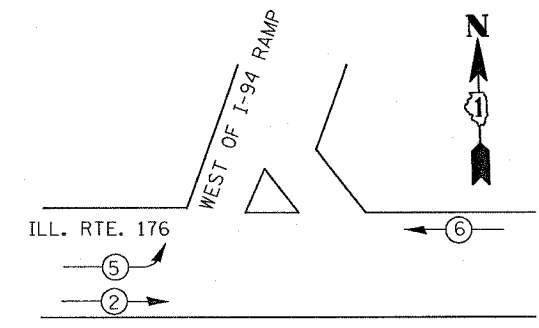


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA. 2004-125 TS	LAKE	18	12	
STA. TO STA.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62890				

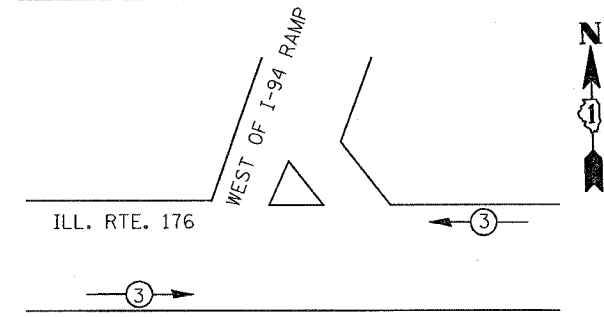
**CONTROLLER SEQUENCE**



**LEGEND**  
 ⊕ DUAL ENTRY PHASE  
 ⊕ PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



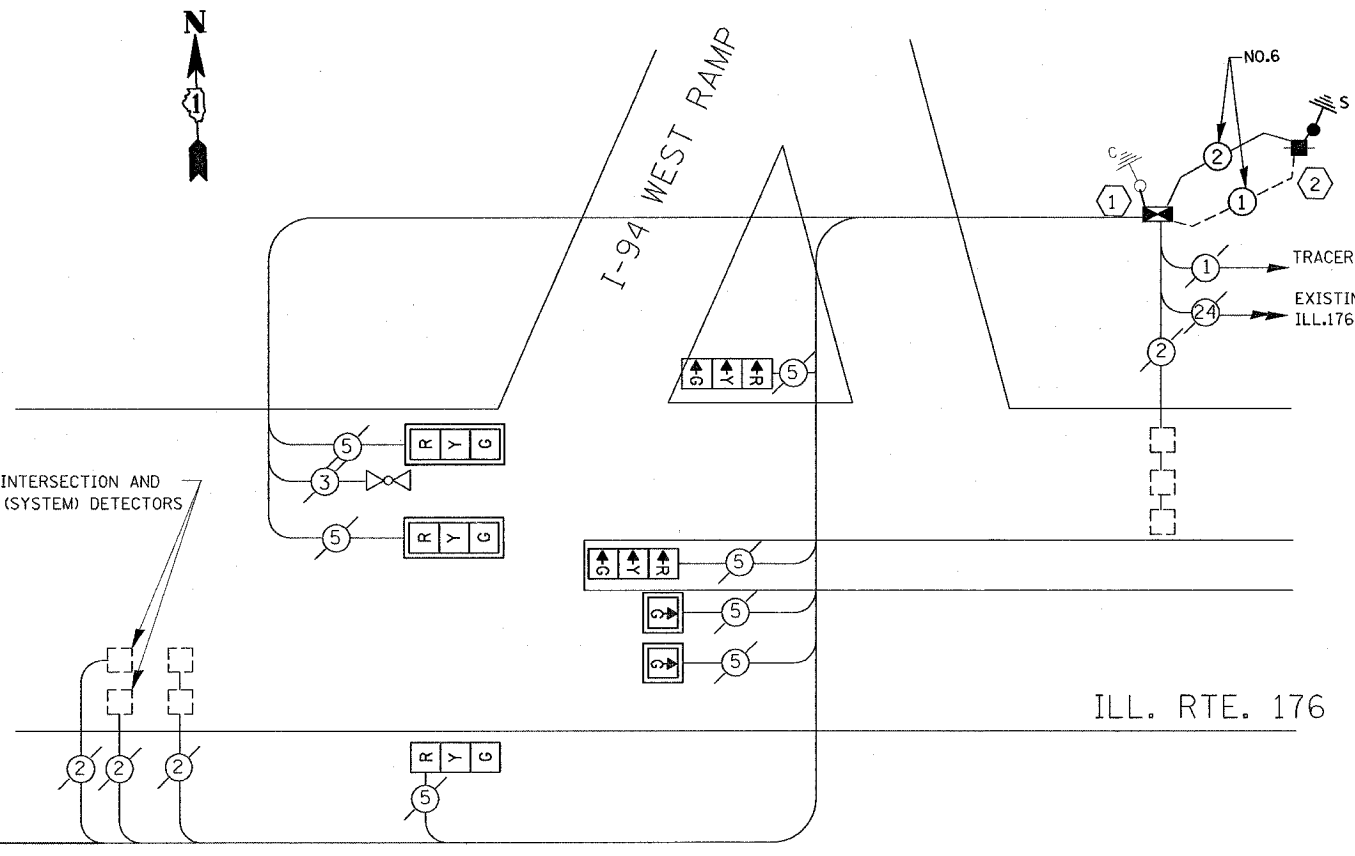
PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	← →

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

TRACER CABLE  
 PROPOSED INTERCONNECT TO ILL.176 @ ST. MARY'S ROAD

**CABLE PLAN**



**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   |
| ⊙        | ⊙        | CONTROLLER CABINET  |
| ⊙        | ⊙        | SERVICE INSTALLATION  |
| ⊙        | ⊙        | TELEPHONE CONNECTION  |
| ⊙        | ⊙        | VEHICLE DETECTOR, INDUCTION LOOP  |
| ⊙        | ⊙        | MAGNETIC DETECTOR   |
| ⊙        | ⊙        | EMERGENCY VEHICLE LIGHT DETECTOR  |
| ⊙        | ⊙        | CONFIRMATION BEACON   |
| ⊙        | ⊙        | PUSHBUTTON DETECTOR   |
| ⊙        | ⊙        | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| ⊙        | ⊙        | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |
| ⊙        | ⊙        | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F   |
| ⊙        | ⊙        | SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD   |
| ⊙        | ⊙        | RAILROAD CONTROL CABINET  |
| H/C      | C        | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).   |
| P        | P        | GROUND ROD AT POST (P), OR MAST ARM POLE (MA).  |
| S        | S        | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)
1	EACH	TRANSCEIVER-FIBER OPTIC
115	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO.6 2C
2	EACH	PEDESTRIAN PUSHBUTTON
125	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	SERVICE INSTALLATION, POLE MOUNT
115	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION MAST ARM MOUNTED
		FOUNDATION (DEPTH) FT. (m)
		CABLE SLACK FT. (m)
		VERTICAL FT. (m)
		TYPE A - POST 4 (1.2)
		D - CONTROLLER 4 (1.2)
		E - M. ARM POLE 2 (1.0)
		24" (600mm) 10 (3.0)
		30" (750mm) 15 (4.6)
		HANDHOLE 6.5 (2.0)
		DOUBLE HANDHOLE 13 (4.0)
		SIGNAL POST 2 (1.0)
		CONTROLLER CAB. 1 (0.5)
		FIBER OPTIC 13 (4.0)
		ELECTRIC SERVICE 1 (0.5)
		GROUND CABLE 1 (0.5)
		ALL FOUNDATIONS 3.5 (1.0)
		MAST ARM (L) POLE 20'H-2= (6m+L-0.6m)=
		BRACKET MOUNTED 13 (4.0)
		PED. PUSHBUTTON 4 (1.2)
		ELECTRIC SERVICE 13.5 (4.1)
		SERVICE TO GROUND 13.5 (4.1)
		POST MOUNTED 6 (1.8)

QUANTITY	UNIT	ITEM
3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 1-SECTION, MAST ARM MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4	EACH	INDUCTIVE LOOP DETECTORS

**CONSTRUCTION NOTES:**

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

NOTE: RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

NOTE: THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	3	135	17	0.50	26
(YELLOW)	3	135	25	0.25	19
(GREEN)	3	135	15	0.25	12
ARROW	8	135	12	0.10	10
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 167

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, ILLINOIS 60196-1096  
 CONTACT: PAUL CRUZ  
 PHONE: 847-816-5331  
 COMPANY: COMMONWEALTH EDISON

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES  
 ILL RTE 176 @ WEST OF I-94 RAMP  
 SCALE: VERT. NONE  
 HORIZ. DATE 01-05-2005  
 DRAWN BY: SM  
 DESIGNED BY: SM  
 CHECKED BY: DAD