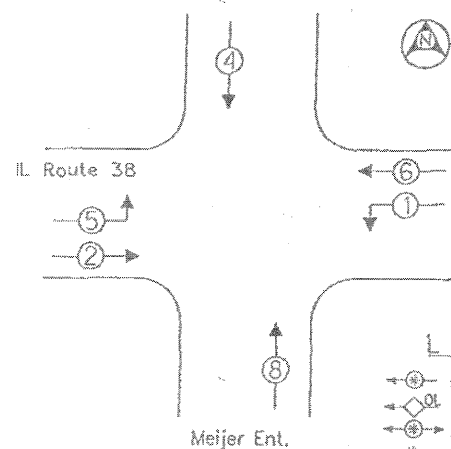


DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____
 ALIGNED: _____
 ROADWAY: _____
 STRUCTURE: NOTATION CHKD

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
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 ALIGNED: _____
 ROADWAY: _____
 STRUCTURE: NOTATION CHKD

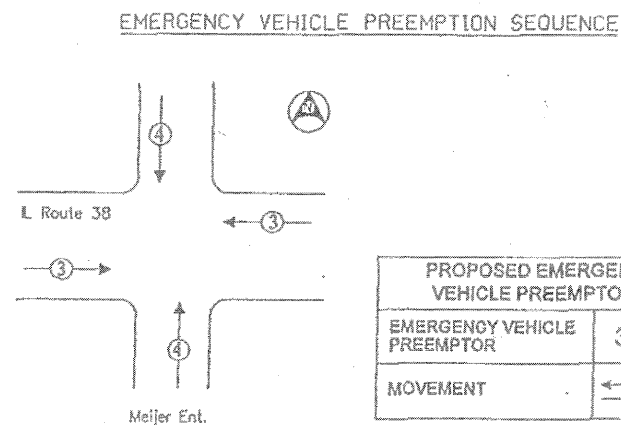
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CONTROLLER SEQUENCE



LEGEND
 ⊕ → DUAL ENTRY PHASE
 ⊕ → OVERLAP
 ⊕ → PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

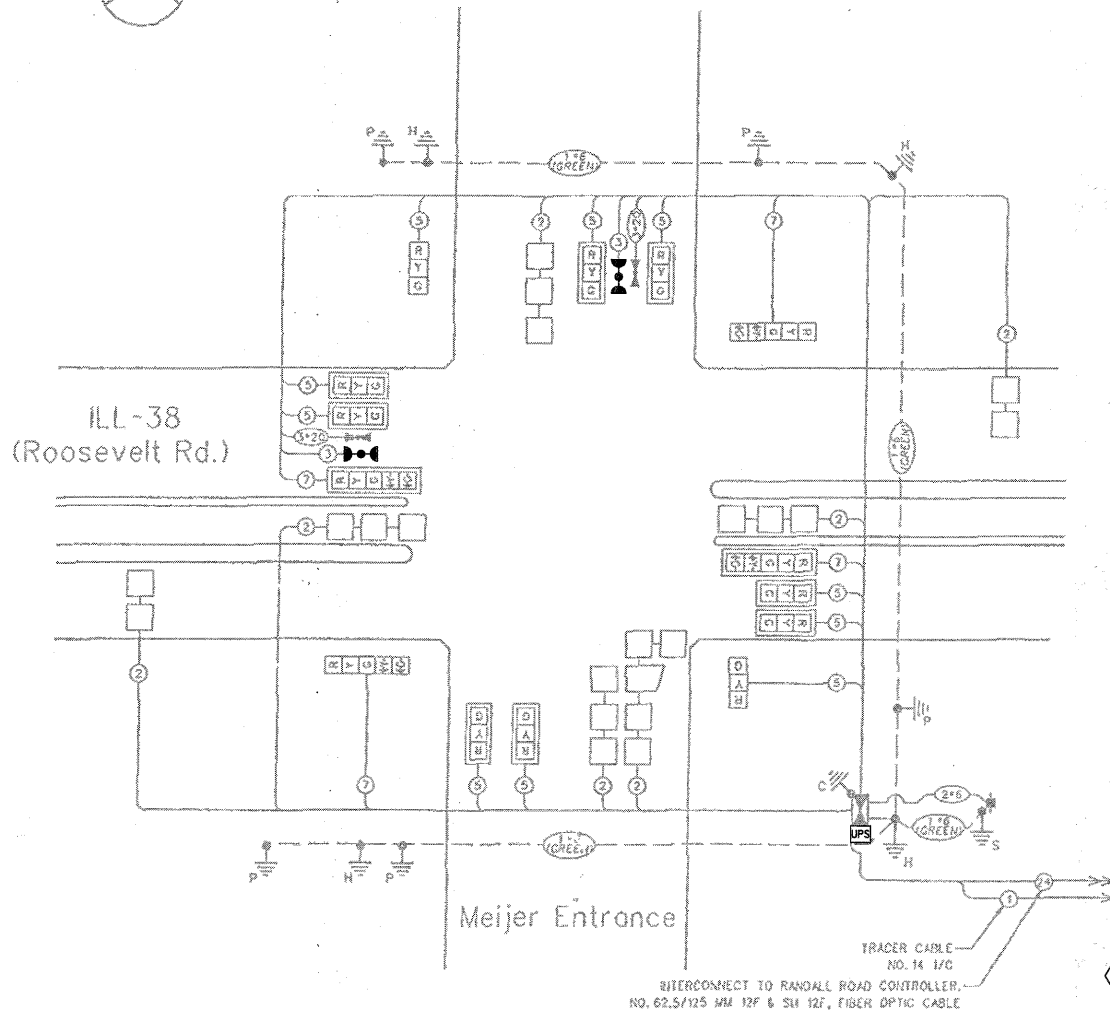


PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑ ↓

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT MUST BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM. NO EQUIPMENT SUBSTITUTIONS WILL BE ALLOWED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CURB, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOVED LANES SHALL BE REPLACED WITH AN APPROVED 505, AND ALL DAMAGE TO UNMOVED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN



CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|--|
| □ | □ | 6" (200MM) TRAFFIC SIGNAL SECTION |
| □ | □ | 12" (300MM) TRAFFIC SIGNAL SECTION |
| □ | □ | 12" (300MM) PEDESTRIAN SIGNAL SECTION |
| □ | □ | 12" (300MM) PEDESTRIAN SIGNAL SECTION |
| □ | □ | CONTROLLER CABINET |
| □ | □ | SERVICE INSTALLATION |
| □ | □ | VEHICLE DETECTOR, INDUCTION LOOP |
| □ | □ | MAGNETIC DETECTOR |
| □ | □ | EMERGENCY VEHICLE LIGHT DETECTOR |
| □ | □ | CONFIRMATION BEACON |
| □ | □ | PUSHBUTTON DETECTOR |
| □ | □ | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| □ | □ | SIGNAL FACE WITH BACKPLATE
"P" INDICATES PROGRAMMED HEAD
"E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD |
| □ | □ | GROUND ROD AT HANDHOLE OR CONTROLLER |
| □ | □ | GROUND ROD AT POST OR MAST ARM POLE |
| □ | □ | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| □ | □ | GROUND ROD EXISTING TO BE REUSED |
| □ | □ | GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN) |
| □ | □ | NO. 62.5/125 MM 12F & 5H 12F, FIBER OPTIC CABLE |
| □ | □ | NO. 14 1C TRACER CABLE |

*NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 18"-8" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	X OPERATIONS	
SIGNAL (RED)	14	135	0.50	945.0
(YELLOW)	14	135	0.25	472.5
(GREEN)	14	135	0.25	472.5
ARROW	8	135	0.10	108
PEP. SIGNAL		90	1.00	
CONTROLLER		100	1.00	100
ILLUM. SIGN			0.05	
FLASHER LED			0.50	
TOTAL				2098

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'±L-2
E - M ARM POLE	24"	SIGNAL POST	2	BRACKET MOUNTED	13
	30"	CONTROLLER CAB.	1	PEP. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

ENERGY COSTS - BILLED TO: MEIJER'S INC OR AS (ADDRESS) ASSIGNED.
 ENERGY SUPPLY - CONTACT: Tom Lesiewicz (630) 377-4407
 COMPANY: City of St. Charles



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES

Illinois Route 38 @ Meijer ST. CHARLES, ILLINOIS

FILE NAME: mj_cp.dgn
 DATE: MARCH 6, 2000
 PROJECT NO.: H9912.08

SHEET NO. 7 OF 23