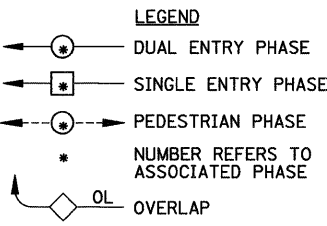
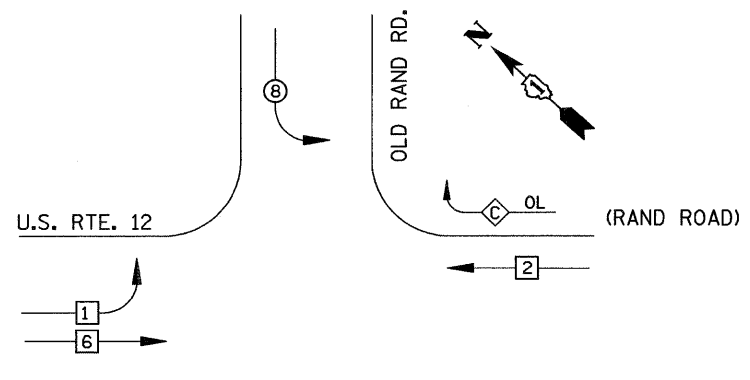


CONTROLLER SEQUENCE

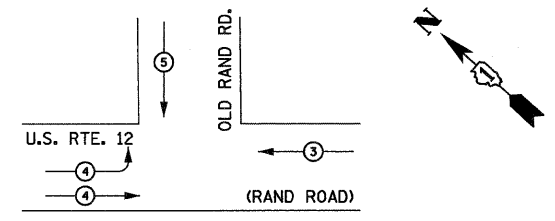


PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP DESIGNATION



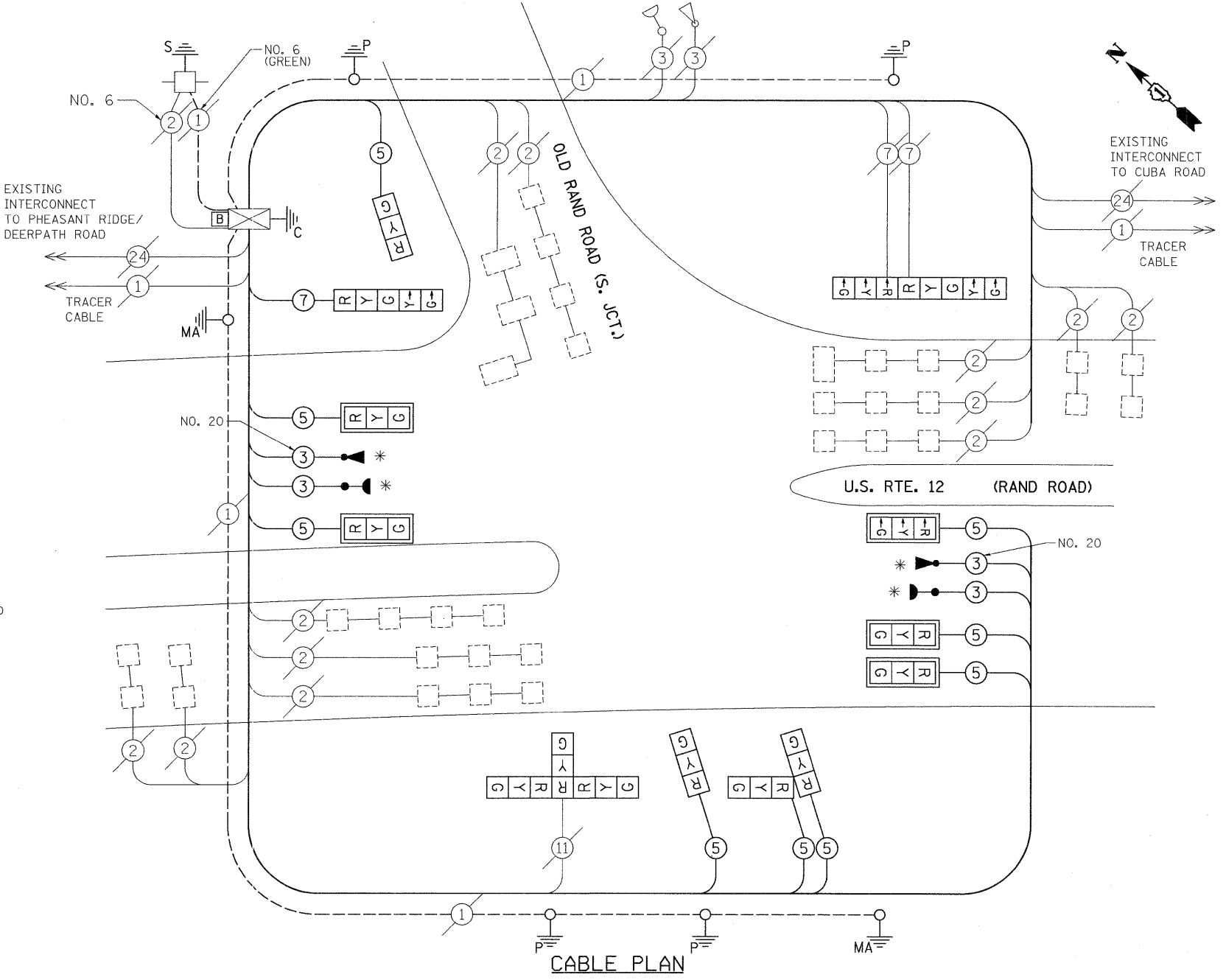
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←	→	↑

CABLE PLAN LEGEND

- | | | |
|----------|----------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSH-BUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | ② DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | ① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | ②④ FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD |
| | | "E" RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | P GROUND ROD AT POST (P), OR MAST ARM POLE (MA) |
| | | S GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | B UNINTERRUPTIBLE POWER SUPPLY |



SCHEDULE OF QUANTITIES

MOBILIZATION	L SUM	0.125
ENGINEERS FIELD OFFICE, TYPE A	CAL MO	0.5
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.125
SIGN PANEL, TYPE 1	SO FT	20
RELOCATE SIGN PANEL, TYPE 1	SO FT	18
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	125
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	125
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	418
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1944
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	58
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	30
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	EACH	3
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
* LIGHT DETECTOR	EACH	2
* LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1210
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SO FT	12.85
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II	EACH	1
* ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	FOOT	418
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
* 100% COST TO THE VILLAGE OF LAKE ZURICH		

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
SIGNAL (RED)	15	135	17	0.50	127.5
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	90	25		1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	382.3
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 W. CENTER COURT SCHAUMBURG, IL 60196					
ENERGY SUPPLY CONTACT:		DOTTIE PROSEN (847) 816-5323			
PHONE:		COMED			
COMPANY:					
FILE NAME =	USER NAME = JLA	DESIGNED - KK	REVISED -		
J:\MICROSTV\352056\ 22-OLD RAND CAB.DGN		DRAWN - JLA	REVISED -		
	PLOT SCALE = 1"=20'	CHECKED - BPT	REVISED -		
	PLOT DATE = 12-10-08	DATE - 12-10-08	REVISED -		

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.0 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20.0 (6.0)
E - M. ARM POLE		SIGNAL POST	0 (0.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	0 (0.0)	PED. PUSH-BUTTON	6 (2.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	13 (4.0)

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM U.S. ROUTE 12 (RAND ROAD) AT OLD RAND ROAD (S. JCT.)

PREPARED BY:
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-069 TS	LAKE	26	23
CONTRACT NO. 60F62				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				