

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
--	2012-039TS	LAKE	B4	1
		ILLINOIS	CONTRACT NO. 60T84	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED
HIGHWAY PLANS**

**VARIOUS LOCATIONS IN SOUTHWEST LAKE COUNTY
LIGHT EMITTING DIODE (LED) INSTALLATION**

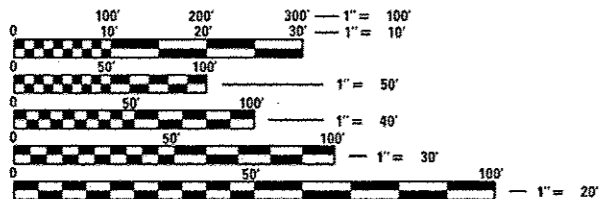
**SECTION 2012-039TS
LAKE COUNTY**

C-91-486-12



HIGHWAY STANDARDS

- 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701101-02 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701701-08 URBAN LANE CLOSURE MULTILANE INTERSECTION
- 701901-02 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAIL
- 720006-03 SIGN PANEL ERECTION DETAILS
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS



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

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

LAKE COUNTY
LOCATION MAP
SEE SHEET NO. 3



Signed Daniel Wirtorzak
DANIEL WIRTORZAK, P.E. IL Lic. No. 062-060950
Expires 11-30-2013
Date 08/23/11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 24 2012
John Franks
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 5 2012
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

October 5 2012
William R. Freyler
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: SUDUD MAHMOUD
PROJECT MANAGER: DARYLE DREW

CONTRACT NO. 60T84

CIVIL ENGINEERING CONSULTANTS
RWA
Regina Webster & Associates, Inc.
8619 W. Bryn Mawr Ave., Suite 602
Chicago, IL 60631-3551
773-283-2600 Fax: 773-283-2602
www.RWAengineers.com

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OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

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- 2 INDEX OF SHEETS
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- 4-10 SUMMARY OF QUANTITIES
- 11-16 DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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17	4685 US ROUTE 14 AT BERRY RD.
18	4690 US ROUTE 14 (NORTHWEST HWY.) AT WESTERN AVE.
19	6525 US ROUTE 14 (NORTHWEST HWY.) AT IL ROUTE 59 (HOUGH ST.)
20	965 US ROUTE 12 (RAND RD.) AT LONG GROVE RD.
21	969 US ROUTE 12 (RAND RD.) AT DEER PARK BLVD.
22	21785 US ROUTE 12 (RAND RD.) AT PLUM GROVE RD.
23	22205 GILMER RD. AT MIDLOTHIAN RD.
24	7135 IL ROUTE 176 AT DARRELL RD.
25	7137 IL ROUTE 176 AT WESTRIDGE DR.
26	7139 IL ROUTE 176 AT BEECH ST/EASTWAY DR.
27	957 US ROUTE 12 AT OQUENTIN COLLECTION
28	6765 IL ROUTE 22 AT OQUENTIN RD.
29	6767 IL ROUTE 22 AT KEMPER INSURANCE
30	6531 IL ROUTE 22 AT KELSEY RD.
31	941 IL ROUTE 22 AT VILLAGE SQUARE
32	975 US ROUTE 12 (RAND RD.) AT CUBA RD.
33	6573 MIDLOTHIAN RD. AT OAKWOOD RD./LAKEWOOD LN.
34	6750 MAIN ST. AT MIDLOTHIAN RD.
35	6751 IL ROUTE 22 AT BUESCHING RD.
36	6755 MAIN ST. AT OLD RAND RD.
37	6757 IL ROUTE 22 AT OLD RAND RD.
38	6758 IL ROUTE 22 AT MAIN ST. EAST
39	6759 IL ROUTE 22 AT MAIN ST. WEST
40	6775 IL ROUTE 22 AT ELA RD.
41	6785 IL ROUTE 22 AT OLD MILL GROVE RD./OAKWOOD RD.
42	20535 US ROUTE 12 AT PHEASANT RIDGE RD.
43	966 IL ROUTE 53 AT LONG GROVE RD.
44	6835 IL ROUTE 53 AT IL ROUTE 83
45	6839 IL ROUTE 53 AT OLD MCHENRY RD
46	6955 IL ROUTE 83 AT APTAKISIC RD.

PAGE#	TS#	INTERSECTION NAME
47	6957	IL ROUTE 83 AT HILLTOP RD.
48	6990	IL ROUTE 83 AT GILMER RD./OAKWOOD RD.
49	21525	IL ROUTE 22 AT OLD MCHENRY RD.
50	6605	US ROUTE 45 AT IL ROUTE 60
51	6610	US ROUTE 45 AT IL ROUTE 83
52-53	6865	IL ROUTE 60 AT BUTTERFIELD RD.
54	6905	IL ROUTE 60 AT OAK CREEK PLAZA
55	6910	IL ROUTE 60-IL ROUTE 83 AT SCHANCK AVE.
56	6911	IL ROUTE 60 AT CONNECTOR
57	6915	IL ROUTE 60-IL 83 ROUTE AT IL ROUTE 176
58	6916	IL ROUTE 176 AT HAWLEY EAST ST.
59	6920	IL ROUTE 60-IL ROUTE 83 AT DIAMOND LAKE RD.
60	6925	IL ROUTE 60-IL ROUTE 83 AT MIDLOTHIAN RD.
61	6930	IL ROUTE 60-IL ROUTE 83 AT HAWLEY ST.
62	6935	IL ROUTE 60-IL ROUTE 83 AT WILLOW SPRINGS RD.
63	7145	IL ROUTE 176 AT MIDLOTHIAN RD.
64	14335	MIDLOTHIAN AVE. AT HAWLEY ST.
65	14340	US ROUTE 45 AT DIAMOND LAKE RD.
66	14345	US ROUTE 45 AT DIVISION ST.
67	14350	US ROUTE 45 AT HAWLEY ST.
68	14370	US ROUTE 45 AT ALLANSON RD.
69	14372	US ROUTE 45 AT COURTLAND ST.
70	21260	US ROUTE 45 AT MOTOROLA PKWY.
71	21975	US ROUTE 45 AT TOWNLINE SQUARE ACCESS
72	6740	IL ROUTE 22 AT IL ROUTE 59
73	6860	IL ROUTE 59 AT MILLER RD.
74	21190	IL ROUTE 59 AT KELSEY RD.
75	22040	IL ROUTE 59 AT ROBERTS RD.
76	22041	IL ROUTE 59 AT INDIAN TRAIL RD.
77	960	US ROUTE 12 AT LAKE SHORE DR.
78	6917	IL ROUTE 176 AT HAWLEY ST. WEST
79	7142	IL ROUTE 176 AT GILMER RD.
80	21350	IL ROUTE 59 AT CUBA RD.
81	6992	IL ROUTE 83 AT WESTMORELAND DR.
82	6517	IL ROUTE 176 AT WAUCONDA CROSSING
83	7150	IL ROUTE 176 AT OLD RAND RD.
84	7152	IL ROUTE 176 AT LARKDALE ROW

GENERAL NOTES:

1. CONTRACTOR SHALL REPLACE BROKEN MOUNTING 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.
2. CONTRACTOR SHALL RELOCATE EXISTING SIGN PANELS FROM PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT TO A 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.
3. DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

RLR CAMERA LOCATION:
969 - US ROUTE 12 (RAND RD.) AT DEER PARK BLVD.

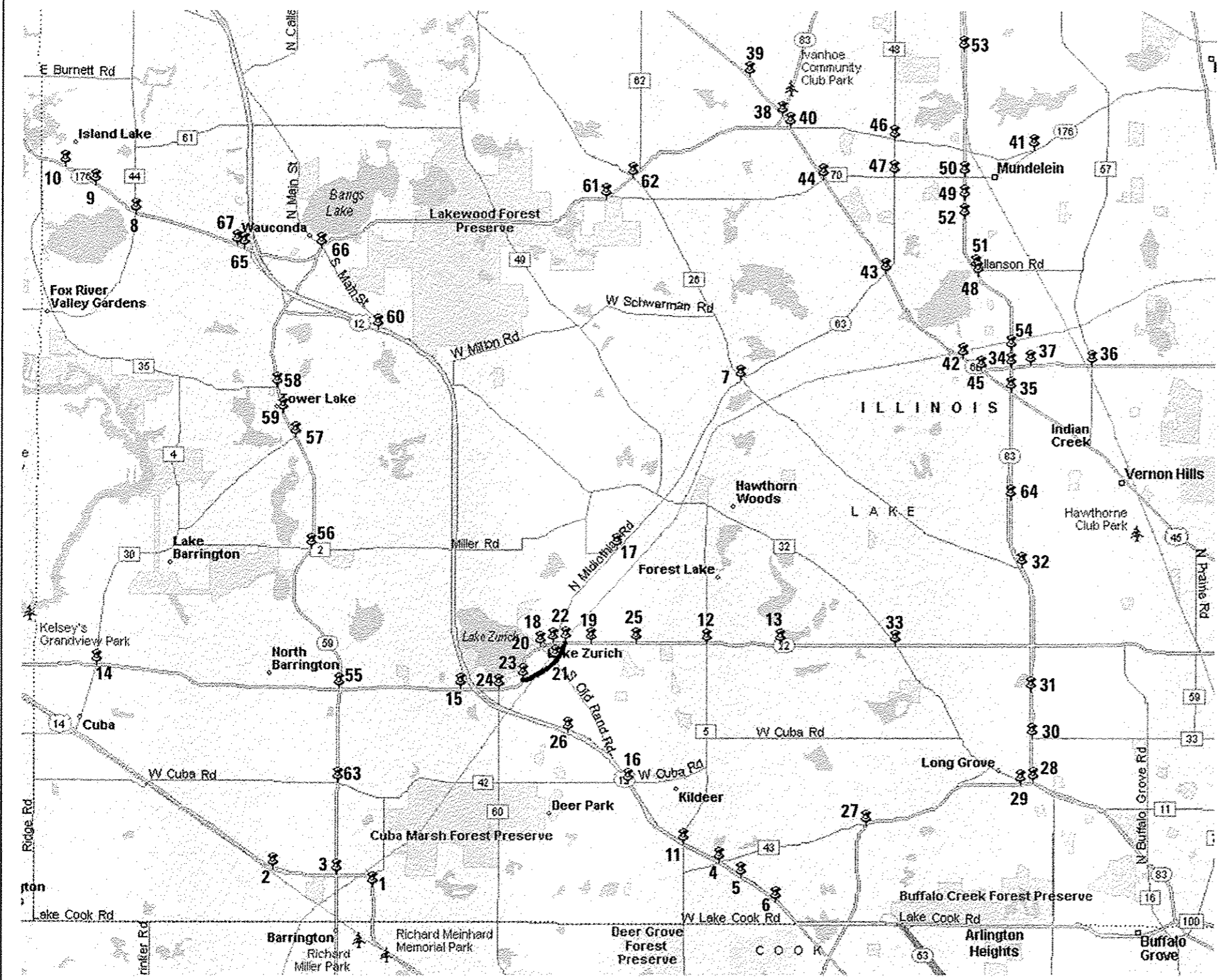
VILLAGE OF DEER PARK 23680 W. CUBA ROAD DEER PARK, IL 60010-2490 847-726-1648	REDSPEED ILLINOIS 400 EISENHOWER LANE NORTH LOMBARD, IL 60148 630-317-5700
--	---

RLR CAMERA LOCATION:
7150 - IL ROUTE 176 AT OLD RAND RD.

VILLAGE OF WAUCONDA 101 N. MAIN STREET WAUCONDA, IL 60084 847-526-9600	REDSPEED ILLINOIS 400 EISENHOWER LANE NORTH LOMBARD, IL 60148 630-317-5700
---	---

4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING BOLT PATTERN ON EXISTING FOUNDATIONS THAT ARE SPECIFIED TO BE RE-USED.
5. ANY ADDITIONAL CABLE LENGTHS NECESSARY FOR THE PROPOER INSTALLATION OF AN UNINTERRUPTABLE 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 UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED PAY ITEM.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
7. THE EXACT LOCATION OF ALL UTILITES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
8. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

FILE NAME *	USER NAME * USERNAME	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		INDEX OF SHEETS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\312004\Design\CA01\Sheet Files	12-003 Sheets SW Lake Co\68184 LAKE.indd	DRAWN - JOH	REVISED -					2012-039TS	LAKE	84	2	
	PLOT SCALE * 20.0000 / in.	CHECKED - KMM	REVISED -									CONTRACT NO. 60T84
	PLOT DATE * #DATE#	DATE -	REVISED -			SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



**SW QUADRANT
 LAKE COUNTY**

TS#	LOCATION
1. 4685	US ROUTE 14 AT BERRY RD.
2. 4690	US ROUTE 14 (NORTHWEST HWY.) AT WESTERN AVE.
3. 6525	US ROUTE 14 (NORTHWEST HWY.) AT IL ROUTE 59 (HOUGH ST.)
4. 965	US ROUTE 12 (RAND RD.) AT LONG GROVE RD.
5. 969	US ROUTE 12 (RAND RD.) AT DEER PARK BLVD.
6. 21785	US ROUTE 12 (RAND RD.) AT PLUM GROVE RD.
7. 22205	GLIMER RD. AT MIDLOTHIAN RD.
8. 7135	IL ROUTE 176 AT DARRELL RD.
9. 7137	IL ROUTE 176 AT WESTRIDGE DR.
10. 7139	IL ROUTE 176 AT BEECH ST/EASTWAY DR.
11. 957	US ROUTE 12 AT QUENTIN COLLECTION
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14. 6531	IL ROUTE 22 AT KELSEY RD.
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23. 6759	IL ROUTE 22 AT MAIN ST. WEST
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25. 6785	IL ROUTE 22 AT OLD MILL GROVE RD./OAKWOOD RD.
26. 20535	US ROUTE 12 AT PHEASANT RIDGE RD.
27. 966	IL ROUTE 53 AT LONG GROVE RD.
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67. 7152	IL ROUTE 176 AT LARKDALE ROW



SUMMARY OF QUANTITIES HEADING LEGEND

FUNDING PARTICIPATION

COLUMN NUMBER	TS#	INTERSECTION	STATE	LAKE	BARRINGTON	DEER PARK	ISLAND LAKE	KILDEER	LAKE ZURICH	LONG GROVE	MUNDELEIN	TOWER LAKES	VERNON HILLS	WAUCONDA	BARRINGTON LIBRARY	CUSHMAN & WAKEFIELD OF ILLINOIS	ELA TWP.	LIBERTYVILLE TWP.	MOTOROLA	THRIVENT FINANCIAL	WAUCONDA TWP.	CUBA TWP.	
6	4685	US ROUTE 14 AT BERRY RD.	95%												5%								
5	4690	US ROUTE 14 (NORTHWEST HWY.) AT WESTERN AVE.	97.5%		2.5%																		
1	6525	US ROUTE 14 (NORTHWEST HWY.) AT IL ROUTE 59 (HOUGH ST.)	100%																				
4	965	US ROUTE 12 (RAND RD.) AT LONG GROVE RD.	95%	5%																			
8	969	US ROUTE 12 (RAND RD.) AT DEER PARK BLVD.	95%			2.5%		2.5%															
7	21785	US ROUTE 12 (RAND RD.) AT PLUM GROVE RD.	95%			5%																	
4	22205	GLIMER RD. AT MIDLOTHIAN RD.	95%	5%																			
4	7135	IL ROUTE 176 AT DARRELL RD.	95%	5%																			
9	7137	IL ROUTE 176 AT WESTRIDGE DR.	95%				5%																
9	7139	IL ROUTE 176 AT BEECH ST/EASTWAY DR.	95%				5%																
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4	6531	IL ROUTE 22 AT KELSEY RD.	95%	5%																			
12	941	IL ROUTE 22 AT VILLAGE SQUARE	95%						5%														
4	975	US ROUTE 12 (RAND RD.) AT CUBA RD.	95%	5%																			
14	6573	MIDLOTHIAN RD. AT OAKWOOD RD./LAKEWOOD LN.	95%						2.5%								2.5%						
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15	966	IL ROUTE 53 AT LONG GROVE RD.	96.7%							3.3%													
1	6835	IL ROUTE 53 AT IL ROUTE 83	100%																				
17	6839	IL ROUTE 53 AT OLD MCHENRY RD	95%	2.5%						2.5%													
3	6955	IL ROUTE 83 AT APTAKISIC RD.	96.7%	3.3%																			
16	6957	IL ROUTE 83 AT HILLTOP RD.	95%							5%													
17	6990	IL ROUTE 83 AT GILMER RD./OAKWOOD RD.	95%	2.5%						2.5%													
4	21525	IL ROUTE 22 AT OLD MCHENRY RD.	95%	5%																			
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20	6911	IL ROUTE 60 AT CONNECTOR	95%								5%												
1	6915	IL ROUTE 60-IL 83 ROUTE AT IL ROUTE 176	100%																				
19	6916	IL ROUTE 176 AT HAWLEY EAST ST.	96.7%								3.3%												
21	6920	IL ROUTE 60-IL ROUTE 83 AT DIAMOND LAKE RD.	95%	2.5%																	2.5%		
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SUMMARY OF QUANTITIES HEADING LEGEND

FUNDING PARTICIPATION

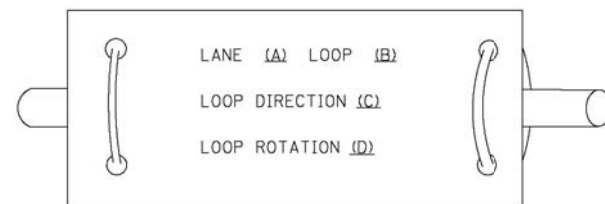
COLUMN NUMBER	TS#	INTERSECTION	STATE	LAKE	BARRINGTON	DEER PARK	ISLAND LAKE	KILDEER	LAKE ZURICH	LONG GROVE	MUNDELEIN	TOWER LAKES	VERNON HILLS	WAUCONDA	BARRINGTON LIBRARY	CUSHMAN & WAKEFIELD OF ILLINOIS	ELA TWP.	LIBERTYVILLE TWP.	MOTOROLA	THRIVENT FINANCIAL	WAUCONDA TWP.	CUBA TWP.
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2	7145	IL ROUTE 176 AT MIDLOTHIAN RD.	97.5%	2.5%																		
4	14335	MIDLOTHIAN AVE. AT HAWLEY ST.	95%	5%																		
20	14340	US ROUTE 45 AT DIAMOND LAKE RD.	95%								5%											
20	14345	US ROUTE 45 AT DIVISION ST.	95%								5%											
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19	14370	US ROUTE 45 AT ALLANSON RD.	96.7%								3.3%											
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24	22041	IL ROUTE 59 AT INDIAN TRAIL RD.	95%									5%										
26	960	US ROUTE 12 AT LAKE SHORE DR.	95%																		5%	
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29	7152	IL ROUTE 176 AT LARKDALE ROW	95%											5%								
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35	21350	IL ROUTE 59 AT CUBA RD.(EVP)		100%																		
36	7152	IL ROUTE 176 AT LARKDALE ROW (EVP)												100%								

Rev.

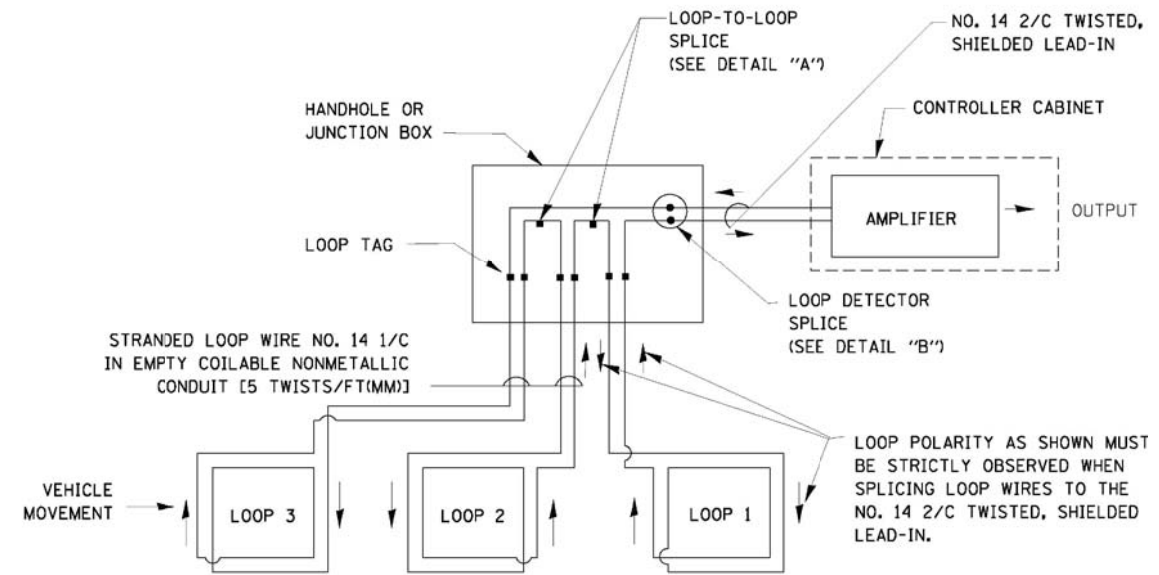
LOOP DETECTOR NOTES

- 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.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 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.
- 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.
- 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

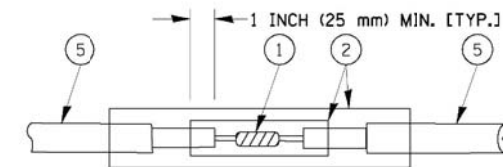


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

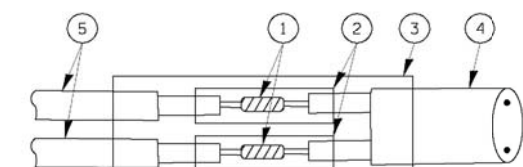


DETECTOR LOOP WIRING SCHEMATIC

- 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.

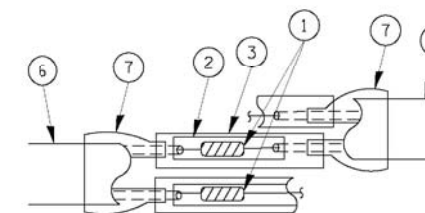


DETAIL "A"
LOOP-TO-LOOP SPLICE

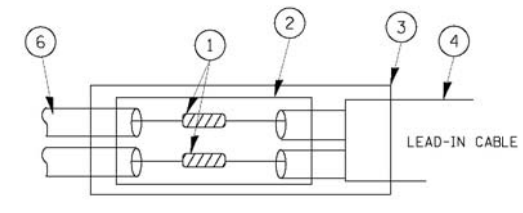


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

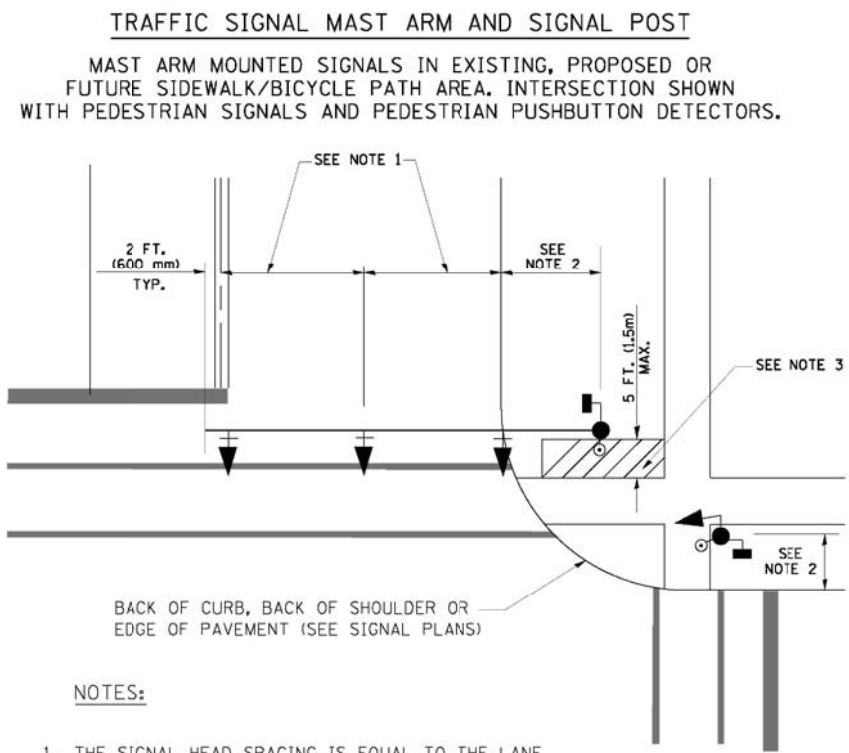


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

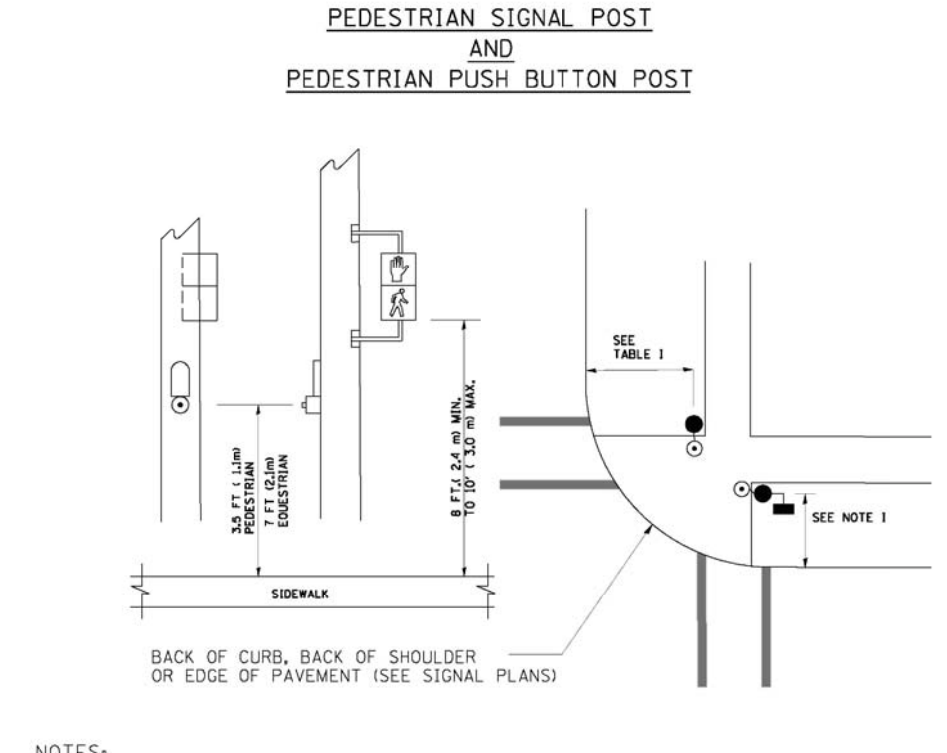
LOOP DETECTOR SPLICE

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

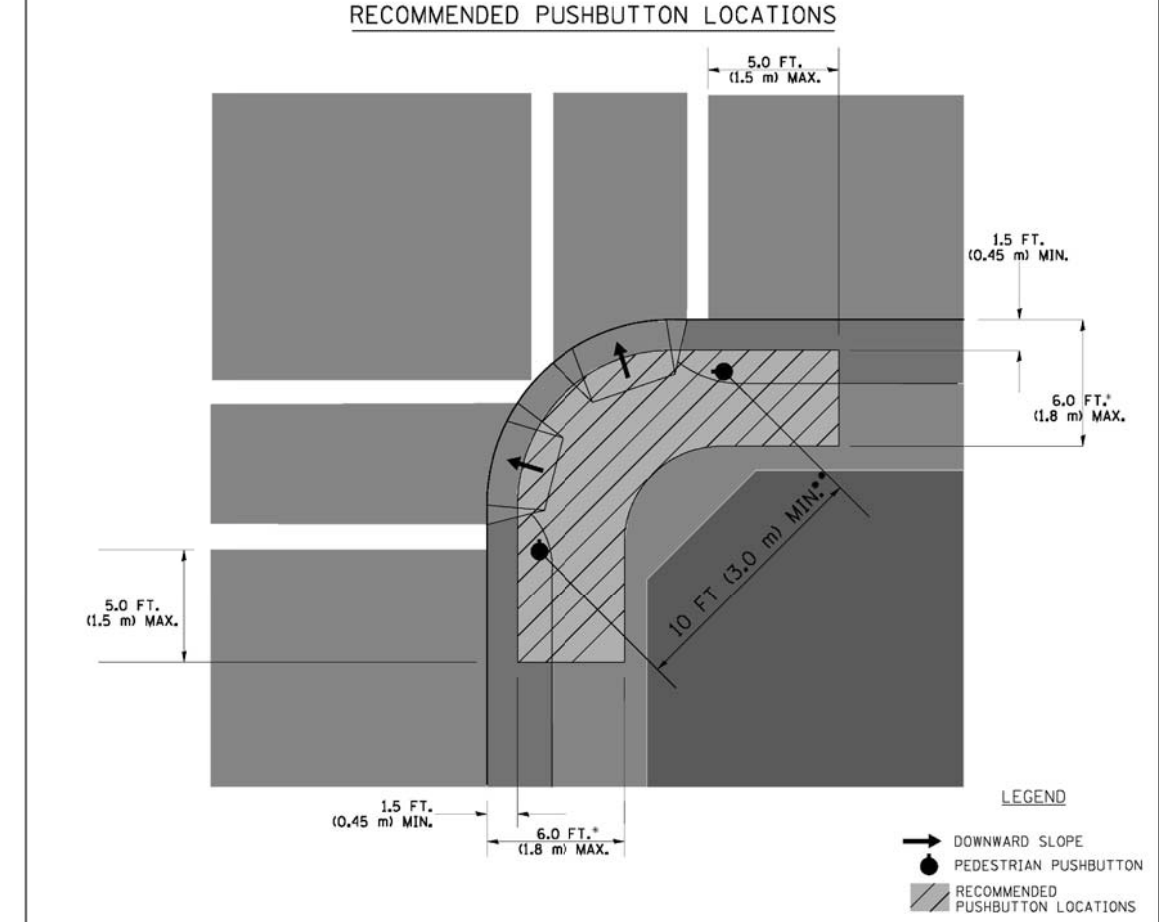
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N:\Projects\312004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\60T84 IDOT DETAIL	DRAWN - JDH	CHECKED - KMM	REVISED -			2012-039TS	LAKE	84	11	
PLOT SCALE = 20.0000' / in.	CHECKED - KMM	REVISOR -	DATE -			CONTRACT NO. 60T84			ILLINOIS FED. AID PROJECT	
PLOT DATE = \$DATE\$	DATE -	REVISOR -	DATE -			SCALE: N.T.S.	SHEET NO. 1 OF 6 SHEETS	STA. TO STA.		



- 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."



- 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."



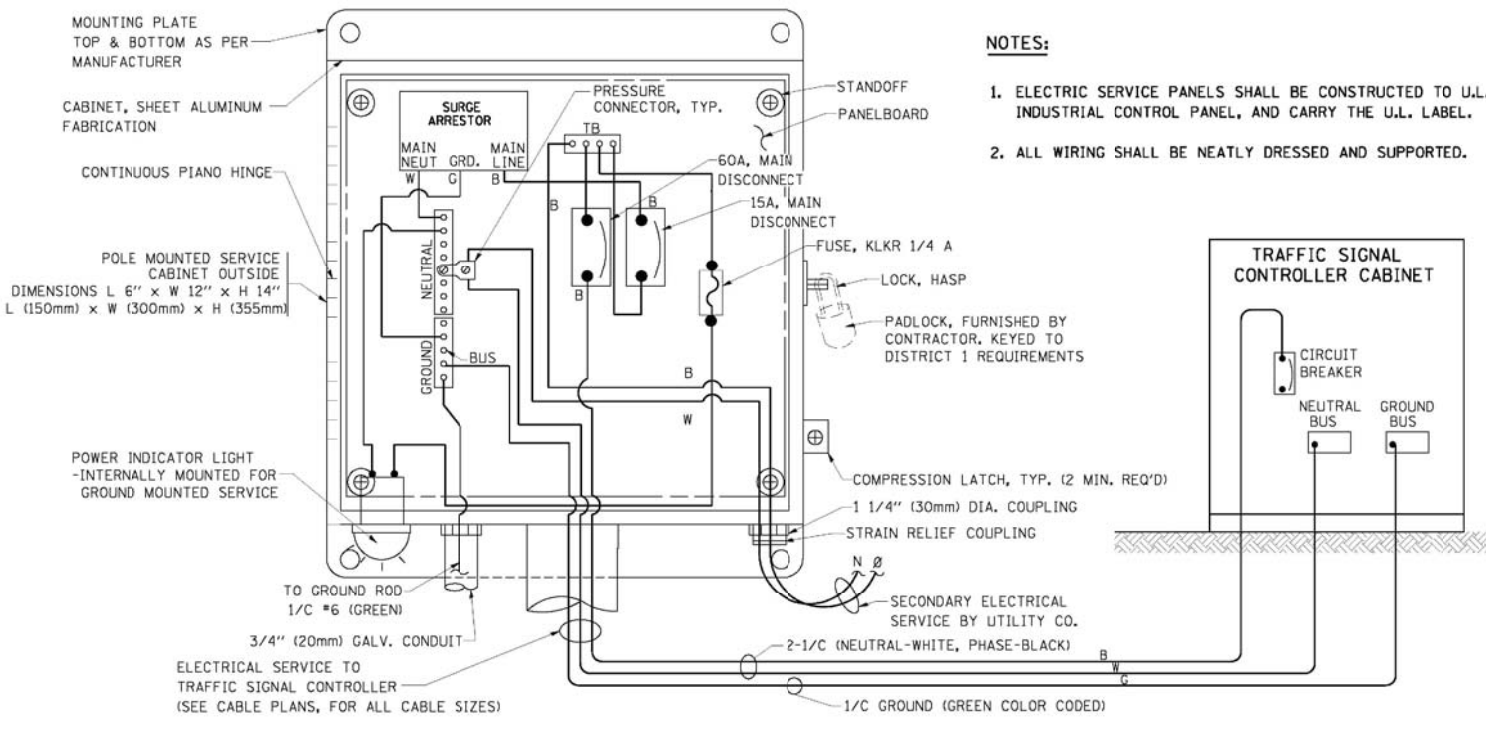
- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON 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.

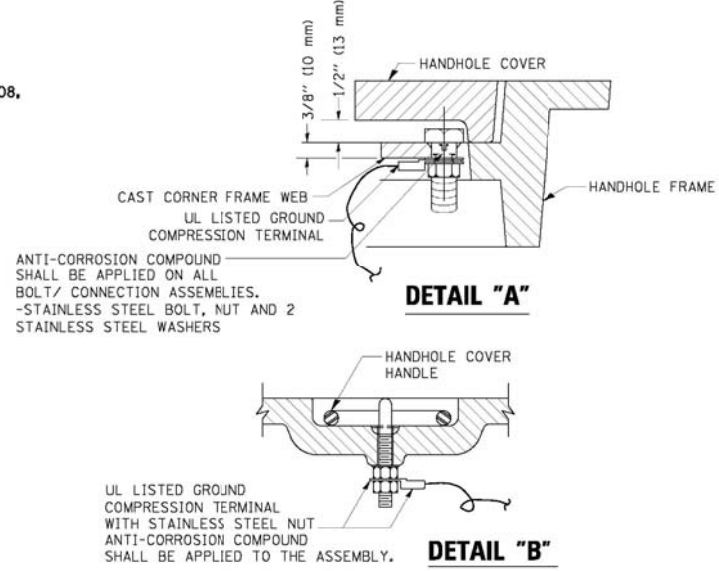
TRAFFIC SIGNAL EQUIPMENT OFFSET

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.

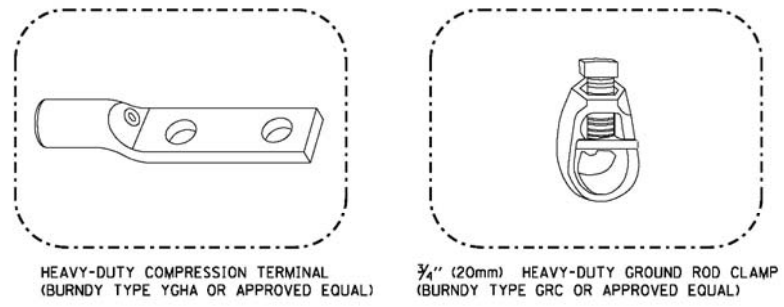
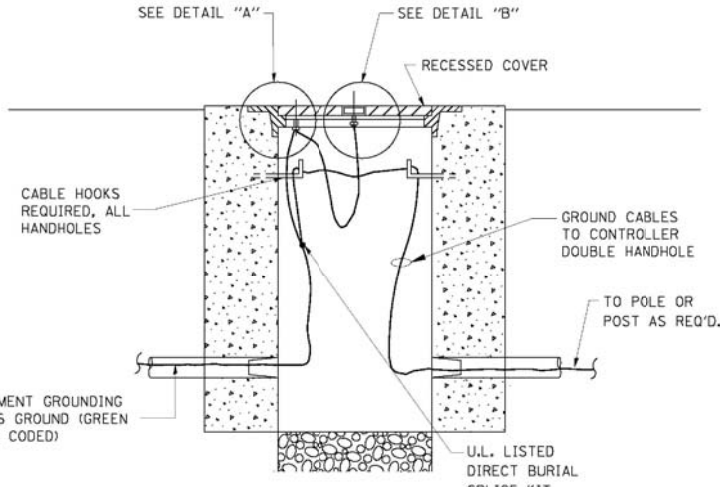


- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

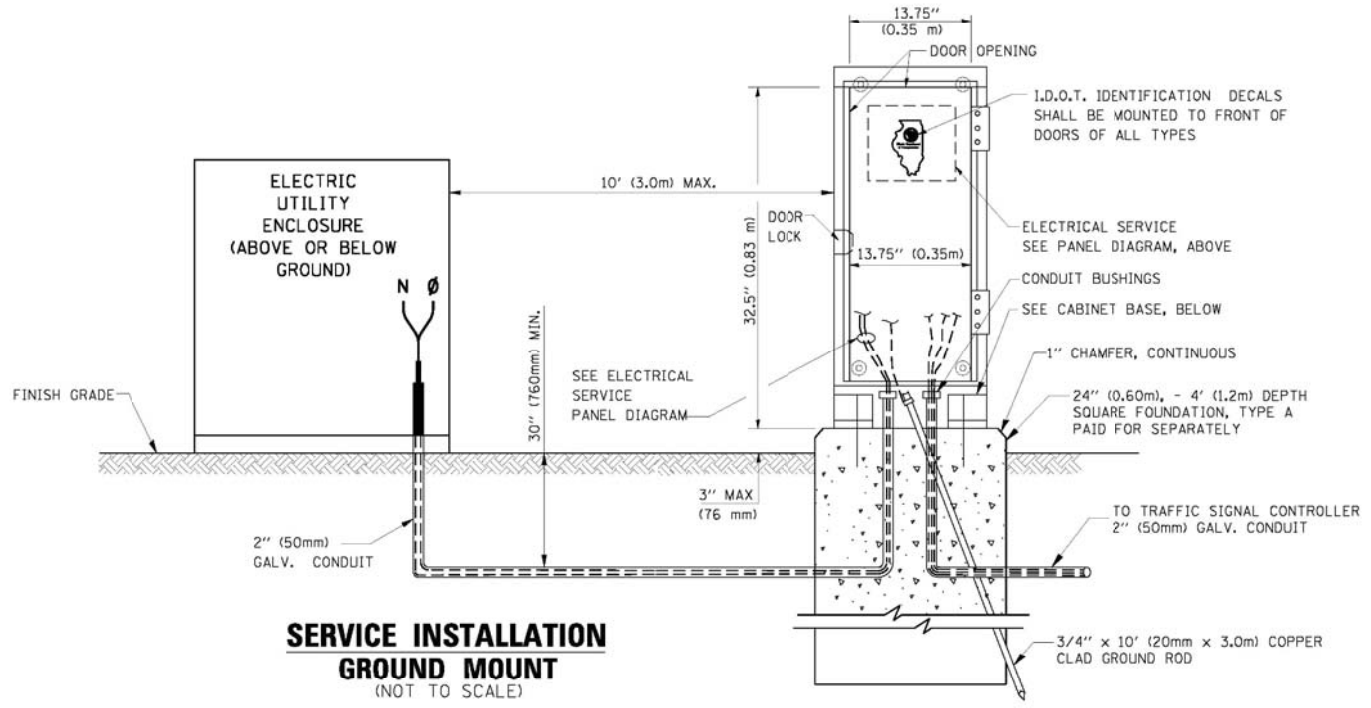


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED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

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

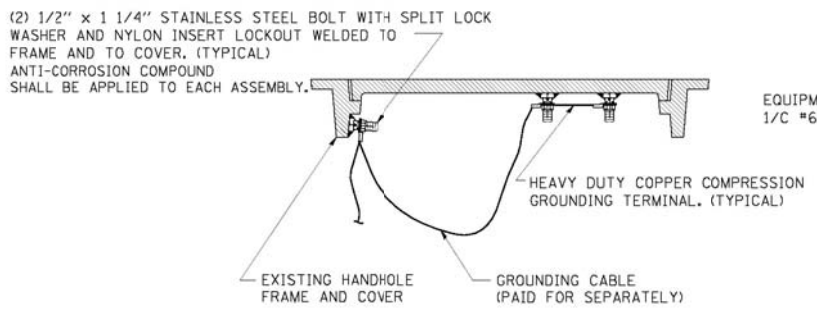


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

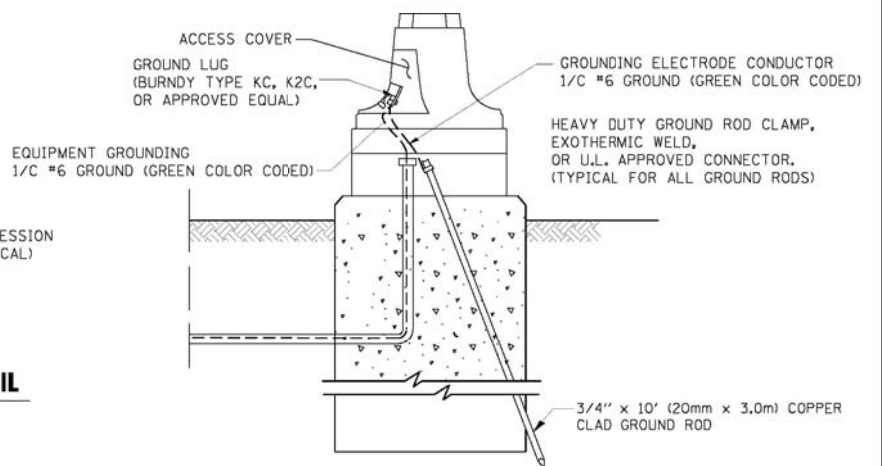


SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)

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

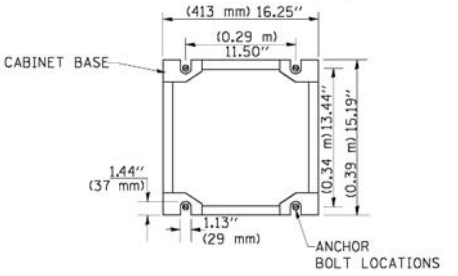


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



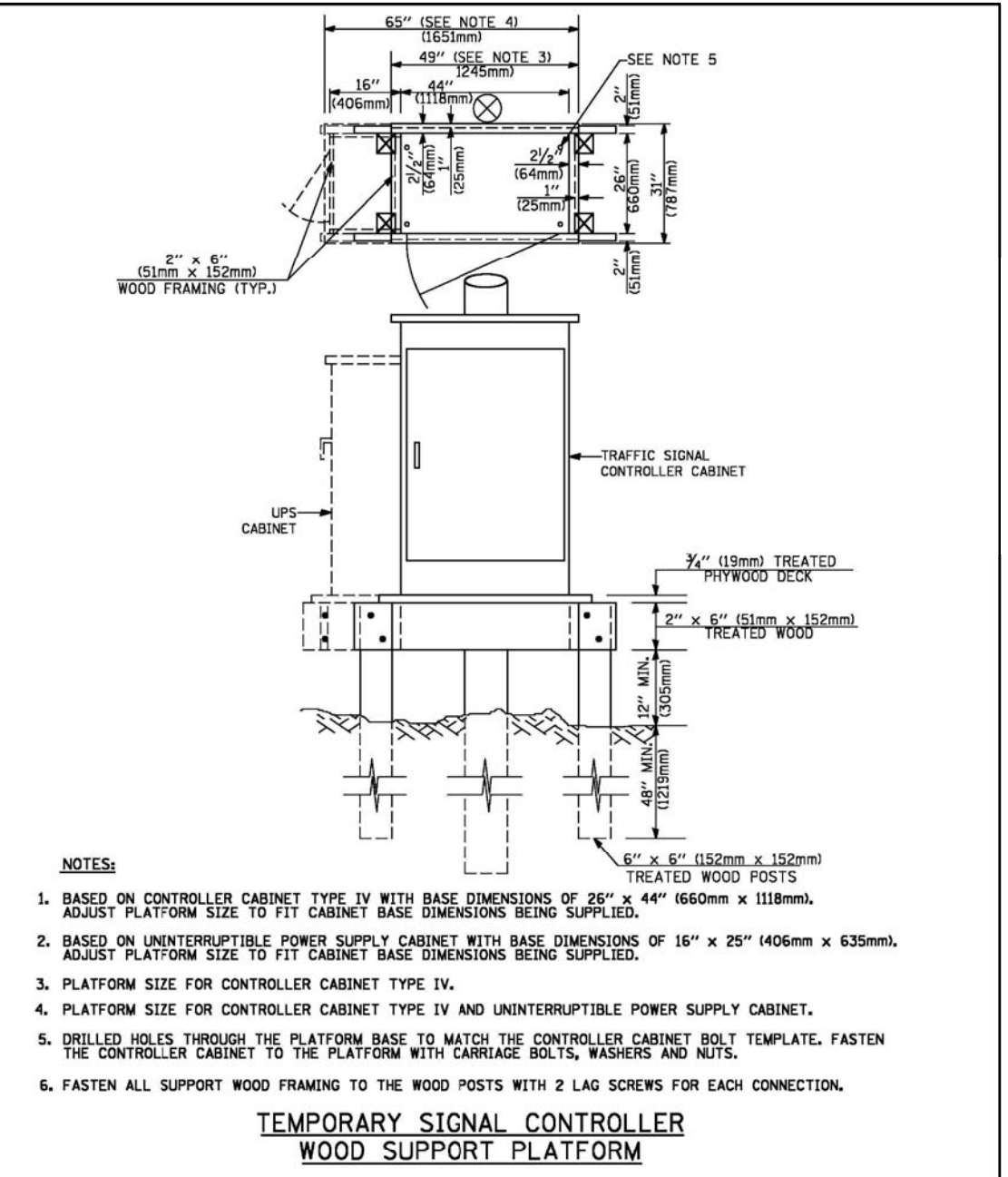
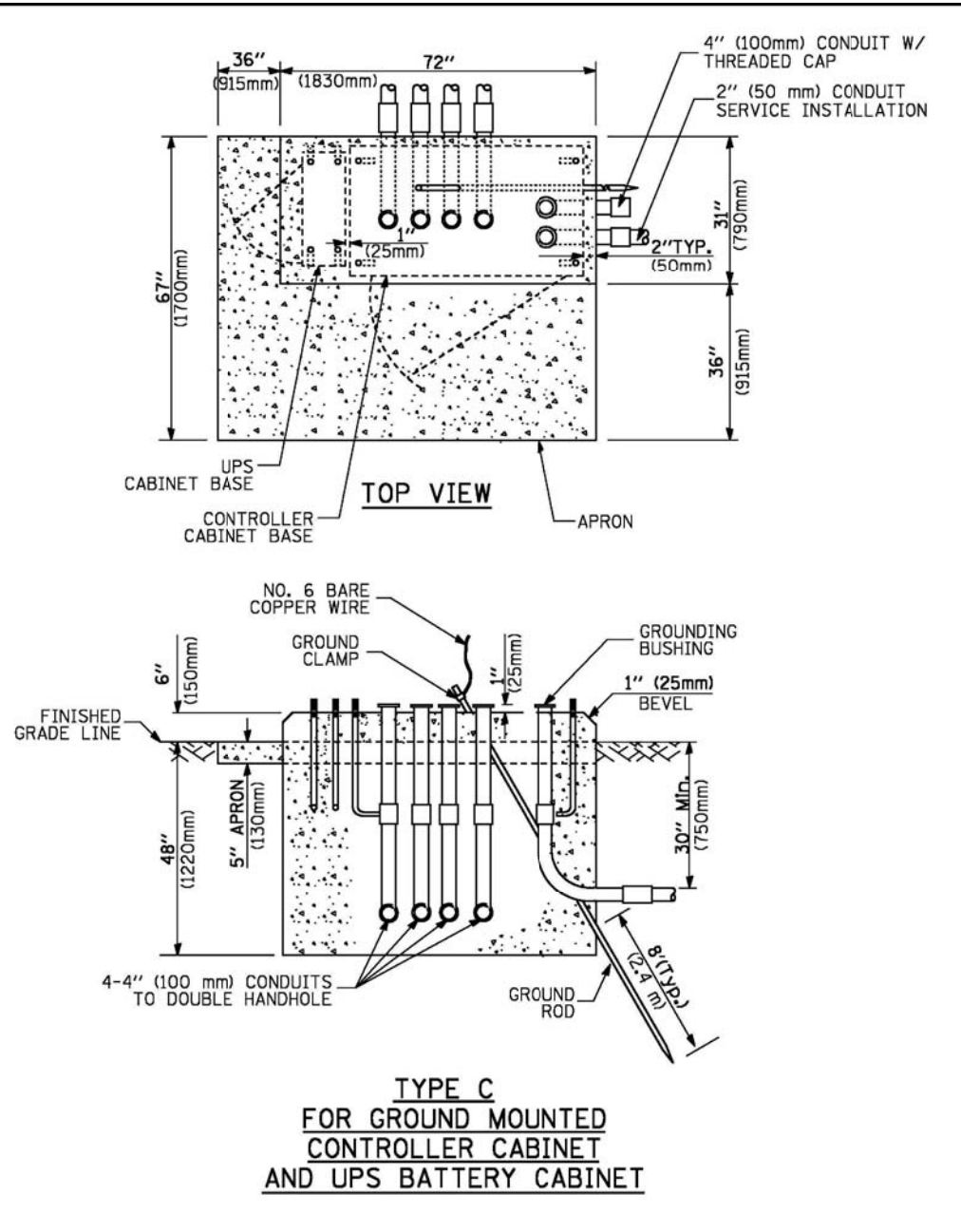
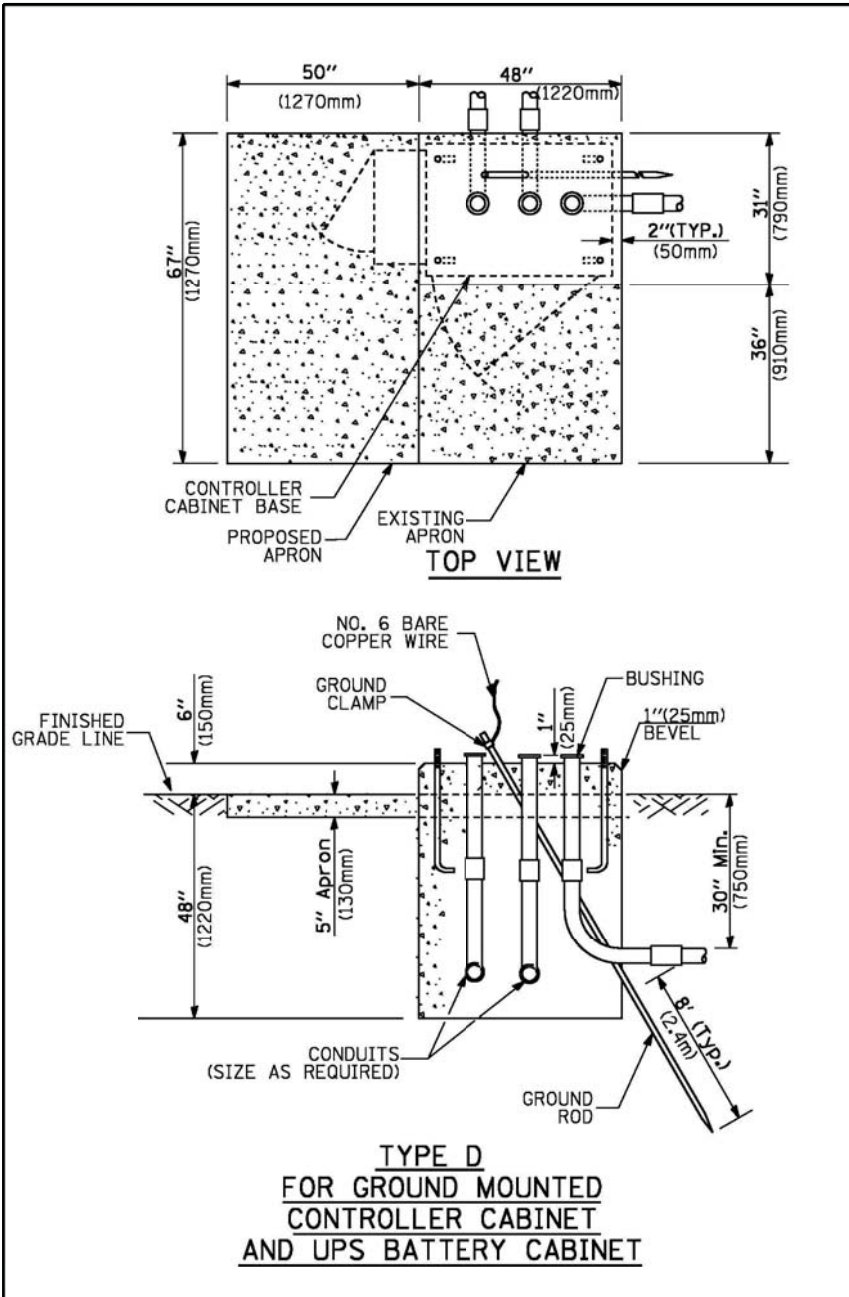
MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



CABINET - BASE BOLT PATTERN (NOT TO SCALE)

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PLOT DATE = \$DATE\$	DATE -	REVISED -	SCALE: N.T.S.			SHEET NO. 3 OF 6 SHEETS	STA. TO STA.			



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

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

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

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)

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

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

CABLE SLACK

VERTICAL CABLE LENGTH

DEPTH OF FOUNDATION

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

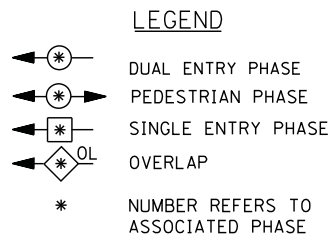
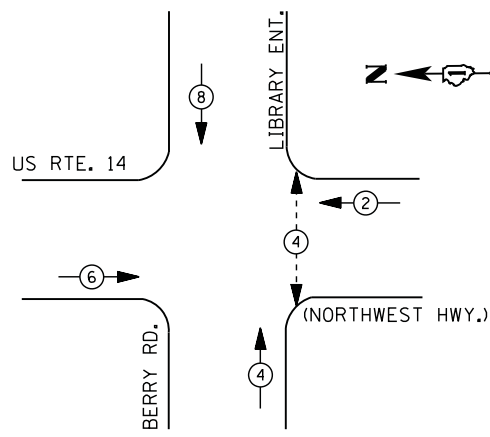
TRAFFIC SIGNAL LEGEND

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 (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
GUY WIRE				ABANDON ITEM				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				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											

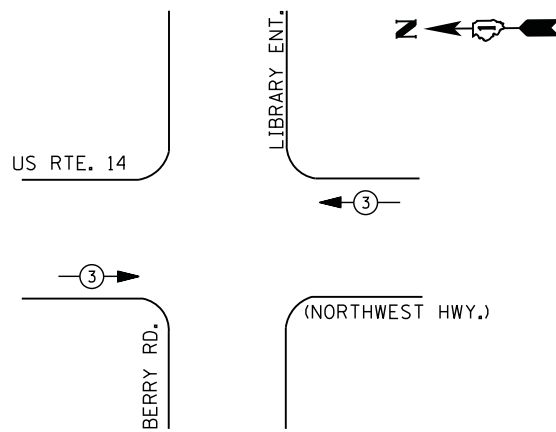
RAILROAD SYMBOLS

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	

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

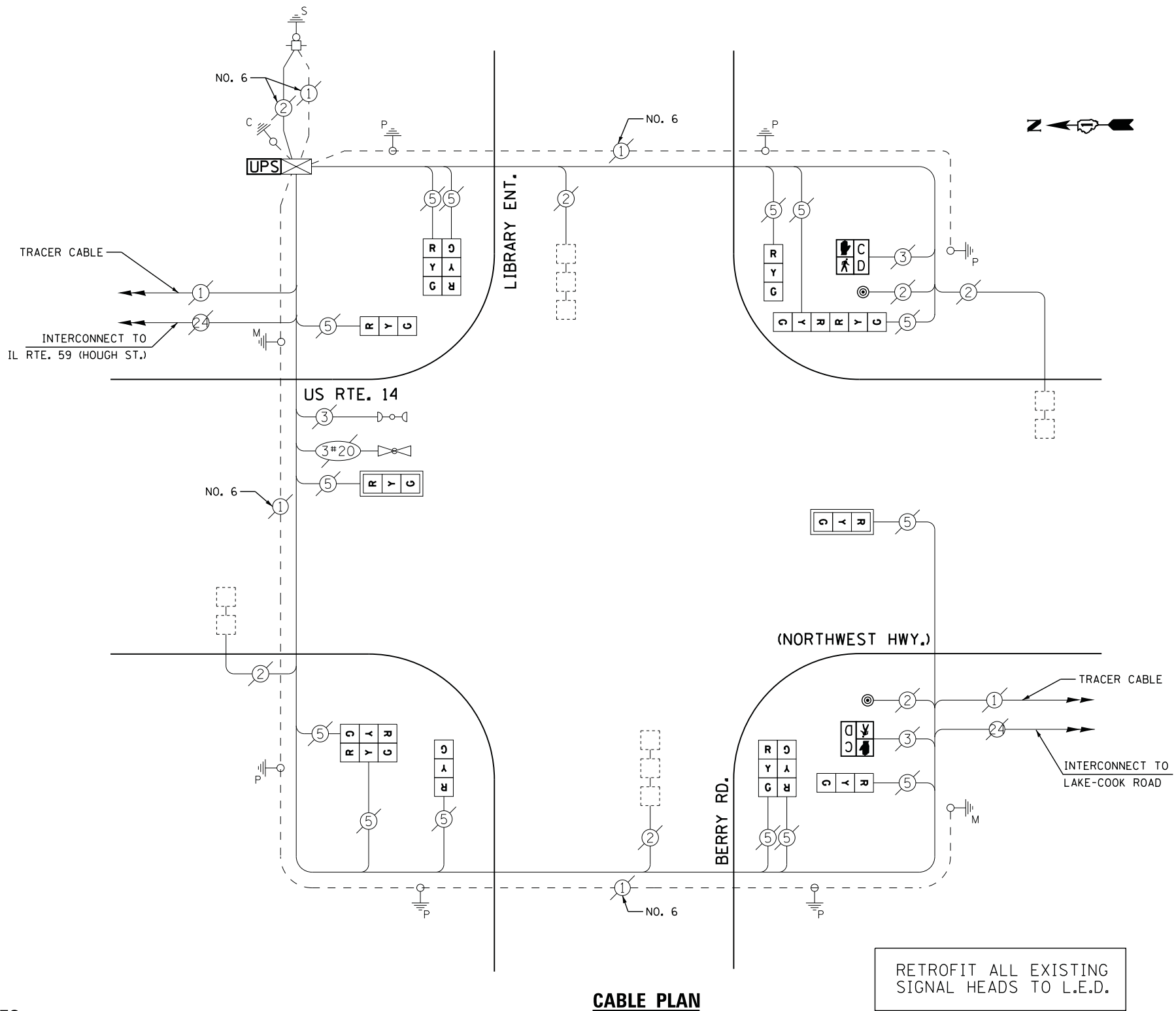
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	0	135	12	0.10	0
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM		150	-	1.00	
TOTAL =					410

ENERGY COSTS- BILLED TO: VILLAGE OF BARRINGTON
 200 SOUTH HOUGH STREET
 BARRINGTON, IL 60010

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

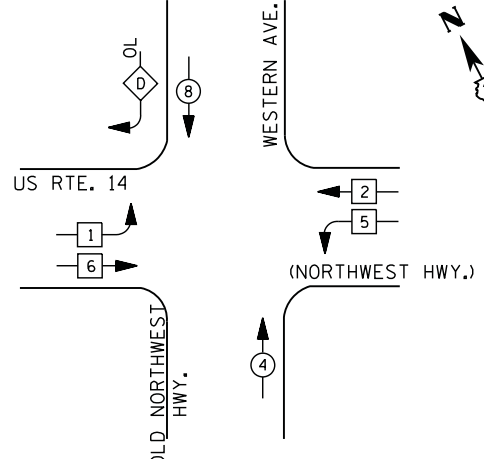
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

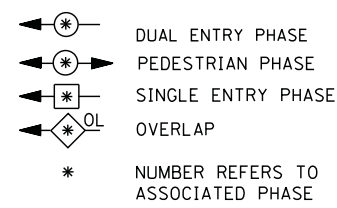
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	PEDESTRIAN SIGNAL HEAD
2	EACH	PEDESTRIAN PUSH-BUTTON

CONTROLLER SEQUENCE



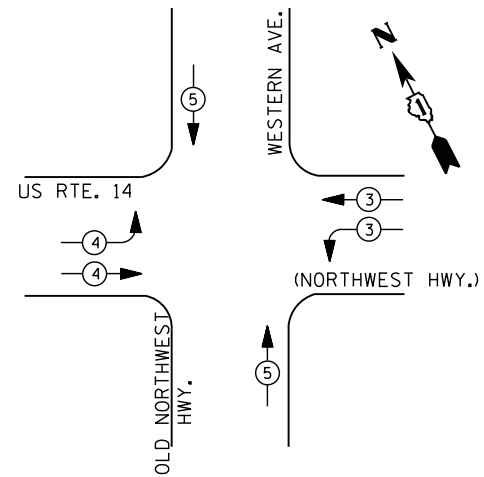
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	=	8 + 1

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

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

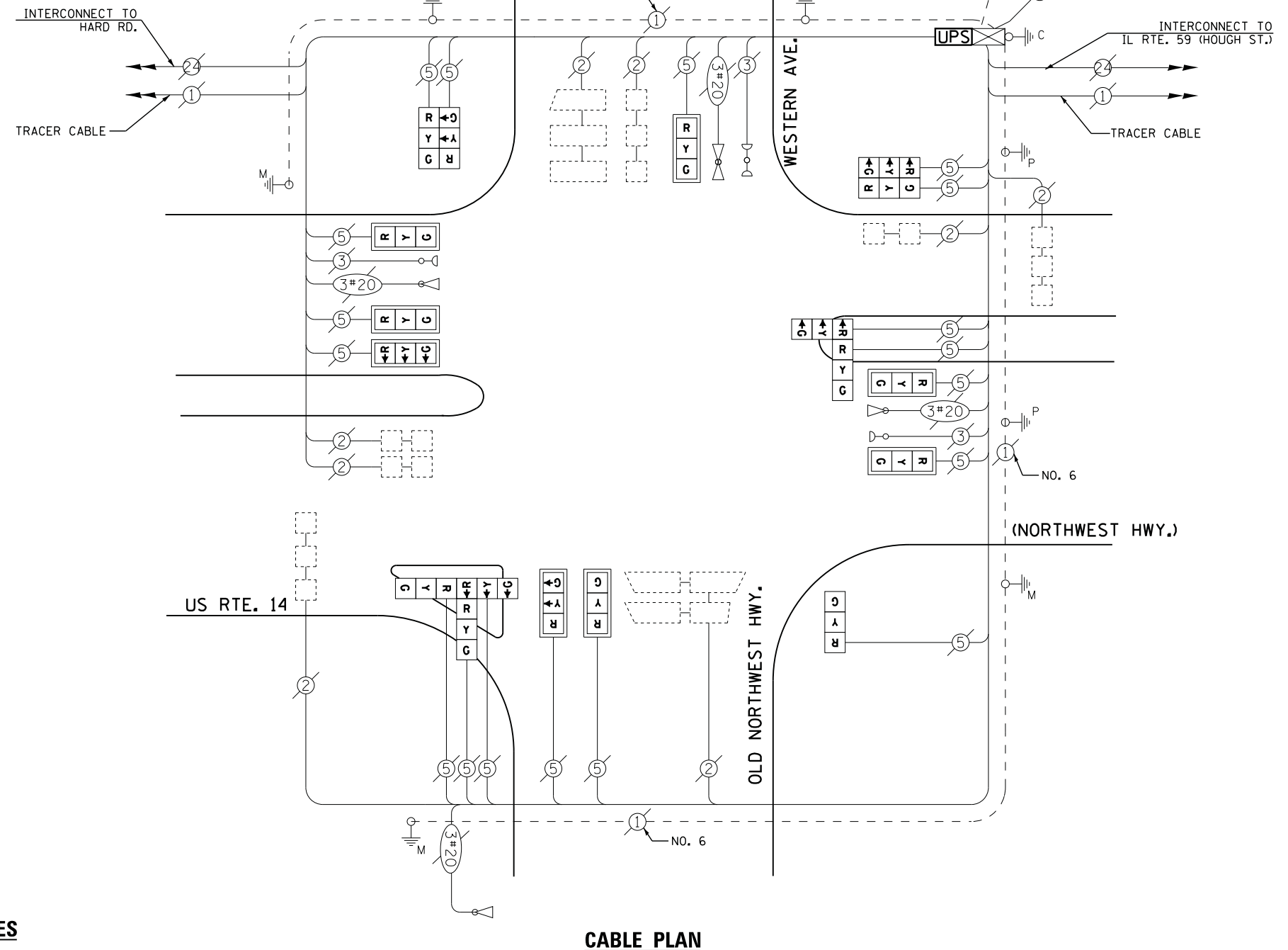
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	--	135	12	0.10	0
PED. SIGNAL	--	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					433

ENERGY COSTS- **BILLED TO: VILLAGE OF BARRINGTON**
 200 SOUTH HOUGH STREET
 BARRINGTON, IL 60010

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

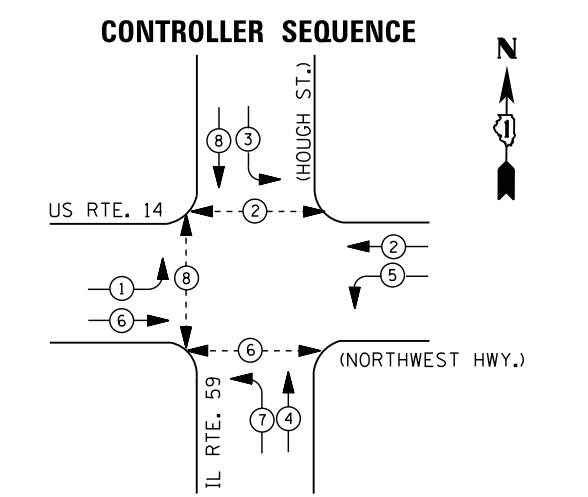
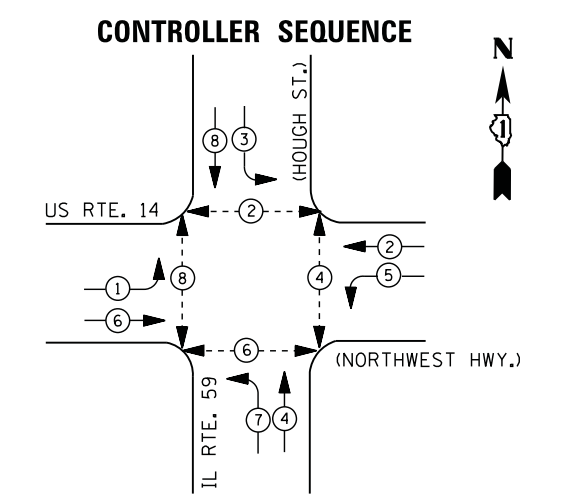
SCHEDULE OF QUANTITIES

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



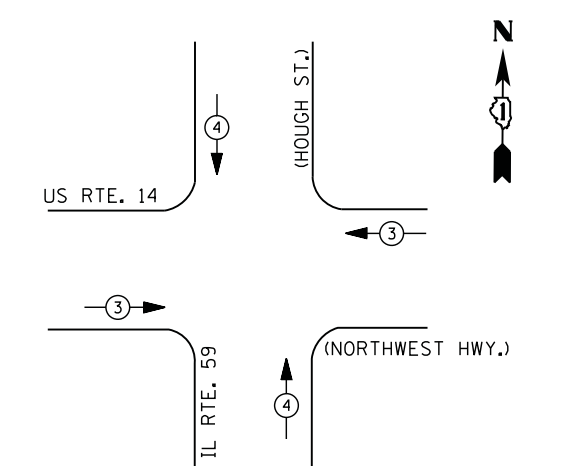
CABLE PLAN

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



EXISTING PHASE DESIGNATION DIAGRAM

PROPOSED PHASE DESIGNATION DIAGRAM



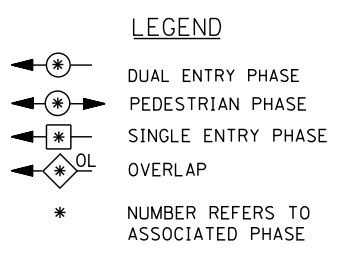
EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					491

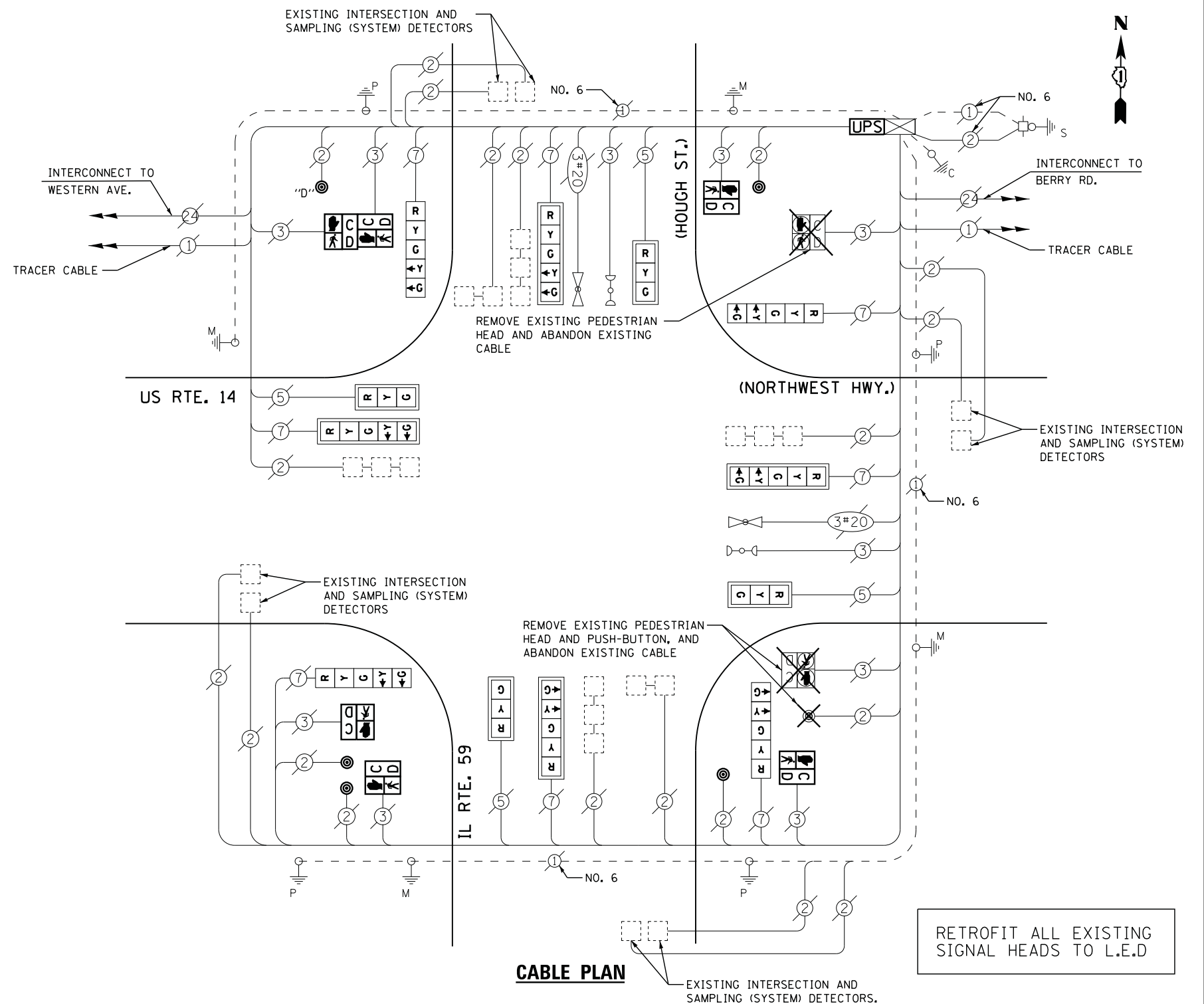
ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON



SCHEDULE OF QUANTITIES

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



CABLE PLAN

NOTES:
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8	EACH	PEDESTRIAN SIGNAL HEAD
6	EACH	PEDESTRIAN PUSH-BUTTON
8	EACH	TRAFFIC SIGNAL BACKPLATE

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06525.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

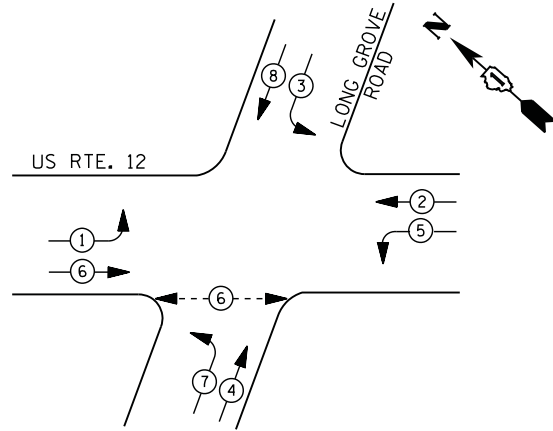
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US ROUTE 14 (NORTHWEST HWY.) AT IL ROUTE 59 (HOUGH STREET) SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

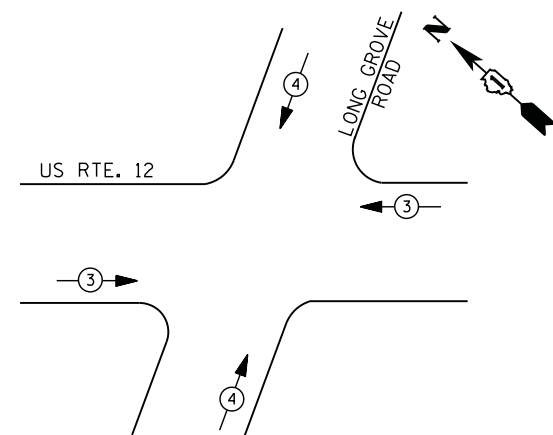
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	19
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6525
 BARRINGTON

CONTROLLER SEQUENCE



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

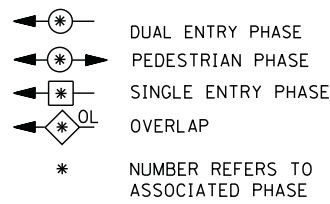
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↔

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	16	135	12	0.10	19
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					
TOTAL =					579

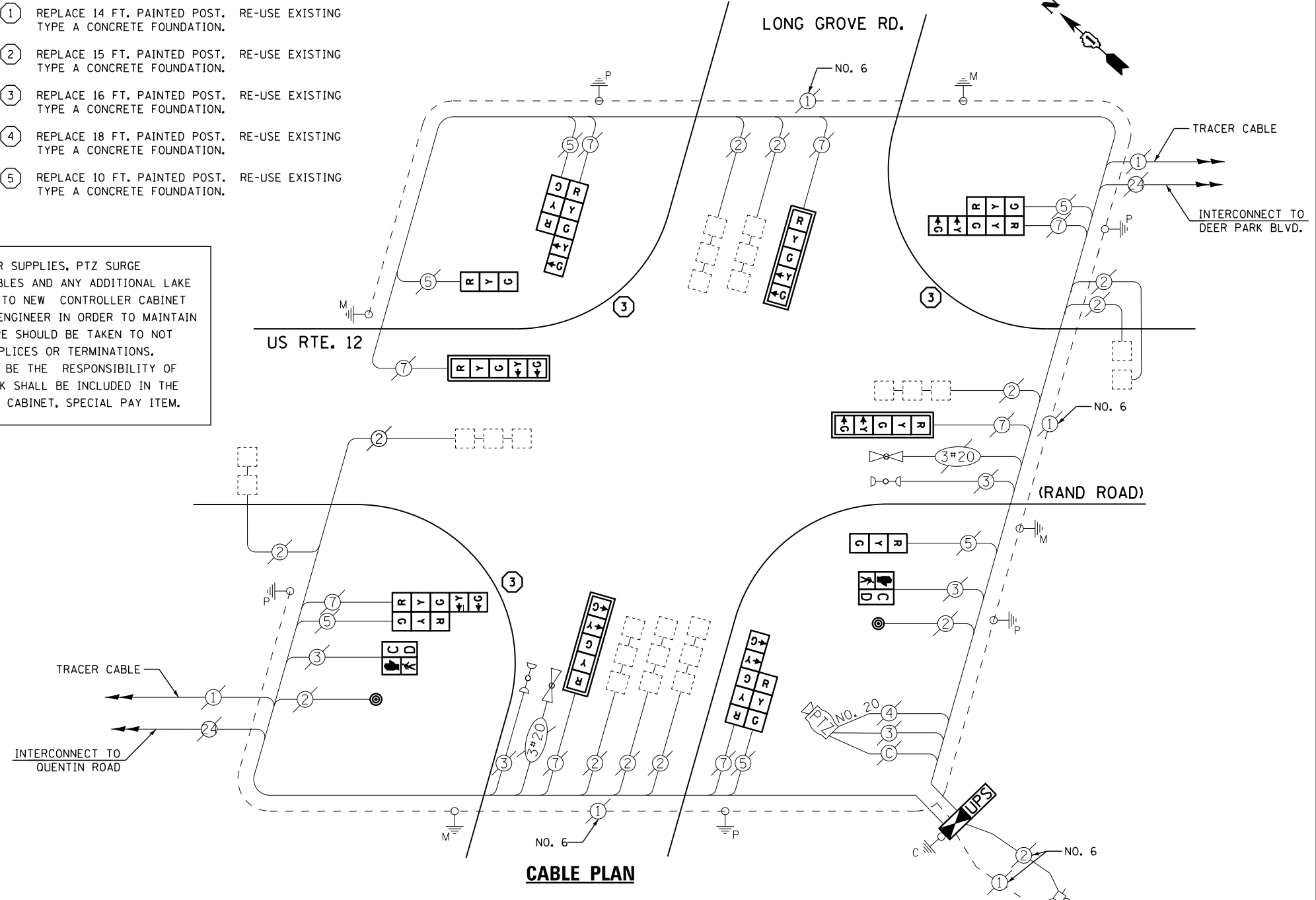
ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096
 ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

LEGEND



- ① REPLACE 14 FT. PAINTED POST, TYPE A CONCRETE FOUNDATION. RE-USE EXISTING
- ② REPLACE 15 FT. PAINTED POST, TYPE A CONCRETE FOUNDATION. RE-USE EXISTING
- ③ REPLACE 16 FT. PAINTED POST, TYPE A CONCRETE FOUNDATION. RE-USE EXISTING
- ④ REPLACE 18 FT. PAINTED POST, TYPE A CONCRETE FOUNDATION. RE-USE EXISTING
- ⑤ REPLACE 10 FT. PAINTED POST, TYPE A CONCRETE FOUNDATION. RE-USE EXISTING

EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.



CABLE PLAN

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
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
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10	EACH	INDUCTIVE LOOP DETECTOR
2	EACH	PEDESTRIAN PUSH-BUTTON
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	EACH	RELOCATE EXISTING SWITCH (SPECIAL)
1	EACH	RELOCATE EXISTING VIDEO ENCODER, SPECIAL
* 100% COST TO DEER PARK		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

2	EACH	SIGNAL HEAD, 3 - SECTION
4	EACH	SIGNAL HEAD, 5 - SECTION
4	EACH	SIGNAL HEAD, 2 - FACE, 1-3 SECTION, 1-5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD
2	EACH	PEDESTRIAN PUSH-BUTTON
4	EACH	TRAFFIC SIGNAL BACKPLATE
3	EACH	SIGNAL POST
1	EACH	CONTROLLER AND CABINET (COMPLETE)

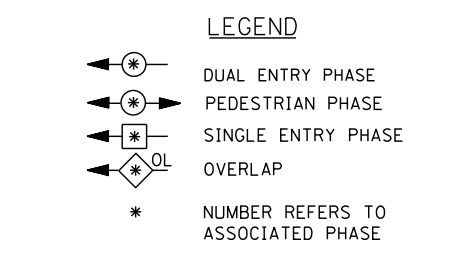
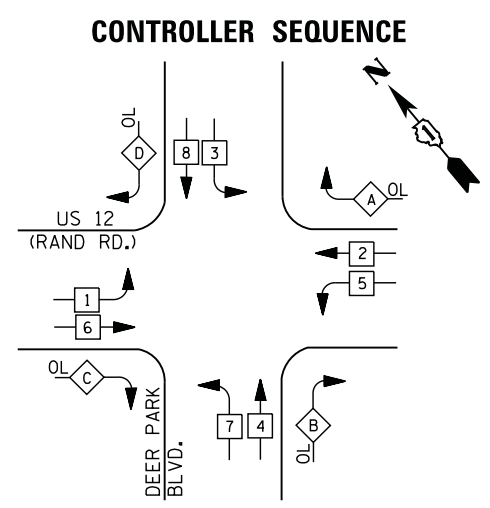
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	PLOT SCALE = \$SCALE\$	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

US ROUTE 12 (RAND ROAD) AT LONG GROVE ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

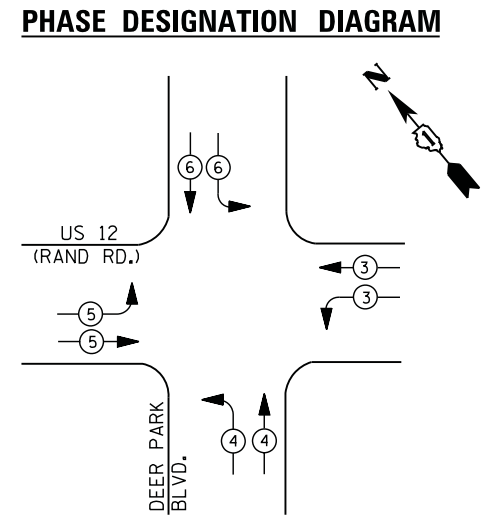
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	20
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 965
 DEER PARK



RIGHT TURN OVERLAP PHASE DESIGNATION

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



EMERGENCY VEHICLE PREEMPTION SEQUENCE

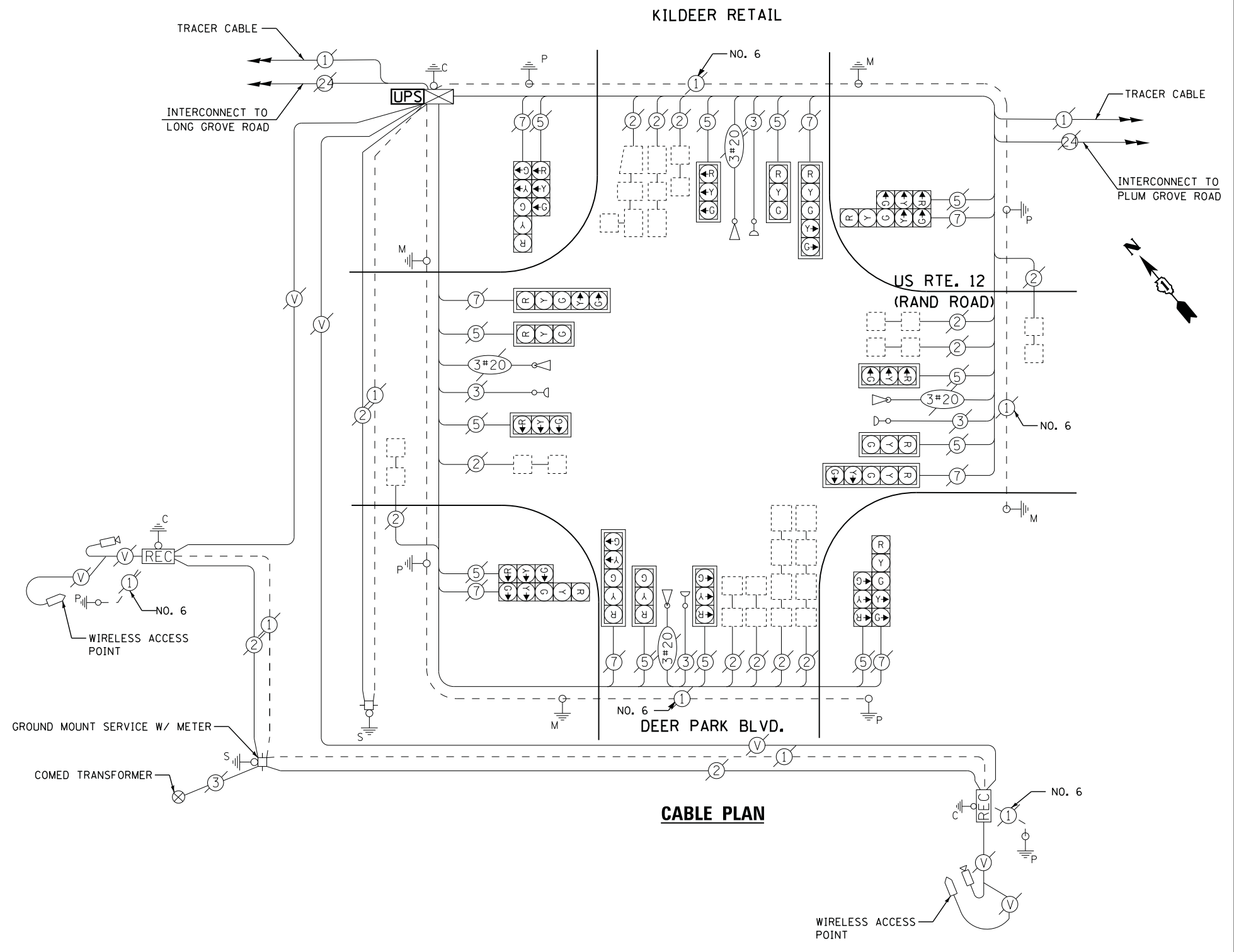
EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	150	1.00	--
TOTAL =					489

ENERGY COSTS- BILLED TO: VILLAGE OF DEER PARK
 23680 W. CUBA ROAD
 DEER PARK, IL 60010

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON



SCHEDULE OF QUANTITIES

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

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\00969_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

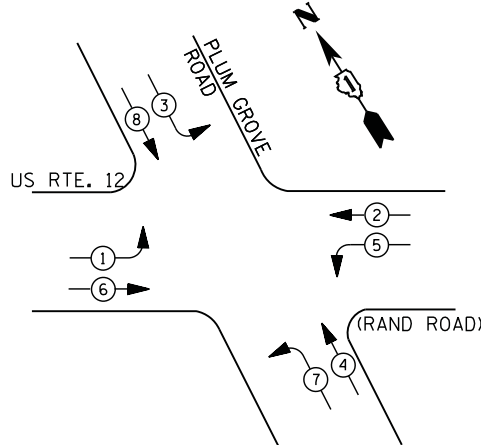
**US ROUTE 12 (RAND ROAD) AT DEER PARK BLVD.
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	21
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 969
 DEER PARK

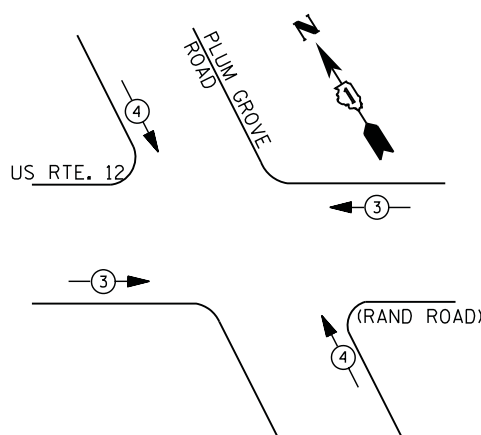
CONTROLLER SEQUENCE



LEGEND

- ⊙* ← → DUAL ENTRY PHASE
- ⊙* ← PEDESTRIAN PHASE
- ⊙* ← SINGLE ENTRY PHASE
- ⊙* OL OVERLAP
- * 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**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
FLASHER LED					

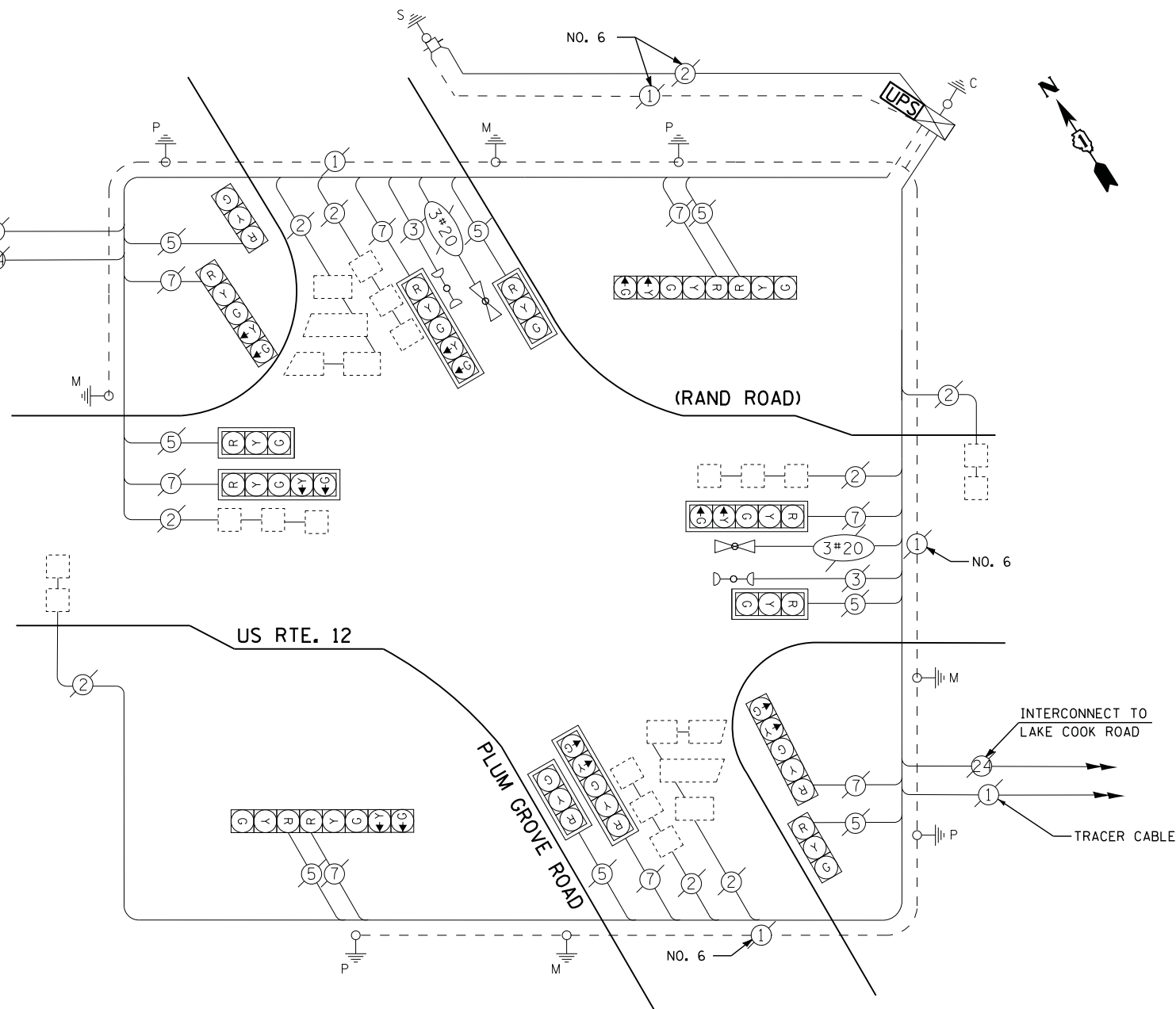
TOTAL = 415

ENERGY COSTS- BILLED TO: VILLAGE OF DEER PARK
 23680 W. CUBA ROAD
 DEER PARK, IL 60010
 ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

TRACER CABLE
 INTERCONNECT TO DEER PARK BLVD.



CABLE PLAN

FILE NAME = USER NAME = *USER*
 N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\21785_CAB_LAKE.dgn
 PLOT SCALE = *SCALE*
 PLOT DATE = 8/23/2012

DESIGNED - DW
 DRAWN - JDH
 CHECKED - KMM
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

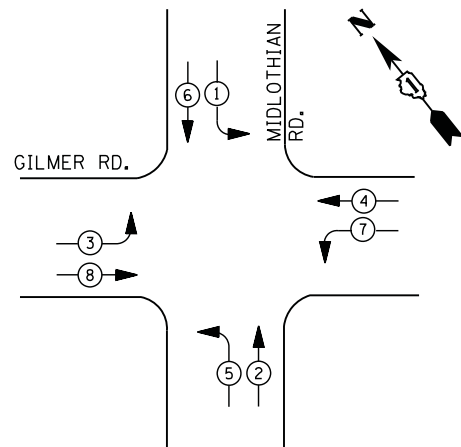
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US ROUTE 12 (RAND ROAD) AT PLUM GROVE ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

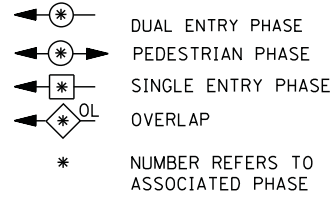
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	22
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 21785
 DEER PARK

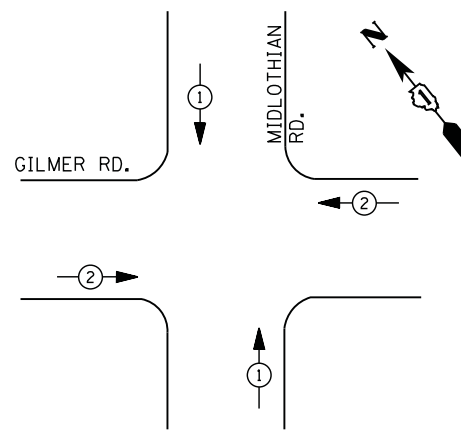
CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑	←

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					360

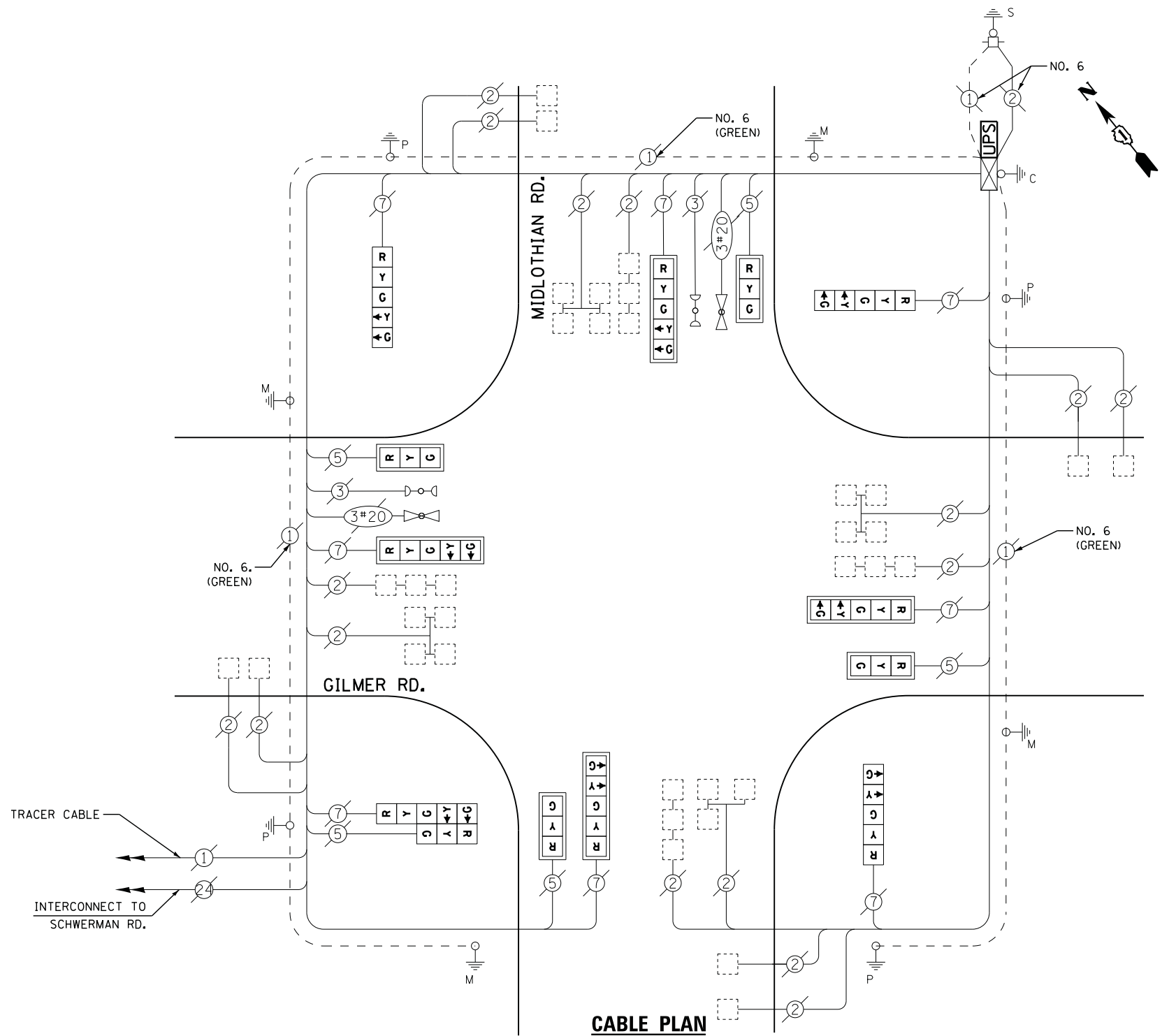
ENERGY COSTS- **BILLED TO: VILLAGE OF HAWTHORN WOODS**
 2 LAGGON DRIVE
 HAWTHORN WOODS, IL 60047

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE **847-816-5239**
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

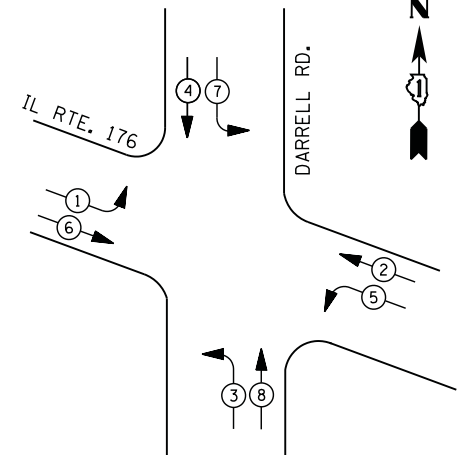
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D



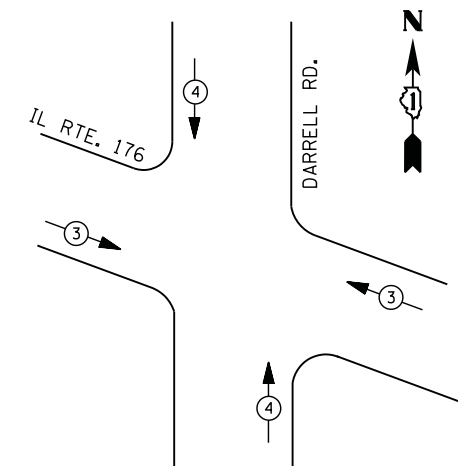
CABLE PLAN

TS# 22205
 HAWTHORN WOODS

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**

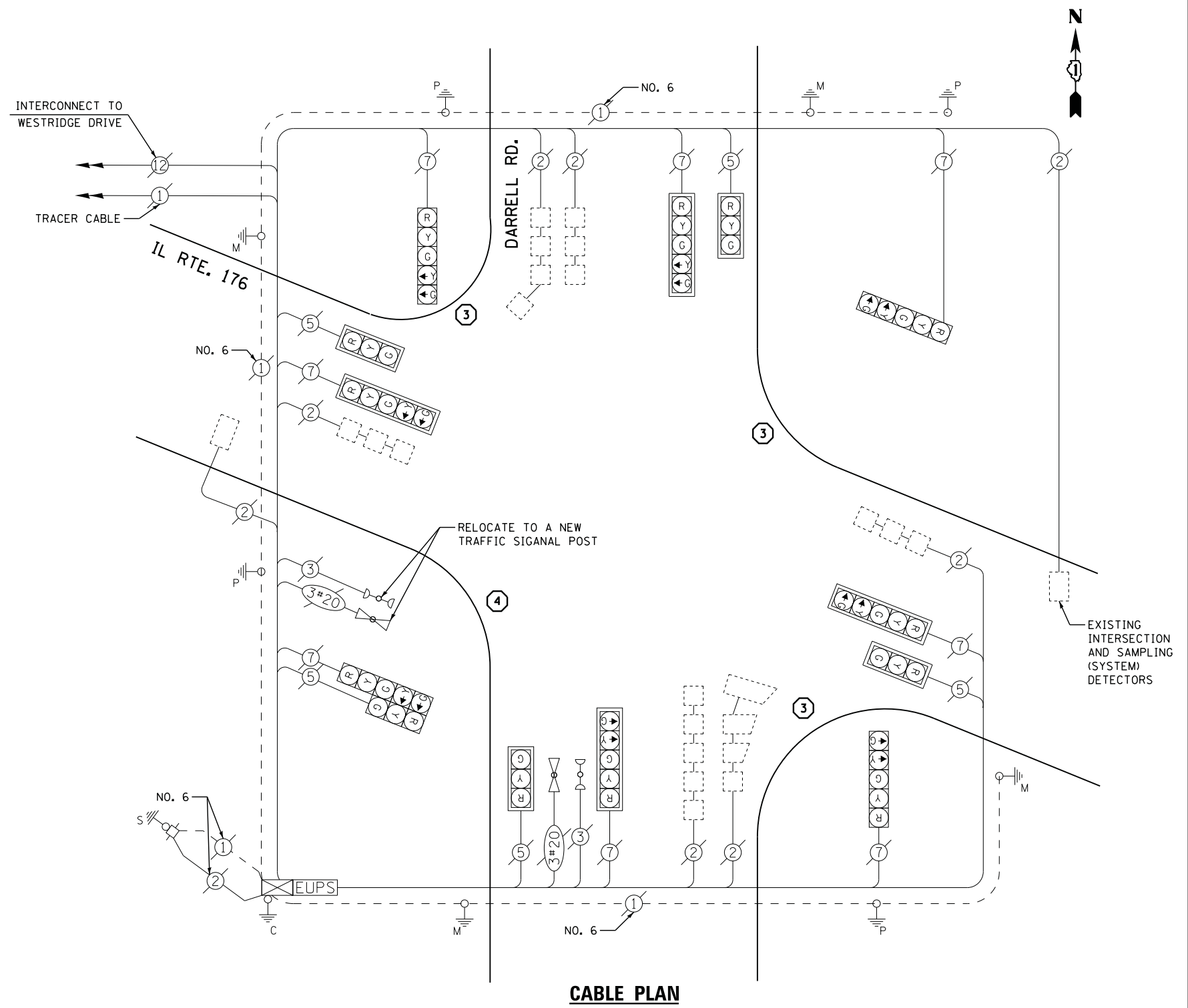
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	16	135	12	0.10	19
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					360

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT MIKE LENOX
 PHONE 815-490-2869
 COMMONWEALTH EDISON

LEGEND

- ⊙ → DUAL ENTRY PHASE
 - ⊙ → PEDESTRIAN PHASE
 - ⊙ → SINGLE ENTRY PHASE
 - ⊙ OL OVERLAP
 - * NUMBER REFERS TO ASSOCIATED PHASE
- 1 REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - 2 REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - 3 REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - 4 REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
5	EACH	RELOCATE EXISTING SIGNAL HEAD
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
* 100% COST TO ISLAND LAKE		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4 EACH SIGNAL POST

FILE NAME =	USER NAME = *USER*	DESIGNED 12-15-10 PER DDOT REVIEW	REVISED -
N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\07135.CAB.LAKE.dgn		DRAWN 3-30-10 PER DDOT REVIEW	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

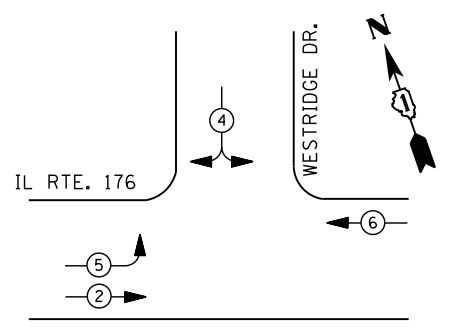
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL ROUTE 176 AT DARRELL ROAD SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

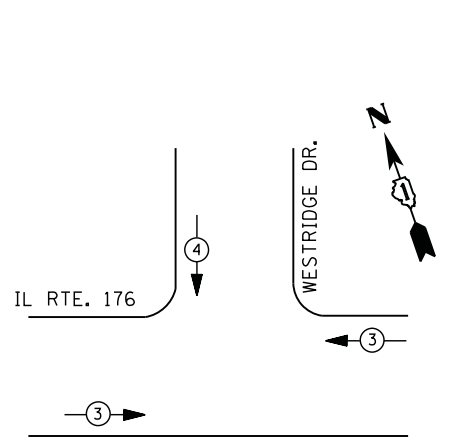
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	24
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 7135
 ISLAND LAKE

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * 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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	9	135	17	0.50	77
(YELLOW)	9	135	25	0.25	56
(GREEN)	10	135	15	0.25	38
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					276

ENERGY COSTS- BILLED TO: VILLAGE OF ISLAND LAKE
 3720 GREENLEAF AVENUE
 ISLAND LAKE, IL 60042

ENERGY SUPPLY - CONTACT MIKE LENOX
 PHONE 815-490-2869
 COMMONWEALTH EDISON

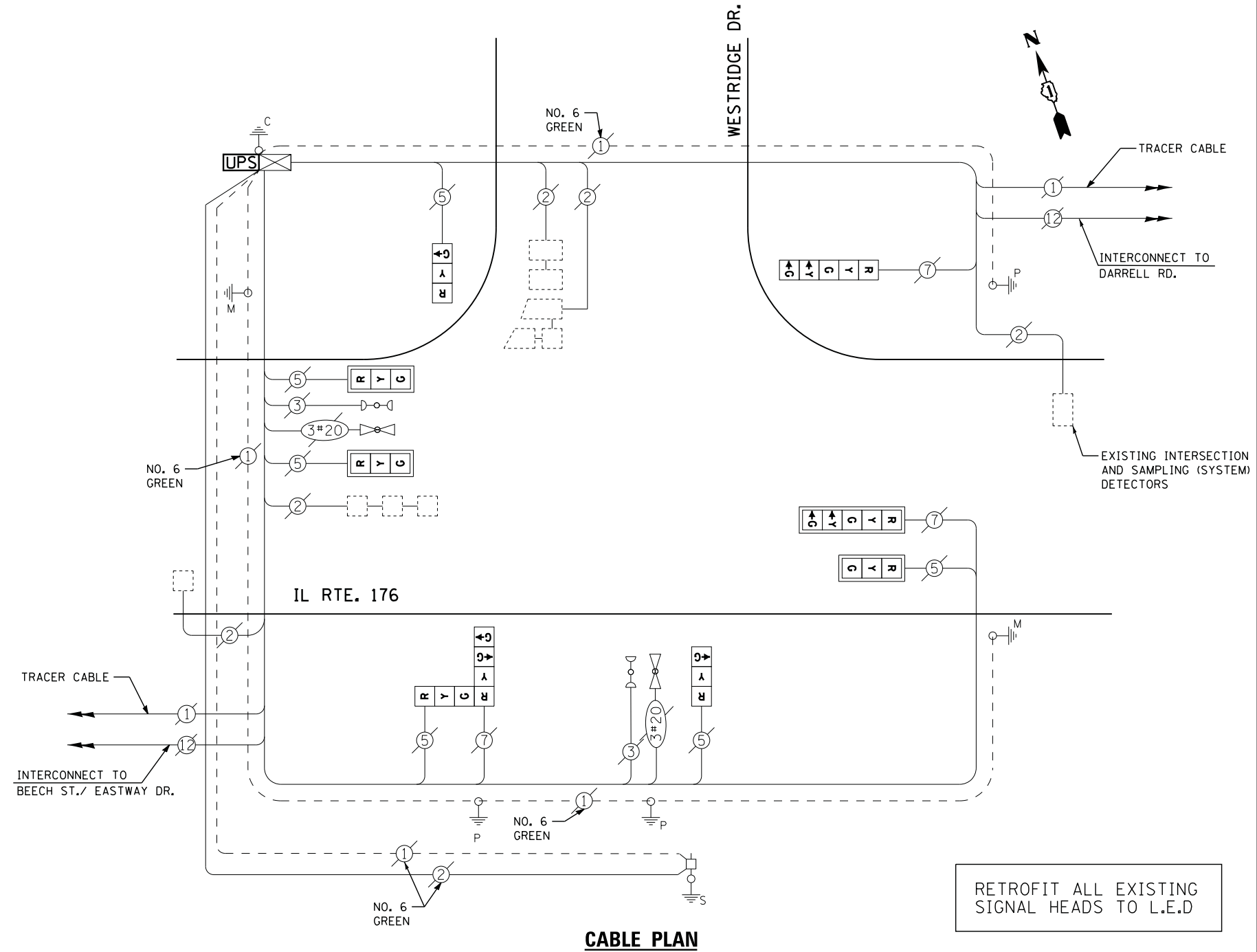
SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
3	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, 5-SECTION, BRACKET MOUNTED, RETROFIT

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

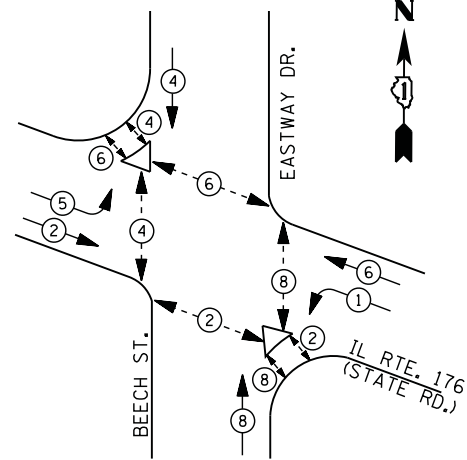
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4 EACH TRAFFIC SIGNAL BACKPLATE



CABLE PLAN

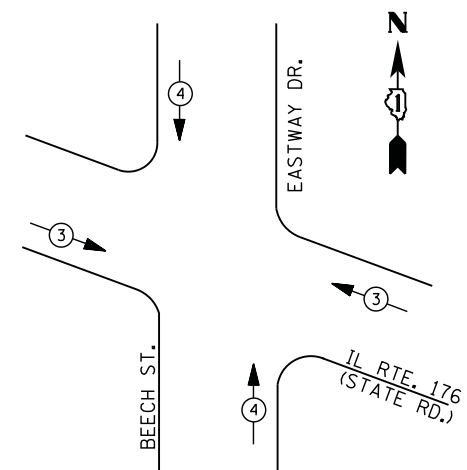
CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- * 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**

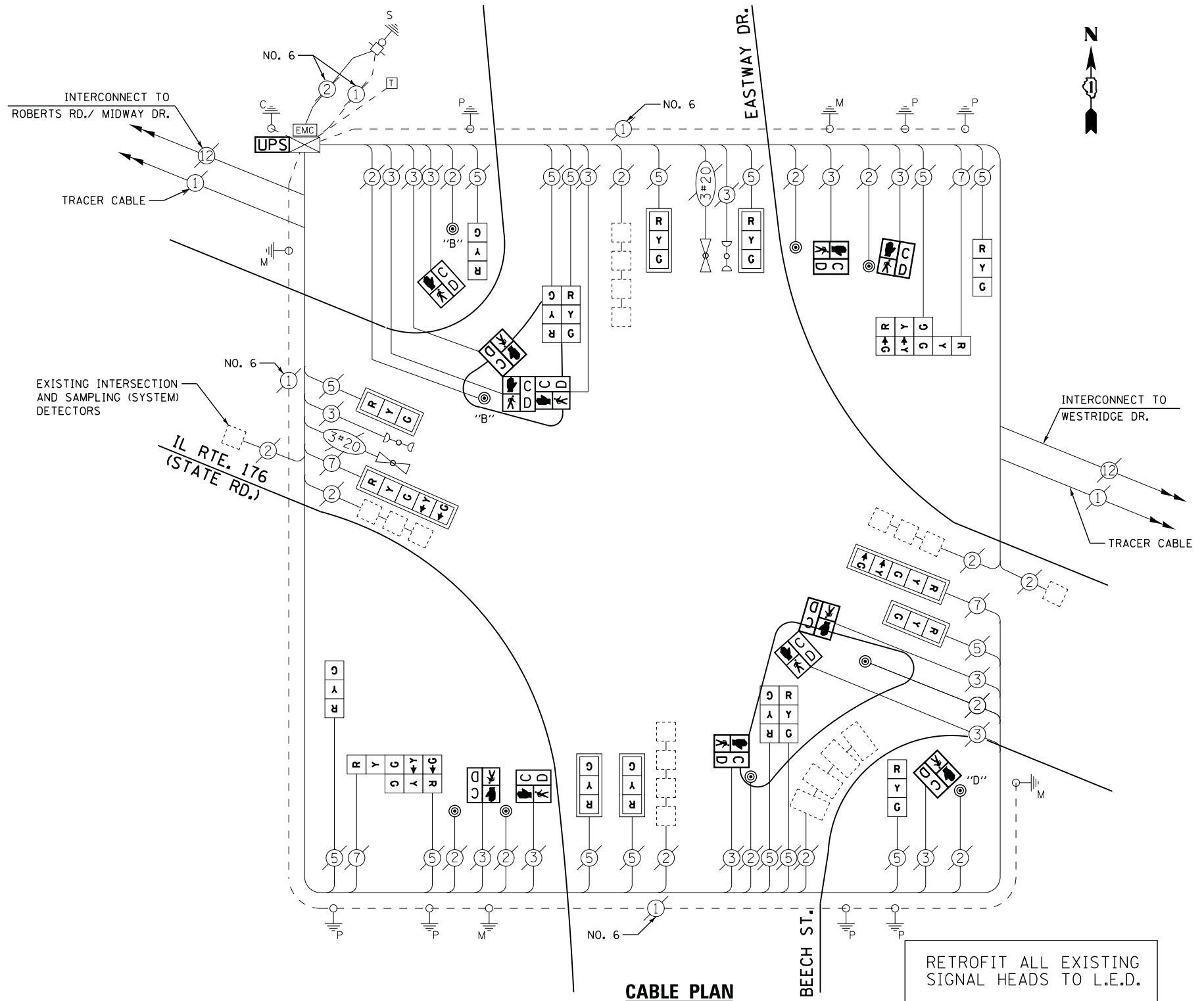
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	8	135	12	0.10	10
PED. SIGNAL	12	90	25	1.00	300
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					780

ENERGY COSTS- BILLED TO: VILLAGE OF ISLAND LAKE
 3720 GREENLEAF AVENUE
 ISLAND LAKE, IL 60042

ENERGY SUPPLY - CONTACT MIKE LENOX
 PHONE 815-490-2869
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
7	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
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
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
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
9	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



CABLE PLAN

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

NOTES:
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 12 EACH PEDESTRIAN SIGNAL HEAD
- 9 EACH PEDESTRIAN PUSH-BUTTON
- 8 EACH TRAFFIC SIGNAL BACKPLATE

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\07139.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - KMM	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

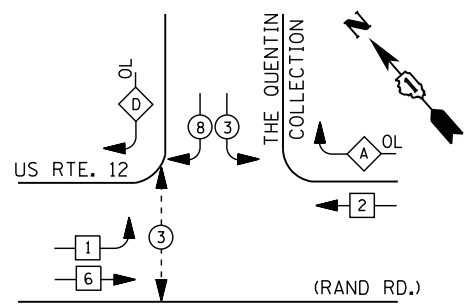
**IL ROUTE 176 AT BEECH STREET/EASTWAY DRIVE
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	26
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 7139
 ISLAND LAKE

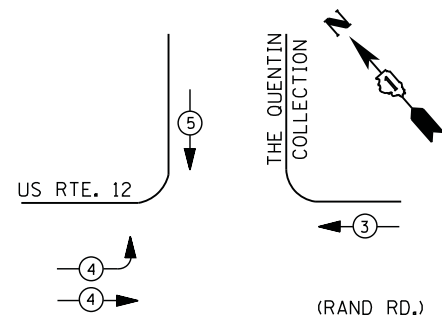
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
D	= 8	+ 1



LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- *** 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

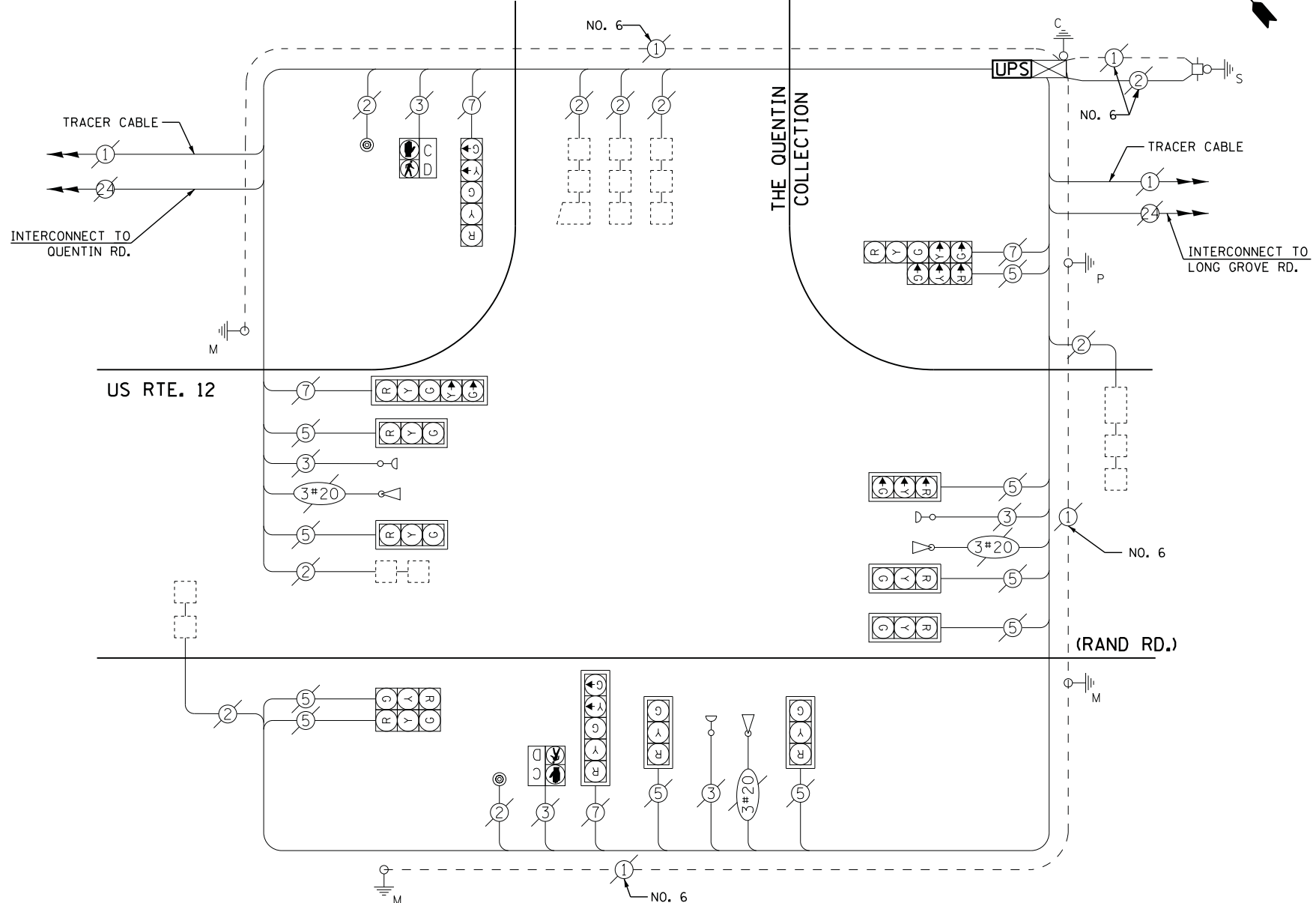
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	8	135	12	0.10	10
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					

TOTAL = 419

ENERGY COSTS- BILLED TO: VILLAGE OF KILDEER
 21911 QUENTIN ROAD
 KILDEER, IL 60047
 ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

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 USER NAME = \$USER\$
 DESIGNED - DW
 DRAWN - JDH
 PLOT SCALE = \$SCALE\$
 PLOT DATE = 8/23/2012

REVISOR -
 REVISION -
 CHECKED - KMM
 DATE -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US ROUTE 12 AT QUENTIN COLLECTION
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

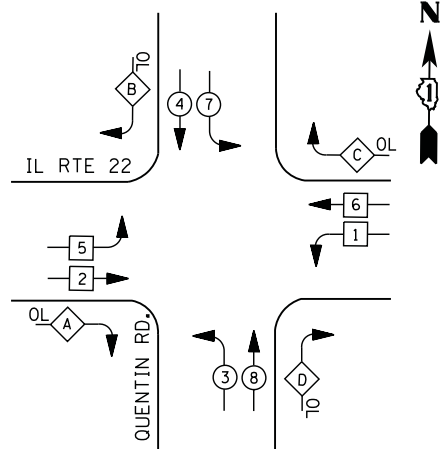
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	27

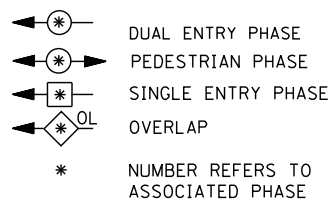
CONTRACT NO. 60T84
 ILLINOIS FED. AID PROJECT

TS# 957
 KILDEER

CONTROLLER SEQUENCE



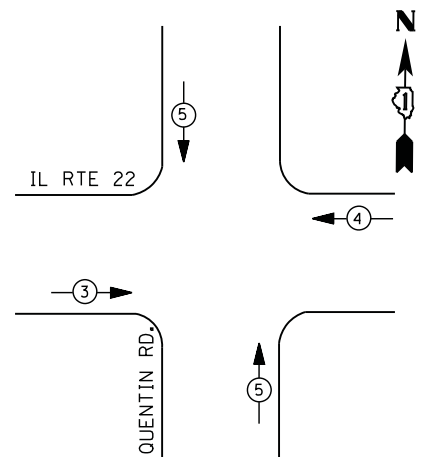
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

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

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↕

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

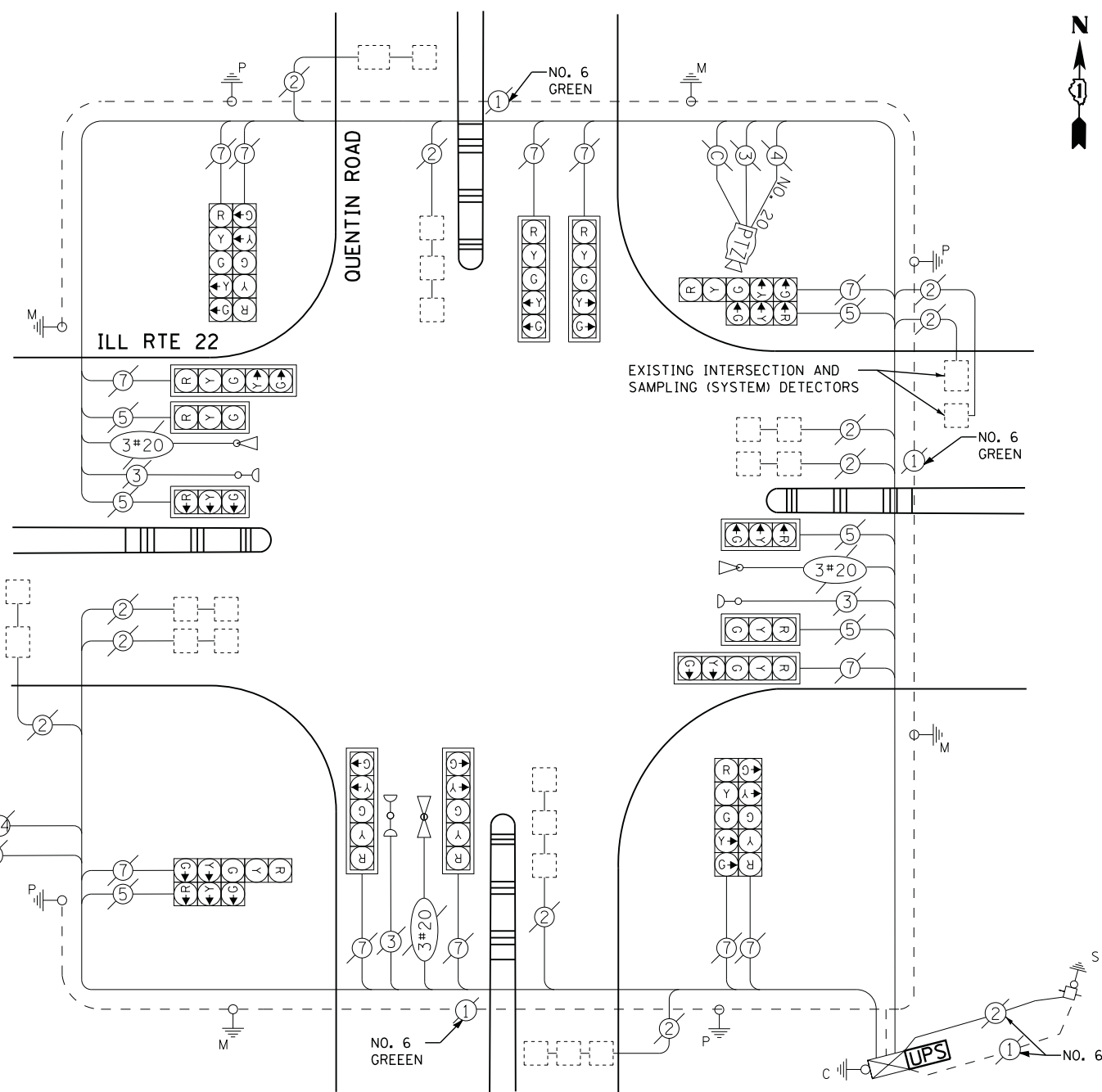
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	24	135	12	0.10	29
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					

TOTAL = 613

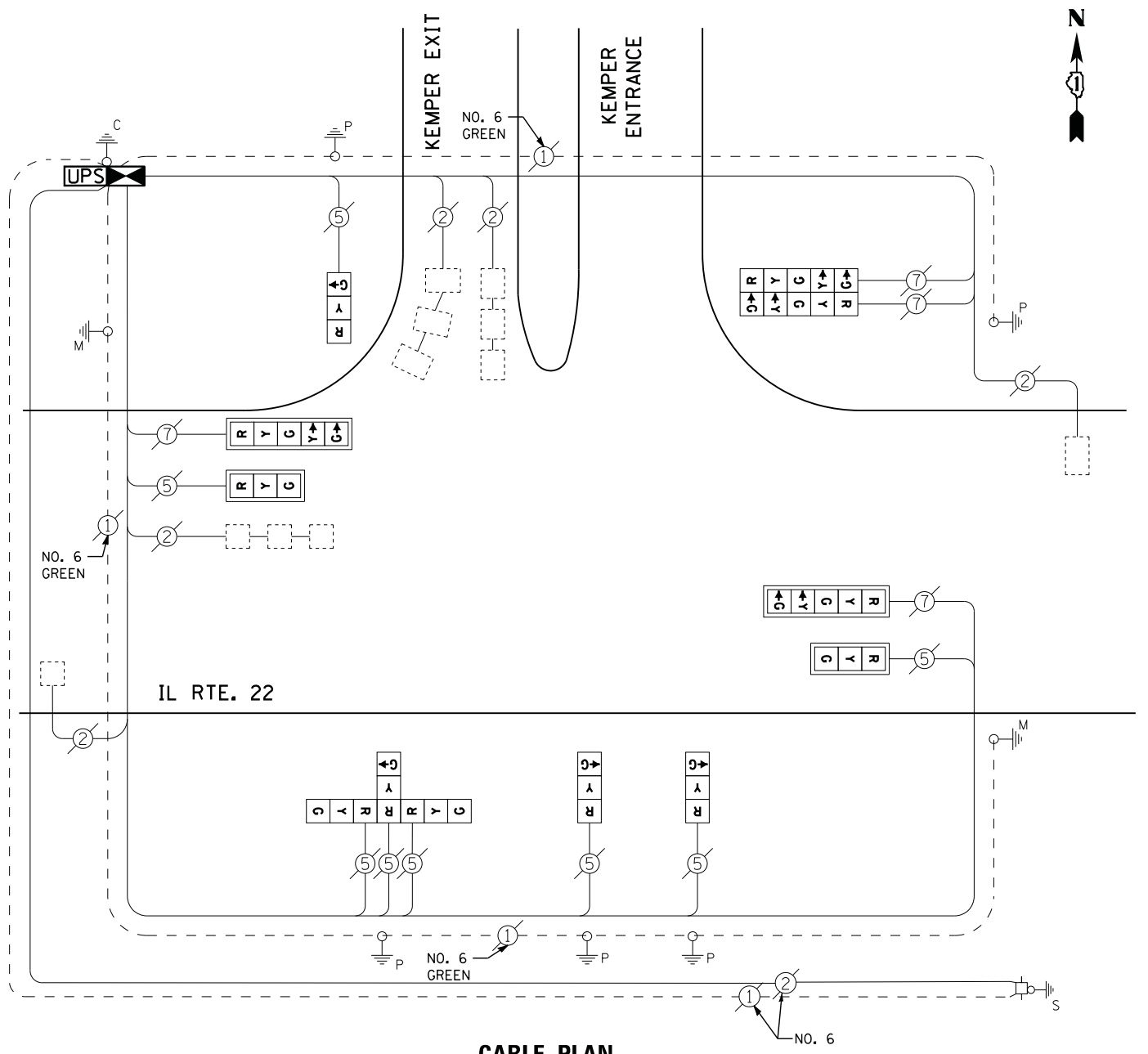
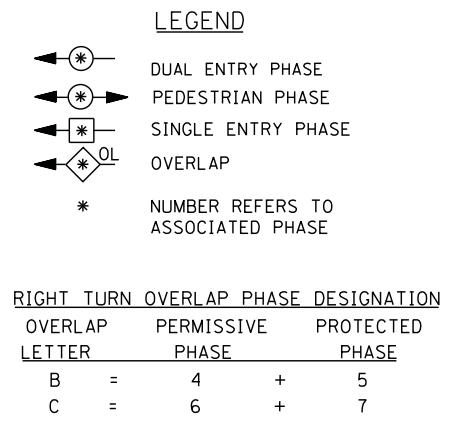
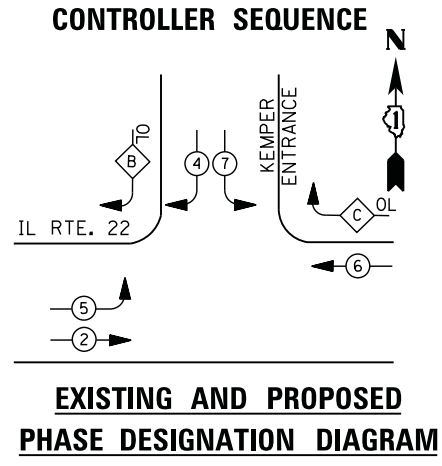
ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096
 ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN



RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					332

ENERGY COSTS- BILLED TO: VILLAGE OF KILDEER
 21911 QUENTIN ROAD
 KILDEER, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

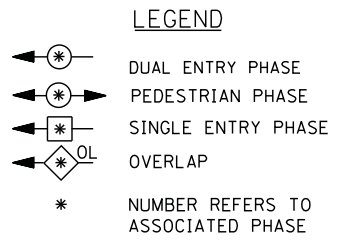
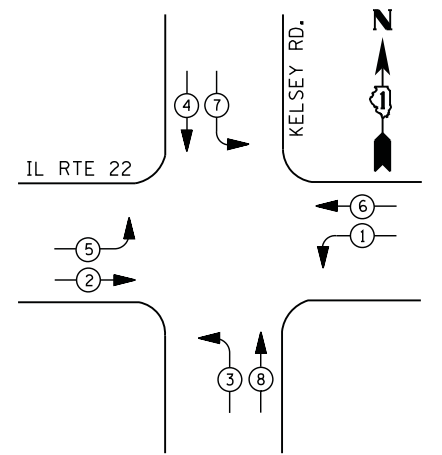
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
5	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	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
1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED RETROFIT
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED RETROFIT

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

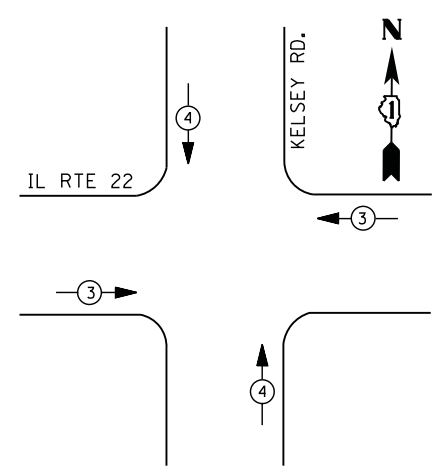
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4 EACH TRAFFIC SIGNAL BACKPLATE
 1 EACH CONTROLLER AND CABINET (COMPLETE)

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**

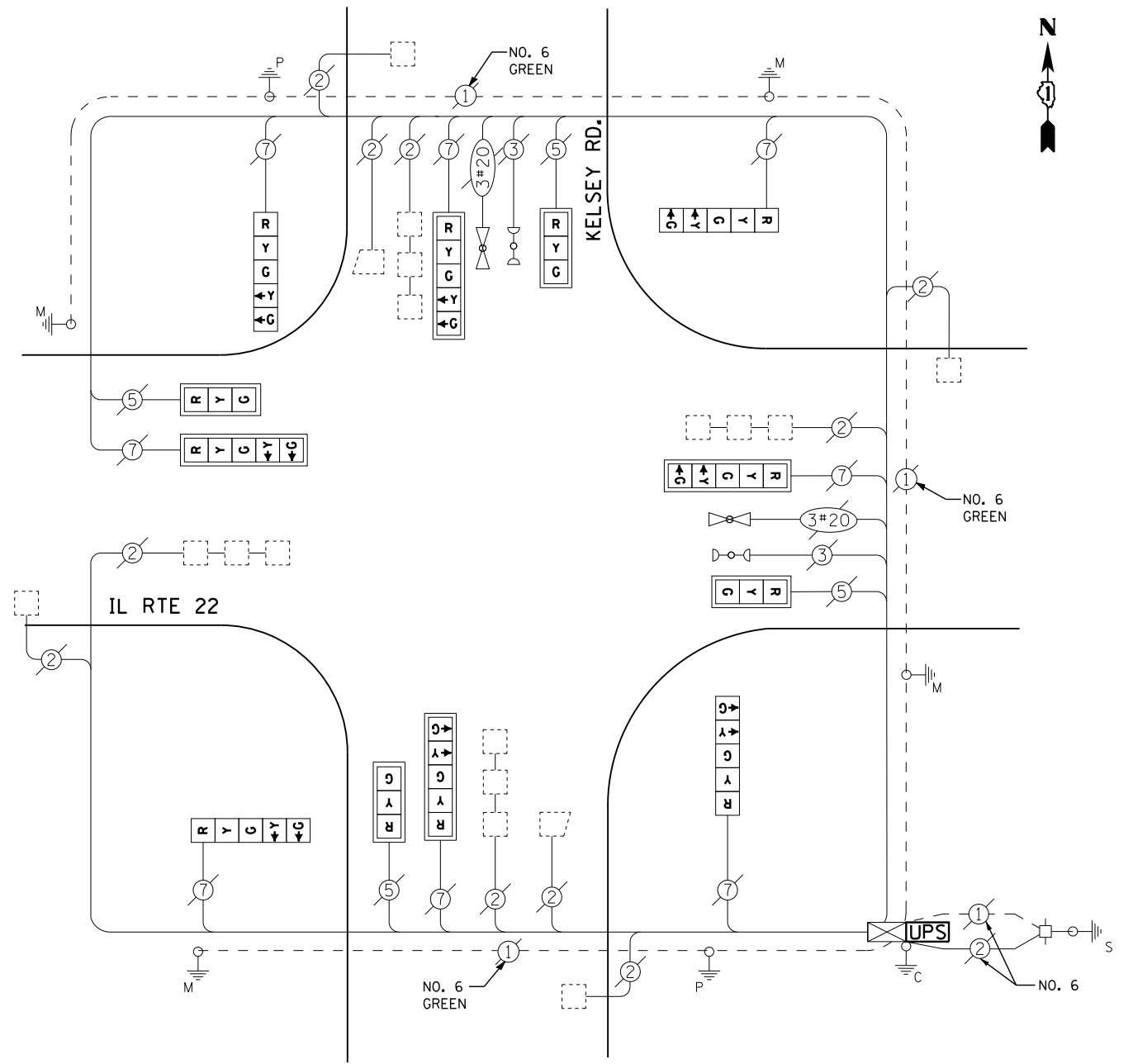
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					341

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

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

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\312004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06531.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

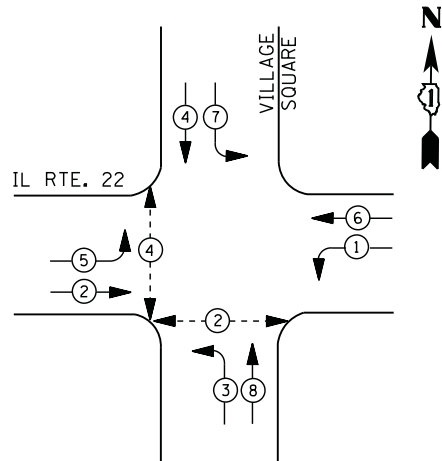
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL ROUTE 22 AT KELSEY ROAD			
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

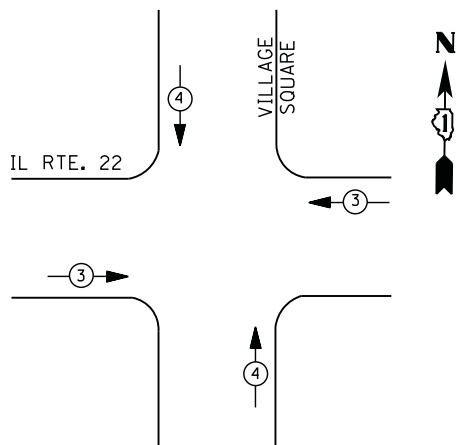
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	30
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6531
 LAKE BARRINGTON

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

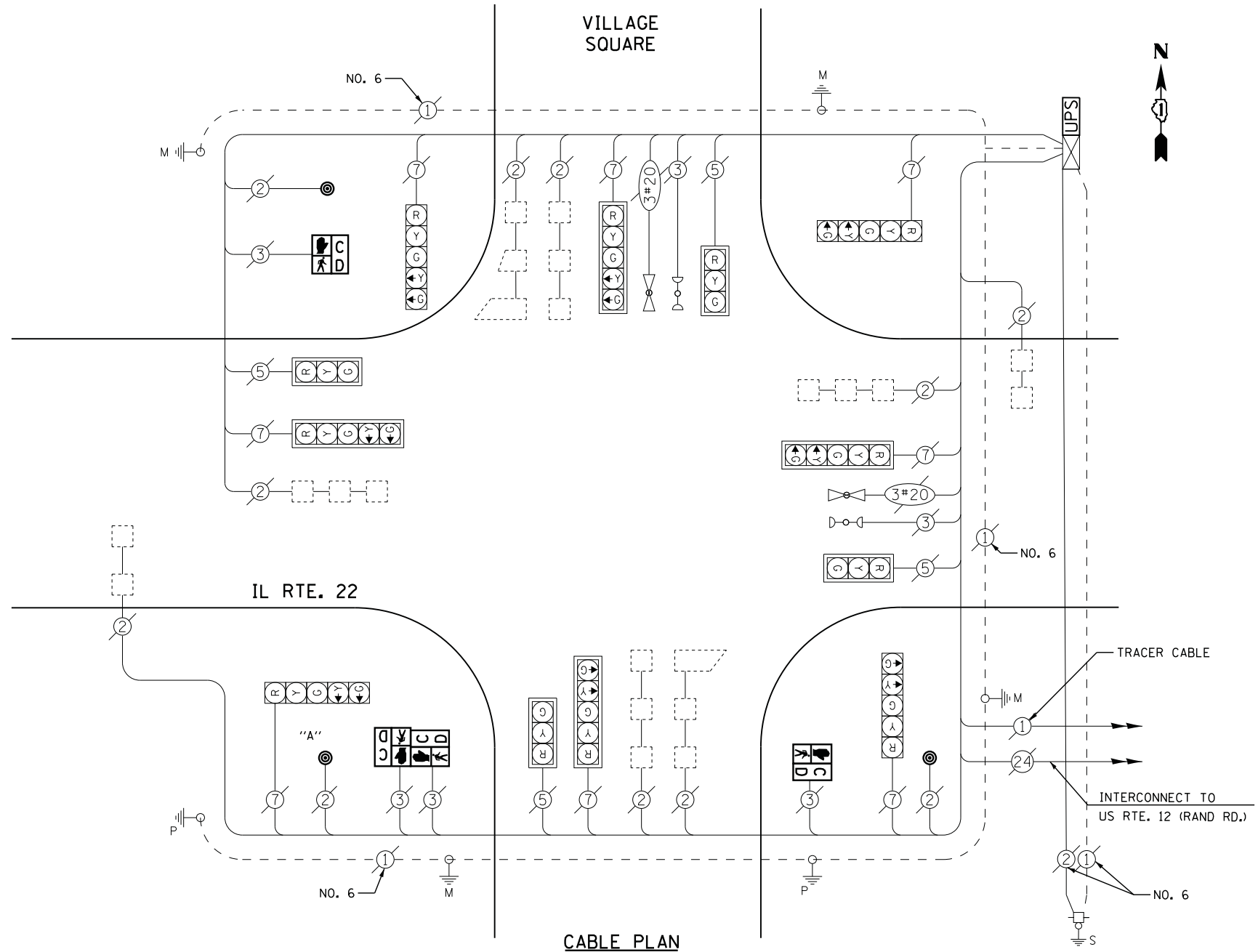
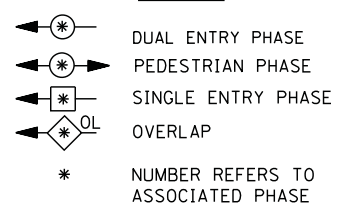
**I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					441

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

LEGEND



CABLE PLAN

NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH-BUTTON

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
N:\Projects\312004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\00941_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

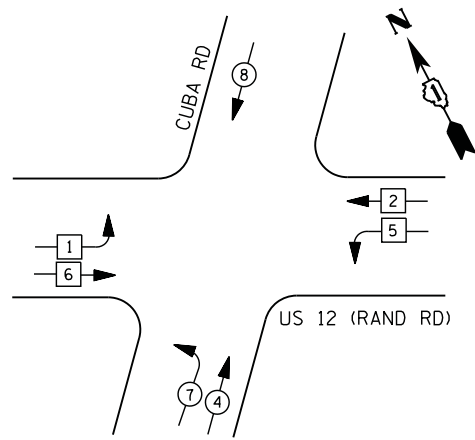
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL ROUTE 22 AT VILLAGE SQUARE SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO. 7 OF 9 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	31
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 941
 LAKE ZURICH

CONTROLLER SEQUENCE

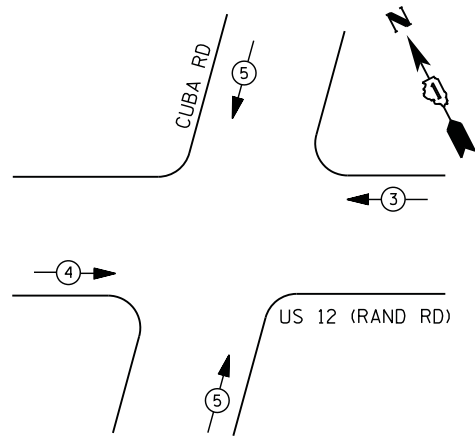


LEGEND

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

- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.

PHASE DESIGNATION DIAGRAM



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					589

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
PHONE 630-437-2129
COMMONWEALTH EDISON

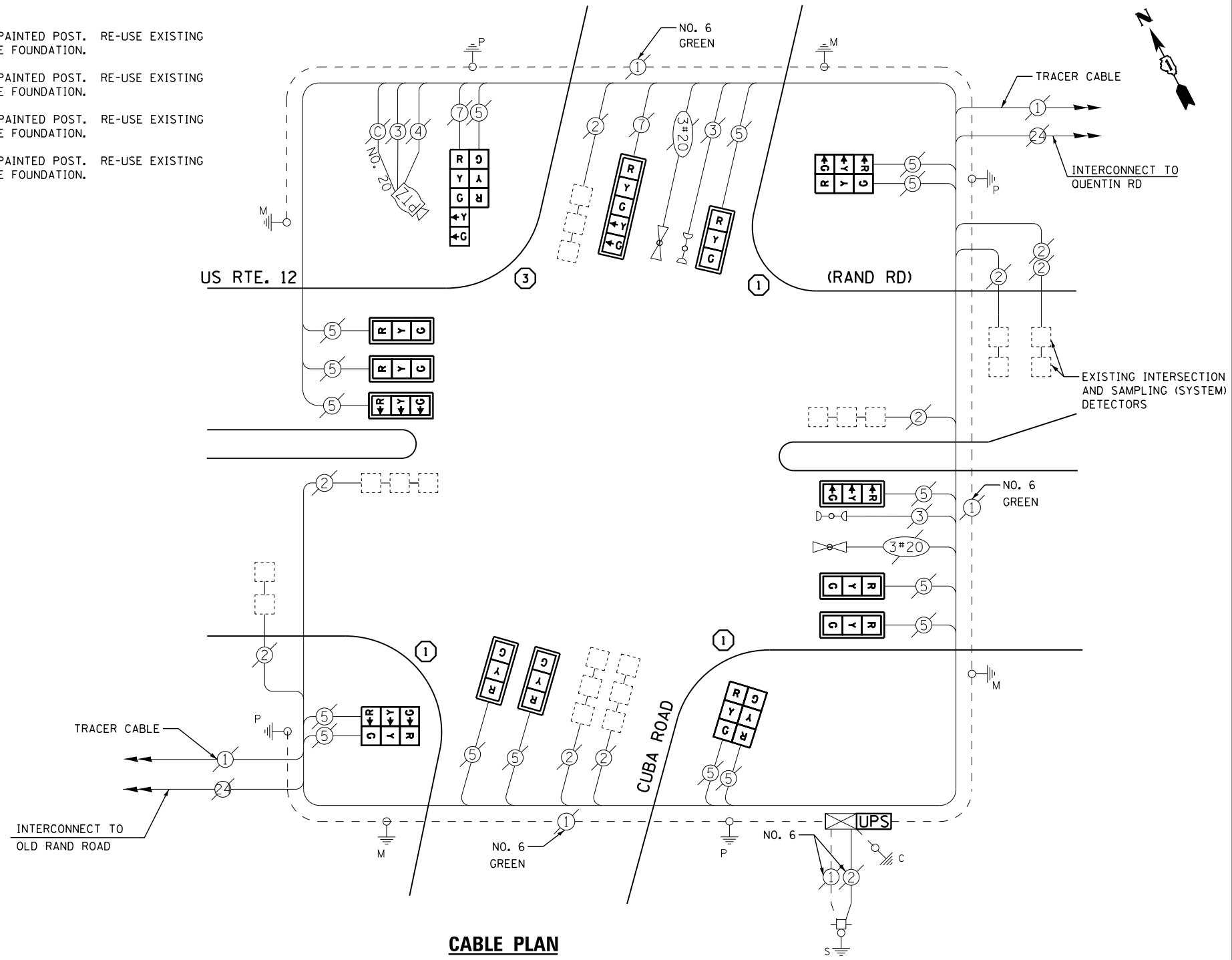
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

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



CABLE PLAN

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

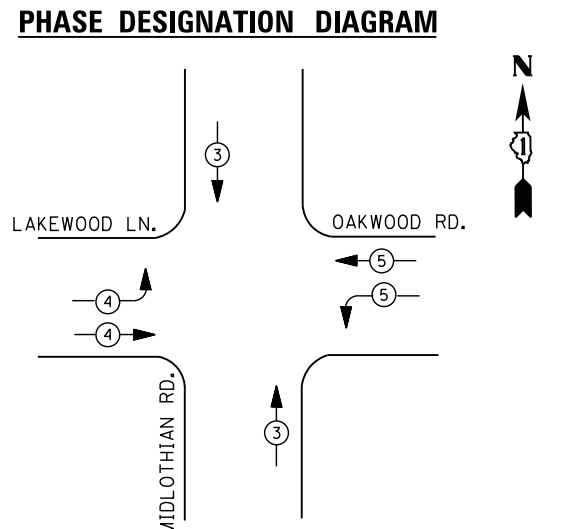
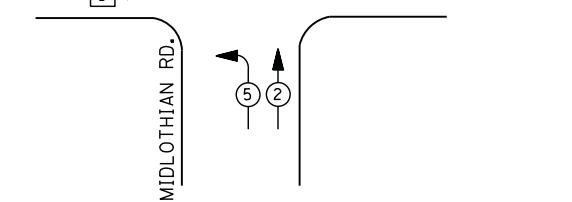
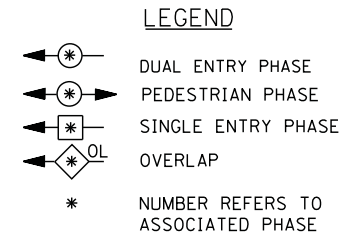
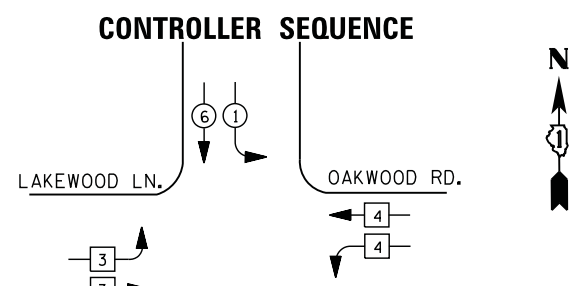
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US ROUTE 12 (RAND ROAD) AT CUBA ROAD
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	32
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 975
LAKE ZURICH



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

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

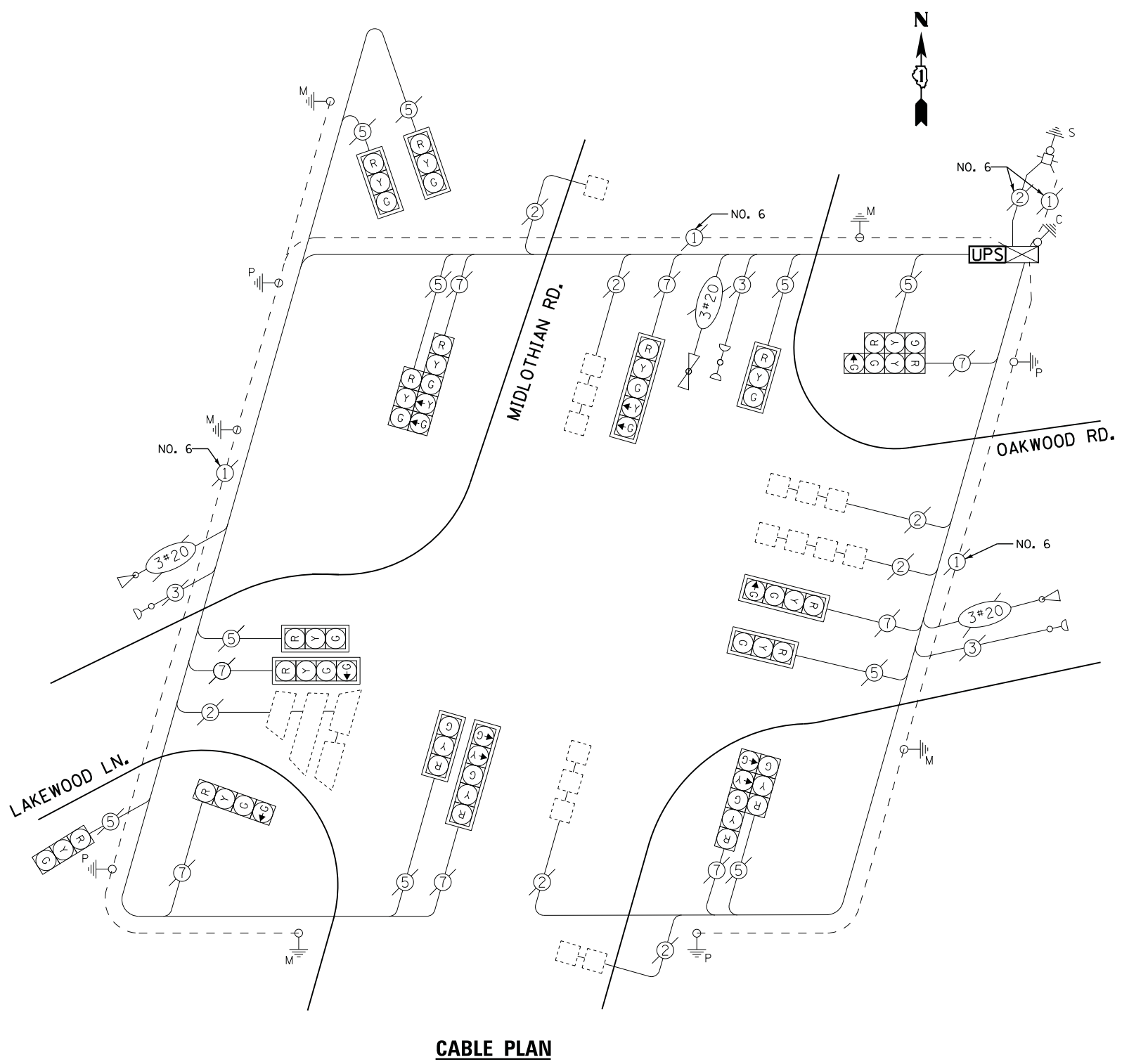
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	22	135	15	0.25	83
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					459

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



FILE NAME = N:\Projects\312004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06573_CAB_LAKE.dgn
 USER NAME = sUSERs
 DESIGNED - DW
 DRAWN - JDH
 PLOT SCALE = *SCALE*
 PLOT DATE = 8/23/2012

REVISD -
 REVISD -
 REVISD -
 REVISD -
 DATE -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MIDLOTHIAN ROAD AT OAKWOOD ROAD/LAKEWOOD LANE
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

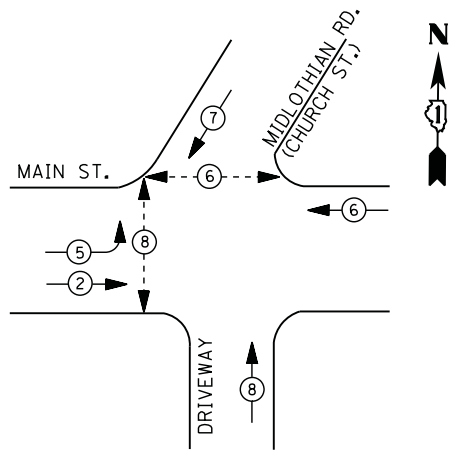
SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	33
CONTRACT NO. 60T84				

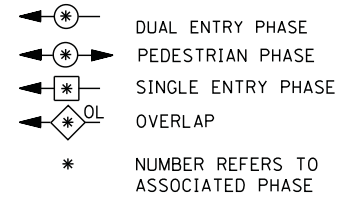
ILLINOIS FED. AID PROJECT

TS# 6573
LAKE ZURICH

CONTROLLER SEQUENCE

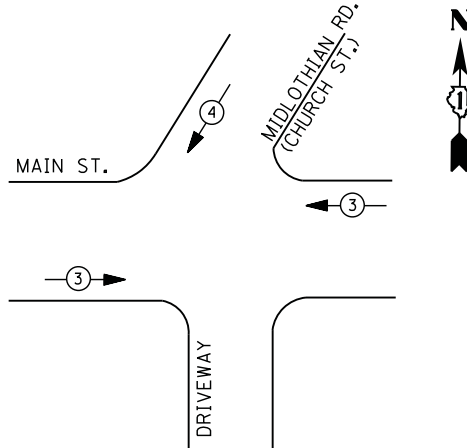


LEGEND



- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

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**

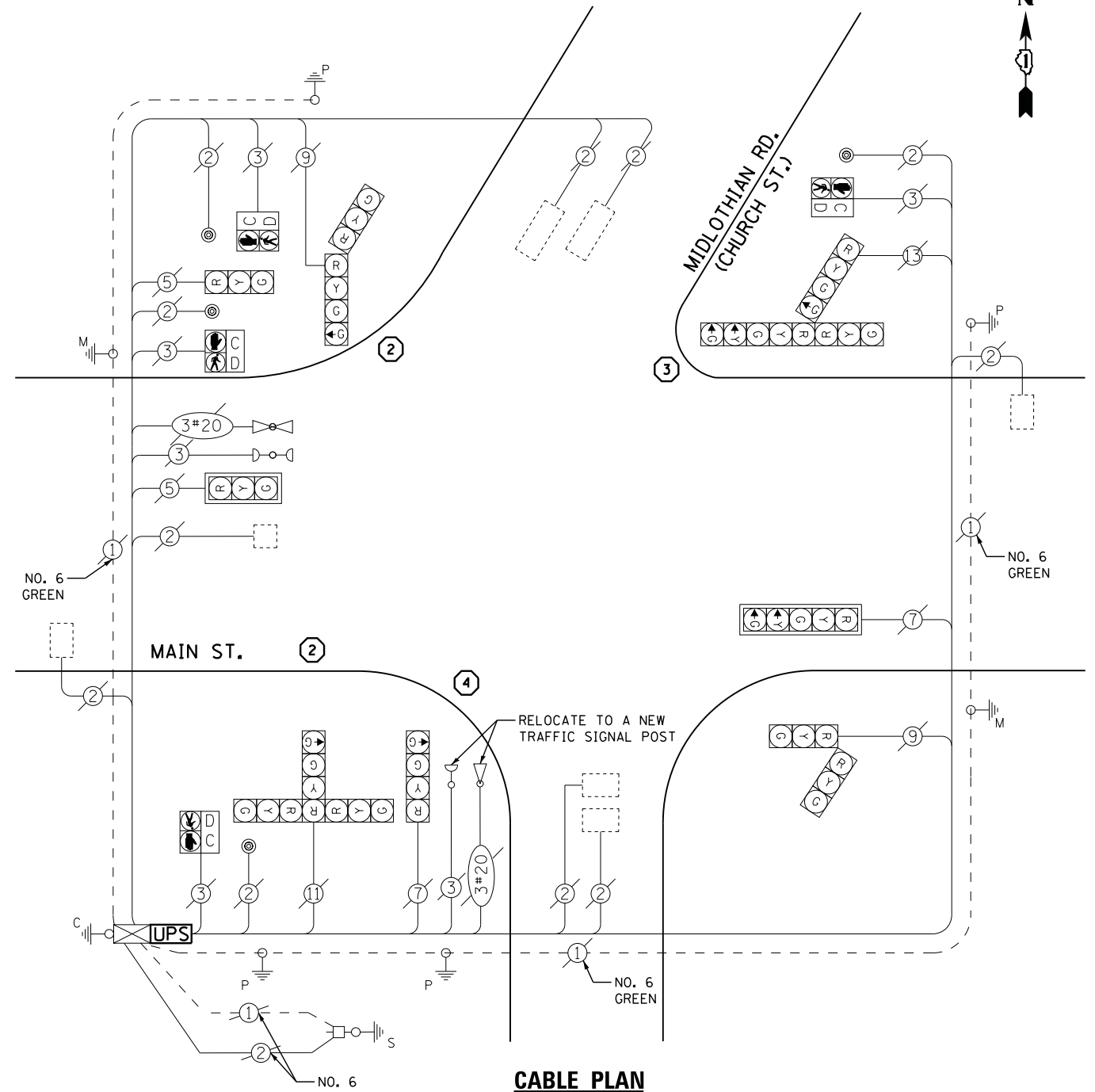
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	18	135	15	0.25	68
ARROW	4	135	12	0.10	5
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					480

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
9	EACH	RELOCATE EXISTING SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
* 100% COST TO LAKE ZURICH		



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH SIGNAL POST

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06750_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

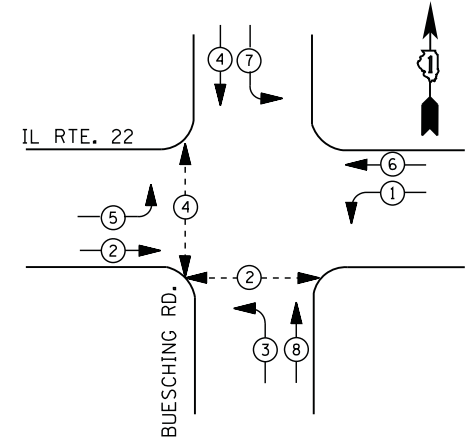
**MAIN STREET AT MIDLOTHIAN ROAD (CHURCH STREET)
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

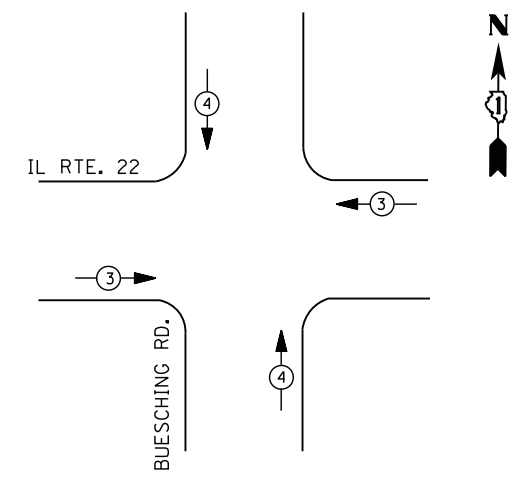
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	34
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6750
 LAKE ZURICH

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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM		150	-	1.00	
TOTAL =					441

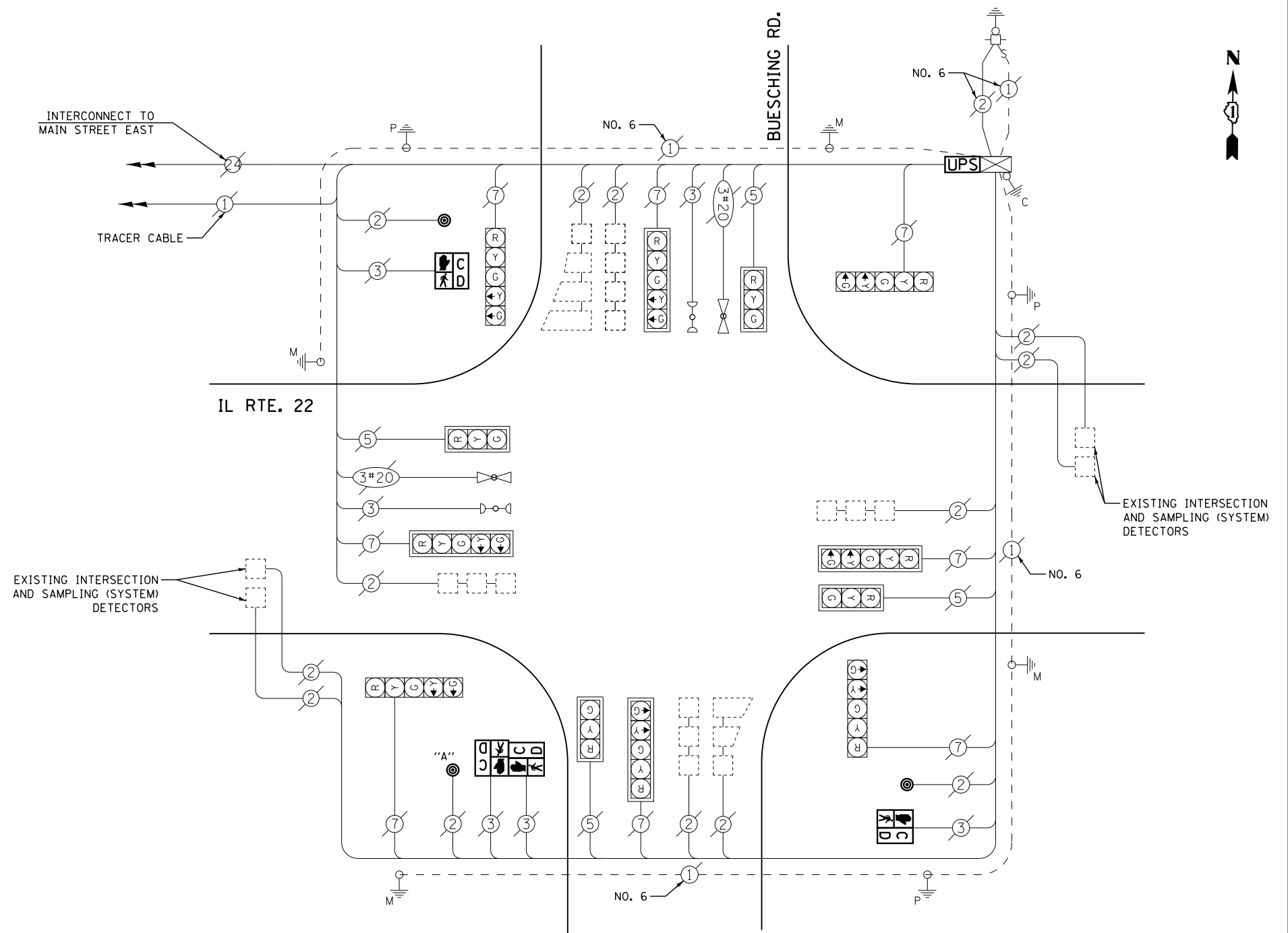
ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

CABLE PLAN



NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASED 2 AND 4

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH-BUTTON

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06751_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

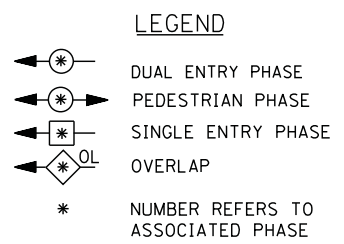
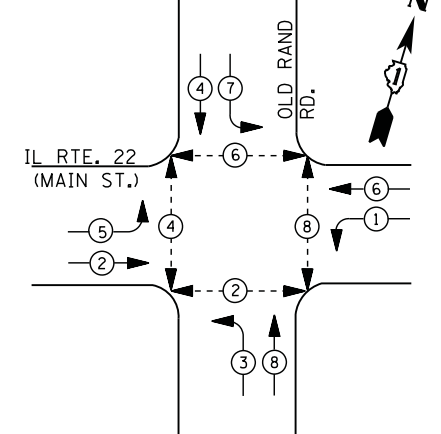
IL ROUTE 22 AT BUESCHING ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	35
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

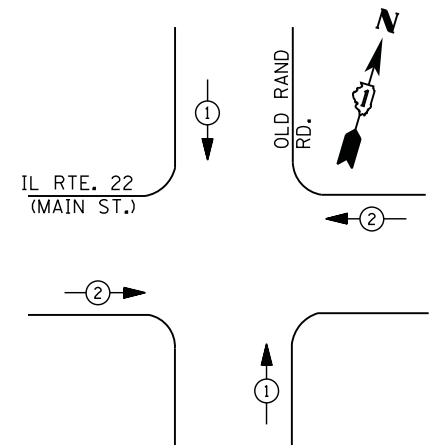
TS# 6751
 LAKE ZURICH

CONTROLLER SEQUENCE



- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑	→

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	
TOTAL =					579

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

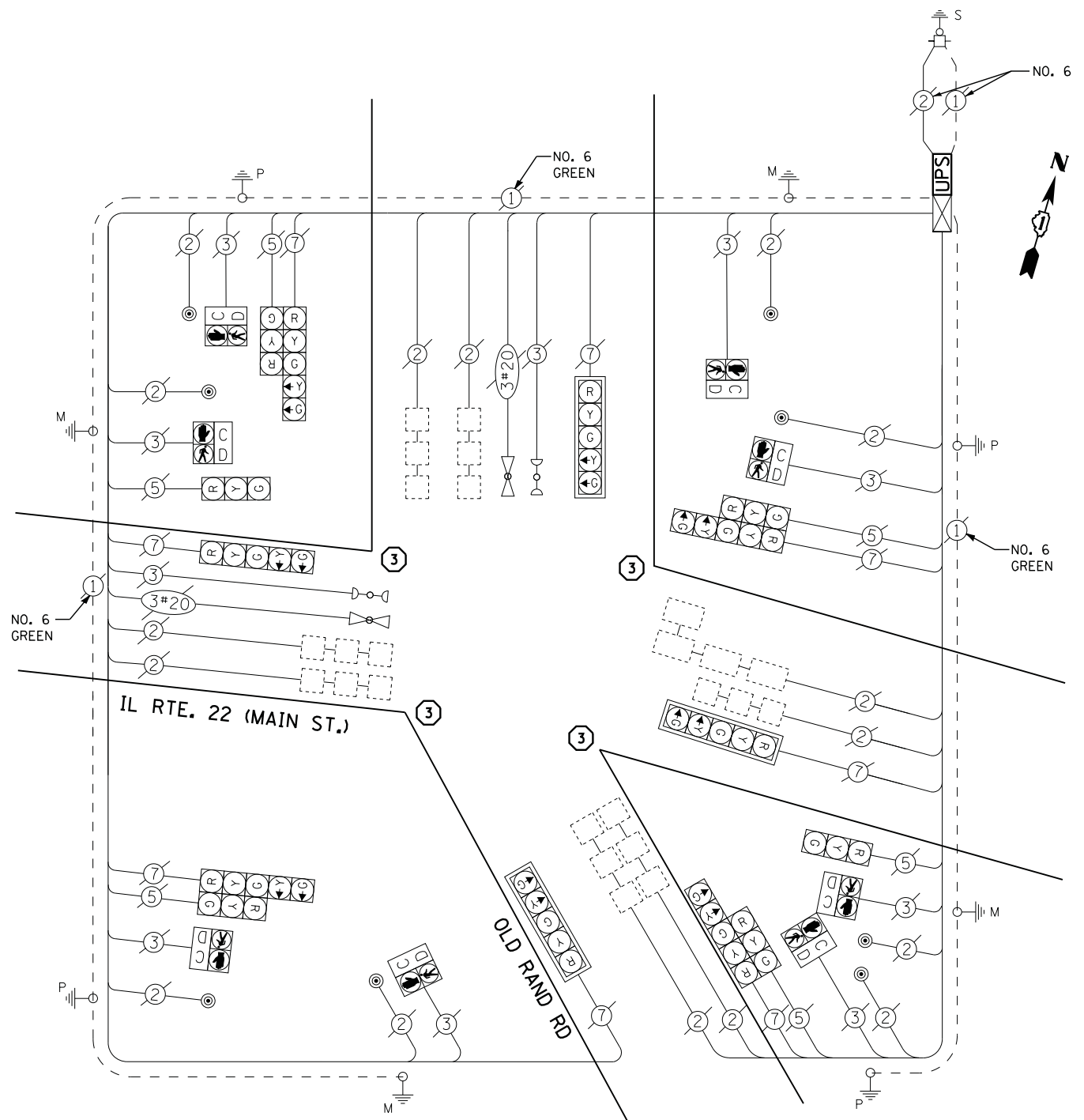
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4 EACH SIGNAL POST



CABLE PLAN

FILE NAME = USER NAME = *USER*
 N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06755_CAB_LAKE.dgn
 PLOT SCALE = *SCALE*
 PLOT DATE = 8/23/2012

DESIGNED - DW
 DRAWN - JDH
 CHECKED - KMM
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

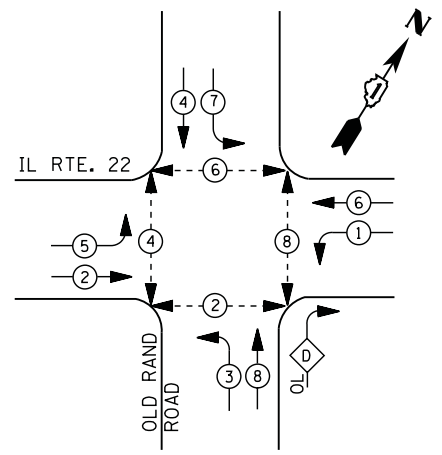
MAIN STREET AT OLD RAND ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

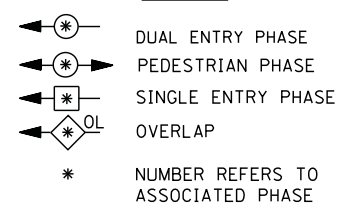
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 2012-039TS LAKE 84 36
 CONTRACT NO. 60T84
 ILLINOIS FED. AID PROJECT

TS# 6755
 LAKE ZURICH

CONTROLLER SEQUENCE



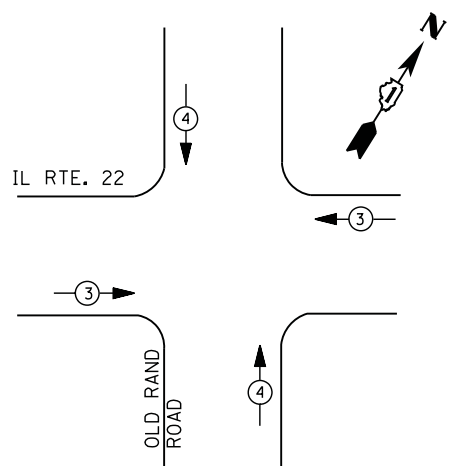
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

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

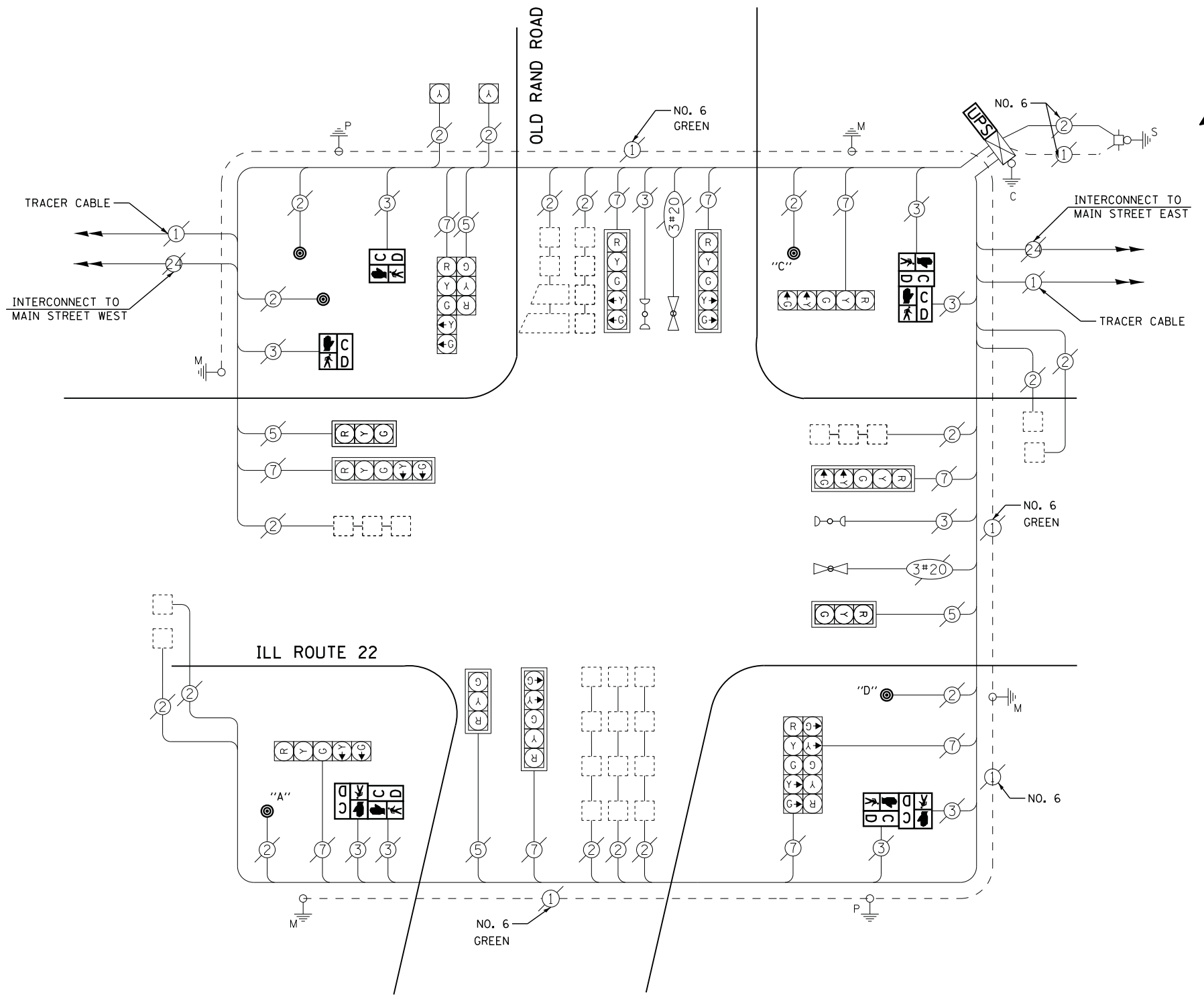
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	20	135	12	0.10	24
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					584

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

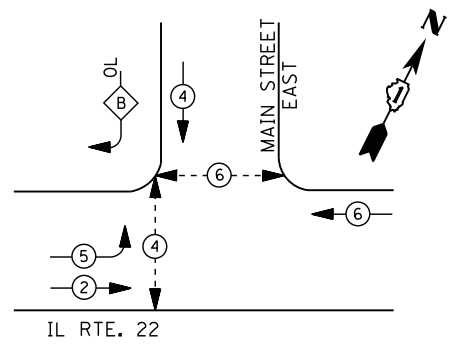
NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

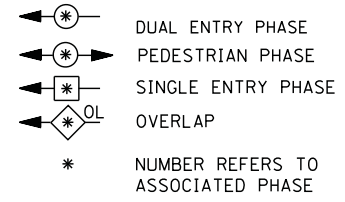
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

8	EACH	PEDESTRIAN SIGNAL HEAD
5	EACH	PEDESTRIAN PUSH-BUTTON

CONTROLLER SEQUENCE



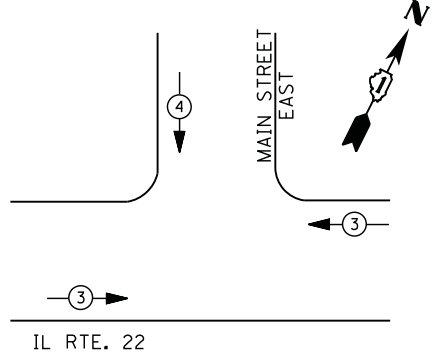
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					396

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 TO EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

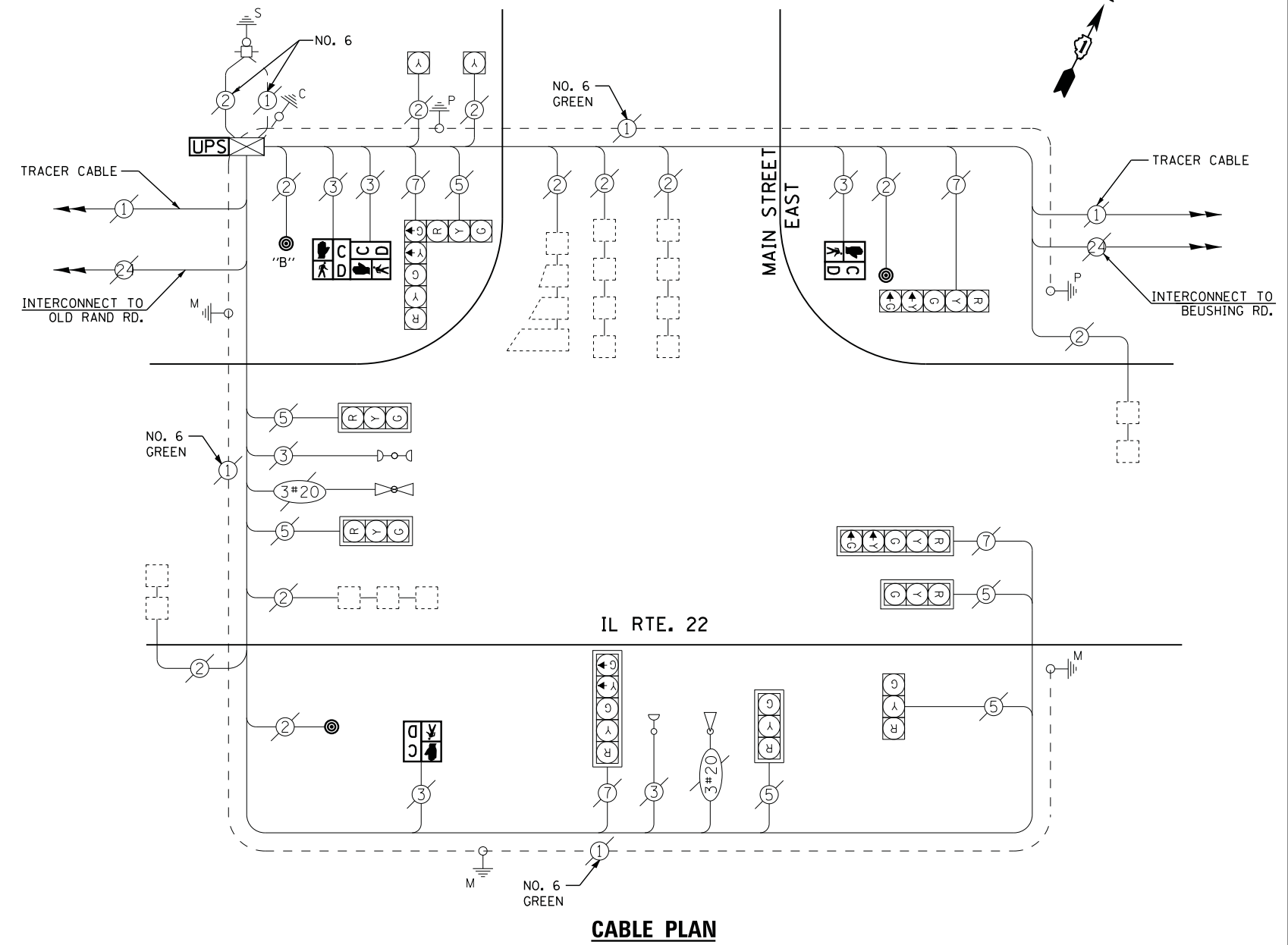
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH-BUTTON



CABLE PLAN

NOTES:
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 22 AT MAIN STREET EAST
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

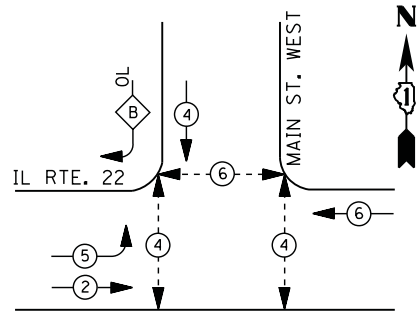
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	38
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6758
 LAKE ZURICH

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
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	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

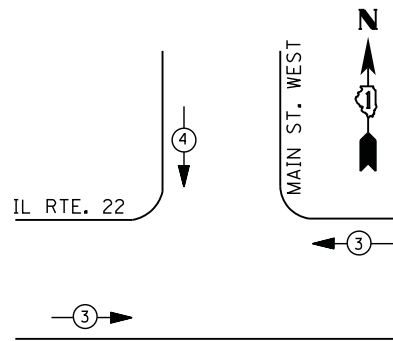
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

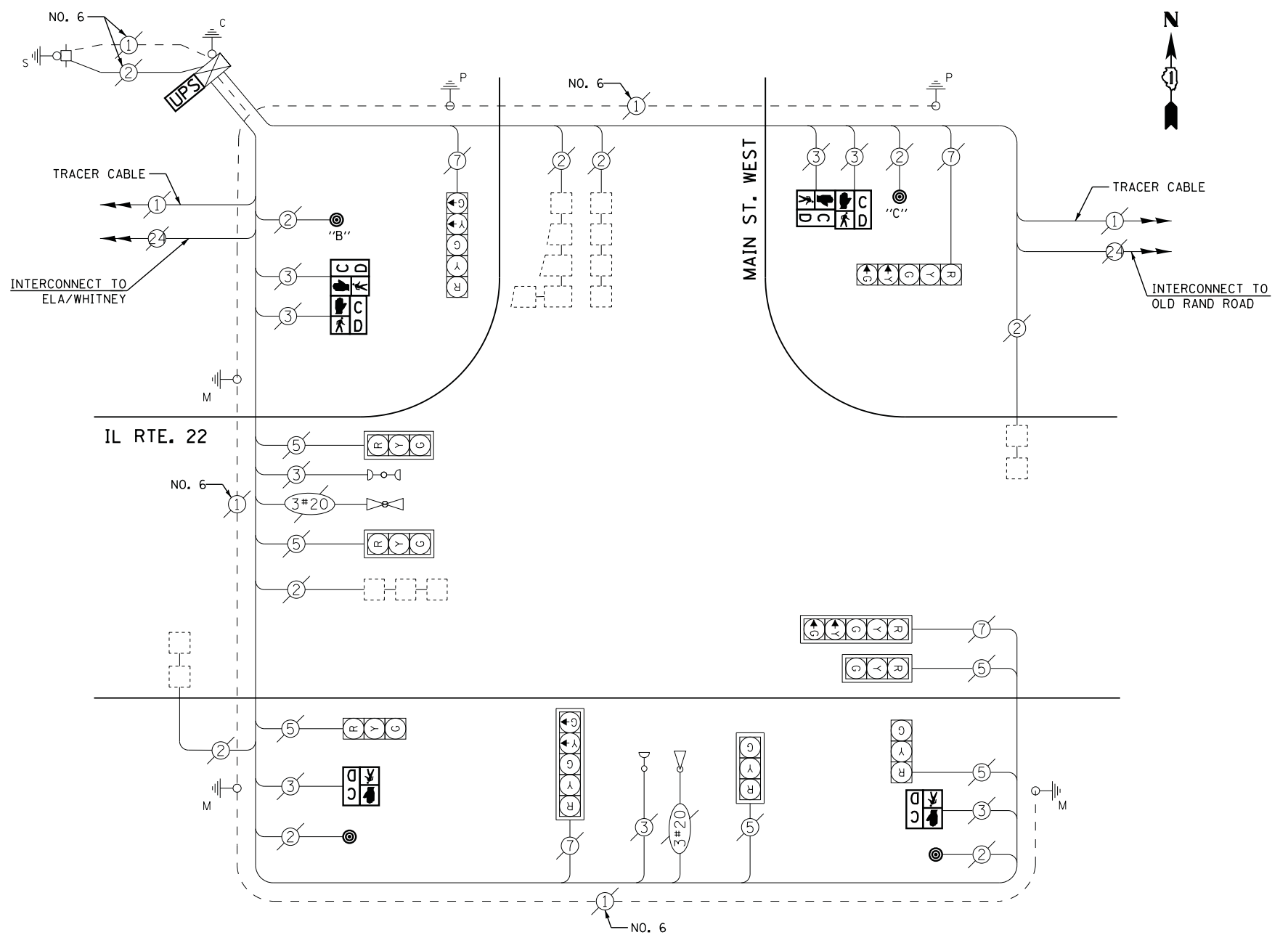
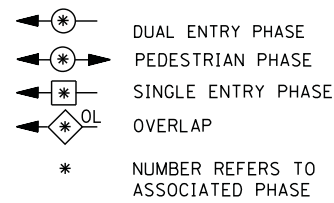
I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					446

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

LEGEND



CABLE PLAN

NOTES:
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6

SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

6	EACH	PEDESTRIAN SIGNAL HEAD
4	EACH	PEDESTRIAN PUSH-BUTTON

FILE NAME = USER NAME = *USER*
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 PLOT SCALE = *SCALE* CHECKED - KMM
 PLOT DATE = 8/23/2012 DATE -

DESIGNED - DW
 REVISED -
 REVISIONS:
 REVISIONS:
 REVISIONS:

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

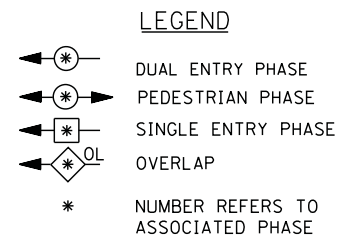
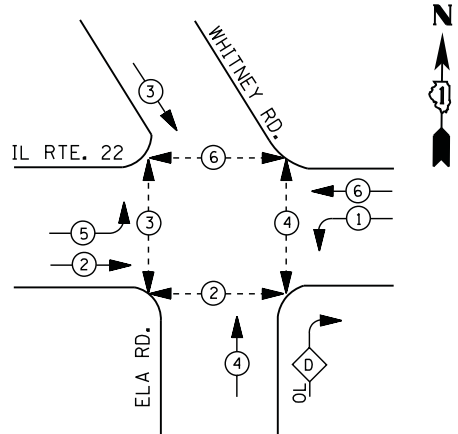
IL ROUTE 22 AT MAIN STREET WEST
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	39
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6759
 LAKE ZURICH

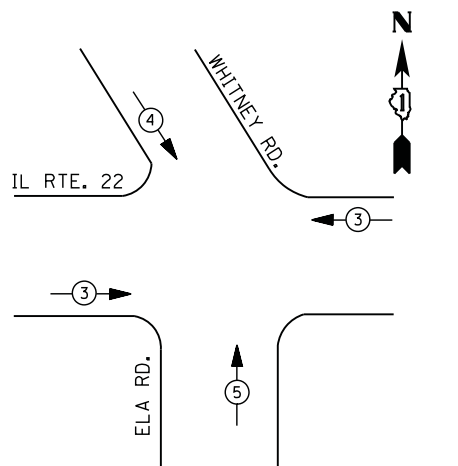
CONTROLLER SEQUENCE



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 4	+ 1

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

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

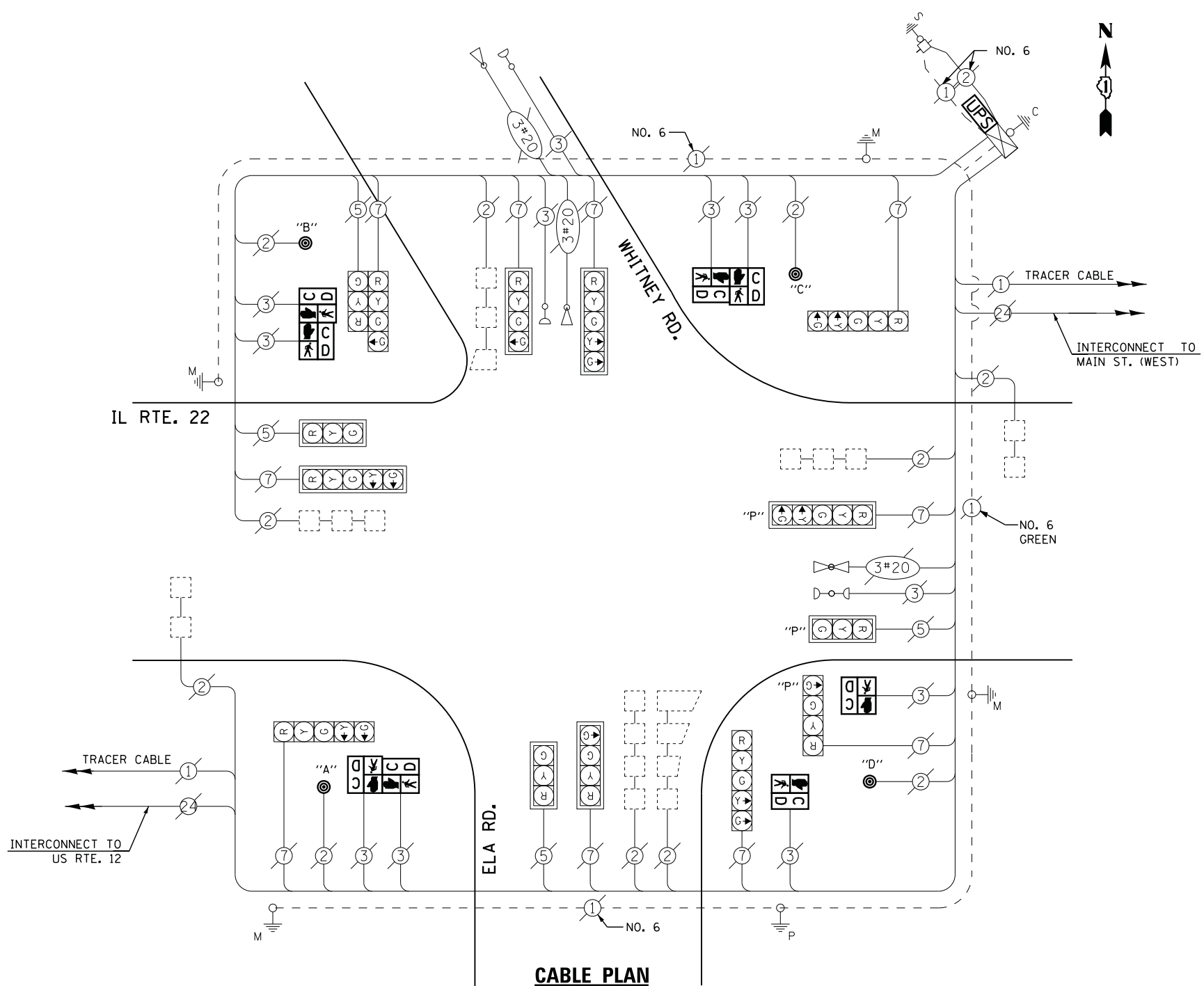
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	18	135	15	0.25	68
ARROW	12	135	12	0.10	14
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					589

BILLED TO: VILLAGE OF LAKE ZURICH
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047
 CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

CABLE PLAN



NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 6 AND 3
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 3
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 4 AND 6

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8	EACH	PEDESTRIAN SIGNAL HEAD
4	EACH	PEDESTRIAN PUSH-BUTTON

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06775_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

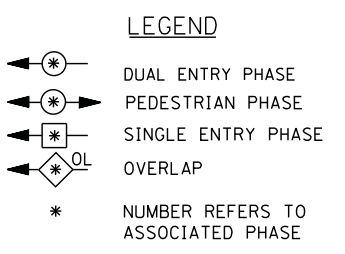
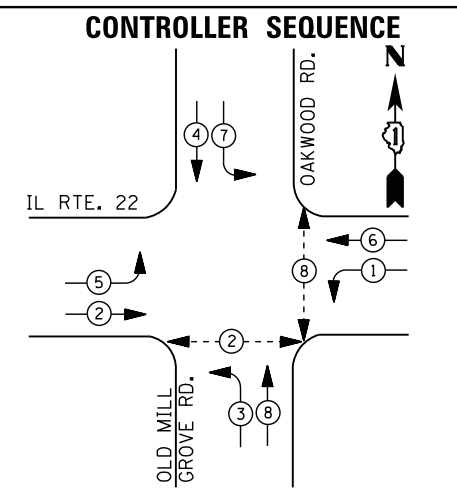
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 22 AT ELA ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

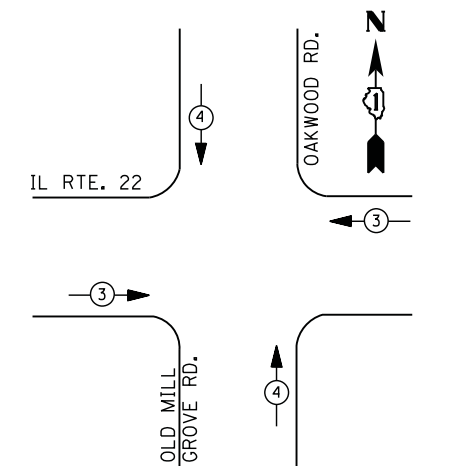
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	40
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6775
 LAKE ZURICH



PHASE DESIGNATION DIAGRAM



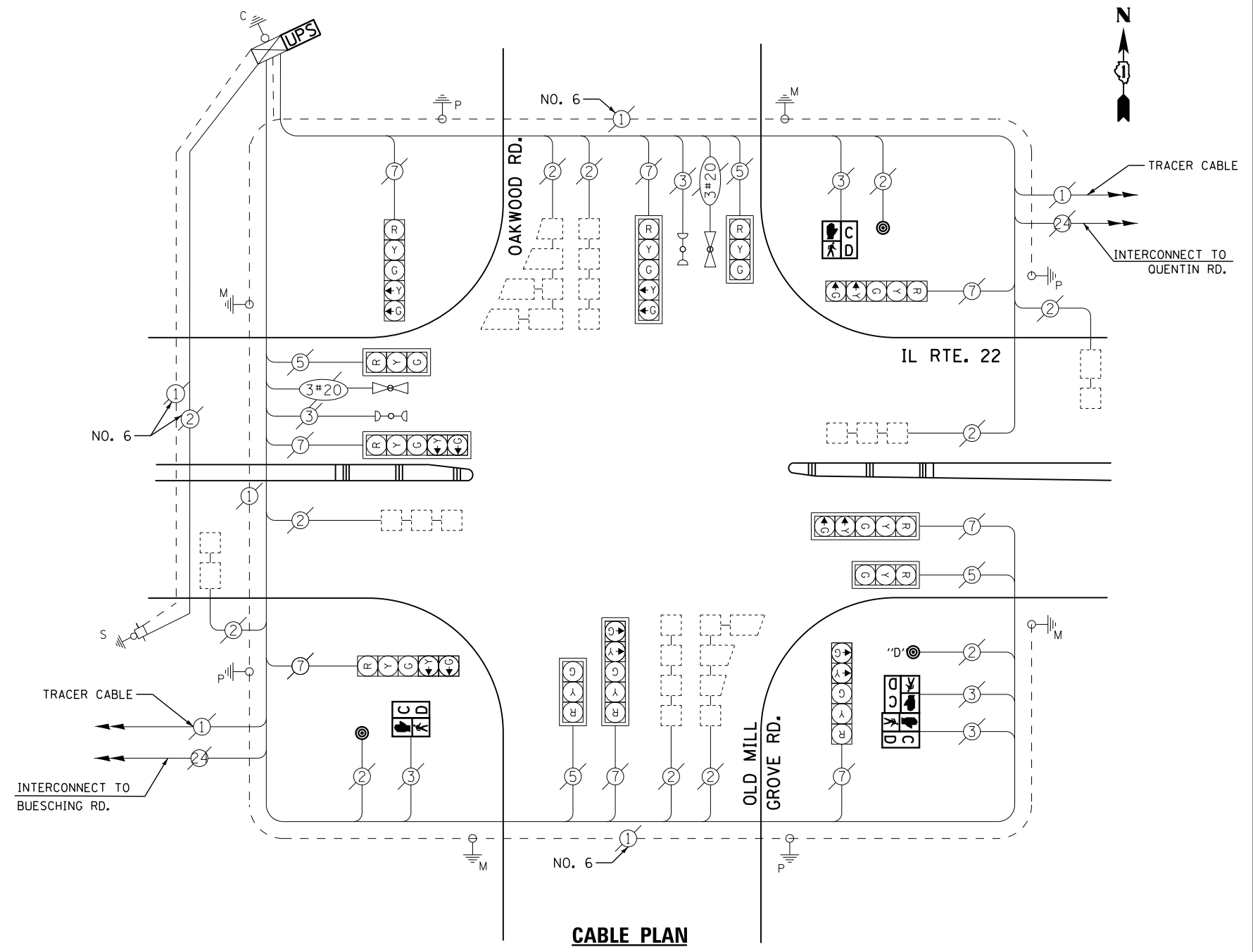
EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
FLASHER LED					
TOTAL =					441

ENERGY COSTS- BILLED TO: VILLAGE OF LAKE ZURICH
 TO EAST MAIN STREET
 LAKE ZURICH, IL 60047
 ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON



NOTES:
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASED 2 AND 8.

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH-BUTTON

FILE NAME =	USER NAME = sUsers	DESIGNED - DW	REVISED -
N:\Projects\312004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06785_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

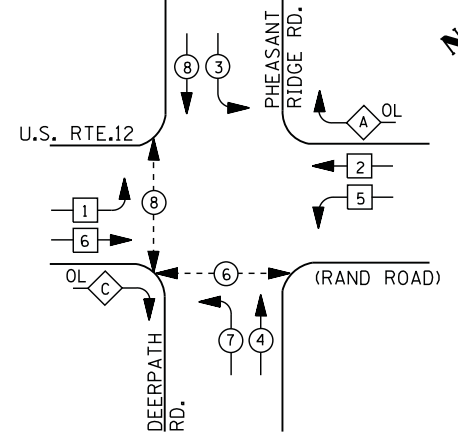
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 22 AT OLD MILL GROVE ROAD/OAKWOOD ROAD SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

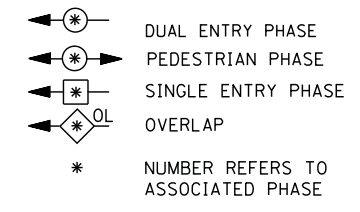
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	41
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6785
 LAKE ZURICH

CONTROLLER SEQUENCE



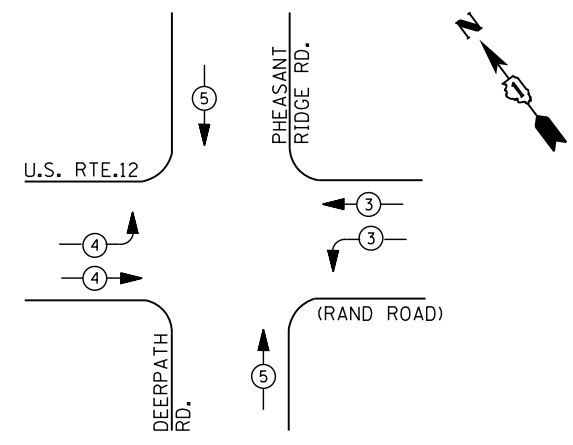
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

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

PHASE DESIGNATION DIAGRAM



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	16	135	12	0.10	19
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	0	150	-	1.00	--
TOTAL =					553

ENERGY COSTS- **BILLED TO: VILLAGE OF LAKE ZURICH**
 70 EAST MAIN STREET
 LAKE ZURICH, IL 60047

ENERGY SUPPLY - CONTACT **DAVE SCHACHT**
 PHONE 630-437-2129
 COMMONWEALTH EDISON

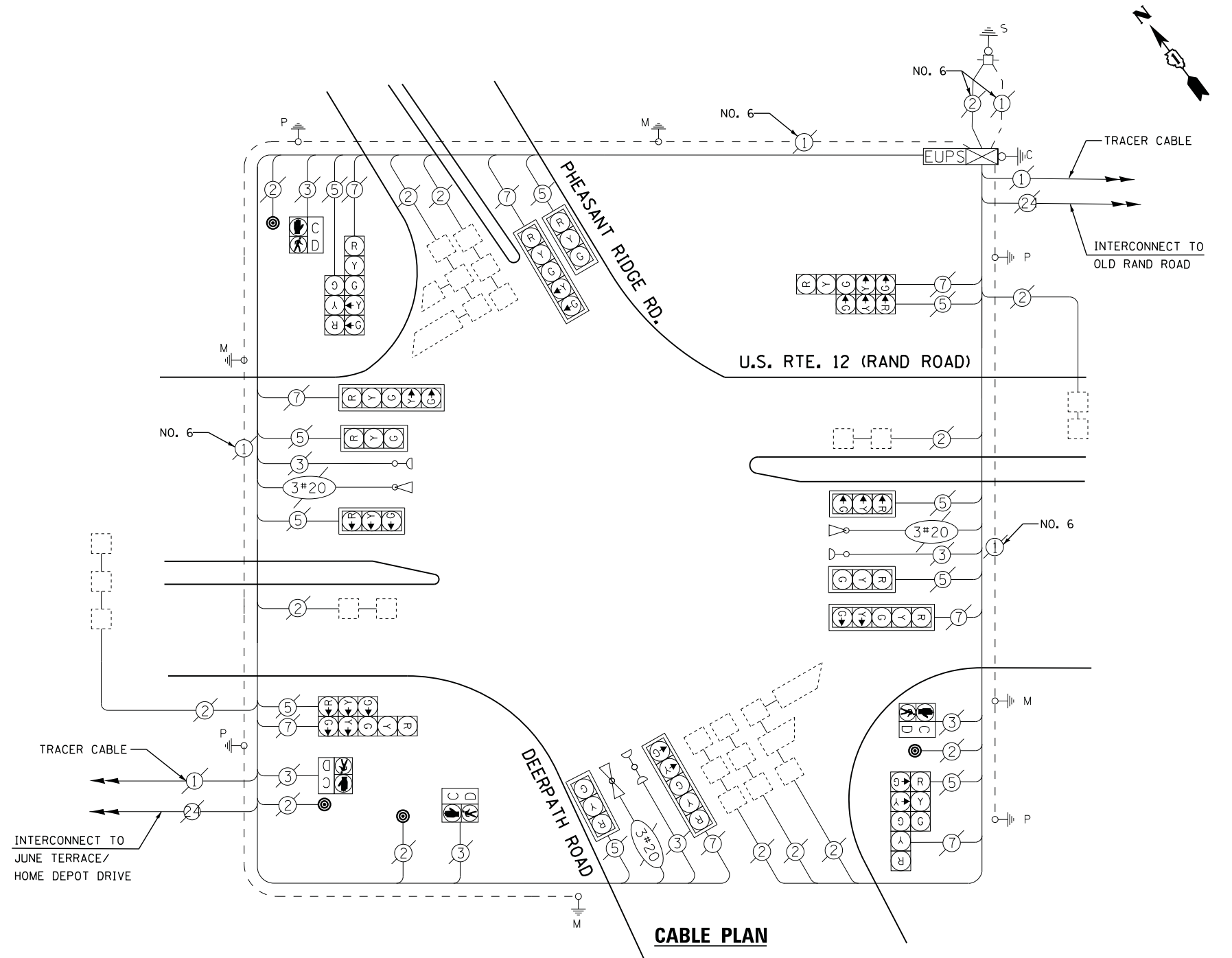
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

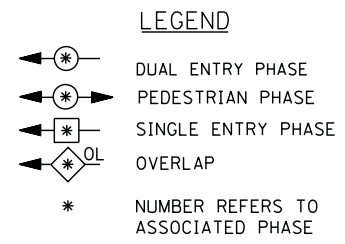
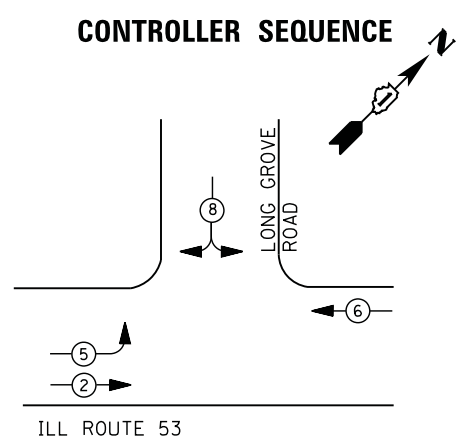
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4 EACH PEDESTRIAN PUSH-BUTTON

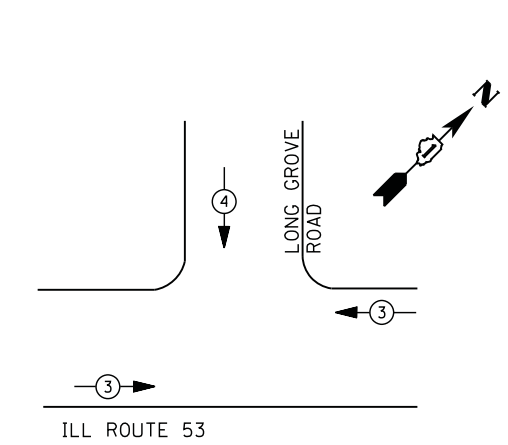


CABLE PLAN

TS# 20535
 LAKE ZURICH



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↖ ↗

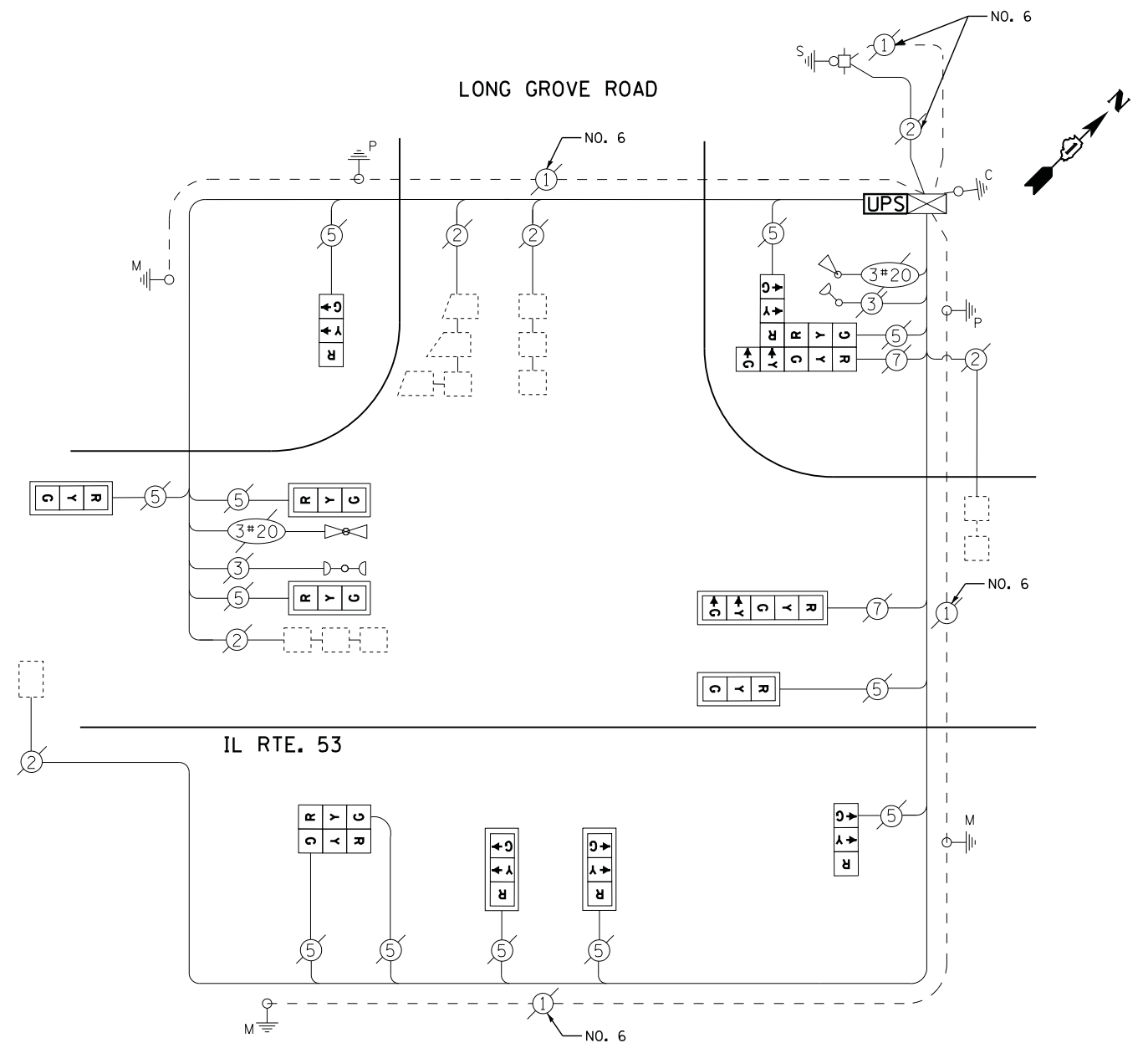
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTRLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					365

ENERGY COSTS- BILLED TO: VILLAGE OF LONG GROVE
 3110 RFD
 LONG GROVE, IL 60047

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

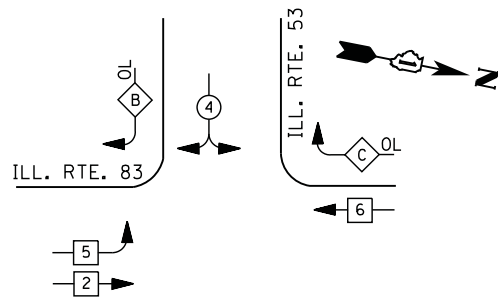
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET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



CABLE PLAN

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

CONTROLLER SEQUENCE



LEGEND

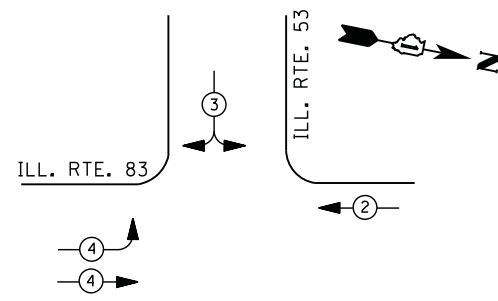
- ⊕ (with circle) DUAL ENTRY PHASE
- ⊕ (with square) PEDESTRIAN PHASE
- ⊕ (with triangle) SINGLE ENTRY PHASE
- ⊕ (with diamond) OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 4

EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	2	3	4
MOVEMENT	←	↙ ↘	↗ ↘

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

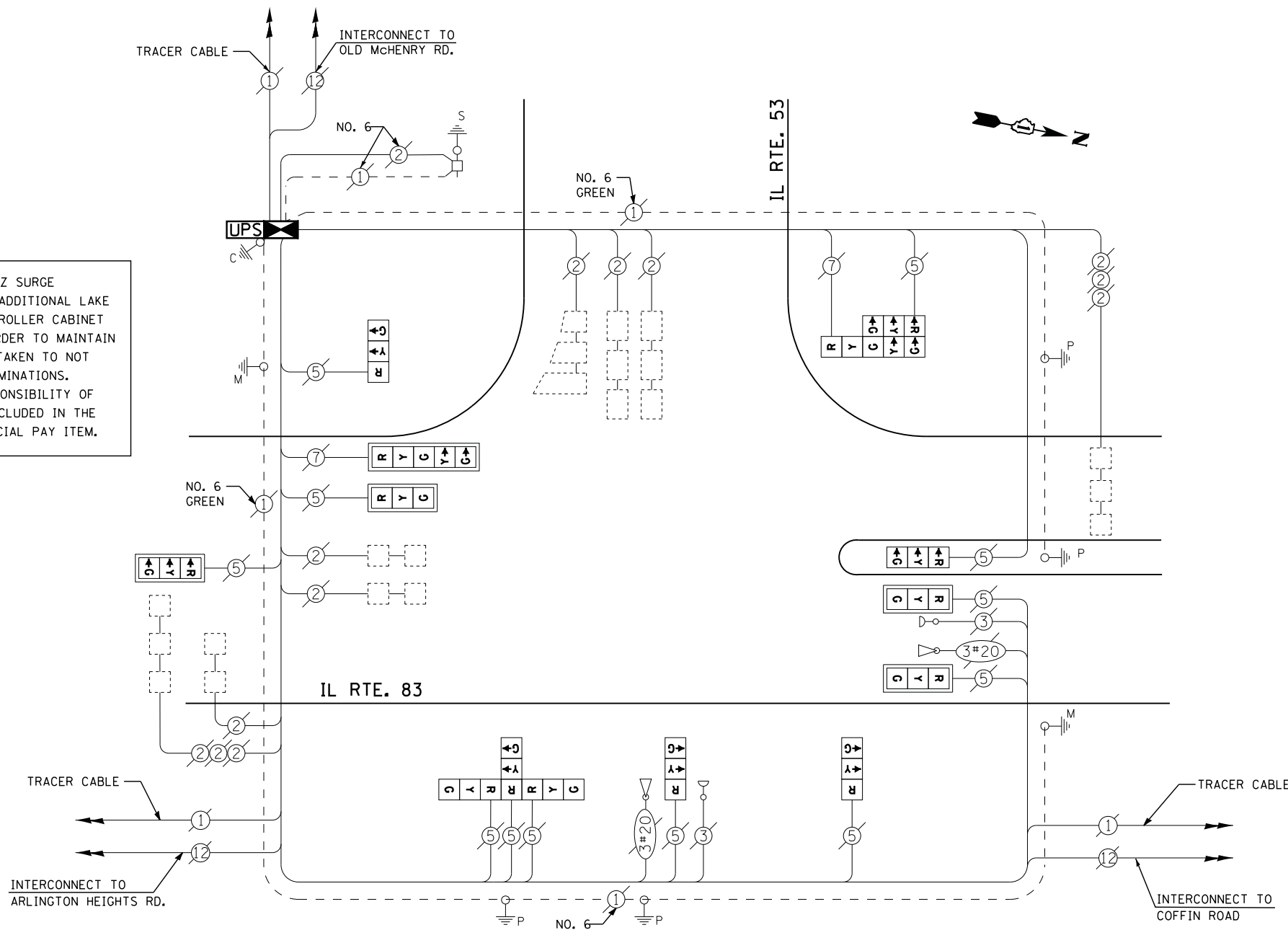
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					365

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096
 CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
5	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
12	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1	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
4	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, 3-FACE, 3-SECTION, BRACKET MOUNTED RETROFIT

* 100% COST TO LONG GROVE



CABLE PLAN

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

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

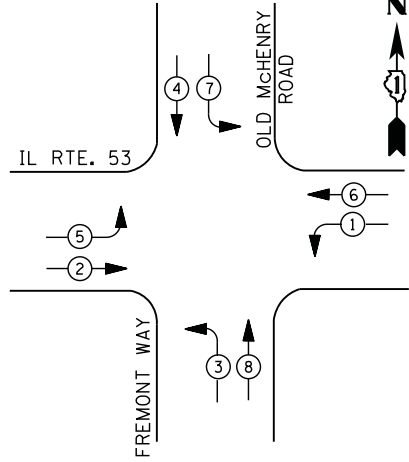
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

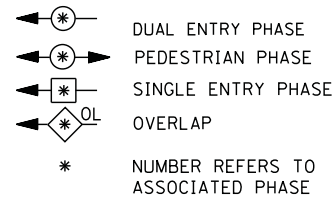
- 5 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND CABINET (COMPLETE)

TS# 6835
 LONG GROVE

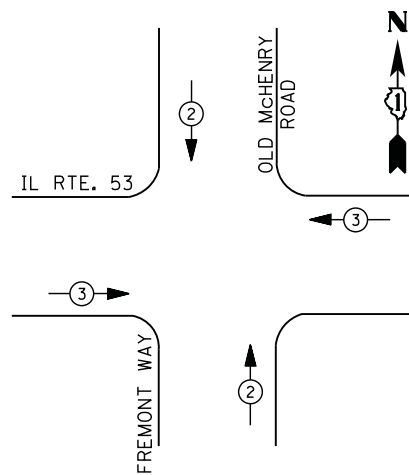
CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	2	3
MOVEMENT	↓ ↑	← →

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

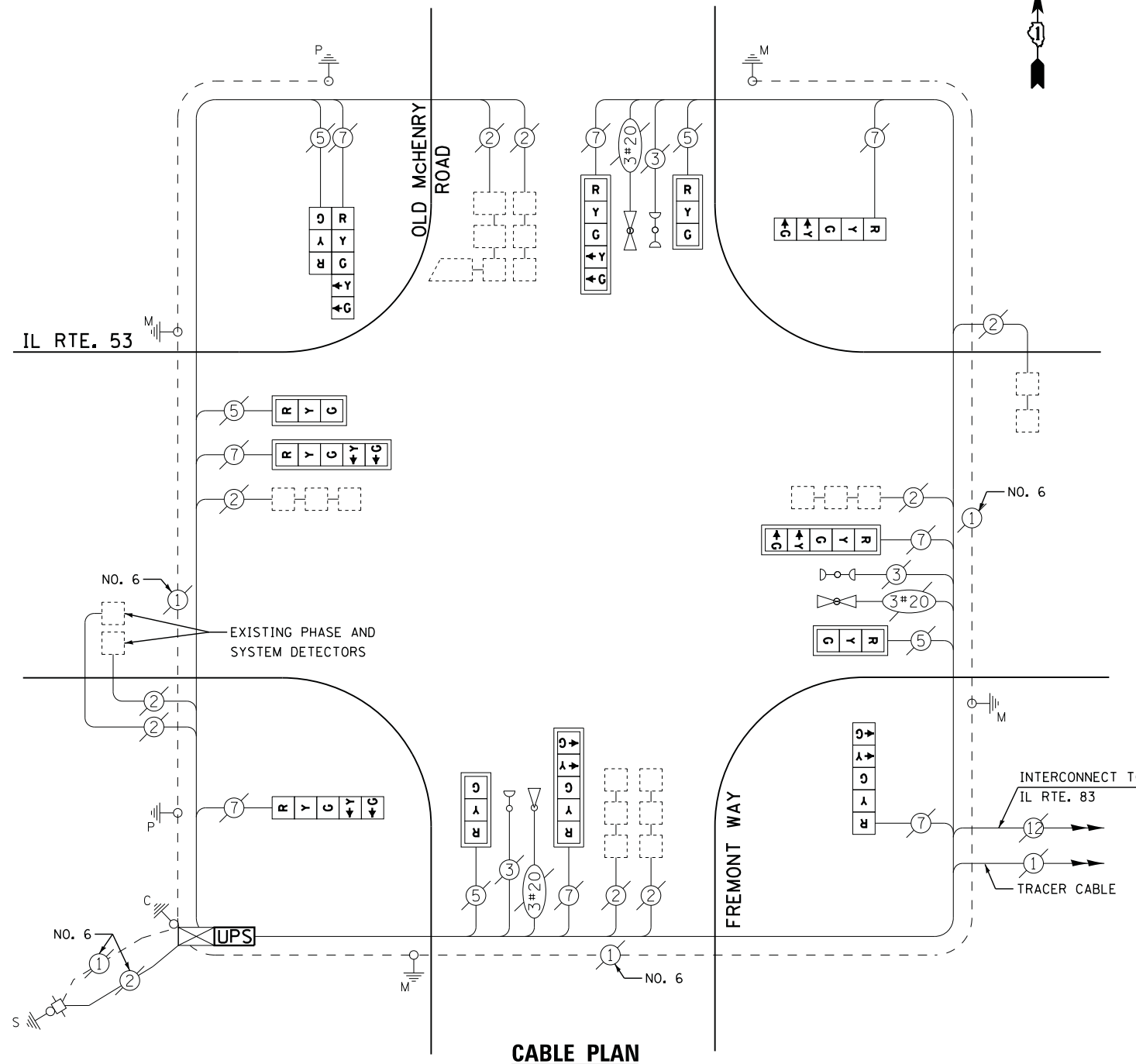
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM		150	-	1.00	
FLASHER LED					
TOTAL =					360

ENERGY COSTS- **BILLED TO: VILLAGE OF LONG GROVE**
 3110 RFD
 LONG GROVE, IL 60047

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

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

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06839_CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

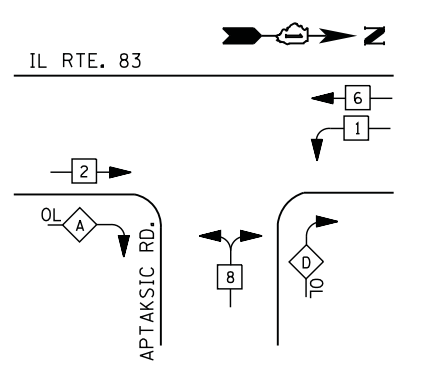
**IL ROUTE 53 AT OLD McHENRY ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

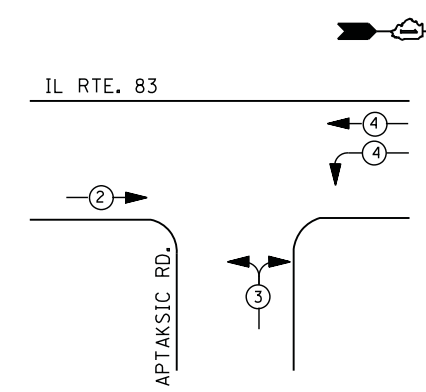
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	45
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6839
 LONG GROVE

CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	2	3	4
MOVEMENT	→	↔	←

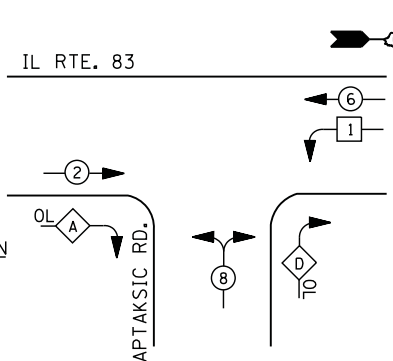
LEGEND

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

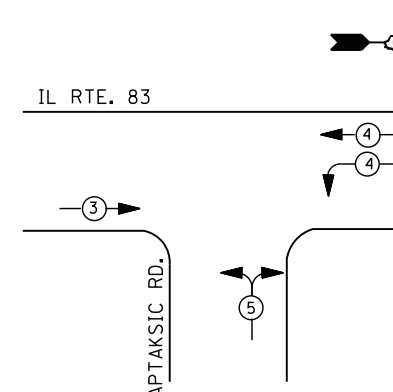
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 8
D	= 8	+ 1

CONTROLLER SEQUENCE



PROPOSED PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

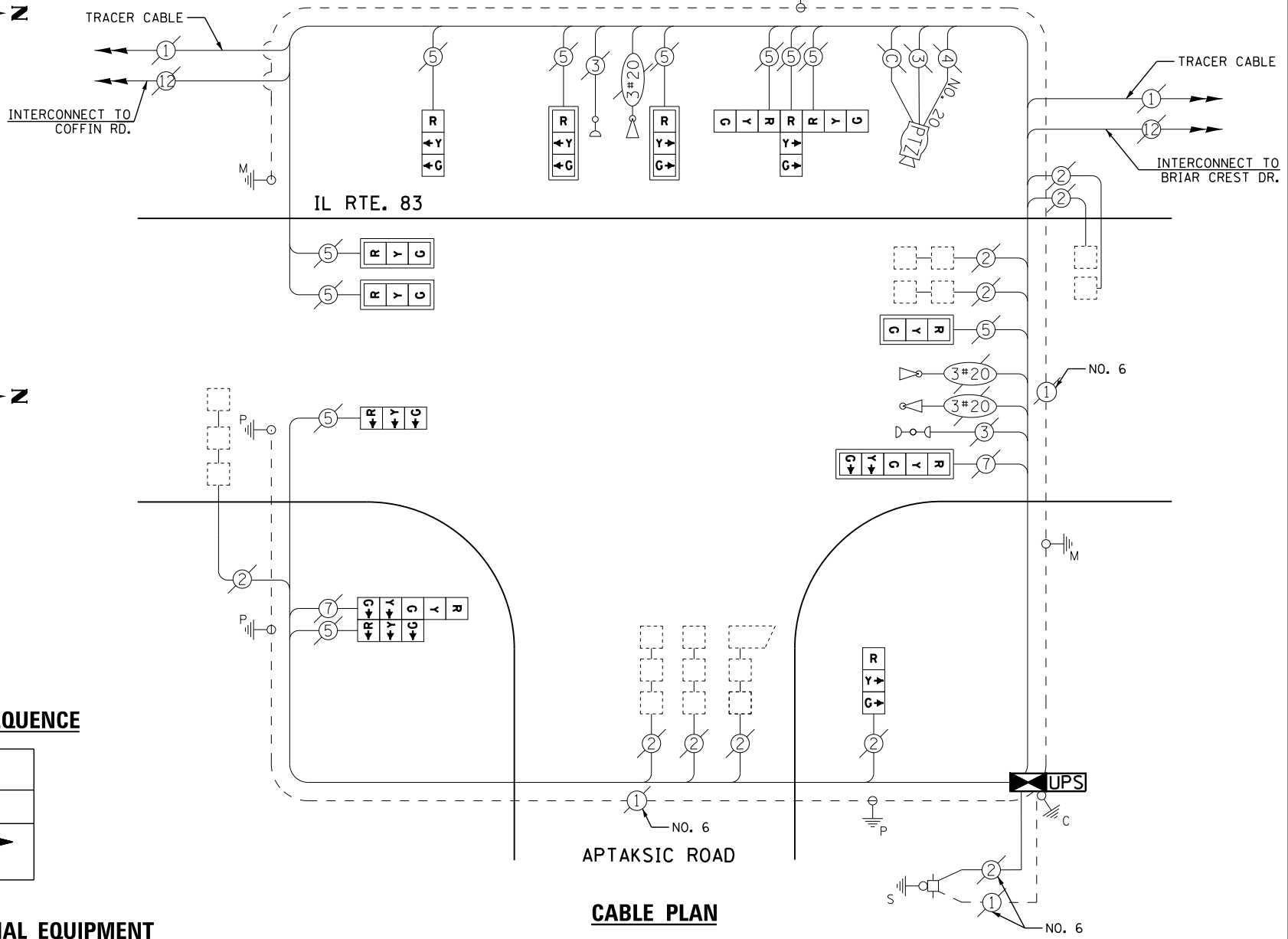
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
8	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE 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
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, 3-FACE, 3-SECTION, BRACKET MOUNTED RETROFIT
1	EACH	RELOCATE EXISTING SWITCH (SPECIAL)
1	EACH	RELOCATE EXISTING VIDEO ENCODER, SPECIAL
* 100% COST TO LONG GROVE		



CABLE PLAN

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

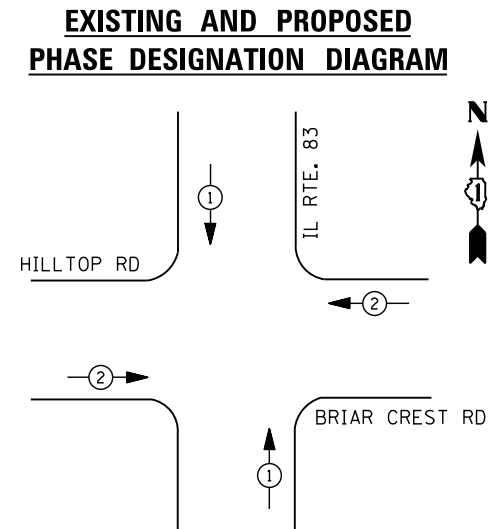
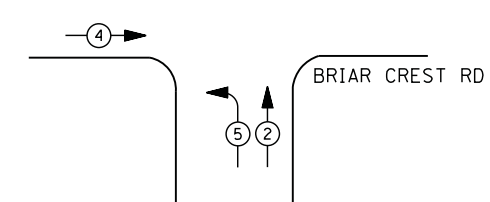
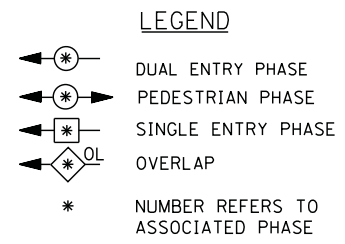
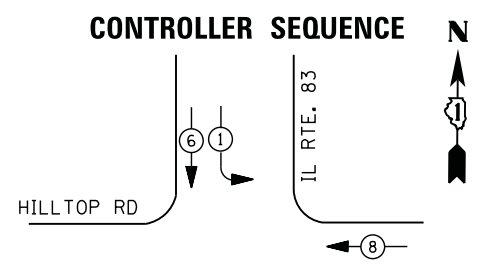
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					
TOTAL =					515

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑	←

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					332

ENERGY COSTS- BILLED TO: VILLAGE OF LONG GROVE
 3110 RFD
 LONG GROVE, IL 60047

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.

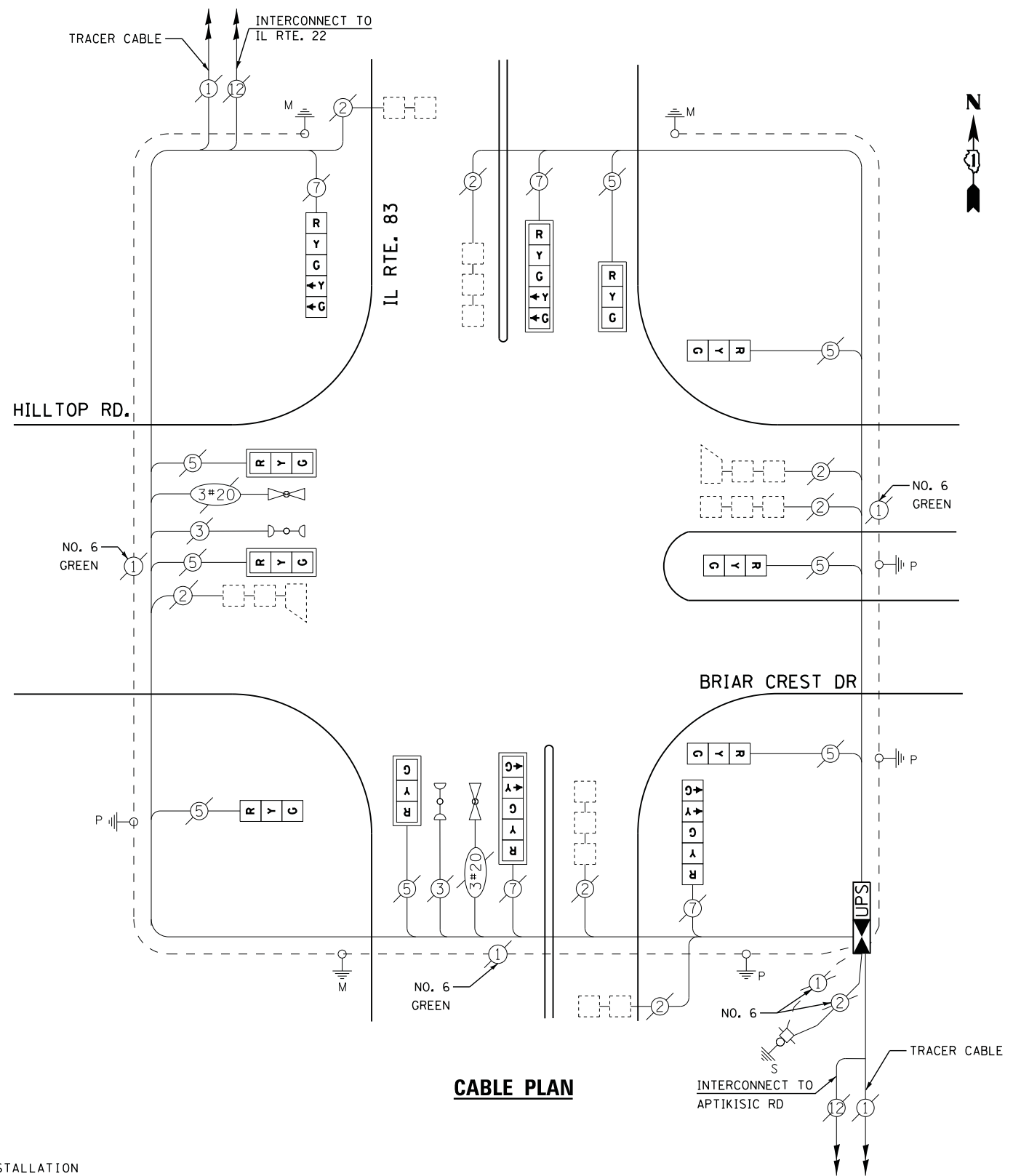
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
7	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
4	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
* 100%		COST TO LONG GROVE

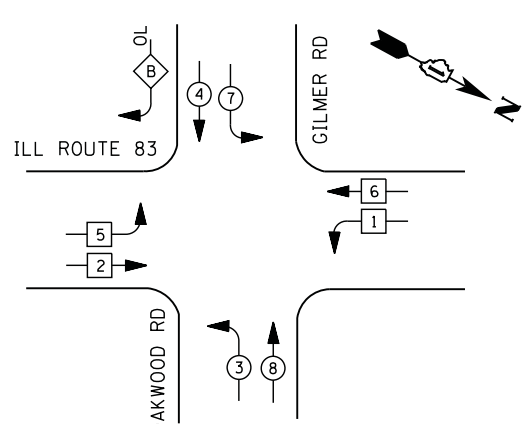


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM

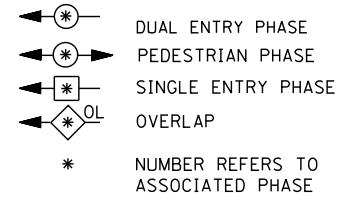
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

TS# 6957
 LONG GROVE

CONTROLLER SEQUENCE



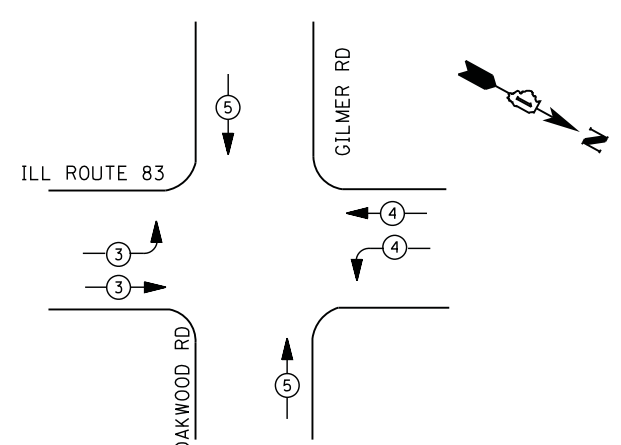
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

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

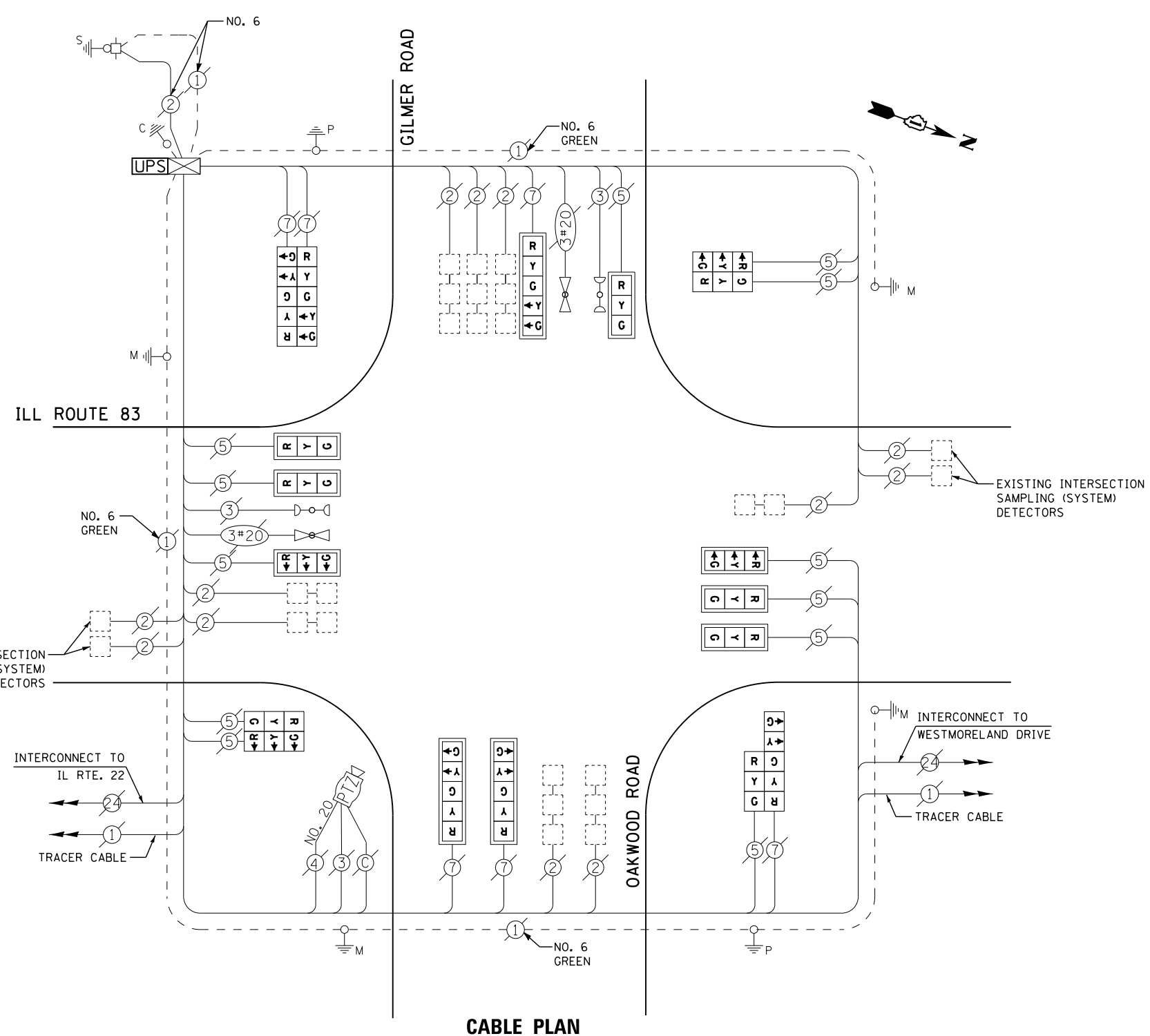
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	12	135	12	0.10	14
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					
TOTAL =					598

ENERGY COSTS- **BILLED TO: VILLAGE OF LONG GROVE**
 3110 RFD
 LONG GROVE, IL 60047

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

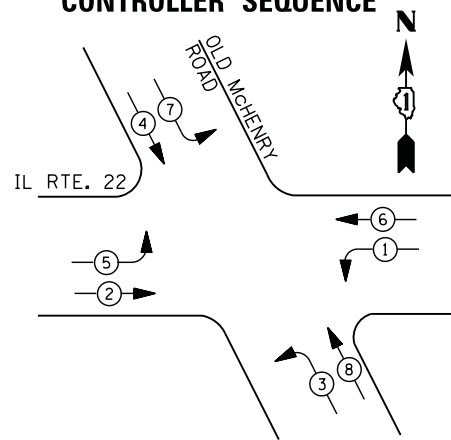
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM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



CABLE PLAN

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

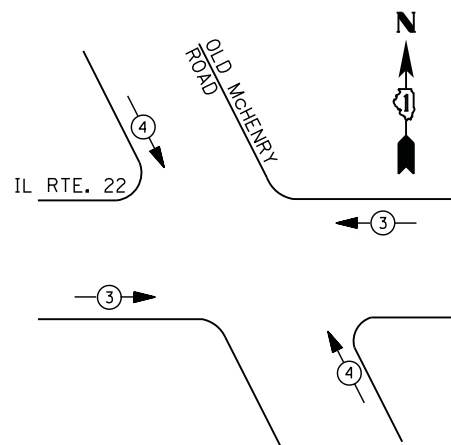
CONTROLLER SEQUENCE



LEGEND

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

EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

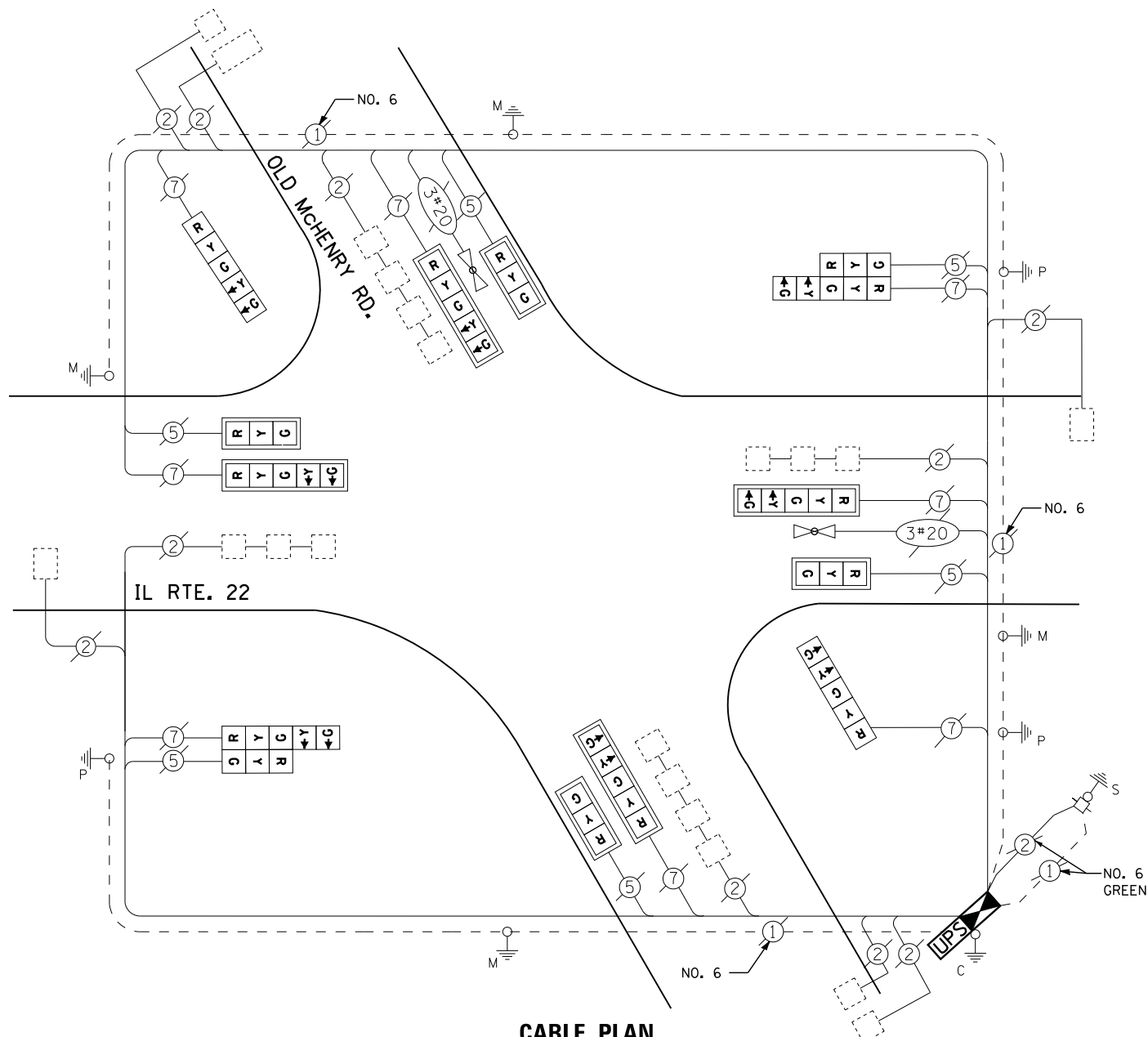
**I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					379

ENERGY COSTS- BILLED TO: VILLAGE OF LONG GROVE
 3110 RFD
 LONG GROVE, IL 60047
 ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
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
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
* 100% COST TO LONG GROVE		



CABLE PLAN

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND CABINET (COMPLETE)

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\21525.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

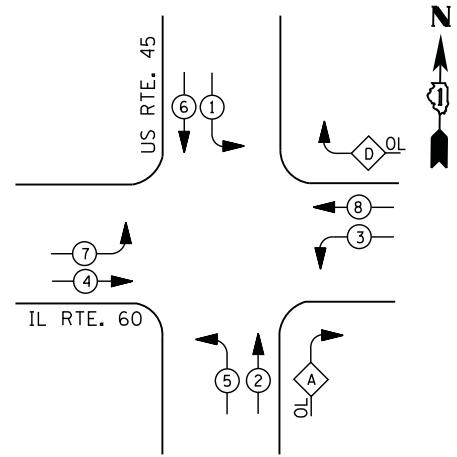
**IL ROUTE 22 AT OLD McHENRY ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

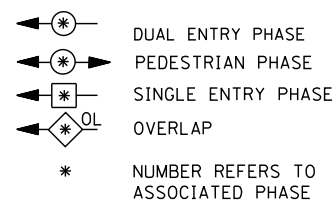
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	49
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 21525
 LONG GROVE

CONTROLLER SEQUENCE



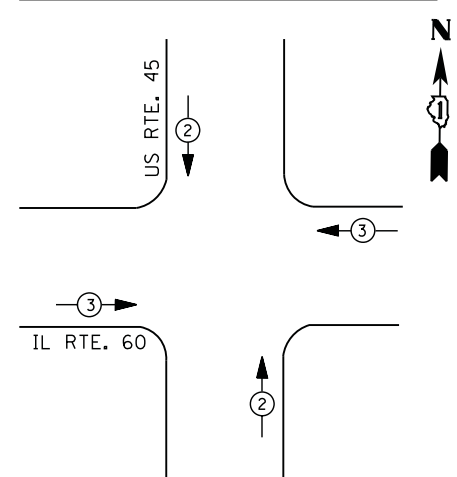
LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
D	= 8	+ 1

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	2	3
MOVEMENT	↑	→

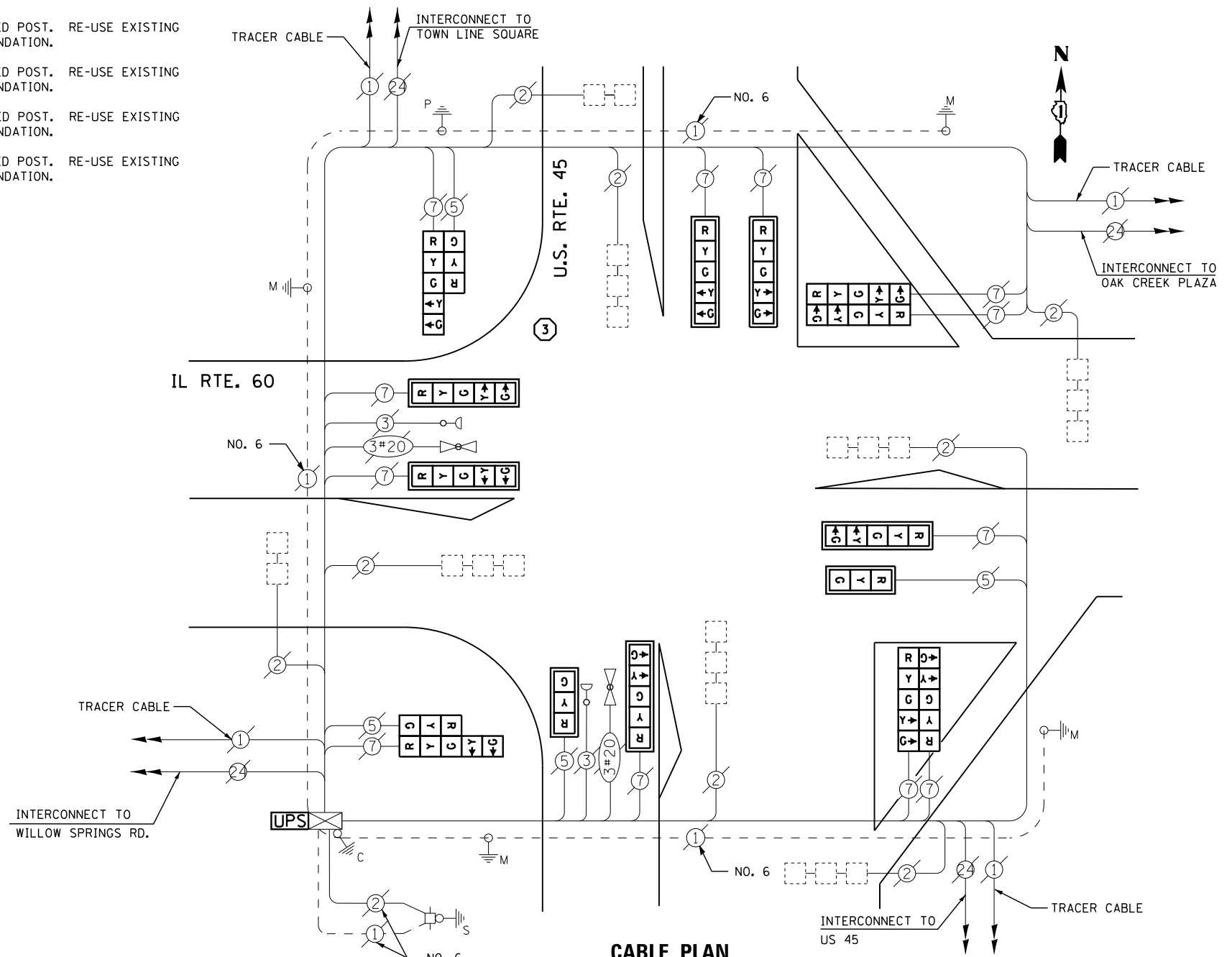
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	24	135	12	0.10	29
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	0	150	-	1.00	0
TOTAL =					425

ENERGY COSTS- **BILLED TO: IDOT DISTRICT 1**
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - **CONTACT TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

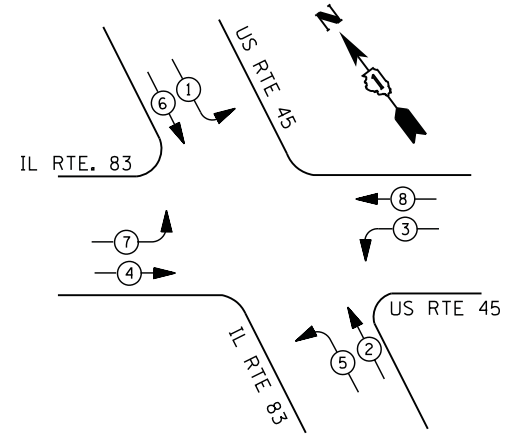
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	SIGNAL HEAD, 1-FACE, 3 - SECTION
6	EACH	SIGNAL HEAD, 1-FACE, 5 - SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 2-5 SECTION
1	EACH	SIGNAL POST

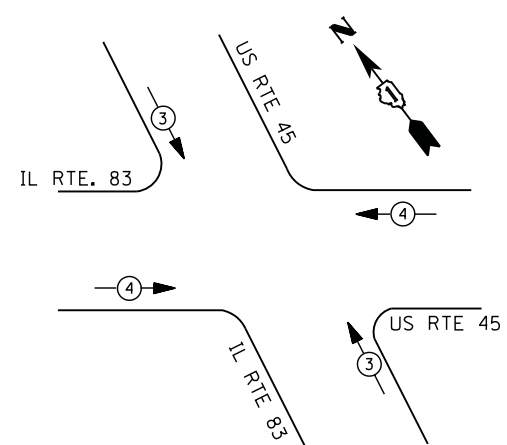
TS# 6605
 MUNDELEIN



CONTROLLER SEQUENCE



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

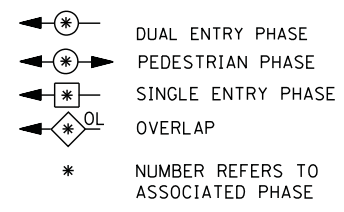
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					565

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
PHONE 847-816-5239
COMMONWEALTH EDISON

LEGEND



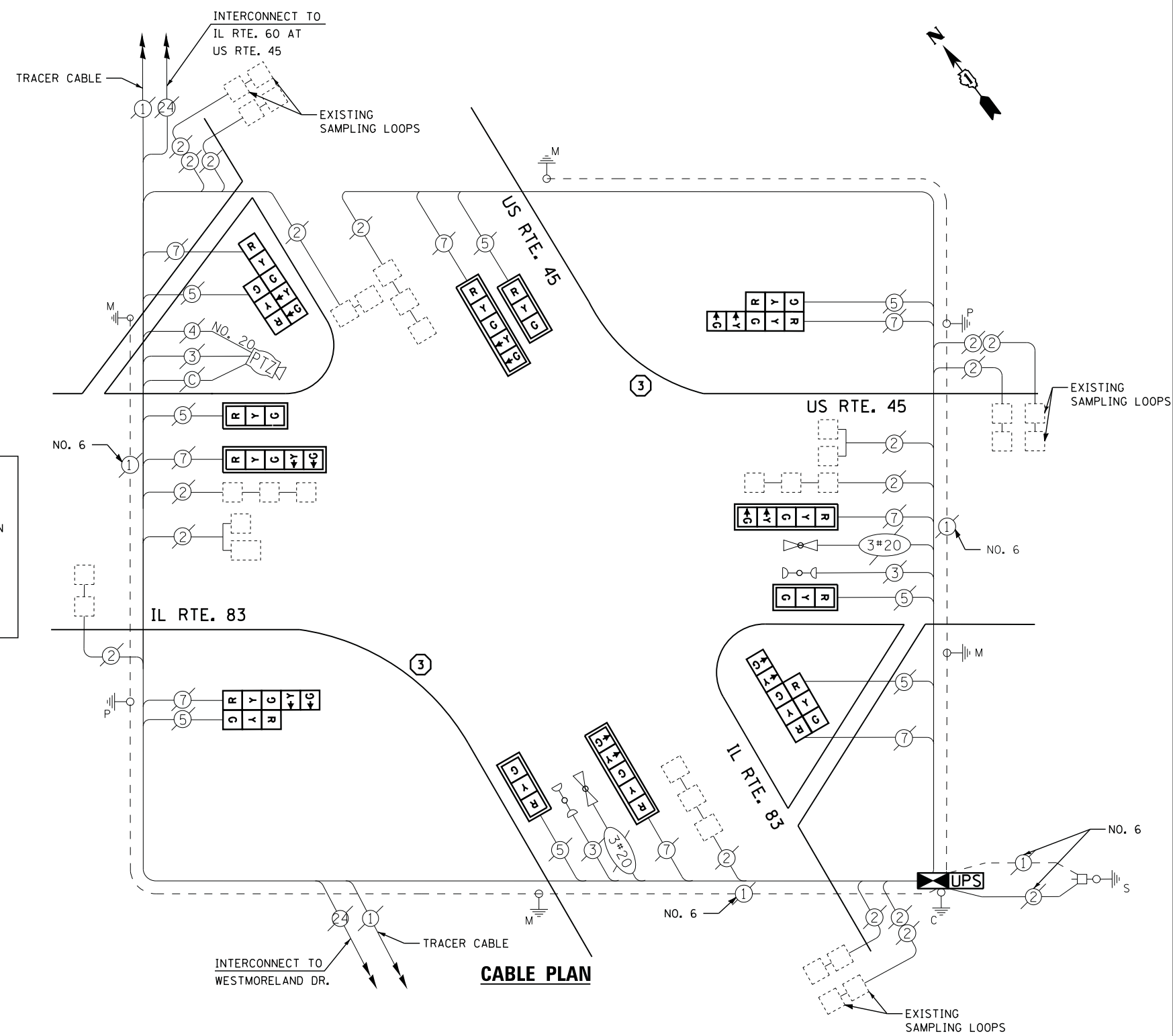
- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ⑤ REPLACE 10 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
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
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
17	EACH	INDUCTIVE LOOP DETECTOR
*1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
1	EACH	RELOCATE EXISTING SWITCH (SPECIAL)
1	EACH	RELOCATE EXISTING VIDEO ENCODER, SPECIAL
* 100% COST TO MUNDELEIN		



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 4 EACH SIGNAL HEAD, 3 - SECTION
 - 4 EACH SIGNAL HEAD, 5 - SECTION
 - 4 EACH SIGNAL HEAD, 2 - FACE, 1-3 SECTION, 1-5-SECTION
 - 8 EACH TRAFFIC SIGNAL BACKPLATE
 - 2 EACH SIGNAL POST
 - 1 EACH CONTROLLER AND CABINET (COMPLETE)

TS# 6610
MUNDELEIN

SCHEDULE OF QUANTITIES

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

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	20	135	12	0.10	24
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					
TOTAL =					658

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

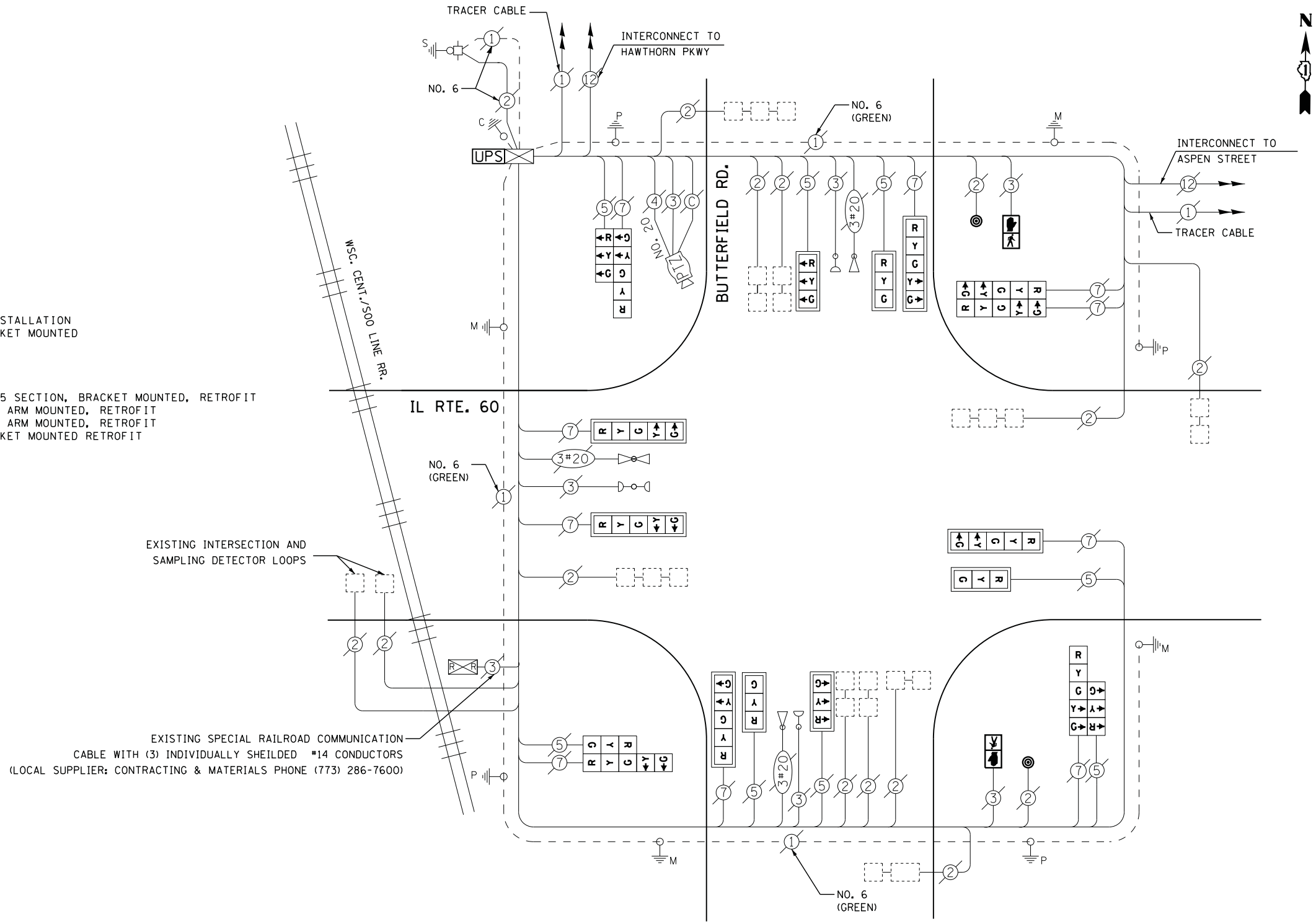
ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

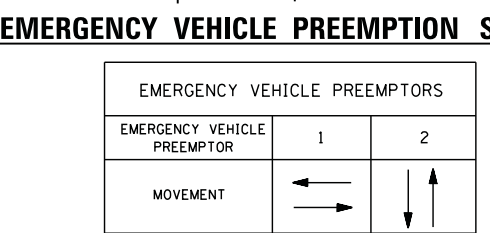
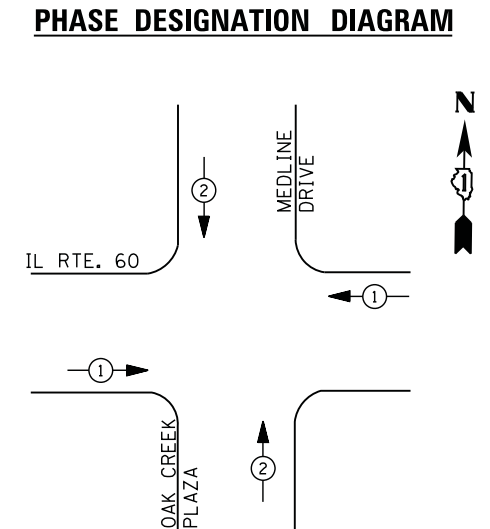
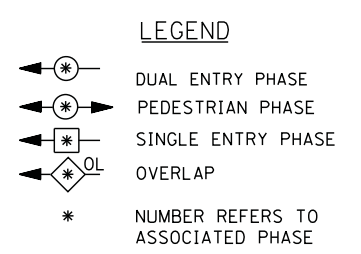
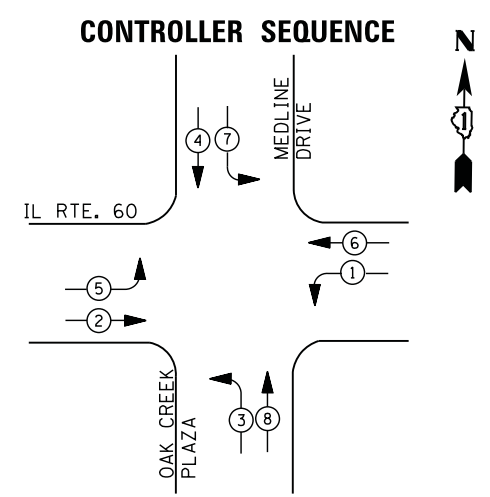
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D



CABLE PLAN



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

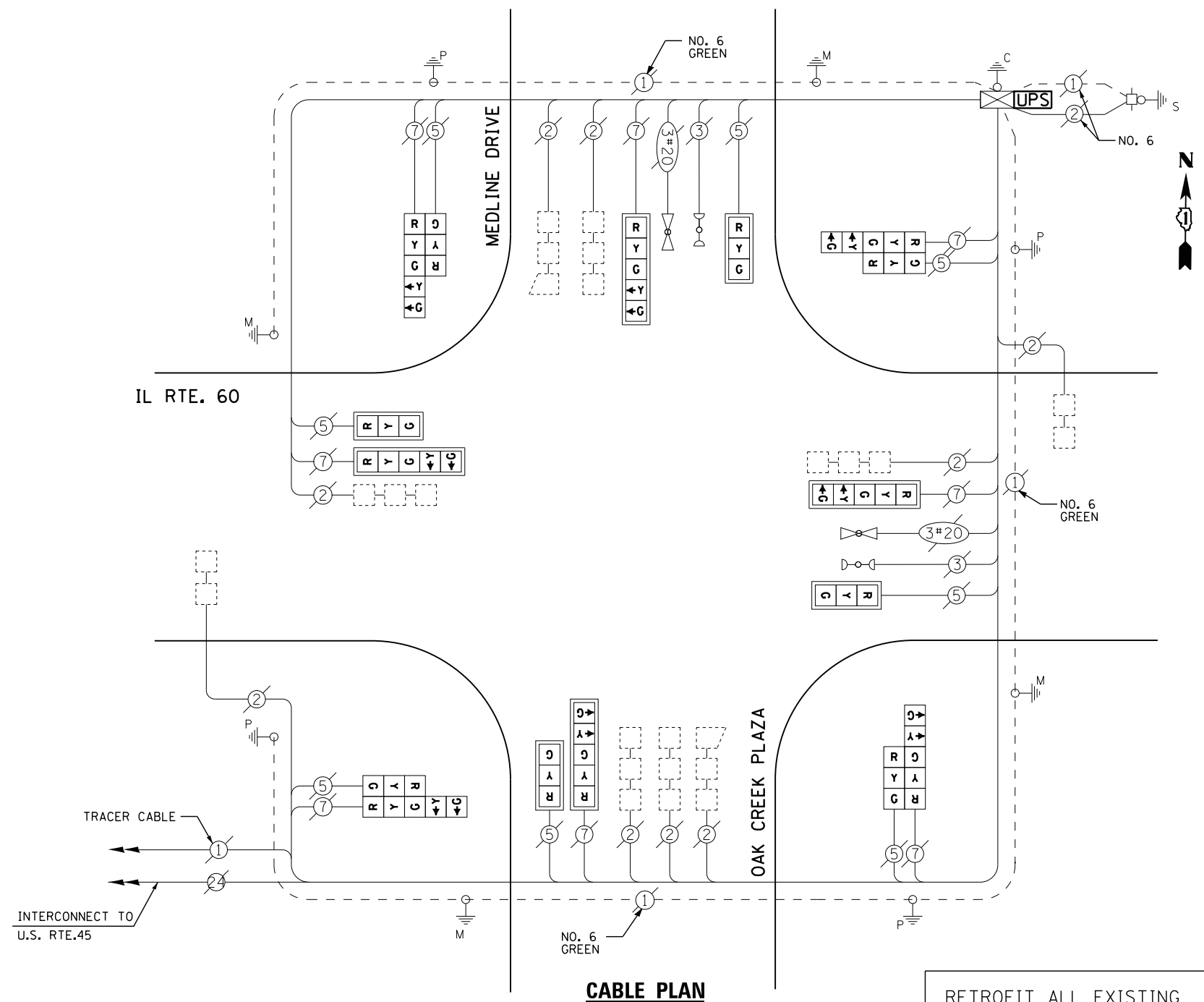
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	0	150	-	1.00	--
TOTAL =					415

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	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	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT

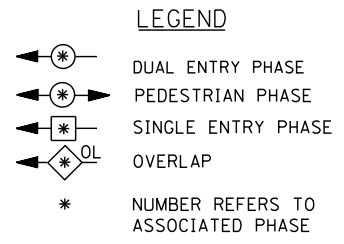
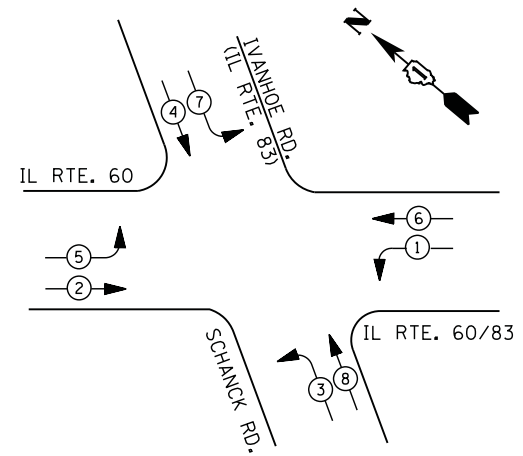


REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

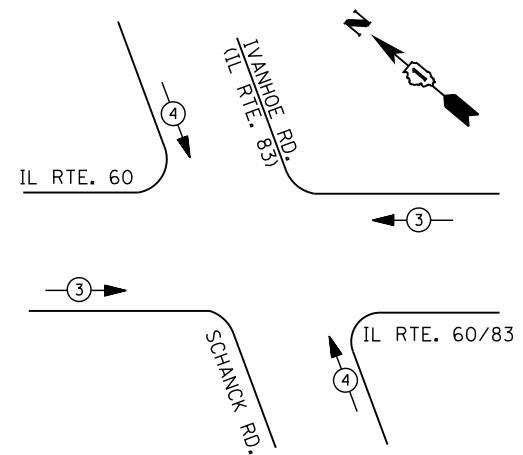
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

8 EACH TRAFFIC SIGNAL BACKPLATE

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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					415

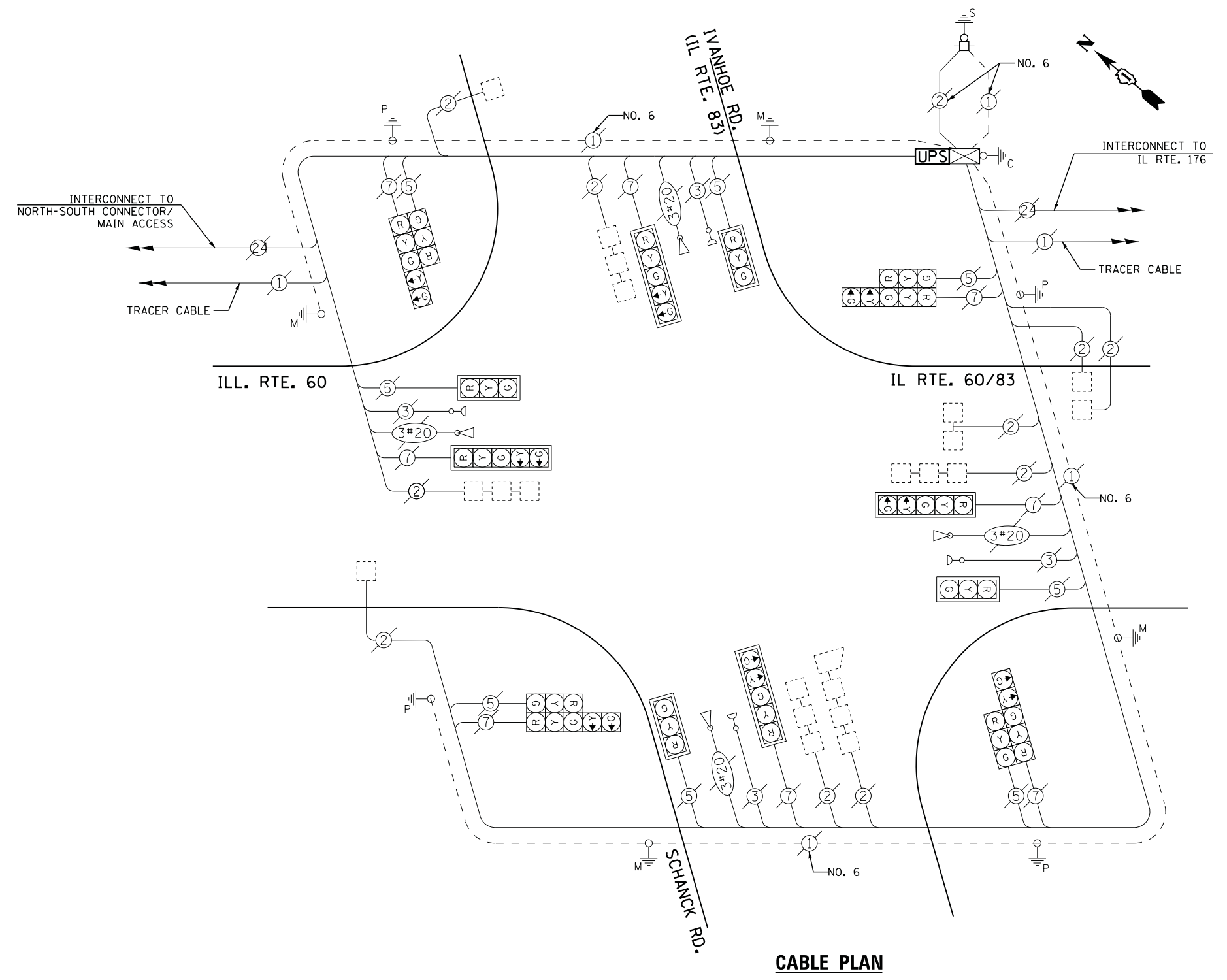
ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

INTERCONNECT TO NORTH-SOUTH CONNECTOR/MAIN ACCESS



CABLE PLAN

FILE NAME = N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\06910.CAB.LAKE.dgn
 USER NAME = *USER*
 PLOT SCALE = *SCALE*
 PLOT DATE = 8/23/2012

DESIGNED - DW
 REVISIONS -
 DRAWN - JDH
 REVISIONS -
 CHECKED - KMM
 REVISIONS -
 DATE -
 REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 60- IL ROUTE 83 AT SCHANCK ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

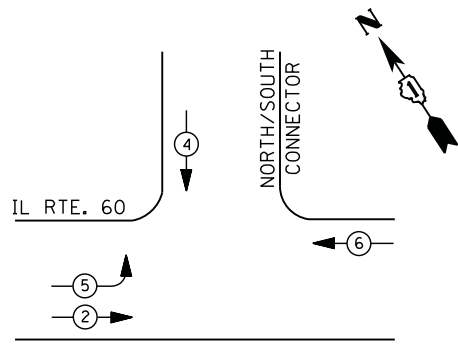
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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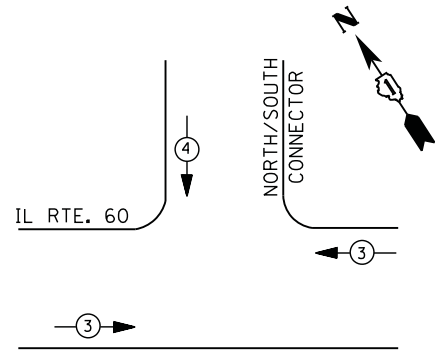
CONTRACT NO. 60T84
 ILLINOIS FED. AID PROJECT

TS# 6910
 MUNDELEIN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

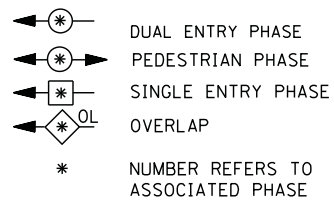
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	4	135	12	0.10	5
PED. SIGNAL	0	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					291

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060
 ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

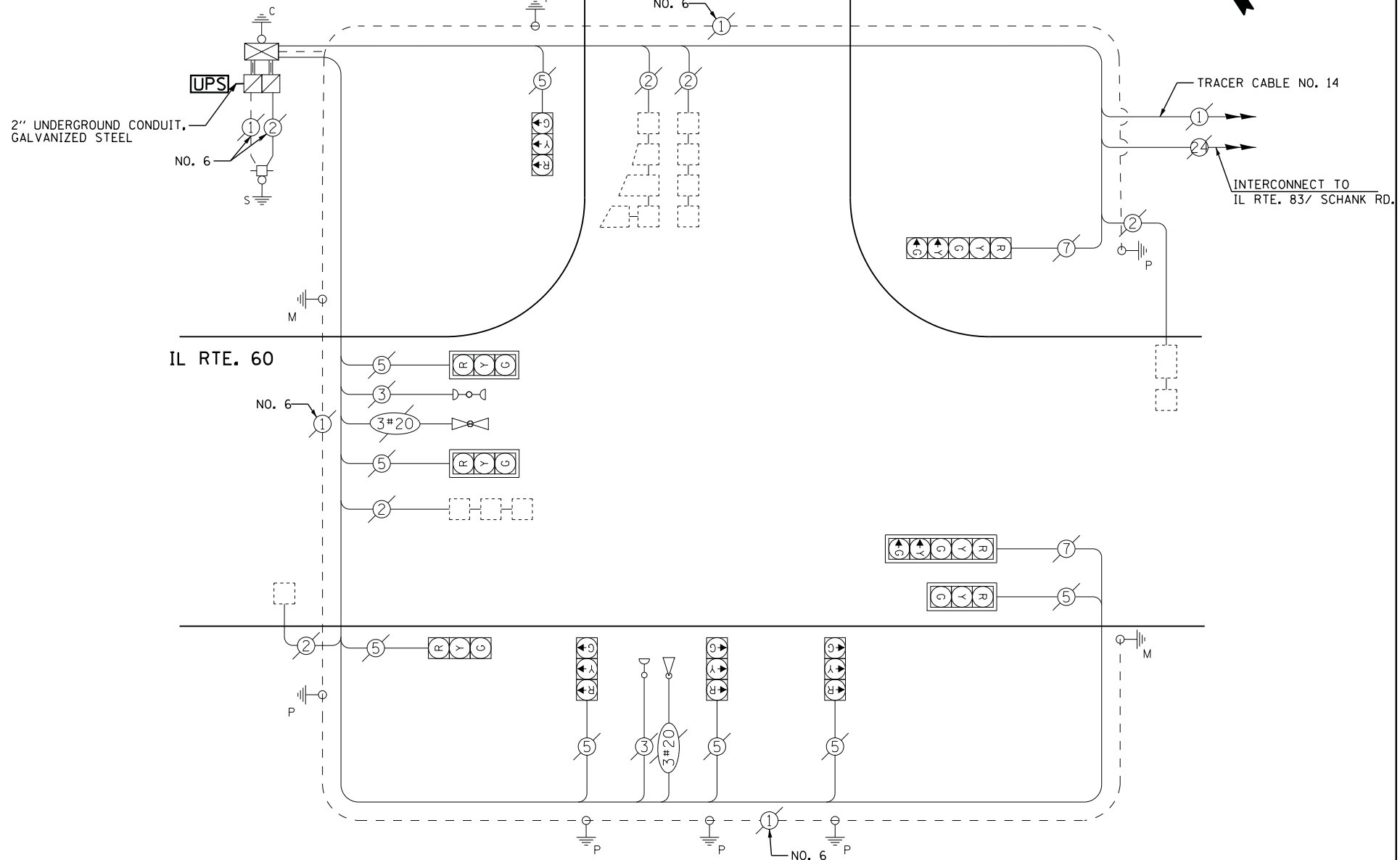
LEGEND



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
10	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	DRILL EXISTING HANDHOLE
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED

NORTH/SOUTH CONNECTOR



CABLE PLAN

UPS SHALL BE INSTALLED ON A SEPARATE FOUNDATION DUE TO PHYSICAL CONSTRAINTS, OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED"

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	DW	REVISED -	
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06911.CAB.LAKE.dgn		DRAWN -	JDH	REVISED -	
	PLOT SCALE = \$SCALE\$	CHECKED -	KMM	REVISED -	
	PLOT DATE = 8/23/2012	DATE -		REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

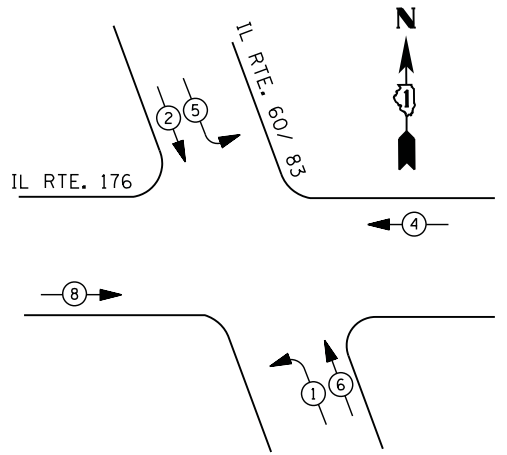
IL ROUTE 60 AT CONNECTOR
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

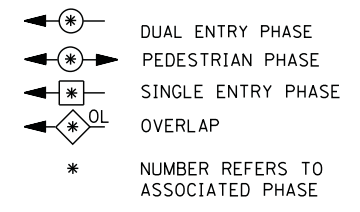
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	56
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6911
 MUNDELEIN

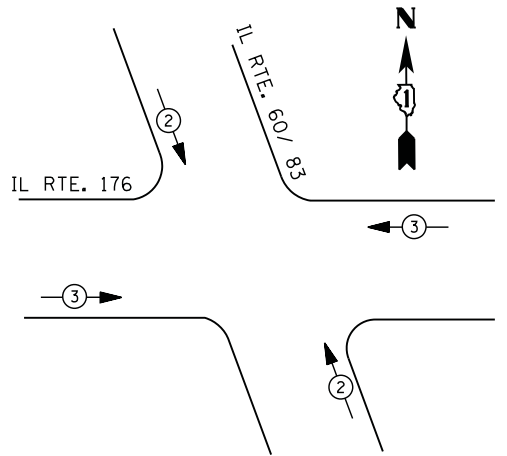
CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	2	3
MOVEMENT		

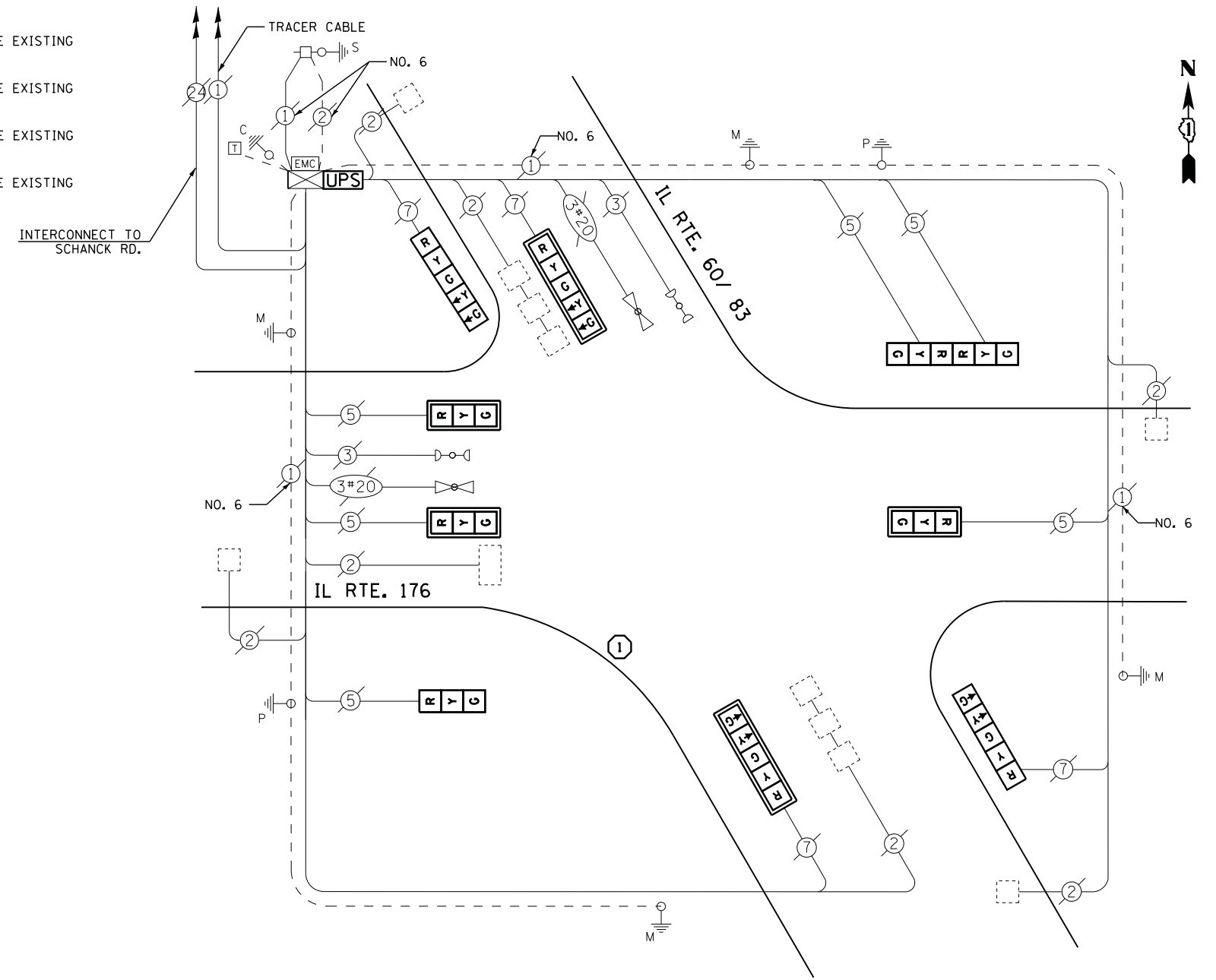
**I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL		90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM	--	150	-	1.00	--
FLASHER LED					
TOTAL =					296

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.



CABLE PLAN

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4	EACH	SIGNAL HEAD, 1 - FACE, 3 - SECTION
4	EACH	SIGNAL HEAD, 1 - FACE, 5 - SECTION
1	EACH	SIGNAL HEAD, 2 - FACE, 2-3 SECTION
1	EACH	SIGNAL POST
5	EACH	TRAFFIC SIGNAL BACKPLATE

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	DW	REVISED -	
N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\06915.CAB.LAKE.dgn		DRAWN -	JDH	REVISED -	
	PLOT SCALE = \$SCALE\$	CHECKED -	KMM	REVISED -	
	PLOT DATE = 8/23/2012	DATE -		REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

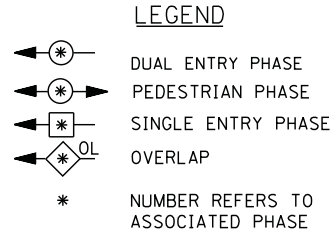
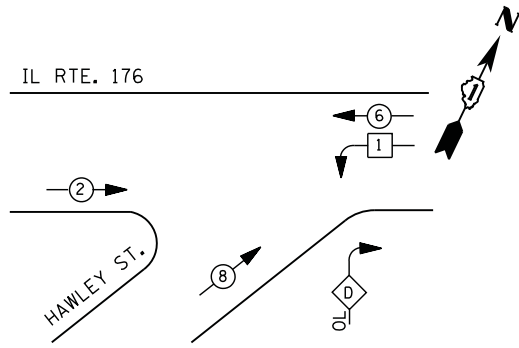
**IL ROUTE 60- IL ROUTE 83 AT IL ROUTE 176
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	57
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6915
 MUNDELEIN

CONTROLLER SEQUENCE

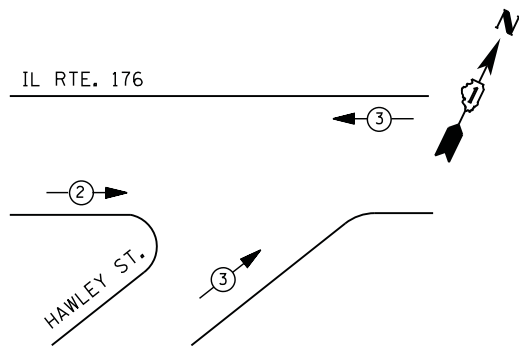


- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

RIGHT TURN OVERLAP PHASE DESIGNATION

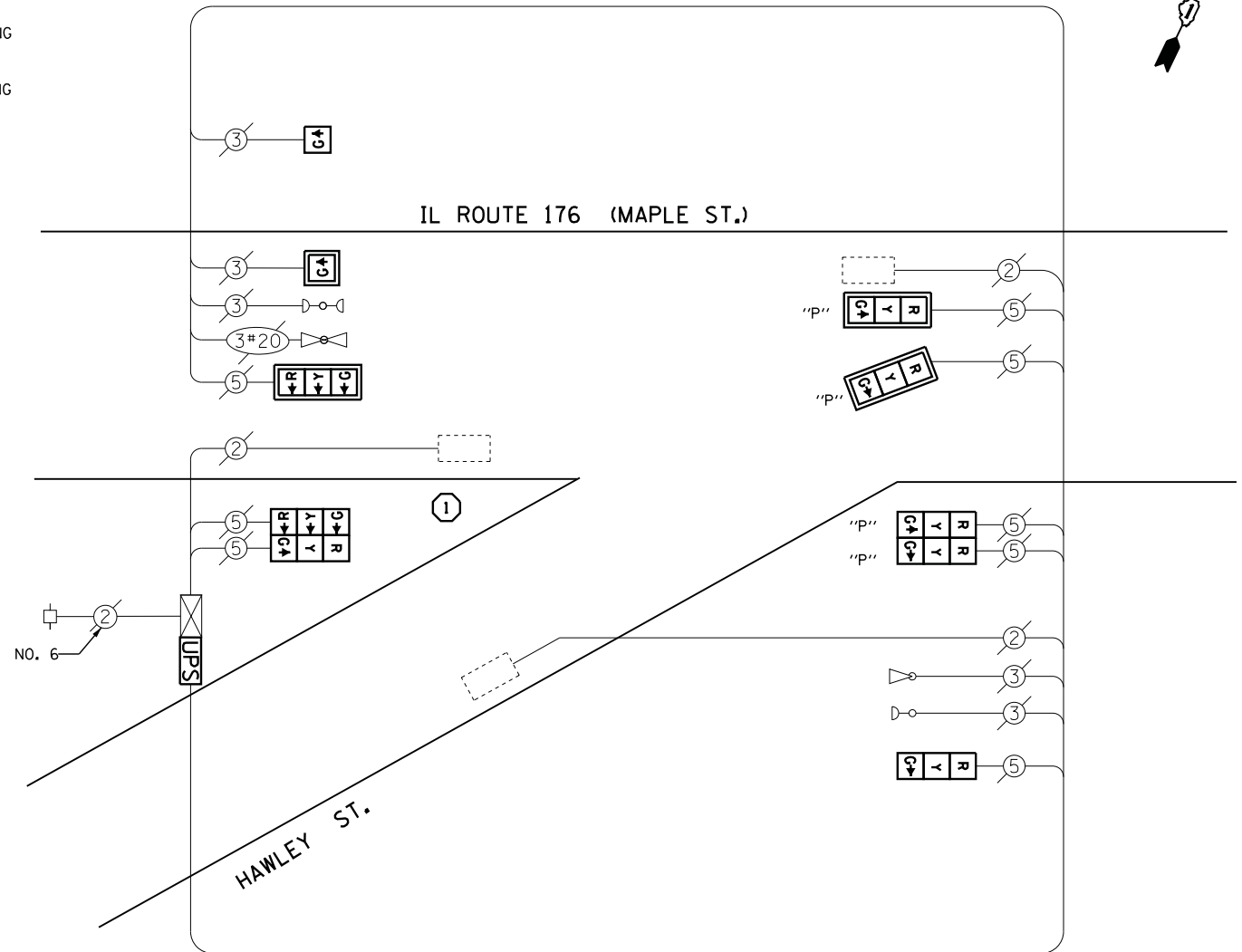
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	2	3
MOVEMENT	→	↗



CABLE PLAN

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	8	135	17	0.50	68
(YELLOW)	8	135	25	0.25	50
(GREEN)	10	135	15	0.25	38
ARROW	--	135	12	0.10	--
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					256

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	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	OPTICALLY PROGRAMMED 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	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

2	EACH	SIGNAL HEAD, 1 - FACE, 1 - SECTION
4	EACH	SIGNAL HEAD, 1 - FACE, 3 - SECTION
2	EACH	SIGNAL HEAD, 2 - FACE, 2-3 SECTION
1	EACH	SIGNAL POST
4	EACH	TRAFFIC SIGNAL BACKPLATE

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060
 ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
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	PLOT SCALE = \$SCALE\$	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

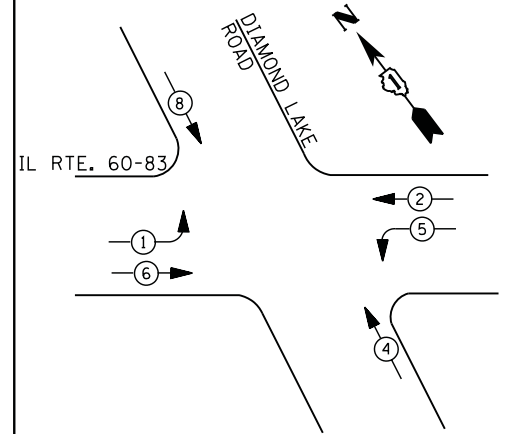
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 176 AT HAWLEY EAST STREET
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

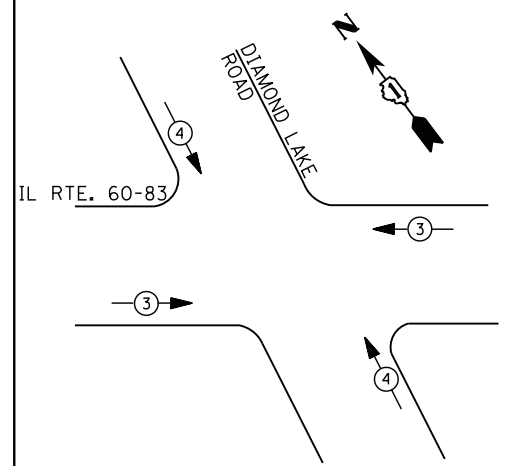
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	58
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6916
 MUNDELEIN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

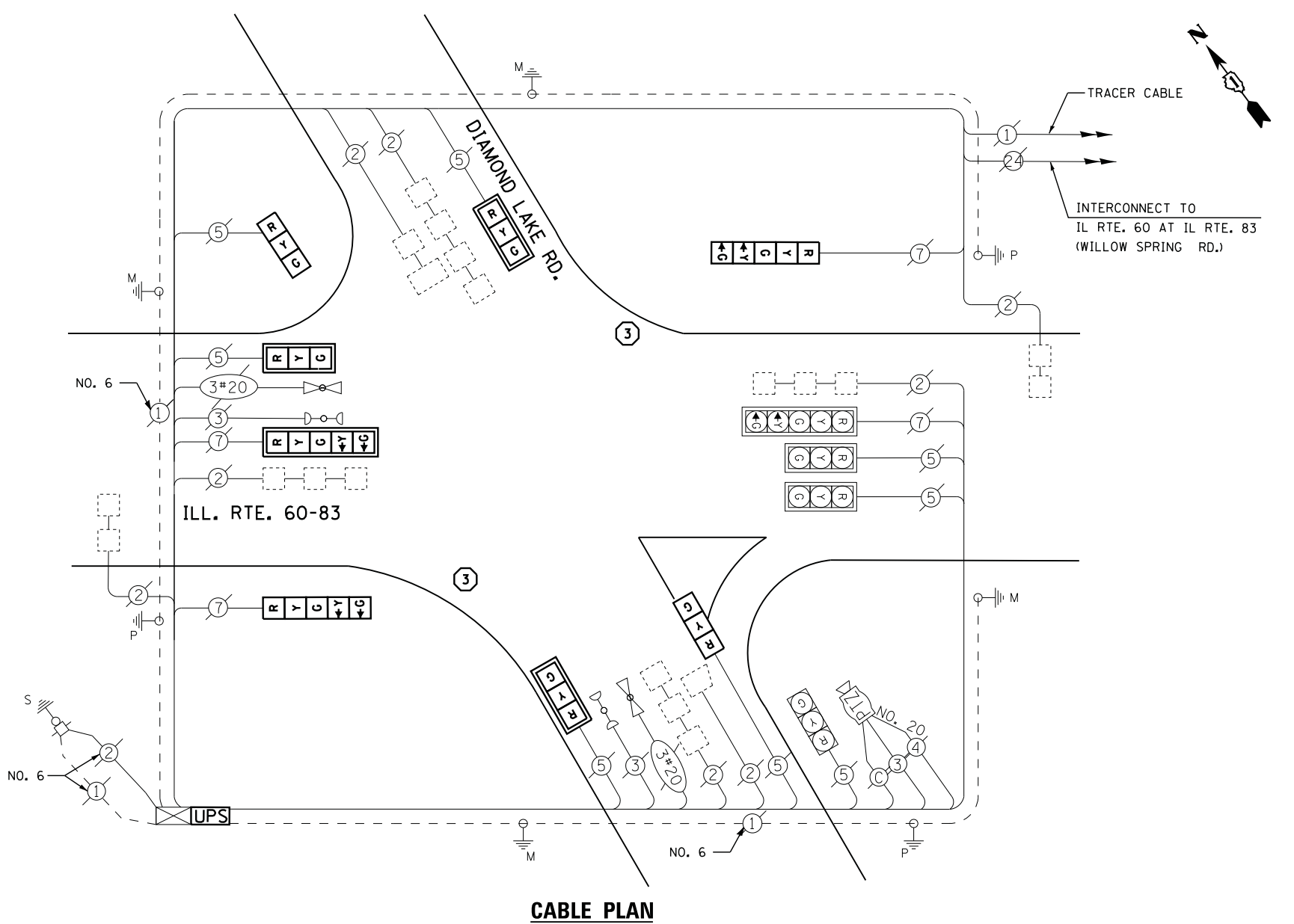


EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↗↘

LEGEND

- ⊙* DUAL ENTRY PHASE
 - ⊙* PEDESTRIAN PHASE
 - ⊙* SINGLE ENTRY PHASE
 - ⊙* OL OVERLAP
 - * NUMBER REFERS TO ASSOCIATED PHASE
- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ⑤ REPLACE 10 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					482

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

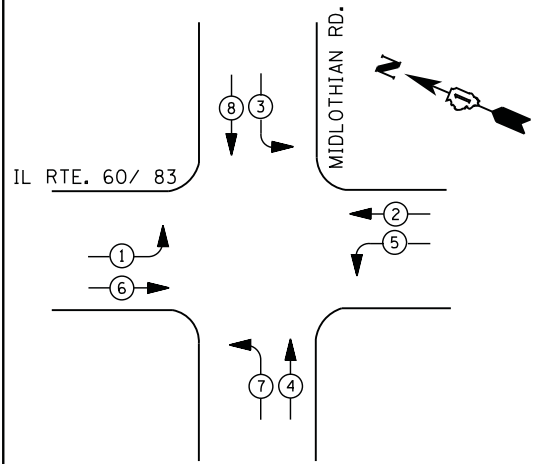
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-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	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

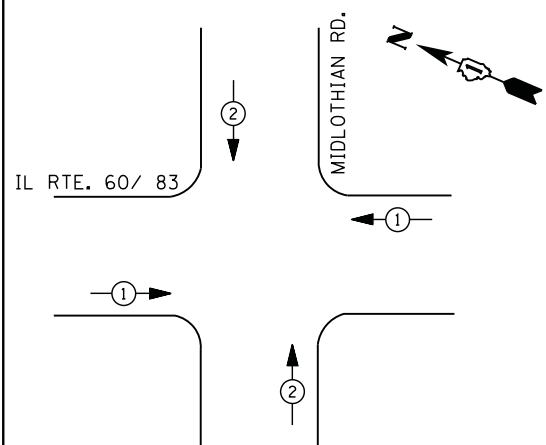
5	EACH	SIGNAL HEAD, 3 - SECTION
3	EACH	SIGNAL HEAD, 5 - SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	SIGNAL POST

CONTROLLER SEQUENCE



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

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	8	135	17	0.50	68
(YELLOW)	8	135	25	0.25	50
(GREEN)	8	135	15	0.25	30
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					267

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

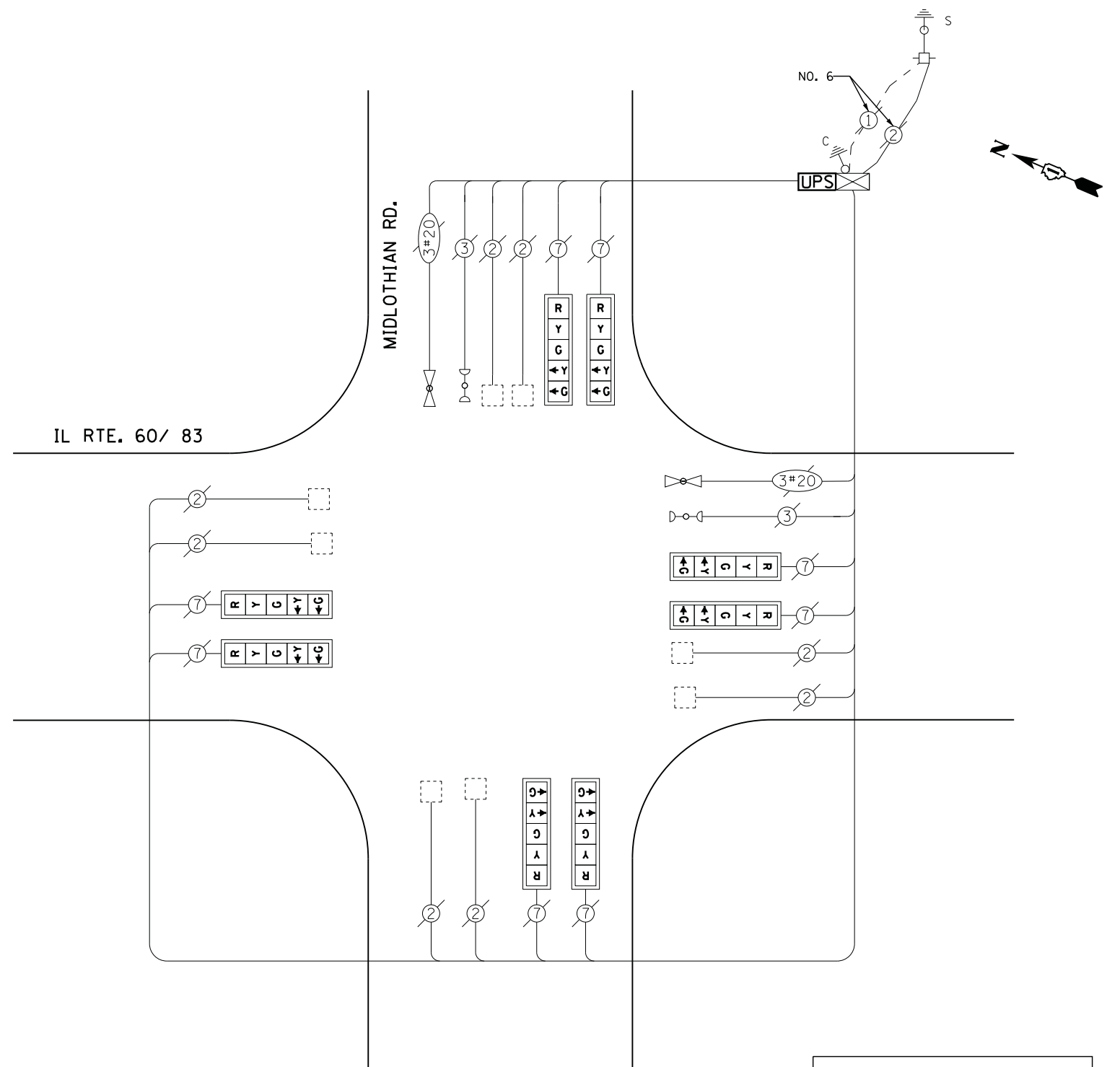
ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
8	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, SPAN WIRE MOUNTED, RETROFIT

MIDLOTHIAN RD.

IL RTE. 60/ 83



CABLE PLAN

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06925_CAB_LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

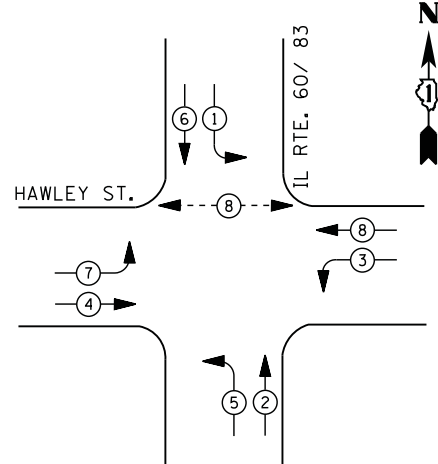
**IL ROUTE 60- IL ROUTE 83 AT MIDLOTHIAN ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

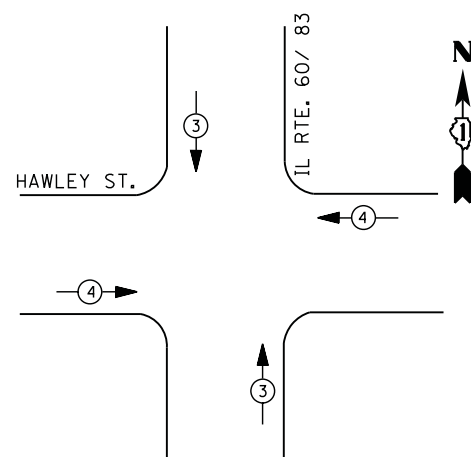
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	60
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6925
 MUNDELEIN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	←

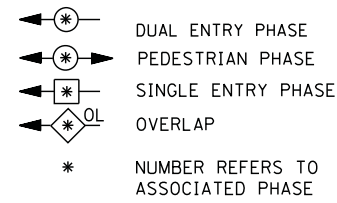
I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	8	135	17	0.50	68
(YELLOW)	8	135	25	0.25	50
(GREEN)	8	135	15	0.25	30
ARROW	16	135	12	0.10	19
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					317

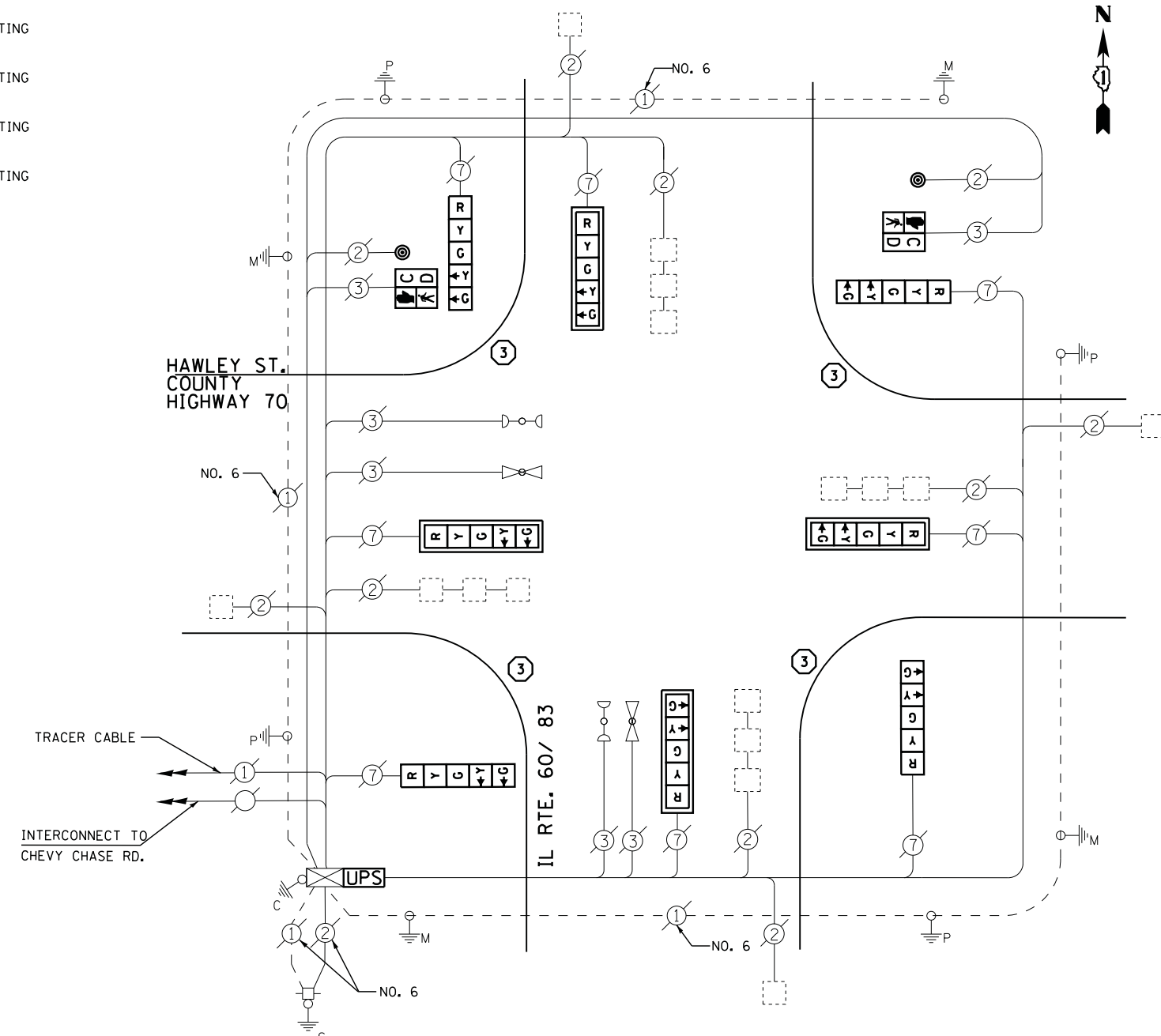
ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

LEGEND



- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



CABLE PLAN

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM 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	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

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

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

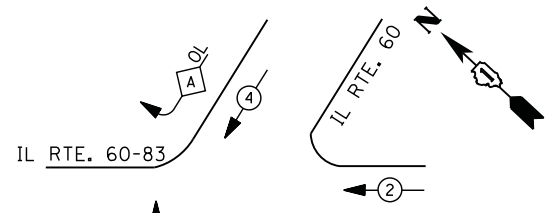
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 60- IL ROUTE 83 AT HAWLEY STREET SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
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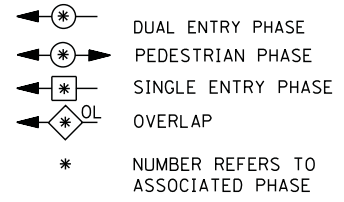
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	61
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6930
 MUNDELEIN

CONTROLLER SEQUENCE



LEGEND

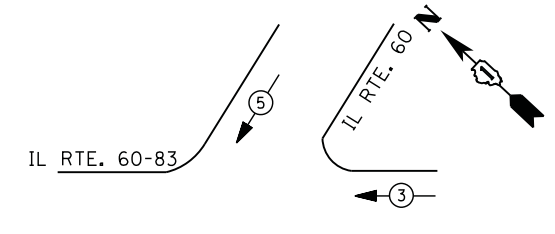


- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING
TYPE A CONCRETE FOUNDATION.

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	=	+
	4	1

PHASE DESIGNATION DIAGRAM



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					351

ENERGY COSTS- **BILLED TO: VILLAGE OF MUNDELEIN**
440 E. HAWLEY STREET
MUNDELEIN, IL 60060

ENERGY SUPPLY - **CONTACT TERRI BLECK**
PHONE 847-816-5239
COMMONWEALTH EDISON

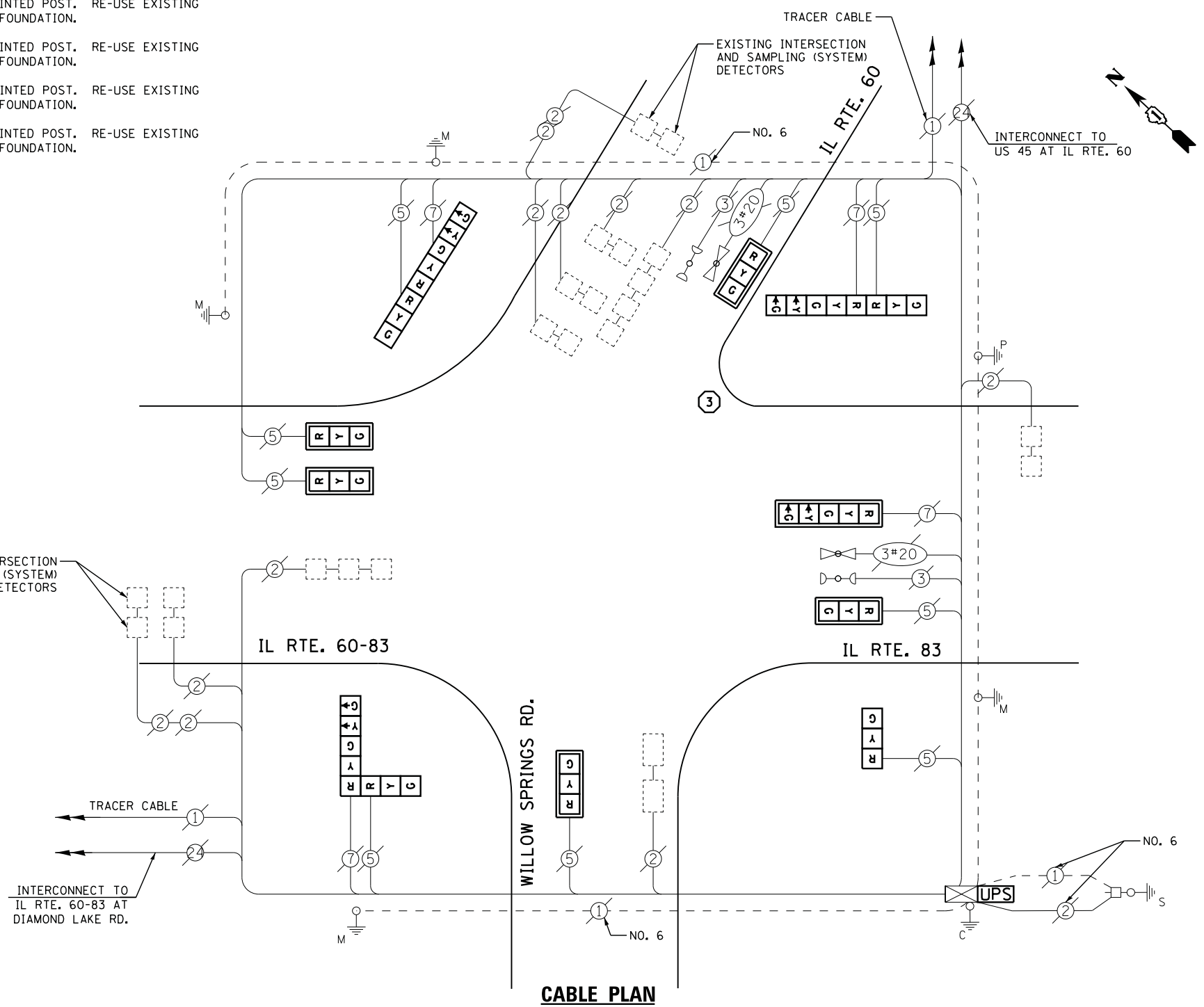
SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 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	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

6	EACH	SIGNAL HEAD, 3 - SECTION
1	EACH	SIGNAL HEAD, 5 - SECTION
3	EACH	SIGNAL HEAD, 2 - FACE, 1-3 SECTION, 1-5-SECTION
6	EACH	TRAFFIC SIGNAL BACKPLATE
1	EACH	SIGNAL POST



CABLE PLAN

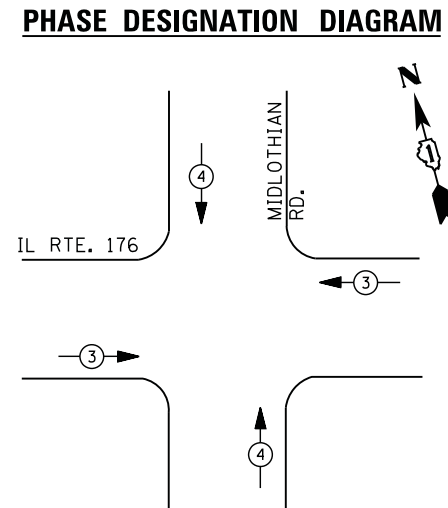
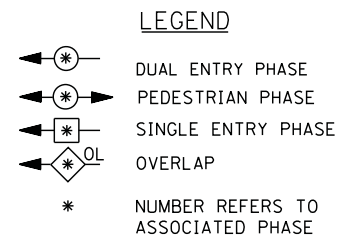
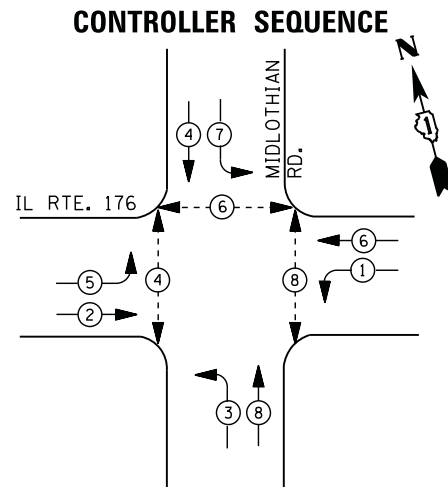
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	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

IL ROUTE 60- IL ROUTE 83 AT WILLOW SPRINGS ROAD SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	62
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

**TS# 6935
MUNDELEIN**



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

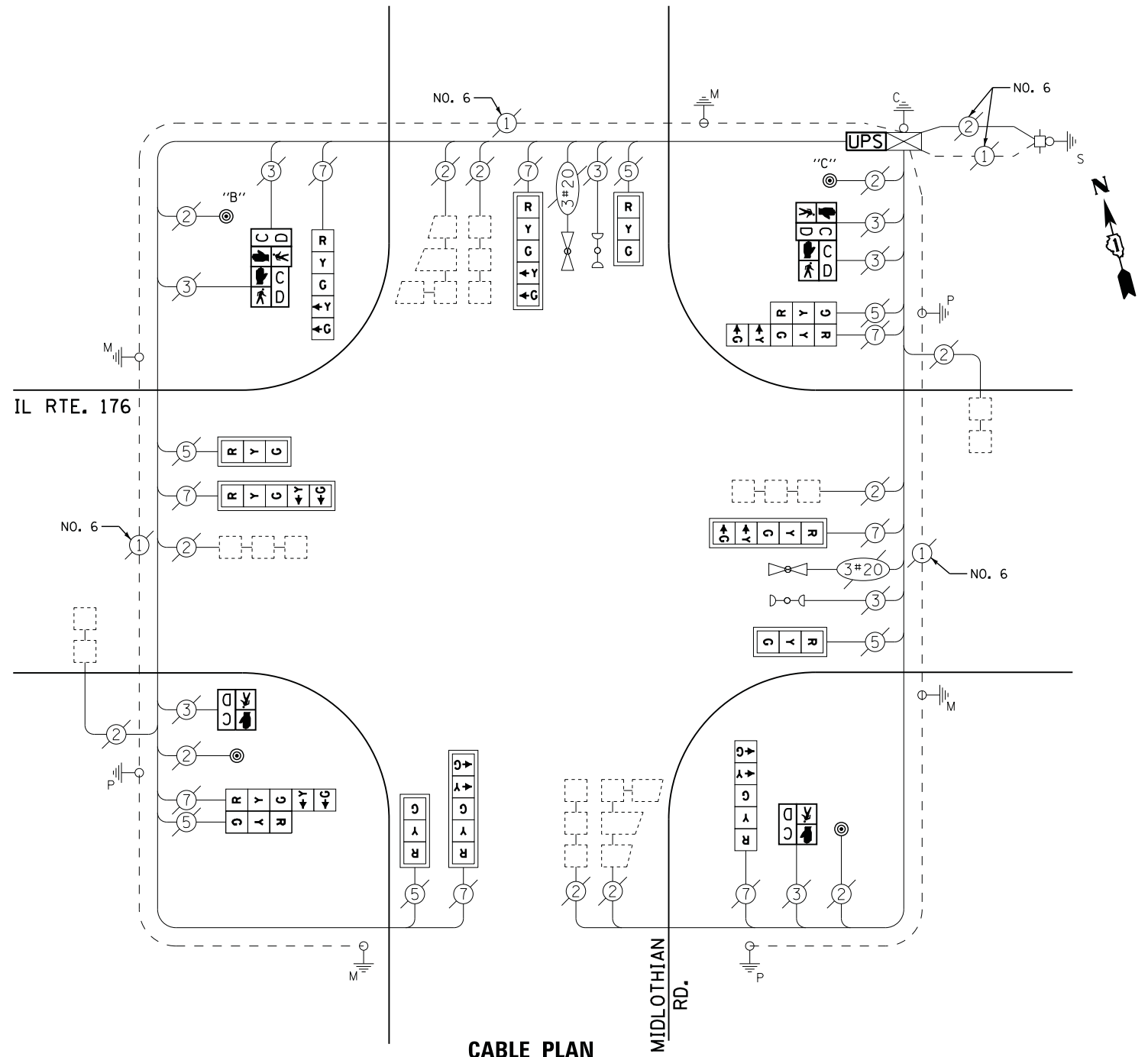
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	16	135	12	0.10	19
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM		150	-	1.00	
TOTAL =					528

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



NOTES:
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

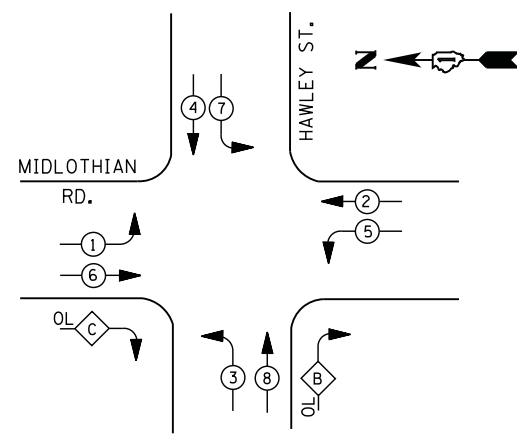
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

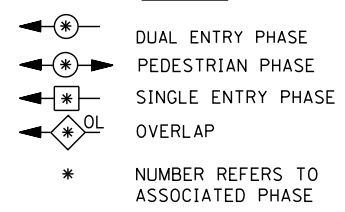
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

6 EACH PEDESTRIAN SIGNAL HEAD
 4 EACH PEDESTRIAN PUSH-BUTTON

CONTROLLER SEQUENCE



LEGEND

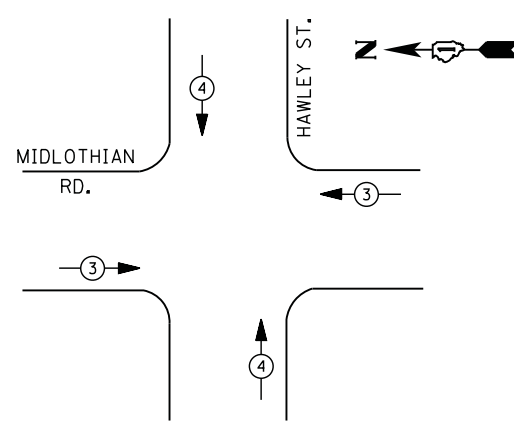


RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B =	8 +	5
C =	6 +	3

- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
- ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.

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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	24	135	12	0.10	29
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					551

ENERGY COSTS- **BILLED TO: VILLAGE OF MUNDELEIN**
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

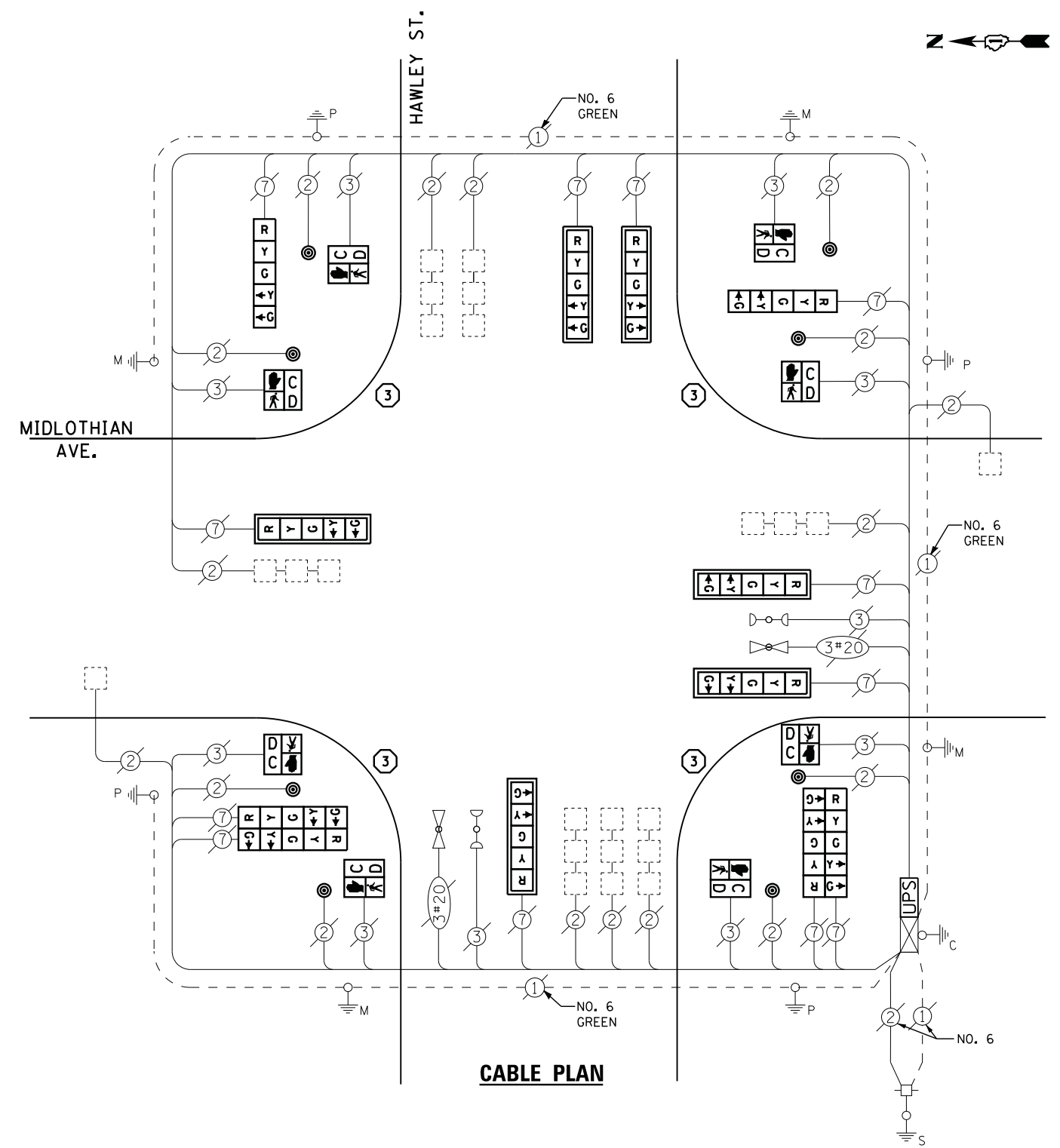
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8	EACH	SIGNAL HEAD, 1 - FACE, 5 - SECTION
2	EACH	SIGNAL HEAD, 2 - FACE, 2-5 SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	PEDESTRIAN PUSH-BUTTON
6	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	SIGNAL POST



CABLE PLAN

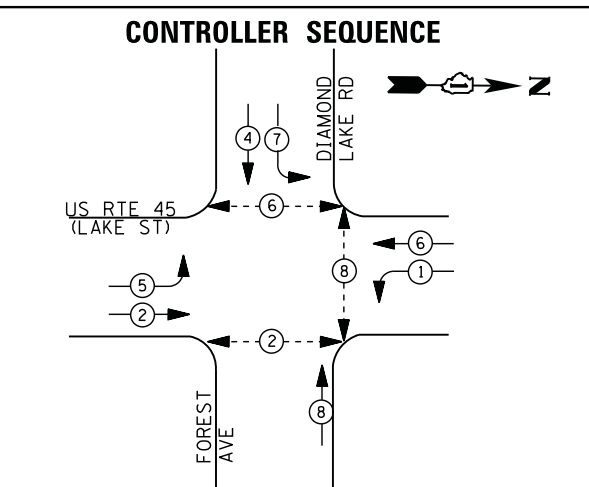
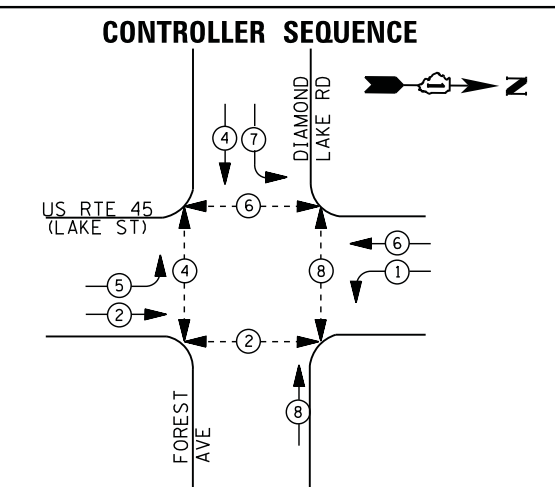
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	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

MIDLOTHIAN AVENUE AT HAWLEY STREET SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

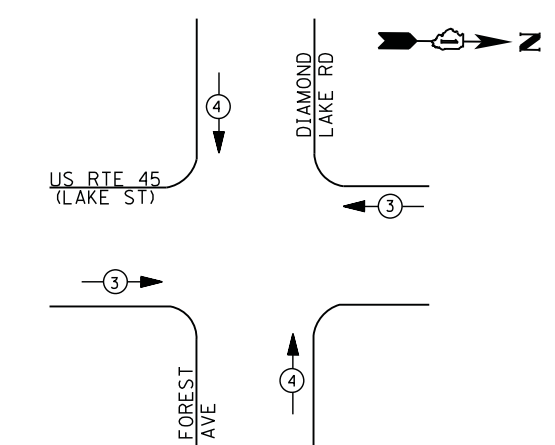
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	64
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 14335
 MUNDELEIN



EXISTING PHASE DESIGNATION DIAGRAM

PROPOSED PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

- LEGEND**
- ⊙ (with star) DUAL ENTRY PHASE
 - ⊙ (with arrow) PEDESTRIAN PHASE
 - ⊙ (with star and arrow) SINGLE ENTRY PHASE
 - ⊙ (with star and OL) OVERLAP
 - * NUMBER REFERS TO ASSOCIATED PHASE

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	0	150	-	1.00	0
TOTAL =					482

ENERGY COSTS- **BILLED TO: IDOT DISTRICT 1**
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

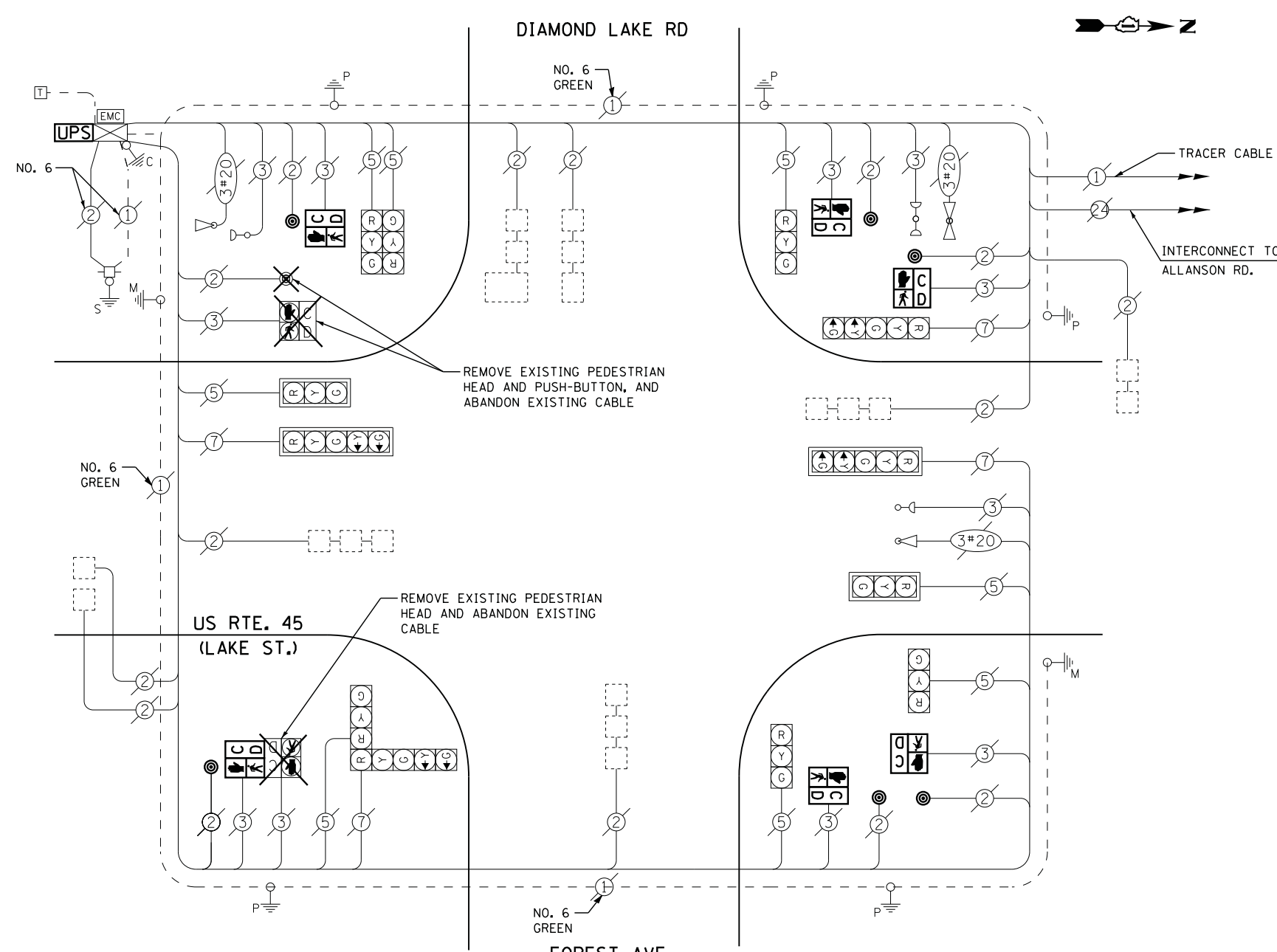
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8	EACH	PEDESTRIAN SIGNAL HEAD
7	EACH	PEDESTRIAN PUSH-BUTTON



CABLE PLAN

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\14340.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

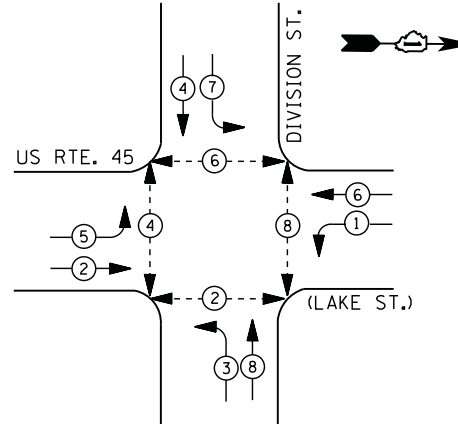
**US ROUTE 45 AT DIAMOND LAKE ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

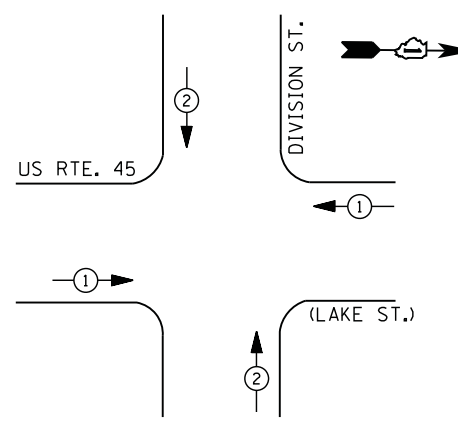
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	65
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 14340
 MUNDELEIN

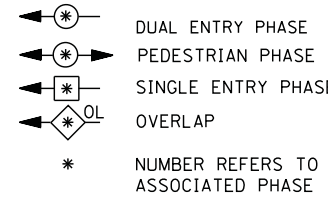
CONTROLLER SEQUENCE



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM



LEGEND



EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

PROPOSED 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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					541

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060
 ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

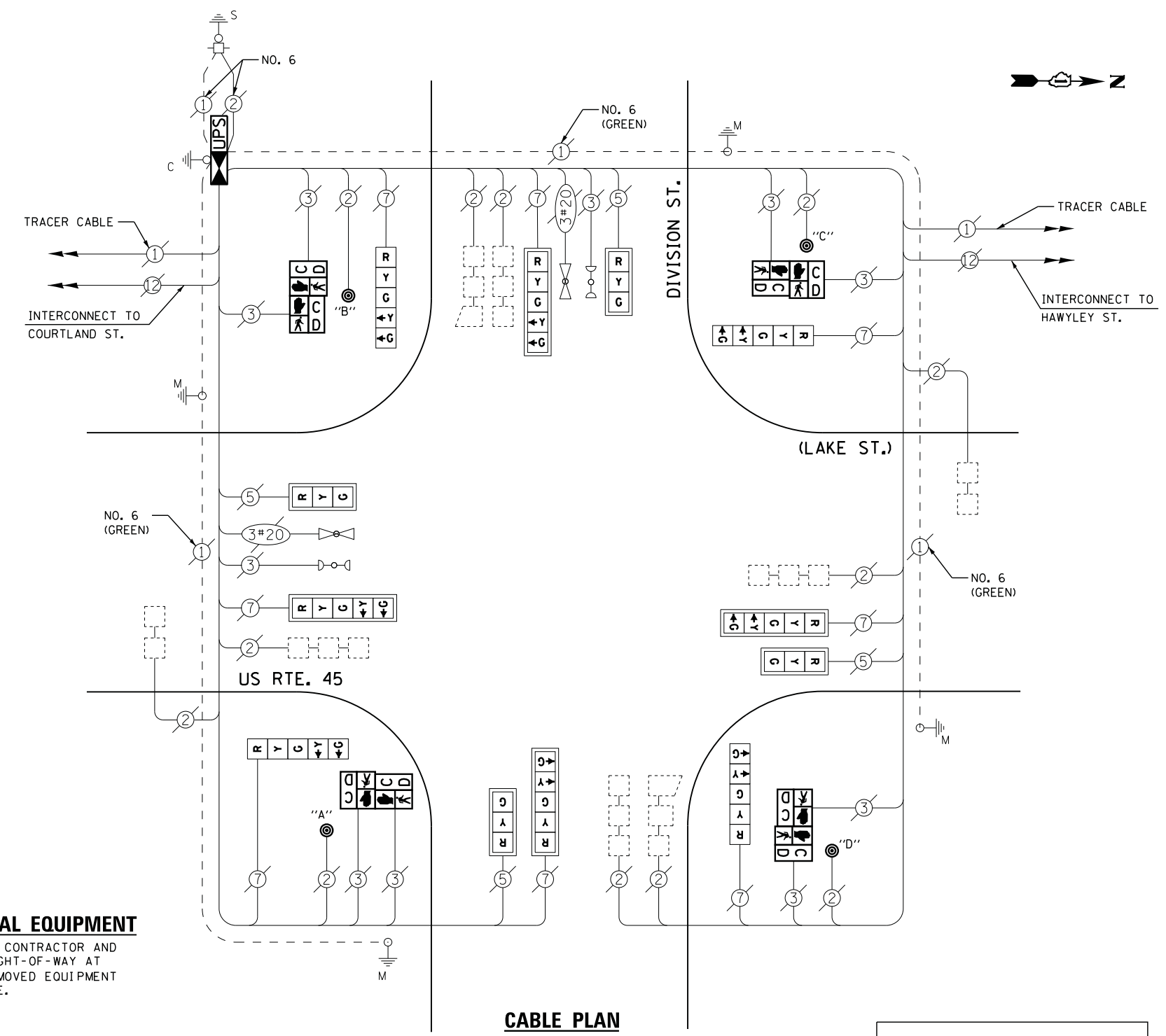
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
 8 EACH PEDESTRIAN SIGNAL HEAD
 4 EACH PEDESTRIAN PUSH-BUTTON
 1 EACH CONTROLLER AND CABINET (COMPLETE)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCIVER - FIBER OPTIC
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	INDUCTIVE LOOP DETECTOR
*1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
*	100% COST TO MUNDELEIN	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



CABLE PLAN

NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

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

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

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 PLOT DATE = 8/23/2012

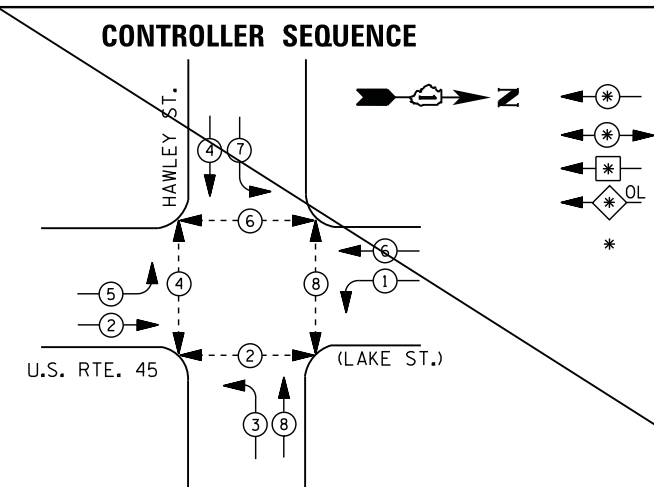
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REVISED -
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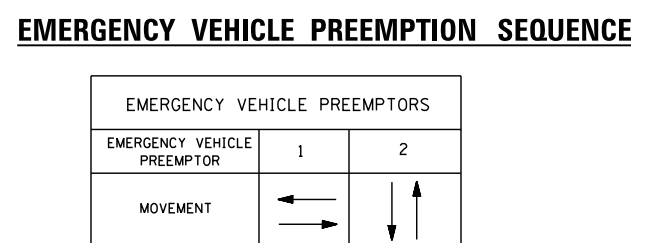
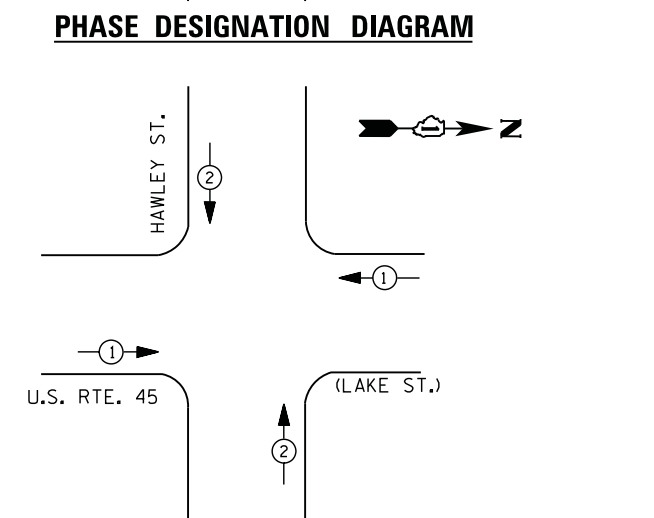
US ROUTE 45 AT DIVISION STREET
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTÉ. SECTION COUNTY TOTAL SHEETS SHEET NO.
 2012-039TS LAKE 84 66
 CONTRACT NO. 60T84
 ILLINOIS FED. AID PROJECT

TS# 14345
 MUNDELEIN



- ### LEGEND
- DUAL ENTRY PHASE
 - PEDESTRIAN PHASE
 - SINGLE ENTRY PHASE
 - OVERLAP
 - * NUMBER REFERS TO ASSOCIATED PHASE
- ① REPLACE 14 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ② REPLACE 15 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ③ REPLACE 16 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.
 - ④ REPLACE 18 FT. PAINTED POST. RE-USE EXISTING TYPE A CONCRETE FOUNDATION.



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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					765

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

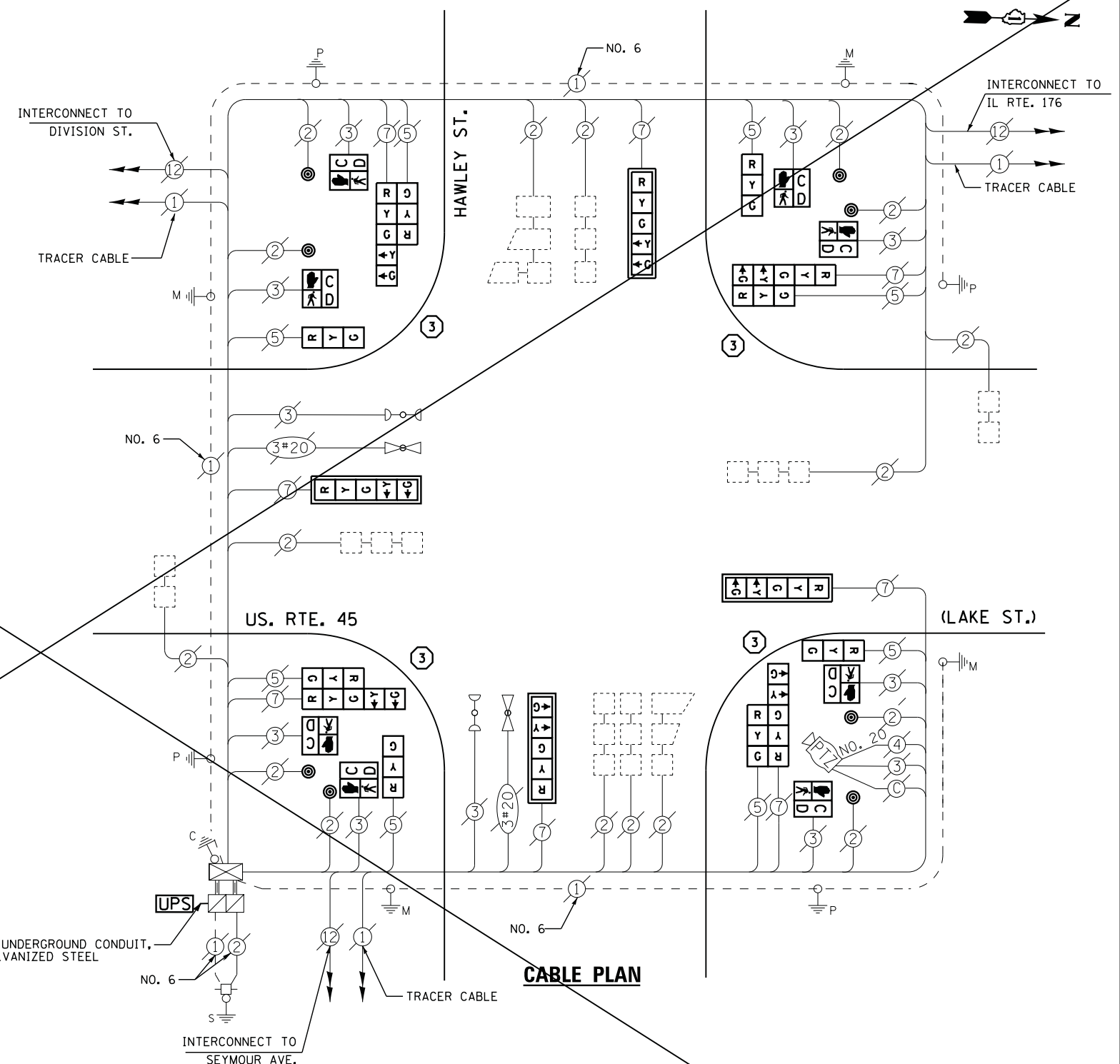
ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

LOCATION REMOVED FROM THE PLAN SET.

UPS SHALL BE INSTALLED ON A SEPARATE FOUNDATION DUE TO PHYSICAL CONSTRAINTS, OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED"

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
10	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	DRILL EXISTING HANDHOLE
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
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, GROUND MOUNTED



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- | | | |
|---|------|---|
| 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 |
| 8 | EACH | PEDESTRIAN SIGNAL HEAD |
| 8 | EACH | PEDESTRIAN PUSH-BUTTON |
| 4 | EACH | TRAFFIC SIGNAL BACKPLATE |
| 4 | EACH | TRAFFIC SIGNAL POST |

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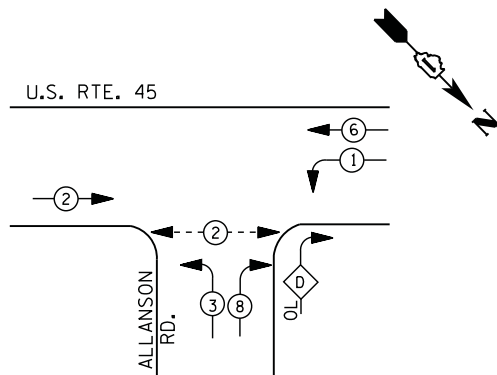
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45 AT HAWLEY STREET			
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	67
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 14350
 MUNDELEIN

CONTROLLER SEQUENCE



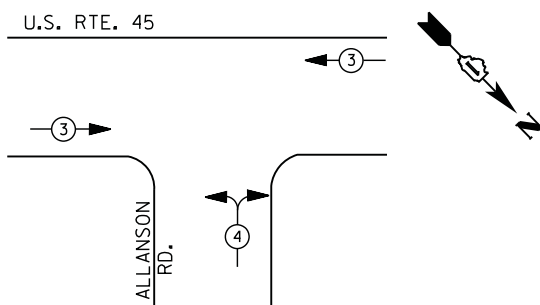
LEGEND

- ⊙ (with two arrows) DUAL ENTRY PHASE
- ⊙ (with one arrow) PEDESTRIAN PHASE
- ⊙ (with one arrow and star) SINGLE ENTRY PHASE
- ⊙ (with two arrows and star) OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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

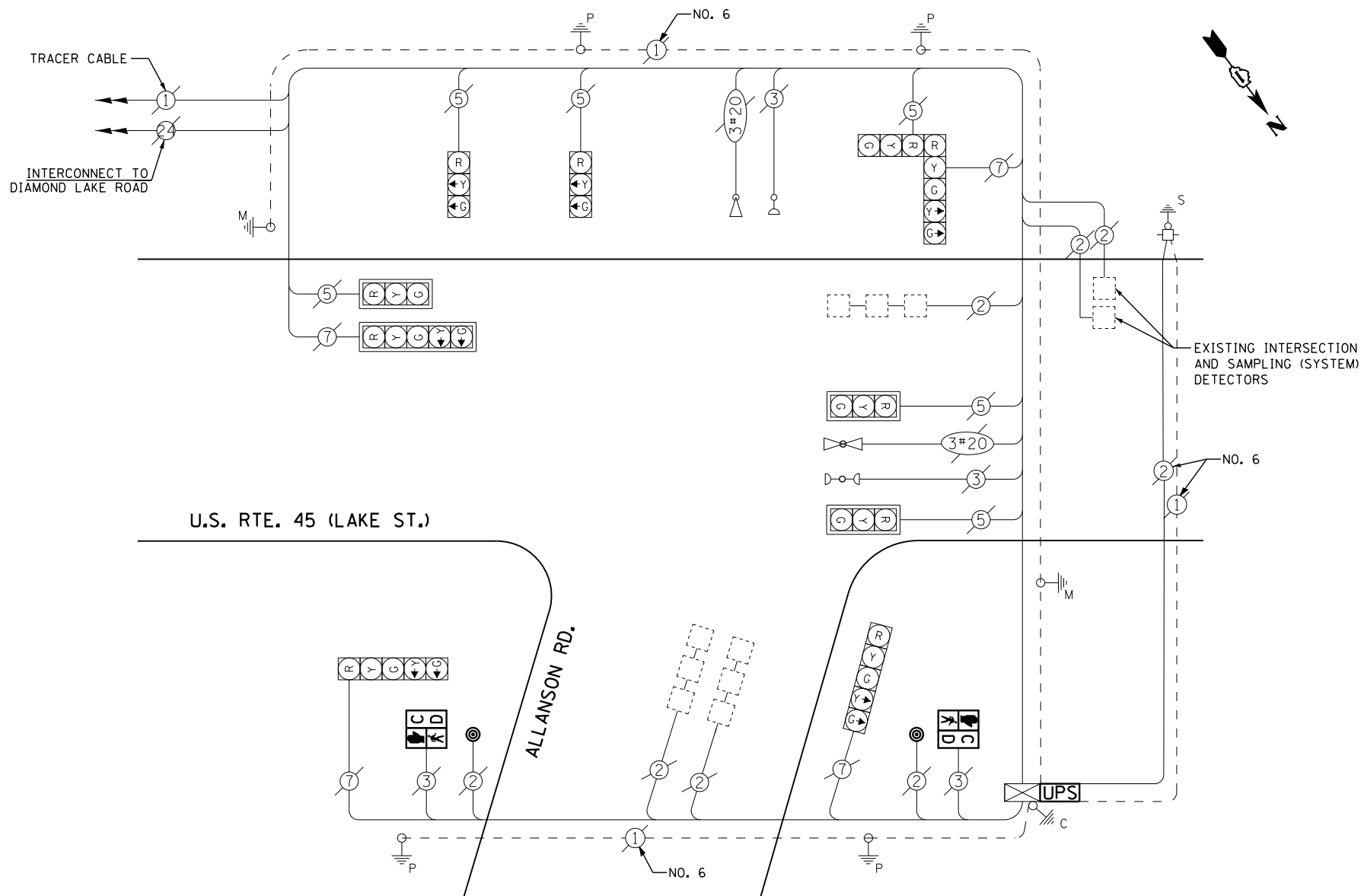
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					346

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

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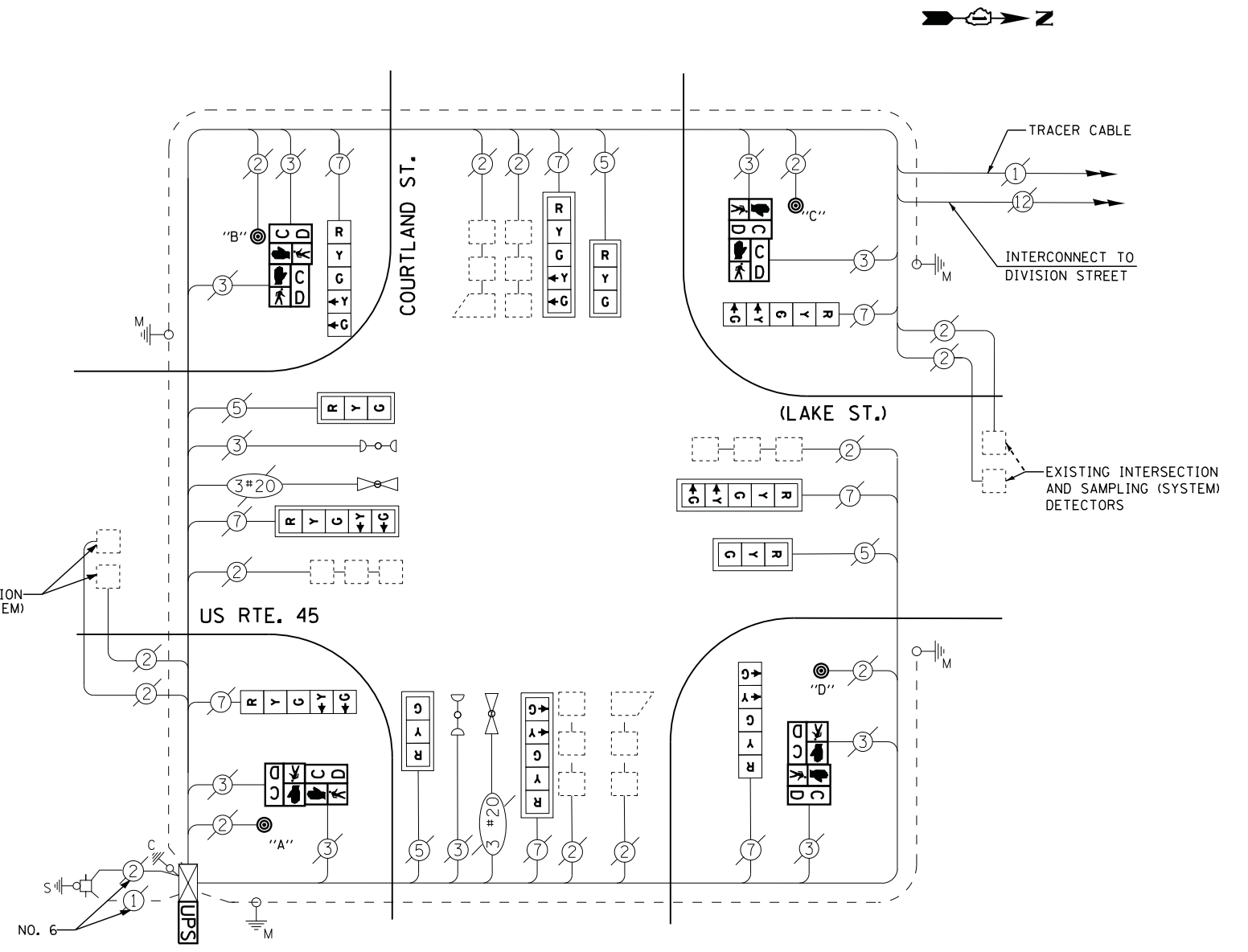
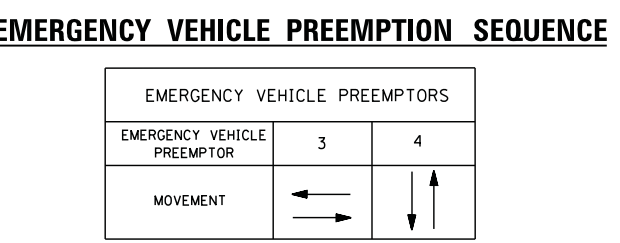
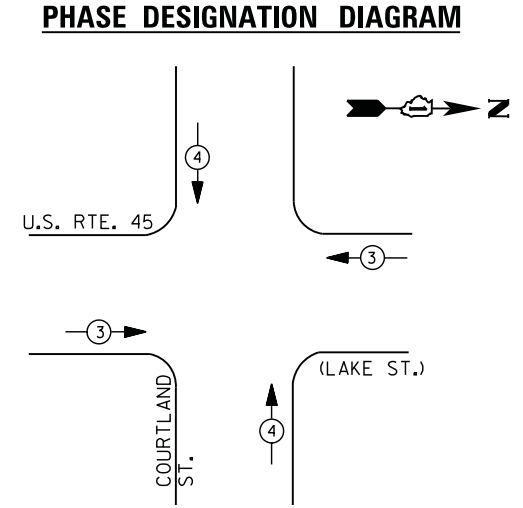
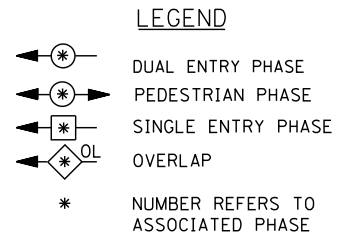
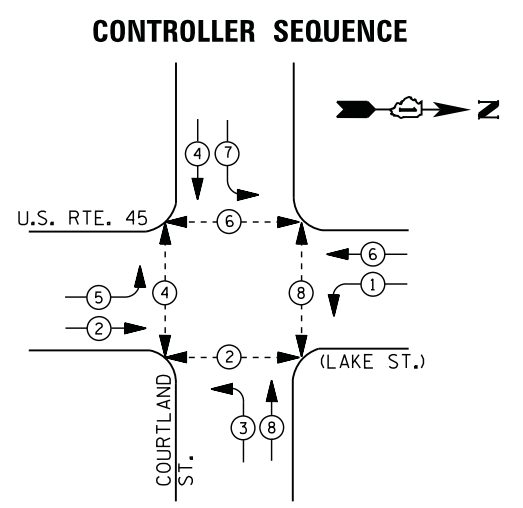
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US ROUTE 45 AT ALLANSON ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	68
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 14370
 MUNDELEIN



NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					541

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

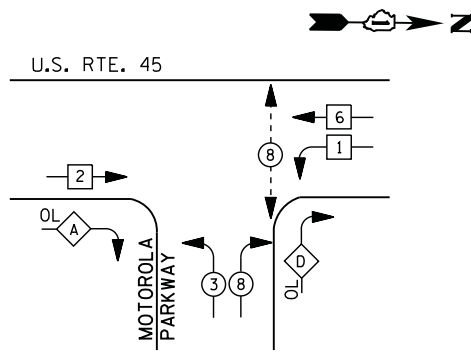
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4	EACH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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8	EACH	PEDESTRIAN SIGNAL HEAD
4	EACH	PEDESTRIAN PUSH-BUTTON

CONTROLLER SEQUENCE



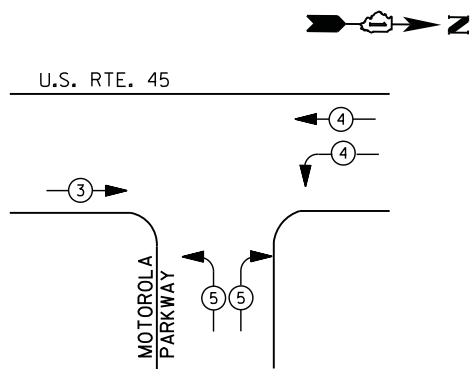
LEGEND

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

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY PHASE
A =	2 +	3 -	2
D =	6 +	1 -	8

PHASE DESIGNATION DIAGRAM



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	13	135	15	0.25	49
ARROW	8	135	12	0.10	10
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					401

ENERGY COSTS- BILLED TO: VILLAGE OF MUNDELEIN
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

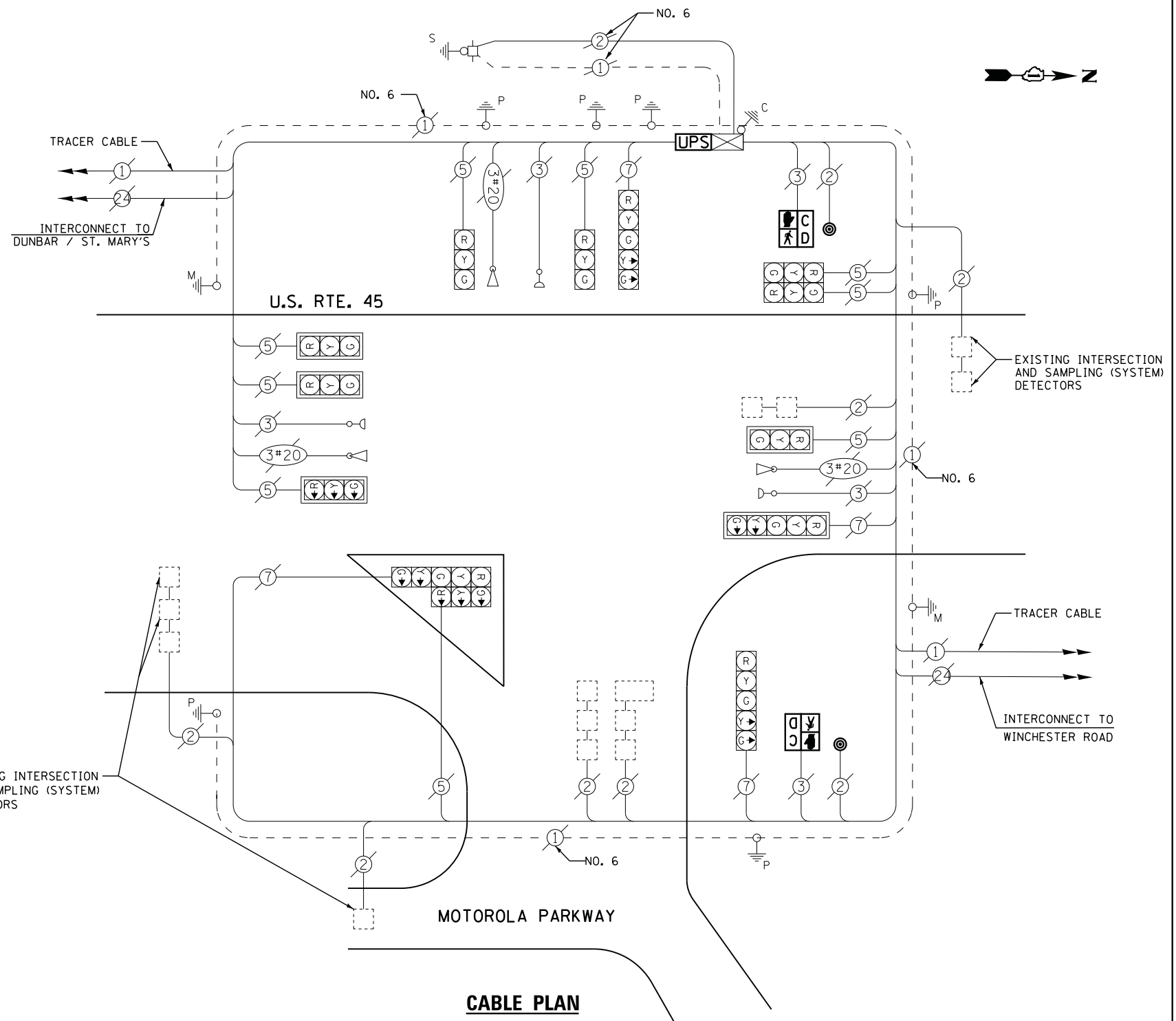
SCHEDULE OF QUANTITIES

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

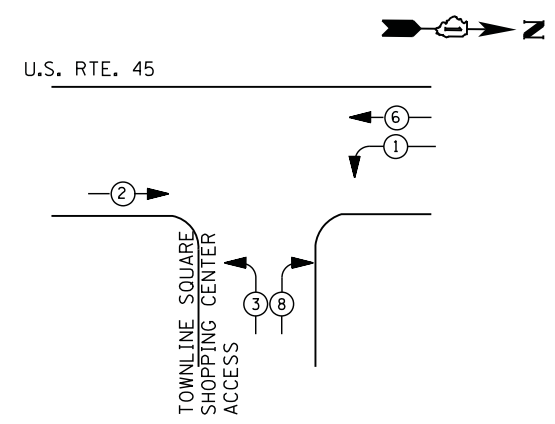
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	PEDESTRIAN SIGNAL HEAD
2	EACH	PEDESTRIAN PUSH-BUTTON



CABLE PLAN

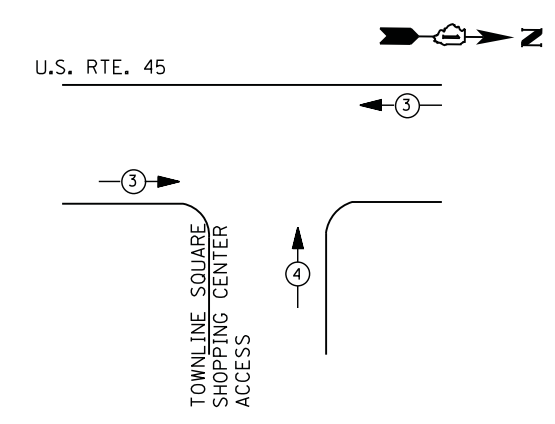
CONTROLLER SEQUENCE



LEGEND

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

PHASE DESIGNATION DIAGRAMS



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					291

ENERGY COSTS- **BILLED TO: VILLAGE OF MUNDELEIN**
 440 E. HAWLEY STREET
 MUNDELEIN, IL 60060

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

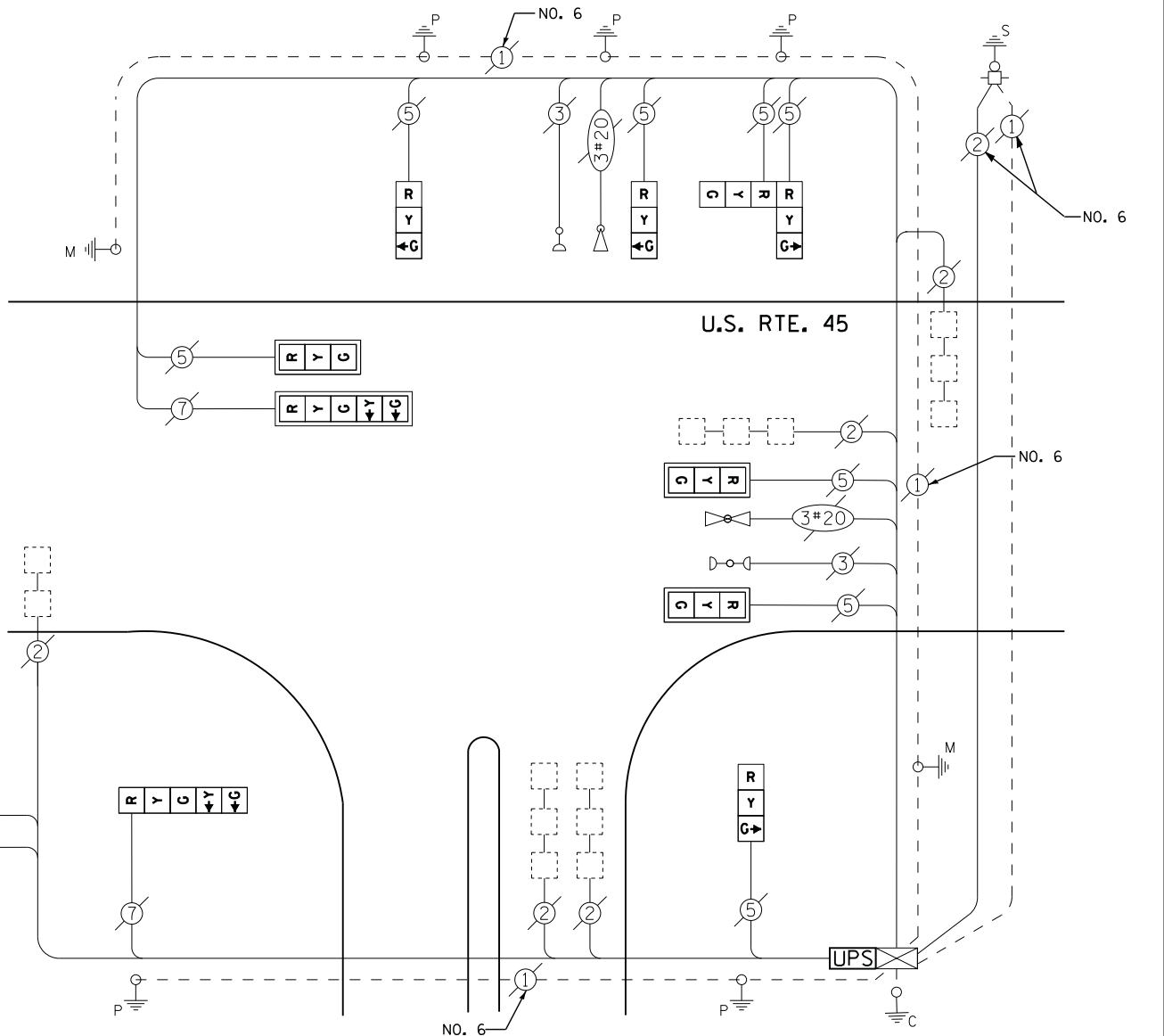
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT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

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
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	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**U.S ROUTE 45 AT TOWNLINE SQUARE ACCESS
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	71
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				



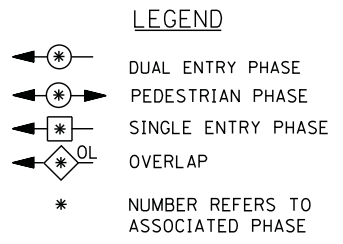
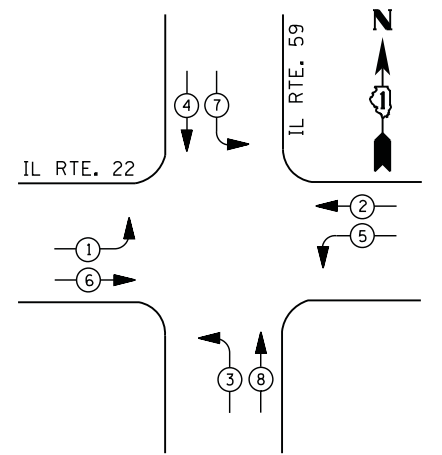
**TOWNLINE SQUARE
 SHOPPING CENTER ACCESS
 CABLE PLAN**

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER

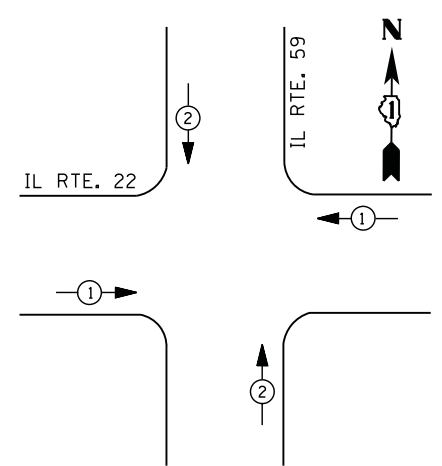
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

TS# 21975
 MUNDELEIN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT		

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

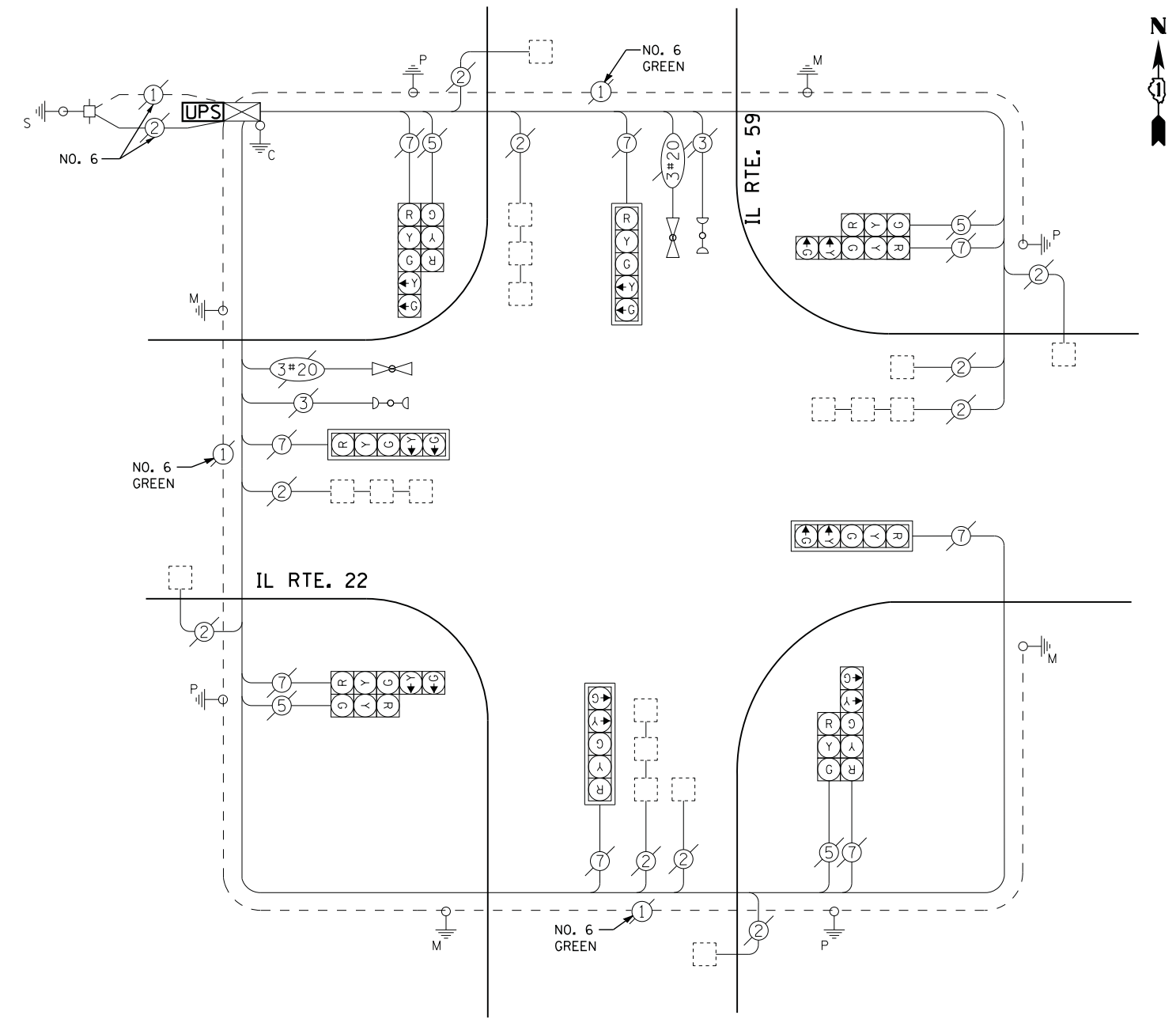
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
FLASHER LED					
TOTAL =					341

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

FILE NAME =	USER NAME = *USER*	DESIGNED -	DW	REVISED -	
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06740_CAB_LAKE.dgn		DRAWN -	JDH	REVISED -	
	PLOT SCALE = *SCALE*	CHECKED -	KMM	REVISED -	
	PLOT DATE = 8/23/2012	DATE -		REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

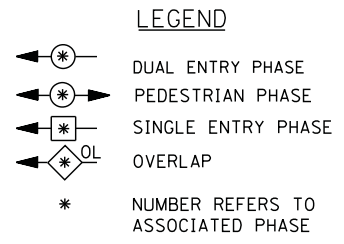
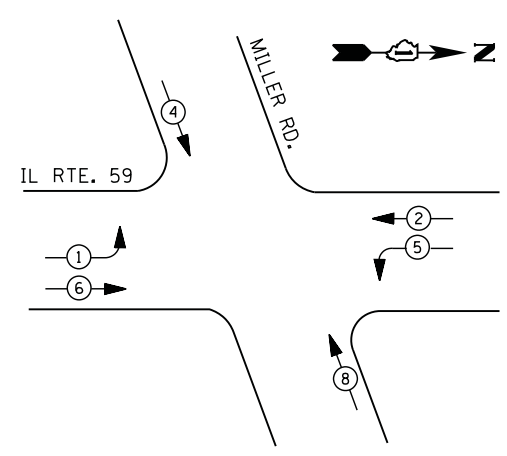
**IL ROUTE 22 AT IL ROUTE 59
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

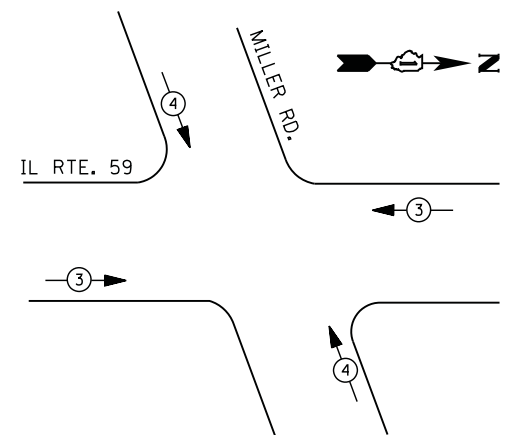
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	72
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6740
 NORTH BARRINGTON

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**

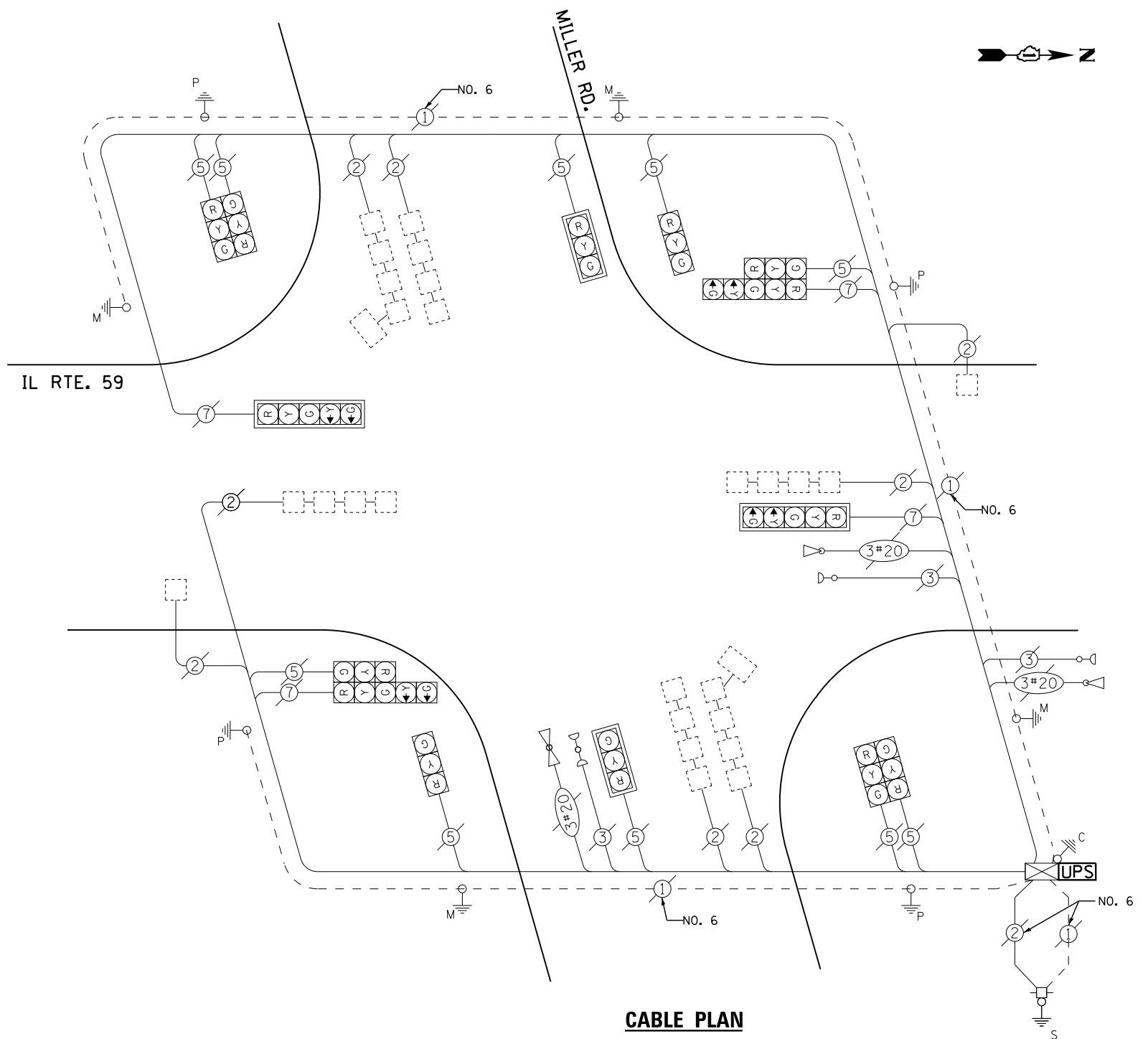
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					370

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06860_CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

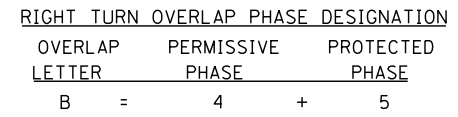
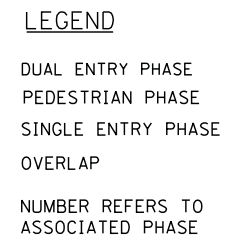
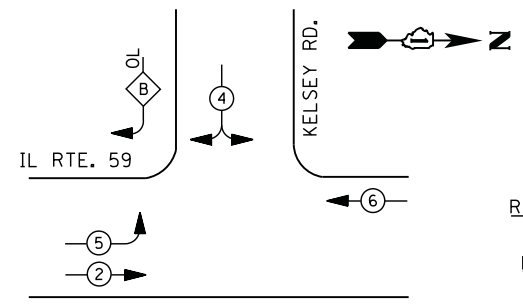
**IL ROUTE 59 AT MILLER ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

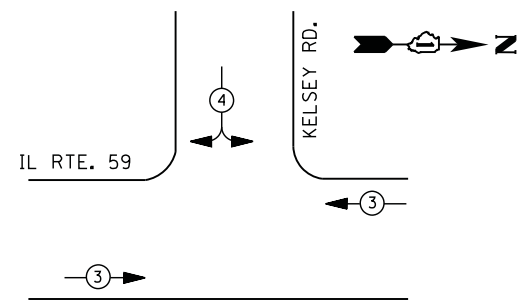
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	73
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6860
 NORTH BARRINGTON

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

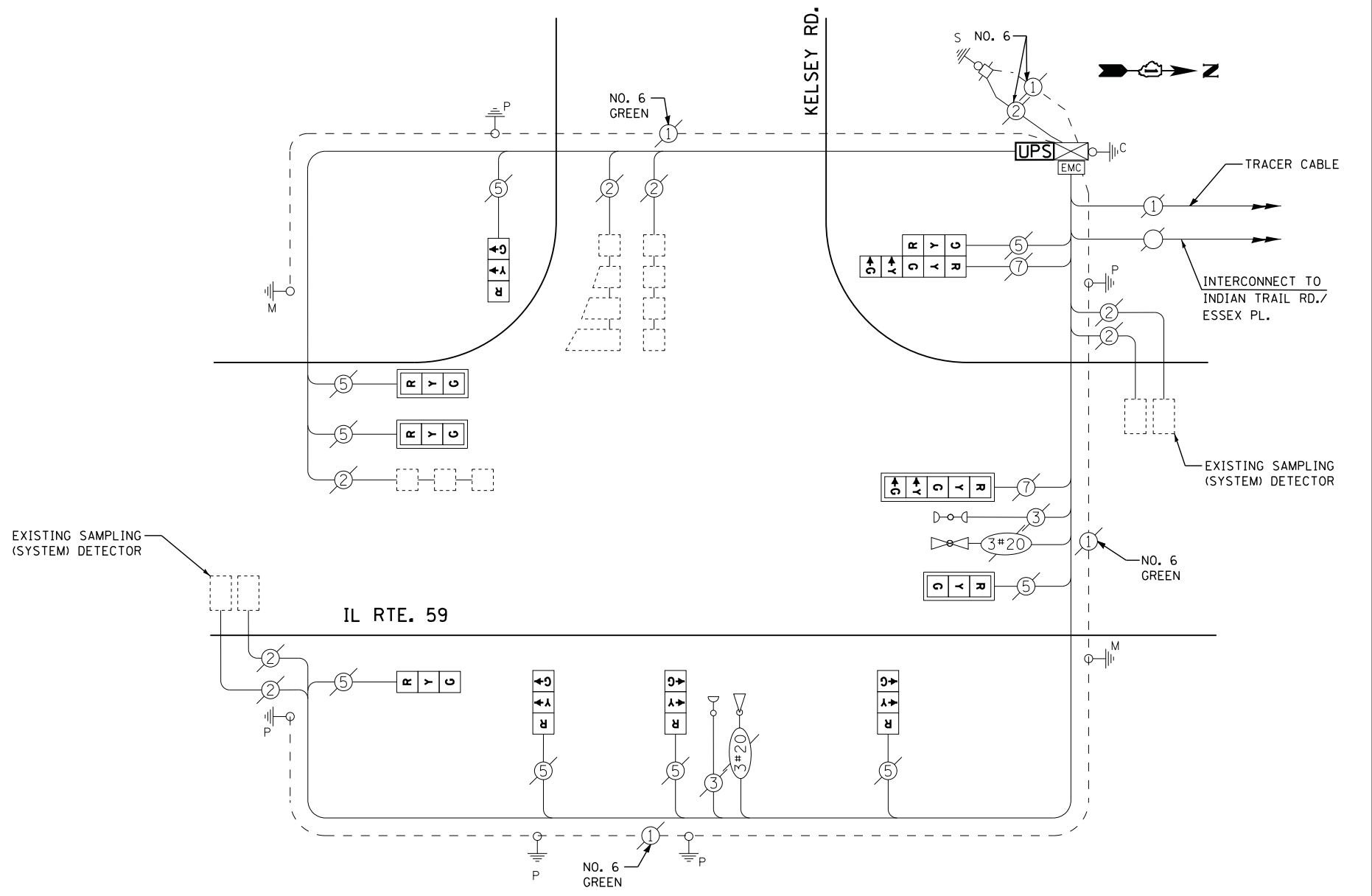
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11	135	17	0.50	94
(YELLOW)	11	135	25	0.25	69
(GREEN)	11	135	15	0.25	41
ARROW	4	135	12	0.10	5
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					309

ENERGY COSTS- **BILLED TO: VILLAGE OF TOWER LAKES**
 400 NORTH IL RTE 59
 TOWER LAKES, IL 60010

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
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, BRACKET MOUNTED, RETROFIT
3	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



CABLE PLAN

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\21190.CAB.LAKE.dgn		DRAWN - JDH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KMM	REVISED -
	PLOT DATE = 8/23/2012	DATE -	REVISED -

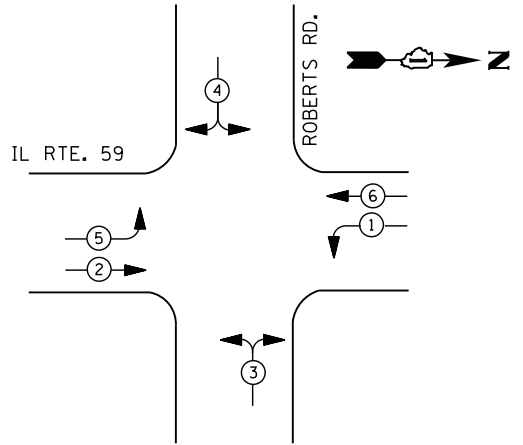
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

IL ROUTE 59 AT KELSEY ROAD			
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	74
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

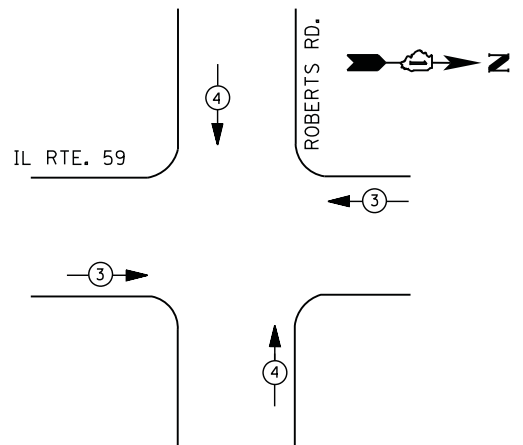
TS# 21190
TOWER LAKES

CONTROLLER SEQUENCE



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

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

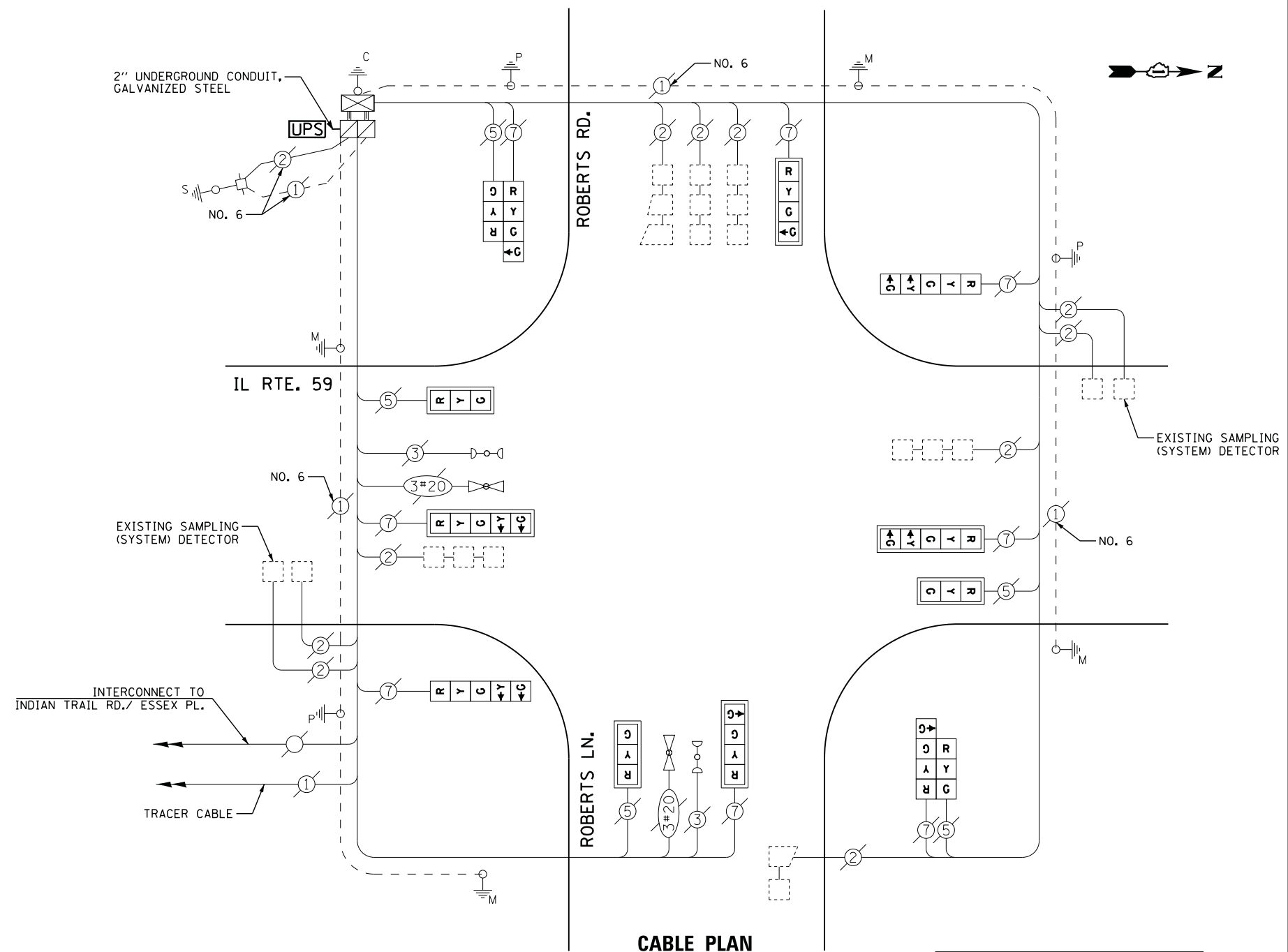
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	81
(GREEN)	17	135	15	0.25	64
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					366

ENERGY COSTS- **BILLED TO: VILLAGE OF TOWER LAKES**
 400 NORTH IL RTE 59
 TOWER LAKES, IL 60010

ENERGY SUPPLY - **CONTACT TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON



CABLE PLAN

SCHEDULE OF QUANTITIES

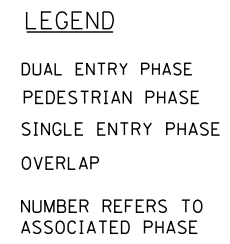
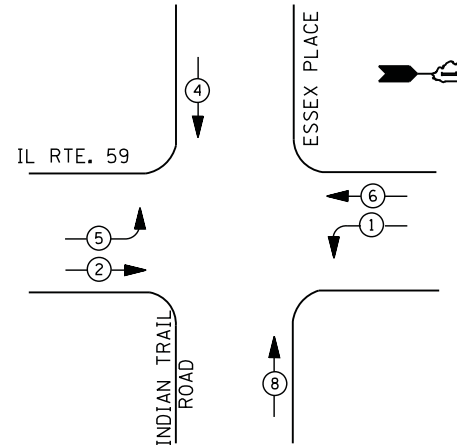
QUANTITY	UNIT	ITEM
10	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	DRILL EXISTING HANDHOLE
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED, RETROFIT
3	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, 4-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

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

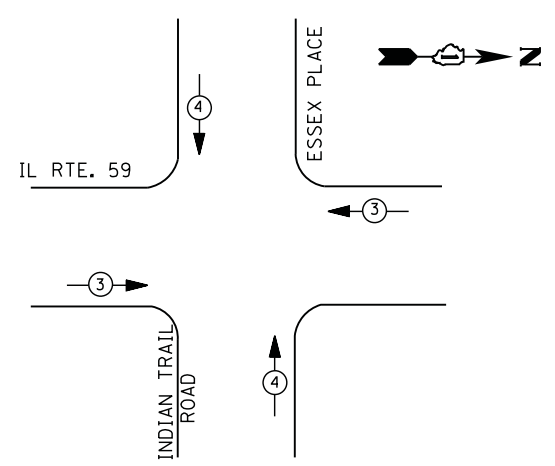
UPS SHALL BE INSTALLED ON A SEPARATE FOUNDATION DUE TO PHYSICAL CONSTRAINTS, OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED"

TS# 22040
 TOWER LAKES

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**

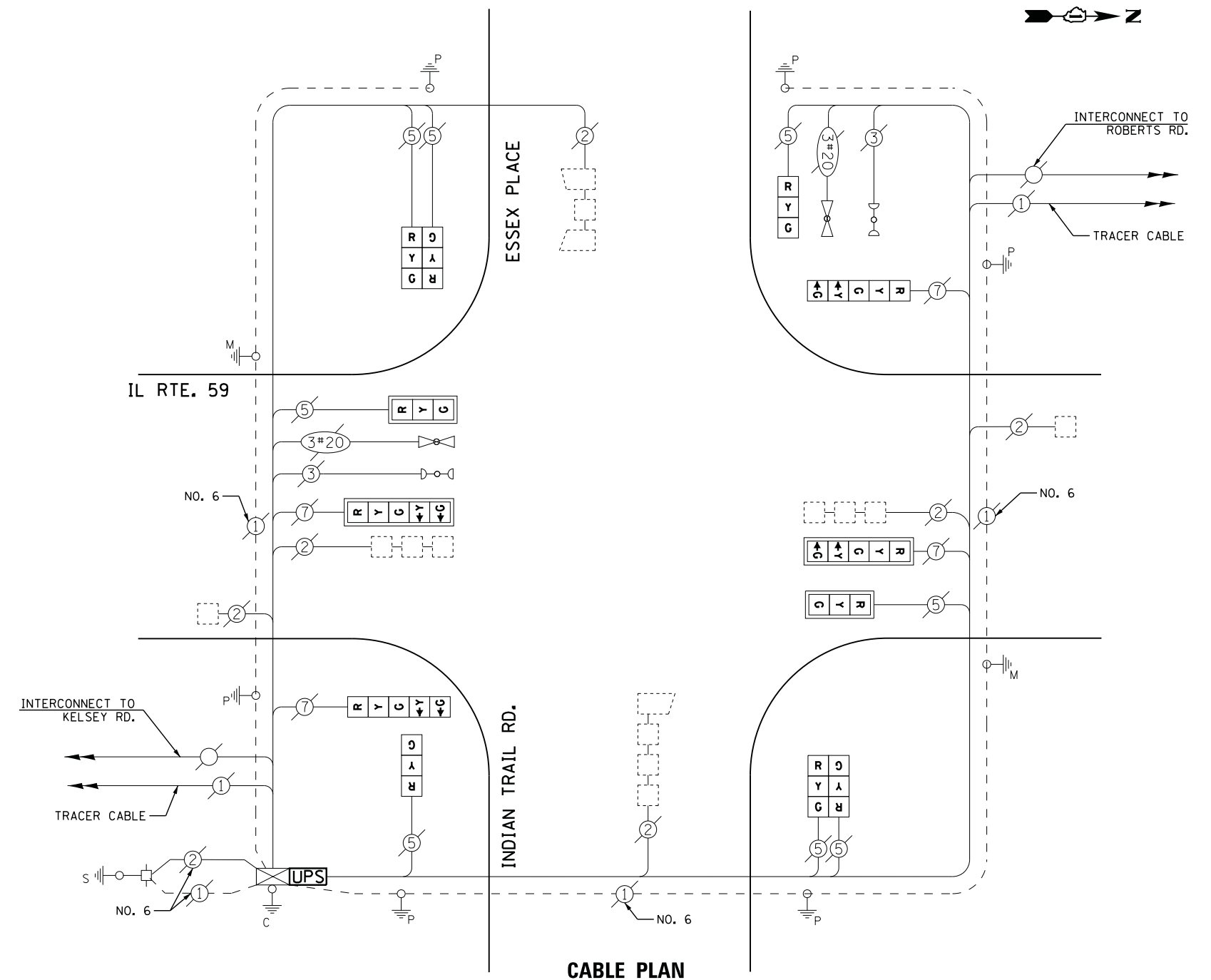
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					332

ENERGY COSTS- BILLED TO: VILLAGE OF TOWER LAKES
 400 NORTH IL RTE 59
 TOWER LAKES, IL 60010

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

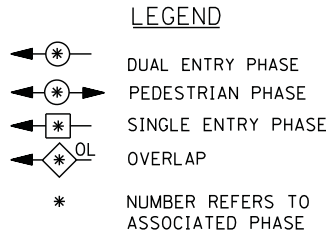
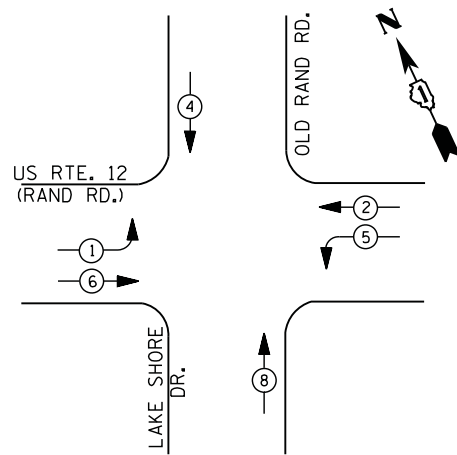


CABLE PLAN

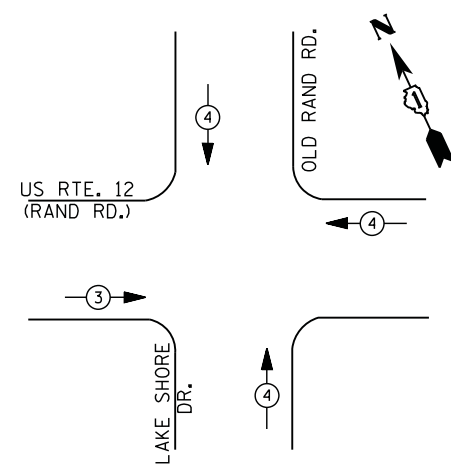
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

TS# 22041
TOWER LAKES

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**

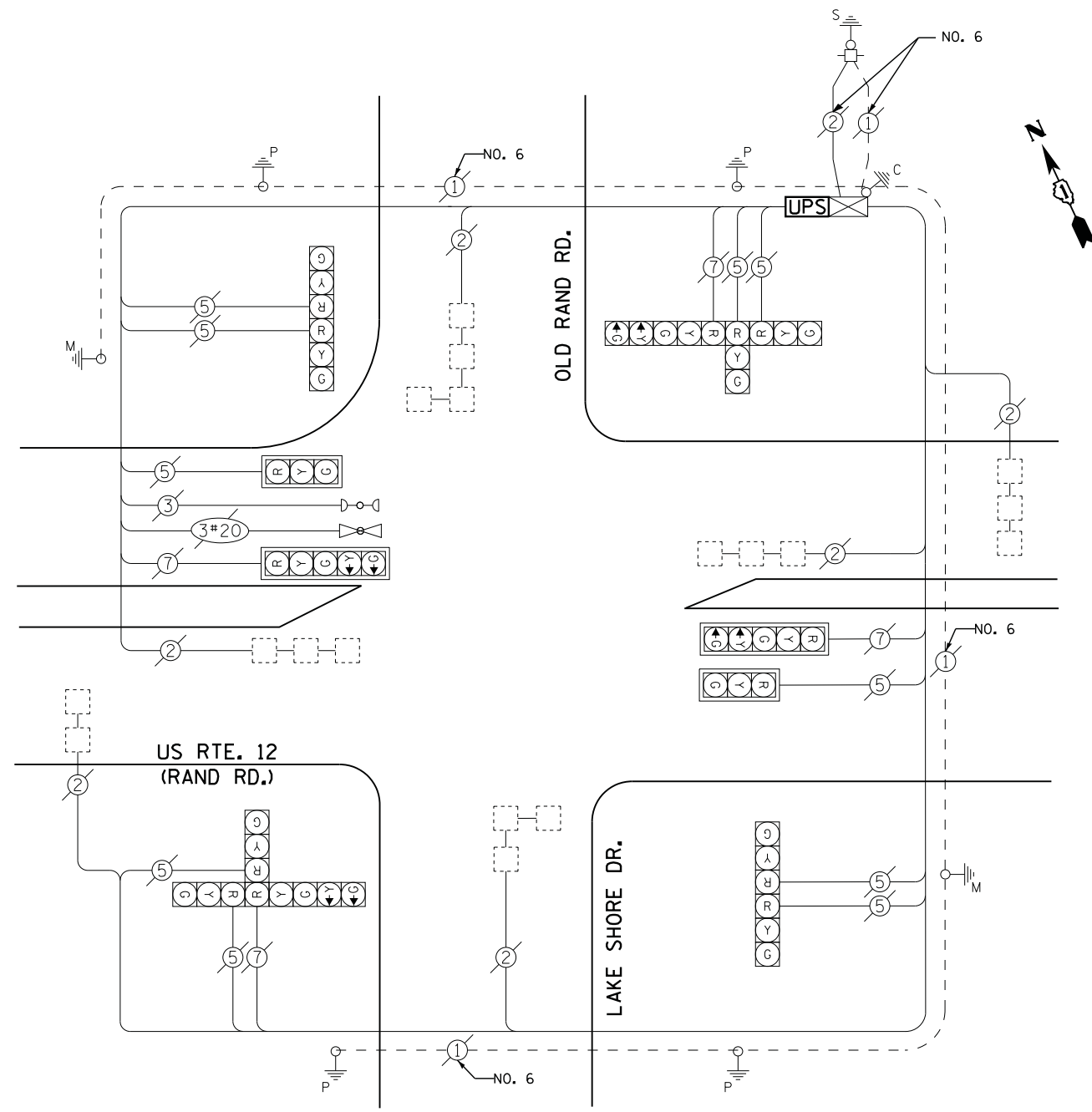
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	8	135	12	0.10	10
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					370

ENERGY COSTS- **BILLED TO: IDOT DISTRICT 1**
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

FILE NAME =	USER NAME = *USER*	DESIGNED -	DW	REVISED -	
N:\Projects\3\12004\Design\CAD\Sheet Files\12-003 Sheets SW Lake Co\00960_CAB_LAKE.dgn		DRAWN -	JDH	REVISED -	
	PLOT SCALE = *SCALE*	CHECKED -	KMM	REVISED -	
	PLOT DATE = 8/23/2012	DATE -		REVISED -	

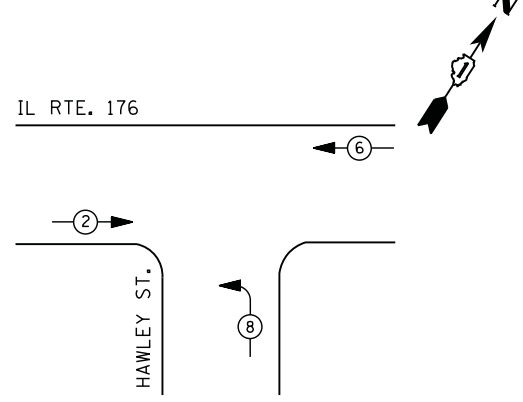
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

US ROUTE 12 AT LAKE SHORE DRIVE SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	77
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 960
 UNINC.

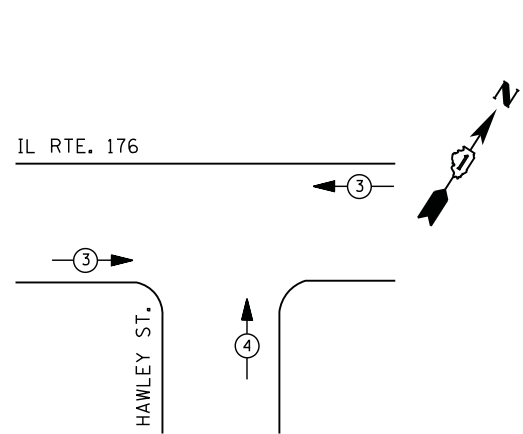
CONTROLLER SEQUENCE



LEGEND

- ⊖ (with star) DUAL ENTRY PHASE
- ⊖ (with circle) PEDESTRIAN PHASE
- ⊖ (with square) SINGLE ENTRY PHASE
- ⊖ (with diamond) OVERLAP
- * 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**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	--	135	12	0.10	--
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					286

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

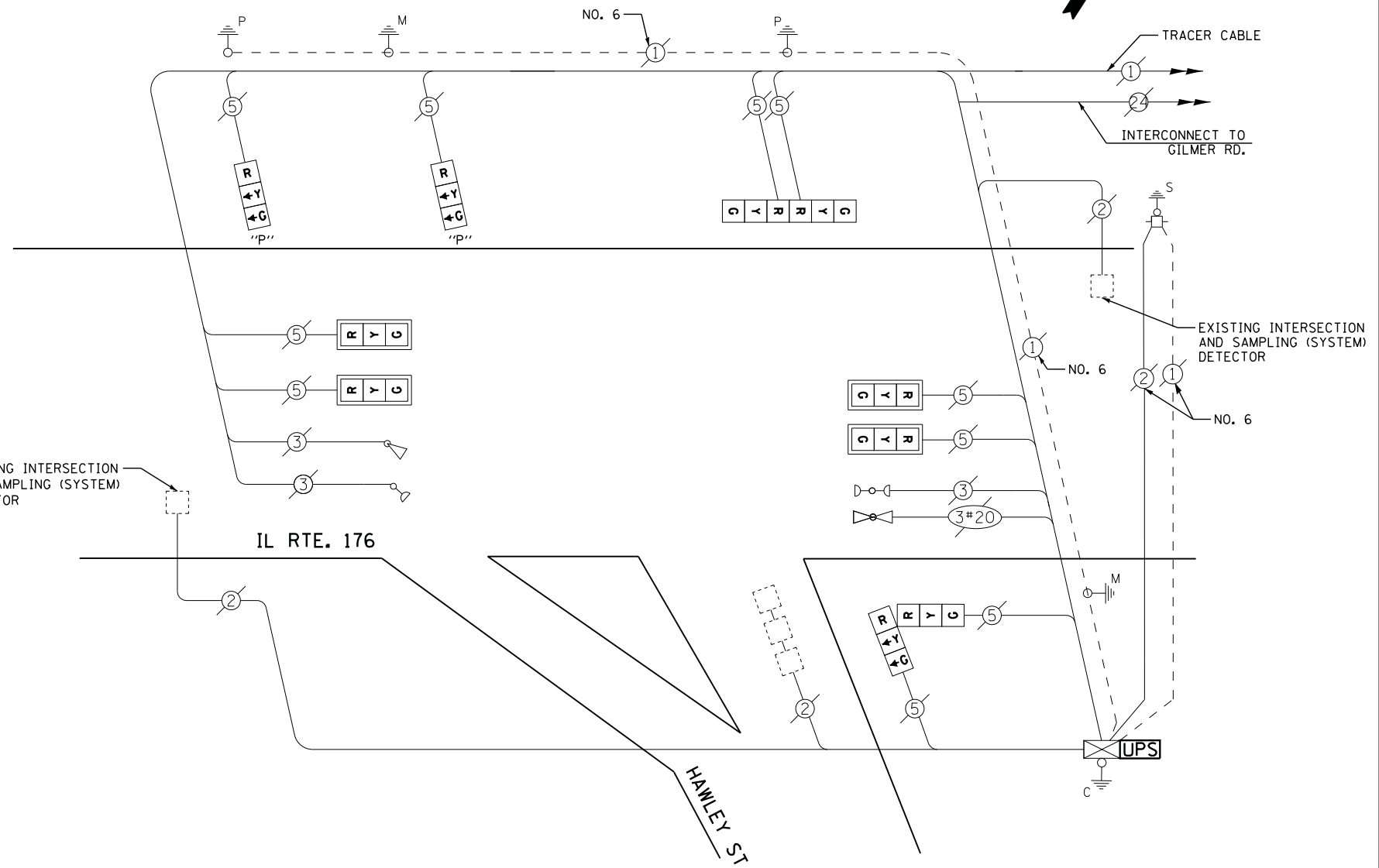
ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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

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

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTOR



CABLE PLAN

FILE NAME = USER NAME = *USER*
 N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\06917.CAB.LAKE.dgn
 PLOT SCALE = *SCALE*
 PLOT DATE = 8/23/2012

DESIGNED - DW
 REVISIONS -
 DRAWN - JDH
 REVISIONS -
 CHECKED - KMM
 REVISIONS -
 DATE -
 REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

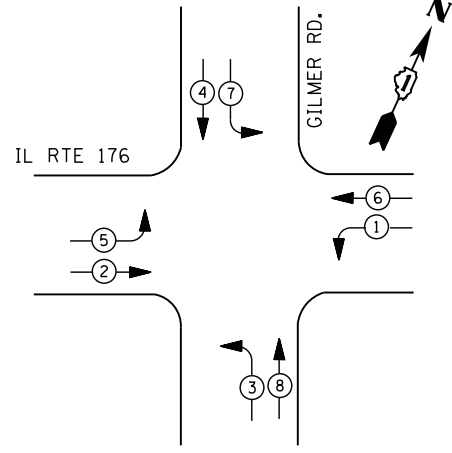
**IL ROUTE 176 AT HAWLEY STREET WEST
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

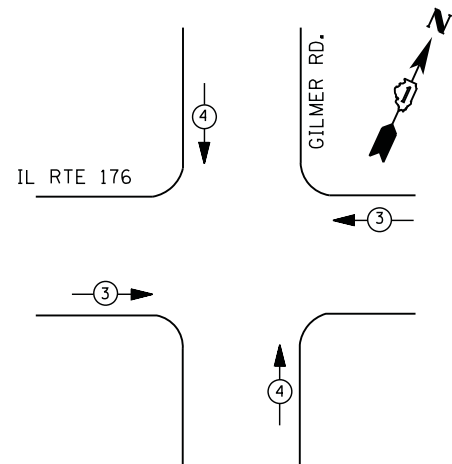
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	78
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 6917
 UNINC.

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

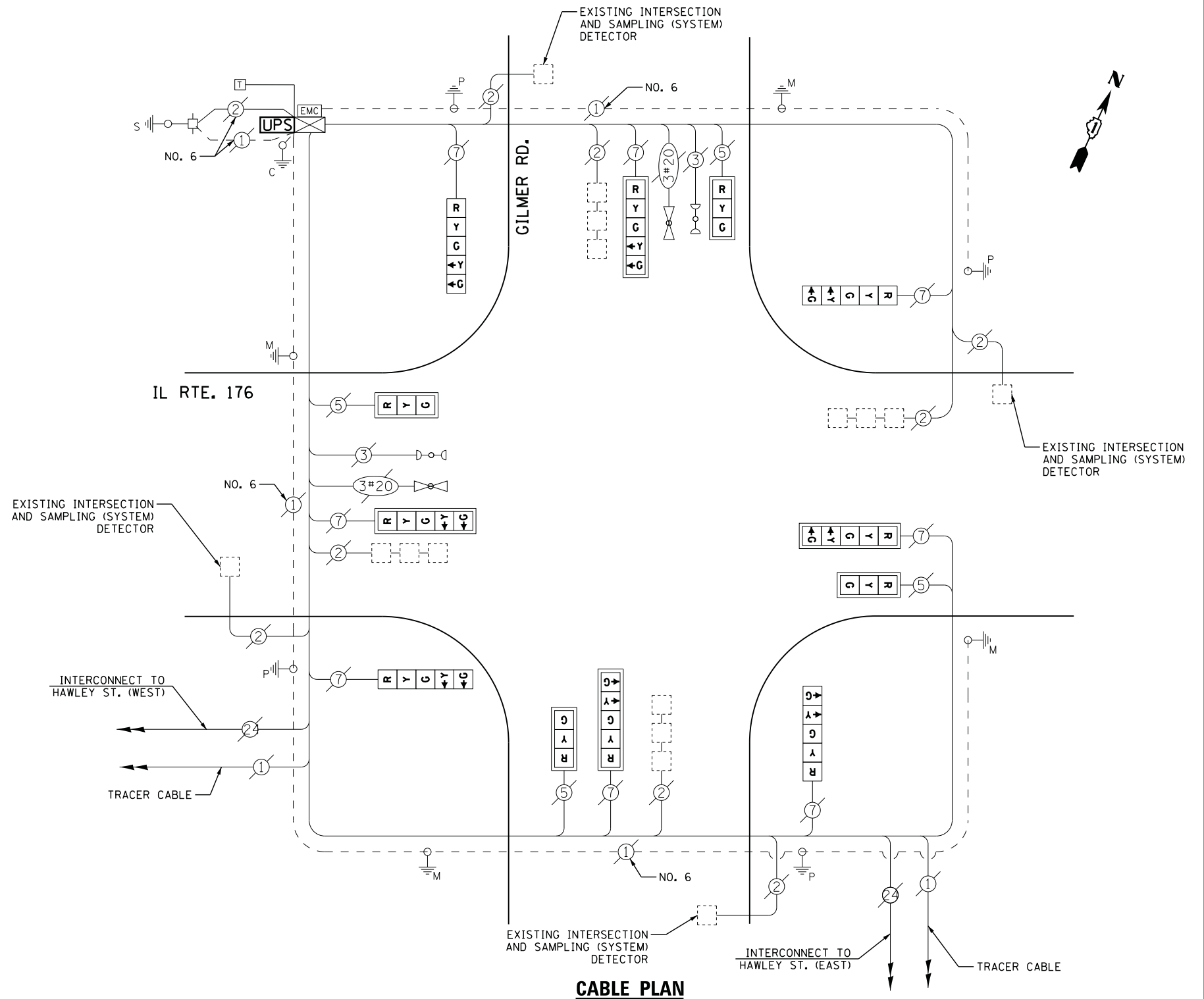
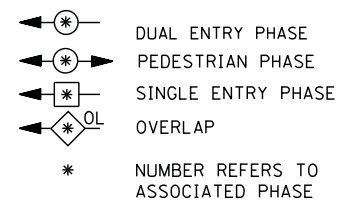
**I. D. O. T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					341

ENERGY COSTS- **BILLED TO: IDOT DISTRICT 1**
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT **TERRI BLECK**
 PHONE 847-816-5239
 COMMONWEALTH EDISON

LEGEND



CABLE PLAN

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

SCHEDULE OF QUANTITIES

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

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	DW	REVISED -	
N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\07142.CAB.LAKE.dgn		DRAWN -	JDH	REVISED -	
	PLOT SCALE = \$SCALE\$	CHECKED -	KMM	REVISED -	
	PLOT DATE = 8/23/2012	DATE -		REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

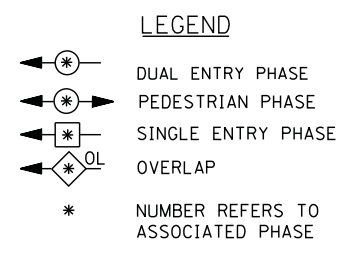
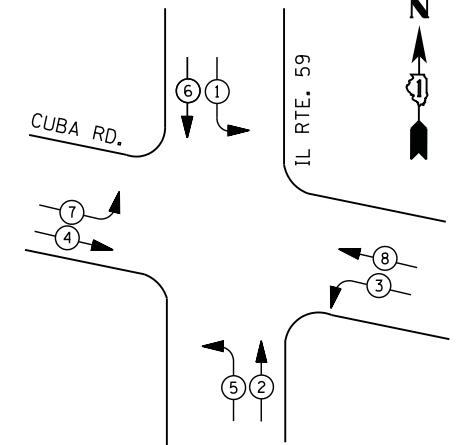
**IL ROUTE 176 AT GILMER ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

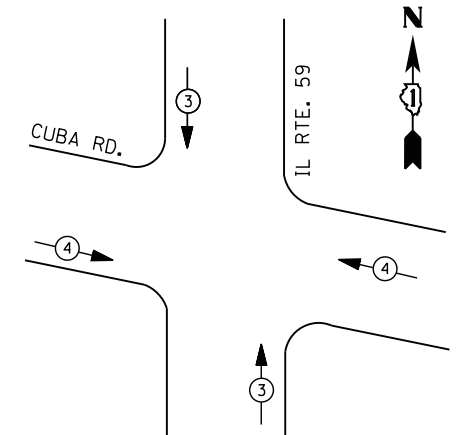
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	79
CONTRACT NO. 60T84				
ILLINOIS FED. AID PROJECT				

TS# 7142
 UNINC.

CONTROLLER SEQUENCE



EXISTING AND PROPOSED 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

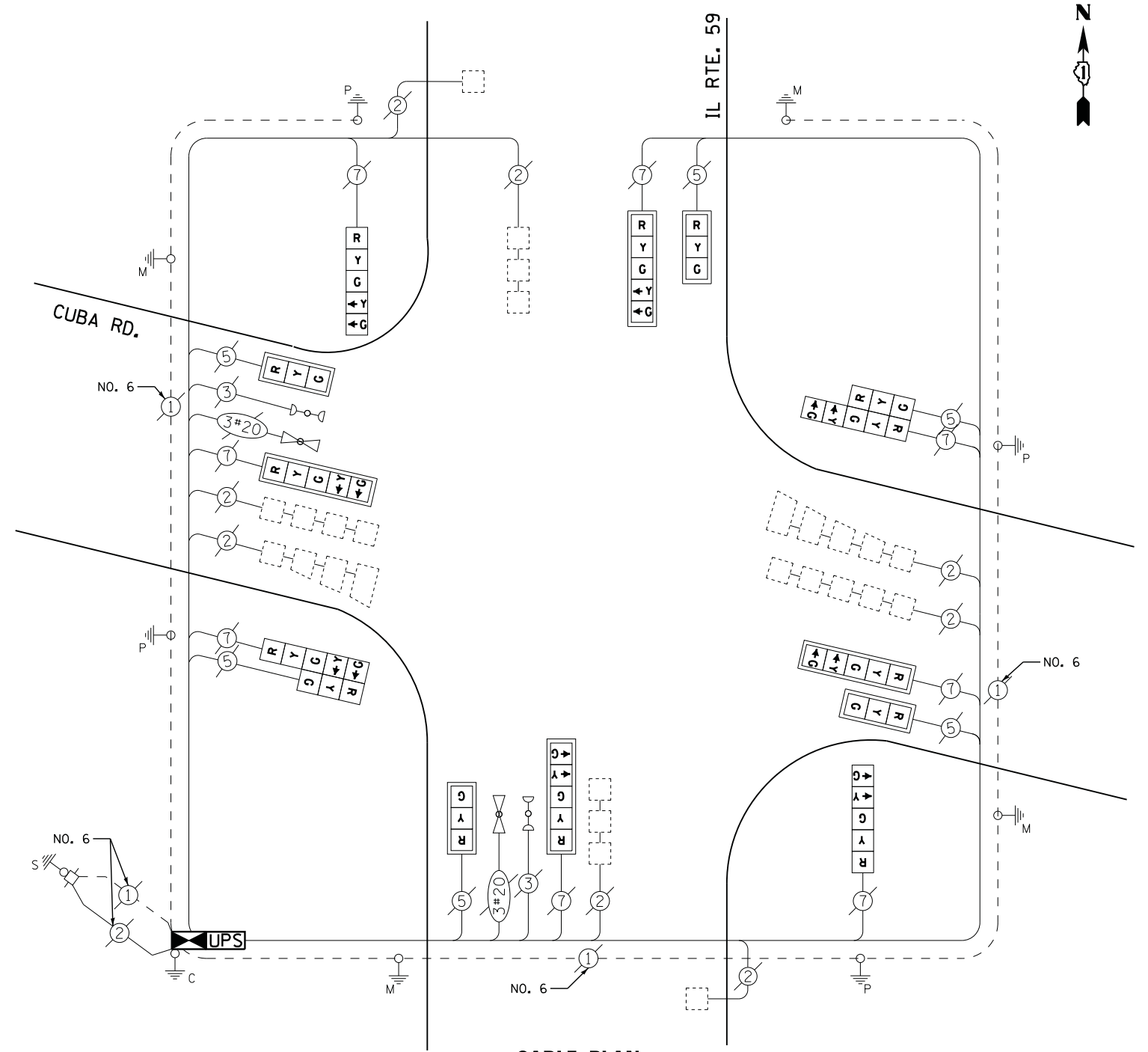
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	14	135	15	0.25	53
ARROW	16	135	12	0.10	19
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					379

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT DAVE SCHACHT
 PHONE 630-437-2129
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
8	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
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
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
* 100% COST TO LAKE COUNTY		



CABLE PLAN

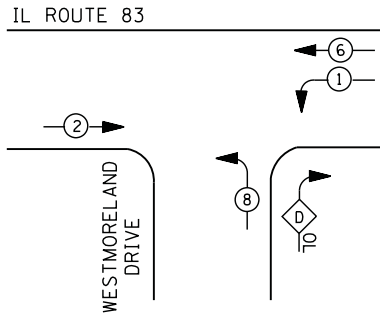
RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

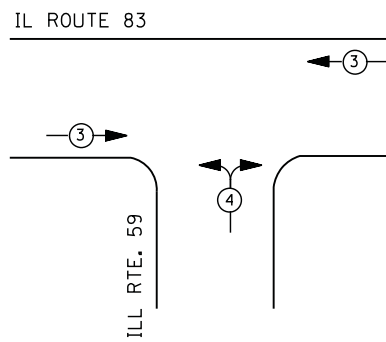
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

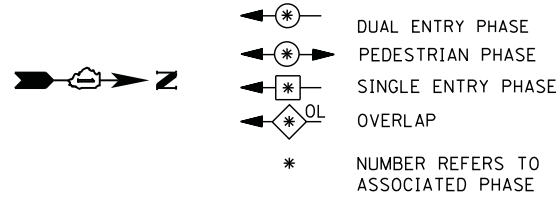
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↔

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	6	135	12	0.10	7
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	1	150	-	1.00	150
FLASHER LED					
TOTAL =					479

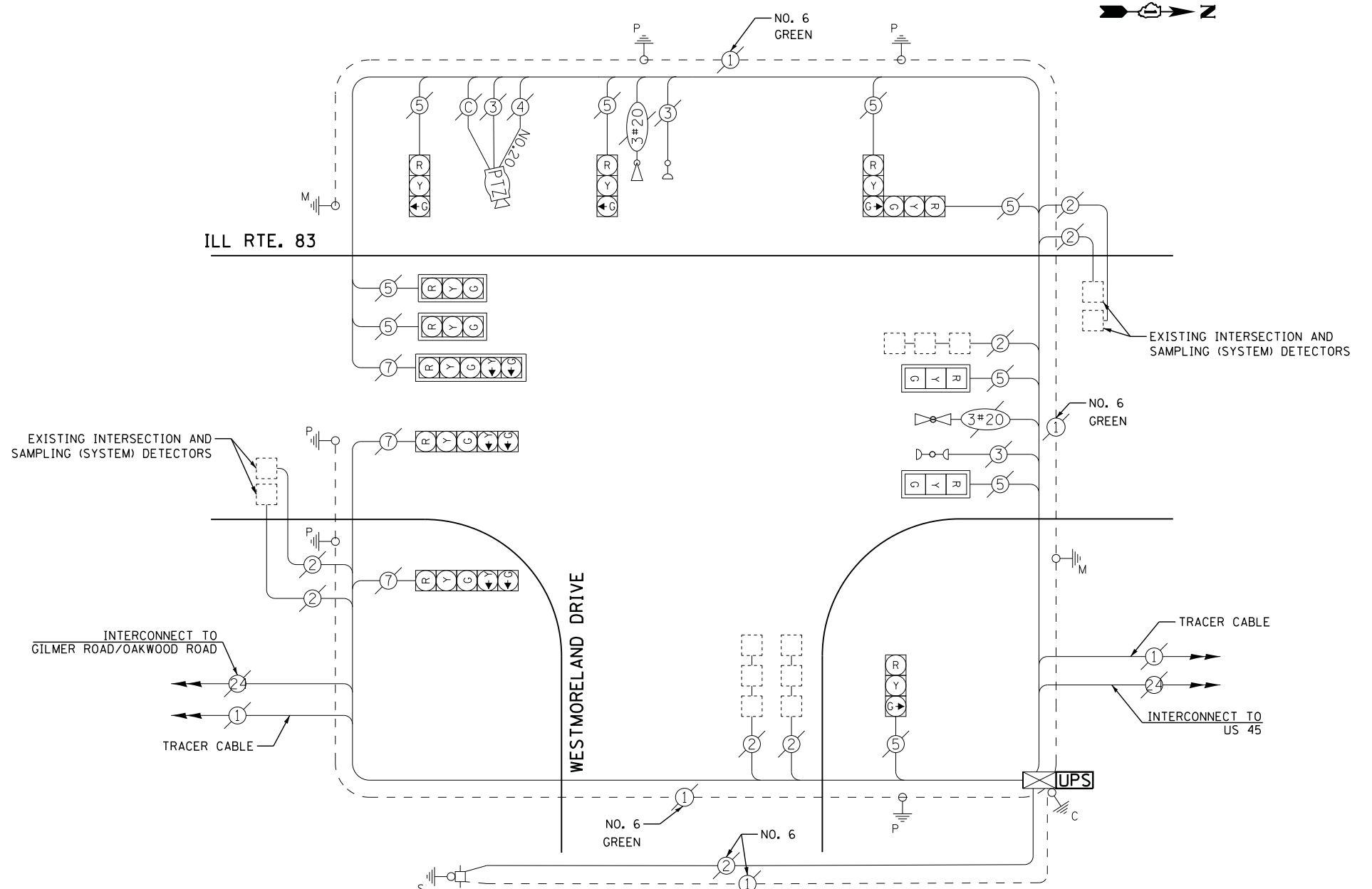
ENERGY COSTS- BILLED TO: VILLAGE OF VERNON HILLS
 290 EVERGREEN DRIVE
 VERNON HILLS, IL 60061
 ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

LEGEND



RIGHT TURN OVERLAP PHASE DESIGNATION

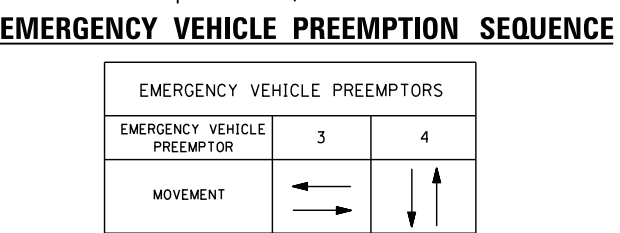
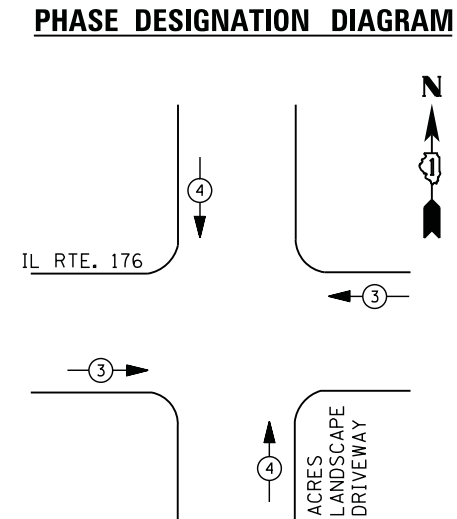
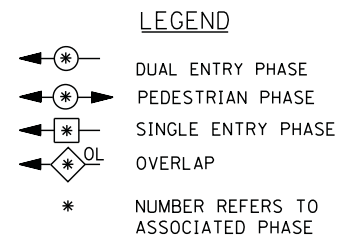
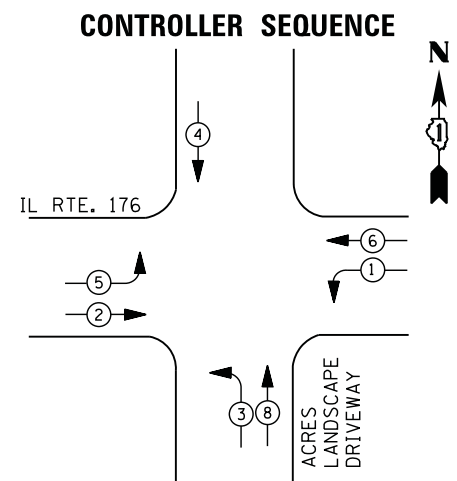
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1



CABLE PLAN

SCHEDULE OF QUANTITIES

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



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

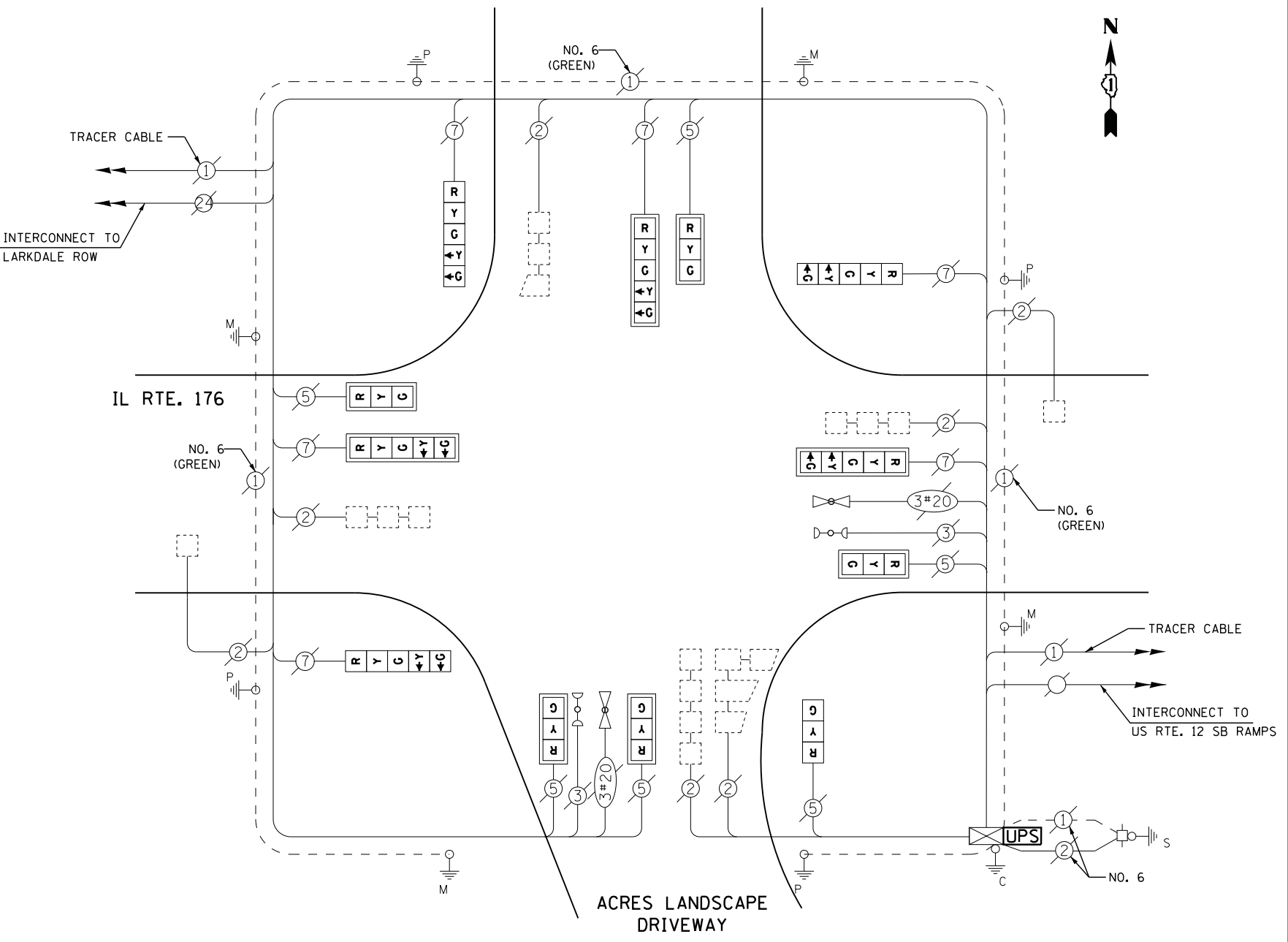
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	12	135	12	0.10	14
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					336

ENERGY COSTS- BILLED TO: VILLAGE OF WAUCONDA
 101 N. MAIN STREET
 WAUCONDA, IL 60084

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

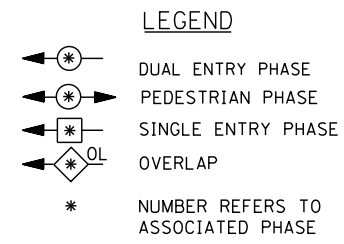
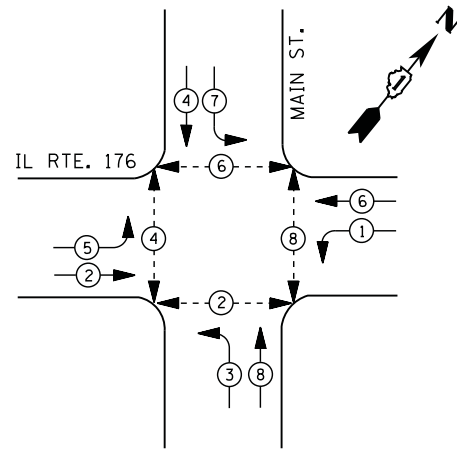
SCHEDULE OF QUANTITIES

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

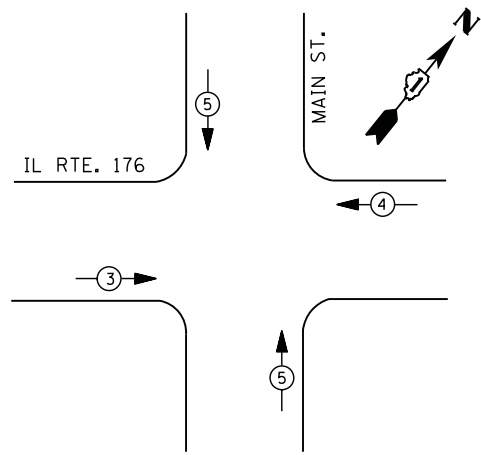


RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



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. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	150	1.00	--
FLASHER LED					

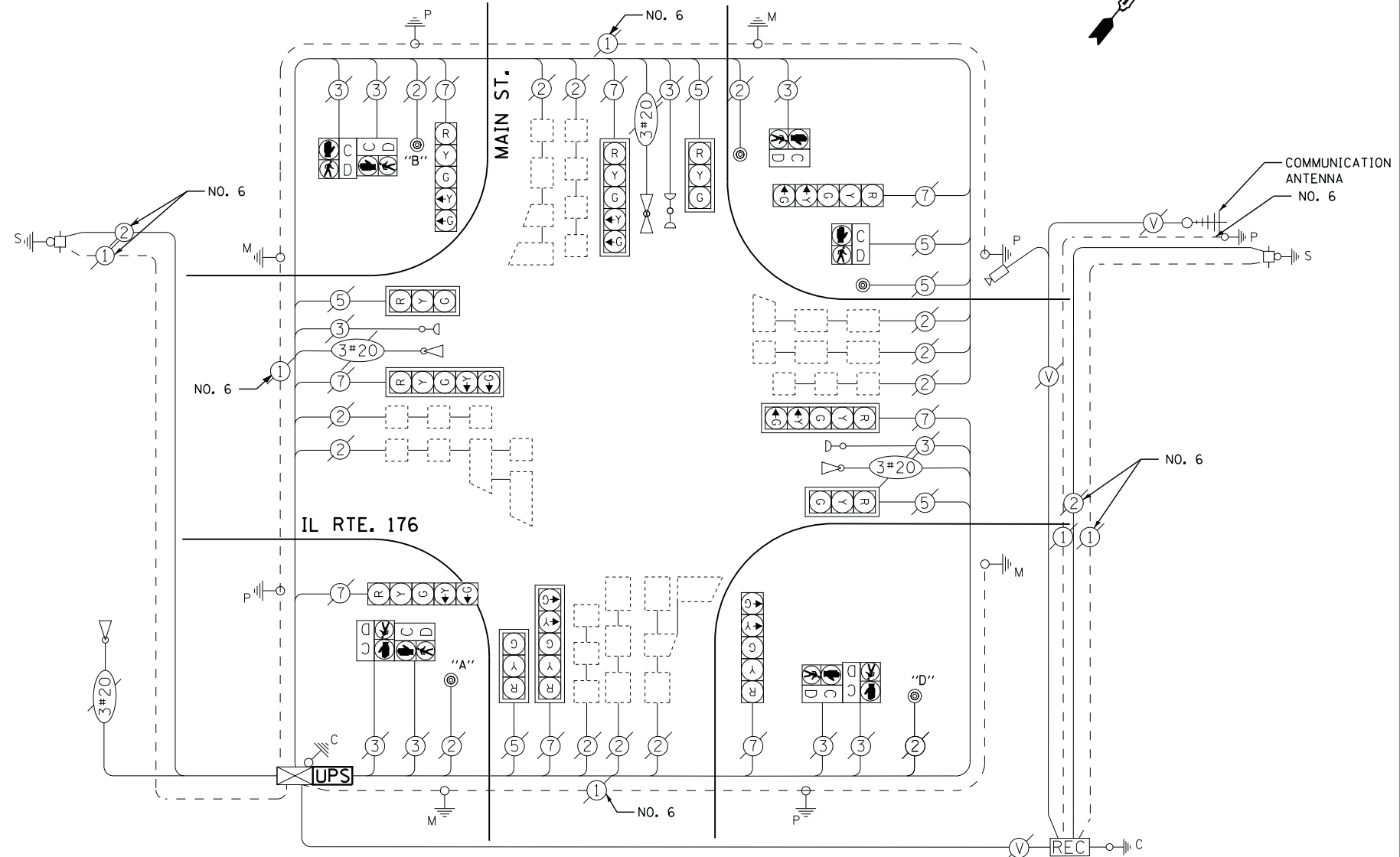
TOTAL = 541

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

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



CABLE PLAN

NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

FILE NAME = USER NAME = \$USER\$
 N:\Projects\3\12004\DesignCAD\Sheet Files\12-003 Sheets SW Lake Co\07150_CAB_LAKE.dgn
 PLOT SCALE = \$SCALE\$
 PLOT DATE = 8/23/2012

DESIGNED - DW
 DRAWN - JDH
 CHECKED - KMM
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

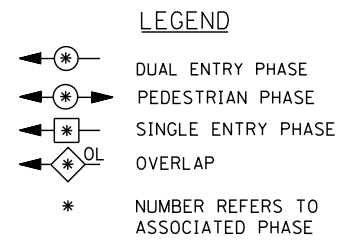
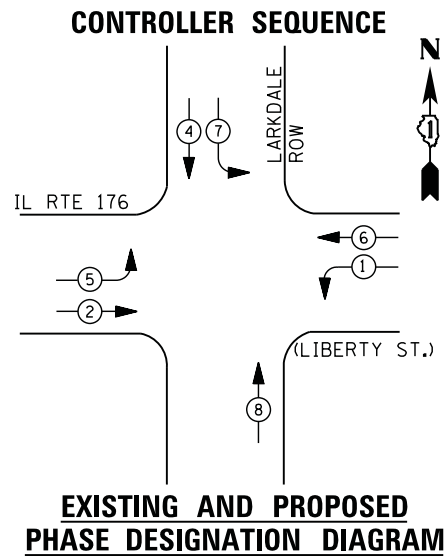
IL ROUTE 176 AT OLD RAND ROAD
 SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

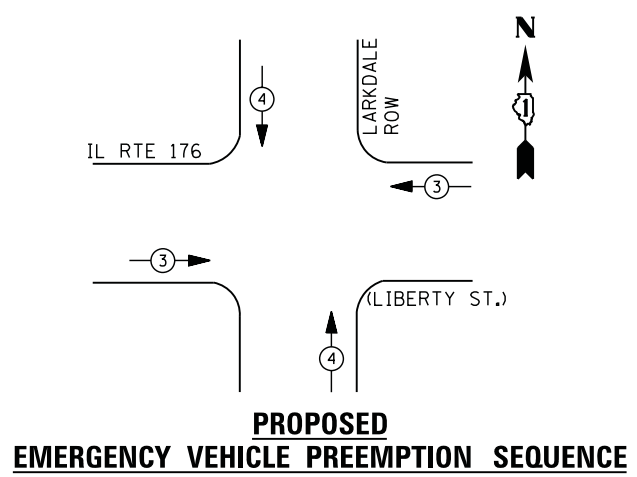
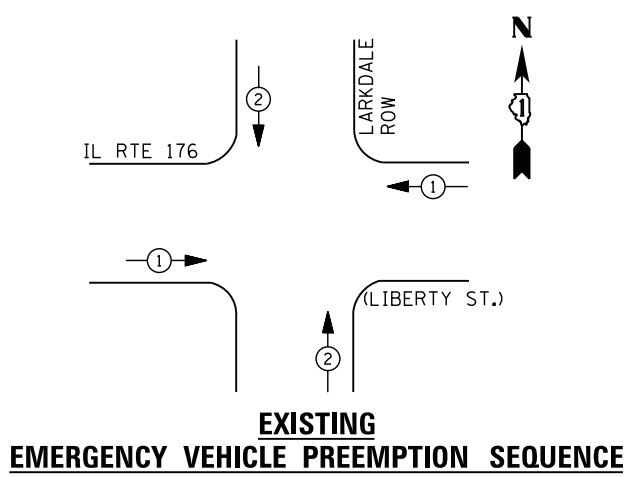
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-039TS	LAKE	84	83

CONTRACT NO. 60T84
 ILLINOIS FED. AID PROJECT

TS# 7150
 WAUCONDA



EXISTING FIBER OPTIC SPLICE BOX, POWER SUPPLIES, PTZ SURGE PROTECTORS, ALL NECESSARY WIRING/CABLES AND ANY ADDITIONAL LAKE COUNTY EQUIPMENT SHALL BE RELOCATED TO NEW CONTROLLER CABINET AS NECESSARY, OR AS DIRECTED BY THE ENGINEER IN ORDER TO MAINTAIN THE EXISTING INTERCONNECT SYSTEM. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FIBER OPTIC CABLE, SPLICES OR TERMINATIONS. REPAIR OF ANY DAMAGED EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL PAY ITEM.



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

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

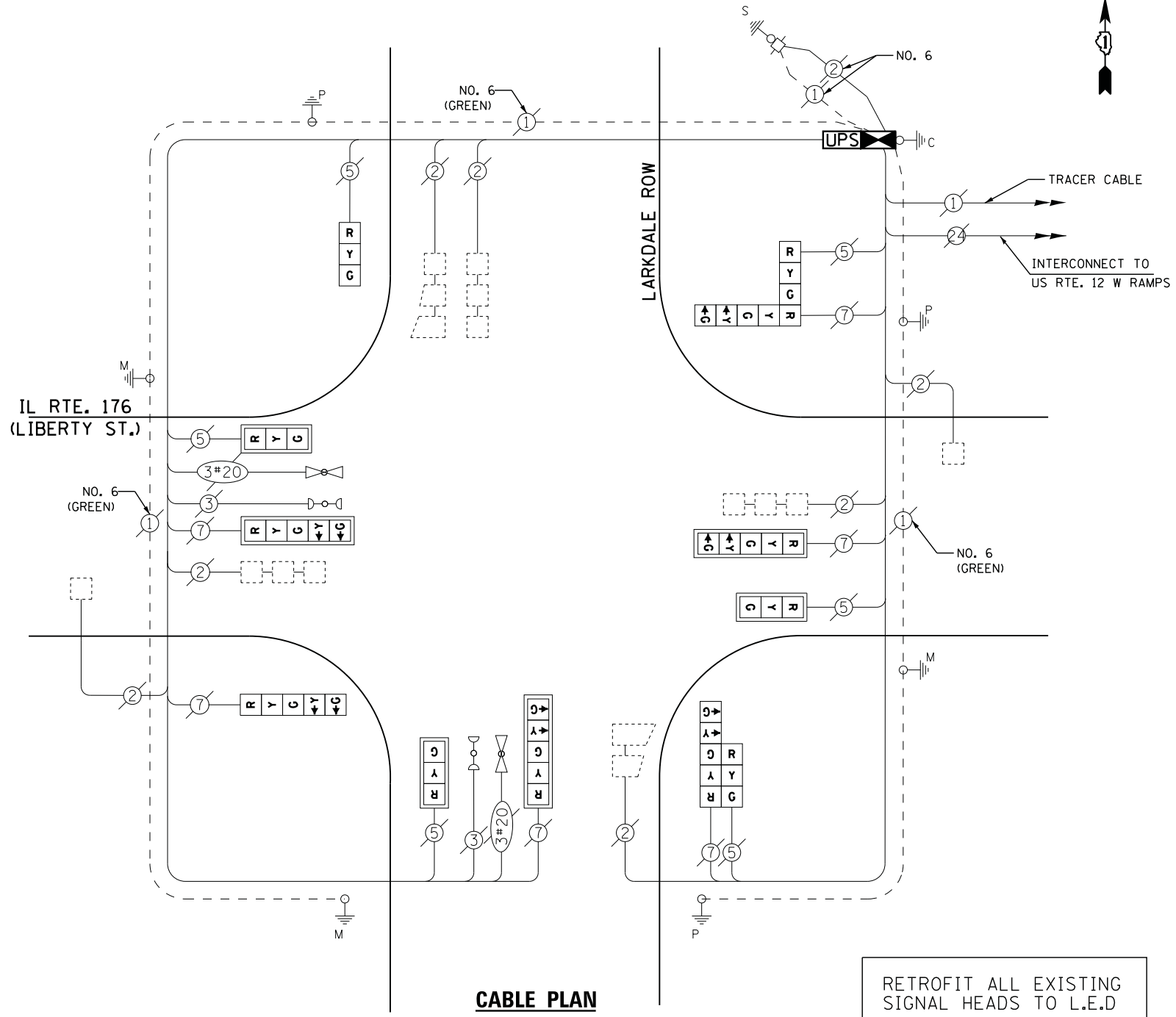
I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	12	135	12	0.10	14
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	--	252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
TOTAL =					336

ENERGY COSTS- BILLED TO: VILLAGE OF WAUCONDA
 101 N. MAIN STREET
 WAUCONDA, IL 60084

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
7	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
3	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, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
* 100% COST TO WAUCONDA		



RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D

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

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

1 EACH CONTROLLER AND CABINET (COMPLETE)

TS# 7152
 WAUCONDA