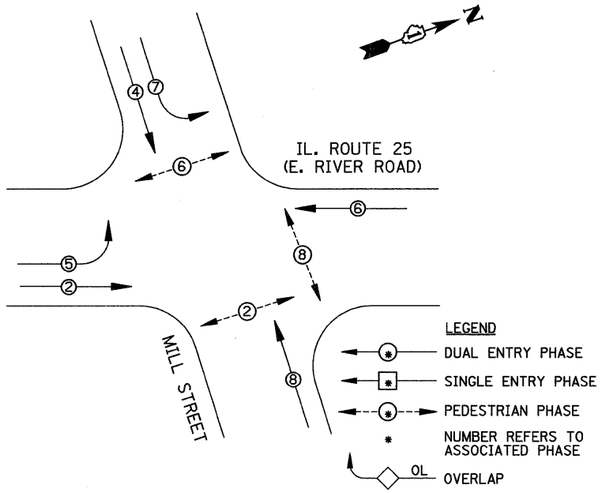
CONTROLLER SEQUENCE

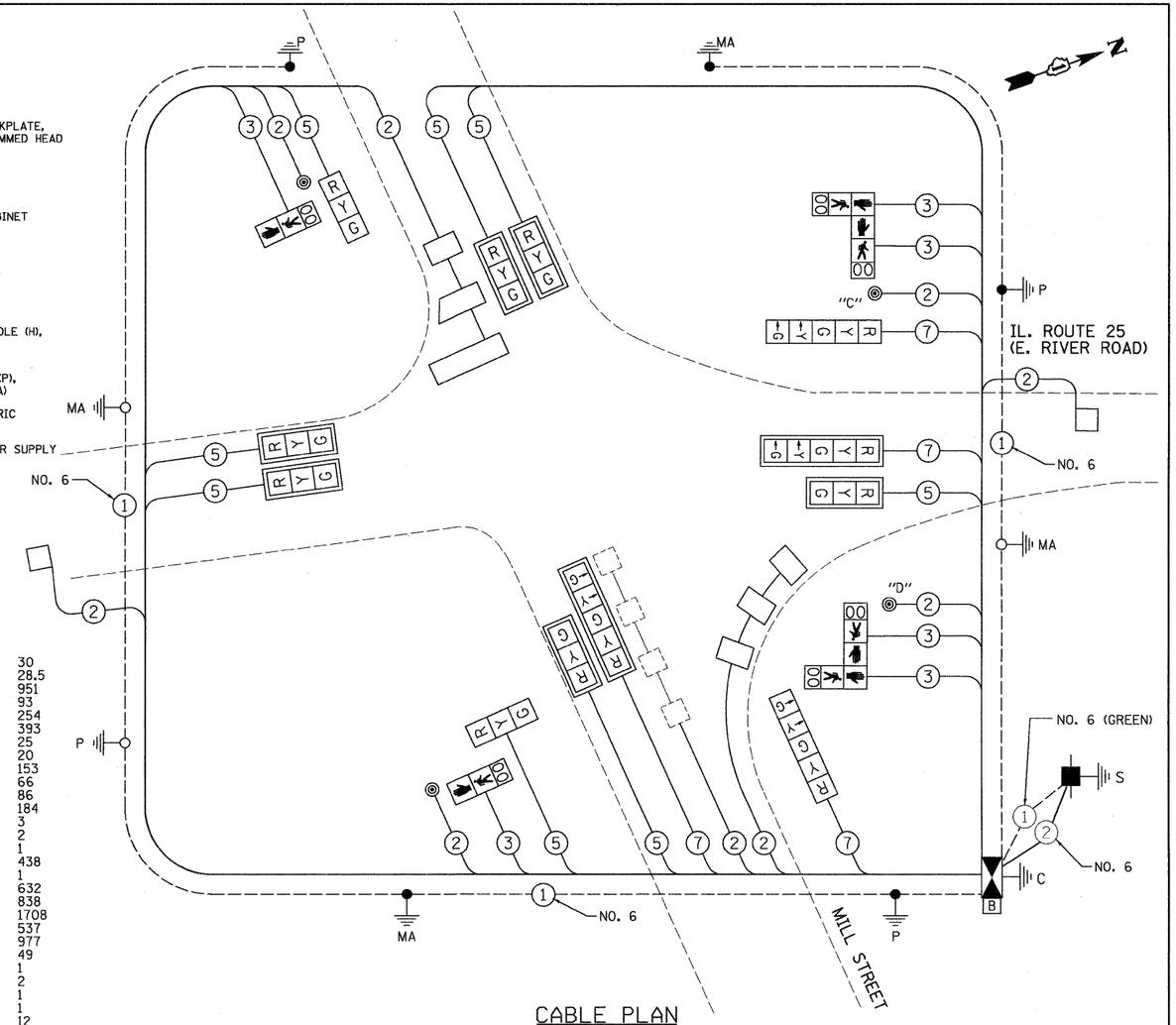


PHASE DESIGNATION DIAGRAM

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	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

EXISTING	PROPOSED	
R Y G "P"	R Y G "P"	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
"E"	"E"	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
B	B	UNINTERRUPTIBLE POWER SUPPLY



CABLE PLAN

SCHEDULE OF QUANTITIES

SIGN PANEL, TYPE 2	SQ FT	30
RELOCATE SIGN PANEL, TYPE 1	SQ FT	28.5
THERMOPLASTIC PAVEMENT MARKING, LINE-12"	FOOT	951
THERMOPLASTIC PAVEMENT MARKING, LINE-24"	FOOT	93
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	254
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	393
CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL	FOOT	25
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	20
CONDUIT PUSHED, 2 " DIA., GALVANIZED STEEL	FOOT	153
CONDUIT PUSHED, 2½" DIA., GALVANIZED STEEL	FOOT	66
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	86
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	184
HANDHOLE	EACH	3
HEAVY DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	438
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	632
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	838
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1708
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	537
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	977
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	49
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP, TYPE 1	FOOT	287
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	5182
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING CONCRETE FOUNDATION	EACH	12
TREE TRIMMING	EACH	2
REMOVE EXISTING SERVICE INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	433
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

NOTE:

1. PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
2. PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

I.D.O.T
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	481.6

VILLAGE OF MONTGOMERY

ENERGY SUPPLY CONTACT: MARK SCHEIBEL
PHONE: (630) 723-2128
COMPANY: COMED

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)

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

FILE NAME = \MICROST\352069\IL 25 @ MIL RD CAB.DGN	USER NAME = JGC	DESIGNED - KK	REVISED -
		DRAWN - JGC	REVISED -
	PLOT SCALE = 1"=20'	CHECKED - BPT	REVISED -
	PLOT DATE = 01-23-09	DATE - 01-23-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
IL. ROUTE 25 (E. RIVER ROAD) AT MILL STREET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2009-003 TS	KANE	28	11
		CONTRACT NO. 60F98		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT