

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

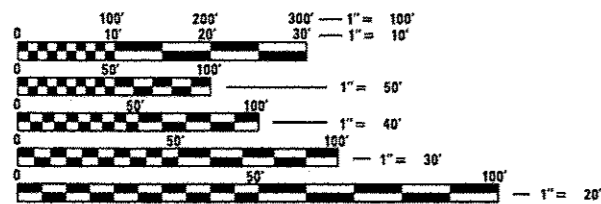
**PROPOSED  
HIGHWAY PLANS**

**VARIOUS LOCATIONS IN SOUTH COOK COUNTY #7  
LIGHT EMITTING DIODE (LED) INSTALLATION  
SECTION 2014-044TS  
COOK COUNTY**

C-91-380-14

**HIGHWAY STANDARDS**

- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701101-04 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701701-09 URBAN LANE CLOSURE MULTILANE INTERSECTION
- 701901-03 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DEVICES
- 720006-04 SIGN PANEL ERECTION DETAILS
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

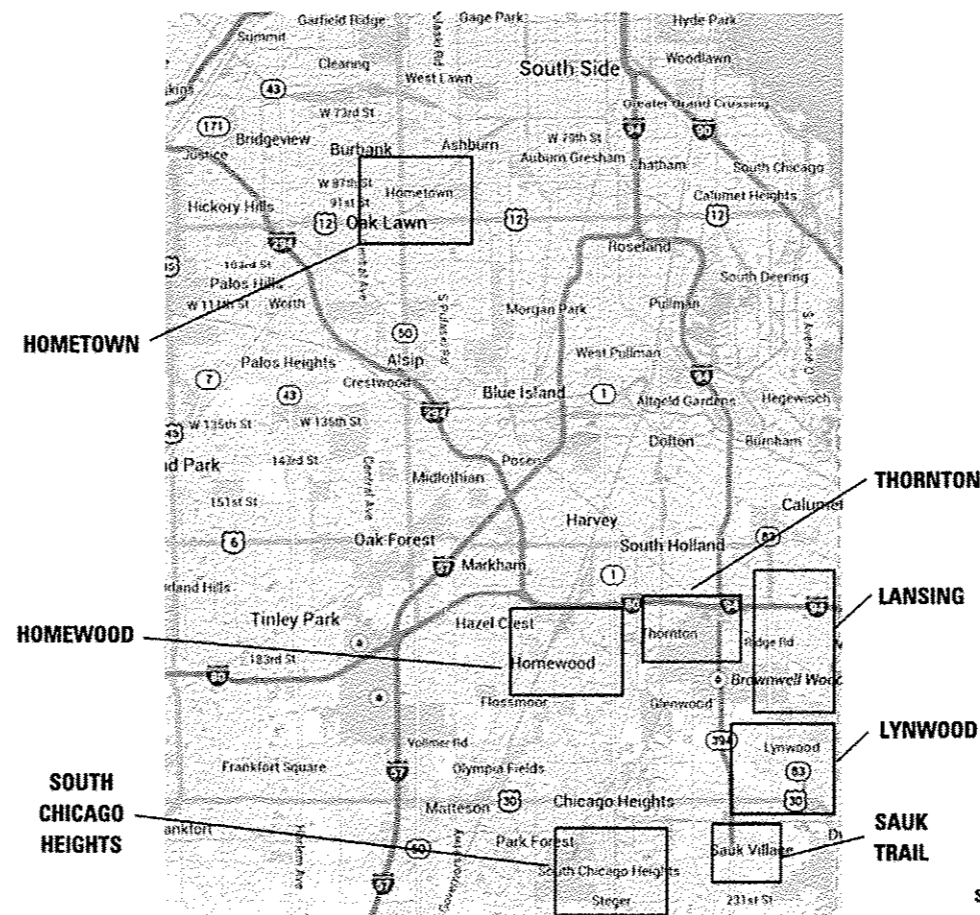


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: SHAR-DAY SMITH  
PROJECT MANAGER: DARYLE DREW

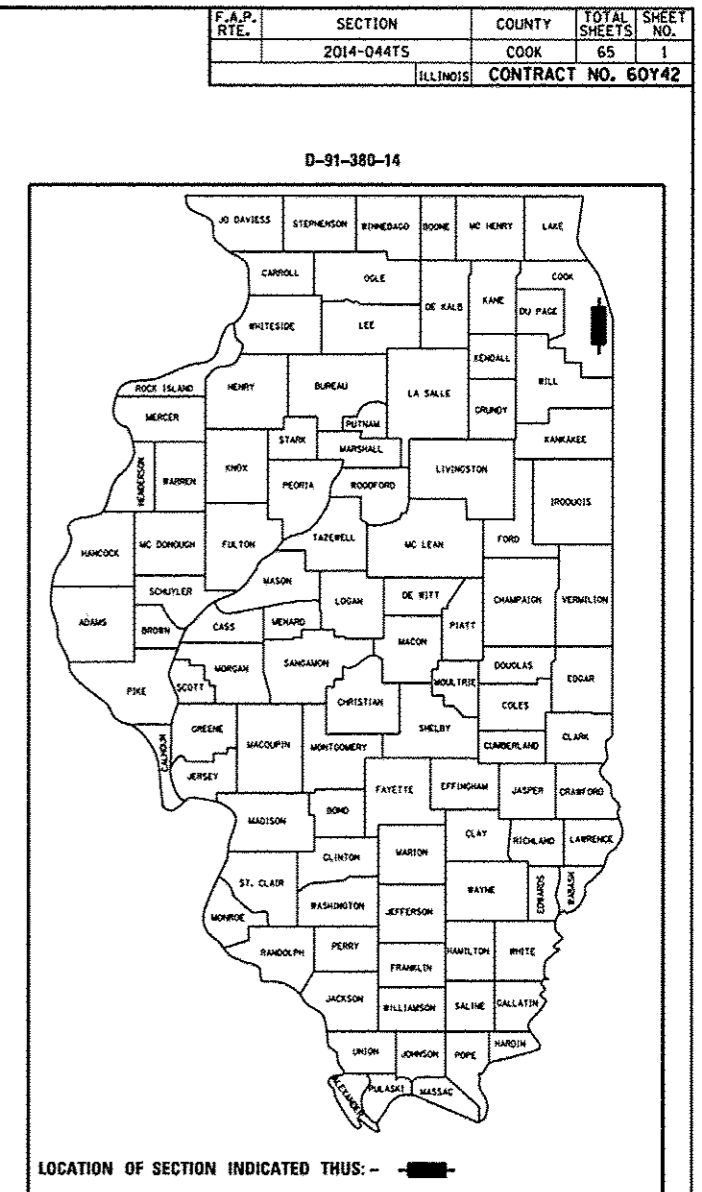
CONTRACT NO. 60Y42



COOK COUNTY  
LOCATION MAP  
SEE SHEET NO. 3



SIGNED: *Isaac Yun*  
ISAAC YUN, P.E. 062-062257  
EXP. 11-30-2015  
DATE: 7/11/2014



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED: July 11, 2014  
*John D. Baranzelli*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 15, 2014  
*John D. Baranzelli, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

Aug 15, 2014  
*Orin Osman, P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS



**INDEX OF SHEETS**

- 1 COVER SHEET
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- 9-15 DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

TRAFFIC SIGNAL PLANS:

SHEET#	TS#	INTERSECTION NAME
16	2540	IL ROUTE 50 (CICERO AVENUE) AT 88TH AVENUE
17	4090	DIXIE HIGHWAY AT 175TH STREET/GOVERNORS HIGHWAY
18	1880	IL ROUTE 1 (HALSTED STREET) AT 175TH STREET
19	12115	IL ROUTE 1 (HALSTED STREET) AT PARK PLACE PLAZA/176TH STREET
20	1875	IL ROUTE 1 (HALSTED STREET) AT MAPLE GATE 3
21	10740	DIXIE HIGHWAY AT RIDGE ROAD
22	5695	RIDGE ROAD AT ASHLAND AVENUE/RIEGEL ROAD
23	1855	IL ROUTE 1 (HALSTED STREET) AT RIDGE ROAD
24	4100	183RD STREET AT GOVERNORS HIGHWAY
25	11145	183RD STREET AT DIXIE HIGHWAY
26	4110	183RD STREET AT RIEGEL ROAD
27	1830	IL ROUTE 1 (HALSTED STREET) AT 183RD STREET
28	10745	DIXIE HIGHWAY AT WILLOW ROAD
29	10730	187TH STREET AT DIXIE HIGHWAY
30	10735	187TH STREET AT RIEGEL ROAD
31	1840	IL ROUTE 1 (HALSTED STREET) AT 187TH STREET
32-33	11360	WILLIAMS STREET AT ELEANOR STREET
34-35	11355	MARGARET STREET AT WILLIAMS STREET
36	11356	MARGARET STREET AT SCHWAB STREET
37	3519	THORNTON/LANSING ROAD AT VOLBRECHT ROAD
38	20955	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT 186TH STREET/FIELDCREST DRIVE
39	11350	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT LANDINGS SHOPPING CENTER
40	12000	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT 173RD STREET/BERNICE ROAD
41	13942	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT I-80/I-94 KINGERY EXPRESSWAY
42	21340	IL ROUTE 83 (TORRENCE AVENUE) AT 176TH STREET
43	13940	IL ROUTE 83 (TORRENCE AVENUE) AT 178TH STREET
44	3515	IL ROUTE 83 (TORRENCE AVENUE) AT THORNTON LANSING ROAD
45-46	3495	IL ROUTE 83 (TORRENCE AVENUE) AT RIDGE ROAD
47	5380	IL ROUTE 83 (TORRENCE AVENUE) AT 186TH STREET
48	21185	IL ROUTE 83 (TORRENCE AVENUE) AT GLENWOOD LANSING ROAD
49	4230	BURNHAM AVENUE AT 170TH STREET
50	13950	BURNHAM AVENUE AT 172ND STREET
51	13955	BURNHAM AVENUE AT BERNICE ROAD
52	13960	BURNHAM AVENUE AT 178TH STREET
53	4235	BURNHAM AVENUE AT RIDGE ROAD
54	13965	BURNHAM AVENUE AT 186TH STREET
55	21385	191ST STREET AT BURNHAM AVENUE
56	13970	WENTWORTH AVENUE AT BERNICE ROAD
57	21090	GLENWOOD DYER ROAD AT STONEY ISLAND AVENUE
58	21500	IL ROUTE 83 (GLENWOOD DYER ROAD) AT BURNHAM AVENUE
59	1340	US ROUTE 30 (LINCOLN HIGHWAY) AT US ROUTE 30/IL ROUTE 83 (GLENWOOD DYER ROAD)
60	1405	US ROUTE 30/IL ROUTE 83 (LINCOLN HIGHWAY) AT SAUK TRAIL
61	1415	US ROUTE 30 (LINCOLN HIGHWAY) AT TORRENCE AVENUE
62	5760	SAUK TRAIL AT TORRENCE AVENUE
63	1860	IL ROUTE 1 (CHICAGO ROAD) AT SAUK TRAIL
64	5075	EAST END AVENUE AT SAUK TRAIL
65	5755	SAUK TRAIL AT STATE ROAD

**GENERAL NOTES:**

1. ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SSRBC), AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS; ADOPTED JANUARY 1, 2014 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND ALL AMENDMENTS THERE TO; IN CASE OF CONFLICT, THE MORE RESTRICTIVE PROVISIONS SHALL APPLY. ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT.
2. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES, AND IDOT.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
5. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC., SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY, AT THE CONCLUSION OF CONSTRUCTION OPERATIONS. ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
6. THE CONTRACTOR SHALL NOTIFY THE IDOT ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
7. THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
8. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ADJUTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT OR THE DIRECTION OF THE ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.
10. RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS SIGNAL POST, UNINTERRUPTIBLE POWER SUPPLY, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD IN ACCORDANCE TO STANDARD SPECIFICATIONS ARTICLE 252 WHICH SHALL INCLUDE THE REQUIRED WATERING PER ARTICLE 252.08. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 250 AND 251, RESPECTIVELY.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
12. 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, CALL DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
13. AT LOCATIONS ON THE PLANS WHERE TRAFFIC SIGNAL POST REMOVAL AND NEW TRAFFIC SIGNAL POST INSTALLATIONS ARE SPECIFIED, THE CONTRACTOR SHALL INSPECT THE EXISTING POST FOUNDATION. PRIOR TO REMOVING THE EXISTING TRAFFIC SIGNAL POST TO BE REPLACED, 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 BOLTS AS DIRECTED BY THE ENGINEER. ANCHOR BOLT REPLACEMENT WILL BE PAID FOR AS "REMOVE AND REPLACE ANCHOR BOLTS." "REMOVE AND REPLACE ANCHOR BOLTS" PAY ITEMS QUANTITIES SHOWN ARE NOMINAL AND ONLY TO BE UTILIZED AS APPROVED BY THE ENGINEER.

14. THE CONTRACTOR SHALL RELOCATE ANY EXISTING SIGN PANELS, INCLUDING BLANK OUT SIGNS, FROM PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT TO A NEW POST AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION, AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE PAY ITEM OF THE LENGTH AS SPECIFIED IN THE PLANS.

15. CONTRACTOR SHALL REPLACE METAL MOUNTING BRACKETS AT ALL RETROFIT SIGNAL HEADS WITH NEW POLYCARBONATE BRACKETS OR AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CORRESPONDING SIGNAL HEAD, LED, RETROFIT PAY ITEM OF THE TYPE AND NUMBER OF SIGNAL HEADS, FACES, AND SECTIONS AS SPECIFIED IN THE PLANS.

16. PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

17. A CONCRETE APRON SHALL NOT BE REQUIRED FOR NEW UPS INSTALLATIONS ADJACENT TO EXISTING IMPERVIOUS SURFACES THAT SATISFY THE NEED OF THE CONCRETE APRON, AS DIRECTED BY THE ENGINEER.

18. FOR THE FOLLOWING TS LOCATIONS, DUE TO THE PRESENCE OF RED LIGHT RUNNING (RLR) CAMERA COMPANY WITHIN THE PROJECT LIMITS, THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITIES AND RLR CAMERA COMPANIES LISTED BELOW PRIOR TO THE START OF CONSTRUCTION. THE MUNICIPALITIES AND RLR CAMERA COMPANIES 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 LOCATIONS:

1880 IL ROUTE 1 (HALSTED STREET) AT 175TH STREET  
 1830 IL ROUTE 1 (HALSTED STREET) AT 183RD STREET  
 1855 IL ROUTE 1 (HALSTED STREET) AT RIDGE ROAD  
 4100 183RD STREET AT GOVERNORS HIGHWAY

VILLAGE OF HOMEWOOD  
 2020 CHESTNUT ROAD  
 HOMEWOOD, IL 60430  
 (708) 798-3000

GATSO USA, INC.  
 8361 E. EVANS ROAD  
 SUITE 108  
 SCOTTSDALE, AZ 85260  
 (978) 922-7294  
 (480) 205-7180

RLR CAMERA LOCATIONS:

1860 IL ROUTE 1 (CHICAGO ROAD) AT SAUK TRAIL  
 5755 SAUK TRAIL AT STATE ROAD

VILLAGE OF SOUTH CHICAGO HEIGHTS  
 3317 CHICAGO ROAD  
 SOUTH CHICAGO HEIGHTS, IL 60411  
 (708) 755-1880  
 (708) 755-1881

REDSPEED ILLINOIS  
 400 EISENHOWER LANE NORTH  
 LOMBARD, IL 60148  
 (630) 317-5700  
 (630) 424-0217

RLR CAMERA LOCATIONS:

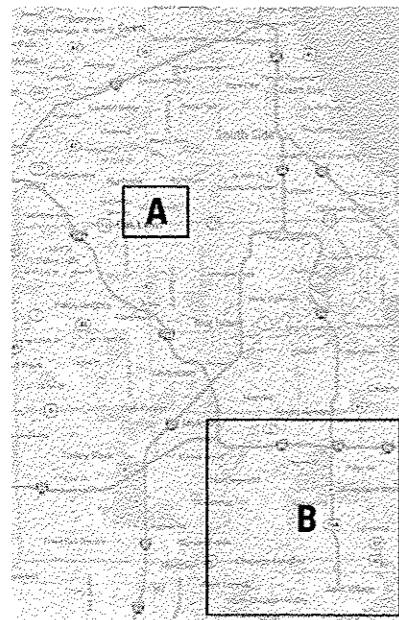
1340 US ROUTE 30 (LINCOLN HIGHWAY) AT  
 US ROUTE 30/IL ROUTE 83 GLENWOOD-DYER ROAD  
 1405 US ROUTE 30/IL ROUTE 83 (LINCOLN HIGHWAY) AT SAUK TRAIL

VILLAGE OF LYNWOOD  
 21460 LINCOLN HIGHWAY  
 LYNWOOD, IL 60411  
 (708) 758-6101

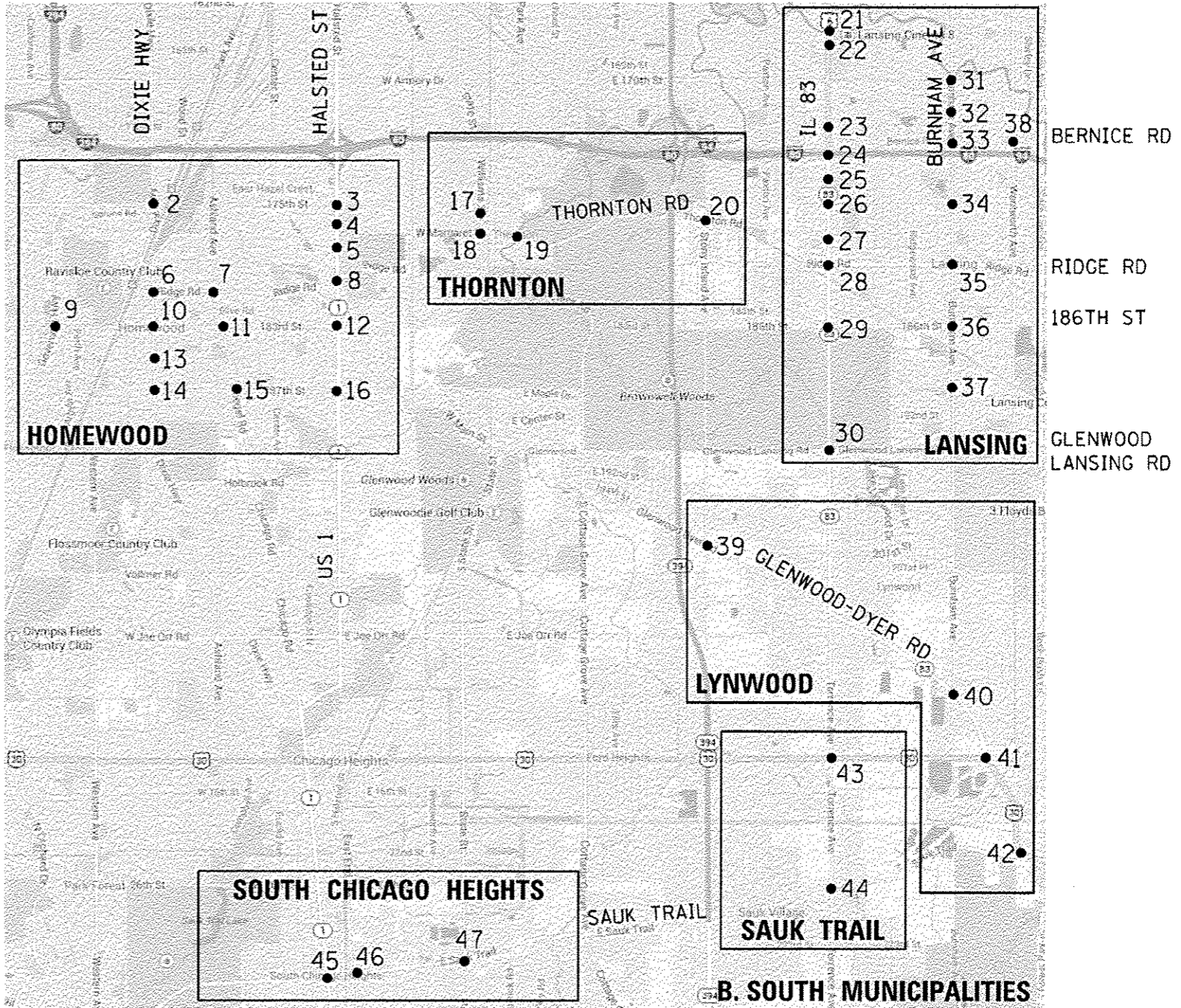
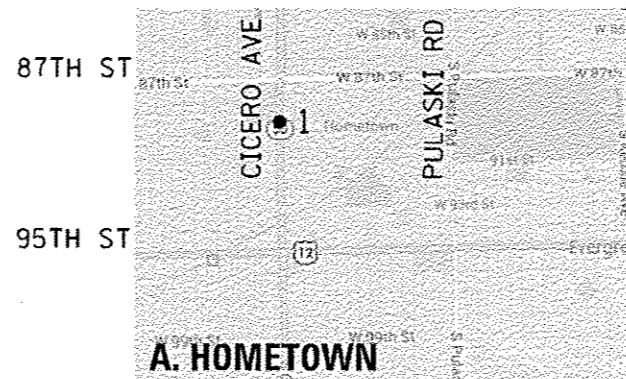
REDSPEED ILLINOIS  
 400 EISENHOWER LANE NORTH  
 LOMBARD, IL 60148  
 (630) 317-5700  
 (630) 424-0217

FILE NAME *	USER NAME * USER	DESIGNED - V.O.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 7/19/2014	DATE - 7/11/2014	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							
				SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A					

LOC. NO.	SHT. NO.	IS#	INTERSECTION NAME
1	16	2540	IL ROUTE 50 (CICERO AVENUE) AT 88TH AVENUE
2	17	4090	DIXIE HIGHWAY AT 175TH STREET/GOVERNORS HIGHWAY
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5	20	1875	IL ROUTE 1 (HALSTED STREET) AT MAPLE GATE 3
6	21	10740	DIXIE HIGHWAY AT RIDGE ROAD
7	22	5695	RIDGE ROAD AT ASHLAND AVENUE/RIEDEL ROAD
8	23	1855	IL ROUTE 1 (HALSTED STREET) AT RIDGE ROAD
9	24	4100	183RD STREET AT GOVERNORS HIGHWAY
10	25	11145	183RD STREET AT DIXIE HIGHWAY
11	26	4110	183RD STREET AT RIEDEL ROAD
12	27	1830	IL ROUTE 1 (HALSTED STREET) AT 183RD STREET
13	28	10745	DIXIE HIGHWAY AT WILLOW ROAD
14	29	10730	187TH STREET AT DIXIE HIGHWAY
15	30	10735	187TH STREET AT RIEDEL ROAD
16	31	1840	IL ROUTE 1 (HALSTED STREET) AT 187TH STREET
17	32-33	11360	WILLIAMS STREET AT ELEANOR STREET
18	34-35	11355	MARGARET STREET AT WILLIAMS STREET
19	36	11356	MARGARET STREET AT SCHWAB STREET
20	37	3519	THORNTON/LANSING ROAD AT VOLBRECHT ROAD
21	38	20955	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT 166TH STREET/FIELDCREST DRIVE
22	39	11350	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT LANDINGS SHOPPING CENTER
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28	45-46	3495	IL ROUTE 83 (TORRENCE AVENUE) AT RIDGE ROAD
29	47	3380	IL ROUTE 83 (TORRENCE AVENUE) AT 186TH STREET
30	48	21185	IL ROUTE 83 (TORRENCE AVENUE) AT GLENWOOD LANSING ROAD
31	49	4230	BURNHAM AVENUE AT 170TH STREET
32	50	13950	BURNHAM AVENUE AT 172ND STREET
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**SOUTH COOK COUNTY**



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				SCALE: NTS		SHEET NO. 1 OF 1 SHEETS		STA. N/A TO STA. N/A		

SUMMARY OF QUANTITIES HEADING LEGEND

COLUMN NUMBER	TS*	INTERSECTION NAME	FUNDING PARTICIPATION													
			STATE	HOMEWOOD	GLENWOOD	THORNTON	LANSING	Chicago Heights	ROBIN REALTY & MANAGEMENT CO	PARK PLACE PLAZA	FURNB 2000 C-2 TORRENCE RETAIL LLC	K MART CORP.				
2	2540	IL ROUTE 50 (CICERO AVENUE) AT 88TH AVENUE	95.0%							5.0%						
1	4090	DIXIE HIGHWAY AT 175TH STREET/GOVERNORS HIGHWAY	100.0%													
3	1880	IL ROUTE 1 (HALSTED STREET) AT 175TH STREET	95.0%	5.0%												
4	12115	IL ROUTE 1 (HALSTED STREET) AT PARK PLACE PLAZA/176TH STREET	95.0%								2.5%		2.5%			
3	1875	IL ROUTE 1 (HALSTED STREET) AT MAPLE GATE 3	95.0%	5.0%												
1	10740	DIXIE HIGHWAY AT RIDGE ROAD	100.0%													
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3	10735	187TH STREET AT RIEGEL ROAD	95.0%	5.0%												
5	1840	IL ROUTE 1 (HALSTED STREET) AT 187TH STREET	95.0%	2.5%	2.5%											
6	11360	WILLIAMS STREET AT ELEANOR STREET	97.5%			2.5%										
1	11355	MARGARET STREET AT WILLIAMS STREET	100.0%													
1	11356	MARGARET STREET AT SCHWAB STREET	100.0%													
7	3519	THORNTON/LANSING ROAD AT VOLBRECHT ROAD	95.0%				5.0%									
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8	11350	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT LANDINGS SHOPPING CENTER	95.0%									5.0%				
7	12000	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT 173RD STREET/BERNICE ROAD	95.0%				5.0%									
1	13942	US ROUTE 6/IL ROUTE 83 (TORRENCE AVENUE) AT I-80/I-94 KINGERY EXPRESSWAY	100.0%													
7	21340	IL ROUTE 83 (TORRENCE AVENUE) AT 176TH STREET	95.0%				5.0%									
7	13940	IL ROUTE 83 (TORRENCE AVENUE) AT 178TH STREET	95.0%				5.0%									
9	3515	IL ROUTE 83 (TORRENCE AVENUE) AT THORNTON LANSING ROAD	97.5%				2.5%									
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7	13955	BURNHAM AVENUE AT BERNICE ROAD	95.0%				5.0%									
7	13960	BURNHAM AVENUE AT 178TH STREET	95.0%				5.0%									
7	4235	BURNHAM AVENUE AT RIDGE ROAD	95.0%				5.0%									
1	13965	BURNHAM AVENUE AT 186TH STREET	100.0%													
7	21385	191ST STREET AT BURNHAM AVENUE	95.0%				5.0%									
7	13970	WENTWORTH AVENUE AT BERNICE ROAD	95.0%				5.0%									
1	21090	GLENWOOD DYER ROAD AT STONEY ISLAND AVENUE	100.0%													
1	21500	IL ROUTE 83 (GLENWOOD DYER ROAD) AT BURNHAM AVENUE	100.0%													
1	1340	US ROUTE 30 (LINCOLN HIGHWAY) AT US ROUTE 30/IL ROUTE 83 (GLENWOOD DYER ROAD)	100.0%													
1	1405	US ROUTE 30/IL ROUTE 83 (LINCOLN HIGHWAY) AT SAUK TRAIL	100.0%													
1	1415	US ROUTE 30 (LINCOLN HIGHWAY) AT TORRENCE AVENUE	100.0%													
1	5760	SAUK TRAIL AT TORRENCE AVENUE	100.0%													
1	1860	IL ROUTE 1 (CHICAGO ROAD) AT SAUK TRAIL	100.0%													
10	5075	EAST END AVENUE AT SAUK TRAIL	97.5%				2.5%									
1	5755	SAUK TRAIL AT STATE ROAD	100.0%													

Rev.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																
				1	2	3	4	5	6	7	8	9	10							
				TRAFFIC SIGNAL																
				0021																
				URBAN																
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3																
67100100	MOBILIZATION	L SUM	1	1																
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	47	18	1	8	1	2	1	11	2	2	1							
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	2			2														
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1			1														
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1			1														
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	18	1	2	4		2		5	4									
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	46	11	1	19	4	3			4	4								
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	42	5	2	19	4			2	10									
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	21	6	3	1		3		4	4									
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	23	3	1	10	4	1		1	3									
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	28	3	2	11	4	2		2	4									
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5			4		1												

14

• SPECIAL PROVISIONS

FILE NAME *	USER NAME * USER.	DESIGNED - V.O.	REVISED -	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	<p align="center"><b>SUMMARY OF QUANTITIES</b></p>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
J:\13185\60Y42\00HV\CADD Sheets\0160Y42	nt-50082.dgn	DRAWN - E.C.	REVISED -					2014-044TS	COOK	65	5	
PLOT SCALE = 1/8" = 1'	CHECKED - I.Y.	REVISED -						CONTRACT NO. 60Y42				
PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -						ILLINOIS FED. AID PROJECT				
				SCALE: NTS	SHEET NO. 2 OF 5 SHEETS	STA. N/A	TO STA. N/A					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																
				1	2	3	4	5	6	7	8	9	10							
				TRAFFIC SIGNAL																
				0021																
URBAN																				
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1																	
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	8		1	3		3							1					
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1																1	
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4																4	
88055190	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1																1	
88060390	COMBINATION SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 2-3 SECTION, BRACKET MOUNTED	EACH	2																2	
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	8																8	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	120	34	2	20	4	4							50				6	
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4	4																
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	22	14		1									5				2	
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	74	8	4	30	8	2							8	14				
88500100	INDUCTIVE LOOP DETECTOR	EACH	17			17														
88800100	PEDESTRIAN PUSH-BUTTON	EACH	96	6	2	22	4	4		8	46								4	
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	38	9		12									9				8	

• SPECIAL PROVISIONS

FILE NAME * J:\13155\68742\DD\4000 Sheets\0168742	USER NAME * _USER_ s-k-50083.dgn	DESIGNED - V.O. DRAWN - E.C.	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.P. RTE.	SECTION 2014-044TS	COUNTY COOK	TOTAL SHEETS 65	SHEET NO. 6
PLOT SCALE = 1:8000 ' / in.	CHECKED - I.Y.	REVISIED -	REVISIED -		SCALE: NTS	SHEET NO. 3	OF 5 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 60Y42			
PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISIED -	REVISIED -		ILLINOIS FED. AID PROJECT								

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE															
				1	2	3	4	5	6	7	8	9	10						
				TRAFFIC SIGNAL															
				0021															
URBAN																			
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	7			7													
• 89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	34	15	1	5	1	2		5	2	2	1						
• 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	34	10	1	6	1	1	1	10	2	2							
• X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1			1													
• X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	37	15	1	8	1	2		5	2	2	1						
• X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	11	6						2		3							
• X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	7	3						1		1	2						
• X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	26	19						1			6						
• X8803086	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED, RETROFIT	EACH	7	7															
• X8803087	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, SPAN WIRE MOUNTED, RETROFIT	EACH	4	4															
• X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	24	15						3		4	2						
• X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2	2															
• X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	17	11						3		1	2						
• X8803910	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED RETROFIT	EACH	1										1						

• SPECIAL PROVISIONS

FILE NAME * J:\13\55\68\42\DDM\CA00 Sheets\0168\42	USER NAME * _USER_ ht-50084.dgn	DESIGNED - V.O. DRAWN - E.C. CHECKED - I.Y. DATE - 7/11/2014	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.P. RTE.	SECTION 2014-044TS	COUNTY COOK	TOTAL SHEETS 65	SHEET NO. 7
					SCALE: NTS	SHEET NO. 4 OF 5 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 60Y42 ILLINOIS FED. AID PROJECT			





# TRAFFIC SIGNAL LEGEND

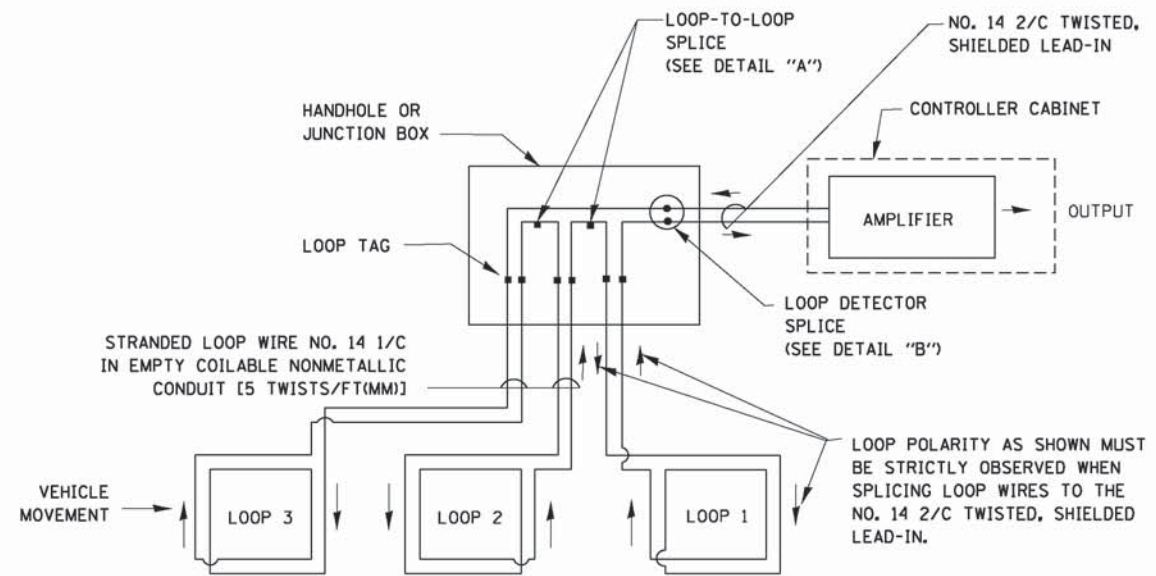
ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED QUEUE DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL							
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED							
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID							
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER							
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT							
DETECTOR LOOP, TYPE I				RADIO REPEATER							
PREFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED							
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

## RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

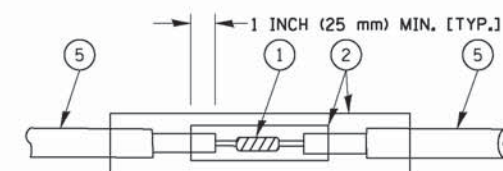
**LOOP DETECTOR NOTES**

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.

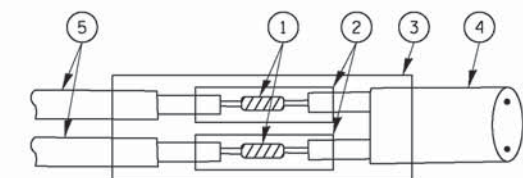


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.



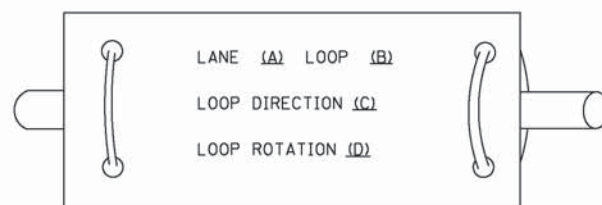
DETAIL "A"  
LOOP-TO-LOOP SPLICE



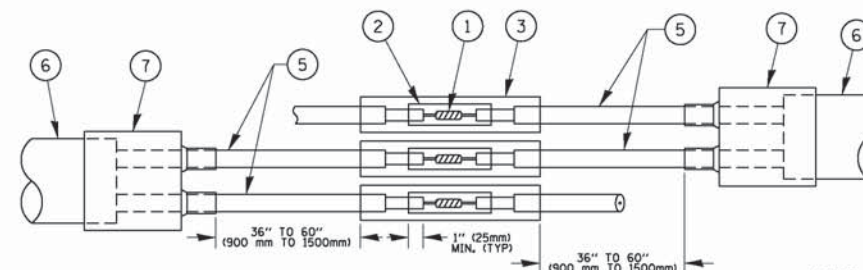
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**

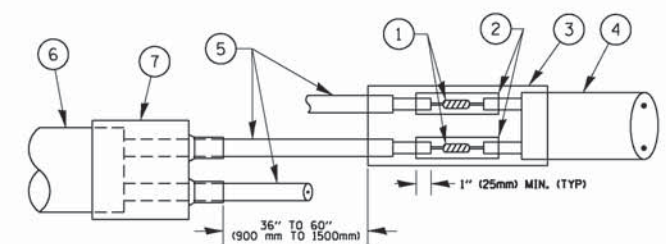
**LOOP LEAD-IN CABLE TAG**



- 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.



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

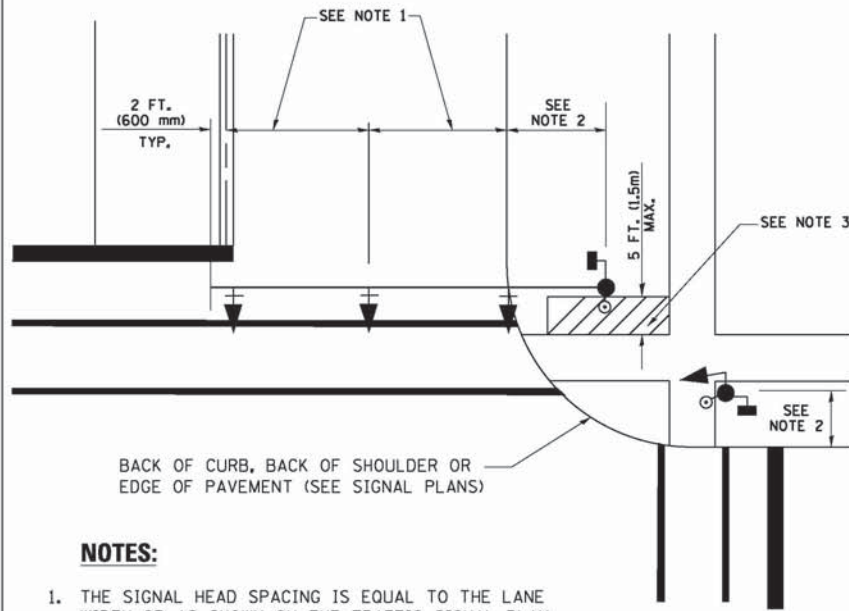
**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

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

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw_work\pwwork\footemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	2014-044TS	COOK	65	10	
		CHECKED - DAD	REVISED -						<b>TS-05</b>				
		DATE - 10-28-09	REVISED -						FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
	PLOT SCALE = 58.8888' / in.							CONTRACT NO. 60Y42					
	PLOT DATE = 1/13/2014							CONTRACT NO. 60Y42					

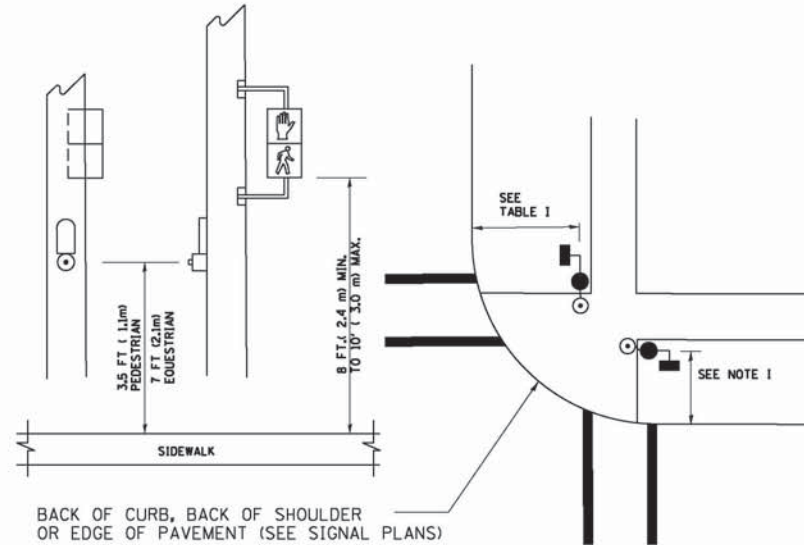
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

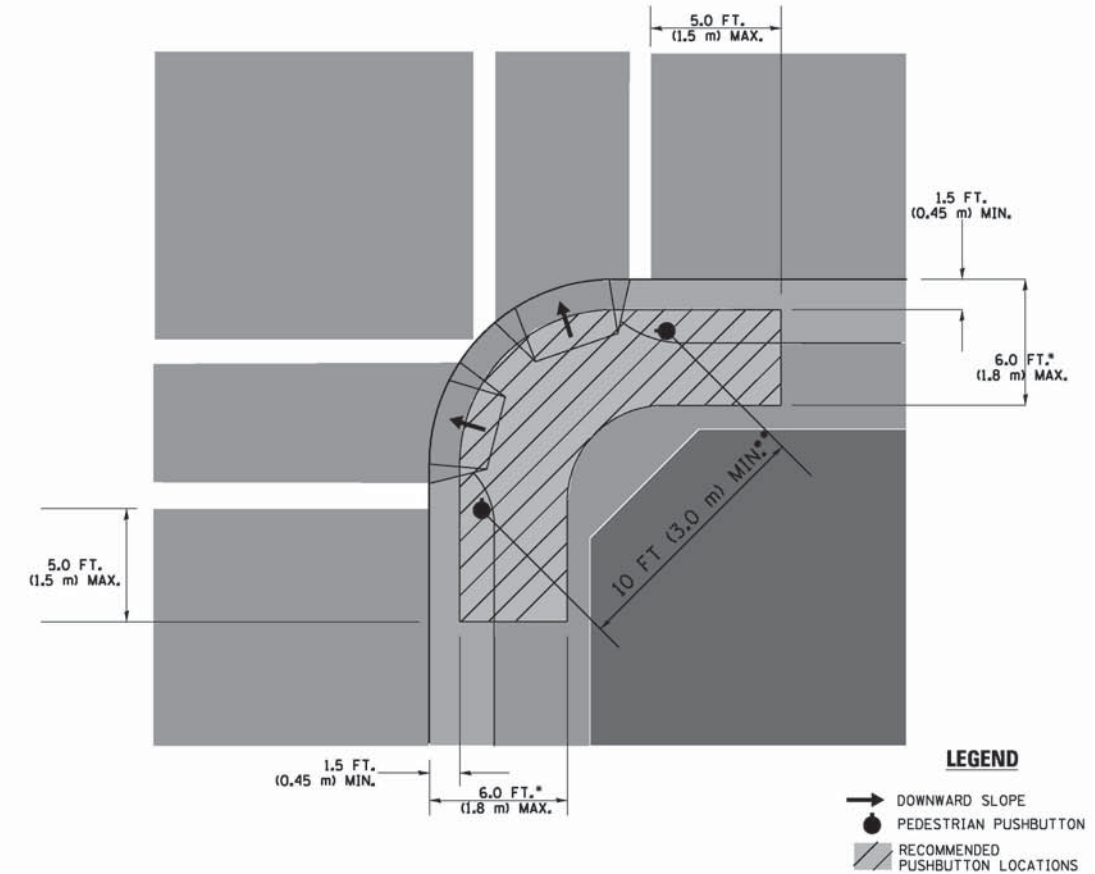
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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) SEPARATION 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**

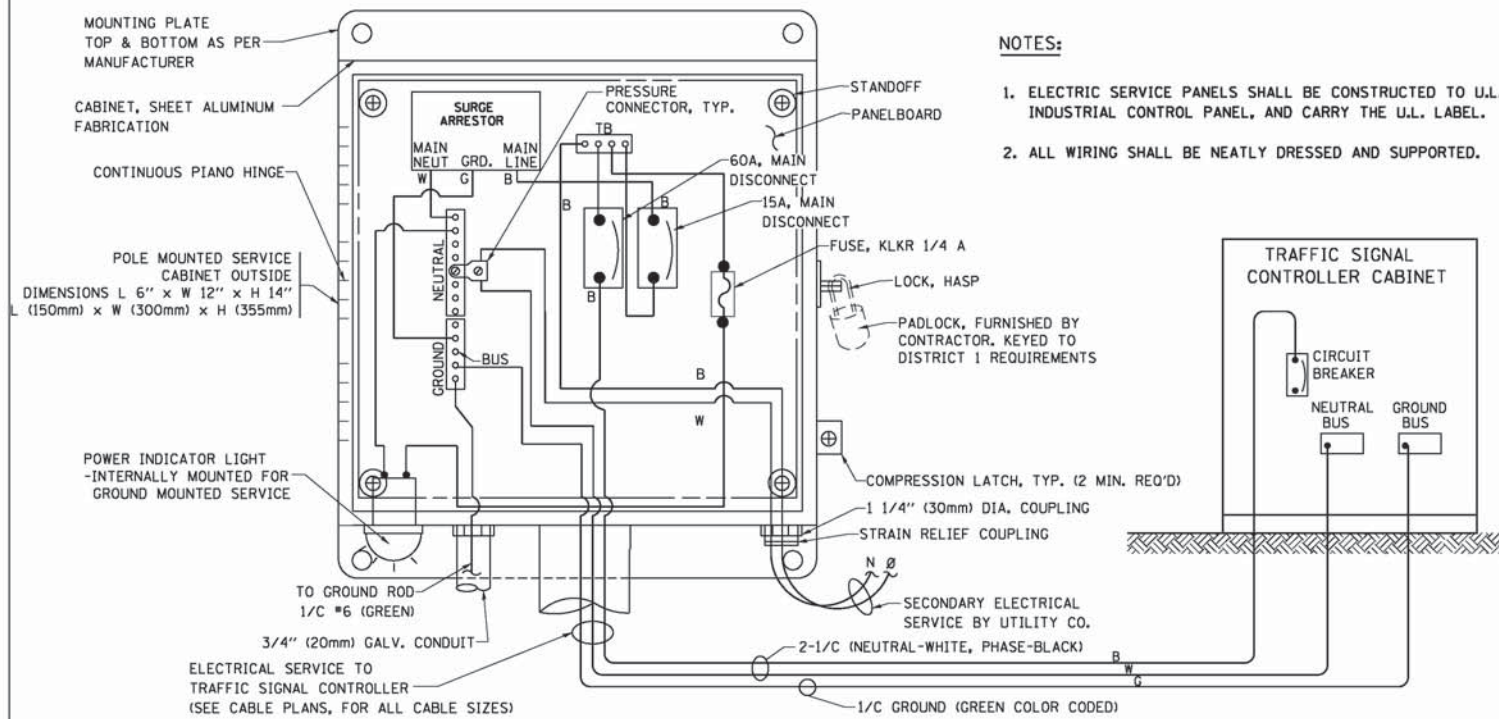
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

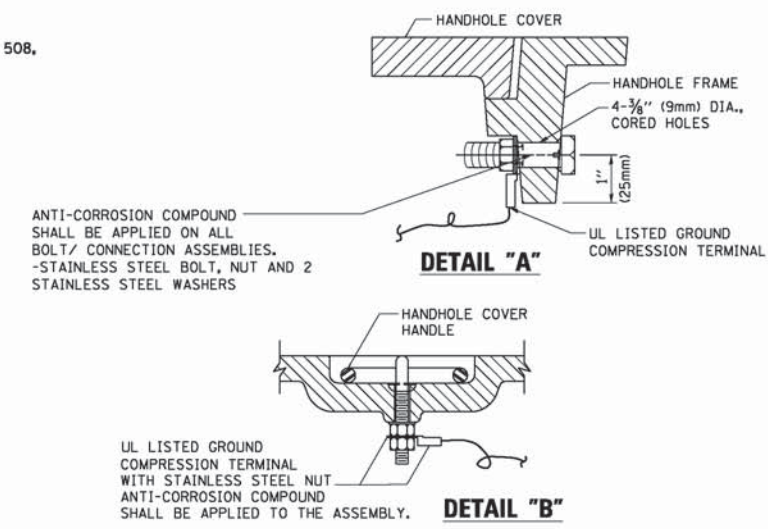
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM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

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		CHECKED - DAD	REVISED -						TS-05				
		DATE - 10-28-09	REVISED -						FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60Y42

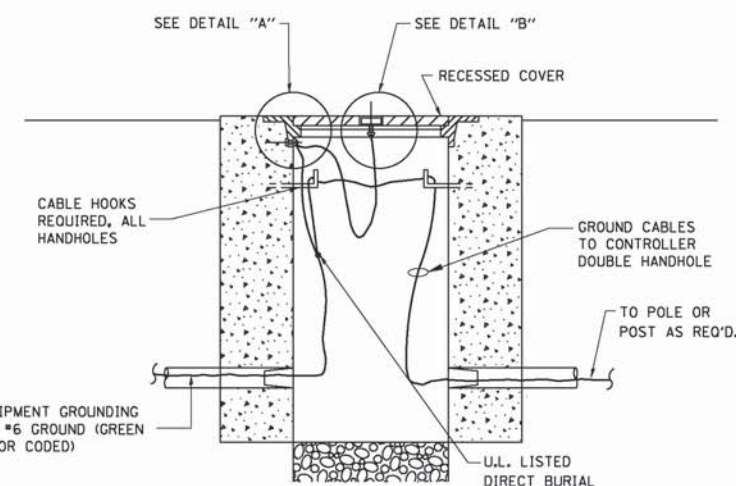


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)  
SERVICE INSTALLATION POLE MOUNT (SHOWN)  
(NOT TO SCALE)**

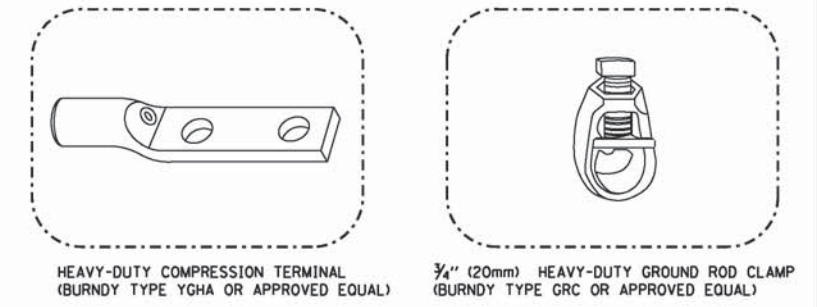


**NOTES:  
GROUNDING SYSTEM**

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

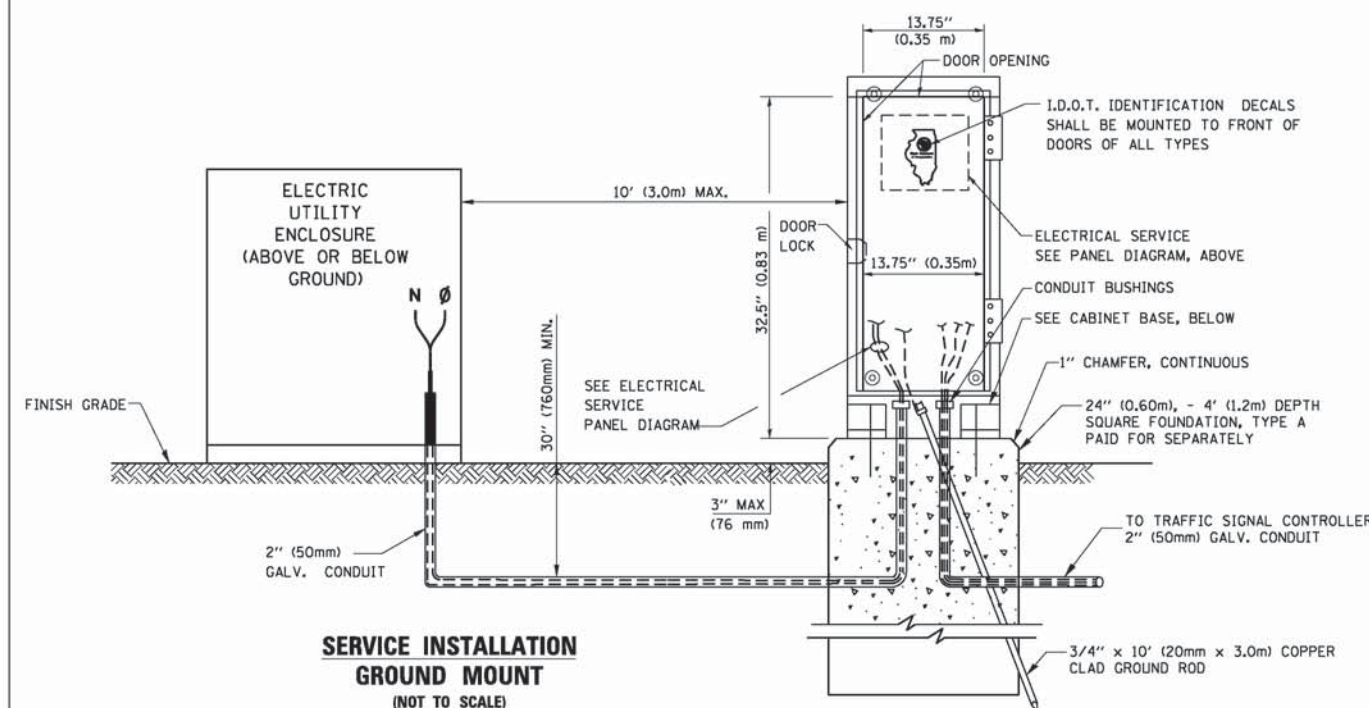


**HANDHOLE COVER & FRAME - GROUNDING DETAIL  
(NOT TO SCALE)**

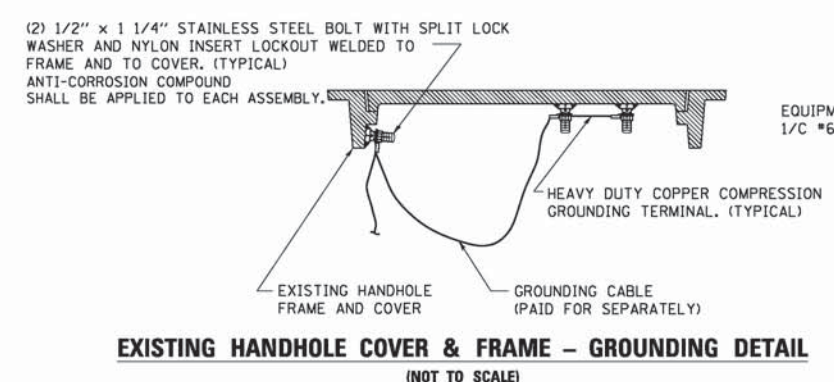


**NOTES:**

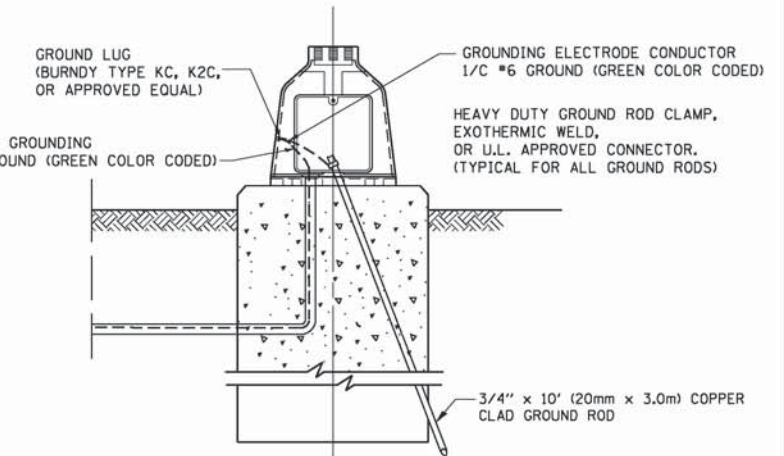
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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

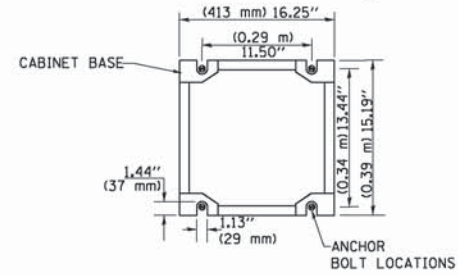


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL  
(NOT TO SCALE)**

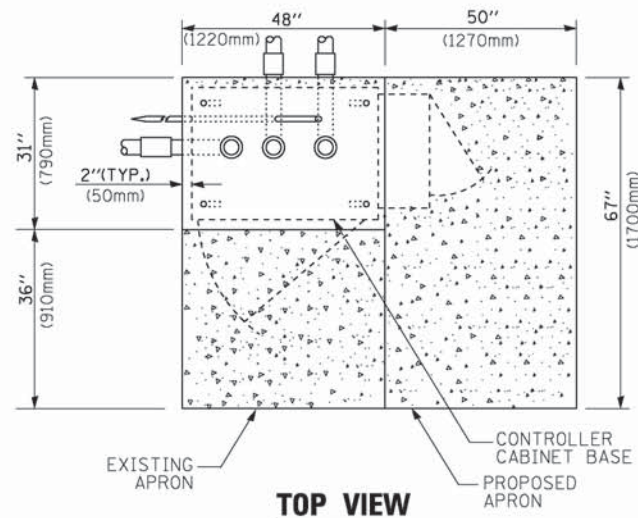


**MAST ARM POLE / POST-GROUNDING DETAIL  
(NOT TO SCALE)**

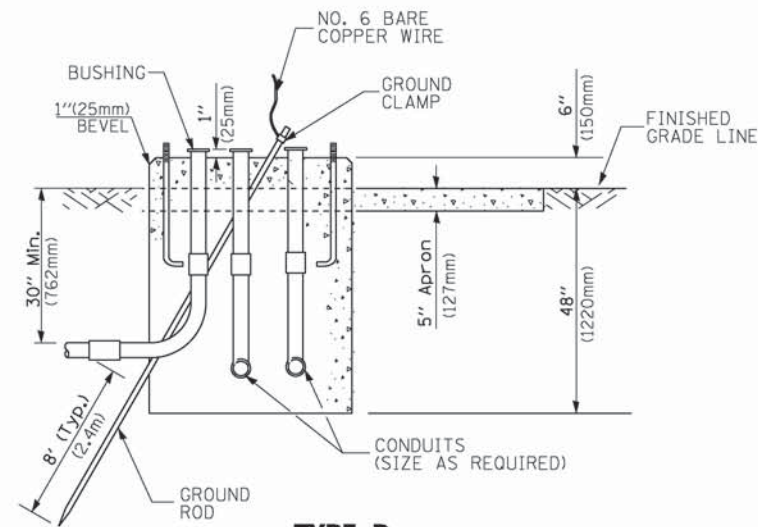
**CABINET - BASE BOLT PATTERN  
(NOT TO SCALE)**



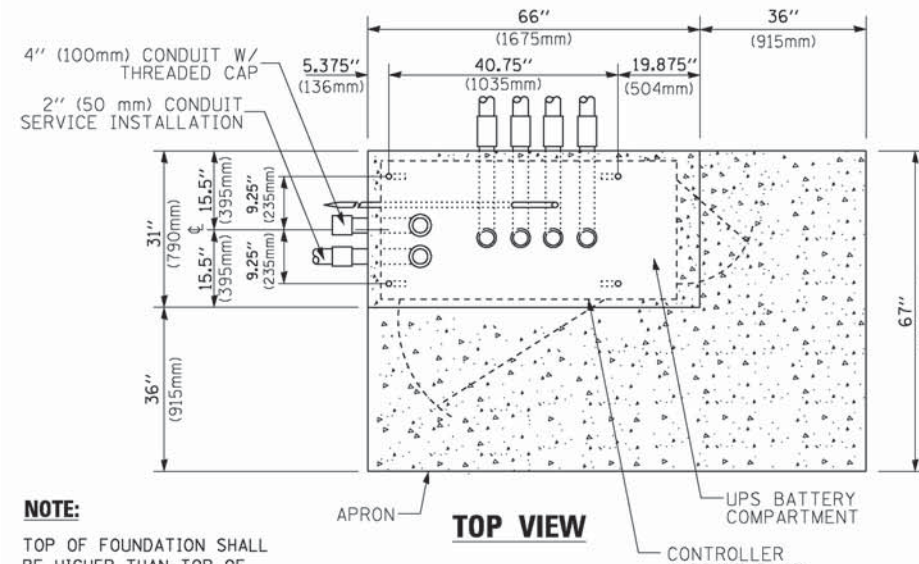
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		CHECKED - DAD	REVISED -					<b>TS-05</b>		<b>CONTRACT NO. 60Y42</b>			
		DATE - 10-28-09	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT					



**TOP VIEW**

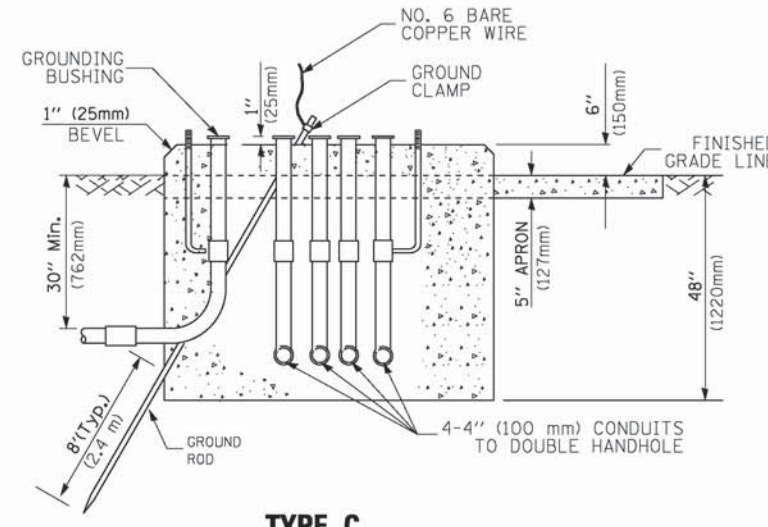


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

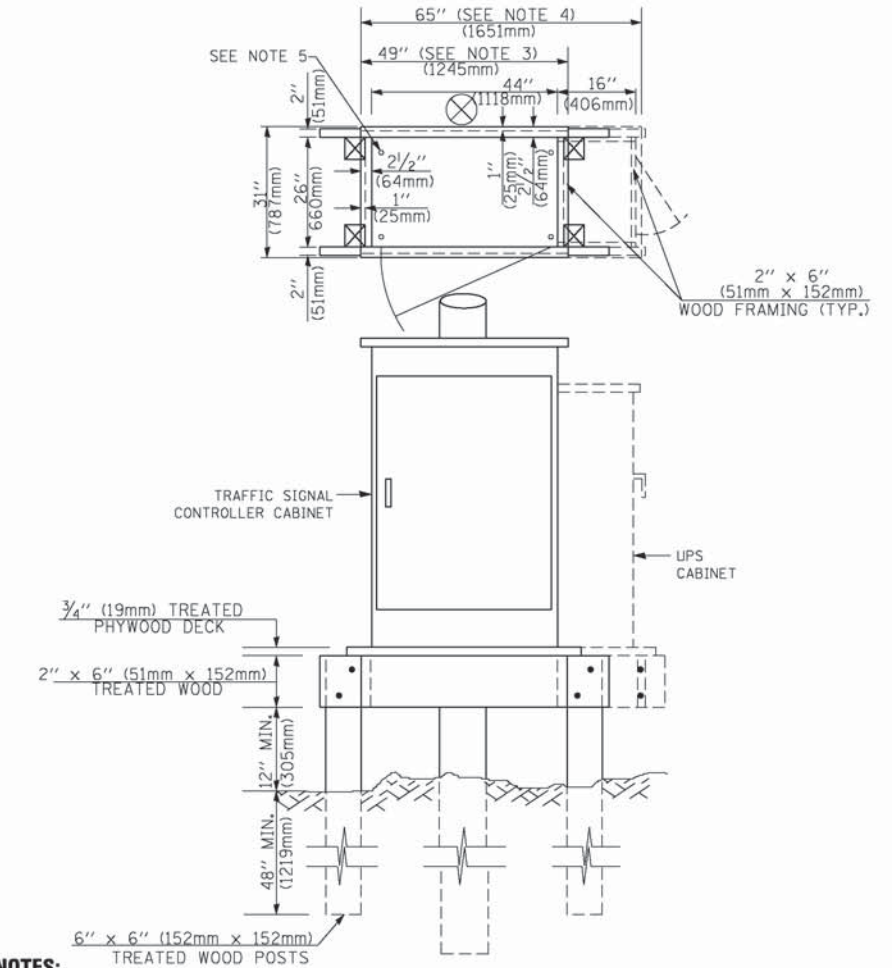


**TOP VIEW**

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



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



**NOTES:**

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)

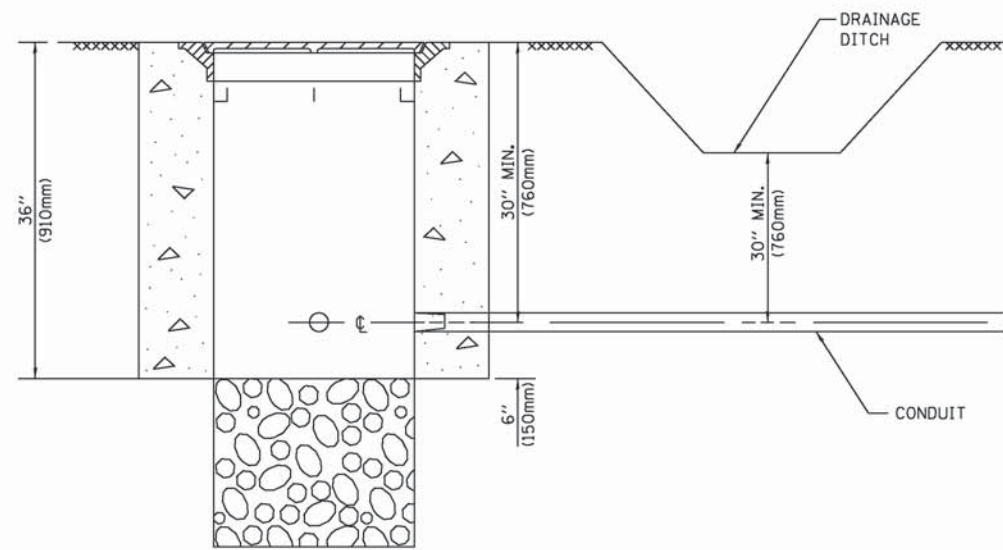
**DEPTH OF FOUNDATION**

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..

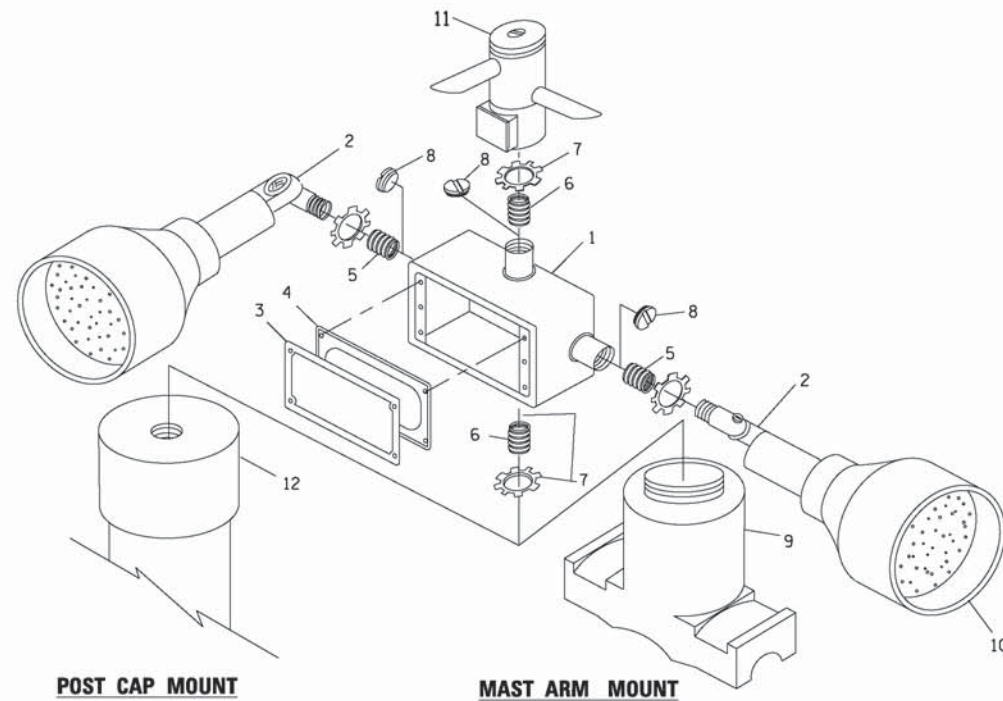
**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**



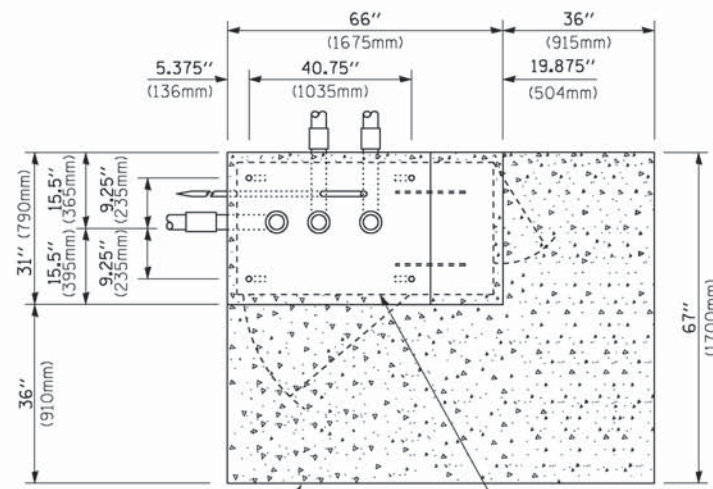
**NOTES:**

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.

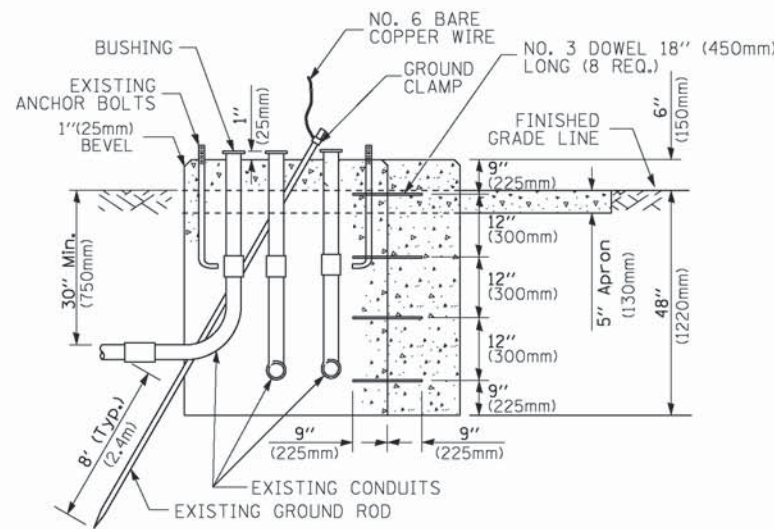
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



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



**TOP VIEW**  
(NOT TO SCALE)

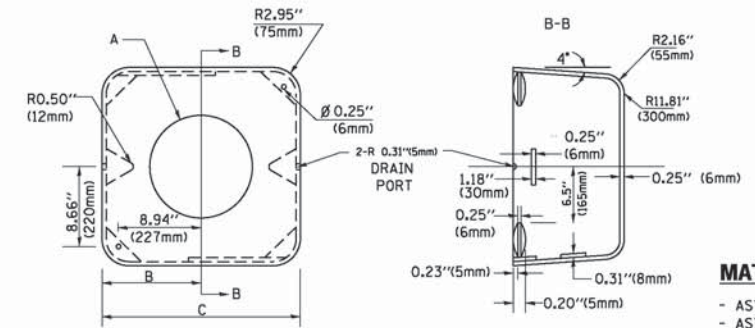


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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)

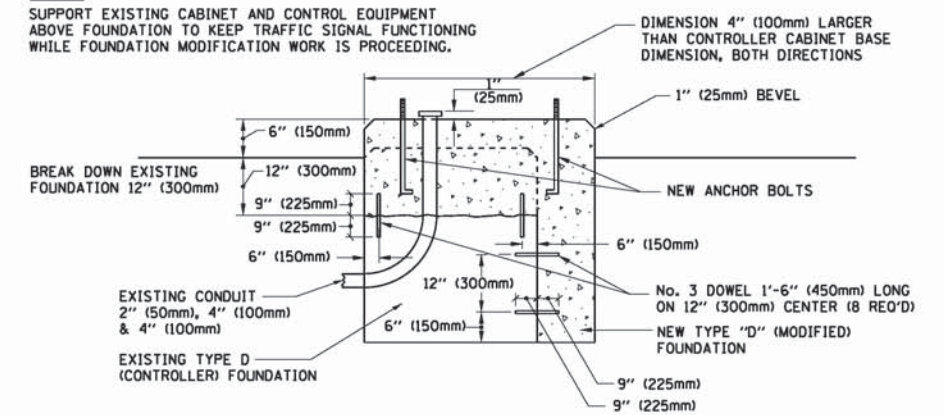
**SHROUD**

**NOTES:**

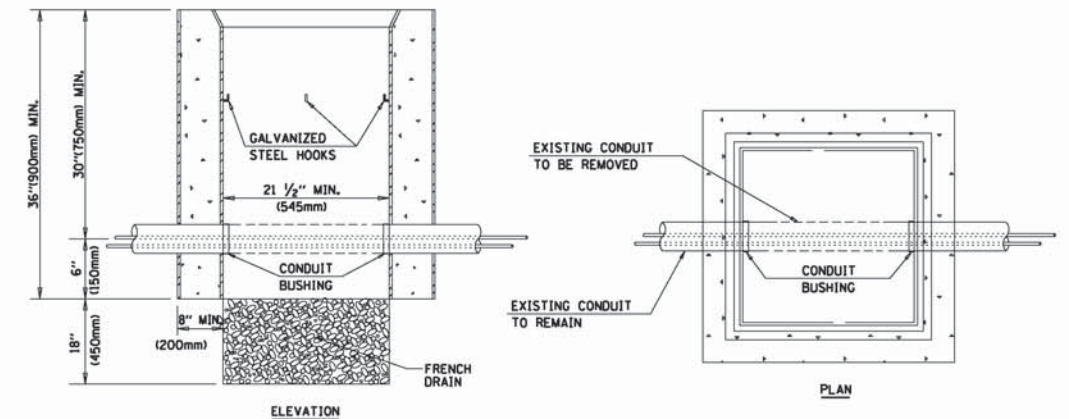
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**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**

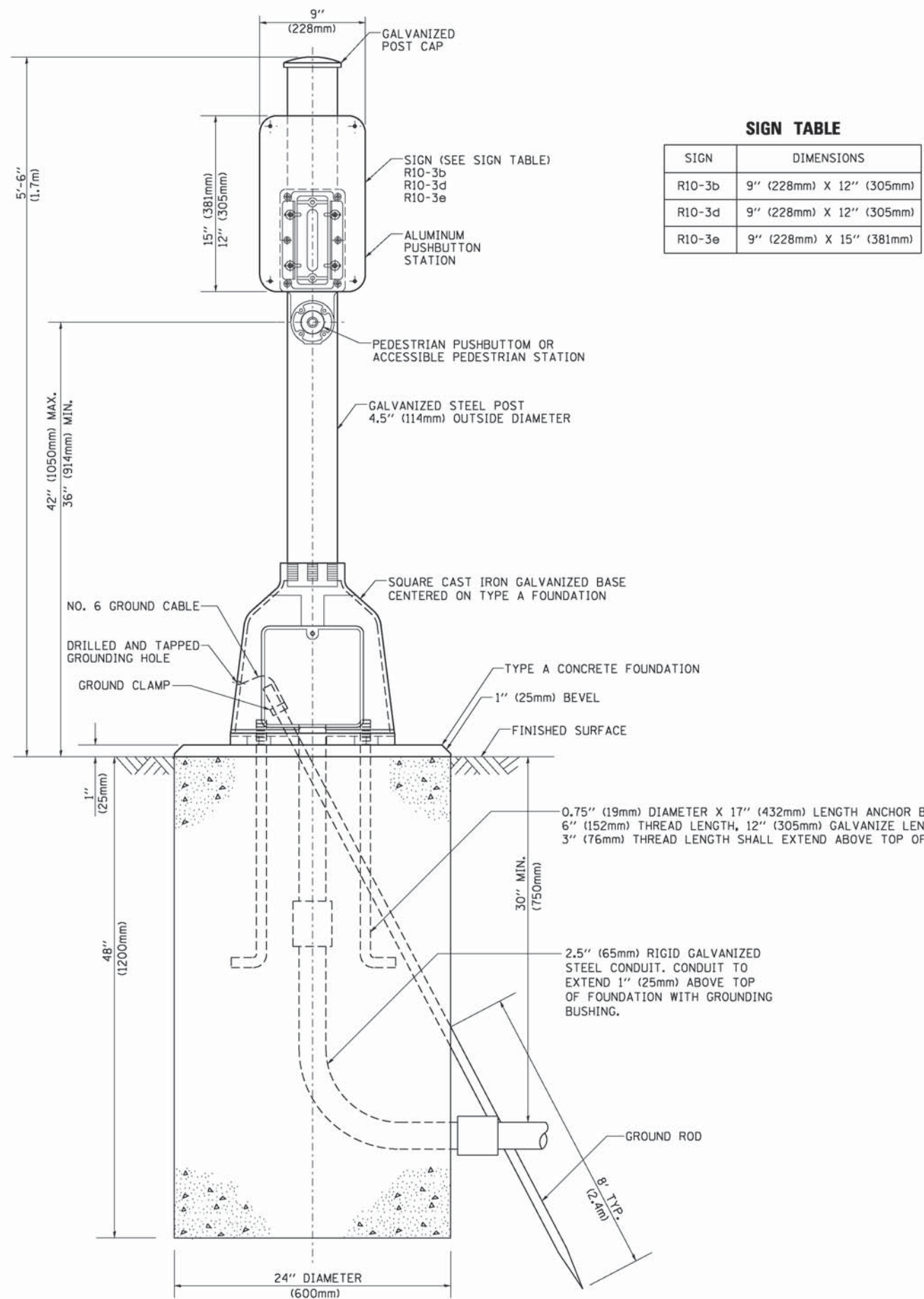
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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

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

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

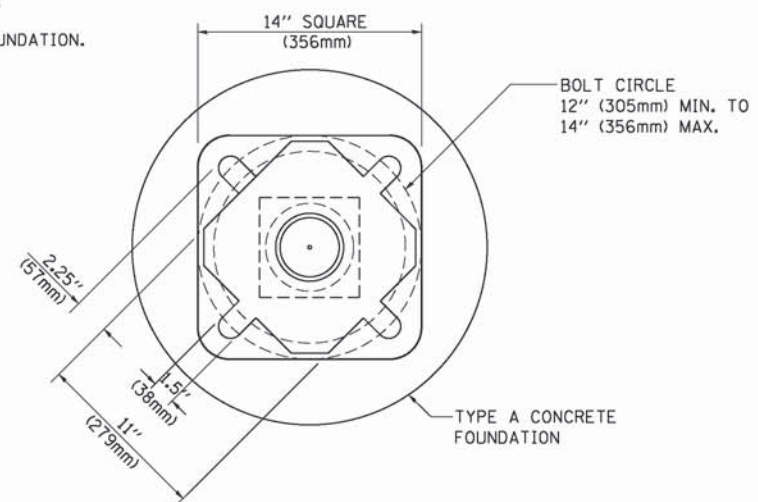
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	14
	<b>TS-05</b>	<b>CONTRACT NO. 60Y42</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**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**

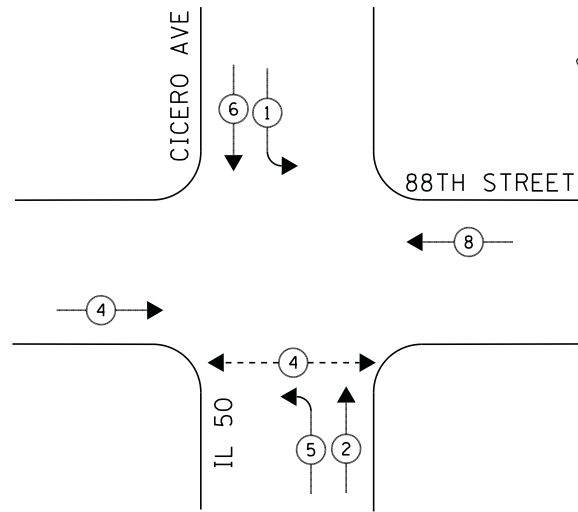
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PLOT DATE = 1/13/2014		DATE - 10/1/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
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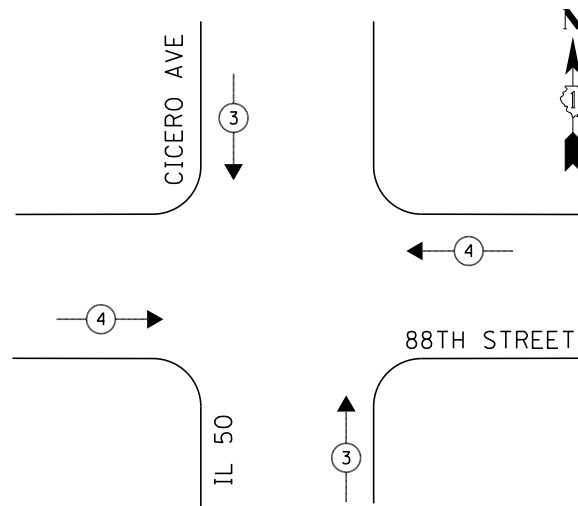
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	2014-044TS	COOK	65	15
<b>TS-05</b>			<b>CONTRACT NO. 60Y42</b>	
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

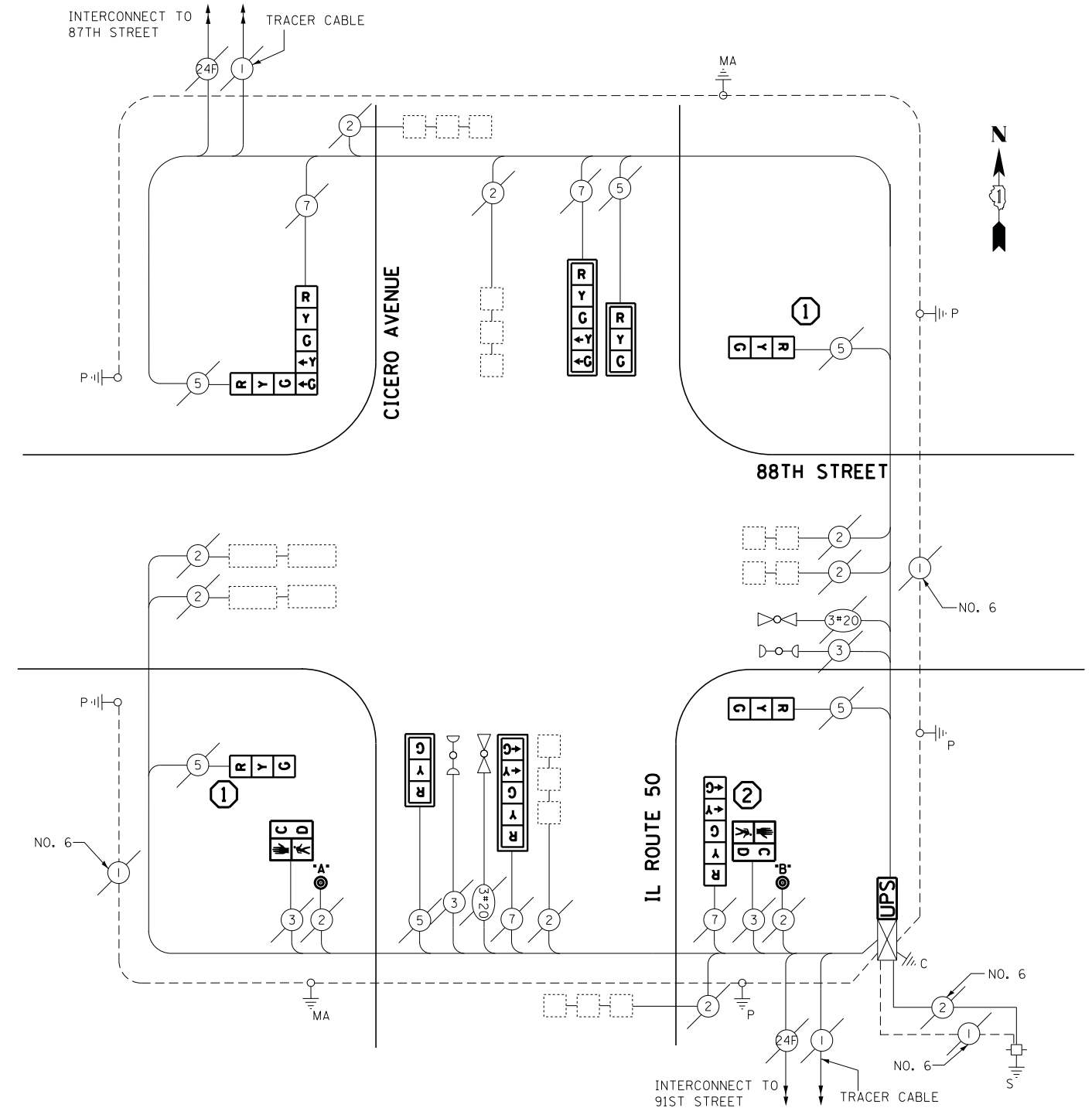
- ① REPLACE 14FT. PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	PEDESTRIAN PUSH-BUTTON
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 3 EACH TRAFFIC SIGNAL POST
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON
- 5 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 2540  
HOMETOWN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	10		17	0.5	85
(YELLOW)	10		25	0.25	62.5
(GREEN)	10		15	0.25	37.5
ARROW	8		12	0.10	9.6
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM				1.00	-
FLASHER					-
ENERGY COSTS TO:					TOTAL = 344.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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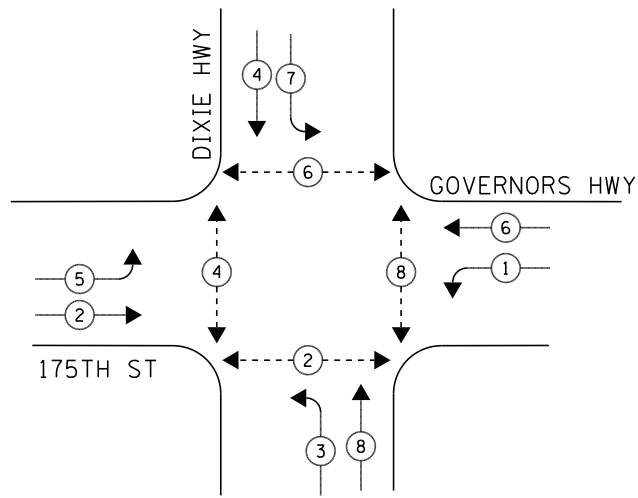
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 50 (CICERO AVENUE) AT 88TH AVENUE  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	16
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

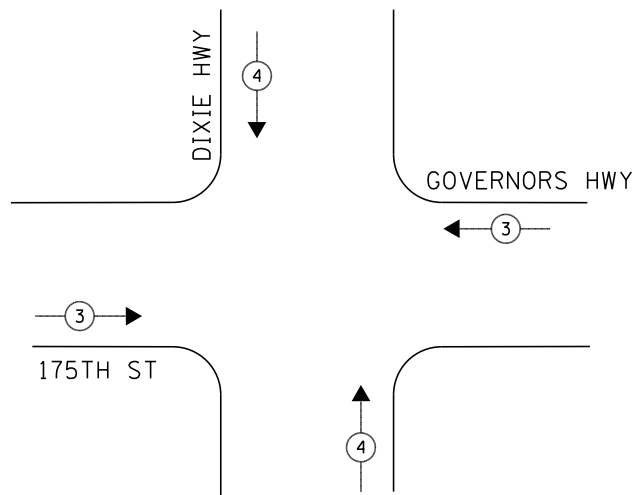


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**NOTE:**

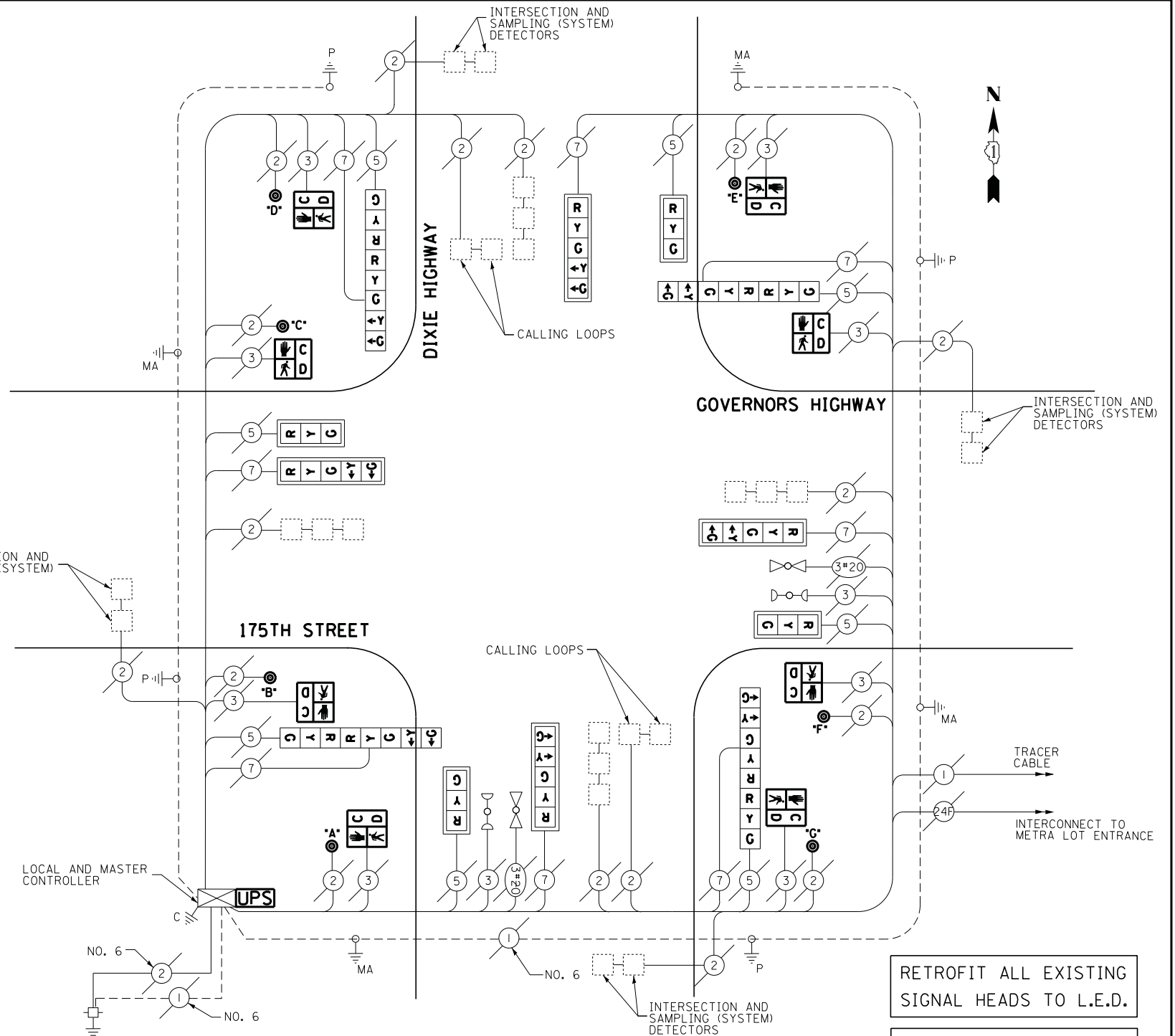
PUSH BUTTON "E" PLACES A CALL IN PHASE 6 AND 8

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

EAGLE EPAC 300 LOCAL CONTROLLER

EAGLE MARC 300 MASTER CONTROLLER

TRAFFIC SIGNAL EQUIPMENT SHALL BE EAGLE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 4090  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO LAMPS	WATTAGE	%OPERATION		
		INCAND.	LED		
SIGNAL (RED)	16		17	0.5	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:				TOTAL =	615.2

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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		DATE - 7/11/2014	REVISED -

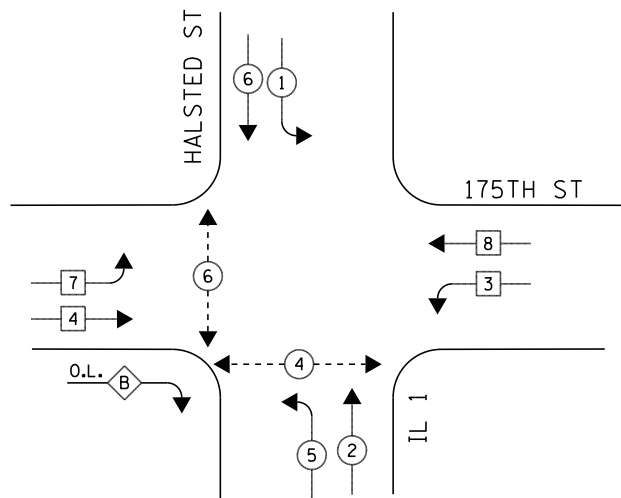
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

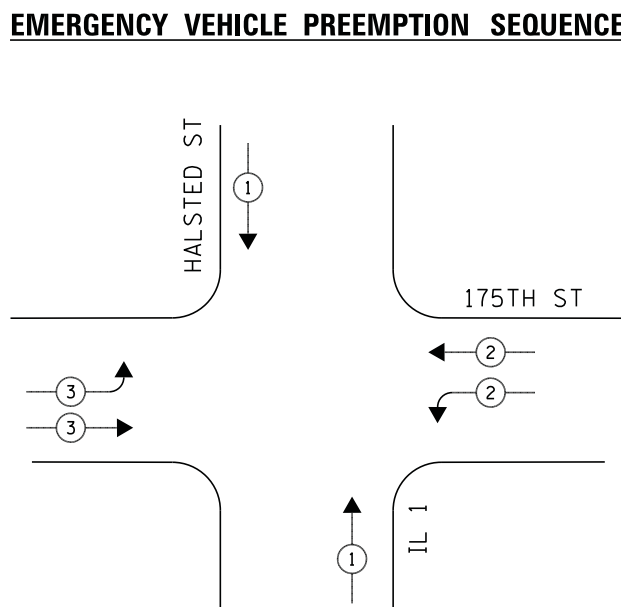
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE DIXIE HIGHWAY AT 175TH STREET / GOVERNORS HIGHWAY			
SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	17
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

① REPLACE 16FT, PAINTED POST, RE-USE EXISTING FOUNDATION

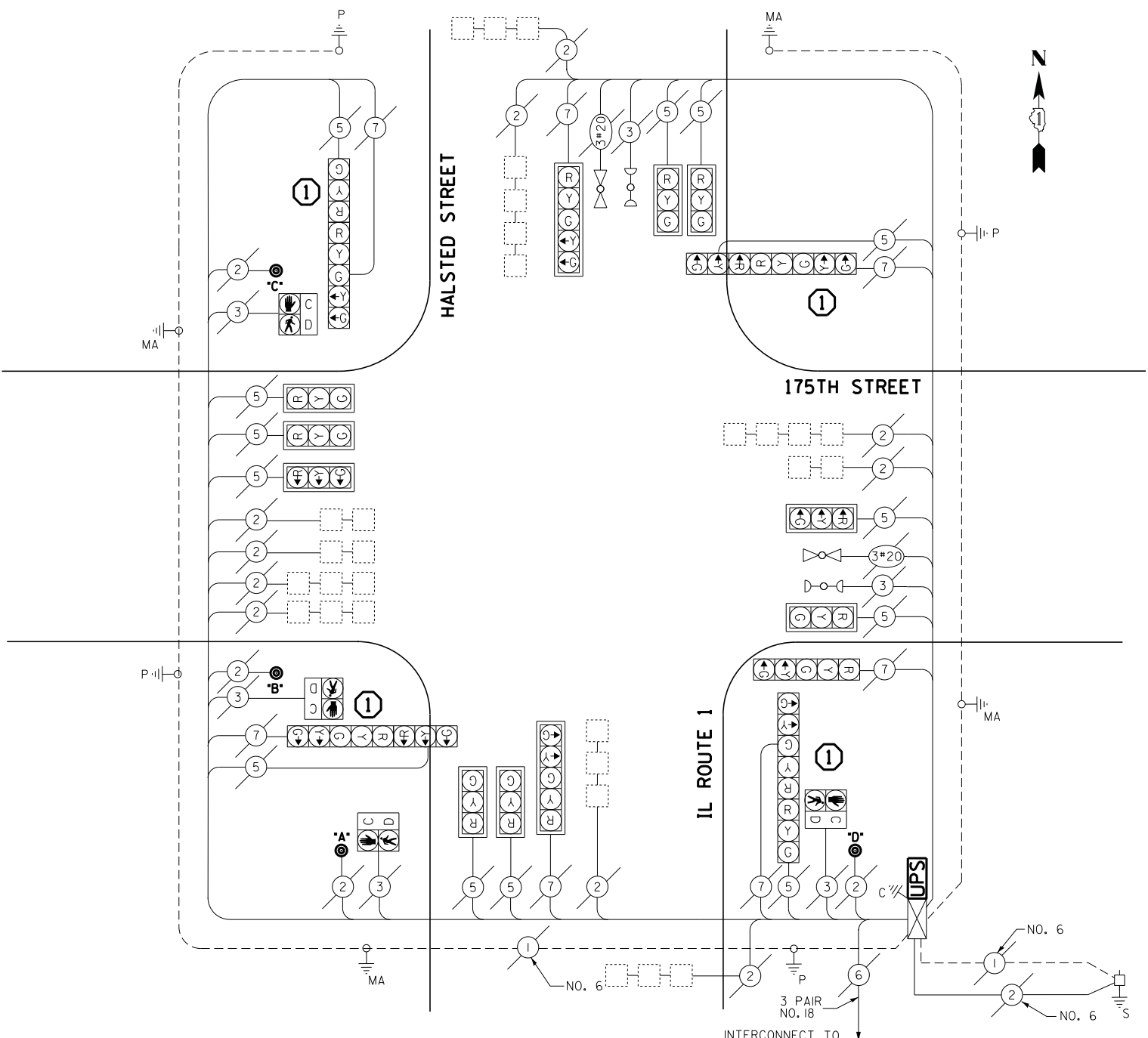
**EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	1	2	3
MOVEMENT	↑ ↓	↶ ↷	↷ ↶

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	PEDESTRIAN PUSH-BUTTON
8	EACH	RELOCATE EXISTING SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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 TRAFFIC SIGNAL POST
- 4 EACH PEDESTRIAN PUSH-BUTTON

RED LIGHT PHOTO ENFORCED  
INTERSECTION VENDOR:  
GATSO USA, INC.

ECONOLITE ASC/2-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 1880  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	20		17	0.5	170
(YELLOW)	20		25	0.25	125
(GREEN)	20		15	0.25	75
ARROW	14		12	0.10	33.6
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 603.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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		DRAWN - E.C.	REVISED -
		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

DESIGNED - V.O.	REVISED -
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CHECKED - I.Y.	REVISED -
DATE - 7/11/2014	REVISED -

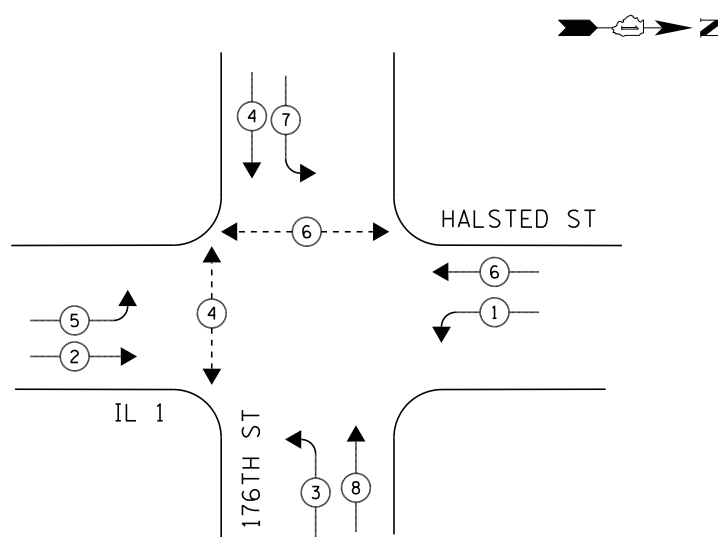
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 1 (HALSTED STREET) AT 175TH STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

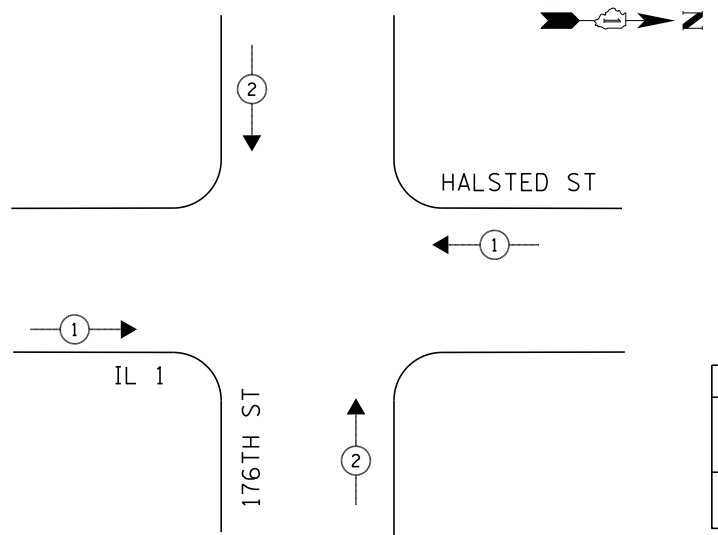
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	18
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 3-SECTION
8	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-2100  
LOCAL CONTROLLER

ECONOLITE ASC/2M-1000  
MASTER CONTROLLER

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 12115  
HOMWOOD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

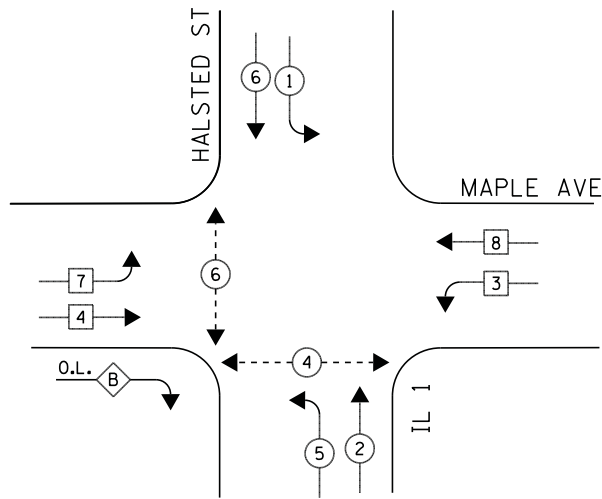
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 1 (HALSTED STREET) AT PARK PLACE PLAZA /176TH STREET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	19
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:				TOTAL =	441.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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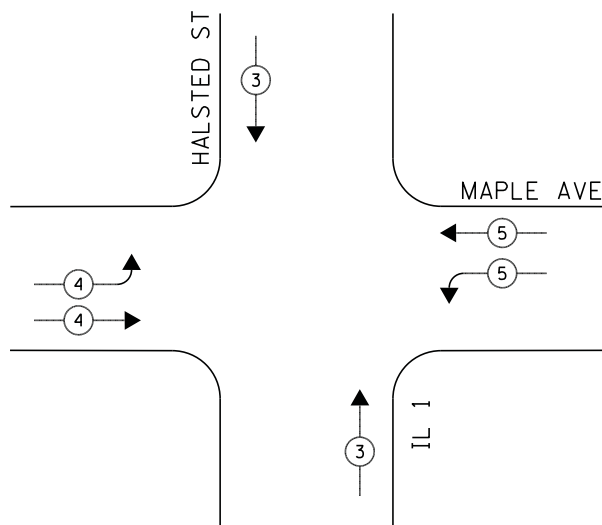
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

- ① REPLACE 10FT. PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 14FT. PAINTED POST, RE-USE EXISTING FOUNDATION
- ③ REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

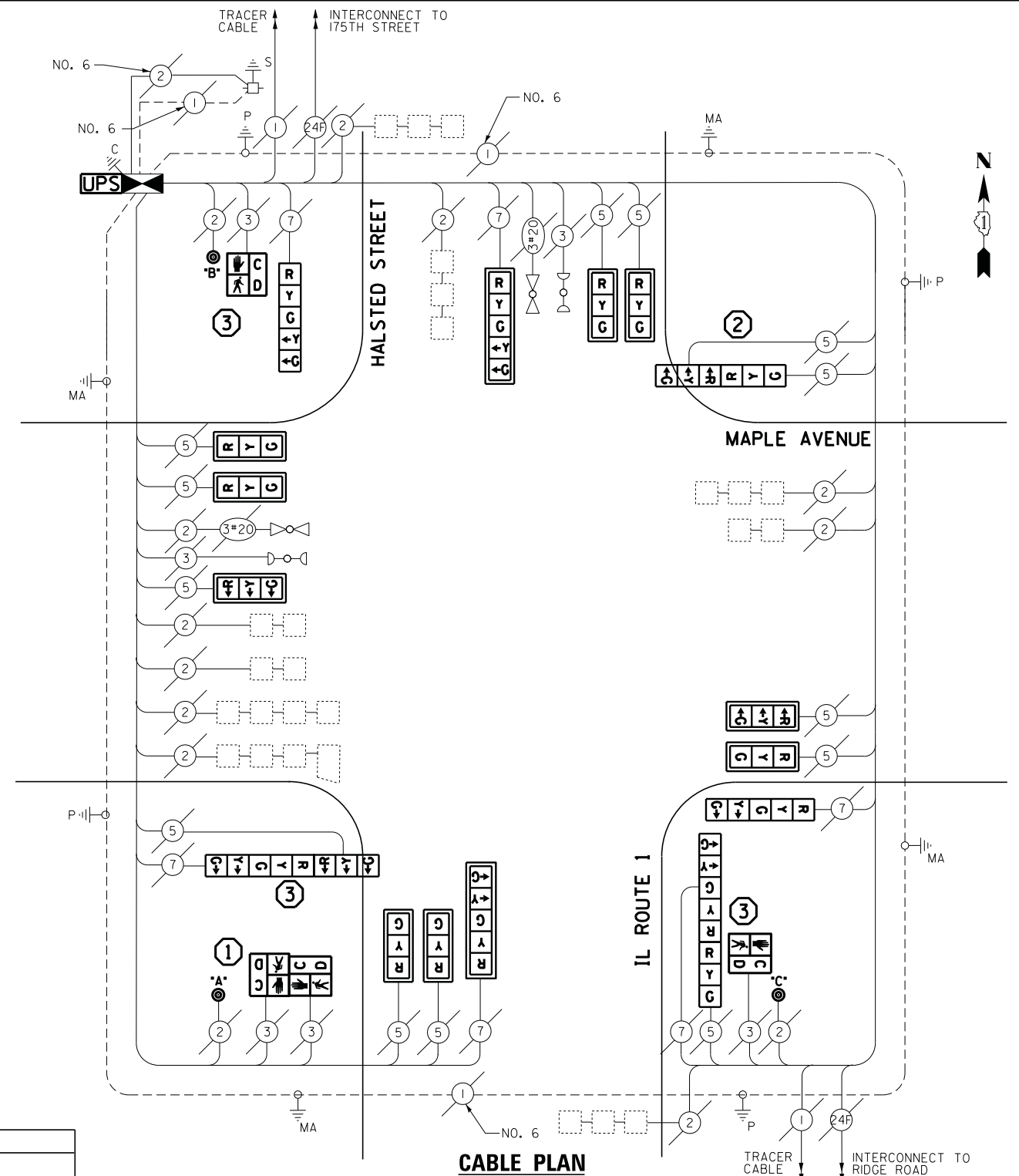
**NOTES:**

PUSH BUTTON "A" PLACES A CALL IN PHASE 4 AND 6  
RELOCATE EVP PHASING UNIT TO THE NEW CONTROLLER CABINET. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF REPLACING THE CONTROLLER / CABINET.

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↑	↘	↙

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
9	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
11	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

5	EACH	TRAFFIC SIGNAL POST
13	EACH	SIGNAL HEAD, 3-SECTION
6	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD
11	EACH	TRAFFIC SIGNAL BACKPLATE
3	EACH	PEDESTRIAN PUSH-BUTTON
9	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	CONTROLLER AND CABINET

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 1875  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	19		17	0.5	161.5
(YELLOW)	19		25	0.25	118.75
(GREEN)	19		15	0.25	71.25
ARROW	12		12	0.10	14.4
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM				1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 565.9
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

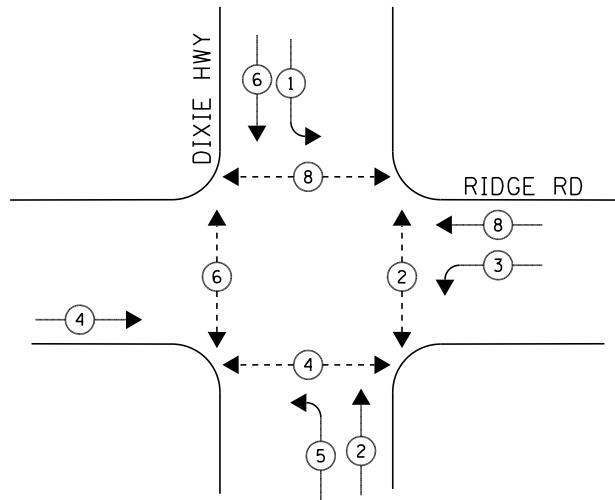
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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL ROUTE 1 (HALSTED STREET) AT MAPLE GATE 3			
SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A

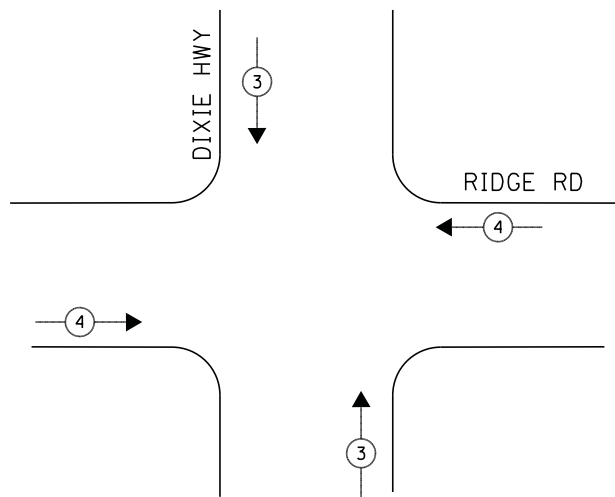
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	20
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

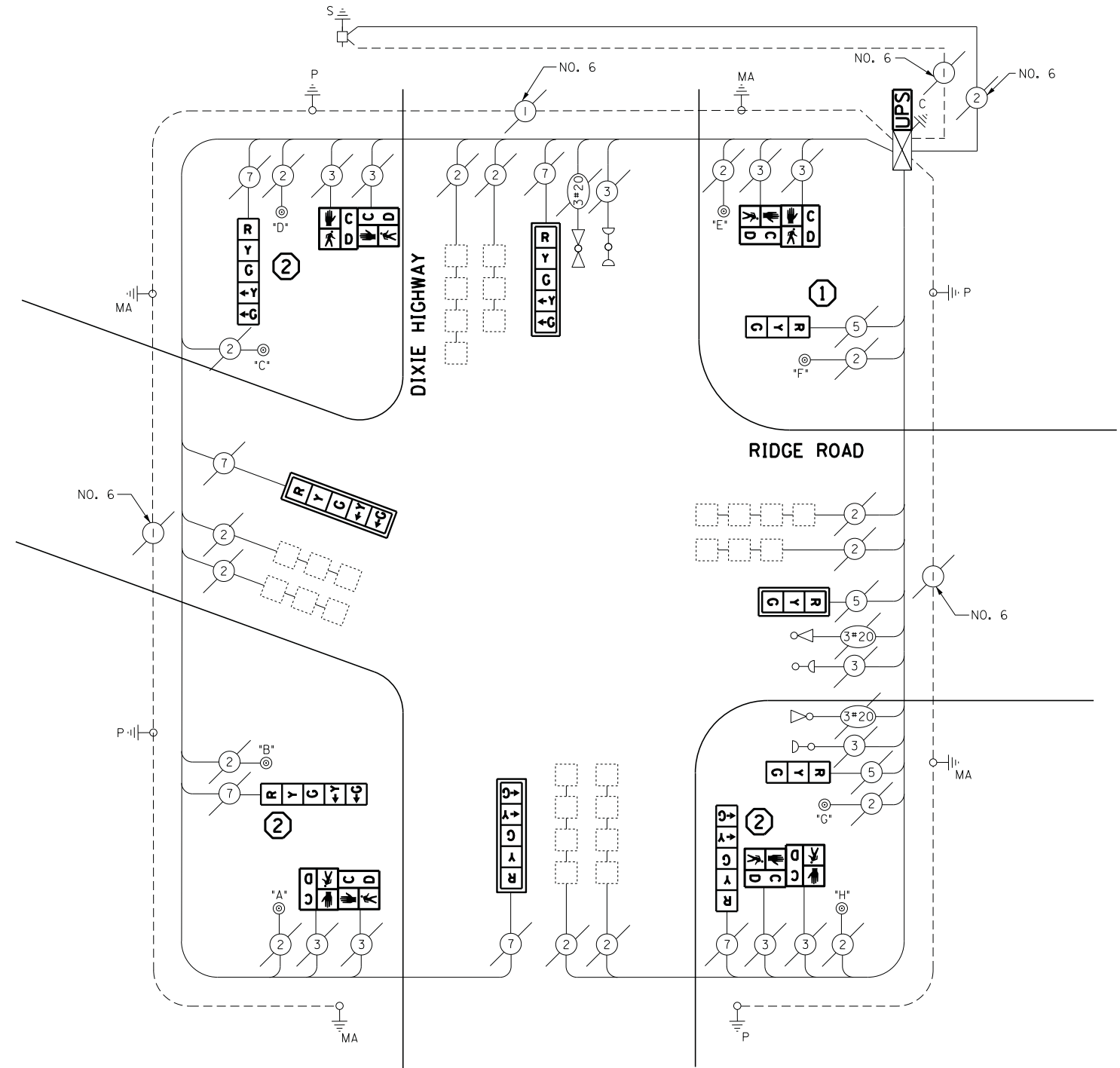
- ① REPLACE 14FT, PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT, PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	←→

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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 TRAFFIC SIGNAL POST
- 3 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH PEDESTRIAN SIGNAL HEAD

ECONOLITE ASC/2-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 10740  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	9		17	0.5	76.5
(YELLOW)	9		25	0.25	56.25
(GREEN)	9		15	0.25	33.75
ARROW	10		12	0.10	12
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 478.5
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -		

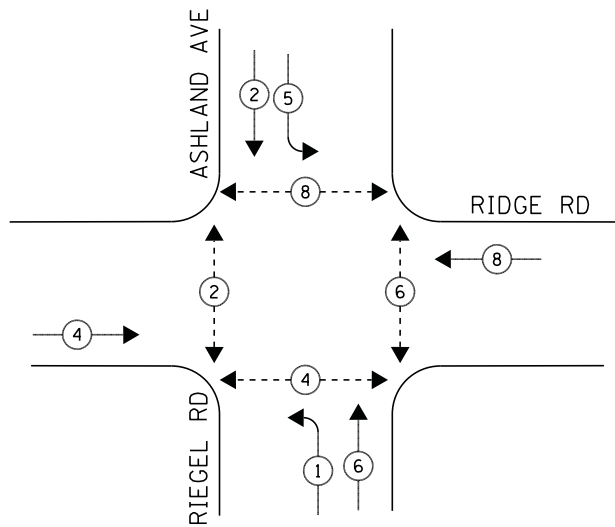
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
DIXIE HIGHWAY AT RIDGE ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

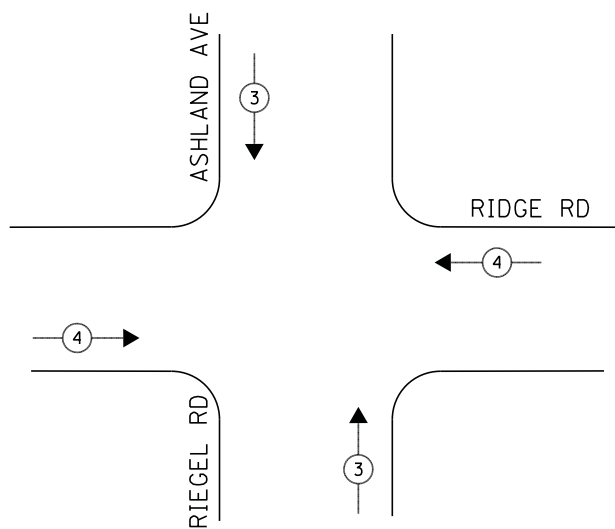
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	21
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ← \* → DUAL ENTRY PHASE
- ← \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ← \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**NOTE:**

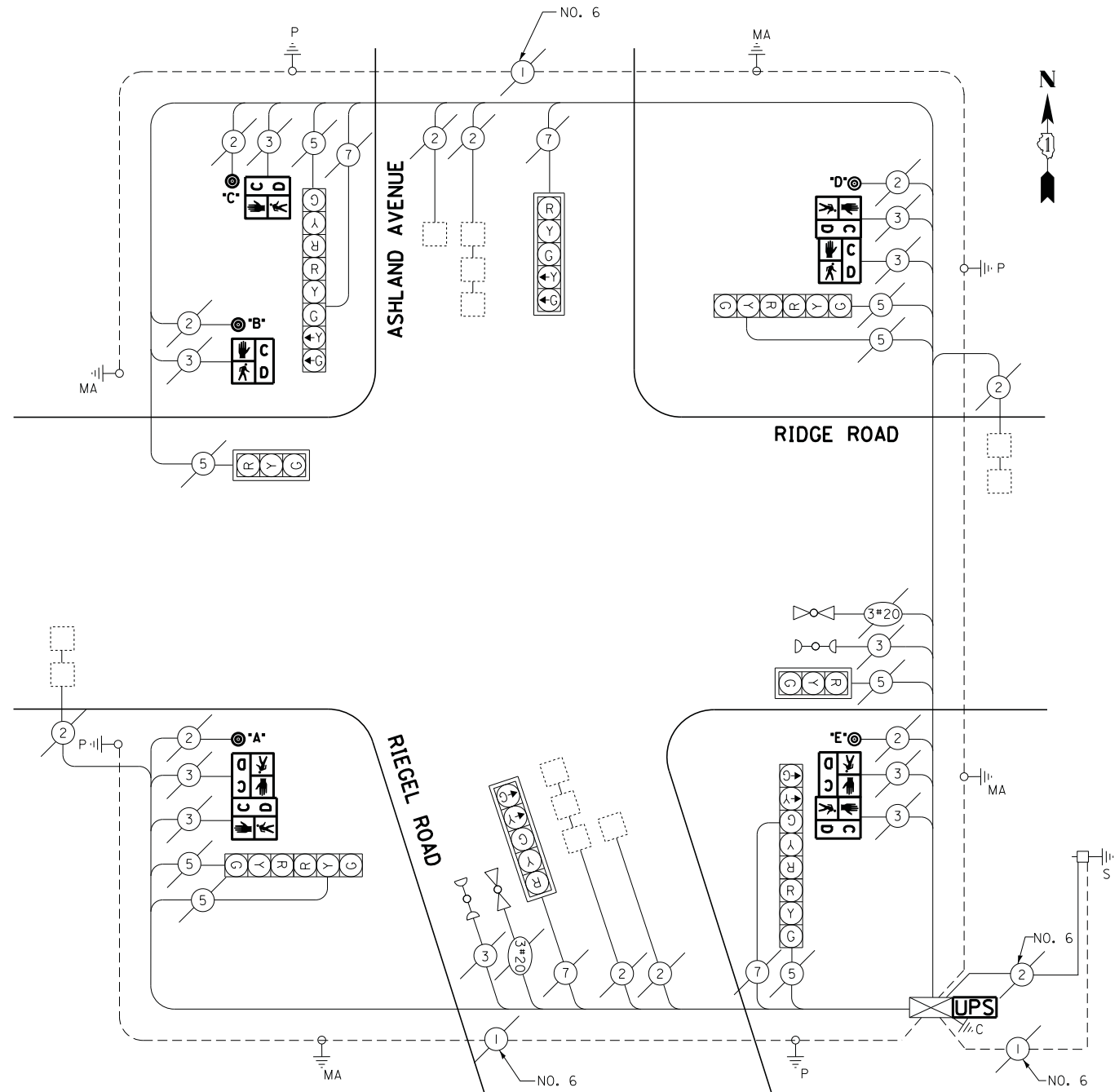
PUSH BUTTON "A" PLACES A CALL IN PHASE 2 AND 4  
PUSH BUTTON "D" PLACES A CALL IN PHASE 6 AND 8  
PUSH BUTTON "E" PLACES A CALL IN PHASE 4 AND 6

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 5 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/3-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 5695  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	9.6
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 531.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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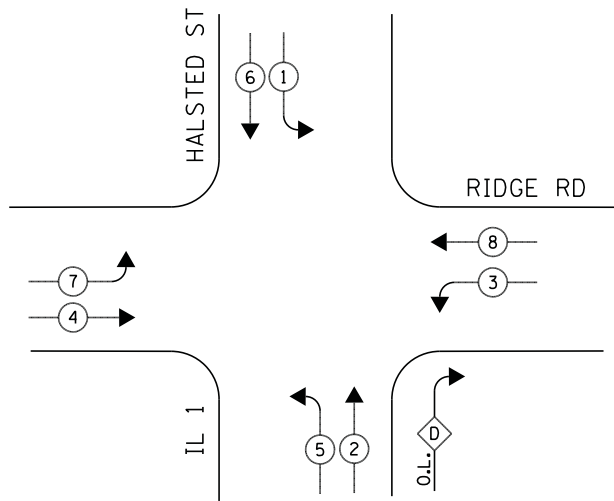
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
RIDGE ROAD AT ASHLAND AVENUE /RIEGEL ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

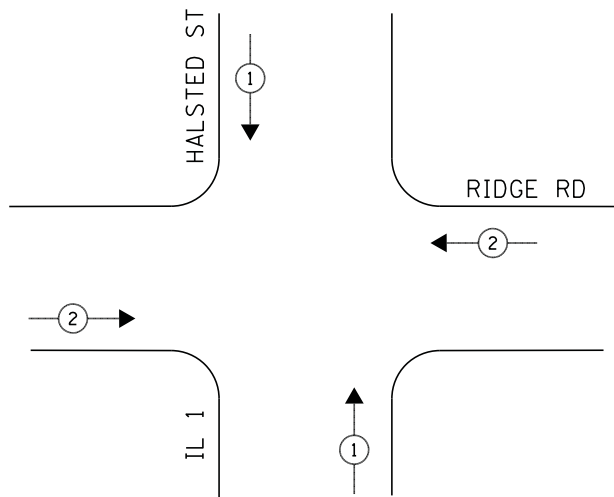
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	22
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

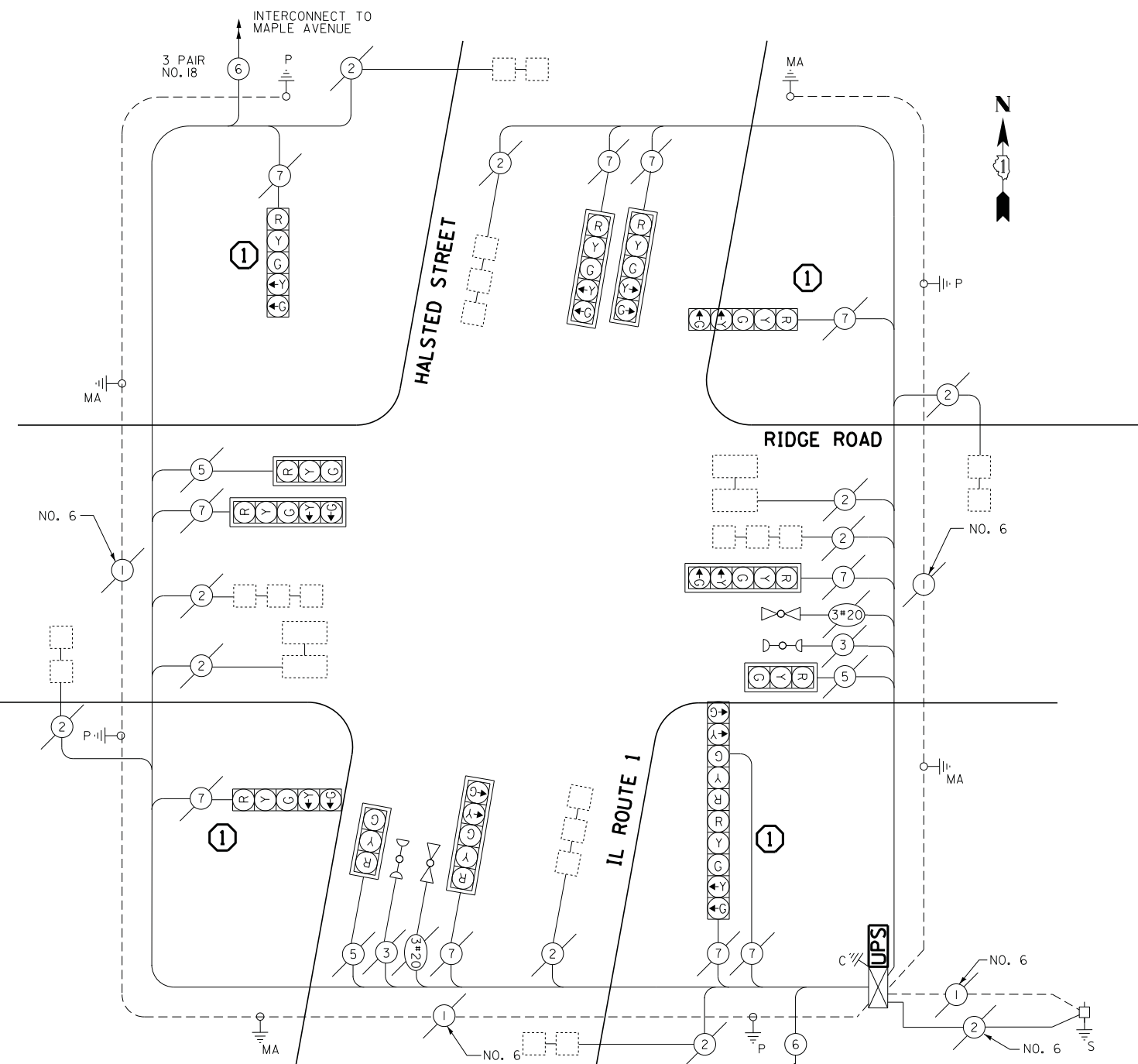
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 2	+ 3

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
5	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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 TRAFFIC SIGNAL POST

RED LIGHT PHOTO ENFORCED INTERSECTION VENDOR:  
GATSO USA, INC.

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 1855  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13		17	0.5	110.5
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	20		12	0.10	48
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 388.5

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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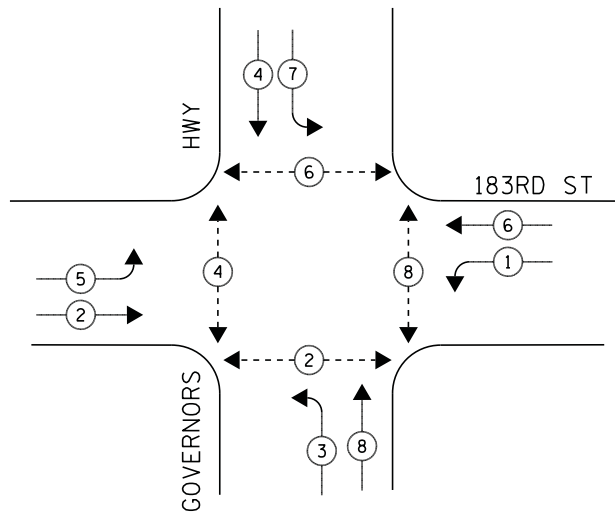
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 1 (HALSTED STREET) AT RIDGE ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

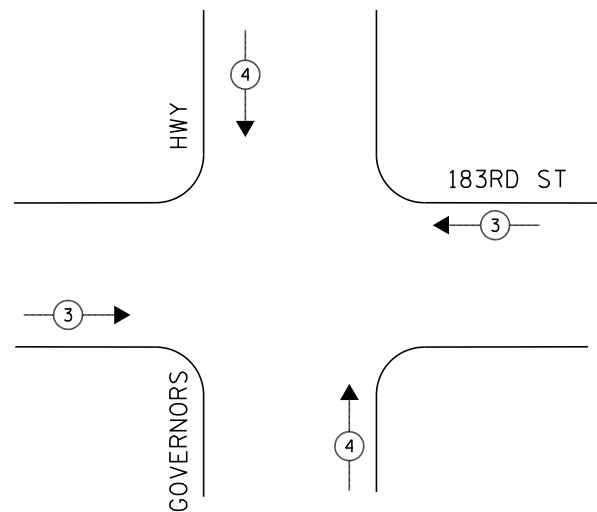
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	23
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

**NOTE:**

PUSH BUTTON "A" PLACES A CALL IN PHASE 2 AND 4  
 PUSH BUTTON "B" PLACES A CALL IN PHASE 4 AND 6  
 PUSH BUTTON "C" PLACES A CALL IN PHASE 6  
 PUSH BUTTON "D" PLACES A CALL IN PHASE 8  
 PUSH BUTTON "E" PLACES A CALL IN PHASE 2 AND 8

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	RELOCATE EXISTING SIGNAL HEAD
5	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

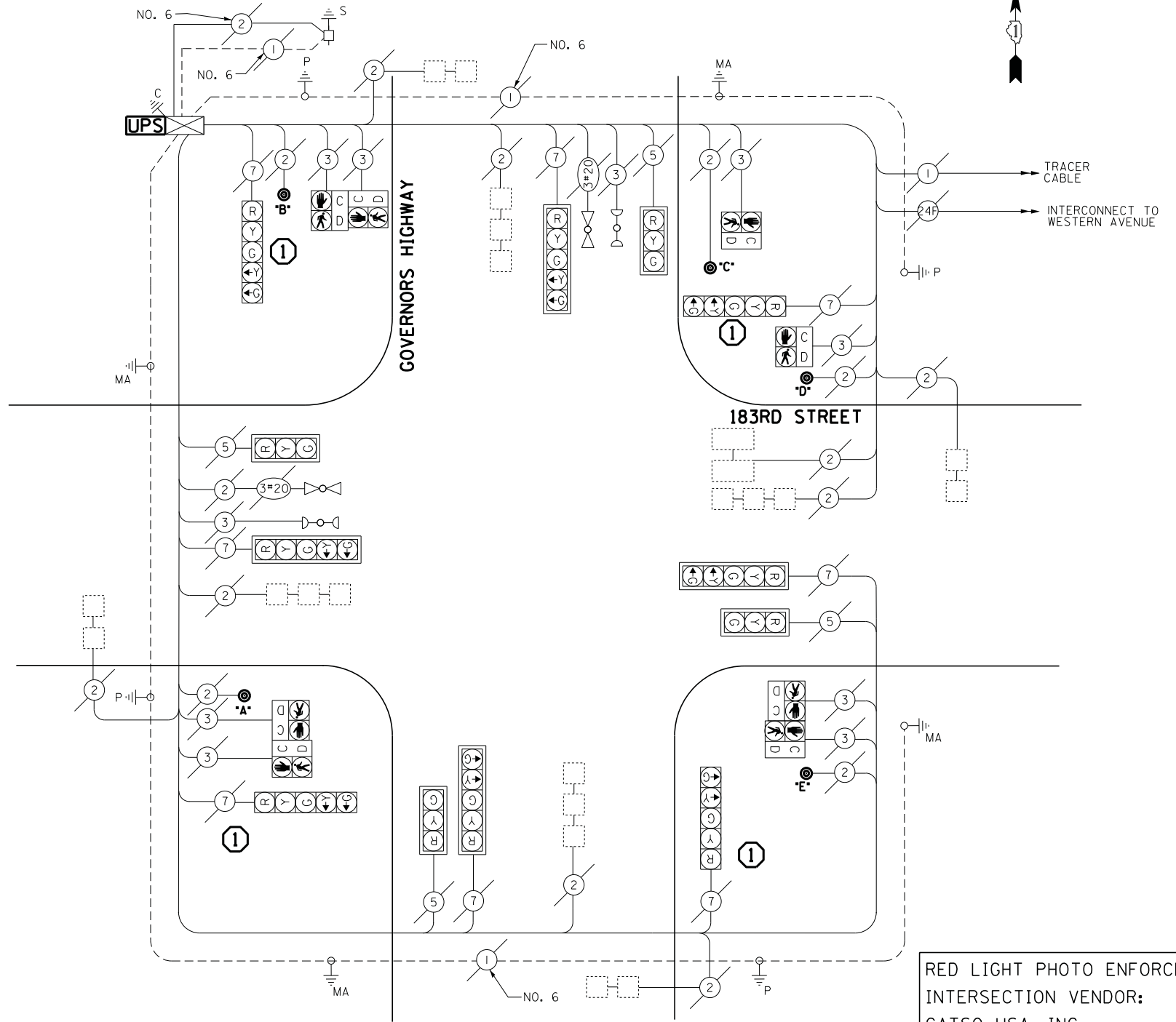
- 4 EACH TRAFFIC SIGNAL POST
- 5 EACH PEDESTRIAN PUSH-BUTTON

RED LIGHT PHOTO ENFORCED  
INTERSECTION VENDOR:  
GATSO USA, INC.

EAGLE EPAC 300  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE EAGLE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 4100  
HOMWOOD



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	38.4
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 560.4
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

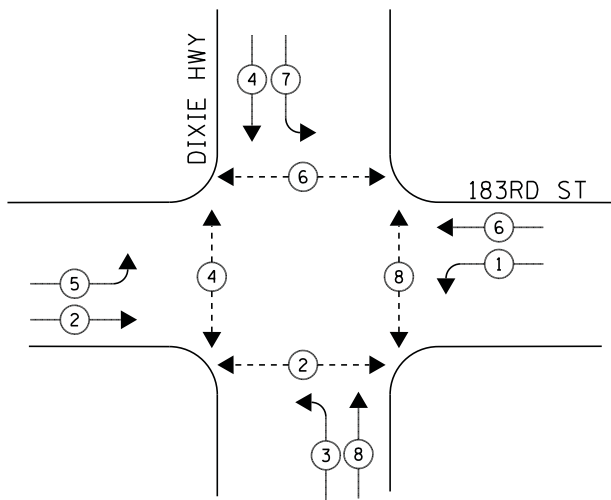
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
183RD STREET AT GOVERNORS HIGHWAY

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	24
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

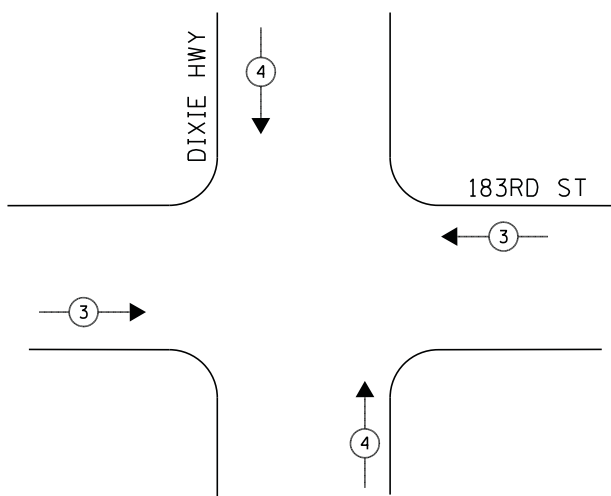


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

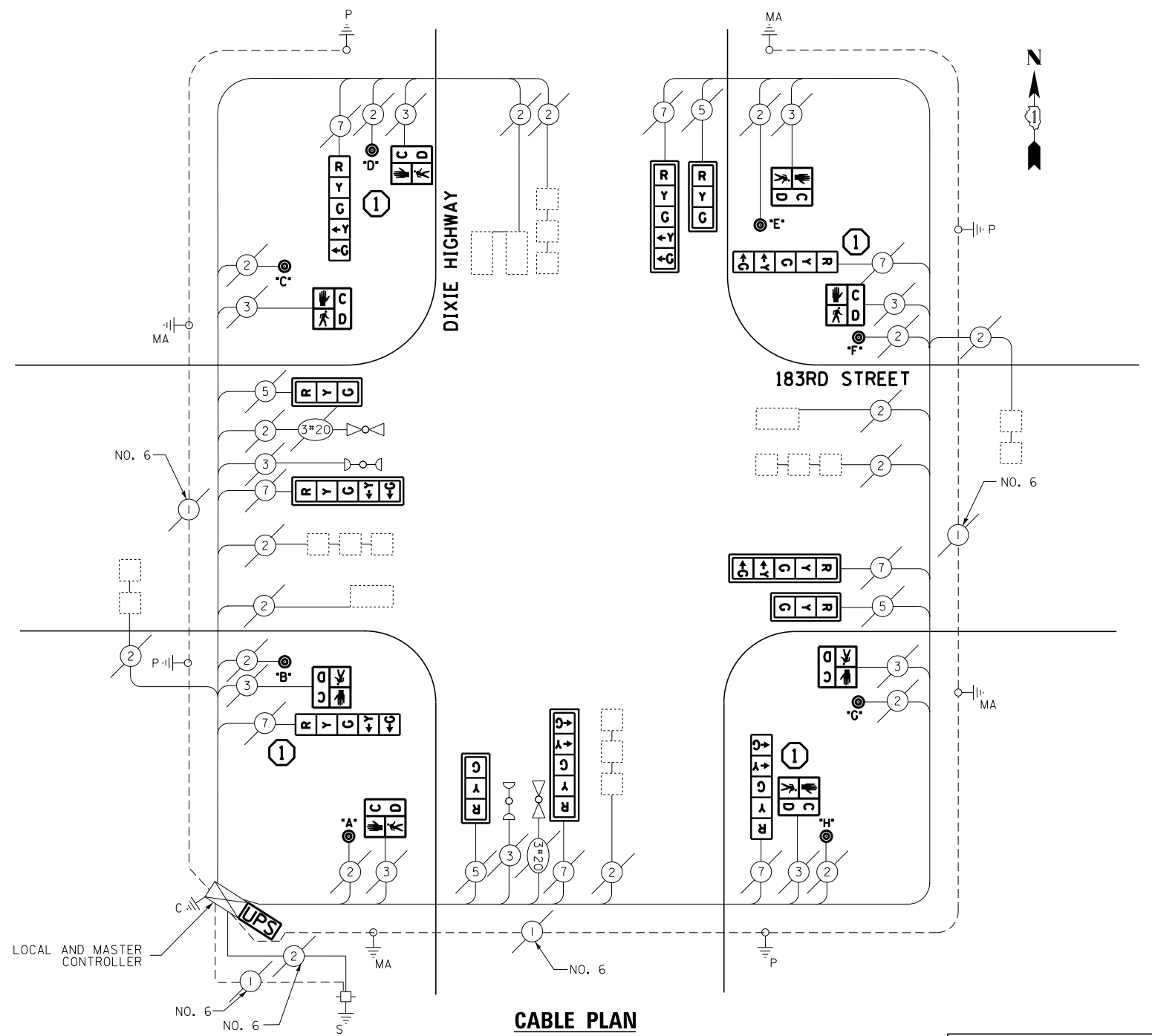
4	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 3-SECTION
8	EACH	SIGNAL HEAD, 5-SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN PUSH-BUTTON

EAGLE EPAC 300  
LOCAL CONTROLLER

EAGLE MARC 300  
MASTER CONTROLLER

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE EAGLE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 11145  
HOMWOOD



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	38.4
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 560.4
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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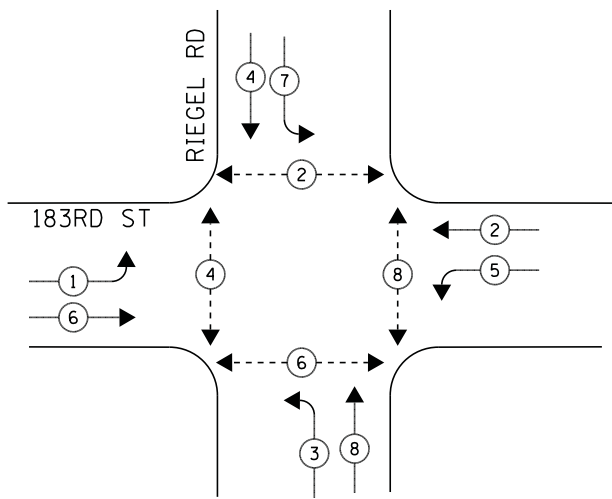
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
183RD STREET AT DIXIE HIGHWAY

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

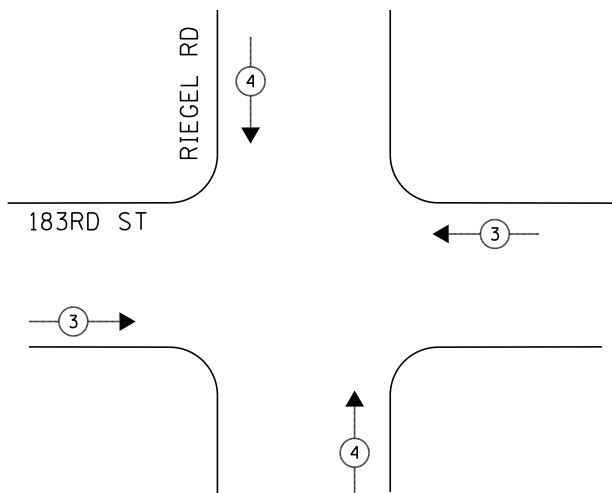
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	25
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

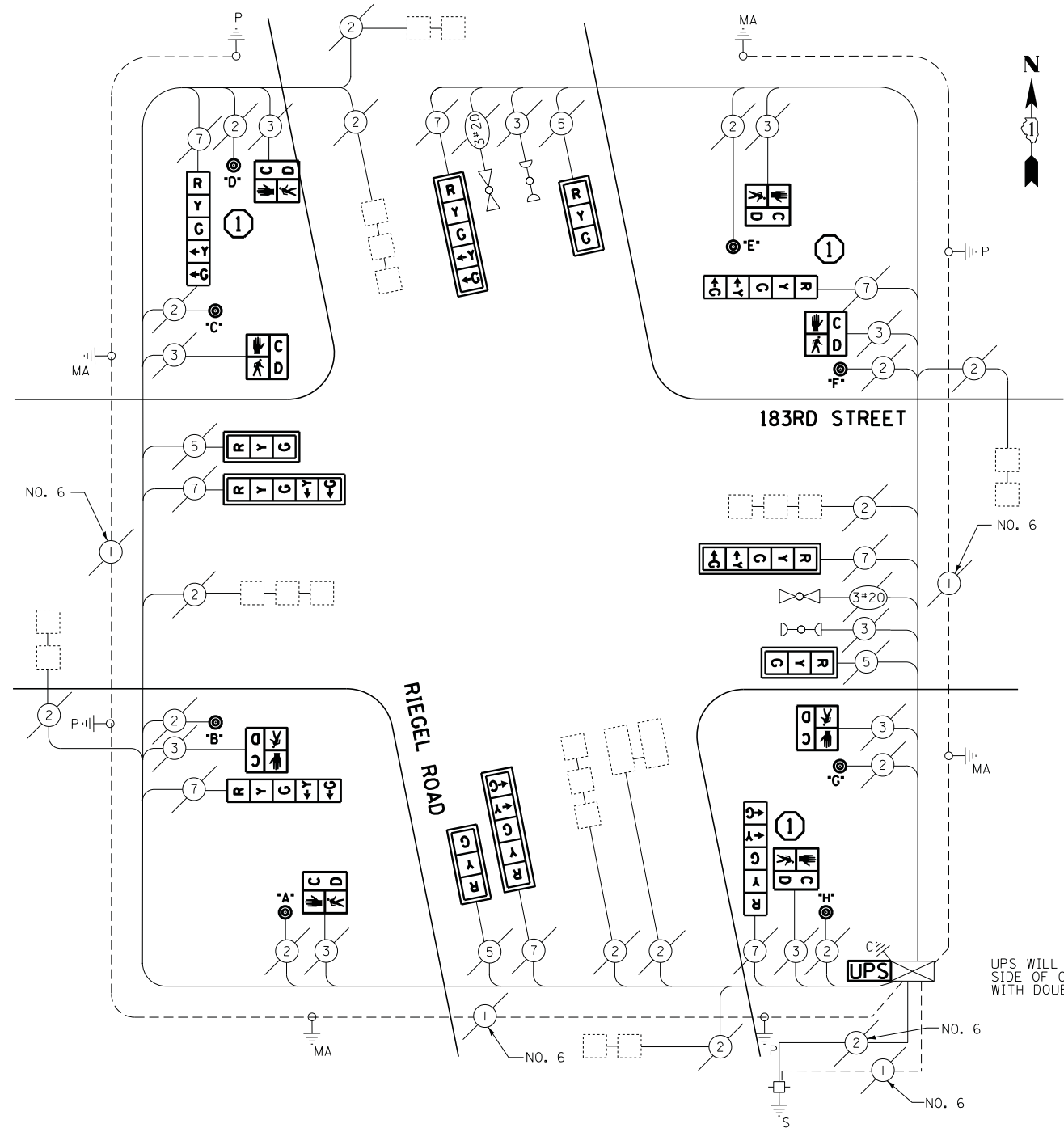


**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 3 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/3-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 4110  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 541.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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	PLOT SCALE = 20.0000' / in.	CHECKED - I.Y.	REVISED -		
	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -		

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

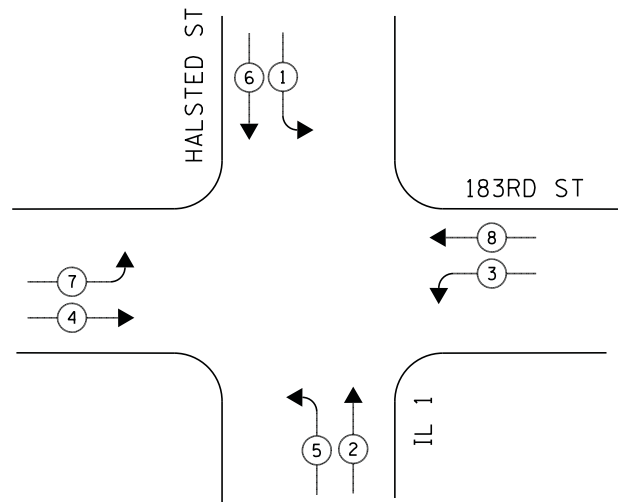
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
183RD STREET AT RIEGEL ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

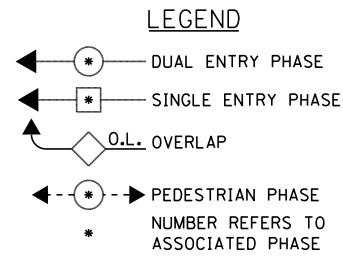
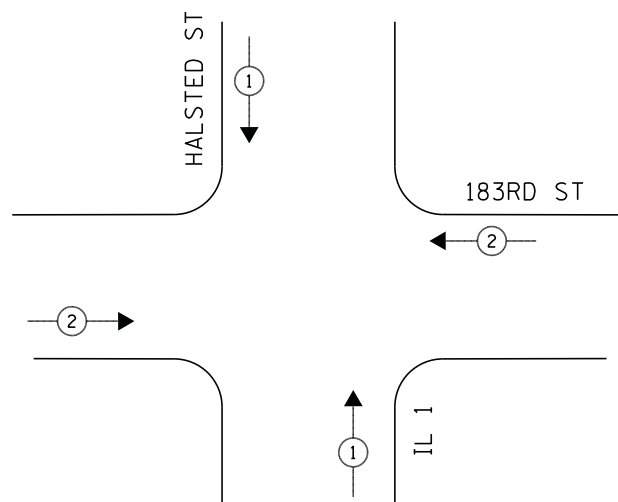
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	26
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

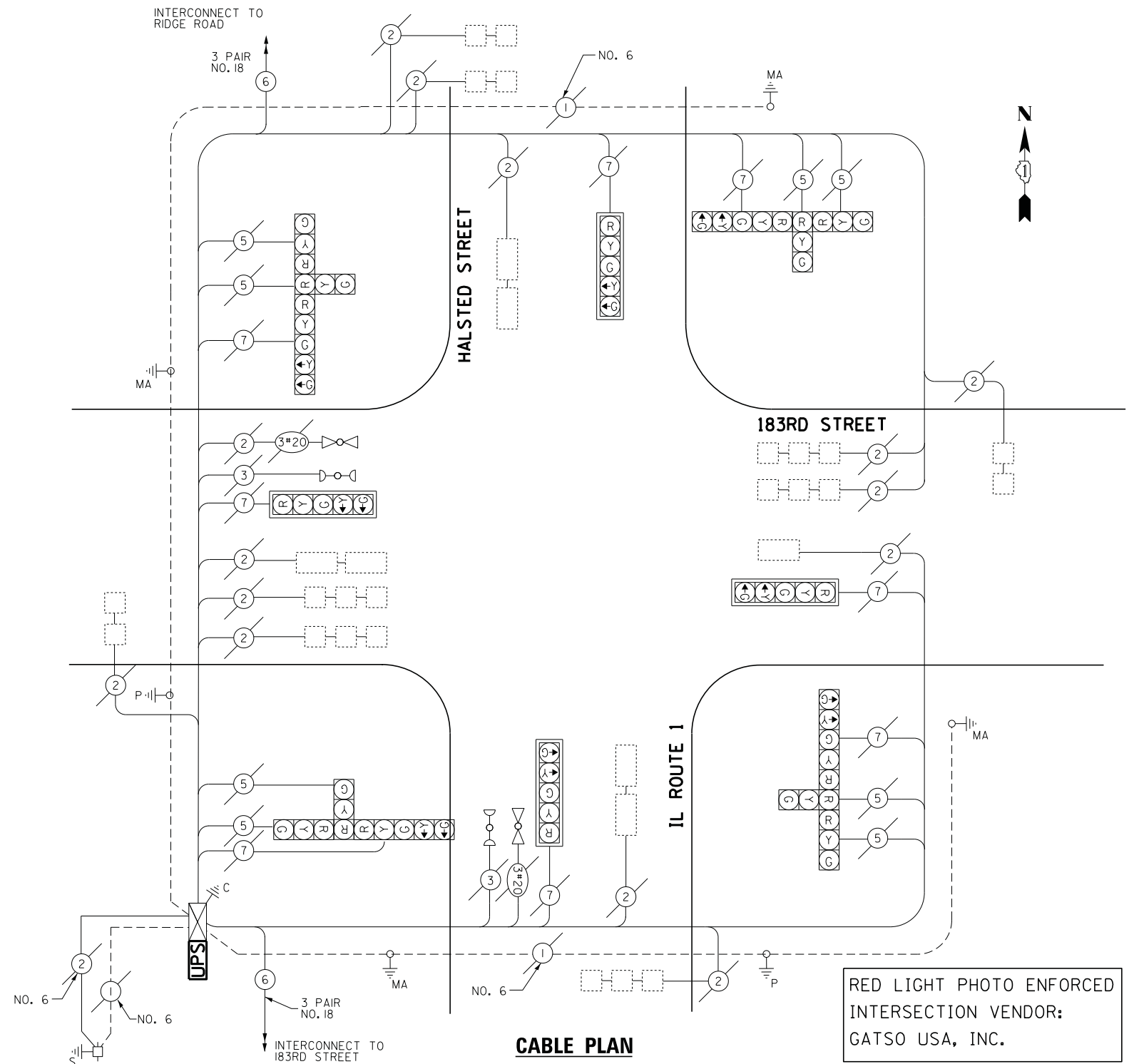
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

RED LIGHT PHOTO ENFORCED  
INTERSECTION VENDOR:  
GATSO USA, INC.

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 1830  
HOMewood

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	16		17	0.5	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	38.4
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 434.4

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

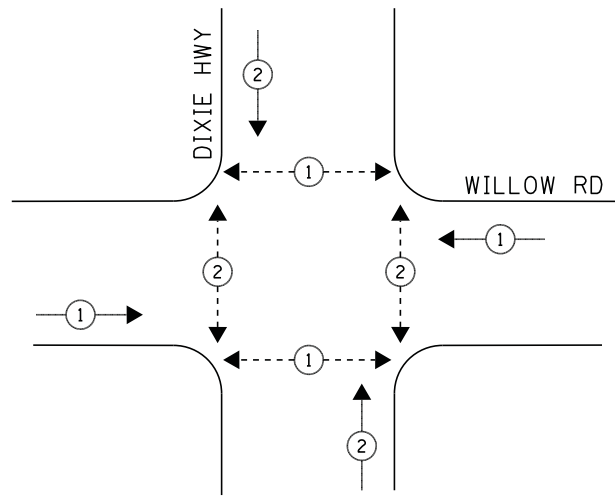
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		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL ROUTE 1 (HALSTED STREET) AT 183RD STREET			
SCALE: NTS	SHEET NO. 1	OF 1 SHEETS	STA. N/A TO STA. N/A

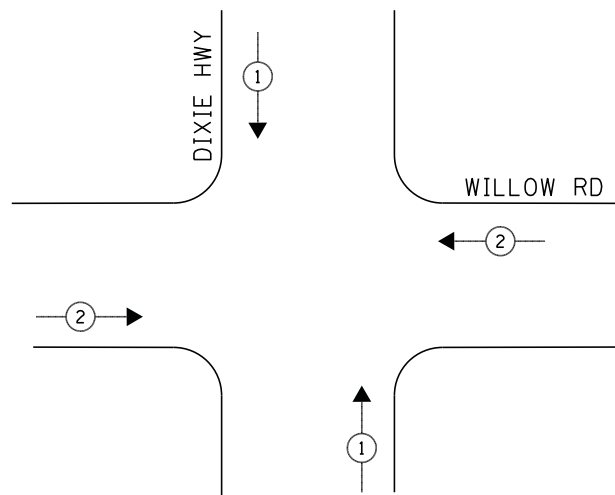
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	27
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

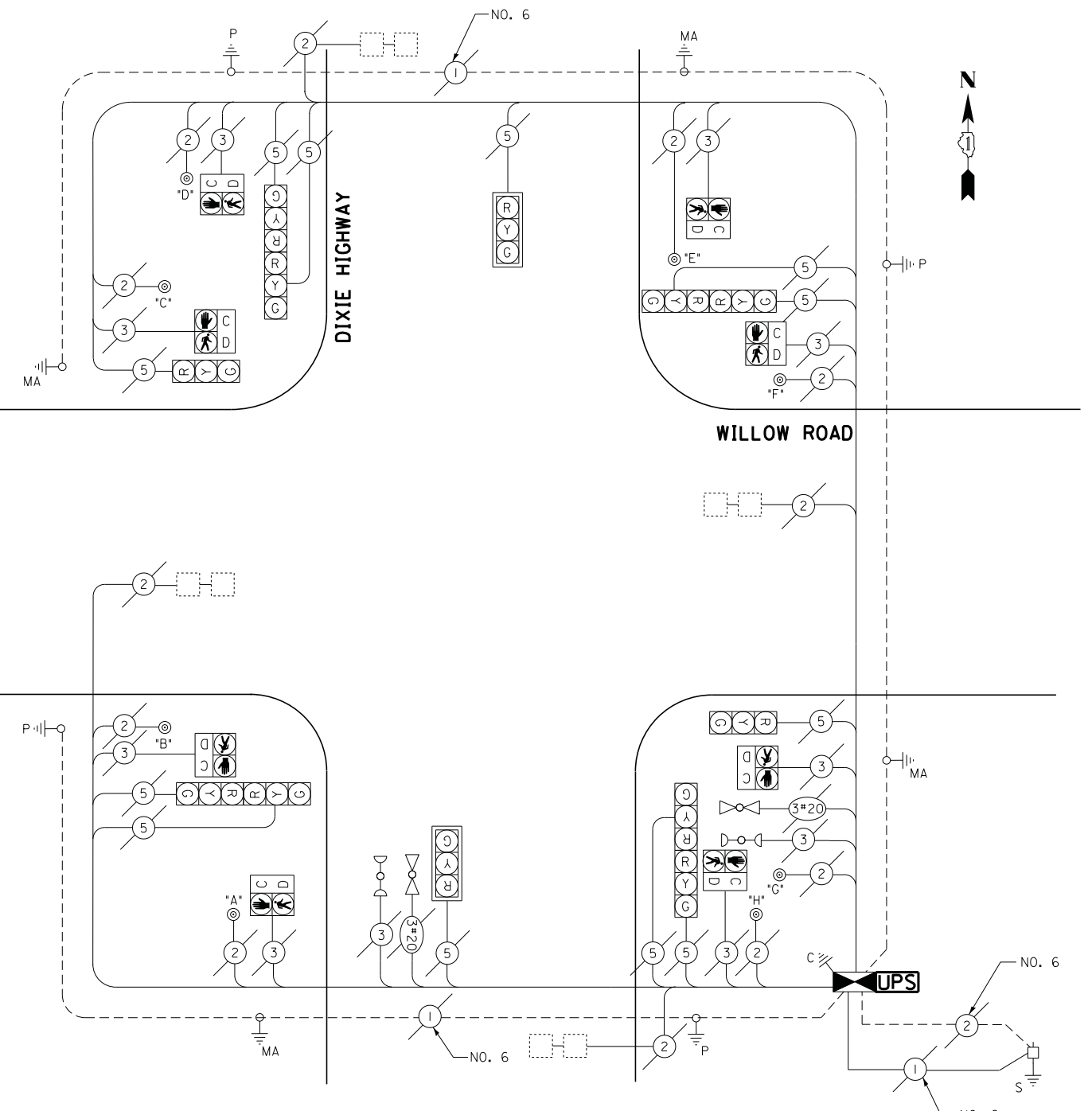
**NOTE:**

RELOCATE EVP PHASING UNIT TO THE NEW CONTROLLER CABINET. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF REPLACING THE CONTROLLER / CABINET.

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑↓	←→

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
4	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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 INDUCTIVE LOOP DETECTOR
- 1 EACH CONTROLLER AND CABINET

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	-		12	0.10	-
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 522

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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		DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

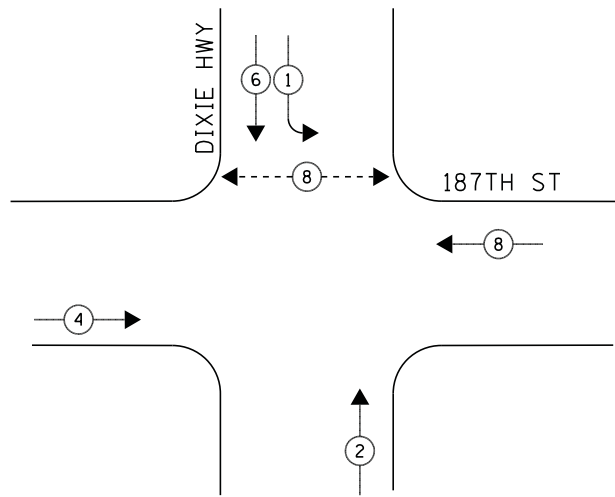
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
DIXIE HIGHWAY AT WILLOW ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	28
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

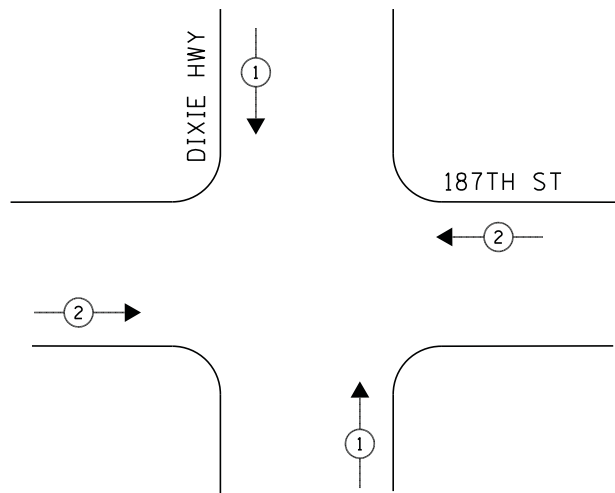
TS# 10745  
HOMWOOD

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

- ① REPLACE 14FT, PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT, PAINTED POST, RE-USE EXISTING FOUNDATION

**NOTE:**

RELOCATE EVP PHASING UNIT TO THE NEW CONTROLLER CABINET. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF REPLACING THE CONTROLLER / CABINET.

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑↓	←→

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	INDUCTIVE LOOP DETECTOR
2	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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	TRAFFIC SIGNAL POST
9	EACH	SIGNAL HEAD, 3-SECTION
3	EACH	SIGNAL HEAD, 5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	PEDESTRIAN PUSH-BUTTON
4	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	CONTROLLER AND CABINET

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
187TH STREET AT DIXIE HIGHWAY**

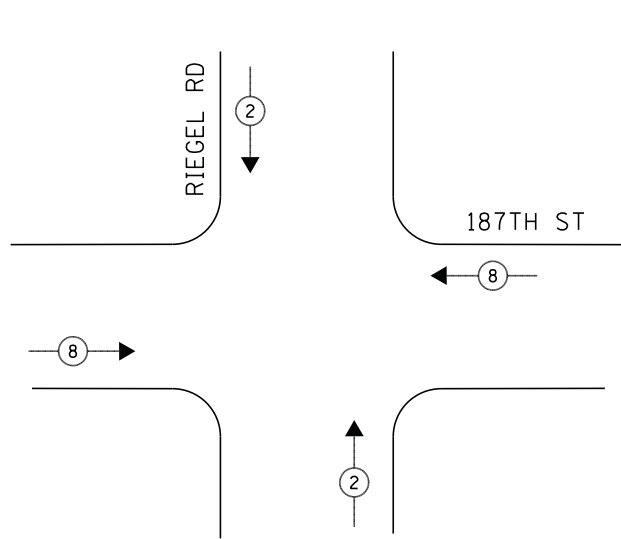
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	29
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

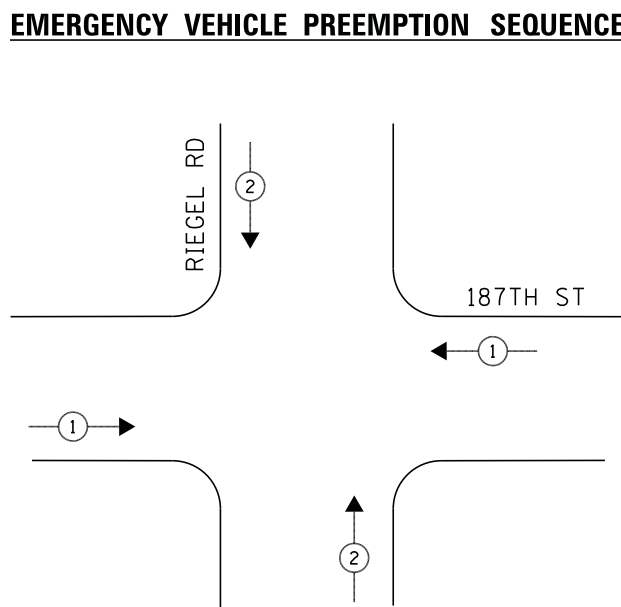
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	4.8
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 376.8
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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		E.C.	-		
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		I.Y.	-		
		DATE -	REVISED -		
		7/11/2014	-		

TS# 10730  
HOMWOOD

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



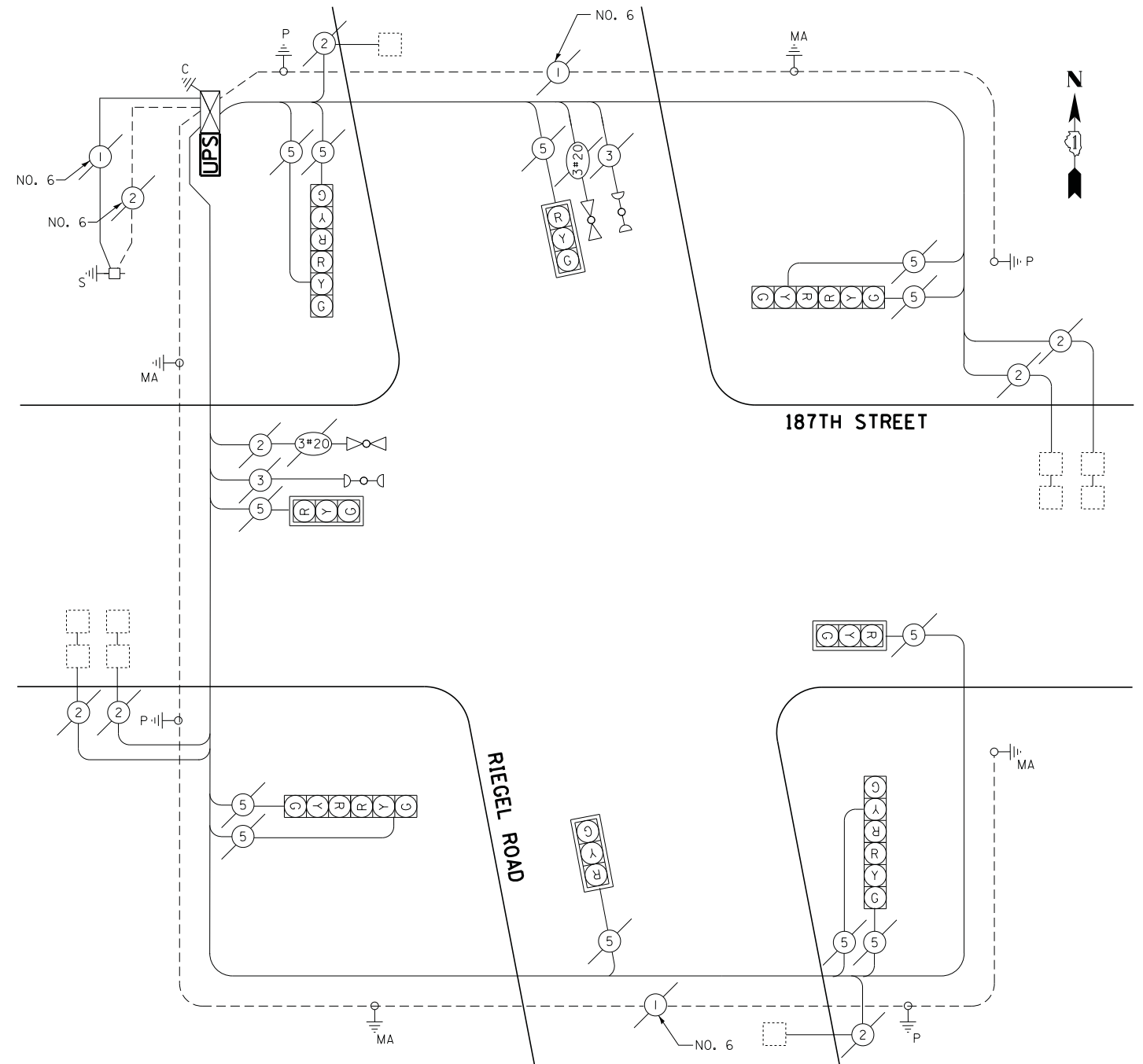
**LEGEND**

- ← \* → DUAL ENTRY PHASE
- ← \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ← \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 322

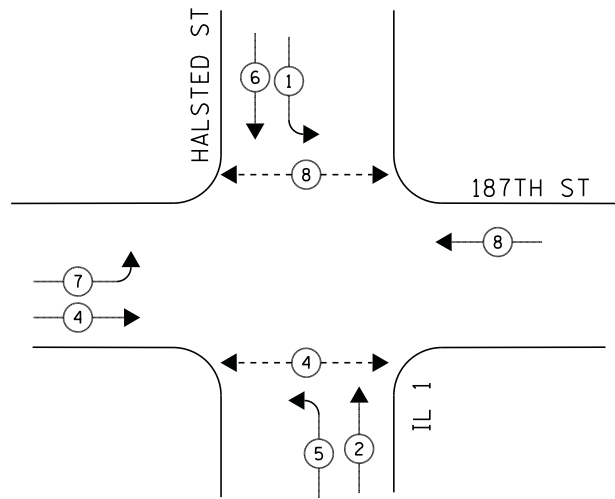
ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

ECONOLITE ASC/3-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

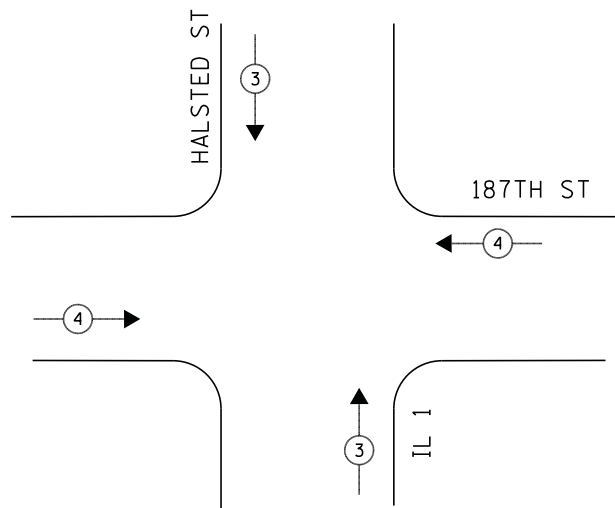
TS# 10735  
HOMewood

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◀ O.L. → OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

- ① REPLACE 14FT, PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT, PAINTED POST, RE-USE EXISTING FOUNDATION

**NOTE:**

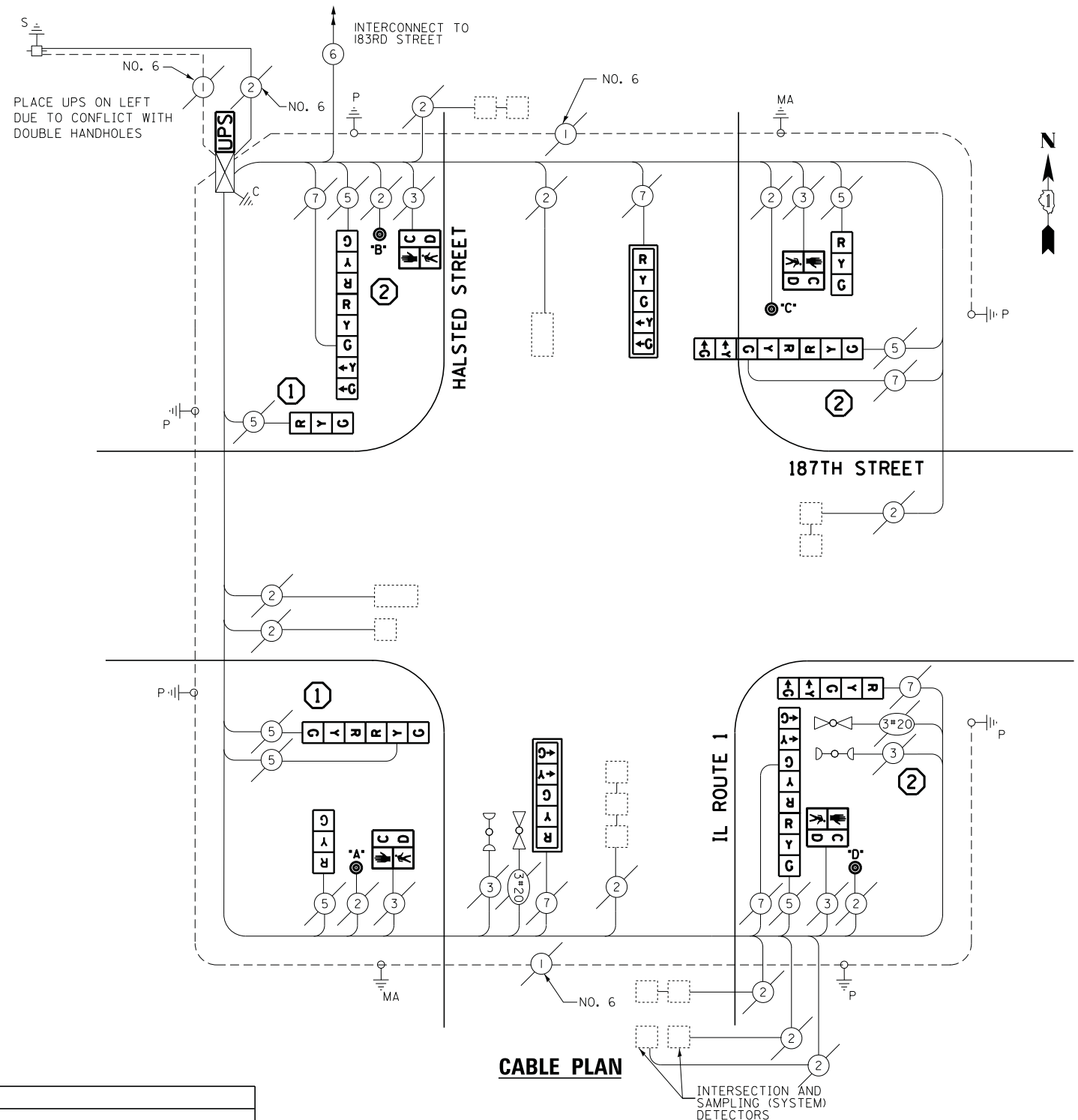
RELOCATION OF EVP WILL BE INCLUDED IN THE COST OF REPLACING THE TRAFFIC SIGNAL POST.

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 5 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 1840  
HOMWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND. LED	%OPERATION	
SIGNAL (RED)	14	17	0.5	119
(YELLOW)	14	25	0.25	87.5
(GREEN)	14	15	0.25	52.5
ARROW	12	12	0.10	14.4
PED. SIGNAL	4	25	1.00	100
CONTROLLER	1	100	1.00	100
ILLUM. SIGN		25	0.05	-
VIDEO SYSTEM			1.00	-
FLASHER				
ENERGY COSTS TO:				TOTAL = 473.4
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON				
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	PLOT SCALE = 20.0000' / in.	CHECKED - I.Y.	REVISED -	
	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

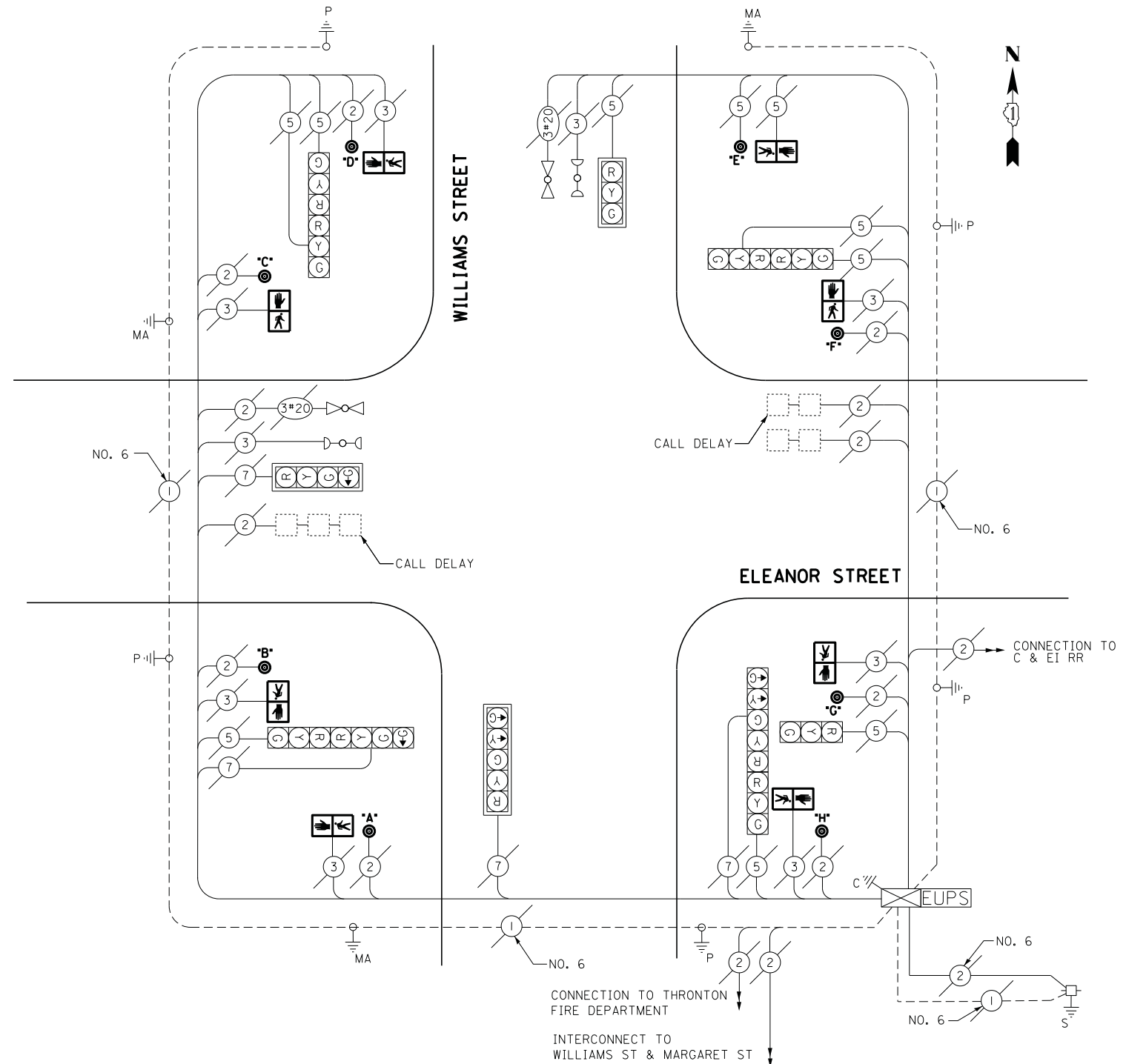
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 1 (HALSTED STREET) AT 187TH STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	31
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**

CONTROLLER SEQUENCE												
PHASE	2+5			2+6			4+8			FLASH		
MOVEMENT	1	2	3	4a	4b	5*	6	7a	8	9	10c	10b
INTERVAL												
CHANGE TO												
N.B. WILLIAMS ST - N.R., M.A., FL. SIGNALS	R	R	R	R	R	G	Y	R	R	R	R	R
S.B. WILLIAMS ST - N.R. SIGNAL	G	G	G	Y	R	G	Y	R	R	R	R	R
S.B. WILLIAMS ST - M.A., FL. SIGNALS	G	G	G	Y	R	G	Y	R	R	R	R	R
E.B. ELEANOR ST - N.R., FL. SIGNALS	R	R	R	R	R	R	R	R	G	G	Y	R
W.B. ELEANOR ST - N.R., M.A., FL. SIGNALS	R	R	R	R	R	R	R	R	G	G	Y	R
PEDESTRIAN CROSSING: ELEANOR ST. ON EAST SIDE OF WILLIAMS ST.	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN CROSSING: ELEANOR ST. ON WEST SIDE OF WILLIAMS ST.	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN CROSSING: WILLIAMS ST ON SOUTH SIDE OF ELEANOR ST.	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN CROSSING: WILLIAMS ST ON NORTH SIDE OF ELEANOR ST.	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	14		15	0.25	52.5
ARROW	4		12	0.10	4.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 334.3
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDUN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 11360  
THORNTON



F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00148-00-IL	COOK	100	027
STA.	TO STA.			
FED. ROAD DIST. NO.	UNNOI	FED. AID PROJECT		

CONTRACT NO. \_\_\_\_\_

**PROPOSED RAILROAD PREEMPTION SEQUENCE OF OPERATIONS**

	FIRE PREEMPTOR NO. 3			EVP PREEMPTOR NO. 4		EVP PREEMPTOR NO. 5		RAILROAD PREEMPTOR NO. 2									CLEAR TO NORMAL SEQUENCE							
FROM NORMAL INTERVAL	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	2A	2B	2C		2A	2B	2C				
RAILROAD INTERVAL																								
CHANGE TO	1B	2A	1D	2A	1F	2A	1H	2A	1K	2A	1M	2A					3A							
NORTHBOUND WILLIAMS STREET - NEAR RIGHT, MAST ARM, AND FAR LEFT SIGNALS	R	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	G	Y	R	R				Δ
SOUTHBOUND WILLIAMS STREET - NEAR RIGHT SIGNAL	Y	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	G	Y	R	R				Δ
SOUTHBOUND WILLIAMS STREET - MAST ARM, FAR LEFT SIGNAL	Y	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	G	Y	R	R				Δ
EASTBOUND ELEANOR STREET - NEAR RIGHT, FAR RIGHT, FAR LEFT SIGNALS	R	R	R	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R				Δ
WESTBOUND ELEANOR STREET - NEAR RIGHT, MAST ARM, FAR LEFT SIGNALS	R	R	R	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R				Δ
PEDESTRIAN CROSSING ELEANOR STREET - EAST SIDE OF WILLIAMS STREET	DW	DW		**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING ELEANOR STREET - WEST SIDE OF WILLIAMS STREET		**DW		**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING WILLIAMS STREET - SOUTH SIDE OF ELEANOR STREET	DW	DW	DW	DW		**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING WILLIAMS STREET - NORTH SIDE OF ELEANOR STREET	DW	DW	DW	DW		**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
																								HOLD

**NOTE**

- \* - "WALK" SHALL APPEAR ONLY UPON PUSHBUTTON ACTIVATION.
  - \*\* - FLASHING "DON'T WALK" SHALL TERMINATE AT THE COMPLETION OF THE PEDESTRIAN CLEARANCE INTERVAL.
  - \*\*\* - FLASHING "DON'T WALK" SHALL TERMINATE AT THE COMPLETION OF THE PEDESTRIAN CLEARANCE INTERVAL, PRIOR TO THE DISPLAY OF YELLOW PHASES.
  - IF RAILROAD PREEMPTION OCCURS DURING A "WALK" INTERVAL, THE WALK INTERVAL SHALL CLEAR WITH RESPECT TO THE NORMAL SEQUENCE.
  - IF FIRE OR EMERGENCY VEHICLE PREEMPTION OCCURS DURING A "WALK" INTERVAL, THE WALK INTERVAL SHALL CLEAR WITH RESPECT TO THE NORMAL SEQUENCE.
- ◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE PROPER CLEARANCE TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER FIRE PREEMPTION (IF APPLICABLE) OR EMERGENCY VEHICLE INTERVALS 3, 4, OR 5 IS TERMINATED.
- ◇ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO DISPLAY A FIRE PREEMPTION OR EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 2 IS TERMINATED.

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS**

	FIRE PREEMPTOR NO. 3			EVP PREEMPTOR NO. 4		EVP PREEMPTOR NO. 5		RAILROAD PREEMPTOR NO. 2									CLEAR TO NORMAL SEQUENCE							
FROM NORMAL INTERVAL	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	2A	2B	2C		2A	2B	2C				
RAILROAD INTERVAL																								
CHANGE TO	1B	1C	3 OR 5	1E	1F	1H	3 OR 5	1I	1M	3 OR 4	1L	1M	3 OR 4	5										
NORTHBOUND WILLIAMS STREET - NEAR RIGHT, MAST ARM, AND FAR LEFT SIGNALS	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	G	R	R	R				Δ
SOUTHBOUND WILLIAMS STREET - NEAR RIGHT SIGNAL	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	G	R	R	R				Δ
SOUTHBOUND WILLIAMS STREET - MAST ARM, FAR LEFT SIGNALS	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	G	R	R	R				Δ
EASTBOUND ELEANOR STREET - NEAR RIGHT, FAR RIGHT, FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R				Δ
WESTBOUND ELEANOR STREET - NEAR RIGHT, MAST ARM, FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R				Δ
PEDESTRIAN CROSSING ELEANOR STREET - EAST SIDE OF WILLIAMS STREET	DW	DW	DW	DW	DW	**DW	DW	DW	**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING ELEANOR STREET - WEST SIDE OF WILLIAMS STREET	**DW	DW	DW	**DW	DW	**DW	DW	DW	**DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING WILLIAMS STREET - SOUTH SIDE OF ELEANOR STREET	DW	DW	DW	DW	DW	DW	DW	DW	DW	**DW	DW	DW	**DW	DW	DW	DW	DW	DW	DW	DW				Δ
PEDESTRIAN CROSSING WILLIAMS STREET - NORTH SIDE OF ELEANOR STREET	DW	DW	DW	DW	DW	DW	DW	DW	DW	**DW	DW	DW	**DW	DW	DW	DW	DW	DW	DW	DW				Δ

**NOTE**

- \* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

VILLAGE OF THORNTON  
LOCATION NO. 95

\* PLANS MODIFIED BY  
ROBINSON ENGINEERING, LTD

REVISIONS	
NAME	DATE
* ADDED EV PREEMPTION	11/8/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS WILLIAMS STREET AND ELEANOR STREET**

SCALE: VERT. \_\_\_\_\_ HORIZ. \_\_\_\_\_

DATE: \_\_\_\_\_ DRAWN BY: MRS \_\_\_\_\_ CHECKED BY: PB \_\_\_\_\_

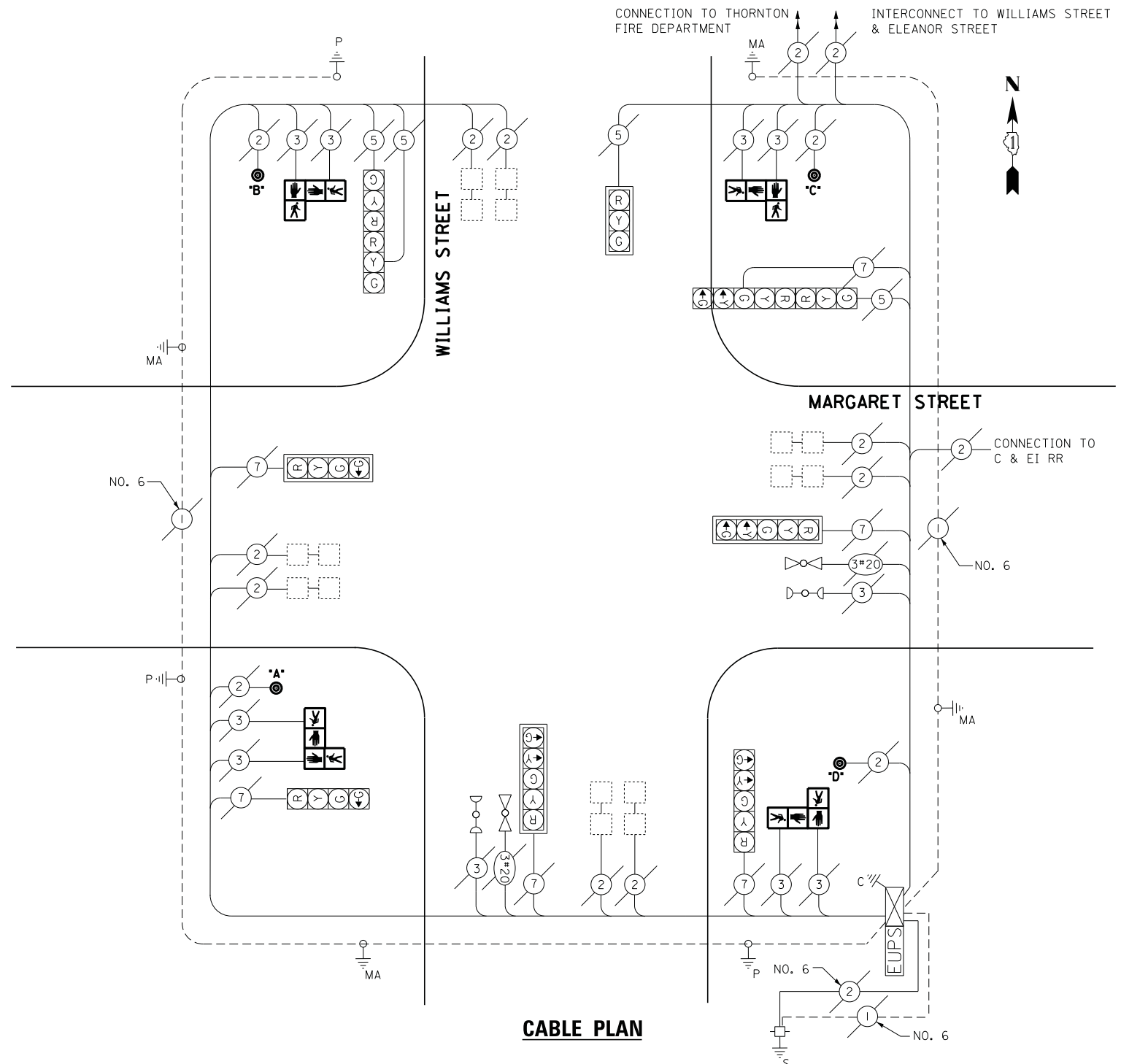
ROBINSON ENGINEERING, LTD.  
2700 SOUTH PARKWAY SOUTH HOLLAND, ILLINOIS 60473  
TEL: 815/381-1100 FAX: 815/381-1101  
ILLINOIS DESIGN FIRM REGISTRATION NO. 148181314

07240-06

TS# 11360  
THORNTON

**CONTROLLER SEQUENCE**

CONTROLLER SEQUENCE		2+5		2+5		4+8		FLASH				
PHASE	MOVEMENT	1	2	3	4n	5*	6		7n	8	9	10n
INTERVAL												
CHANGE TO												
N.B. WILLIAMS ST. - N.R., M.A., FL. SIGNALS		R	R	R	R	R	G	G	Y	R	R	R
S.B. WILLIAMS ST. - N.R. SIGNAL		G	G	G	Y	R	G	G	Y	R	R	R
S.B. WILLIAMS ST. - M.A., FL. SIGNALS		G	G	G	Y	R	G	G	Y	R	R	R
E.B. ELEANOR ST. - N.R., E.R., FL. SIGNALS		R	R	R	R	R	R	R	R	G	G	Y
W.B. ELEANOR ST. - N.R., M.A., FL. SIGNALS		R	R	R	R	R	R	R	R	G	G	Y
PEDESTRIAN CROSSING: ELEANOR ST. ON EAST SIDE OF WILLIAMS ST.		DW	DW	DW	DW	DW	W	DW	DW	DW	DW	DW
PEDESTRIAN CROSSING: ELEANOR ST. ON WEST SIDE OF WILLIAMS ST.		W	DW	DW	DW	DW	W	DW	DW	DW	DW	DW
PEDESTRIAN CROSSING: WILLIAMS ST. ON SOUTH SIDE OF ELEANOR ST.		DW	DW	DW	DW	DW	DW	DW	DW	W	DW	DW
PEDESTRIAN CROSSING: WILLIAMS ST. ON NORTH SIDE OF ELEANOR ST.		DW	DW	DW	DW	DW	DW	DW	DW	W	DW	DW



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	10		17	0.5	85
(YELLOW)	10		25	0.25	62.5
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	9.6
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 302.1
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDUN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

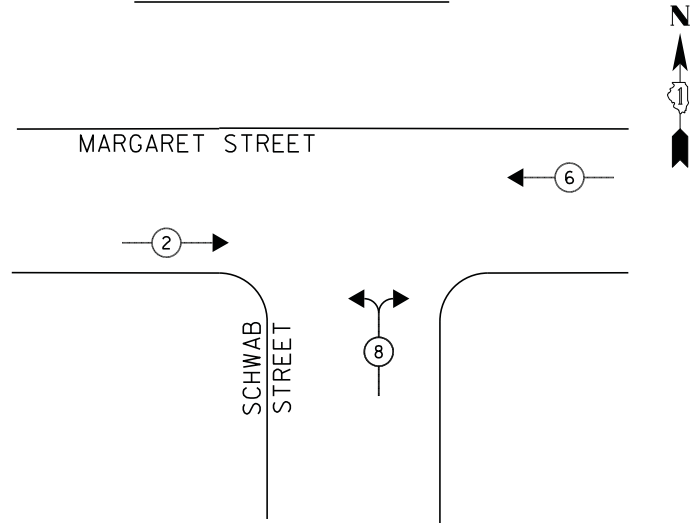
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM  
MARGARET STREET AT WILLIAMS STREET

TS# 11355  
THORNTON



**CONTROLLER SEQUENCE**

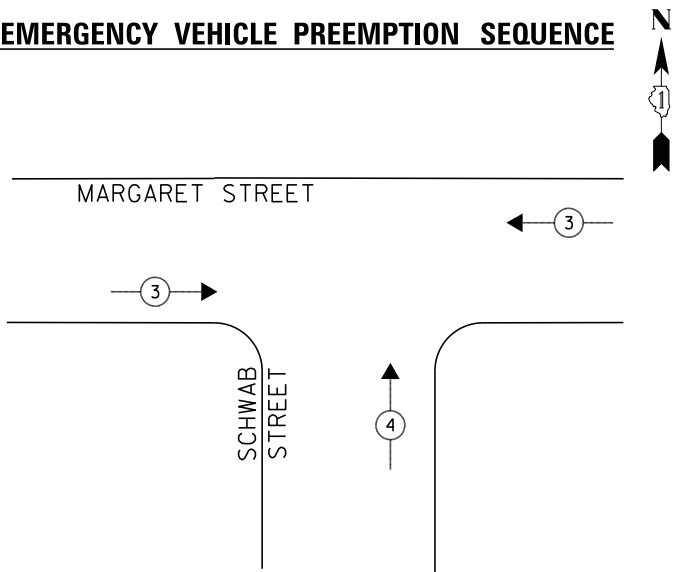


**LEGEND**

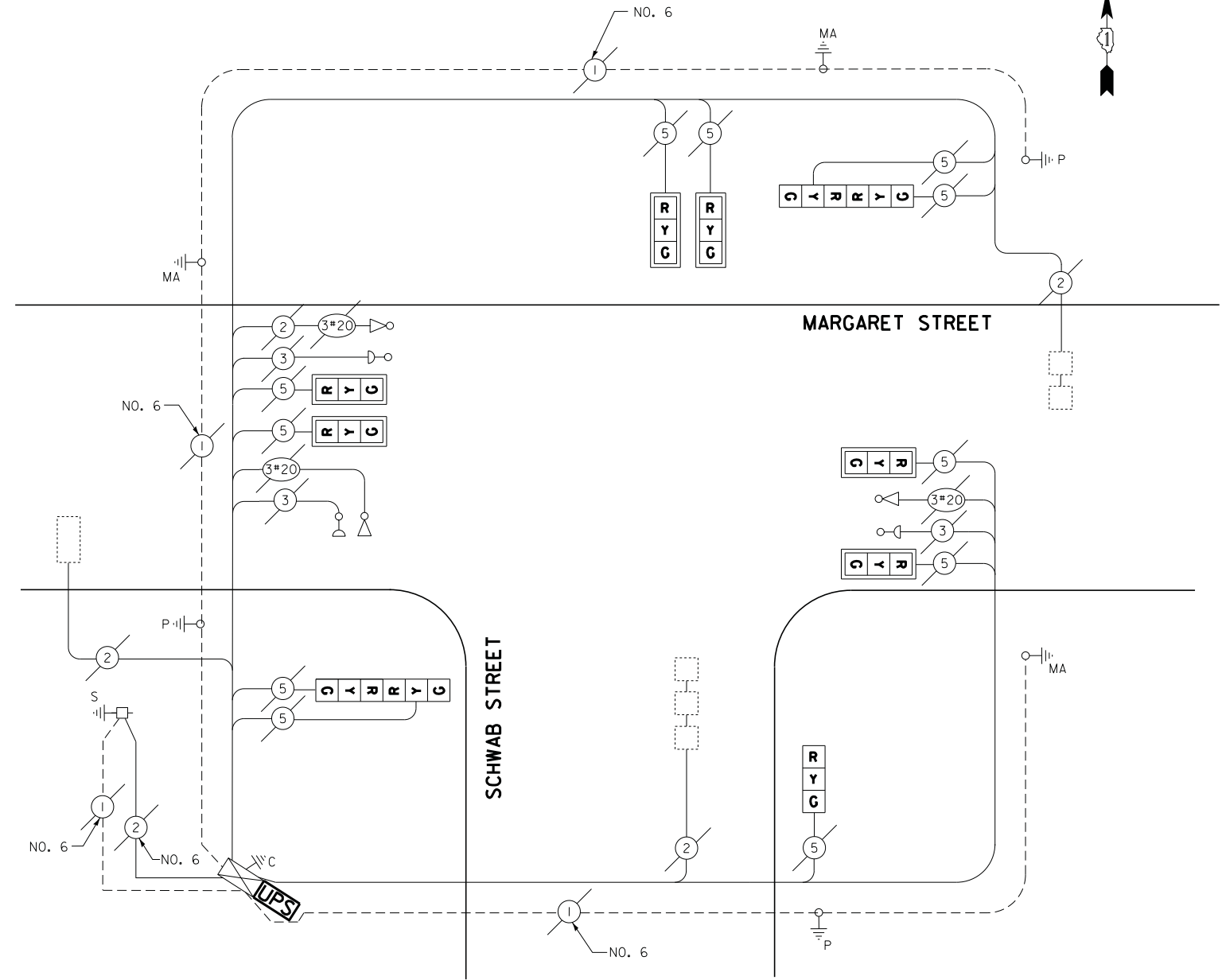
- ◀ (6) → \* DUAL ENTRY PHASE
- ◀ (6) → □ SINGLE ENTRY PHASE
- ◀ (6) → ◇ O.L. OVERLAP
- ◀ (6) → \* → PEDESTRIAN PHASE  
\* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	11		17	0.5	93.5
(YELLOW)	11		25	0.25	68.75
(GREEN)	11		15	0.25	41.25
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 303.5

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDUN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

**SCHEDULE OF QUANTITIES**

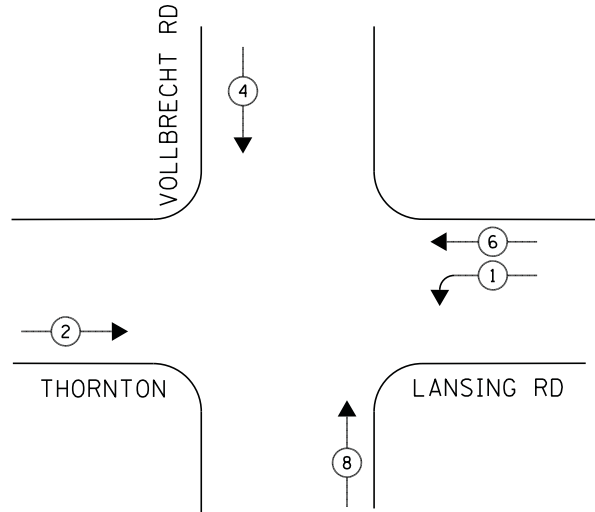
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 11356  
THORNTON

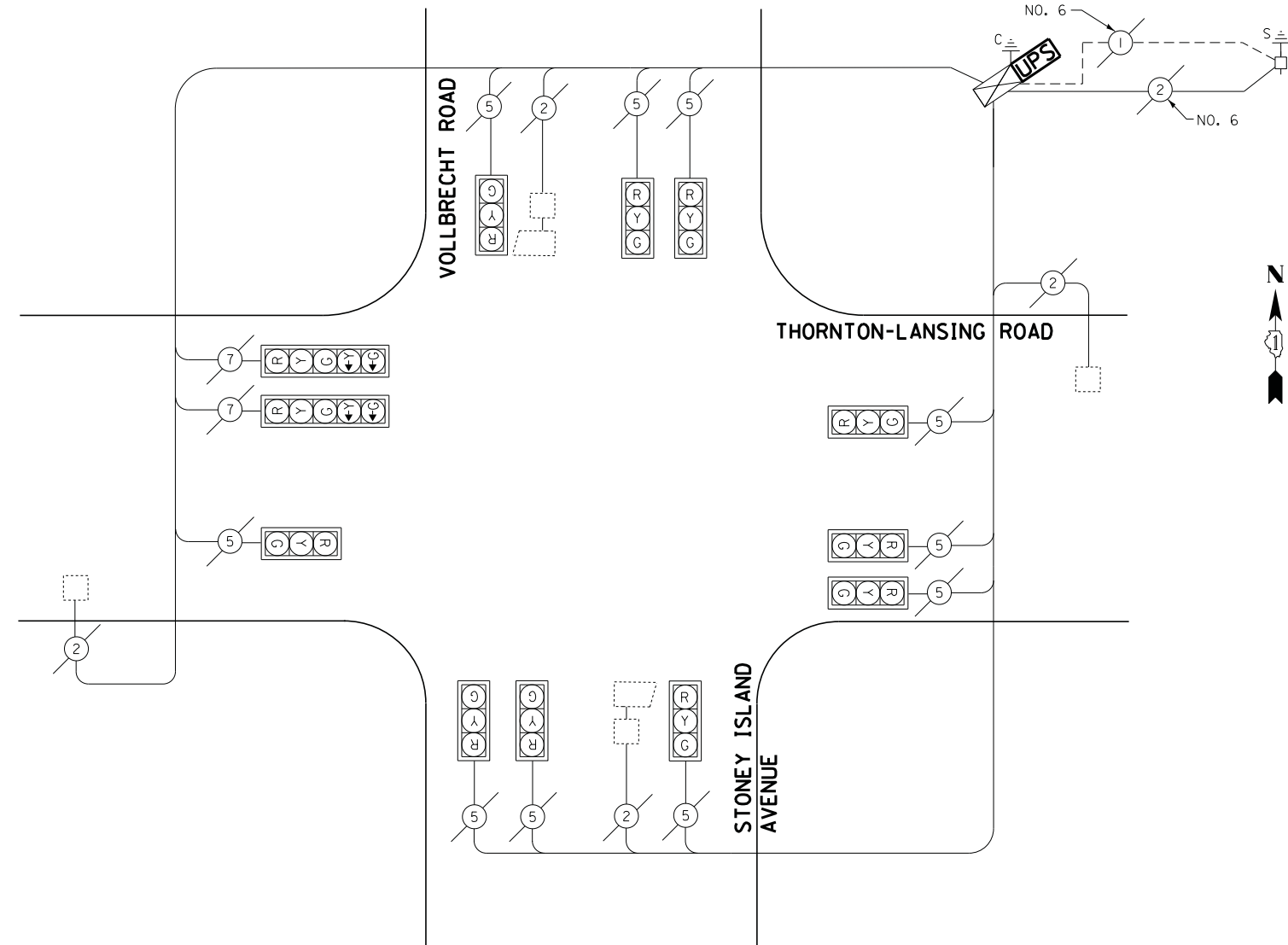
**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**LEGEND**

- ◁ \* ▷ DUAL ENTRY PHASE
- ◁ \* ▷ SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◁ \* ▷ PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	4.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 326.8

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

**SCHEDULE OF QUANTITIES**

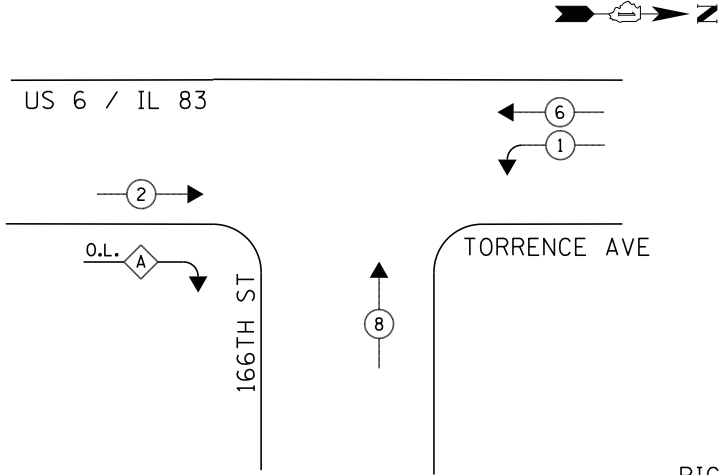
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

ECONOLITE ASC/2-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

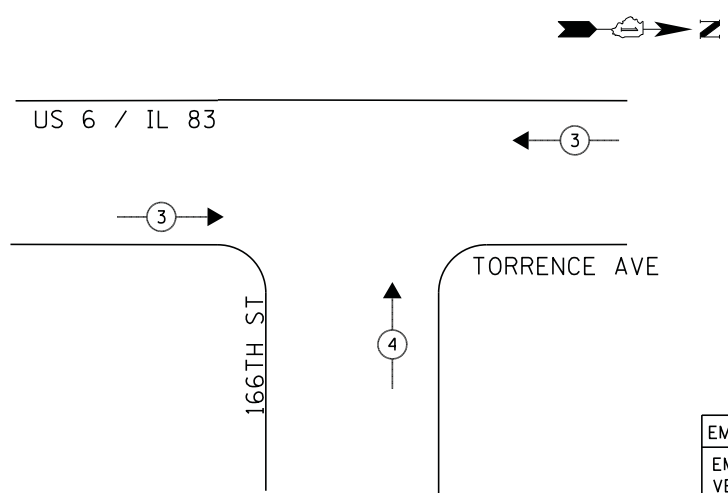
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THORNTON / LANSING

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 8

- ① REPLACE 14FT. PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

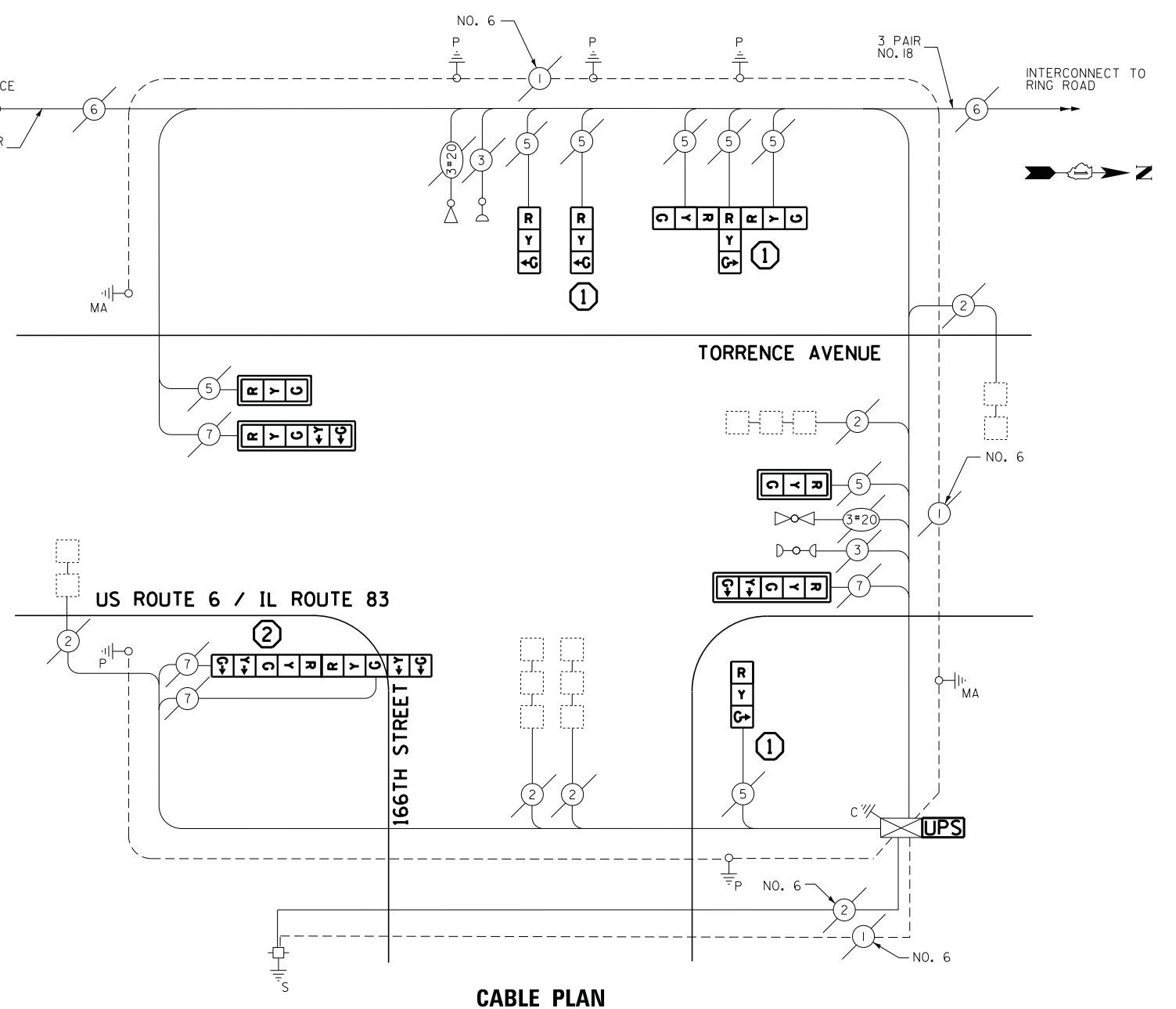
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

8	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	TRAFFIC SIGNAL POST

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 20955  
LANSING



**CABLE PLAN**

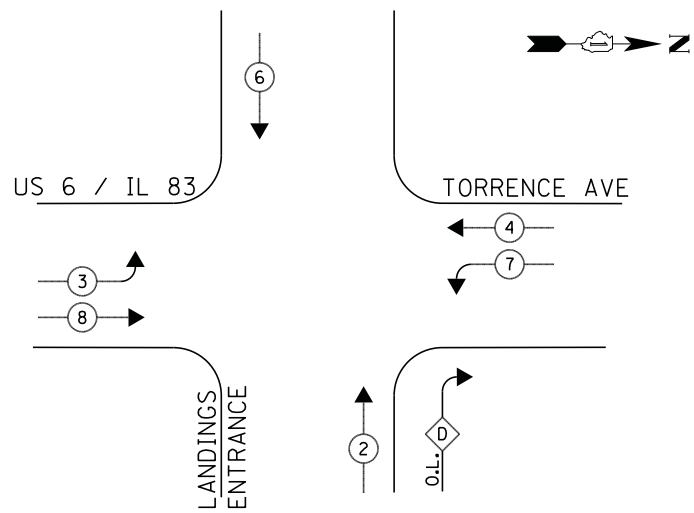
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	9.6
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 331.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
FILE NAME =	USER NAME = .USER_	DESIGNED - V.O.	REVISED -		
J:\13155\60Y42\DCN\CADD Sheets\0160Y42	ht-ts-23.20955.dgn	DRAWN - E.C.	REVISED -		
	PLOT SCALE = 20.0000' / in.	CHECKED - I.Y.	REVISED -		
	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US ROUTE 6 / IL ROUTE 83 (TORRENCE AVENUE) AT 166TH STREET / FIELDCREST DRIVE  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

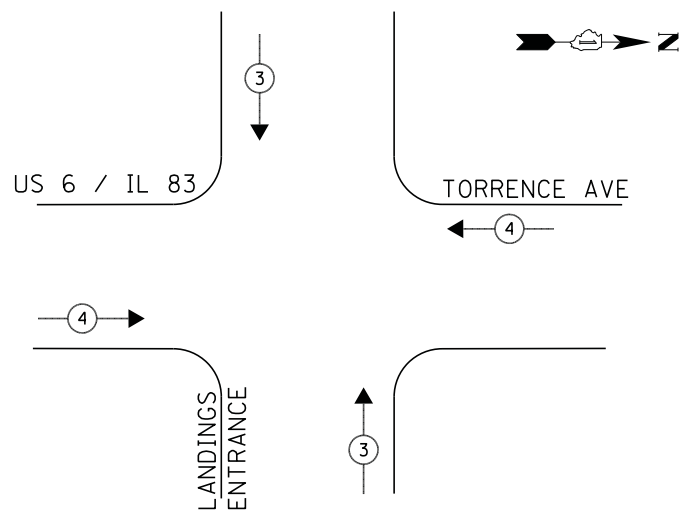
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	38
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ □ → SINGLE ENTRY PHASE
- ◀ ◇ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 2	+ 7

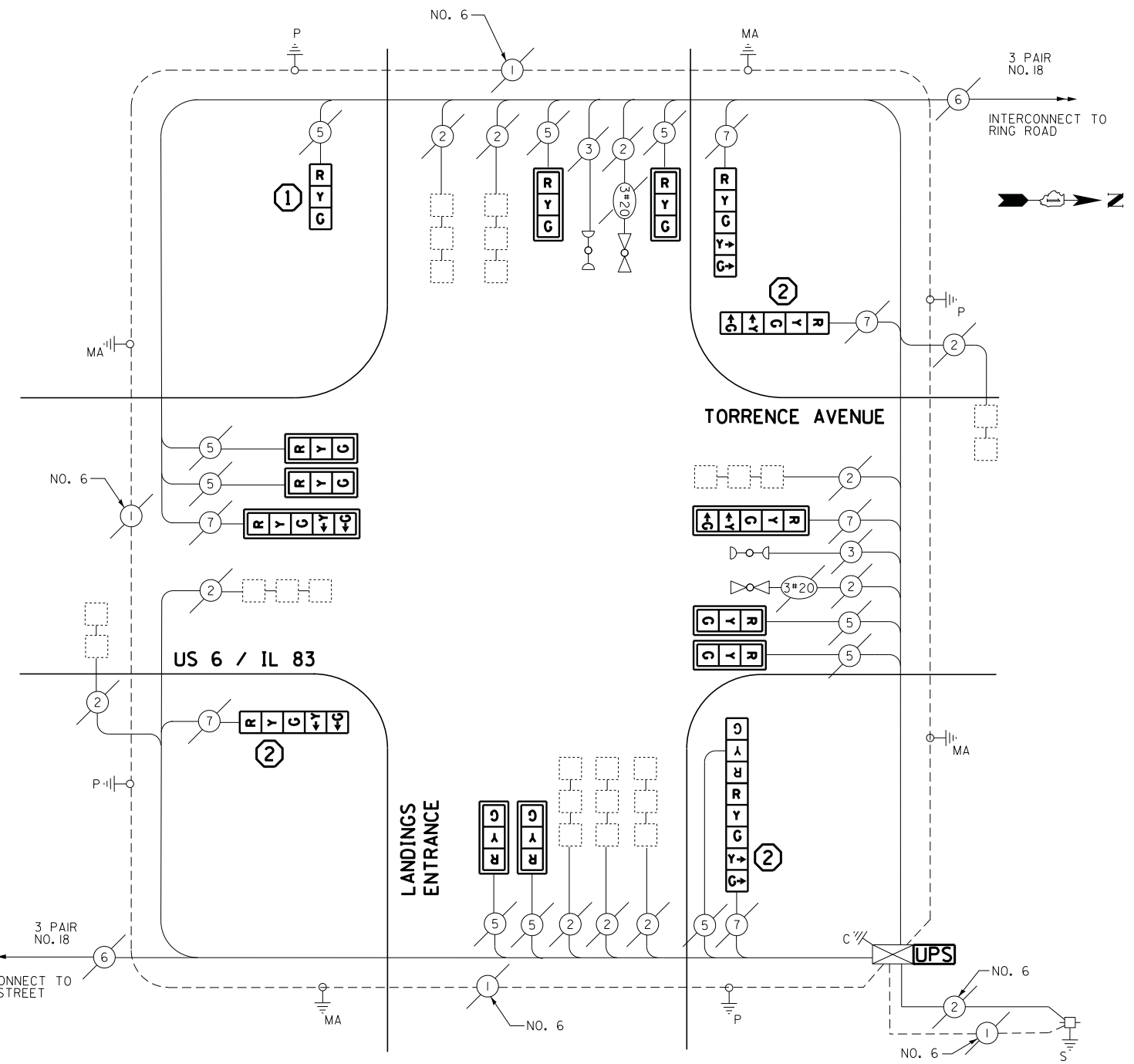
- ① REPLACE 14FT, PAINTED POST, RE-USE EXISTING FOUNDATION
- ② REPLACE 16FT, PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	16		17	0.5	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	12		12	0.10	14.4
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		-	1.00	-
FLASHER	-		-	-	-
ENERGY COSTS TO:					TOTAL = 410.4
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

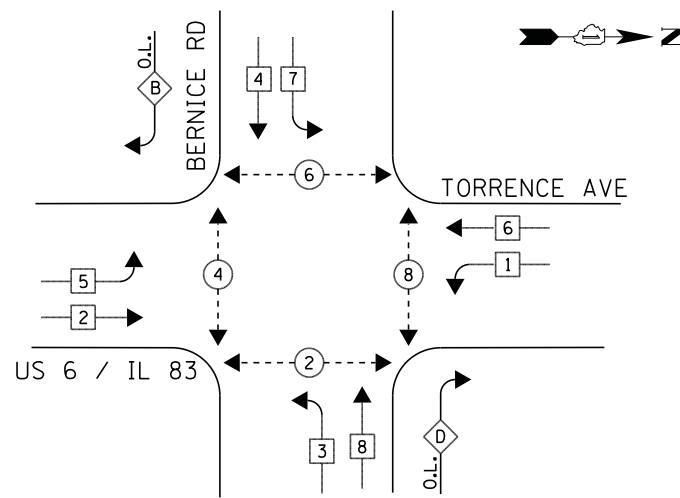
- 10 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL POST

ECONOLITE ASC/2-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 11350  
LANSING

**CONTROLLER SEQUENCE**



**LEGEND**

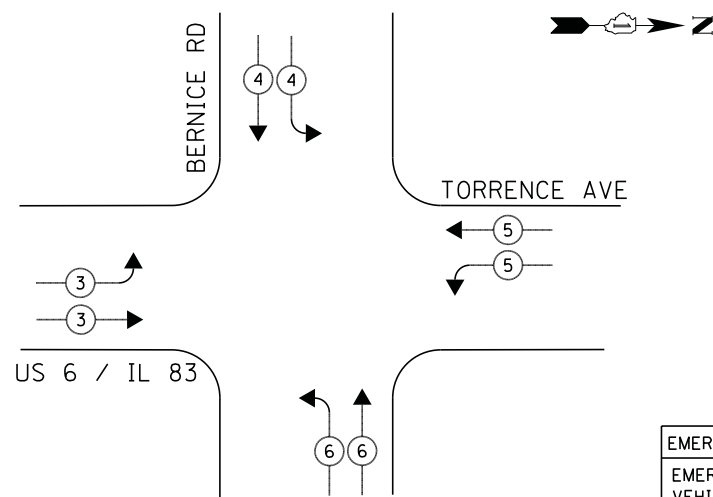
- ◀ \* — DUAL ENTRY PHASE
- ◀ \* — SINGLE ENTRY PHASE
- ◊ O.L. — OVERLAP
- ◀ \* — PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

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

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↘	↓	↙	↗

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

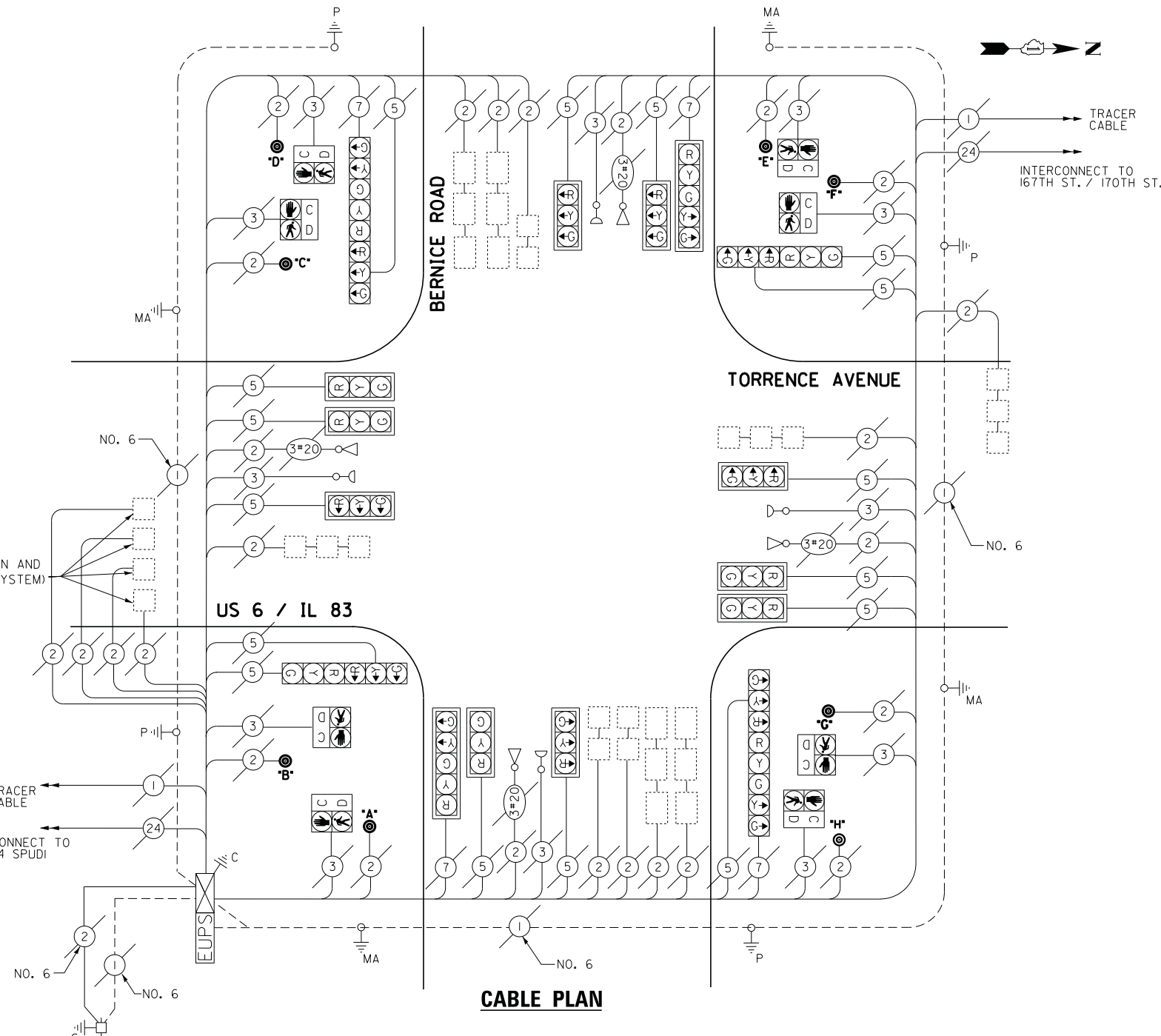
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	20		17	0.5	170
(YELLOW)	20		25	0.25	125
(GREEN)	20		15	0.25	75
ARROW	4		12	0.10	4.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 474.8

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

INTERCONNECT TO I-80/94 SPUDI

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

8 EACH PEDESTRIAN PUSH-BUTTON

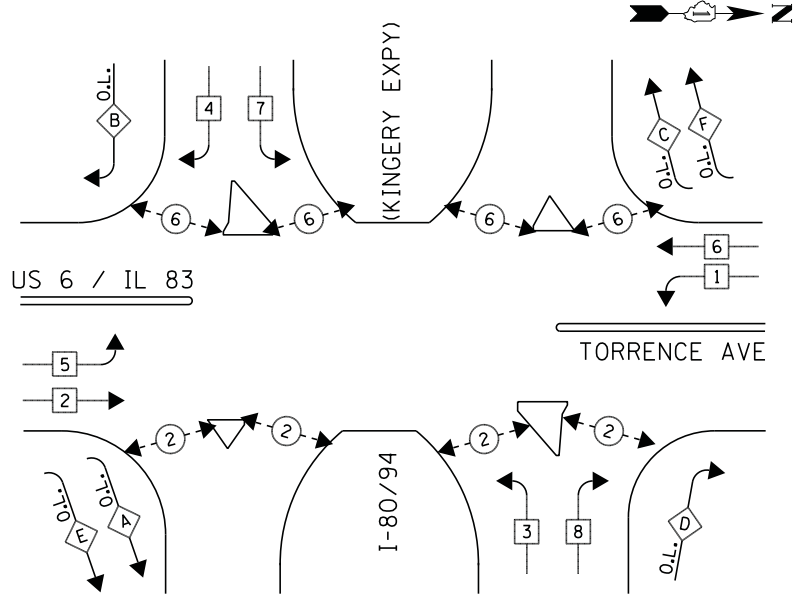
ECONOLITE ASC/2-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 12000  
LANSING

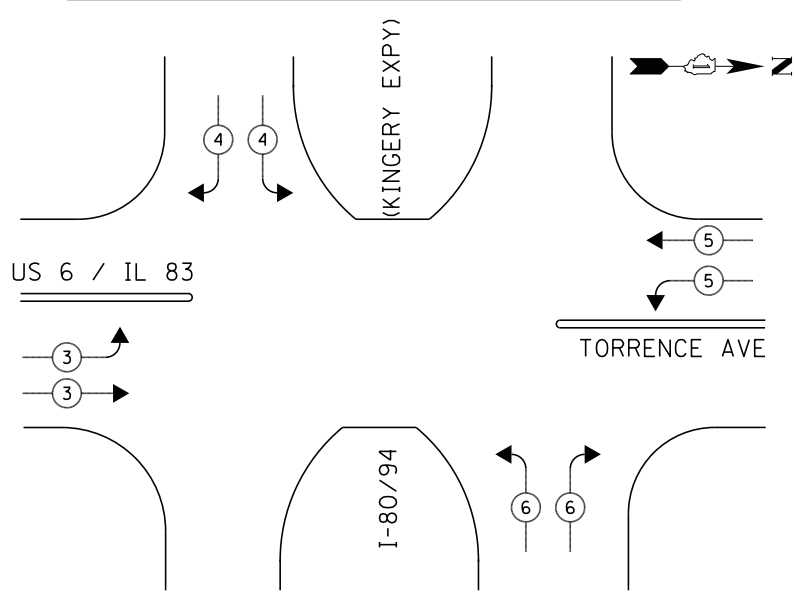


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↪	↪	↪

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2 +	3
B	= 4 +	5
C	= 6 +	7
D	= 8 +	1
E	= 2 +	7
F	= 6 +	3

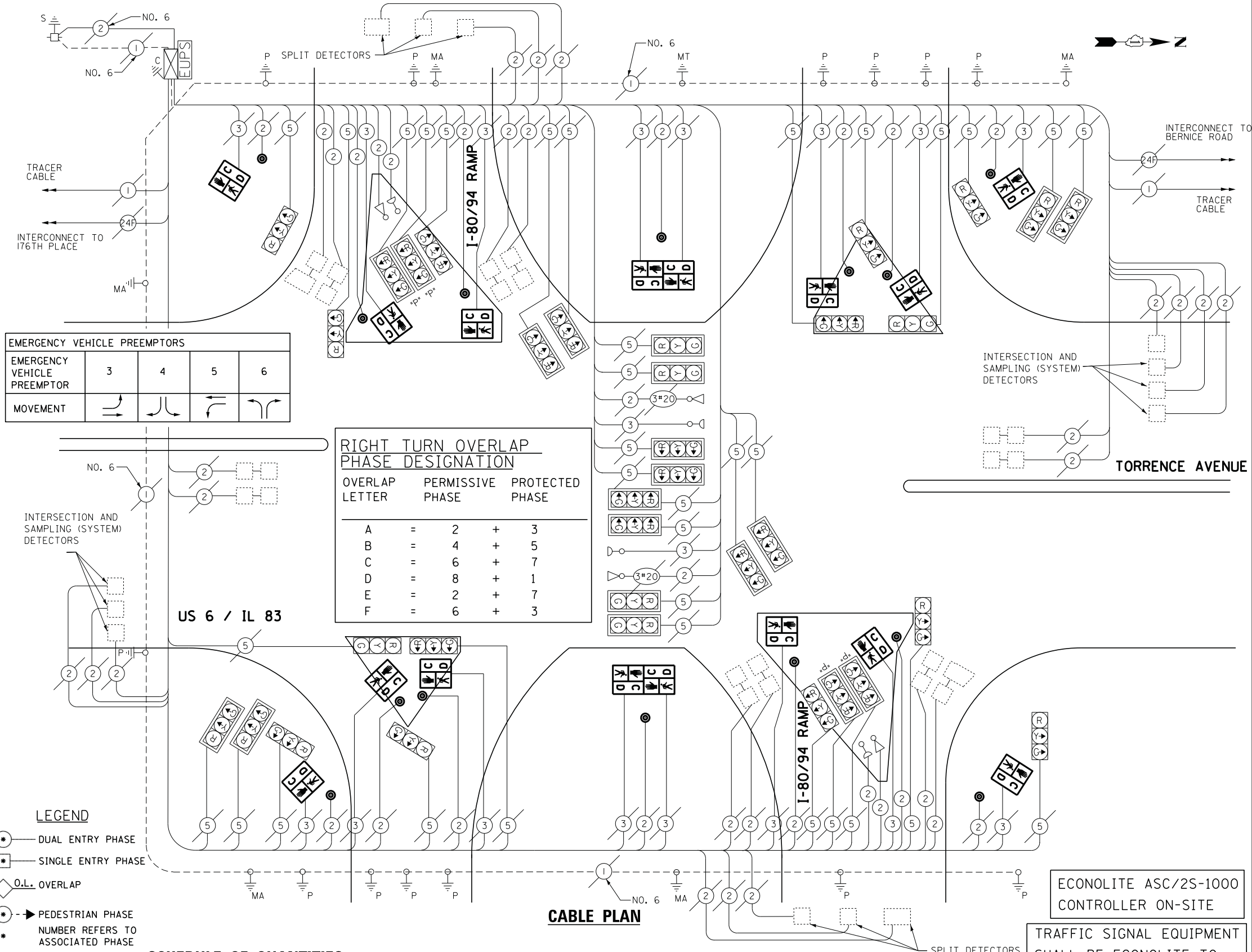
**LEGEND**

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ◇ O.L. OVERLAP
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
12	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
14	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

16	EACH	PEDESTRIAN SIGNAL HEAD
14	EACH	PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

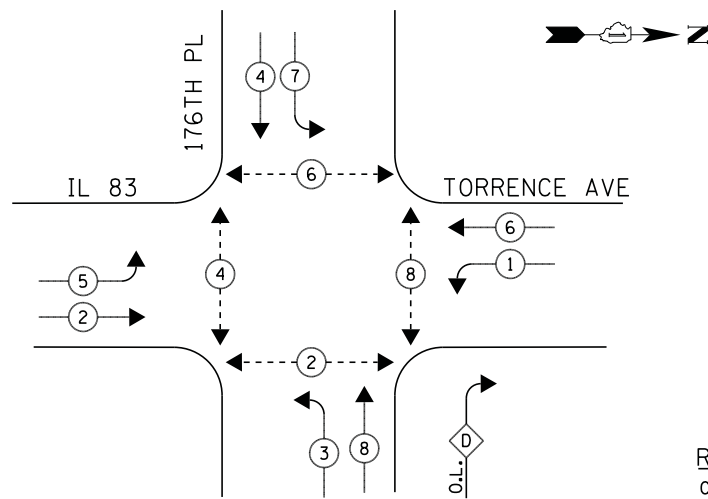
**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	34		17	0.5	289
(YELLOW)	34		25	0.25	212.5
(GREEN)	34		15	0.25	127.5
ARROW	-		12	0.10	-
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 879

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

TS# 13942  
LANSING

**CONTROLLER SEQUENCE**



**LEGEND**

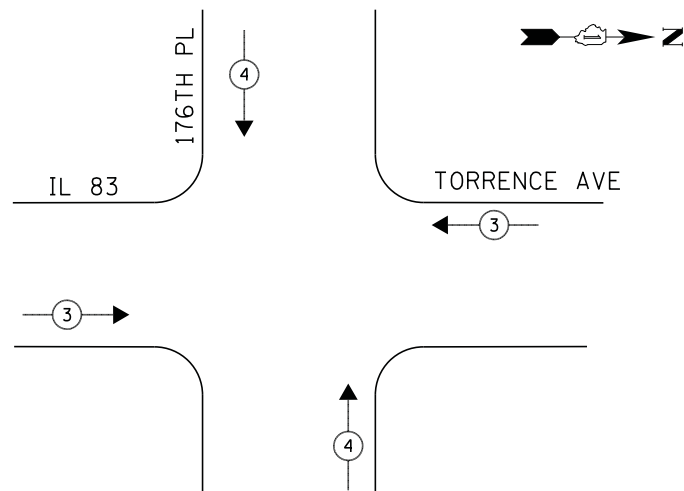
- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**NOTE:**

- PUSH BUTTON "A" PLACES A CALL IN PHASE 2 & 4
- PUSH BUTTON "B" PLACES A CALL IN PHASE 4 & 6
- PUSH BUTTON "C" PLACES A CALL IN PHASE 6 & 8
- PUSH BUTTON "D" PLACES A CALL IN PHASE 2 & 8

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

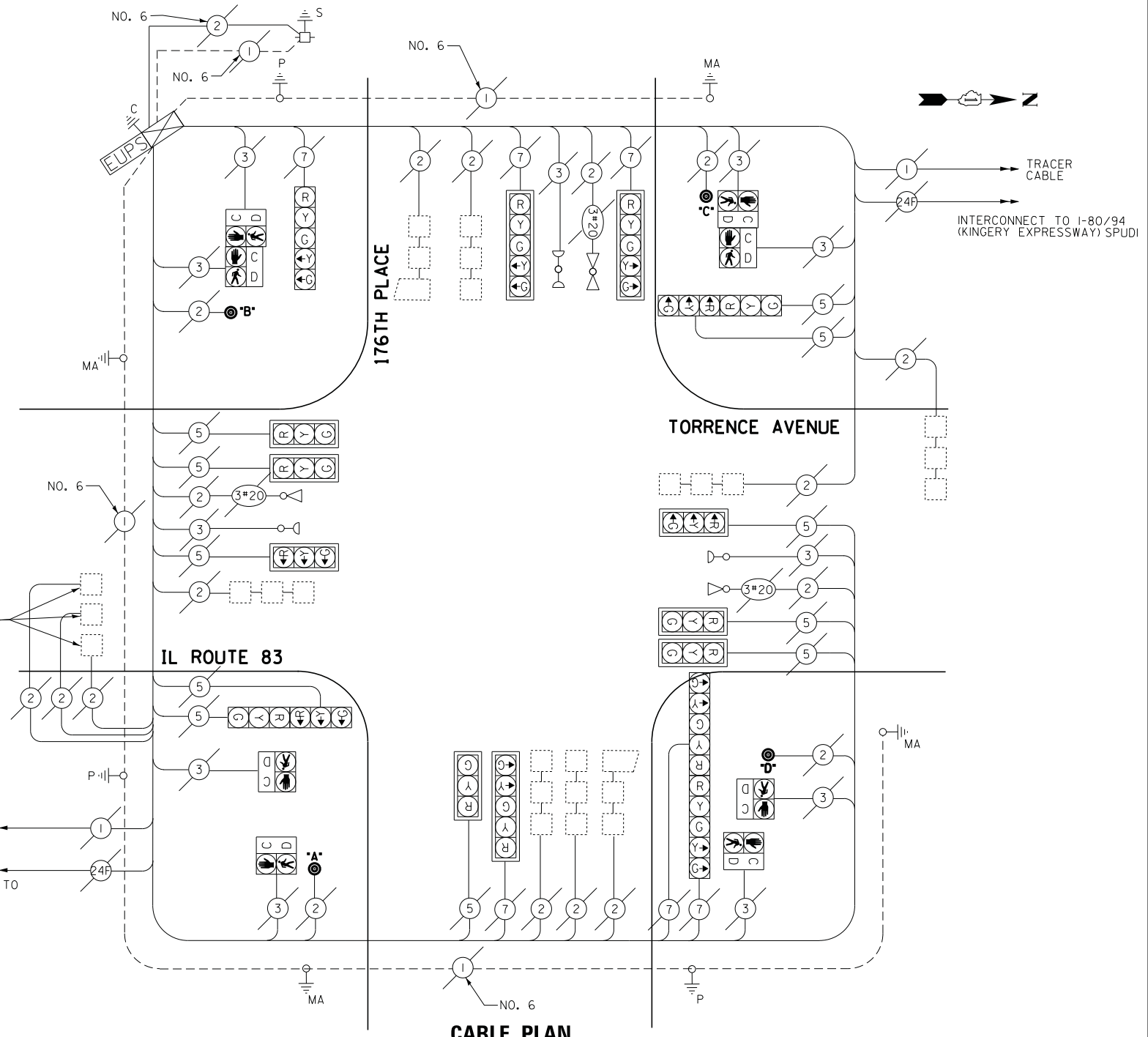
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 21340  
LANSING



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	17		17	0.5	144.5
(YELLOW)	17		25	0.25	106.25
(GREEN)	17		15	0.25	63.75
ARROW	12		12	0.10	14.4
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 628.9
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

FILE NAME = J:\13155\60Y42\DCN\CADD Sheets\0160Y42	USER NAME = _USER_	DESIGNED - V.O.	REVISED -
		DRAWN - E.C.	REVISED -
		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

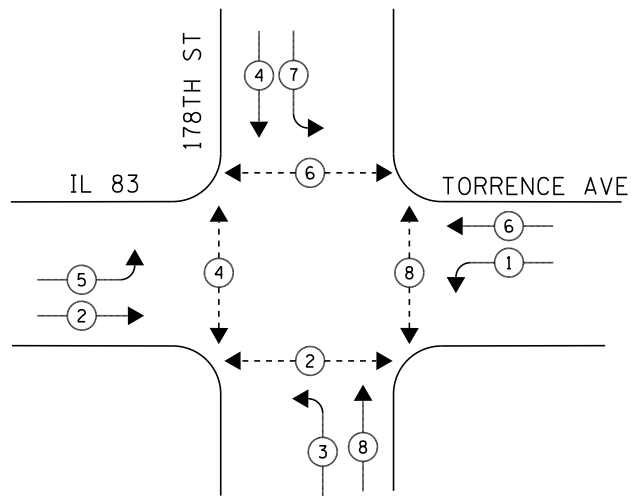
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 83 (TORRENCE AVENUE) AT 176TH PLACE

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

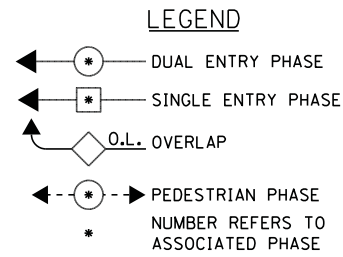
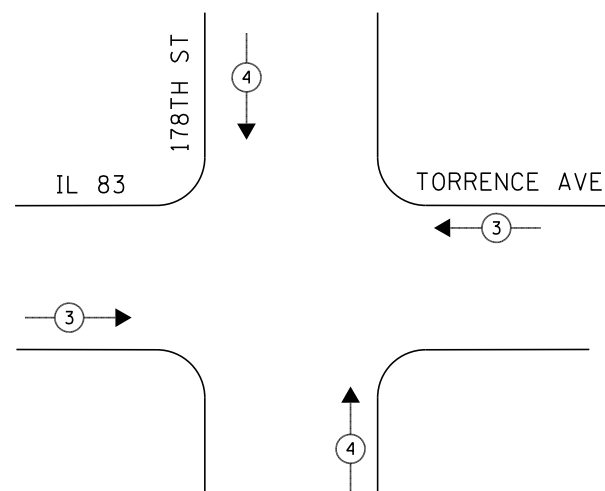
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	42
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN PUSH-BUTTON
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000  
LOCAL CONTROLLER

ECONOLITE ASC/2M-1000  
MASTER CONTROLLER

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

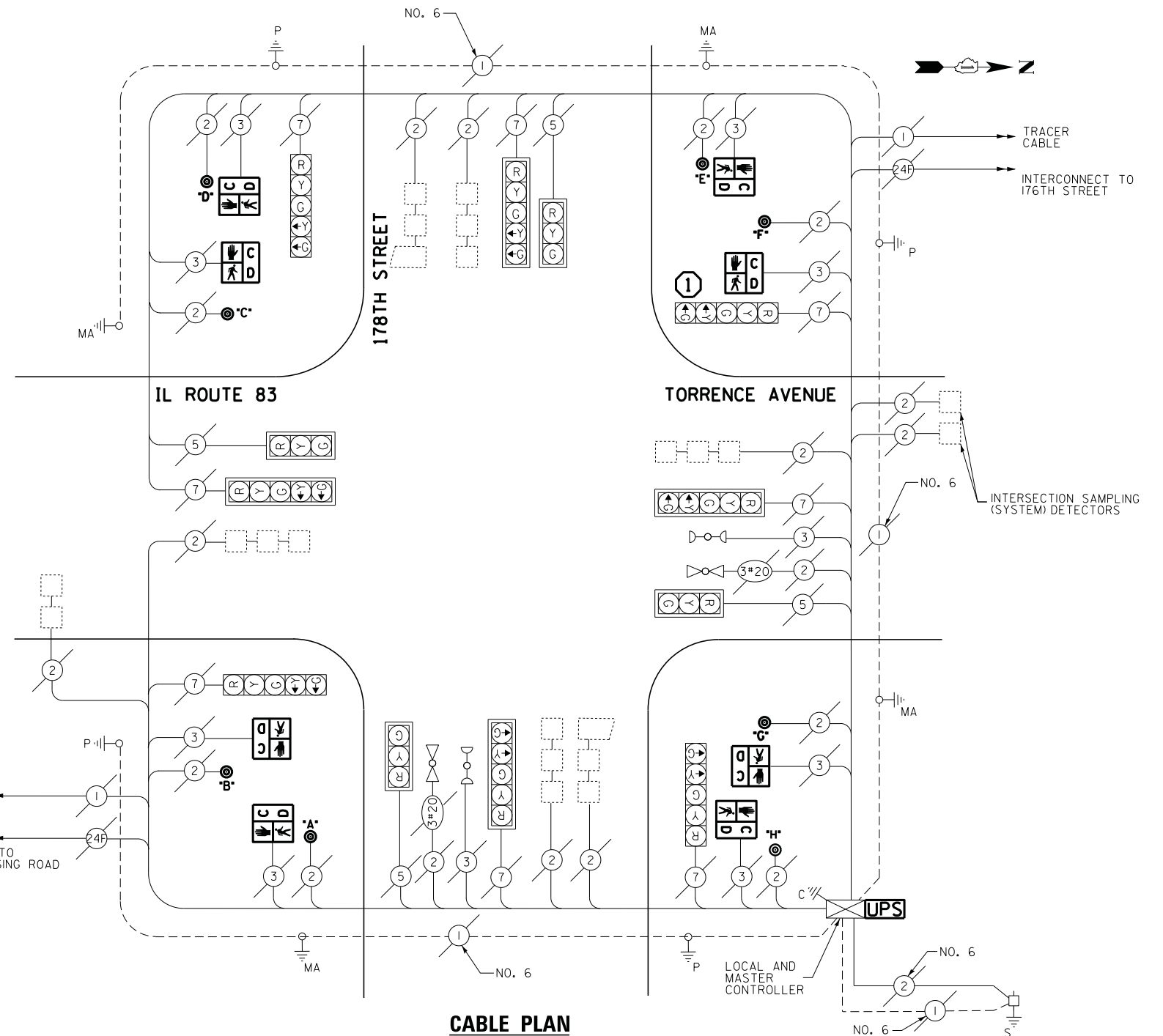
TS# 13940  
LANSING

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 83 (TORRENCE AVENUE) AT 178TH STREET

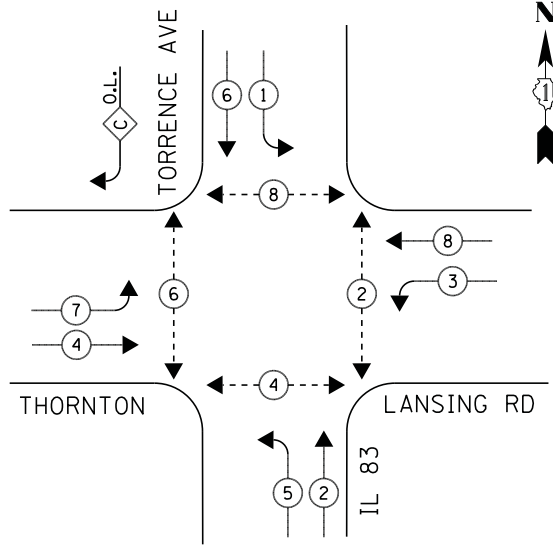
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	43
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO LAMPS	WATTAGE	%OPERATION		
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:				TOTAL =	541.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
FILE NAME =	USER NAME =	DESIGNED -	V.O.	REVISED -	
J:\13155\60Y42\DCN\CADD Sheets\0160Y42	ht-ts-28.13940.dgn	DRAWN -	E.C.	REVISED -	
	PLOT SCALE = 20.0000' / in.	CHECKED -	I.Y.	REVISED -	
	PLOT DATE = 7/9/2014	DATE -	7/11/2014	REVISED -	



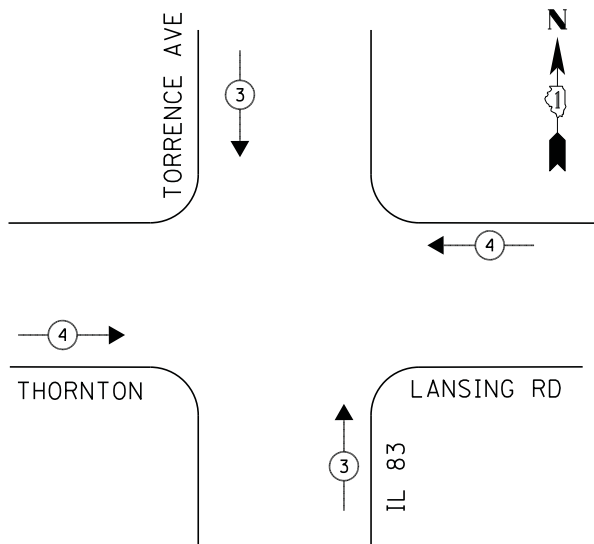
**CABLE PLAN**

**CONTROLLER SEQUENCE**

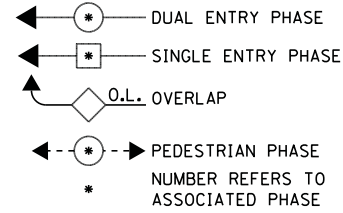


**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 7

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

**NOTE:**

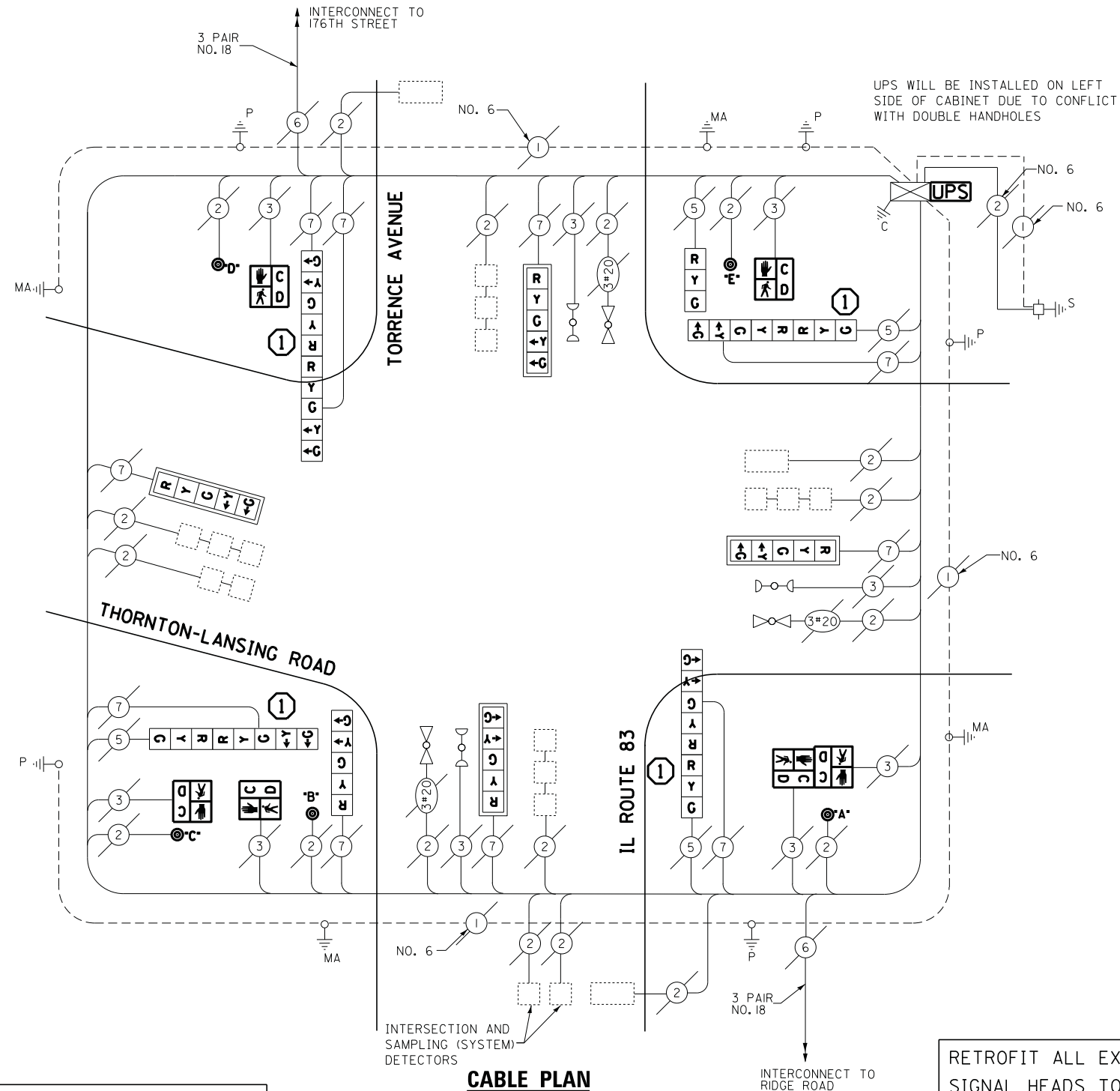
PUSH BUTTON "A" PLACES A CALL IN PHASE 2 & 4

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED RETROFIT
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

8	EACH	PEDESTRIAN SIGNAL HEAD
5	EACH	PEDESTRIAN PUSH-BUTTON
4	EACH	TRAFFIC SIGNAL POST

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

ECONOLITE ASC/2S-2100 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

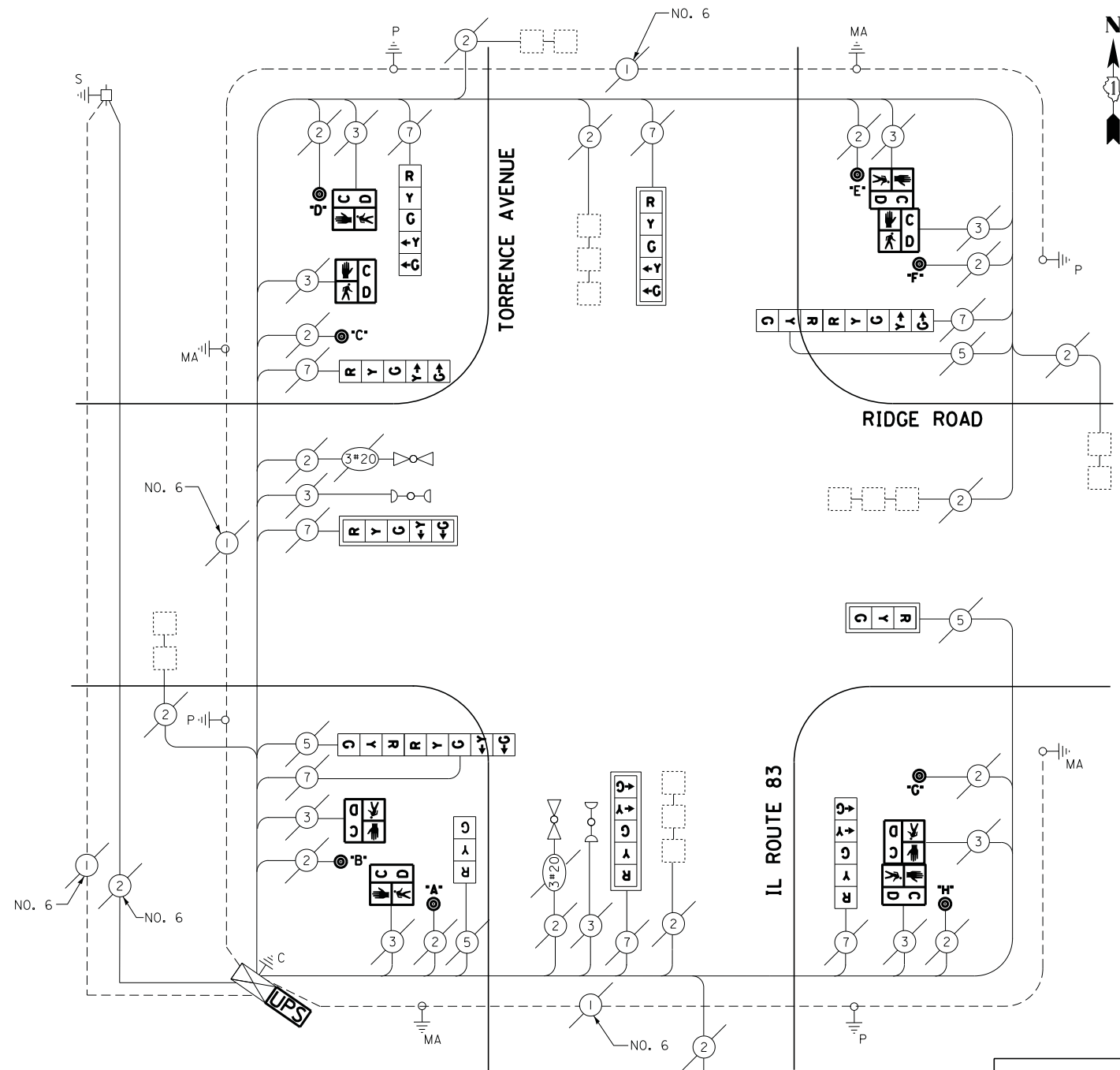
TS# 3515  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	14		17	0.5	119
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	20		12	0.10	24
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM				1.00	-
FLASHER				-	
ENERGY COSTS TO:					TOTAL = 583
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
FILE NAME =	USER NAME =	DESIGNED -	V.O.	REVISED -	
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	PLOT SCALE = 20.0000' / in.	CHECKED -	I.Y.	REVISED -	
	PLOT DATE = 7/9/2014	DATE -	7/11/2014	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 83 (TORRENCE AVENUE) AT THORNTON-LANSING ROAD  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044T5	COOK	65	44
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 541.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

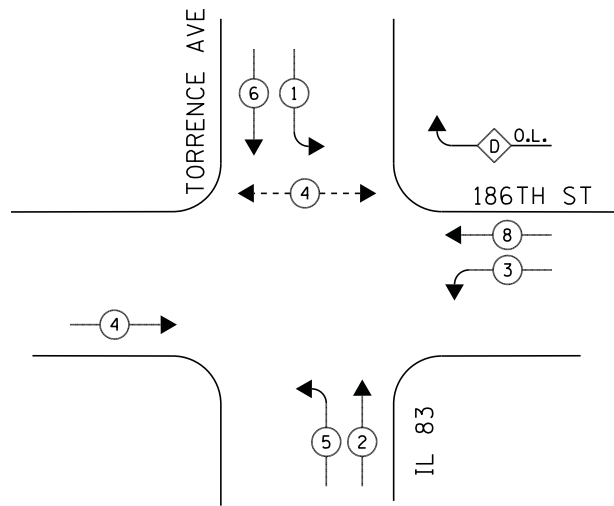
ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 3495  
LANSING

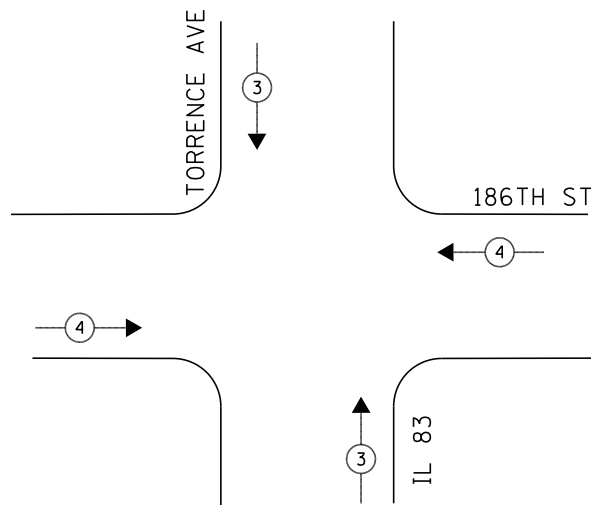


**CONTROLLER SEQUENCE**

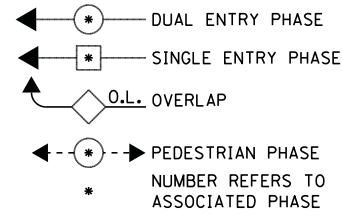


**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

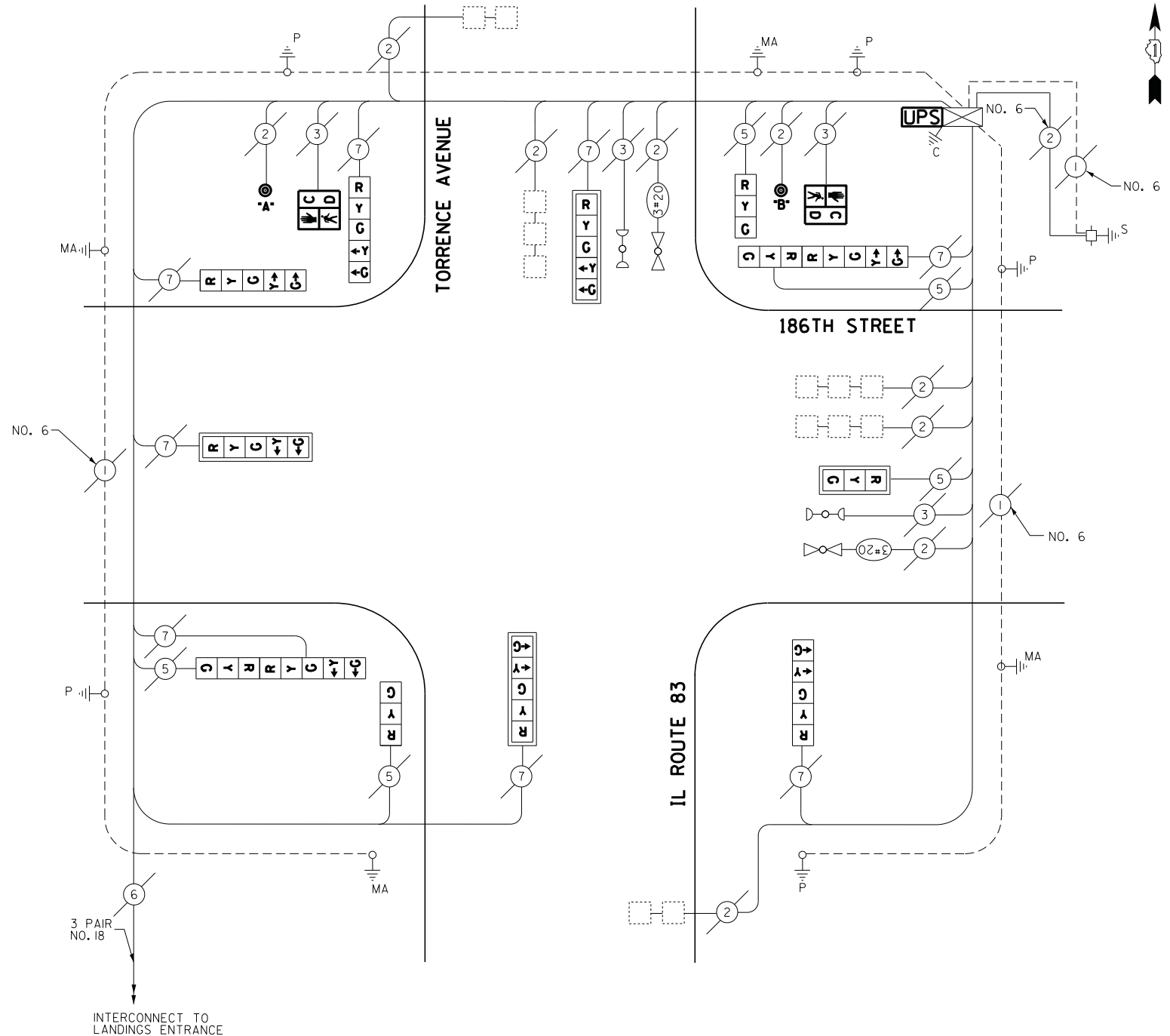
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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	PEDESTRIAN SIGNAL HEAD
2	EACH	PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 3380  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13		17	0.5	110.5
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	16		12	0.10	19.2
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 409.7
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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		DRAWN -	REVISED -		
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		CHECKED -	REVISED -		
		I.Y.	-		
		DATE -	REVISED -		
		7/11/2014	-		

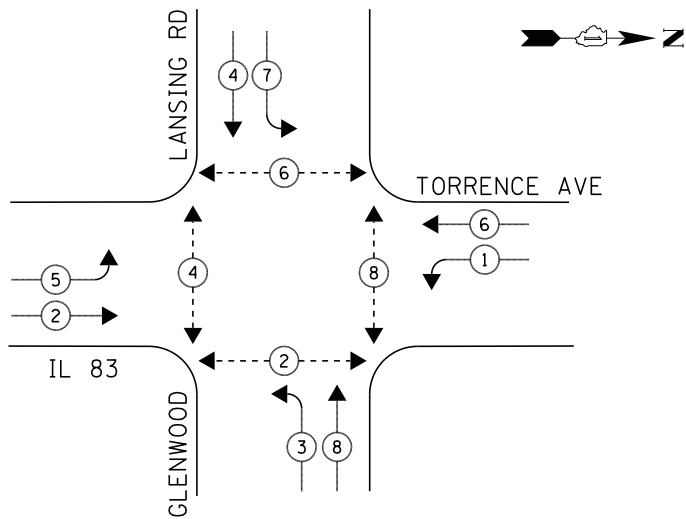
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 83 (TORRENCE AVENUE) AT 186TH STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

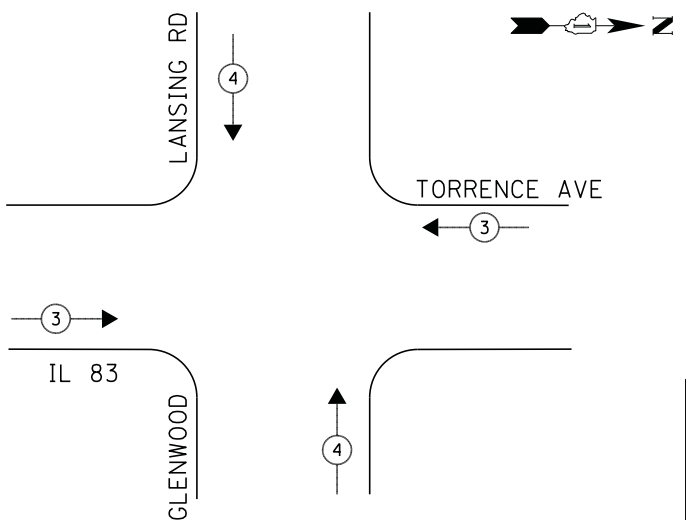
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	47
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 16FT. PAINTED POST, RE-USE EXISTING FOUNDATION

**NOTE:**

PUSH BUTTON "A" PLACES A CALL IN PHASE 2 & 4  
PUSH BUTTON "D" PLACES A CALL IN PHASE 6 & 8  
PUSH BUTTON "E" PLACES A CALL IN PHASE 2 & 8

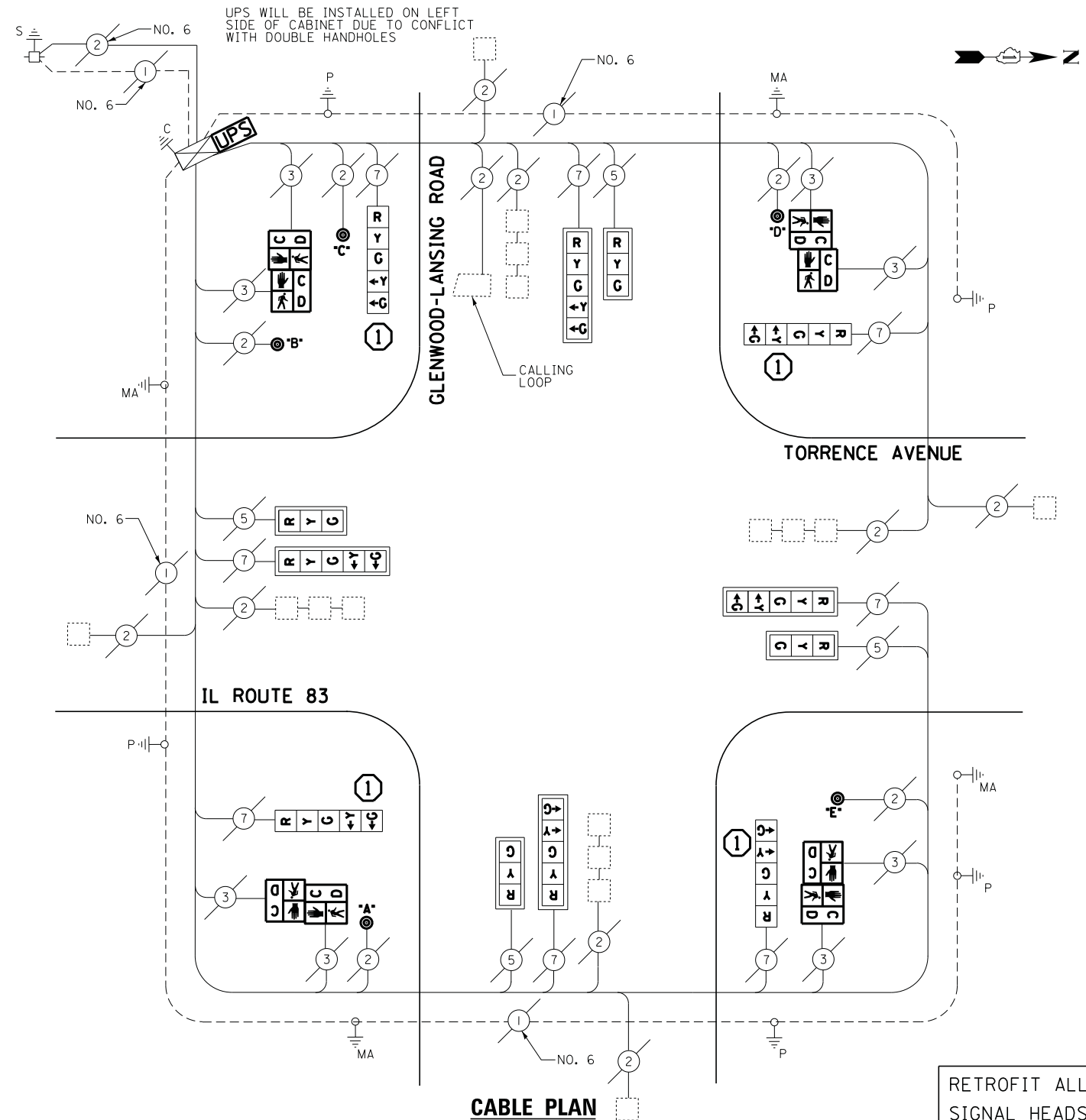
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16FT.
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

UPS WILL BE INSTALLED ON LEFT SIDE OF CABINET DUE TO CONFLICT WITH DOUBLE HANDHOLES



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 5 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH TRAFFIC SIGNAL POST

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

ECONOLITE ASC/2-2100 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

**TS# 21185  
LANSING**

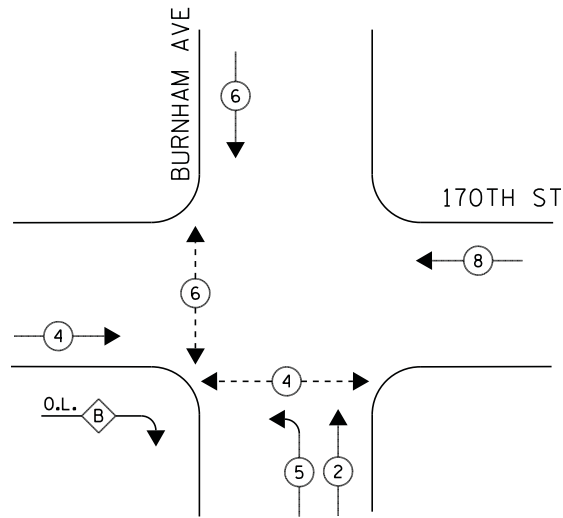
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM				1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 541.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
FILE NAME =	USER NAME = .USER_	DESIGNED - V.O.	REVISED -		
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	PLOT SCALE = 20.0000' / in.	CHECKED - I.Y.	REVISED -		
	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -		

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL ROUTE 83 (TORRENCE AVENUE) AT GLENWOOD-LANSING ROAD			
SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	48
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

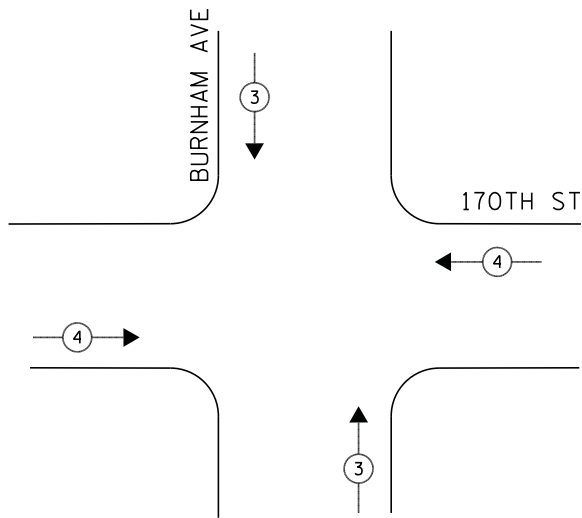


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
\* NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	→←

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

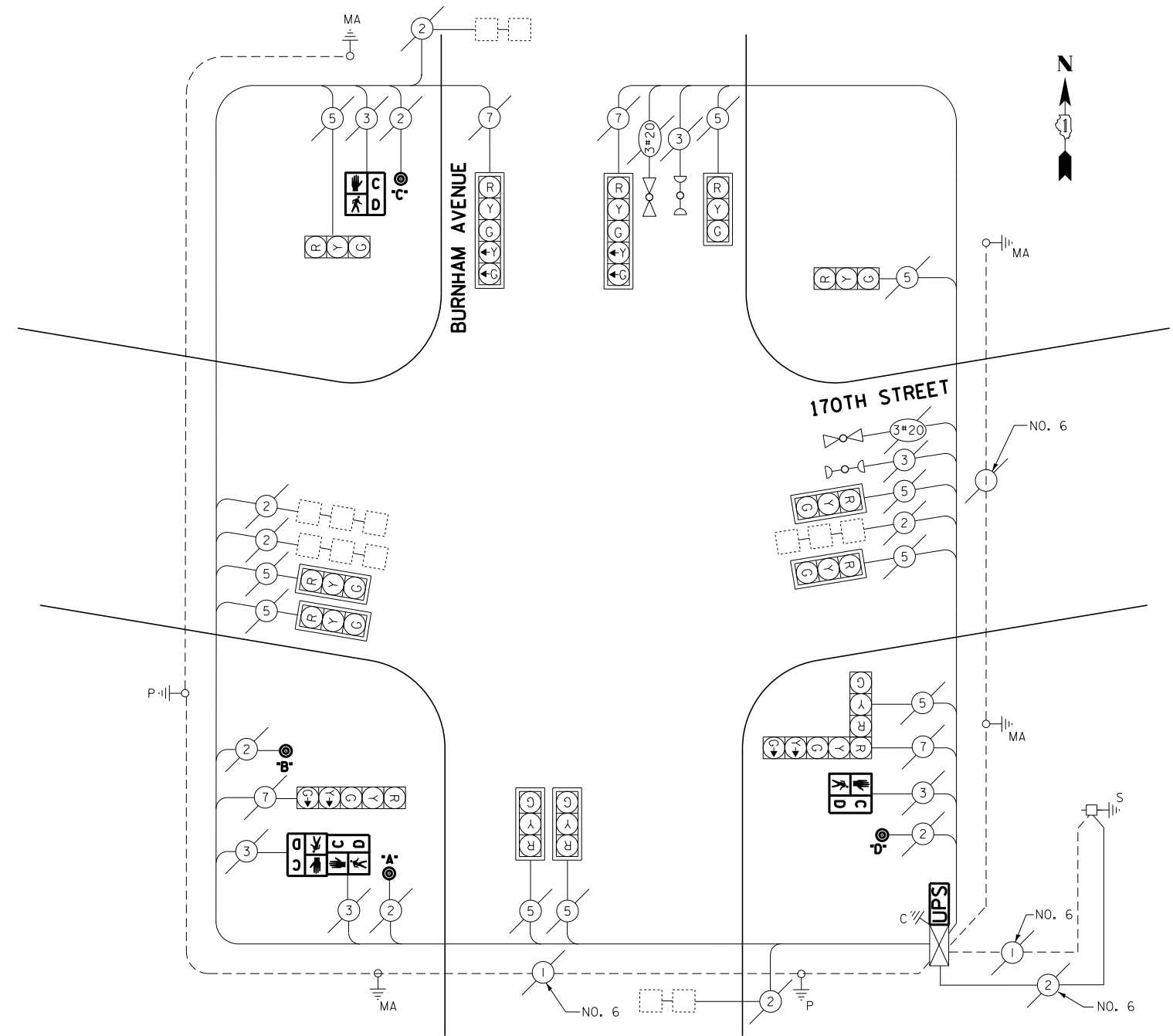
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 4230  
LANSING



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	14		17	0.5	119
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	8		12	0.10	9.6
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 468.6
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

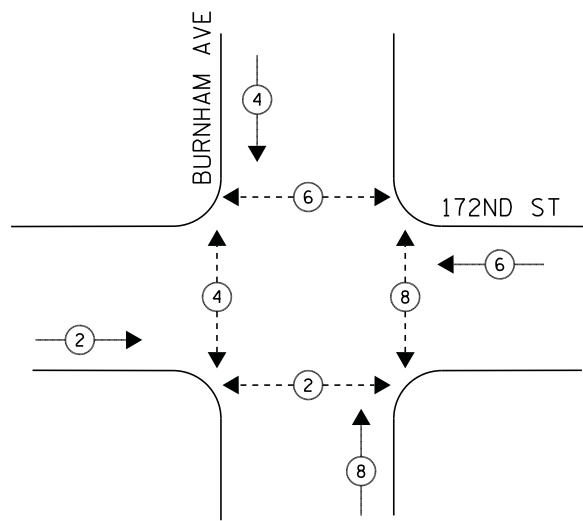
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT 170TH STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

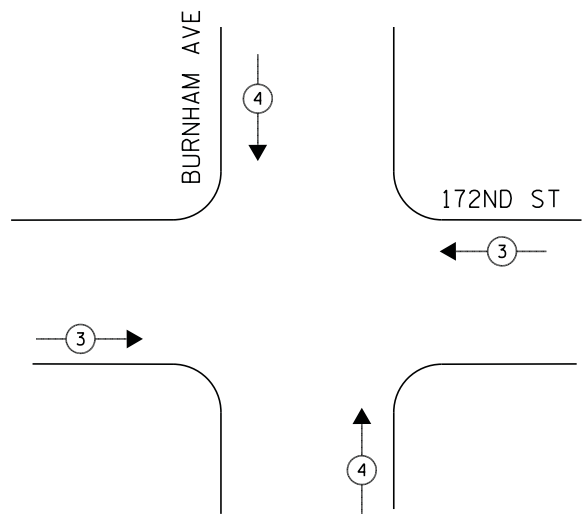
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	49
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◀ O.L. → OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

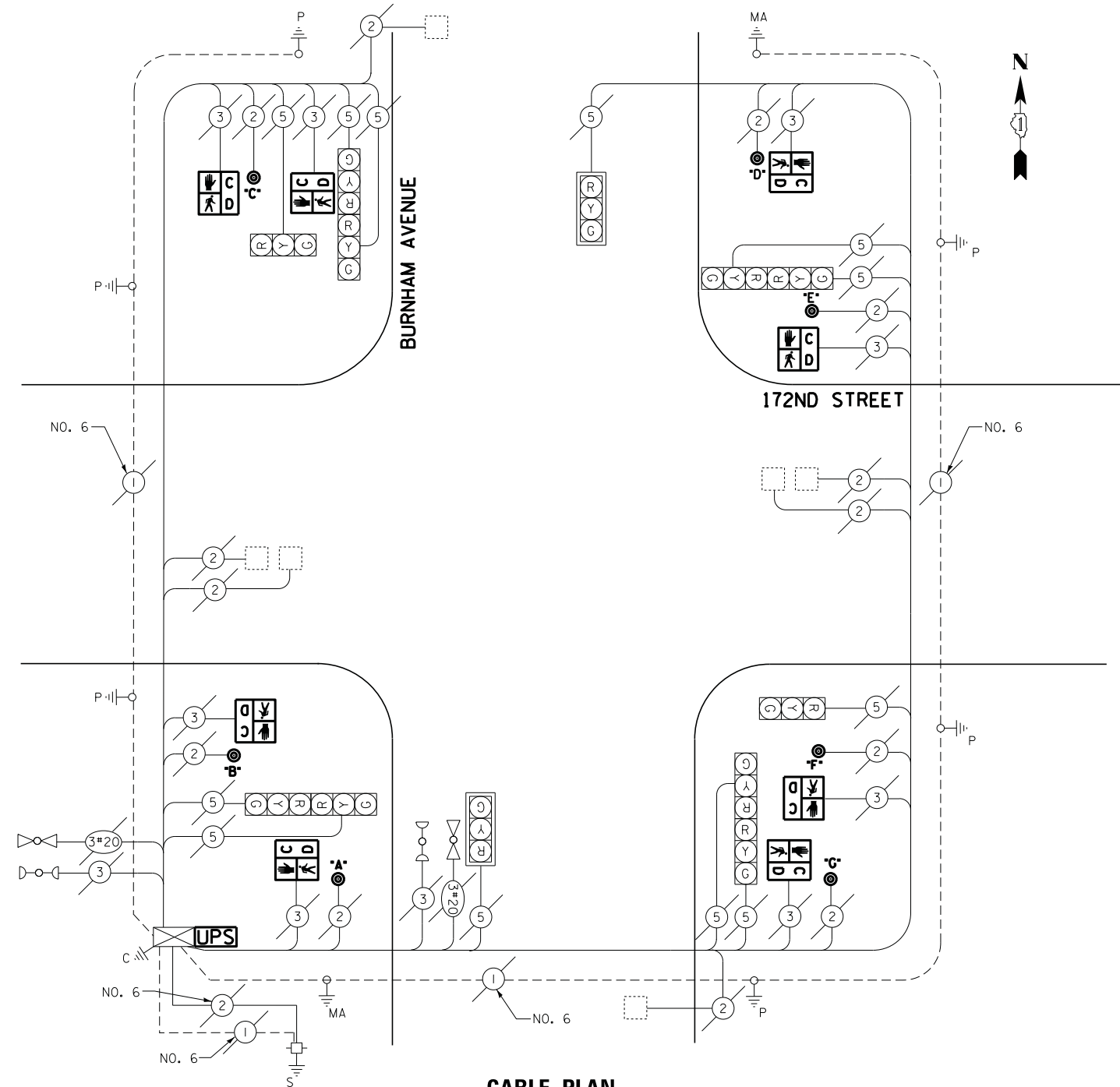
**NOTE:**

PUSH BUTTON "C" PLACES A CALL IN PHASE 4 AND 6

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



**CABLE PLAN**

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 13950  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	-		12	0.10	-
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 522
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

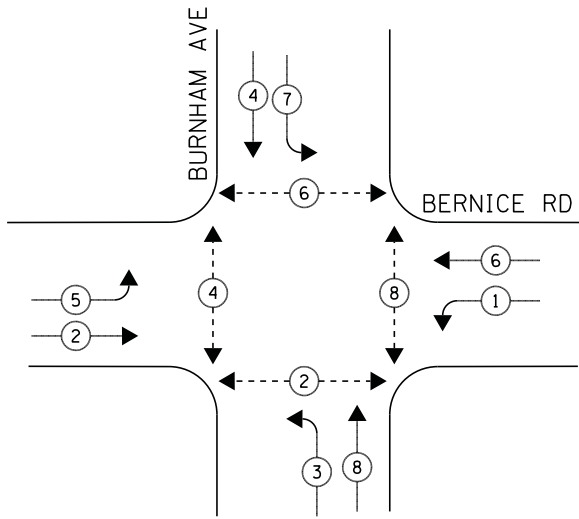
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT 172ND STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

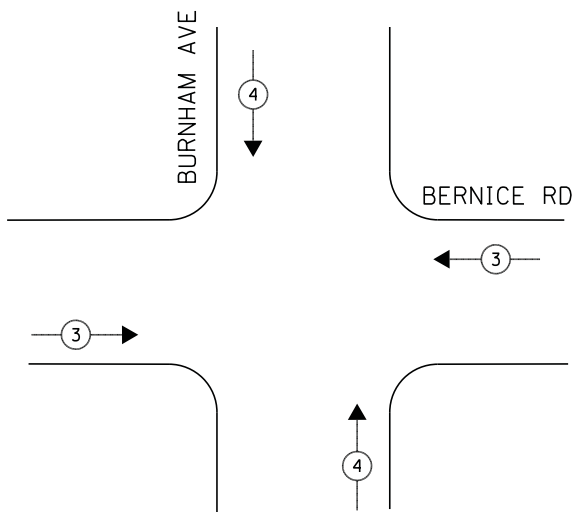
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	50
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

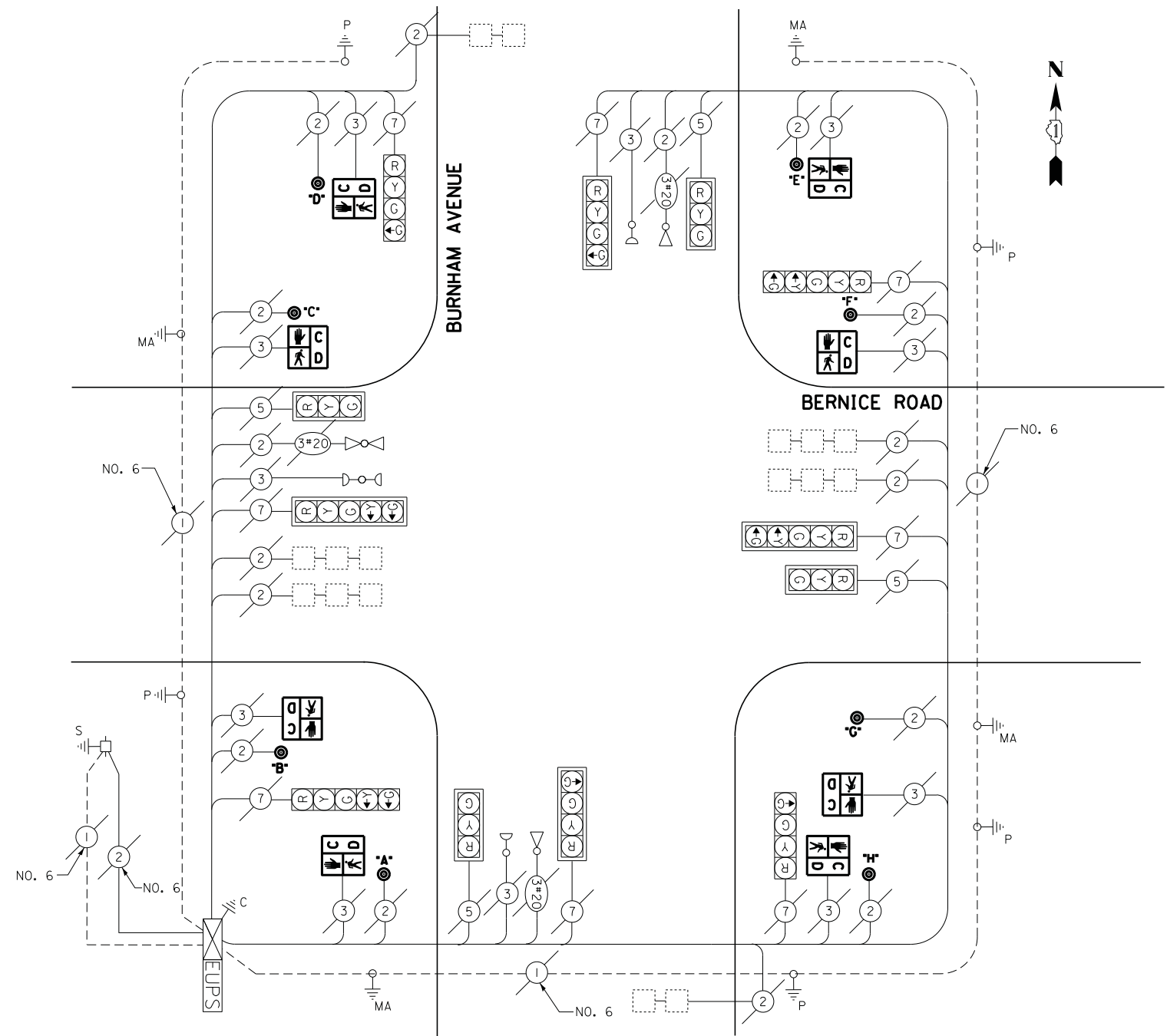
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

EAGLE EPAC 300  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE EAGLE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 13955  
LANSING



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	14		15	0.25	52.5
ARROW	8		12	0.10	9.6
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 539.1
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					
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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -		

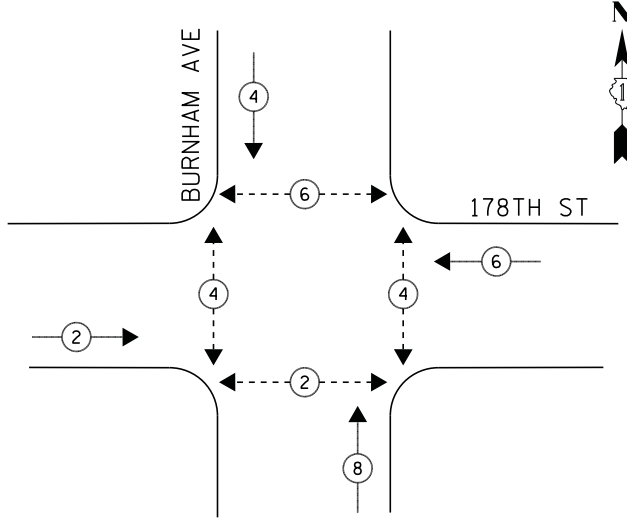
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT BERNICE ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

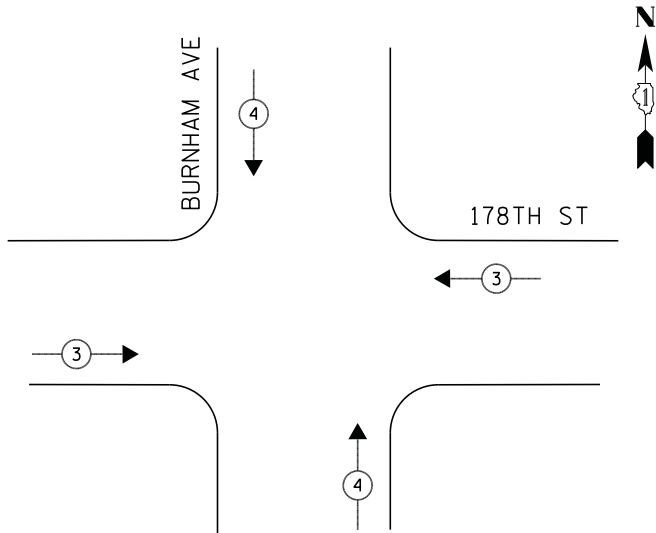
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	51
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

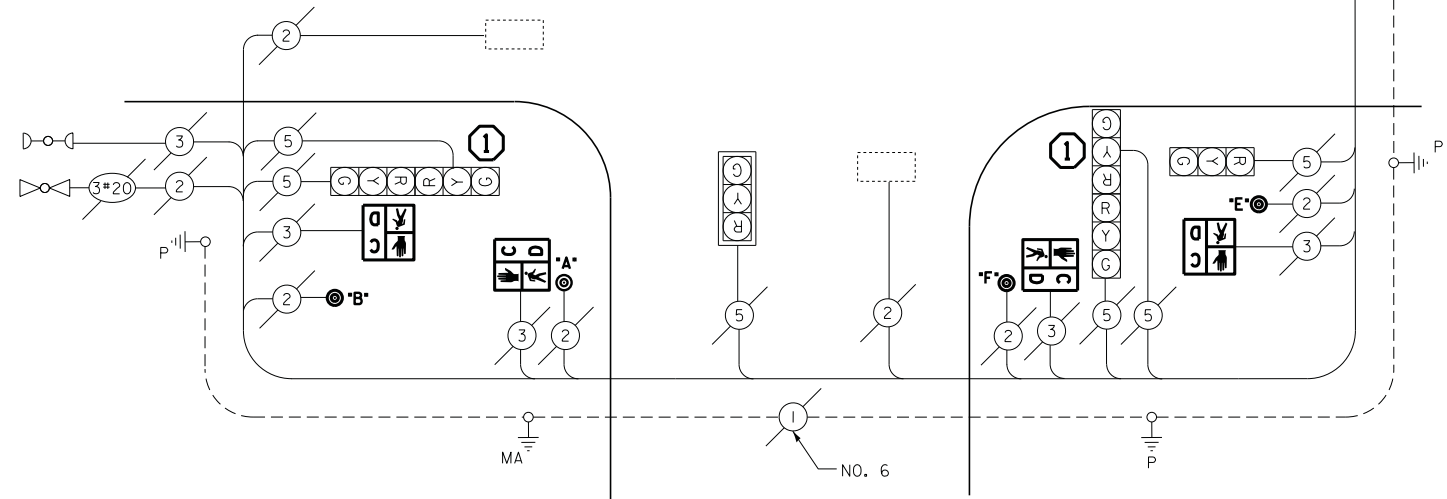
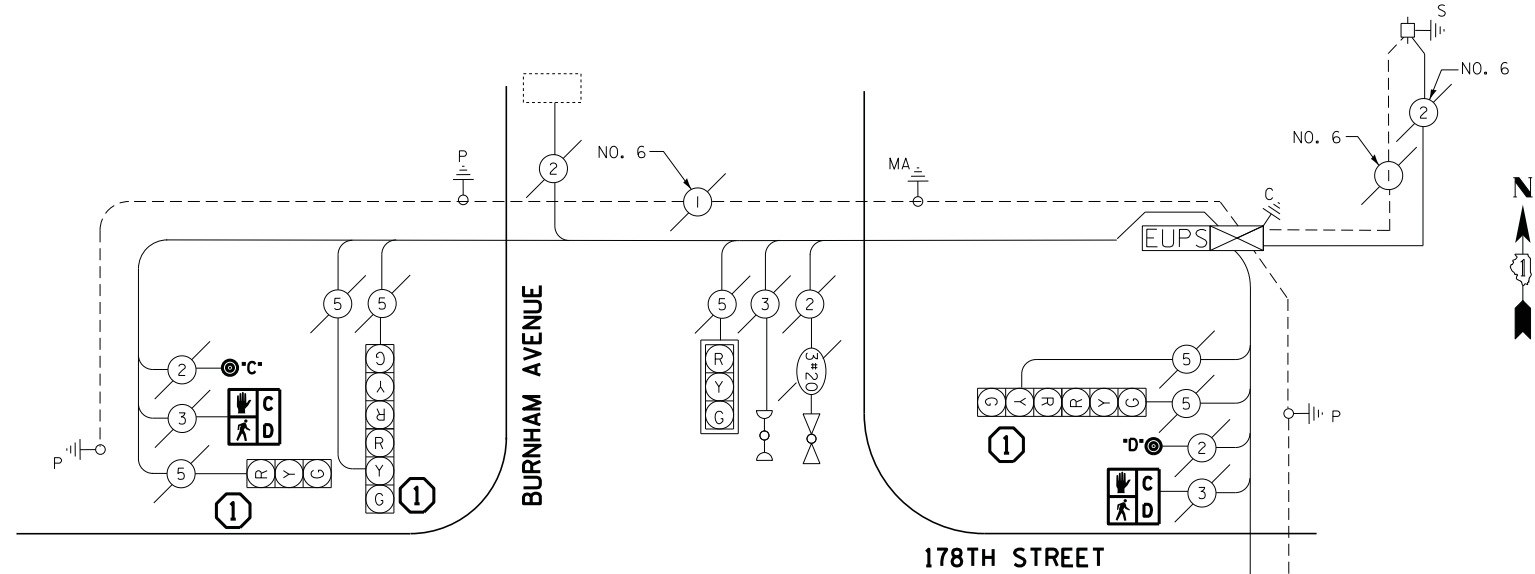


**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

① REPLACE 14FT. PAINTED POST, RE-USE EXISTING FOUNDATION

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	-		12	0.10	-
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 472

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
6	EACH	PEDESTRIAN PUSH-BUTTON
9	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3	EACH	REMOVE AND REPLACE ANCHOR BOLTS

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

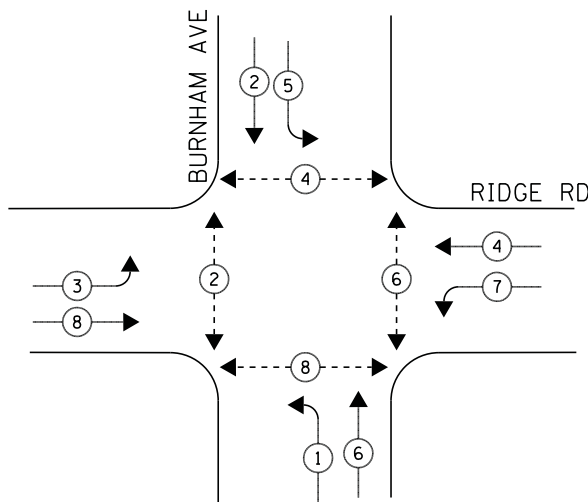
- 5 EACH TRAFFIC SIGNAL POST
- 6 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 13960  
LANSING

**CONTROLLER SEQUENCE**

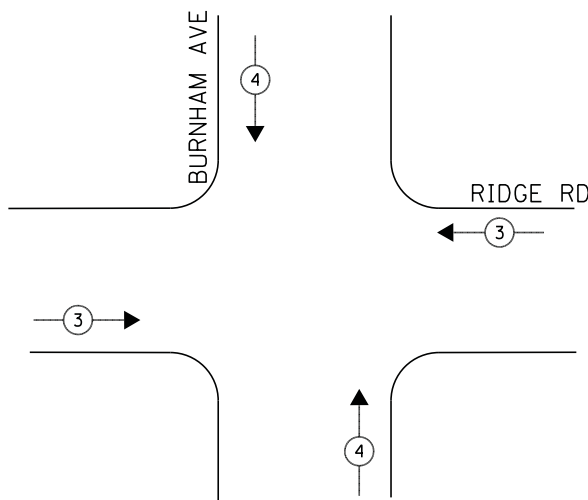


**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

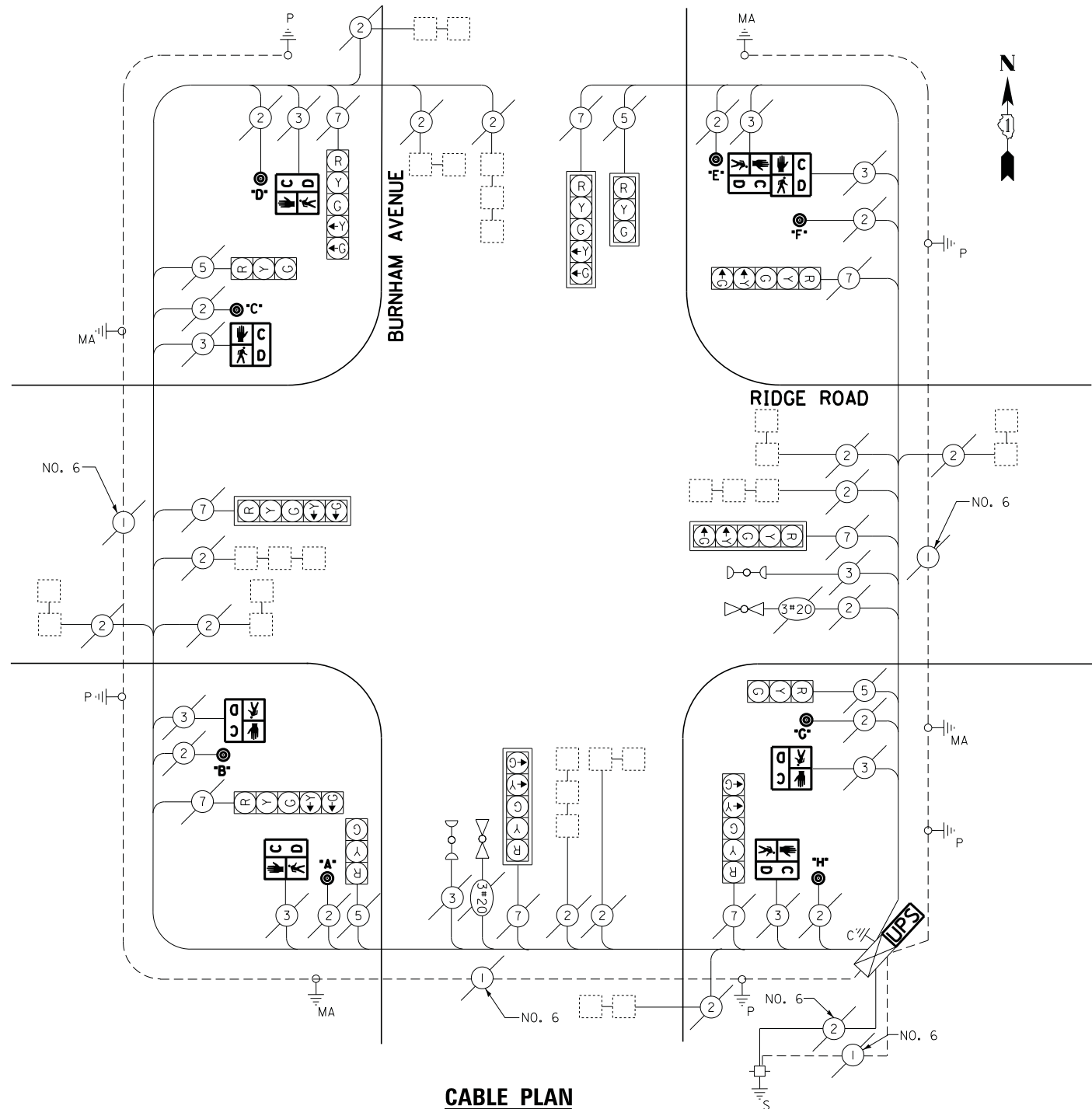


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC-8000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 4235  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 541.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN					
PHONE: (708) 235-2692					
COMPANY: COMMONWEALTH EDISON					

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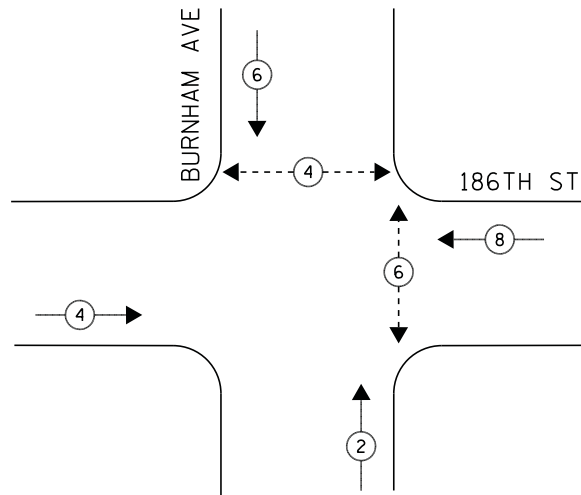
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT RIDGE ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

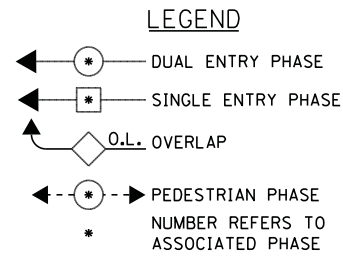
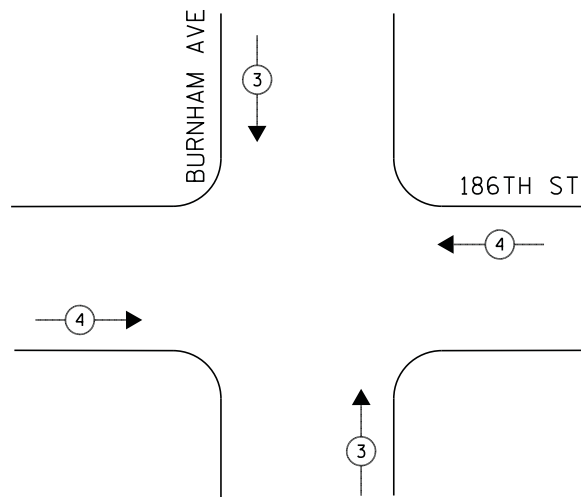
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	53
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

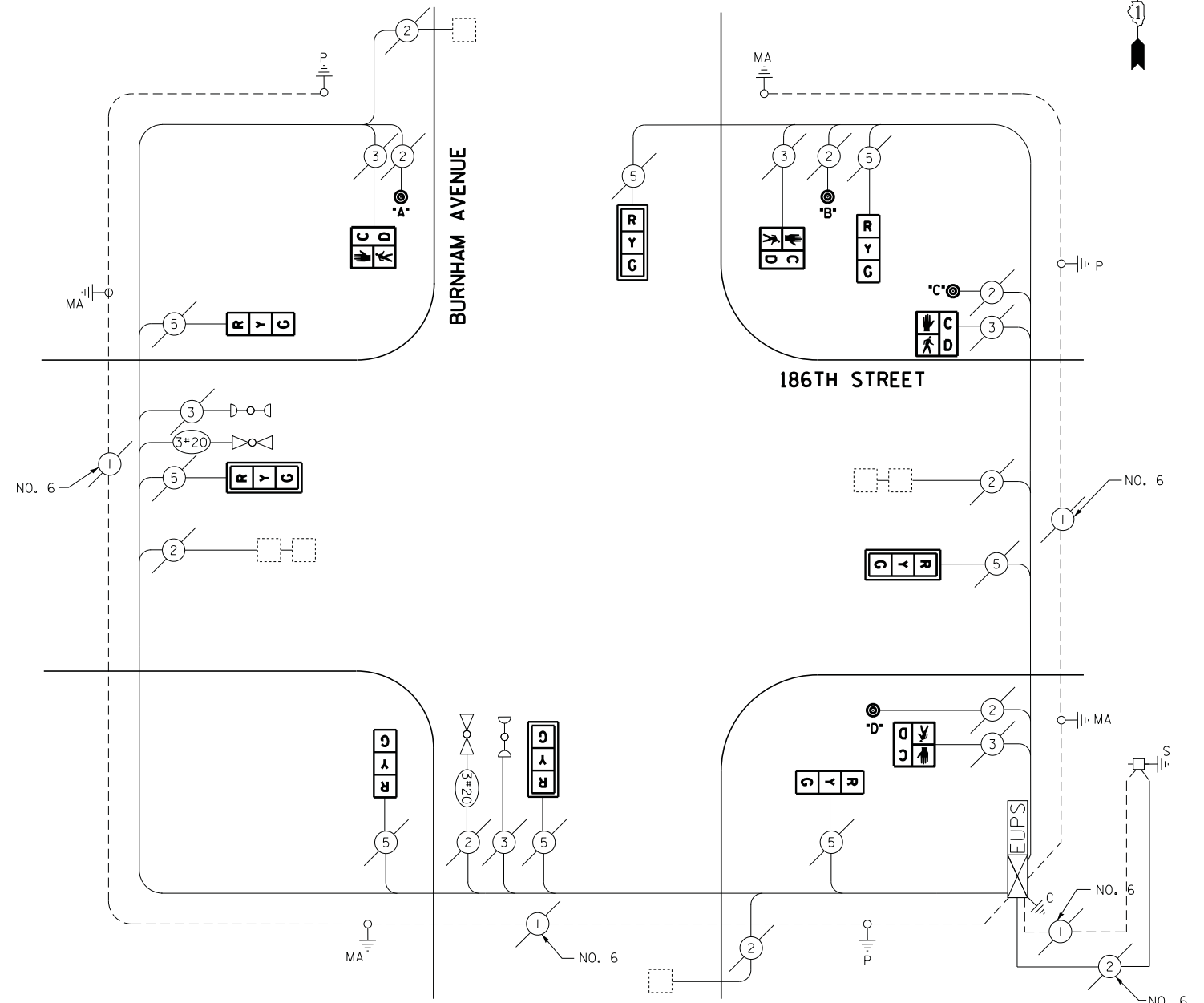


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↓	↔

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

8	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD
4	EACH	PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/3-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 13965  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	8		17	0.5	68
(YELLOW)	8		25	0.25	50
(GREEN)	8		15	0.25	30
ARROW	-		12	0.10	-
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 348

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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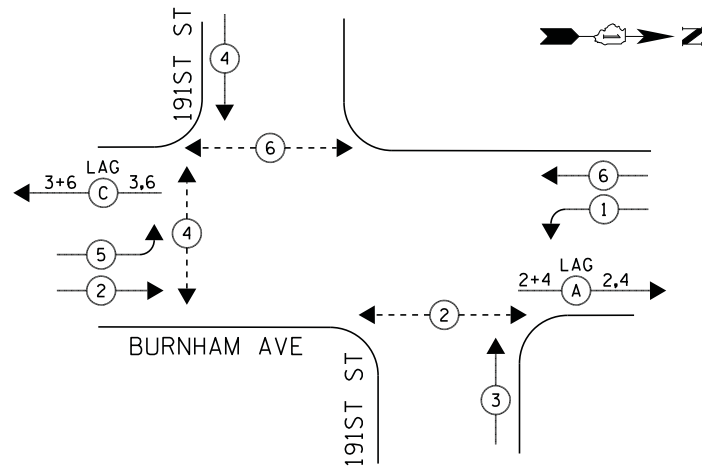
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BURNHAM AVENUE AT 186TH STREET

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	54
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**

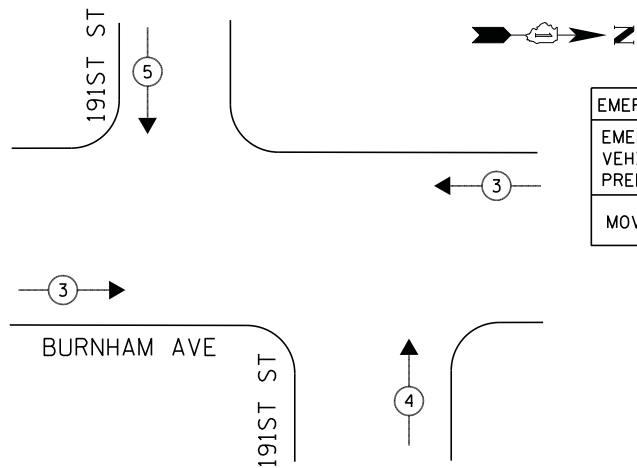


**LEGEND**

- ⊛ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ⊙ PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↑	↓

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

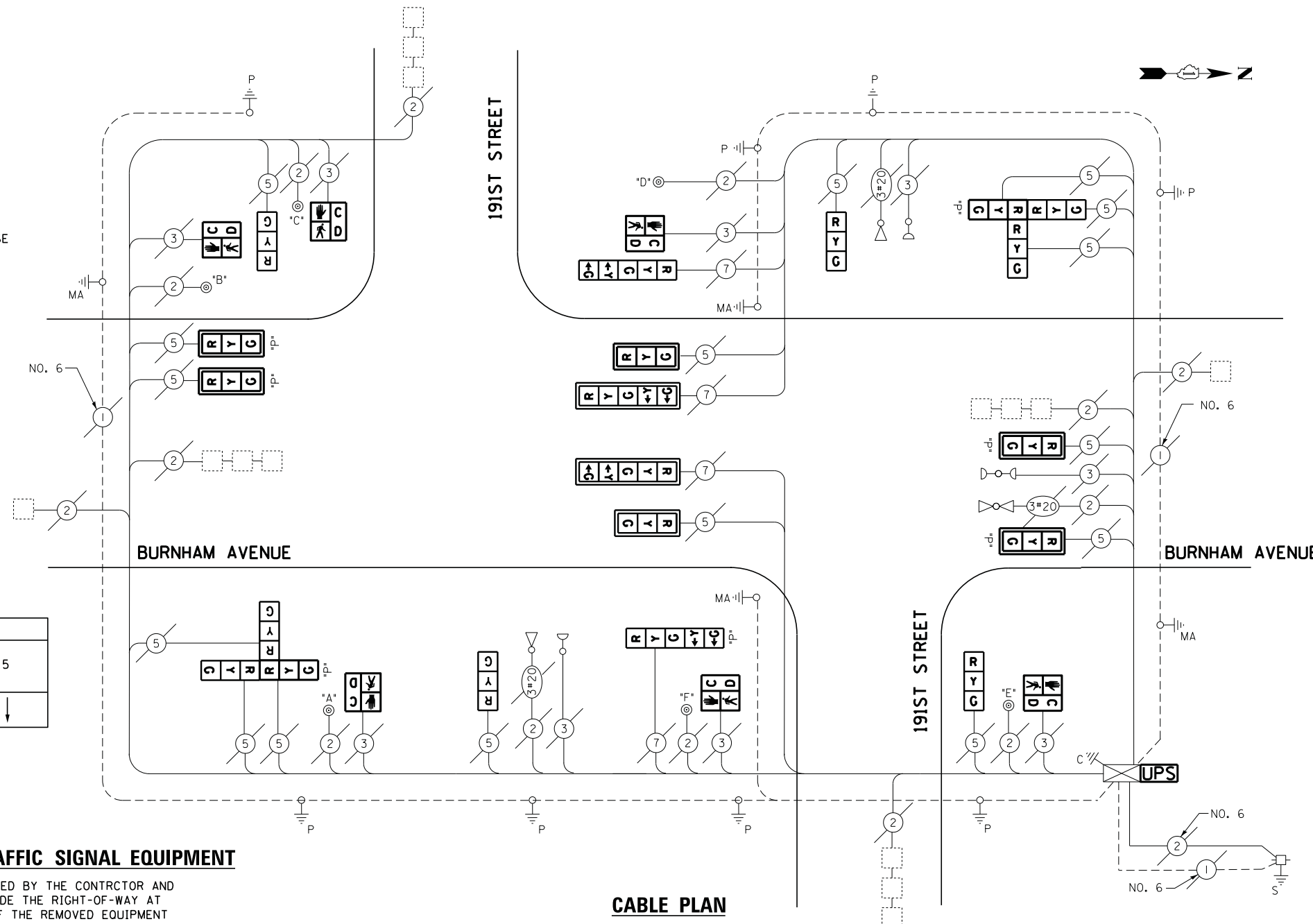
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 6 EACH PEDESTRIAN SIGNAL HEAD
- 9 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH OPTICALLY PROGRAMMED SIGNAL HEAD, 3-SECTION
- 1 EACH OPTICALLY PROGRAMMED SIGNAL HEAD, 5-SECTION

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	COMBINATION SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 2-3 SECTION, BRACKET MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

**CABLE PLAN**



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	19		17	0.5	161.5
(YELLOW)	19		25	0.25	118.75
(GREEN)	19		15	0.25	71.25
ARROW	8		12	0.10	9.6
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER					
ENERGY COSTS TO:					TOTAL = 611.1

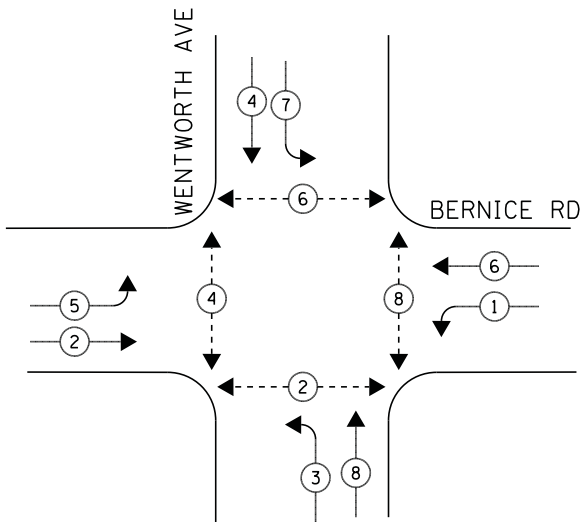
ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

ECONOLITE ASC/2S-2100  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

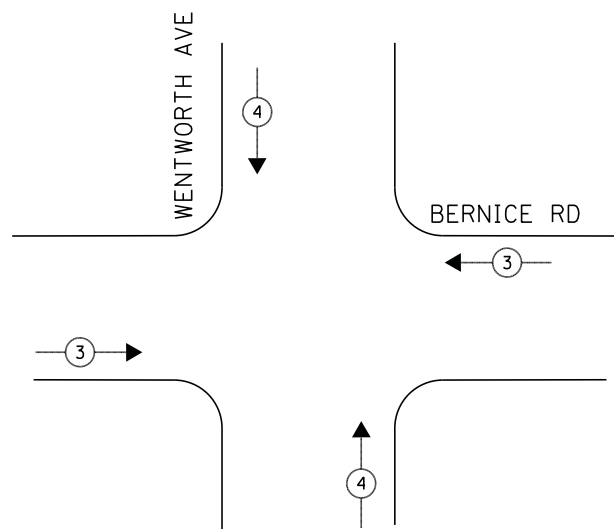
TS# 21385  
LANSING

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



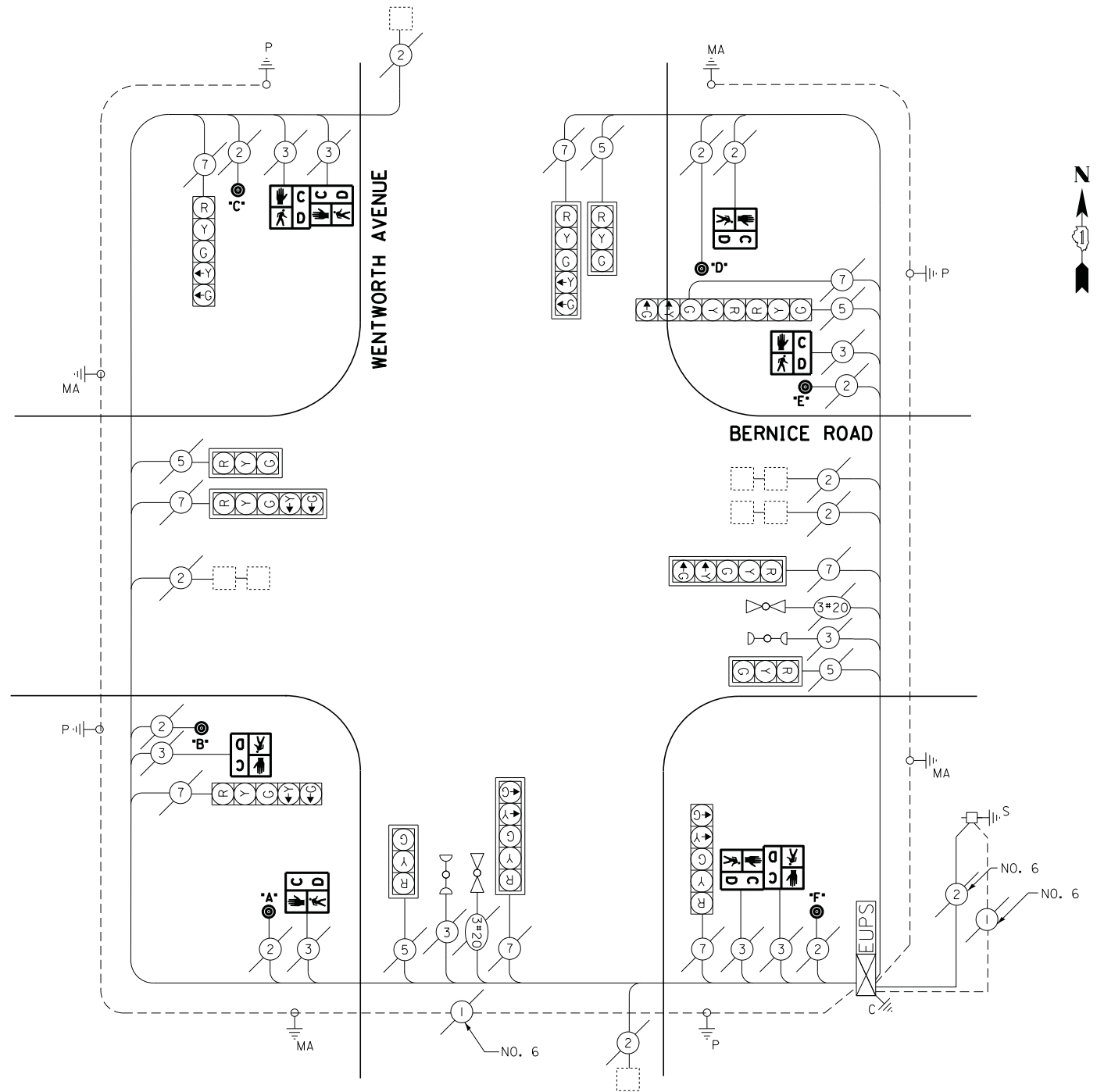
**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**NOTE:**

PUSH-BUTTON "C" PLACES A CALL IN PHASE 4 AND 6  
PUSH-BUTTON "F" PLACES A CALL IN PHASE 2 AND 8

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 13970  
LANSING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13		17	0.5	110.5
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 559.7
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

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		CHECKED - I.Y.	REVISED -
		DATE - 7/11/2014	REVISED -

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DRAWN - E.C.	REVISED -
CHECKED - I.Y.	REVISED -
DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

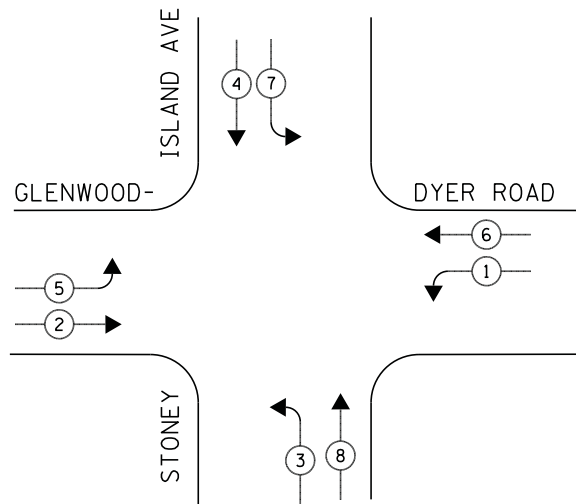
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
WENTWORTH AVENUE AT BERNICE ROAD

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	56
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

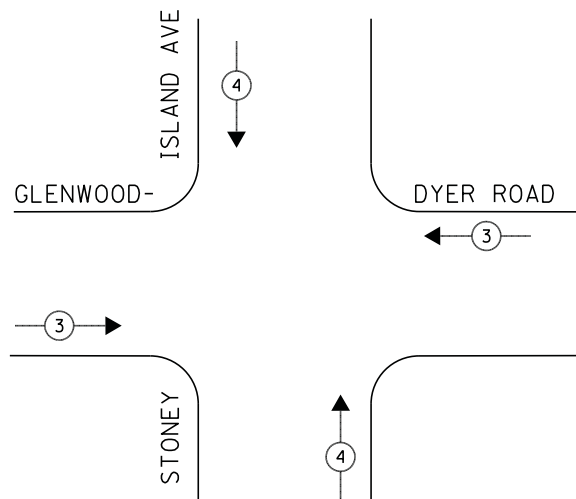


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



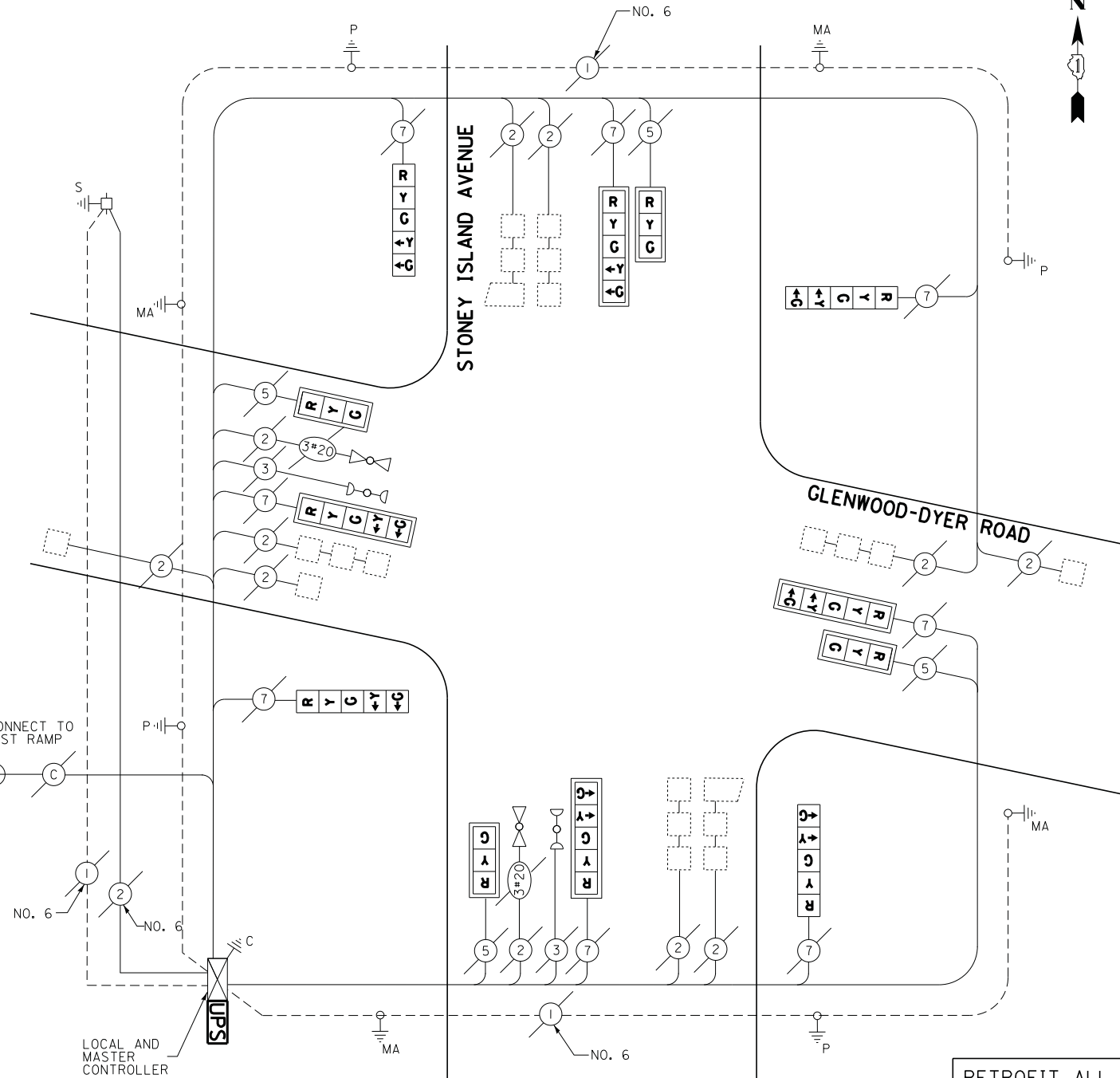
**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



**CABLE PLAN**

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

ECONOLITE ASC/2S-1000 LOCAL CONTROLLER

ECONOLITE ASC/2M-1000 MASTER CONTROLLER

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

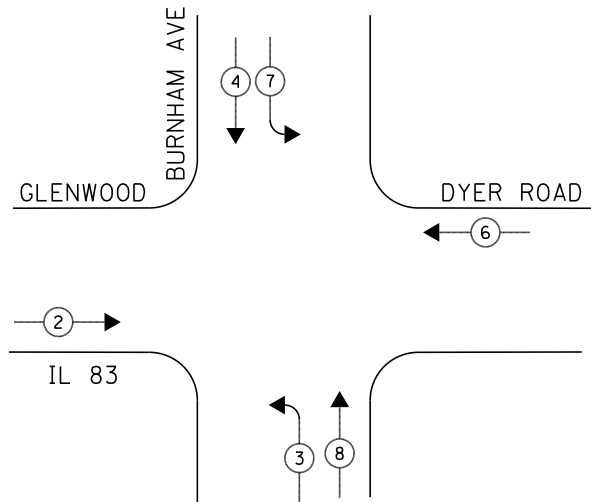
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND  
EMERGENCY VEHICLE PREEMPTION SEQUENCE  
GLENWOOD DYER ROAD AT STONEY ISLAND AVENUE

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	57
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

TS# 21090  
LYNWOOD

**CONTROLLER SEQUENCE**

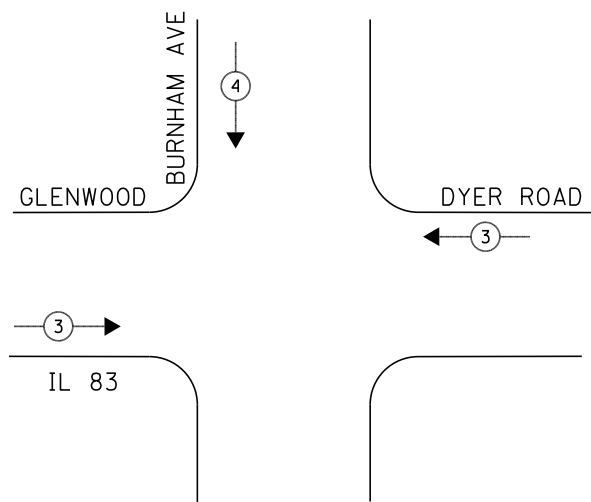


**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

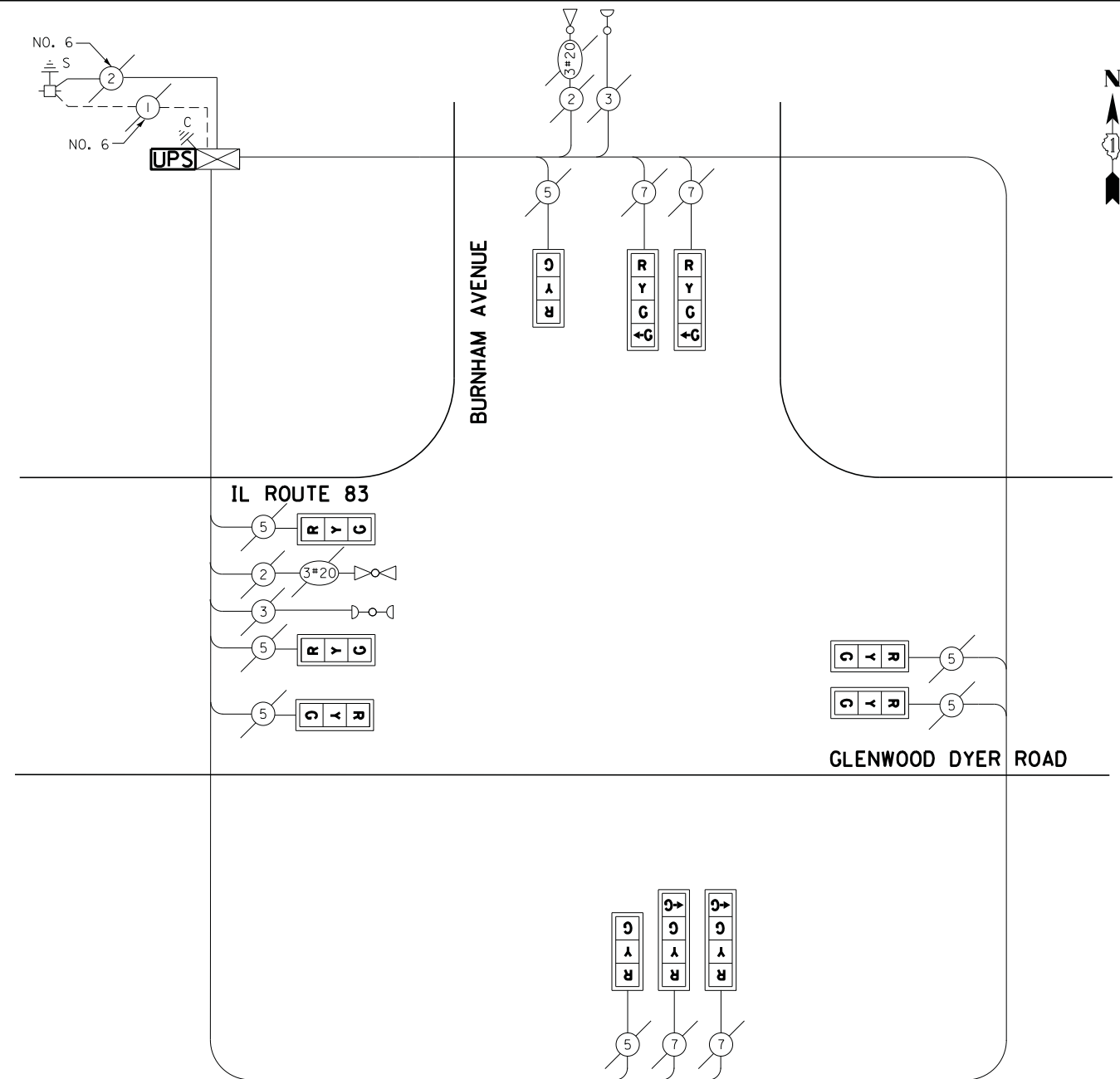
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, SPAN WIRE MOUNTED, RETROFIT



**CABLE PLAN**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	11		17	0.5	93.5
(YELLOW)	11		25	0.25	68.75
(GREEN)	15		15	0.25	56.25
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 318.5

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

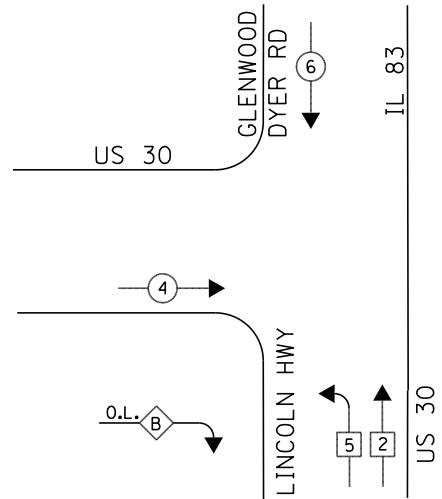
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

EAGLE EPAC 300 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE EAGLE TO MATCH THE ADJACENT EXISTING SYSTEM

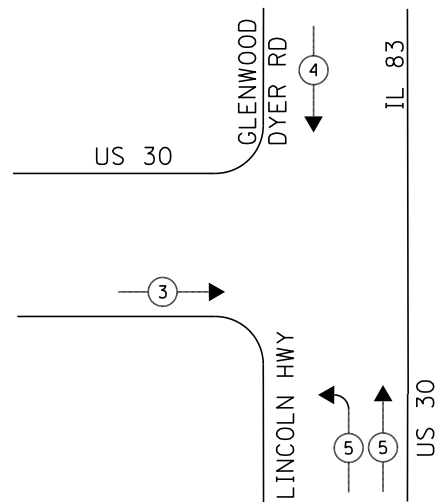
TS# 21500  
LYNWOOD

**CONTROLLER SEQUENCE**

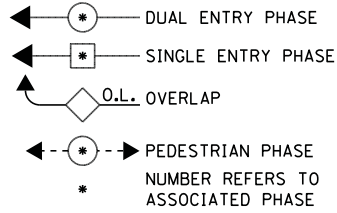


**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**



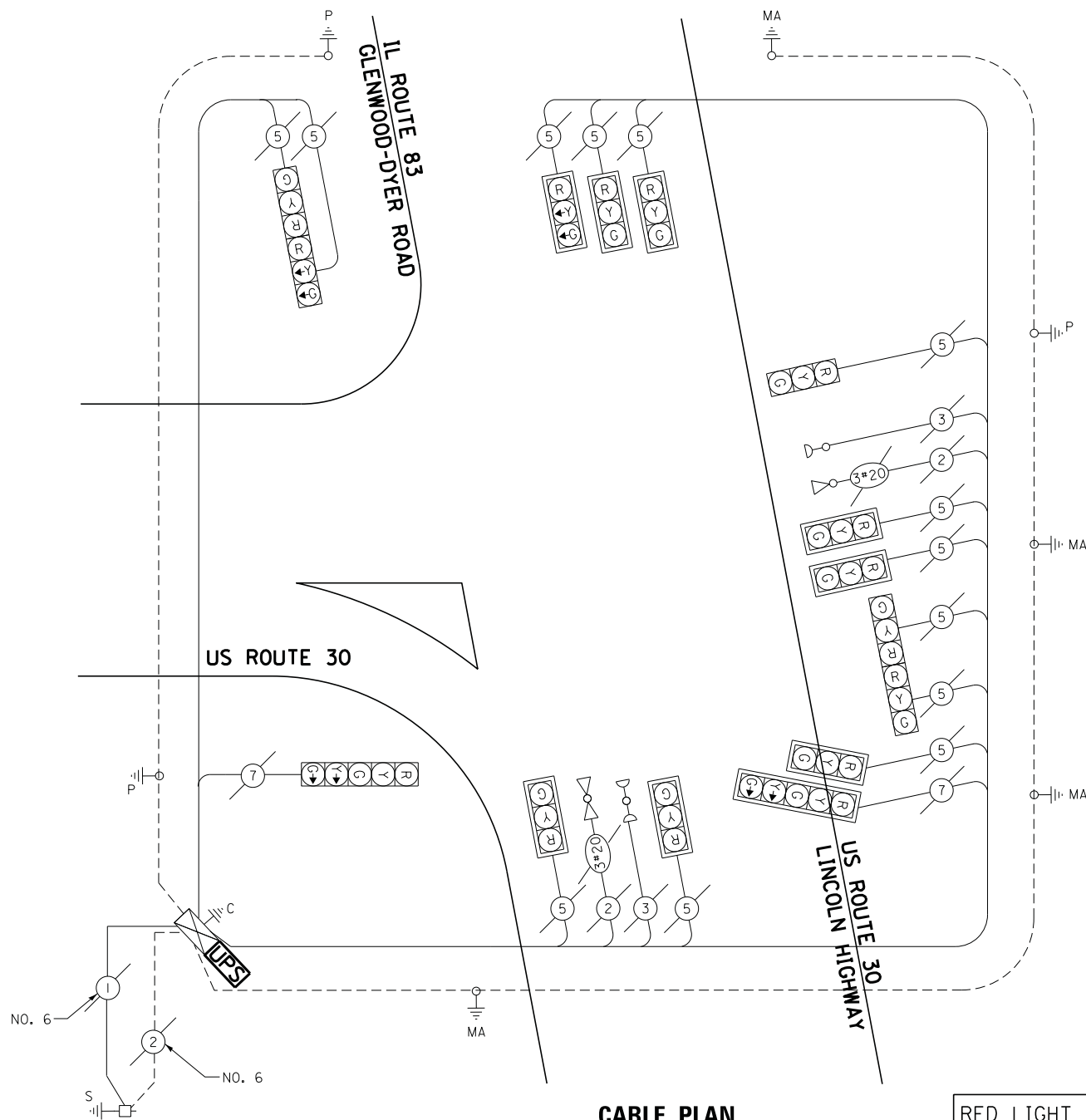
**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	↓	↶ ↷

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

RED LIGHT PHOTO ENFORCED  
INTERSECTION VENDOR:  
REDSPEED ILLINOIS

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

TS# 1340  
LYNWOOD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	15		17	0.5	127.5
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
ARROW	4		12	0.10	4.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 382.3

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

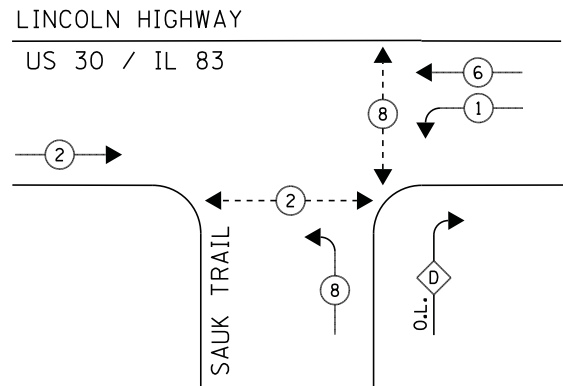
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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
US ROUTE 30 (LINCOLN HIGHWAY) AT US ROUTE 30 /IL ROUTE 83 (GLENWOOD DYER ROAD)			
SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A

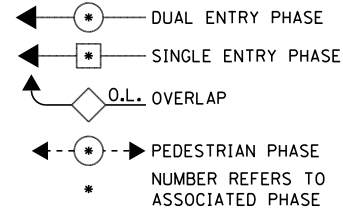
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	59
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

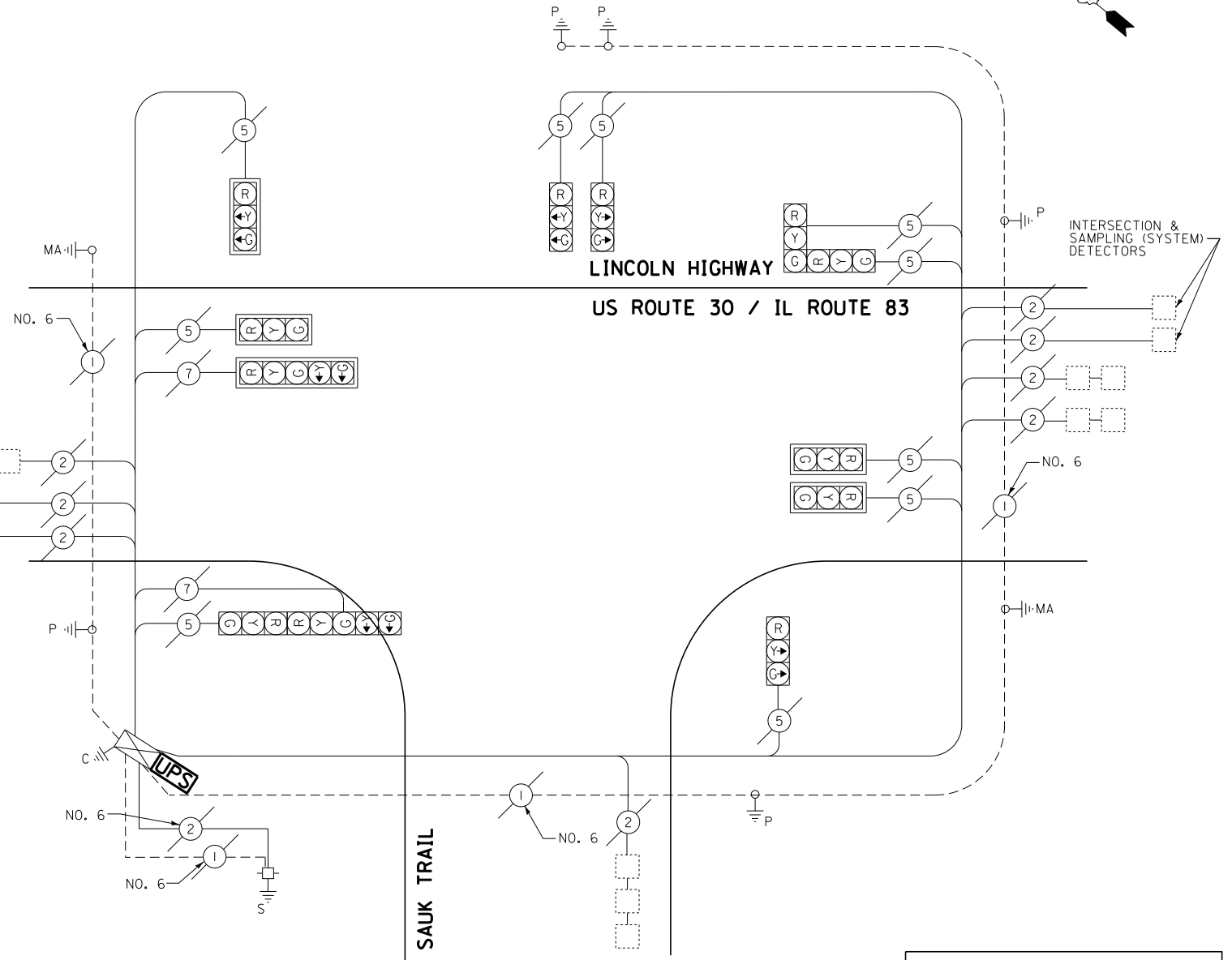
**LEGEND**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

INTERSECTION & SAMPLING (SYSTEM) DETECTORS



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	4.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 326.8

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

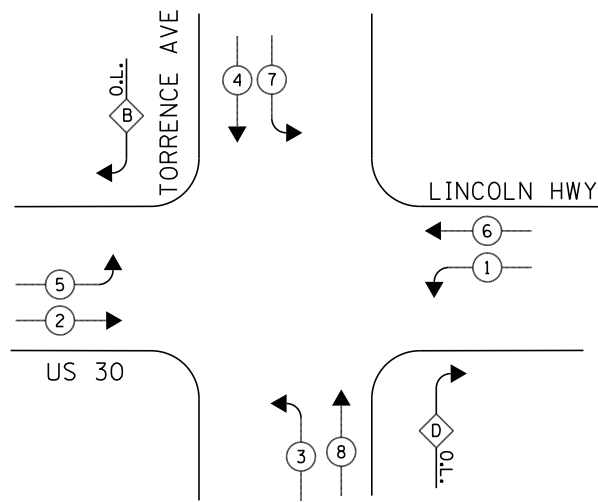
RED LIGHT PHOTO ENFORCED  
INTERSECTION VENDOR:  
REDSPEED ILLINOIS

EAGLE EPAC 300  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE EAGLE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

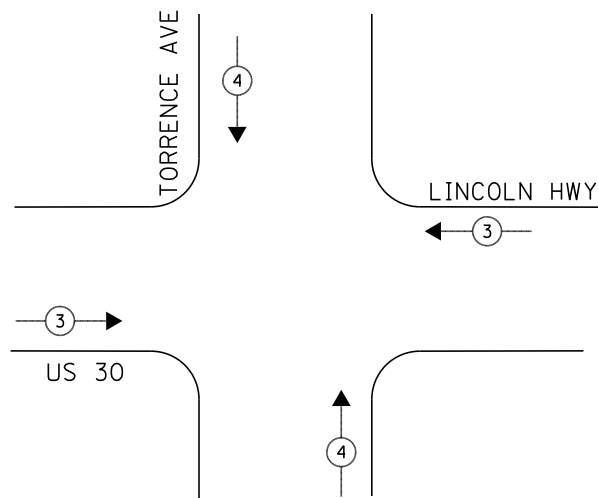
TS# 1405  
LYNWOOD

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**RIGHT TURN OVERLAP PHASE DESIGNATION**

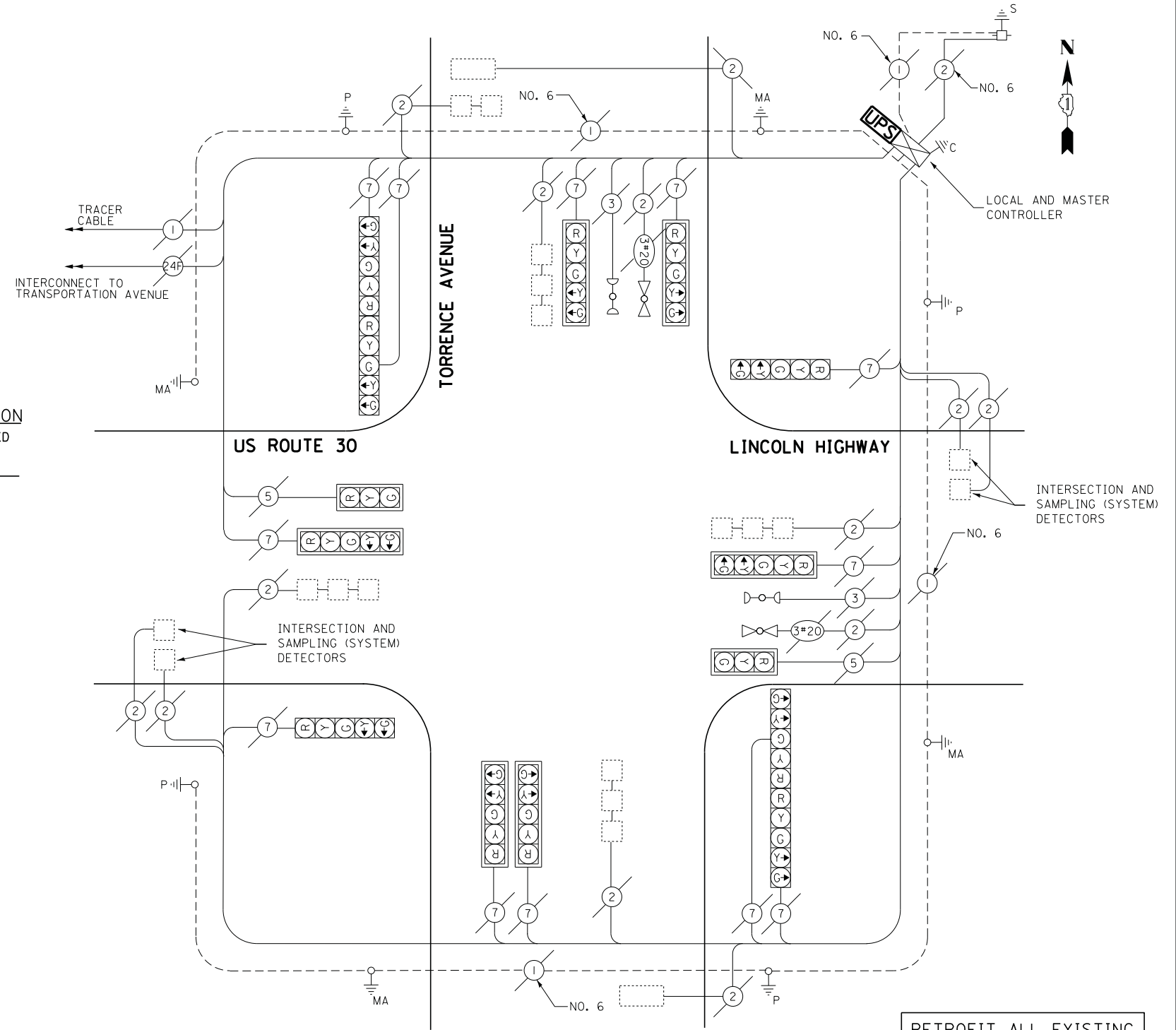
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

**CABLE PLAN**



RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

ECONOLITE ASC/2M-1000 MASTER CONTROLLER

ECONOLITE ASC/2S-1000 LOCAL CONTROLLER

TRAFFIC SIGNAL EQUIPMENT SHALL BE EAGLE TO MATCH THE ADJACENT EXISTING SYSTEM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	14		17	0.5	85
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	24		12	0.10	28.8
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 387.8

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

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DATE - 7/11/2014

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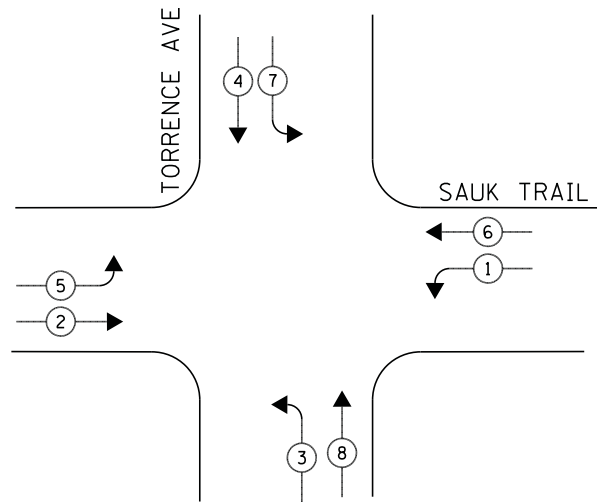
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US ROUTE 30 (LINCOLN HIGHWAY) AT TORRENCE AVENUE  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
2014-044TS COOK 65 61  
ILLINOIS FED. AID PROJECT  
CONTRACT NO. 60Y42

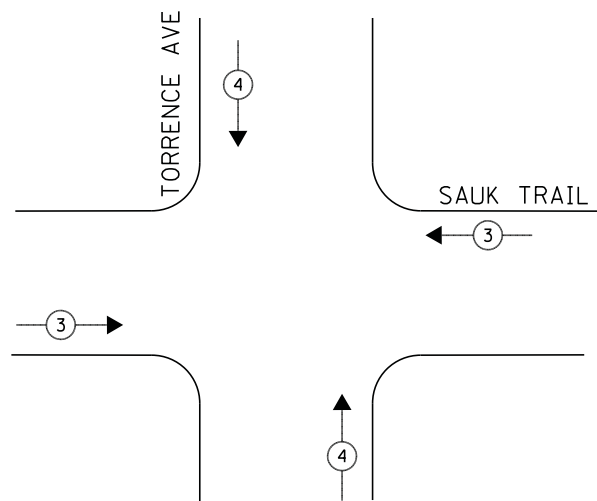
TS# 1415  
SAUK VILLAGE

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



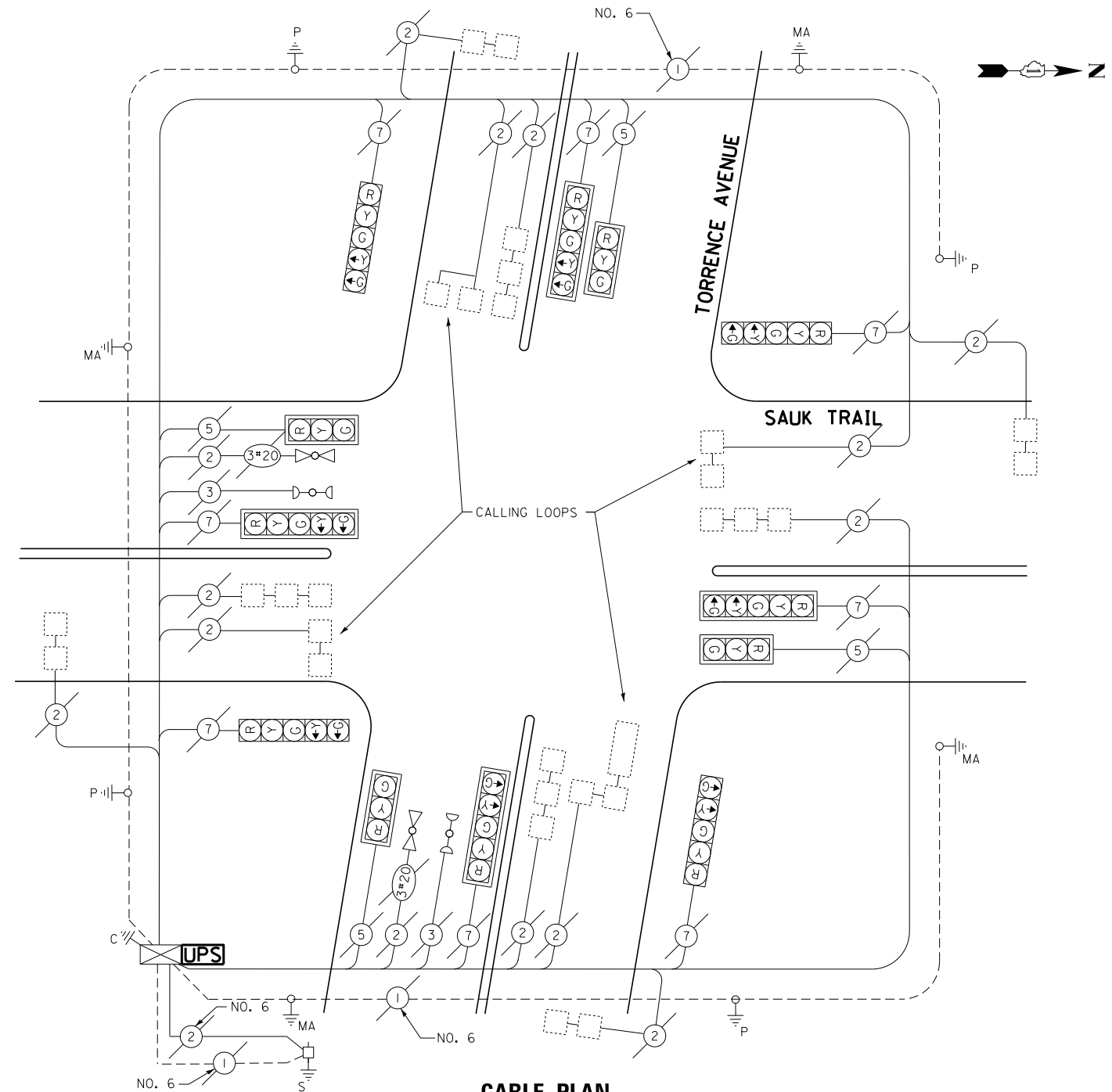
**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

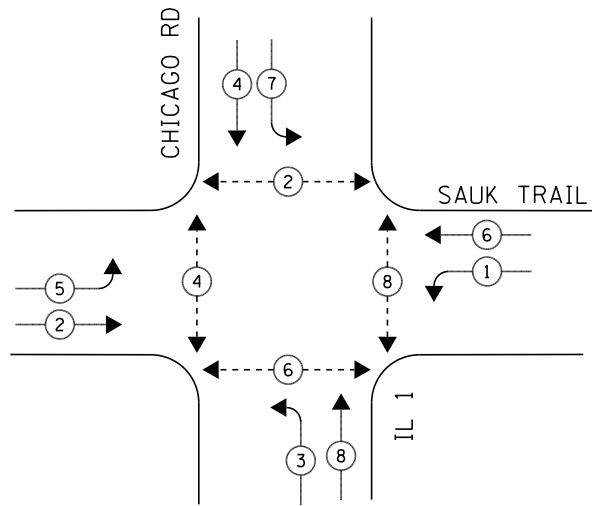
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		-	1.00	-
FLASHER	-		-	-	-
ENERGY COSTS TO:					TOTAL = 341.2
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN PHONE: (708) 235-2692 COMPANY: COMMONWEALTH EDISON					

ECONOLITE ASC/2S-1000  
CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT  
SHALL BE ECONOLITE TO  
MATCH THE ADJACENT  
EXISTING SYSTEM

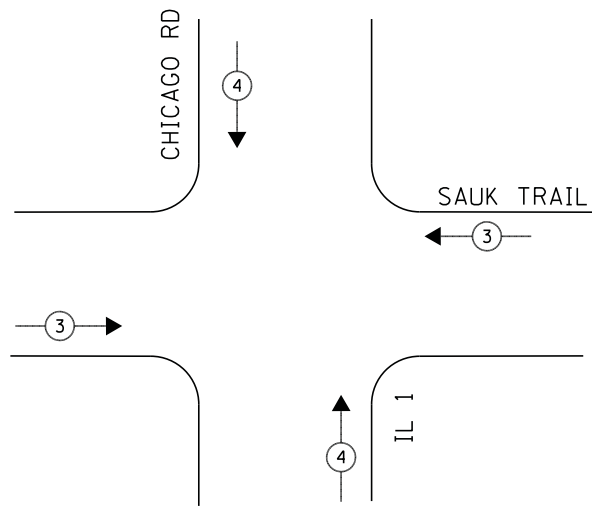
TS# 5760  
SAUK VILLAGE

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

**NOTE:**

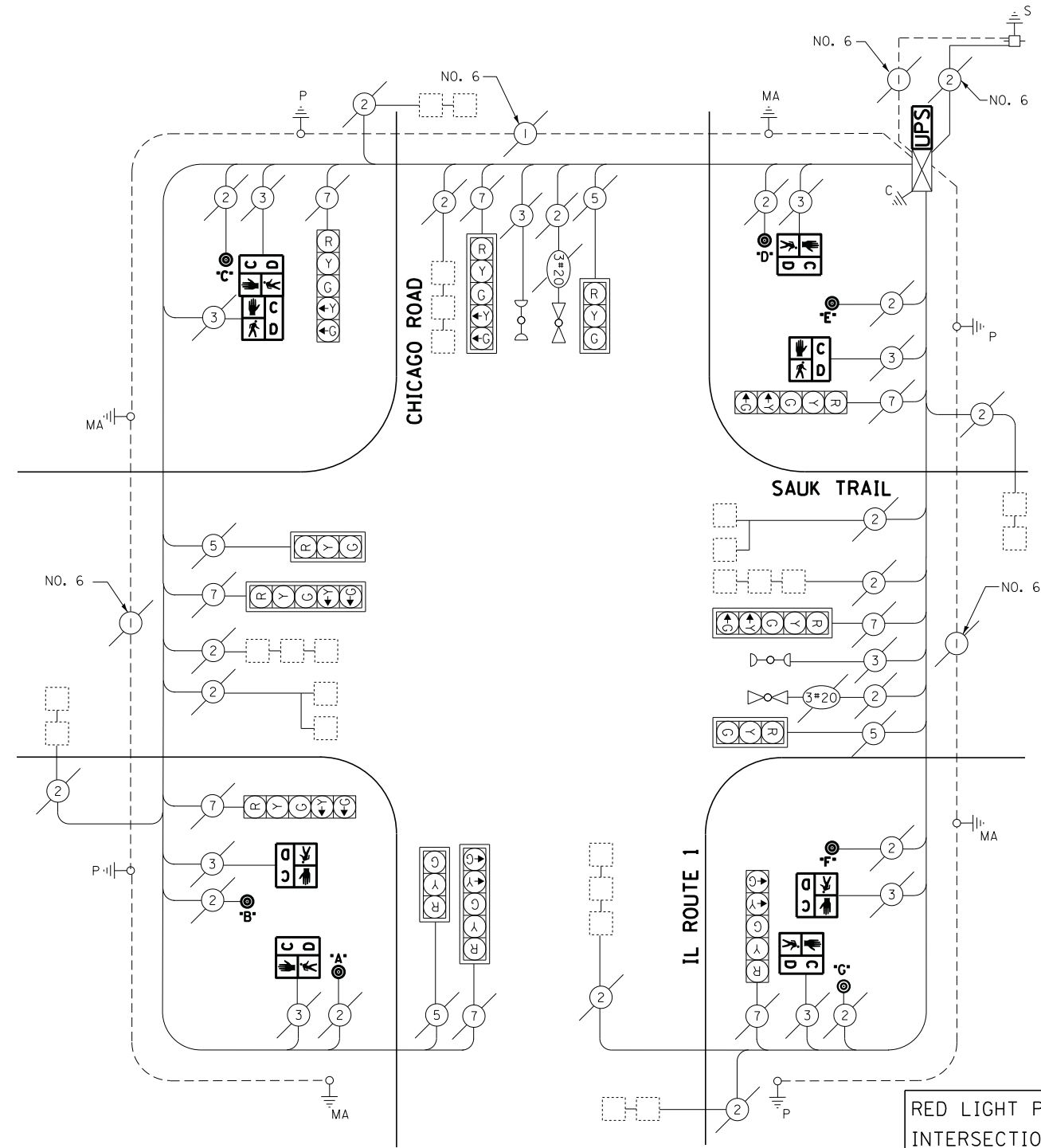
PUSH BUTTON "C" PLACES A CALL IN PHASE 2 AND 4

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**CABLE PLAN**



**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

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.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON

RED LIGHT PHOTO ENFORCED INTERSECTION VENDOR: REDSPEED ILLINOIS

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

TS# 1860  
SOUTH CHICAGO HEIGHTS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER			-	-	-
ENERGY COSTS TO:					TOTAL = 341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

FILE NAME =	USER NAME = .USER_	DESIGNED - V.O.	REVISED -
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	PLOT DATE = 7/9/2014	DATE - 7/11/2014	REVISED -

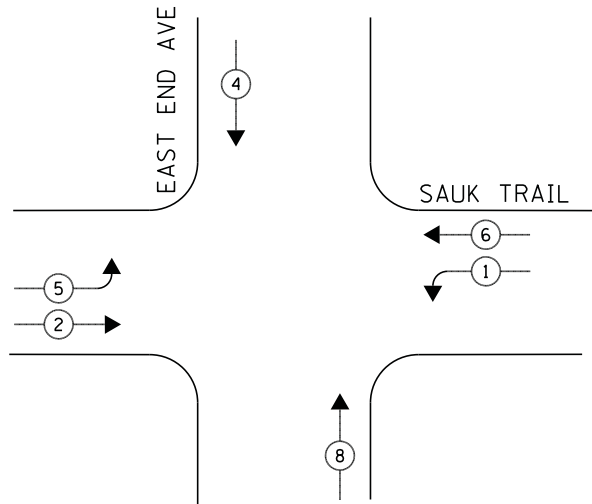
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 1 (CHICAGO ROAD) AT SAUK TRAIL

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

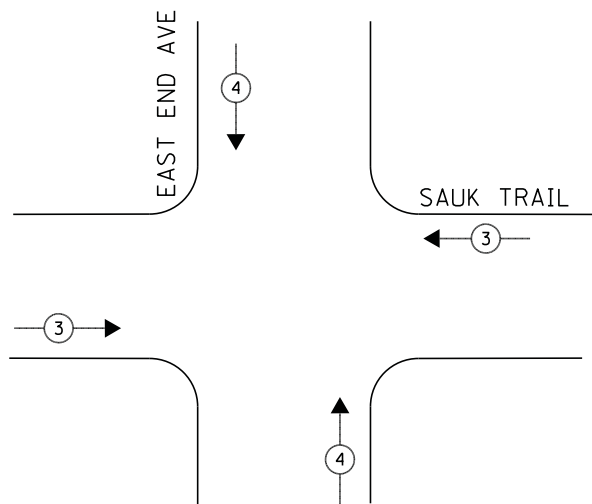
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2014-044TS	COOK	65	63
CONTRACT NO. 60Y42				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



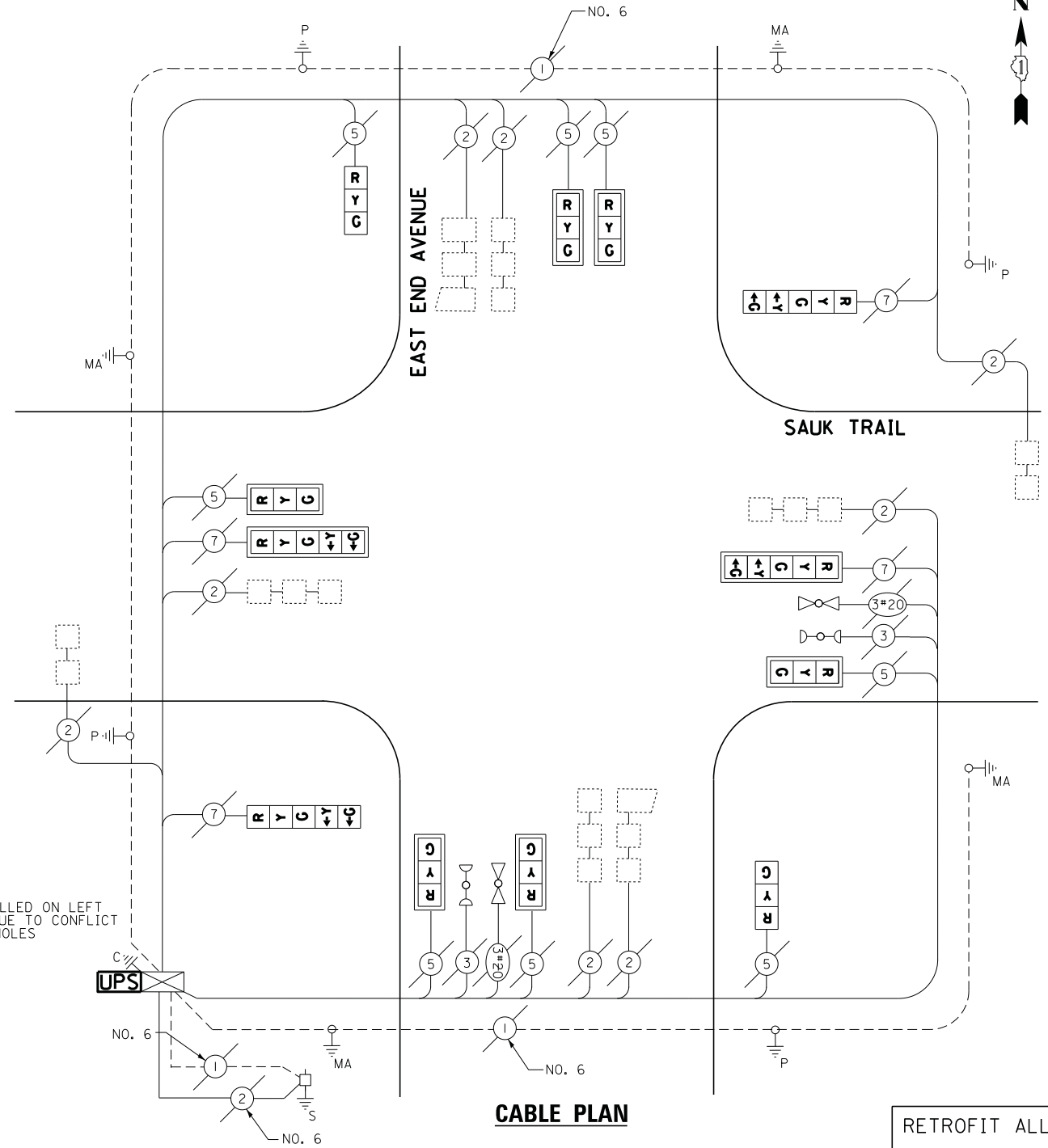
**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



UPS WILL BE INSTALLED ON LEFT SIDE OF CABINET DUE TO CONFLICT WITH DOUBLE HANDHOLES

**CABLE PLAN**

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

EAGLE EPAC 300 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE EAGLE TO MATCH THE ADJACENT EXISTING SYSTEM

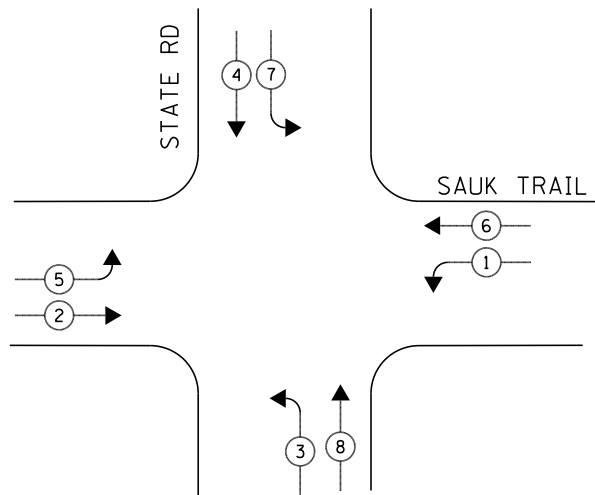
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	9.6
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		-	1.00	-
FLASHER	-		-	-	-
ENERGY COSTS TO:					TOTAL = 331.6

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: ILYAS MOHIUDDIN  
PHONE: (708) 235-2692  
COMPANY: COMMONWEALTH EDISON

TS# 5075  
SOUTH CHICAGO HEIGHTS

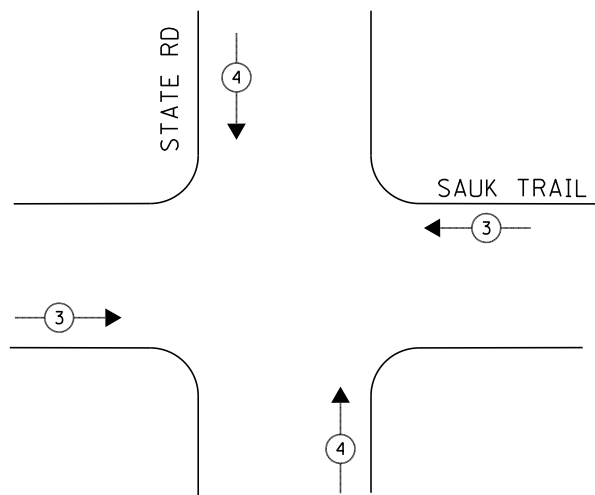


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



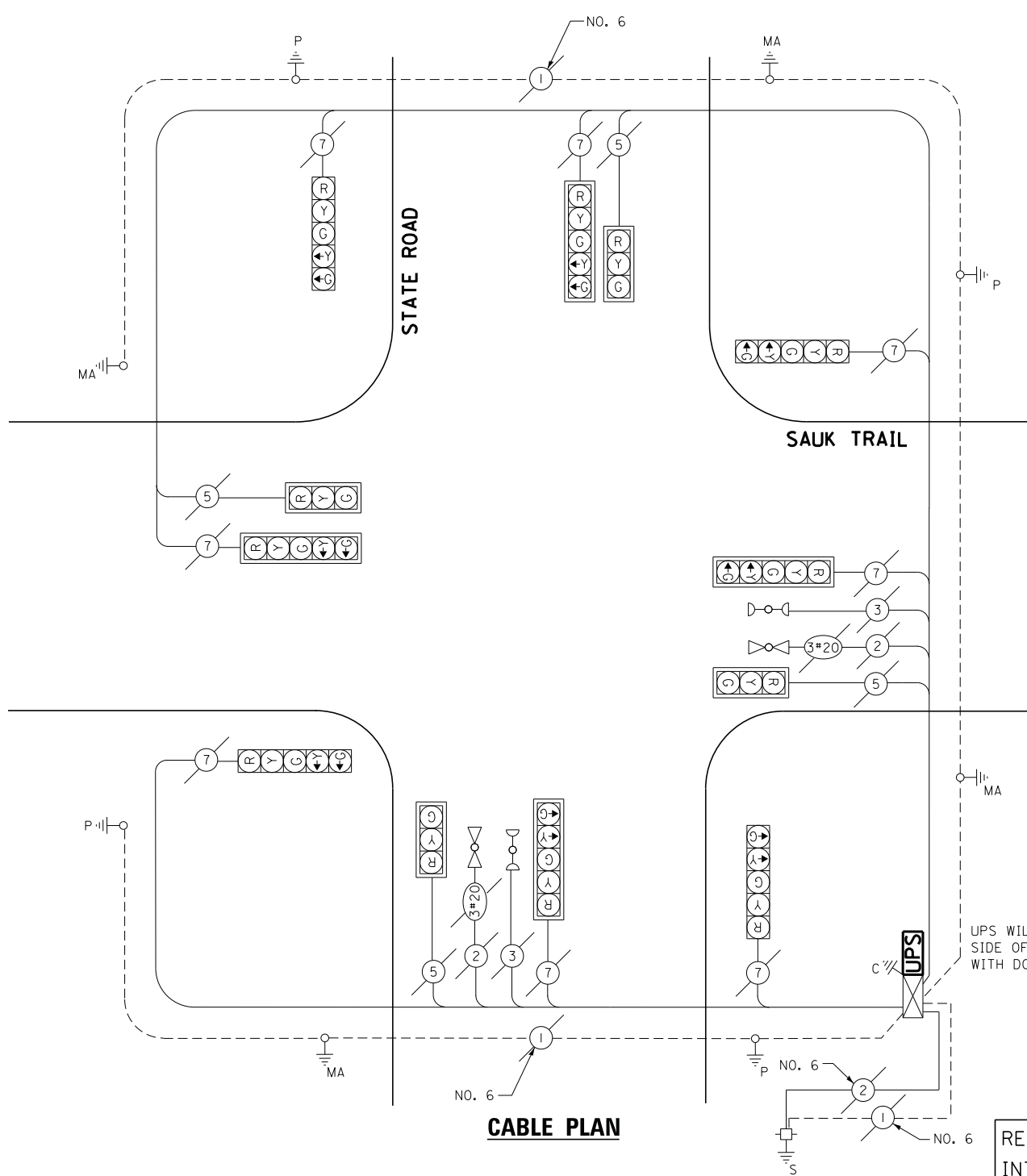
**LEGEND**

- ◀ \* → DUAL ENTRY PHASE
- ◀ \* → SINGLE ENTRY PHASE
- ◊ O.L. OVERLAP
- ◀ \* → PEDESTRIAN PHASE  
NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CABLE PLAN**

UPS WILL BE INSTALLED ON LEFT SIDE OF CABINET DUE TO CONFLICT WITH DOUBLE HANDHOLES

RED LIGHT PHOTO ENFORCED INTERSECTION VENDOR: REDSPEED ILLINOIS

ECONOLITE ASC/2S-1000 CONTROLLER ON-SITE

TRAFFIC SIGNAL EQUIPMENT SHALL BE ECONOLITE TO MATCH THE ADJACENT EXISTING SYSTEM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.5	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM			-	1.00	-
FLASHER				-	-
ENERGY COSTS TO:					TOTAL = 341.2

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TS# 5755  
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