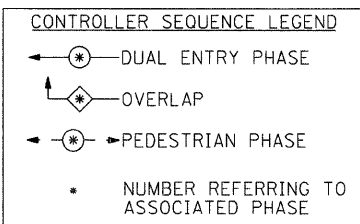
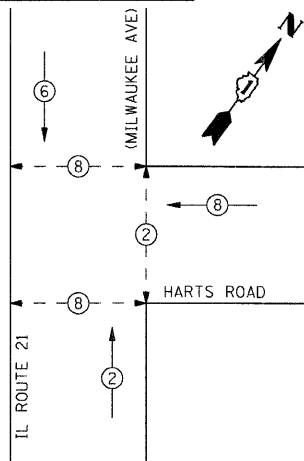


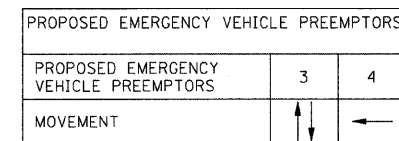
SCHEDULE OF QUANTITIES

CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	522
CONDUIT IN TRENCH, 2 1/2" DIA, GALVANIZED STEEL	FOOT	66
CONDUIT IN TRENCH, 3" DIA, GALVANIZED STEEL	FOOT	27
CONDUIT PUSHED, 2" DIA, GALVANIZED STEEL	FOOT	27
CONDUIT PUSHED, 2 1/2" DIA, GALVANIZED STEEL	FOOT	143
CONDUIT PUSHED, 4" DIA, GALVANIZED STEEL	FOOT	57
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	631
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2/C	FOOT	533
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3/C	FOOT	1,280
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5/C	FOOT	1,655
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,247
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	34
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED W/ COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED W/ COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	5
DETECTOR LOOP, TYPE 1	FOOT	327
LIGHT DETECTOR	EACH	3
PEDESTRIAN PUSH BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
REMOVE EXISTING HANDHOLE	EACH	6
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1/C	FOOT	956
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED SHIELDED	FOOT	492
PAINT NEW MAST ARM POLE, UNDER 40 FEET	EACH	3
PAINT NEW TRAFFIC SIGNAL POST	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,675
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

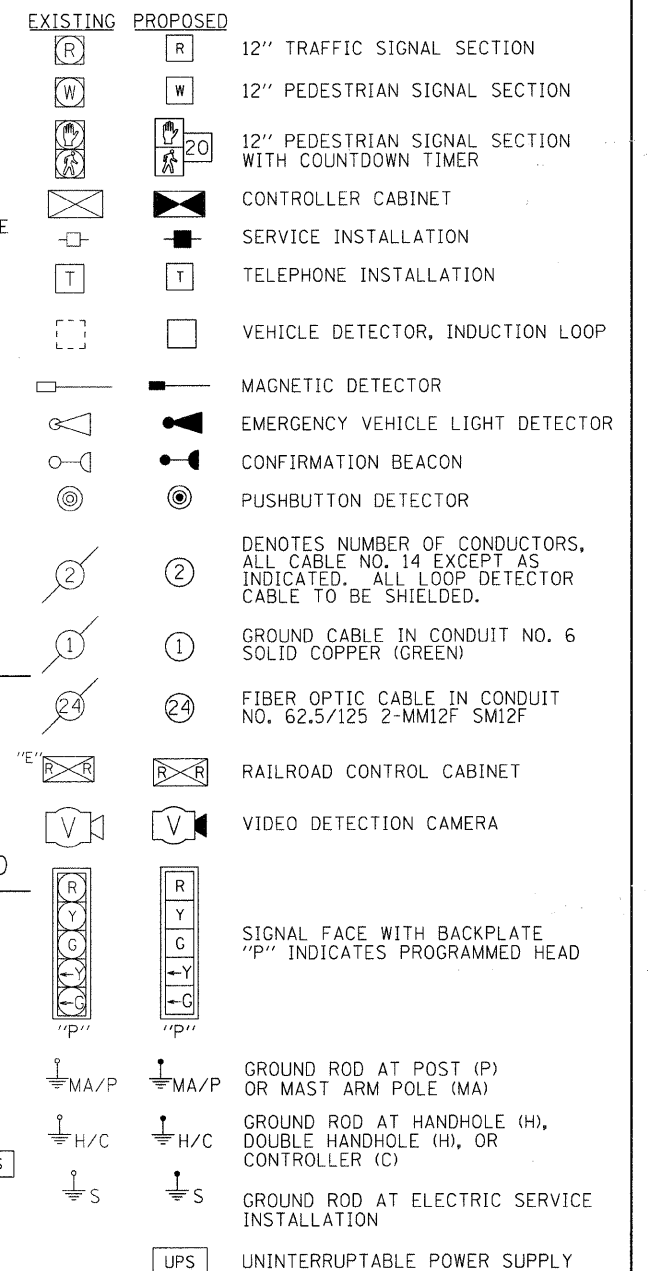
EXISTING AND PROPOSED CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN LEGEND



PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	9		17	0.50	76.5
(YELLOW)	9		25	0.25	56.25
(GREEN)	9		15	0.25	33.75
ARROW (YELLOW)	0		12	0.10	0
ARROW (GREEN)	0		12	0.10	0
PEDESTRIAN SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
TOTAL =					441.5

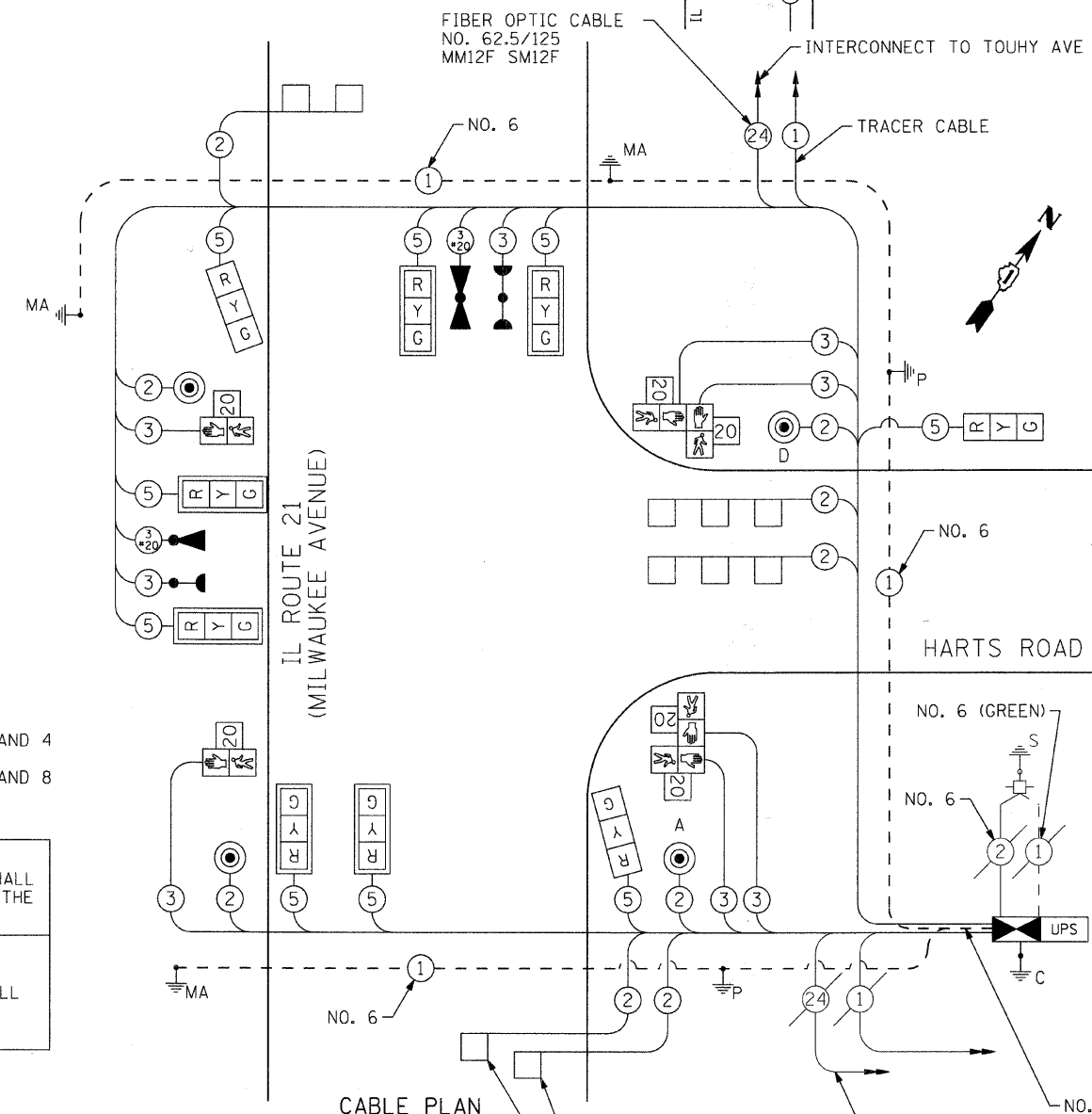
NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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)
C - 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)
<30'	30" (750mm)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<40'	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<50'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
>50'	36" (900mm)			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



USER NAME = char-ke	DESIGNED - JJS	REVISED -
PLDT SCALE = NTS	DRAWN - JJS	REVISED -
PLDT DATE = 12/22/2008	CHECKED - APS	REVISED -
	DATE - 12/16/08	REVISED -

VILLAGE OF NILES

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 MILWAUKEE AVE AT HARTS RD

SCALE: NTS SHEET NO. 9 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3513	08-00107-00-PV	COOK	169	66
CONTRACT NO.			M-80031(23)	