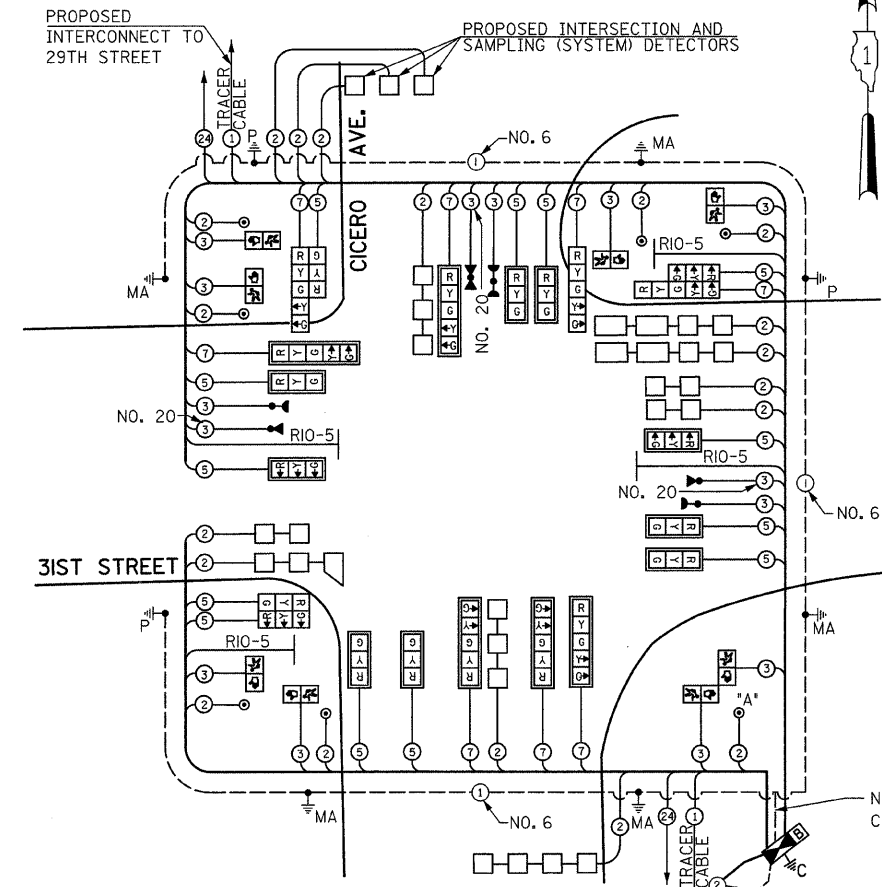


CONTRACT#62196

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



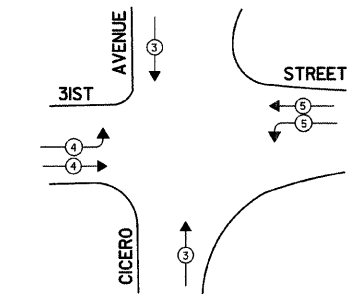
**CABLE PLAN**  
NOT TO SCALE

PROPOSED INTERCONNECT TO CITIES SERVICE DRIVE

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

**PUSH-BUTTON NOTE:**  
PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

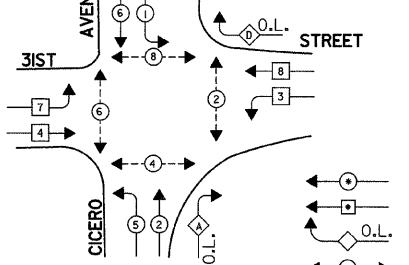
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↓ ↑	→ ←	← →

NO. OF GROUND CABLES AS PER PLANS

**CONTROLLER SEQUENCE**



**LEGEND**

- ←○→ DUAL ENTRY PHASE
- ←○ SINGLE ENTRY PHASE
- ←○L OVERLAP
- ←○→ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
D	= 8	+ 1

THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM DETECTOR UNITS, INCLUDING THE CONFIRMATION BEACONS, AND THE PHASING UNIT FROM THE EXISTING TRAFFIC SIGNAL INSTALLATION, STORE IT IN A SAFE MANNER, AND INSTALL THEM ON THE NEW TRAFFIC SIGNAL INSTALLATION AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
30.5	SQ FT	SIGN PANEL - TYPE 1
25	SQ FT	SIGN PANEL - TYPE 2
571	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
81	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
29	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
77	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
87	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
360	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
3	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
855	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL TRANSCIEVER-FIBER OPTIC
1	EACH	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1481	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2293	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
3015	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1745	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
3283	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
50	FOOT	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	FOOT	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.
12	EACH	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
15	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
45	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
21	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
9	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
5	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED
14	EACH	TRAFFIC SIGNAL BACKPLATE
12	EACH	INDUCTIVE LOOP DETECTOR
1036	FOOT	DETECTOR LOOP, TYPE 1
1	EACH	LIGHT DETECTOR
7	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
2	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANHOLE
12	EACH	REMOVE EXISTING CONCRETE FOUNDATION
8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	UNINTERRUPTABLE POWER SUPPLY (UPS)
871	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
701	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED

\* 100% COST TO THE VILLAGE OF CICERO

LEFT ON GREEN ARROW ONLY

RIO-5  
24" X 30"

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

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
⊖	⊖	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 INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSH-BUTTON DETECTOR
⊖	⊖	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO.14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	GROUND CABLE IN CONDUIT NO.6 SOLID COPPER (GREEN)
⊖	⊖	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, FIBER OPTIC "NO LEFT TURN"
⊖	⊖	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊖	⊖	LOCAL AND MASTER CONTROLLER
⊖	⊖	MICROWAVE VEHICLE SENSOR
⊖	⊖	LEFT ON GREEN ARROW ONLY (RIO-5) SIGN
⊖	⊖	UNINTERRUPTABLE POWER SUPPLY (UPS)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE	OPERATION		
SIGNAL (RED)	20	135	17	0.50	170.0
(YELLOW)	20	135	25	0.25	125.0
(GREEN)	20	135	15	0.25	75.0
ARROW	12	135	12	0.10	14.4
FED. SIGNAL CONTROLLER	8	90	25	1.00	200.0
ILLUM. SIGN	1	100	100	0.05	100.0
TOTAL =					684.4

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)
D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2"
E-MAST ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	(6m)-L-(0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)		13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

REVISIONS	
NAME	DATE