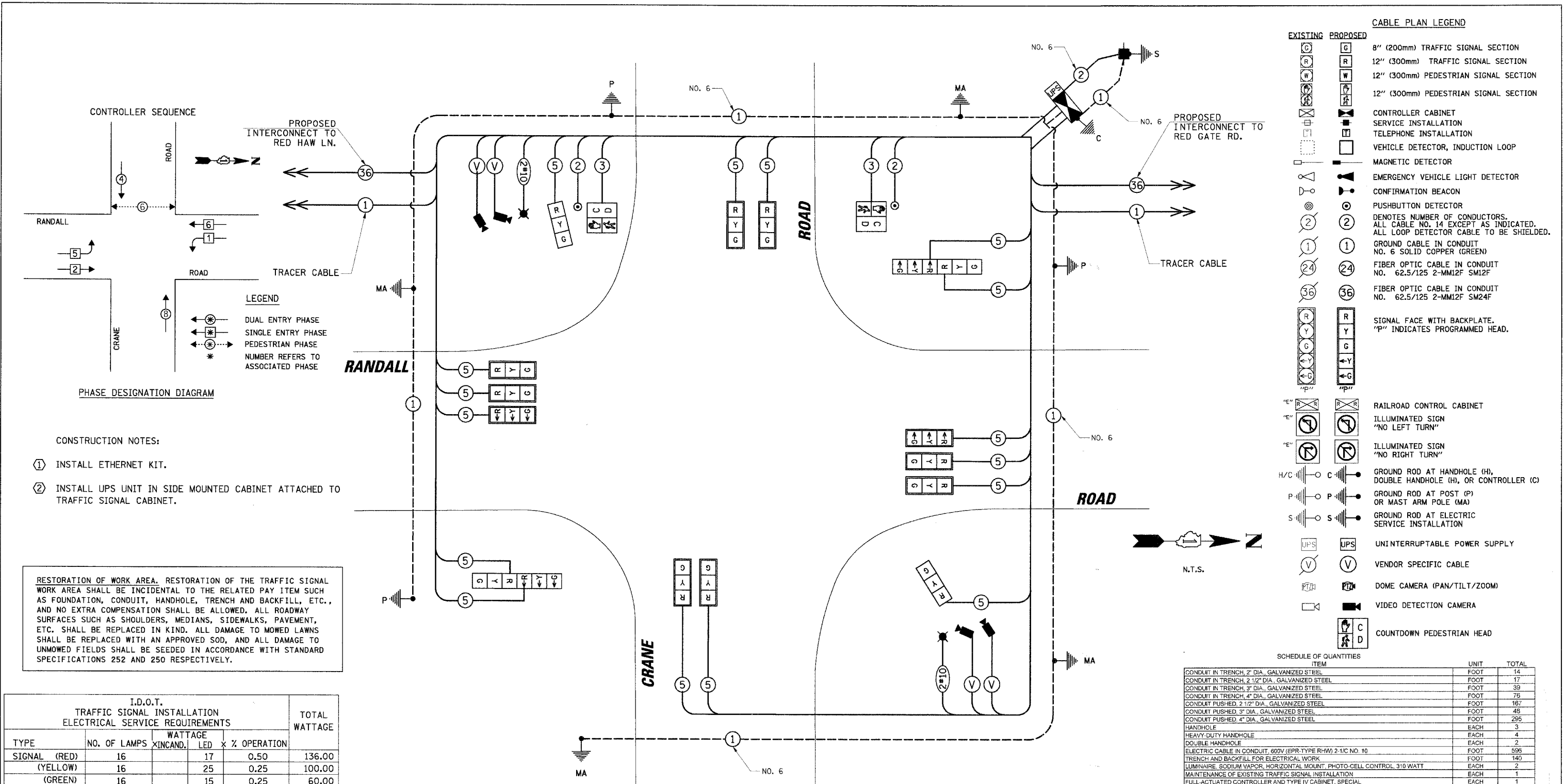


DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 FILE NAME: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_

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



**CABLE PLAN LEGEND**

|  |   |
|--|---|
|  | 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   |
|  | PUSHBUTTON 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   |
|  | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F   |
|  | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.  |
|  | RAILROAD CONTROL CABINET  |
|  | ILLUMINATED SIGN "NO LEFT TURN"   |
|  | ILLUMINATED SIGN "NO RIGHT TURN"  |
|  | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)   |
|  | GROUND ROD AT POST (P) OR MAST ARM POLE (MA)  |
|  | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
|  | UNINTERRUPTIBLE POWER SUPPLY  |
|  | VENDOR SPECIFIC CABLE   |
|  | DOMED CAMERA (PAN/TILT/ZOOM)  |
|  | VIDEO DETECTION CAMERA  |
|  | COUNTDOWN PEDESTRIAN HEAD   |

- CONSTRUCTION NOTES:**
- INSTALL ETHERNET KIT.
  - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE:**  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

| TYPE         | NO. OF LAMPS | WATTAGE | INCAND. | LED  | % OPERATION | TOTAL WATTAGE |
|--------------|--------------|---------|---------|------|-------------|---------------|
| SIGNAL (RED) | 16           | 17      | 0.50    |      |             | 136.00        |
| (YELLOW)     | 16           | 25      | 0.25    |      |             | 100.00        |
| (GREEN)      | 16           | 15      | 0.25    |      |             | 60.00         |
| ARROW        | -            | 12      | 0.10    |      |             | -             |
| PED. SIGNAL  | 2            | 25      | 1.00    |      |             | 50.00         |
| CONTROLLER   | 1            | 100     | 1.00    |      |             | 100.00        |
| ILLUM. SIGN  | -            | 25      | 0.05    |      |             | -             |
| VIDEO SYSTEM | 1            | -       | 150     | 1.00 |             | 150.00        |
| LUMINAIRE    | 2            | 310     | 0.50    |      |             | 310.00        |
| FLASHER      | -            | -       | 0.50    |      |             | -             |

ENERGY COSTS TO: TOTAL = 906.00

**KANE COUNTY DIVISION OF TRANSPORTATION**  
 41W011 BURLINGTON ROAD  
 ST. CHARLES, IL 60175

ENERGY SUPPLY: CONTACT: MIKE WIDHALM  
 PHONE: (847) 608-2376  
 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   | 3.5 (1.0)    |
| D - CONTROLLER     | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0)  | MAST ARM (L) POLE | 20'±L-2'±    |
| E - M. ARM POLE    | 2 (1.0) | SIGNAL POST     | 2 (1.0)   |                   | (6m±L-0.6m)± |
|                    |         | 24" (600mm)     | 10 (3.0)  | CONTROLLER CAB.   | 1 (0.5)      |
|                    |         | 30" (750mm)     | 15 (4.6)  | FIBER OPTIC       | 13 (4.0)     |
|                    |         | 36" (900mm)     | 15 (4.6)  | ELECTRIC SERVICE  | 1 (0.5)      |
|                    |         |                 |           | GROUND CABLE      | 1 (0.5)      |
|                    |         |                 |           | ELECTRIC SERVICE  | 13.5 (4.1)   |
|                    |         |                 |           | SERVICE TO GROUND | 13.5 (4.1)   |
|                    |         |                 |           | POST MOUNTED      | 6 (1.8)      |

**SCHEDULE OF QUANTITIES**

| ITEM  | UNIT  | TOTAL |
|---|-------|-------|
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL                              | FOOT  | 14    |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL                          | FOOT  | 17    |
| CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL                              | FOOT  | 39    |
| CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL                              | FOOT  | 78    |
| CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL                             | FOOT  | 167   |
| CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL                                 | FOOT  | 48    |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL                                 | FOOT  | 295   |
| HANDHOLE  | EACH  | 3     |
| HEAVY-DUTY HANDHOLE   | EACH  | 4     |
| DOUBLE HANDHOLE   | EACH  | 2     |
| ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10               | FOOT  | 596   |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK                                   | FOOT  | 140   |
| LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 310 WATT   | EACH  | 2     |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION                       | EACH  | 1     |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL                     | EACH  | 1     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C                              | FOOT  | 141   |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C                              | FOOT  | 159   |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C                              | FOOT  | 3992  |
| ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2/C                              | FOOT  | 29    |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.                              | EACH  | 3     |
| STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.                                  | EACH  | 1     |
| STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.                                  | EACH  | 1     |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 40 FT.                      | EACH  | 1     |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.                      | EACH  | 1     |
| CONCRETE FOUNDATION, TYPE A   | FOOT  | 12    |
| CONCRETE FOUNDATION, TYPE D   | FOOT  | 4     |
| CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER                              | FOOT  | 30    |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                              | FOOT  | 30    |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED                     | EACH  | 10    |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED                      | EACH  | 2     |
| SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED                      | EACH  | 2     |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH  | 2     |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM                              | EACH  | 10    |
| PEDESTRIAN PUSH-BUTTON  | EACH  | 1     |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                  | EACH  | 1     |
| REMOVE EXISTING CONCRETE FOUNDATION                                       | EACH  | 2     |
| RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II                                | EACH  | 1     |
| SERVICE INSTALLATION - POLE MOUNTED                                       | EACH  | 1     |
| UNINTERRUPTIBLE POWER SUPPLY  | EACH  | 1     |
| ELECTRIC CABLE IN CONDUIT, GROUND NO. 6 1/C                               | FOOT  | 846   |
| VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)                            | L SUM | 1     |
| ETHERNET KIT  | EACH  | 1     |