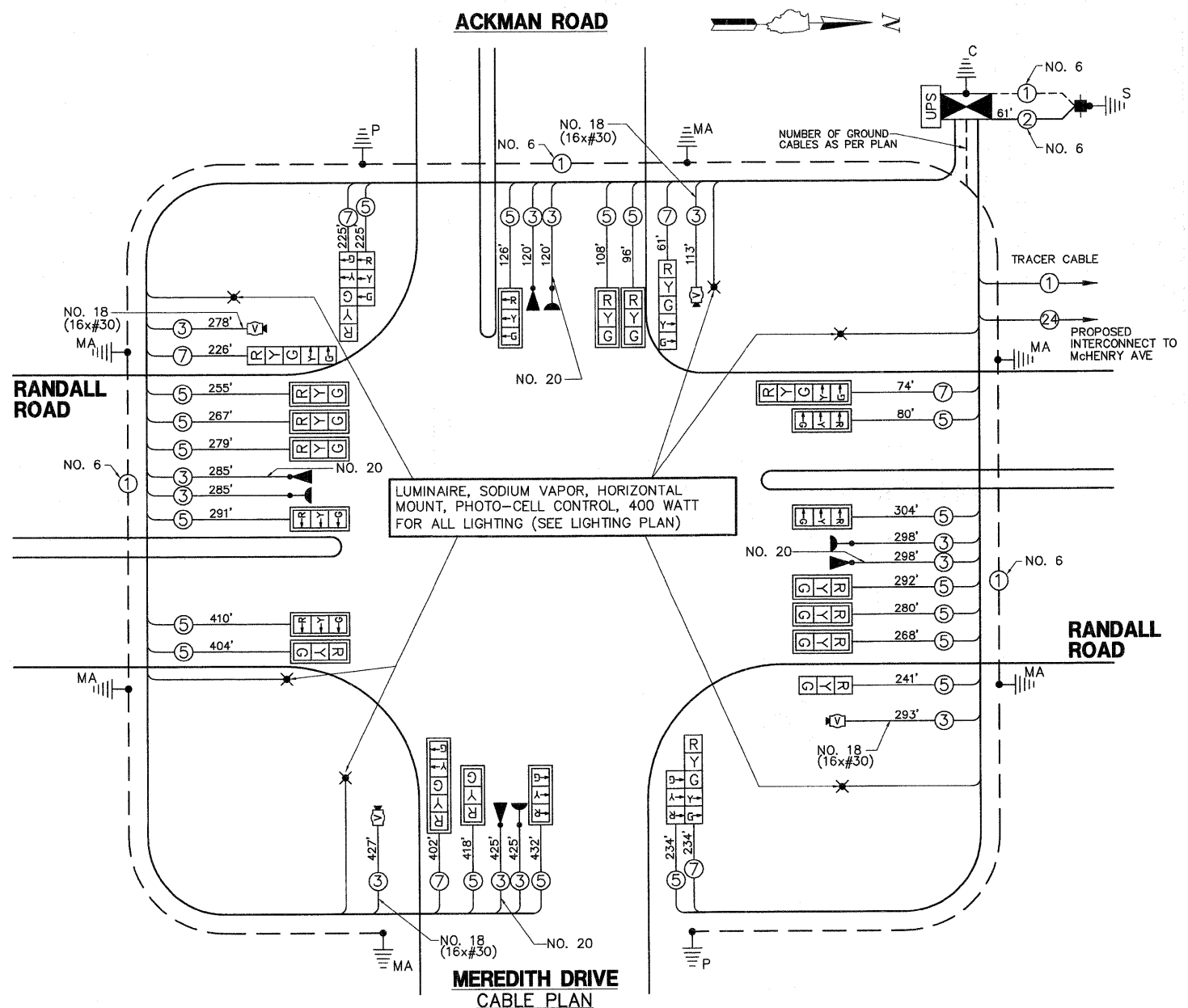


**SCHEDULE OF QUANTITIES**

JAMES R. RAKOW ROAD AT ACKMAN ROAD TRAFFIC SIGNAL MODERNIZATION

NO.	QUANT.	UNIT
1.	75.00	SQ FT SIGN PANEL - TYPE 1
2.	39	FOOT CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
3.	66	FOOT CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
4.	128	FOOT CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
5.	25	FOOT CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
6.	599	FOOT CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7.	2	EACH HANDHOLE
8.	2	EACH DOUBLE HANDHOLE
9.	243	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
10.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
11.	1	EACH TRANSCEIVER - FIBER OPTIC
12.	1,128	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
13.	5,010	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
14.	1,195	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
15.	1,111	FOOT ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR
16.	61	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
17.	2	EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
18.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.
19.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.
20.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.
21.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56 FT.
22.	2	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.
23.	8	FOOT CONCRETE FOUNDATION, TYPE A
24.	4	FOOT CONCRETE FOUNDATION, TYPE C
25.	45	FOOT CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
26.	63	FOOT CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
27.	16	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
28.	1	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
29.	2	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
30.	2	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
31.	2	EACH SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
32.	18	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
33.	4	EACH LIGHT DETECTOR
34.	1	EACH LIGHT DETECTOR AMPLIFIER
35.	1	EACH TEMPORARY TRAFFIC SIGNAL INSTALLATION
36.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
37.	13	EACH REMOVE EXISTING HANDHOLE
38.	13	EACH REMOVE EXISTING CONCRETE FOUNDATION
39.	1	EACH TEMPORARY TRAFFIC SIGNAL TIMING
40.	1	EACH SERVICE INSTALLATION - POLE MOUNTED
41.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
42.	1,128	FOOT ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
43.	1	EACH VIDEO DETECTION SYSTEM COMPLETE INTERSECTION
44.	4	EACH LED INTERNALLY ILLUMINATED STREET NAME SIGN



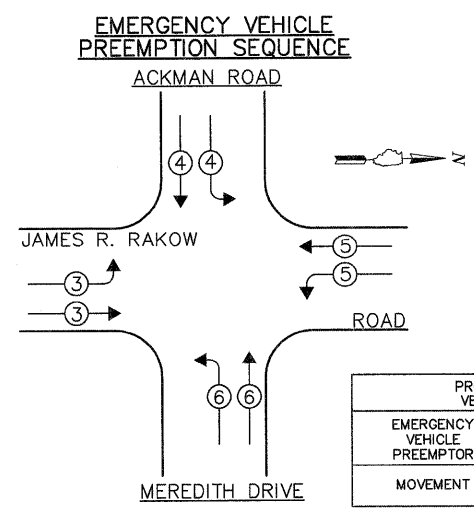
**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
850 Forest Edge Drive • Vernon Hills, IL 60061  
Consulting Engineers & Surveyors  
847-479-9730  
EAC 847-479-9701

**PATRICK ENGINEERING INC.**  
LISLE, ILLINOIS

McHENRY COUNTY DIVISION OF TRANSPORTATION TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	25	135	17	0.50	212.5
SIGNAL (YELLOW)	25	135	25	0.25	156.25
SIGNAL (GREEN)	25	135	15	0.25	93.75
ARROW	12	135	12	0.10	14.4
PED.SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
BATTERY BACKUP	1		25	1.00	25.0
VIDEO SYSTEMS	1		150	1.00	150.0
LUMINAIRE	6	400		0.50	1200.0
L.E.D. ST. NAME SIGN	4		64	0.50	128.0
FLASHER				0.05	
TOTAL =					2,079.9

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

ENERGY COSTS - BILLED TO: CITY OF CRYSTAL LAKE (ADDRESS) 100 WEST MUNICIPAL COMPLEX  
ENERGY SUPPLY - CONTACT: MS. AUDREY HELGESEN PHONE: (847) 816-5225 COMPANY: COMED-LIBERTYVILLE



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

- LEGEND:**
- [\*] SINGLE ENTRY PHASE
  - [\*] DUAL ENTRY PHASE
  - [\*] PEDESTRIAN PHASE
  - [\* OL] OVERLAP
  - \* NUMBER REFERS TO ASSOCIATED PHASE

