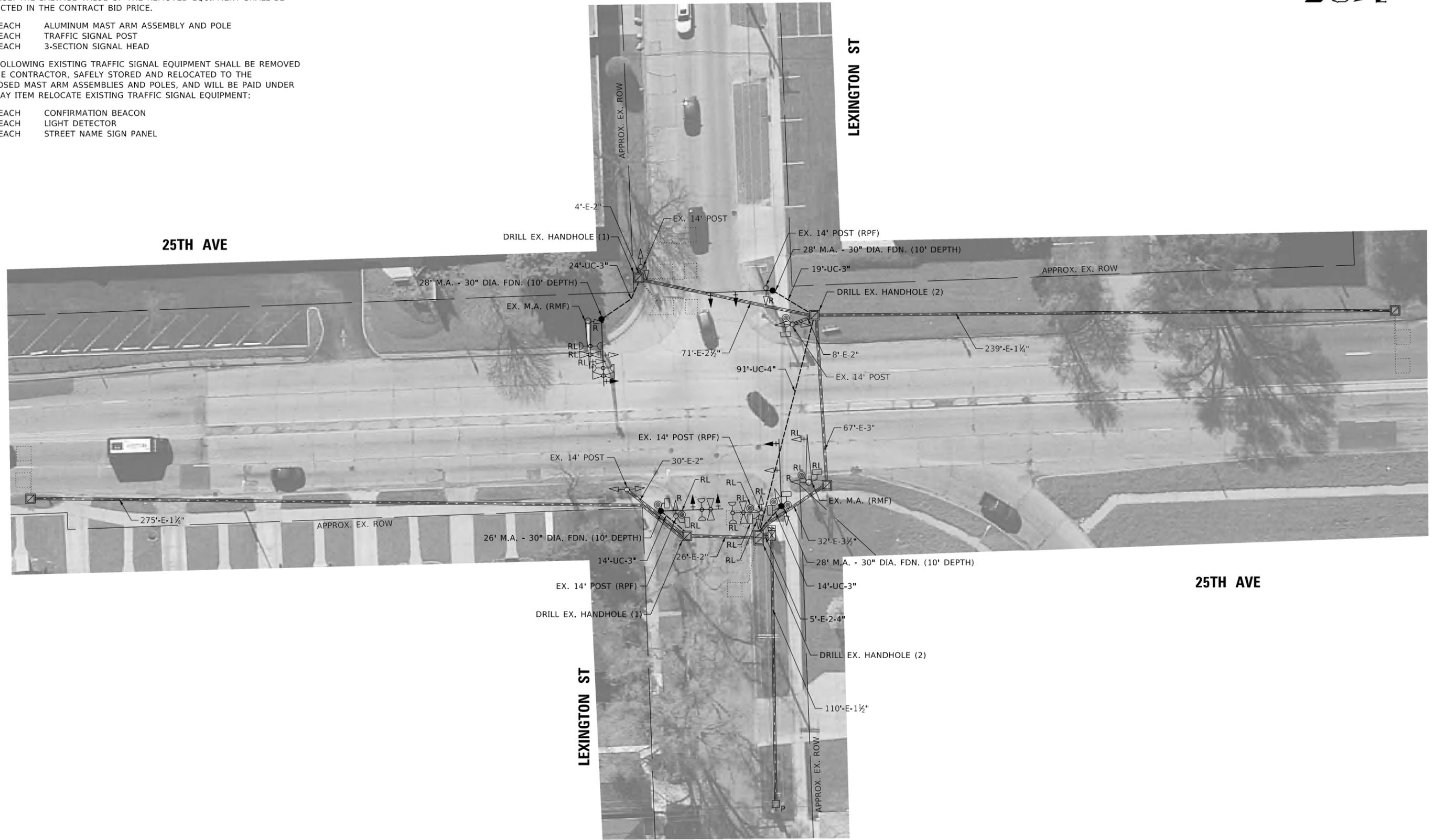
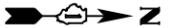
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



MODEL: Default  
FILE NAME: S:\WP\Design\Ivan\MainArm\Contract\62G12 - June 2018\104\rel\loc\62G12-shr-ts.dgn

**TS 3720**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -
	DATE - 3/15/2018	REVISED -

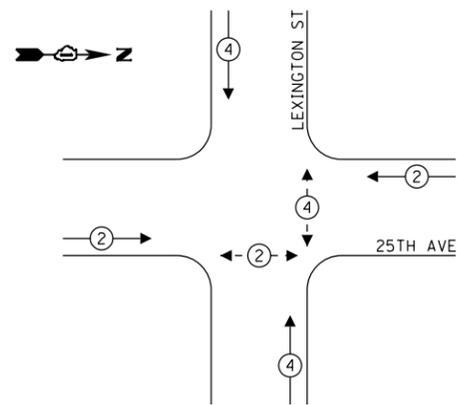
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
25TH AVE AT LEXINGTON ST**

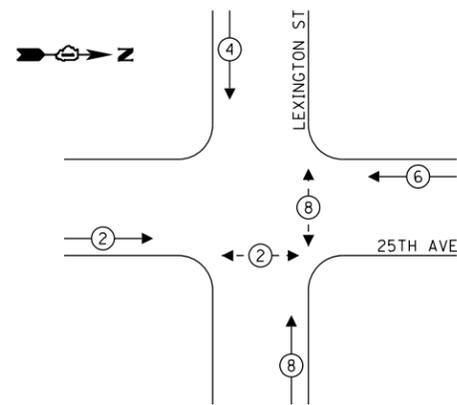
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	54
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

**EXISTING CONTROLLER SEQUENCE**



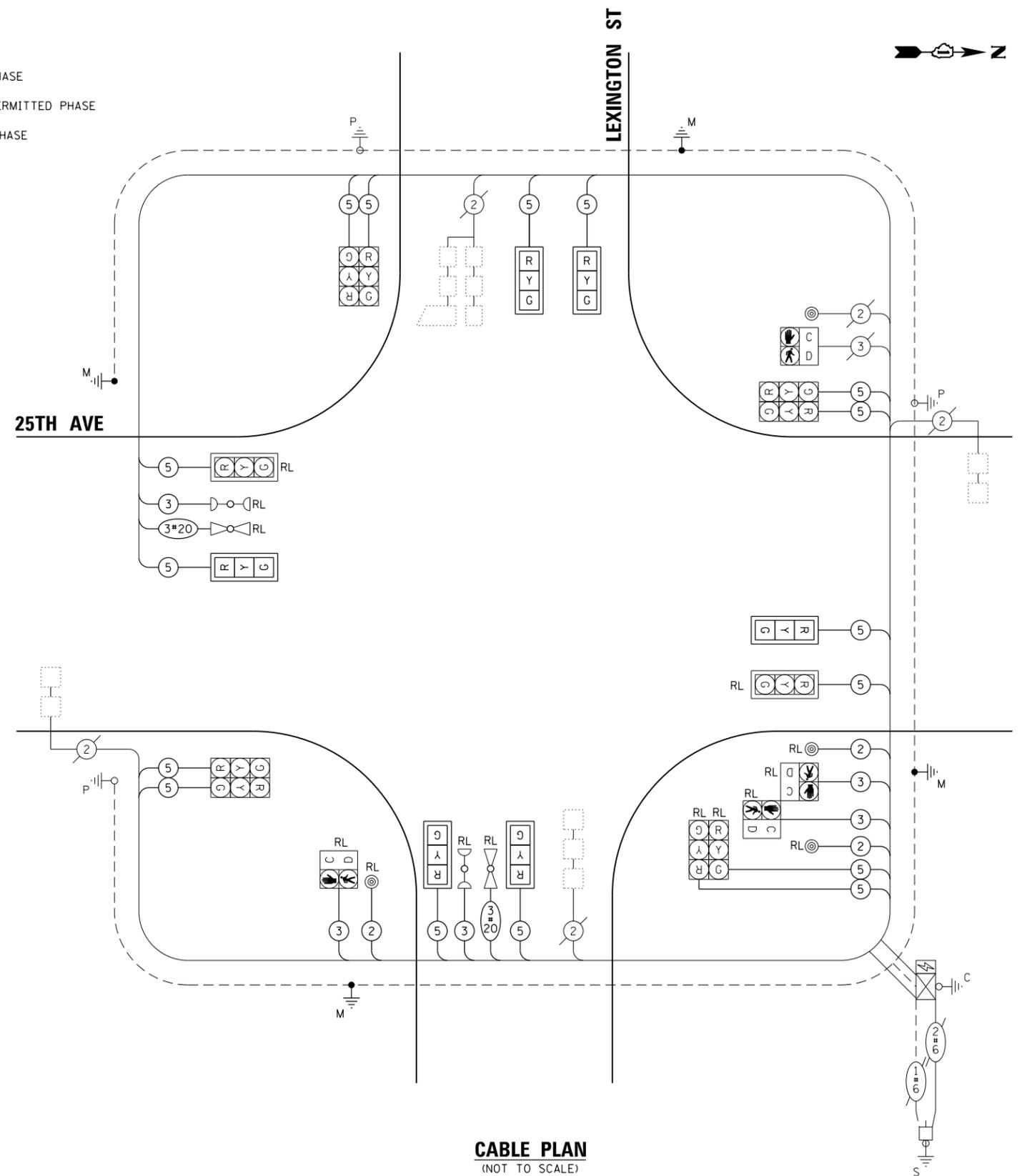
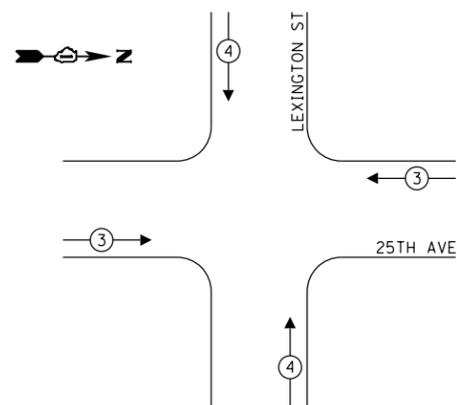
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

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

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>395.4</b>

ENERGY COSTS TO:

VILLAGE OF BROADVIEW  
2350 S 25TH AVE  
BROADVIEW, IL 60153

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -
	DATE - 3/15/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
25TH AVE AT LEXINGTON ST**

SCALE: SHEET OF SHEETS STA. TO STA.

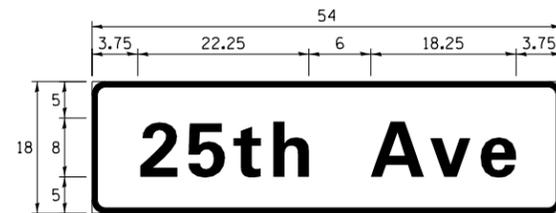
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	55
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 3720**

MODEL: D:\p1\... FILE: 20180110\p1\... CONTRACT: 62G12 - June 2018\p1\... 62G12-2018-05.dwg

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	13.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	71
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	91
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	180
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	580
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,355
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	230
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	3
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	6
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,665
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	390
TEMPORARY INFORMATION SIGNING	SQ FT	51.4

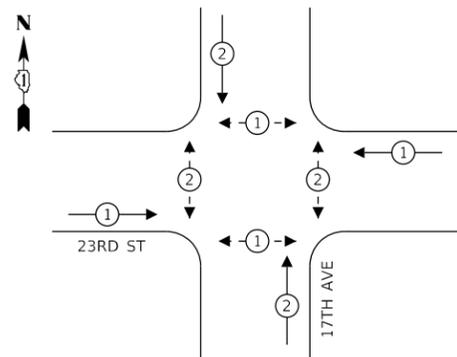
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**TS 3720**

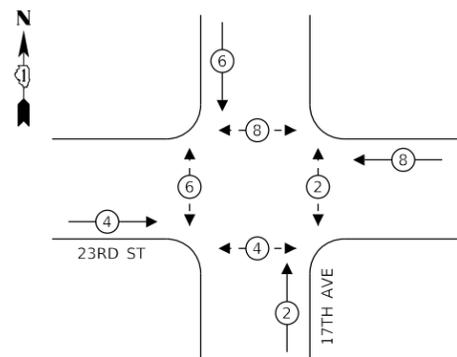
USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES 25TH AVE AT LEXINGTON ST</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-001-TS	COOK	111	56	
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -			CONTRACT NO. 62G12					
	DATE - 3/15/2018	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
					ILLINOIS FED. AID PROJECT					



**EXISTING CONTROLLER SEQUENCE**



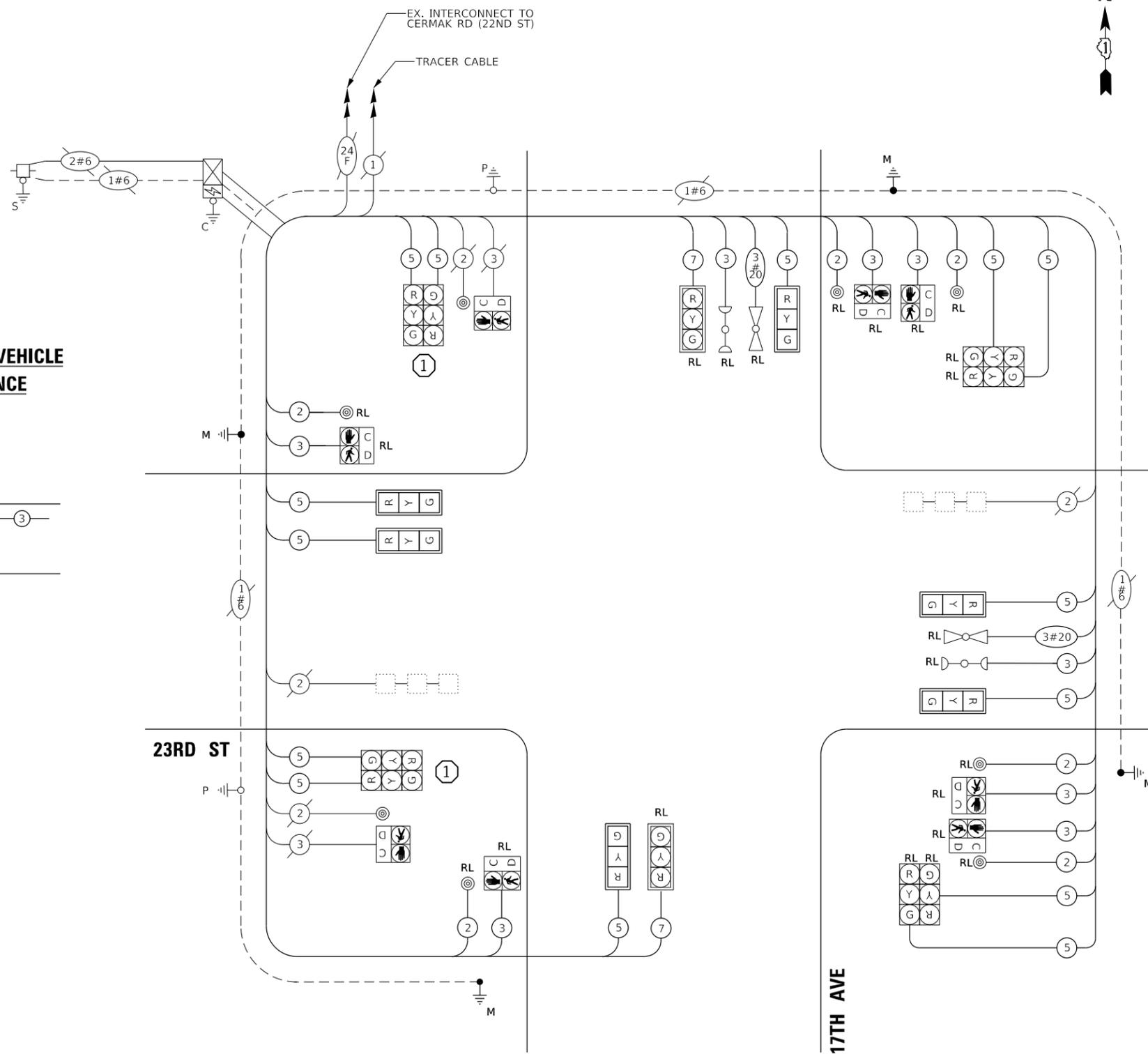
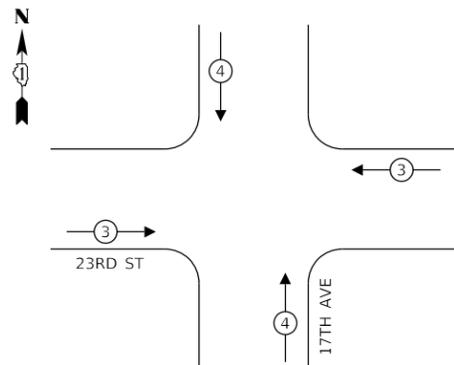
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← (⊙) ← PROTECTED PHASE
- ← (⊙) ← PROTECTED/PERMITTED PHASE
- ← (⊙) ← PEDESTRIAN PHASE
- ← (⊙) ← OVERLAP

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**NOTE**  
 ① REMOVE EXISTING SHARED MULTI CONDUCTOR CABLE AND REPLACE WITH SEPARATE 5 CONDUCTOR CABLE AS SHOWN.

**CABLE PLAN**  
 (NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				475.4

ENERGY COSTS TO:

**VILLAGE OF NORTH RIVERSIDE**

2401 S. DESPLAINES AVE.  
 NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 17TH AVE AT 23RD ST**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

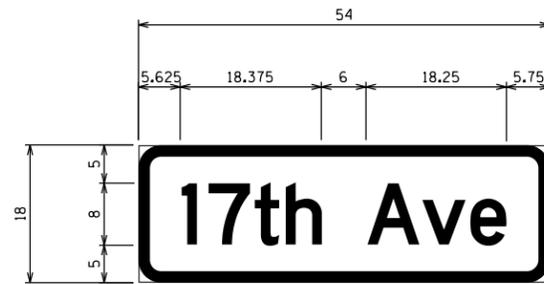
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	58
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 22121  
 ECON 27**

MODEL: D:\m\it...  
 FILE NAME: 20181151351018-002-DCR\CADD\_Sheets\19\_0160G12-INTS-17th\_Ave\_at\_23rd\_St\_Cable\_Plan.dwg

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	13.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	47
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	796
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1234
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1920
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	340
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	100
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	50.5
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	6
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2941
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	397

MODEL: Default  
FILE NAME: P:\13153\W018-002\DC\DCADD\_Sheets\20\_D160G12-INTS-17th\_Ave\_at\_23rd\_St\_Mast\_Arm\_Mounted & 500.dgn

**TS 22121  
ECON 27**

	USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES 17TH AVE AT 23RD ST</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40,0000 ' / in.	CHECKED - KP	REVISED -			VAR	2018-001-T5	COOK	111	59
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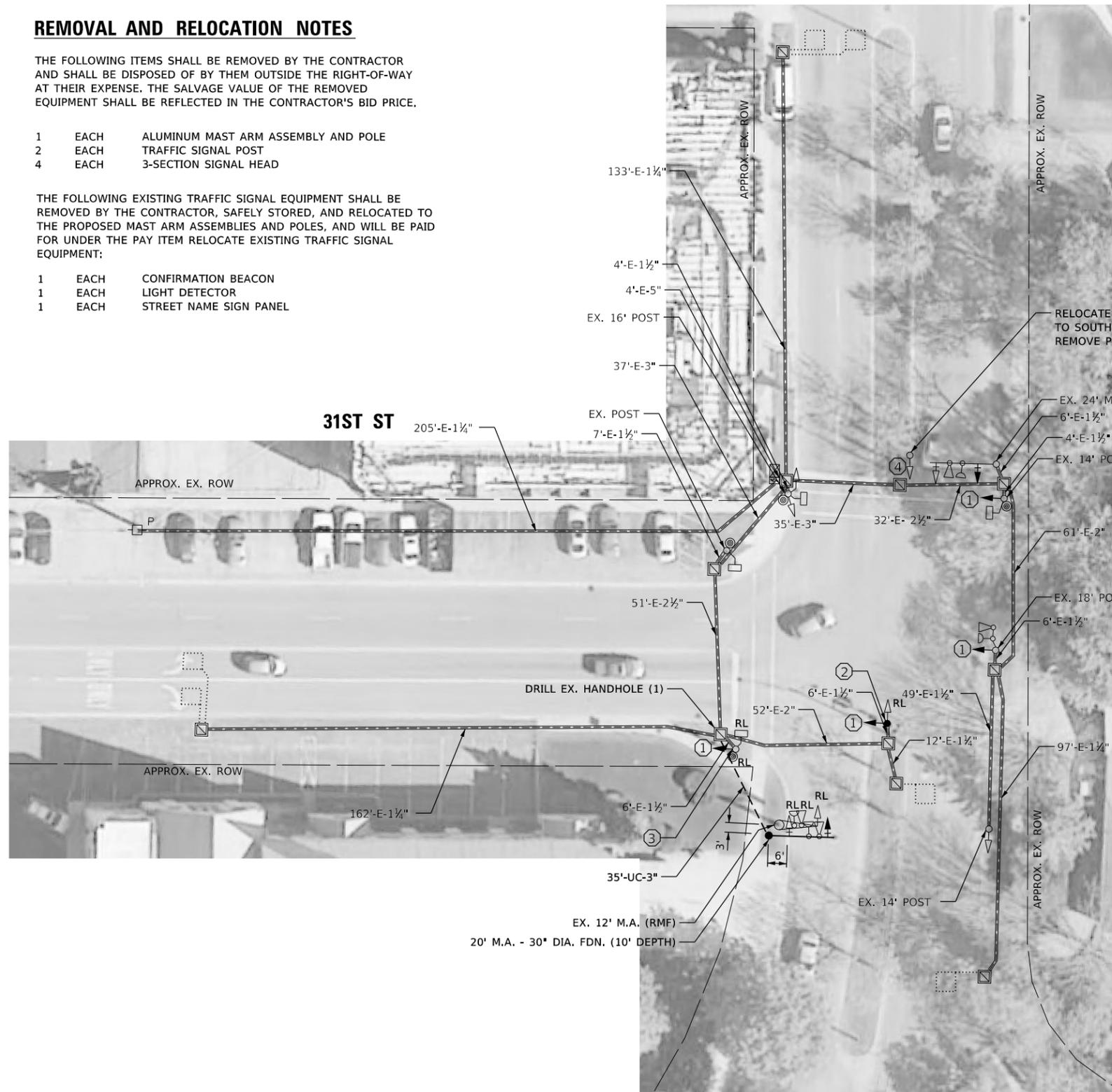
### REMOVAL AND RELOCATION NOTES

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 CONTRACTOR'S BID PRICE.

- 1 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 1 EACH STREET NAME SIGN PANEL



DES PLAINES AVE

### NOTES

- ① REMOVE AND REPLACE EXISTING TRAFFIC SIGNAL HEAD. SEE CABLE PLAN.
- ② REPLACE EXISTING POST WITH 16' POST ON EXISTING FOUNDATION.
- ③ REPLACE EXISTING POST WITH RELOCATED 16' POST FROM NORTH MEDIAN ON EXISTING FOUNDATION.
- ④ RELOCATE EXISTING 5-SECTION SIGNAL HEAD TO NORTHWEST CORNER POST (APPROX. 3' FROM TRAFFIC SIGNAL CONTROLLER).



MODEL: Default  
FILE NAME: P:\13151\W018-002\DC\CAADD\_Sheets\23\_0160G12-INTS-31st\_St\_At\_Des\_Plaines\_Ave.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
DRAWN - NG	CHECKED - KP	REVISED -
PLOT SCALE = 40,0000 ' / in.	DATE - 3/23/2018	REVISED -
PLOT DATE = 5/5/2018		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

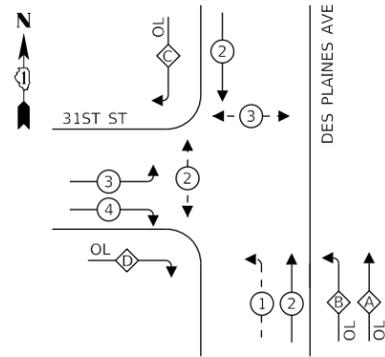
TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
31ST ST AT DES PLAINES AVE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	60
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

TS 3760

**EXISTING CONTROLLER SEQUENCE**



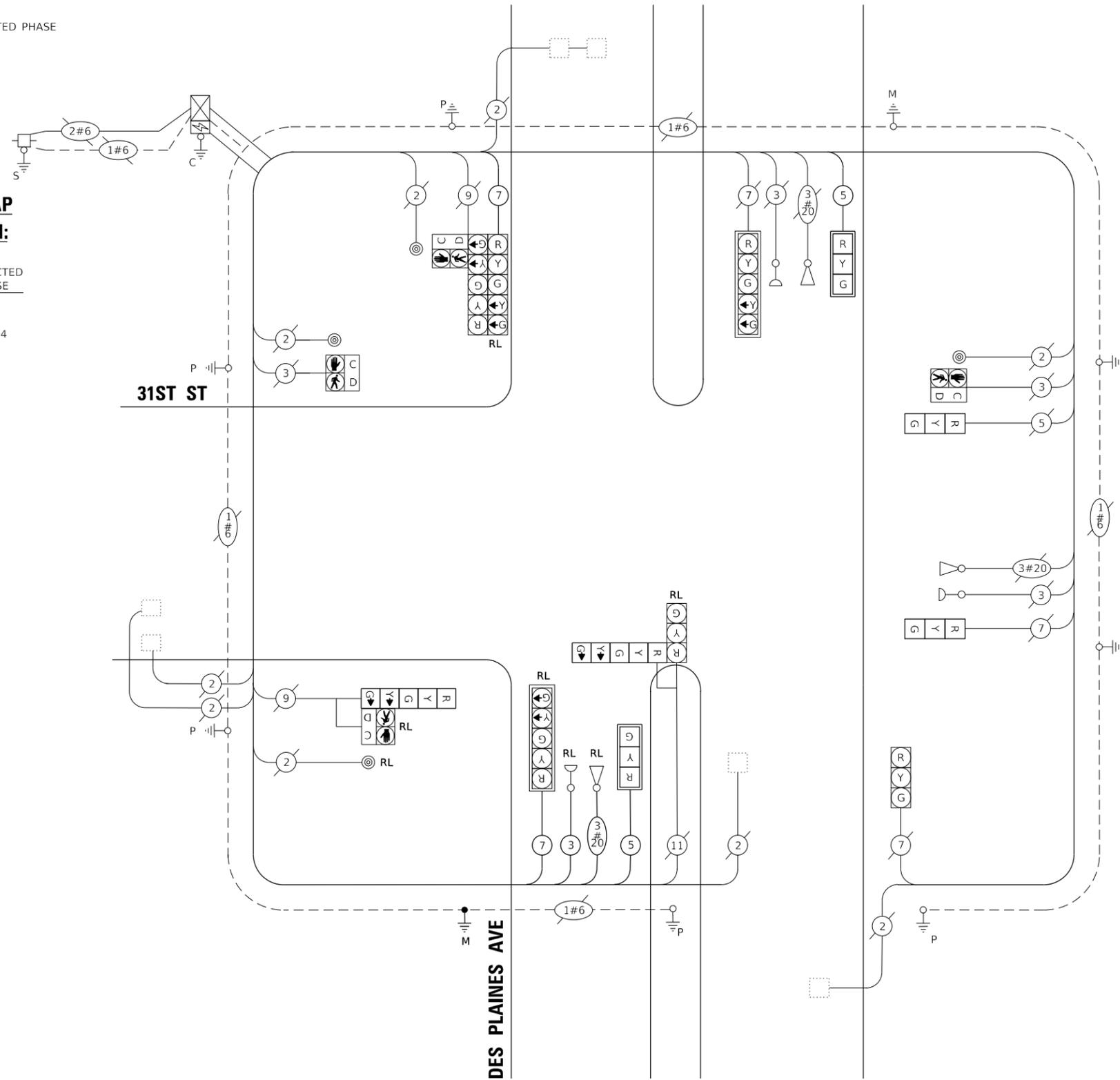
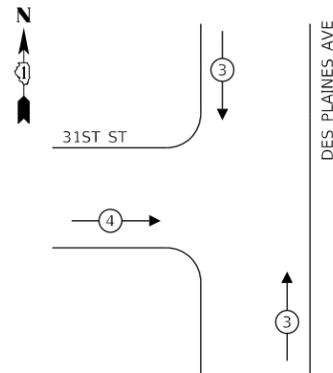
**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ OL — OVERLAP

**RIGHT TURN OVERLAP  
PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 1 + 2	
B	=	1 + 4
C	= 2 + 3	
D	= 3 + 4 + 1	

**EXISTING EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**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	12	10	10	12.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				359.8

ENERGY COSTS TO:

**VILLAGE OF NORTH RIVERSIDE**

2401 S. DES PLAINES AVE.  
NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

MODEL: Definit FILE NAME: 20181115\W018-002\DC\GADD\_Sheets\24\_0160G12-INTS-31st St At Des Plaines Ave Cable Plan.dwg



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
31ST ST AT DES PLAINES AVE**

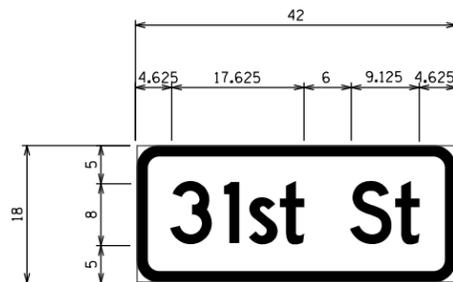
SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	61
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 3760

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	5.25	1	ZZ	1

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	5.25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	35
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	195
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	330
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	225
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	47
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	2
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	355
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	77.1
REMOVE AND REPLACE ANCHOR BOLTS	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	195

MODEL: D:\m\h\... FILE NAME: 2013153\W018-002\DC\NCADD\_Sheets\25\_D160G12-INTS-31st\_St\_At\_Des\_Plaines\_Ave\_Mast\_Arm\_Mounted\_Sign\_Sign.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
31ST ST AT DES PLAINES AVE**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	62
			CONTRACT NO. 62G12	
			ILLINOIS FED. AID PROJECT	

**TS 3760**

**REMOVAL AND RELOCATION NOTES**

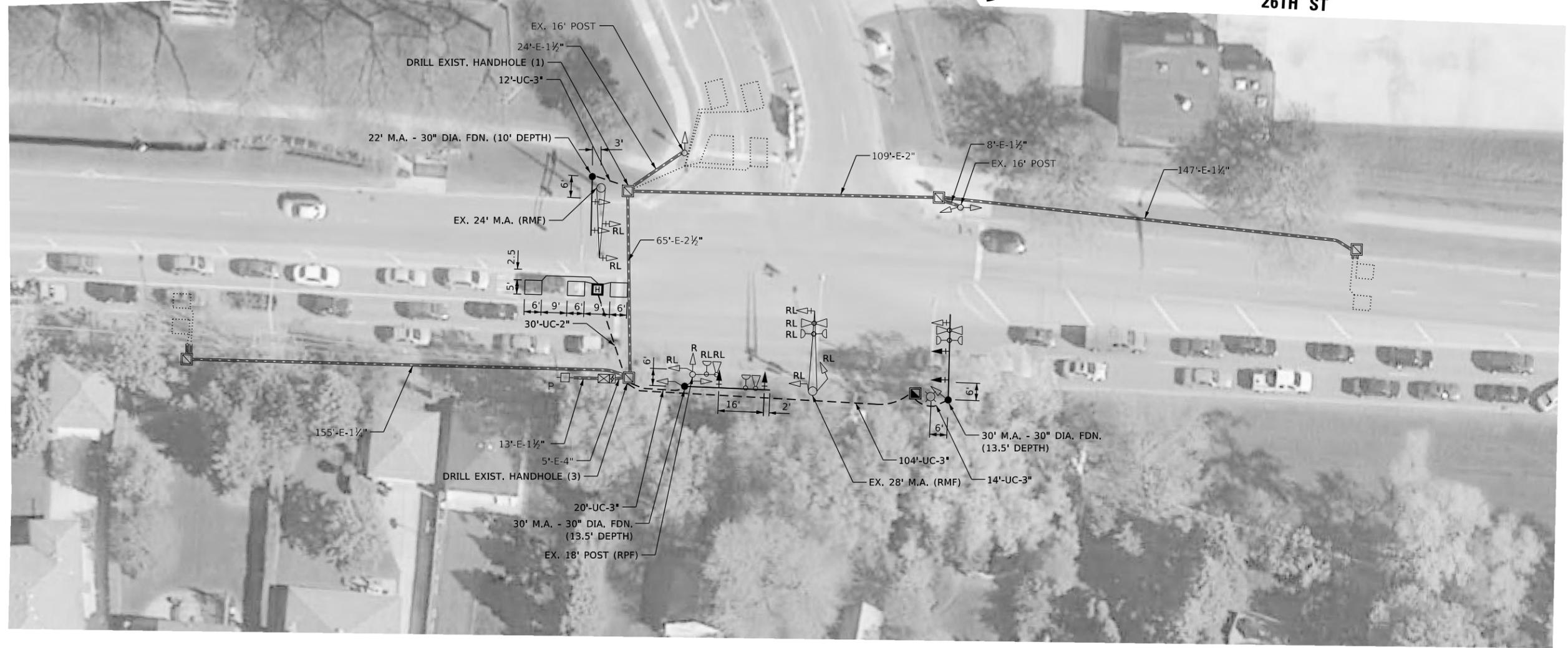
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR'S BID PRICE.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH TRAFFIC SIGNAL POST
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

**(NORTH RIVERSIDE PLAZA SOUTH ENTRANCE)**  
**VETERANS DR**  
**26TH ST**



MODEL: Default  
 FILE NAME: \\113151\W018-002\DC\G\CADD - Sheets\21\_1600\12-21\TS-3750\_Sht. at NorthRiversidePlaza - Veterans Dr.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
26TH ST AT VETERANS DR (NORTH RIVERSIDE PLAZA SOUTH ENT.)**

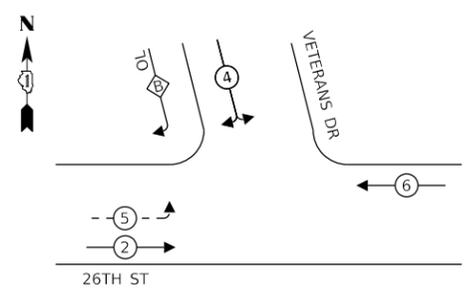
SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	63
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 3750**



**EXISTING CONTROLLER SEQUENCE**

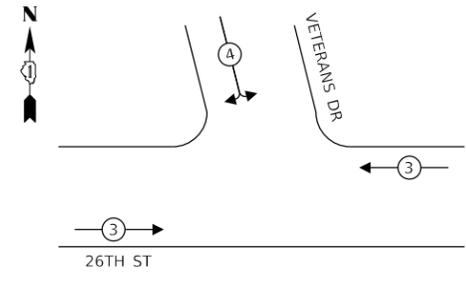


- LEGEND:**
- ← ⊙ → PROTECTED PHASE
  - ← ⊙ - - PROTECTED/PERMITTED PHASE
  - ← ⊙ → PEDESTRIAN PHASE
  - ⊙ OL OVERLAP

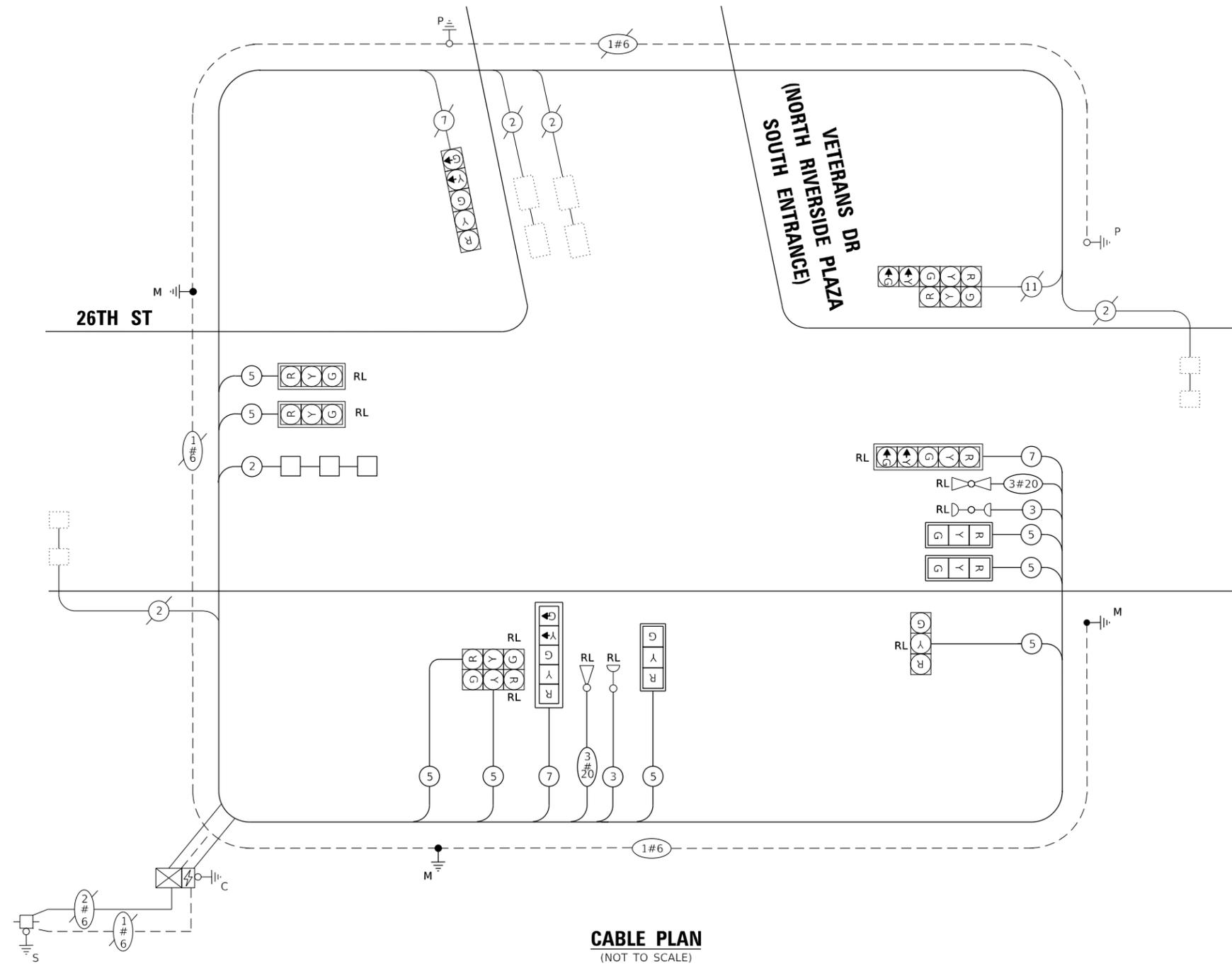
**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



- LEGEND:**
- ← ⊙ → PROTECTED PHASE
  - ← ⊙ - - PROTECTED/PERMITTED PHASE
  - ← ⊙ → PEDESTRIAN PHASE
  - ⊙ OL OVERLAP



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				287.7

ENERGY COSTS TO:  
**VILLAGE OF NORTH RIVERSIDE**  
 2401 S. DESPLAINES AVE.  
 NORTH RIVERSIDE, IL 60546  
 ENERGY SUPPLY: CONTACT: JOE STACHO  
 PHONE: (630) 424-5702  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

MODEL: D:\m\h\... FILE NAME: 20181115\W018-002\DC\G\CADD\_Sheets\22\_D160G12-INTS-26th St. at NorthRivsidePlaza - Veterans Dr. Cable Plan.dgn



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

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

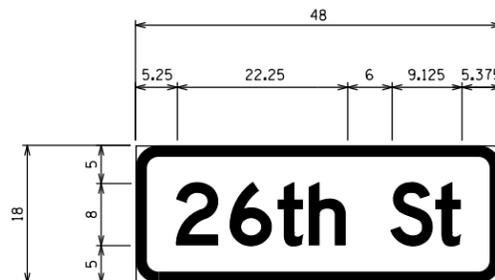
**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
**26TH ST AT VETERANS DR (NORTH RIVERSIDE PLAZA SOUTH ENT.)**  
 SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	64
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 3750**

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6	1	ZZ	1

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	6
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	150
HANDHOLE	EACH	1
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	289
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	955
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	270
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	55
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	187
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
DETECTOR LOOP, TYPE I	FOOT	101
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	335
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	289

MODEL: D:\m\h\... FILE NAME: 20181115\W018-002\DC\N\CADD\_Sheets\22A\_0180G12.dwg; 26th St. at North Riverside Plaza - Veterans Dr. Mast Arm Mounted & SQO.dwg

**TS 3750**

	USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES 26TH ST AT VETERANS DR (NORTH RIVERSIDE PLAZA SOUTH ENT.)</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 40,0000 ' / in.	CHECKED - KP	REVISED -			VAR	2018-001-T5	COOK	111	64A	CONTRACT NO. 62G12
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -		SCALE: NTS	SHEET 1 OF 1 SHEETS	STA.	TO STA.	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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 2 EACH 3-SECTION SIGNAL HEAD
- 2 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

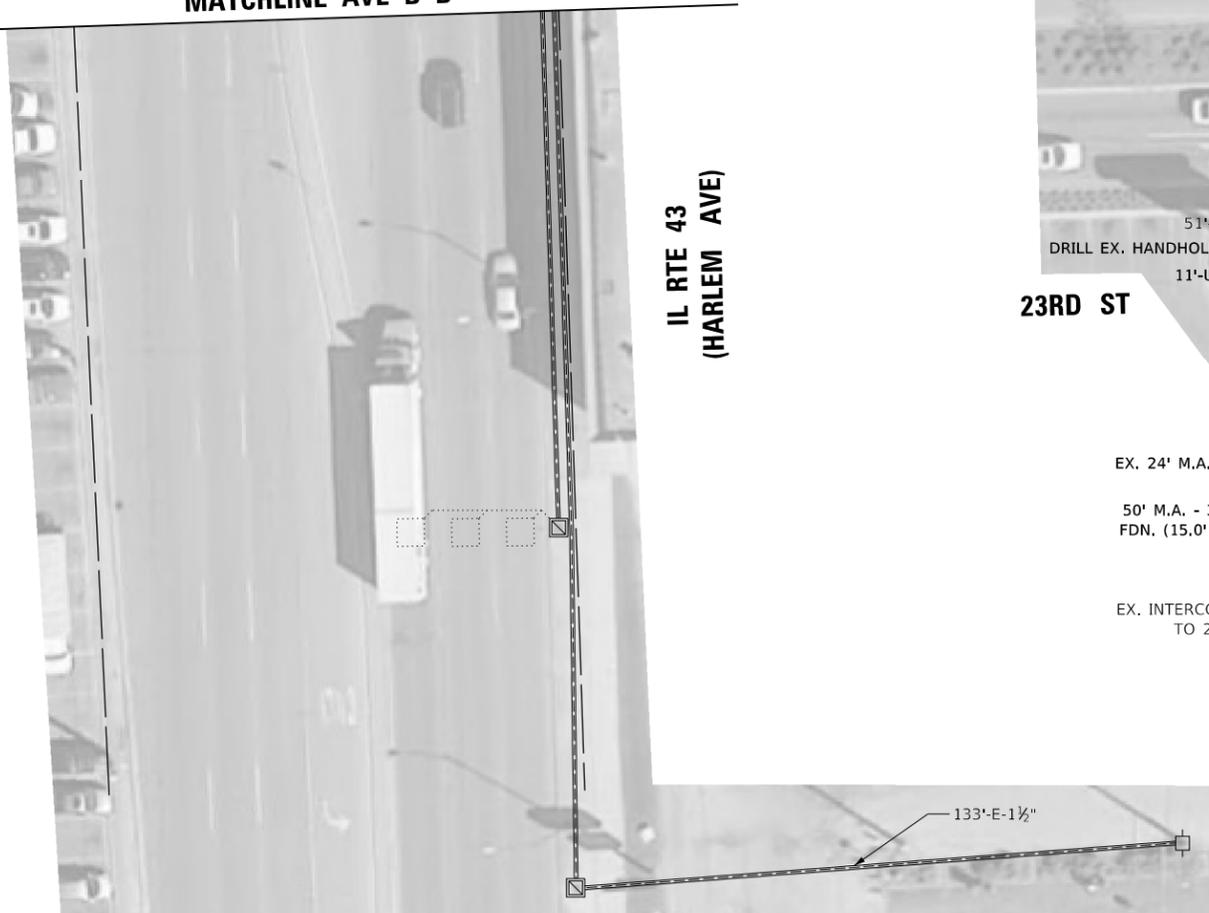
- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

IL RTE 43  
(HARLEM AVE)



MATCHLINE A-A

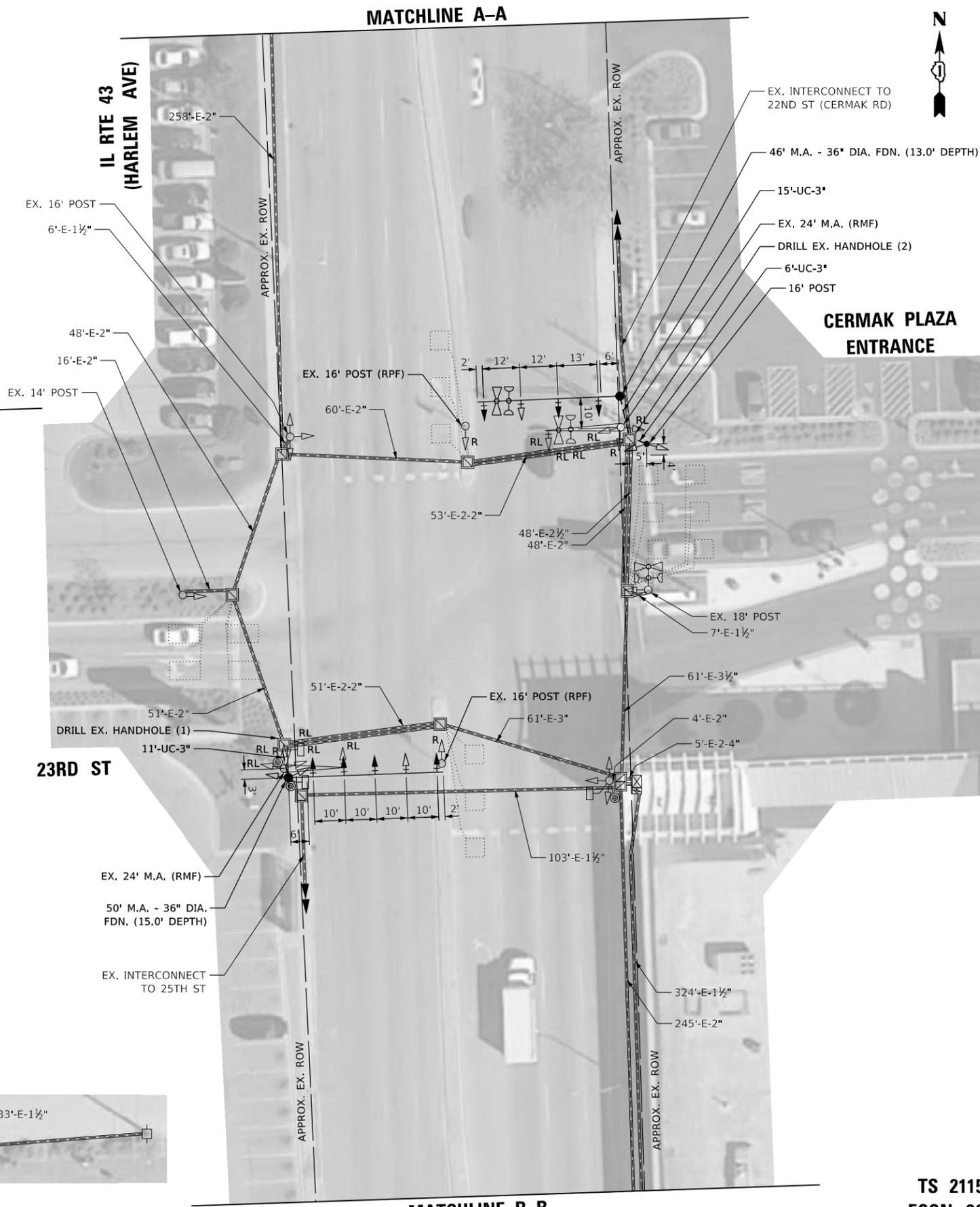
MATCHLINE AVE B-B



IL RTE 43  
(HARLEM AVE)

MATCHLINE B-B

MATCHLINE A-A



CERMAK PLAZA  
ENTRANCE

23RD ST

TS 2115  
ECON 30



USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	DRAWN - RG	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

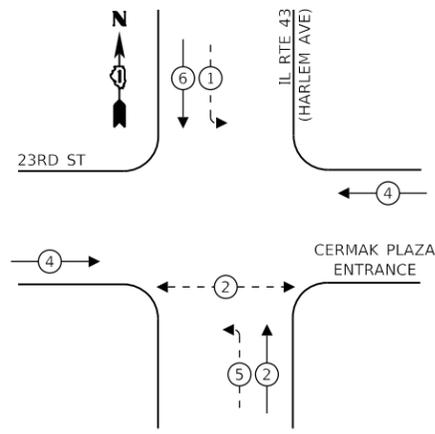
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 43 (HARLEM AVE) AT 23RD ST  
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

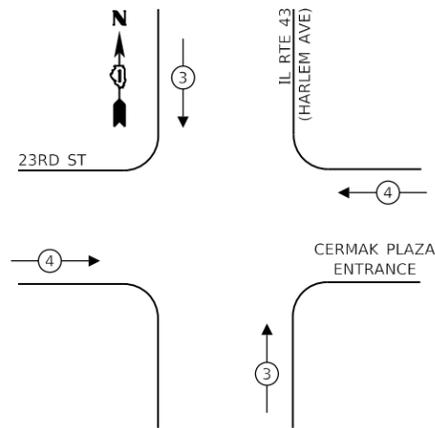
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	65
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4s2115-plan.dgn SMODELNAME

**EXISTING CONTROLLER SEQUENCE**



**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ OL — OVERLAP

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	21	11	50	115.5
(YELLOW)	21	20	5	21.0
(GREEN)	21	12	45	113.4
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				422.9

ENERGY COSTS TO:

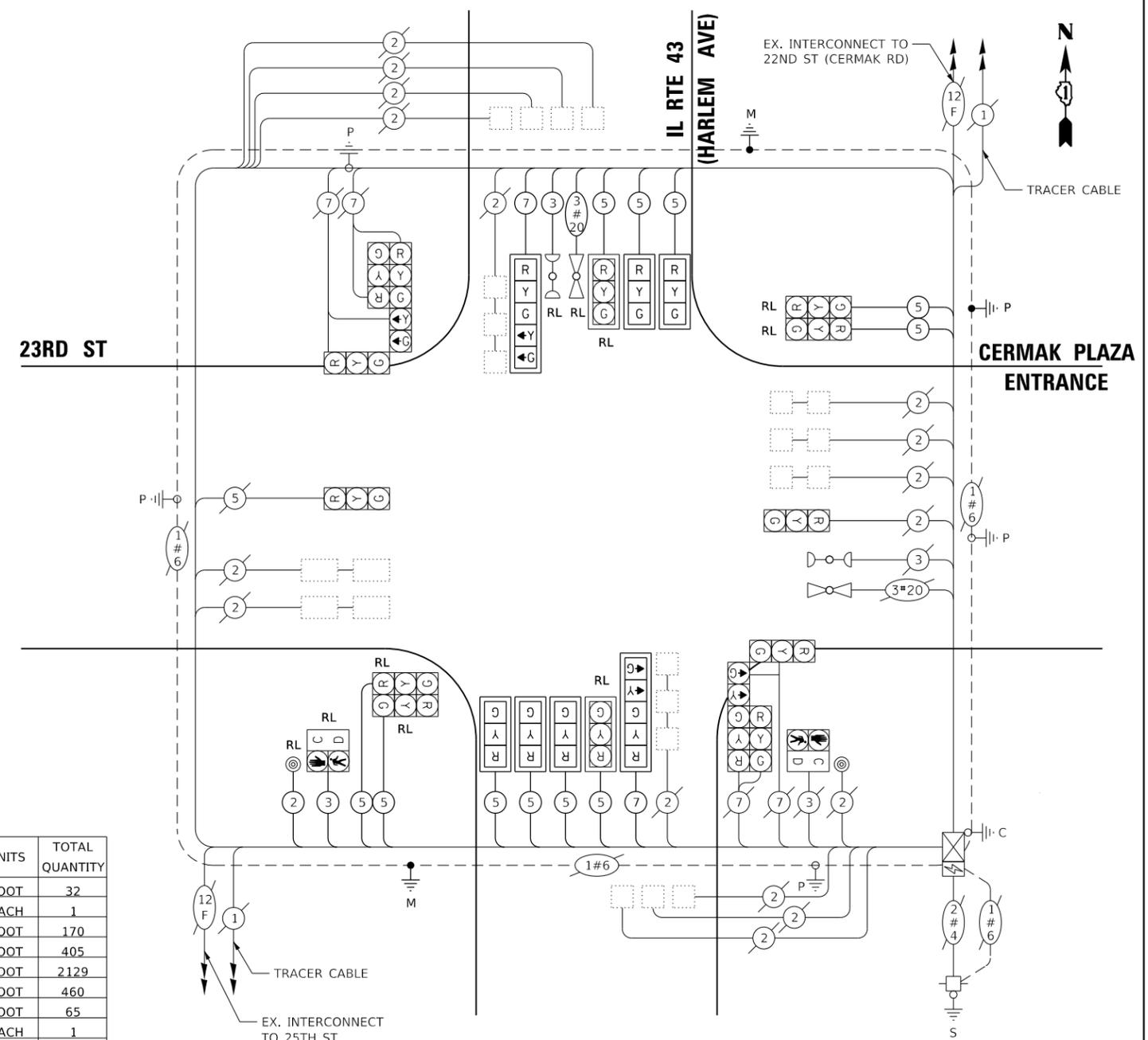
**VILLAGE OF NORTH RIVERSIDE**

2401 S. DESPLAINES AVENUE  
NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	32
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	170
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	405
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2129
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	460
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	65
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	7
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2046
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	229



**CABLE PLAN**  
(NOT TO SCALE)



USER NAME = USERNAME  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 5/7/2018

DESIGNED - DW      REVISED - 5/4/2018  
DRAWN - RG        REVISED -  
CHECKED - ZH      REVISED -  
DATE - 3/23/2018    REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY  
VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL RTE 43 (HARLEM AVE) AT 23RD ST**

SCALE: NTS      SHEET OF SHEETS      STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	66
ILLINOIS			FED. AID PROJECT	

**TS 2115  
ECON 30**

FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481210918-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4s2115-cable.dgn  
SMODELNAME\$

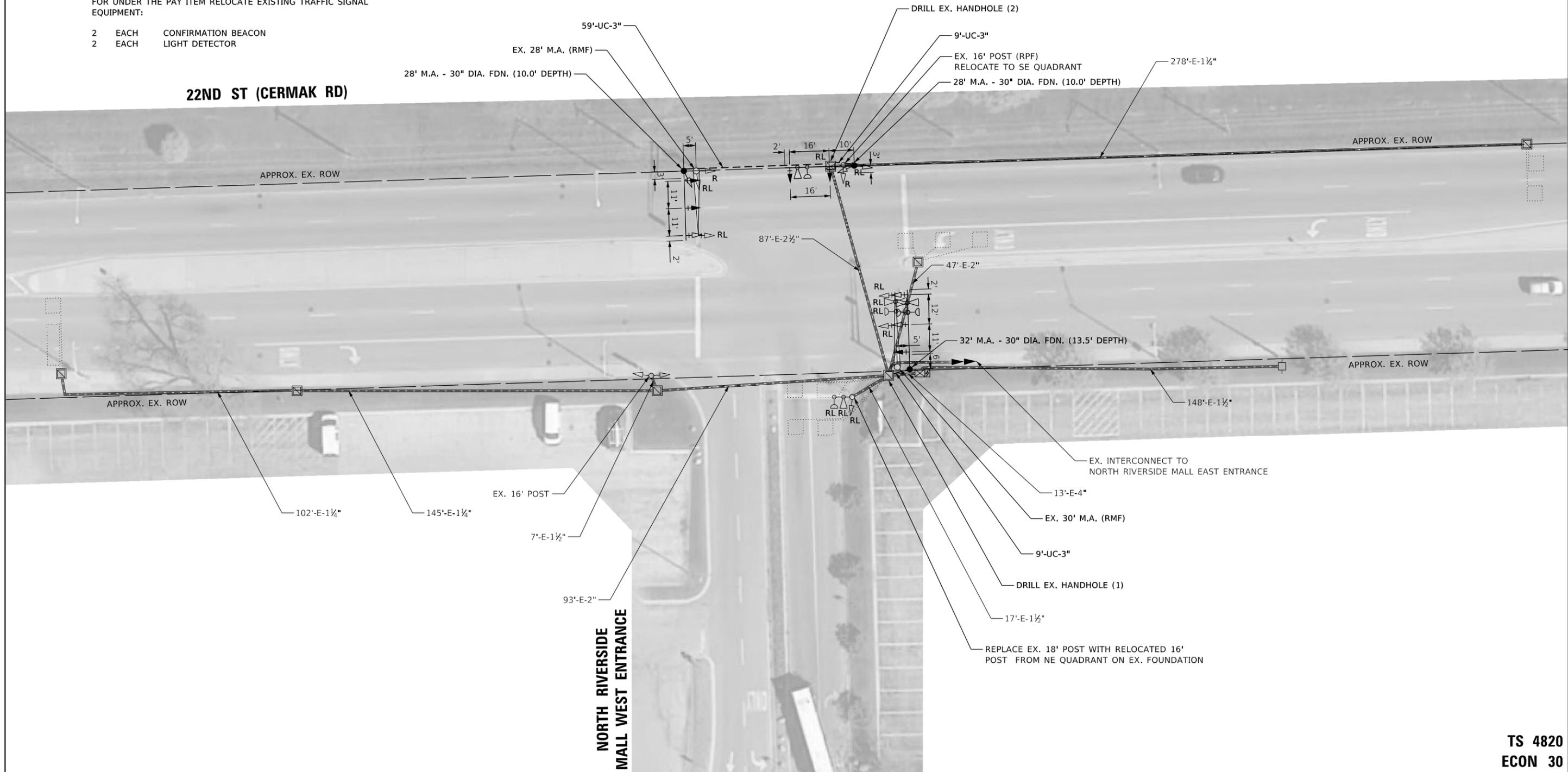
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD
- 1 EACH TRAFFIC SIGNAL POST

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR



**TS 4820  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
		DRAWN - RG	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ZH	REVISED -
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

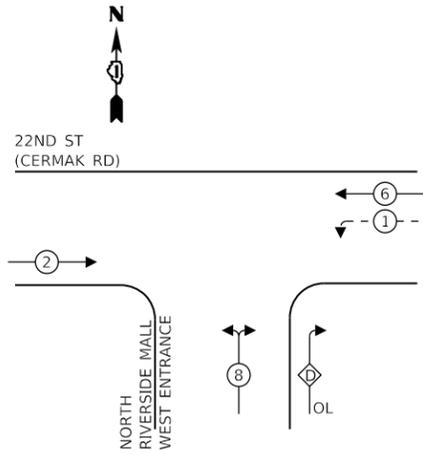
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL WEST ENTRANCE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	67
CONTRACT NO. 62G12				
SCALE: 1" = 20'		SHEET OF SHEETS STA. TO STA.		
ILLINOIS FED. AID PROJECT				

FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\210918-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4820-plan.dgn  
SMODELNAME

**EXISTING CONTROLLER SEQUENCE**



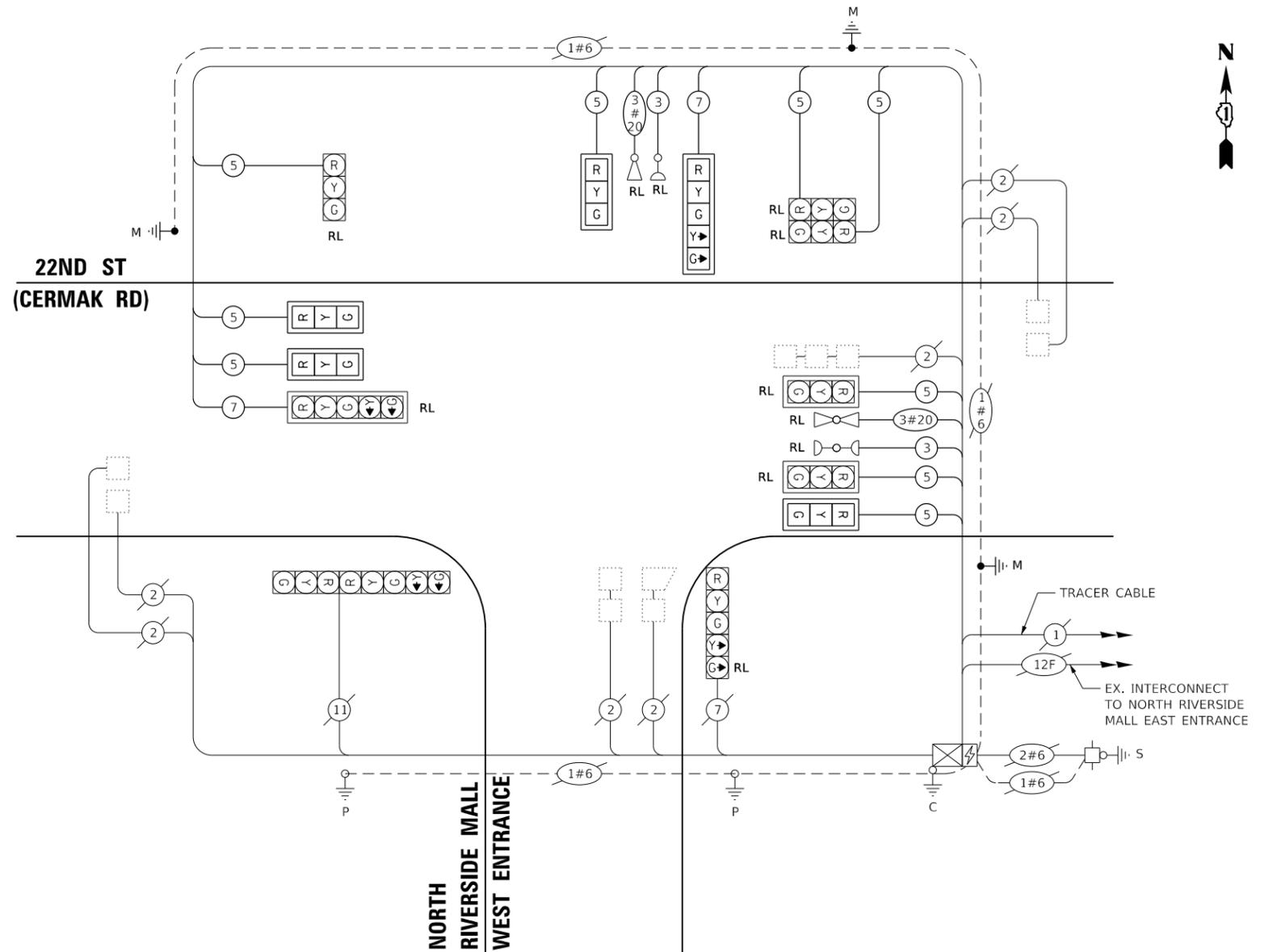
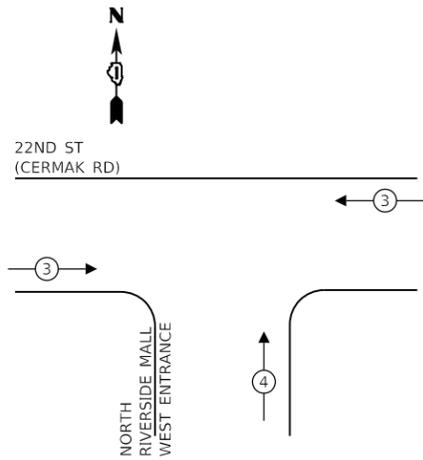
**LEGEND:**

- ← ⊛ → PROTECTED PHASE
- ← ⊛ - - ⊛ → PROTECTED/PERMITTED PHASE
- ← ⊛ ⊙ → PEDESTRIAN PHASE
- ← ⊙ ⊛ → OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	8	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				282.6

ENERGY COSTS TO:

**VILLAGE OF NORTH RIVERSIDE**

2401 S. DESPLAINES AVENUE  
NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

	USER NAME = <u>_USERNAME_</u>	DESIGNED - DW	REVISED - 5/4/2018
	PLOT SCALE = 40,0000 ' / in.	DRAWN - RG	REVISED -
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
		DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL WEST ENTRANCE**

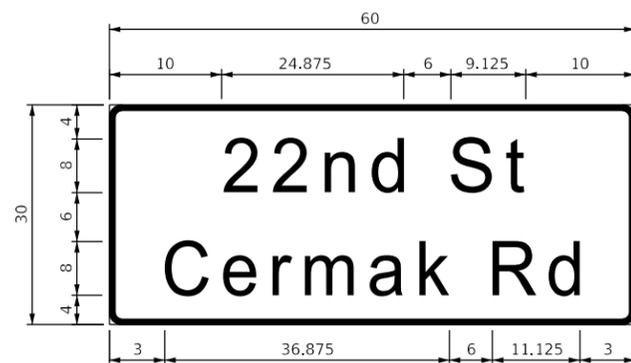
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	68
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 4820  
ECON 30**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12.5	2	ZZ	1

NOTE:  
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION  
PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME  
SIGNS DETAIL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SIGN PANEL - TYPE 2	SQ FT	12.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	77
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	266
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1312
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	390
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	110
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
RELOCATE EXISTING SIGNAL HEAD	EACH	7
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	849
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	35
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	262
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1

**TS 4820  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES 22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL WEST ENTRANCE</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 40.0000 ' / in.	DRAWN - RG	REVISIONS					VAR	2018-001-TS	COOK	111	68A	
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISIONS		SCALE: NTS	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS	FED. AID PROJECT
		DATE - 3/23/2018	REVISIONS										CONTRACT NO. 62G12

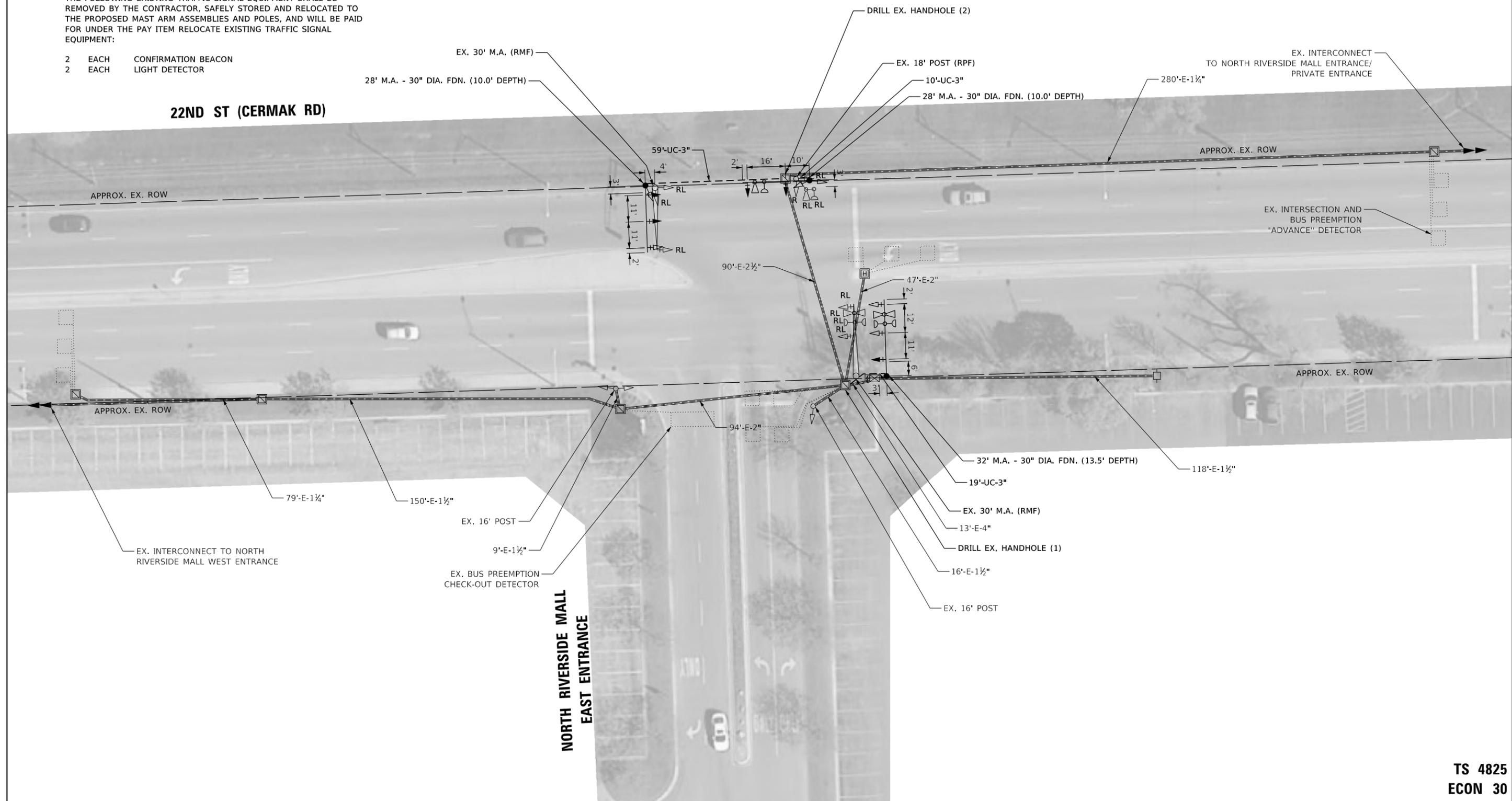
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH 5-SECTION SIGNAL HEAD
- 1 EACH TRAFFIC SIGNAL POST

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR



**TS 4825  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
		DRAWN - RG	REVISED -
	PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

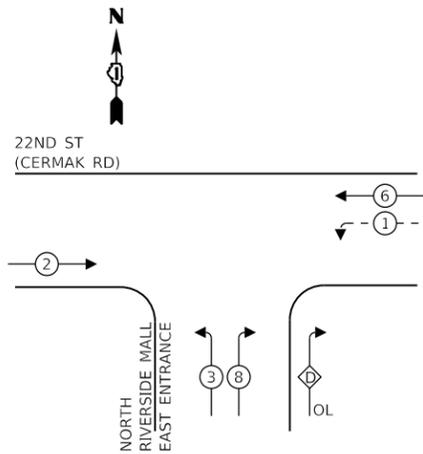
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL EAST ENTRANCE**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	69
CONTRACT NO. 62G12				
ILLINOIS		FED. AID PROJECT		

FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sh1-4825-plan.dgn  
SMODELNAME5

**EXISTING CONTROLLER SEQUENCE**



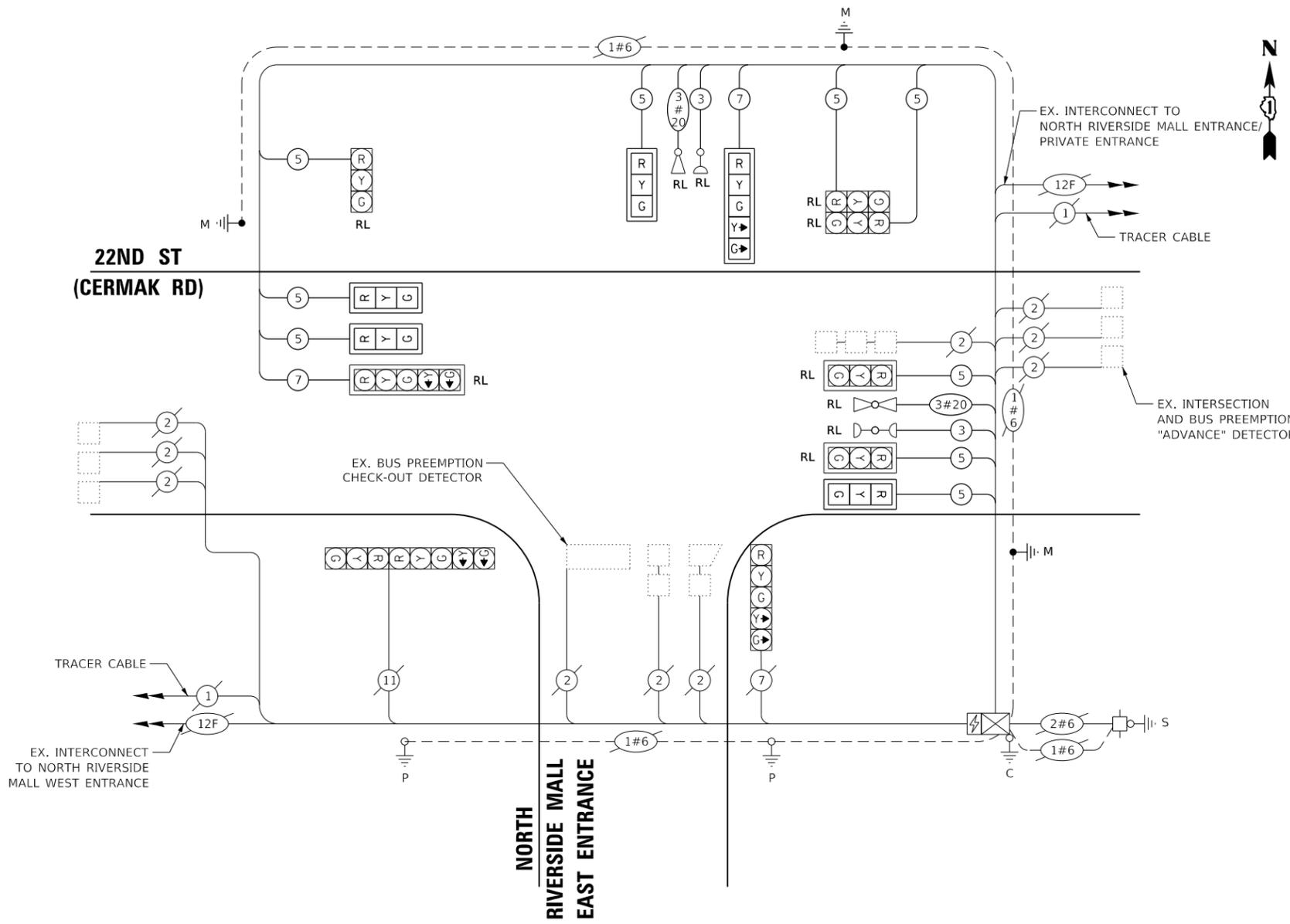
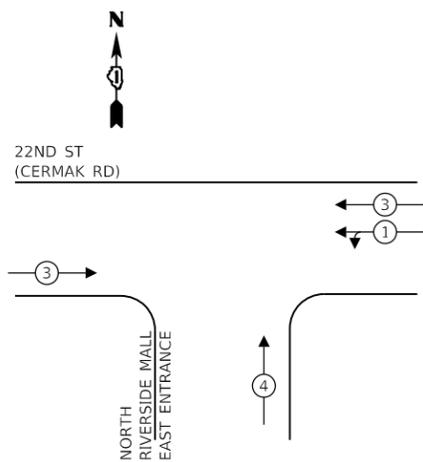
**LEGEND:**

- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - ⊙ → PROTECTED/PERMITTED PHASE
- ← ⊙ ⊙ → PEDESTRIAN PHASE
- ← ⊙ ⊙ OL → OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				299.6

ENERGY COSTS TO:

**VILLAGE OF NORTH RIVERSIDE**

2401 S. DESPLAINES AVENUE  
NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

<b>DLZ</b>	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	PLOT SCALE = 40.0000 ' / in.	DRAWN - RG	REVISED -
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
		DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL EAST ENTRANCE**

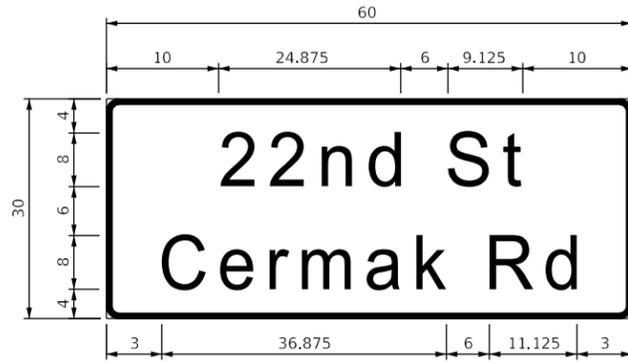
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	70
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 4825  
ECON 30**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12.5	2	ZZ	1

NOTE:  
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION  
PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME  
SIGNS DETAIL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SIGN PANEL - TYPE 2	SQ FT	12.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	88
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	270
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1370
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	386
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	121
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	940
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	280

**TS 4825  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ZH	REVISED -		SCALE: NTS	SHEET OF SHEETS	STA. TO STA.	2018-001-TS	COOK	111	70A	
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -							CONTRACT NO. 62G12			
											ILLINOIS	FED. AID PROJECT

**REMOVAL AND RELOCATION NOTES:**

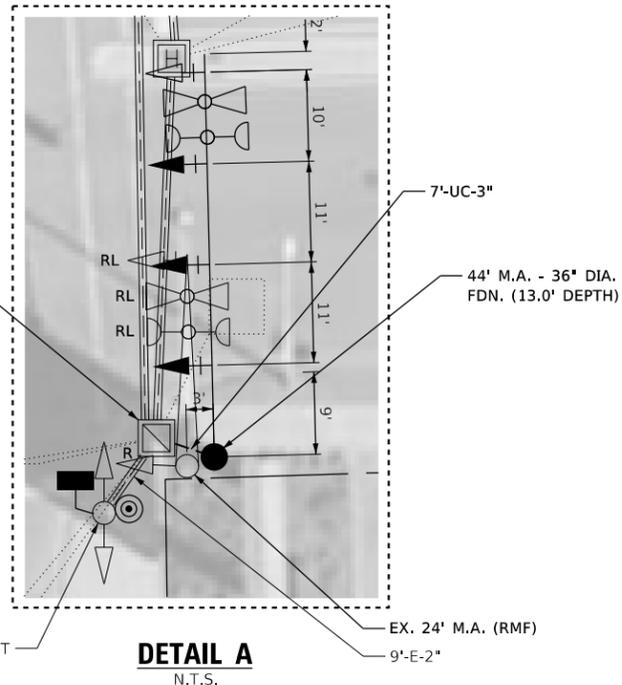
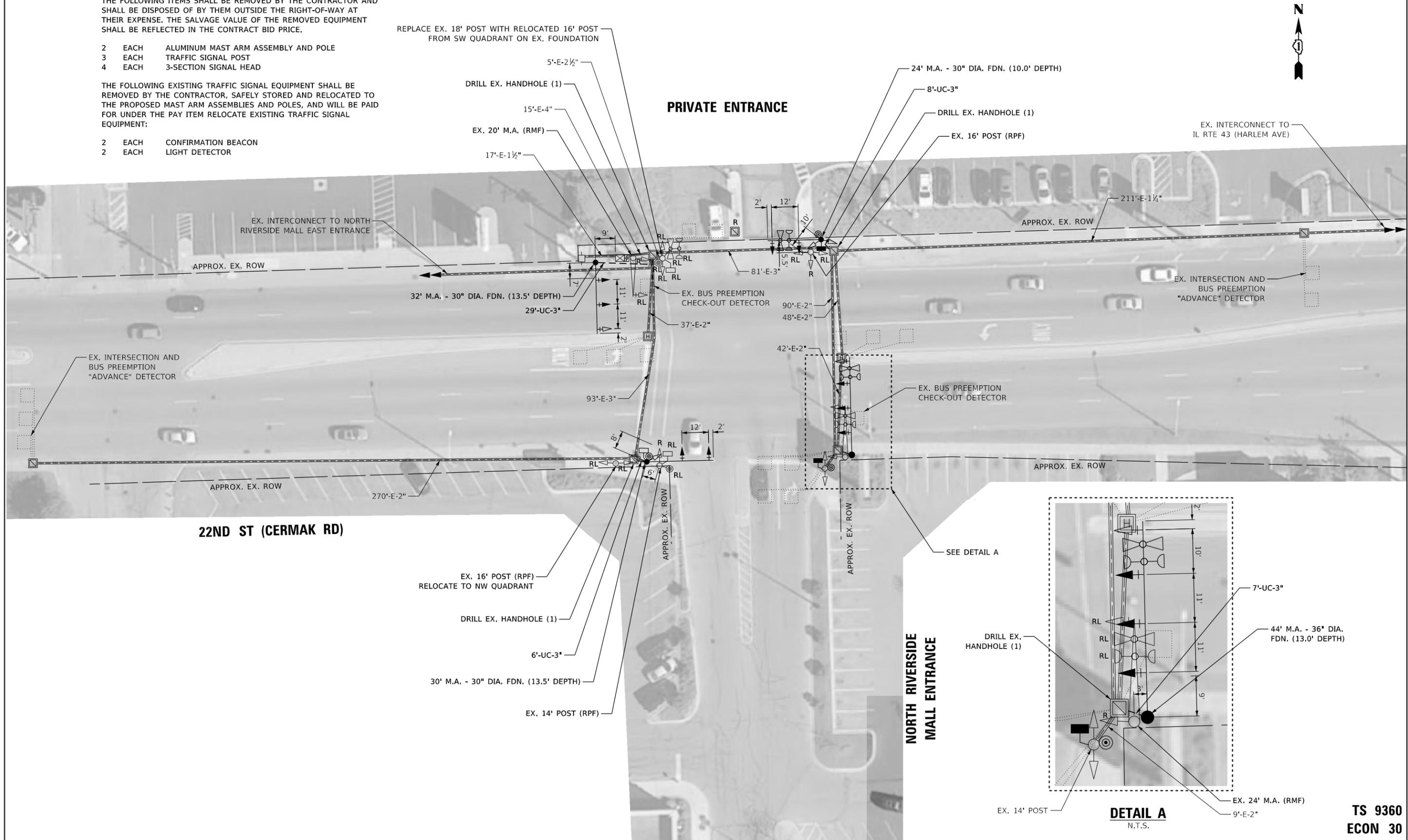
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR

REPLACE EX. 18' POST WITH RELOCATED 16' POST FROM SW QUADRANT ON EX. FOUNDATION



**TS 9360  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
		DRAWN - RG	REVISED -
	PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

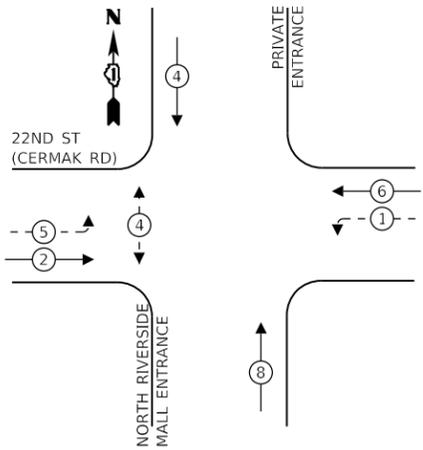
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL /PRIVATE ENTRANCE**

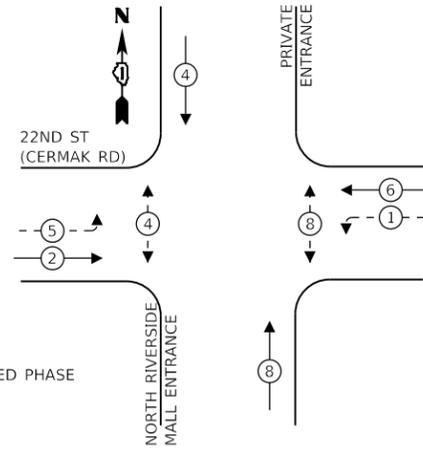
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	71
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**EXISTING CONTROLLER SEQUENCE**



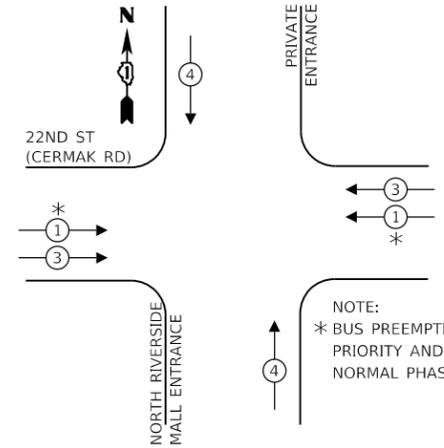
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← (⊙) → PROTECTED PHASE
- ← (⊙) - - PROTECTED/PERMITTED PHASE
- ← (⊙) → PEDESTRIAN PHASE
- ← (⊙) OL → OVERLAP

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**

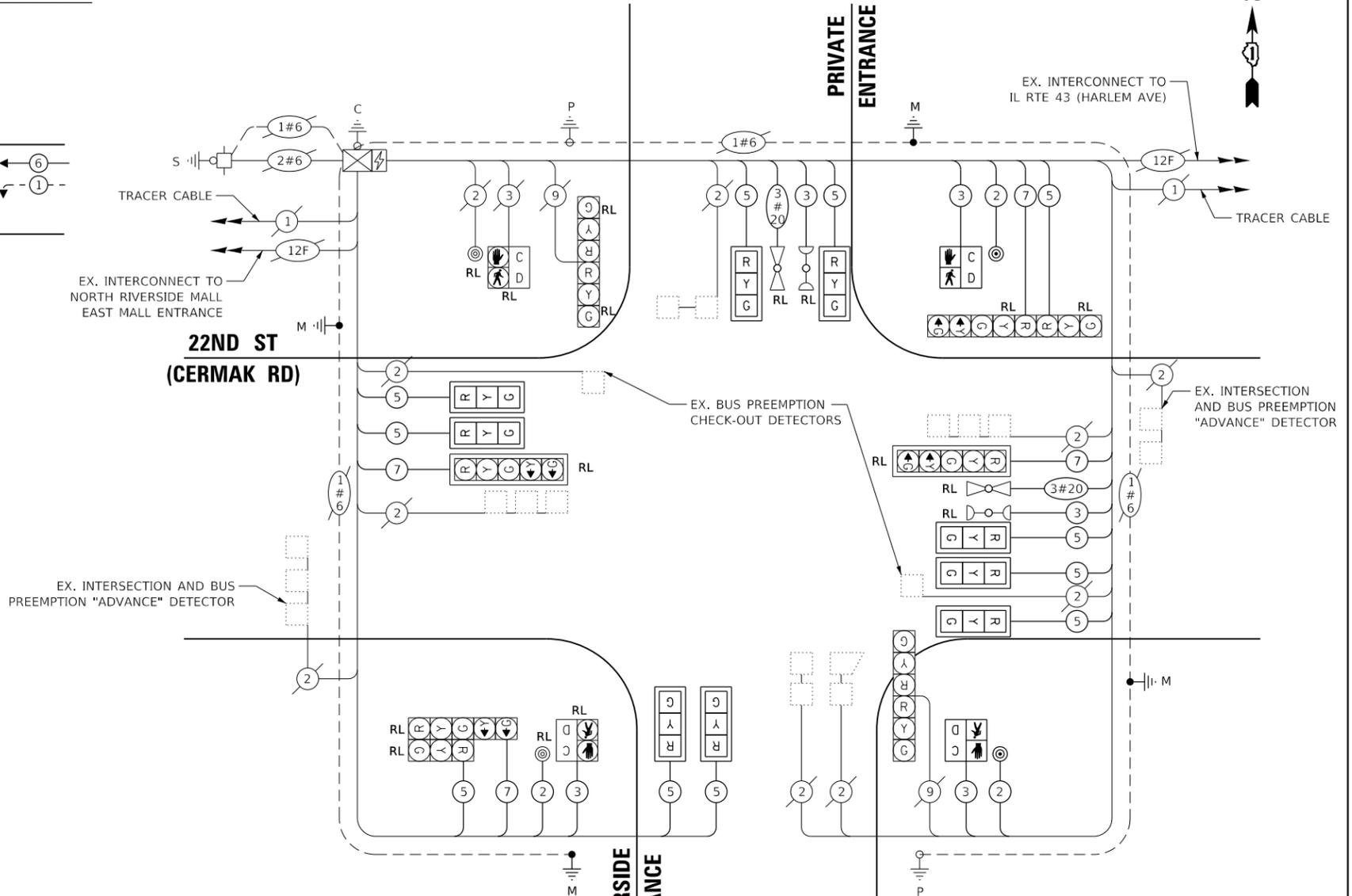


NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

**22ND ST (CERMAK RD)**

EX. INTERSECTION AND BUS PREEMPTION "ADVANCE" DETECTOR

**CABLE PLAN**  
(NOT TO SCALE)



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	19	11	50	104.5
(YELLOW)	19	20	5	19.0
(GREEN)	19	12	45	102.6
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				439.1

ENERGY COSTS TO:

**VILLAGE OF NORTH RIVERSIDE**

2401 S. DESPLAINES AVENUE  
NORTH RIVERSIDE, IL 60546

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - RG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

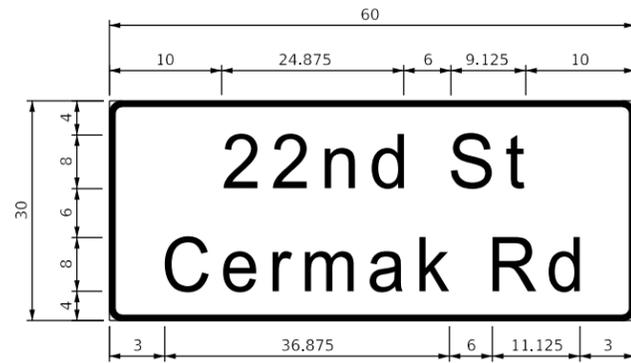
**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
**22ND ST (CERMAK RD) AT NORTH RIVERSIDE MALL /PRIVATE ENTRANCE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	72
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 9360  
ECON 30**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12.5	2	ZZ	2

NOTE:  
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION  
PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME  
SIGNS DETAIL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
SIGN PANEL - TYPE 2	SQ FT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	50
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	512
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	992
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1967
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	690
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	94
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	9
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	9
PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING SIGNAL HEAD	EACH	8
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1938
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	62
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	459
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1

**TS 9360  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ZH	REVISED -				VAR	2018-001-TS	COOK	111	73
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -		SCALE: NTS	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 62G12			

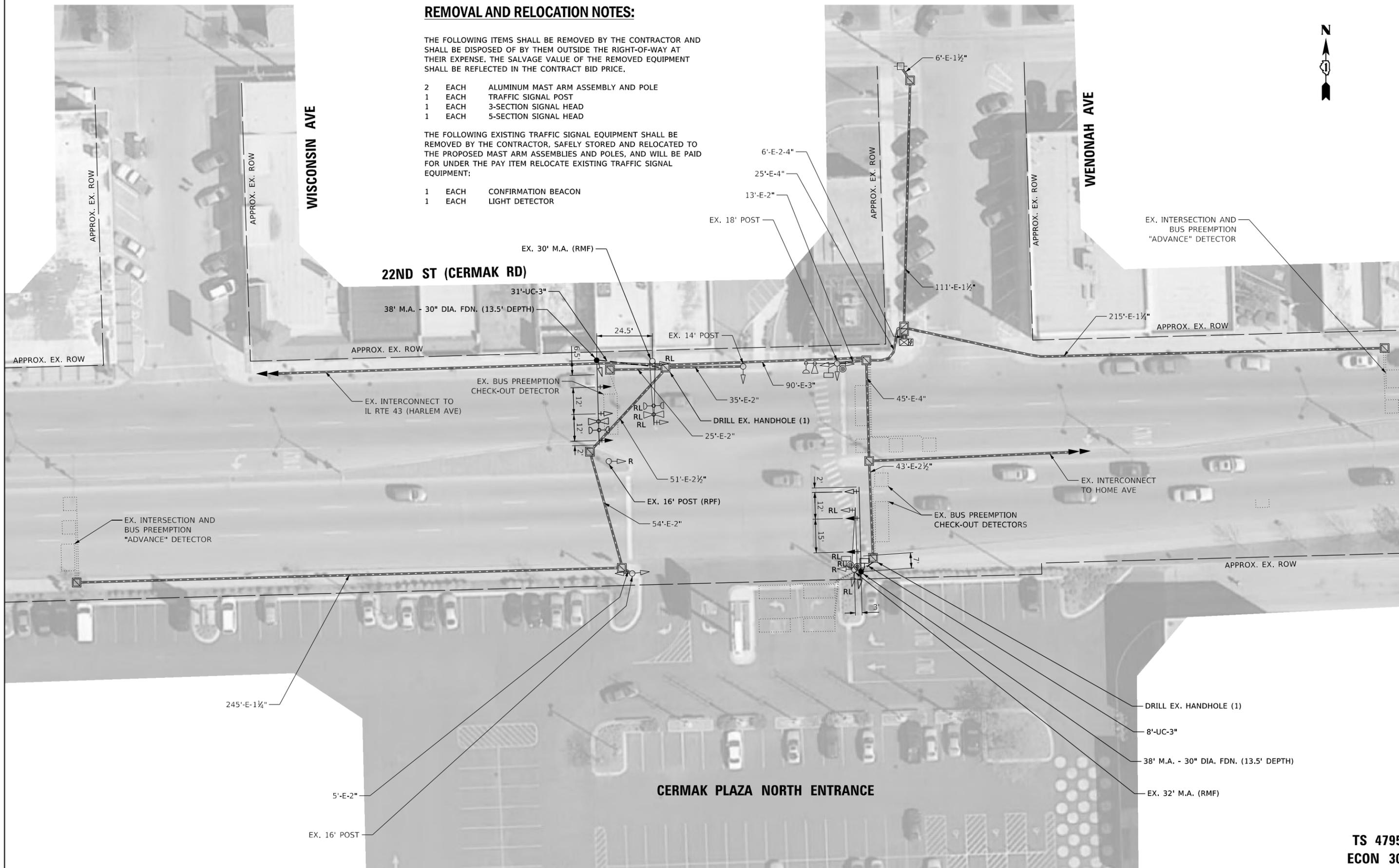
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH TRAFFIC SIGNAL POST
- 1 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR

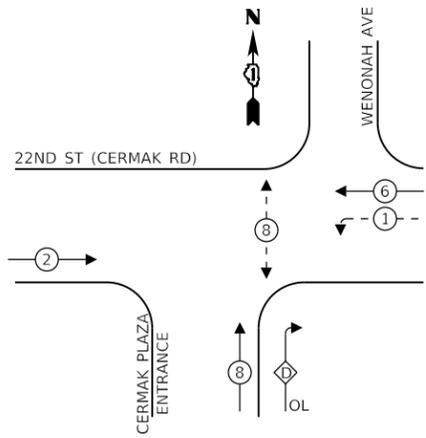


**TS 4795  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN</b> <b>22ND ST (CERMAK RD) AT CERMAK PLAZA NORTH ENTR/WENONAH AVE</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
	PLOT SCALE = 40,0000' / in.	CHECKED - ZH	REVISED -		SCALE: 1" = 20'	SHEET	OF SHEETS	STA.	TO STA.	VAR	2018-001-TS	COOK	111	74
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -		CONTRACT NO. 62G12	ILLINOIS		FED. AID PROJECT						

FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\14812109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-454795-plan.dgn  
SMODELNAME

**EXISTING CONTROLLER SEQUENCE**



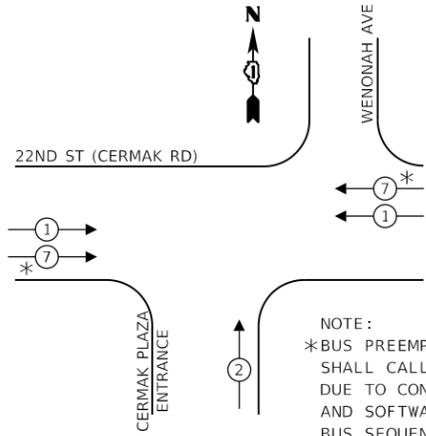
**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OVERLAP

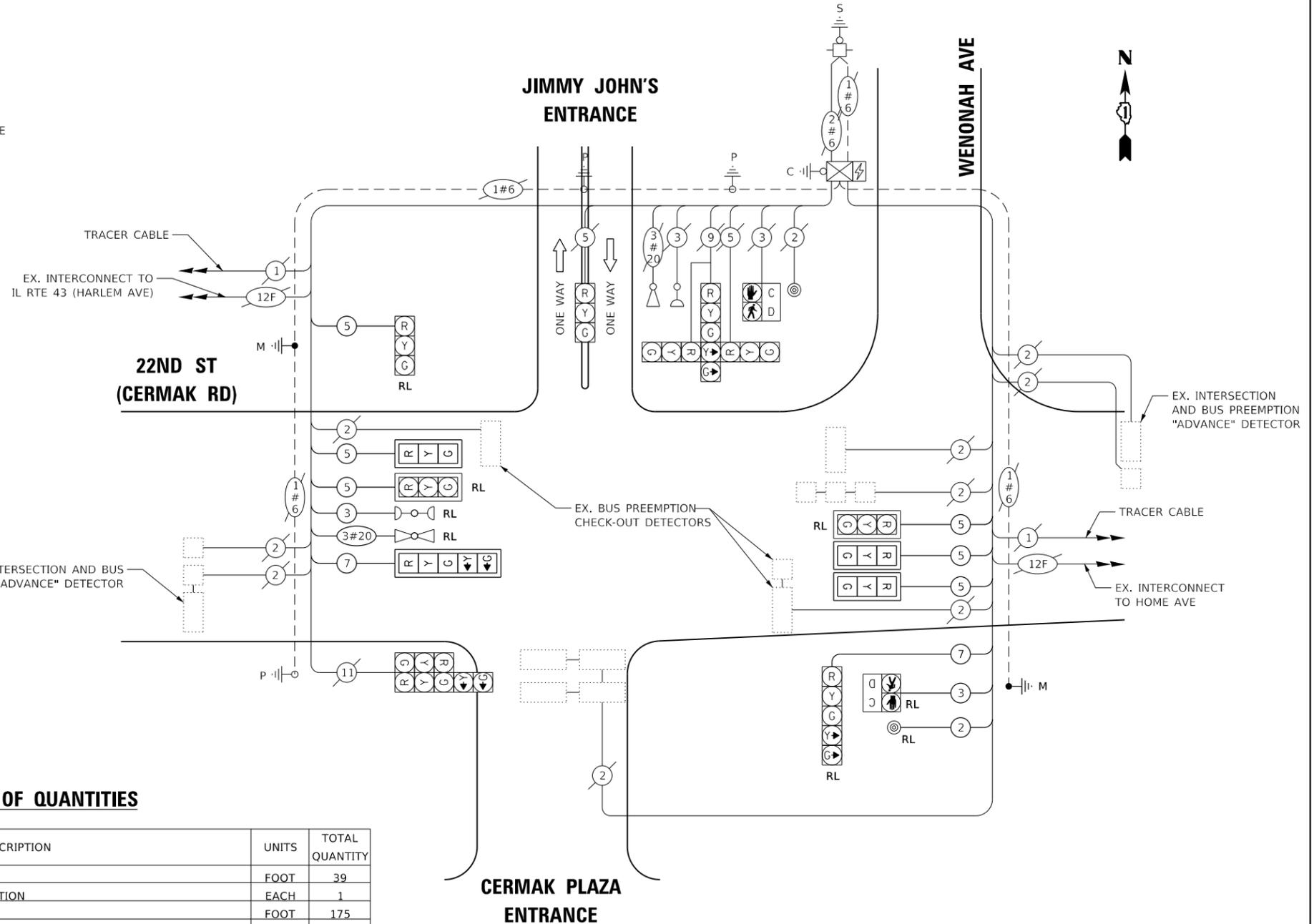
**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



NOTE:  
\*BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6. DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	39
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	175
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	426
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1287
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	426
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	65
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	27
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1600
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	25.7
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	244

**CABLE PLAN (NOT TO SCALE)**

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				339.6

ENERGY COSTS TO:  
**CITY OF BERWYN**  
6700 26TH ST  
BERWYN, IL 60402  
ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER:



USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
PLOT SCALE = 40.0000 "/td> <td>DRAWN - RG</td> <td>REVISED -</td>	DRAWN - RG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES**  
22ND ST (CERMAK RD) AT CERMAK PLAZA NORTH ENTRANCE WENONAH AVE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	75
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 4795 ECON 30**

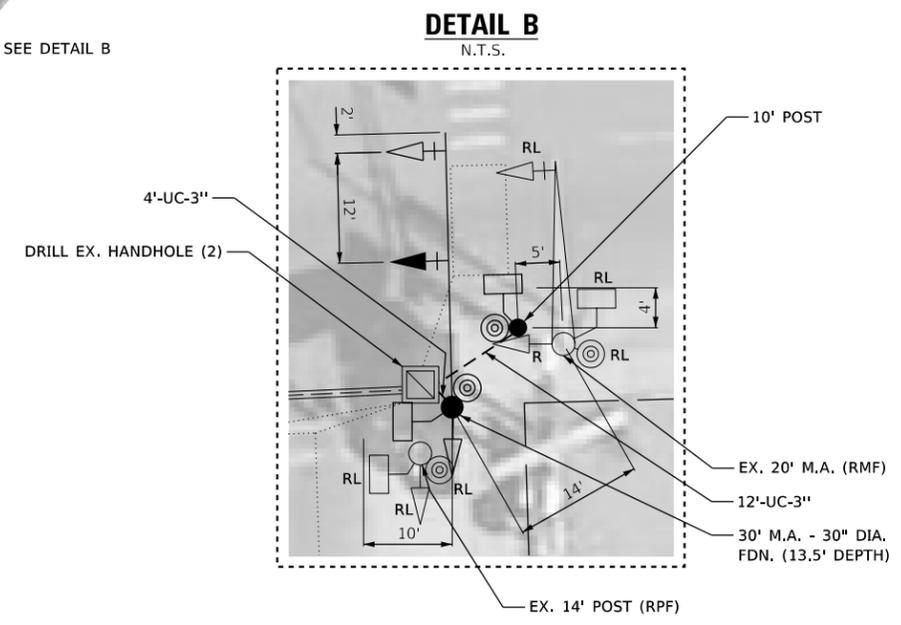
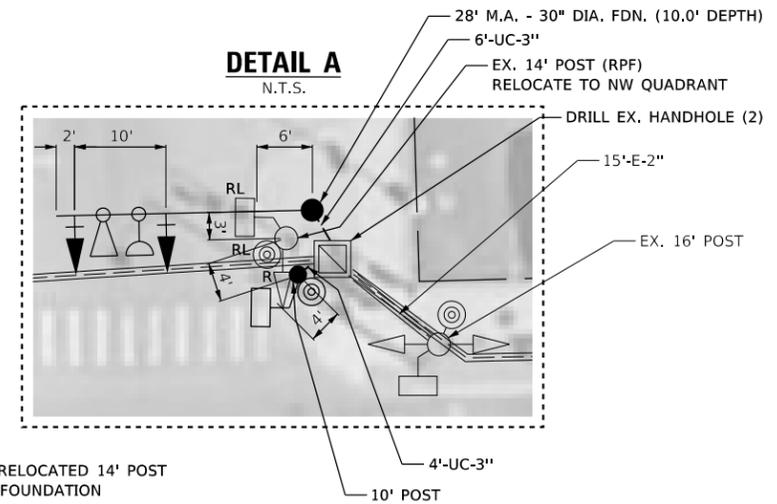
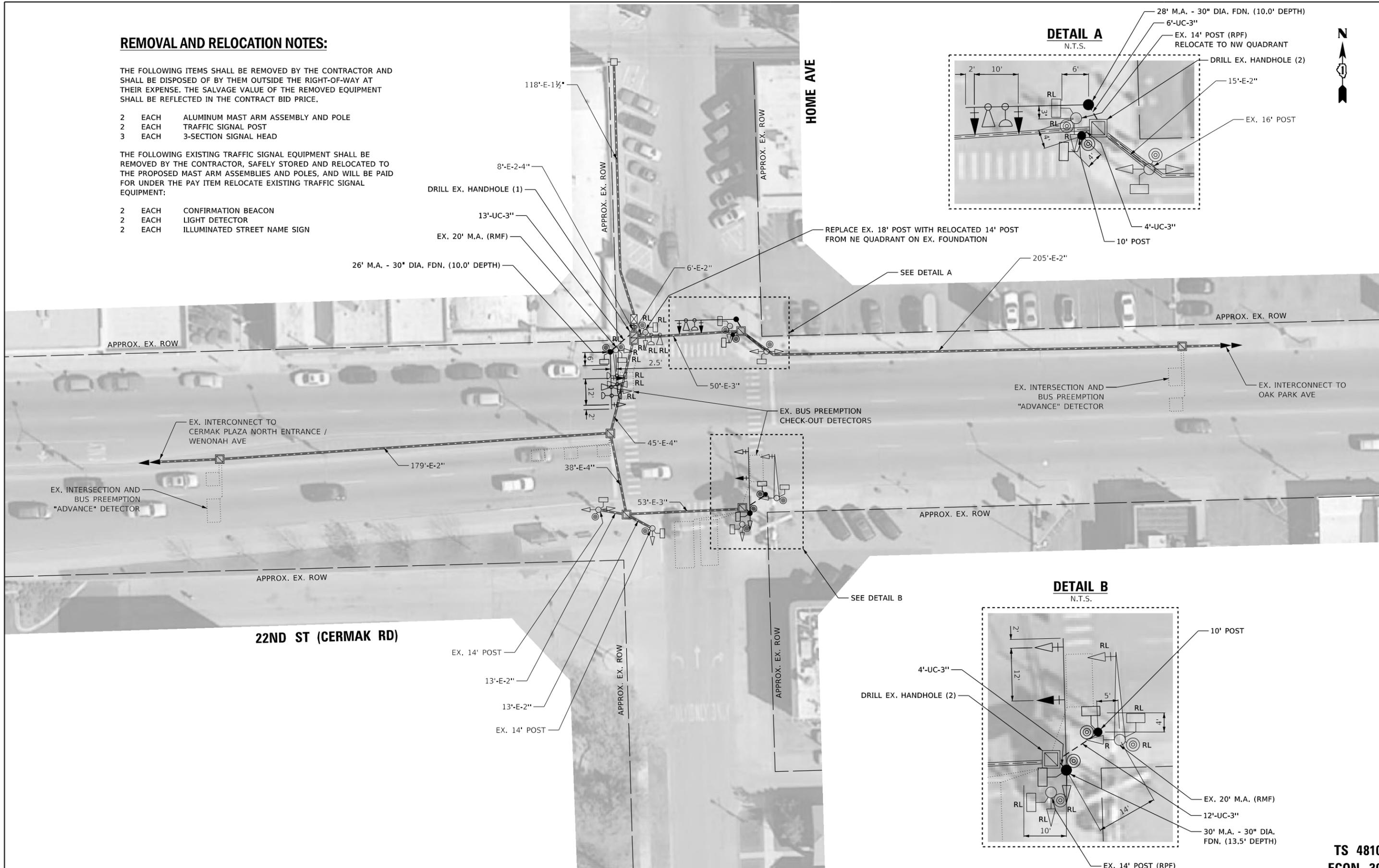
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 3 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 2 EACH ILLUMINATED STREET NAME SIGN



**TS 4810  
ECON 30**

<b>DLZ</b>	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018
	PLOT SCALE = 40,0000 ' / in.	DRAWN - RG	REVISED -
	PLOT DATE = 5/7/2018	CHECKED - ZH	REVISED -
		DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

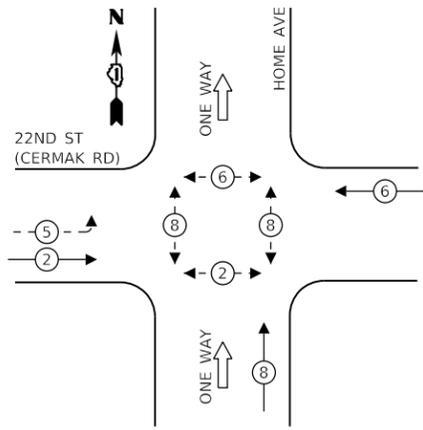
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
22ND ST (CERMAK RD) AT HOME AVE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	76
			CONTRACT NO. 62G12	
ILLINOIS FED. AID PROJECT				

FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4810-plan.dgn  
SMODELNAME

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

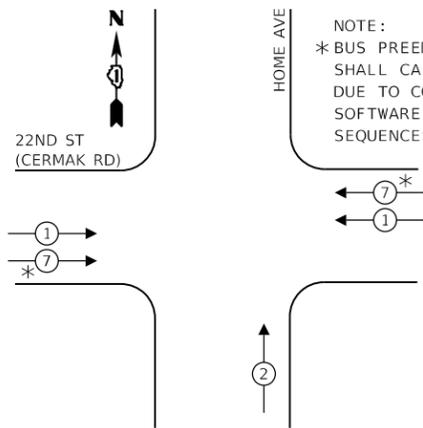
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

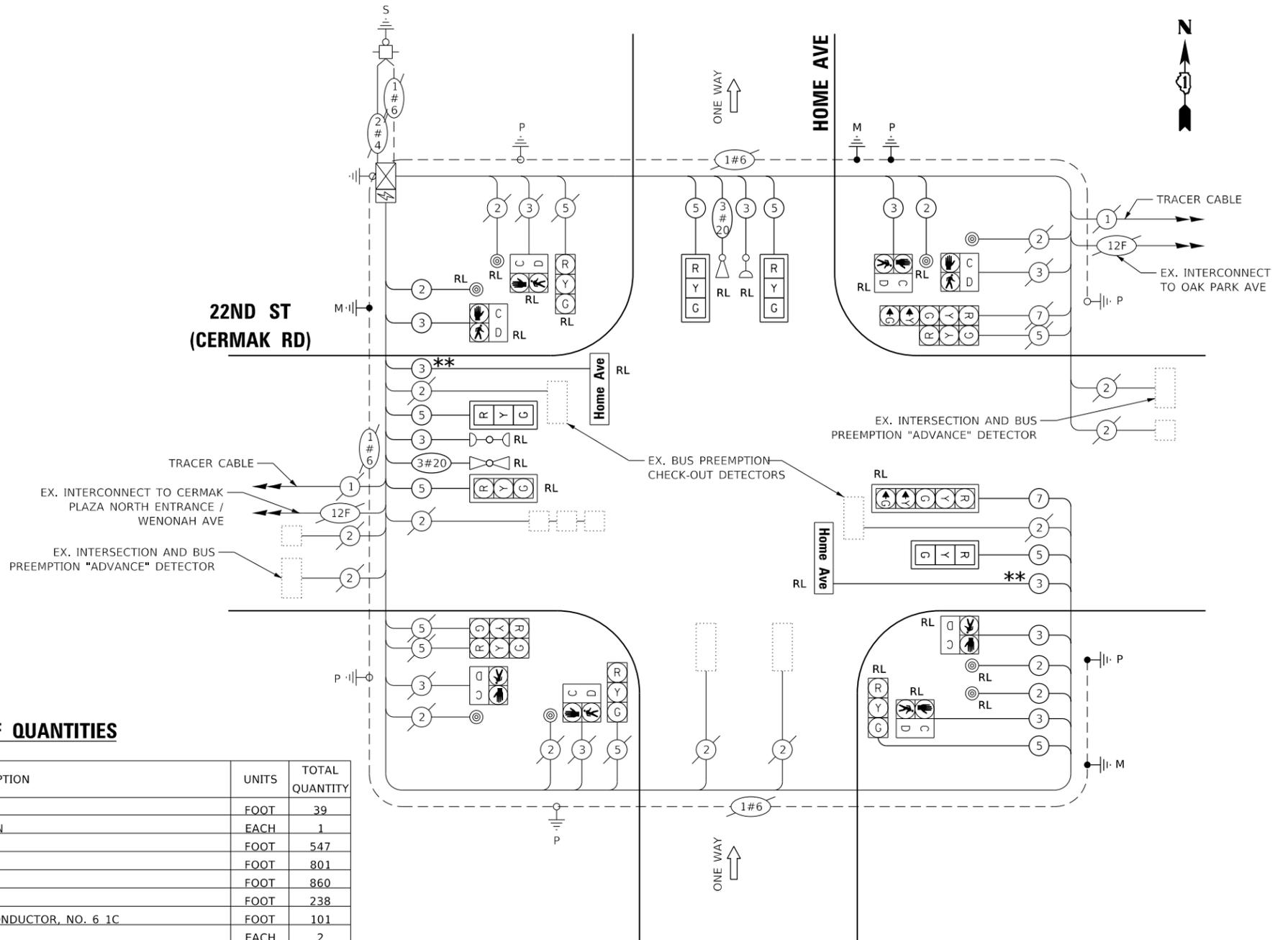
- ⊙\* — PROTECTED PHASE
- ⊙\* — PROTECTED/PERMITTED PHASE
- ⊙\* — PEDESTRIAN PHASE
- ⊙\* — OL — OVERLAP

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6. DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

**22ND ST (CERMAK RD)**



**CABLE PLAN**  
(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT", SEE SPECIAL PROVISION FOR CABLE TYPE.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	39
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	547
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	801
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	860
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	238
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	101
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	5
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2000
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	65
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	227
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	2	120	50	120.0
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				563.7

ENERGY COSTS TO:

**CITY OF BERWYN**

6700 26TH ST  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER:



USER NAME = _USERNAME_
PLOT SCALE = 40.0000 ' / in.
PLOT DATE = 5/7/2018

DESIGNED - DW	REVISED - 5/4/2018
DRAWN - RG	REVISED -
CHECKED - ZH	REVISED -
DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT HOME AVE**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	77
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

**TS 4810  
ECON 30**

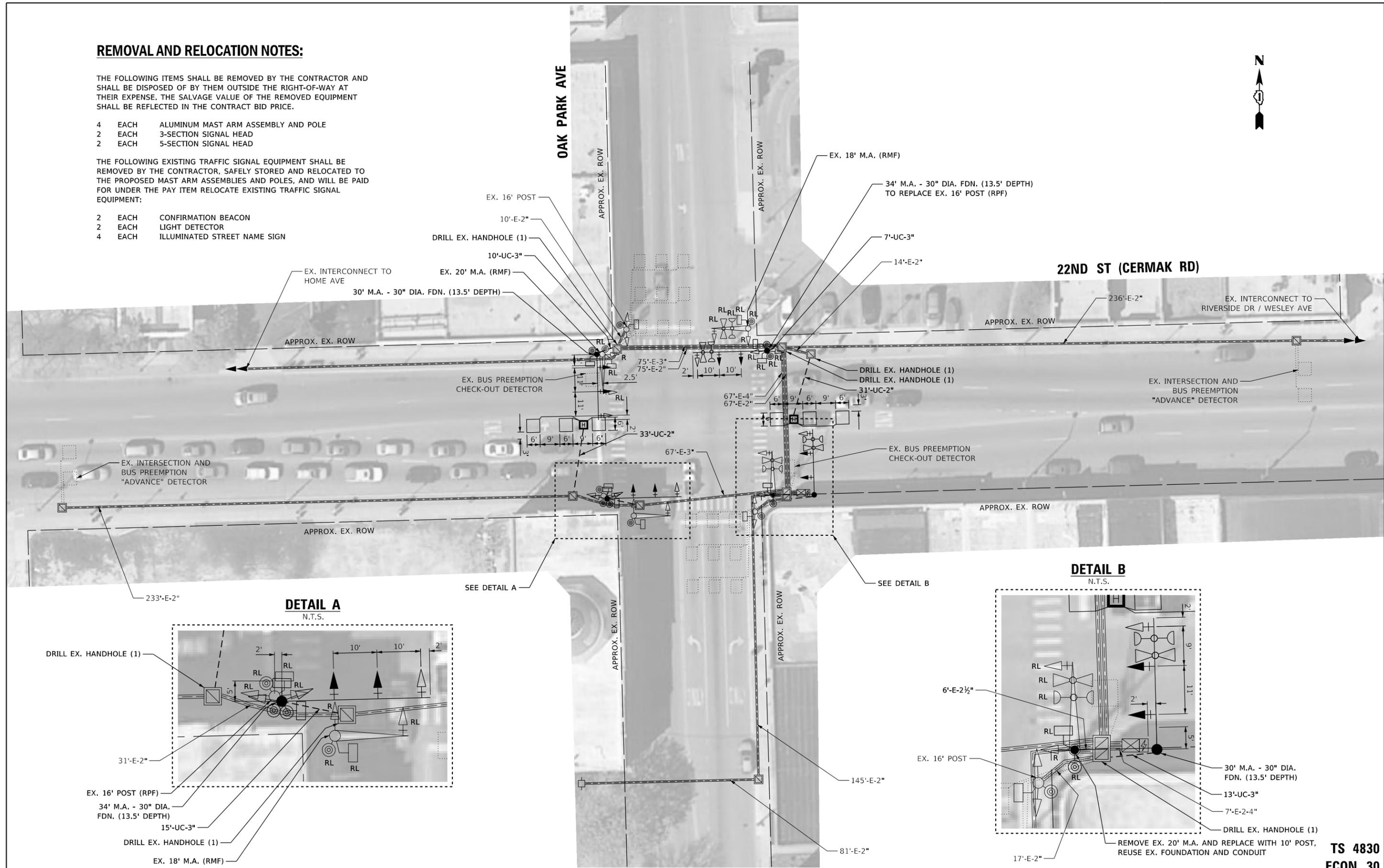
**REMOVAL AND RELOCATION NOTES:**

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.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH 3-SECTION SIGNAL HEAD
- 2 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH ILLUMINATED STREET NAME SIGN



**DETAIL A**  
N.T.S.

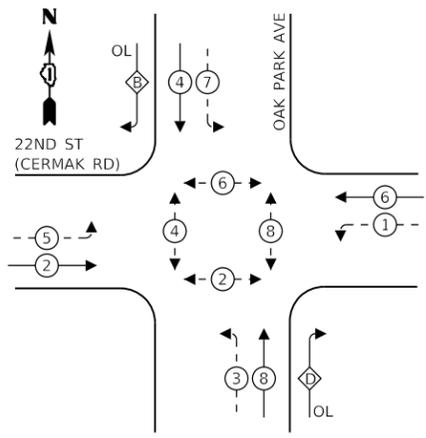
**DETAIL B**  
N.T.S.

**TS 4830**  
**ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN</b> <b>22ND ST (CERMAK RD) AT OAK PARK AVE</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40,0000 ' / in.	CHECKED - ZH	REVISED -		VAR	2018-001-TS	COOK	111	78				
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -		SCALE: 1" = 20'    SHEET    OF    SHEETS    STA.    TO    STA.				CONTRACT NO. 62G12				
	ILLINOIS FED. AID PROJECT												

FILE NAME = pw:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sh-4830-plan.dgn  
SMODELNAME5

**EXISTING CONTROLLER SEQUENCE**



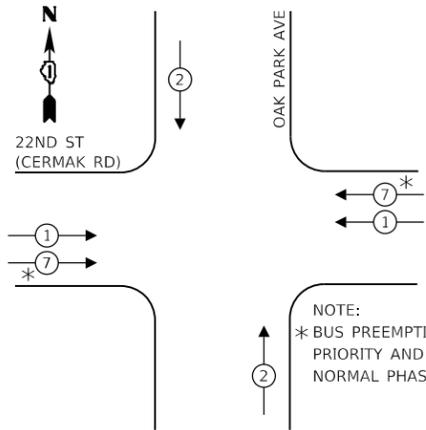
**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

**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	24	10	10	24.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				787.0

ENERGY COSTS TO:

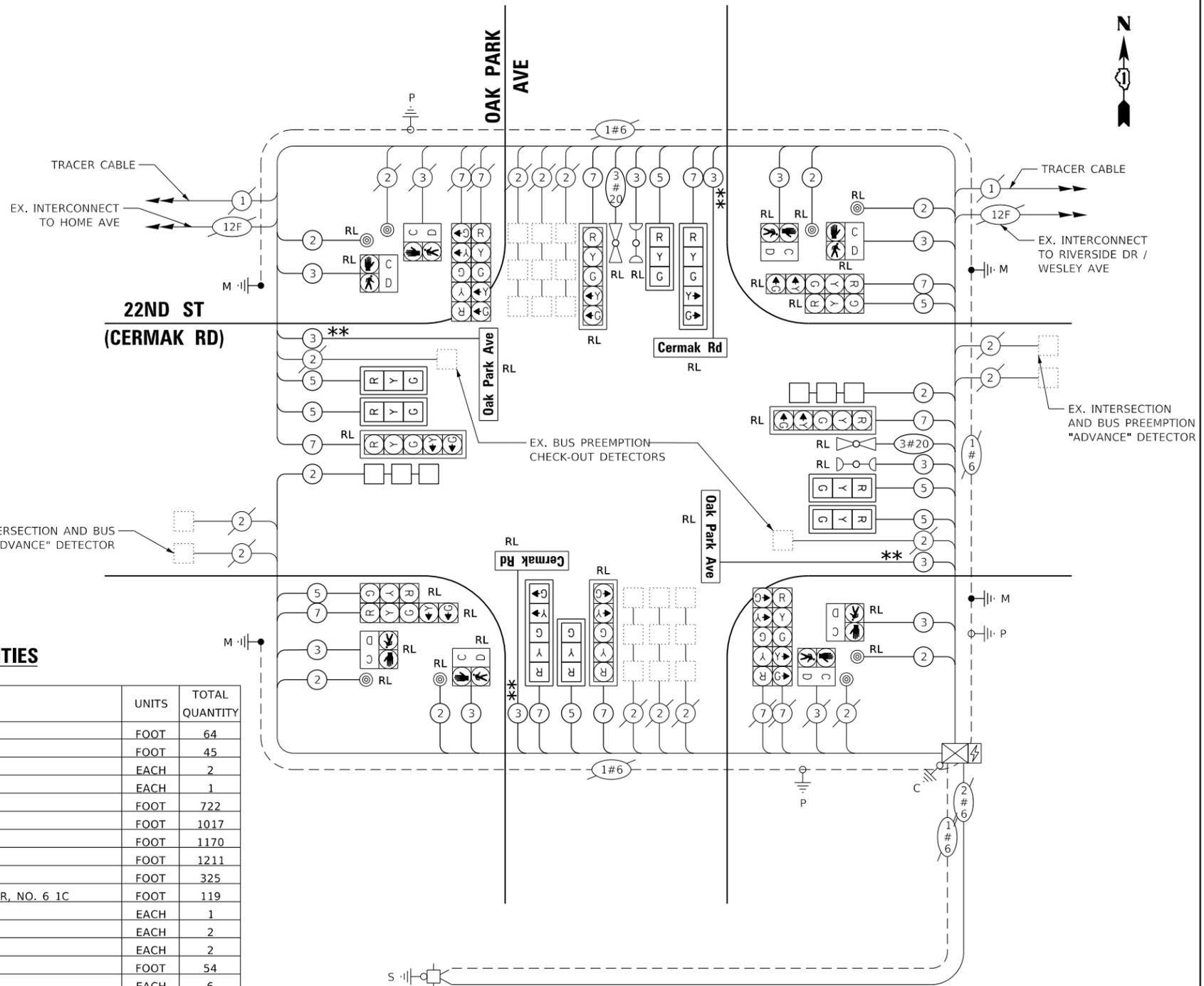
**CITY OF BERWYN**

6700 26TH ST  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: \_\_\_\_\_

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	64
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	45
HEAVY-DUTY HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	722
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1017
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1170
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1211
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	325
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	119
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
DETECTOR LOOP, TYPE I	FOOT	210
RELOCATE EXISTING SIGNAL HEAD	EACH	8
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3250
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	253
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1



**CABLE PLAN**  
(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT", SEE SPECIAL PROVISION FOR CABLE TYPE.



USER NAME = USERNAME  
DESIGNED - DW  
DRAWN - RG  
PLOT SCALE = 40.0000" / in.  
PLOT DATE = 5/7/2018

REVISOR - 5/4/2018  
REVISOR - REVISOR  
CHECKED - ZH  
DATE - 3/23/2018

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT OAK PARK AVE**

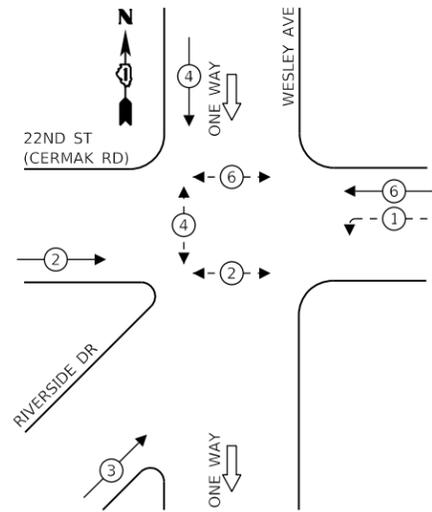
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	79
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

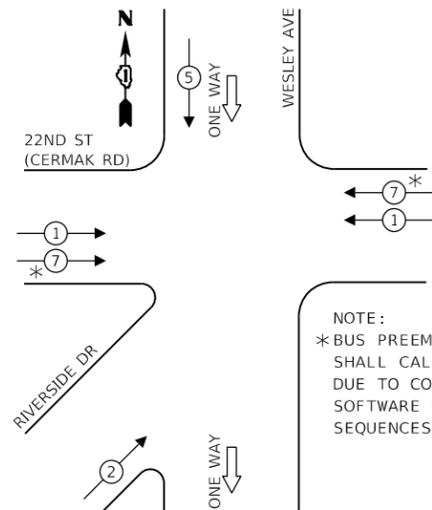
**TS 4830  
ECON 30**



**EXISTING CONTROLLER SEQUENCE**



**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



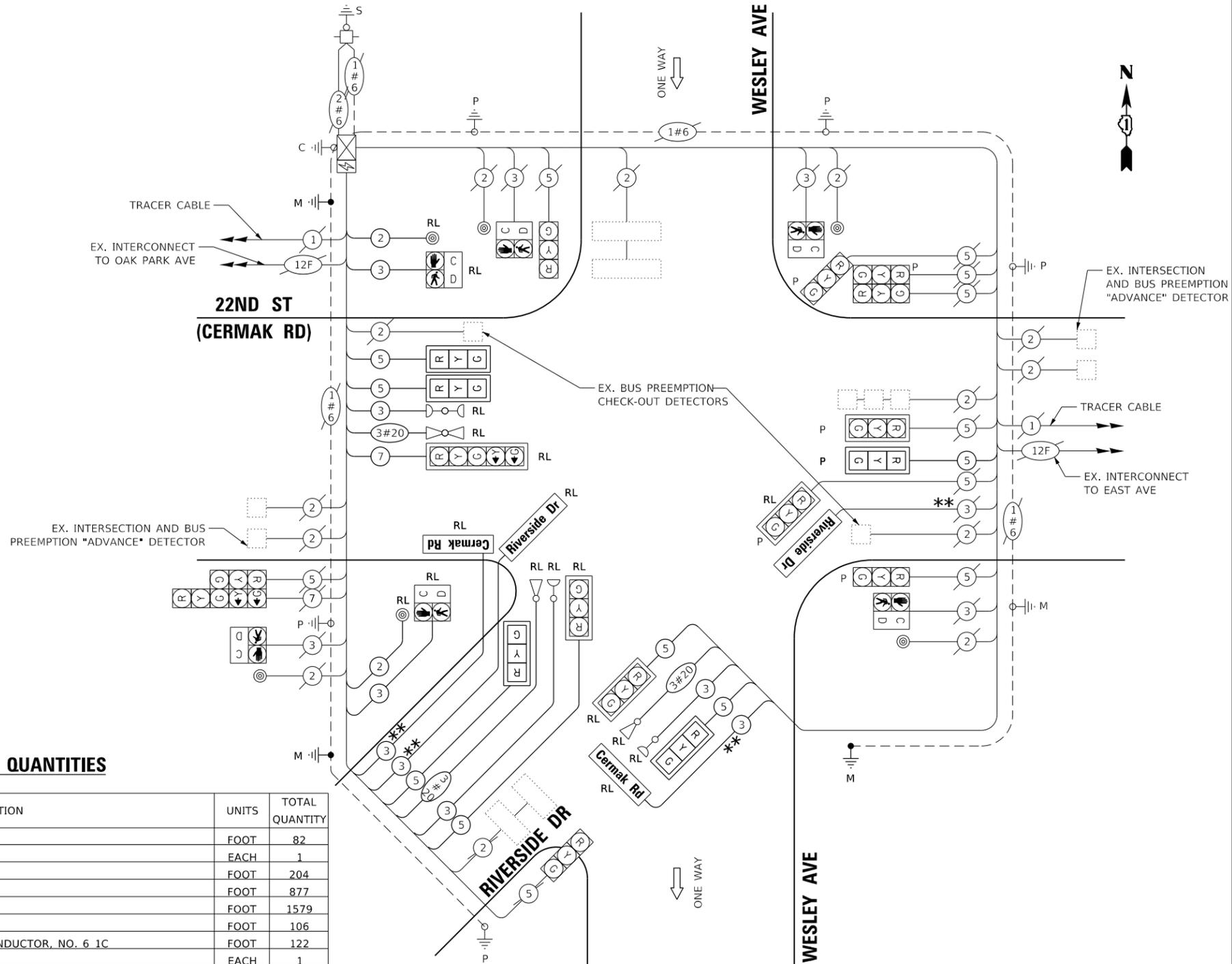
NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6. DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OL OVERLAP

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	82
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	204
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	877
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1579
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	106
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	122
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	659



**CABLE PLAN**  
(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT", SEE SPECIAL PROVISION FOR CABLE TYPE.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	6	20	100	120.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				703.2

ENERGY COSTS TO:

**CITY OF BERWYN**

6700 26TH ST  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER:



USER NAME = _USERNAME_
PLOT SCALE = 40,0000 ' / in.
PLOT DATE = 5/7/2018

DESIGNED - DW	REVISED - 5/4/2018
DRAWN - RG	REVISED -
CHECKED - ZH	REVISED -
DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT RIVERSIDE DR / WESLEY AVE**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	81
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 4840  
ECON 30**

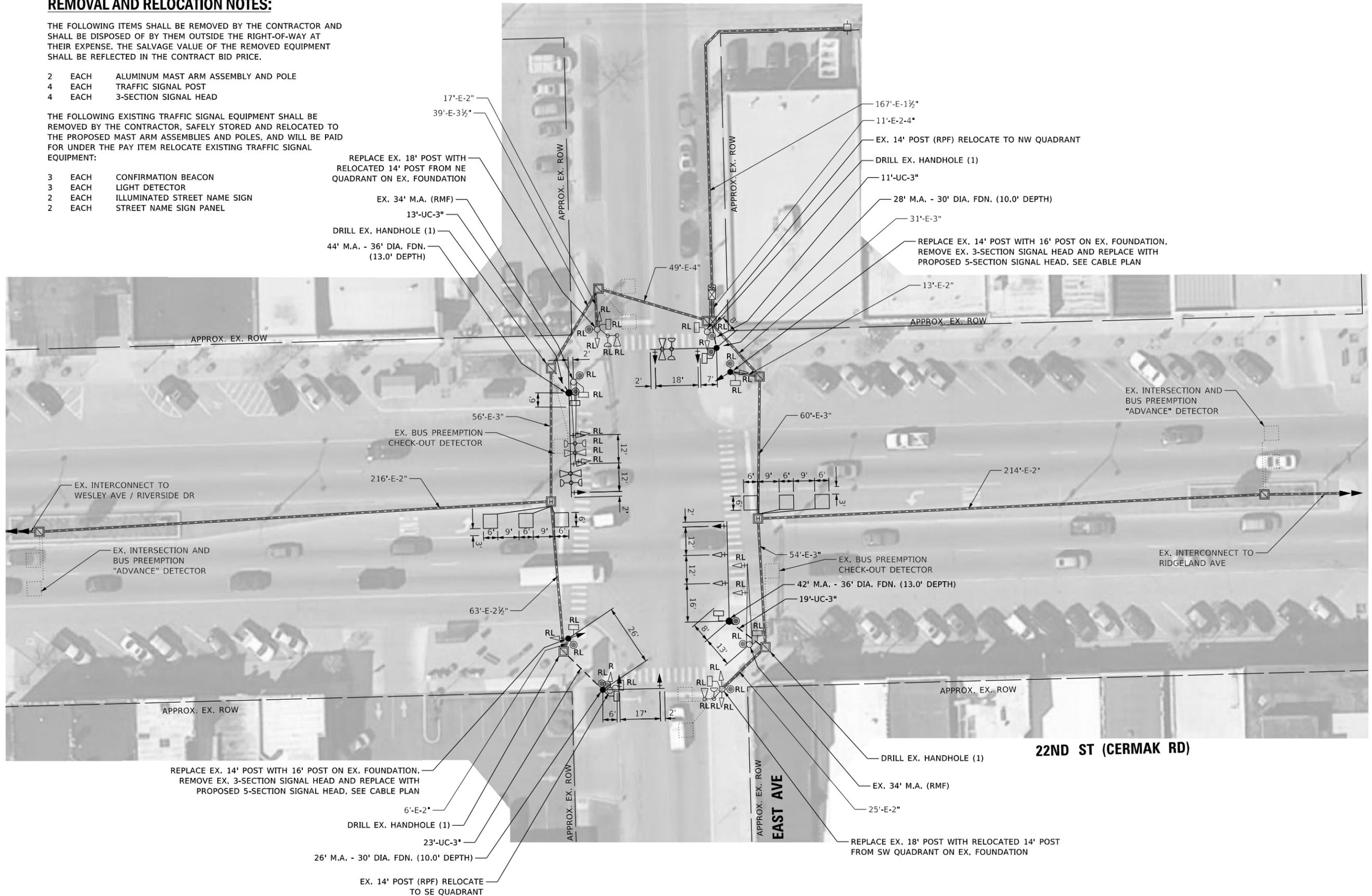
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR
- 2 EACH ILLUMINATED STREET NAME SIGN
- 2 EACH STREET NAME SIGN PANEL



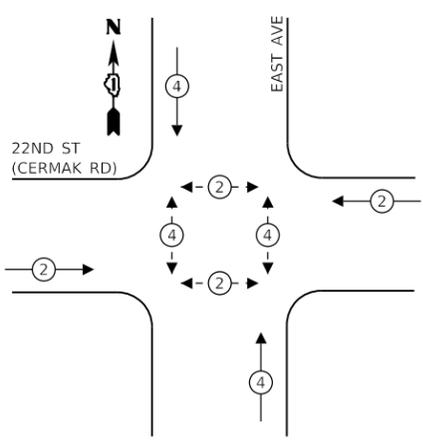
**TS 4805  
ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN 22ND ST (CERMAK RD) AT EAST AVE</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000" / in.	CHECKED - ZH	REVISED -			VAR	2018-001-TS	COOK	111	82
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -			CONTRACT NO. 62G12				
SCALE: 1" = 20'    SHEET OF SHEETS    STA. TO STA.					ILLINOIS FED. AID PROJECT					

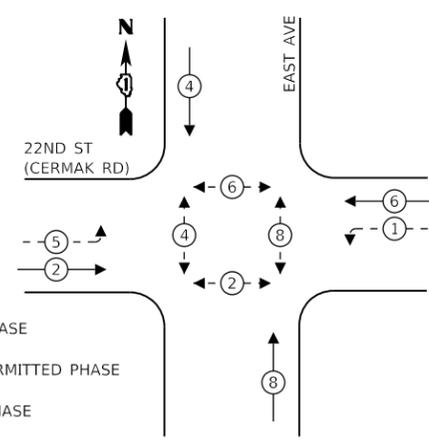
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	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN 22ND ST (CERMAK RD) AT EAST AVE</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - RG	REVISED -			VAR	2018-001-TS	COOK	111	83	
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	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -			SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO STA.

**EXISTING CONTROLLER SEQUENCE**



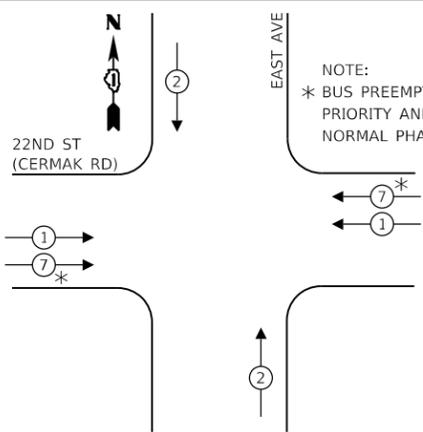
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

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

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**

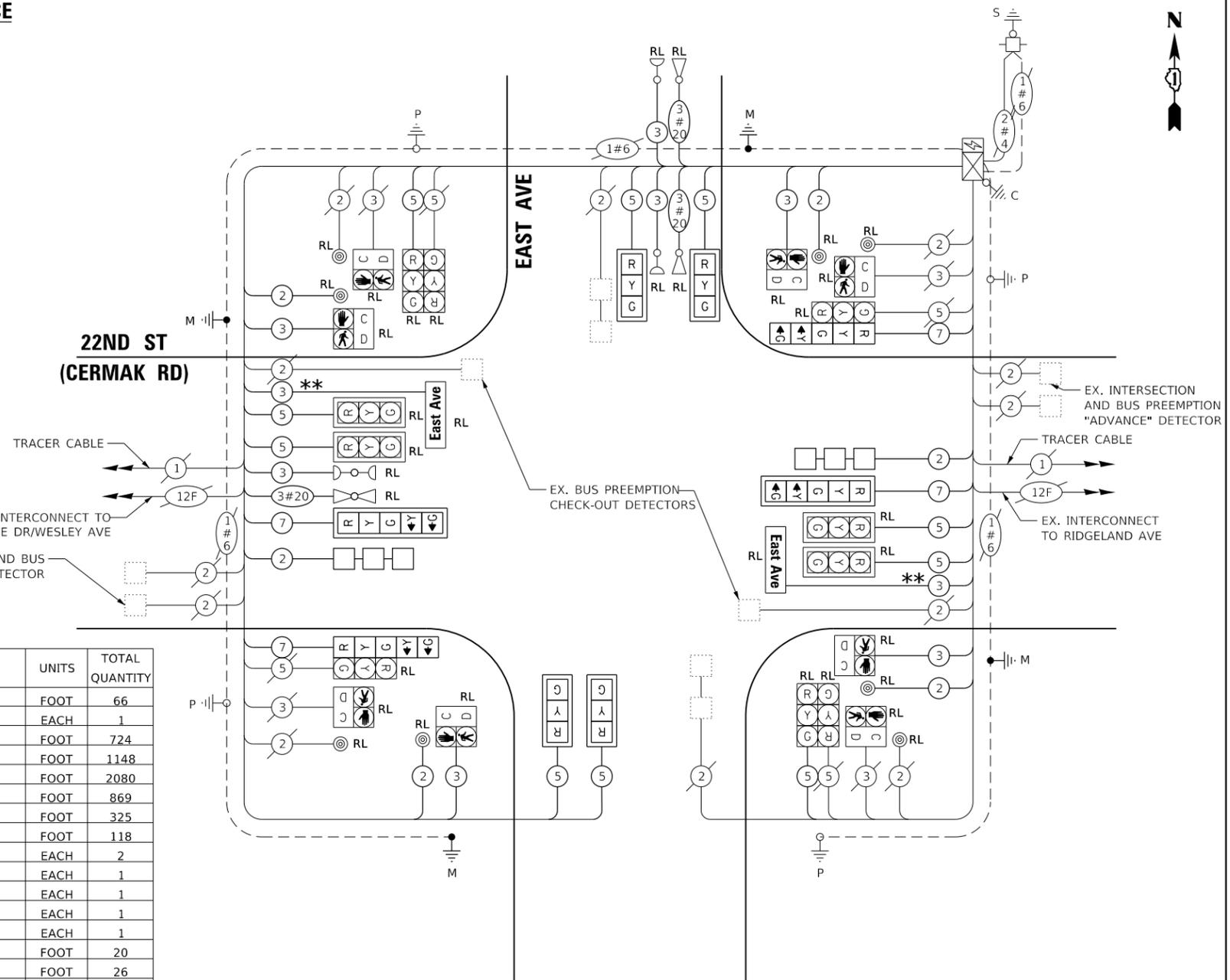


NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	66
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	724
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1148
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2080
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	869
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	325
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	118
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	20
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	6
INDUCTIVE LOOP DETECTOR	EACH	2
DETECTOR LOOP, TYPE I	FOOT	219
RELOCATE EXISTING SIGNAL HEAD	EACH	10
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	8
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	8
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3470
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	371
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	397
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
REMOVE AND REPLACE ANCHOR BOLTS	EACH	4

**22ND ST (CERMAK RD)**



**CABLE PLAN**  
(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT", SEE SPECIAL PROVISION FOR CABLE TYPE.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	8	10	10	8
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	2	120	50	120.0
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				627.2

ENERGY COSTS TO:

**CITY OF BERWYN**

6700 26TH ST  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON

ACCOUNT NUMBER:



USER NAME = _USERNAME_
PLOT SCALE = 40,0000 ' / in.
PLOT DATE = 5/7/2018

DESIGNED - DW	REVISED - 5/4/2018
DRAWN - RG	REVISED -
CHECKED - ZH	REVISED -
DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT EAST AVE**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	84
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 4805  
ECON 30**

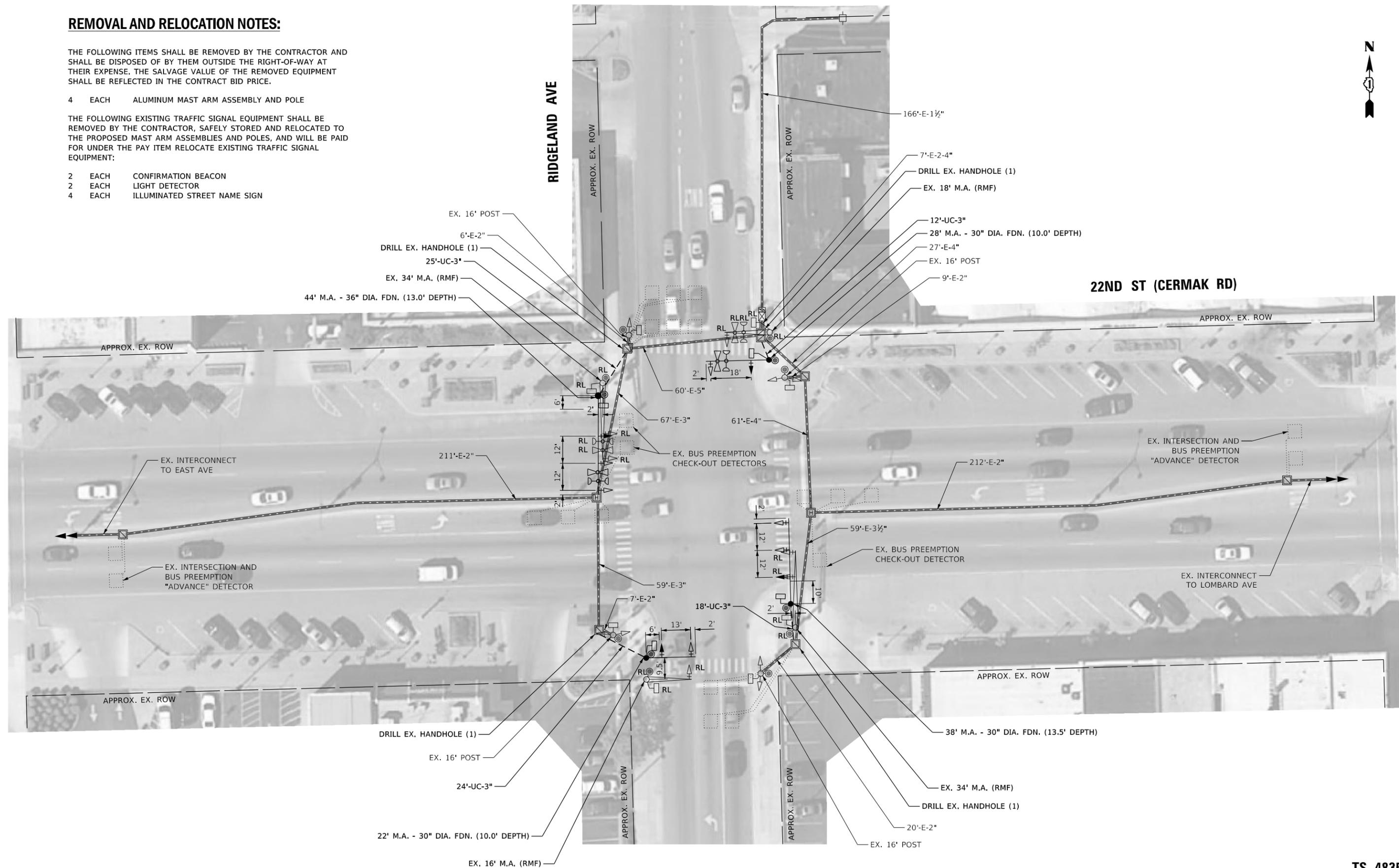
**REMOVAL AND RELOCATION NOTES:**

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.

4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

2 EACH CONFIRMATION BEACON  
 2 EACH LIGHT DETECTOR  
 4 EACH ILLUMINATED STREET NAME SIGN

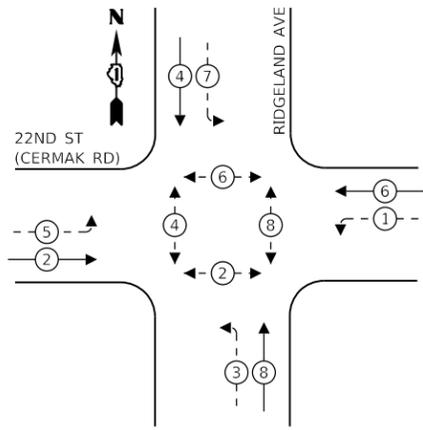


**TS 4835  
 ECON 30**

	USER NAME = _USERNAME_	DESIGNED - DW	REVISED - 5/4/2018	<b>STATE OF ILLINOIS                  DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN</b> <b>22ND ST (CERMAK RD) AT RIDGELAND AVE</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 40.0000' / in.	CHECKED - ZH	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS	FED. AID PROJECT
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -										CONTRACT NO. 62G12

FILE NAME = p:\IPW1.dzcorp.com\DLZ\Documents\Projects\2014\1481\2109\18-001 Trombone Mast Arm Replacement #2\CADD\_Sheets\162G12-sht-4835-plan.dgn  
 SMODELNAME

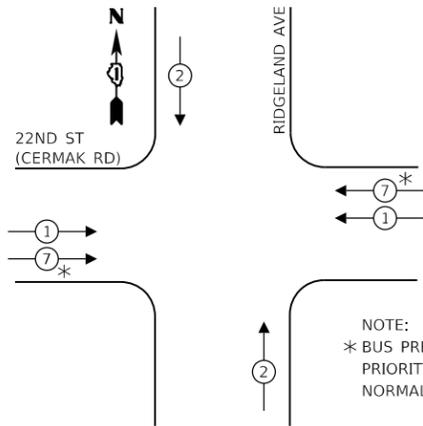
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OVERLAP

**EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE**



NOTE:  
\* BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	79
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	660
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	958
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1190
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	840
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	123
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2659
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	271
TEMPORARY INFORMATION SIGNING	SQ FT	77.1

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
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	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	-	250	50	-
PTZ CAMERA	-	75	100	-
TOTAL =				755.2

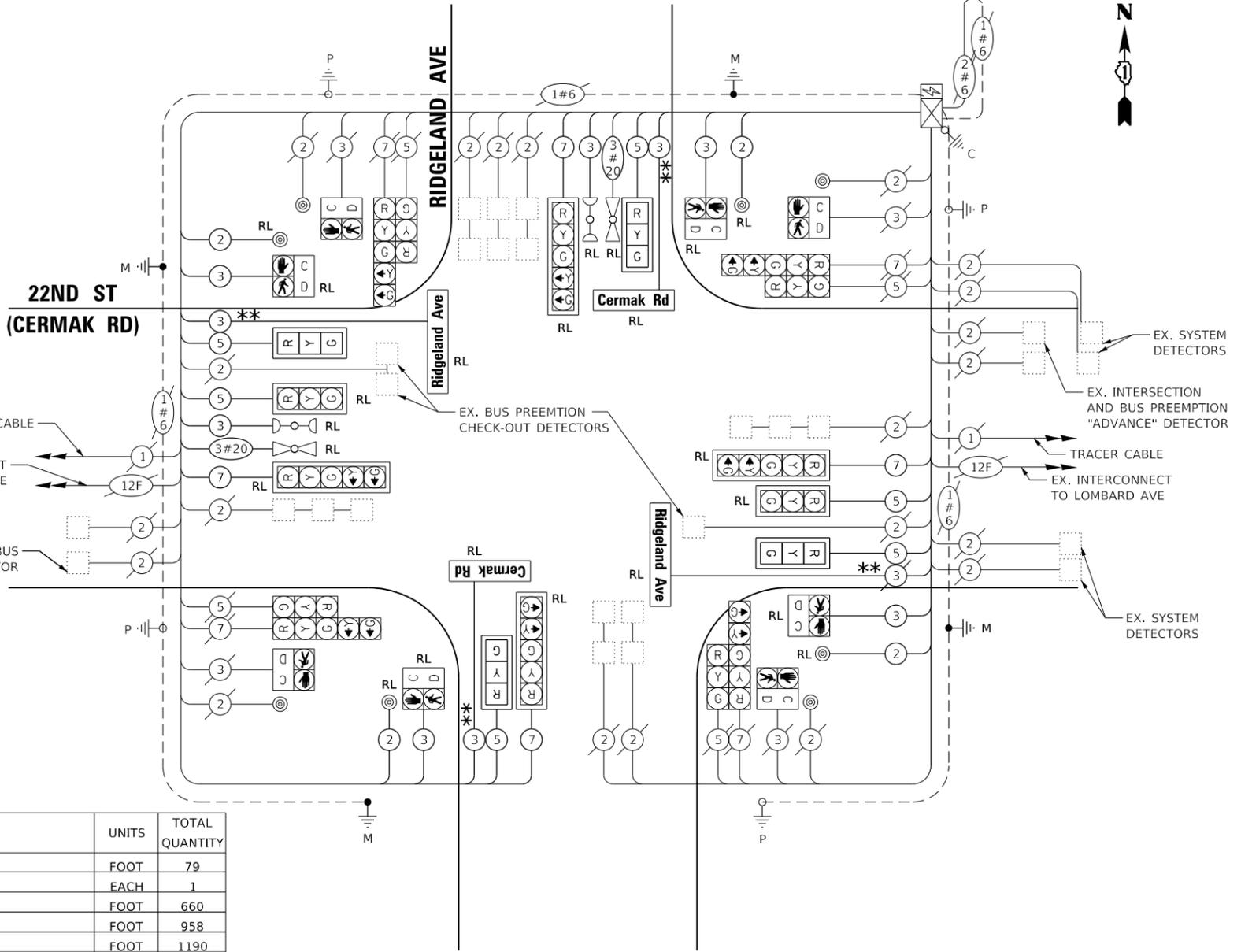
ENERGY COSTS TO:

**CITY OF BERWYN**

6700 26TH ST  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630)-424-5704  
COMPANY: COMMONWEALTH EDISON

ACCOUNT NUMBER:



**CABLE PLAN**

(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT", SEE SPECIAL PROVISION FOR CABLE TYPE.



USER NAME = _USERNAME_
PLOT SCALE = 40.0000 "/>
PLOT DATE = 5/7/2018

DESIGNED - DW	REVISED - 5/4/2018
DRAWN - RG	REVISED -
CHECKED - ZH	REVISED -
DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
22ND ST (CERMAK RD) AT RIDGELAND AVE

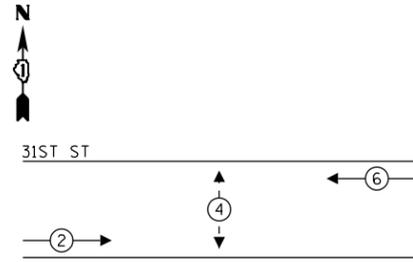
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	86
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

TS 4835  
ECON 30

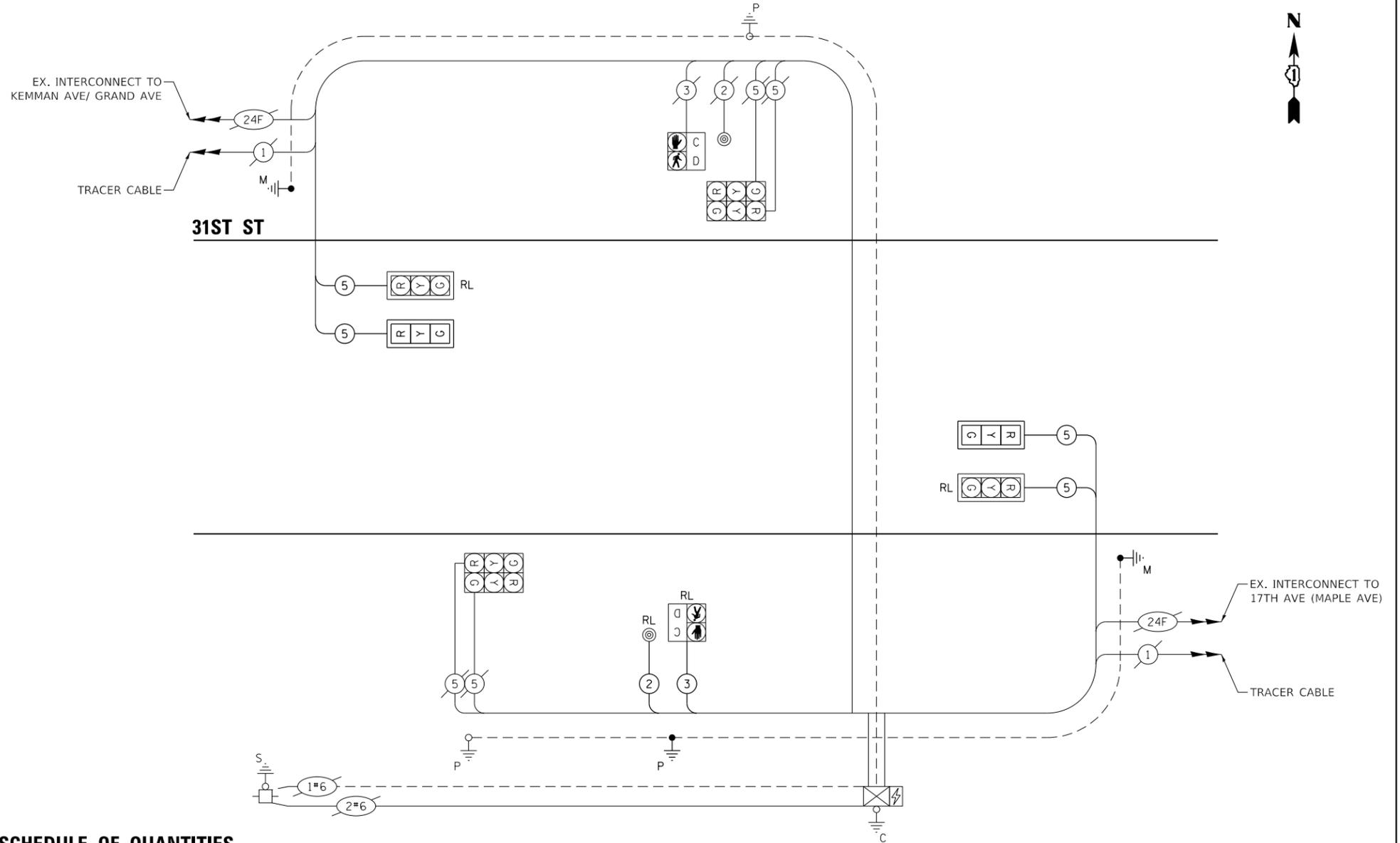


**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

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



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	78
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	40
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	45
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	450
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	115
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	20
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	2
RELOCATE EXISTING SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	120
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	51.4

**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	8	11	50	44.0
(YELLOW)	8	20	5	8.0
(GREEN)	8	12	45	43.2
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				260.2

ENERGY COSTS TO:

VILLAGE OF LAGRANGE PARK  
447 N CATHERINE AVE  
LAGRANGE PARK, IL 60526

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
AND SCHEDULE OF QUANTITIES  
31ST ST BETWEEN HARRISON AVE AND RAYMOND AVE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	88
CONTRACT NO. 62G12				

TS 13930  
ECON 120

MODEL: D:\p1\... FILE: 20180110\... CONTRACT: 62G12 - June 2018\... 62G12-21-21-25.dwg

DESIGNED - IP	REVISED - 5/4/2018
DRAWN - IP	REVISED -
CHECKED - LP	REVISED -
DATE - 3/15/2018	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

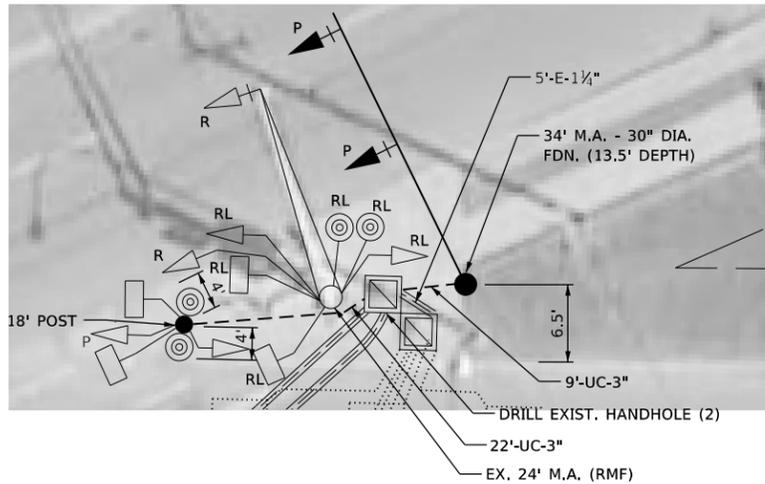
**REMOVAL AND RELOCATION NOTES**

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 CONTRACTOR'S BID PRICE.

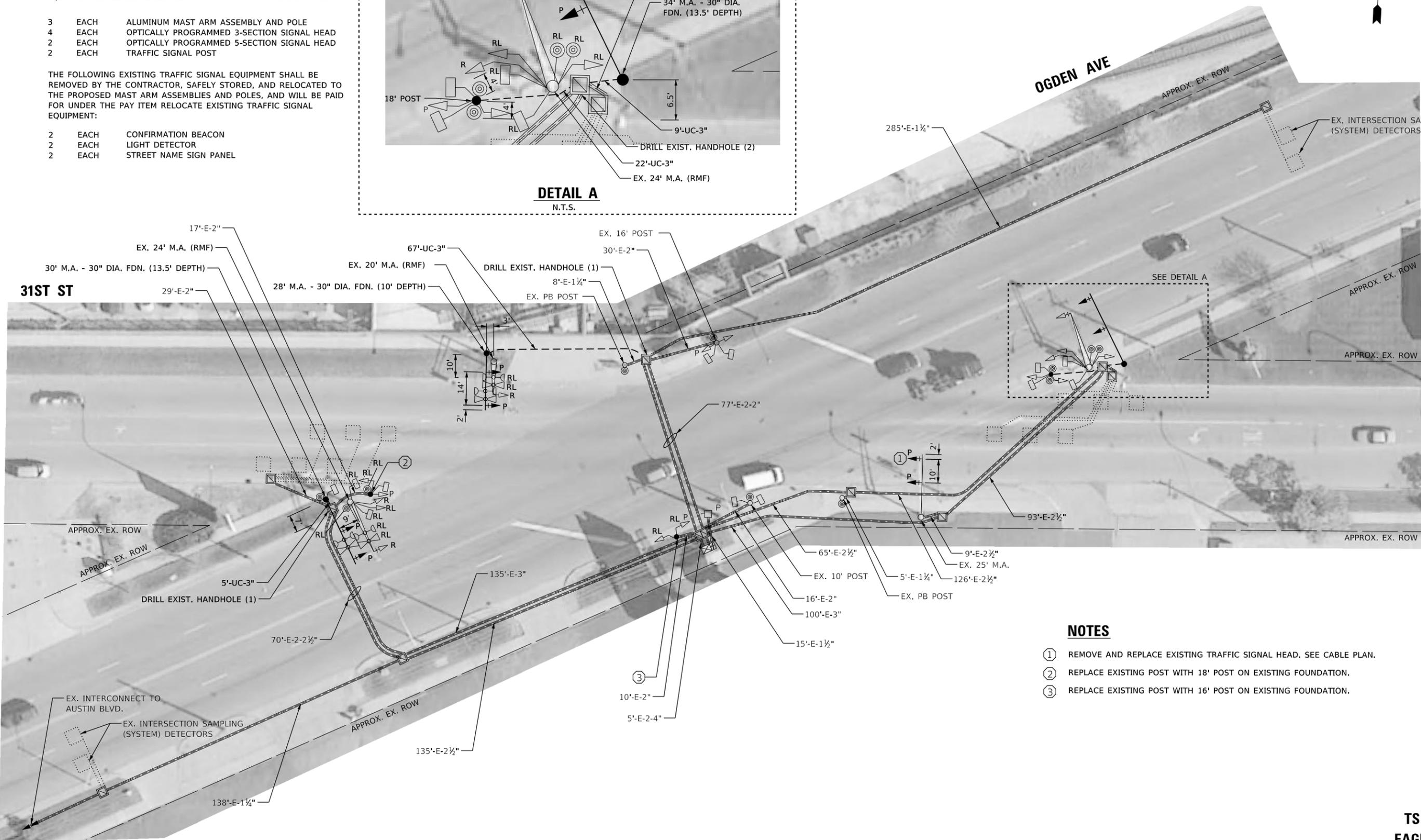
- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH OPTICALLY PROGRAMMED 3-SECTION SIGNAL HEAD
- 2 EACH OPTICALLY PROGRAMMED 5-SECTION SIGNAL HEAD
- 2 EACH TRAFFIC SIGNAL POST

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



**DETAIL A**  
N.T.S.



**NOTES**

- ① REMOVE AND REPLACE EXISTING TRAFFIC SIGNAL HEAD. SEE CABLE PLAN.
- ② REPLACE EXISTING POST WITH 18' POST ON EXISTING FOUNDATION.
- ③ REPLACE EXISTING POST WITH 16' POST ON EXISTING FOUNDATION.

MODEL: Default  
FILE NAME: P:\13153\W018-002\DC\CA\ADD\_Sheets\06\_D160G12-INTS-Ogden Ave at 31st St.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

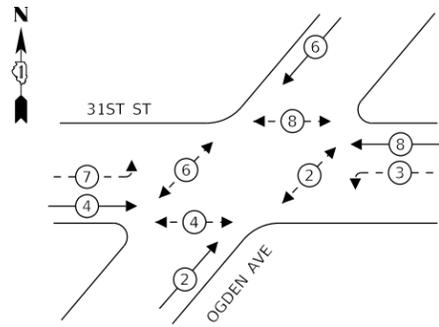
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
OGDEN AVE AT 31ST ST**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	89
			CONTRACT NO. 62G12	
ILLINOIS FED. AID PROJECT				

**TS 5555  
EAGLE 2D**

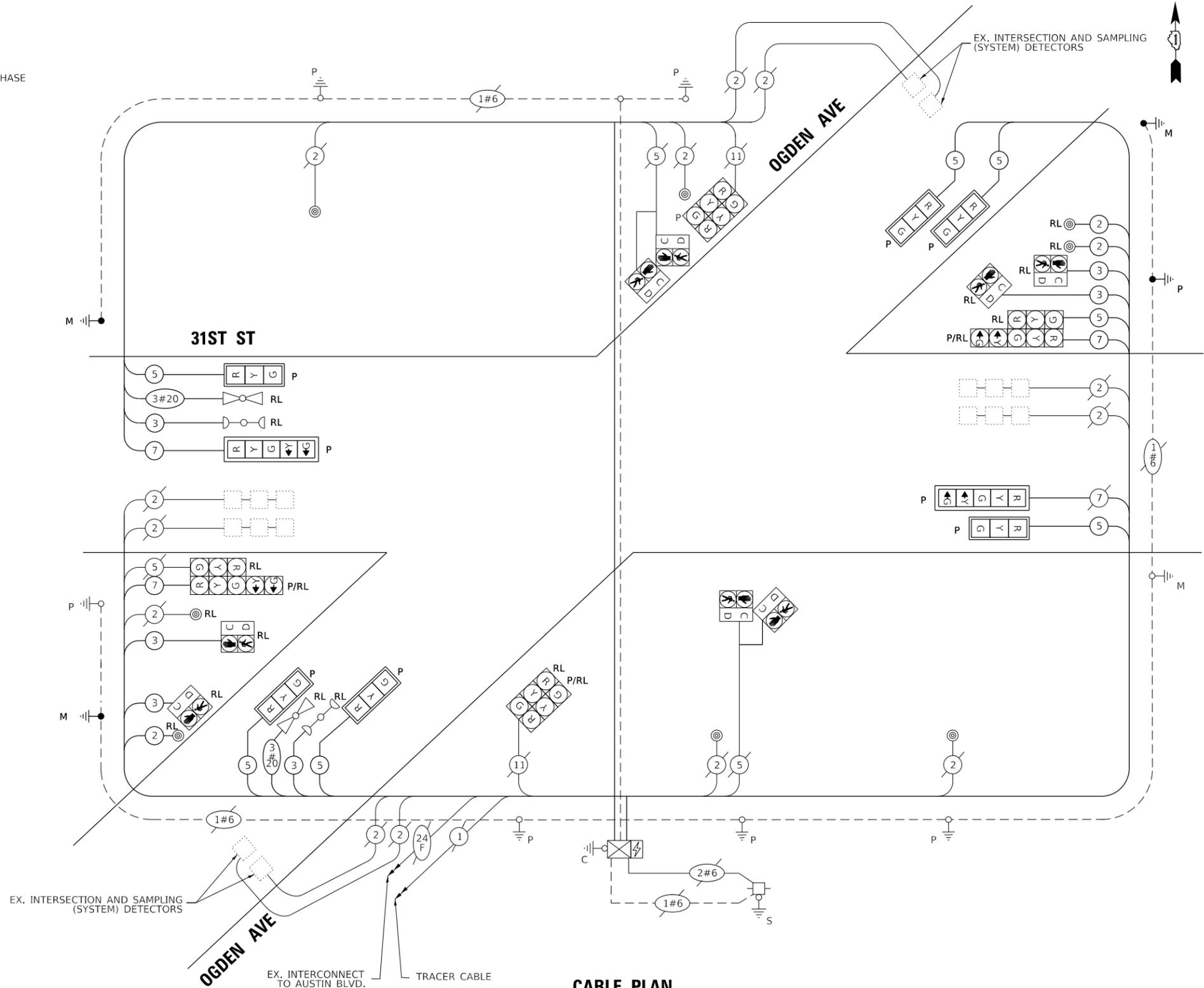
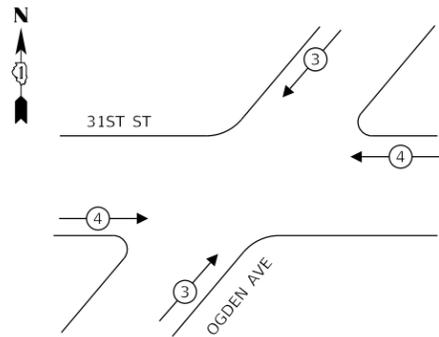
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OL — OVERLAP

**EXISTING EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL  
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				483.4

ENERGY COSTS TO:

**CICERO TOWNSHIP**

4949 W. CERMAK RD.  
CICERO, IL 60804

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
OGDEN AVE AT 31ST ST**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

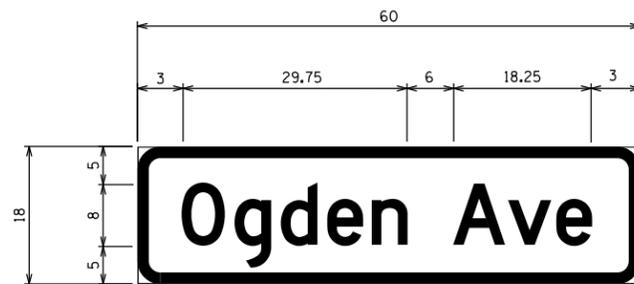
**TS 5555  
EAGLE 2D**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	90
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

MODEL: Default; FILE NAME: P:\13\51018-002\DC\G\CADD\_Sheets\07\_D160G12-INTS-Ogden Ave at 31st St\_Cable\_Plan.dwg

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	2

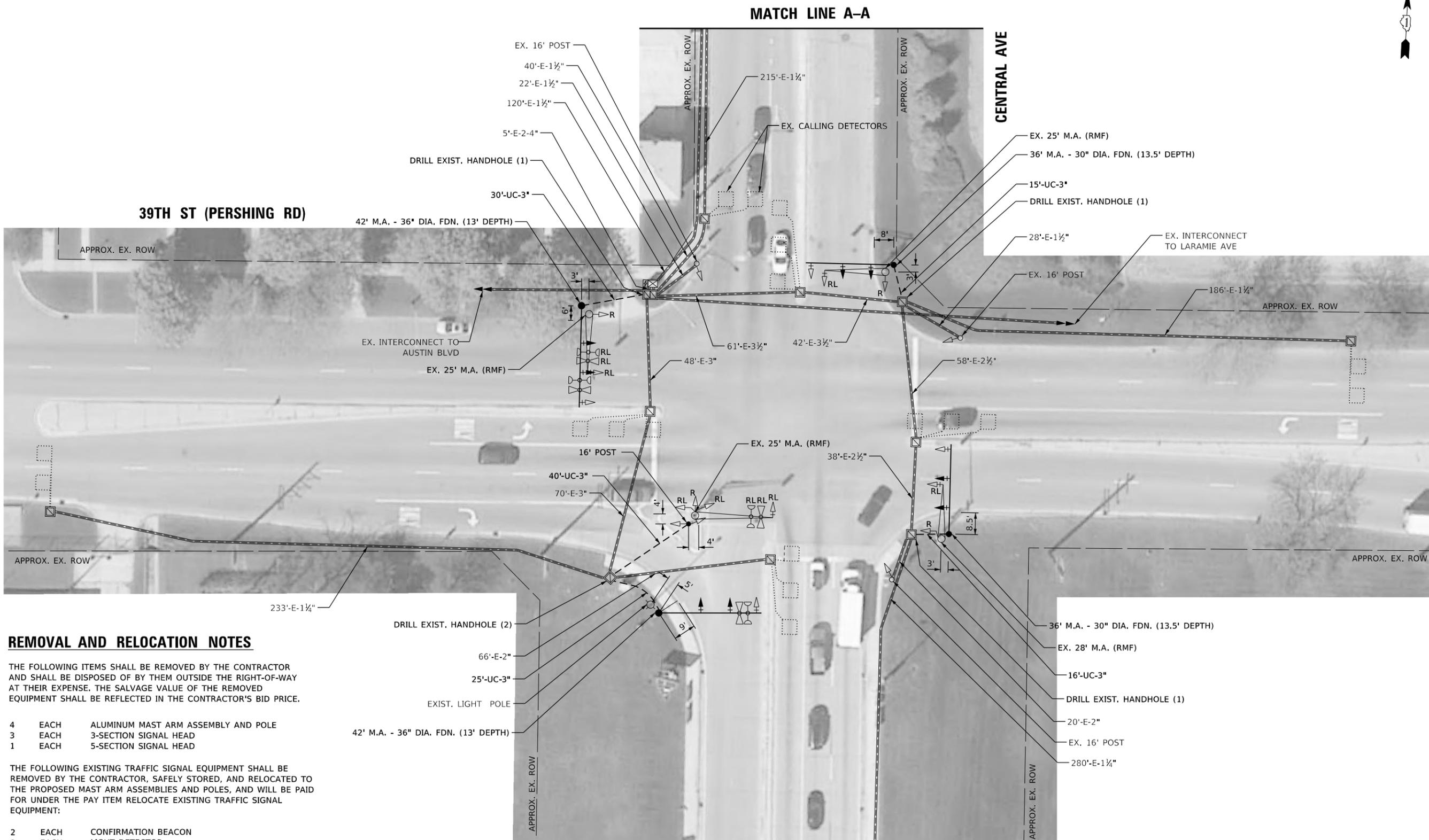
**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	15
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	103
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	798
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1614
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1846
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	781
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	149
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
DRILL EXISTING HANDHOLE	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4080
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
REMOVE AND REPLACE ANCHOR BOLTS	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	529

MODEL: Default  
FILE NAME: P:\1151\W018-002\DC\DCADD\_Sheets\08\_D160G12-INTS-Ogden Ave at 31st St\_Mast Arm Mounted & SQO.dgn

**TS 5555  
EAGLE 2D**

	USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES OGDEN AVE AT 31ST ST</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -			VAR	2018-001-T5	COOK	111	91
	PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -	SCALE: NTS	SHEET 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 62G12		
						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 CONTRACTOR'S BID PRICE.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 3 EACH STREET NAME SIGN PANEL

MODEL: Default  
 FILE NAME: P:\13153\W018-002\DC\CA\ADD\_Sheets\11\_D160G12-INTS-39th\_St\_(PershingRd) at Central\_Ave\_01.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
39TH ST (PERSHING RD) AT CENTRAL AVE - SHEET 1 OF 2

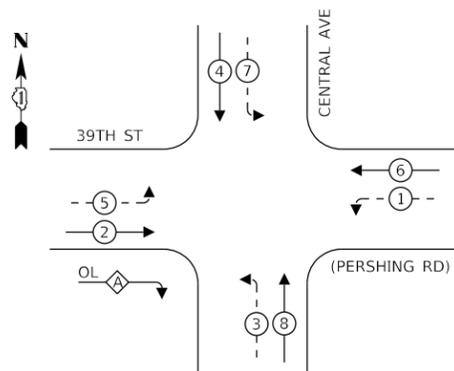
SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	92
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 3780  
EAGLE 8I



**EXISTING CONTROLLER SEQUENCE**



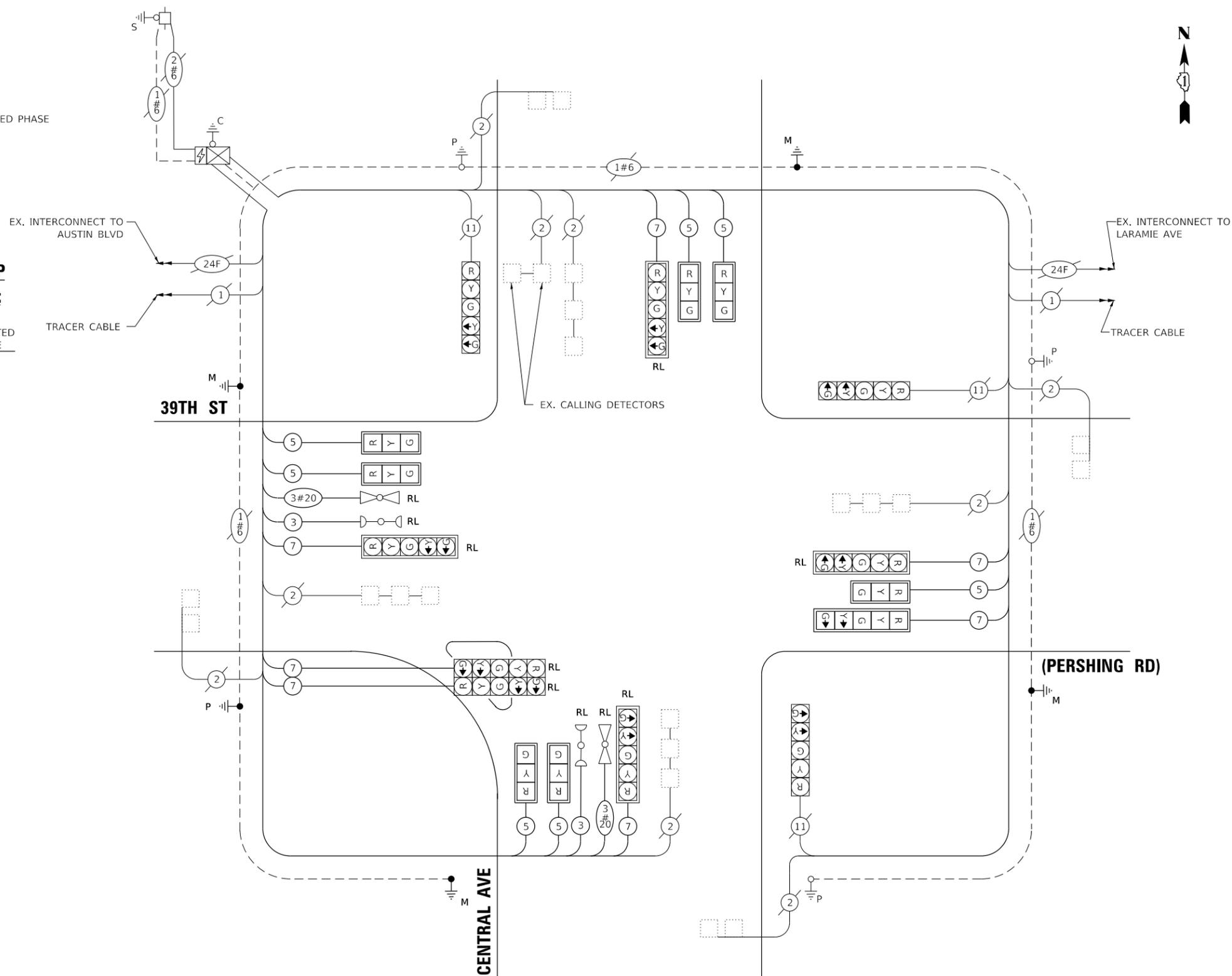
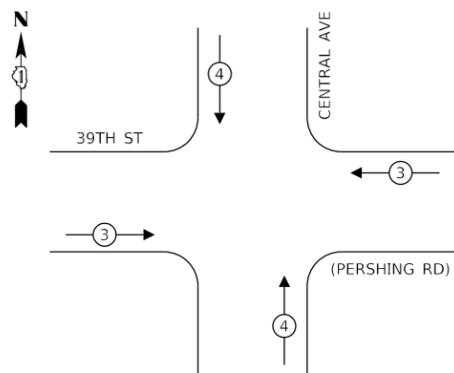
**LEGEND:**

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- ⊙ — OL OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	17	11	50	93.5
(YELLOW)	17	20	5	17.0
(GREEN)	17	12	45	91.8
PERMISSIVE ARROW	20	10	10	20.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				347.3

ENERGY COSTS TO:

**VILLAGE OF STICKNEY**

6533 PERSHING RD  
STICKNEY, IL 60402

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
39TH ST (PERSHING RD) AT CENTRAL AVE**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

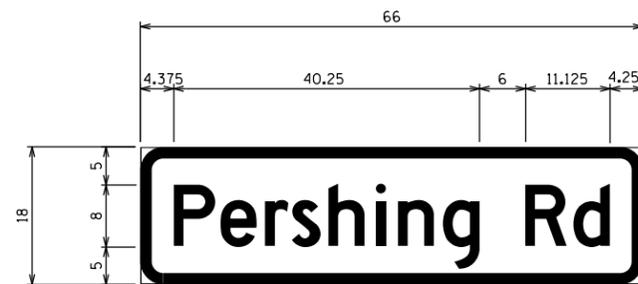
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	94
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 3780  
EAGLE 81**

MODEL: Default  
FILE NAME: P:\115151018-002-DCR\CADD\_Sheets\13\_D160G12-INTS\39th St (PershingRd) at Central Ave Cable Plan.dwg

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ. FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	8.25	1	ZZ	1

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	8.25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	126
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	353
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1342
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1625
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	194
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	27
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1793
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	353

MODEL: D:\mfr\11\1151\W018-002\DC\DCADD\_Sheets\14\_D160G12-int15-39th\_St\_(PershingRd) at Central\_Ave\_Mast\_Arm\_Mounted\_6\_S00.dgn

**TS 3780  
EAGLE 8I**



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
39TH ST (PERSHING RD) AT CENTRAL AVE**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	95
			CONTRACT NO. 62G12	
			ILLINOIS FED. AID PROJECT	

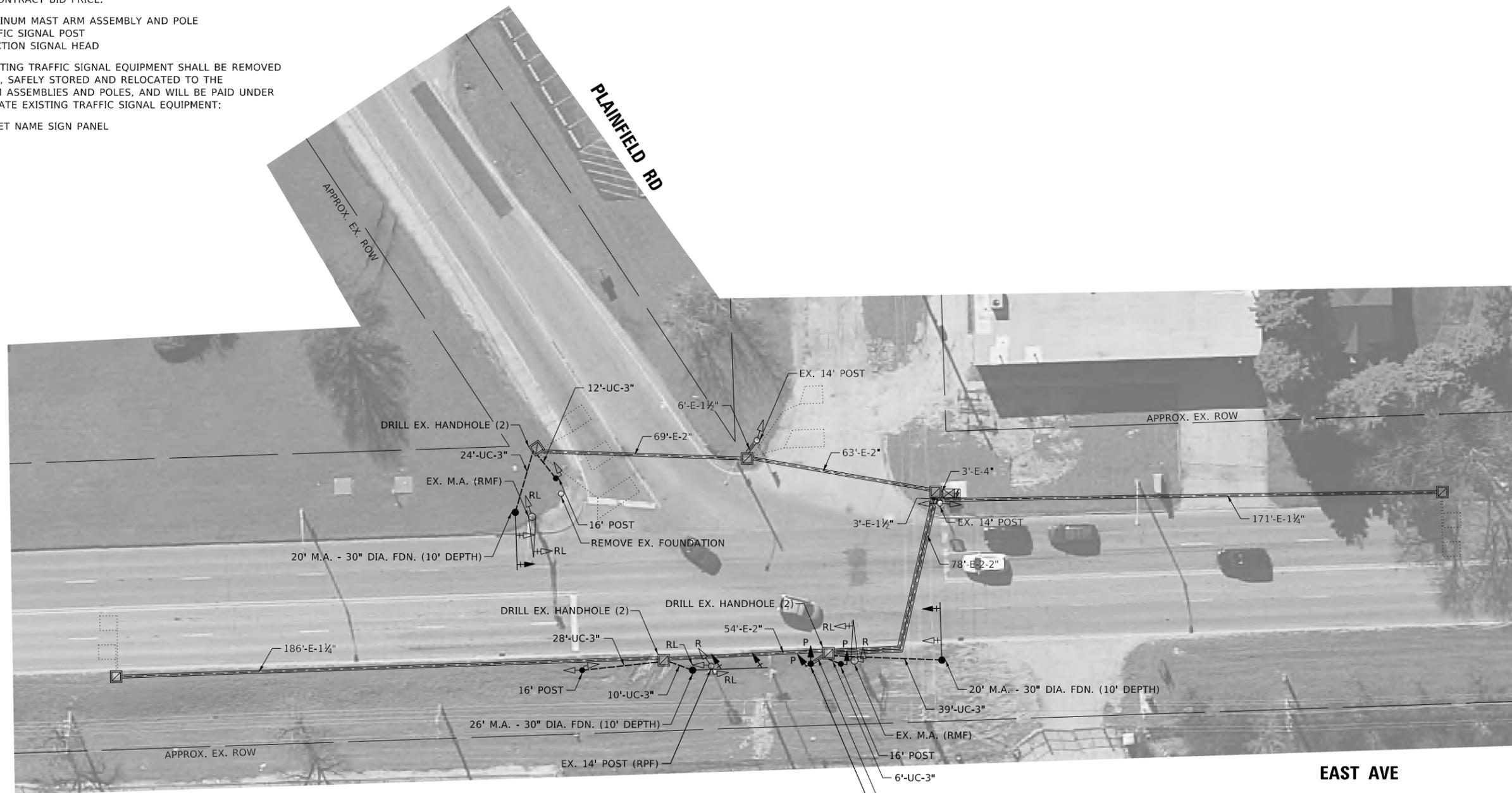
**REMOVAL AND RELOCATION NOTES:**

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH STREET NAME SIGN PANEL



REPLACE EX. 14' POST WITH 16' POST ON EX. FOUNDATION.  
 REMOVE EX. SIGNAL HEADS (2) AND REPLACE WITH OPTICALLY PROGRAMMED SIGNAL HEADS. SEE CABLE PLAN.

MODEL: Default  
 FILE NAME: S:\WP\Design\Ivan\MainArm\Contract\62G12 - June 2018\10HourRelocation\62G12-218-15.dgn

**TS 5070**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/8/2018	DATE - 3/15/2018	REVISED -

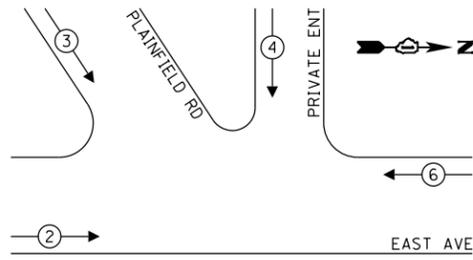
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
 EAST AVE AT PLAINFIELD RD**

SCALE: SHEET OF SHEETS STA. TO STA.

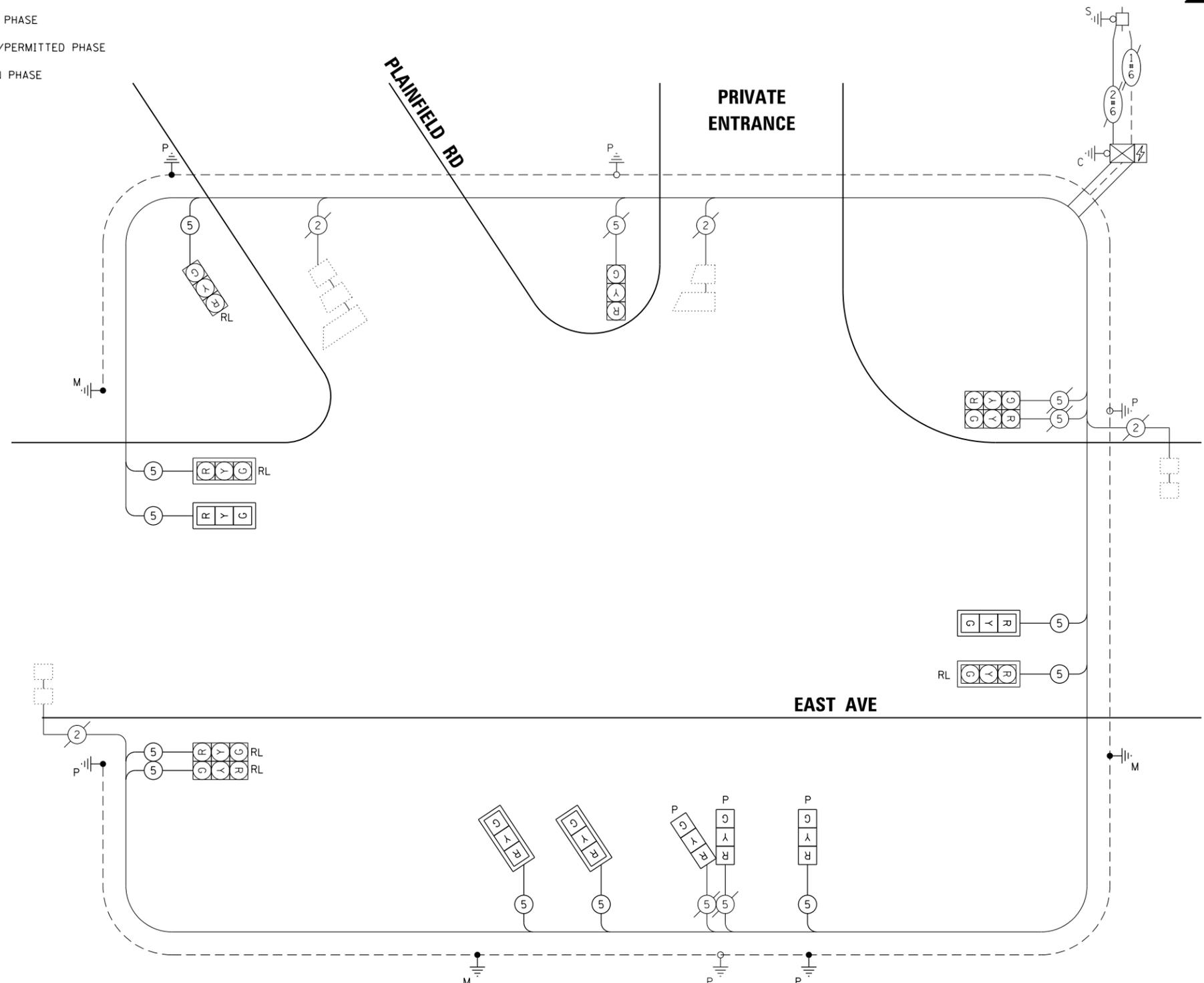
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-TS	COOK	111	96
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ⊙\* — PROTECTED PHASE
- ⊙\* - - PROTECTED/PERMITTED PHASE
- ⊙\* — PEDESTRIAN PHASE
- ⊙\* OL OVERLAP



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	15	12	45	81.0
PERMISSIVE ARROW	-	10	10	-
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				303.5

ENERGY COSTS TO:

VILLAGE OF MCCOOK  
5000 GLENCOE AVE  
MCCOOK, IL 60525

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**CABLE PLAN**  
(NOT TO SCALE)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
EAST AVE AT PLAINFIELD RD

SCALE: SHEET OF SHEETS STA. TO STA.

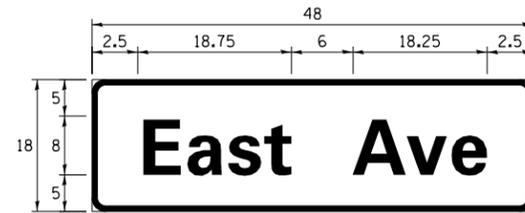
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	97
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 5070

MODEL: D:\p1\... FILE NAME: S:\p1\Design\Ibvan\Main\Drawn\Contract\62G12-2018-001-TS.dwg

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.0	1	ZZ	1

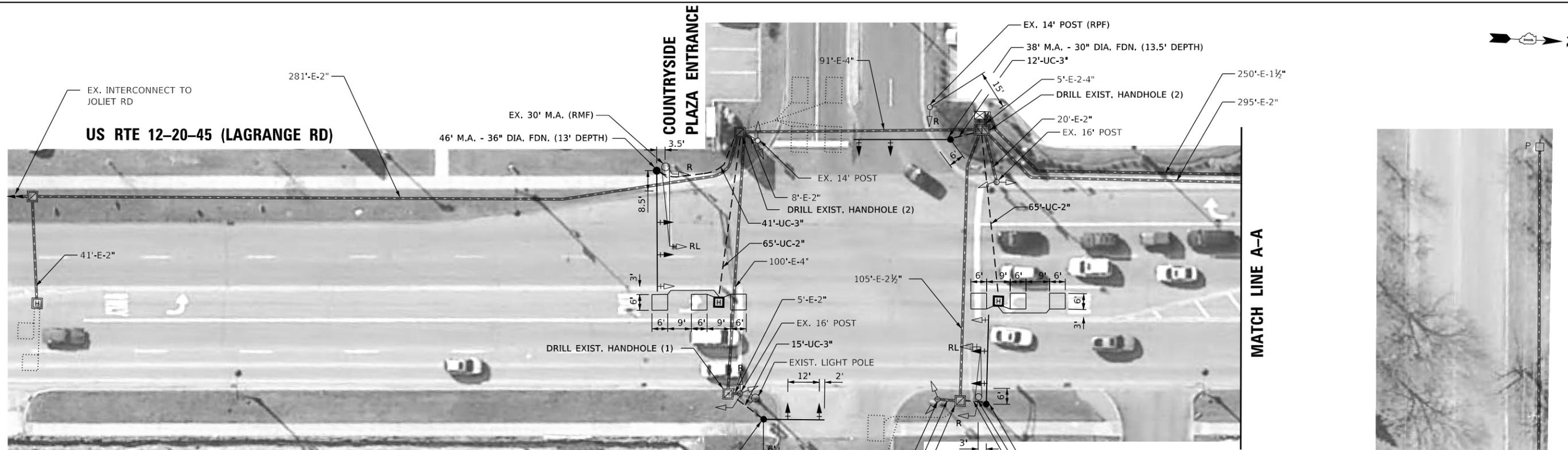
**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	6
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	119
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,965
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	190
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,015
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	77.1
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1

MODEL: D:\info\... FILE NAME: S:\XIP\Design\Ivan\MASTArm\Contract62G12 - June 2018\Ivan\MASTArm\Contract62G12-2ht-14.dgn

**TS 5070**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 5/4/2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES EAST AVE AT PLAINFIELD RD</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-001-T5	COOK	111	98	
PLOT DATE = 5/8/2018	CHECKED - LP	REVISED -			CONTRACT NO. 62G12					
	DATE - 3/15/2018	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
					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 CONTRACTOR'S BID PRICE.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH TRAFFIC SIGNAL POST
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH STREET NAME SIGN PANEL

MODEL: Default; FILE NAME: 201811151151W018-002-DCM\CADD\_Sheets\09\_0160G12-20-45\USRte12-20-45\CountrySidePlaza.dwg



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
DRAWN - NG	CHECKED - KP	REVISED -
PLOT SCALE = 40,0000 ' / in.	DATE - 3/23/2018	REVISED -
PLOT DATE = 5/7/2018		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
US RTE 12-20-45 (LAGRANGE RD) AT COUNTRYSIDE PLAZA ENTRANCE

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

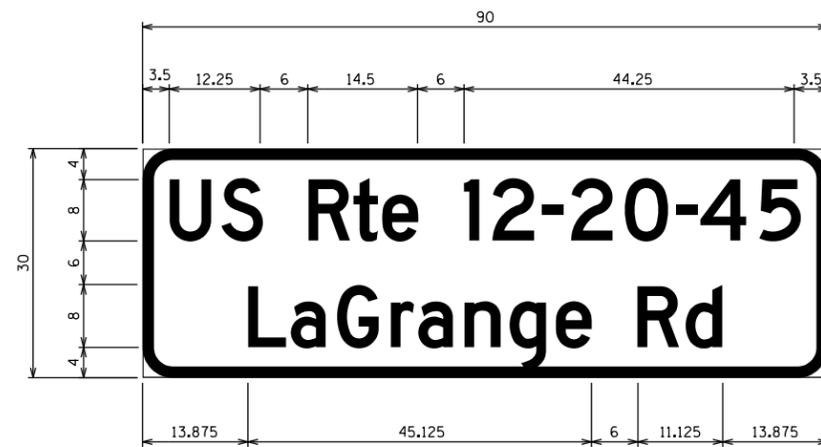
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	99
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G12	

TS 1055  
EAGLE 2B



**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ. FT.)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	18.75	2	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	37.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	130
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	78
HEAVY-DUTY HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1532
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	431
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	286
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	135
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
DETECTOR LOOP, TYPE 1	FOOT	201
RELOCATE EXISTING SIGNAL HEAD	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1015
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	51.4

MODEL: D:\m\h\... FILE NAME: 20181115\151\W018-002\DC\NCADD\_Sheets\10A\_D180G12-4\HT-5\USR012-20-45(LaGrangeRd) 31\_CountrySidePlaza\_Mast\_Arm\_Mounted & 500.dgn

**TS 1055  
EAGLE 2B**



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>			
<b>US RTE 12-20-45 (LAGRANGE RD) AT COUNTRYSIDE PLAZA ENTRANCE</b>			
SCALE: NTS	SHEET 1 OF 1	SHEETS STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	101
			CONTRACT NO. 62G12	
			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 CONTRACTOR'S BID PRICE.

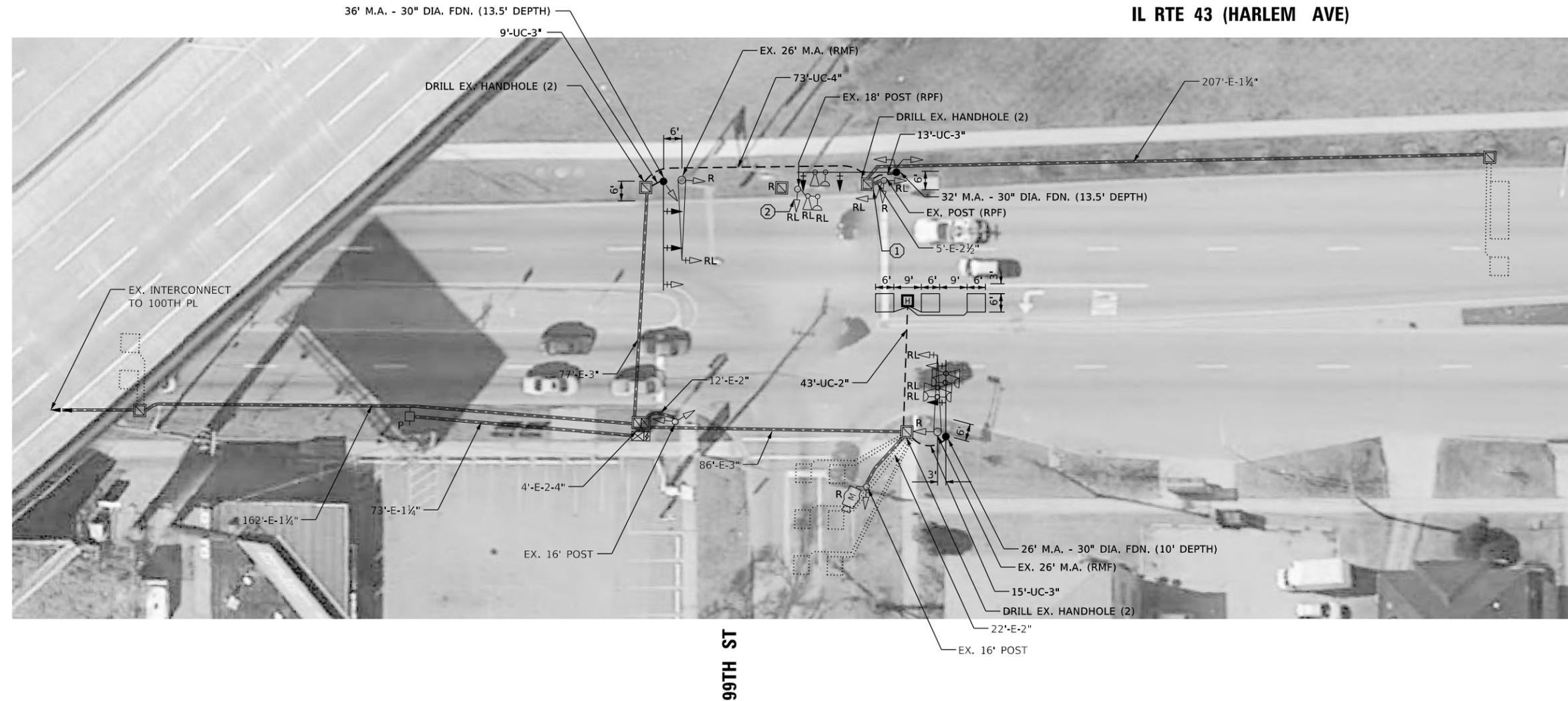
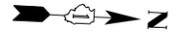
2	EACH	ALUMINUM MAST ARM ASSEMBLY AND POLE
2	EACH	TRAFFIC SIGNAL POST
2	EACH	3-SECTION SIGNAL HEAD
1	EACH	5-SECTION SIGNAL HEAD
1	EACH	MICROWAVE DETECTION SENSOR

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED, AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

2	EACH	CONFIRMATION BEACON
2	EACH	LIGHT DETECTOR
2	EACH	ILLUMINATED STREET NAME SIGN

## NOTES

- REMOVE AND REINSTALL LEAD-IN CABLE FOR SOUTH BOUND FAR BACK DETECTOR LOOPS.
- RELOCATE EXISTING 3-SECTION SIGNAL HEAD TO THE PROPOSED MAST ARM ON THE SW QUADRANT.



MODEL: Default  
FILE NAME: I:\1063.01\DMC\CADD\_Sheets\04\_D180G12-shr-Harlem at 99th.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN  
IL RTE 43 (HARLEM AVE) AT 99TH ST

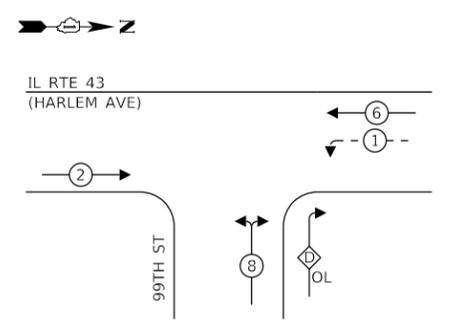
SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	102
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 2200  
ECON 66



**EXISTING CONTROLLER SEQUENCE**

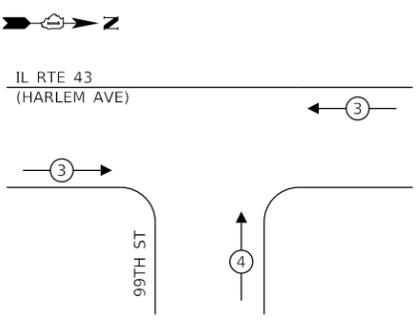


- LEGEND:**
- ←\*→ PROTECTED PHASE
  - ←\*- - - PROTECTED/PERMITTED PHASE
  - ←\*→ PEDESTRIAN PHASE
  - ←\*OL→ OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

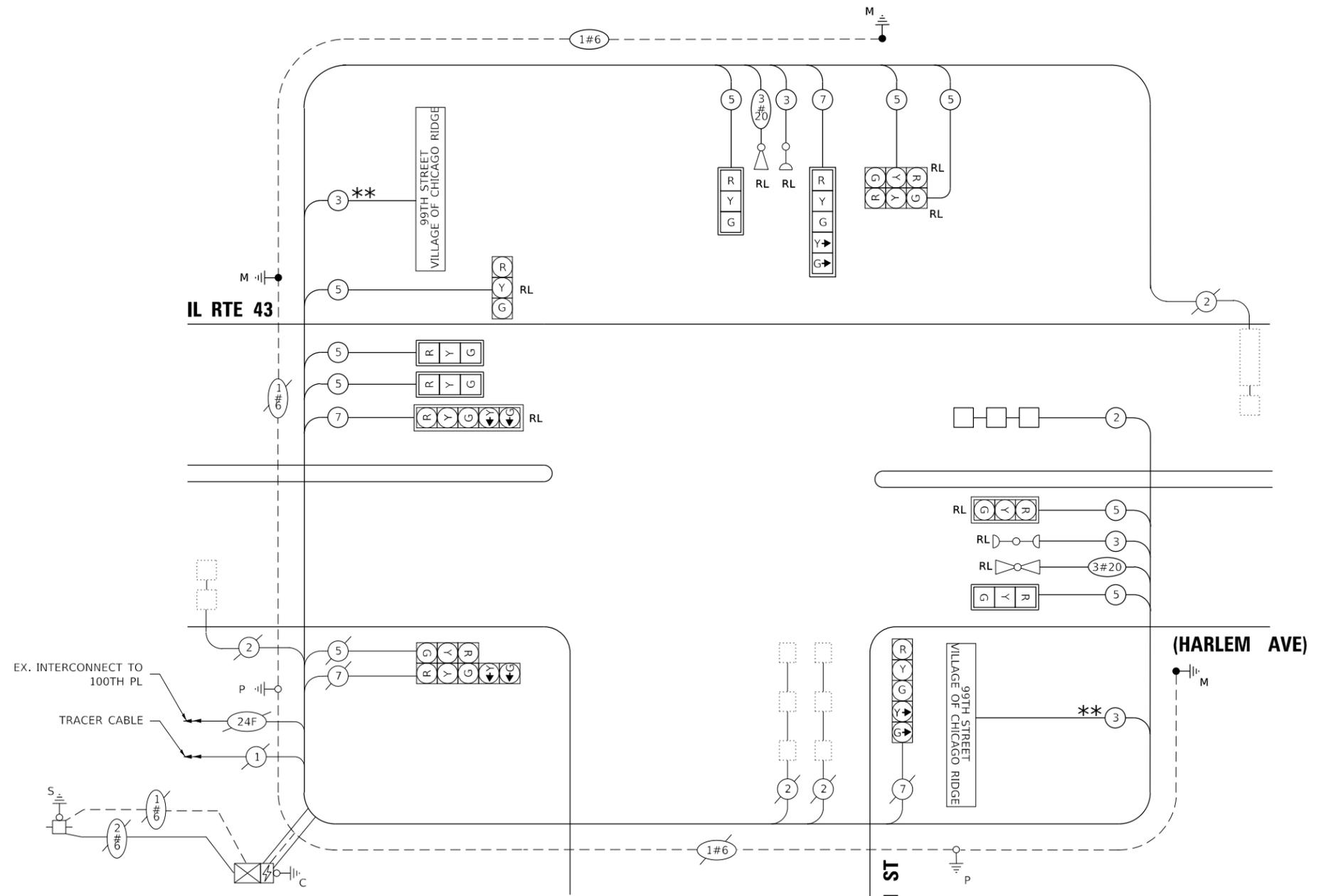
**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	2	120	50	120.0
LUMINAIRE	-	-	-	-
TOTAL =				407.7

ENERGY COSTS TO:  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/DISTRICT 1  
 201 WEST CENTER COURT/ SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN  
 PHONE: (708) 235-2692  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

\*\* PAID UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".  
 SEE SPECIAL PROVISION FOR CABLE TYPE.

MODEL: Default  
 FILE NAME: I:\1063.01\DMC\CADD\_Sheets\05\_D180612\_rts43\_99th.dgn  
 at: 99th Cable Plan.dgn



USER NAME = mgar/vida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 * / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL RTE 43 (HARLEM AVE) AT 99TH ST**

SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	103
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

**TS 2200  
 ECON 66**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	13.75	2	ZZ	1

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	13.75
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	43
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	37
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	73
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	429
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1478
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	416
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	164
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	151
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	5
DETECTOR LOOP, TYPE I	FOOT	101
RELOCATE EXISTING SIGNAL HEAD	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2000
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	190
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	429

MODEL: D:\default  
FILE NAME: 2111063.01\IGN\CADD\_Sheets\05A\_D160612-2111-Harlem\_at\_99th\_Cable\_Plan.dgn



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40.0001 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/8/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

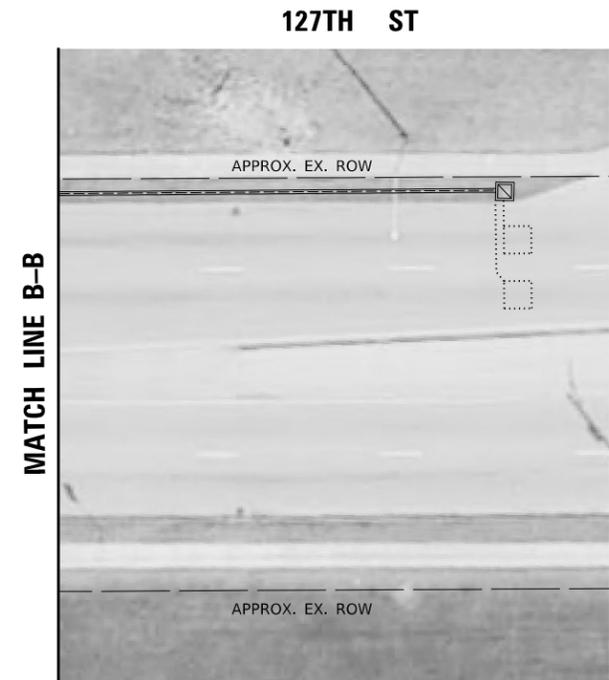
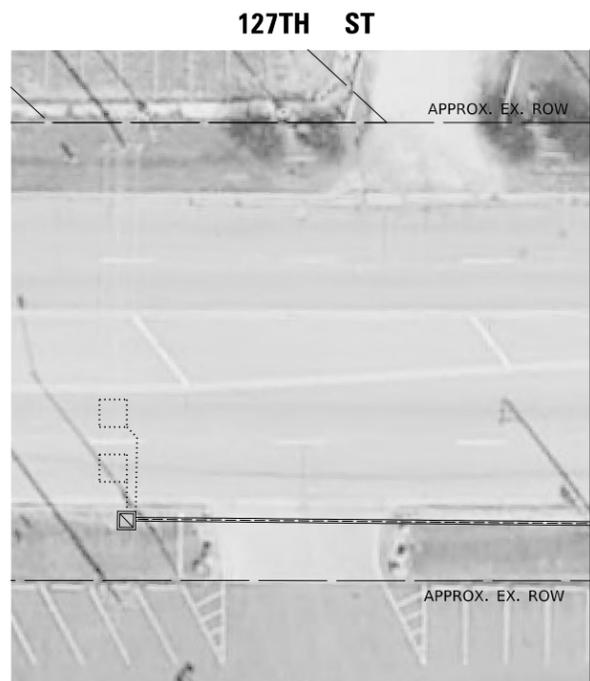
MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
IL RTE 43 (HARLEM AVE) AT 99TH ST

SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	103A
			CONTRACT NO. 62G12	
			ILLINOIS FED. AID PROJECT	

TS 2200  
ECON 66





MODEL: Default  
 FILE NAME: \\1063.011\GNC\ADD\_Sheets\02\_01\06012-sh-127th at Kedzie.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -

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

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODERNIZATION PLAN**  
**127TH ST AT KEDZIE AVE - SHEET 2 OF 2**

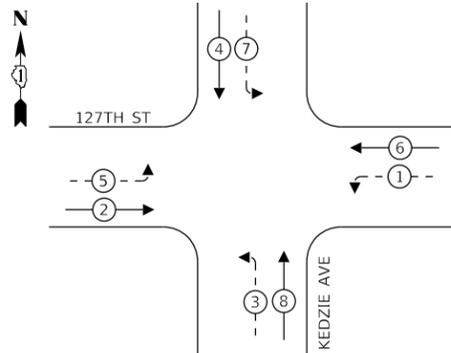
SCALE: 1"=20'      SHEET 2 OF 2 SHEETS      STA.      TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	105
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

**TS 3995**

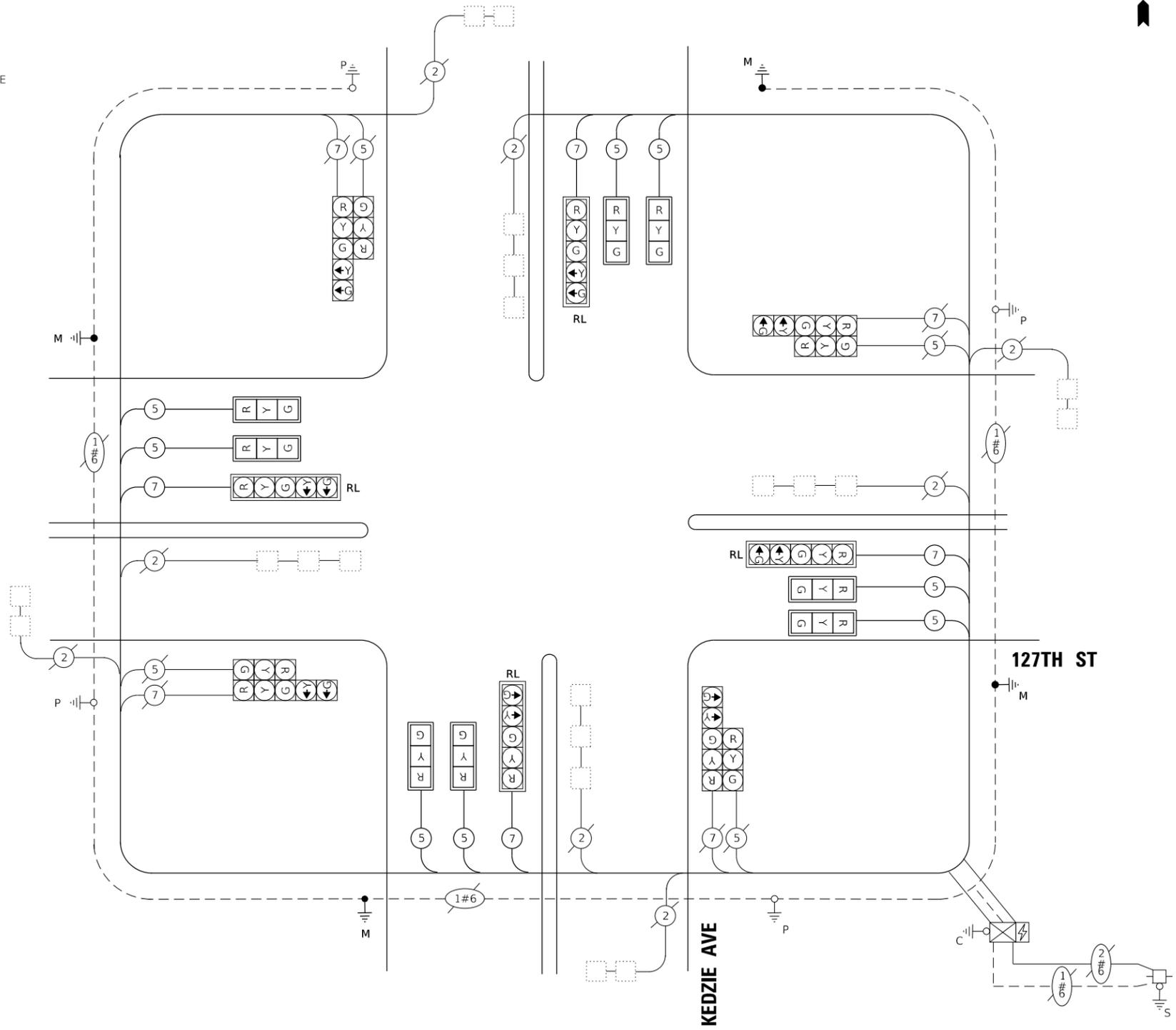


**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ - - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL OVERLAP



**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	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				379.0

ENERGY COSTS TO:  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/DISTRICT 1  
 201 WEST CENTER COURT/ SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY: CONTACT: VALERIE MURPHY  
 PHONE: 708-235-2346  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

MODEL: D:\draft\...  
 FILE NAME: 1111063.011DGN\CADD\_Sheets\03\_D180G12.rvt\127th at Kedzie Cable Plan.dwg



USER NAME = mgarivida	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/5/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
127TH ST AT KEDZIE AVE

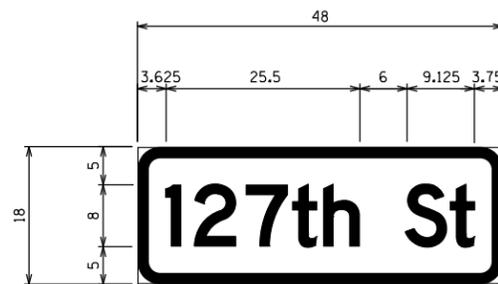
SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	106
CONTRACT NO. 62G12				
ILLINOIS FED. AID PROJECT				

TS 3995

**SIGN PANEL – TYPE 1**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6	1	ZZ	1

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	6.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	74
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1694
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	919
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	127
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1218
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY INFORMATION SIGNING	SQ FT	102.8

MODEL: Default  
FILE NAME: I:\1063.01\IGN\CADD\_Sheets\03A\_D166G12-2ht-127th at Kedzie\_Mast\_Arm\_Mounted & SQO.dgn



USER NAME = mgarvida	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/5/2018	DATE - 3/23/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
127TH ST AT KEDZIE AVE

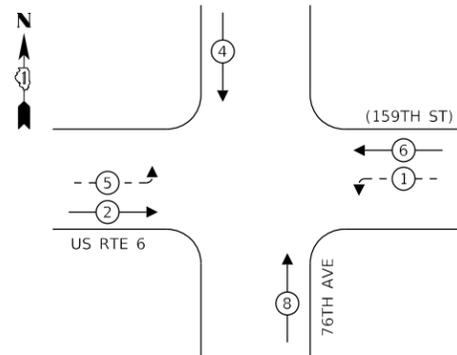
SCALE: 1 NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	107
			CONTRACT NO. 62G12	
		ILLINOIS	FED. AID PROJECT	

TS 3995



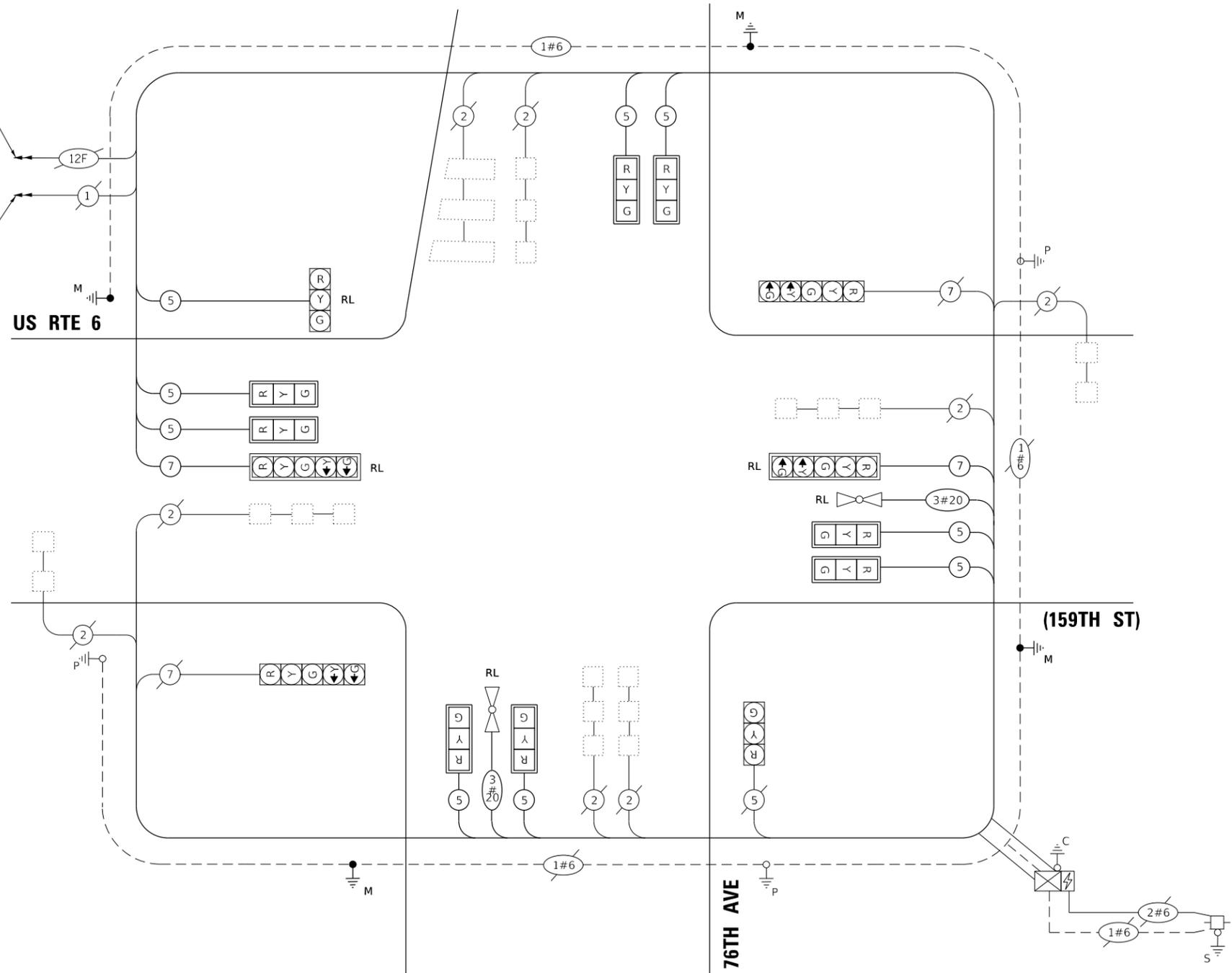
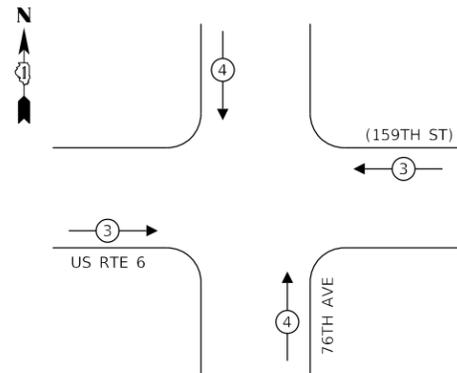
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL → OVERLAP

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN**  
(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				299.6

ENERGY COSTS TO:

**VILLAGE OF TINLEY PARK**

16250 OAK PARK AVE.  
TINLEY PARK, IL 60477

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

MODEL: D:\p\11\1153\W018-002\DC\G\CADD\_Sheets\16\_D160G12-INTS\16E\_1159PHS01.dwg 7/6/18 7:58 AM C:\K\K\_R\1153.dwg



USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
PLOT SCALE = 40,0000 ' / in.	DRAWN - NG	REVISED -
PLOT DATE = 5/7/2018	CHECKED - KP	REVISED -
	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US RTE 6 (159TH ST) AT 76TH AVE**

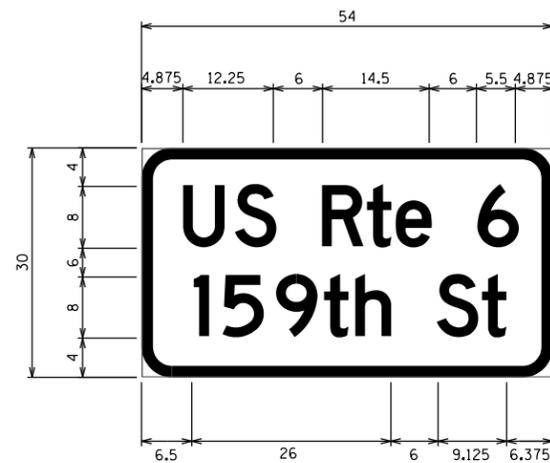
SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-001-T5	COOK	111	109
				CONTRACT NO. 62G12
ILLINOIS FED. AID PROJECT				

**TS 180  
EAGLE 3H**

**SIGN PANEL – TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	43
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	80
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1639
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	369
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	185
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	37
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	810
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	274

MODEL: Default  
FILE NAME: P:\1315\1315\W018-002\DC\DCADD\_Sheets\17\_D160G12-INTS-056 (159thSt) at 76th Ave Mast Arm Mounted & SQ.dgn

**TS 180  
EAGLE 3H**



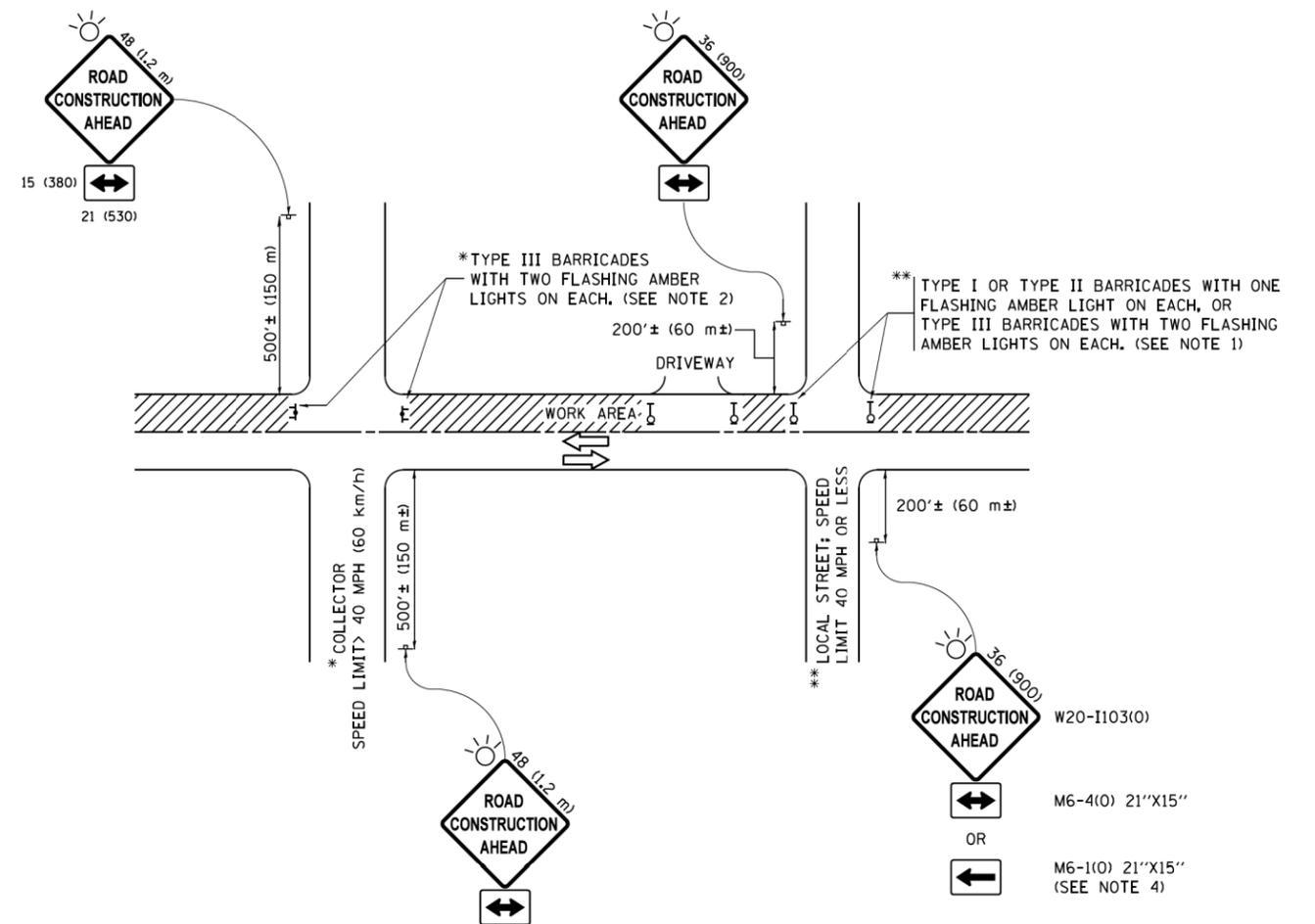
USER NAME = etchoi	DESIGNED - MG/EC	REVISED - 5/4/2018
	DRAWN - NG	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - KP	REVISED -
PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAST ARM MOUNTED STREET NAME SIGNS  
AND SCHEDULE OF QUANTITIES  
US RTE 6 (159TH ST) AT 76TH AVE**

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	110
			CONTRACT NO. 62G12	
		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.

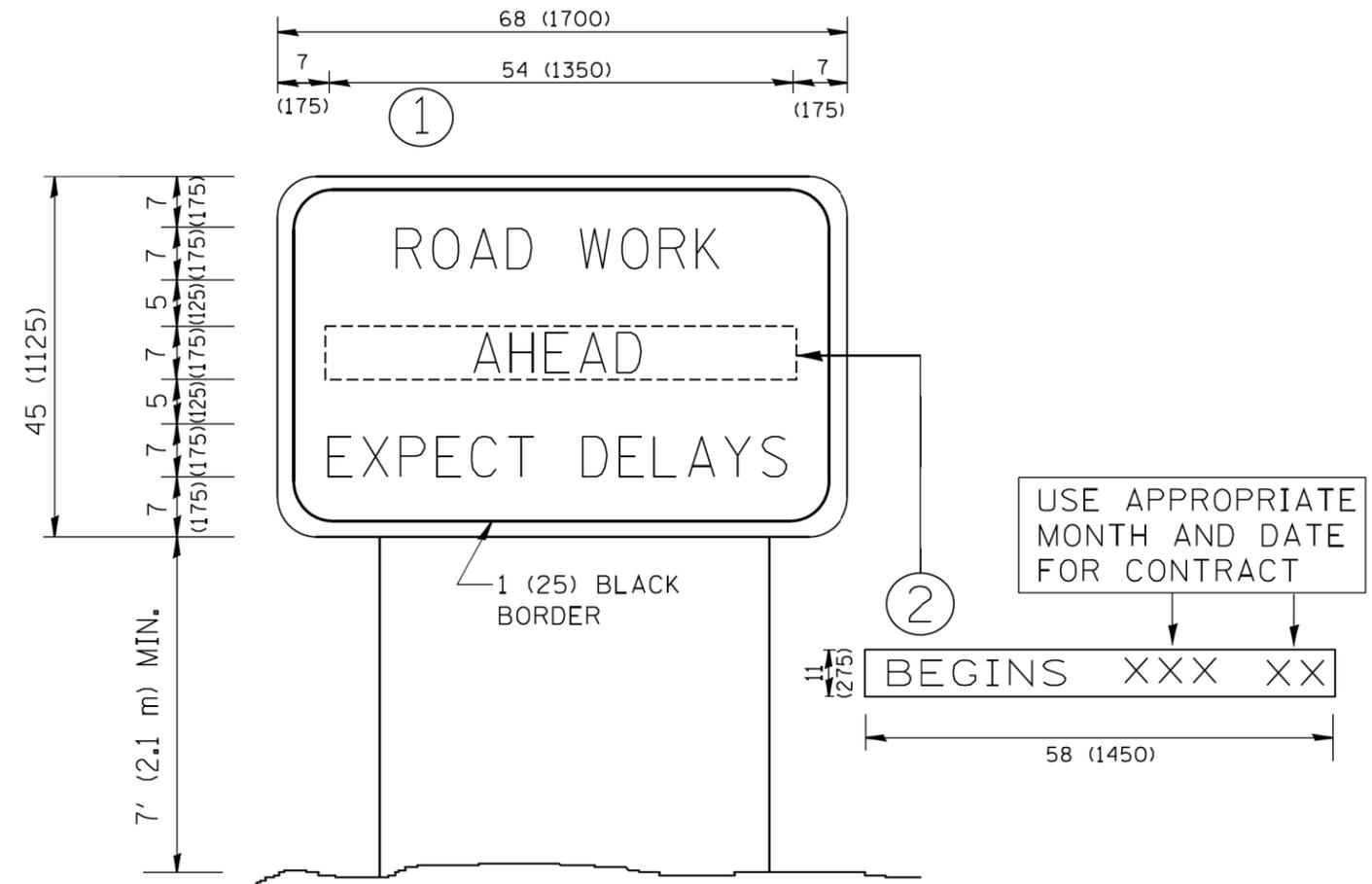
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		DRAWN - RG	REVISED -
	PLOT SCALE = 2,0000' / in.	CHECKED - ZH	REVISED -
	PLOT DATE = 5/7/2018	DATE - 3/23/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE    SHEET 1 OF 1 SHEETS    STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-TS	COOK	111	110A
TC-22		CONTRACT NO. 62G12		
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.

<b>DLZ</b>	USER NAME = _USERNAME_	DESIGNED - DW	REVISED -
		DRAWN - RG	REVISED -
	PLOT SCALE = 2.0000' / in.	CHECKED - ZH	REVISED -
	PLOT DATE = 3/23/2018	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

SCALE: NTS      SHEET 1 OF 1 SHEETS      STA.      TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-001-T5	COOK	111	111
TC-22		CONTRACT NO. 62G12		
ILLINOIS		FED. AID PROJECT		