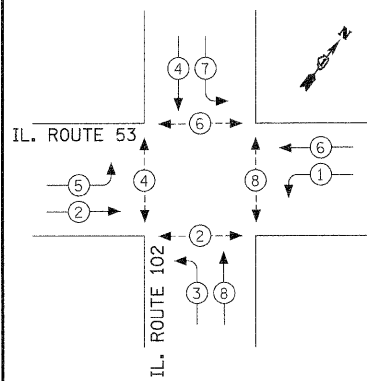


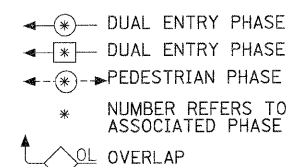
**CONTROLLER SEQUENCE**



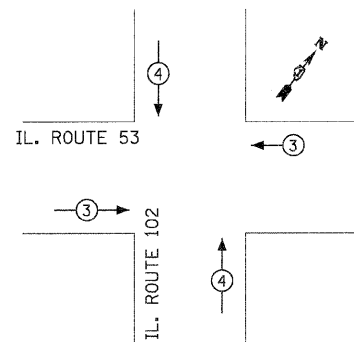
**PHASE DESIGNATION DIAGRAM**

DUAL ENTRY - ALL LEGS PROTECTED/ PERMITTED LEFT TURN PHASING

**LEGEND**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



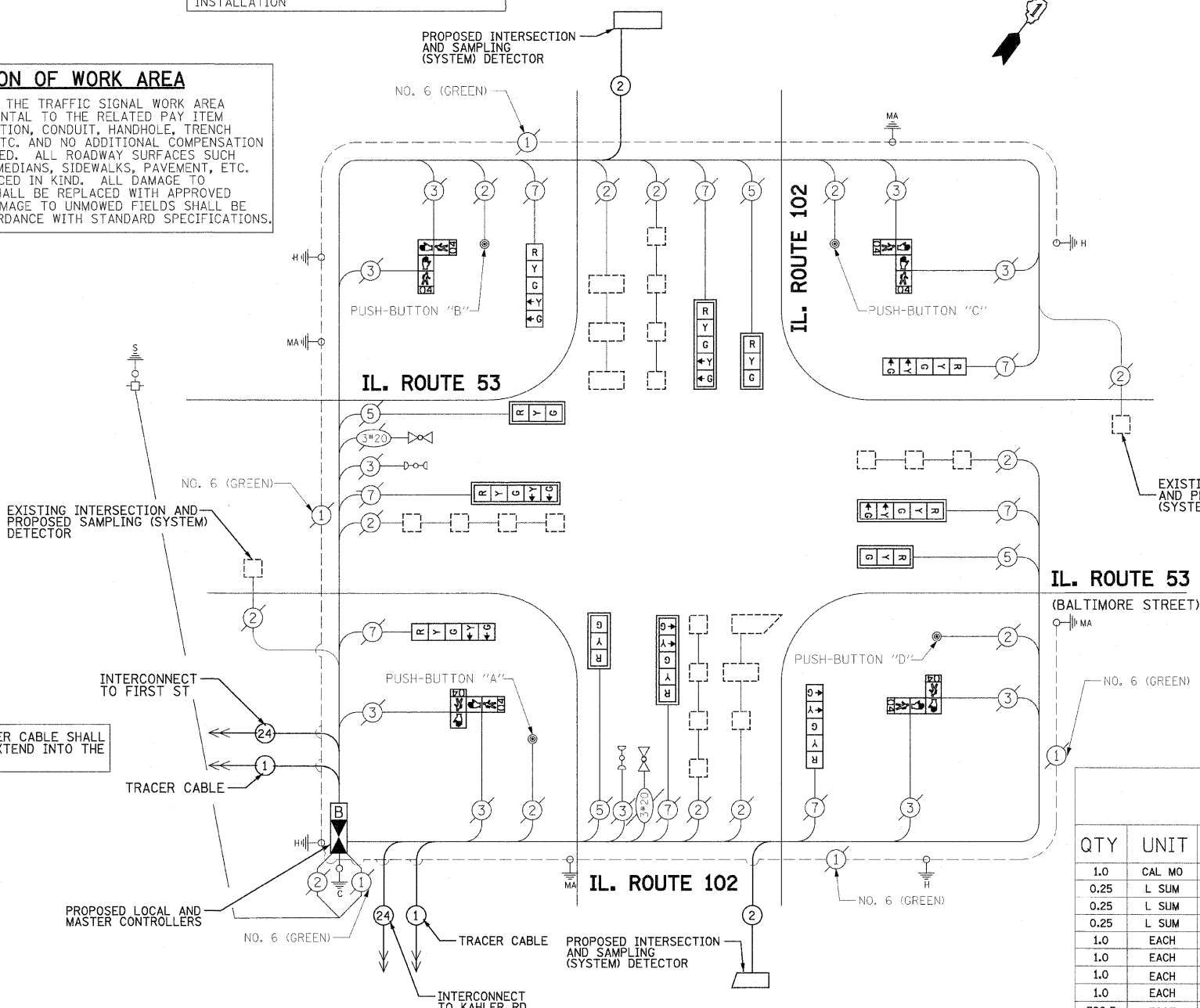
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN			35	0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	441.2

**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 ADDITIONAL 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 APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

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

**PROPOSED CABLE PLAN**



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

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

**NOTES:**  
 PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 & 4  
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 & 6  
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 & 8  
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 & 8

**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 CONNECTION
  - ☐ 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 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
  - ② FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 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
  - ☐ VIDEO VEHICLE SENSOR
  - Ⓢ UNINTERRUPTIBLE POWER SUPPLY

**SCHEDULE OF QUANTITIES**

QTY	UNIT	ITEM DESCRIPTION
1.0	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
0.25	L SUM	MOBILIZATION
0.25	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
0.25	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
1.0	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1.0	EACH	MASTER CONTROLLER (SPECIAL)
1.0	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, (SPECIAL)
1.0	EACH	TRANSCEIVER - FIBER OPTIC
790.5	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
4.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
4.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
4.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
110.0	SQ FT	DETECTABLE WARNINGS
4.0	EACH	DRILL EXISTING HANDHOLE
8.0	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10.0	EACH	INDUCTIVE LOOP DETECTOR
1.0	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1.0	EACH	UNINTERRUPTIBLE POWER SUPPLY
4.0	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
114.0	FOOT	THERMOPLASTIC PAVEMENT MARKING LINE 24"
444.0	FOOT	THERMOPLASTIC PAVEMENT MARKING LINE 6"
56.0	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
88.0	FOOT	DETECTOR LOOP, TYPE I
51.4	SQ FT	TEMPORARY INFORMATION SIGNING
53.4	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5-INCH