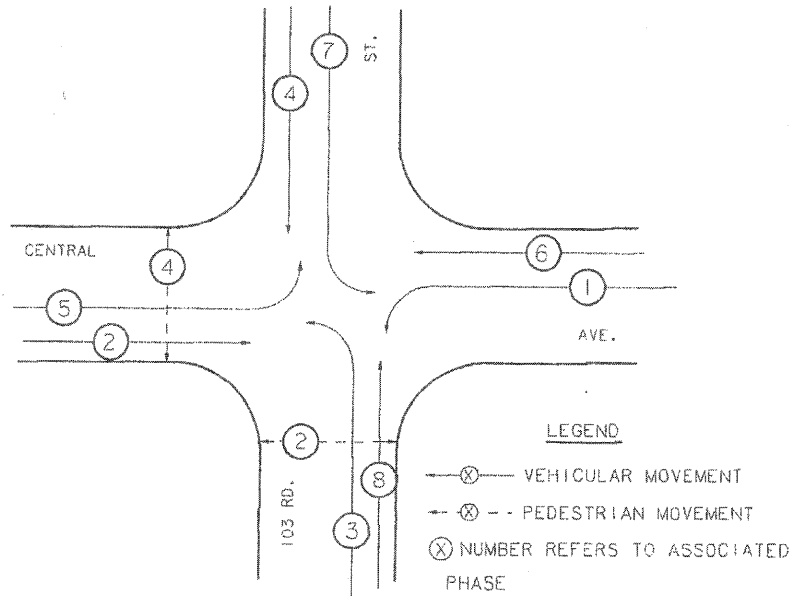


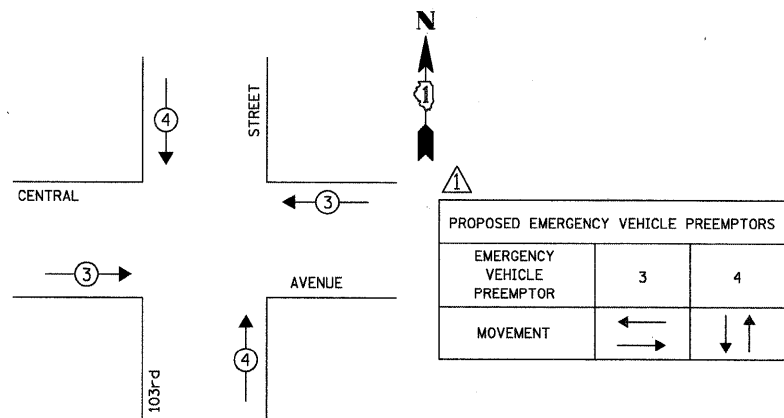
### CONTROLLER SEQUENCE IV

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW

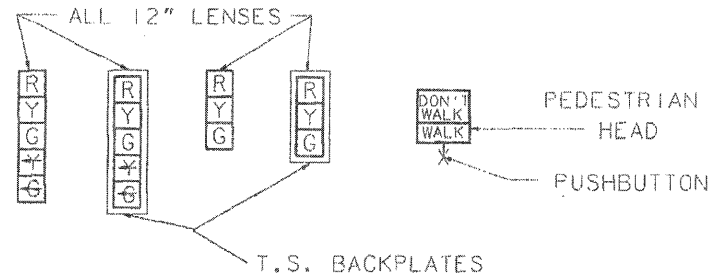


### PHASE DESIGNATION DIAGRAM

### EMERGENCY VEHICLE PREEMPTION SEQUENCE



### SIGNAL FACES

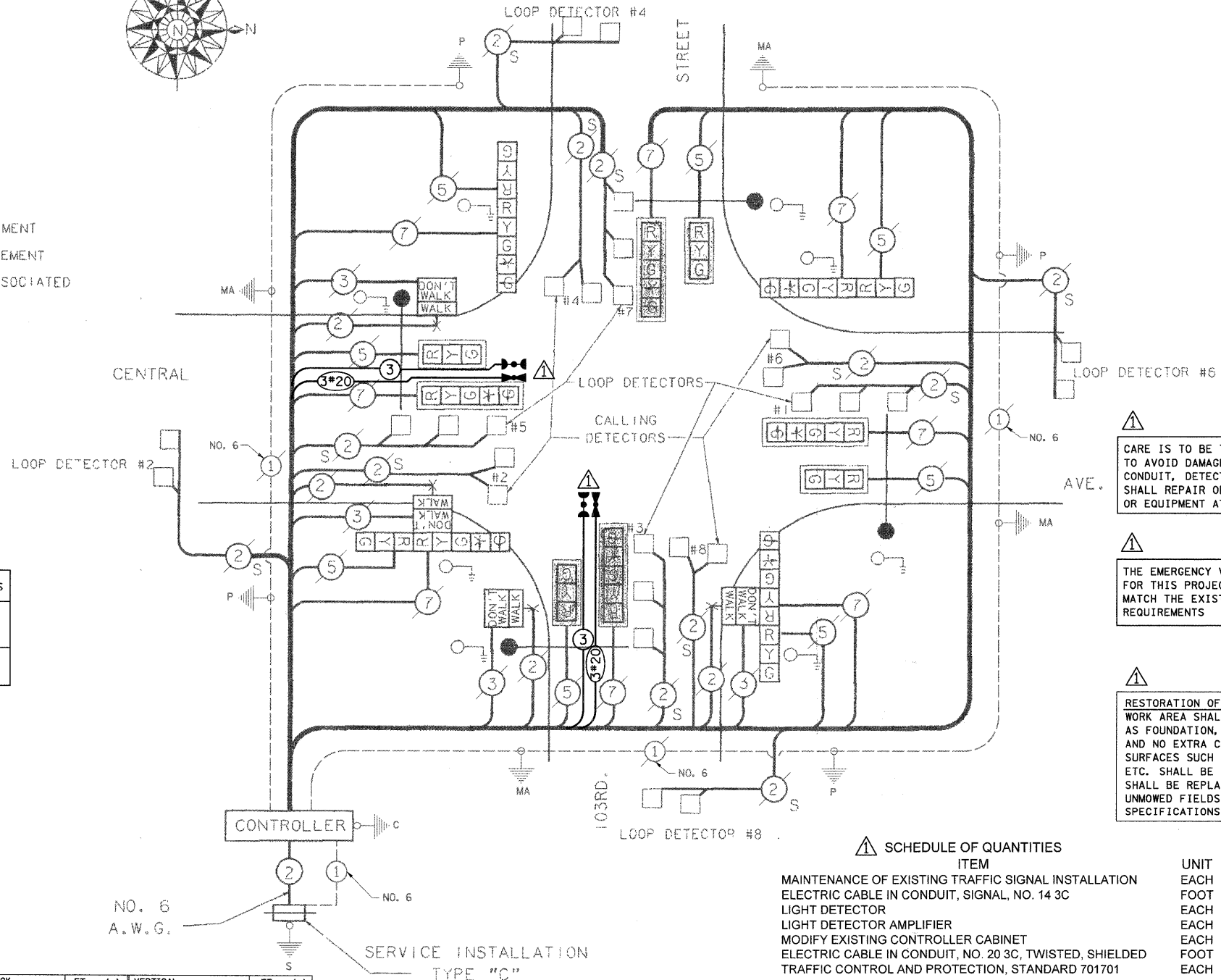


### SIGNAL LENSES

- R RED
- Y YELLOW
- G GREEN
- Y GREEN TURN INDICATOR
- G GREEN TURN INDICATOR

### CABLE PLAN LEGEND

- ⊠ 8" TRAFFIC SIGNAL SECTION
- ⊠ 12" TRAFFIC SIGNAL SECTION
- ⊠ CONTROLLER CABINET
- ⊠ VEHICLE DETECTOR, INDUCTION LOOP  
DENOTES NUMBER OF CONDUCTORS (NEW)  
ALL LOOP DETECTOR CABLE TO BE  
SHIELDED. ALL CABLE NO. 14 EXCEPT  
AS INDICATED
- ⊠ INDICATES EXISTING CABLE
- ⊠ MAGNETIC DETECTOR
- ⊠ OPTICAL DETECTOR
- ⊠ SIGNAL FACE WITH BACKPLATE  
\*P\* INDICATES PROGRAMMED
- ⊠ GROUNDING SYSTEM CONNECTION
- S SHIELDED & TWISTED
- ⊠ EXISTING TRAFFIC SIGNAL SECTION
- ⊠ EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON



CARE IS TO BE TAKEN BY THE CONTRACTOR TO AVOID DAMAGE TO THE EXISTING TRAFFIC SIGNAL CONDUIT, DETECTORS, AND EQUIPMENT. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED CONDUIT OR EQUIPMENT AT NO COST TO THE COUNTY OR VILLAGE.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

### SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	319
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED	FOOT	319
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

### CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	LED % OPERATION		
SIGNAL (RED)	16	135	0.50		1080.00
(YELLOW)	16	135	0.25		540.00
(GREEN)	16	135	0.25		540.00
ARROW	16	135	0.10		216.00
PED. SIGNAL	4	90	1.00		360.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	252	0.05		-
FLASHER				0.50	-
TOTAL =					2836.00

ENERGY COSTS TO: TOTAL = 2836.00

COOK COUNTY HIGHWAY DEPARTMENT  
69 WEST WASHINGTON ROOM 2139  
CHICAGO, ILLINOIS 60602-3134  
ENERGY SUPPLY CONTACT:  
PHONE:  
COMPANY:

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	20'4"-2"
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

COUNTY OF COOK  
DEPARTMENT OF HIGHWAYS

TRAFFIC SIGNAL INSTALLATION  
CENTRAL AVE AT 103RD. ST.

COMPUTED GAH  
DRAWN GAH  
CHECKED RL

APPROVED [Signature]  
10/21/10  
CHIEF ENGINEER OF REGION

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