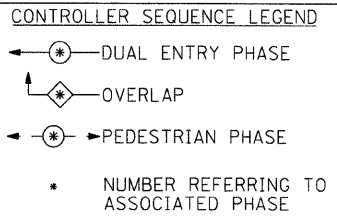
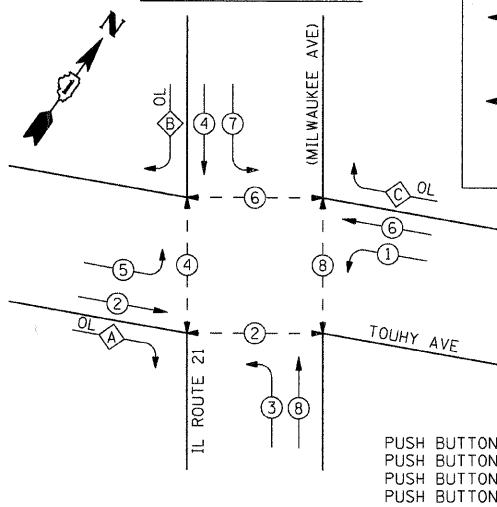


**EXISTING AND PROPOSED CONTROLLER SEQUENCE**

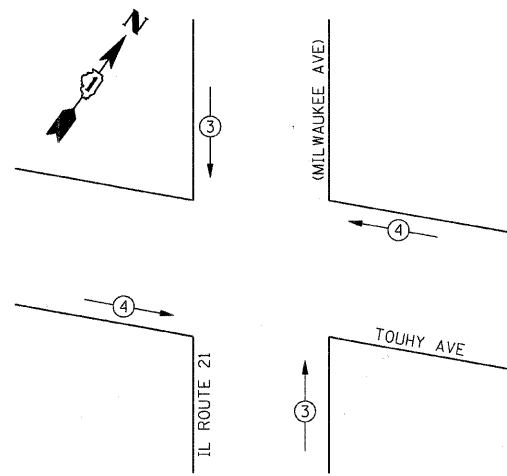


**PHASE DESIGNATION DIAGRAM**

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

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

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**EXISTING EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↑	→

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

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	17	0.50	136	
(YELLOW)	16	25	0.25	100	
(GREEN)	16	15	0.25	60	
ARROW (YELLOW)	14	12	0.10	16.8	
ARROW (GREEN)	14	12	0.10	16.8	
PEDESTRIAN SIGNAL	8	25	1.00	200	
CONTROLLER	1	100	1.00	100	
<b>TOTAL =</b>					<b>629.6</b>

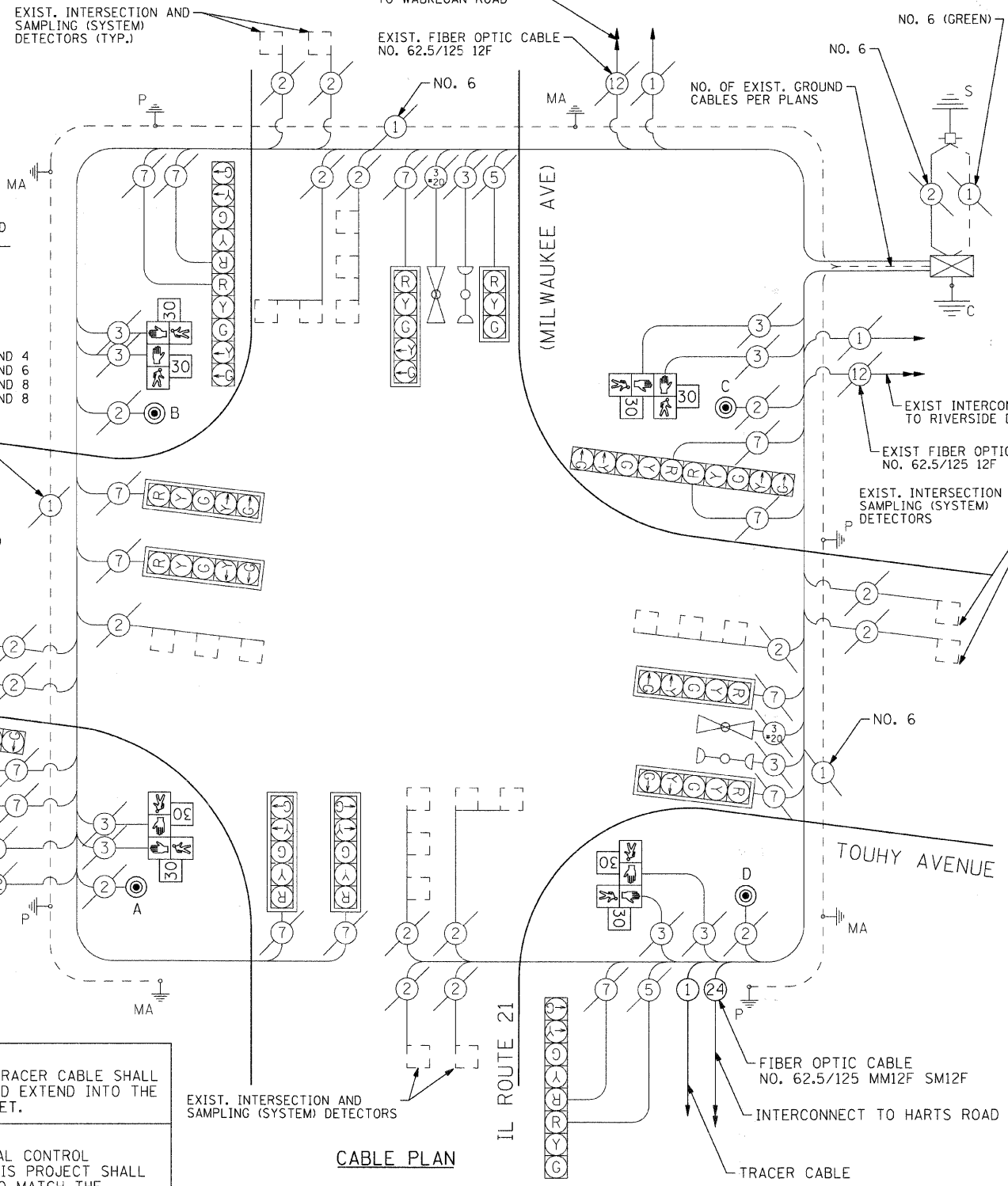
NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

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.A. LENGTH		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
<40'	30" (762mm)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<50'	36" (914mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
≥50'	36" (914mm)	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)

ENERGY COSTS TO: VILLAGE OF NILES  
 1000 CIVIC CENTER DRIVE  
 NILES IL 60714-3229

ENERGY SUPPLY CONTACT: MAUREEN RAYE  
 PHONE: (847) 816-5492  
 COMPANY: COMMONWEALTH EDISON



**CABLE PLAN LEGEND**

- | EXISTING | PROPOSED | DESCRIPTION   |
|----------|----------|---|
| (R)      | (R)      | 12" TRAFFIC SIGNAL SECTION  |
| (W)      | (W)      | 12" PEDESTRIAN SIGNAL SECTION   |
| (P)      | (P)      | 12" PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER  |
| (C)      | (C)      | CONTROLLER CABINET  |
| (S)      | (S)      | SERVICE INSTALLATION  |
| (T)      | (T)      | TELEPHONE INSTALLATION  |
| (V)      | (V)      | VEHICLE DETECTOR, INDUCTION LOOP  |
| (M)      | (M)      | MAGNETIC DETECTOR   |
| (E)      | (E)      | EMERGENCY VEHICLE LIGHT DETECTOR  |
| (B)      | (B)      | CONFIRMATION BEACON   |
| (D)      | (D)      | PUSHBUTTON DETECTOR   |
| (2)      | (2)      | DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| (1)      | (1)      | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |
| (24)     | (24)     | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F   |
| (R)      | (R)      | RAILROAD CONTROL CABINET  |
| (V)      | (V)      | VIDEO DETECTION CAMERA  |
| (R)      | (R)      | SIGNAL FACE WITH BACKPLATE  |
| (P)      | (P)      | "P" INDICATES PROGRAMMED HEAD   |
| (MA/P)   | (MA/P)   | GROUND ROD AT POST (P) OR MAST ARM POLE (MA)  |
| (H/C)    | (H/C)    | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)  |
| (S)      | (S)      | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
| (UPS)    | (UPS)    | UNINTERRUPTABLE POWER SUPPLY  |

**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH BUTTON	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1



USER NAME	DESIGNED	REVISION
char-ike	JJS	-
	JJS	-
	APS	-
	JJS	-

DATE	REVISION
12/16/08	-
	-
	-
	-

**VILLAGE OF NILES**

**CABLE PLAN AND PHASE DESIGNATION DIAGRAM**  
**MILWAUKEE AVE AT TOUHY AVE**

SCALE: NTS SHEET NO. 11 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3513	08-00107-00-PV	COOK	169	68
CONTRACT NO. M-8003(723)				