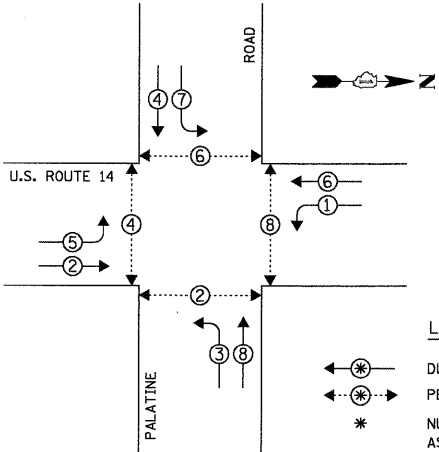


PROFILE SURVEYED BY DATE  
 PLAN SURVEYED BY DATE  
 I.D.O.T. PROJECT NO. DATE  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: MIKKI MULERO - WILLIAMS  
 PHONE: (630) 691-4721  
 COMPANY: COMED

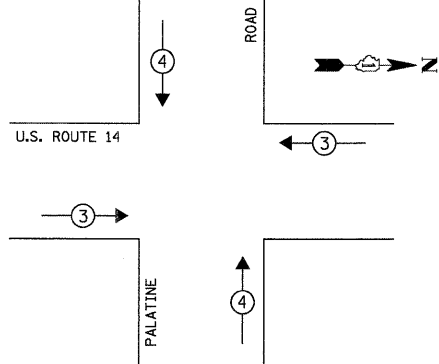
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 USER NAME = FPACIONE  
 DESIGNED - ABR  
 DRAWN - FPB / FCP  
 CHECKED - MJT  
 DATE - 1/22/2009  
 REVISIONS:  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	-	150	1.00	-
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 615.20

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
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 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)
C - CONTROLLER W/ UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
E - M. ARM POLE		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	6 (1.8)
	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
	42" (1050mm)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

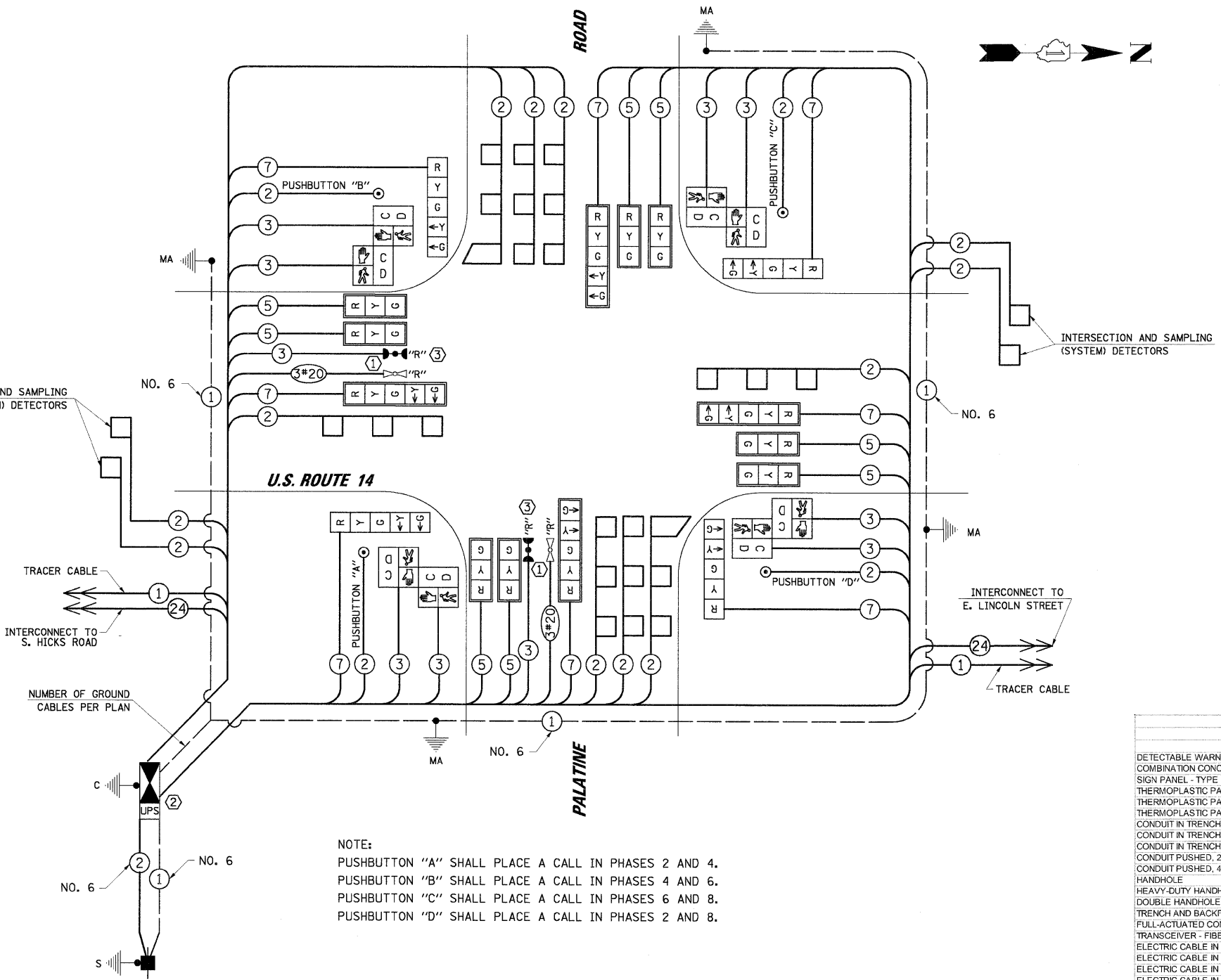
**CONSTRUCTION NOTES:**

- RELOCATE EXISTING LIGHT DETECTORS AND CONFIRMATION BEACON TO THE NEW MAST ARMS.
- RELOCATE EXISTING LIGHT DETECTOR AMPLIFIER TO NEW CONTROLLER CABINET.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH LED INDICATIONS. THIS WORK SHALL BE INCIDENTAL TO THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.

**NOTE:**

- PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

**CABLE PLAN**



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

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

**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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**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 WITH COUNTDOWN TIMER
  - CONTROLLER CABINET
  - SERVICE INSTALLATION
  - TELEPHONE INSTALLATION
  - VEHICLE DETECTOR, INDUCTION LOOP
  - MAGNETIC DETECTOR
  - EMERGENCY VEHICLE LIGHT DETECTOR
  - CONFIRMATION BEACON
  - PUSHBUTTON DETECTOR
  - 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
  - 1 GROUP 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.
  - RAILROAD CONTROL CABINET
  - ILLUMINATED SIGN "NO LEFT TURN"
  - ILLUMINATED SIGN "NO RIGHT TURN"
  - GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
  - GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
  - GROUND ROD AT ELECTRIC SERVICE INSTALLATION
  - UPS UNINTERRUPTIBLE POWER SUPPLY

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
DETECTABLE WARNINGS	SQ FT	106
COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	174
SIGN PANEL - TYPE 1	SQ FT	32
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	546
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	129
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	528
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	380
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	44
CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	435
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	330
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	494
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	541
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1431
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1396
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1330
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2555
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	83
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE 1	FOOT	892
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	12
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
BRICK PAVEMENT REMOVAL AND REPLACEMENT	SQ FT	1737
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	504
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	293

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
 U.S. ROUTE 14 AND PALATINE ROAD  
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.  
 F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 VAR. 2009-007-TS COOK 30 17  
 CONTRACT NO. 60G03  
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**