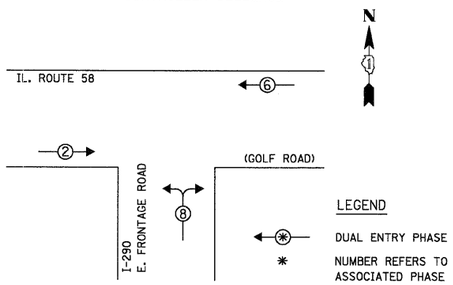
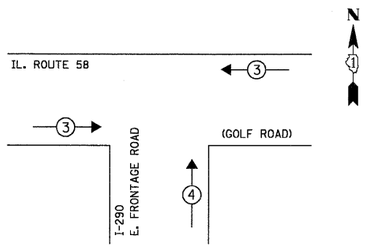
CONTROLLER SEQUENCE

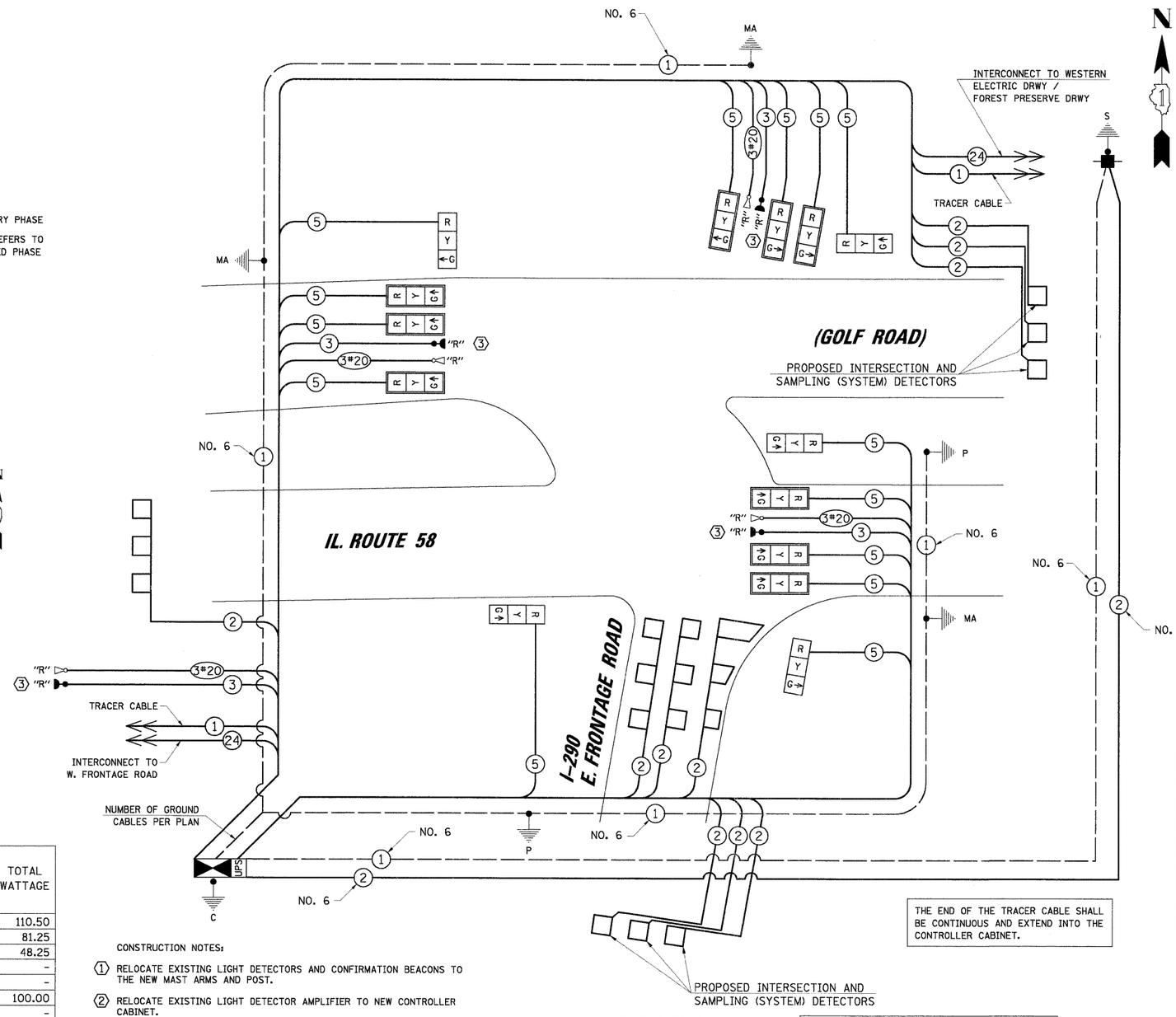


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



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

CABLE PLAN

CONSTRUCTION NOTES:

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

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 SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN LEGEND

EXISTING	PROPOSED	
C	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
	C D	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
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
R Y G ←Y ←G "P"	R Y G ←Y ←G "P"	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.
	R R	RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
"E"		ILLUMINATED SIGN "NO RIGHT TURN"
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
	UPS	UNINTERRUPTIBLE POWER SUPPLY
	"R"	RELOCATED

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	WATTAGE LED	x % OPERATION	
SIGNAL (RED)	13		17	0.50	110.50
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.25
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
FLASHER				0.50	-
ENERGY COSTS TO:				TOTAL =	340.00

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= (6m+L-0.6m)=	
D - CONTROLLER	4	(1.2)	SIGNAL POST	2	(1.0)			
E - M. ARM POLE			CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
30" (750mm)	15	(4.6)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	6	(1.8)
36" (900mm)	15	(4.6)	ELECTRIC SERVICE	1	(0.5)	ELECTRIC SERVICE	13.5	(4.1)
42" (1050mm)	25	(7.6)	GROUND CABLE	1	(0.5)	SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 2	SQ FT	12.5
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	808
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	43
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	137
CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	444
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	238
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1096
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1087
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2776
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2698
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	372
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9
INDUCTIVE LOOP DETECTOR	EACH	9
DETECTOR LOOP, TYPE I	FOOT	522
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	4
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	873
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	1087

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: MARK GLOECKLE
PHONE: (630) 691-4529
COMPANY: COMED

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFILE | PLAN
NOTE BOOK NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | GRADES CHECKED | R.O.W. MAP CHECKED | STRUCTURE NOTATIONS CHKD | ROAD FILE MAKE
BY | DATE

N:\Jobs\0808248\Task 5- EE Northwest Cook Sa'ety\Task W - IL58 @ I-290 E Frontage\CAB_IL58 @ I-290E.dgn

FILE NAME = ...\CAB_IL58 @ I-290E.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
		DRAWN - FPB / FCP	REVISED -
	PLOT SCALE = N.T.S.	CHECKED - MJT	REVISED -
	PLOT DATE = 1/26/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL ROUTE 58 (GOLF ROAD) AND I-290 E. FRONTAGE ROAD

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2009-008-TS	COOK	41	30
		CONTRACT NO. 60G04		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		