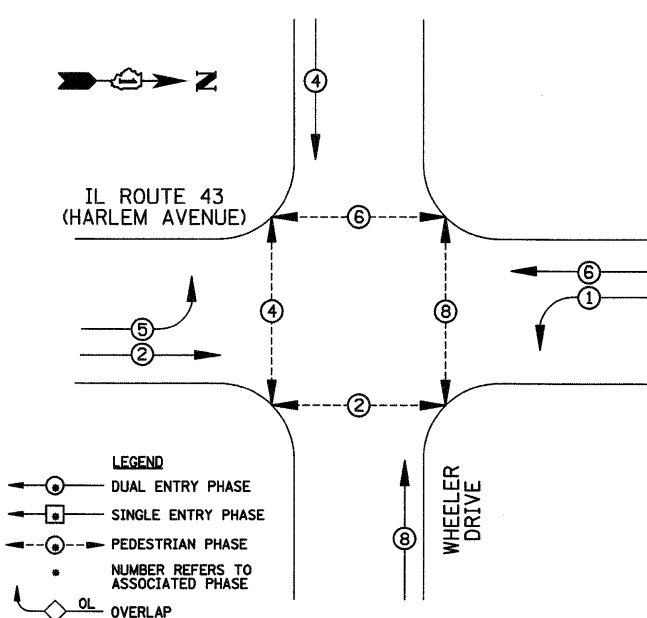
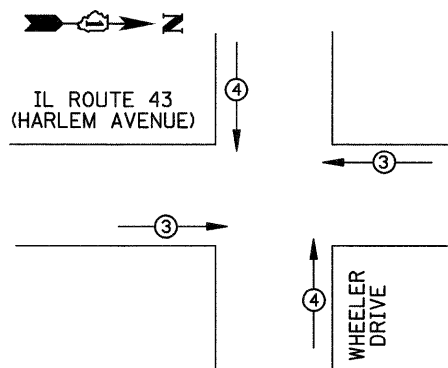


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



| PROPOSED EMERGENCY VEHICLE PREEMPTORS |   |   |
|---------------------------------------|---|---|
| EMERGENCY VEHICLE PREEMPTOR           | 3 | 4 |
| MOVEMENT                              | — |   |

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

| I.D.O.T<br>TRAFFIC SIGNAL INSTALLATION<br>ELECTRICAL SERVICE REQUIREMENTS |           |                        |            |         | TOTAL<br>WATTAGE |
|---|-----------|------------------------|------------|---------|------------------|
| TYPE  | NO. LAMPS | WATTAGE<br>INCAND. LED | %OPERATION |         |                  |
| SIGNAL (RED)  | 14        | 135                    | 17         | 0.50    | 119              |
| (YELLOW)  | 14        | 135                    | 25         | 0.25    | 87.5             |
| (GREEN)   | 14        | 135                    | 15         | 0.25    | 52.5             |
| ARROW   | 8         | 135                    | 12         | 0.10    | 9.6              |
| PED. SIGNAL   | 8         | 90                     | 25         | 1.00    | 200              |
| CONTROLLER  | 1         | 100                    | 100        | 1.00    | 100              |
| ILLUM. SIGN   |           | 84                     |            | 0.05    |                  |
| FLASHER   |           | 135                    | 25         | 0.50    |                  |
| ENERGY COSTS TO:  |           |                        |            | TOTAL = | <b>568.6</b>     |
| 50% IDOT  |           |                        |            |         |                  |
| 50% VILLAGE OF ORLAND PARK  |           |                        |            |         |                  |

ENERGY SUPPLY CONTACT: KATHRYN SUGRUE  
 (708) 235-2337  
 COMPANY: COMED

FILE NAME = \MICROST\352100\ IL43e WHEELER CAB.DGN  
 USER NAME = JGC  
 PLOT SCALE = 1"=20'  
 PLOT DATE = 10-21-11

**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 SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

**SCHEDULE OF QUANTITIES**

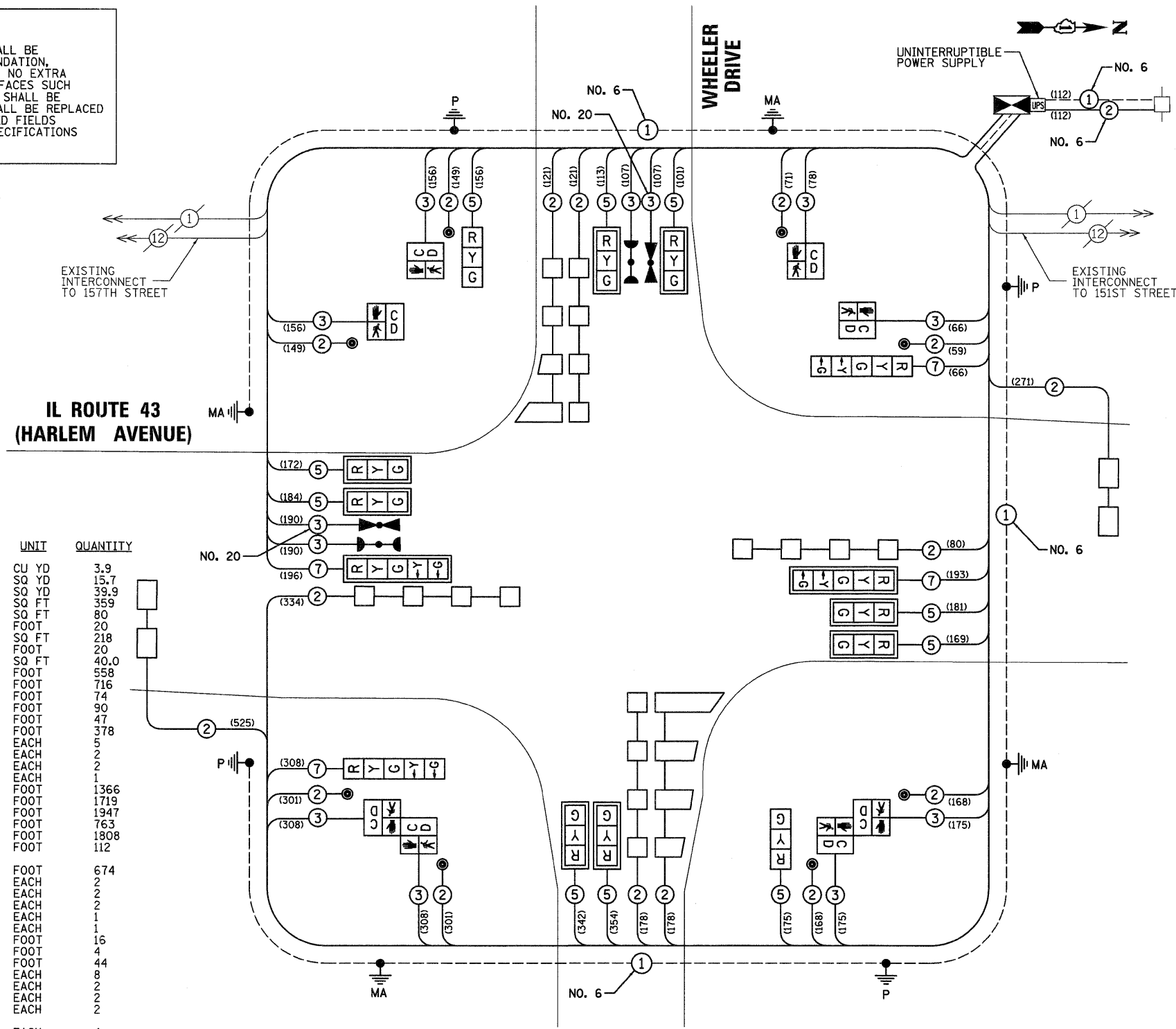
| ITEM  | UNIT  | QUANTITY |
|---|-------|----------|
| EARTH EXCAVATION  | CU YD | 3.9      |
| SUBBASE GRANULAR MATERIAL, TYPE B 4"                                      | SQ YD | 15.7     |
| PROTECTIVE COAT   | SQ YD | 39.9     |
| PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH                                  | SQ FT | 359      |
| DETECTABLE WARNINGS   | SQ FT | 80       |
| COMBINATION CURB AND GUTTER REMOVAL                                       | FOOT  | 20       |
| SIDEWALK REMOVAL  | SQ FT | 218      |
| COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24                         | FOOT  | 20       |
| SIGN PANEL - TYPE 1   | SQ FT | 40.0     |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6"                                  | FOOT  | 558      |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.                            | FOOT  | 716      |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.                        | FOOT  | 74       |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                            | FOOT  | 90       |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.                        | FOOT  | 47       |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.                            | FOOT  | 378      |
| HANDHOLE  | EACH  | 1        |
| HEAVY DUTY HANDHOLE   | EACH  | 1        |
| DOUBLE HANDHOLE   | EACH  | 1        |
| TRANSCEIVER - FIBER OPTIC   | EACH  | 1        |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                               | FOOT  | 1366     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                               | FOOT  | 1719     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                               | FOOT  | 1947     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                               | FOOT  | 763      |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR                         | FOOT  | 1808     |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C                              | FOOT  | 112      |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C        | FOOT  | 674      |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.                              | EACH  | 1        |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                              | EACH  | 1        |
| STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.                                  | EACH  | 1        |
| STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.                                  | EACH  | 1        |
| STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.                                  | EACH  | 1        |
| CONCRETE FOUNDATION, TYPE A   | FOOT  | 16       |
| CONCRETE FOUNDATION, TYPE C   | FOOT  | 4        |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                              | FOOT  | 44       |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED                     | EACH  | 8        |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED                      | EACH  | 8        |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED                      | EACH  | 2        |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED                     | EACH  | 2        |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH  | 4        |
| PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH  | 2        |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM                              | EACH  | 10       |
| INDUCTIVE LOOP DETECTOR   | EACH  | 8        |
| DETECTOR LOOP, TYPE 1   | FOOT  | 1083     |
| LIGHT DETECTOR  | EACH  | 2        |
| LIGHT DETECTOR AMPLIFIER  | EACH  | 1        |
| PEDESTRIAN PUSH BUTTON  | EACH  | 1        |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION                                     | EACH  | 1        |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                  | EACH  | 1        |
| REMOVE EXISTING HANDHOLE  | EACH  | 1        |
| REMOVE EXISTING CONCRETE FOUNDATION                                       | EACH  | 9        |
| FULL-ACTUATED CONTROLLER AND CABINET, TYPE IV, SPECIAL                    | EACH  | 1        |
| ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED                  | FOOT  | 297      |
| TEMPORARY INFORMATION SIGNING   | SO FT | 25.7     |
| TEMPORARY TRAFFIC SIGNAL TIMING   | EACH  | 1        |
| UNINTERRUPTIBLE POWER SUPPLY SPECIAL                                      | EACH  | 1        |

\* 100% COST TO THE ORLAND FIRE PROTECTION DISTRICT

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN  
 AND PHASE DESIGNATION DIAGRAM  
 U.S. ROUTE 43 (HARLEM AVENUE) AT WHEELER DRIVE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



**CABLE PLAN**

NOTE:  
 (XXX) DENOTES CABLE LENGTH TO CONTROLLER CABINET WITH SLACK CABLE.

PREPARED BY:  
**CEMCON, Ltd.**  
 Consulting Engineers, Land Surveyors & Planners  
 2280 White Oak Circle, Suite 100  
 Aurora, Illinois 60504-9675  
 Ph: 630.862.2100 Fax: 630.862.2199  
 E-Mail: oedd@cemcon.com Website: www.cemcon.com

| F.A.P. RTE. | SECTION     | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|-------------|--------|--------------|-----------|
| 348         | 2011-039-TS | COOK   | 20           | 13        |

CONTRACT NO. 60P45  
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT