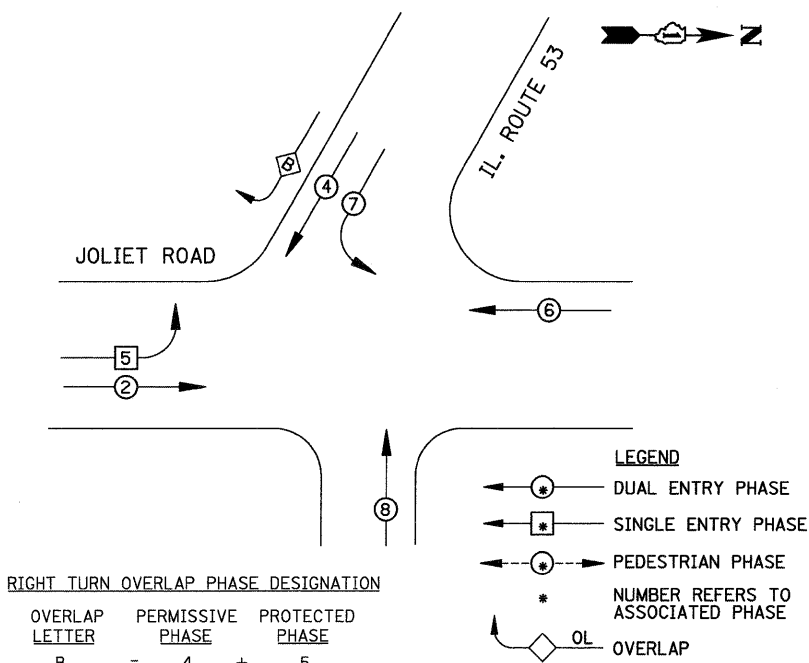
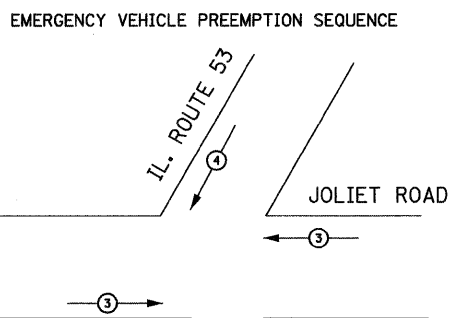


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

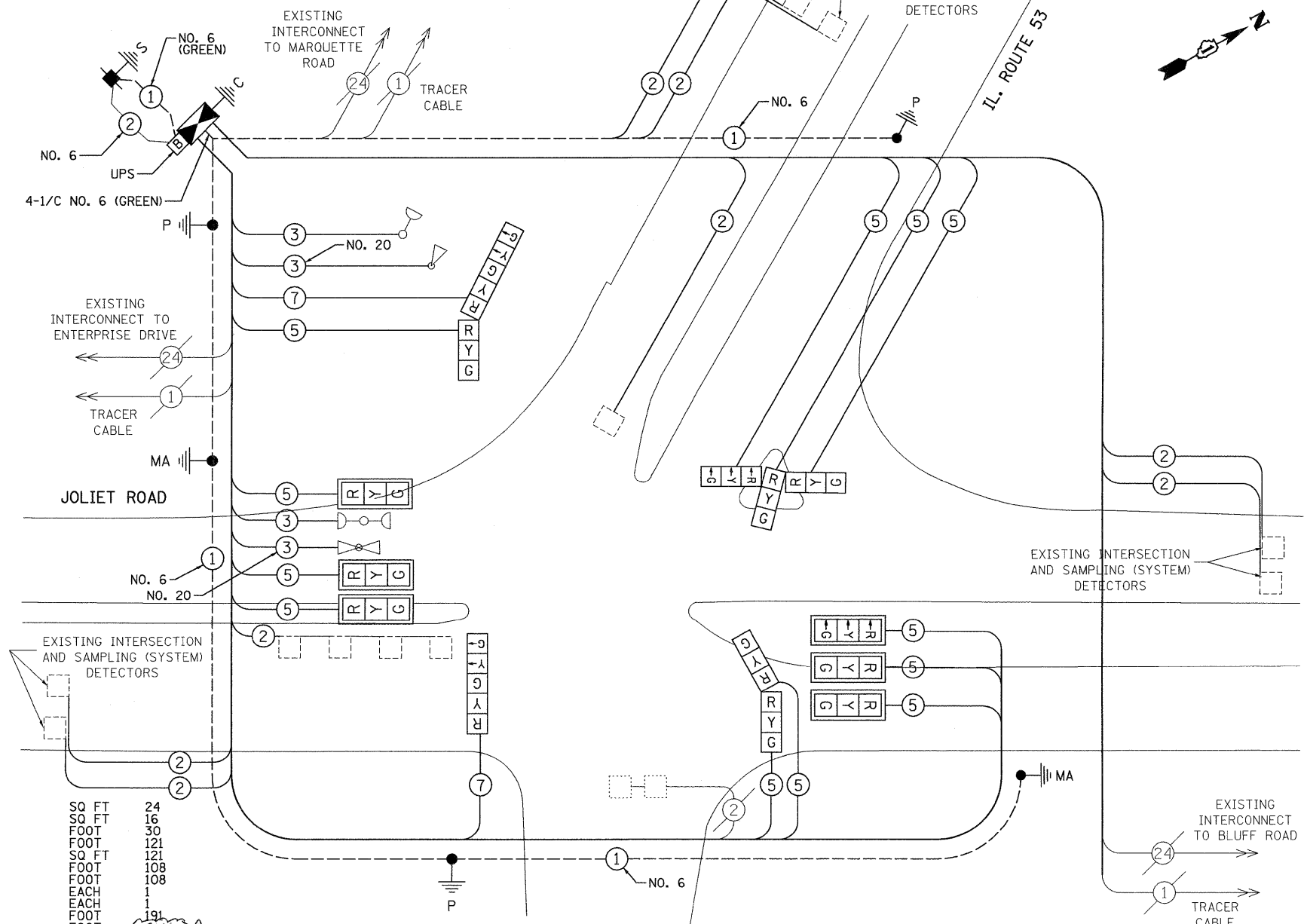
**CABLE PLAN LEGEND**

- |                 |   |
|-----------------|---|
| <b>EXISTING</b> | <b>PROPOSED</b>   |
| ⊗               | ⊗ 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  |
| ⊣               | ⊣ MAGNETIC DETECTOR   |
| ⊤               | ⊤ EMERGENCY VEHICLE LIGHT DETECTOR  |
| ⊥               | ⊥ CONFIRMATION BEACON   |
| ⊦               | ⊦ PUSH-BUTTON DETECTOR  |
| ⊧               | ⊧ VEHICLE DETECTOR, INDUCTION LOOP  |
| ②               | ② DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| ①               | ① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |
| ②④              | 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"  |
| H/C             | H/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   |
| Ⓡ               | Ⓡ UNINTERRUPTIBLE POWER SUPPLY  |

**SCHEDULE OF QUANTITIES**

SIGN PANEL, TYPE 1	24	SQ FT
RELOCATE SIGN PANEL, TYPE 1	16	SQ FT
TELESCOPING STEEL SIGN SUPPORT	30	FOOT
THERMOPLASTIC PAVEMENT MARKING, LINE-24"	121	FOOT
THERMOPLASTIC PAVEMENT MARKING REMOVAL	121	FOOT
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	108	FOOT
TRENCH AND BACKFILL FOR ELECTRICAL WORK	108	FOOT
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1	EACH
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	1	EACH
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	191	FOOT
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	216	FOOT
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	51	FOOT
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	909	FOOT
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	1	EACH
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	1	EACH
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	1	EACH
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	1	EACH
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	1	EACH
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	1	EACH
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT.	1	EACH
CONCRETE FOUNDATION, TYPE A	4	FOOT
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	30	FOOT
DRILL EXISTING HANDHOLE	2	EACH
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	6	EACH
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	1	EACH
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	1	EACH
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	1	EACH
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	1	EACH
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	6	EACH
REMOVE ELECTRIC CABLE FROM CONDUIT	3730	FOOT
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	1	EACH
REMOVE EXISTING CONCRETE FOUNDATION	5	EACH
SERVICE INSTALLATION, POLE MOUNT	1	EACH
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	666	FOOT
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	191	FOOT
UNINTERRUPTIBLE POWER SUPPLY	1	EACH
REBUILD EXISTING HANDHOLE	1	EACH

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.0 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20.0 (6.0)
E - M. ARM POLE		SIGNAL POST	0 (0.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	0 (0.0)	PED. PUSH-BUTTON	6 (2.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	13 (4.0)



**CABLE PLAN**

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	WATTAGE LED	XOPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	

ENERGY COSTS TO: VILLAGE OF ROMEOVILLE, 13 MONTROSE DRIVE, ROMEOVILLE, IL 60446

ENERGY SUPPLY CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_ COMPANY: \_\_\_\_\_

FILE NAME = \MICROST\352072\RT53 @JOLIET CAB.DGN	USER NAME = RDS	DESIGNED - KK	REVISED -
PLOT SCALE = 1"=20'		DRAWN - RDS	REVISED -
PLOT DATE = 03-18-09		CHECKED - BPT	REVISED -
		DATE - 03-18-09	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM IL ROUTE 53 AT JOLIET ROAD**

SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.
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PREPARED BY: **CEMCON, Ltd.**  
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 Aurora, Illinois 60504-9675  
 Ph: 630.862.2100 Fax: 630.862.2199  
 E-Mail: oadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2009-039 TS	WILL	20	18

CONTRACT NO. 60G44  
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT