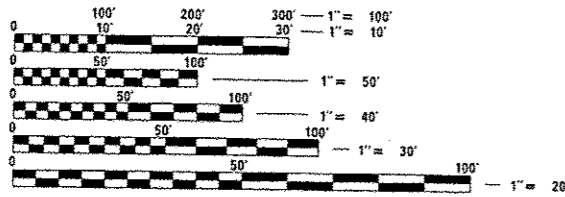


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- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701101-04 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-06 URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701606-09 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-03 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)
- 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

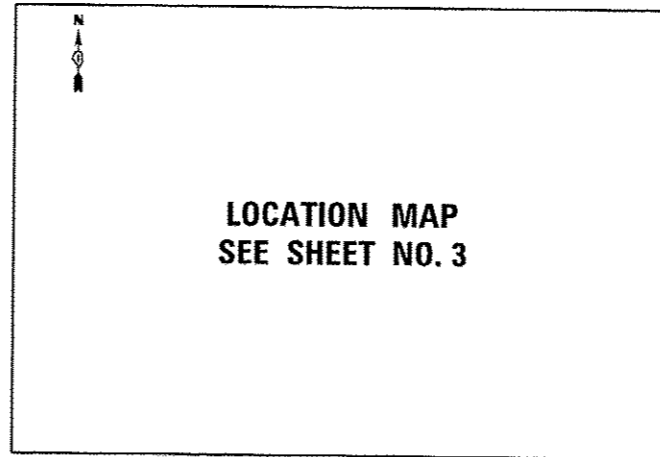
PROJECT ENGINEER: AMIR CUBIC
PROJECT MANAGER: SUDUD MAHMOUD

CONTRACT NO. 60X15

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

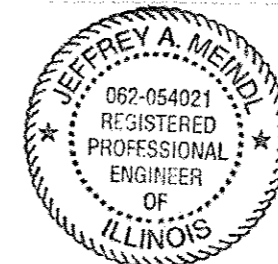
**PROPOSED
HIGHWAY PLANS**

VARIOUS LOCATIONS IN
NORTH COOK COUNTY
LIGHT EMITTING DIODE (LED) INSTALLATION
SECTION 2013-054TS
COOK COUNTY
C-91-020-14



F.A.U. R.T.C.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	1
		ILLINOIS	CONTRACT NO. 60X15	

D-91-020-14



Signature: *Jeffrey A. Meindl*
Signed: JEFFREY A. MEINDL, P.E., IL License No. 062-054021 Expires 11/30/2013
Date: 10-23-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: Oct. 23 2013
John F. Fortner
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec. 6 2013
John D. Baranzelli
ENGINEER OF DESIGN AND ENVIRONMENT

Dec. 6 2013
Omer Osman
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

 SAM SCHWARTZ
ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

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75	TS 2100	IL 43/WAUKEGAN RD @ IL 68/DUNDEE RD
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79	TS 3140	IL 68/DUNDEE RD @ MIDWAY RD
80	TS 3180	IL 68/DUNDEE RD @ SHERMER RD
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82	TS 14410	PFINGSTEN RD @ CHERRY LN
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89	TS 3430	IL 83 ELMHURST RD @ HINTZ RD
90	TS 3355	IL 83 ELMHURST RD @ IL 83 OLD MCHENRY
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93	TS 1715	US 45 IL 21/MILWAUKEE AVE @ IL 68 DUNDEE
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99	TS 1724	US 45-IL 21/MILWAUKEE AVE @ LAKE COOK RD SOUTH RAMP B&C

GENERAL NOTES

1. CONTRACTOR SHALL RELOCATE EXISTING SIGN PANELS FROM PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT TO NEW POSTS 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 TRAFFIC SIGNAL POST, GALVANIZED STEEL PAY ITEM OF THE LENGTH AS SPECIFIED IN THE PLANS.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE VERIFYING THE EXISTING BOLT PATTERN ON EXISTING FOUNDATIONS SPECIFIED TO BE RE-USED.

3. 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 BH, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

4. ANY ADDITIONAL CABLE LENGTHS NECESSARY FOR THE PROPER INSTALLATION OF AN UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED DUE TO THE LARGER DISTANCE AWAY FROM THE CONTROLLER CABINET SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED PAY ITEM..

5. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

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

7. CONTRACTOR SHALL REPLACE ALL TRAFFIC SIGNAL HEAD METAL BRACKETS TO NEW POLYCARBONATE BRACKETS AT ALL RETROFIT SIGNAL HEAD INTERSECTIONS 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.

8. THE CONTRACTOR SHALL RELOCATE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT FROM AN EXISTING TRAFFIC SIGNAL CONTROLLER CABINET TO A NEW TRAFFIC SIGNAL CONTROLLER CABINET, AS INDICATED IN THE PLANS. THE WORK SHALL INCLUDE DISCONNECTING THE EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT(S) AND RECONNECTING IT TO A NEW WIRING HARNESS WHICH IS TO BE FACTORY WIRED INTO THE NEW TRAFFIC SIGNAL CONTROLLER CABINET. THE EMERGENCY VEHICLE SYSTEM IS NOT TO BE INOPERATIVE FOR MORE THAN 8 HOURS AND THE CONTRACTOR MUST NOTIFY THE MUNICIPALITY OR FIRE PROTECTION DISTRICT 72 HOURS PRIOR TO THE DISCONNECTION OF THE EQUIPMENT. THE CONTRACTOR MUST DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER THAT THE EMERGENCY VEHICLE SYSTEM OPERATES PROPERLY.

9. 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 FOUNDATIONS. PRIOR TO REMOVING THE EXISTING TRAFFIC SIGNAL POST TO BE REPLACED, THE CONTRACTOR SHALL VERIFY THAT THE EXISTING CONDITION OF THE ANCHOR BOLTS IS ACCEPTABLE. IF THE EXISTING ANCHOR BOLT CONDITION IS NOT ACCEPTABLE, THE CONTRACTOR SHALL USE THE APPROVED METHOD TO REPLACE ANCHOR BOLTS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE PAID FOR THE NUMBER OF TRAFFIC SIGNAL POSTS INSTALLED AND NO OTHER COMPENSATION WILL BE PROVIDED.

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

RLR CAMERA LOCATION:
 TS 5625 - PALATINE ROAD / WHEELING ROAD
 TS 1715 - US45/IL21(MILWAUKEE AVENUE) / IL68 (DUNDEE ROAD)

WHEELING POLICE DEPARTMENT
 1 COMMUNITY BOULEVARD
 WHEELING, IL 60090
 (847) 459-2632

REDSPEED ILLINOIS
 400 EISENHOWER LANE NORTH
 LOMBARD, ILLINOIS 60148
 630-317-5700
 ATTN: KATHY JENSEN



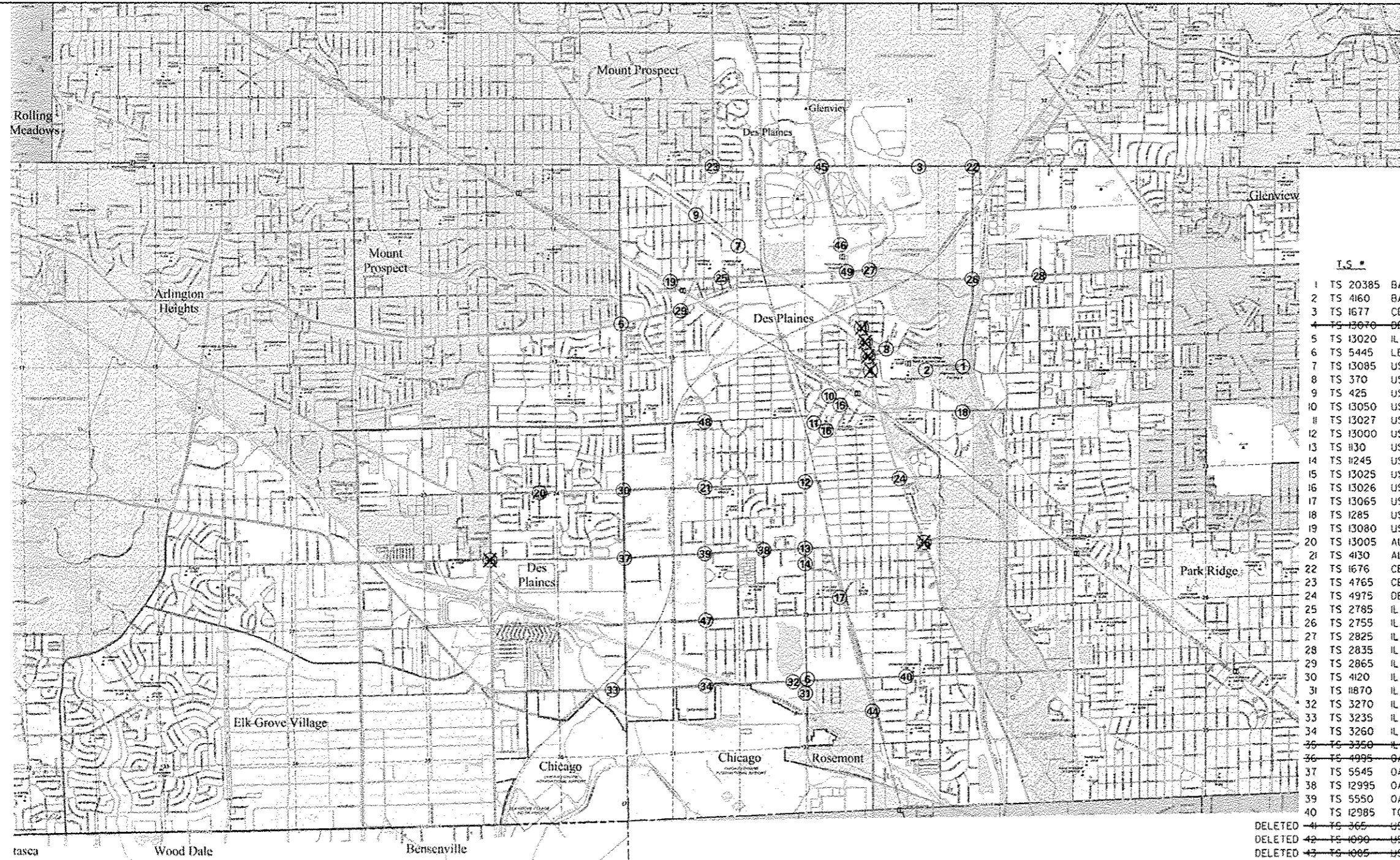
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CHECKED - LVM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND GENERAL NOTES

SCALE: NONE	SHEET	OF	SHEETS	STA.	TO	STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							VAR	2013-054TS	COOK	99	2
										CONTRACT NO.	60X15
ILLINOIS FED. AID PROJECT											

MATCHLINE SEE SHEET 4



T.S. #	LOCATION
1	TS 20385 BALLARD RD @ BENDER RD
2	TS 4160 BALLARD RD @ RAND RD
3	TS 1677 CENTRAL RD @ OAKTON COMMUNITY COLLEGE
4	TS 13070 DES PLAINES RIVER RD @ PERRY ST DELETED
5	TS 13020 IL 58 GOLF RD @ MT PROSPECT RD
6	TS 5445 LEE ST @ TOUHY AVE
7	TS 13085 US 12 RAND RD @ 3RD AVE
8	TS 370 US 12 RAND RD @ US 12 (ELK BLVD)
9	TS 425 US 12 RAND RD @ WOLF RD
10	TS 13050 US 12-45 GRACELAND @ PRAIRIE AVE
11	TS 13027 US 12-45 GRACELAND @ THACKER ST
12	TS 13000 US 12-45 LEE ST @ ALGONQUIN RD
13	TS 1130 US 12-45 LEE ST @ OAKTON ST
14	TS 11245 US 12-45 LEE ST @ US 12-45 MANNHEIM RD
15	TS 13025 US 12-45 LEE ST/MANNHEIM @ PRAIRIE AVE
16	TS 13026 US 12-45 LEE ST/MANNHEIM @ THACKER ST
17	TS 13065 US 12-45 MANNHEIM RD @ PROSPECT AVE
18	TS 1285 US 14 DEMPSTER ST @ RAND RD
19	TS 13080 US 14 NORTHWEST HWY @ STATE ST
20	TS 13005 ALGONQUIN RD @ SEYMOUR/KOLPIN DR
21	TS 4130 ALGONQUIN RD @ WOLF RD
22	TS 1676 CENTRAL RD @ EAST RIVER RD
23	TS 4765 CENTRAL RD @ WOLF RD
24	TS 4975 DES PLAINES RIVER RD @ ALGONQUIN RD
25	TS 2785 IL 58/GOLF RD @ 6TH AVE
26	TS 2755 IL 58/GOLF RD @ EAST RIVER RD
27	TS 2825 IL 58/GOLF RD @ COLLEGE DR
28	TS 2835 IL 58/GOLF RD @ POTTER RD
29	TS 2865 IL 58/GOLF RD @ SEGERS RD/WOLF RD
30	TS 4120 IL 62/ALGONQUIN RD @ MT PROSPECT RD
31	TS 11870 IL 72/HIGGINS RD @ LEE RAMP/TRAMMEL CROW
32	TS 3270 IL 72/LEE ST @ IL 72/TOUHY AVE
33	TS 3235 IL 72/TOUHY AVE @ MT PROSPECT RD
34	TS 3260 IL 72/TOUHY AVE @ WOLF RD
35	TS 3350 IL 83/ELMHURST RD @ IL 83/OAKTON ST DELETED
36	TS 4995 OAKTON ST @ DES PLAINES RIVER RD DELETED
37	TS 5545 OAKTON ST @ MT PROSPECT RD
38	TS 12995 OAKTON ST @ WEBSTER LN
39	TS 5550 OAKTON ST @ WOLF RD
40	TS 12985 TOUHY AVE @ MAPLE ST
41	TS 365 US 12/RAND RD @ US 12-US 45/DES PLAINES RIVER RD
42	TS 1090 US 12-US 45/ELK BLVD @ US 45/DES PLAINES RIVER RD
43	TS 1005 US 12-US 45/LEE ST @ US 45/DES PLAINES RIVER RD
44	TS 1137 US 12-US 45/MANNHEIM RD @ LUNT AV
45	TS 1675 US 45/DES PLAINES RIVER RD @ CENTRAL RD
46	TS 1626 US 45/DES PLAINES RIVER RD @ NAZARETH WAY/HOLY FAMILY
47	TS 5955 WOLF RD @ HOWARD ST
48	TS 13470 WOLF RD @ THACKER/DEMPSTER ST
49	TS 1625 US 45 DES PLAINES RIVER RD @ IL 58 GOLF RD

tasca Wood Dale Bensenville



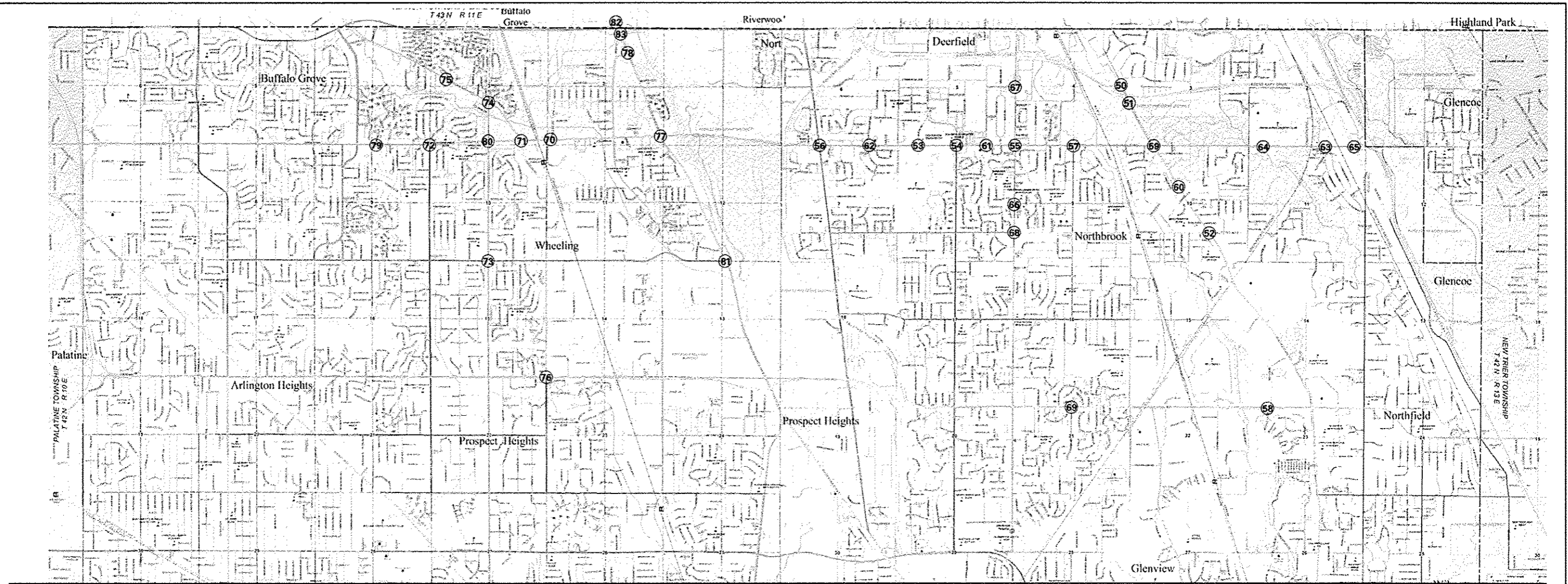
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CHECKED - LMM	REVISED -
DATE - 11-18-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-05415	COOK	99	3
CONTRACT NO. 60X15			ILLINOIS FED. AID PROJECT	



MATCHLINE SEE SHEET 3

T.S. #	LOCATION	T.S. #	LOCATION
50 TS 60	194 EDENS SPUR N RAMP BROOKSIDE PLZ @ IL 43 WAUKEGAN RD	70 TS 11690	IL 68 DUNDEE RD @ NORTHGATE
51 TS 61	194 EDENS SPUR S RAMP @ IL 43 WAUKEGAN RD	71 TS 3145	IL 68 DUNDEE RD @ OLD MCHENRY/WHEELING RD
52 TS 14400	IL 43 WAUKEGAN RD @ WALTERS AVE	72 TS 3175	IL 68 DUNDEE RD @ SCHOENBECK RD
53 TS 3125	IL 68 DUNDEE RD @ HUEHL RD	73 TS 3430	IL 83 ELMHURST RD @ HINTZ RD
54 TS 3135	IL 68 DUNDEE RD @ LANDWEHR RD	74 TS 3355	IL 83 ELMHURST RD @ IL 63 OLD MCHENRY
55 TS 3160	IL 68 DUNDEE RD @ PFINGSTEN RD	75 TS 21100	IL 83 OLD MCHENRY RD @ LEXINGTON DR/PARK POINT
56 TS 3170	IL 68 DUNDEE RD @ SANDERS RD	76 TS 5625	PALATINE RD @ WHEELING RD
57 TS 3195	IL 68 DUNDEE RD @ WESTERN AVE	77 TS 1715	US 45-IL 21/MILWAUKEE AVE @ IL 68 DUNDEE
58 TS 5933	WILLOW RD @ WESTLEIGH DR FOUNDERS DR	78 TS 1730	US 45-IL 21/MILWAUKEE AVE @ WOLF RD
59 TS 2100	IL 43/WAUKEGAN RD @ IL 68/DUNDEE RD	79 TS 21200	IL 68/DUNDEE RD @ HUNTINGTON LN/LAKE BLVD
60 TS 14430	IL 43/WAUKEGAN RD @ SHERMER RD	80 TS 3095	IL 68/DUNDEE RD @ IL 83/ELMHURST
61 TS 3137	IL 68/DUNDEE RD @ ANTHONY TRAIL	81 TS 1720	US 45-IL 21/MILWAUKEE AVE @ HINTZ RD
62 TS 3115	IL 68/DUNDEE RD @ CHARLEMAGNE/TORREY PRKWY	82 TS 1726	US 45-IL 21/MILWAUKEE AVE @ LAKE COOK RD NORTH RAMP A&D
63 TS 3140	IL 68/DUNDEE RD @ MIDWAY RD	83 TS 1724	US 45-IL 21/MILWAUKEE AVE @ LAKE COOK RD SOUTH RAMP B&C
64 TS 3180	IL 68/DUNDEE RD @ SHERMER RD		
65 TS 3185	IL 68/DUNDEE RD @ SKOKIE BLVD		
66 TS 14410	PFINGSTEN RD @ CHERRY LN		
67 TS 14405	PFINGSTEN RD @ MARIA AV/NORTHSIDE DR		
68 TS 14415	PFINGSTEN RD @ WALTERS AVE		
69 TS 5915	WILLOW RD @ GREENWOOD AVE		



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DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	100	4
			CONTRACT NO. 60X15	
ILLINOIS FED. AID PROJECT				

COLUMN NUMBER	TS NO.	INTERSECTION	FUNDING PARTICIPATION													
			STATE	DES PLAINES	MOUNT PROSPECT	ELK GROVE TOWNSHIP	ROSEMONT	NORTHBROOK	WHEELING	BUFFALO GROVE	FOREST PRESERVE	OAKTON COMMUNITY COLLEGE	SEITE 7, LLC	CTK ASSET SERVICES, BROOKSIDE, c/o	DIV EDEN PROPERTY, LLC	
1	TS 20385	BALLARD RD @ BENDER RD/E RIVER RD	100%													
1	TS 4160	BALLARD RD @ RAND RD	100%													
7	TS 1677	CENTRAL RD @ OAKTON COMMUNITY COLLEGE	96.7%									3.3%				
3	TS 13070	DES PLAINES RIVER RD @ PERRY ST	96.7%	3.3%												DELETED
1	TS 13020	IL 58 GOLF RD @ MT PROSPECT RD	100%													
4	TS 5445	LEE ST @ TOUHY AVE	97.5%	2.5%												
2	TS 13085	US 12 RAND RD @ 3RD AVE	95%	5%												
4	TS 370	US 12 RAND RD @ US 12 (ELK BLVD)	97.5%	2.5%												
4	TS 425	US 12 RAND RD @ WOLF RD	97.5%	2.5%												
2	TS 13050	US 12-45 GRACELAND @ PRAIRIE AVE	95%	5%												
2	TS 13027	US 12-45 GRACELAND @ THACKER ST	95%	5%												
2	TS 13000	US 12-45 LEE ST @ ALGONQUIN RD	95%	5%												
4	TS 1130	US 12-45 LEE ST @ OAKTON ST	97.5%	2.5%												
3	TS 11245	US 12-45 LEE ST @ US 12-45 MANNHEIM RD	96.7%	3.3%												
2	TS 13025	US 12-45 LEE ST/MANNHEIM @ PRAIRIE AVE	95%	5%												
2	TS 13026	US 12-45 LEE ST/MANNHEIM @ THACKER ST	95%	5%												
2	TS 13065	US 12-45 MANNHEIM RD @ PROSPECT AVE	95%	5%												
1	TS 1285	US 14 DEMPSTER ST @ RAND RD	100%													
1	TS 13080	US 14 NORTHWEST HWY @ STATE ST	100%													
2	TS 13005	ALGONQUIN RD @ SEYMOUR/KOLPIN DR	95%	5%												
4	TS 4130	ALGONQUIN RD @ WOLF RD	97.5%	2.5%												
8	TS 1676	CENTRAL RD @ EAST RIVER RD	97.5%									2.5%				
5	TS 4765	CENTRAL RD @ WOLF RD	92.5%	5%	2.5%											
2	TS 4975	DES PLAINES RIVER RD @ ALGONQUIN RD	95%	5%												
2	TS 2785	IL 58/GOLF RD @ 6TH AVE	95%	5%												
1	TS 2755	IL 58/GOLF RD @ EAST RIVER RD	100%													
7	TS 2825	IL 58/GOLF RD @ COLLEGE DR	96.7%									3.3%				
1	TS 2835	IL 58/GOLF RD @ POTTER RD	100%													
4	TS 2865	IL 58/GOLF RD @ SEGERS RD/WOLF RD	97.5%	2.5%												
1	TS 4120	IL 62/ALGONQUIN RD @ MT PROSPECT RD	100%													
9	TS 11870	IL 72/HIGGINS RD @ LEE RAMP/TRAMMEL CROW	97.5%									2.5%				
1	TS 3270	IL 72/LEE ST @ IL 72/TOUHY AVE	100%													
6	TS 3235	IL 72/TOUHY AVE @ MT PROSPECT RD	95%	2.5%		2.5%										
4	TS 3260	IL 72/TOUHY AVE @ WOLF RD	97.5%	2.5%												
1	TS 3350	IL 83/ELMHURST RD @ IL 83/OAKTON ST	100%													DELETED
4	TS 4995	OAKTON ST @ DES PLAINES RIVER RD	97.5%	2.5%												DELETED
1	TS 5545	OAKTON ST @ MT PROSPECT RD	100%													
2	TS 12995	OAKTON ST @ WEBSTER LN	95%	5%												
1	TS 5550	OAKTON ST @ WOLF RD	100%													
2	TS 12985	TOUHY AVE @ MAPLE ST	95%	5%												
1	TS 365	US 12/RAND RD @ US 12 US 45/DES PLAINES RIVER RD	100%													DELETED
1	TS 1090	US 12 US 45/ELK BLVD @ US 45/DES PLAINES RIVER RD	100%													DELETED
1	TS 1085	US 12 US 45/LEE ST @ US 45/DES PLAINES RIVER RD	100%													DELETED
10	TS 1137	US 12-US 45/MANNHEIM RD @ LUNT AV	96.7%								3.3%					
1	TS 1675	US 45/DES PLAINES RIVER RD @ CENTRAL RD	100%													
2	TS 1626	US 45/DES PLAINES RIVER RD @ NAZARETH WAY/HOLY FAMILY	95%	5%												
2	TS 5955	WOLF RD @ HOWARD ST	95%	5%												
4	TS 13470	WOLF RD @ THACKER/DEMPSTER ST	97.5%	2.5%												
1	TS 1625	US 45 DES PLAINES RIVER RD @ IL 58 GOLF RD	100%													



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
SHEET 1 OF 5**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	5
CONTRACT NO. 60X15			ILLINOIS FED. AID PROJECT	

COLUMN NUMBER	TS NO.	INTERSECTION	FUNDING PARTICIPATION												
			STATE	DES PLAINES	MOUNT PROSPECT	ELK GROVE TOWNSHIP	ROSEMONT	NORTHBROOK	WHEELING	BUFFALO GROVE	FOREST PRESERVE	OAKTON COMMUNITY COLLEGE	SEITE 7, LLC	CTK ASSET SERVICES, BROOKSIDE, c/o	DIV EDEN PROPERTY, LLC
18	TS 60	I 94 EDENS SPUR N RAMP BROOKSIDE PLZ @ IL 43 WAUKEGAN RD	97.5%										2.5%		
1	TS 61	I 94 EDENS SPUR S RAMP @ IL 43 WAUKEGAN RD	100%												
11	TS 14400	IL 43 WAUKEGAN RD @ WALTERS AVE	95%					5%							
12	TS 3125	IL 68 DUNDEE RD @ HUEHL RD	96.7%					3.3%							
13	TS 3135	IL 68 DUNDEE RD @ LANDWEHR RD	97.5%					2.5%							
1	TS 3160	IL 68 DUNDEE RD @ PFINGSTEN RD	100%												
1	TS 3170	IL 68 DUNDEE RD @ SANDERS RD	100%												
11	TS 3195	IL 68 DUNDEE RD @ WESTERN AVE	95%					5%							
11	TS 5933	WILLOW RD @ WESTLEIGH DR FOUNDERS DR	95%					5%							
1	TS 2100	IL 43/WAUKEGAN RD @ IL 68/DUNDEE RD	100%												
13	TS 14430	IL 43/WAUKEGAN RD @ SHERMER RD	97.5%					2.5%							
12	TS 3137	IL 68/DUNDEE RD @ ANTHONY TRAIL	96.7%					3.3%							
11	TS 3115	IL 68/DUNDEE RD @ CHARLEMAGNE/TORREY PRKWAY	95%					5%							
14	TS 3140	IL 68/DUNDEE RD @ MIDWAY RD	95%					2.5%						2.5%	
1	TS 3180	IL 68/DUNDEE RD @ SHERMER RD	100%												
11	TS 3185	IL 68/DUNDEE RD @ SKOKIE BLVD	95%					5%							
11	TS 14410	PFINGSTEN RD @ CHERRY LN	95%					5%							
11	TS 14405	PFINGSTEN RD @ MARIA AV/NORTHSIDE DR	95%					5%							
13	TS 14415	PFINGSTEN RD @ WALTERS AVE	97.5%					2.5%							
11	TS 5915	WILLOW RD @ GREENWOOD AVE	95%					5%							
15	TS 11690	IL 68 DUNDEE RD @ NORTHGATE	95%						5%						
16	TS 3145	IL 68 DUNDEE RD @ OLD MCHENRY/WHEELING RD	97.5%						2.5%						
16	TS 3175	IL 68 DUNDEE RD @ SCHOENBECK RD	97.5%						2.5%						
1	TS 3430	IL 83 ELMHURST RD @ HINTZ RD	100%												
16	TS 3355	IL 83 ELMHURST RD @ IL 83 OLD MCHENRY	97.5%						2.5%						
15	TS 21100	IL 83 OLD MCHENRY RD @ LEXINGTON DR/PARK POINT	95%						5%						
16	TS 5625	PALATINE RD @ WHEELING RD	97.5%						2.5%						
1	TS 1715	US 45-IL 21 MILWAUKEE AVE @ IL 68 DUNDEE	100%												
16	TS 1730	US 45-IL 21 MILWAUKEE AVE @ WOLF RD	97.5%						2.5%						
17	TS 21200	IL 68/DUNDEE RD @ HUNTINGTON LN/LAKE BLVD	95%						2.5%	2.5%					
1	TS 3095	IL 68/DUNDEE RD @ IL 83/ELMHURST	100%												
8	TS 1720	US 45-IL 21/MILWAUKEE AVE @ HINTZ RD	97.5%								2.5%				
1	TS 1726	US 45-IL 21/MILWAUKEE AVE @ LAKE COOK RD NORTH RAMP A&D	100%												
1	TS 1724	US 45-IL 21/MILWAUKEE AVE @ LAKE COOK RD SOUTH RAMP B&C	100%												



SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM
 DRAWN - JAM
 CHECKED - LMM
 DATE - 10-14-13

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES SHEET 2 OF 5

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X15	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6																	
67100100	MOBILIZATION	L SUM	1	1																	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	77	23	14	1	8	1	1	2	2	1	1	8	2	3	1	2	5	1	1
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3	2										1							
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	23	2	7					1				8		5					
87502490	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	3		1													2			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	24	7	3			2		4	1			2		2	3				
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	39	10	10		4		4	1		6		2		2					
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	37	16	2					2		2		8		5	2				
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	3		3																
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2														2				
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	14	9	1				4												
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	46	20	4		4		4	1		1		6		2	4				
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	21	1	6					2		2		6		4					
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1	1																	

URBAN

CONSTRUCTION CODE
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18
 TRAFFIC SIGNAL
 0021
 URBAN

Rev.



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CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES
SHEET 3 OF 5

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X15	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
				TRAFFIC SIGNAL 0021 URBAN																	
88030230	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	2															2			
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	26	8	2		4			1		1		4			2	4			
88030250	SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1		1																
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1	1																	
88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3	1										2							
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1	1																	
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	1	1																	
88055170	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1	1																	
88060110	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1	1																	
88060120	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-4 SECTION, BRACKET MOUNTED	EACH	1	1																	
88060150	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1	1																	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	109	12	22		20					2	27	4	12	2		6	2		
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	37	15	7		4					1	4				4	2			
88102757	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3	2									1								
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	88	23	14		8		8	2	8	7	8		6	4					
88800100	PEDESTRIAN PUSH-BUTTON	EACH	100	22	14		23						20	4	12	2		1	2		

13

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DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
SHEET 4 OF 5**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	8
			CONTRACT NO. 60X15	
[ILLINOIS] FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
				URBAN TRAFFIC SIGNAL 0021 URBAN																	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	73	21	13	1	7	1	1	2	2	1	1	8	2	3	1	2	5	1	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	52	14	10		7		1	1	1	1	1	6	1	2	1	1	4	1	
X8620050	UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	1																1		
X8620200	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	72	21	13	1	7	1	1	2	2	1	1	8	2	3	1	2	4	1	1
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	15	3	1		2	4			1			2	1					1	
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	33	19	4						2			4	3					1	
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	63	20	9		16	4			11				1					2	
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	27	4	5		4	4			5			2	1					2	
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	10	3			2				1			2						2	
X8803110	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1	1																	
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	20	3	4		6				4				2					1	
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	95	17	25		18	5					3	12				4	11		



DESIGNED - JAM
DRAWN - JAM
CHECKED - LMM
DATE - 10-14-13

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 5 OF 5

SCALE: NONE SHEET OF SHEETS STA. TO STA.

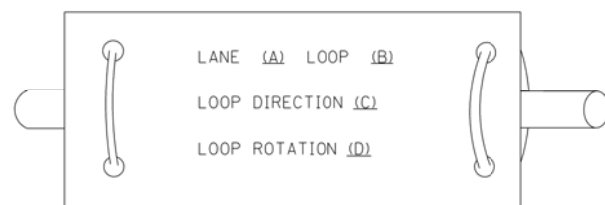
F.A. RTE. SECTION COUNTY TOTAL SHEET NO.
VAR 2013-054TS COOK 99 9
CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT

Rev.

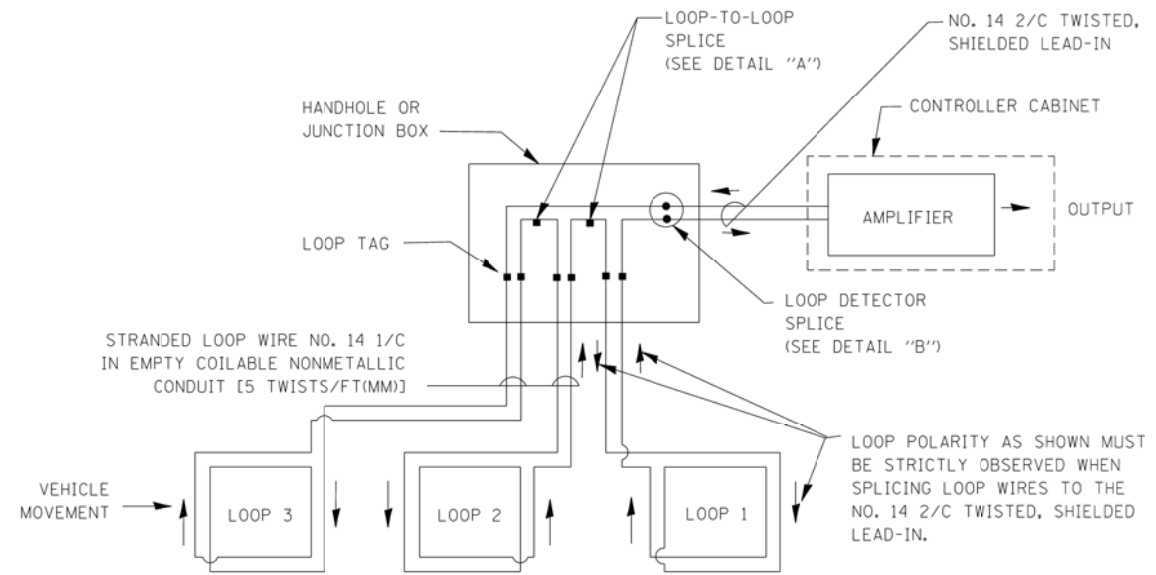
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

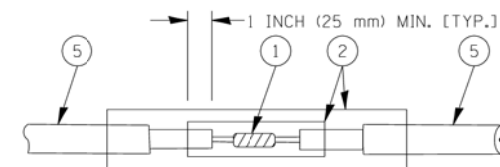


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

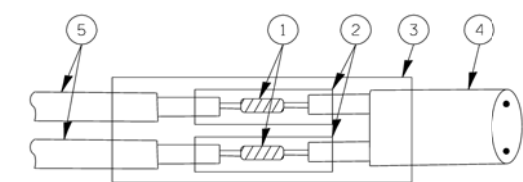


DETECTOR LOOP WIRING SCHEMATIC

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

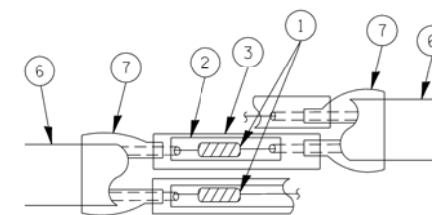


DETAIL "A" LOOP-TO-LOOP SPLICE

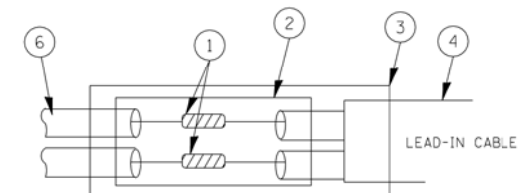


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - DAD	REVISED -
ct:\pw\work\PWIDOT\KANTHAPHIXAYBC\d011264\tr\offisc\legend.v7.dgn		DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE = 10/28/09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

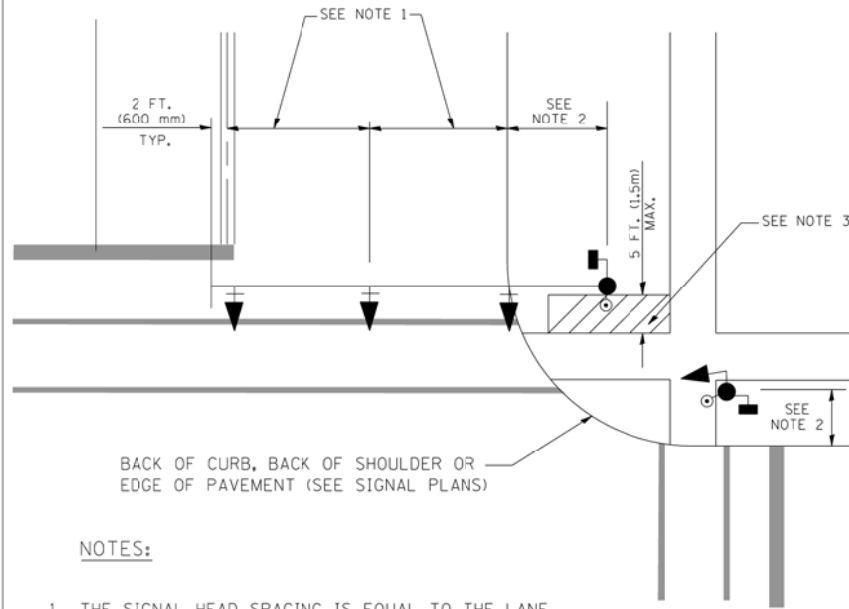
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	10
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X15	

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

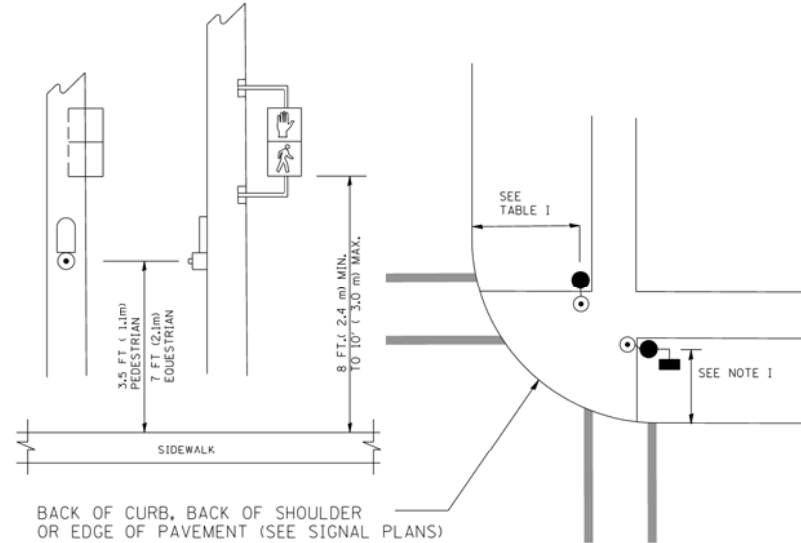
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

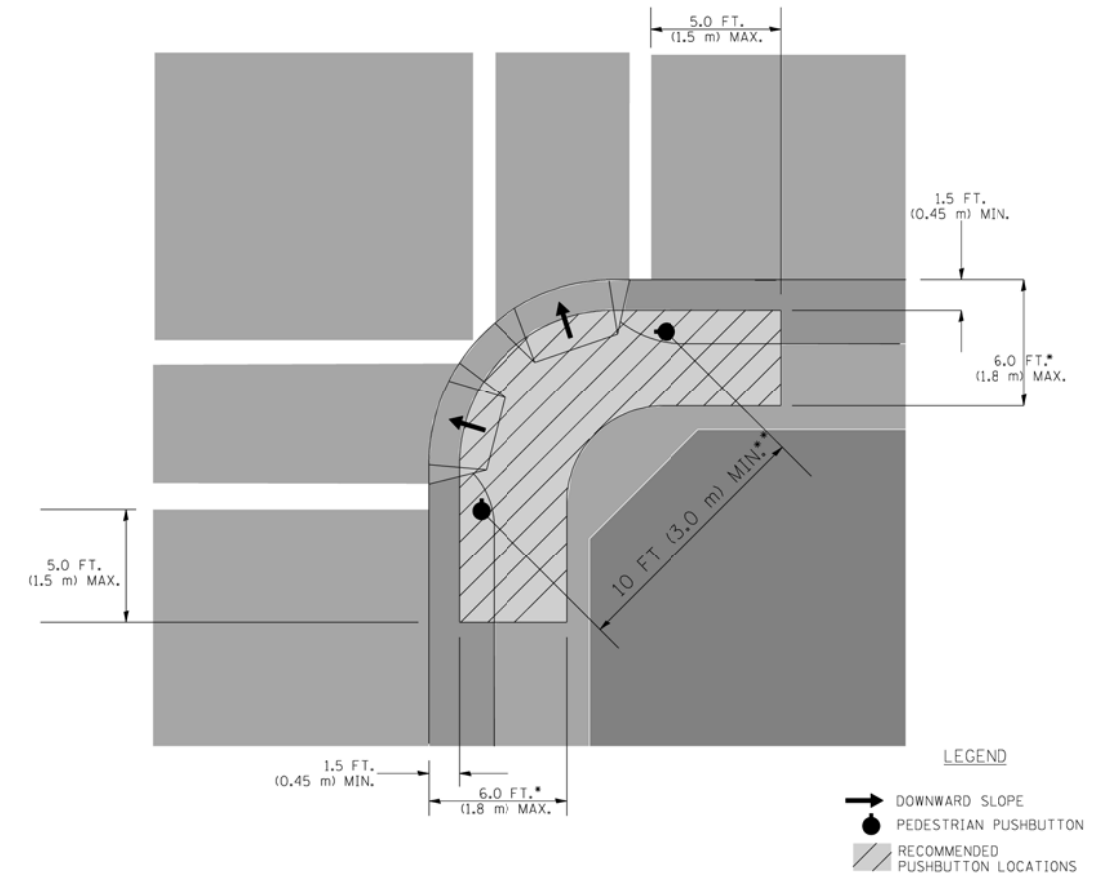
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS. THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

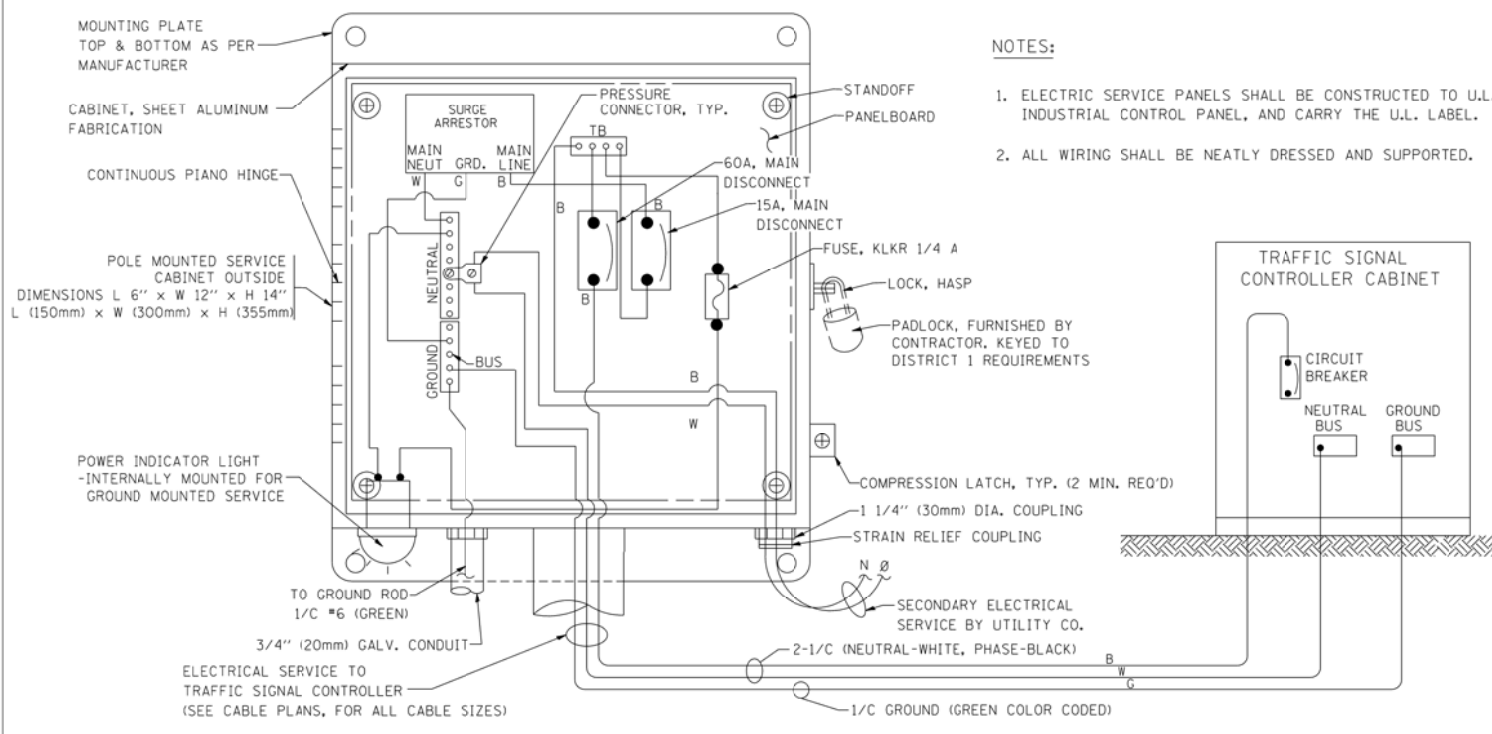
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

TRAFFIC SIGNAL EQUIPMENT OFFSET

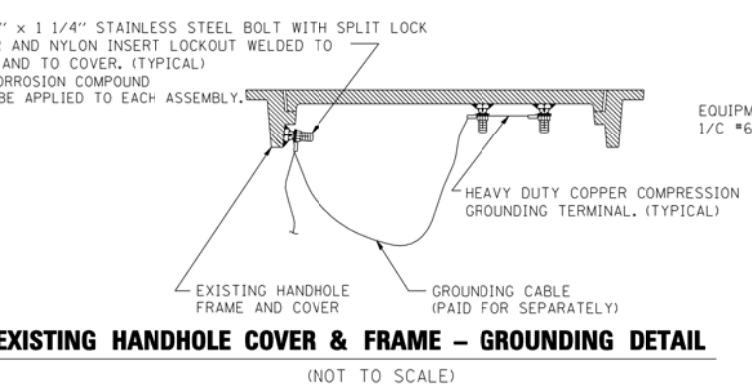
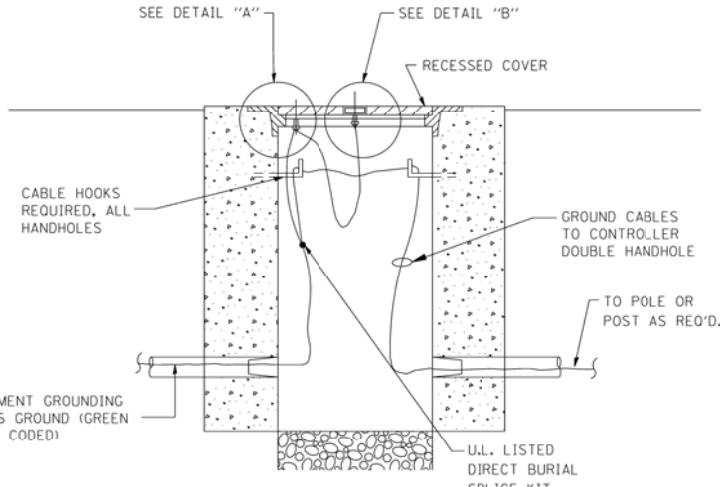
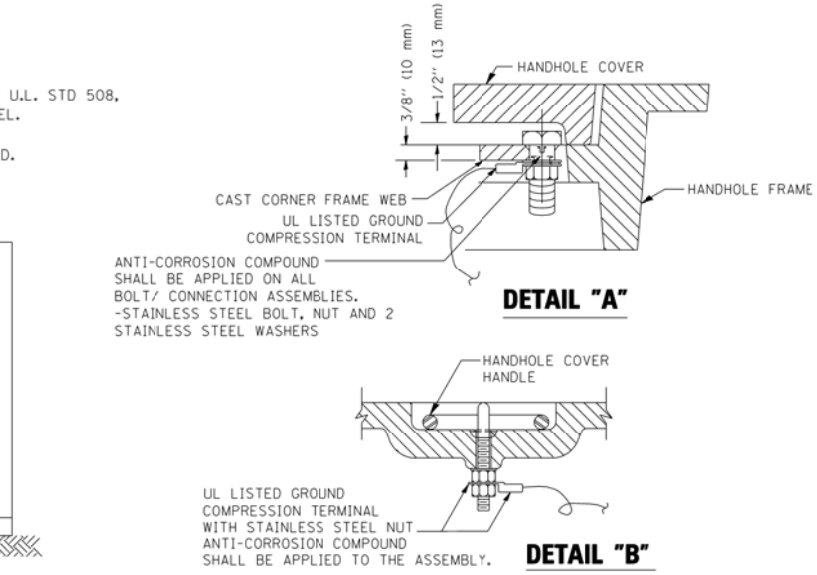
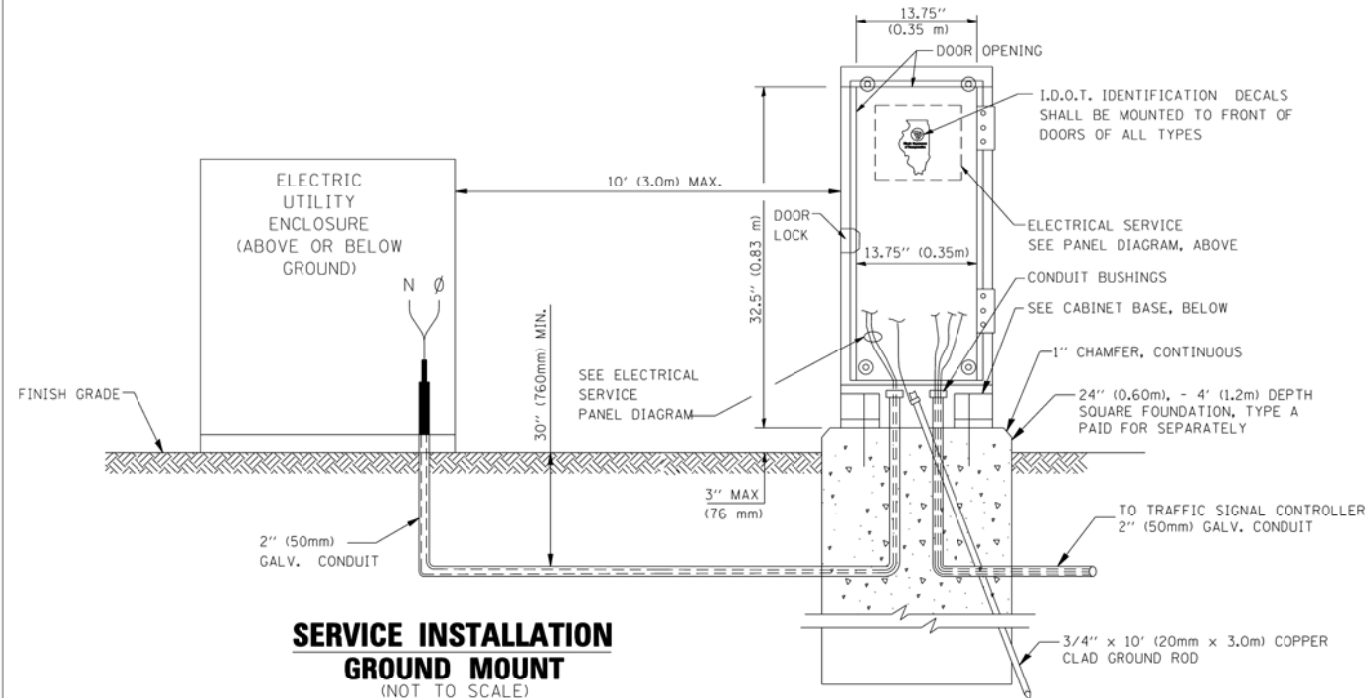
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

NOTES:

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



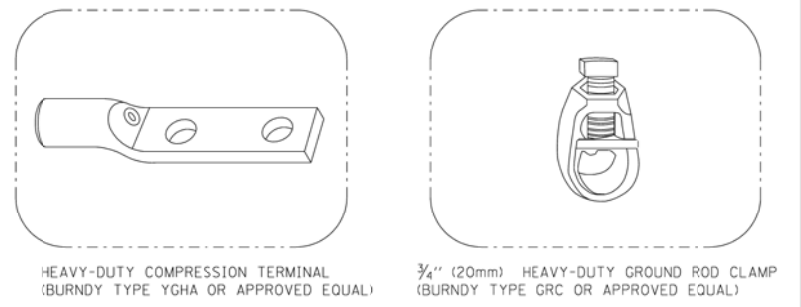
**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)**



NOTES:

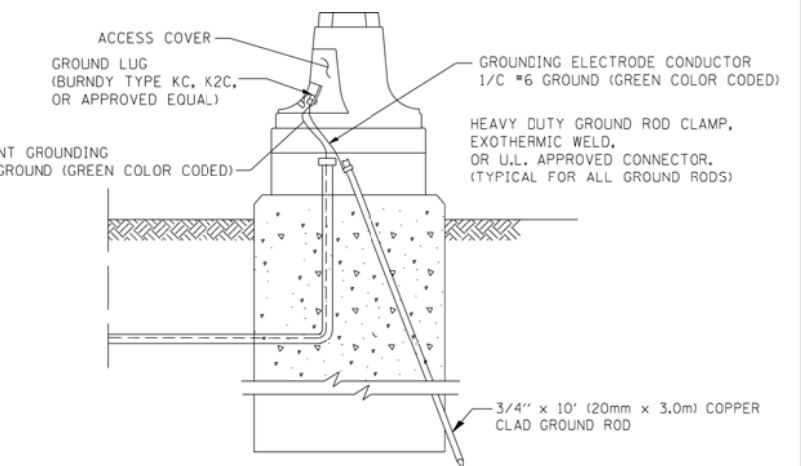
GROUNDING SYSTEM

- 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.



NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. 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.



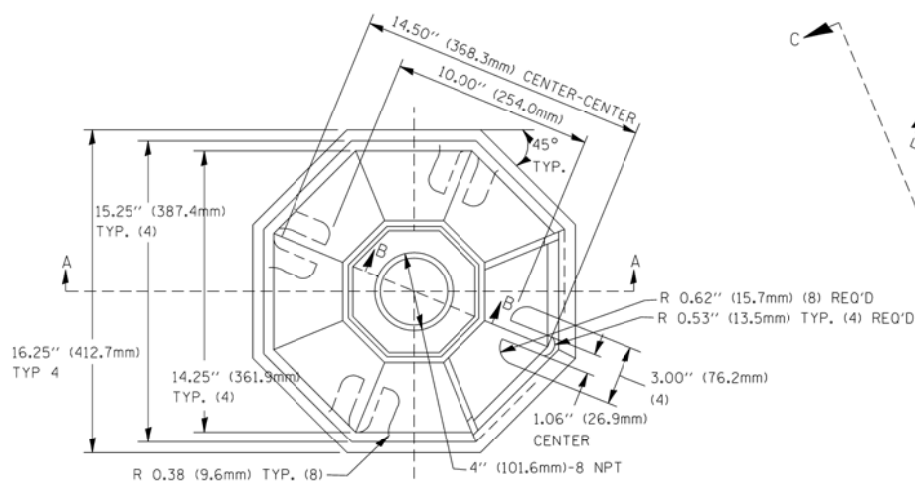
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

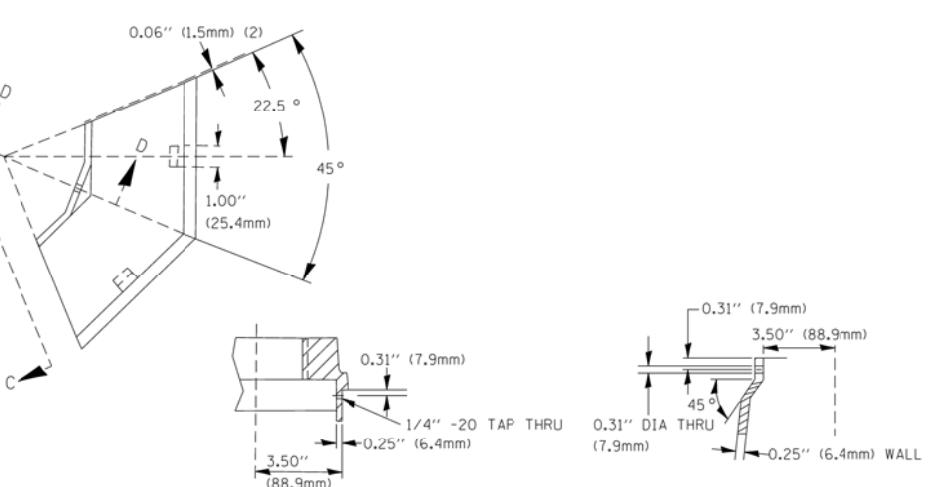
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	12
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X15	

SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

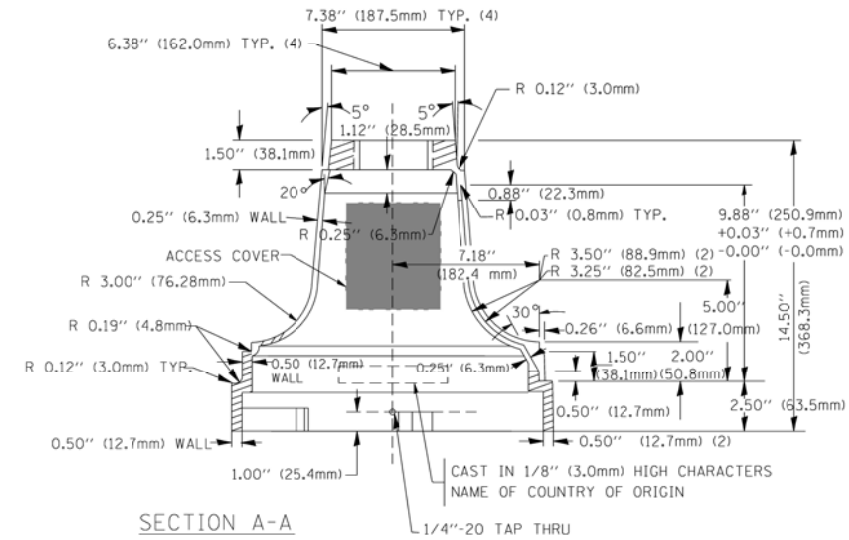


TOP VIEW

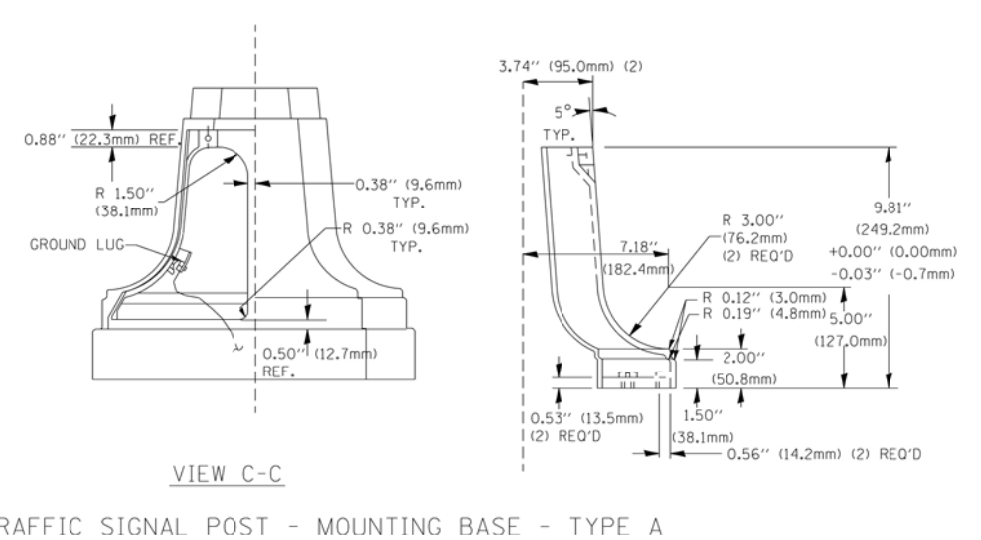


SECTION B-B

SECTION D-D

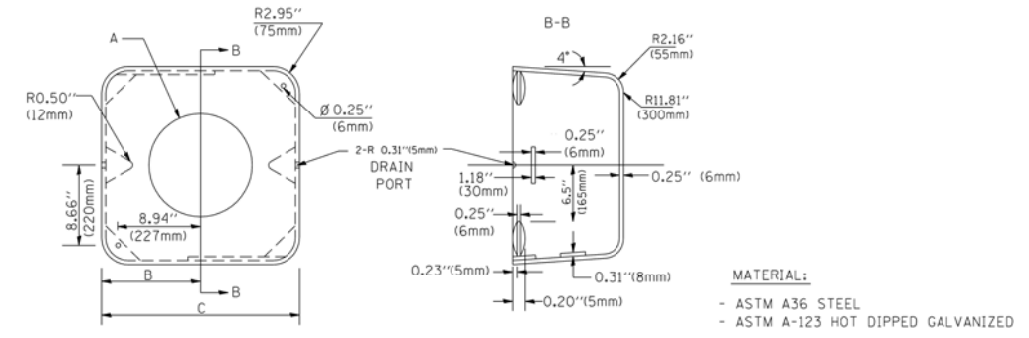


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



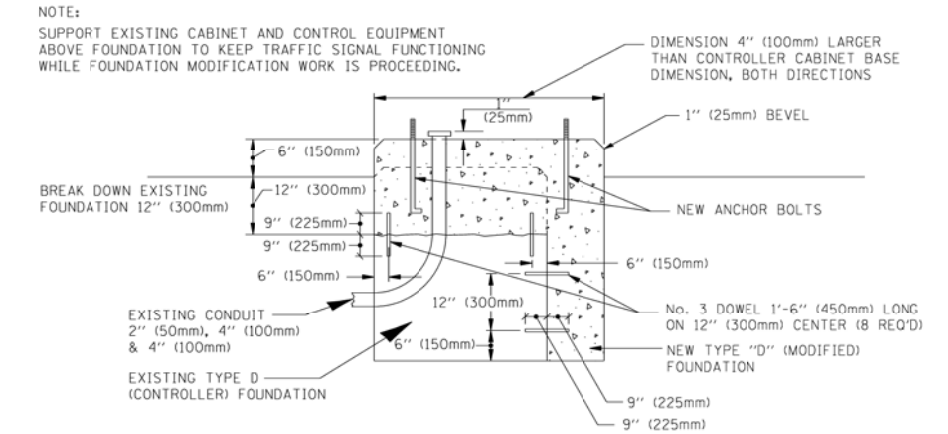
MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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

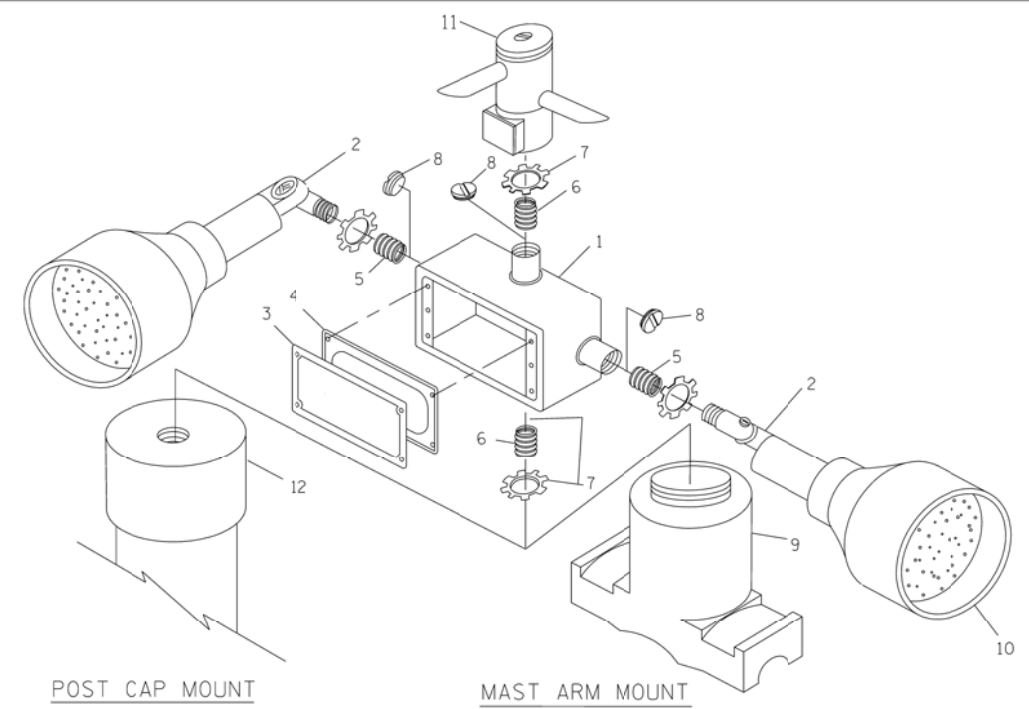
SHROUD

NOTES:

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



MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT

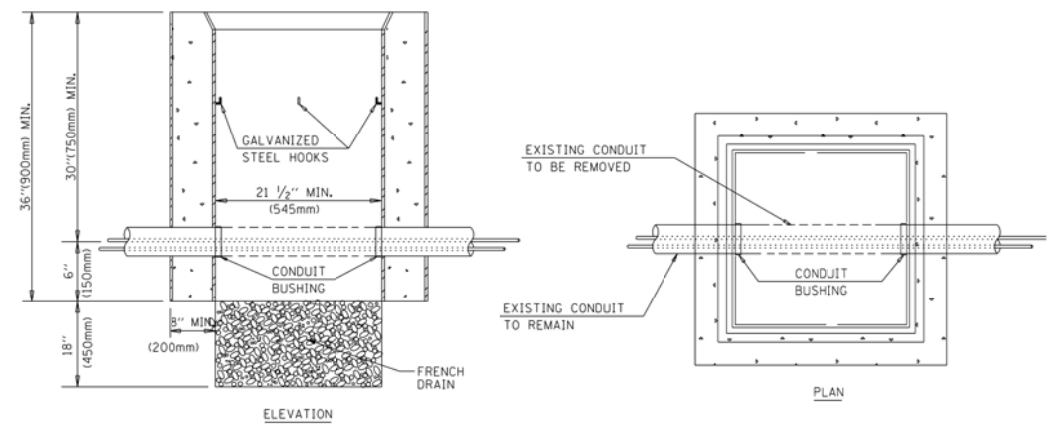
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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

NOTES:

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



NOTES:

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

HANDHOLE TO INTERCEPT EXISTING CONDUIT

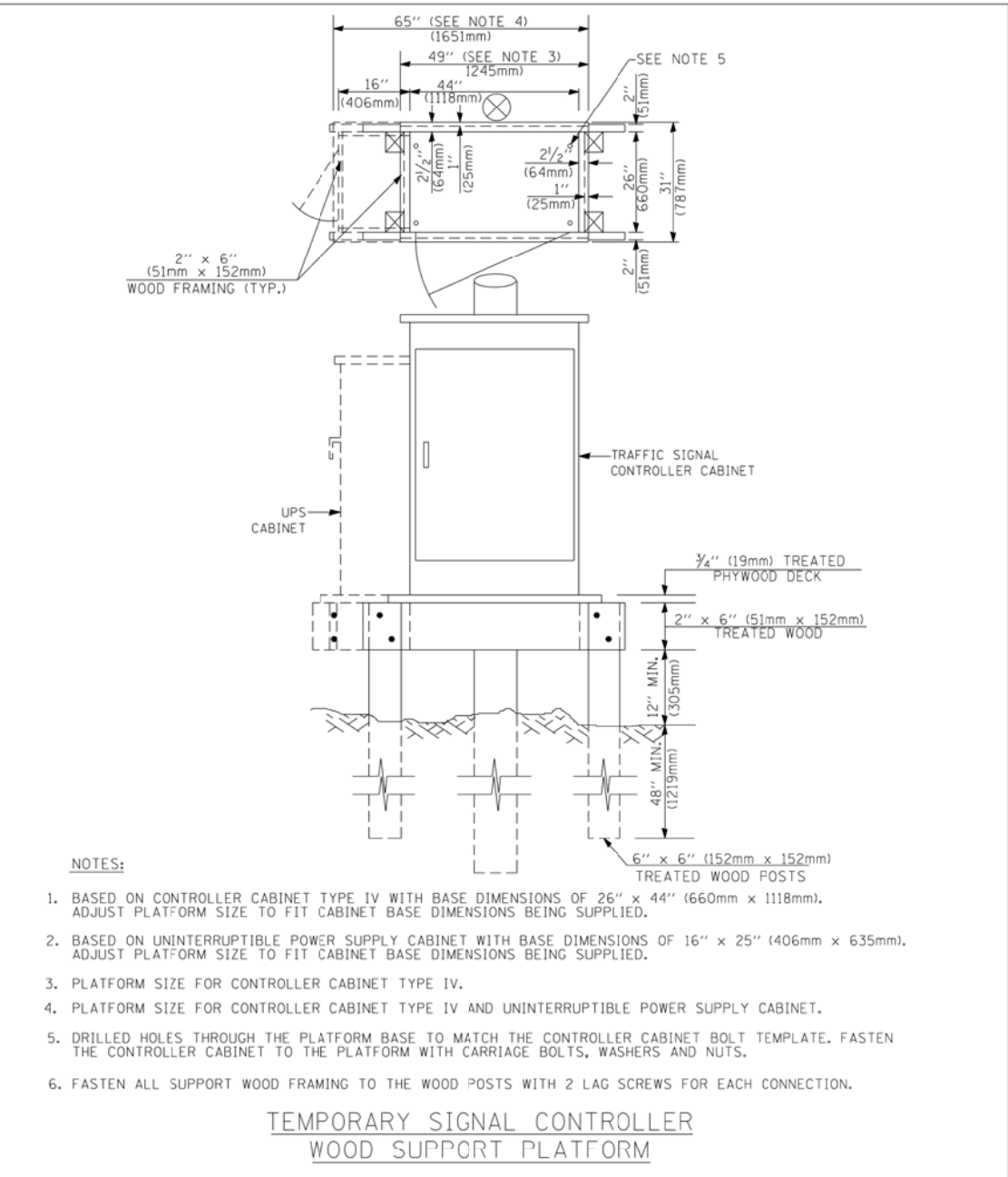
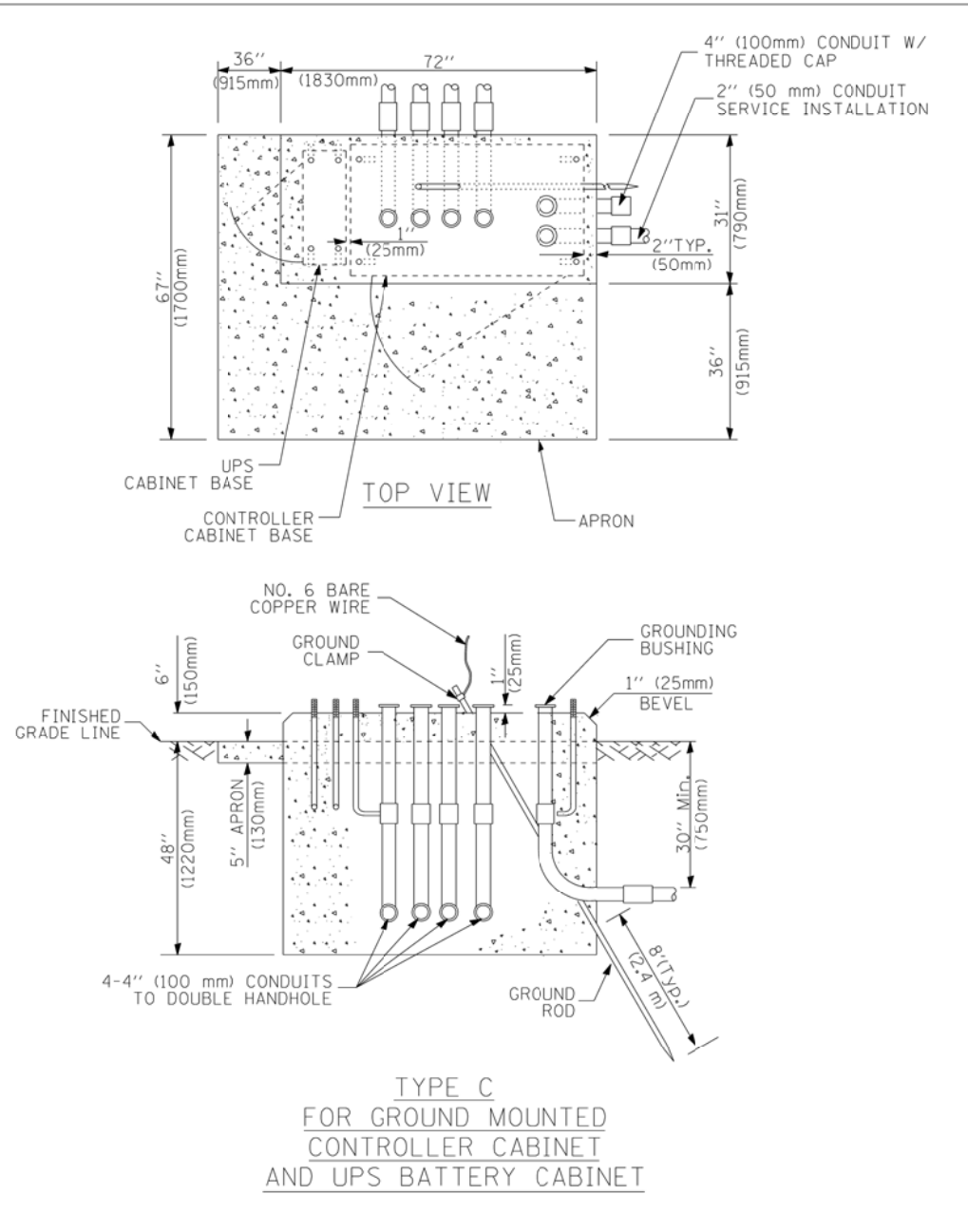
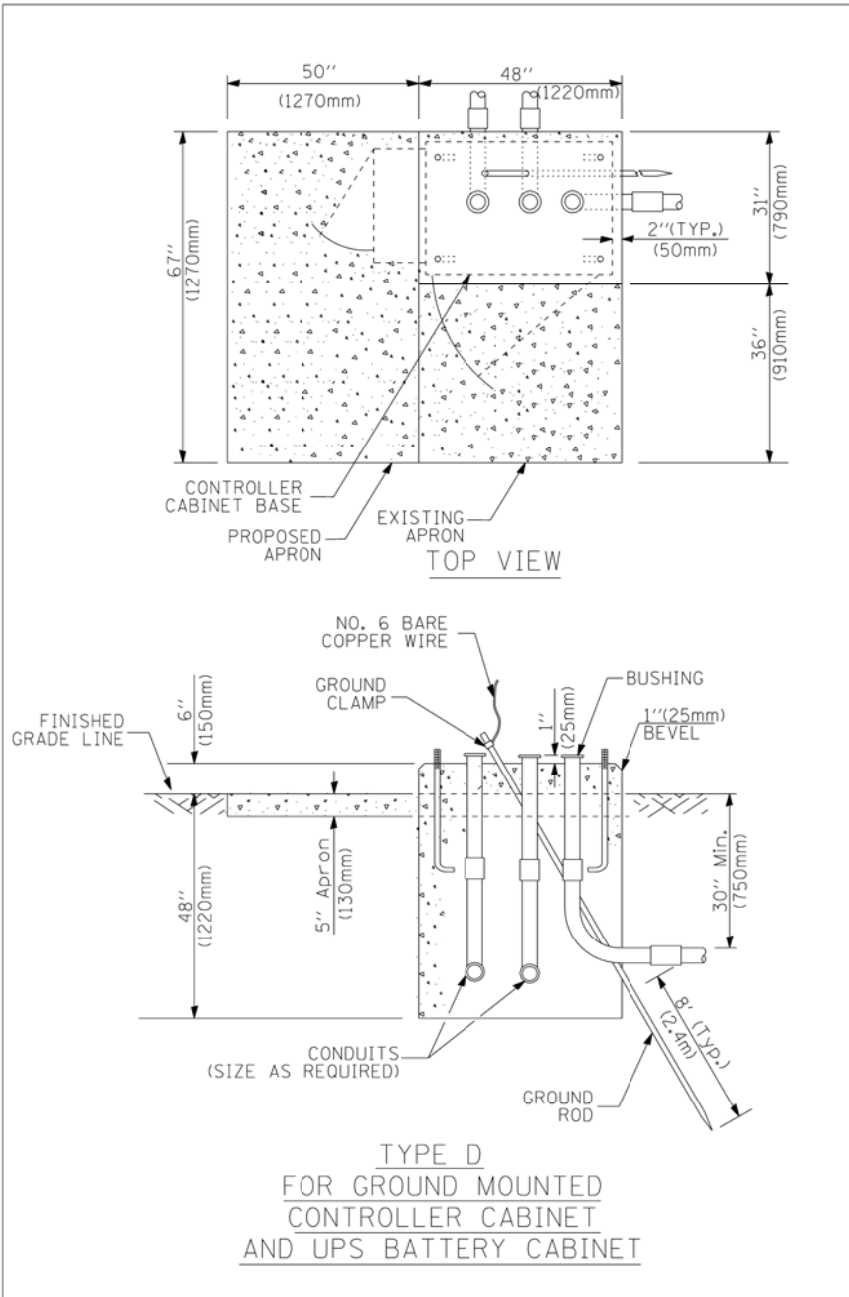
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: SHEET NO. 4 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	13
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X15	



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	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)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TRAFFIC SIGNAL LEGEND

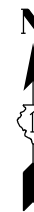
ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH			CT	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)			CNC	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			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	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			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				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) 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)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				RAILROAD SYMBOLS			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD CONTROL CABINET			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				FLASHING SIGNAL			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				CROSSING GATE			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSBUCK			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

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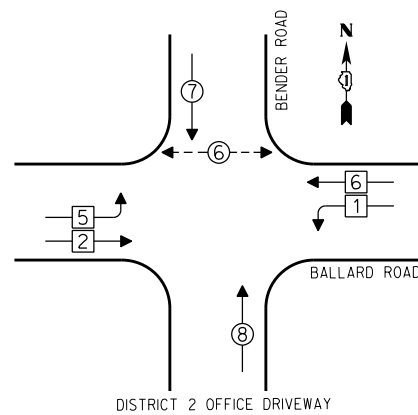
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	15
		CONTRACT NO. 60X15		
SCALE: NONE		SHEET NO. 6 OF 6 SHEETS		STA. TO STA.
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE

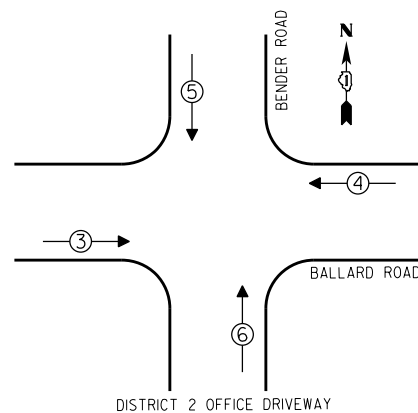


PHASE DESIGNATION DIAGRAM

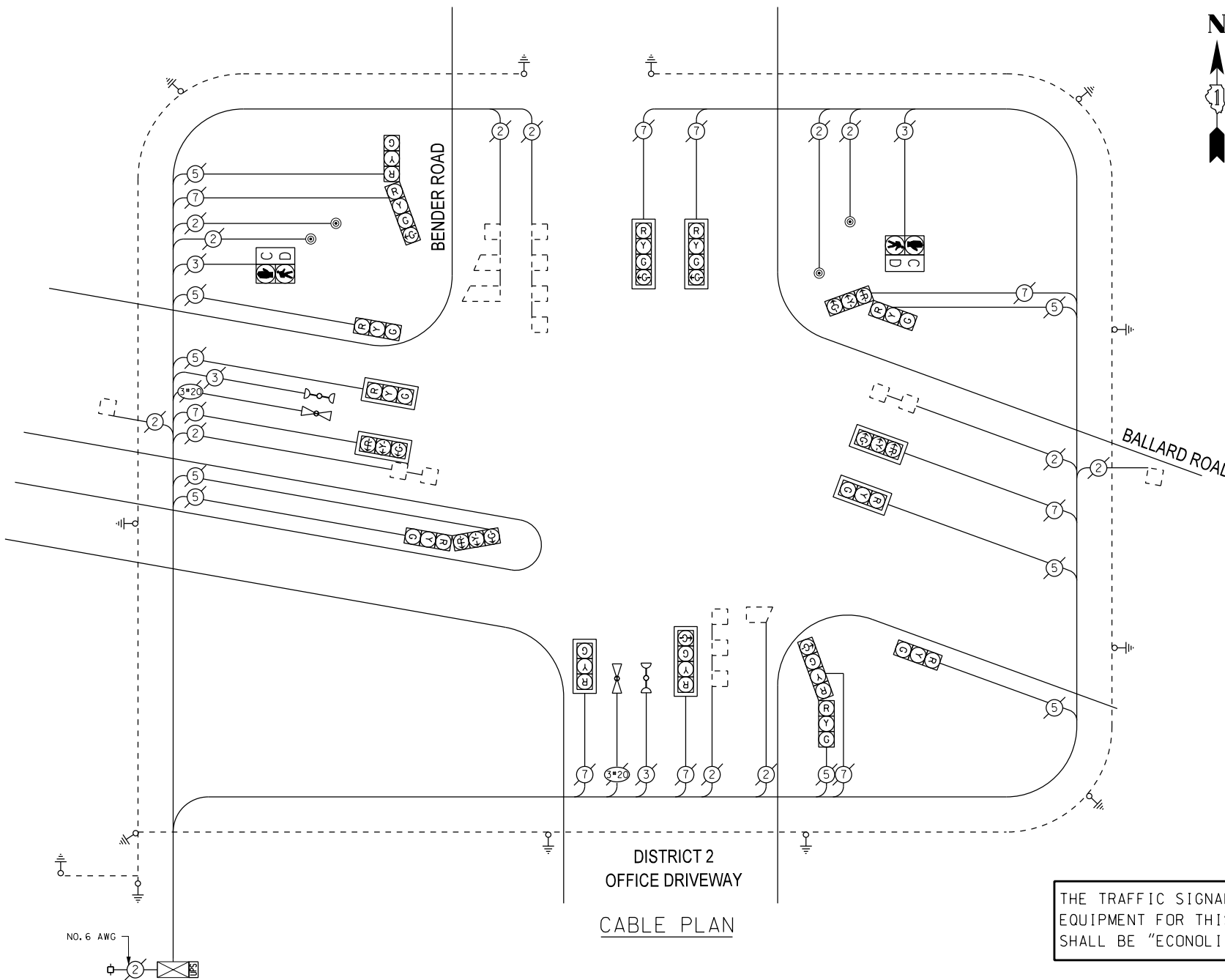
LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↓	↑



DISTRICT 2 OFFICE DRIVEWAY CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	18		17	0.50	153.00
(YELLOW)	18		25	0.25	112.50
(GREEN)	23		15	0.25	86.25
ARROW			12	0.10	
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	501.75

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

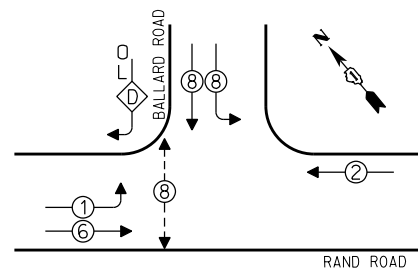
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, BALLARD ROAD AT BENDER ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	16
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



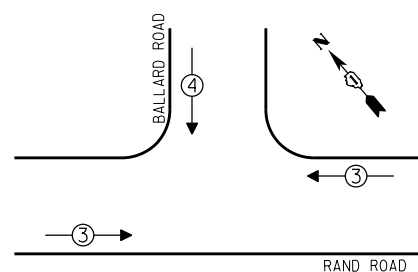
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	=	8 + 1

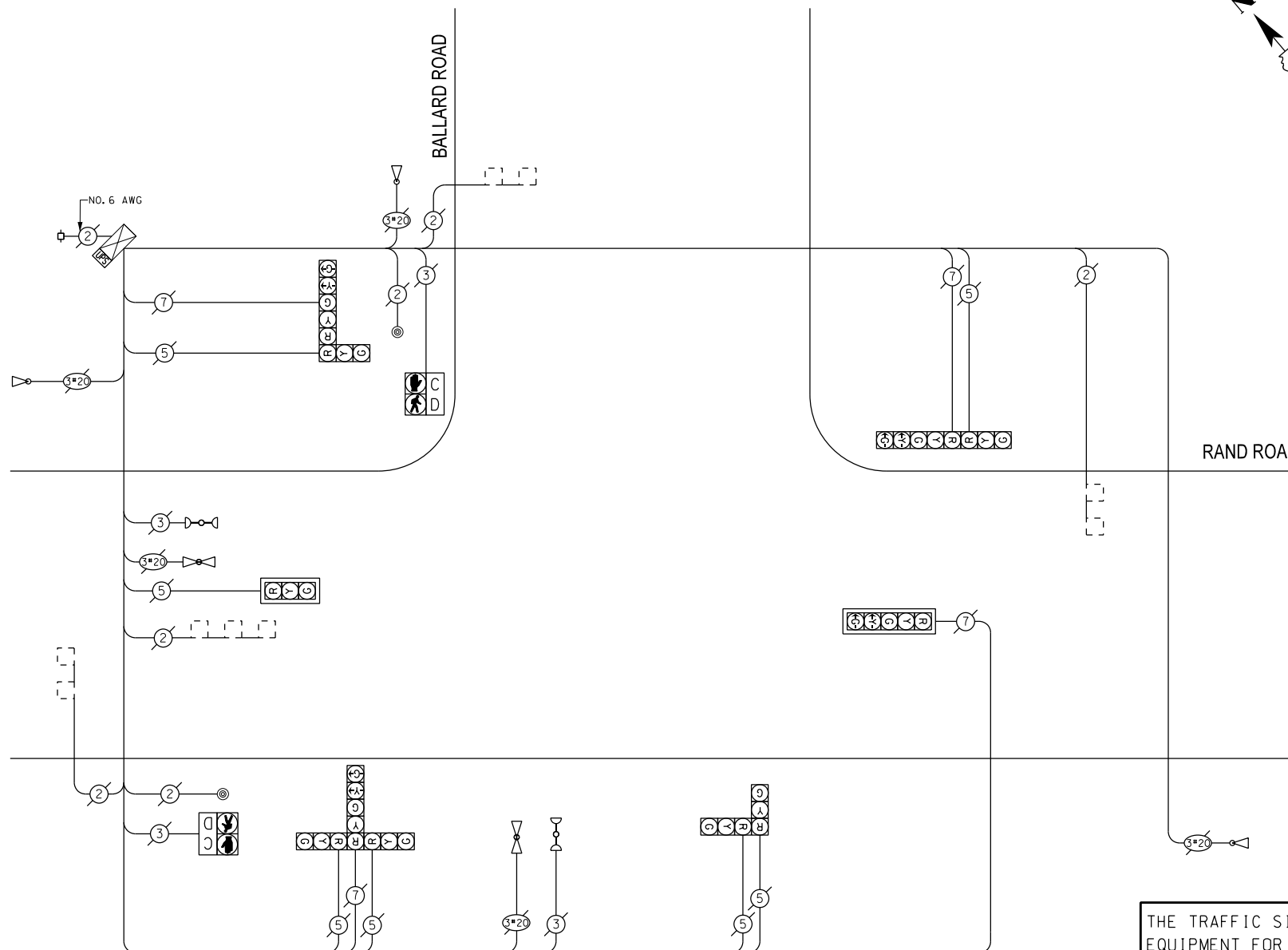
LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↓



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	OPERATIONS		
SIGNAL (RED)	11		17	0.50	93.50
(YELLOW)	11		25	0.25	68.75
(GREEN)	11		15	0.25	41.25
ARROW	8		12	0.10	9.60
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 363.10

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
RAND ROAD AT BALLARD ROAD

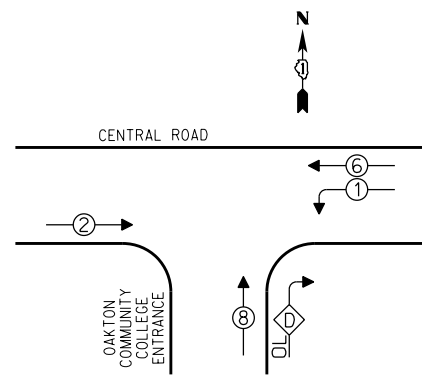
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	17
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ
ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



CONTROLLER SEQUENCE

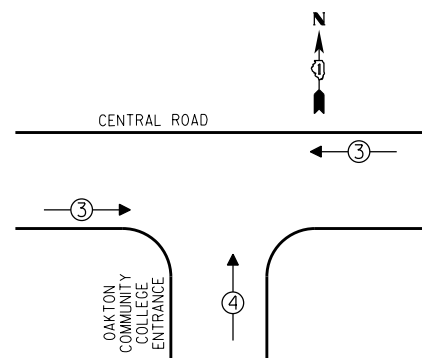


- LEGEND**
- ☒ SINGLE ENTRY PHASE
 - ☉ DUAL ENTRY PHASE
 - ⊕ OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

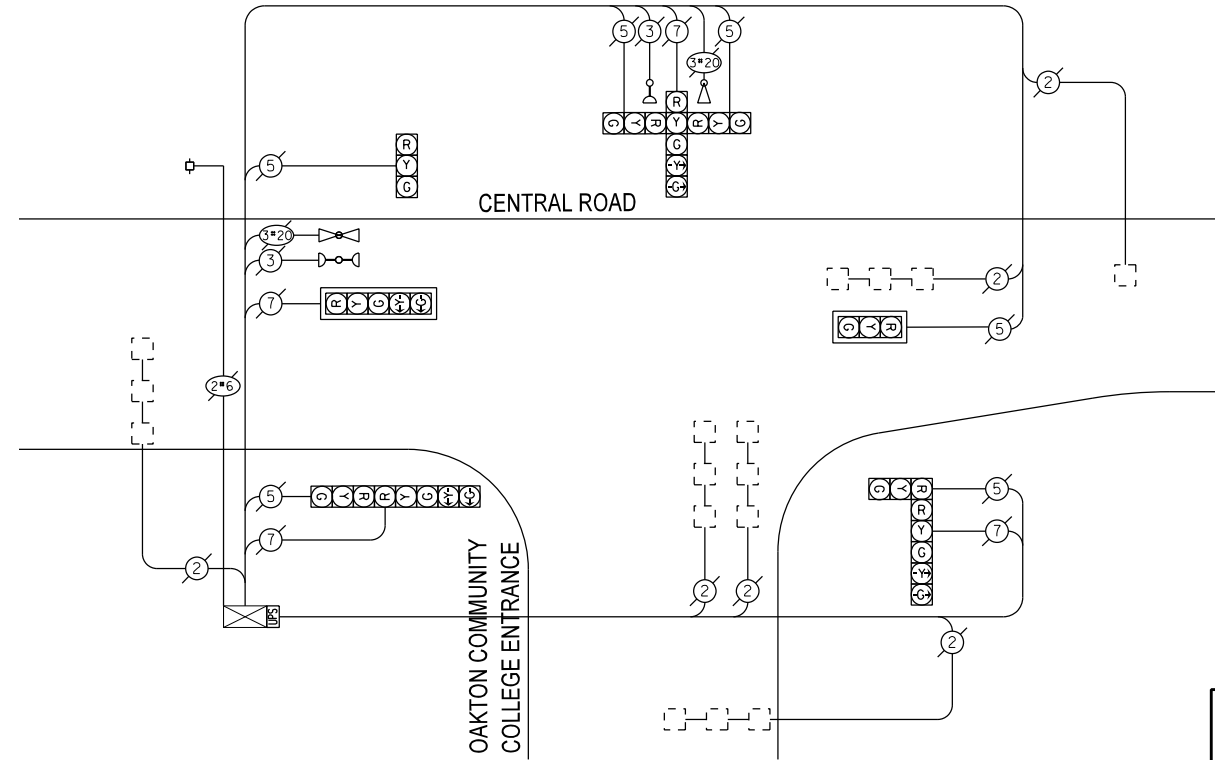
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	10	17	0.50	85.00
(YELLOW)	10	25	0.25	62.50
(GREEN)	10	15	0.25	37.50
ARROW	8	12	0.10	9.60
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 294.60

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

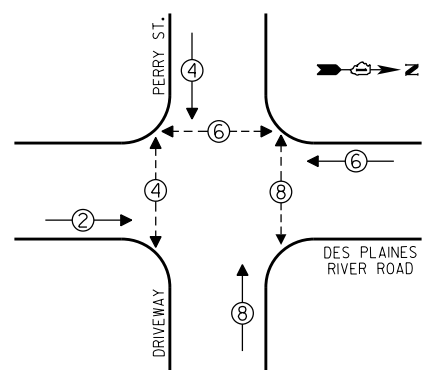
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, CENTRAL ROAD AT OAKTON COMMUNITY COLLEGE ENTRANCE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	18
				CONTRACT NO. 60X15

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

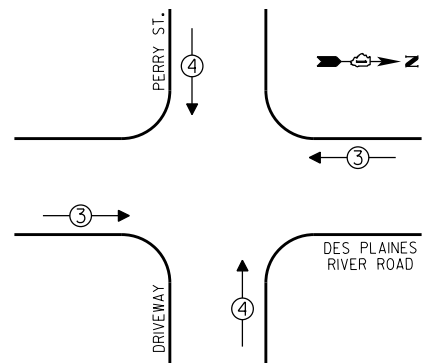
CONTROLLER SEQUENCE



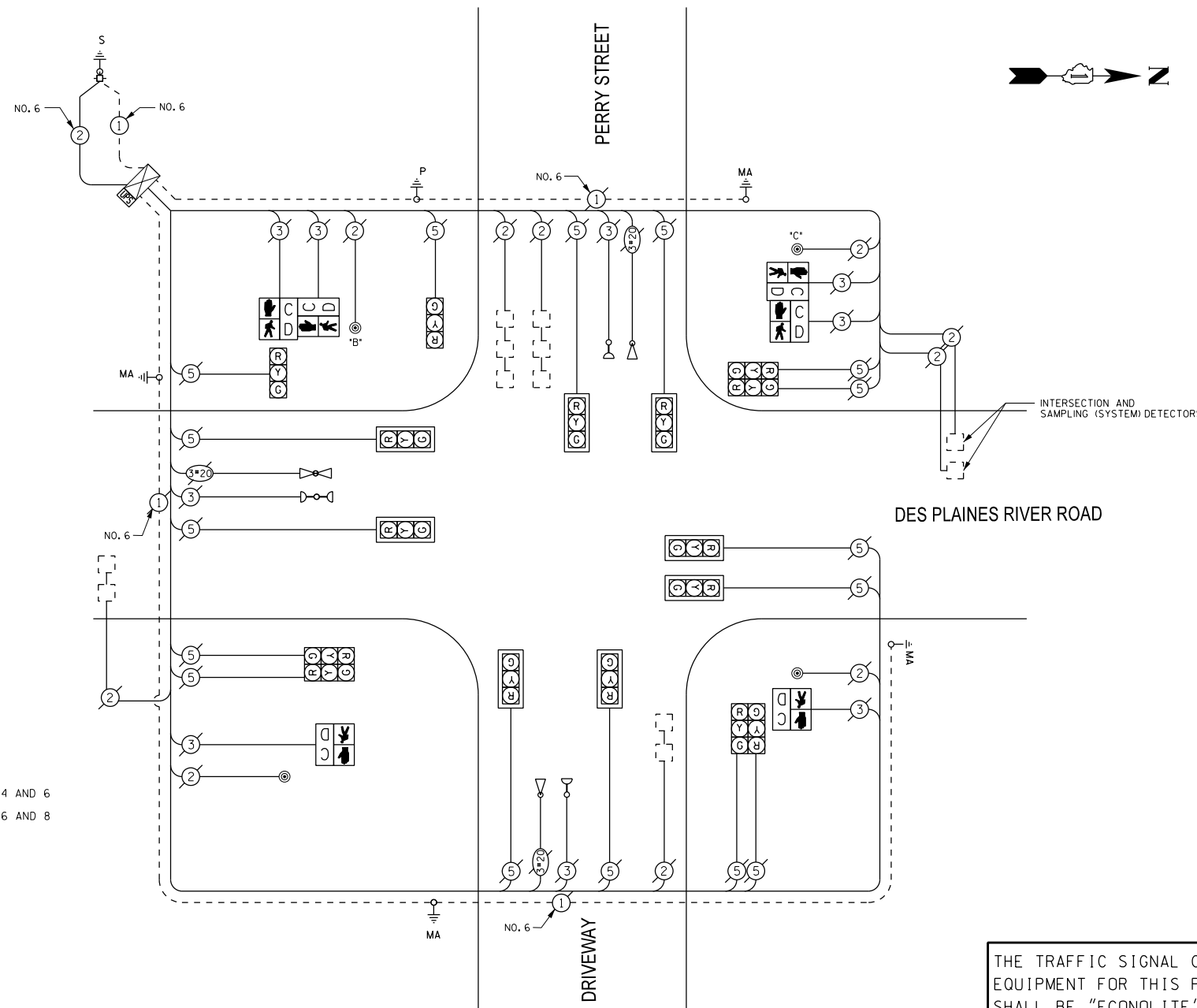
PHASE DESIGNATION DIAGRAM

- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



CABLE PLAN

NOTE:
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW		12	0.10	
PED. SIGNAL	6	25	1.00	150.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE	250		0.50	
VIDEO SYSTEM	150		1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 546.00

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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 SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

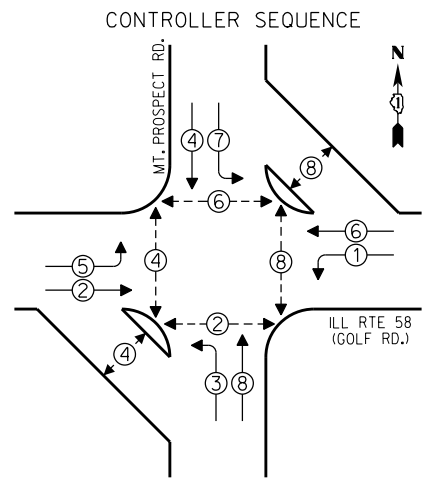
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

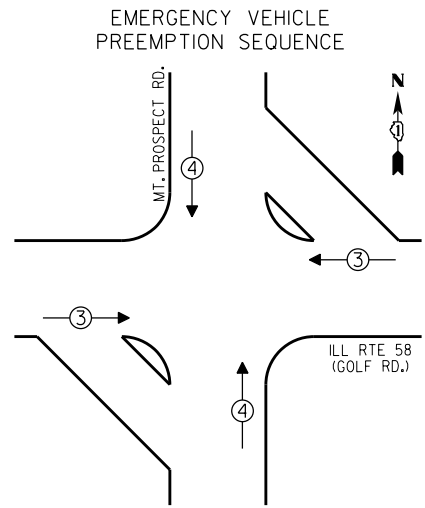
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, DES PLAINES RIVER ROAD AT PERRY STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	19
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

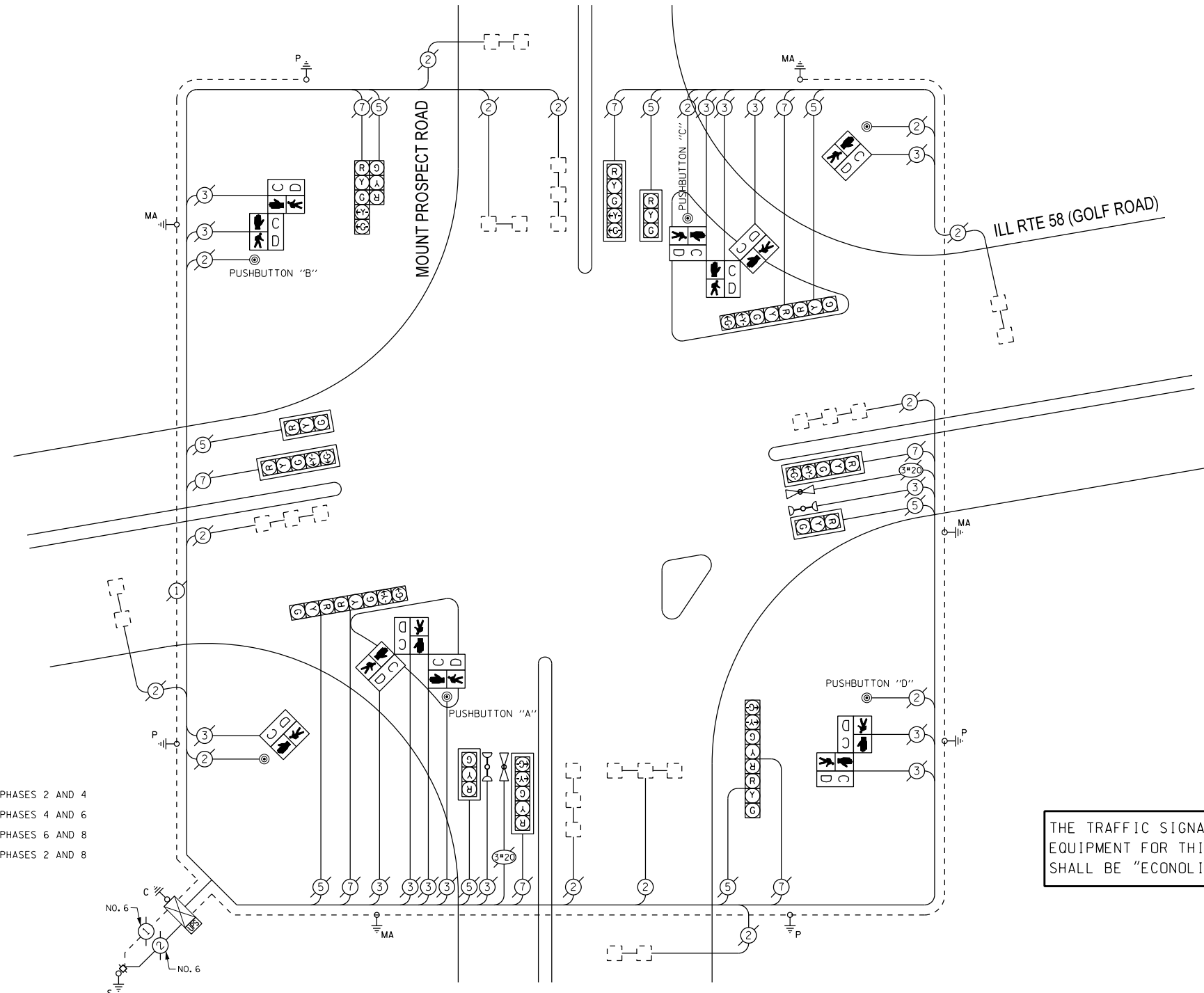


LEGEND
 - SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	12	25	1.00	300.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:			TOTAL =	715.20

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 3-FACE
6	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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 SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAMSCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

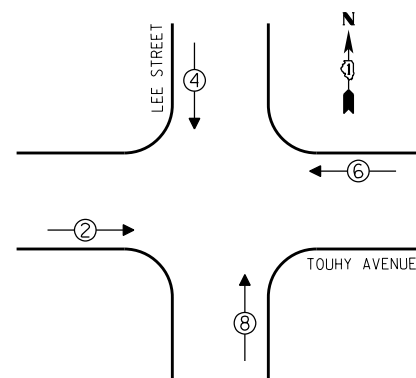
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL RTE 58 (GOLF ROAD) AT MOUNT PROSPECT ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	20
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE

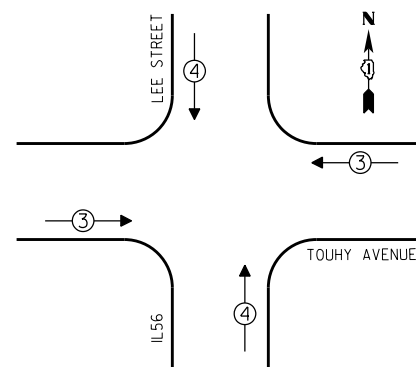


PHASE DESIGNATION DIAGRAM

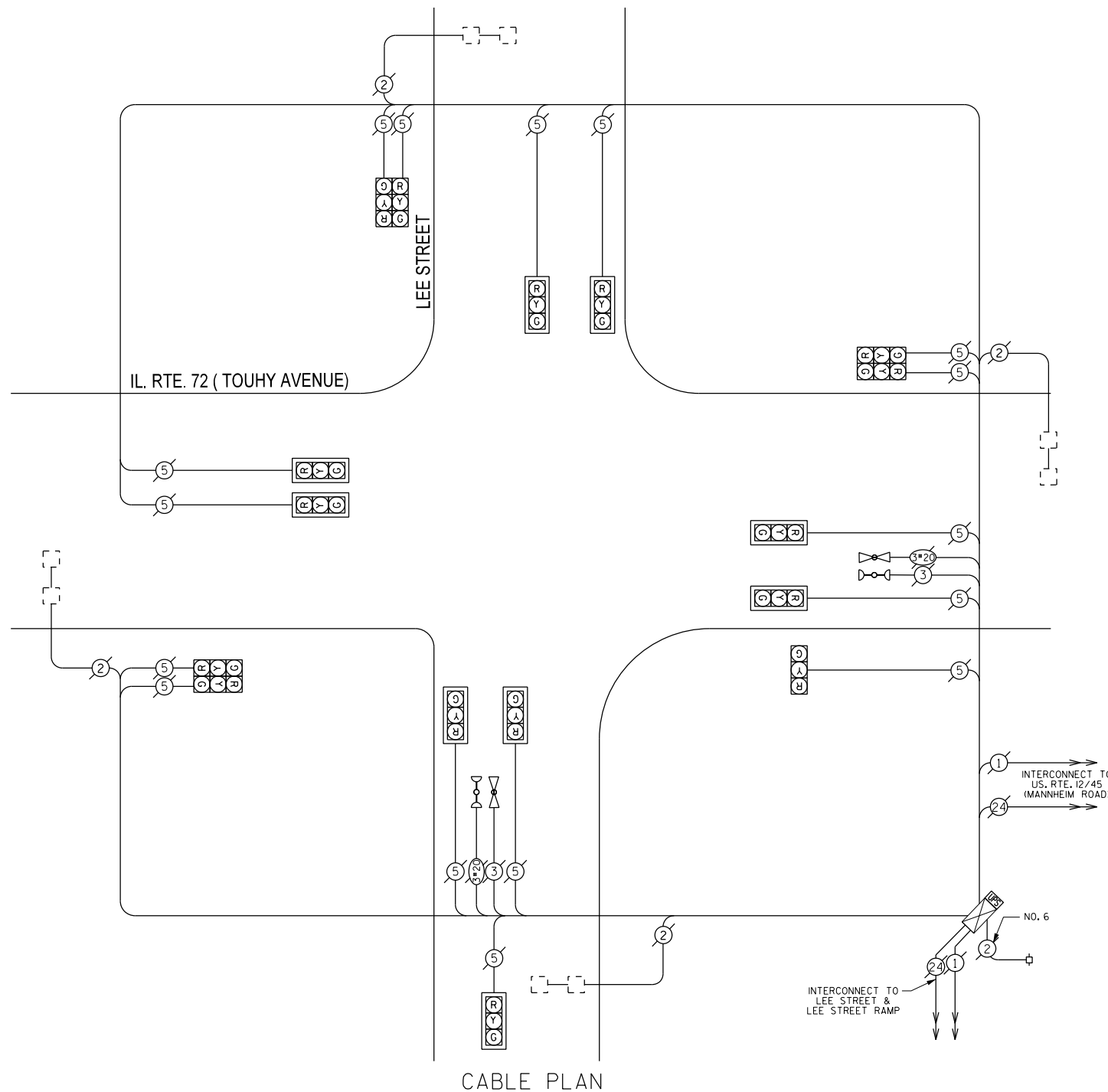
LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	WATTAGE			TOTAL WATTAGE
	NO. OF LAMPS	INCAND	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW		12	0.10	
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 396.00

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

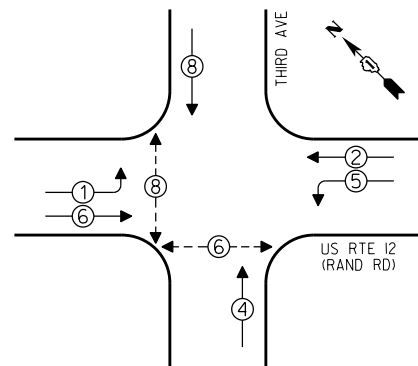
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL. RT. 72 (TOUHY AVENUE) AND LEE STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	21
				CONTRACT NO. 60X15

SAM SCHWARTZ
ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

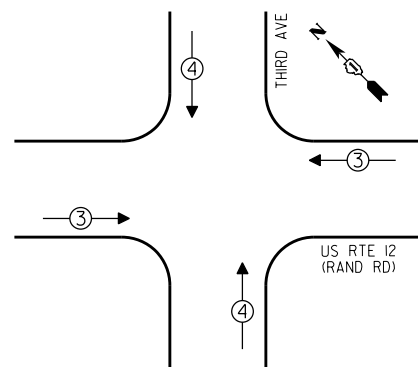
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

- LEGEND**
- SINGLE ENTRY PHASE
 - ⊖ DUAL ENTRY PHASE
 - ⊕ OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

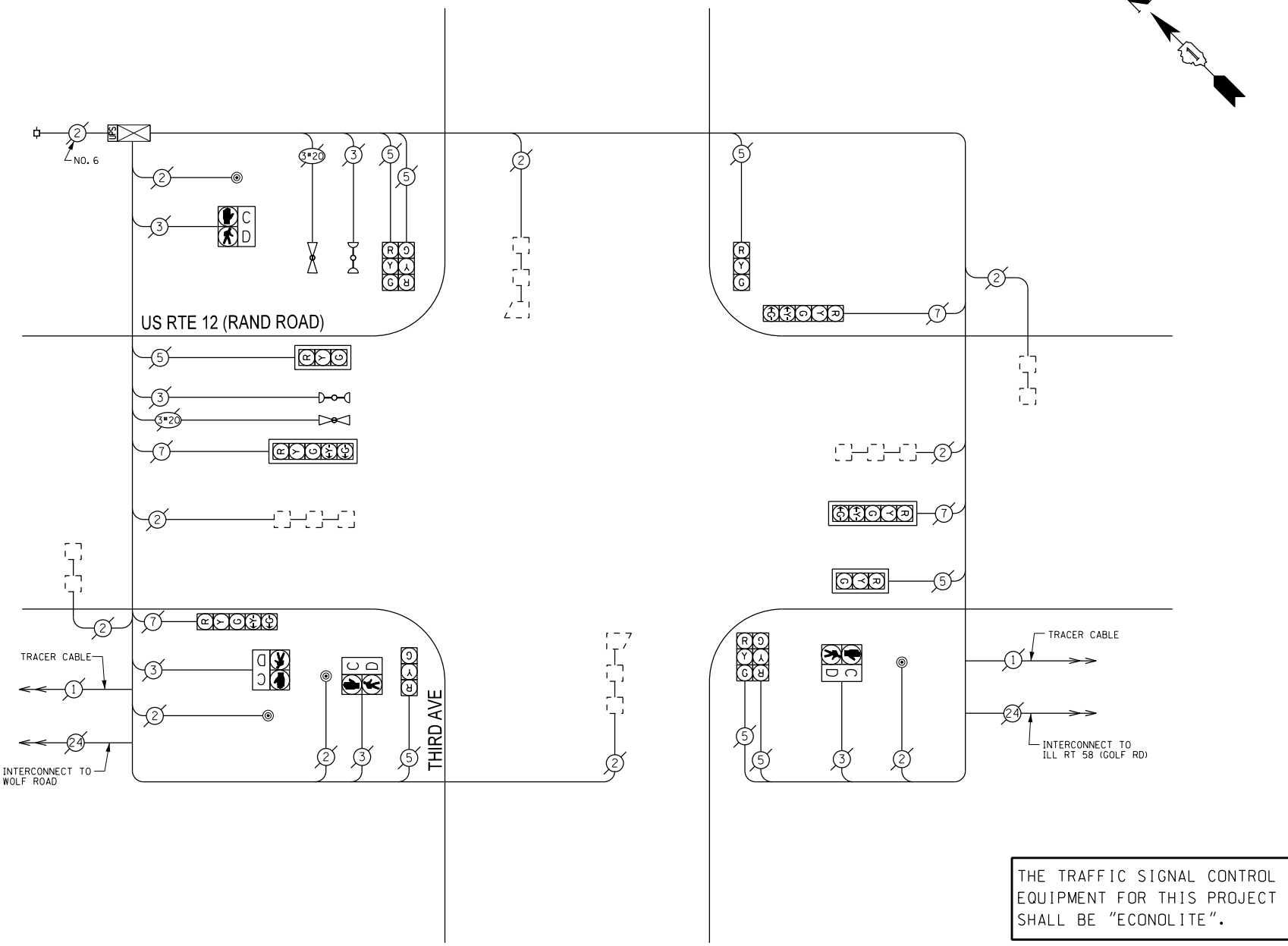


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 431.60

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



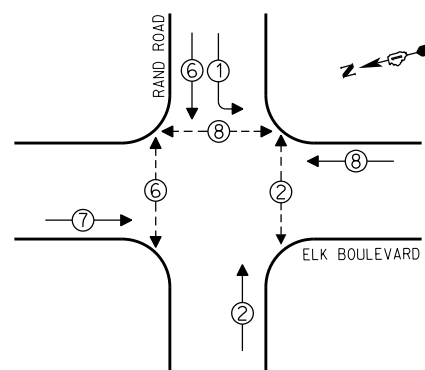
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US RTE 12 (RAND ROAD) AT THIRD AVE			
SCALE: NONE	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	22
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

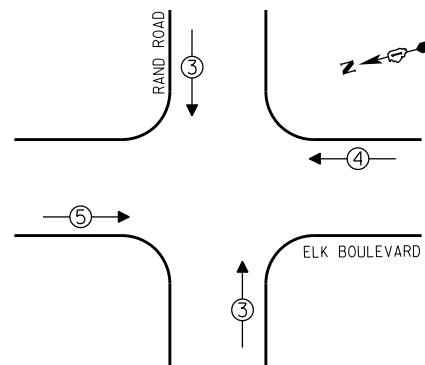
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↓↑	←	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	15	17	0.50	127.50
(YELLOW)	15	25	0.25	93.75
(GREEN)	19	15	0.25	71.25
ARROW	10	12	0.10	12.00
PED. SIGNAL	6	25	1.00	150.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 554.50

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

NOTE:
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

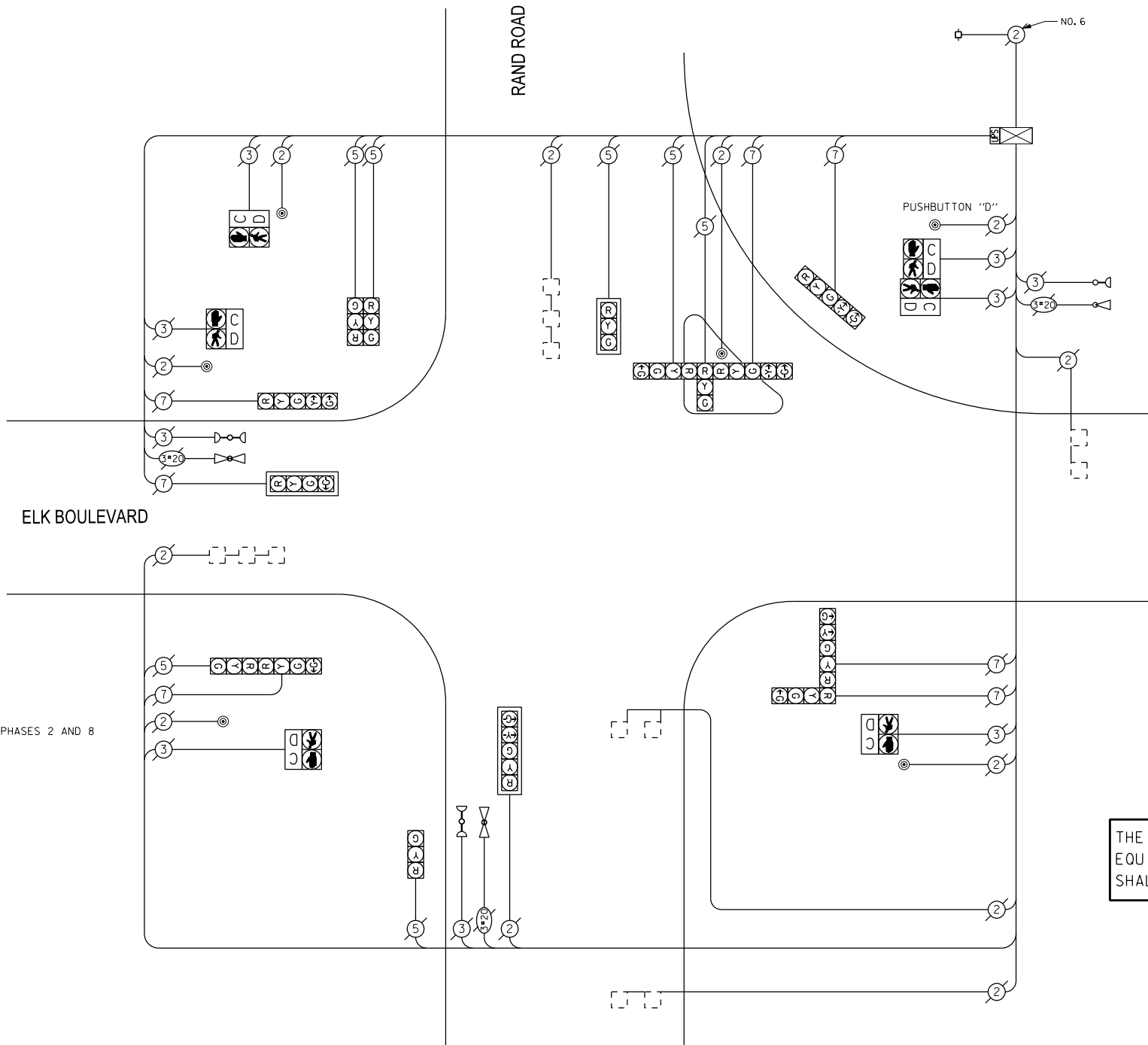
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

QUANTITY	UNIT	DESCRIPTION
6	EACH	PEDESTRIAN PUSHBUTTON

RAND ROAD

ELK BOULEVARD

CABLE PLAN



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

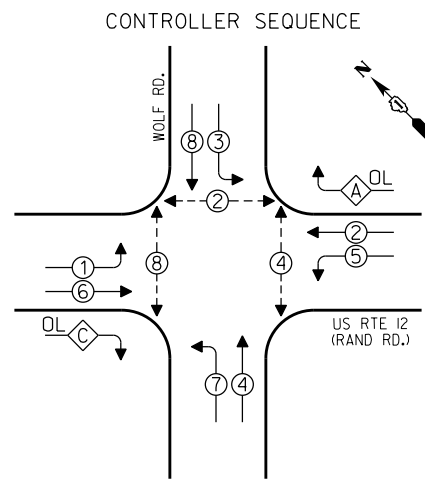
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, RAND ROAD AT ELK BOULEVARD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	23
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

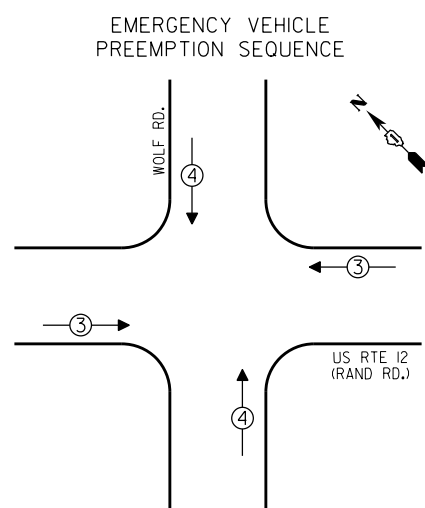
SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



LEGEND
 □ SINGLE ENTRY PHASE
 ⊙ DUAL ENTRY PHASE
 ⊕ OVERLAP
 ⊙ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2 + 3	
C	= 6 + 7	

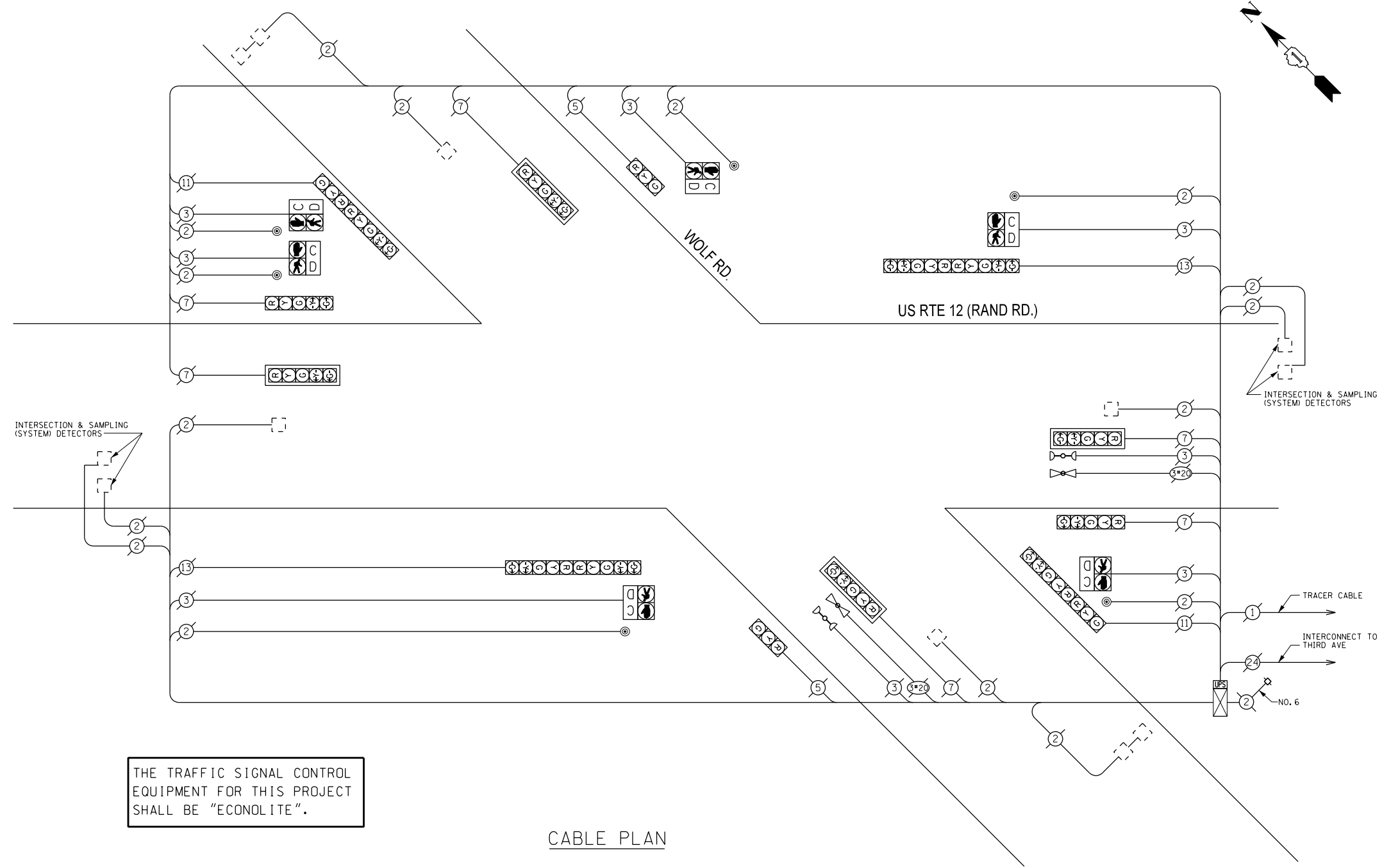


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	24		12	0.10	28.80
PED. SIGNAL	6		25	1.00	150.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	574.80

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

CABLE PLAN

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
6	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
6	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



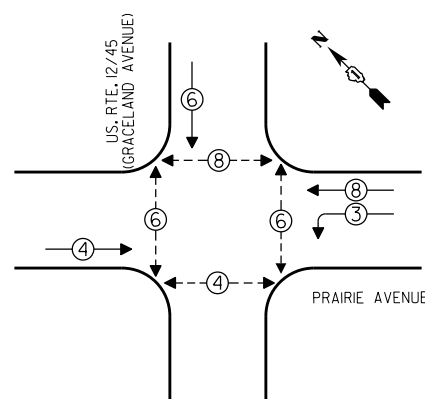
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, U.S. RTE 12 (RAND ROAD) AT WOLF ROAD
 SCALE: NONE SHEET OF SHEETS STA. TO STA.

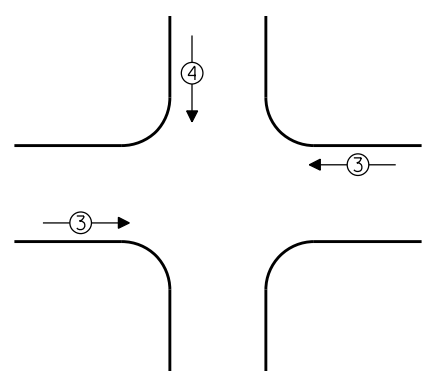
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	24
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

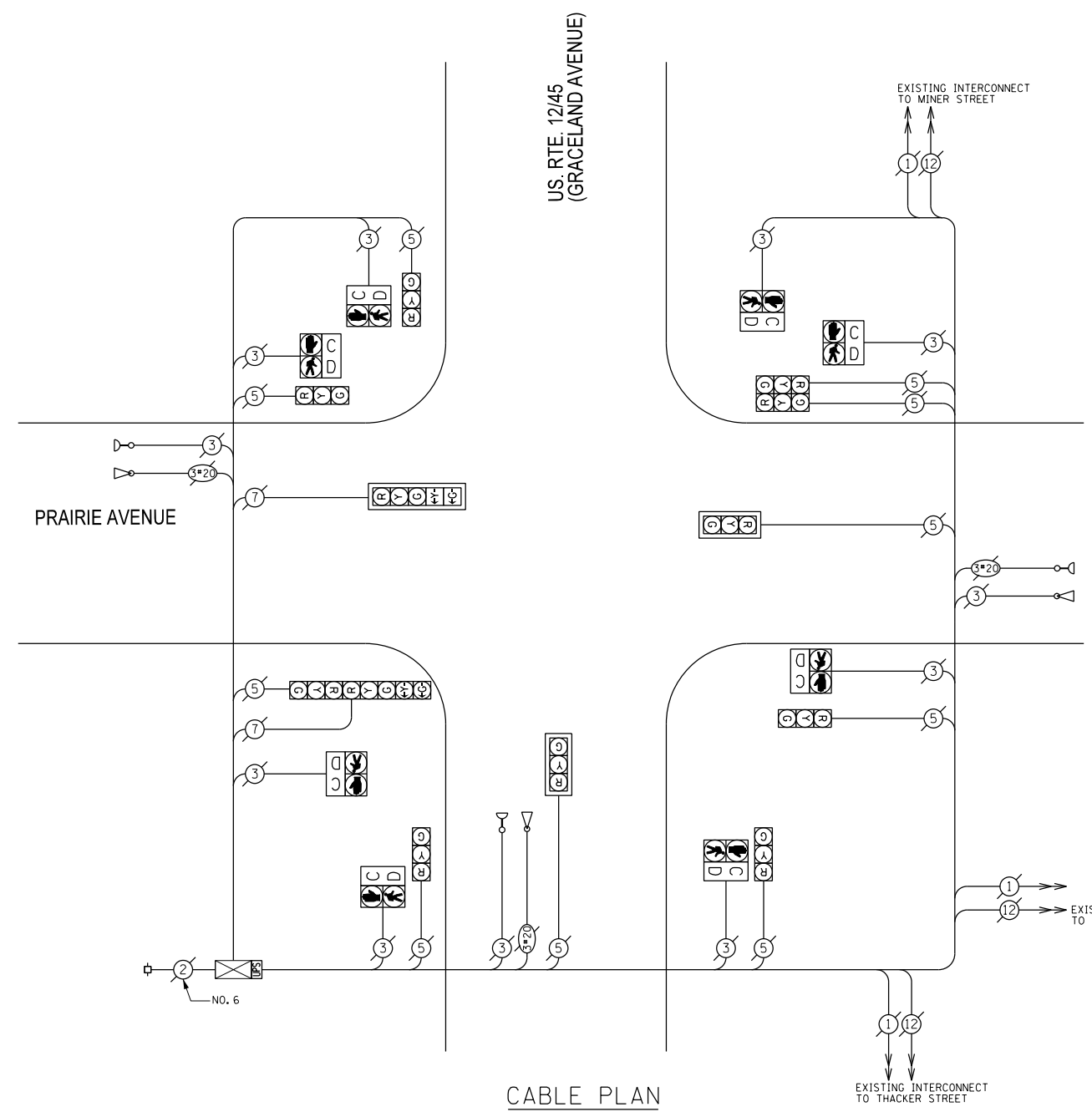


EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↓	

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	4	12	0.10	4.80
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 526.80

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

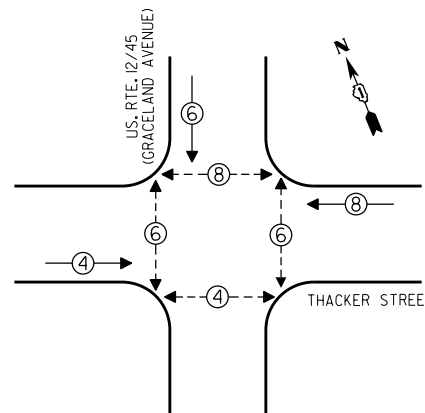
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. RTE. 12/45 (GRACELAND AVENUE) AT PRAIRIE AVENUE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

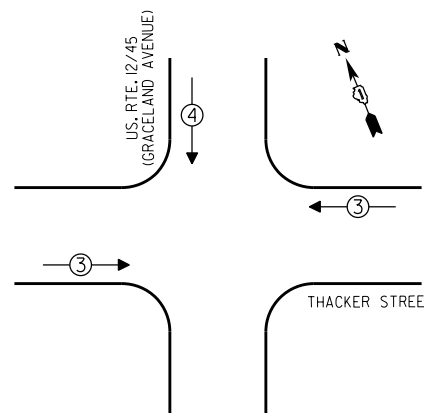
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	25
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

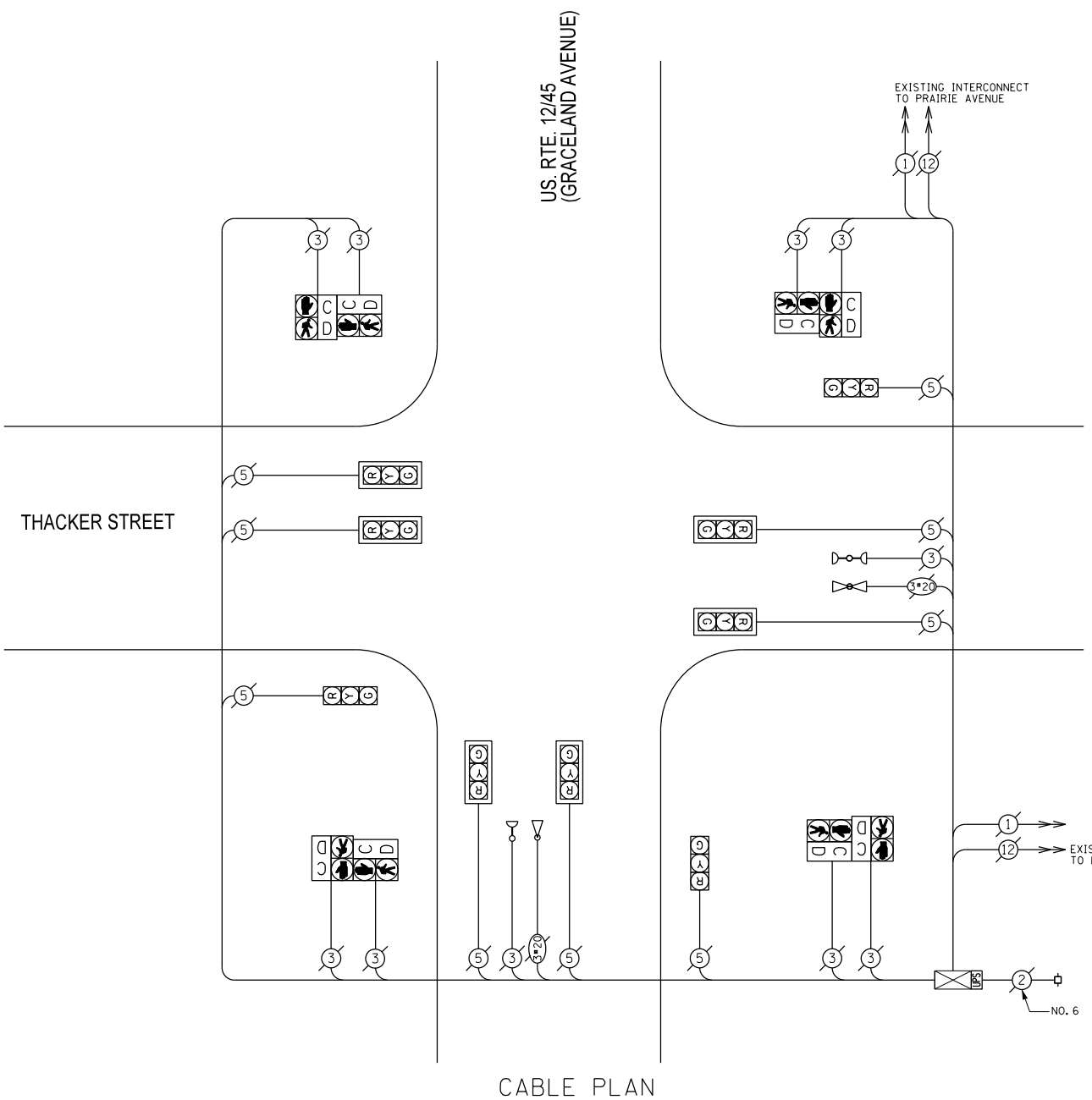


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	9	17	0.50	76.50
(YELLOW)	9	25	0.25	56.25
(GREEN)	9	15	0.25	33.75
ARROW	12		0.10	
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 466.50

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

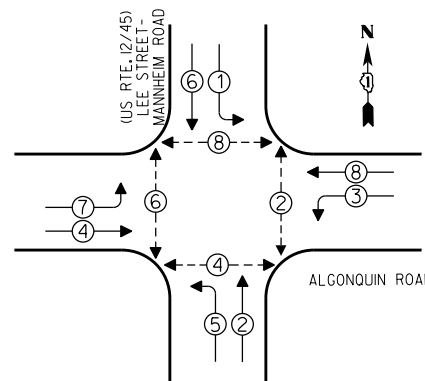
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 US. RTE. 12/45 (GRACELAND AVENUE) AT THACKER STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	26
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

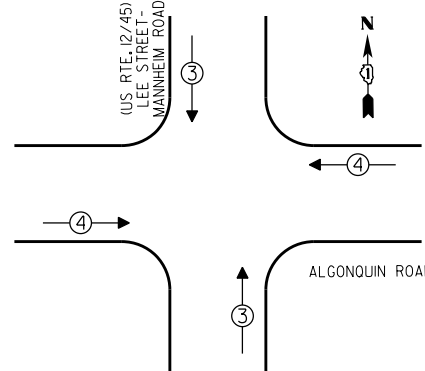


CONTROLLER SEQUENCE



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



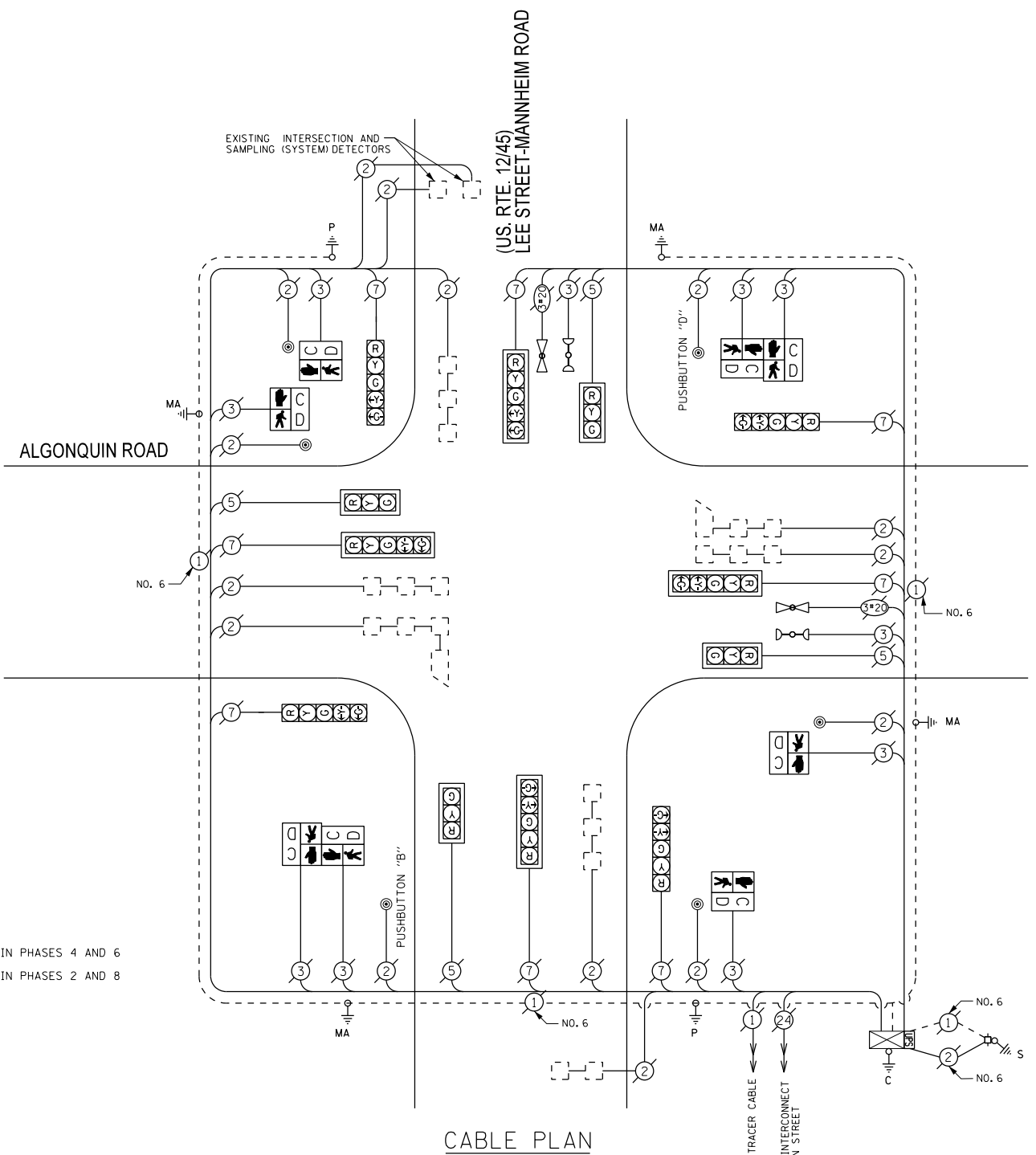
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 541.20

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

NOTE:
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

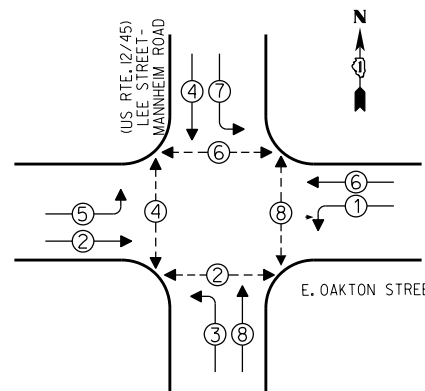
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US. RTE. 12/45 (LEE-MANNHEIM ROAD) AND ALGONQUIN ROAD
 SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	27

CONTRACT NO. 60X15
 ILLINOIS FED. AID PROJECT

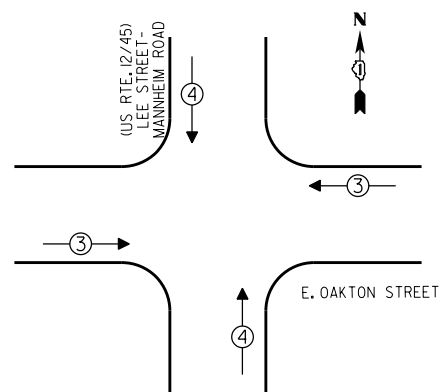


CONTROLLER SEQUENCE



- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

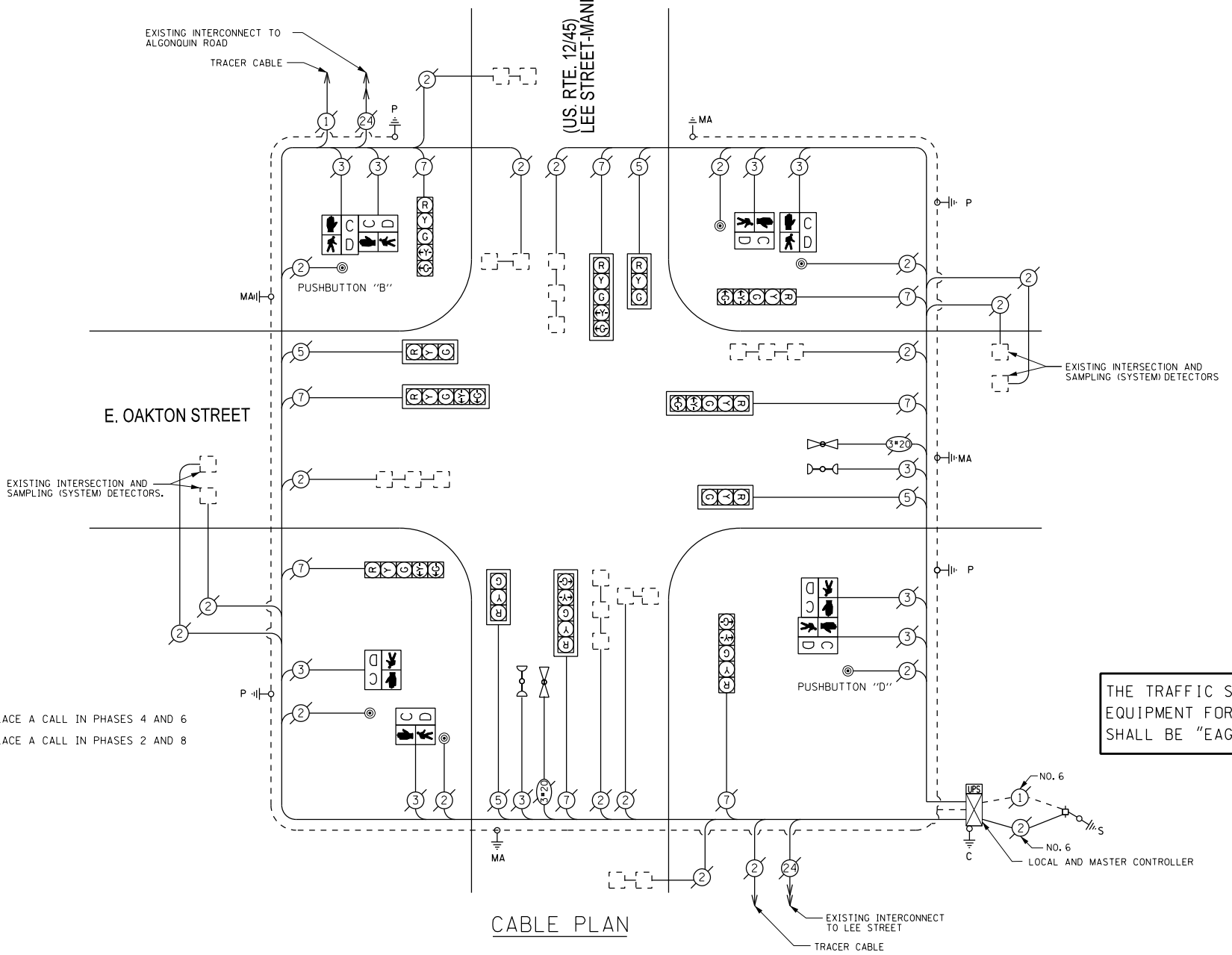


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 541.20

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:



NOTE:
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

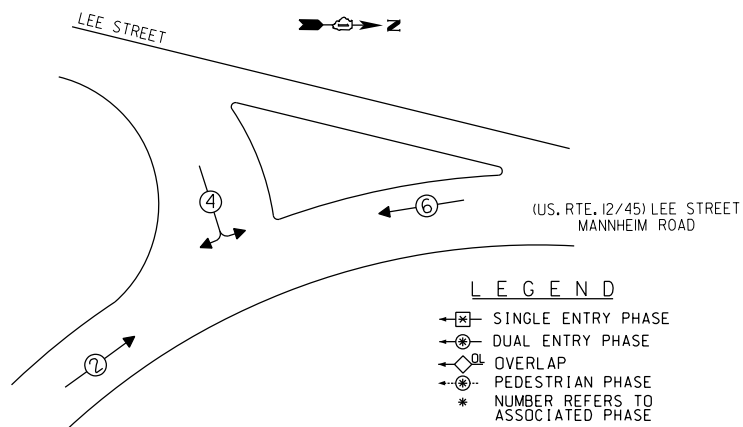
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. RTE. 12/45 (LEE-MANNHEIM RD.) AND OAKTON STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

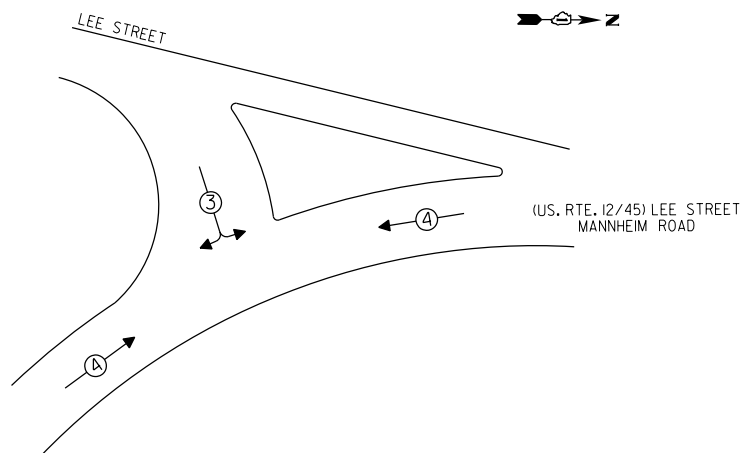
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	28
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE

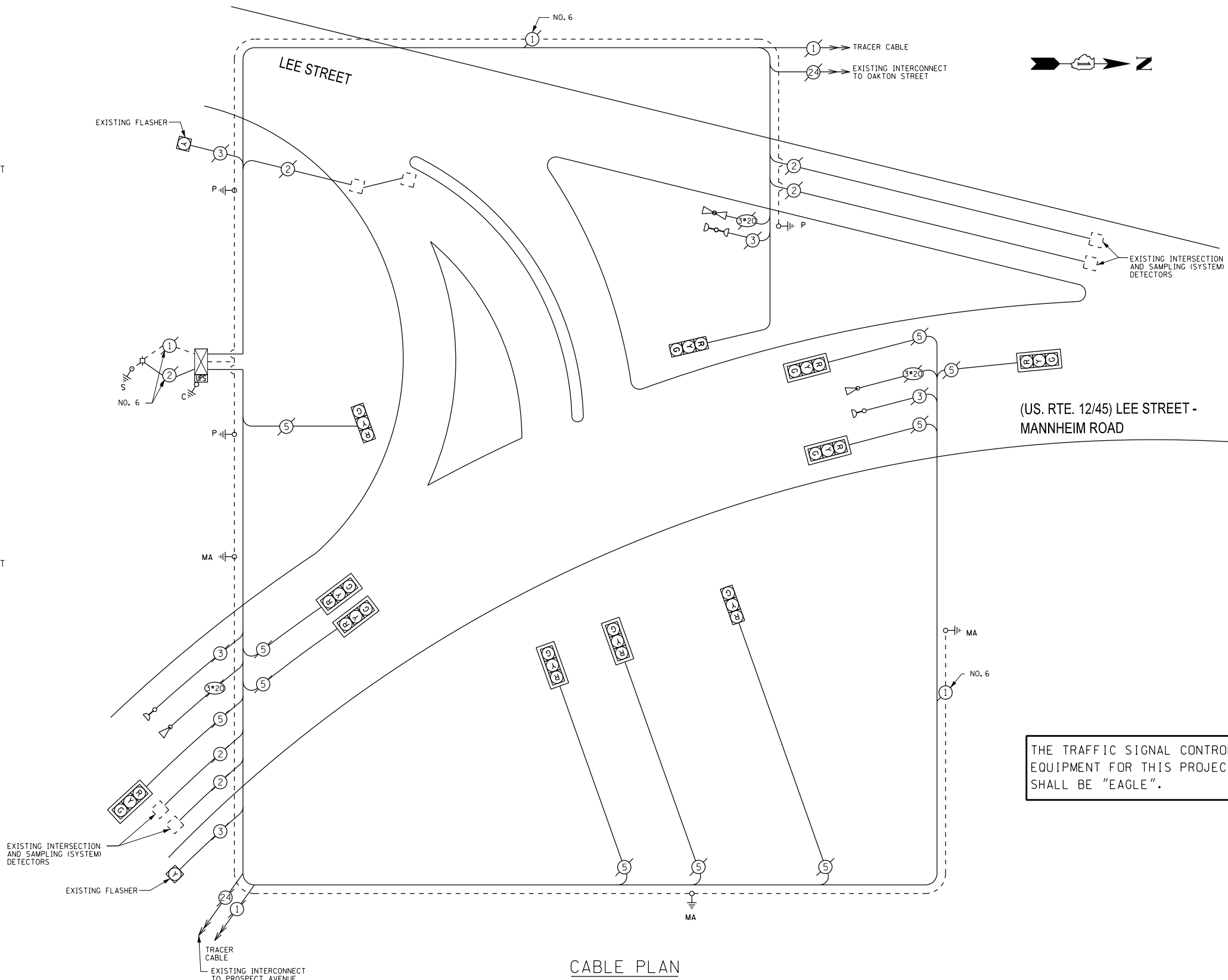


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE	OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	11	17	0.50	93.50
(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	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE	250		0.50	
VIDEO SYSTEM	150		1.00	
FLASHER	2	25	0.50	25.00
ENERGY COSTS TO:			TOTAL =	328.50

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. RTE. 12/45 (MANNHEIM RD.) AND LEE STREET

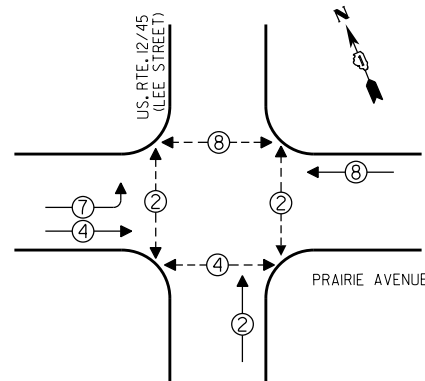
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	29
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

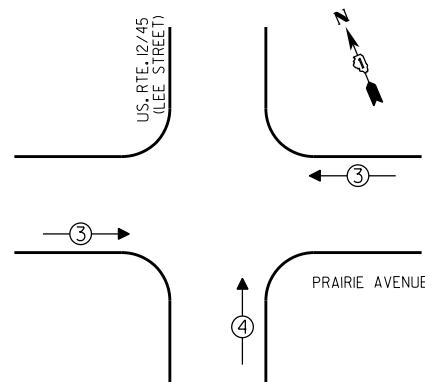


CONTROLLER SEQUENCE

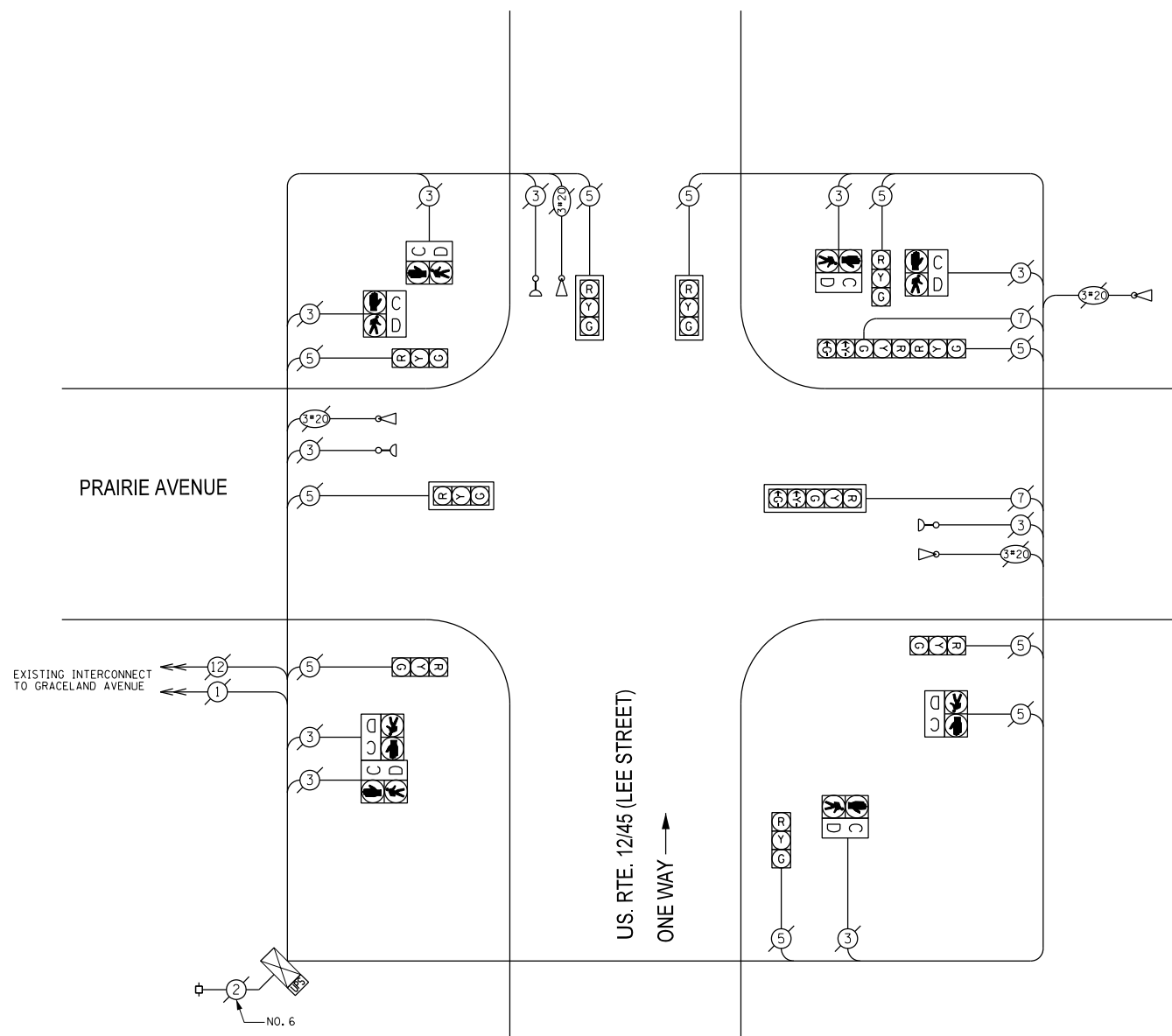


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↑	



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	11	17	0.50	93.50
(YELLOW)	11	25	0.25	68.75
(GREEN)	11	15	0.25	41.25
ARROW	4	12	0.10	4.80
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 508.30

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

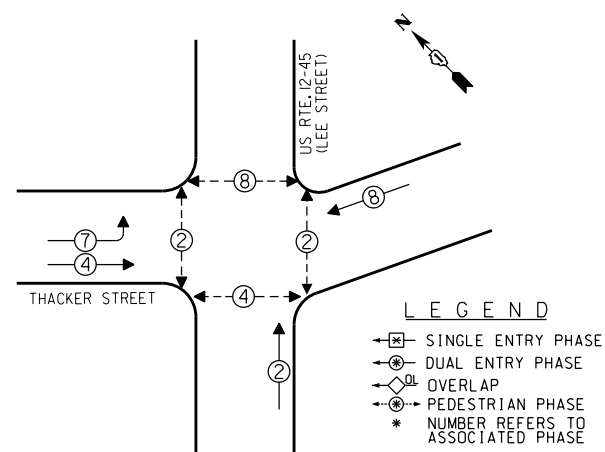
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. RTE. 12/45 (LEE STREET) AT PRAIRIE AVENUE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

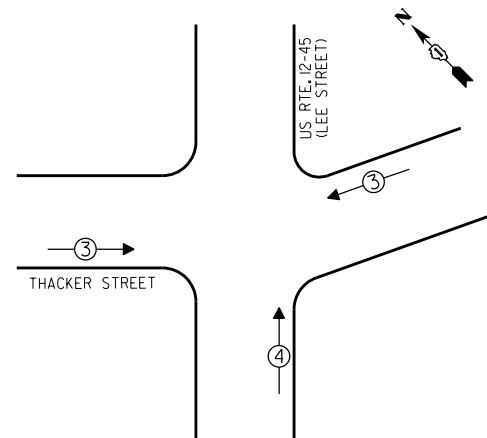
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	30
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE

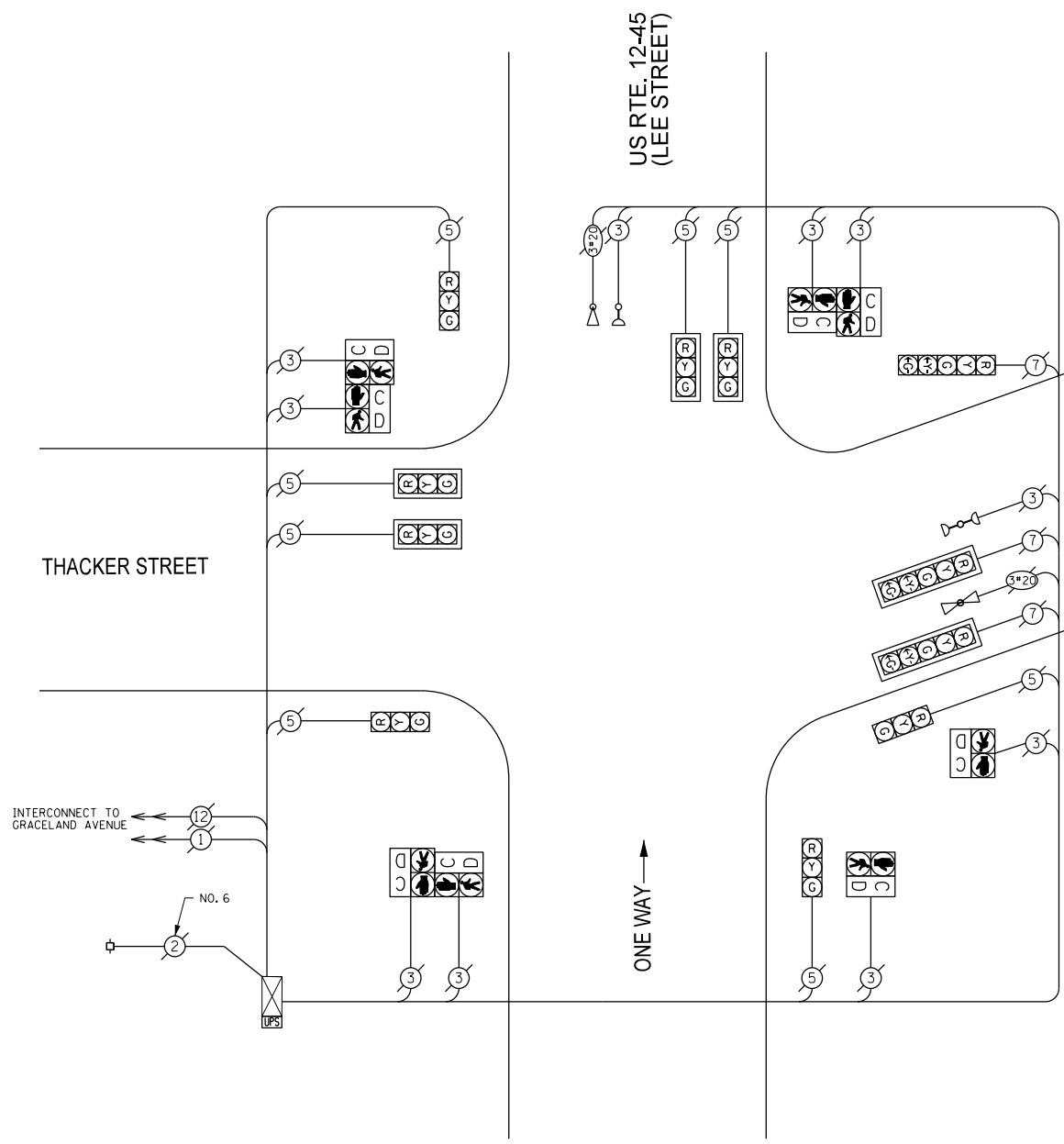


EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↑	

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	11	17	0.50	93.50
(YELLOW)	11	25	0.25	68.75
(GREEN)	11	15	0.25	41.25
ARROW	6	12	0.10	7.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 510.70

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



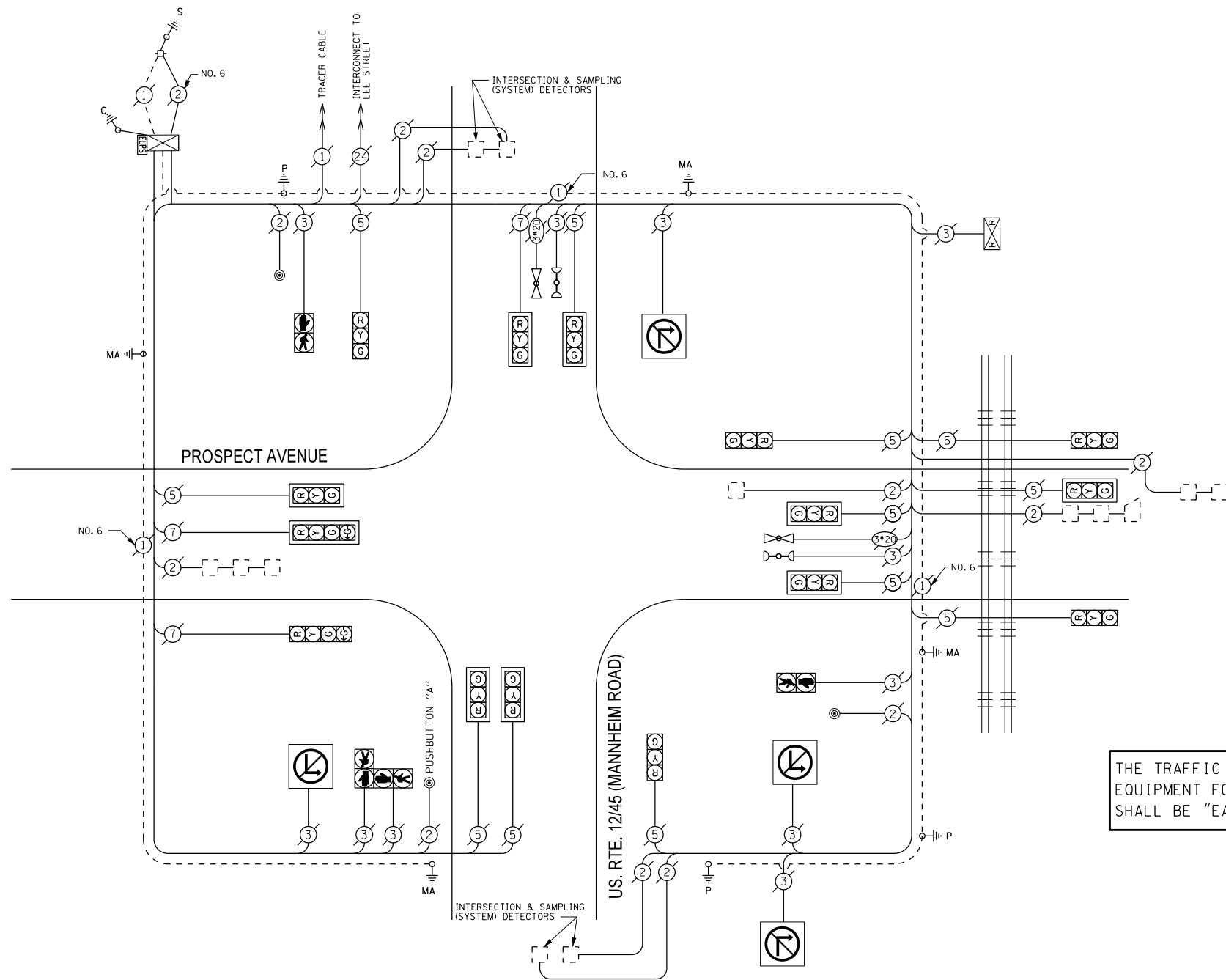
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US. RTE. 12-45 (LEE STREET) AND THACKER STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	31
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				



NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	OPERATIONS	
SIGNAL (RED)	15	17	0.50	127.50
(YELLOW)	15	25	0.25	93.75
(GREEN)	17	15	0.25	63.75
ARROW		12	0.10	
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 485.00

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. 12/45 (MANNHEIM ROAD) AND PROSPECT AVENUE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	32
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SEQUENCE OF OPERATION



MOVEMENT	← 8 4 →						← 6 2 →						F L A S H			
	← 8 4 →						← 6 2 →									
PHASE	2+6						4+8						H			
INTERVAL	1	2	3A	3B	4	5	6A	6B	6C	6D						
CHANGE TO	/ / / / / /						/ / / / / /						D A R K			
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	N/B	G	G	Y	R	R	R	R	R	R	R	R		R	R	
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	S/B	G	G	Y	R	R	R	R	R	R	R	R	R	R		
PROSPECT AVE. (EAST OF TRACKS) ALL SIGNALS	W/B	R	R	R	R	G	G	Y	R	R	R	R	R	R		
PROSPECT AVE. (WEST OF TRACKS) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	G	G	G	G	Y	R	R	R	R		
PROSPECT AVE. (WEST OF TRACKS) FAR LEFT AND MAST ARM SIGNALS	W/B	R	R	R	R	G	G	G	G	Y	R	R	R	R		
PROSPECT AVE. ALL SIGNALS	E/B	R	R	R	R	G	G	G	G	Y	R	R	R	R		
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45	*W	**FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	DW	DW		


EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1						1						PREEMPTOR NUMBER 3		PREEMPTOR NUMBER 4		CLEAR TO NORMAL SEQUENCE	
	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	2	3	4	5		
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	2	3									
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	3	1F	2	3											
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	N/B	G	G	G	Y	R	R	R	R	R	R	R	G	R			◇	
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	S/B	G	G	G	Y	R	R	R	R	R	R	R	G	R			◇	
PROSPECT AVE. (EAST OF TRACKS) ALL SIGNALS	W/B	R	R	R	R	Y	R	G	R	G	R	R	R	G			◇	
PROSPECT AVE. (WEST OF TRACKS) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	Y	R	G	R	G	R	R	R	G			◇	
PROSPECT AVE. (WEST OF TRACKS) FAR LEFT AND MAST ARM SIGNALS	W/B	R	R	R	R	Y	R	G	R	G	R	R	R	G			◇	
PROSPECT AVE. ALL SIGNALS	E/B	R	R	R	R	Y	R	G	R	G	R	R	R	G			◇	
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	DW			◇	
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.	DW	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	W	DW			◇	

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1						4						PREEMPTOR NUMBER 3		PREEMPTOR NUMBER 4		PREEMPTOR NUMBER 2		CLEAR TO NORMAL SEQUENCE
	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	2	3	4	5			
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER													2		3				
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	2	3	4	5			
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	2	1H	2	3	4	5								
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	N/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	G	△	
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	S/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	G	△	
PROSPECT AVE. (EAST OF TRACKS) ALL SIGNALS	W/B	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	△	
PROSPECT AVE. (WEST OF TRACKS) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	G	G	R	R	G	G	G	Y	R	R	R	R	R	R	△	
PROSPECT AVE. (WEST OF TRACKS) FAR LEFT AND MAST ARM SIGNALS	W/B	R	R	G	G	R	R	G	G	G	Y	R	R	R	R	R	R	△	
PROSPECT AVE. ALL SIGNALS	E/B	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	△	
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△	
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△	
INTERNALLY ILLUMINATED NO RIGHT TURN SIGNS	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	△	
INTERNALLY ILLUMINATED NO LEFT TURN SIGNS	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	△	

NRT = "NO RIGHT TURN" OR 
 NLT = "NO LEFT TURN" OR 

- TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
- FLASHING  IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

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

△ = RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

W = ILLUMINATED PERSON = WALK
 FL DW = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 DW = ILLUMINATED SOLID HAND = DON'T WALK

HOLD



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

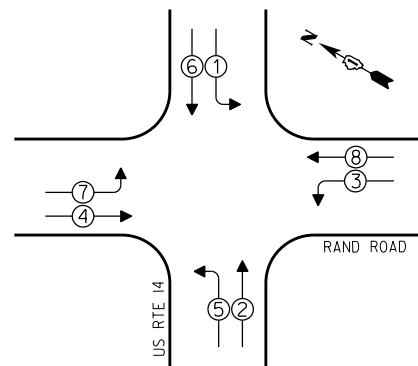
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. 12/45 (MANNHEIM ROAD) AND PROSPECT AVENUE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

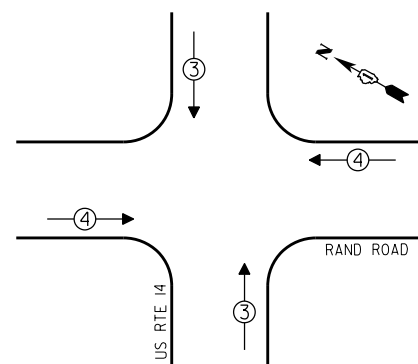
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	33
CONTRACT NO. 60X15			ILLINOIS/FED. AID PROJECT	

CONTROLLER SEQUENCE

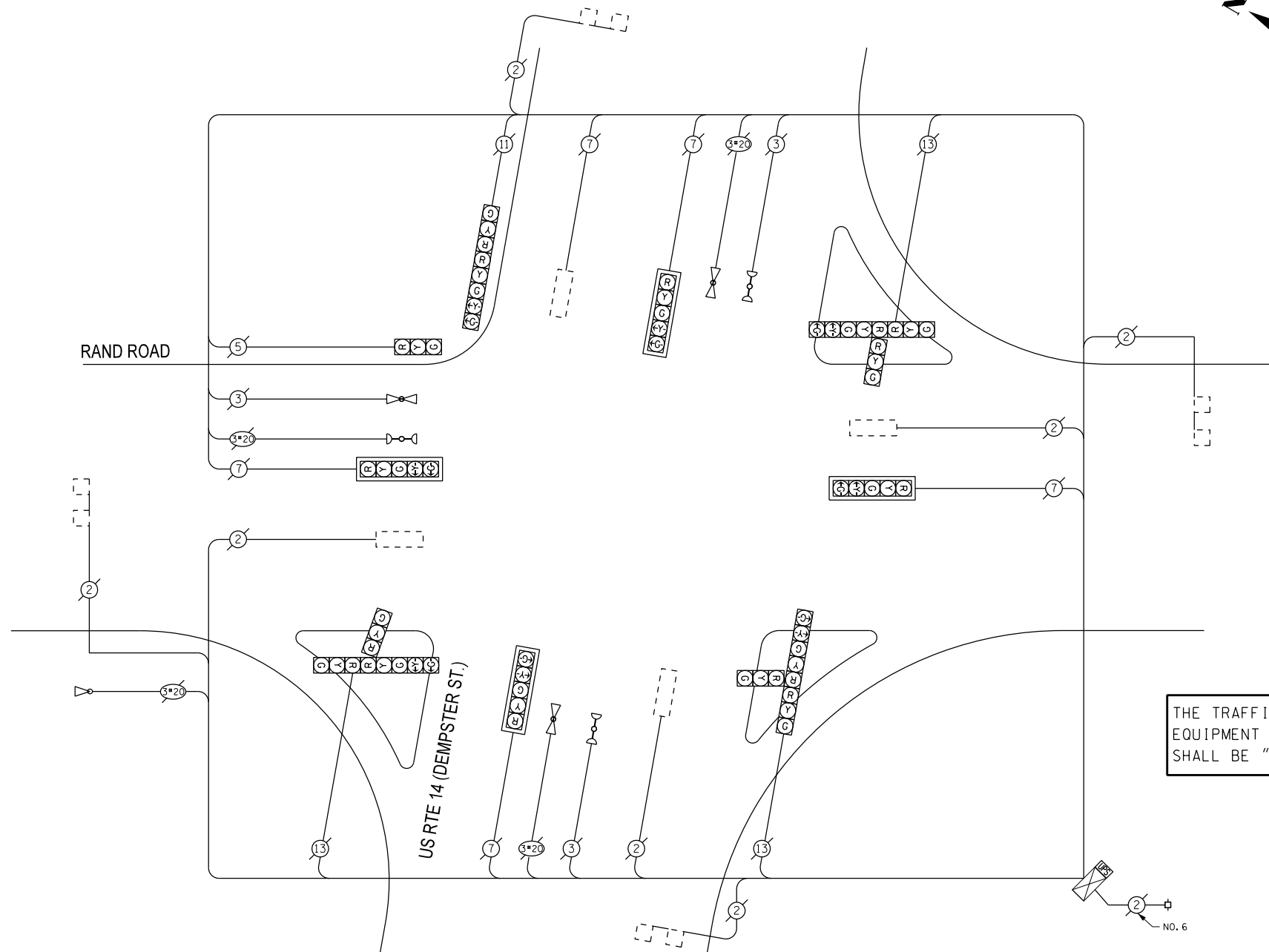


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 415.20

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

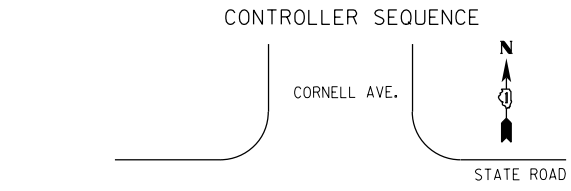
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US RTE 14 (DEMPSTER STREET) AT RAND ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	34
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT

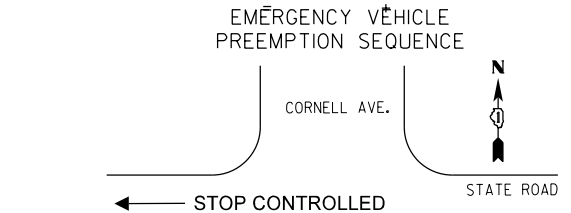
SAM SCHWARTZ
ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

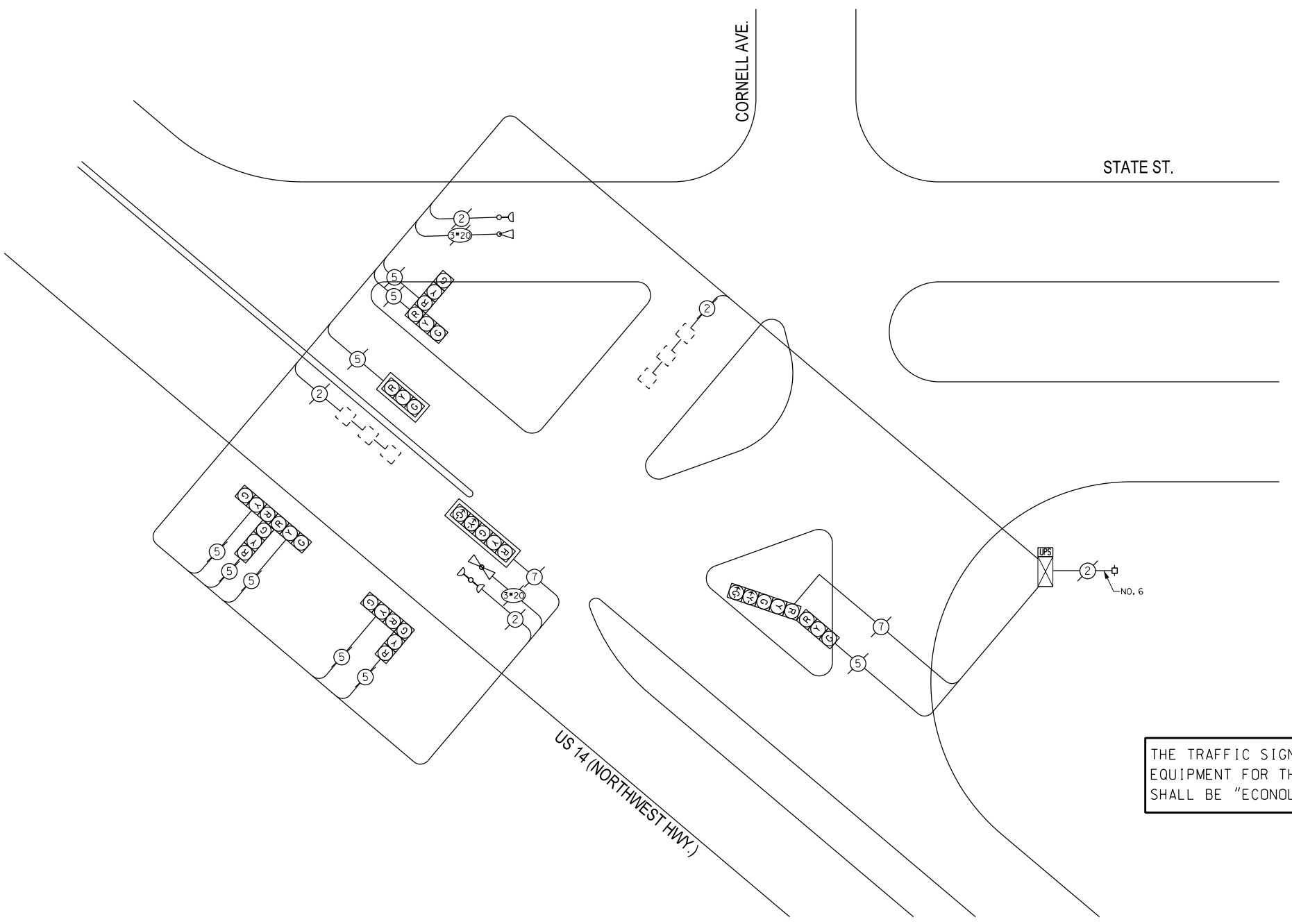
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 1	+ 2



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↘



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

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

TYPE	WATTAGE			TOTAL WATTAGE
	NO. OF LAMPS	INCAND	LED X % OPERATIONS	
SIGNAL (RED)	11	17	0.50	93.50
(YELLOW)	11	25	0.25	68.75
(GREEN)	11	15	0.25	41.25
ARROW	4	12	0.10	4.80
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 308.30

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

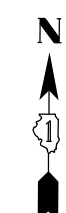
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

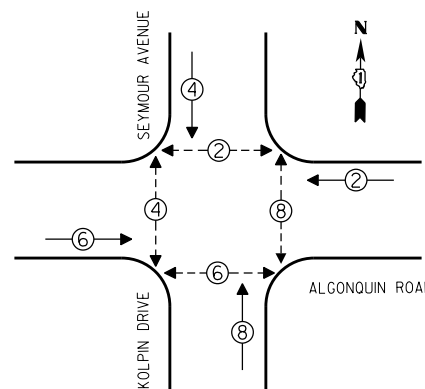
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US 14 (NORTHWEST HWY) AND STATE STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	35
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



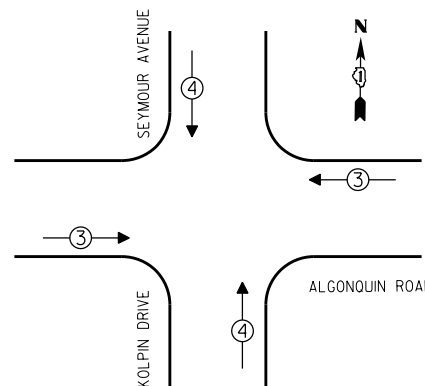
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

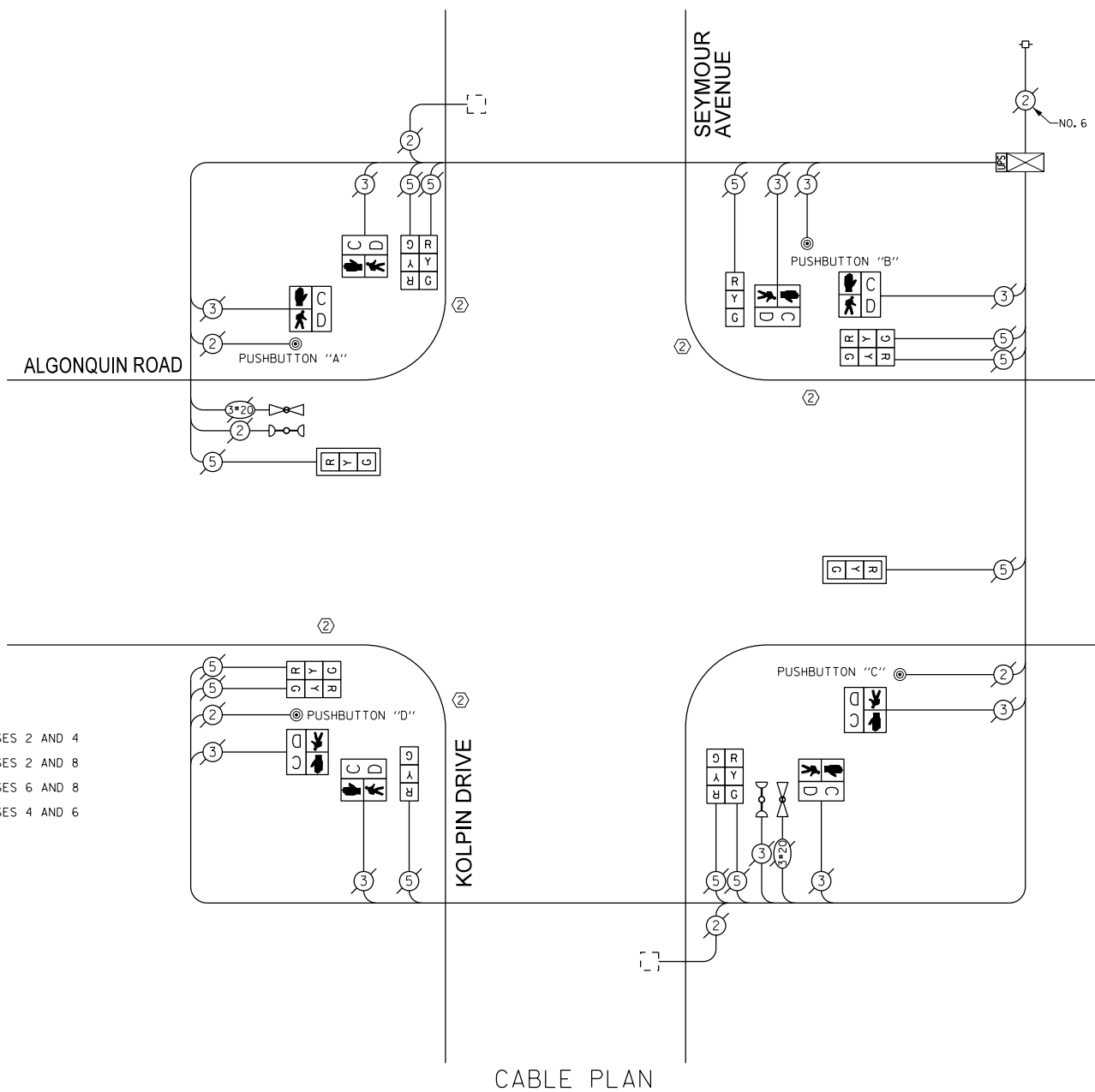
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	

② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

NOTE:

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 8
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 4 AND 6

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

REPLACE EXISTING TOP MOUNT TRAFFIC SIGNAL POSTS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	12		0.10	
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE	250		0.50	
VIDEO SYSTEM	150		1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 522.00

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
1	EACH	CONTROLLER AND CABINET (COMPLETE)
5	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSHBUTTON
2	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	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
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-04-13	REVISED -

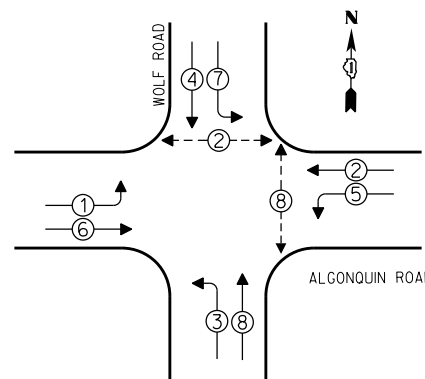
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 ALGONQUIN ROAD AND SEYMOUR AVENUE / KOLPIN DRIVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	100	36
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

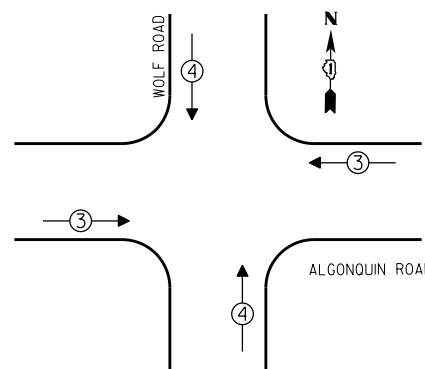
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

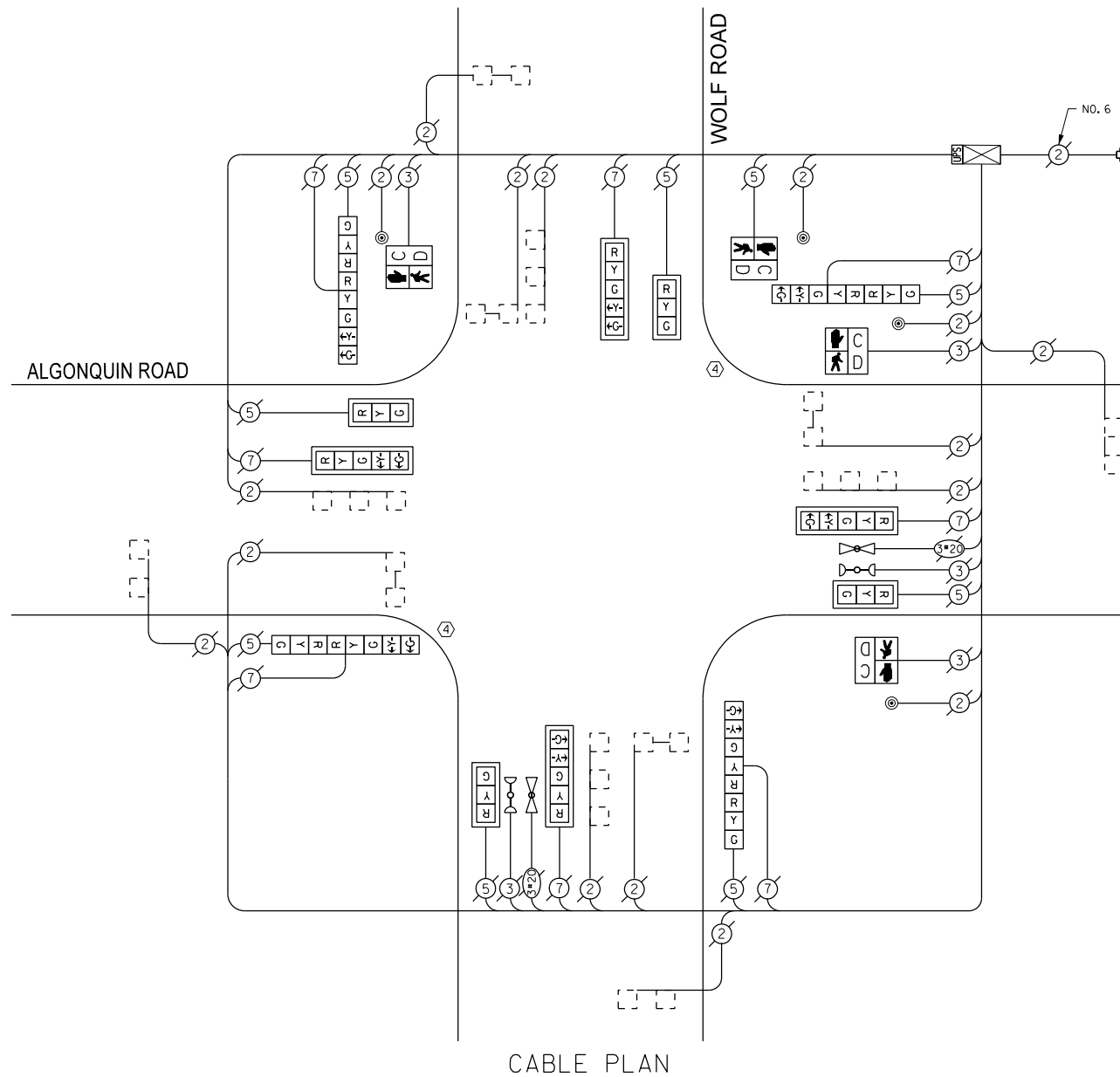
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	

④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 515.20

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSHBUTTON
8	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	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, MAST ARM MOUNTED
4	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
4	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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
ALGONQUIN ROAD AT WOLF ROAD

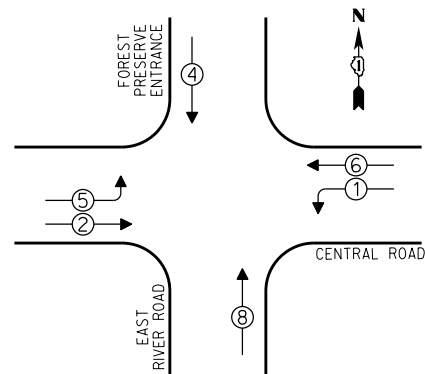
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	37
			CONTRACT NO. 60X15	
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



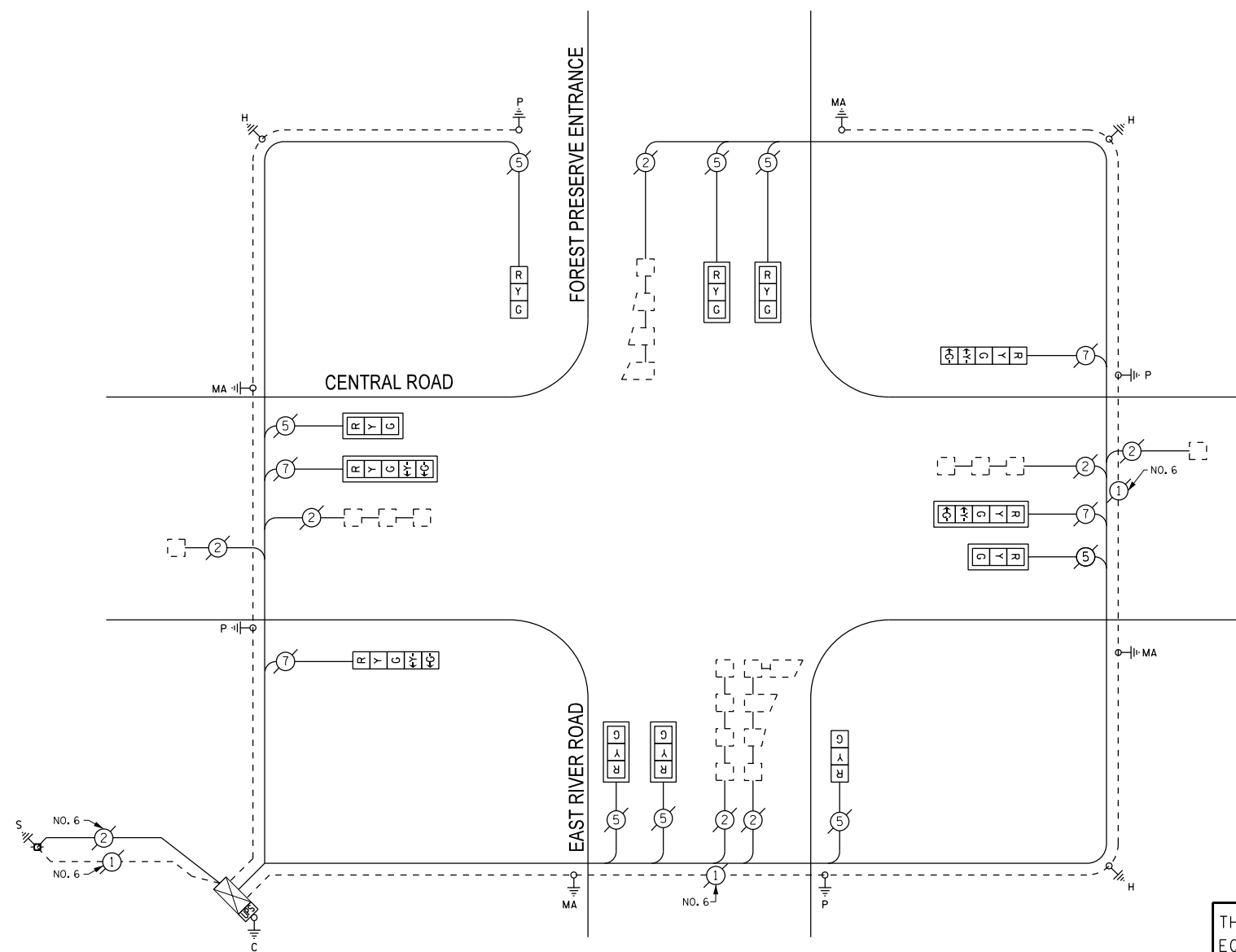
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	WATTAGE			TOTAL WATTAGE
	NO. OF LAMPS	INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	8	12	0.10	9.60
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 331.60

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

SCHEDULE OF QUANTITIES

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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

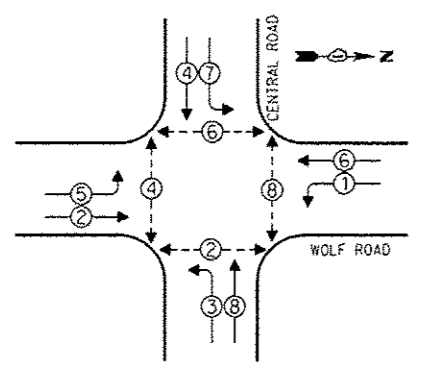
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, CENTRAL ROAD AT EAST RIVER ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	38
			CONTRACT NO. 60X15	
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

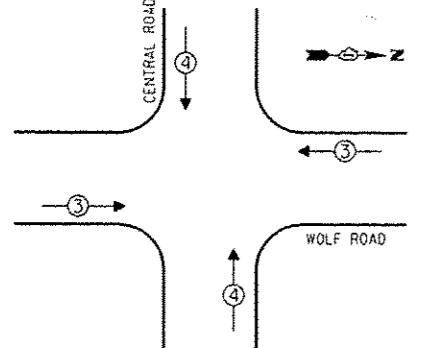
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

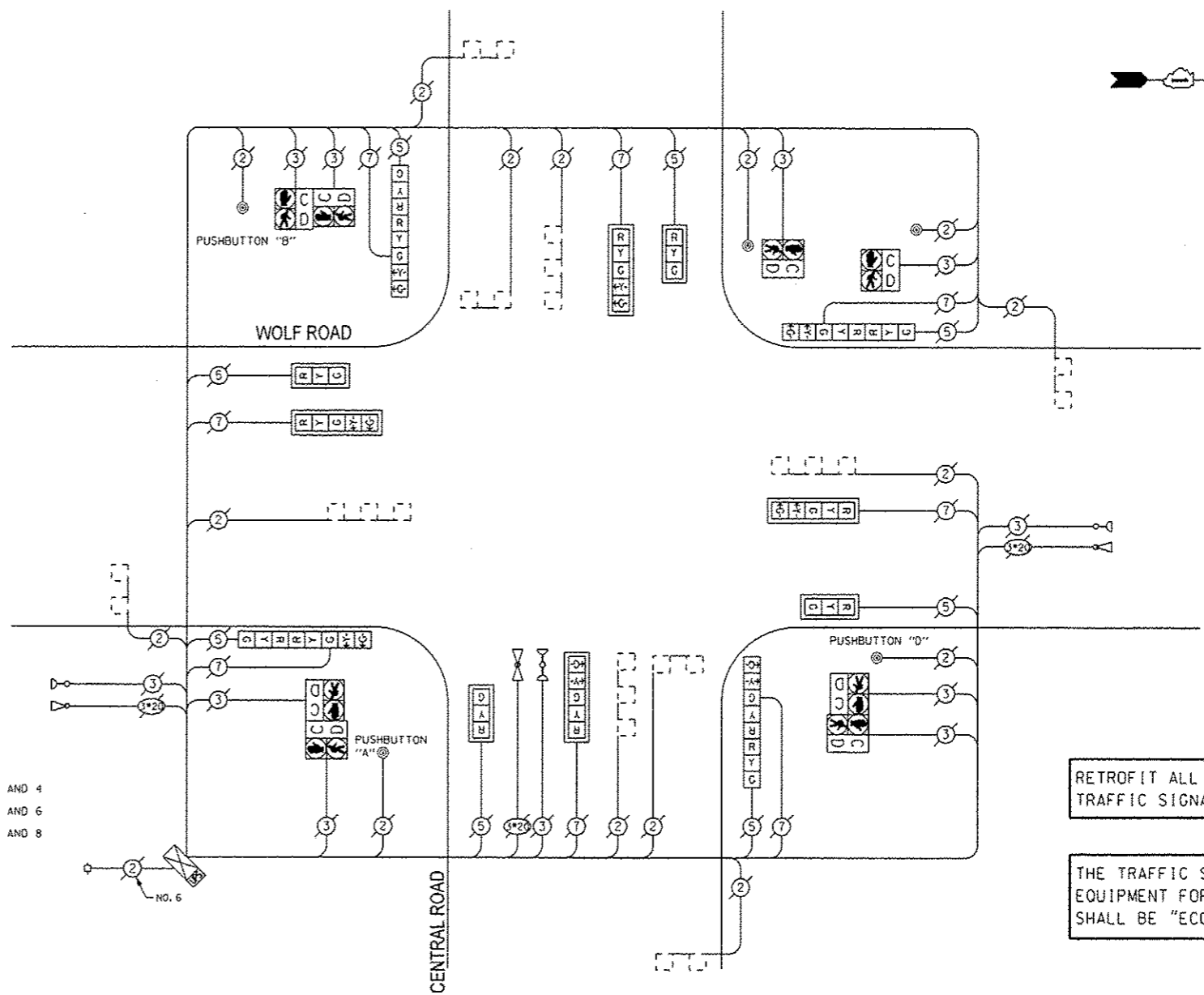
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - △ OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE 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
5	EACH	PEDESTRIAN PUSHBUTTON, NON-LATCHING

I.D.D.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS X INCAND	WATTAGE	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:			TOTAL =	615.20

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:



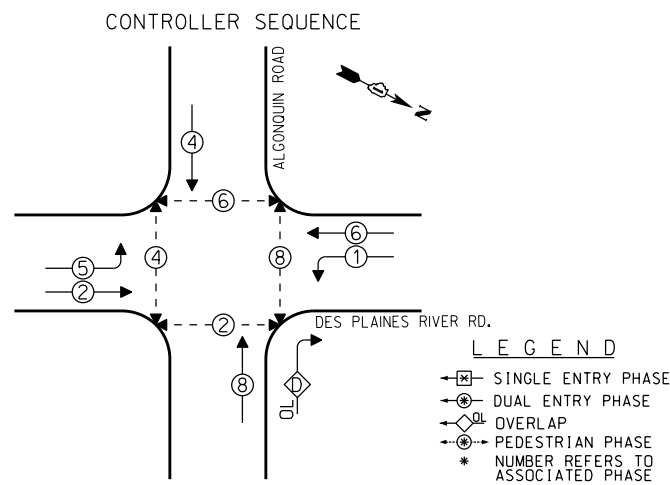
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 CENTRAL ROAD AND WOLF ROAD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	39
			CONTRACT NO. 60X15	
[ILLINOIS] FED. AID PROJECT				

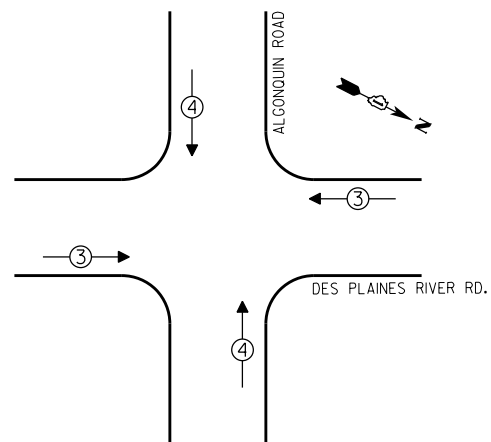
SCALE: NONE SHEET OF SHEETS STA. TO STA.



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	14		12	0.10	16.8
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	538.8

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

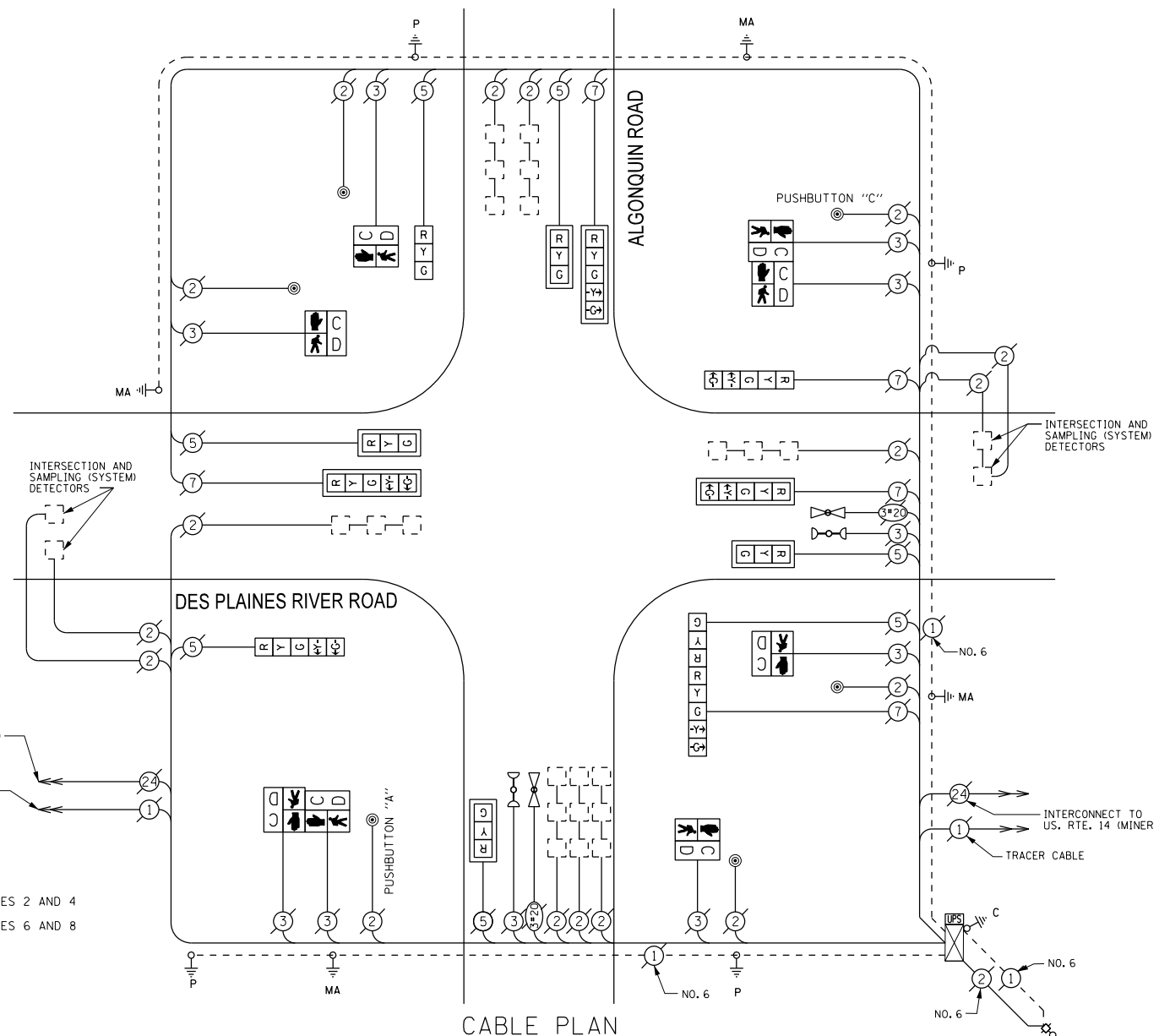
ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON



NOTE:

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

SCHEDULE OF QUANTITIES

QUAN.	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	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	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, 3-SECTION, MAST ARM MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

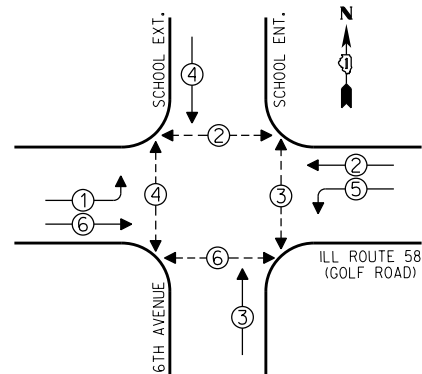
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, DES PLAINES RIVER ROAD AT ALGONQUIN ROAD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	40
CONTRACT NO. 60X15				

SCALE: NONE SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

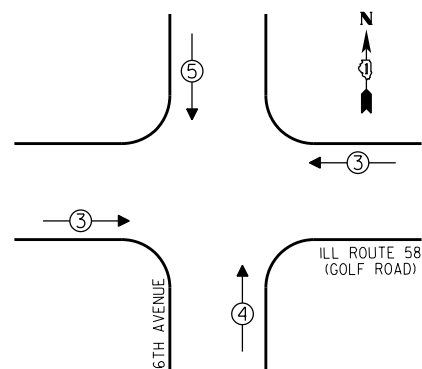
CONTROLLER SEQUENCE



- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

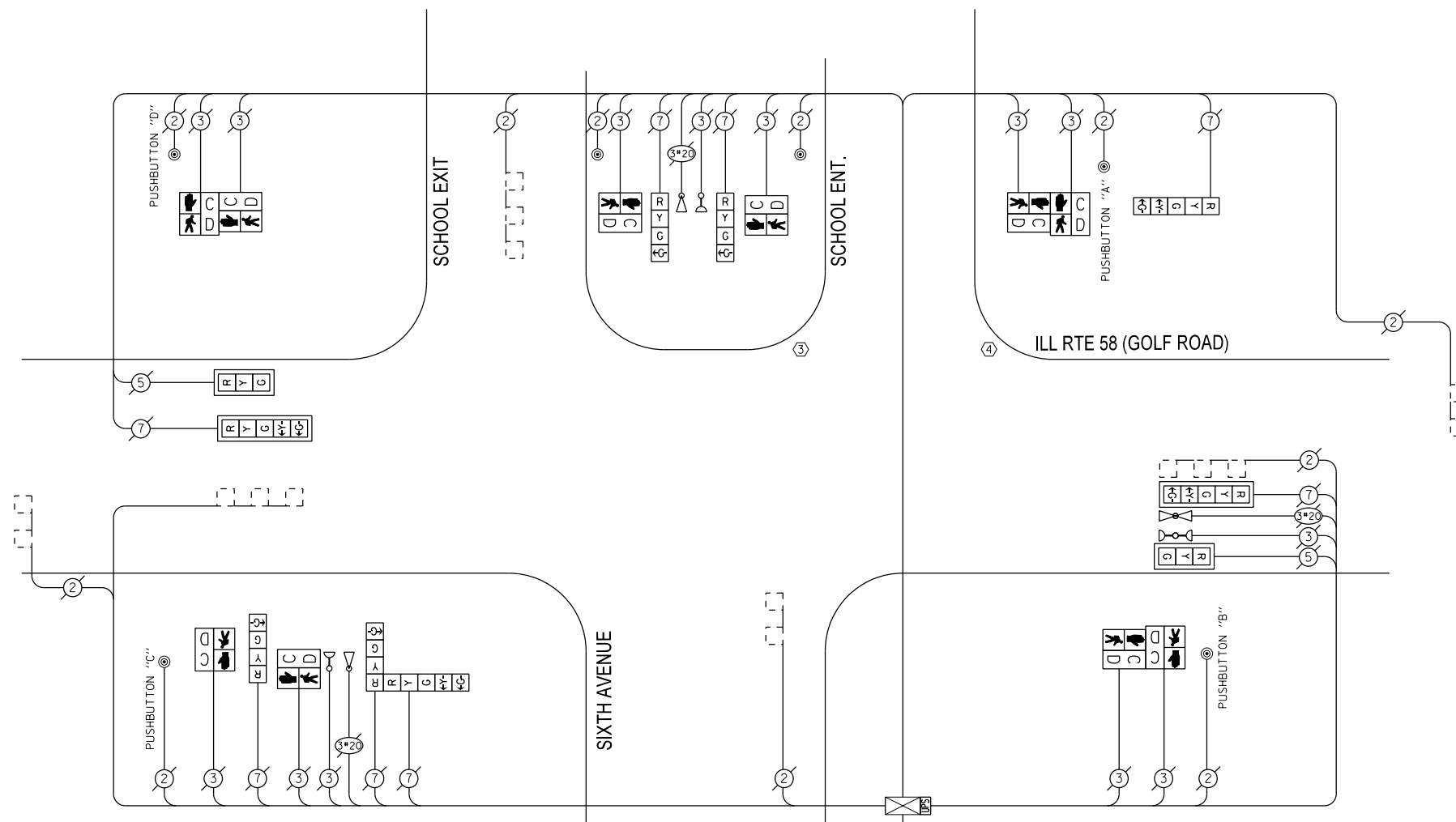
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

- ③ REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 3
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 3 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 4

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	10	17	0.50	85.00
(YELLOW)	10	25	0.25	62.50
(GREEN)	14	15	0.25	52.50
ARROW	8	12	0.10	9.60
PED. SIGNAL	10	25	1.00	250.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE	250		0.50	
VIDEO SYSTEM	150		1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 559.60

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	TRAFFIC SIGNAL POST
2	EACH	SIGNAL HEAD, I-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, I-FACE, 4-SECTION
4	EACH	SIGNAL HEAD, I-FACE, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
3	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON
4	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, I-FACE, 4-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3	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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

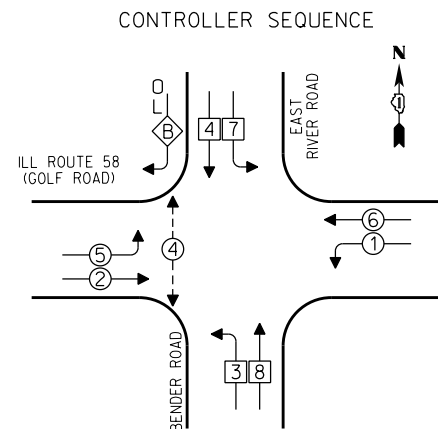
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL 58 (GOLF RD) AND SIXTH AVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	41
				CONTRACT NO. 60X15

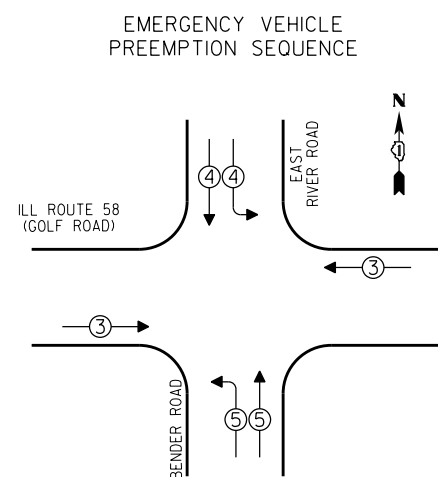
ILLINOIS FED. AID PROJECT

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

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



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

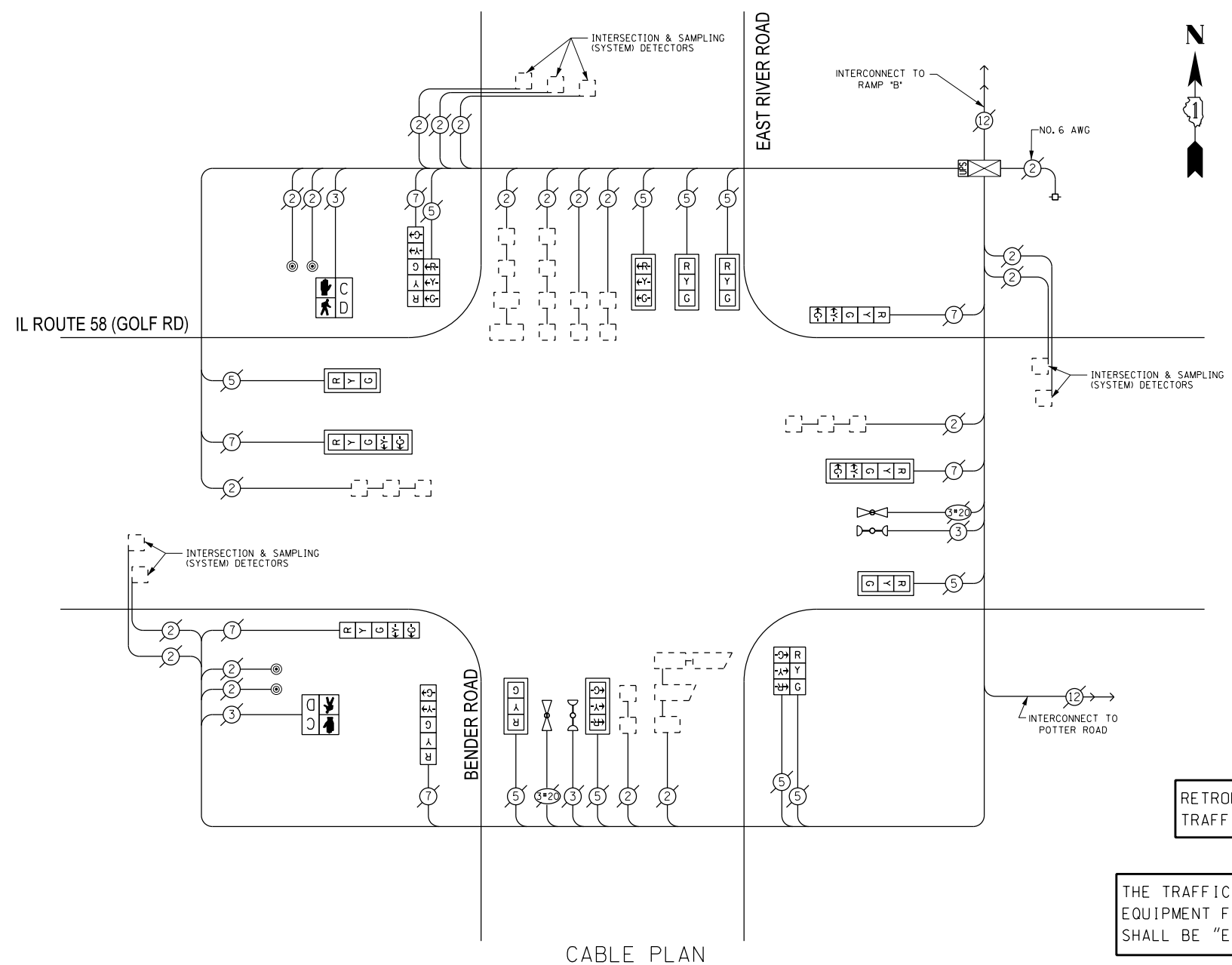
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	12	12	0.10	14.40
PED. SIGNAL	2	25	1.00	50.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 460.40

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN PUSHBUTTON



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
7	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

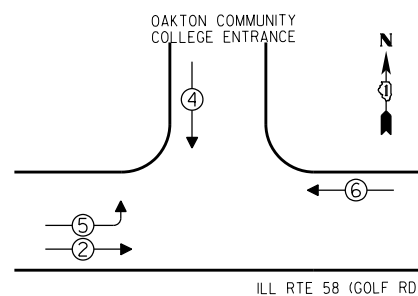
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, EAST RIVER ROAD AT IL58 (GOLF ROAD)
 SCALE: NONE SHEET OF SHEETS STA. TO STA.

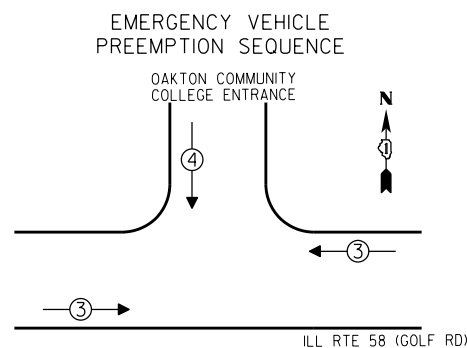
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	42
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SAMSCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

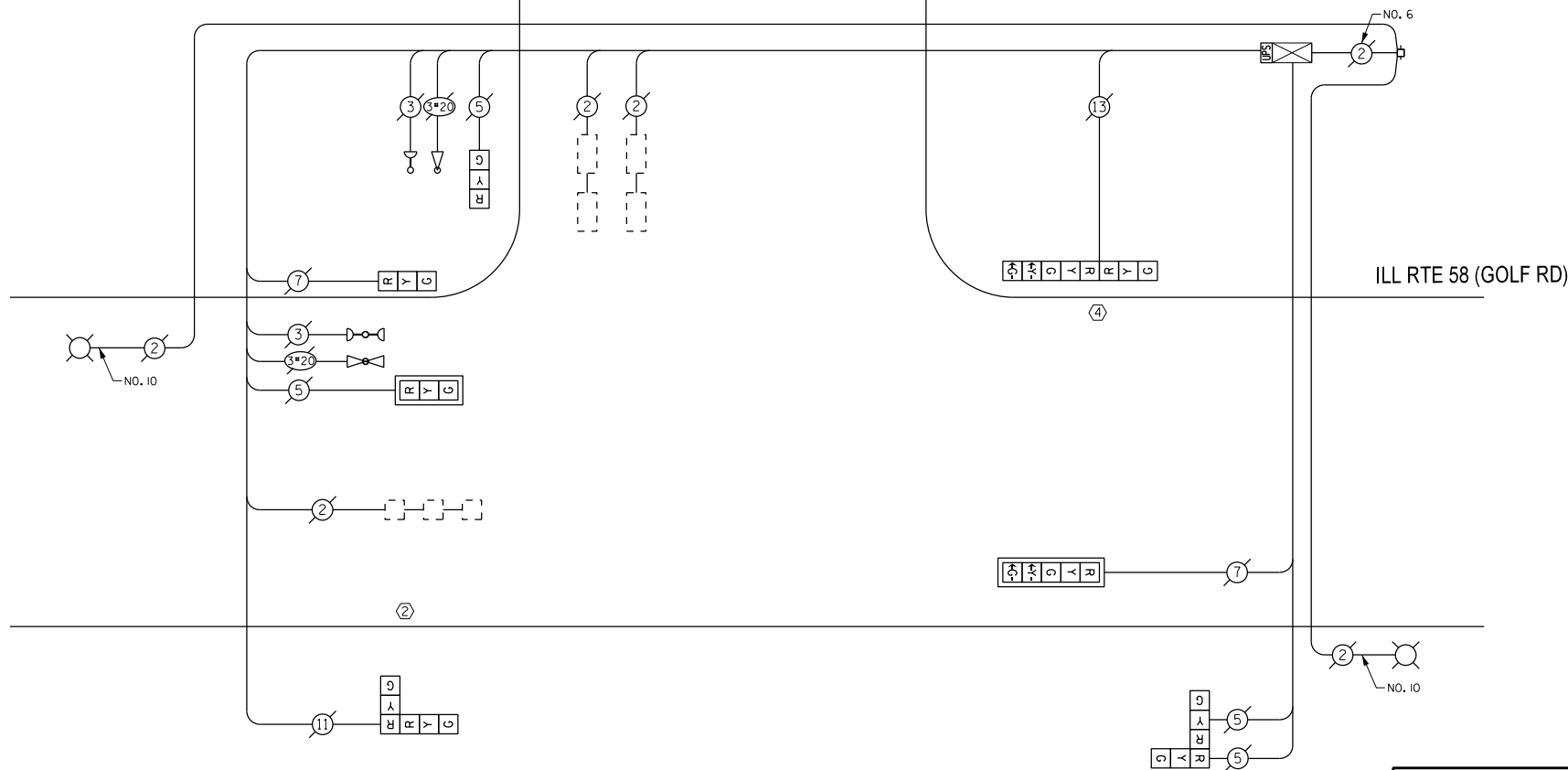


EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↓	

- LEGEND**
- ☐ SINGLE ENTRY PHASE
 - ⊖ DUAL ENTRY PHASE
 - ⊕ OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

- ② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

OAKTON COMMUNITY COLLEGE ENTRANCE



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	10		17	0.50	85.00
(YELLOW)	10		25	0.25	62.50
(GREEN)	10		15	0.25	37.50
ARROW	4		12	0.10	4.80
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	289.80

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	TRAFFIC SIGNAL POST
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	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
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	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	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED -	JAM	REVISED -	
DRAWN -	JAM	REVISED -	
CHECKED -	LMM	REVISED -	
DATE -	10-14-13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

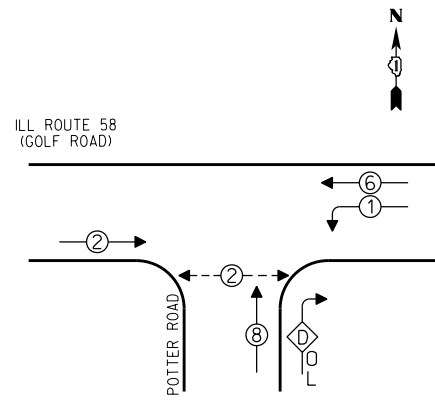
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL 58 (GOLF RD) AT OAKTON COMMUNITY COLLEGE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	43
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT

CONTROLLER SEQUENCE

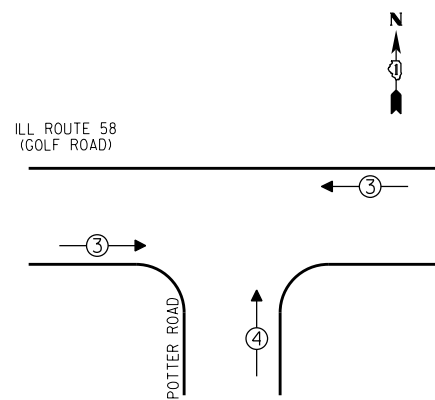


- LEGEND**
- ① SINGLE ENTRY PHASE
 - ② DUAL ENTRY PHASE
 - ③ OVERLAP
 - ④ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE

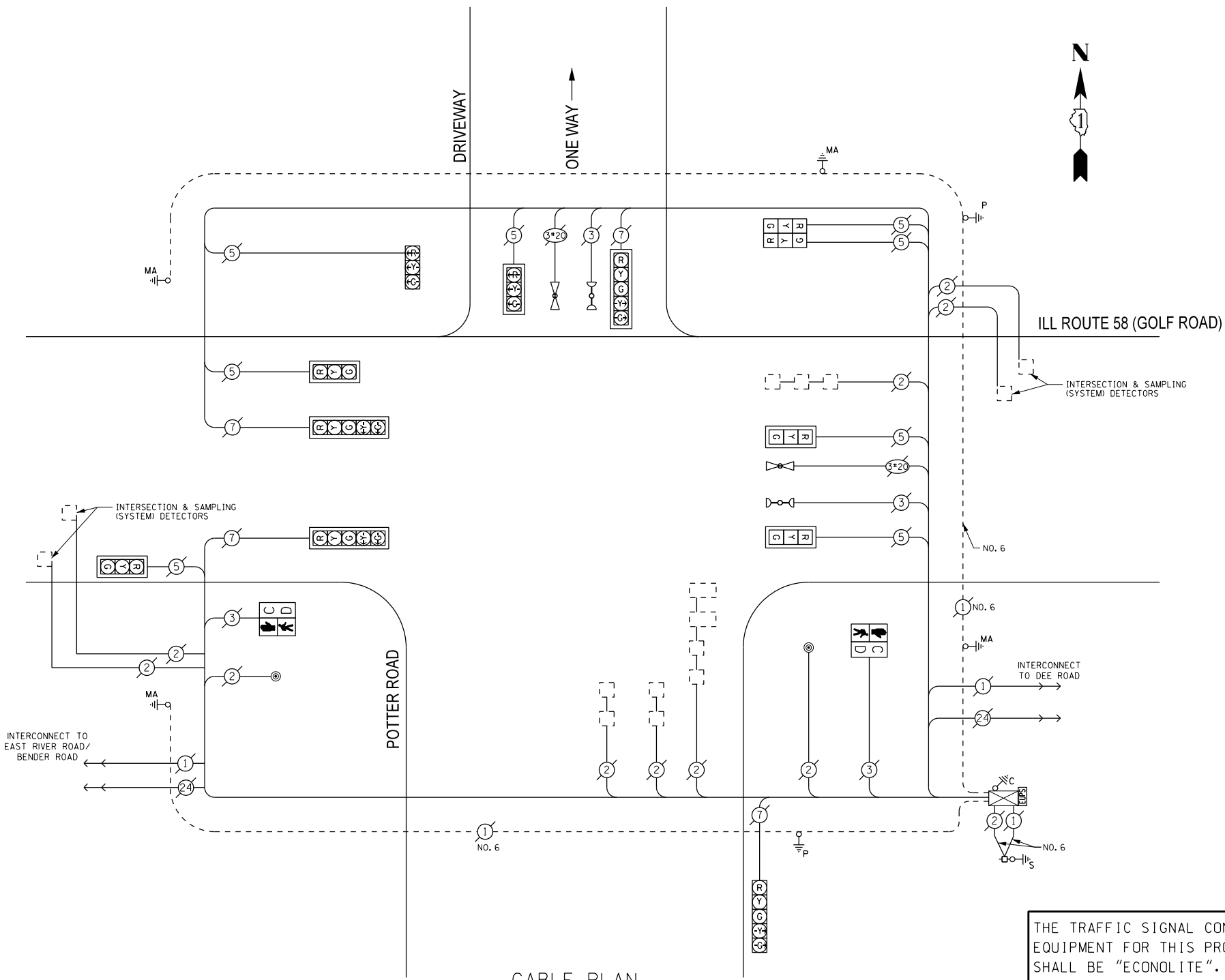


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	8	12	0.10	9.60
PED. SIGNAL	2	25	1.00	50.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 381.60

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
2	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

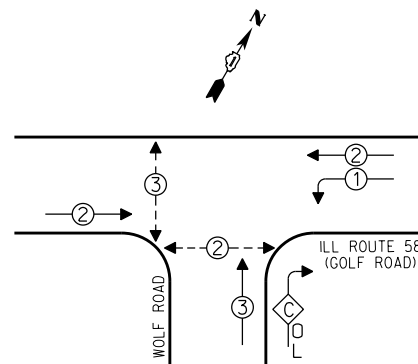
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL ROUTE 58 (GOLF RD) AT POTTER ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	44
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

CONTROLLER SEQUENCE

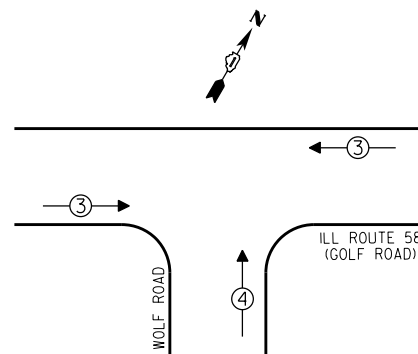


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

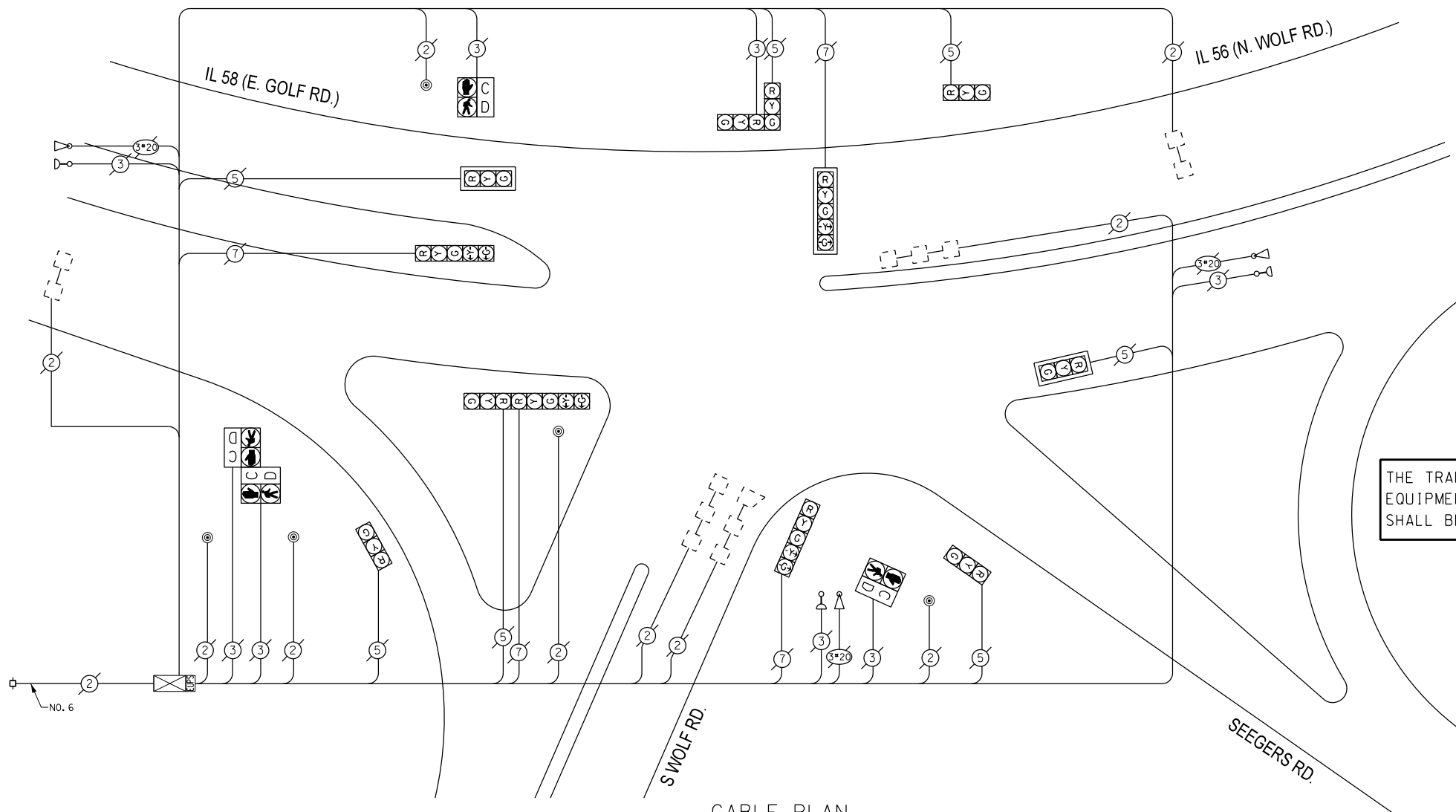
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 3	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12	17	0.50	102.00	
(YELLOW)	12	25	0.25	75.00	
(GREEN)	12	15	0.25	45.00	
ARROW	8	12	0.10	9.60	
PED. SIGNAL	4	25	1.00	100.00	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN		25	0.05		
LUMINAIRE		250	0.50		
VIDEO SYSTEM		150	1.00		
FLASHER			0.50		
ENERGY COSTS TO:				TOTAL =	431.60

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
5	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL RTE 58 (GOLF ROAD) AT WOLF ROAD

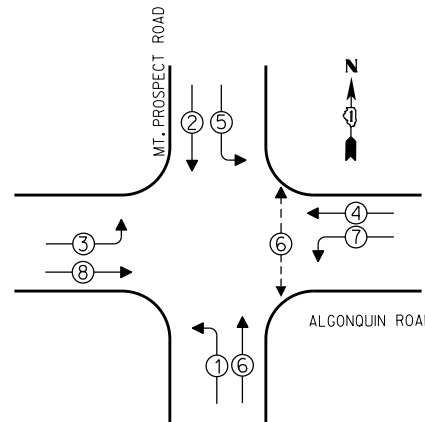
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	45
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



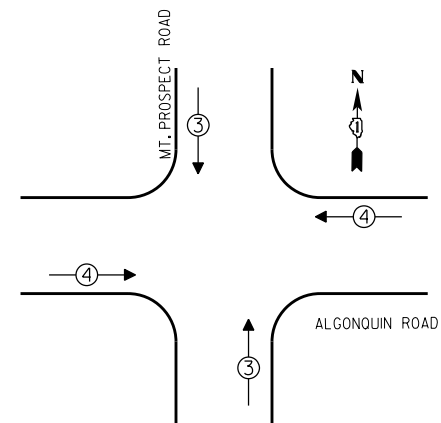
CONTROLLER SEQUENCE



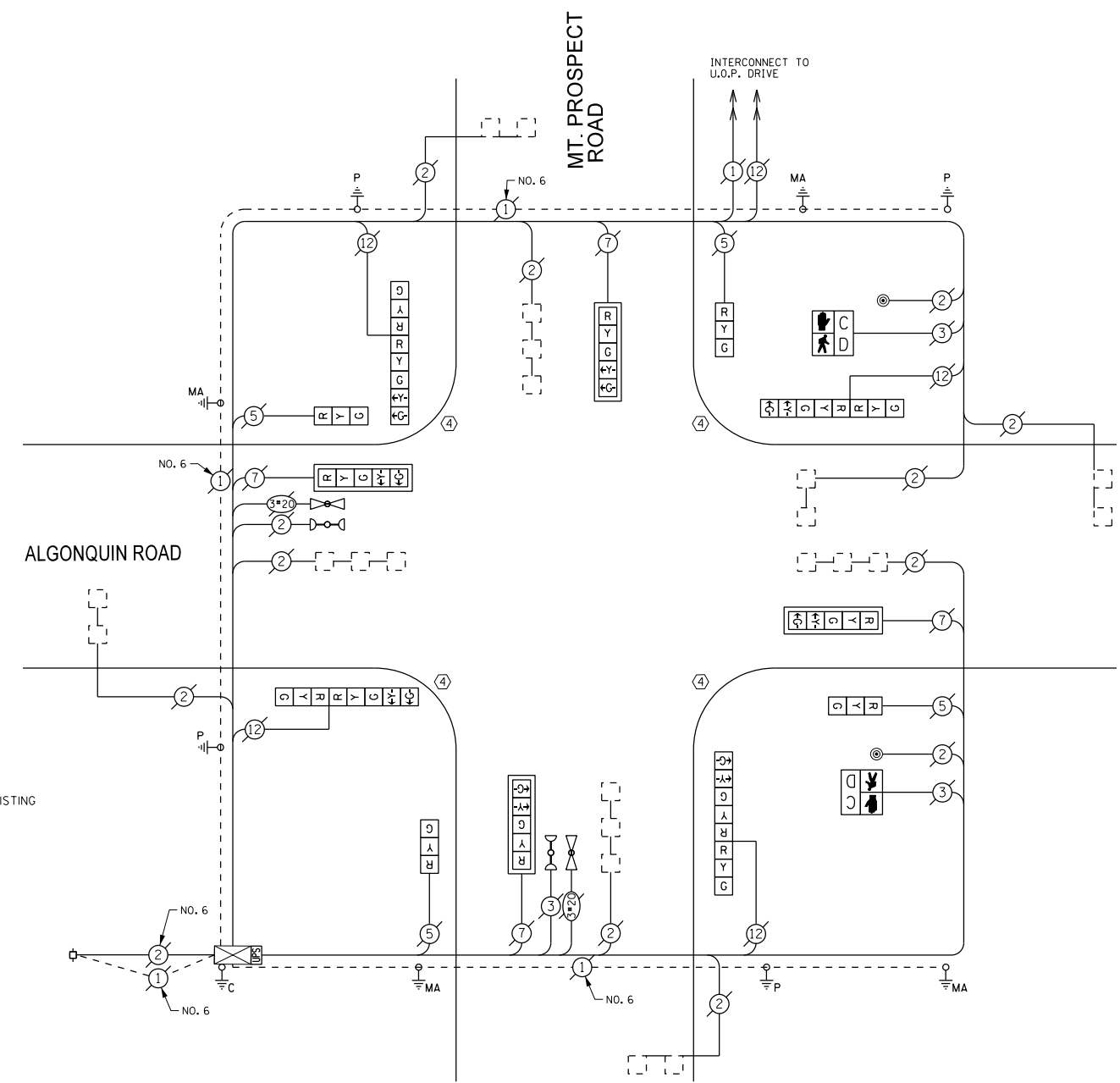
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	→



CABLE PLAN

④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN PUSHBUTTON
4	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	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, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	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
2	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED %	OPERATIONS	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 465.20

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

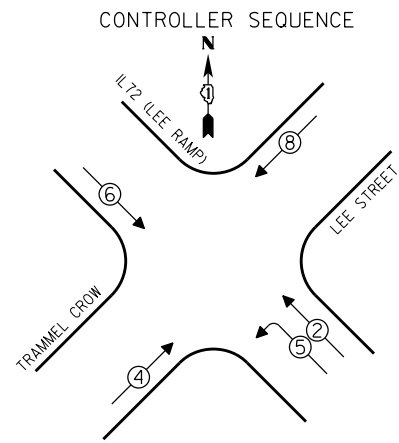
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
ALGONQUIN ROAD AND MOUNT PROSPECT ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	46
CONTRACT NO. 60X15				

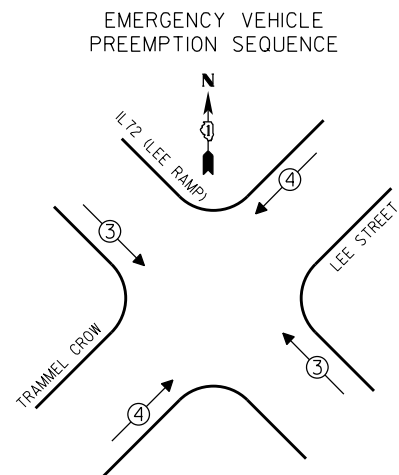
ILLINOIS FED. AID PROJECT

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



PHASE DESIGNATION DIAGRAM

- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTORS

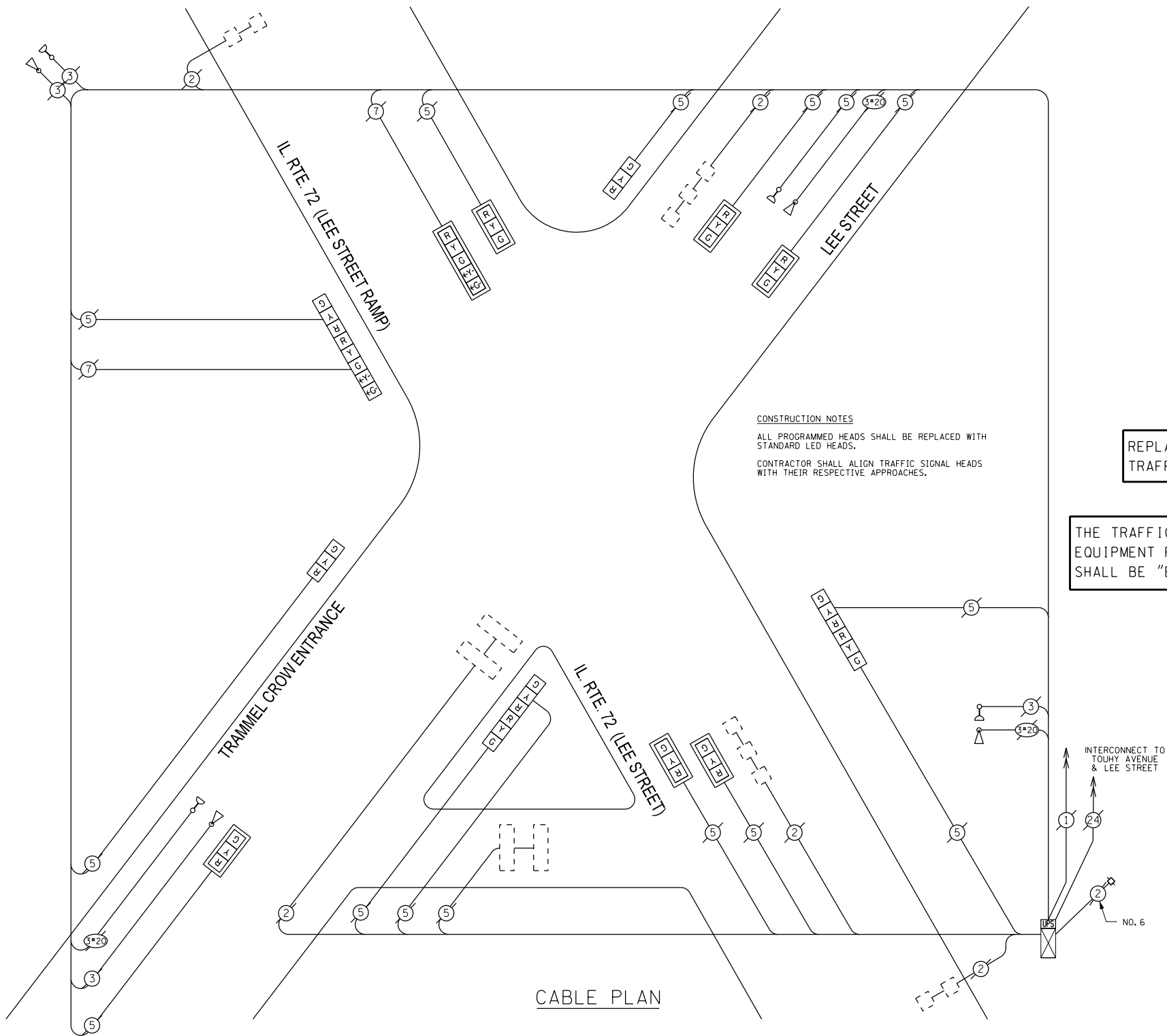
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↔

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

TYPE	WATTAGE			TOTAL WATTAGE
	NO. OF LAMPS	INCAND	LED X % OPERATIONS	
SIGNAL (RED)	15	17	0.50	127.50
(YELLOW)	15	25	0.25	93.75
(GREEN)	15	15	0.25	56.25
ARROW	4	12	0.10	4.80
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 382.30

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

CONSTRUCTION NOTES
ALL PROGRAMMED HEADS SHALL BE REPLACED WITH STANDARD LED HEADS.
CONTRACTOR SHALL ALIGN TRAFFIC SIGNAL HEADS WITH THEIR RESPECTIVE APPROACHES.

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	COMBINATION SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	COMBINATION SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
6	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, 1-FACE, 5-SECTION
7	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	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
7	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



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

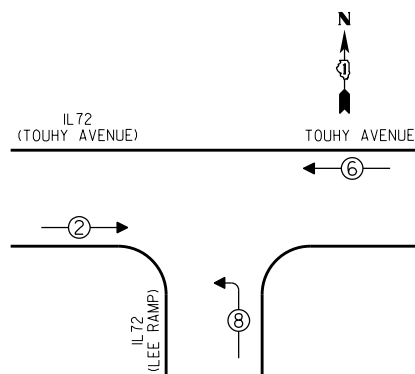
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL RTE. 72 (LEE STREET RAMP AT IL RTE. 72 (LEE STREET))**
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	47
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



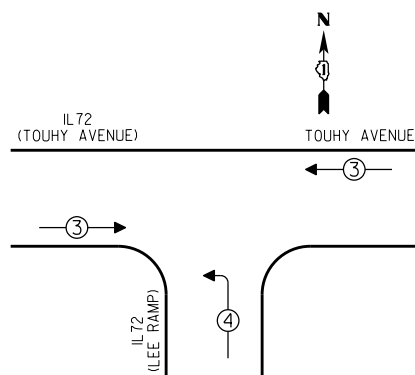
CONTROLLER SEQUENCE



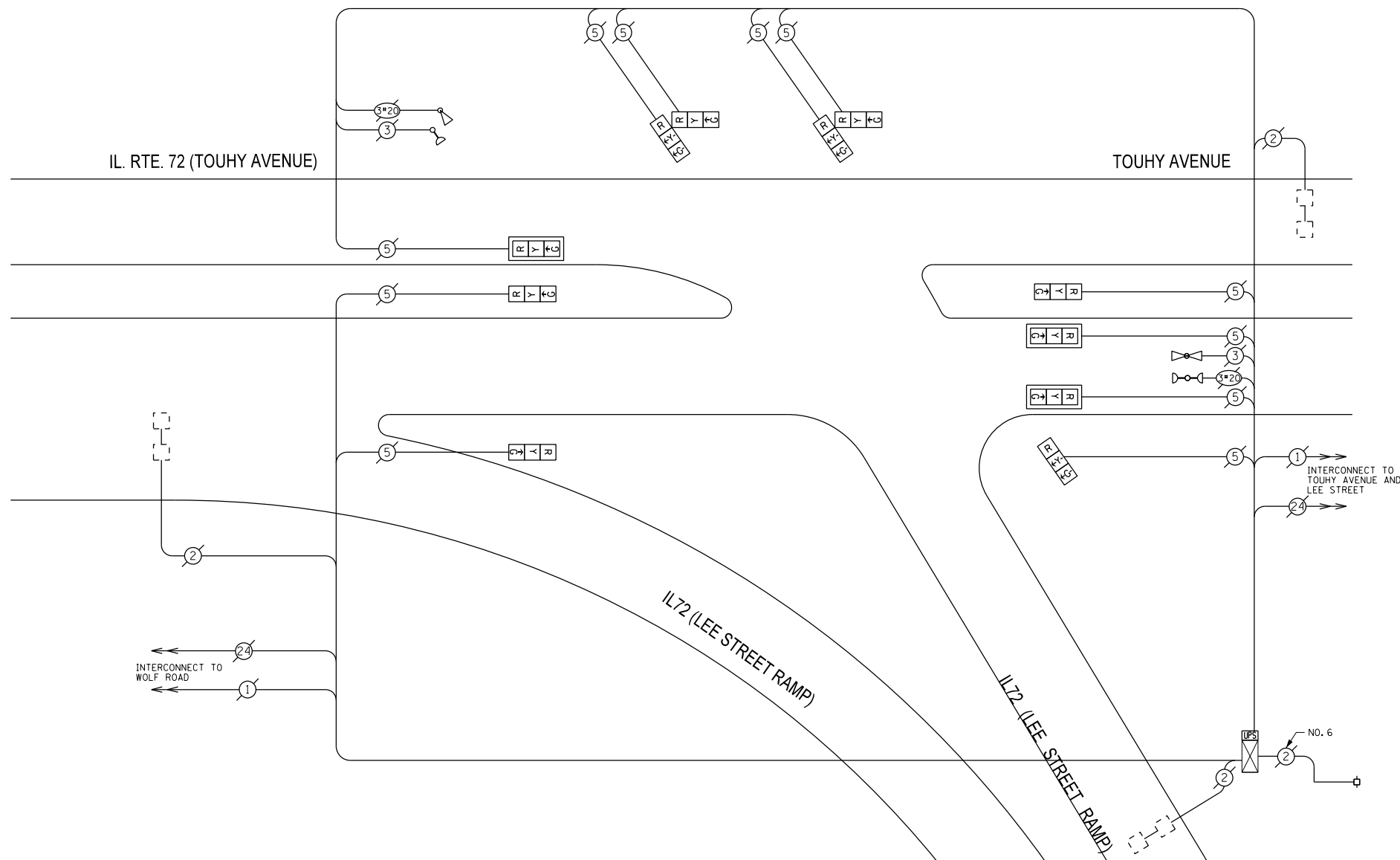
- LEGEND**
- ☐ SINGLE ENTRY PHASE
 - ⊕ DUAL ENTRY PHASE
 - ⊖ OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

SCHEDULE OF QUANTITIES

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	11	17	0.50	93.50
(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	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 303.50

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, IL. RT. 72 (TOUHY AVENUE) AND IL. RTE. 72 (LEE STREET RAMP)

SCALE: NONE SHEET OF SHEETS STA. TO STA.

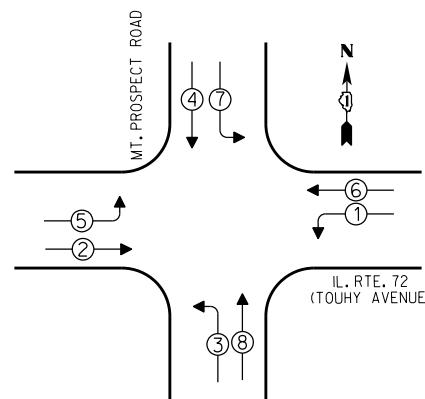
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	48
CONTRACT NO. 60X15				

ILLINOIS FED. AID PROJECT



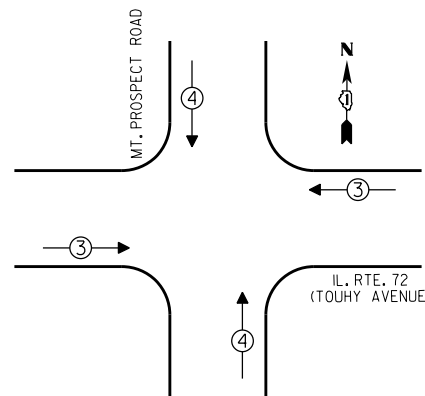


CONTROLLER SEQUENCE



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	

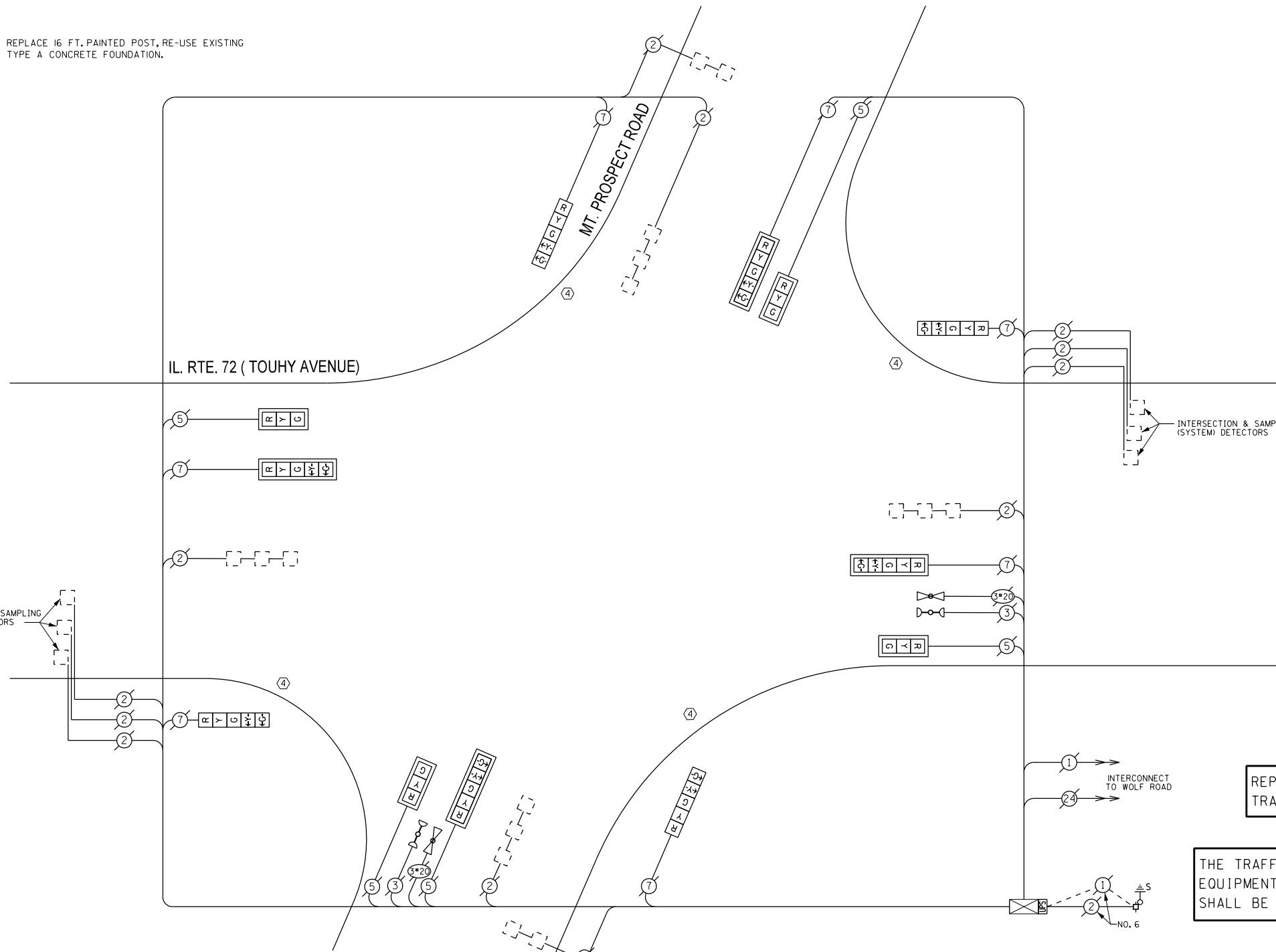
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	WATTAGE			TOTAL WATTAGE
	NO. OF LAMPS	INCAND	LED % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE	250		0.50	
VIDEO SYSTEM	150		1.00	
FLASHER			0.50	
ENERGY COSTS TO:	TOTAL =			341.20

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

INTERSECTION & SAMPLING (SYSTEM) DETECTORS



CABLE PLAN

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, I-FACE, 3-SECTION
8	EACH	SIGNAL HEAD, I-FACE, 5-SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED
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

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

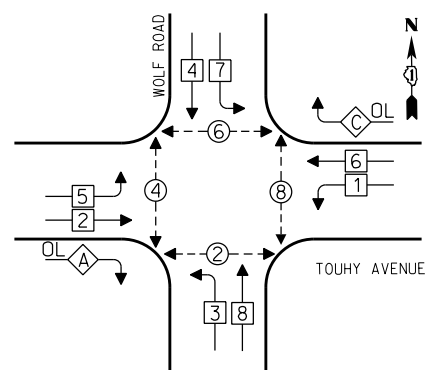
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 IL. RT. 72 (TOUHY AVENUE) AND MT. PROSPECT ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	49
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE

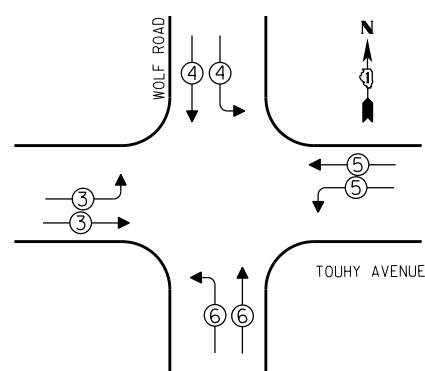


LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

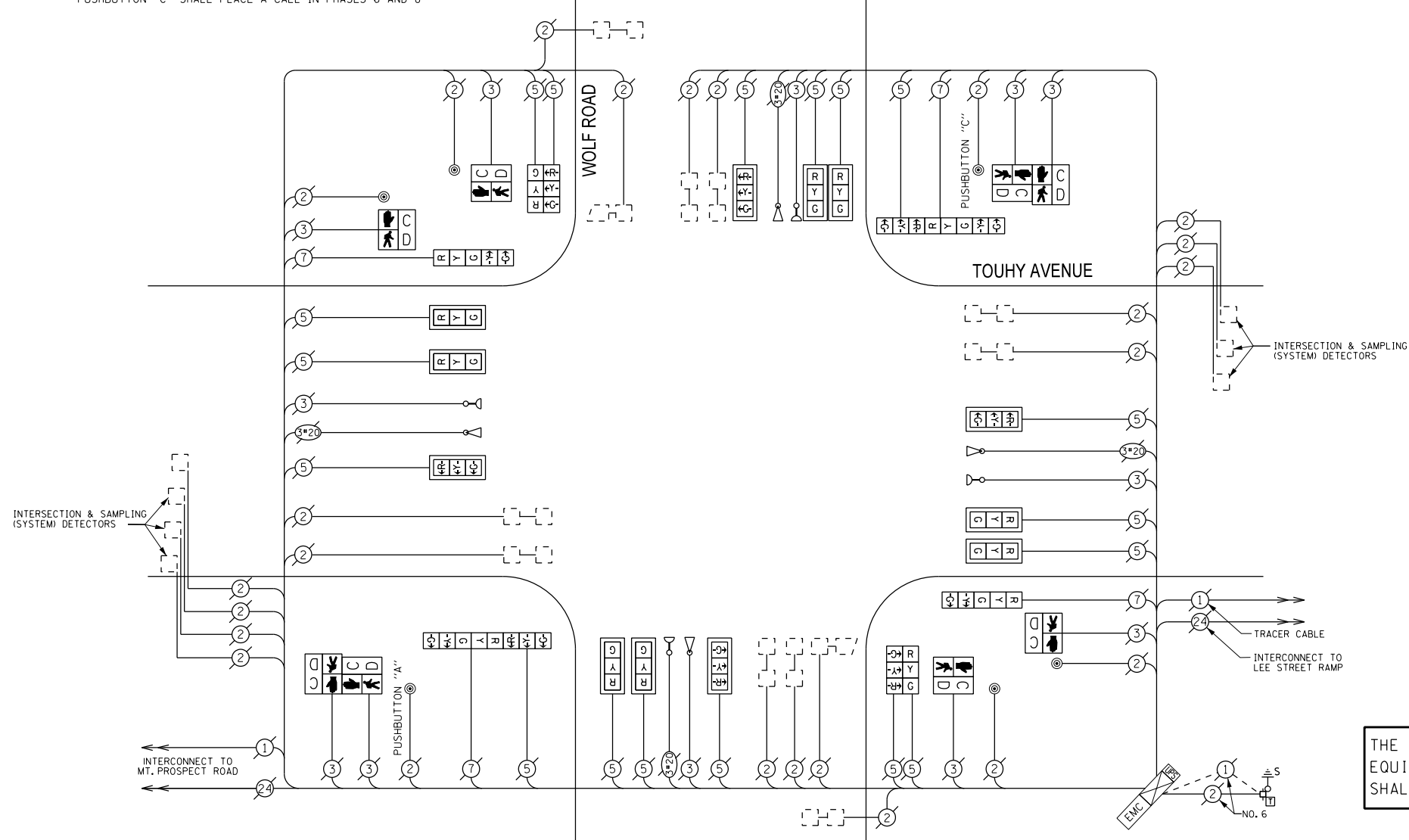
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
C	= 6	+ 7

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	[Symbol]	[Symbol]	[Symbol]	[Symbol]

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	22	17	0.50	187.00
(YELLOW)	22	25	0.25	137.50
(GREEN)	22	15	0.25	82.50
ARROW	8	12	0.10	9.60
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 716.60

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
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
12	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

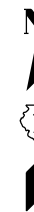
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

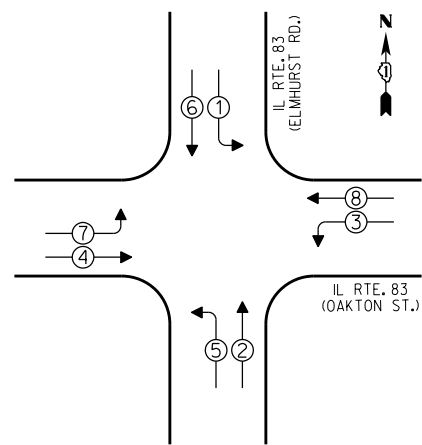
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, IL. RT. 72 (TOUHY AVENUE) AND WOLF ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

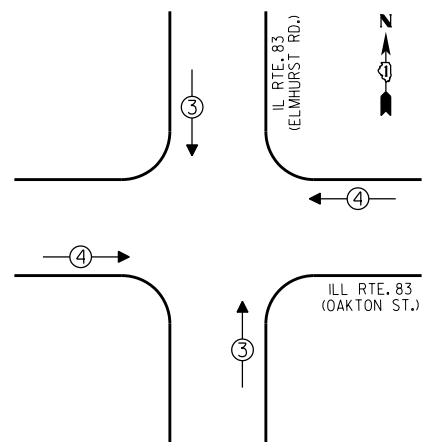
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	50
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				



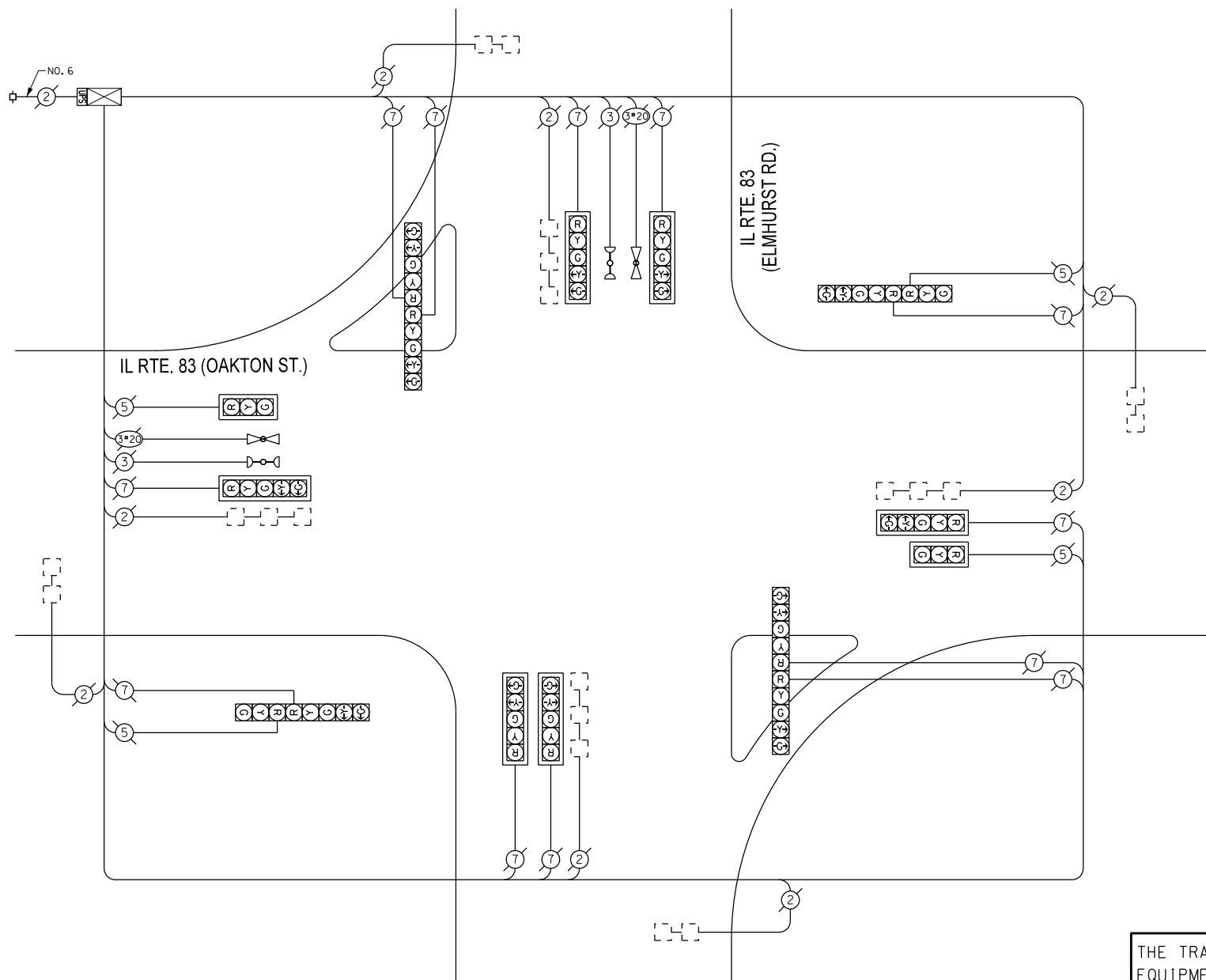
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	←



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED %	OPERATIONS	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	24		12	0.10	28.80
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 424.80

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

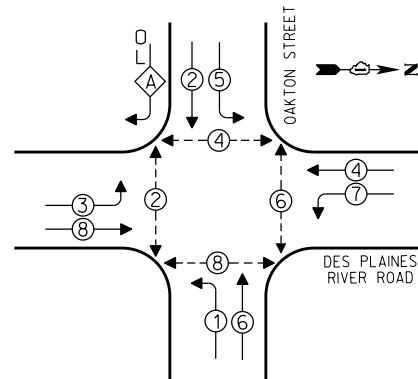
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL 83 (ELMHURST ROAD) AT IL 83 (OAKTON ST)

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	51
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

**SAM SCHWARTZ
ENGINEERING**
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

CONTROLLER SEQUENCE



- ① REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

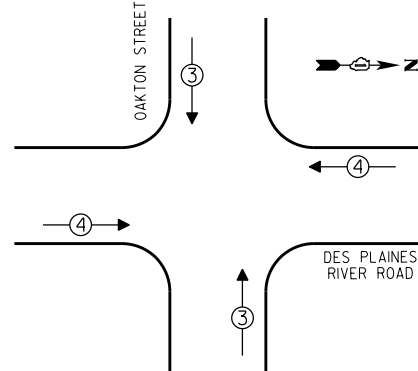
LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

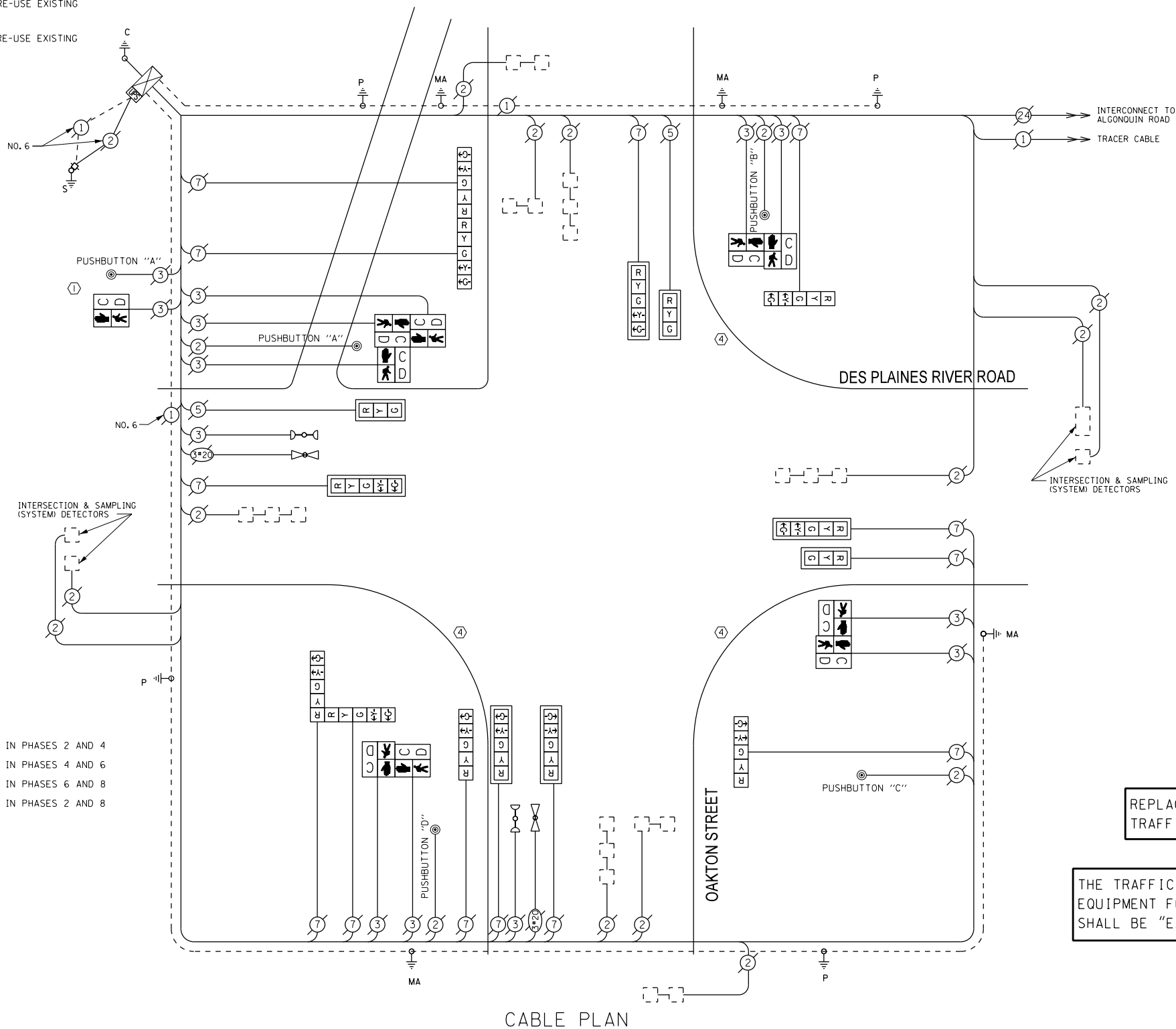
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↕	↔

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
1	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	PEDESTRIAN SIGNAL HEAD, LED, 3-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
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
8	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 5-SECTION
3	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 3-FACE
5	EACH	PEDESTRIAN PUSHBUTTON
8	EACH	TRAFFIC SIGNAL BACKPLATE

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	14	17	0.50		119.00
(YELLOW)	14	25	0.25		87.50
(GREEN)	14	15	0.25		52.50
ARROW	24	12	0.10		28.80
PED. SIGNAL	10	25	1.00		250.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN		25	0.05		
LUMINAIRE		250	0.50		
VIDEO SYSTEM		150	1.00		
FLASHER			0.50		
ENERGY COSTS TO:				TOTAL =	637.80

VILLAGE OF DES PLAINES
 1420 MINER STREET
 DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
 PHONE: (630) 437-2129
 COMPANY:



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

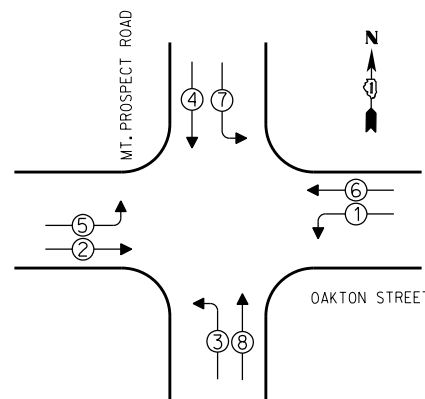
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, DES PLAINES RIVER ROAD AT OAKTON STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	52
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

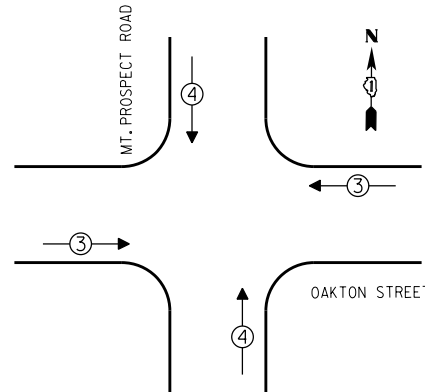


CONTROLLER SEQUENCE

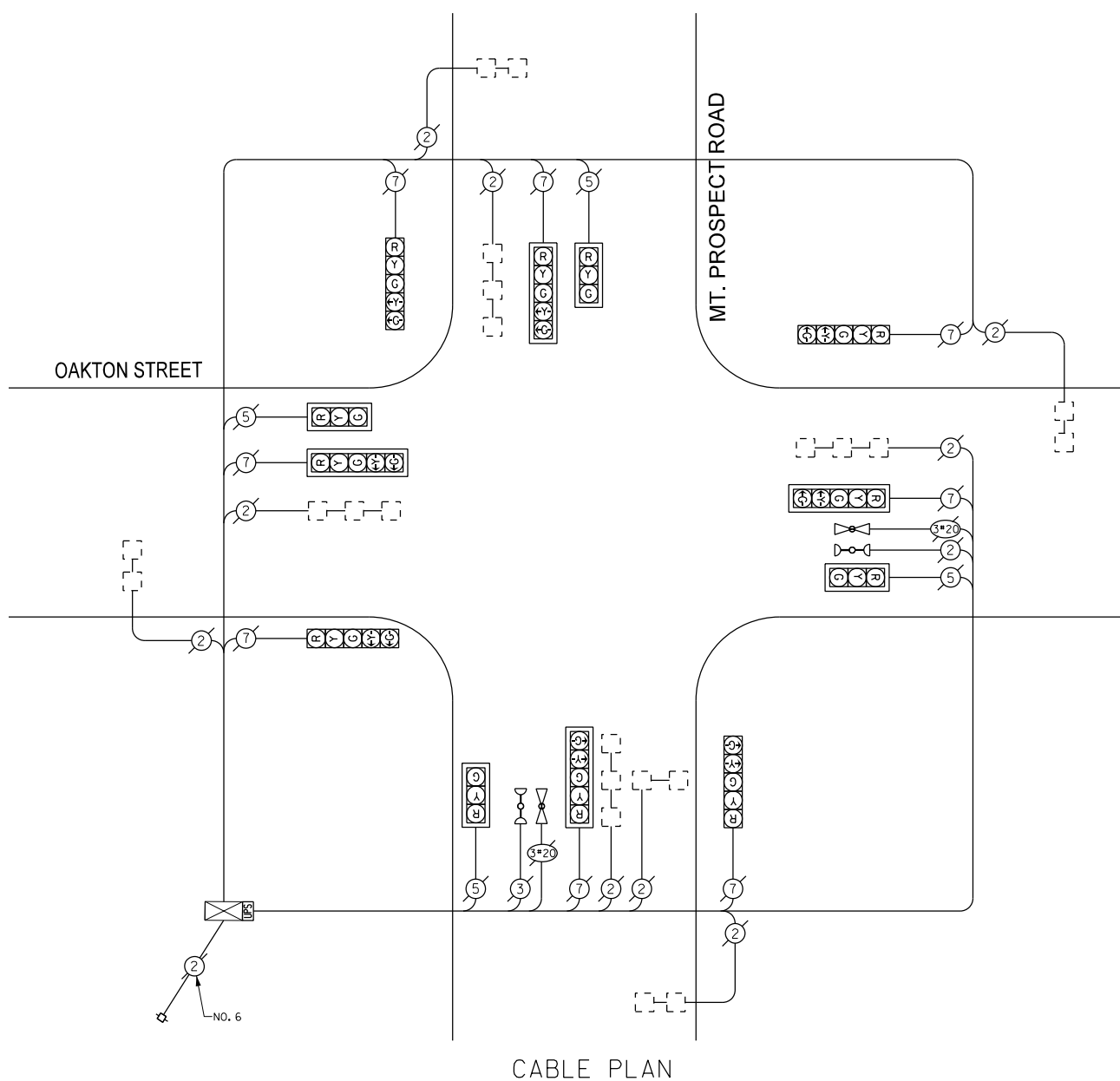


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	341.20

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
OAKTON STREET AT MT. PROSPECT ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

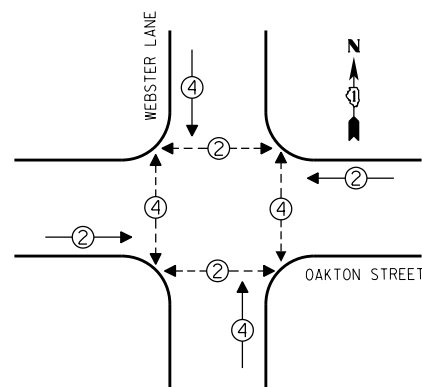
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	53
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT

**SAM SCHWARTZ
ENGINEERING**
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

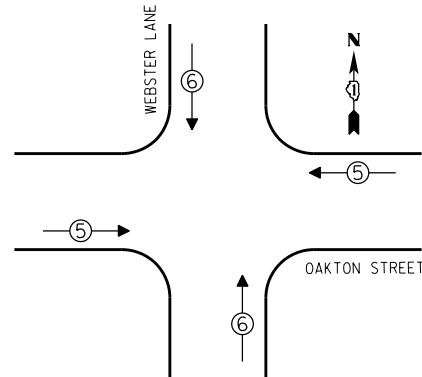


CONTROLLER SEQUENCE

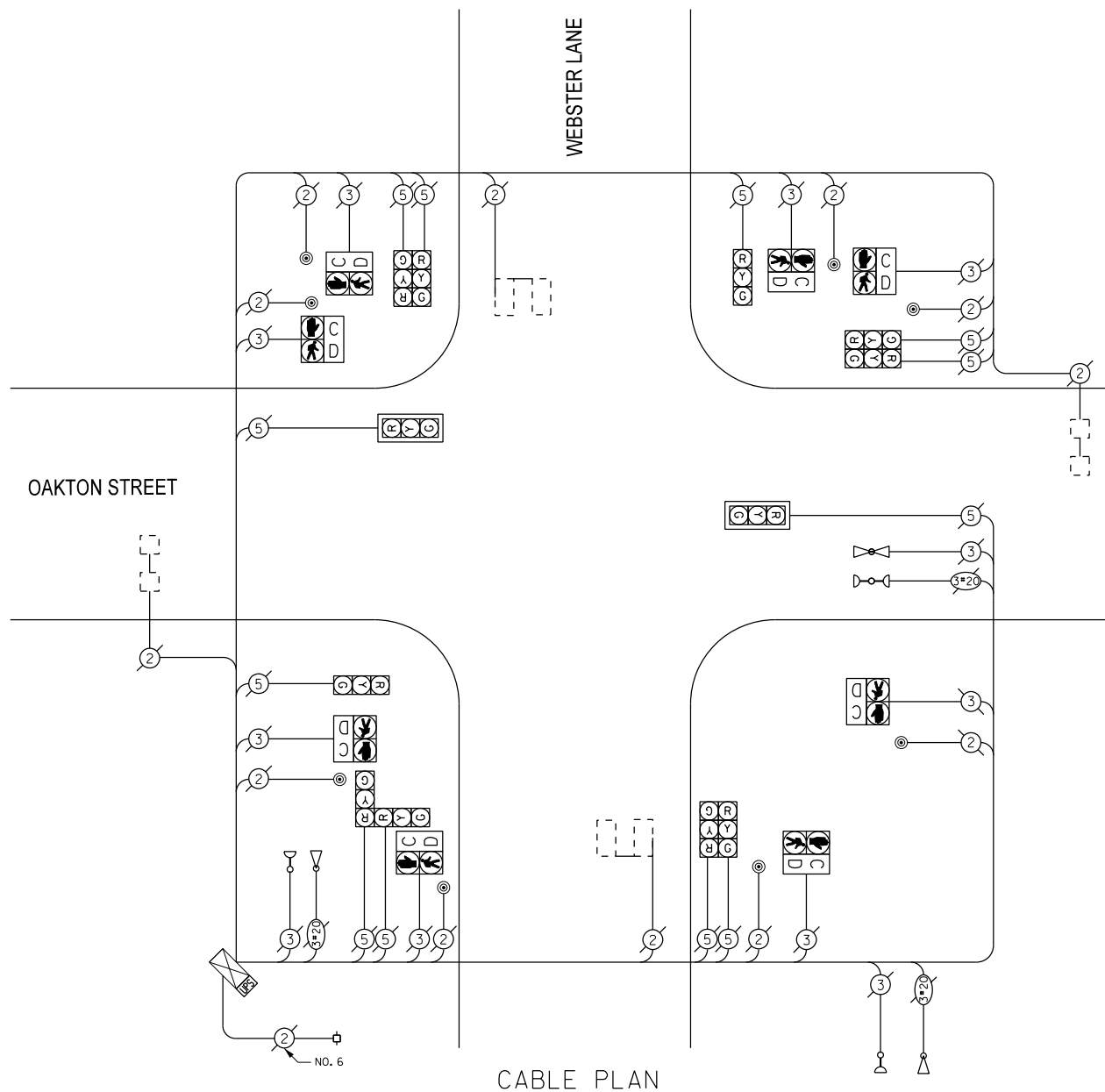


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	5	6
MOVEMENT	↔	↕



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW		12	0.10	
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 522.00

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
8	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, OAKTON STREET AT WEBSTER LANE

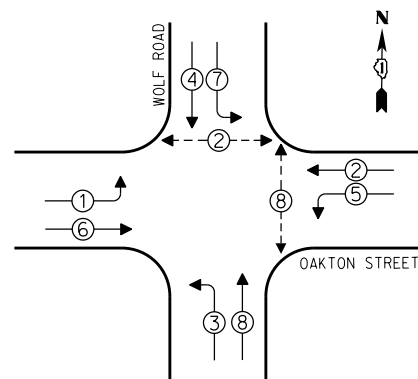
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	54
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



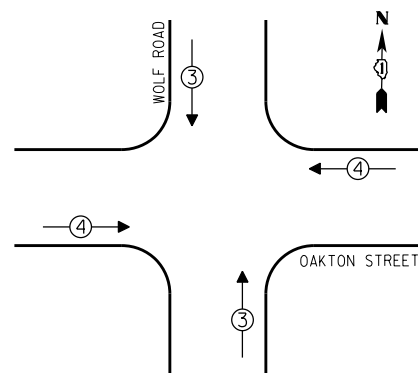
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

CONTROLLER SEQUENCE

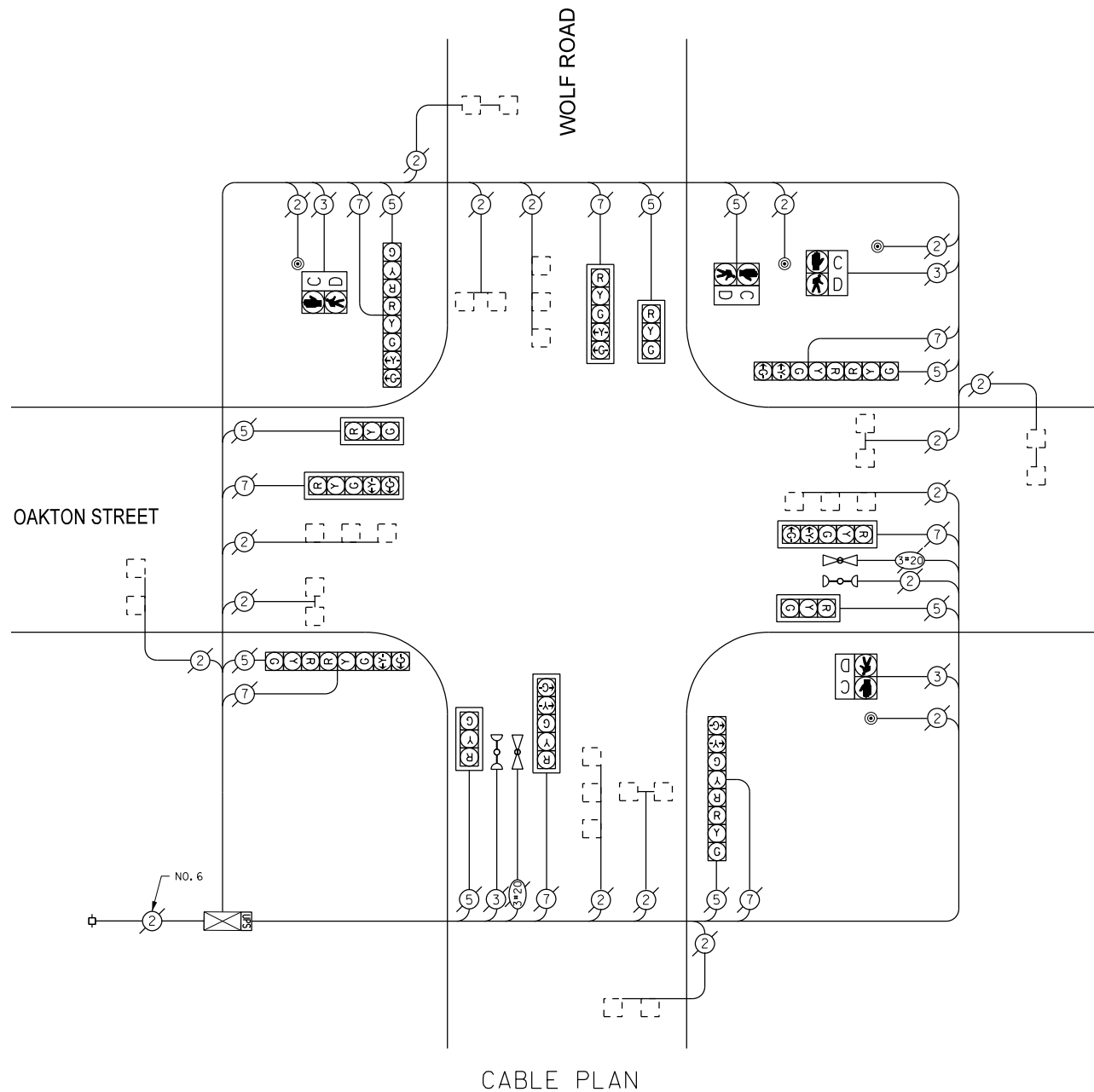


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE	
		INCAND	LED X % OPERATIONS		
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	515.20

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
OAKTON STREET AT WOLF ROAD

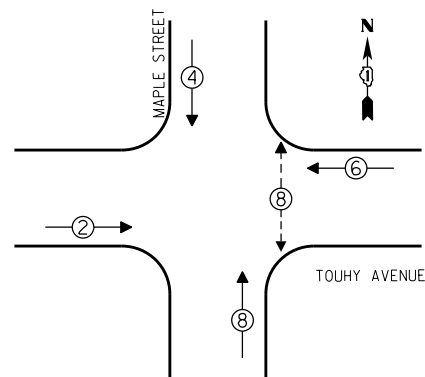
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	55
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

**SAM SCHWARTZ
ENGINEERING**
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



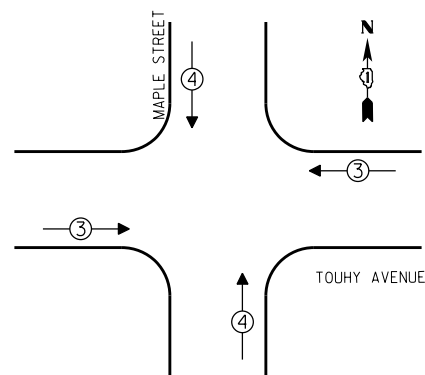
CONTROLLER SEQUENCE



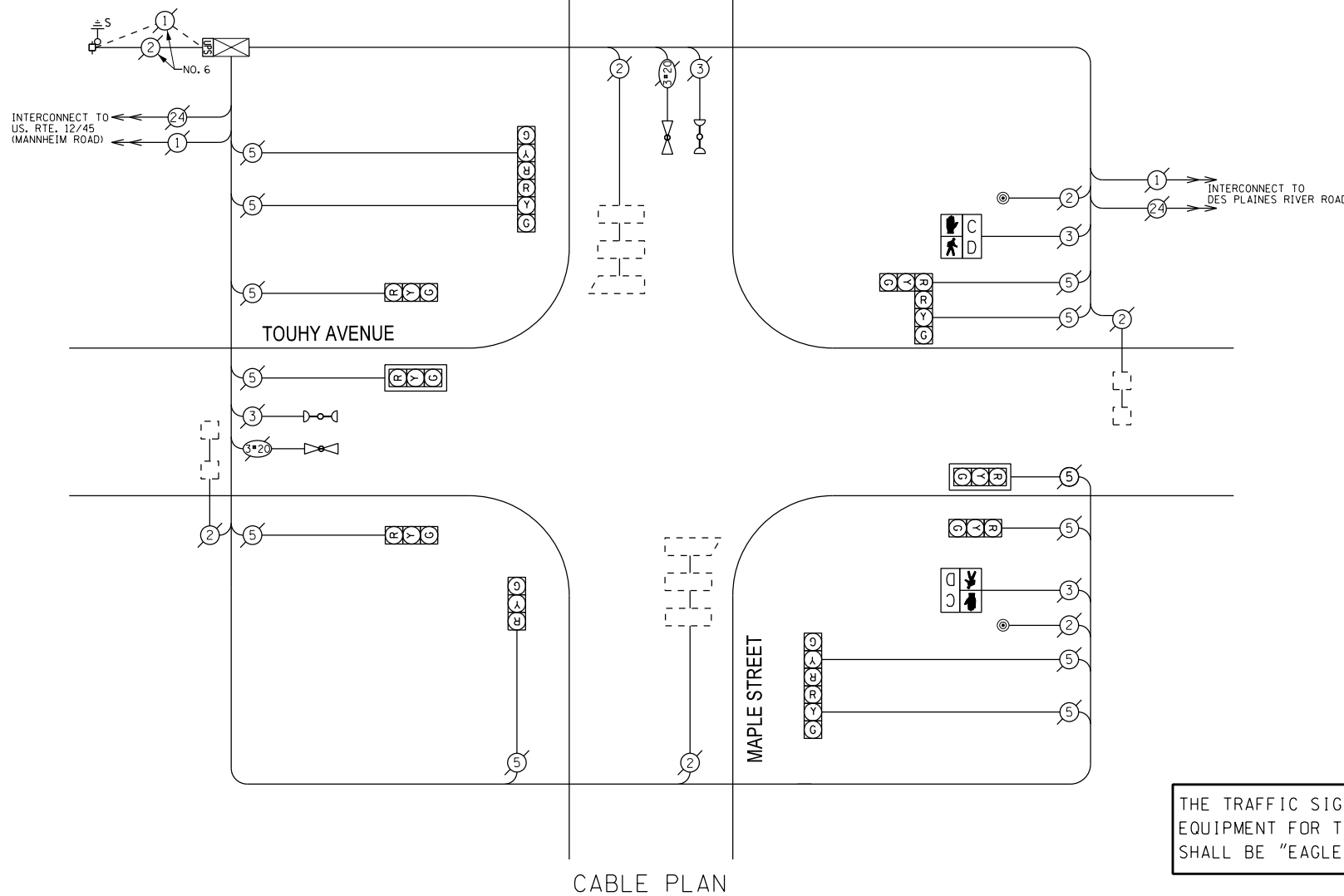
PHASE DESIGNATION DIAGRAM

- LEGEND**
- ① SINGLE ENTRY PHASE
 - ② DUAL ENTRY PHASE
 - ③ OVERLAP
 - ④ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW			12	0.10	
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	372.00

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
2	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

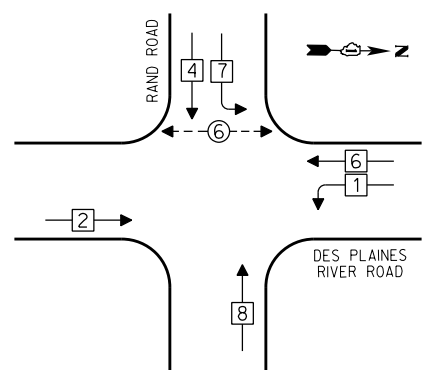
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, TOUHY AVENUE AND MAPLE STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	56
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

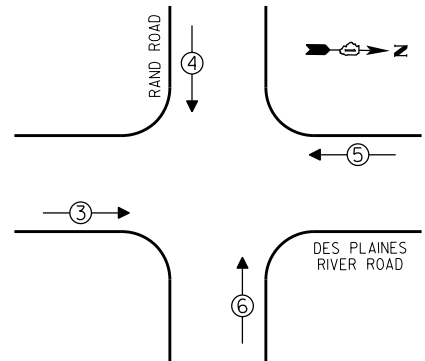
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

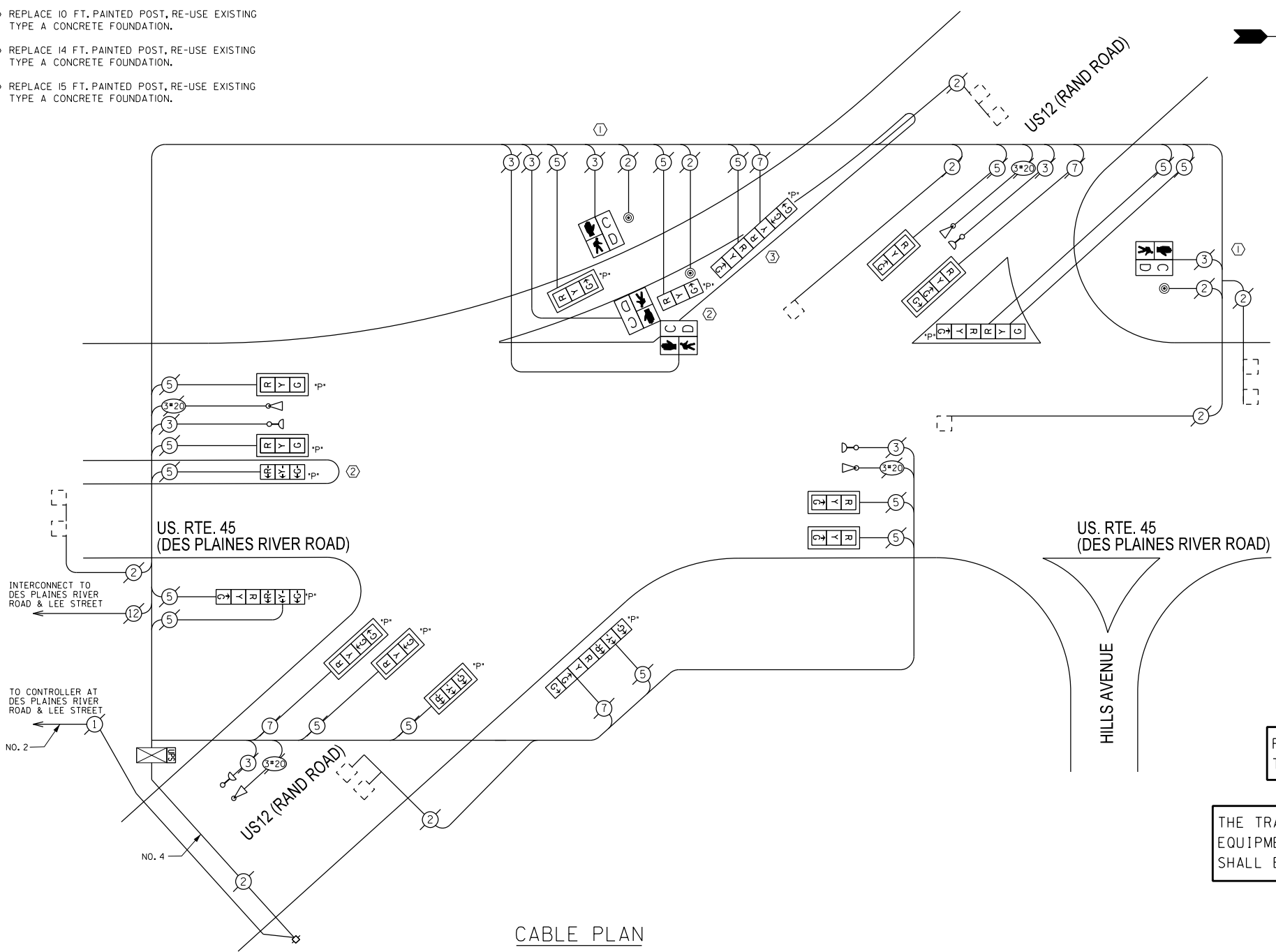
LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↘	↙	↑

- ① REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED % OPERATIONS		
SIGNAL (RED)	20	17	0.50	170.00	
(YELLOW)	20	25	0.25	125.00	
(GREEN)	24	15	0.25	90.00	
ARROW		12	0.10		
PED. SIGNAL	4	25	1.00	100.00	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN		25	0.05		
LUMINAIRE		250	0.50		
VIDEO SYSTEM		150	1.00		
FLASHER			0.50		
ENERGY COSTS TO:				TOTAL =	585.00

VILLAGE OF Des Plaines
 1420 Miner Street
 Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
5	EACH	TRAFFIC SIGNAL POST
10	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 4-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-4 SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	PEDESTRIAN PUSH-BUTTON
10	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
2	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
5	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
1	EACH	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED
2	EACH	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-4 SECTION, BRACKET MOUNTED
1	EACH	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-4 SECTION, BRACKET MOUNTED
1	EACH	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-3 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
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
3	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

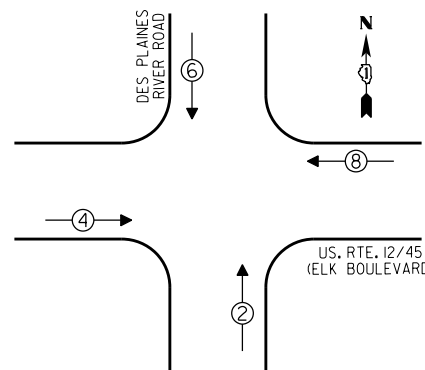
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, DES PLAINES RIVER ROAD AT RAND ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	57
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

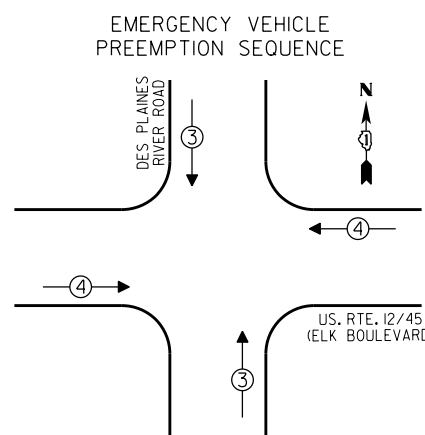


CONTROLLER SEQUENCE



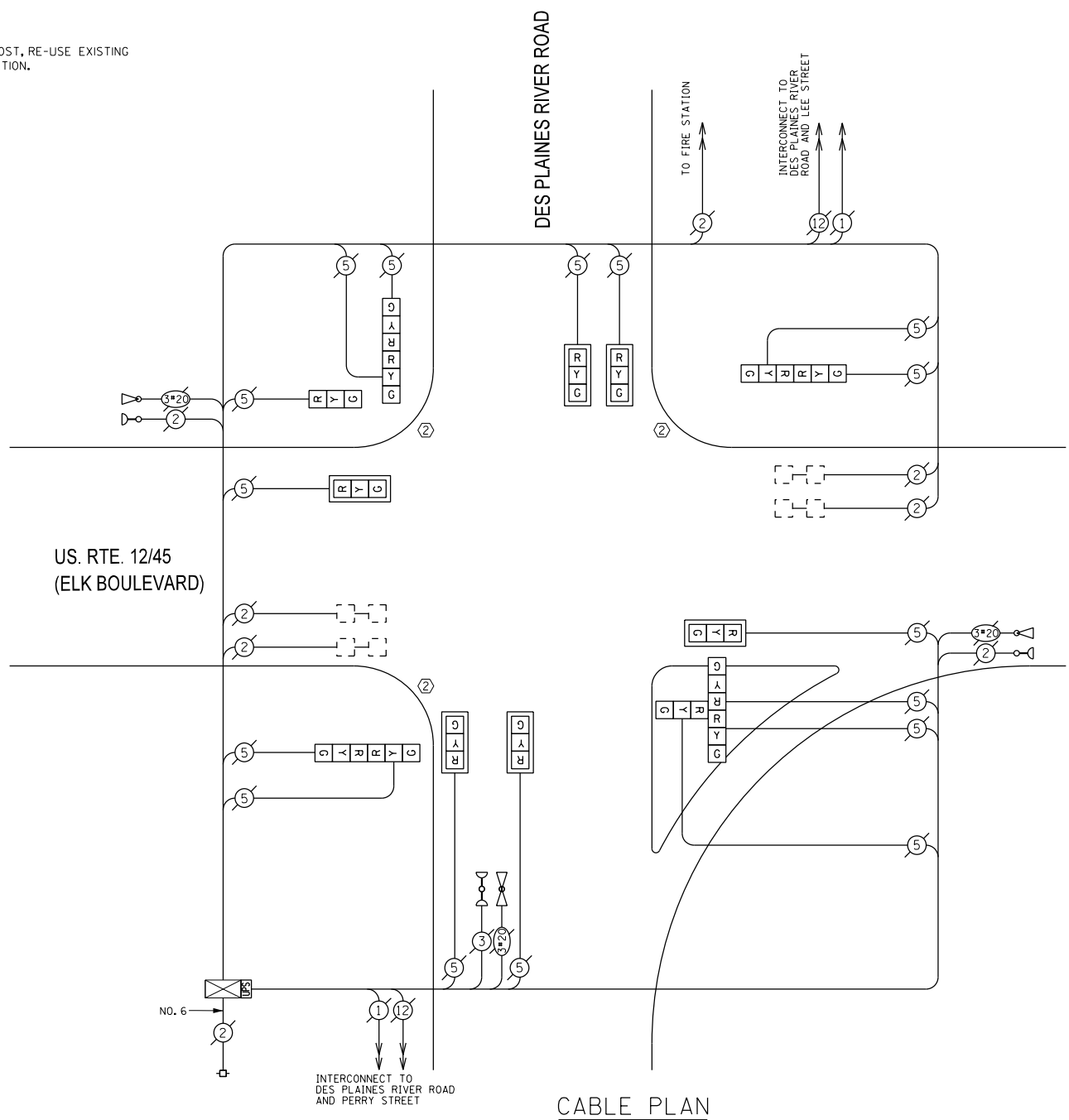
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



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

② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW		12	0.10	
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 396.00

VILLAGE OF Des Plaines
1420 Miner Street
Des Plaines, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: Dave Schacht
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	TRAFFIC SIGNAL POST
7	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
3	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 3-FACE, 3-SECTION
6	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
6	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, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
6	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

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

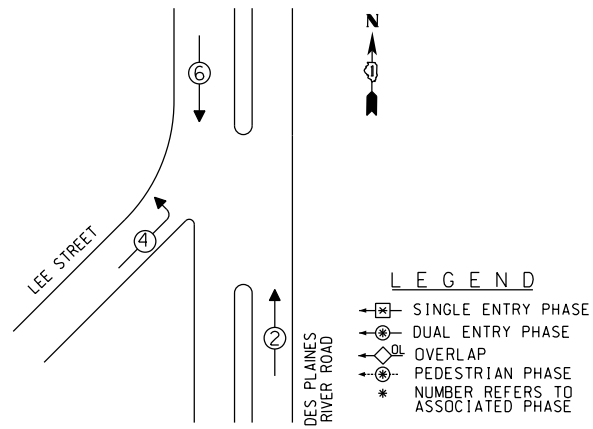
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US. RTE. 12/45 (ELK BOULEVARD) AND DES PLAINES RIVER ROAD**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

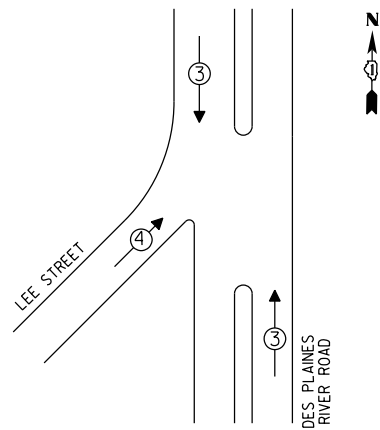
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	58
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



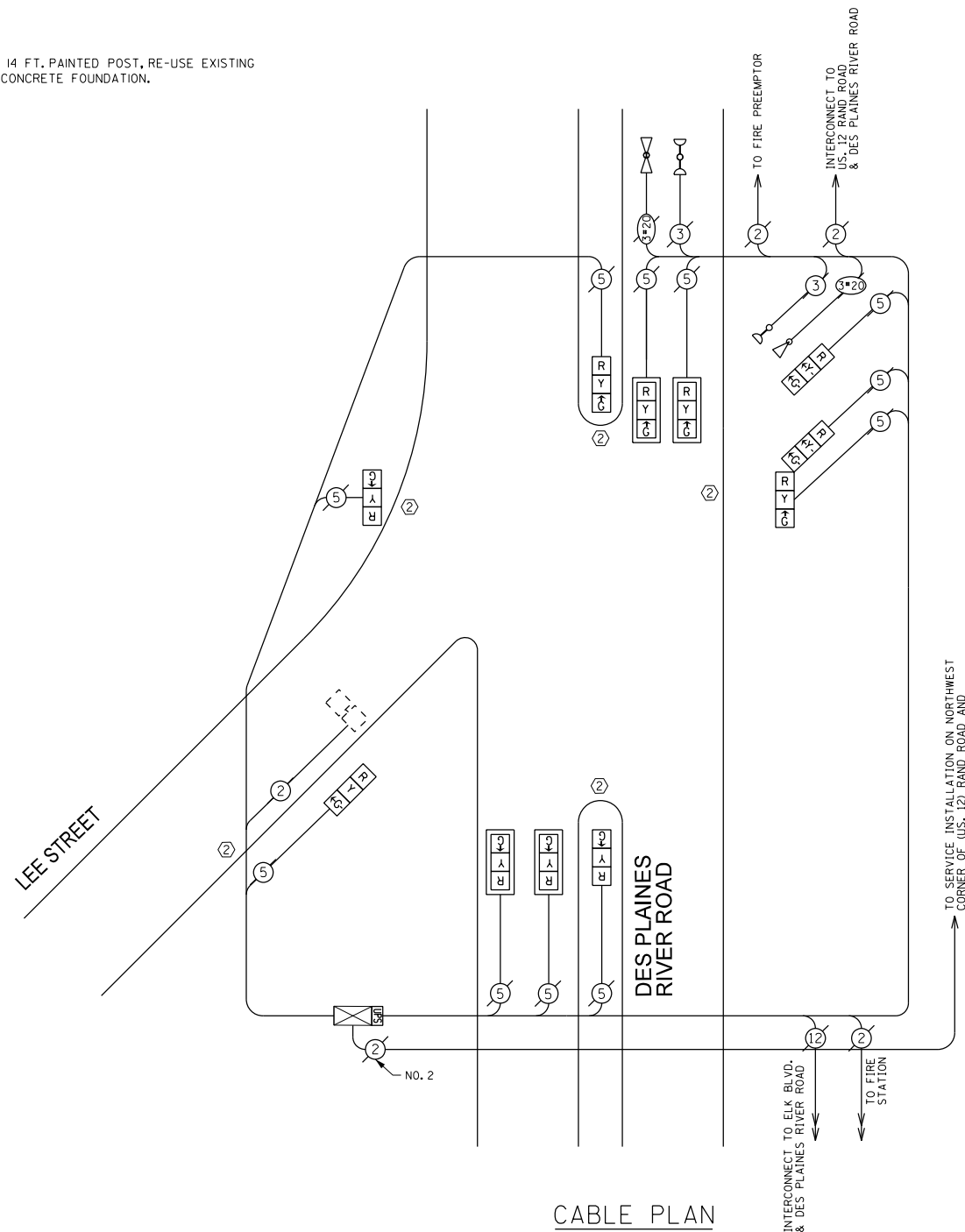
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↕	→

② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	11	17	0.50	93.50
(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	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 303.50

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
5	EACH	TRAFFIC SIGNAL POST
9	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

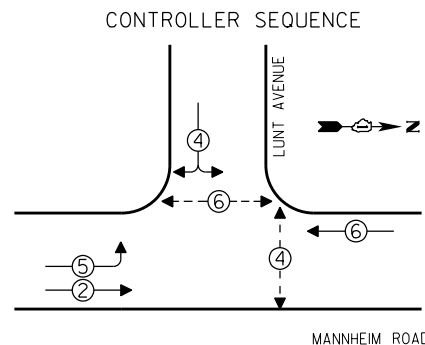
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
LEE STREET AND DES PLAINES RIVER ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	59
				CONTRACT NO. 60X15

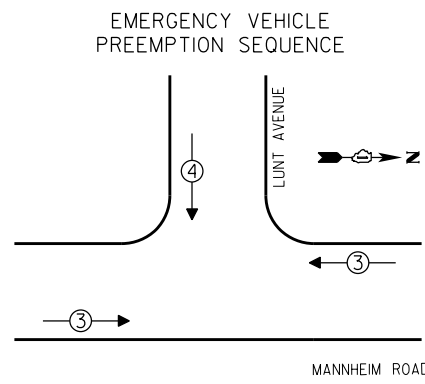
ILLINOIS FED. AID PROJECT

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

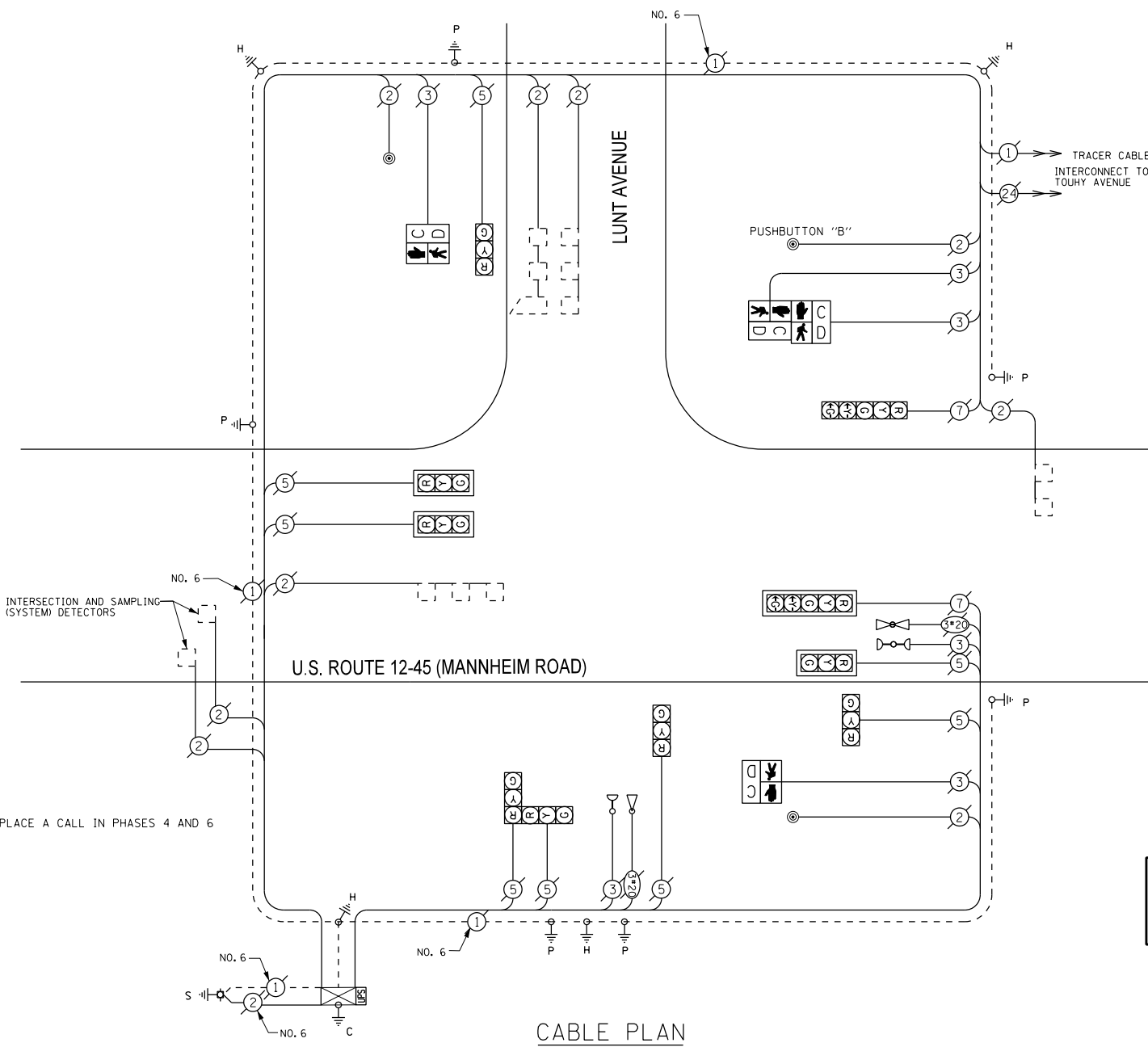


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	10		17	0.50	85.00
(YELLOW)	10		25	0.25	62.50
(GREEN)	10		15	0.25	37.50
ARROW	4		12	0.10	4.80
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	389.80

VILLAGE OF DES PLAINES
 1420 MINER STREET
 DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
 PHONE: (630) 437-2129
 COMPANY:



NOTE:
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

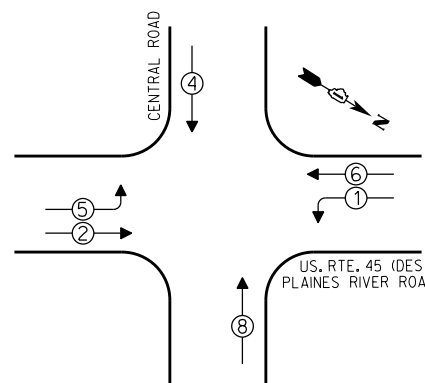
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 US ROUTE 12/45 (MANNHEIM ROAD) AND LUNT AVENUE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	60
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

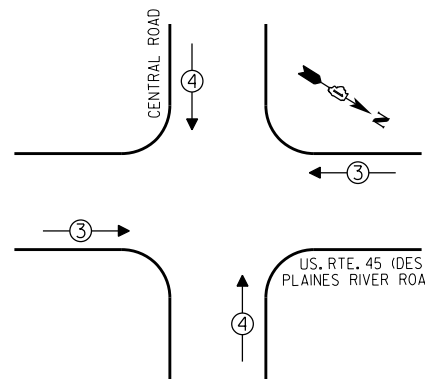
CONTROLLER SEQUENCE



LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

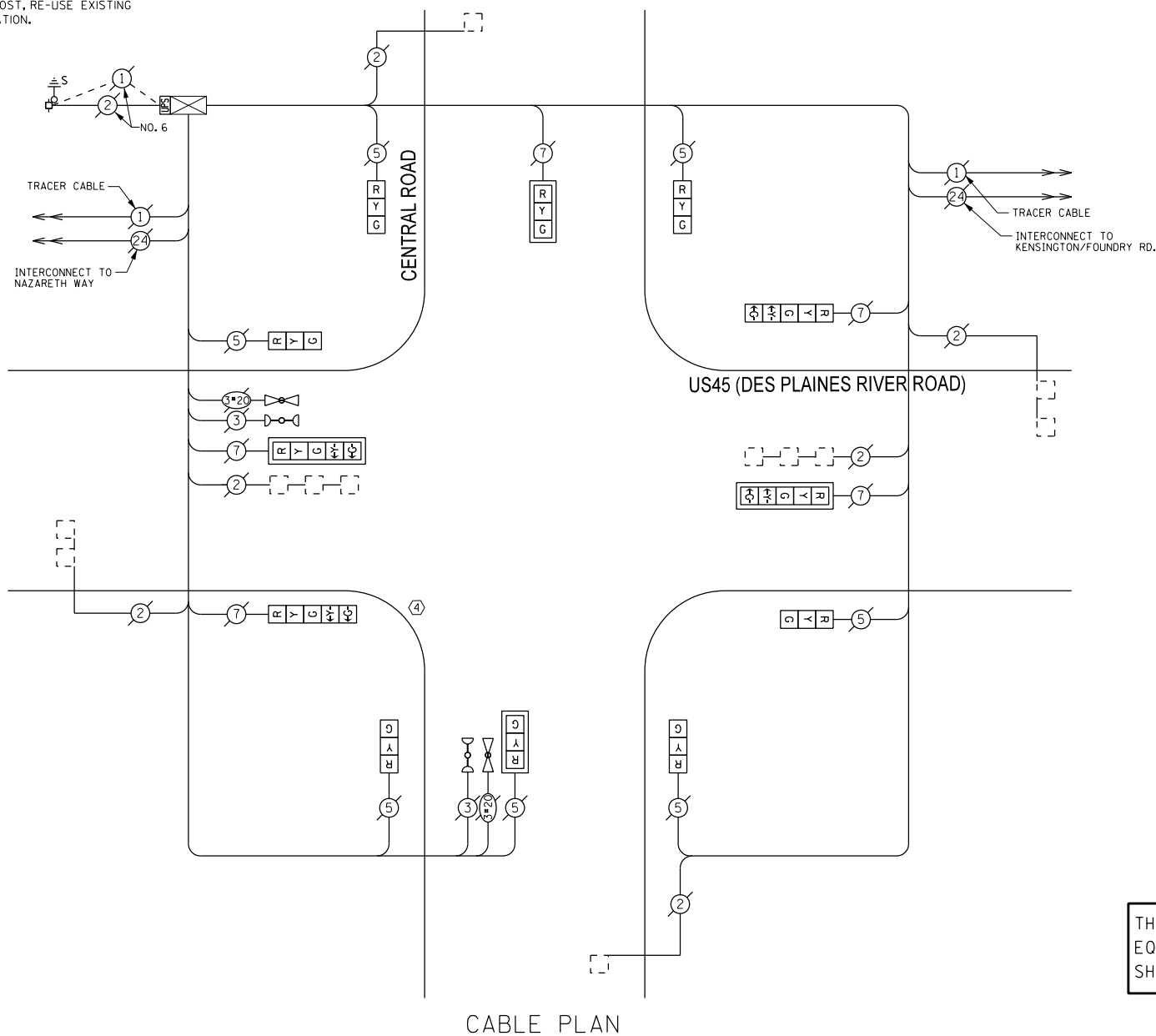
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED %	OPERATIONS	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	331.60

VILLAGE OF DES PLAINES
 1420 MINER STREET
 DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
1	EACH	TRAFFIC SIGNAL POST
8	EACH	SIGNAL HEAD, I-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, I-FACE, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED
6	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED
4	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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 US. RTE. 45 (DES PLAINES RIVER ROAD) AND CENTRAL ROAD

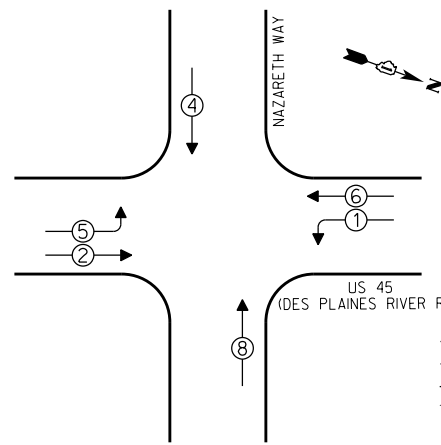
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	61
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

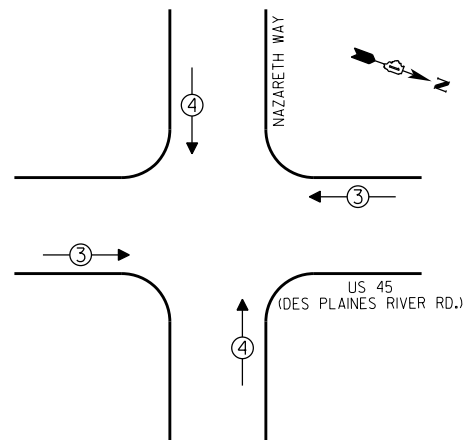
CONTROLLER SEQUENCE



- LEGEND**
- |— SINGLE ENTRY PHASE
 - |— DUAL ENTRY PHASE
 - |— OVERLAP
 - |— PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE

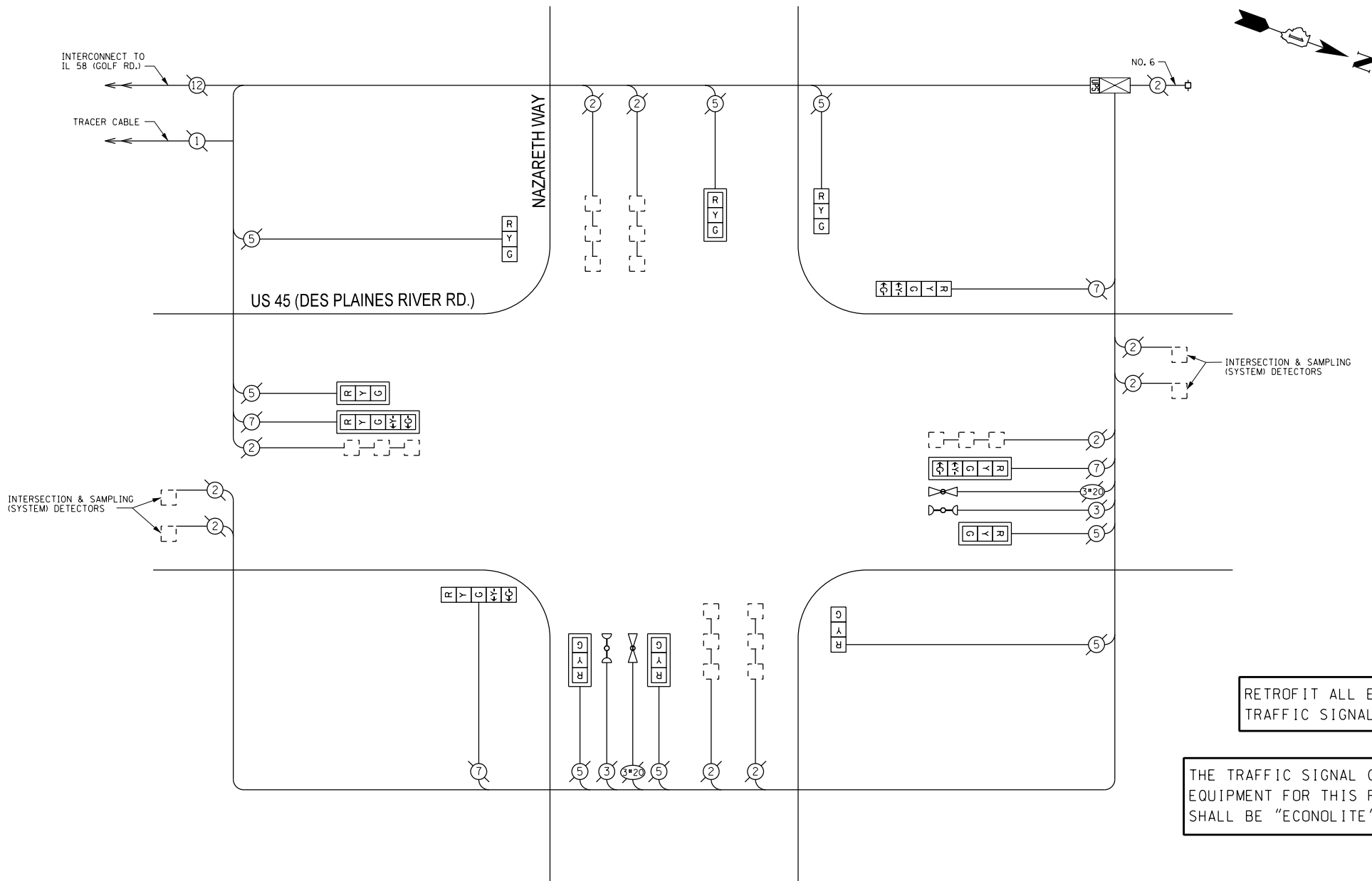


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	331.60

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
5	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

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US 45 (DES PLAINES RIVER ROAD) AT NAZARETH WAY

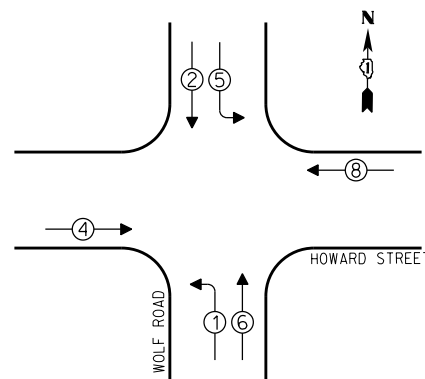
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	62
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



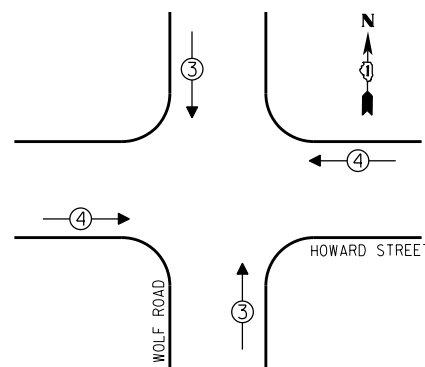
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

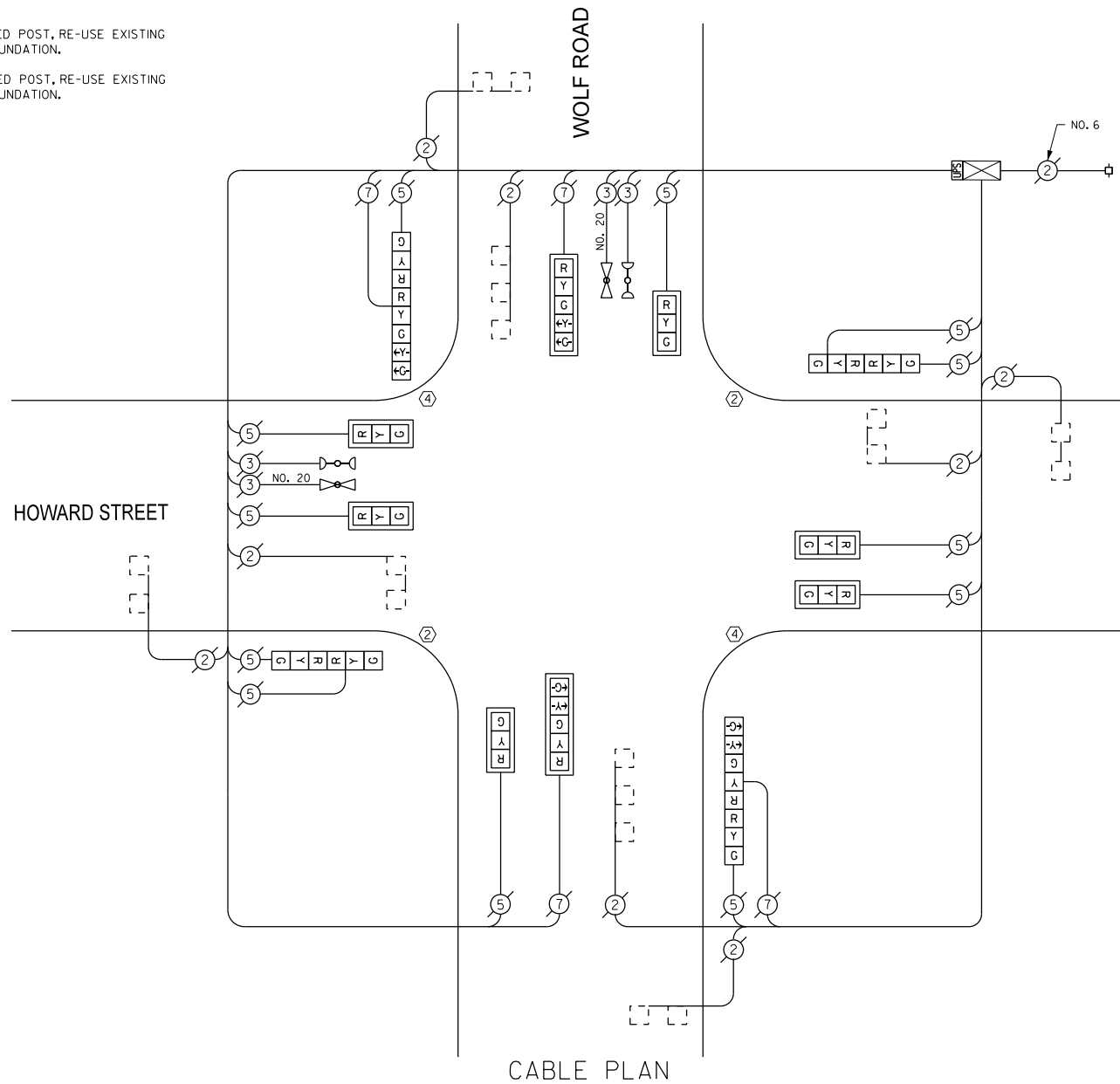
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

- ② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	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
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

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	8		12	0.10	9.60
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	405.60

VILLAGE OF DES PLAINES
1420 MINER STREET
DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY:

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

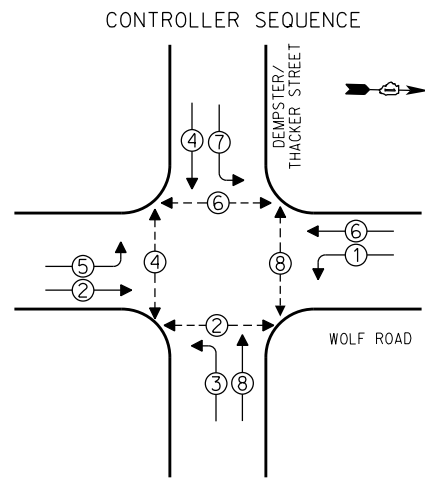
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
HOWARD STREET AT WOLF ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

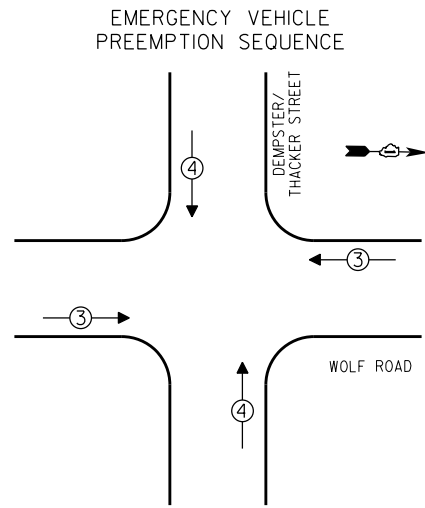
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	63
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				

**SAM SCHWARTZ
ENGINEERING**
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

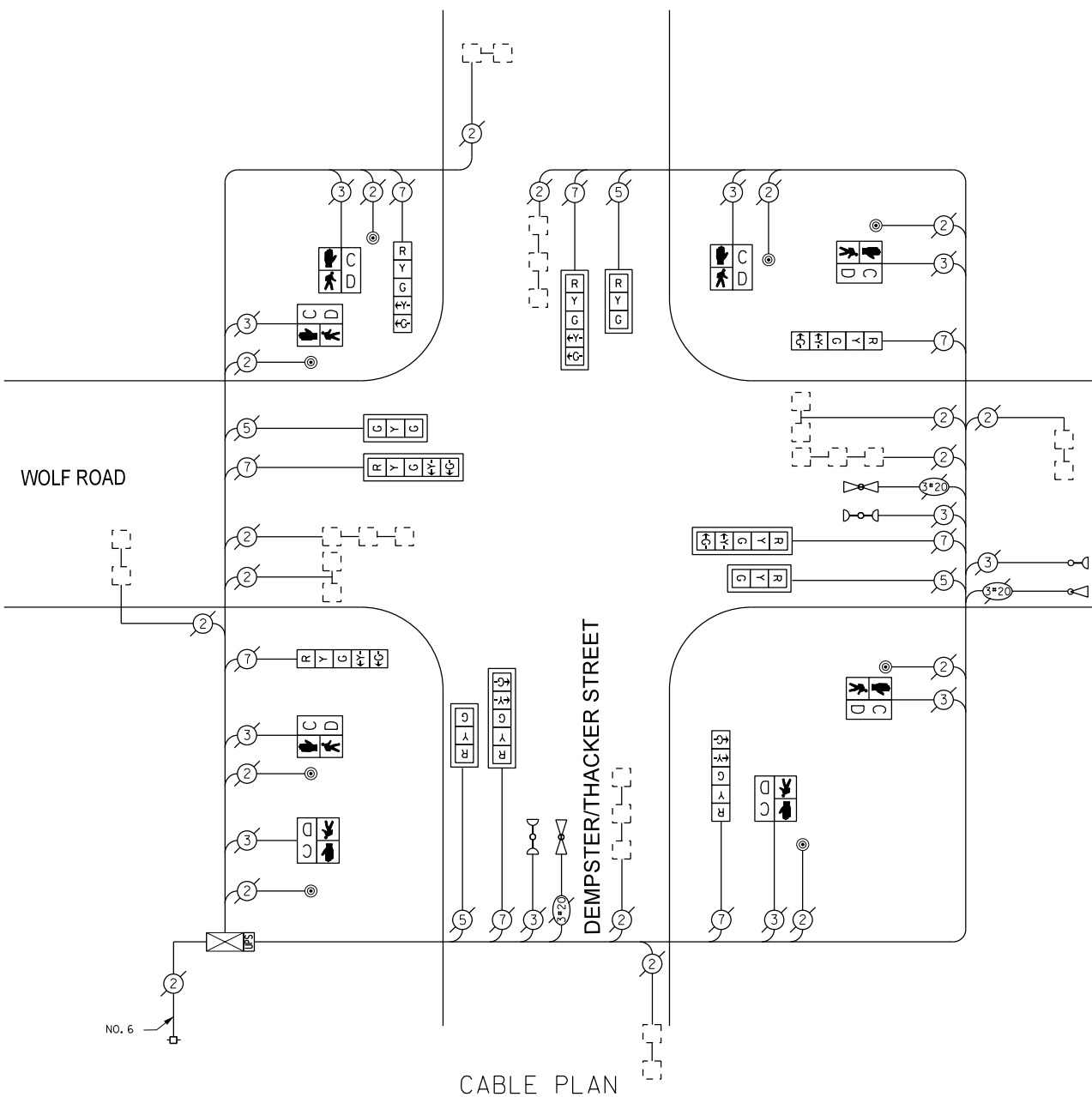


LEGEND
 - SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	541.20

VILLAGE OF DES PLAINES
 1420 MINER STREET
 DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
8	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
8	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-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
4	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

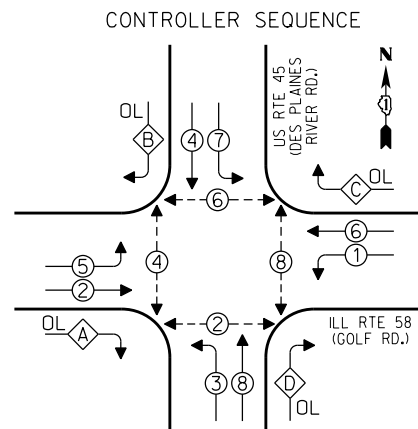
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 WOLF ROAD AND DEMPSTER/THACKER STREET**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

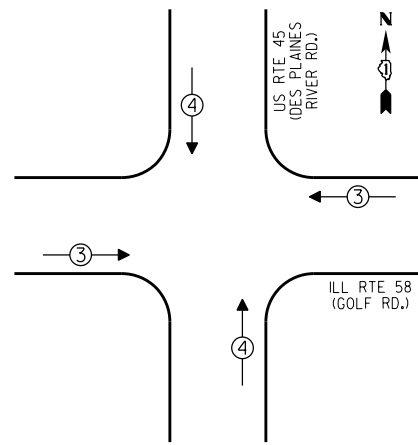
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	64
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



PHASE DESIGNATION DIAGRAM

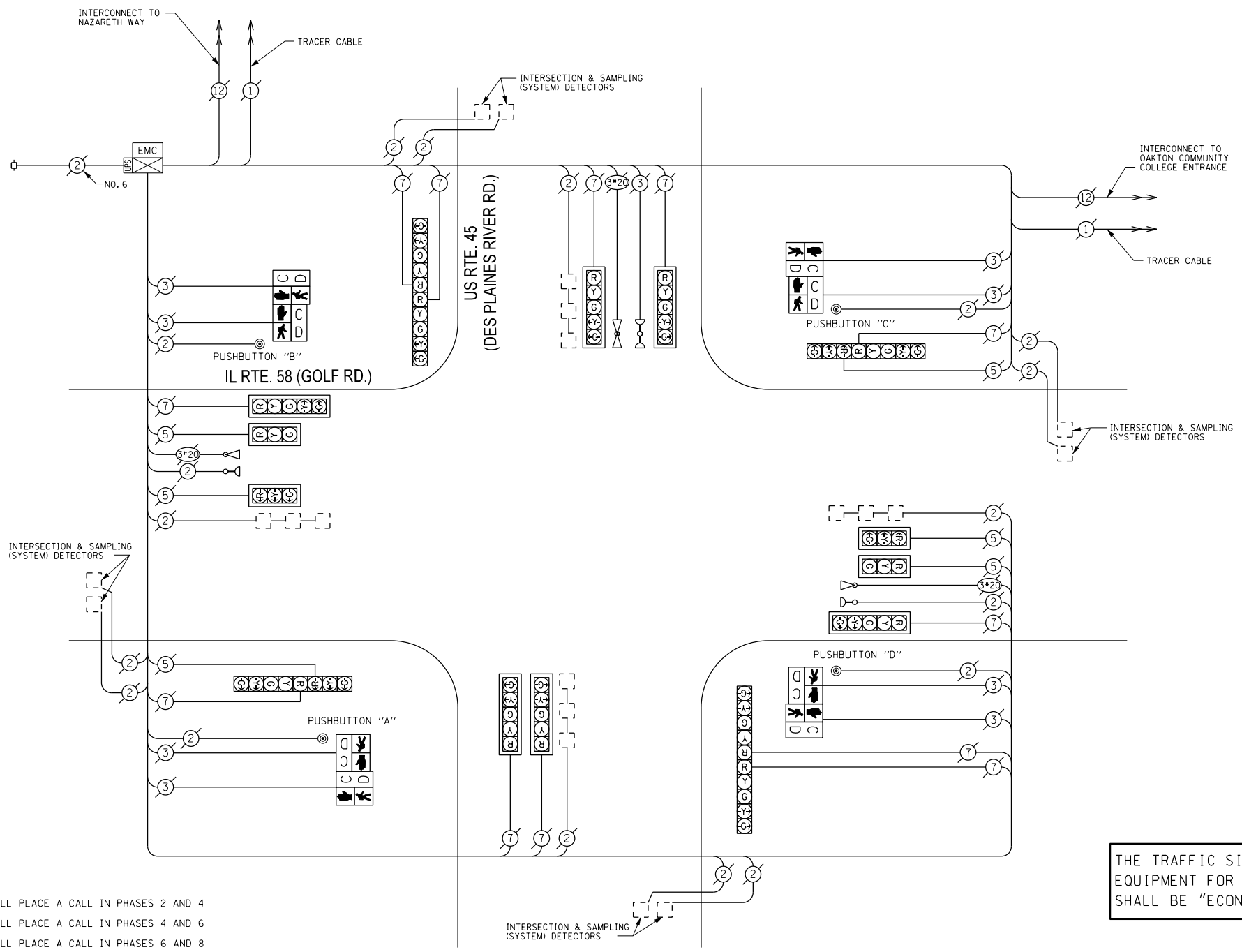
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A =	2	+ 3
B =	4	+ 5
C =	6	+ 7
D =	8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	18	17	0.50	153.0
(YELLOW)	18	25	0.25	112.5
(GREEN)	18	15	0.25	67.5
ARROW	26	12	0.10	31.2
PED. SIGNAL	8	25	1.00	200.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN		25	0.05	
LUMINAIRE	8	250	0.50	1000.0
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 1664.2

VILLAGE OF DES PLAINES
 1420 MINER STREET
 DES PLAINES, ILLINOIS 60016

ENERGY SUPPLY - CONTACT: DAVE SCHACHT
 PHONE: (630) 437-2129
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

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

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

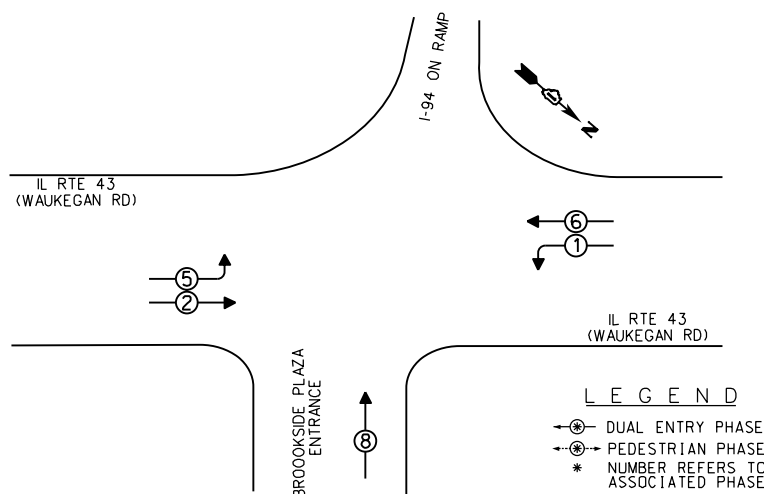
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, U.S. RTE 45 (DES PLAINES RIVER ROAD) AT ILL RTE 58 (GOLF ROAD)

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	65

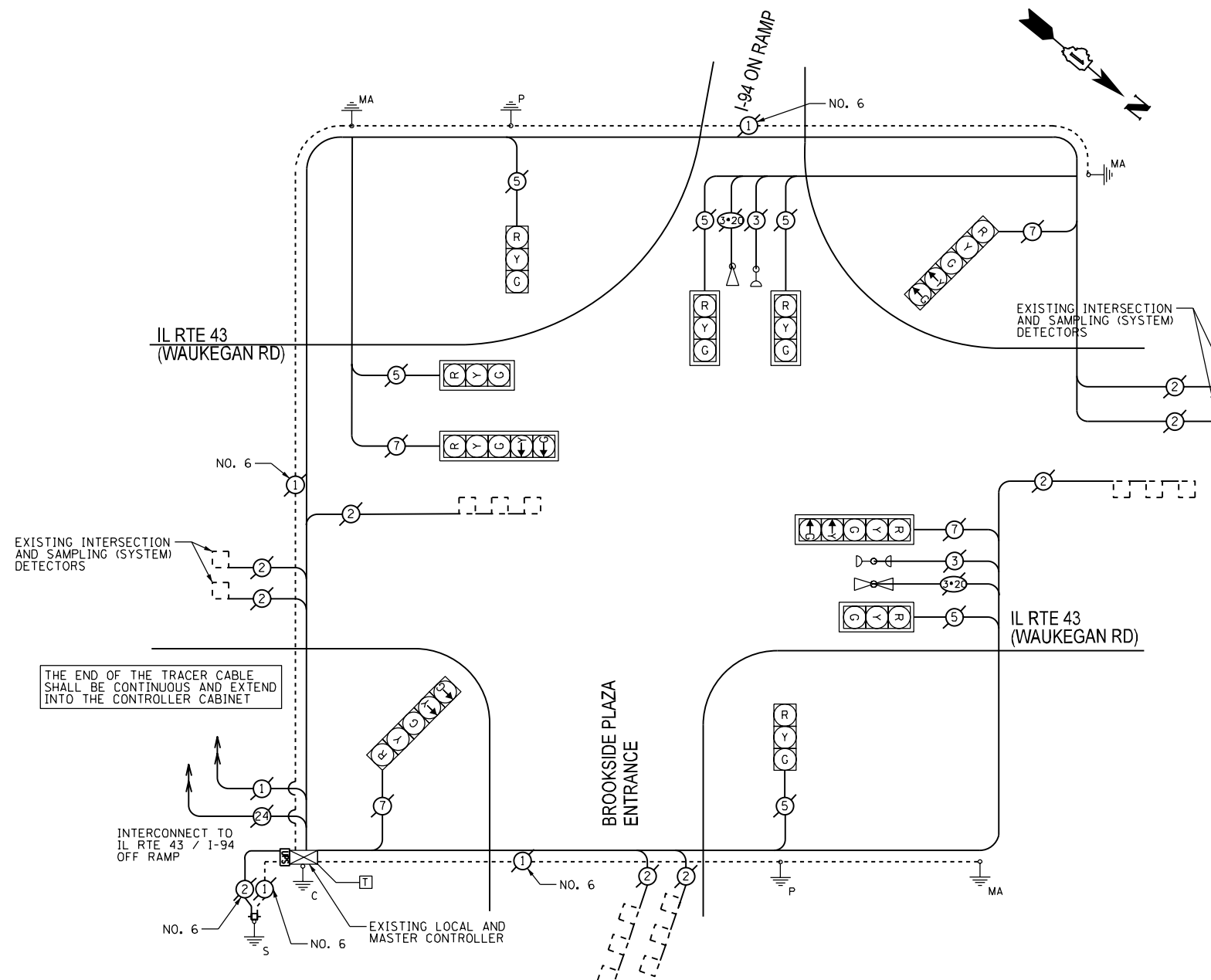
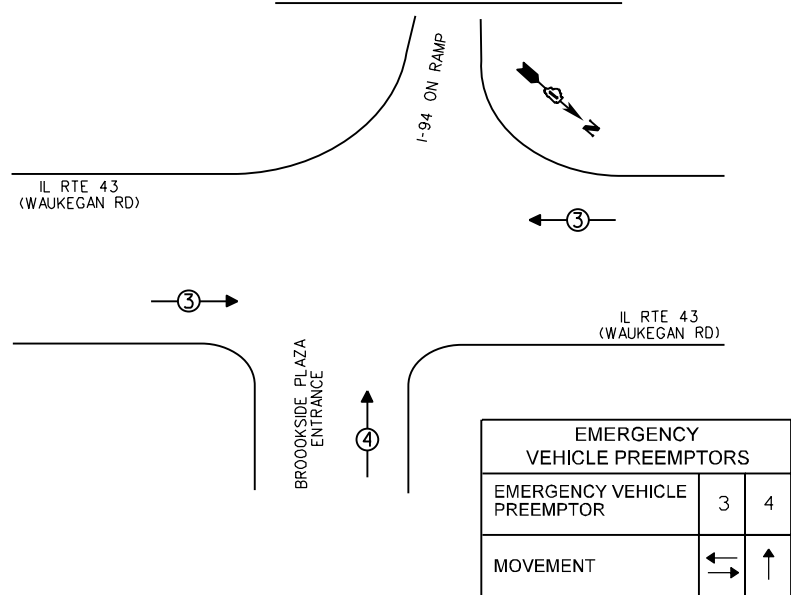
CONTRACT NO. 60X15
 ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

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

NOTE:

DUE TO DOUBLE HANDHOLE ON THE RIGHT SIDE OF THE CONTROLLER CABINET, UPS SHALL BE INSTALLED ON THE LEFT.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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 USER = JNP
 DATE = 10/22/2013

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	10	17	0.50	85.00
(YELLOW)	10	25	0.25	62.50
(GREEN)	10	15	0.25	37.50
ARROW	8	12	0.10	9.60
PED. SIGNAL	--	25	1.00	--
CONTROLLER	1	100	1.00	100.00
ENERGY COSTS TO:				TOTAL = 294.60

VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
PHONE: (847) 816-5239
COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
630.705.0110 voice, 630.839.2566 fax
www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

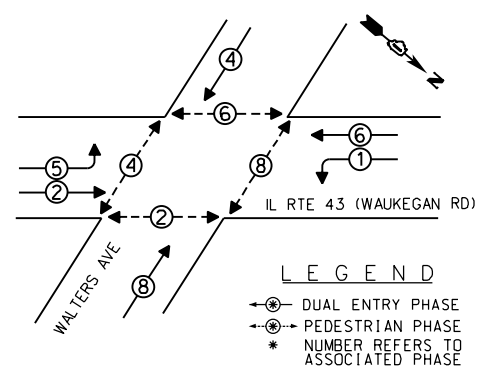
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 43 (WAUKEGAN ROAD) AT I-94 ON RAMP

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	66
CONTRACT NO. 60X15				

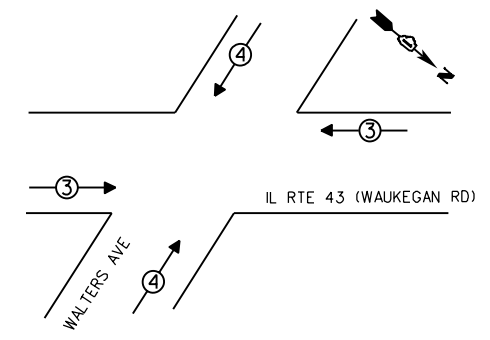
FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

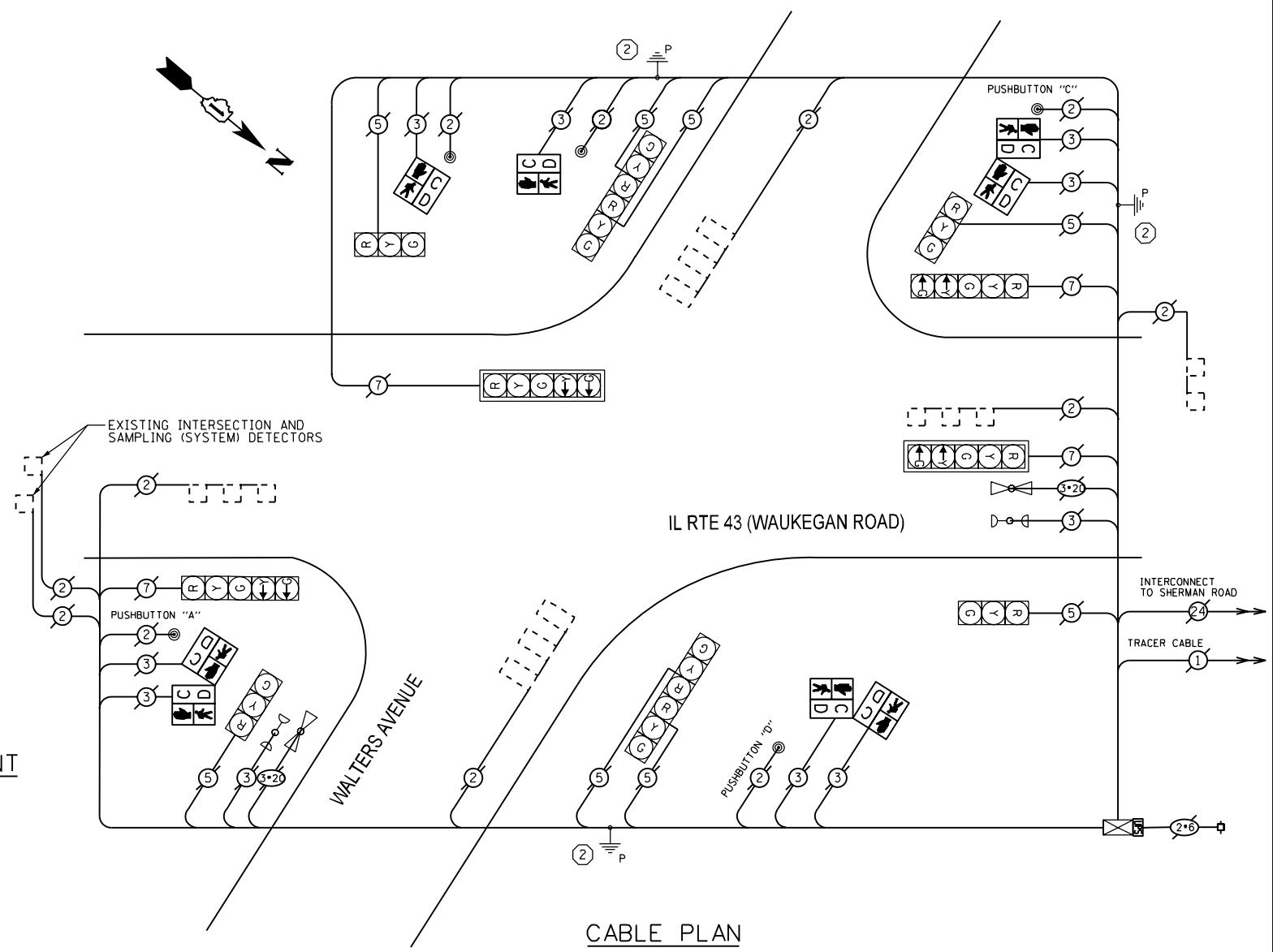
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	TRAFFIC SIGNAL POST
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
3	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
5	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
5	EACH	PEDESTRIAN PUSH-BUTTON, NON LATCHING



NOTE:

PUSHBUTTON "A" SHALL PLACE A CALL TO PHASES 2 & 4
 PUSHBUTTON "C" SHALL PLACE A CALL TO PHASES 6 & 8
 PUSHBUTTON "D" SHALL PLACE A CALL TO PHASES 2 & 8

② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME = F:\2012\ME12014.PTBI62.1B.Schwarz\CADD\W06.North.Cook.LED\Shts\60X15-sht-TS-WaukeganRd.WaltersAve.dgn
 USER = M11terria Professional Services
 PLOT DATE = 10/22/2013 10:41:49 AM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 531.60

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
 PHONE: (847) 816-5239
 COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

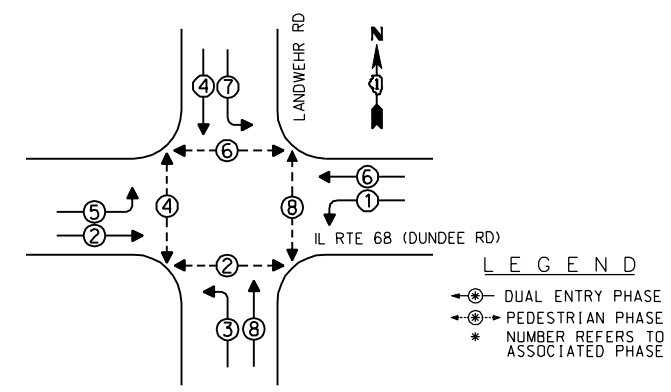
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
IL RTE 43 (WAUKEGAN ROAD) AT WALTERS AVENUE			
SCALE: -N/A	SHEET OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

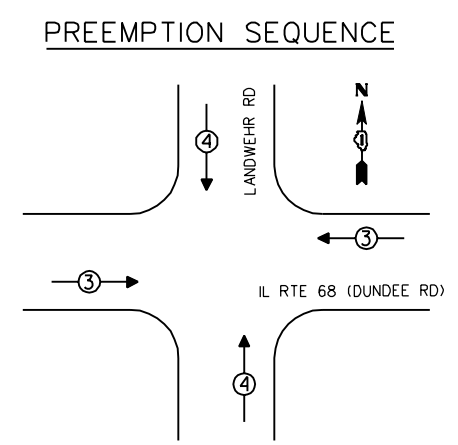
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	68
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

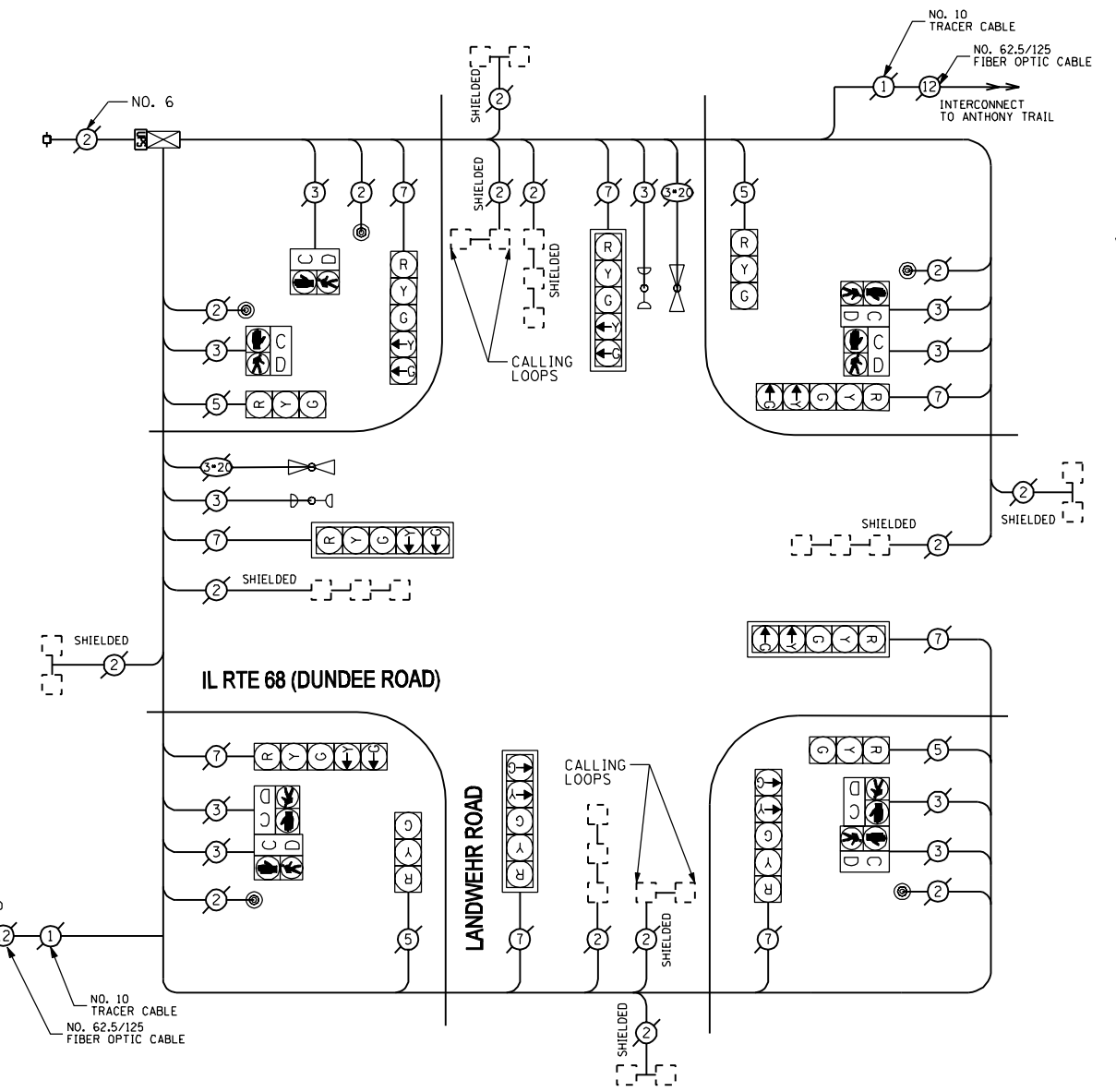
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME : F:\2012\ME12014_PTB162_18_Schwertz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-DundeeRd.LandwehrRd.dgn
 USER : M1111111111
 DATE : 10/11/2013

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12		17 0.50	102.00
(YELLOW)	12		25 0.25	75.00
(GREEN)	12		15 0.25	45.00
ARROW	16		12 0.10	19.20
PED. SIGNAL	8		25 1.00	200.00
CONTROLLER	1		100 1.00	100.00
ENERGY COSTS TO:				TOTAL = 541.20
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062				
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED				

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 630.705.0110 voice, 630.839.3566 fax
 www.mps-il.com
MILLENNIA PROFESSIONAL SERVICES

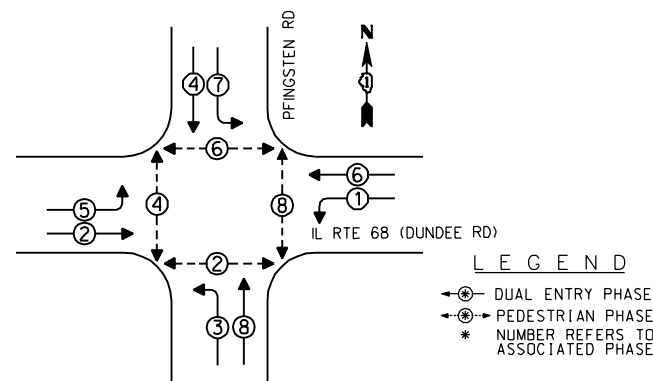
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE ROAD) AT LANDWEHR ROAD
 SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	70
CONTRACT NO. 60X15				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

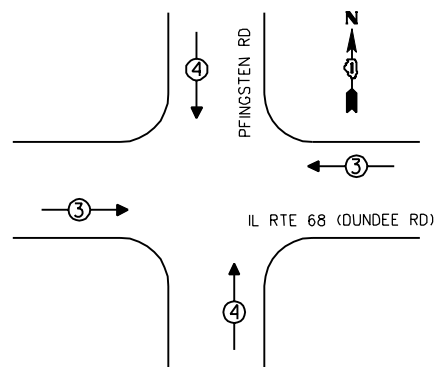
EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING 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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED X % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	16		17 0.50	136.00
(YELLOW)	16		25 0.25	100.00
(GREEN)	16		15 0.25	60.00
ARROW	16		12 0.10	19.20
PED. SIGNAL	8		25 1.00	200.00
CONTROLLER	1		100 1.00	100.00
ENERGY COSTS TO:				TOTAL = 615.20
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062				
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED				

MILLENNIA PROFESSIONAL SERVICES
 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.3566 fax
 www.mps-il.com

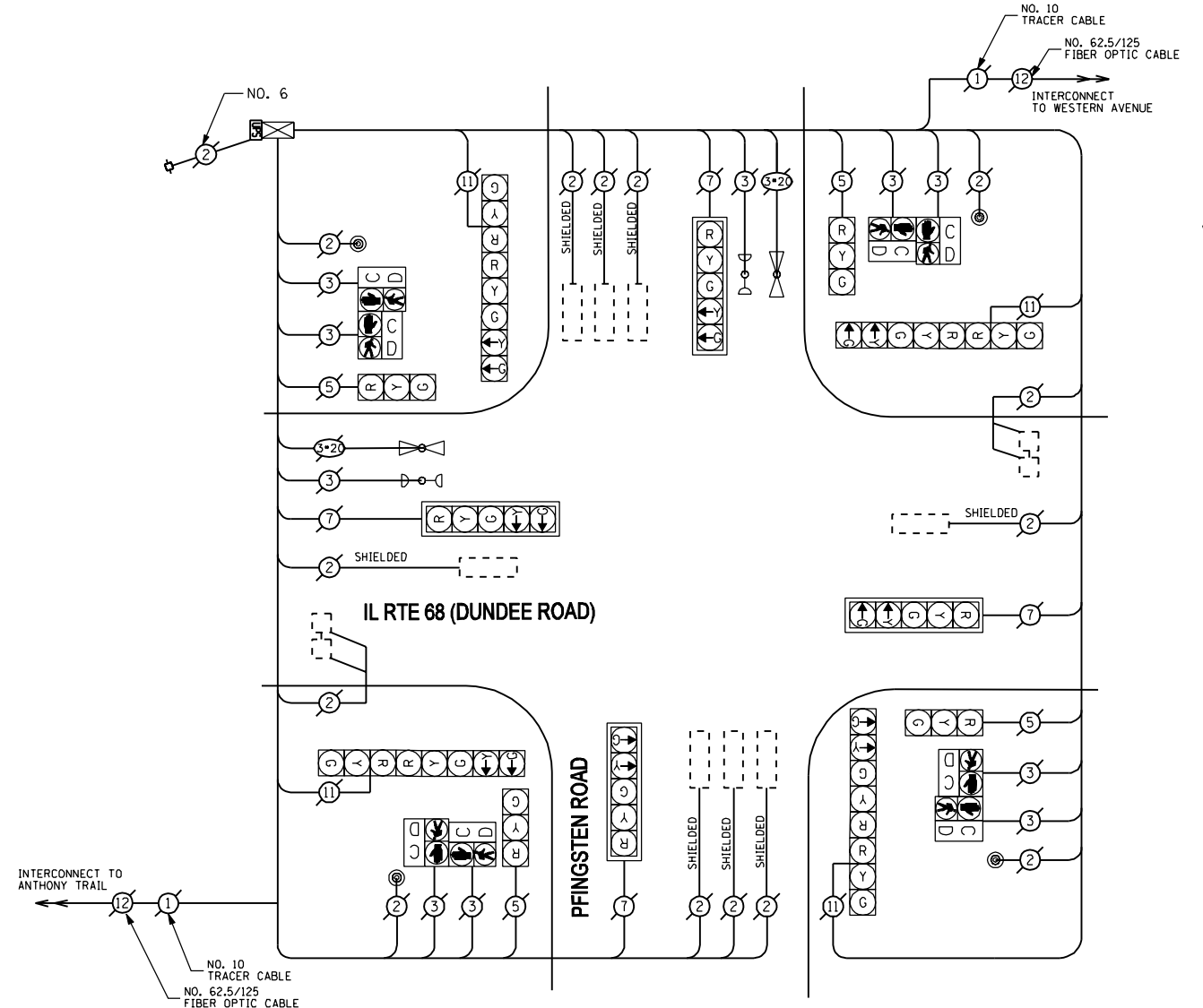
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE ROAD) AT PPINGSTEN ROAD**

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	71
CONTRACT NO. 60X15				

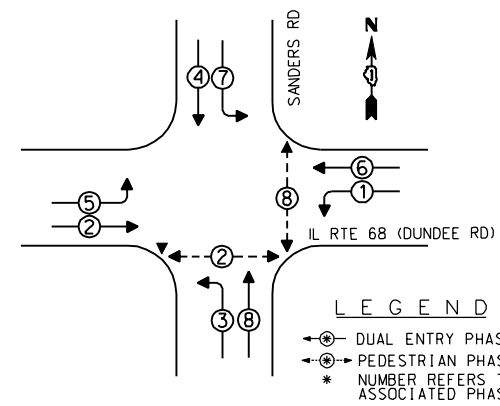


CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

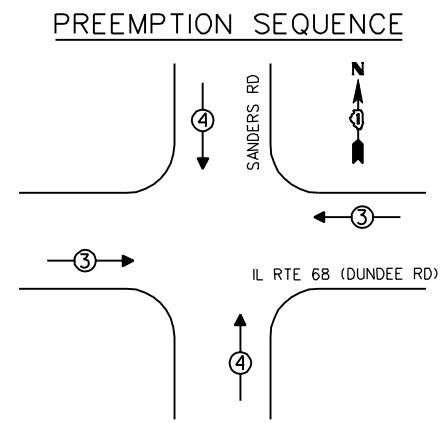
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 USER : JNP
 MILLENNIA PROFESSIONAL SERVICES

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

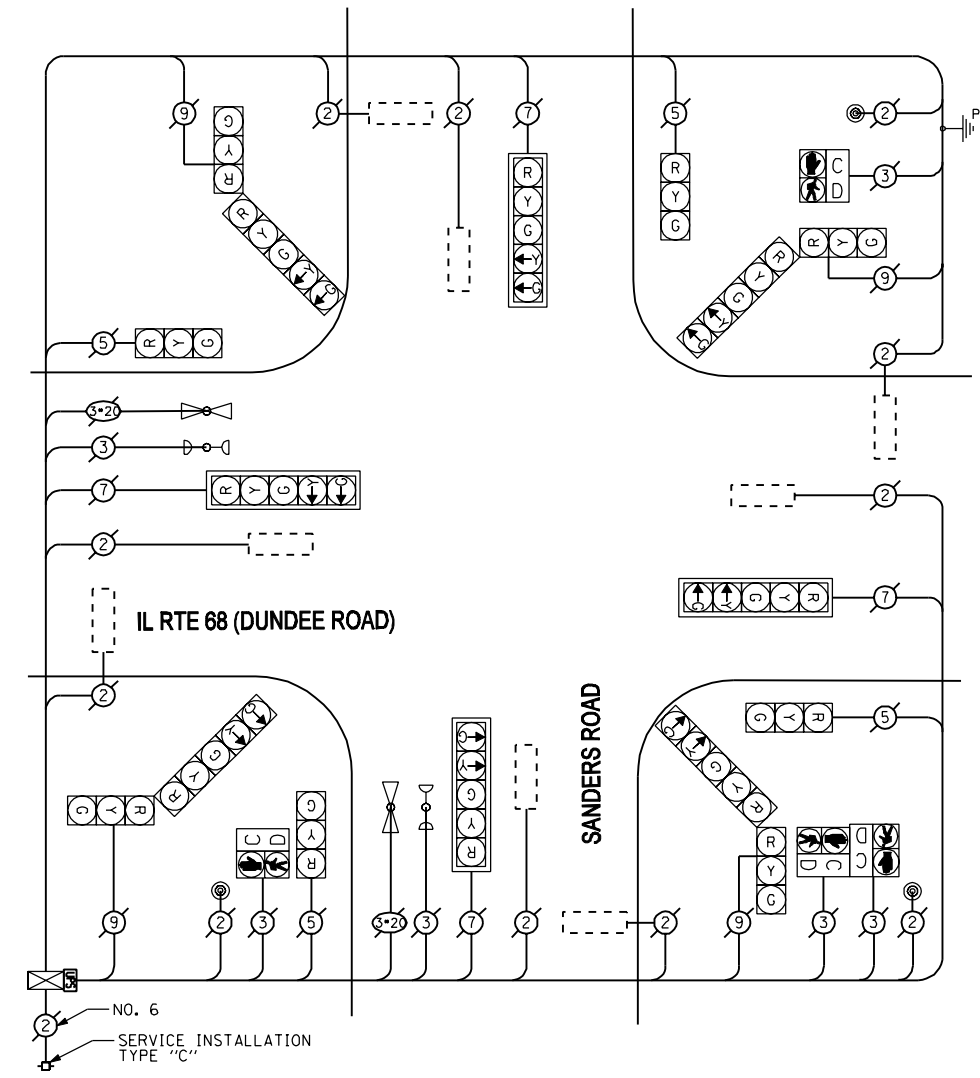
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME12014_PTB162_18_Schwartz\CADD\06-North_Cook_LED_Shts\60X15-sht-TS-DundeeRd_SandersRd.dgn
 USER: JNP
 MILLENNIA PROFESSIONAL SERVICES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED X % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	16		17 0.50	136.00
(YELLOW)	16		25 0.25	100.00
(GREEN)	16		15 0.25	60.00
ARROW	16		12 0.10	19.20
PED. SIGNAL	4		25 1.00	100.00
CONTROLLER	1		100 1.00	100.00
ENERGY COSTS TO:				TOTAL = 515.20
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062				
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED				

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.3566 fax
 www.mps-il.com
MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

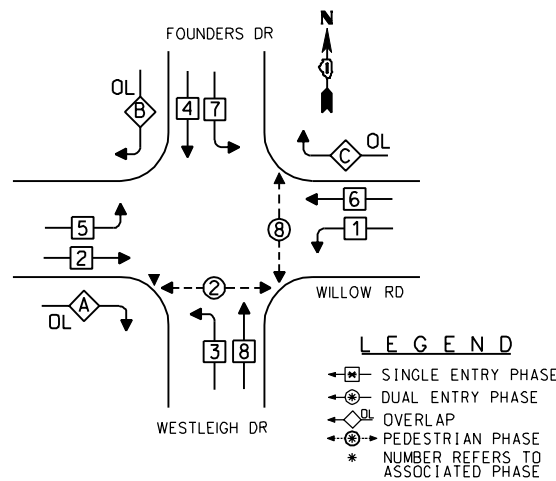
**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE ROAD) AT SANDERS ROAD**

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	72
CONTRACT NO. 60X15				

FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

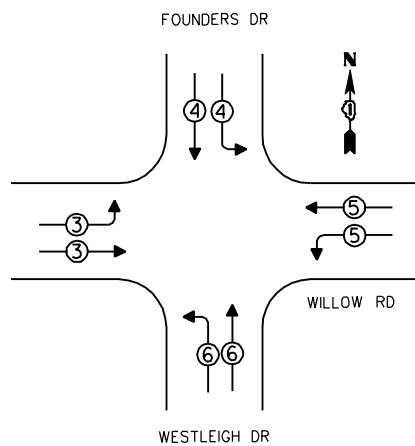
EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	3
B	4	5
C	6	7

EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

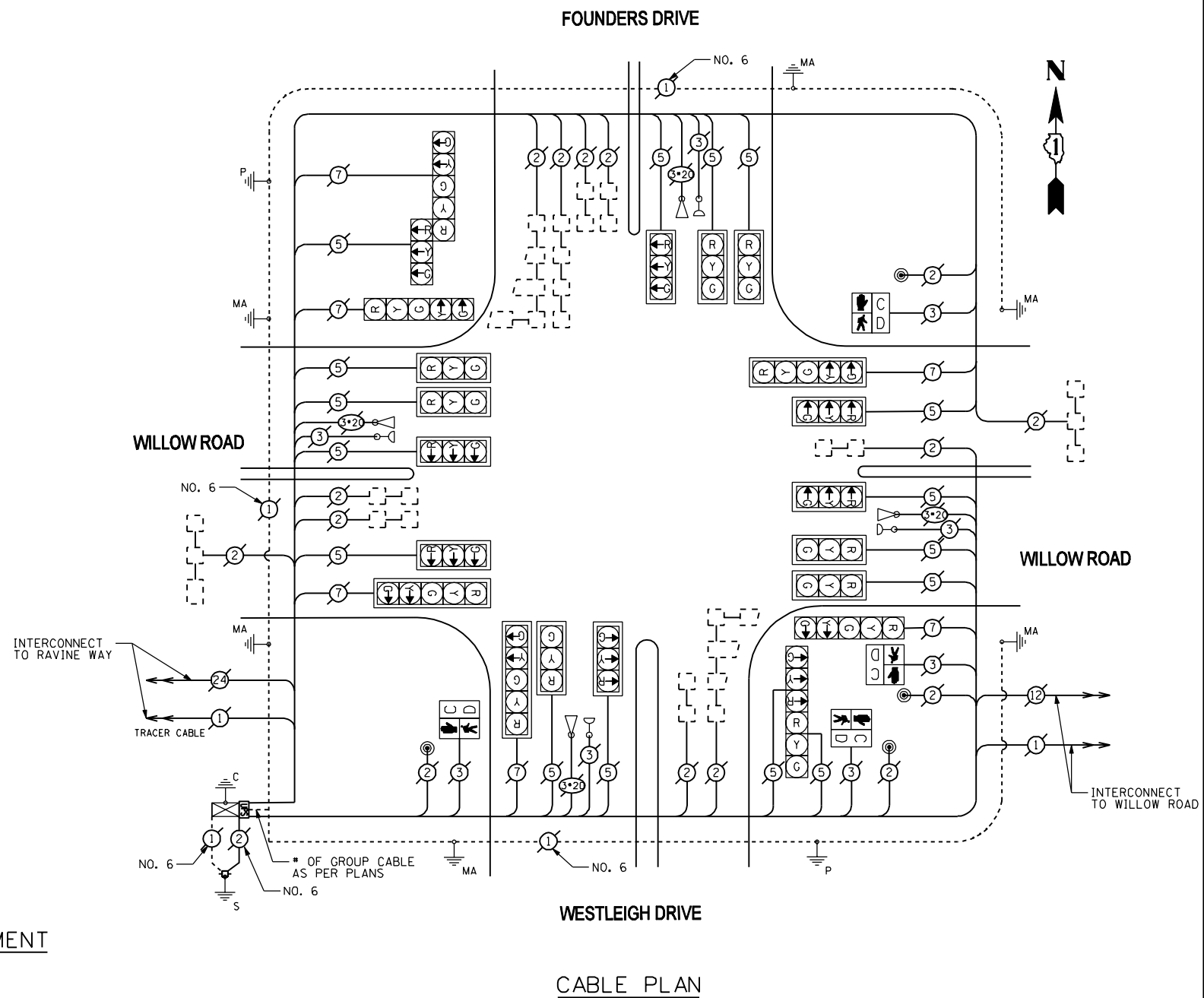
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSH-BUTTON

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
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME : F:\2012\ME12014_PTB162_18_Schwarz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-WillowRd-WestleighDr.dgn
 USER : JNP
 MILLENNIA PROFESSIONAL SERVICES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	22	135	13	0.50	143.00
(YELLOW)	22	135	25	0.25	137.50
(GREEN)	22	135	15	0.25	82.50
ARROW	14	135	12	0.10	16.80
PED. SIGNAL	4	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ALLUM. SIGN		84		0.05	
TOTAL =					579.80

ENERGY COSTS TO: VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
PHONE: (847) 816-5239
COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
630.705.0110 voice, 630.839.3566 fax
www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

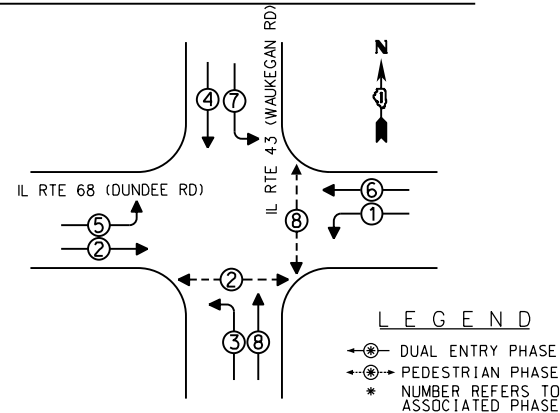
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
WILLOW ROAD AT WESTLEIGH DRIVE /FOUNDERS DRIVE**

SCALE: N/A SHEET OF SHEETS STA. TO STA.

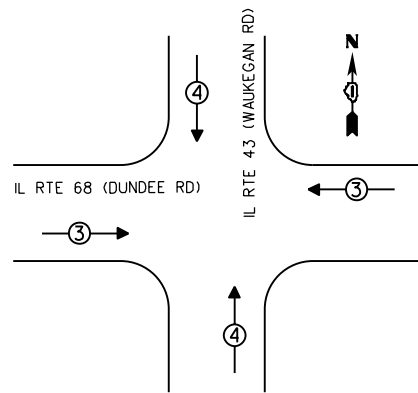
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	74
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	TRAFFIC SIGNAL POST
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
3	EACH	SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
1	EACH	SIGNAL HEAD, 3-FACE, 2-3-SECTION, 1-5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
5	EACH	TRAFFIC SIGNAL BACKPLATE
3	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

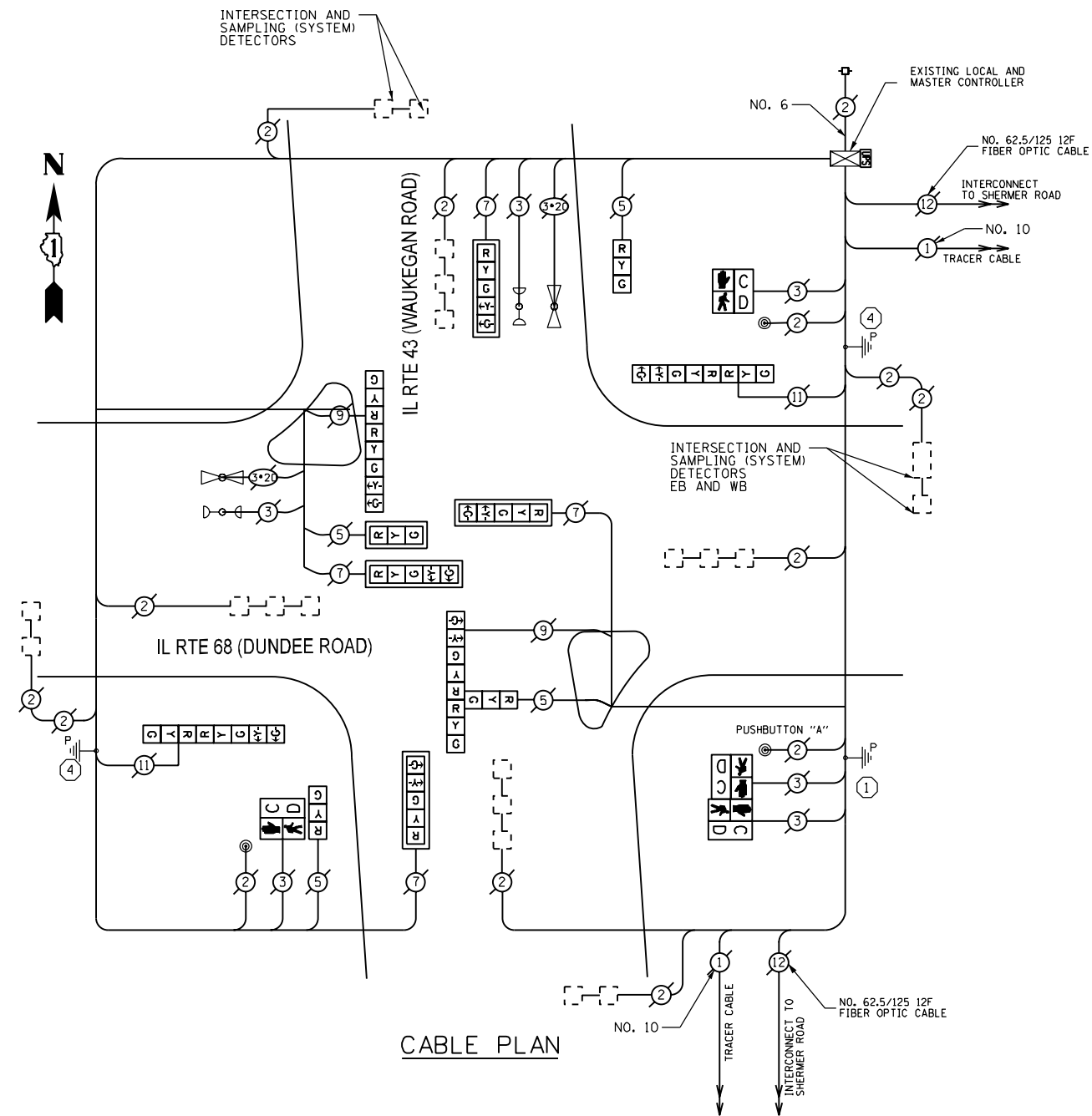
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3-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
5	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
3	EACH	PEDESTRIAN PUSH-BUTTON, NON LATCHING

NOTE:

DUE TO MAST ARM POST ON THE RIGHT SIDE OF THE CONTROLLER CABINET, UPS SHALL BE INSTALLED ON THE LEFT.

PUSHBUTTON "A" SHALL PLACE A CALL TO PHASES 2 & 8

- ① REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\MEI2014_PTB162_18_Schwartz\CADD\W06_North_Cook_LED\Shs\60X15-sht-TS-WaukeganRd_DundeeRd.dgn
 FILE NAME = 4020800
 USER NAME = Millenaria Professional Services

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	16		17	136.00
(YELLOW)	16		25	100.00
(GREEN)	16		15	60.00
ARROW	16		12	19.20
PED. SIGNAL	4		25	100.00
CONTROLLER	1		100	100.00
ENERGY COSTS TO:				TOTAL = 515.20

VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
PHONE: (847) 816-5239
COMPANY: COMED

MILLENNIA PROFESSIONAL SERVICES
 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
 www.mps-ill.com

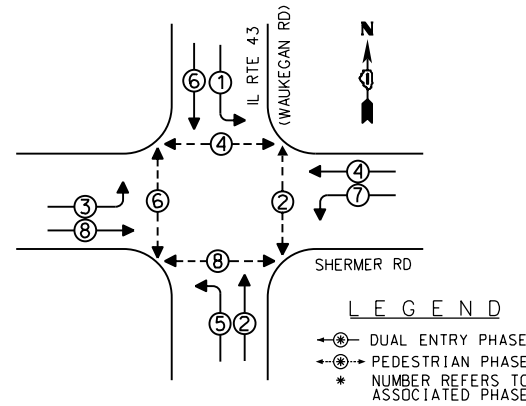
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
IL RTE 43 (WAUKEGAN ROAD) AT IL RTE 68 (DUNDEE ROAD)			
SCALE: -N/A	SHEET OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

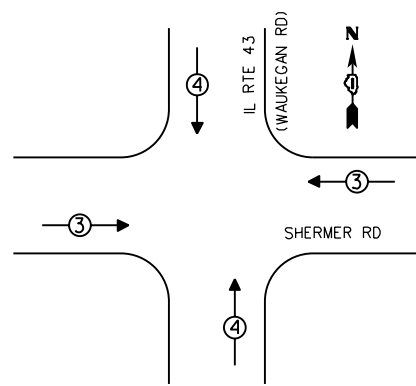
F.A.P. RTE. VAR	SECTION D-91-020-14	COUNTY COOK	TOTAL SHEETS 99	SHEET NO. 75
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

- ③ REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION

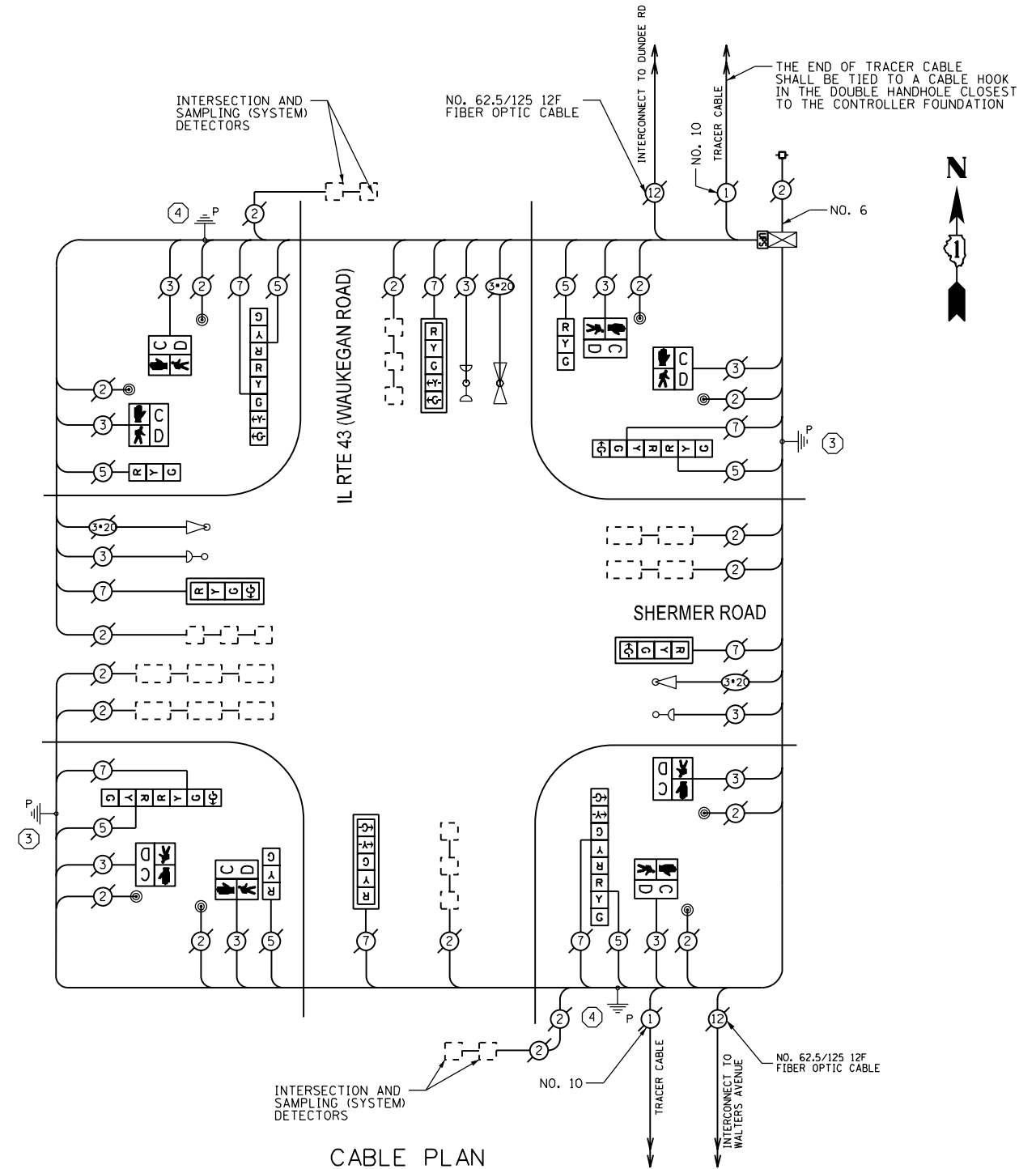
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 4-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 4-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 5-SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-4-SECTION, BRACKET MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	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



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME\2014_P\16162_18_Schwarz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-WaukeganRd_ShermerRd.dgn
 FILE NAME = 4/2/2014 10:41:11 AM
 USER = JNS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED %	OPERATIONS	
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
ARROW	12		12	0.10	14.40
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 591.90

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
 PHONE: (847) 816-5239
 COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com

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DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

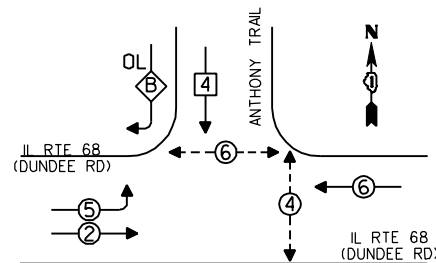
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 43 (WAUKEGAN ROAD) AT SHERMER ROAD**

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	76
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE



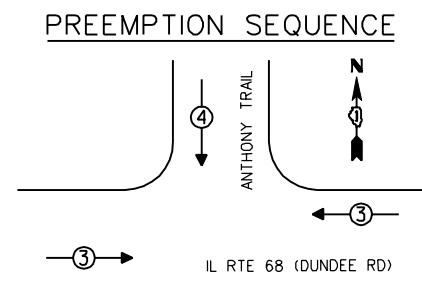
- LEGEND**
- ◻ SINGLE ENTRY PHASE
 - ◉ DUAL ENTRY PHASE
 - ◻ OVERLAP
 - ◉ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

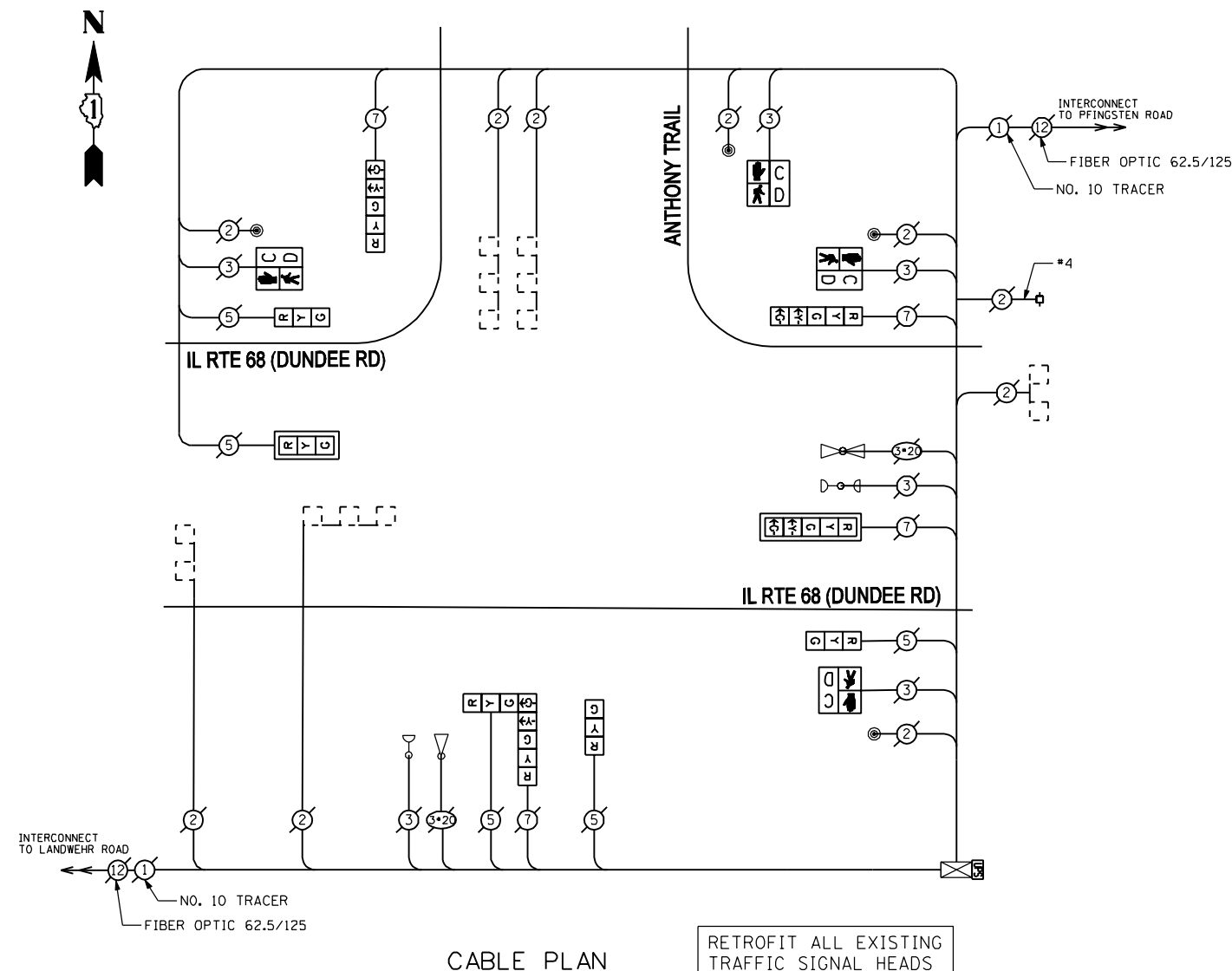
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

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
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME : F:\2012\ME12014_PTB162_18_Schwarztz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-DundeeRd_AnthonyTrail.dgn
 USER : JIN
 MILLENNIA PROFESSIONAL SERVICES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	9		17	0.50	76.50
(YELLOW)	9		25	0.25	56.25
(GREEN)	9		15	0.25	33.75
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 376.10
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062					
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED					


MILLENNIA PROFESSIONAL SERVICES
 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.3566 fax
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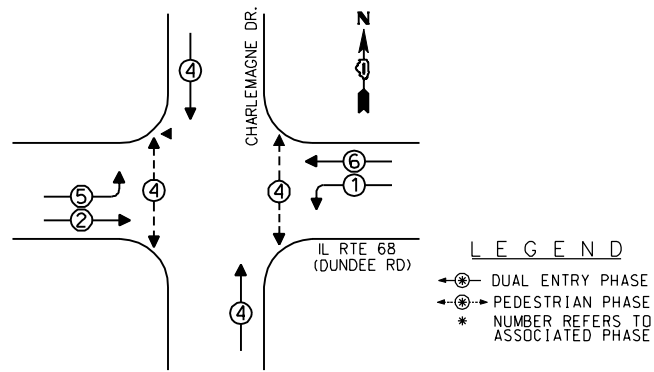
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE ROAD) AT ANTHONY TRAIL
 SCALE: N/A SHEET OF SHEETS STA. TO STA.

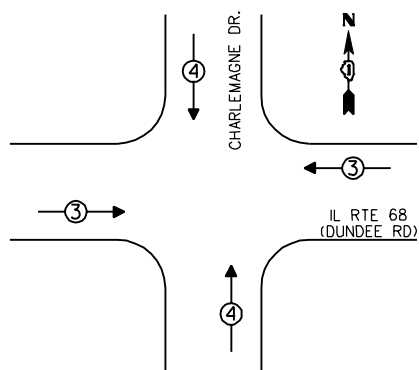
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	77
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

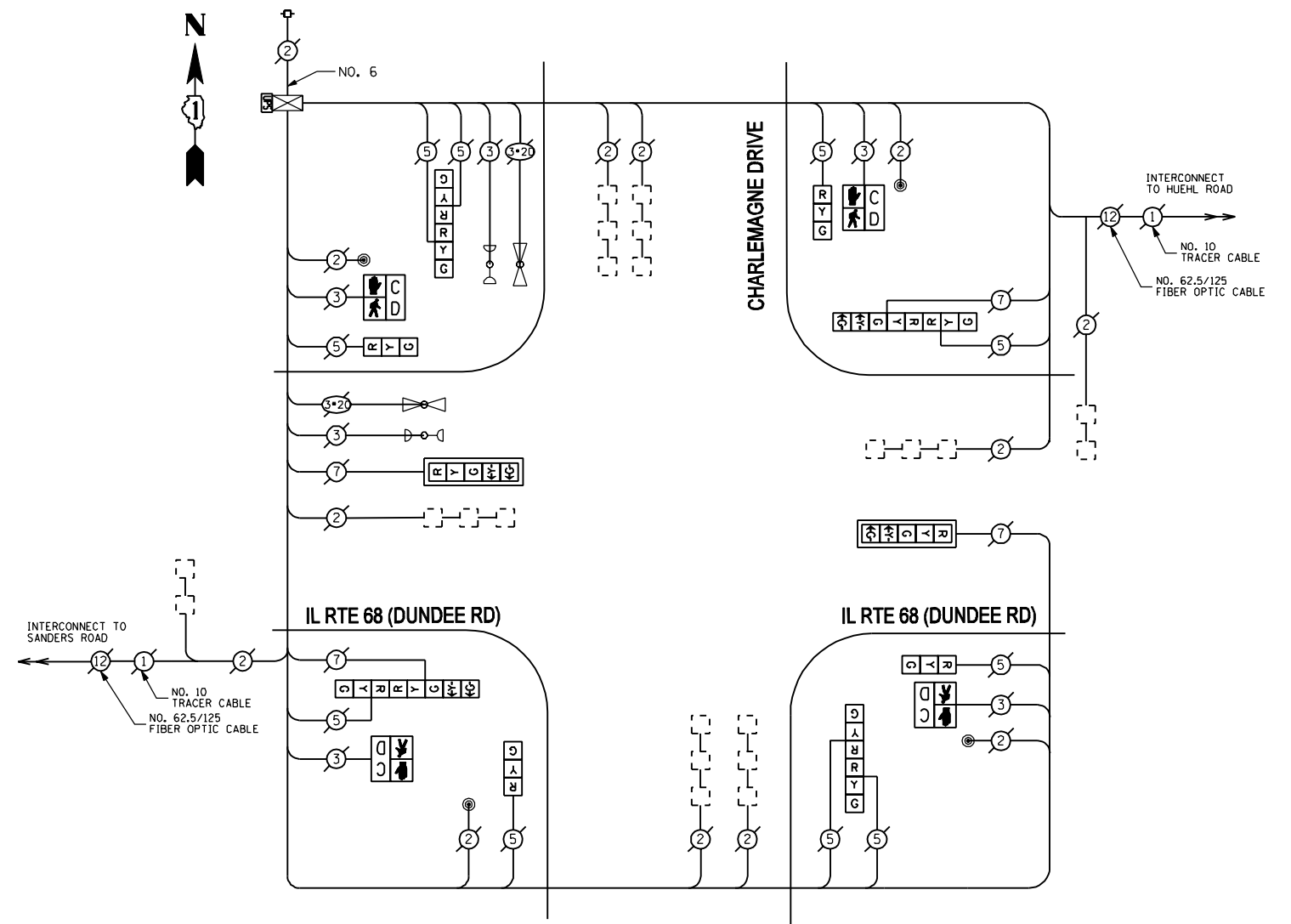
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

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
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	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

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

TYPE	NO. OF LAMPS	INCAND	LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	14		17	0.50	119.00
(YELLOW)	14		25	0.25	87.50
(GREEN)	14		15	0.25	52.50
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 468.60

VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
PHONE: (847) 816-5239
COMPANY: COMED

FILE NAME : P:\2012\ME12014_PTB162_18_Schwertz\CADD\W06_North_Cook_LED\ShTs\60X15-sht-TS-DundeeRd.CharlemagneDr.dgn
 USER : JNP
 MILLENNIA PROFESSIONAL SERVICES

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
630.705.0110 voice, 630.839.3566 fax
www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

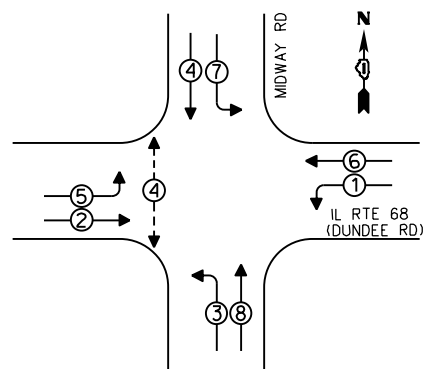
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE RD) AT CHARLEMAGNE DRIVE

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	78
CONTRACT NO. 60X15				

FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE

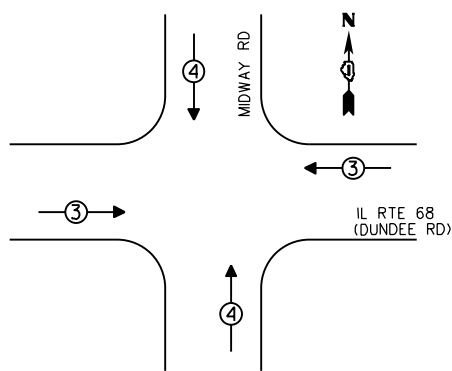


LEGEND
 ⊕ DUAL ENTRY PHASE
 ⊕ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION

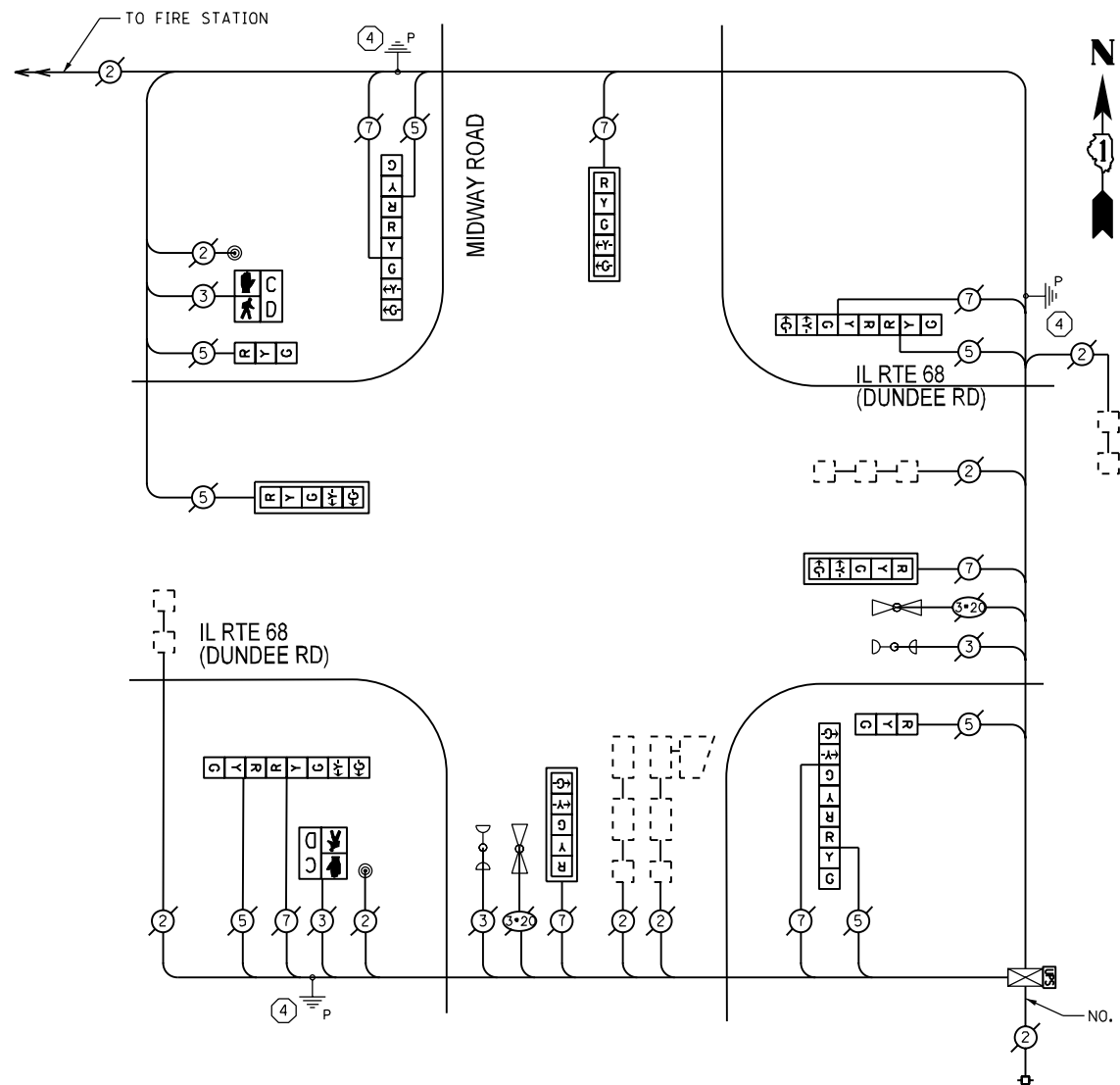
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	TRAFFIC SIGNAL POST
2	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
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



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	14		17 0.50	119.00
(YELLOW)	14		25 0.25	87.50
(GREEN)	14		15 0.25	52.50
ARROW	16		12 0.10	19.20
PED. SIGNAL	2		25 1.00	50.0
CONTROLLER	1		100 1.00	100.00
ENERGY COSTS TO:				TOTAL = 428.20

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
 PHONE: (847) 816-5239
 COMPANY: COMED

FILE NAME = P:\2012\MEI2014_P\16162_18_Schwarz\CADD\W06_North.Cook.LED\Shs\60X15-sht-TS-DundeeRd.MidwayRd.dgn
 USER = JNP
 PLOT DATE = 10/22/2013



2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

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DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

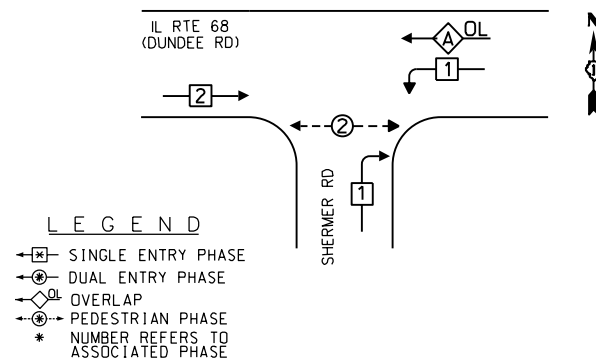
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 IL RTE 68 (DUNDEE RD) AT MIDWAY ROAD

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	79
CONTRACT NO. 60X15				

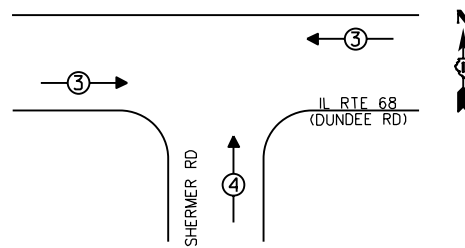
EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 1	+ 2

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↓

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

- ① REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ② REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION

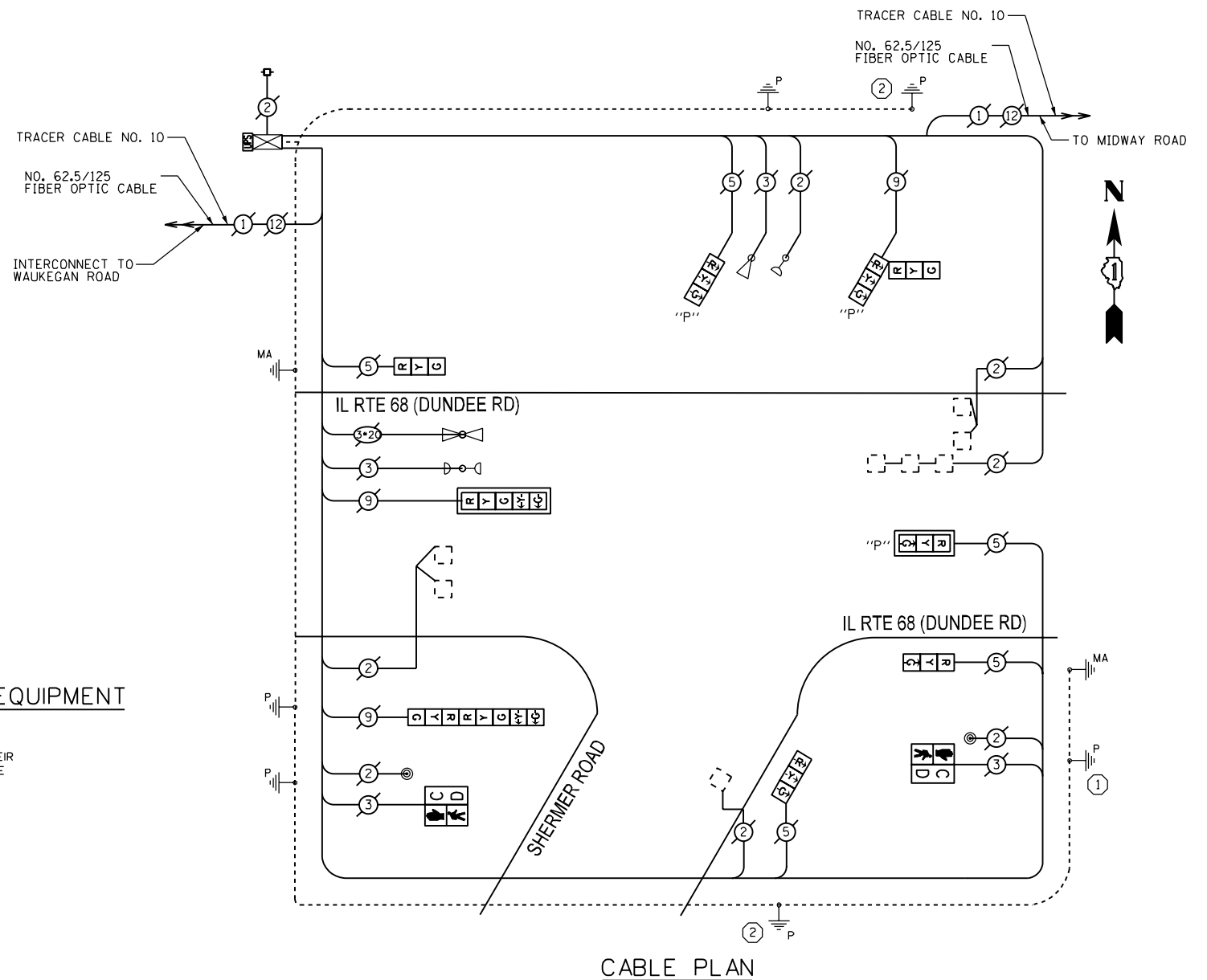
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	TRAFFIC SIGNAL POST
5	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	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
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
2	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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE (INCAND)	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	10	17	0.50	85.00
(YELLOW)	10	25	0.25	62.50
(GREEN)	10	15	0.25	37.5
ARROW	4	12	0.10	4.80
PED. SIGNAL	2	25	1.00	50.00
CONTROLLER	1	100	1.00	100.00
ENERGY COSTS TO:				TOTAL = 339.80

VILLAGE OF NORTHBROOK
1225 CEDAR LANE
NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
PHONE: (847) 816-5239
COMPANY: COMED

P:\2012\ME12014.PT8162.18.Schwarz\CADD\W06.North.Cook.LED\Shts\60X15-sh1-TS-DundeeRd.Shermer.dgn
 FILE NAME = 4/2/2014 10:42:00 AM
 USER = MILENNA



2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
630.705.0110 voice, 630.839.2566 fax
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MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

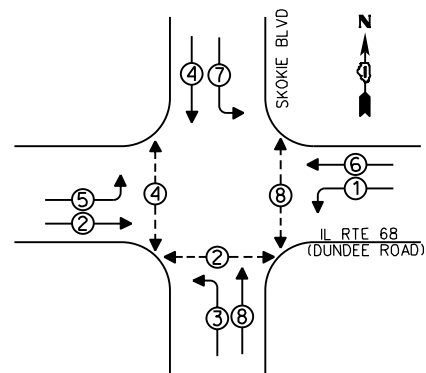
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE RD) AT SHERMER ROAD

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	80
CONTRACT NO. 60X15				

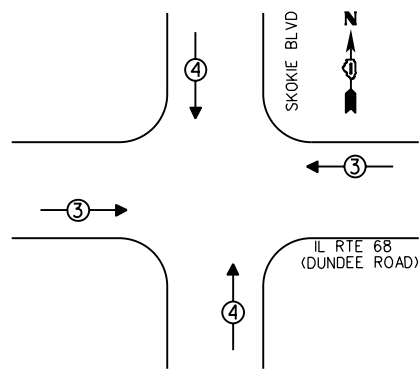
EXISTING CONTROLLER SEQUENCE



LEGEND
 ⊕ DUAL ENTRY PHASE
 ⊙ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

REMOVE 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.

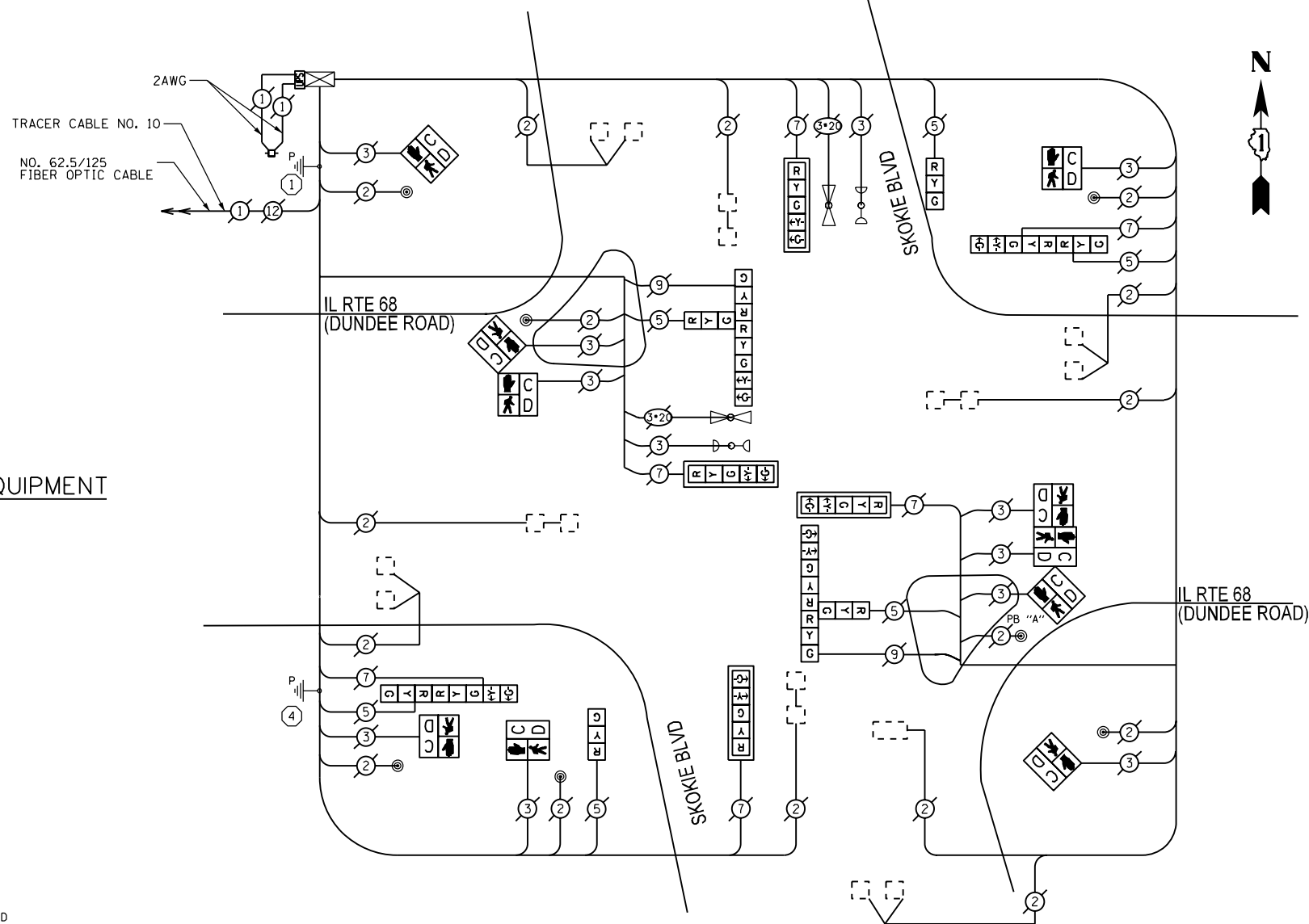
QUANTITY	UNIT	DESCRIPTION
2	EACH	TRAFFIC SIGNAL POST
2	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
2	EACH	SIGNAL HEAD, 3-FACE, 2-3-SECTION, 1-5-SECTION
5	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 3-FACE
4	EACH	TRAFFIC SIGNAL BACKPLATE
7	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3-SECTION, 1-5-SECTION, BRACKET MOUNTED
5	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	PEDESTRIAN SIGNAL HEAD, LED, 3-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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
7	EACH	PEDESTRIAN PUSH-BUTTON, NON LATCHING

NOTE:

- ① REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME = F:\2012\ME\2014_P\16162_18_Schwarz\CADD\W06_North_Cook_LED_Shts\60X15_sht-TS-DundeeRd_SkokieBlvd.dgn
 USER = MJP
 DATE = 10/22/2013

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	10	25	1.00	250.00
CONTROLLER	1	100	1.00	100.00
ENERGY COSTS TO:				TOTAL = 665.20

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
 PHONE: (847) 816-5239
 COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
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MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

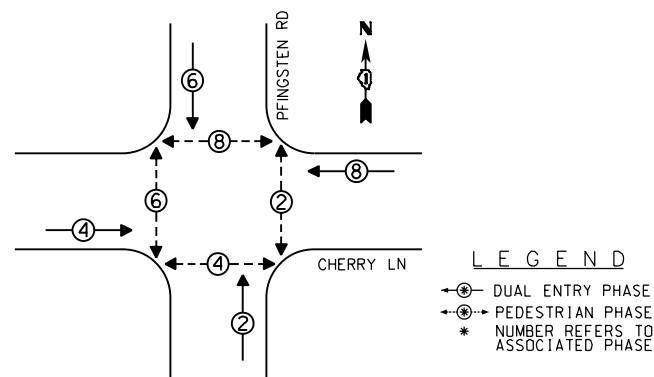
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 68 (DUNDEE ROAD) AT SKOKIE BOULEVARD

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

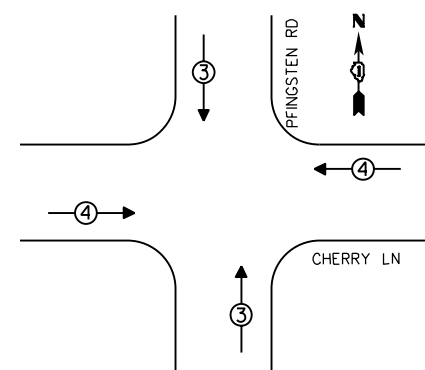
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	81
CONTRACT NO. 60X15				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

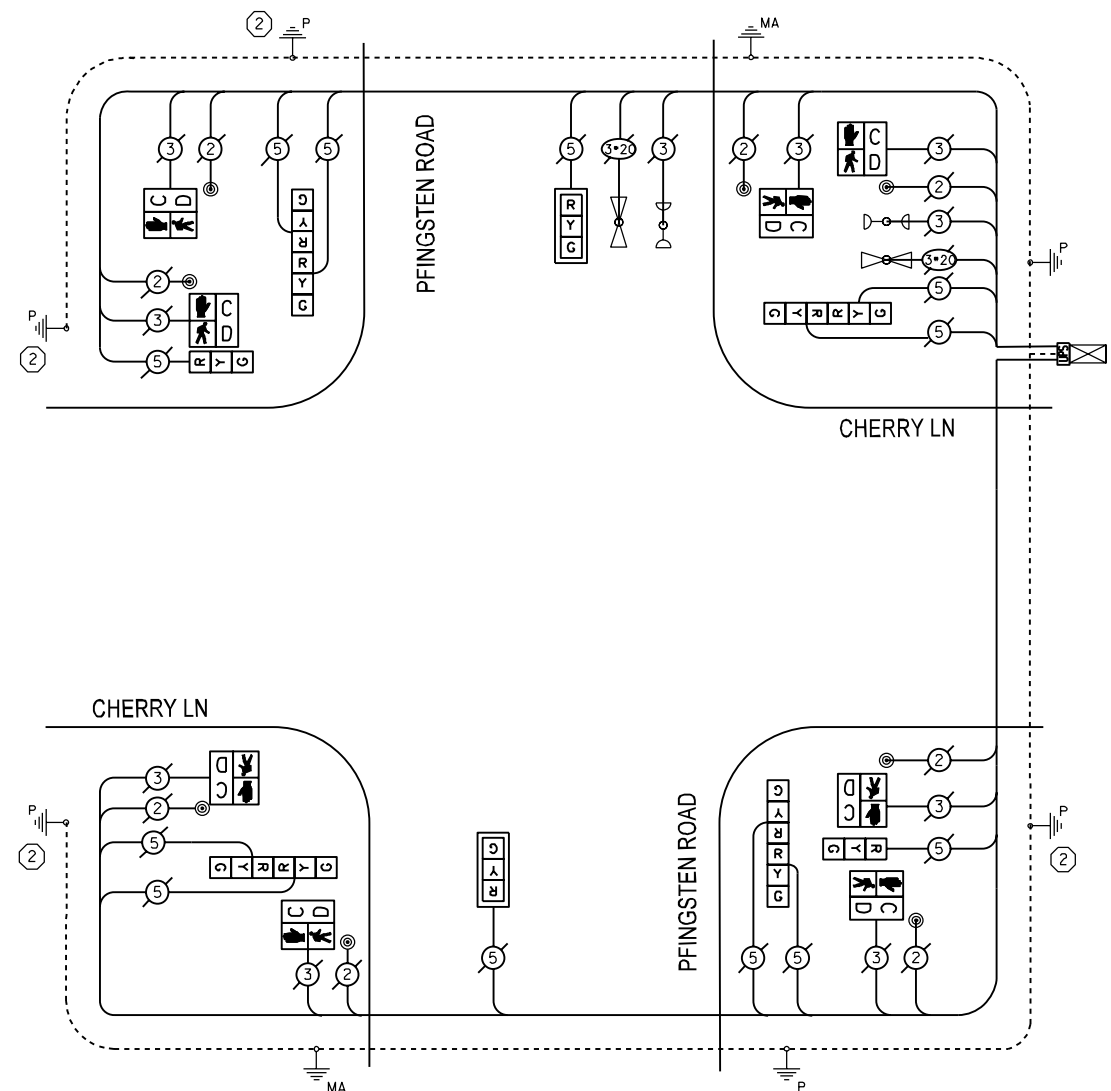
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

QUANTITY	UNIT	DESCRIPTION
4	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	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 REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME12014_PTB162_18_Schwartz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-Pflingsten_CherryLn.dgn
 FILE NAME : 4/2/2010
 USER : Milleanna Professional Services

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	TOTAL WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	0		12	0.10	0.0
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:				TOTAL =	522.00

VILLAGE OF NORTHBROOK
 1225 CEDAR LANE
 NORTHBROOK, IL 60062

ENERGY SUPPLY - CONTACT: TERRIBLECK
 PHONE: (847) 816-5239
 COMPANY: COMED

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com

MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

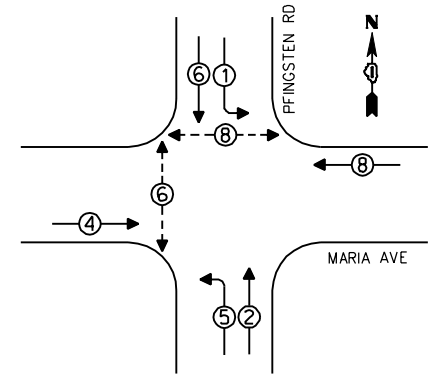
**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 PFLINGSTEN ROAD AT CHERRY LANE**

SCALE: -N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	82
CONTRACT NO. 60X15				

FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

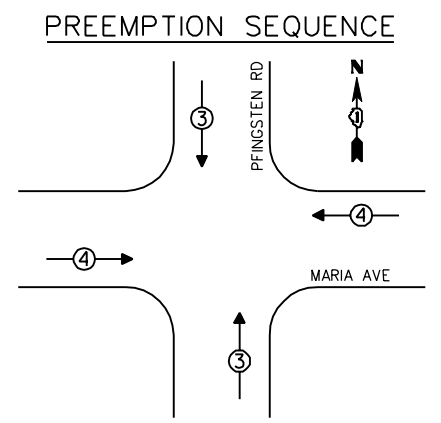
EXISTING CONTROLLER SEQUENCE



LEGEND
 ⊕ DUAL ENTRY PHASE
 ⊕ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

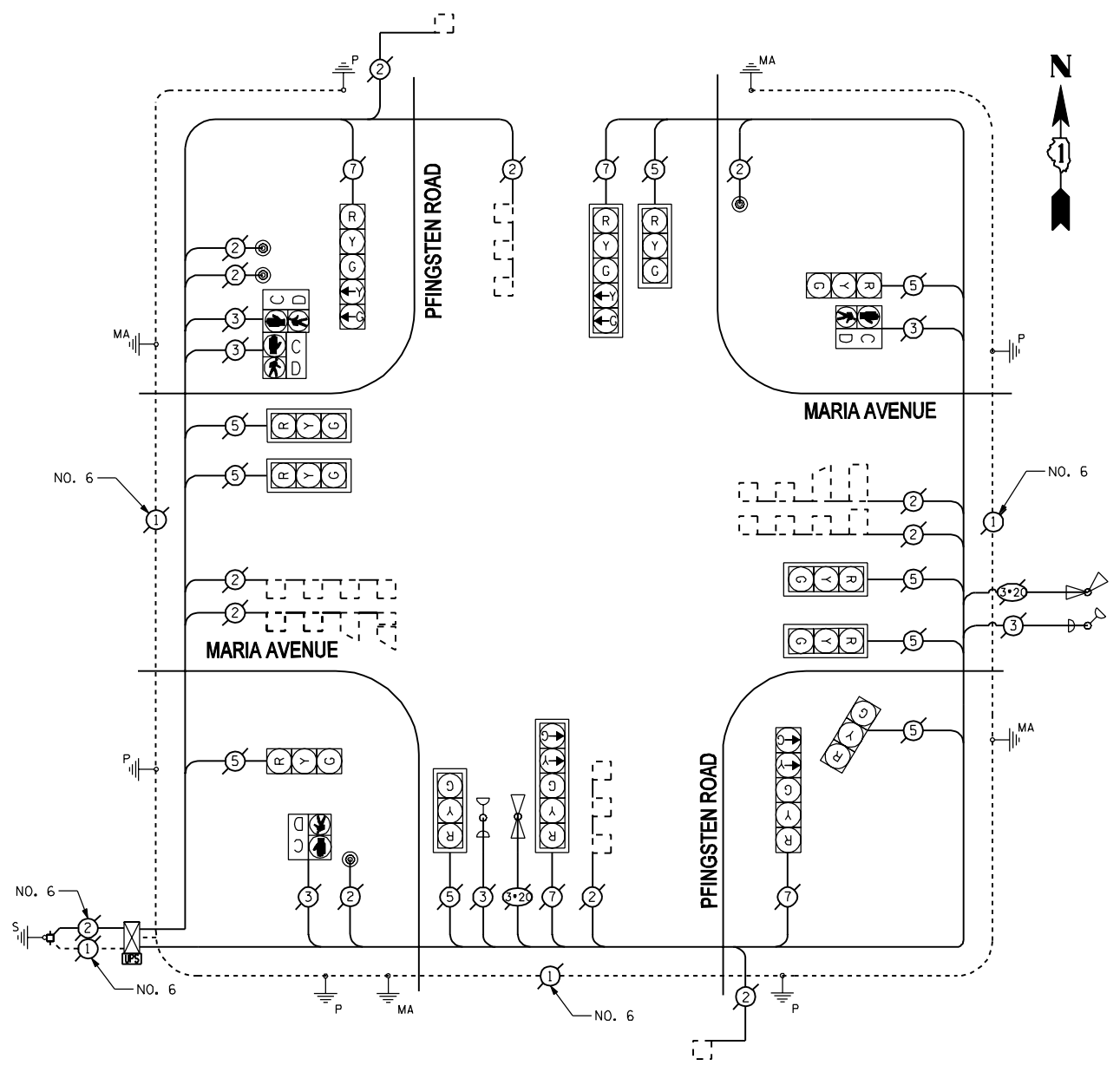
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	MODIFY EXISTING CONTROLLER CABINET



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME12014_PTB162_18_Schwartz\CADD\06-North-Cook_LED_Shts\60X15-sht-TS-PfingstenRd_MariaAve.dgn
 USER: M111111111
 DATE: 10/11/2013

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	INCAND	LED X % OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	13		17 0.50	110.50
(YELLOW)	13		25 0.25	81.25
(GREEN)	13		15 0.25	48.75
ARROW	8		12 0.10	9.60
PED. SIGNAL	4		25 1.00	100.00
CONTROLLER	1		100 1.00	100.00
ENERGY COSTS TO:				TOTAL = 450.10
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062				
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED				

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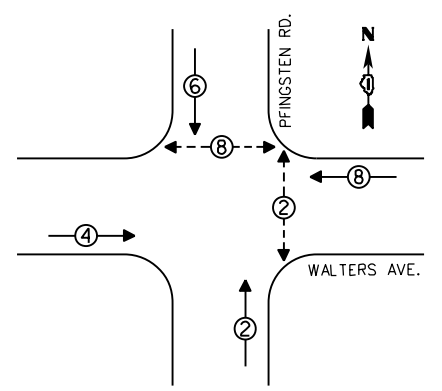
DESIGNED	- JNP	REVISED	-
DRAWN	- JNP	REVISED	-
CHECKED	- TVN	REVISED	-
DATE	- 10/11/2013	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE PFINGSTEN ROAD AT MARIA AVENUE			
SCALE: -N/A	SHEET OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	83
CONTRACT NO. 60X15				

EXISTING CONTROLLER SEQUENCE

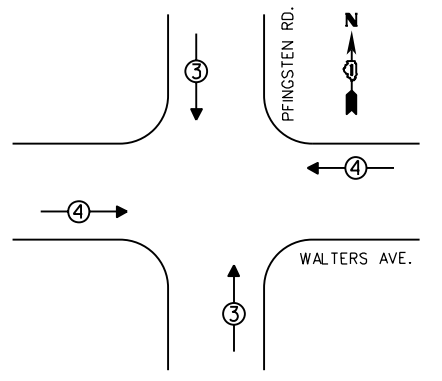


LEGEND
 ⊕ DUAL ENTRY PHASE
 ⊕ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	↔

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

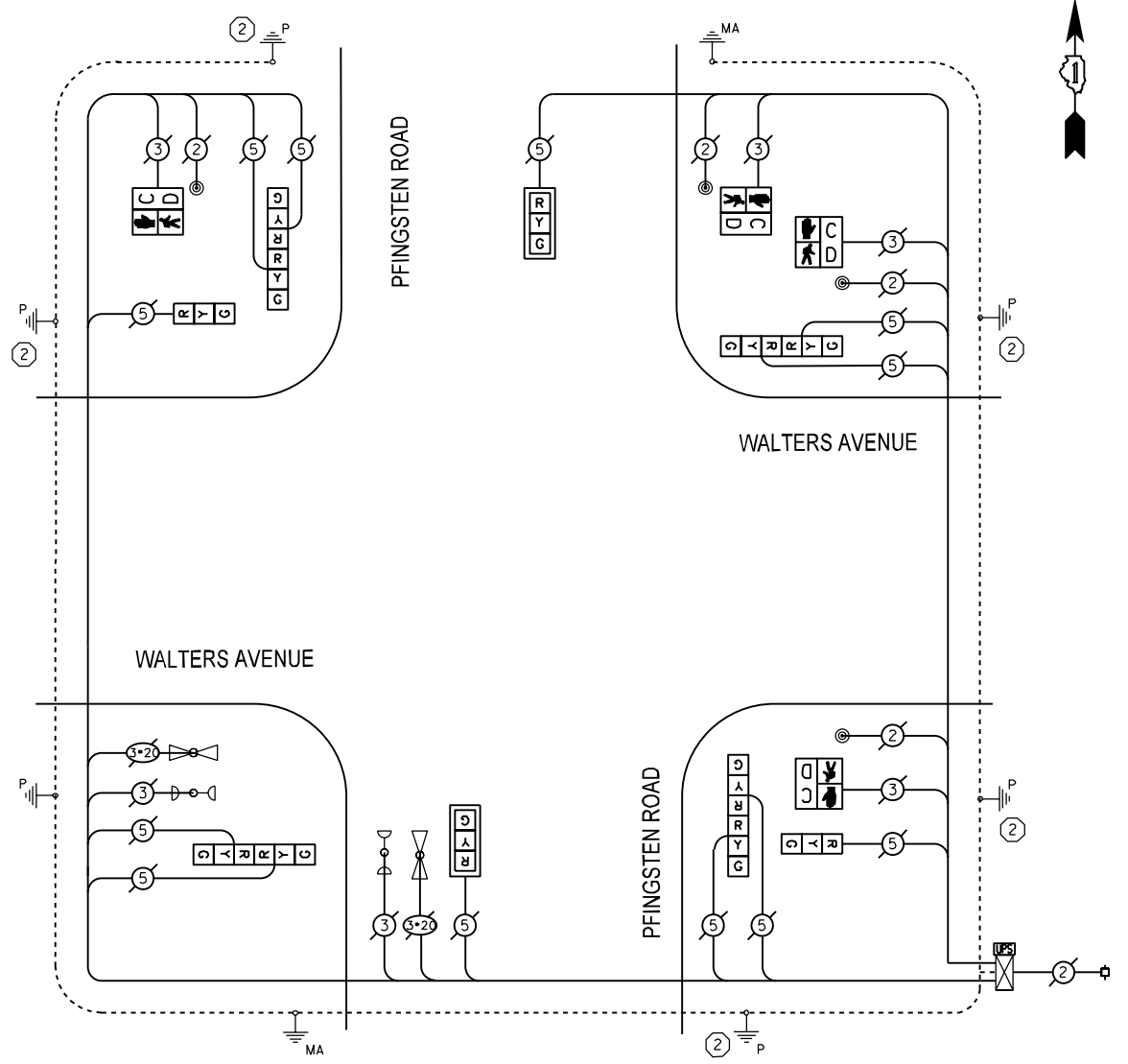
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

QUANTITY	UNIT	DESCRIPTION
5	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 3-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 REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME\12014_PTB162_18_Schwartz\CADD\W06_North.Cook.LED\Shts\60X15-sht-TS-PfingstenRd.WaltersAve.dgn
 FILE NAME : 4/2/2014 10:41:11 AM
 USER : M. Terrence

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	0		12	0.10	0.0
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 422.00
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062					
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED					

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 630.705.0110 voice, 630.839.2566 fax
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MILLENNIA PROFESSIONAL SERVICES

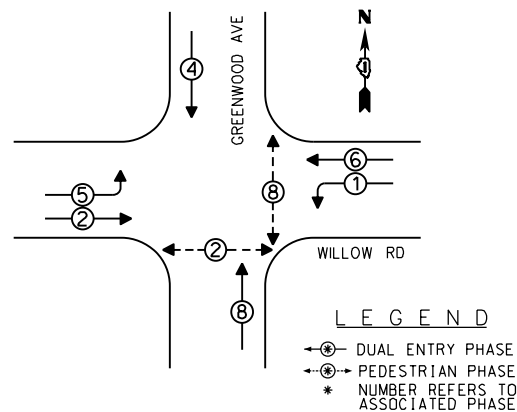
DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
PFINGSTEN ROAD AT WALTERS AVENUE			
SCALE: -N/A	SHEET OF SHEETS	STA. TO STA.	

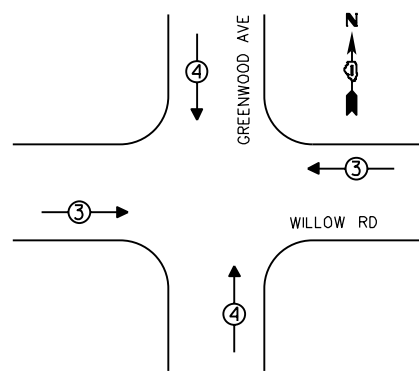
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	84
CONTRACT NO. 60X15				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

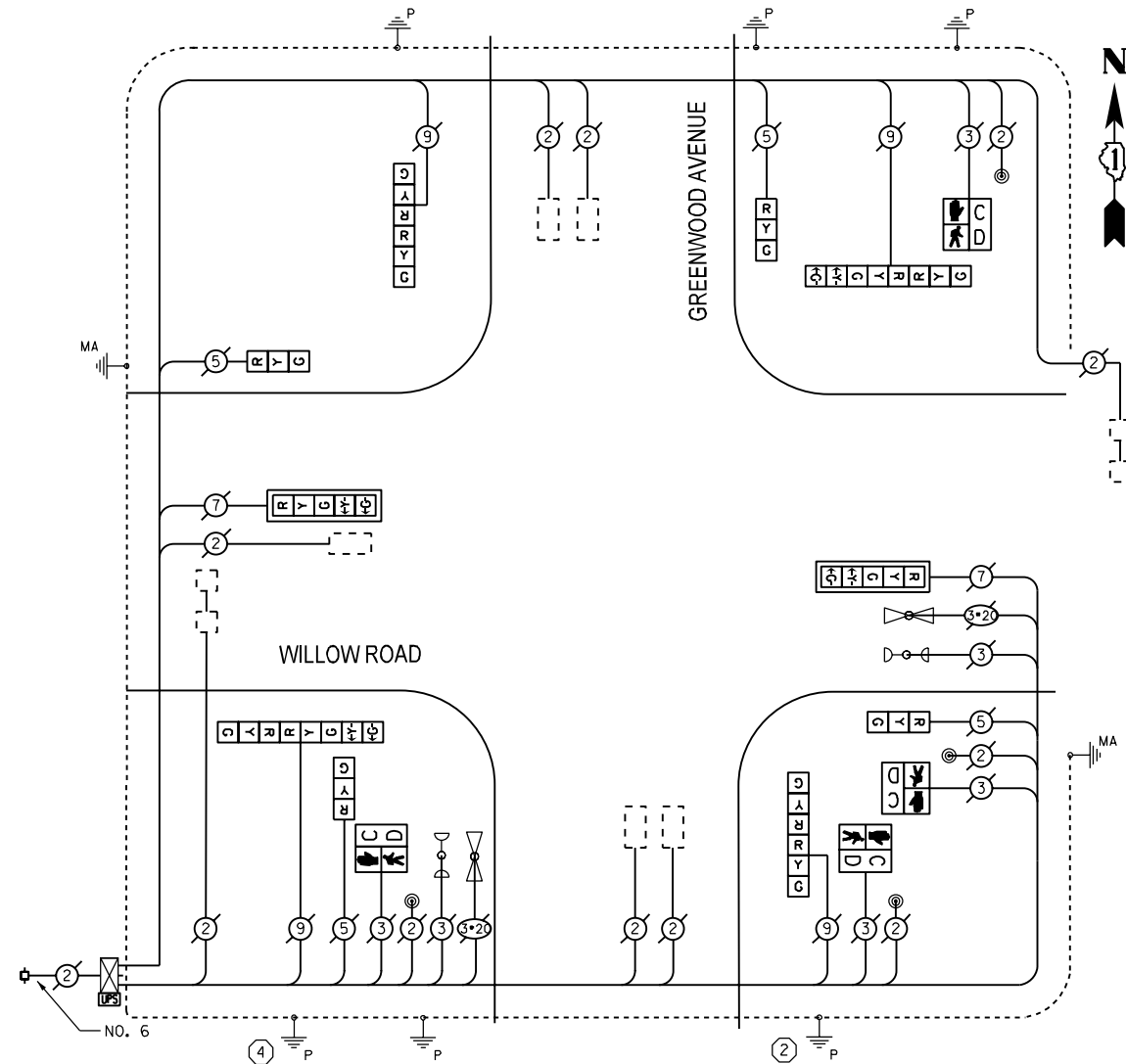
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

QUANTITY	UNIT	DESCRIPTION
2	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	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
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 REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ④ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS SIGNAL SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

P:\2012\ME12014_P1B162_18_Schwartz\CADD\W06_North_Cook_LED_Shts\60X15-sht-TS-WillowRd-GreenwoodAve.dgn
 FILE NAME = 4/2/2010 11:11:11 AM
 USER = Millenaria Professional Services

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	14		17	0.50	119.00
(YELLOW)	14		25	0.25	87.50
(GREEN)	14		15	0.25	52.50
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ENERGY COSTS TO:					TOTAL = 468.60
VILLAGE OF NORTHBROOK 1225 CEDAR LANE NORTHBROOK, IL 60062					
ENERGY SUPPLY - CONTACT: TERRIBLECK PHONE: (847) 816-5239 COMPANY: COMED					

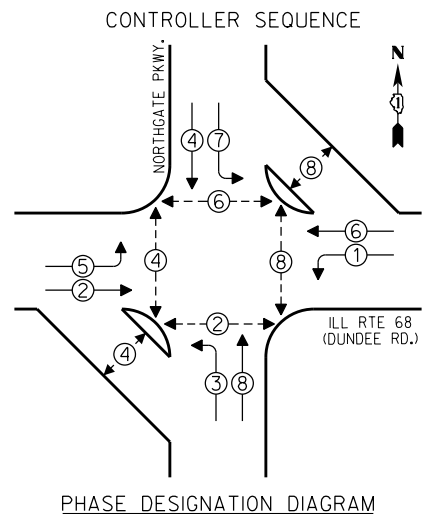
2600 Warrenville Road, Suite 203, Downers Grove, IL 60515-1761
630.705.0110 voice, 630.839.2566 fax
www.mps-il.com

DESIGNED - JNP	REVISED -
DRAWN - JNP	REVISED -
CHECKED - TVN	REVISED -
DATE - 10/22/2013	REVISED -

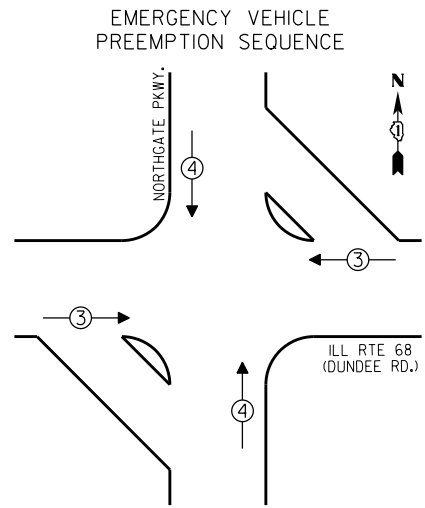
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
WILLOW ROAD AT GREENWOOD AVENUE			
SCALE: -N/A	SHEET OF SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-91-020-14	COOK	99	85
CONTRACT NO. 60X15				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

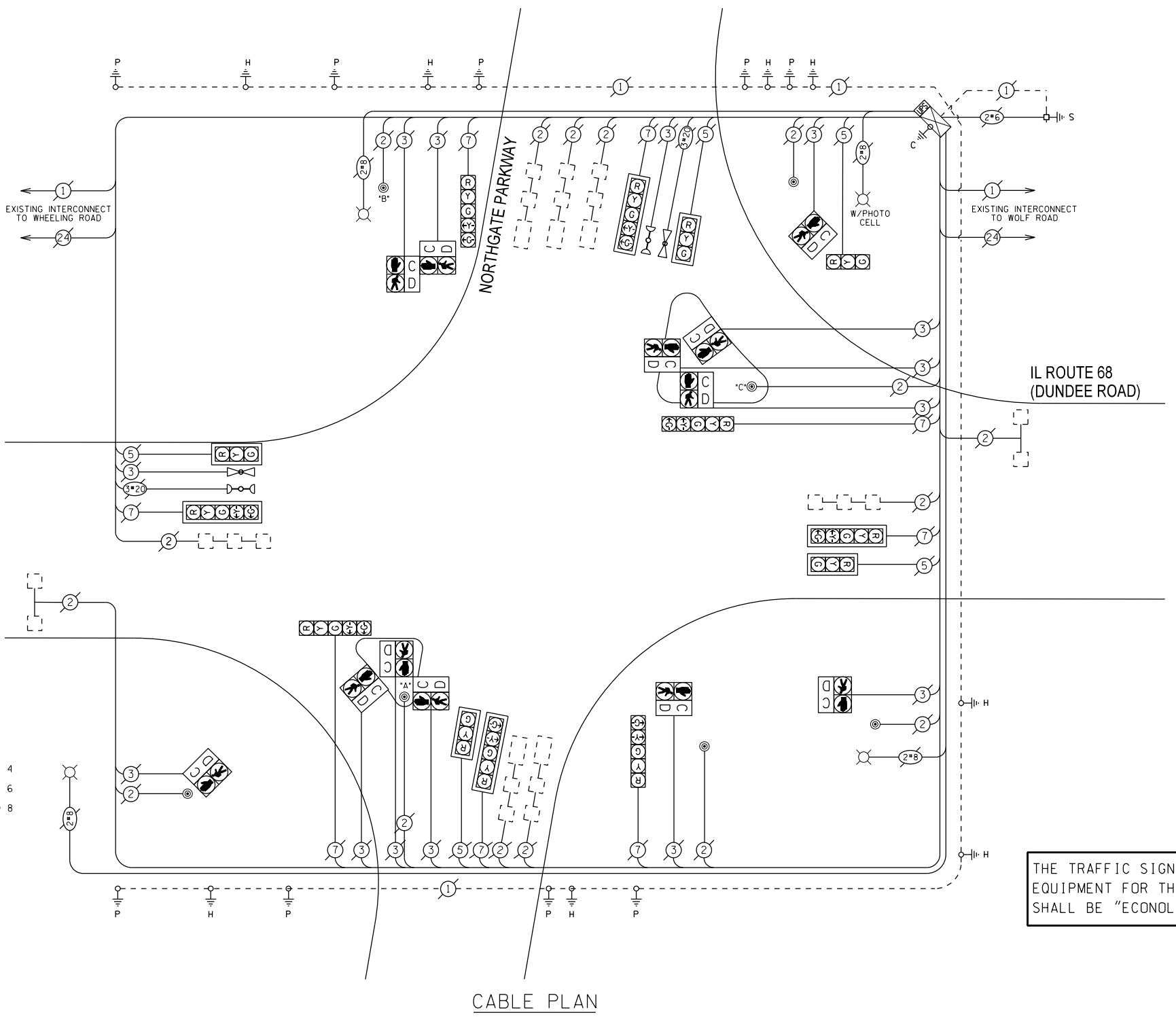


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	13		17	0.50	110.5
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	16		12	0.10	19.20
PED. SIGNAL	12		25	1.00	300.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	659.70

VILLAGE OF WHEELING
 2 COMMUNITY BOULEVARD
 WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY:

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, IL. RTE 68 (DUNDEE ROAD) AND NORTHGATE PARKWAY

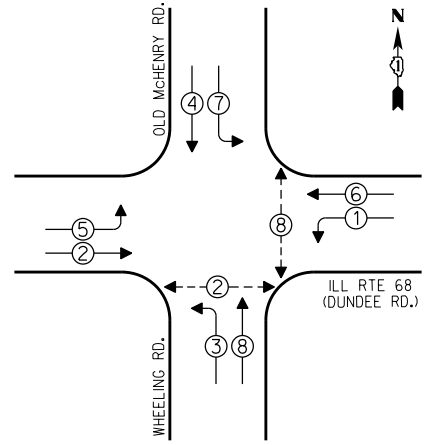
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	86
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				



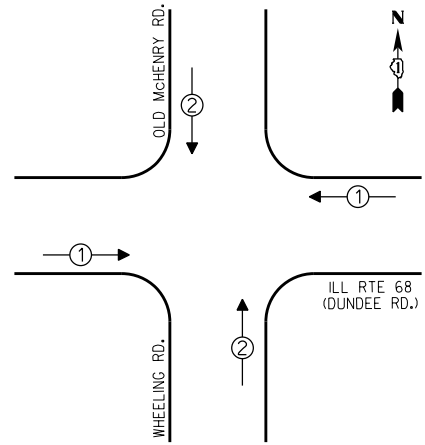


CONTROLLER SEQUENCE



- LEGEND**
- ① SINGLE ENTRY PHASE
 - ② DUAL ENTRY PHASE
 - ③ OVERLAP
 - ④ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS		
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	4		25	1.00	100.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	441.2

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

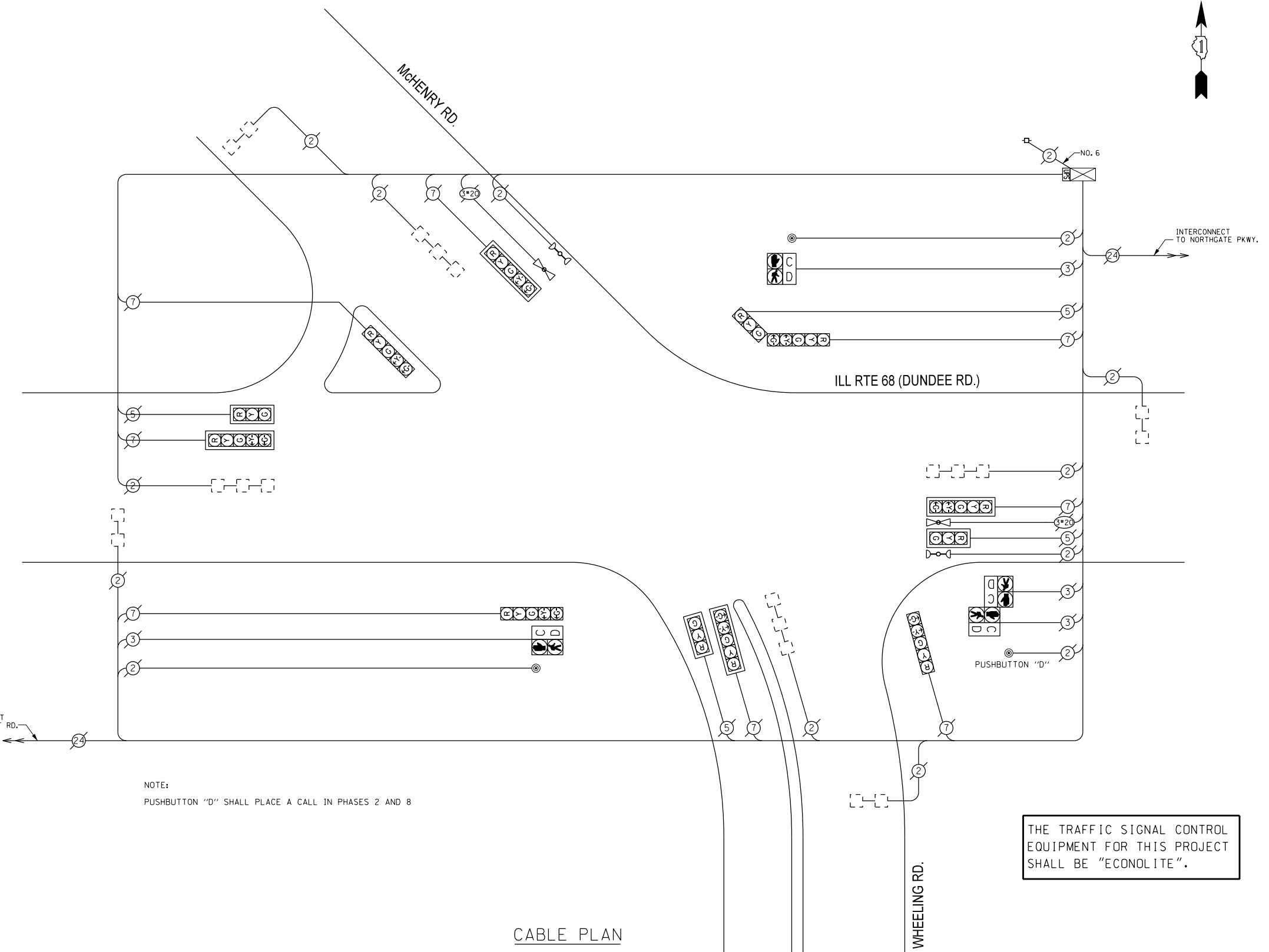
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
3	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



NOTE:
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

CABLE PLAN



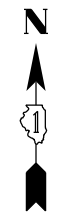
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

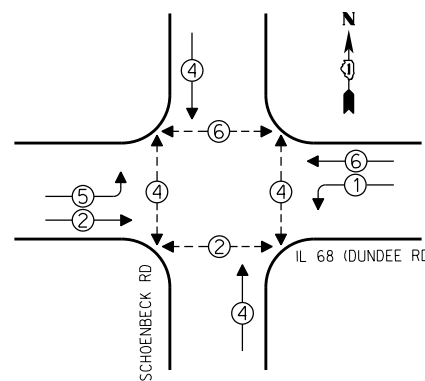
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL RTE 68 (DUNDEE ROAD) AT WHEELING ROAD / McHENRY ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	87
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

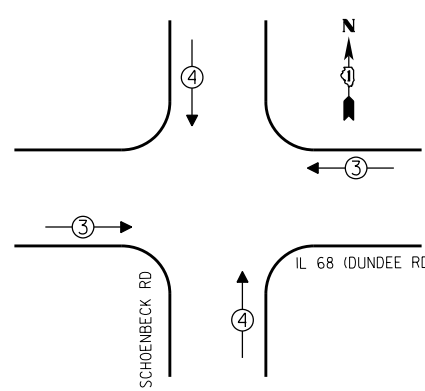


CONTROLLER SEQUENCE



- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

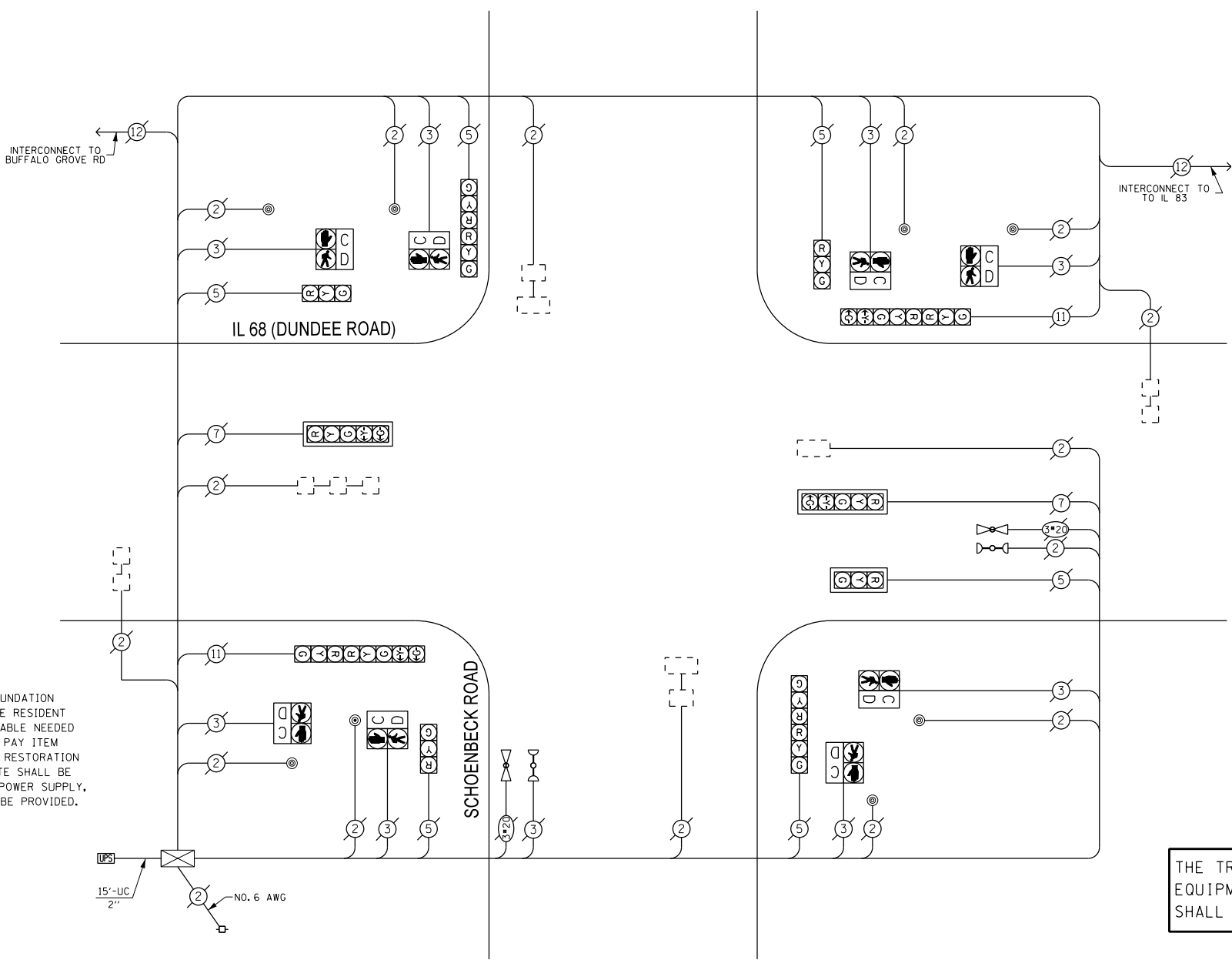
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

CONSTRUCTION NOTE:

THE UPS SHALL BE INSTALLED ON A SEPARATE TYPE "A" FOUNDATION DUE TO THE PHYSICAL CONSTRAINTS OR AS DIRECTED BY THE RESIDENT ENGINEER. THIS WORK AND ALL CONDUIT AND ELECTRICAL CABLE NEEDED TO PROPERLY INSTALL THE UPS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED". ALL RESTORATION SPECIFIED IN THE RESTORATION OF WORK AREA GENERAL NOTE SHALL BE CONSIDERED INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED" AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.



CABLE PLAN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	531.60

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
1	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

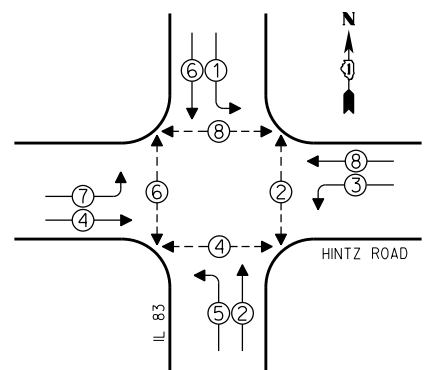
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL 68 (DUNDEE ROAD) AT SCHOENBECK ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

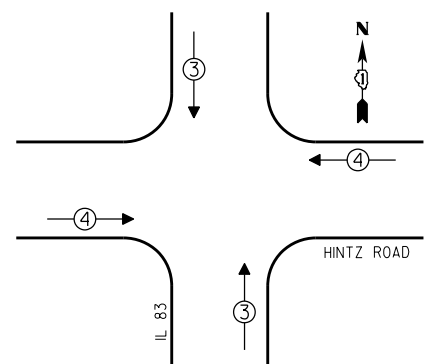
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	88
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



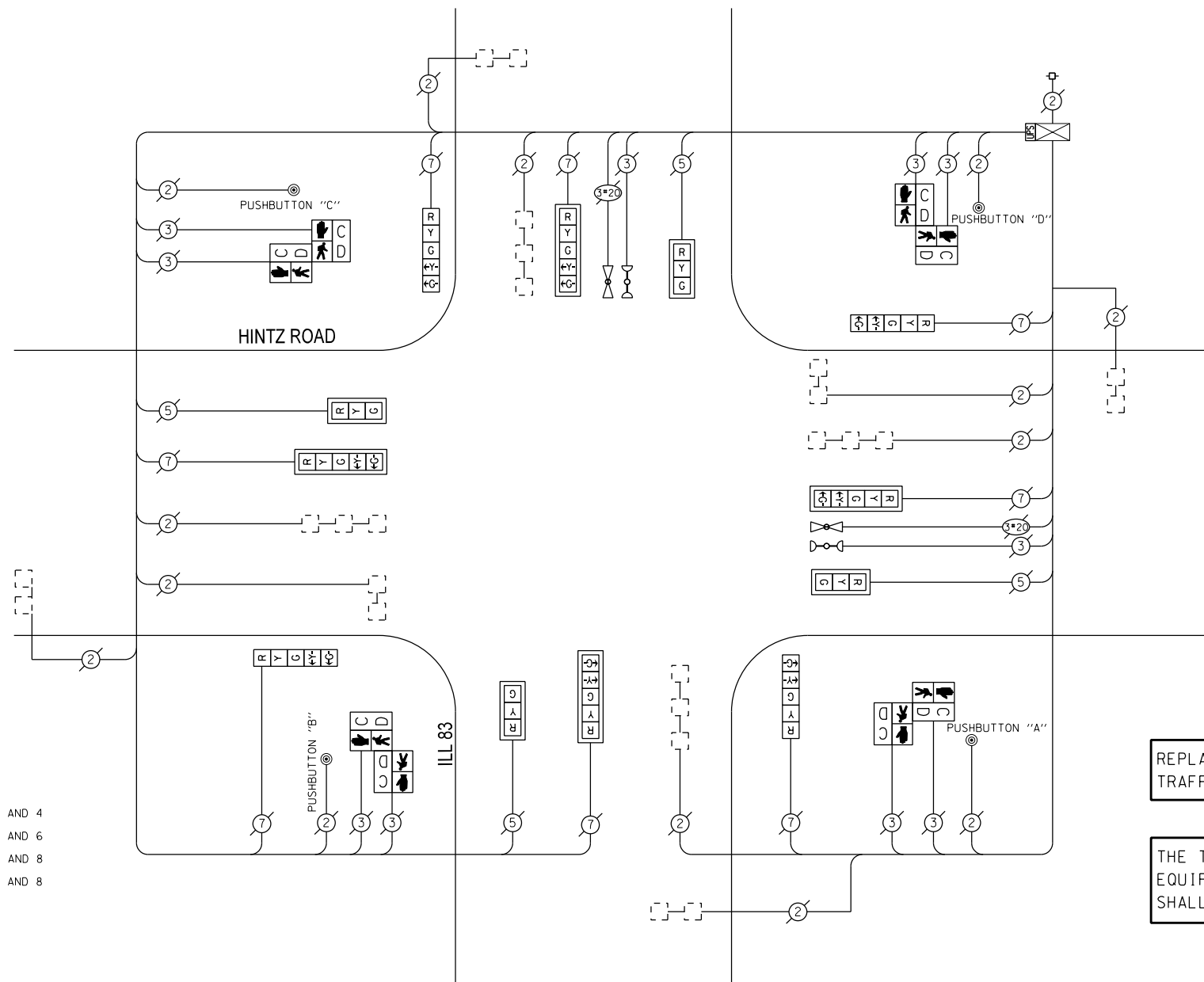
- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 541.20

VILLAGE OF WHEELING
 2 COMMUNITY BOULEVARD
 WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	SIGNAL HEAD, I-FACE, 3-SECTION
8	EACH	SIGNAL HEAD, I-FACE, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSHBUTTON
8	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 IL RTE 83 ELMHURST ROAD AT HINTZ ROAD

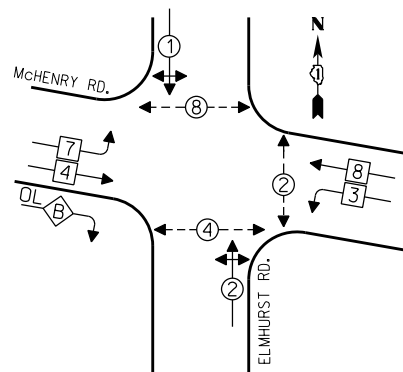
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	89
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT



CONTROLLER SEQUENCE

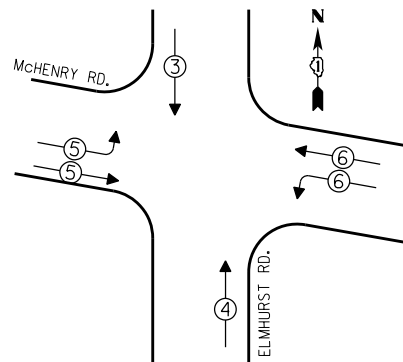


- LEGEND**
- SINGLE ENTRY PHASE
 - ⊕ DUAL ENTRY PHASE
 - ⊕ OVERLAP
 - ⊕ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 2

EMERGENCY VEHICLE PREEMPTION SEQUENCE



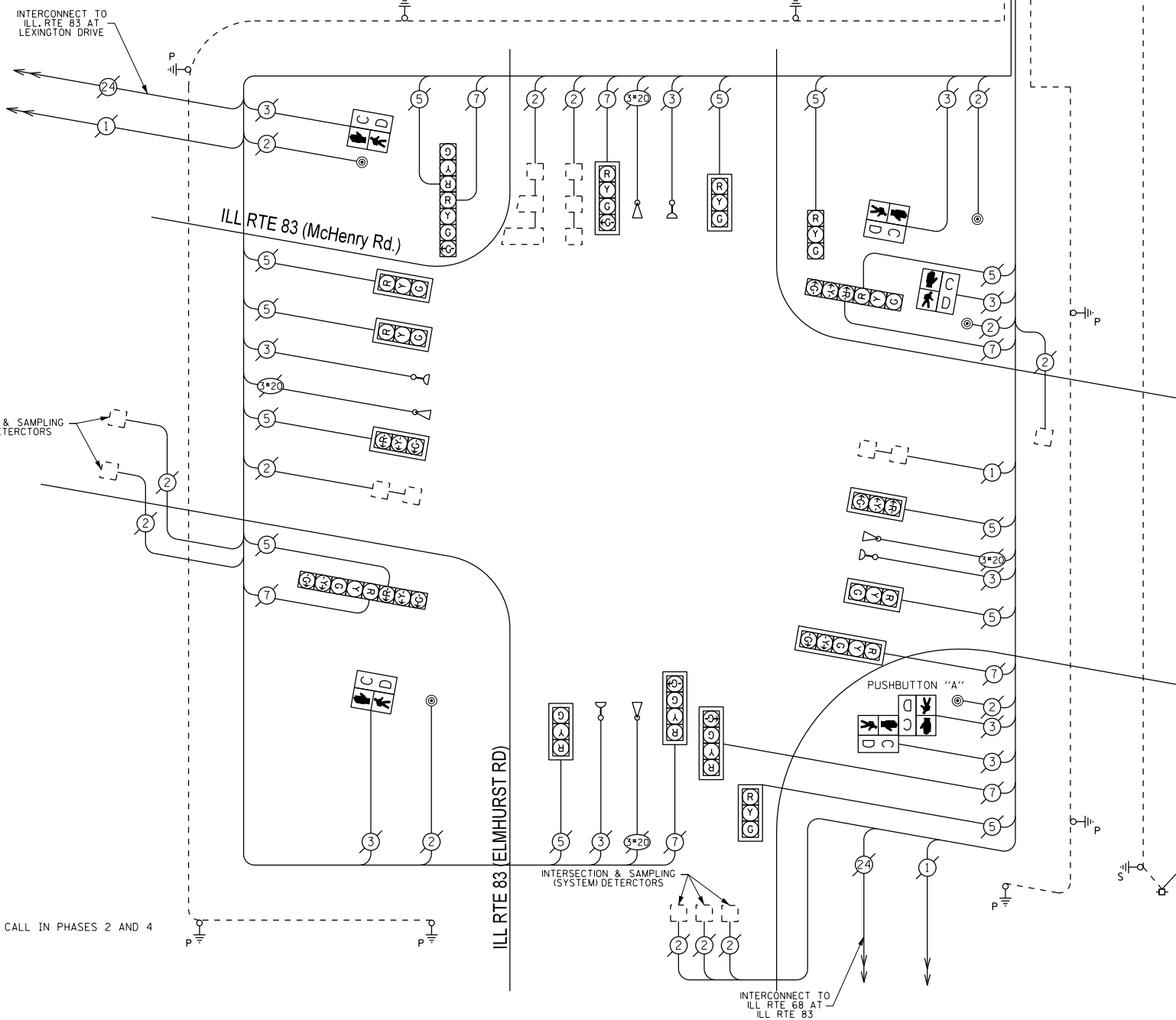
EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↓	↑	→	←

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	19	17	0.50		161.50
(YELLOW)	19	25	0.25		118.75
(GREEN)	19	15	0.25		71.25
ARROW	8	12	0.10		9.60
PED. SIGNAL	6	25	1.00		150.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN		25	0.05		
LUMINAIRE		250	0.50		
VIDEO SYSTEM		150	1.00		
FLASHER			0.50		
ENERGY COSTS TO:				TOTAL =	611.10

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4



CABLE PLAN

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
5	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
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
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

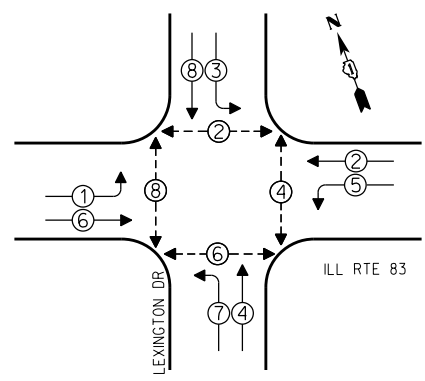
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL 83 (ELMHURST RD) AT IL 83 (OLD McHenry)

SCALE: NONE SHEET OF SHEETS STA. TO STA.

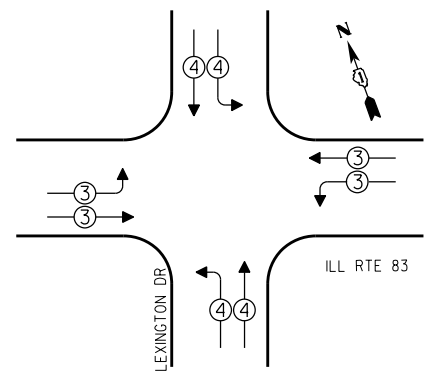
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	90
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE

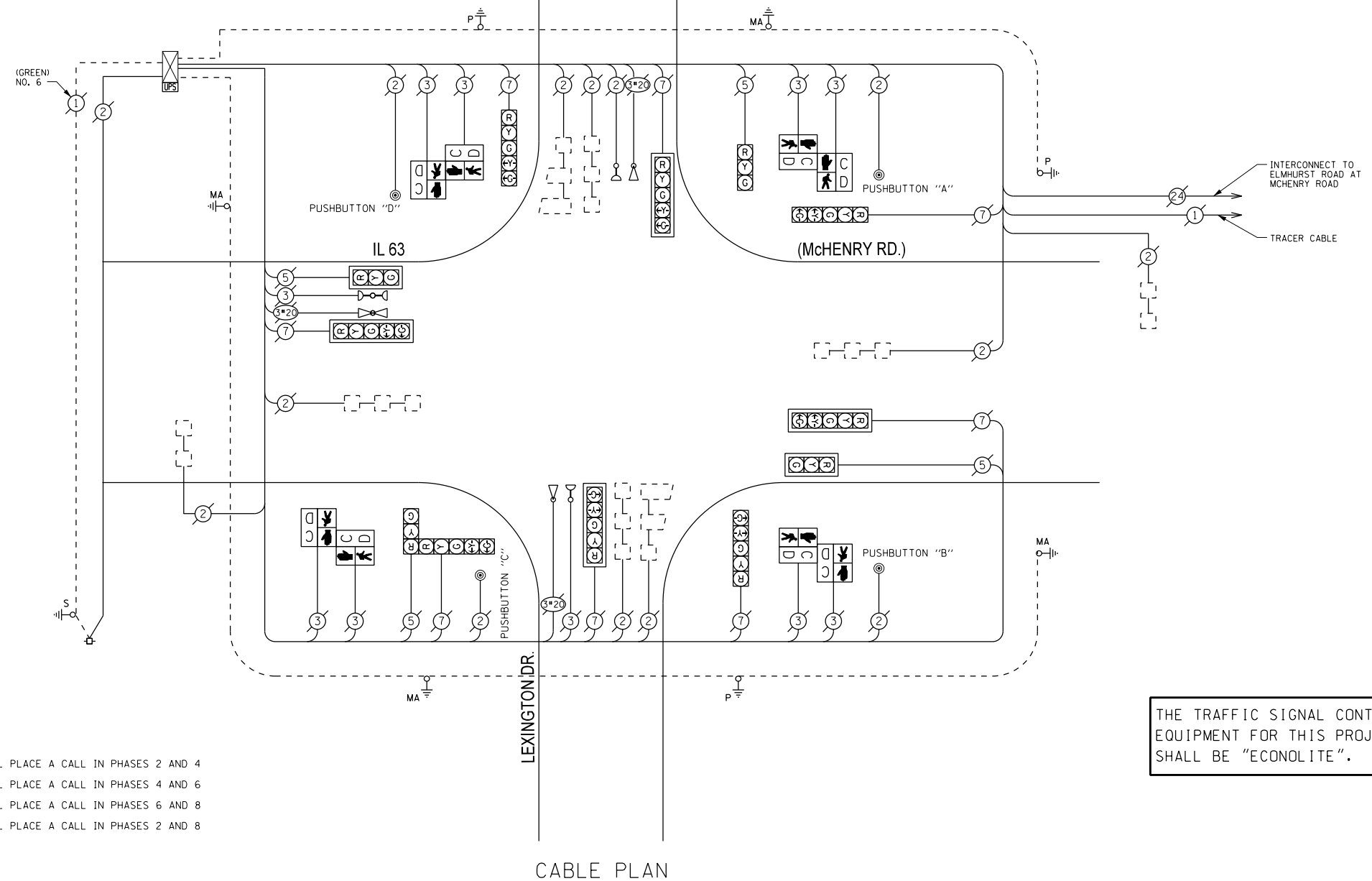


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



CABLE PLAN

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED % OPERATIONS	
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 541.20

VILLAGE OF WHEELING
 2 COMMUNITY BOULEVARD
 WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

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

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

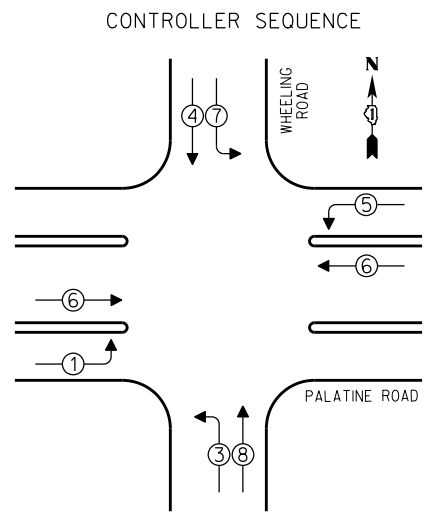
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, ILL RTE 83 (McHENRY RD) AND LEXINGTON DRIVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

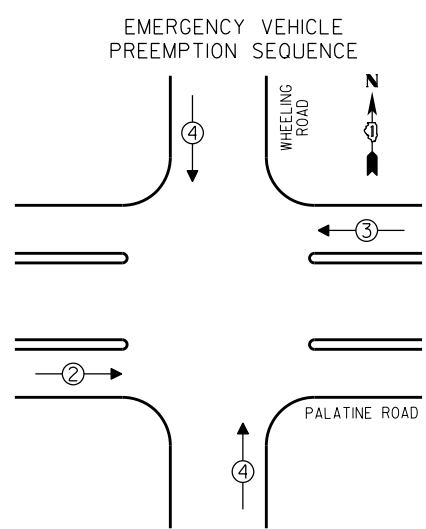
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	91
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				



LEGEND

- ◻ SINGLE ENTRY PHASE
- ◉ DUAL ENTRY PHASE
- ◌ OVERLAP
- ◉ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	2	3	4
MOVEMENT	→	←	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	24		15	0.25	90.00
ARROW	8		12	0.10	9.60
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	494.60

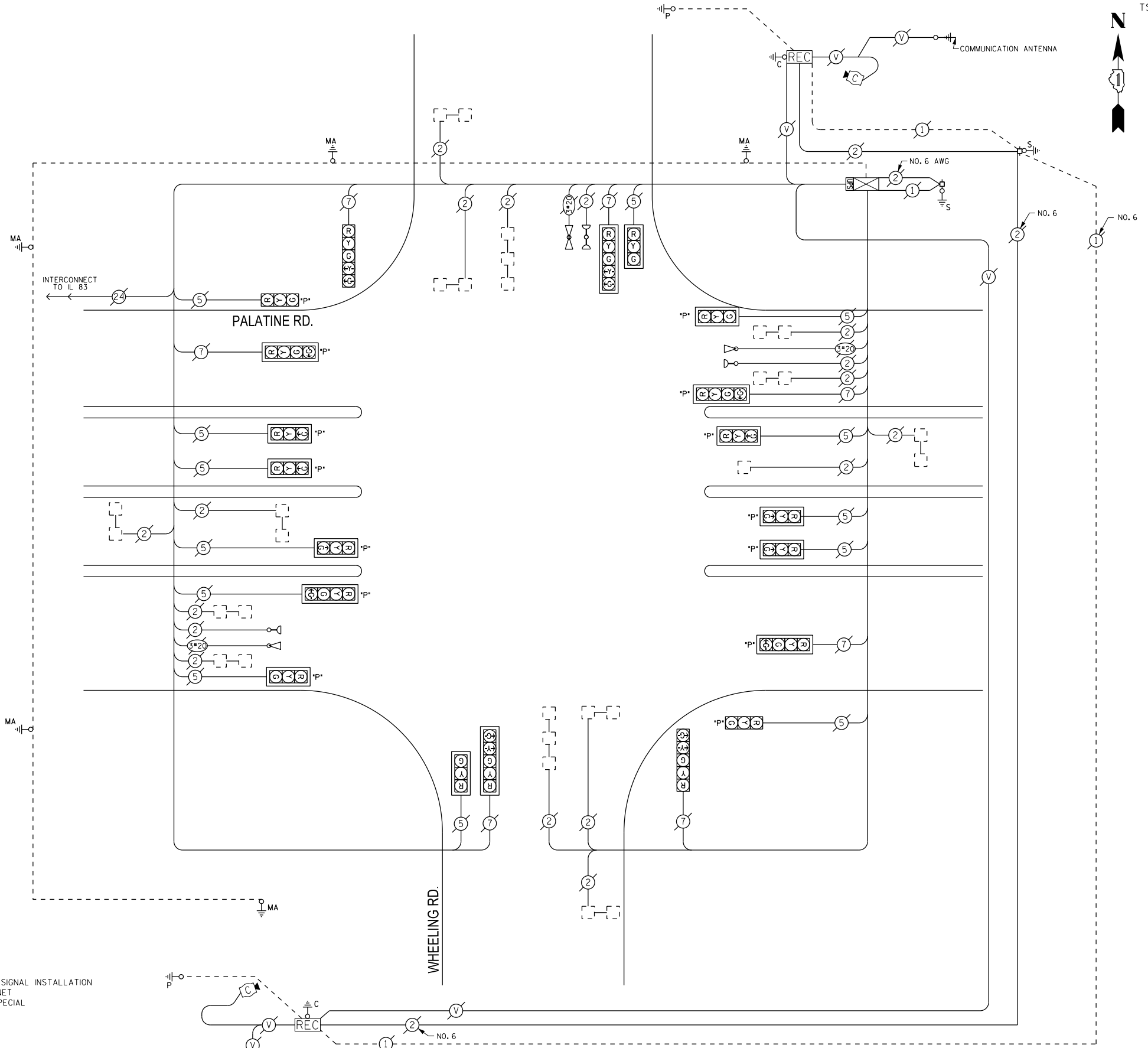
VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

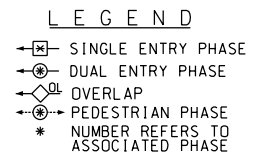
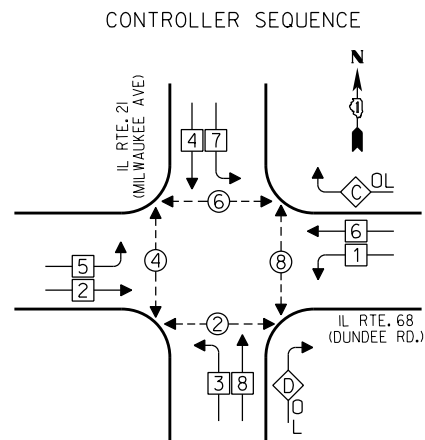
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
PALATINE ROAD AT WHEELING ROAD**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

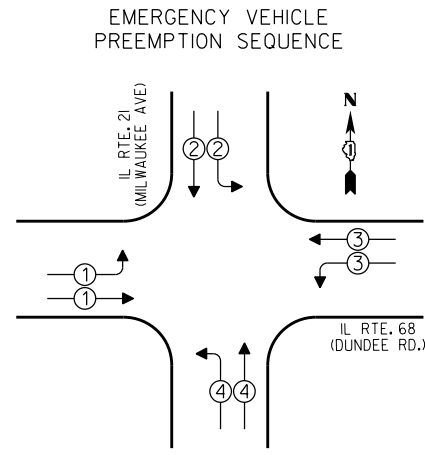
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	92
				CONTRACT NO. 60X15
ILLINOIS FED. AID PROJECT				





PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6 + 7	
D	= 8 + 1	



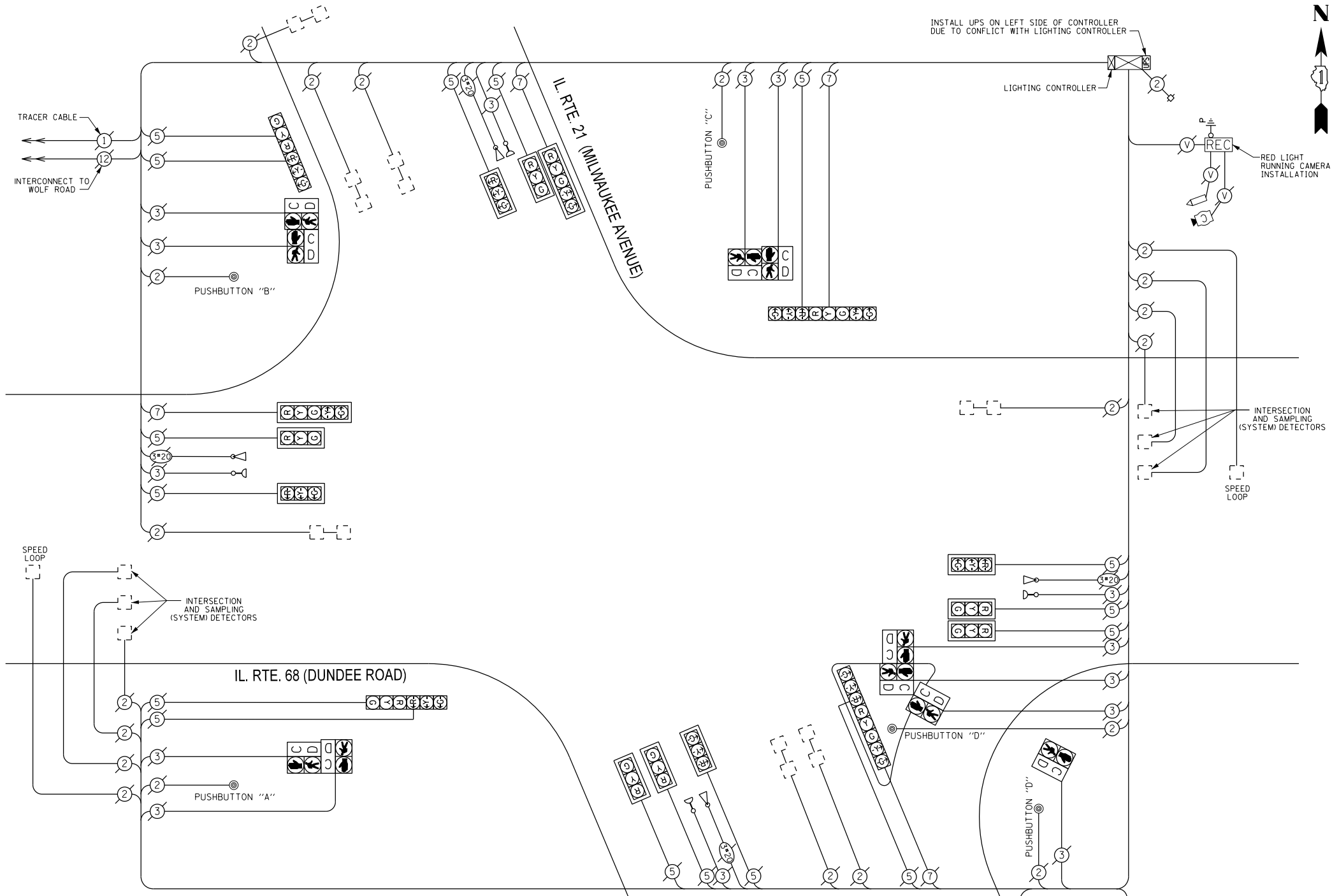
EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	1	2	3	4
MOVEMENT	→	←	↔	↔

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	INCAND.	LED % OPERATIONS	
SIGNAL (RED)	20	17		0.50	170.00
(YELLOW)	20	25		0.25	125.00
(GREEN)	20	15		0.25	75.00
ARROW	8	12		0.10	9.60
PED. SIGNAL	10	25		1.00	250.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN		25		0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 729.60

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



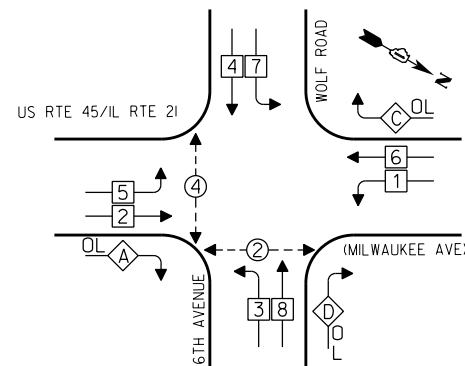
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, IL RTE. 21 (MILWAUKEE AVENUE) AND IL RTE. 68 (DUNDEE ROAD)
 SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	93
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE

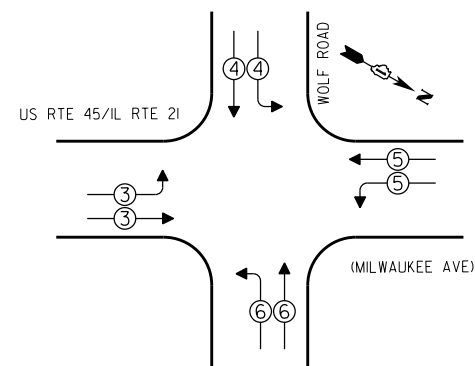


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
C	= 6	+ 7
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



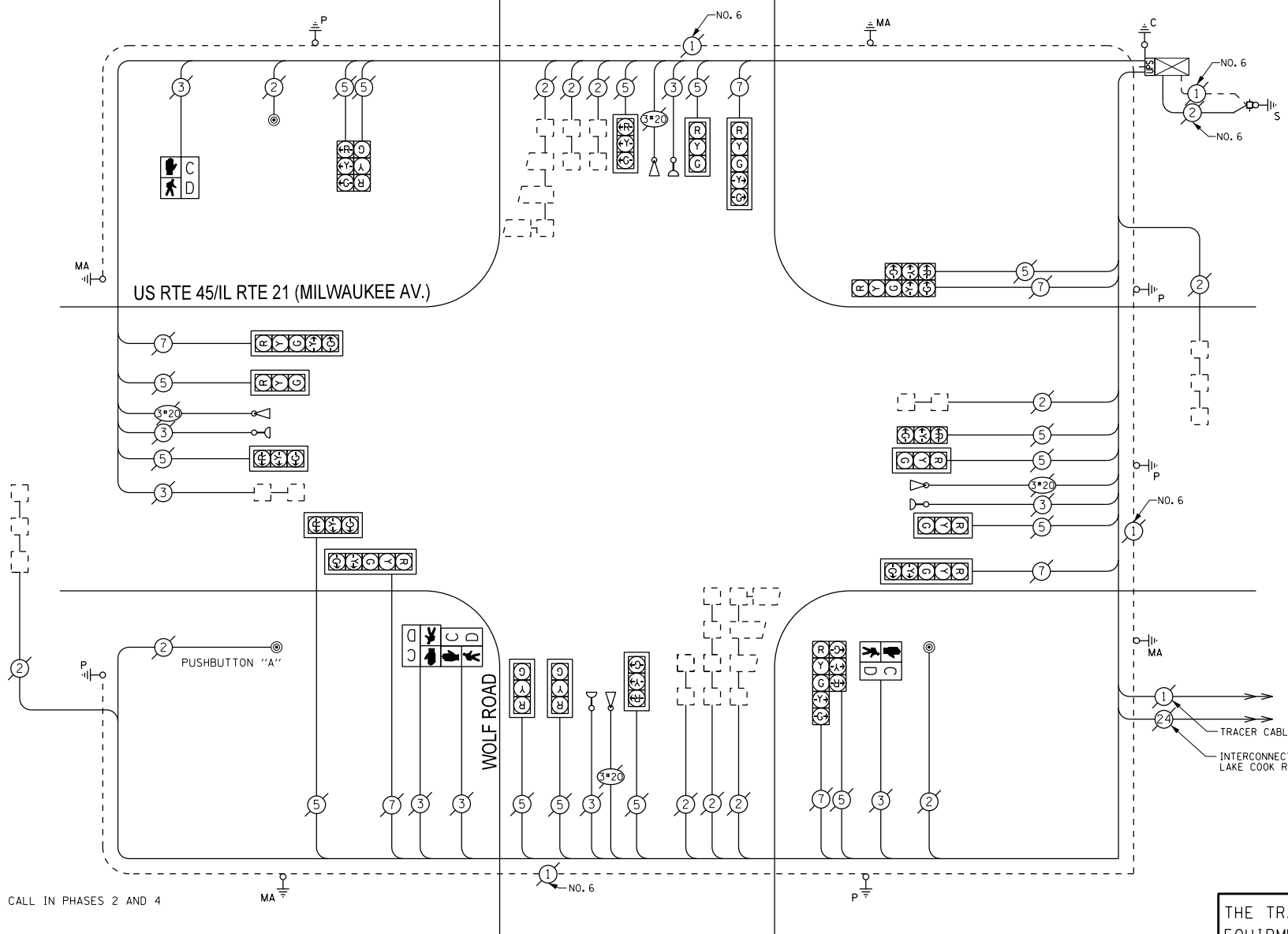
EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	OPERATIONS	
SIGNAL (RED)	21	17	0.50	178.50
(YELLOW)	21	25	0.25	131.25
(GREEN)	21	15	0.25	78.75
ARROW	12	12	0.10	14.40
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 602.90

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:



NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

CABLE PLAN

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	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
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

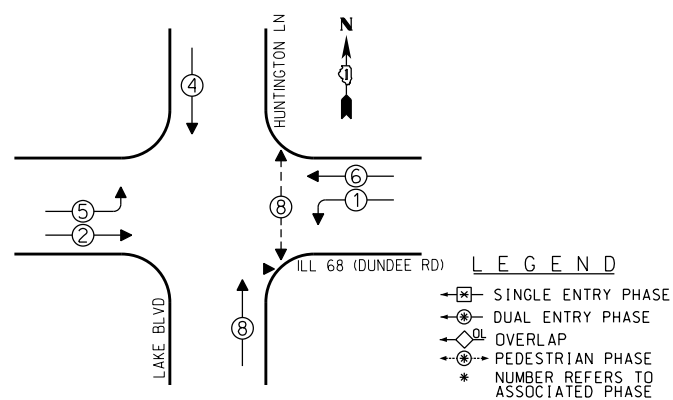
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
US RTE 45/IL RTE 21 (MILWAUKEE AVE.) AT WOLF ROAD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	94
				CONTRACT NO. 60X15

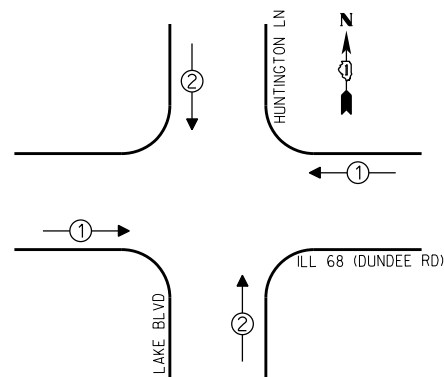
SCALE: NONE SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED % OPERATIONS	WATTAGE	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
LUMINAIRE		250		0.50	
VIDEO SYSTEM		150		1.00	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 381.60

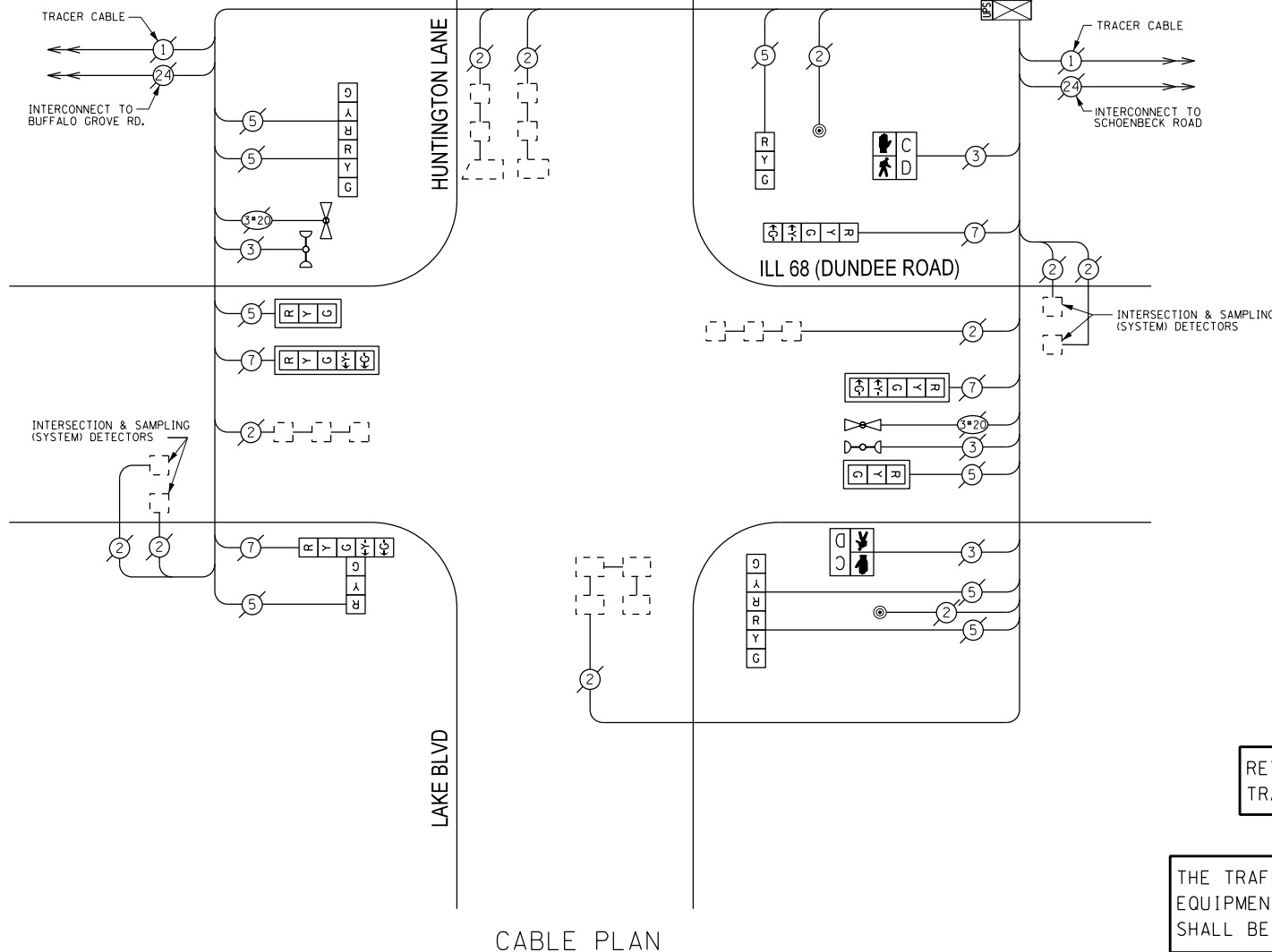
VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
2	EACH	PEDESTRIAN SIGNAL HEAD, I-FACE
2	EACH	PEDESTRIAN PUSHBUTTON



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, I-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
1	EACH	SIGNAL HEAD, LED, 2-FACE, I-3 SECTION, I-5 SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
ILL 68 (DUNDEE RD) AND HUNTINGTON LN /LAKE BLVD

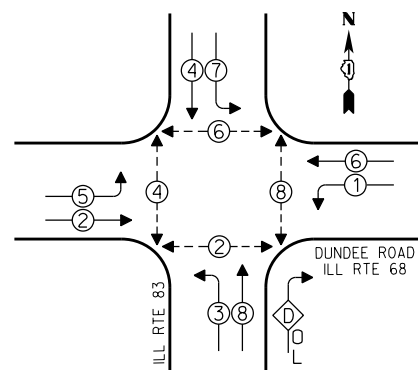
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	95
				CONTRACT NO. 60X15

ILLINOIS FED. AID PROJECT

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

CONTROLLER SEQUENCE

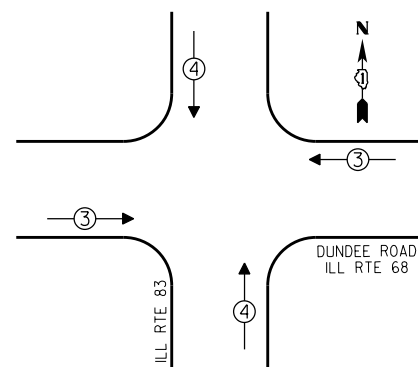


- LEGEND**
- SINGLE ENTRY PHASE
 - DUAL ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

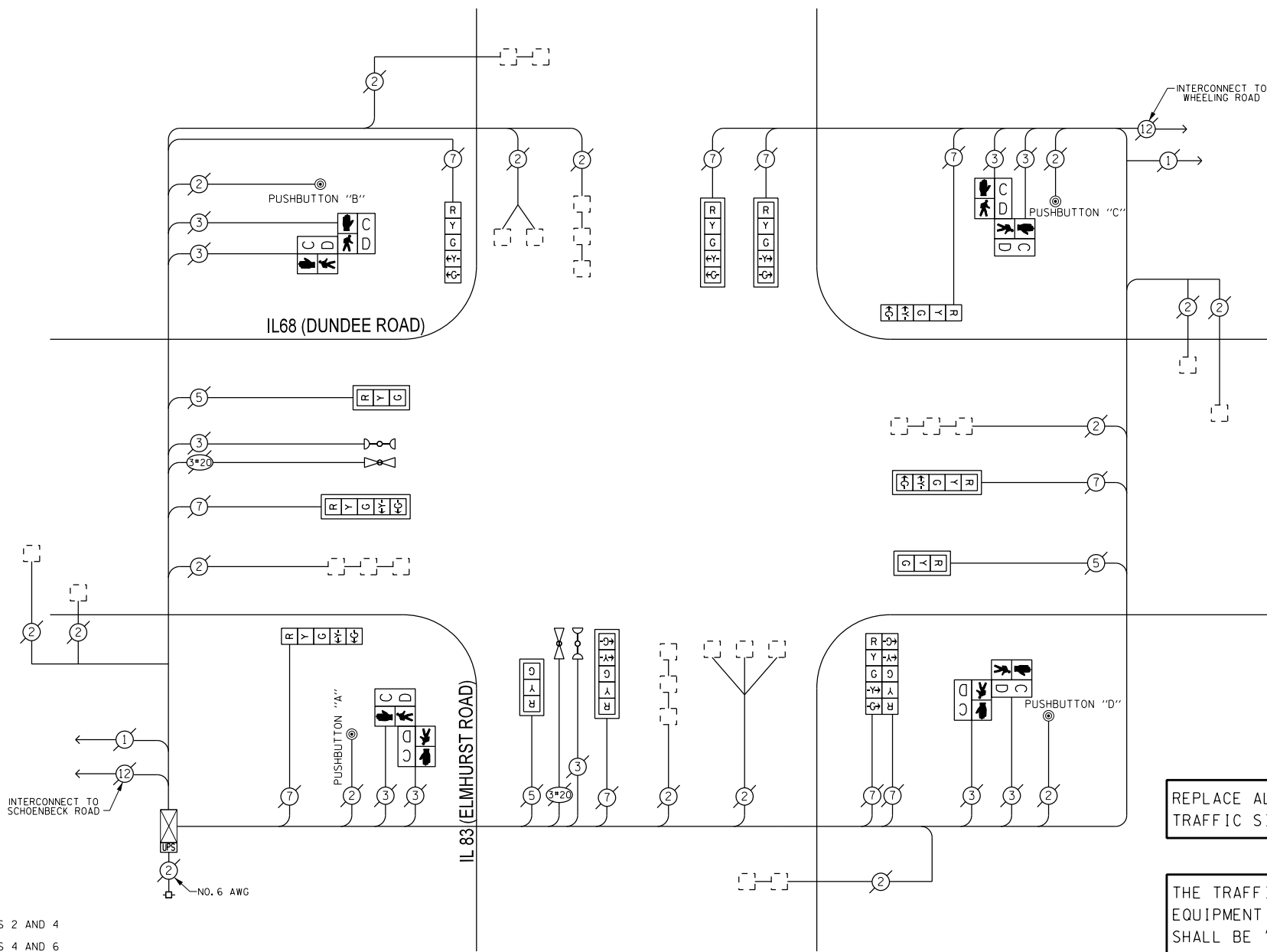
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND	LED X % OPERATIONS	
SIGNAL (RED)	13	17	0.50	110.50
(YELLOW)	13	25	0.25	81.25
(GREEN)	13	15	0.25	48.75
ARROW	20	12	0.10	24.00
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:			TOTAL =	564.50

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY:

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN

REPLACE ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
8	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSHBUTTON

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
4	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	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

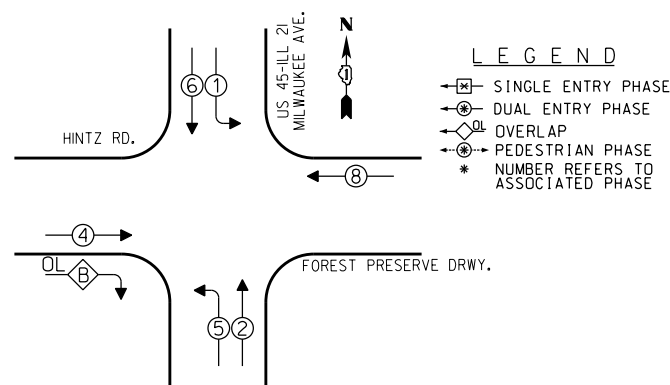
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE,
IL 68/DUNDEE ROAD AT IL 83/ELMHURST

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	96
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



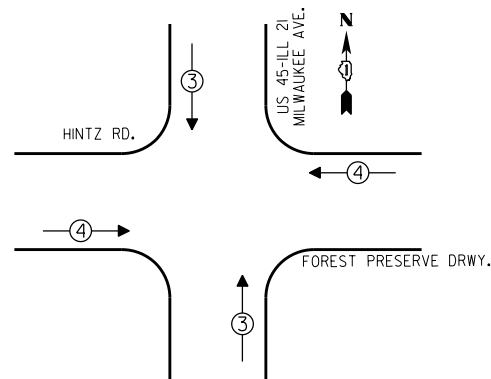
LEGEND

- [M] — SINGLE ENTRY PHASE
- [D] — DUAL ENTRY PHASE
- [O] — OVERLAP
- [P] — PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	OPERATIONS	
SIGNAL (RED)	14	17	0.50	119.00
(YELLOW)	14	25	0.25	87.50
(GREEN)	14	15	0.25	42.00
ARROW	12	12	0.10	14.40
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 362.90

VILLAGE OF WHEELING
2 COMMUNITY BOULEVARD
WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
PHONE: (847) 813-5239
COMPANY:

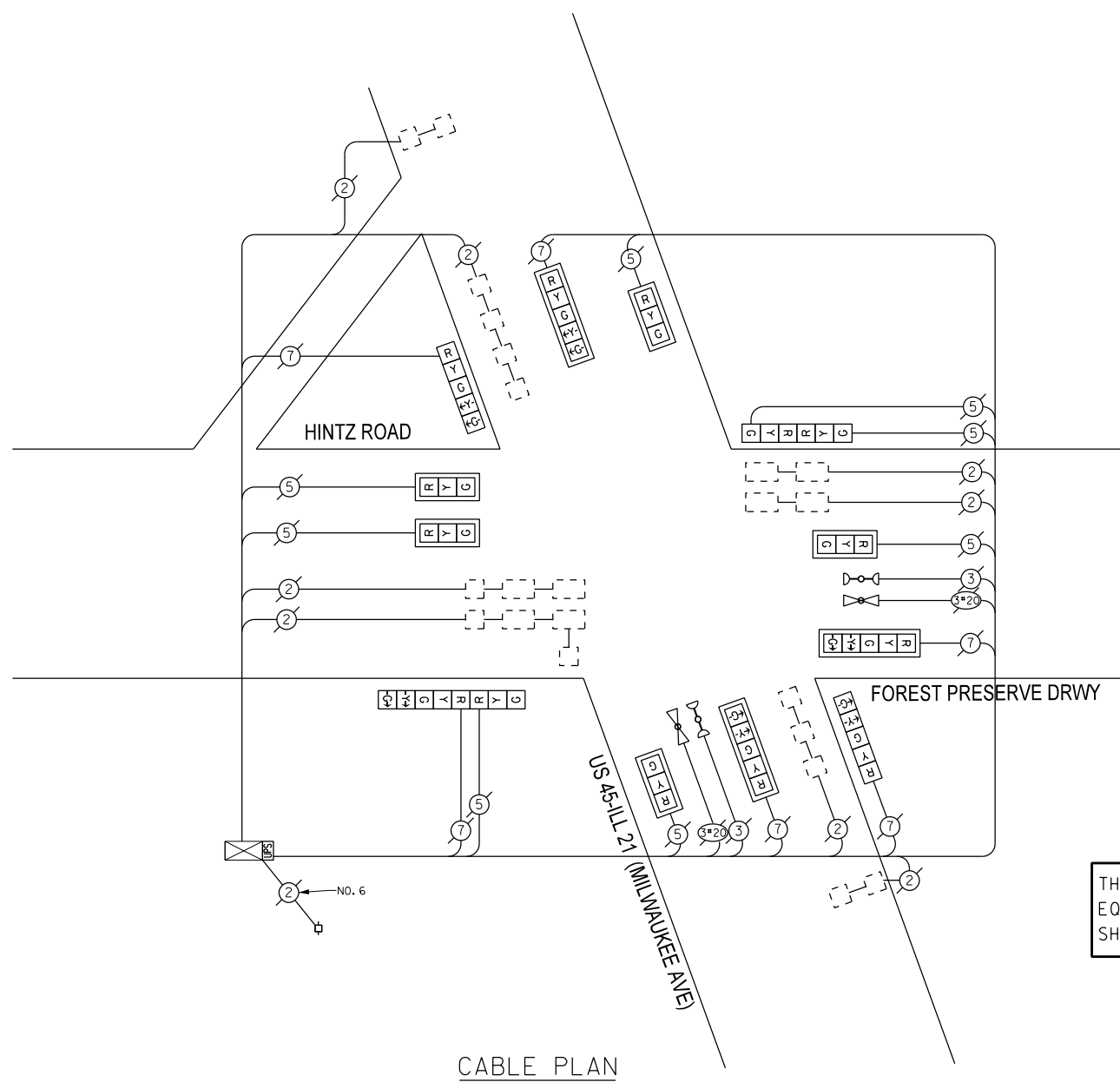
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

QUANTITY	UNIT	DESCRIPTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
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
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
5	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
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

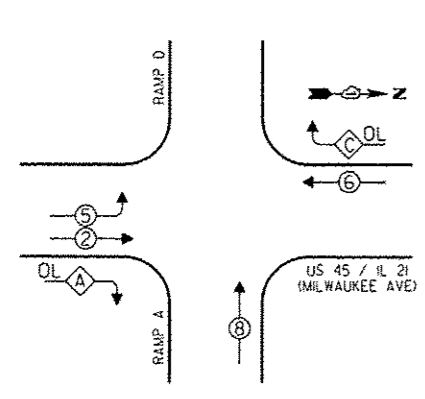
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, US 45 - ILL 21 (MILWAUKEE AVE) AND HINTZ RD /FOREST PRESERVE DRW			
SCALE: NONE	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	97
CONTRACT NO. 60X15				
ILLINOIS FED. AID PROJECT				

SAM SCHWARTZ ENGINEERING
3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169



CONTROLLER SEQUENCE

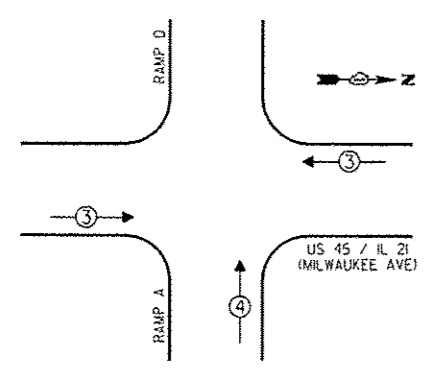


LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	6	8

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND)	LED % OPERATIONS	
SIGNAL (RED)	18	17	0.50	153.00
(YELLOW)	18	25	0.25	112.50
(GREEN)	19	15	0.25	71.25
ARROW	4	12	0.10	4.80
PEO. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:				TOTAL = 441.55

VILLAGE OF WHEELING
 2 COMMUNITY BOULEVARD
 WHEELING, ILLINOIS 60090

ENERGY SUPPLY - CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY:

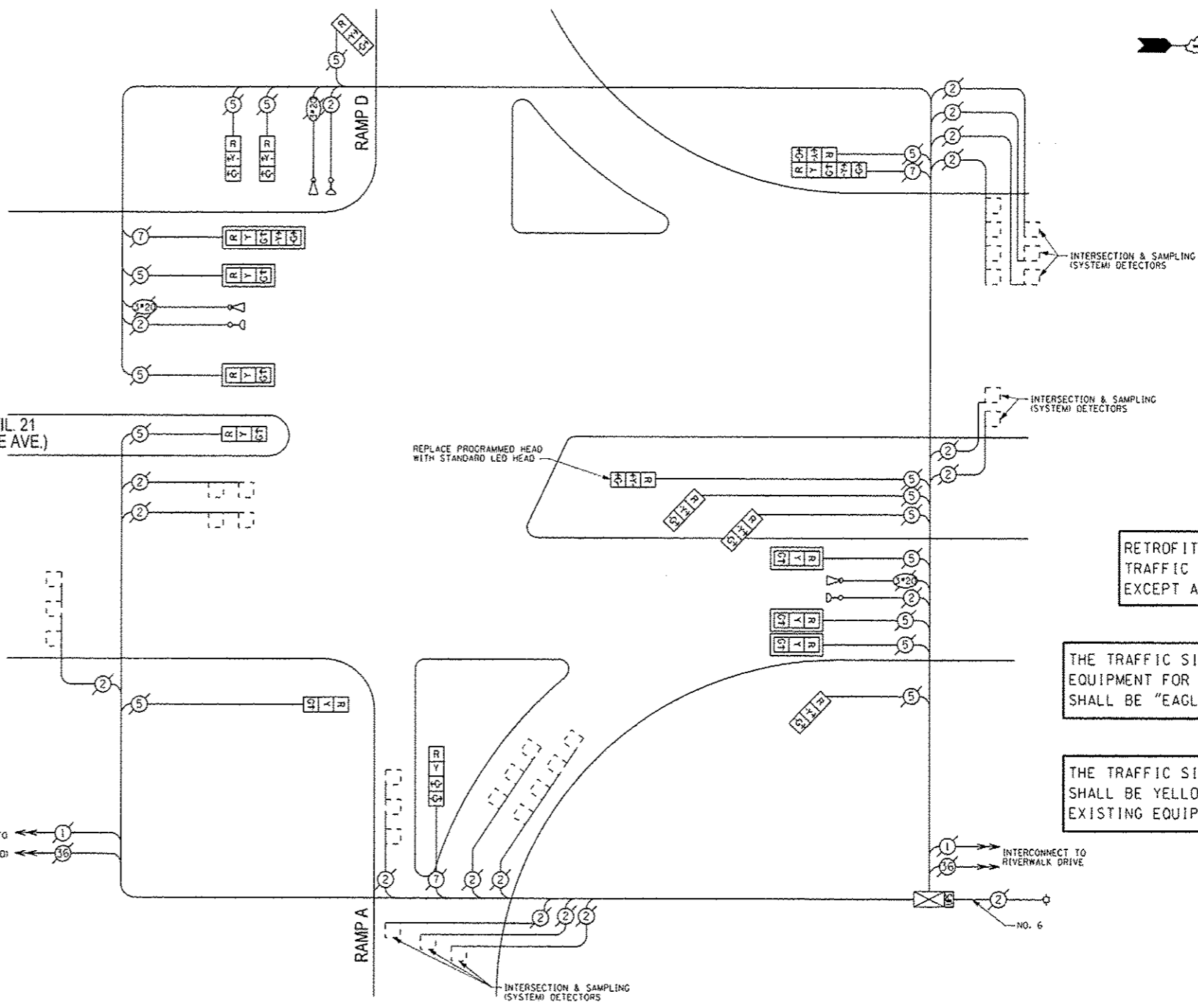
US. RTE. 45/IL 21 (MILWAUKEE AVE.)

INTERCONNECT TO RAMP B AND C (LAKE COOK ROAD)

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
1	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS EXCEPT AS NOTED

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

THE TRAFFIC SIGNAL HOUSINGS SHALL BE YELLOW TO MATCH EXISTING EQUIPMENT.

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED, RETROFIT

SAM SCHWARTZ ENGINEERING
 3100 W. HIGGINS, STE. 100, HOFFMAN ESTATES, IL 60169

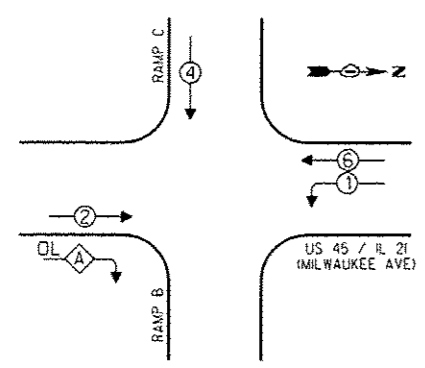
DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE, U.S. 45/IL 21 (MILWAUKEE AVE) AND RAMPS A AND D (LAKE COOK ROAD)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	98
CONTRACT NO. 60X15			ILLINOIS FED. AID PROJECT	

CONTROLLER SEQUENCE

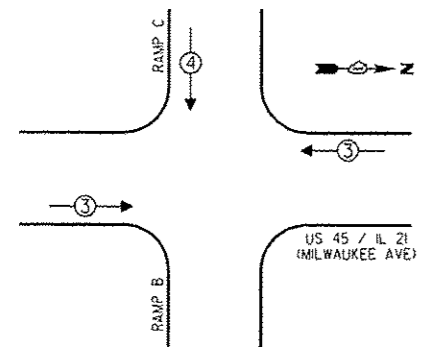


LEGEND
 [Symbol] SINGLE ENTRY PHASE
 [Symbol] DUAL ENTRY PHASE
 [Symbol] OVERLAP
 [Symbol] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2 + 4	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND	LED % OPERATIONS	
SIGNAL (RED)	17		0.50	144.50
(YELLOW)	17		0.25	106.25
(GREEN)	17		0.25	63.75
ARROW	4		1.00	4.80
PED. SIGNAL		25	1.00	
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN		25	0.05	
LUMINAIRE		250	0.50	
VIDEO SYSTEM		150	1.00	
FLASHER			0.50	
ENERGY COSTS TO:			TOTAL =	419.30

VILLAGE OF WHEELING
 2 COMMUNITY BOULEVARD
 WHEELING, ILLINOIS 60090

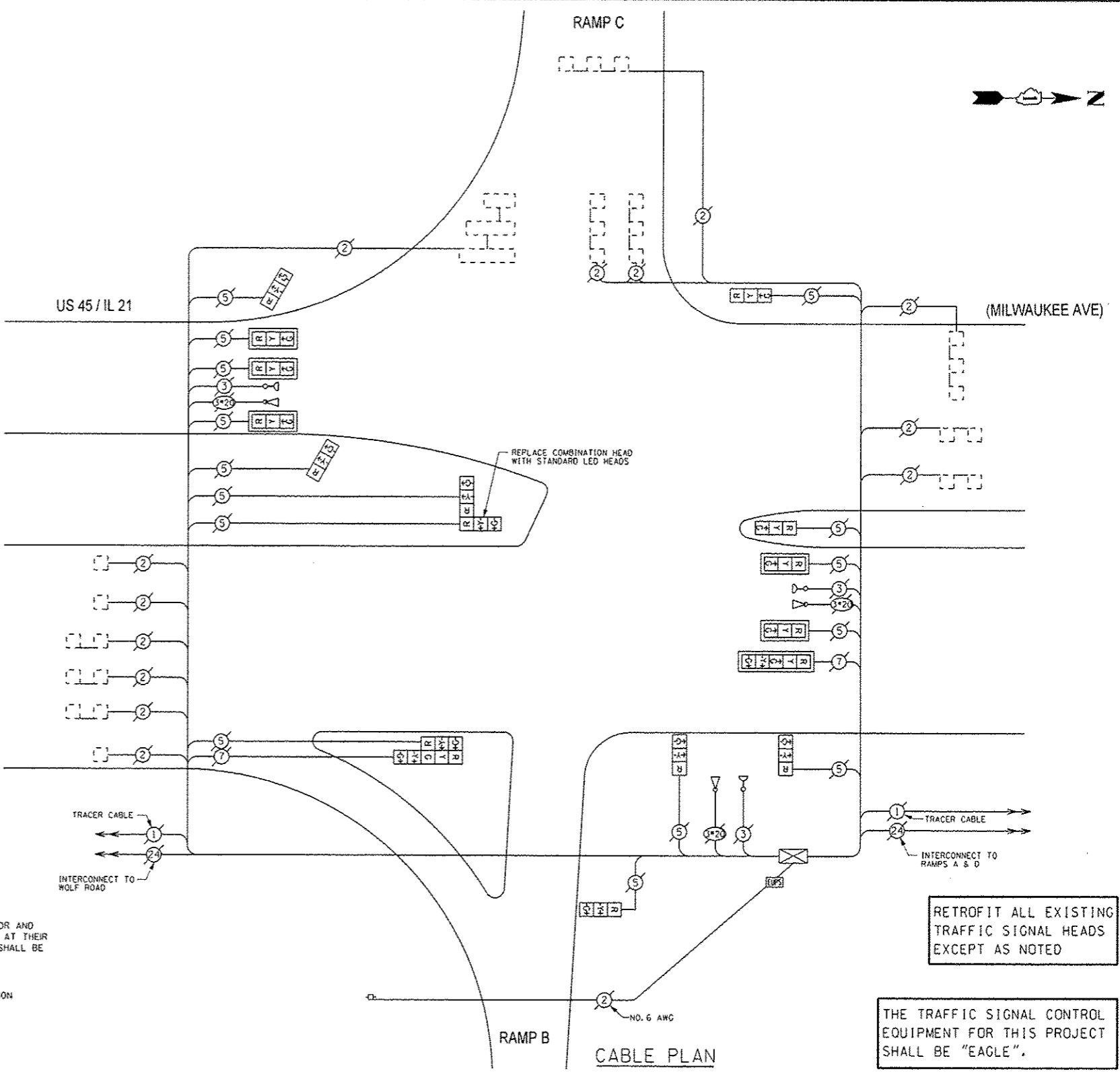
ENERGY SUPPLY - CONTACT: TERRI BLECK
 PHONE: (847) 816-5239
 COMPANY:

REMOVE 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.

QUANTITY	UNIT	DESCRIPTION
1	EACH	SIGNAL HEAD, COMBINATION, 2-FACE, 3-SECTION

SCHEDULE OF QUANTITIES

QUAN.	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, BRACKET MOUNTED, RETROFIT
7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT



RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS EXCEPT AS NOTED

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

THE TRAFFIC SIGNAL HOUSINGS SHALL BE YELLOW TO MATCH EXISTING EQUIPMENT.



DESIGNED - JAM	REVISED -
DRAWN - JAM	REVISED -
CHECKED - LMM	REVISED -
DATE - 10-14-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 US 45/IL 21 (MILWAUKEE AVE) AND RAMPS B AND C (LAKE COOK RD)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2013-054TS	COOK	99	99

CONTRACT NO. 60X15
 ILLINOIS FEDERAL AID PROJECT