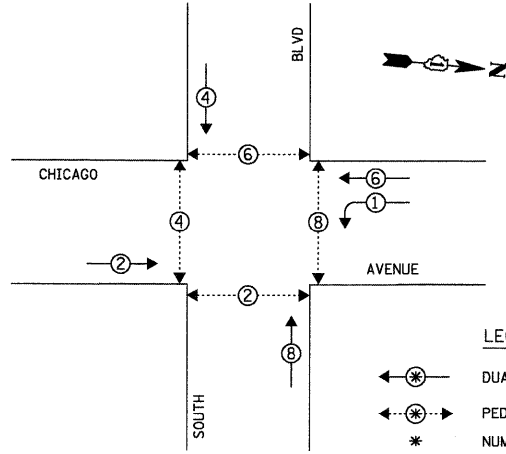


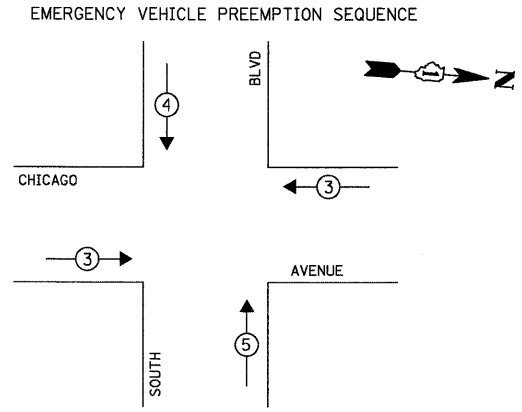
CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

**CONTROLLER SEQUENCE**



**LEGEND**  
 ←\*→ DUAL ENTRY PHASE  
 ←\*→ PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

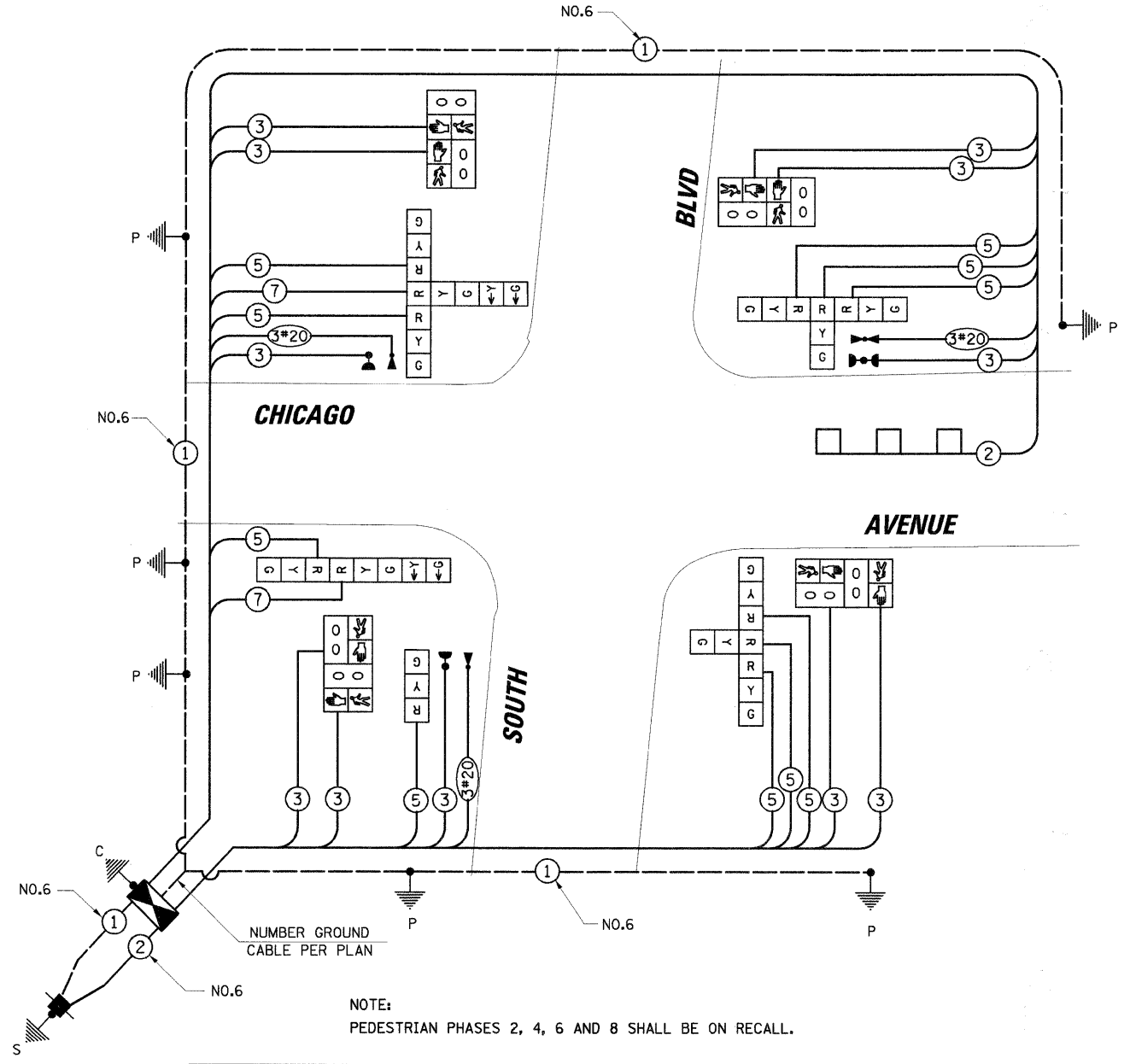
**PHASE DESIGNATION DIAGRAM**



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

**CABLE PLAN LEGEND**

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



**NOTE:**  
 PEDESTRIAN PHASES 2, 4, 6 AND 8 SHALL BE ON RECALL.

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

ITEM	UNIT	TOTAL
EXPLORATION TRENCH, SPECIAL	EACH	4
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	497
DETECTABLE WARNINGS	SQ FT	97
SIDEWALK REMOVAL	SQ FT	497
COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	117
SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SQ FT	180
SIGN PANEL - TYPE 1	SQ FT	3.75
THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS	SQ FT	72.8
THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	617
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	505
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	90
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	72.8
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	1034
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	27
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	33
HANDHOLE	FOOT	16
DOUBLE HANDHOLE	EACH	3
TRENCH AND BACKFILL FOR ELECTRICAL WORK	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE III CABINET, SPECIAL	FOOT	163
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1278
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1208
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	168
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PR	FOOT	166
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	25
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT	EACH	3
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE D	FOOT	4
SIGNAL HEAD, LED, 1-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	2
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	1
DETECTOR LOOP, TYPE I	FOOT	121
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C	FOOT	375
ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED	FOOT	360

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	12	17	0.50		102.00
(YELLOW)	12	25	0.25		75.00
(GREEN)	12	15	0.25		45.00
ARROW	4	12	0.10		4.80
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
FLASHER			0.50		

ENERGY COSTS TO: TOTAL = 526.80

**CITY OF EVANSTON**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201-2798

ENERGY SUPPLY: CONTACT: LARRY SHANK  
 PHONE: 847-816-5465  
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.