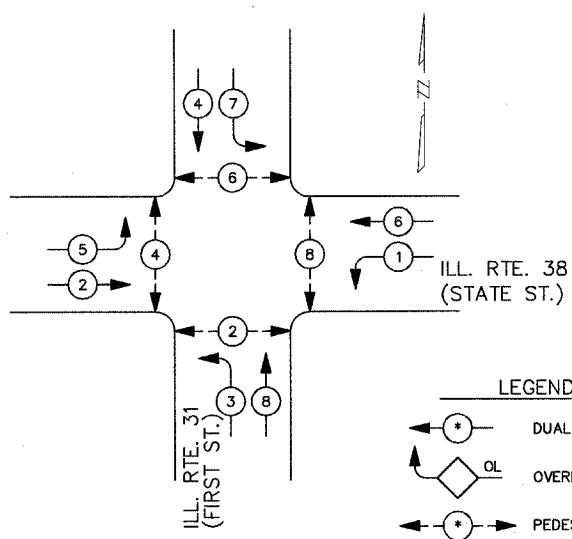
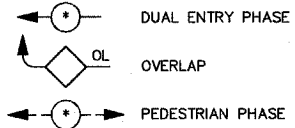


CONTROLLER SEQUENCE

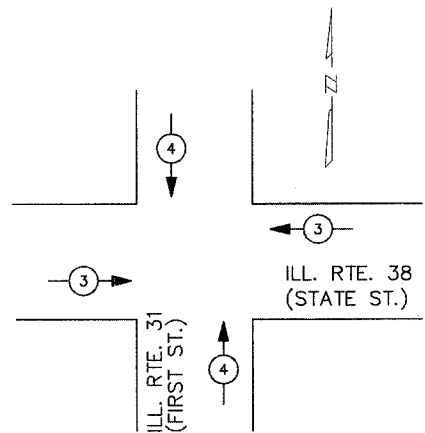


LEGEND



PHASE DESIGNATION DIAGRAM

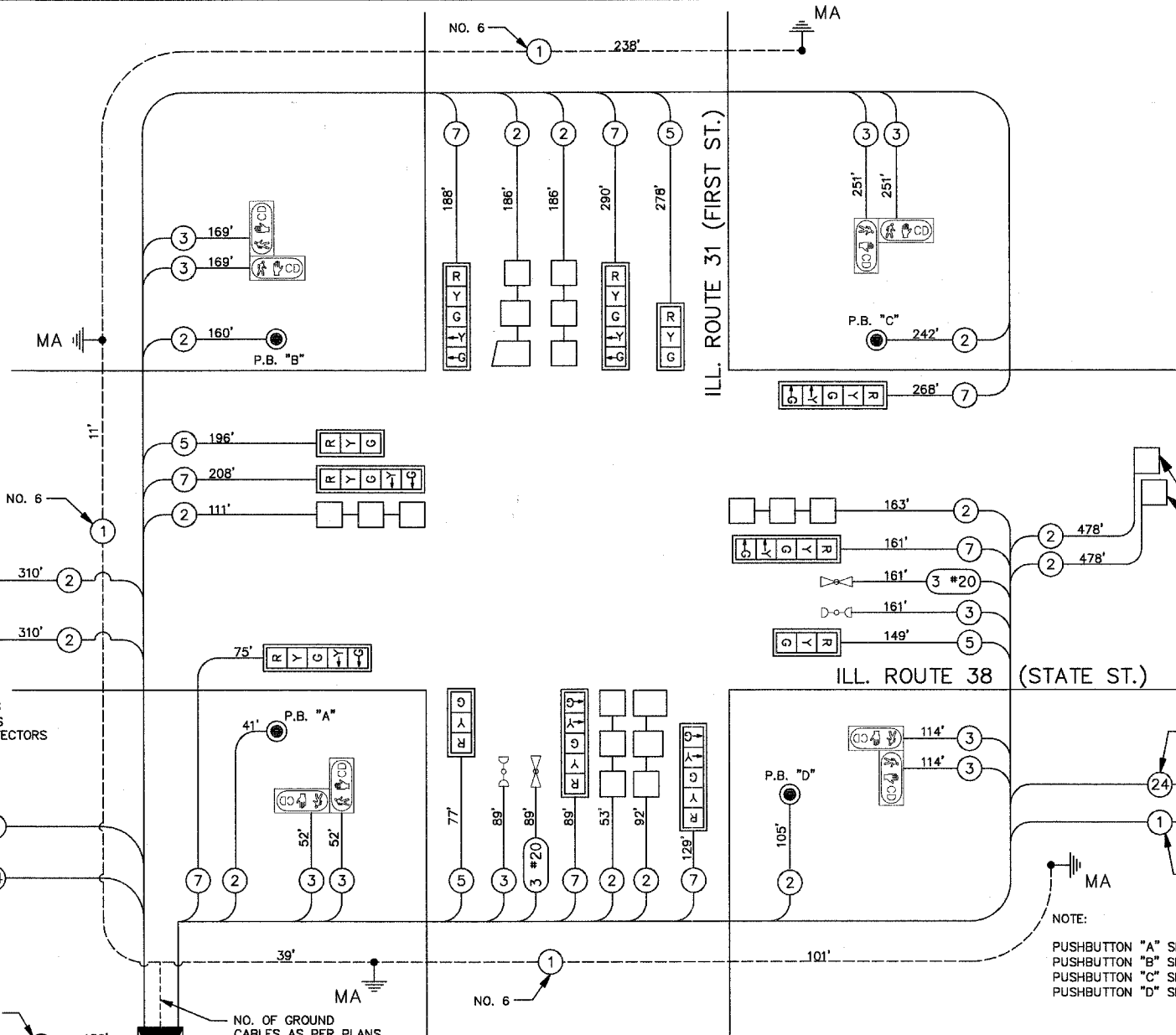
EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		15	1.00	120.0
CONTROLLER	2		100	1.00	200.0
FLASHER					0.50
ENERGY COSTS TO: (EXISTING SERVICE)					TOTAL = 561.2
CITY OF GENEVA 1800 SOUTH ST. GENEVA, IL					
ENERGY SUPPLY CONTACT: JENNIFER HILKEMANN PHONE: (630) 232-1501 COMPANY: CITY OF GENEVA ELECT. DEPT.					

FOUNDATION (DEPTH)	FT.(m)	CABLE SLACK	FT.(m)	VERTICAL CABLE	FT.(m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
< 30' MA 30" DIA	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
< 40' MA 30" DIA	13.5 (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
< 40' MA 36" DIA	11' (3.4)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
< 50' MA 36" DIA	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≥ 50' MA 36" DIA	15' (4.6)	POST MOUNTED			6(1.8)



CABLE PLAN

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
55	SQ FT	SIGN PANEL - TYPE 2
1	EACH	SERVICE INSTALLATION - GROUND MOUNTED
203	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
61	FOOT	CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
38	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
159	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
216	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
9	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
273	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET
1	EACH	MASTER CONTROLLER
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, STANDARD
1	EACH	TRANSCEIVER - FIBER OPTIC
548	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1,422	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C

QUANTITY	UNIT	ITEM
700	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1,408	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2,691	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
300	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
558	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
250	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 32 FT. AND 18 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 34 FT. AND 12 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 34 FT. AND 14 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 42 FT. AND 10 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
60	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
12	EACH	TRAFFIC SIGNAL BACKPLATE
6	EACH	INDUCTIVE LOOP DETECTOR
4	EACH	INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT
782	FOOT	DETECTOR LOOP, TYPE I
4	EACH	PEDESTRIAN PUSHBUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
8	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1,125	FOOT	REMOVE EXISTING CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
8	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	DECORATIVE BASE FOR MAST ARM ASSEMBLY AND POLE
3	EACH	PAINT NEW DUAL MAST ARMS AND POLE, UNDER 12.19 METER (40 FEET)
1	EACH	PAINT NEW DUAL MAST ARMS AND POLE, 12.19 METER (40 FEET) AND OVER

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(G)	(G)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(C)	(C)	CONTROLLER CABINET
(S)	(S)	SERVICE INSTALLATION
(T)	(T)	TELEPHONE CONNECTION
(M)	(M)	MAGNETIC DETECTOR
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(D)	(D)	PUSHBUTTON DETECTOR
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(5)	(5)	DENOTES NUMBER OF CONDUCTORS
(IP)	(IP)	COAXIAL CABLE, 75 OHM WITH NO. 20 AWG SOLID COPPER CONDUCTOR
(V)	(V)	VIDEO CAMERA ASSEMBLY
(D)	(D)	DOME (PTZ) CAMERA ASSEMBLY
(R)	(R)	SIGNAL FACE WITH BACK PLATE
(P)	(P)	"P" INDICATES PROGRAMMED HEAD.
(R)	(R)	RAILROAD CONTROL CABINET
(L)	(L)	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
(R)	(R)	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
(H/C)	(H/C)	GROUND ROD AT HANDHOLE (H), D HANDHOLE (H), OR CONTROLLER (C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM (MA) POLE
(S)	(S)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(1)	(1)	GROUND ROD IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
(36)	(36)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F & SM12F
(B)	(B)	UNINTERRUPTIBLE POWER SUPPLY (BATTERY BACKUP SYSTEM)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING SYSTEM.

DIVISION OF TRANSPORTATION	
CABLE PLAN PHASE DESIGNATION DIAGRAM SCHEDULE OF QUANTITIES	
ILL. ROUTE 38 (STATE ST.) & ILL. ROUTE 31 (FIRST ST.)	
NAME	DATE
REVISIONS	