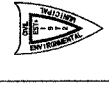


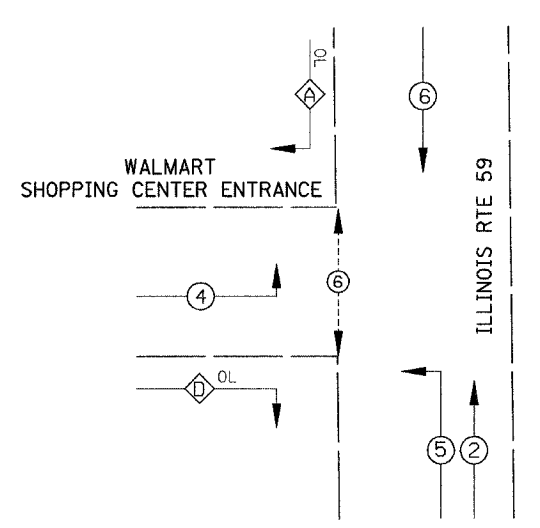
PREPARED BY:  
**CEMCON, Ltd.**  
 Consulting Engineers, Land Surveyors & Planners  
 2280 White Oak Circle, Suite 100  
 Naperville, IL 60563-2100 Fax: 630-682-2199  
 E-Mail: cead@cemcon.com Website: www.cemcon.com



**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  |
|          |          |             | MAGNETIC DETECTOR   |
|          |          |             | EMERGENCY VEHICLE LIGHT DETECTOR  |
|          |          |             | CONFIRMATION BEACON   |
|          |          |             | PUSH-BUTTON DETECTOR  |
|          |          |             | VEHICLE DETECTOR, INDUCTION LOOP  |
|          |          | 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)  |
|          |          | 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         | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)  |
|          |          | P           | GROUND ROD AT POST (P), OR MAST ARM POLE (MA)   |
|          |          | S           | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
|          |          | B           | UNINTERRUPTIBLE POWER SUPPLY  |
|          |          | P           | PREFORMED VEHICLE DETECTOR, INDUCTION LOOP  |

**CONTROLLER SEQUENCE**



**PROPOSED PHASE DESIGNATION DIAGRAM**

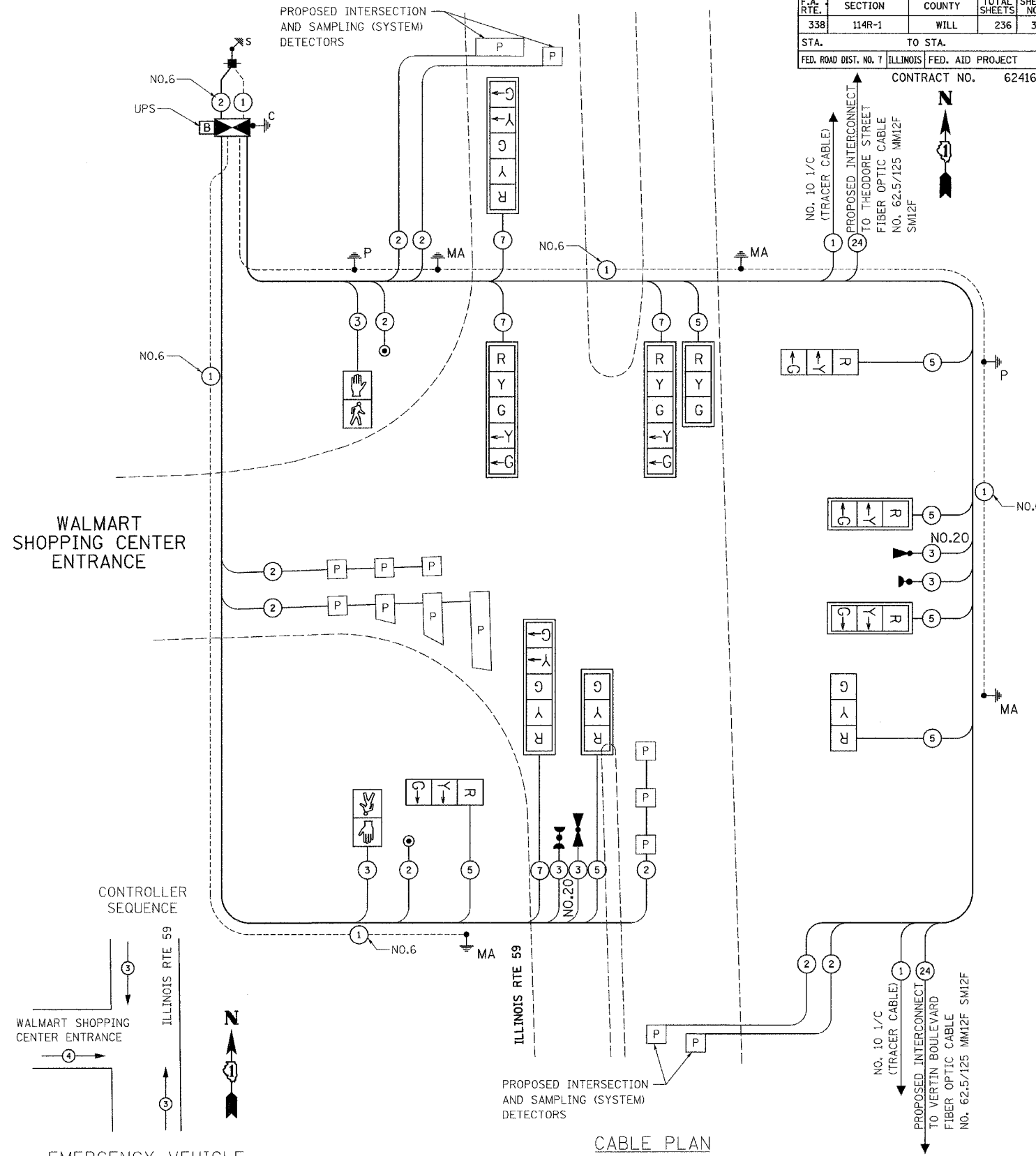
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 6	+ 4
D	= 4	+ 5

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
SIGN PANEL, TYPE 1	SQ FT	7.5
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	651
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	188
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	52
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	223
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	870
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	224
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	745
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1596
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	552
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1968
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	24
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	7
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
PREFORMED DETECTOR LOOP	FOOT	629
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1C	FOOT	498
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	FOOT	511
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

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	4 (1.2)	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)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION	
SIGNAL (RED)	10	135 17	0.50	85
(YELLOW)	9	135 25	0.25	56.25
(GREEN)	9	135 15	0.25	33.75
ARROW	12	135 12	0.25	36
PED. SIGNAL	2	90 25	1.00	50
CONTROLLER	1	100 100	1.00	100
ILL. UM. SIGN		84	0.05	
FLASHER			0.50	
ENERGY COSTS TO:				
ILLINOIS DEPARTMENT OF TRANSPORTATION				
201 W. CENTER COURT				
SCHAUMBURG, IL 60196-1096				
CONTACT: JUDY MILLER				
PHONE: (815)724-5717				
COMPANY: Commonwealth Edison				
TOTAL =				361.0



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↑	⇄

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	114R-1	WILL	236	355
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
			CONTRACT NO.	62416

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES**  
**ILLINOIS RTE 59**  
**AT WALMART SHOPPING CENTER ENTRANCE**  
 SCALE: VERT. NONE  
 HORIZ. NONE  
 DATE 3/17/2008  
 DRAWN BY RDS  
 DESIGNED BY BPT  
 CHECKED BY BPT

PLOT DATE = 3/17/2008  
 PLOT SCALE = 1"=20'  
 USER NAME = RDS