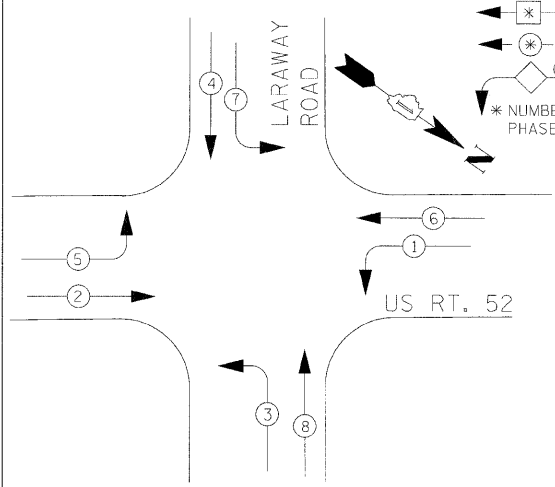


REGINA WEBSTER AND ASSOC. INC. CIVIL ENGINEERING CONSULTANTS 6160 North Cicero Avenue, Suite 500 Chicago, Illinois 60631-1869



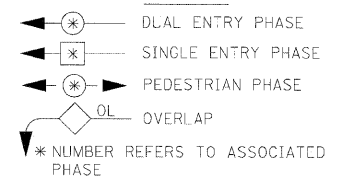
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

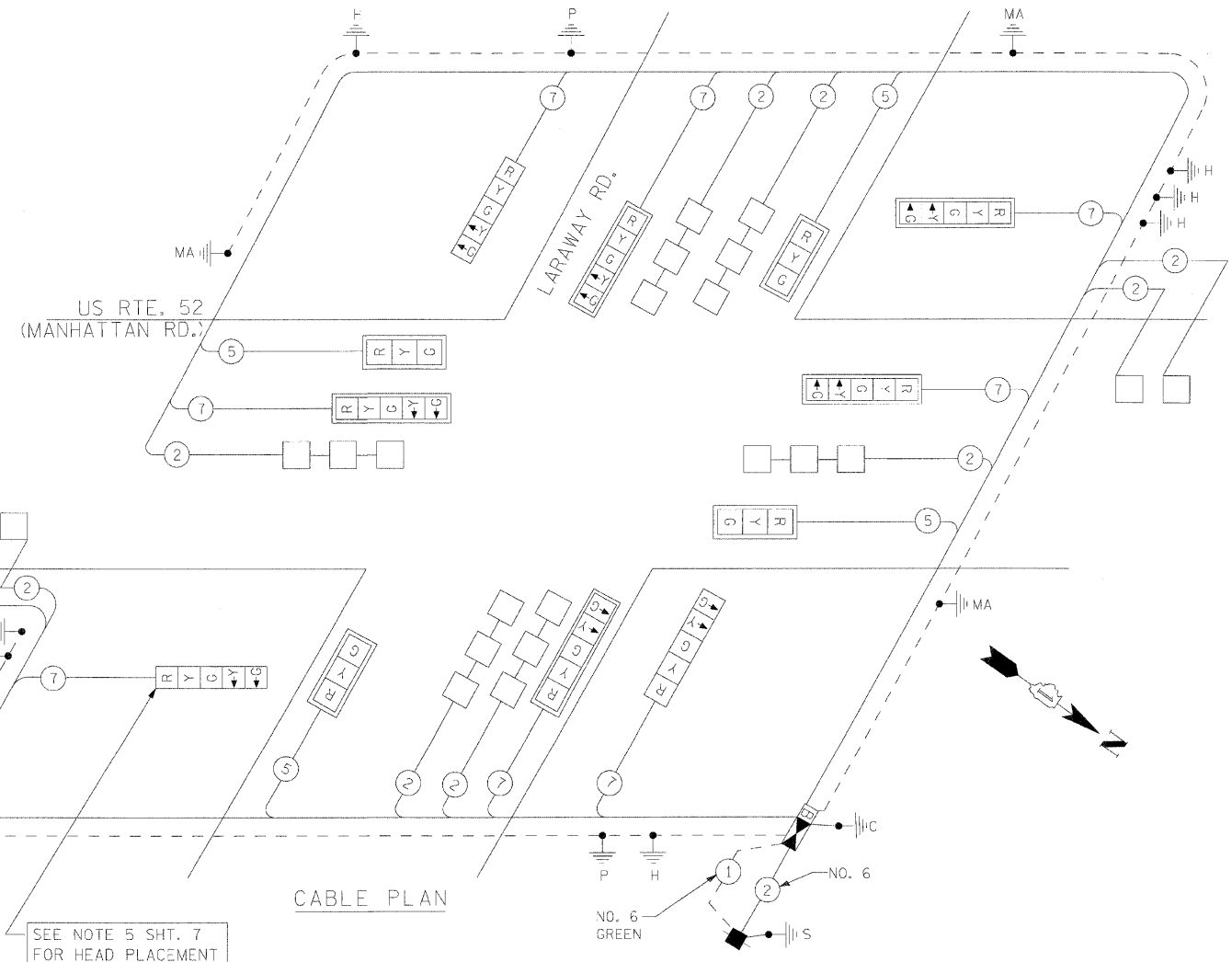
NOT TO SCALE

LEGEND



SCHEDULE OF QUANTITIES

| ITEM | UNIT | QUANTITY |
|---|--------|----------|
| ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 6.0 |
| MOBILIZATION | L SUM | 1.0 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 | L SUM | 1.0 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1.0 |
| CHANGEABLE MESSAGE SIGN | CAL MO | 2.0 |
| SIGN PANEL - TYPE 1 | SQ FT | 34.5 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 2400.0 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 8" | FOOT | 260.0 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 150.0 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 100.0 |
| THERMOPLASTIC PAVEMENT MARKING REMOVAL | SQ FT | 1724.0 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 856.0 |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 138.0 |
| CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 86.0 |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL | FOOT | 364.0 |
| HAND-HOLE | EACH | 7.0 |
| HEAVY-DUTY HANDHOLE | EACH | 4.0 |
| DOUBLE HANDHOLE | EACH | 1.0 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 994.0 |
| FULLY ACTUATED CONTROLLER AND TYPE IV CABINET | EACH | 1.0 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C | FOOT | 972.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C | FOOT | 1831.0 |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR | FOOT | 3080.5 |
| ELECTRIC CABLE IN CONDUIT, NO. 6 2C | FOOT | 59.5 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. | EACH | 2.0 |
| STEEL MAST ARM ASSEMBLY AND POLE, 28 FT. | EACH | 1.0 |
| STEEL MAST ARM ASSEMBLY AND POLE, 32 FT. | EACH | 1.0 |
| STEEL MAST ARM ASSEMBLY AND POLE, 42 FT. | EACH | 1.0 |
| STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL VAST ARMS, 14 FT. AND 55 FT. | EACH | 1.0 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 8.0 |
| CONCRETE FOUNDATION, TYPE C | FOOT | 4.0 |
| CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER | FOOT | 30.0 |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER | FOOT | 32.0 |
| SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 4.0 |
| SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED | EACH | 3.0 |
| SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 5.0 |
| INDUCTIVE LOOP DETECTOR | EACH | 10.0 |
| DETECTOR LOOP, TYPE I | FOOT | 837.0 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 9.0 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1.0 |
| TEMPORARY INFORMATION SIGNING | SQ FT | 102.8 |
| SERVICE INSTALLATION, POLE MOUNT | EACH | 1.0 |
| UNINTERRUPTIBLE POWER SUPPLY (UPS) | EACH | 1.0 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C | FOOT | 700.0 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | L SUM | 1.0 |



CABLE PLAN

CABLE PLAN LEGEND

| EXISTING | PROPOSED | DESCRIPTION | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---|----------|----------|--|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION | | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION | | | RAILROAD CONTROL CABINET |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION W/ COUNTDOWN TIMER | | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | CONTROLLER CABINET | | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | SERVICE INSTALLATION | | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | TELEPHONE CONNECTION | | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | MAGNETIC DETECTOR | | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | EMERGENCY VEHICLE LIGHT DETECTOR | | | GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN) |
| | | CONFIRMATION BEACON | | | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 2-MM12F & SM12F |
| | | PUSHBUTTON DETECTOR | | | UNINTERRUPTED POWER SUPPLY |
| | | VEHICLE DETECTOR, INDUCTION LOOP | | | |
| | | 2 DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. | | | |

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

| TYPE | NO. LAMPS | WATTAGE | | % OPERATIONS | TOTAL WATTAGE |
|--------------|-----------|---------|-----|--------------|---------------|
| | | INCAND. | LED | | |
| SIGNAL (RED) | 12 | 135 | 17 | 0.50 | 102 |
| (YELLOW) | 12 | 135 | 25 | 0.25 | 75 |
| (GREEN) | 12 | 135 | 15 | 0.25 | 45 |
| ARROW | 16 | 135 | 12 | 0.10 | 19.2 |
| PED. SIGNAL | 0 | 90 | 25 | 1.00 | 0 |
| CONTROLLER | 1 | 100 | 100 | 1.00 | 100 |
| ILLUM. SIGN | 0 | 252 | 25 | 0.05 | 0 |
| VIDEO SYSTEM | 0 | 150 | - | 1.00 | 0 |
| TOTAL = | | | | | 341.2 |

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1
 201 WEST CENTER COURT
 SCHAMBURG, IL 60196-1096
 CONTACT MARK ANDERSON
 PHONE 1-815-724-5988
 COMPANY COMED

| FOUNDATION | DEPTH | DEPTH (FT.) | CABLE SLACK | (FT.) | VERTICAL | (FT.) |
|-------------------|-------|--------------------|-------------|--------------------|-----------|-------|
| TYPE A - POST | 4 | HANDHOLE | 6.5 | ALL FOUNDATIONS | 3.5 | |
| D - CONTROLLER | 4 | DOUBLE HANDHOLE | 13 | MAST ARM (L) POLE | =20' +L-2 | |
| E - MAST ARM POLE | | SIGNAL POST | 2 | BRACKET MOUNTED | 13 | |
| 30" | 15 | CONTROLLER CAB. | 1 | PED. PLSHUTTON | 4 | |
| 36" | 15 | FIBER OPTIC | 13 | ELECTRICAL SERVICE | 13.5 | |
| 42" | 25 | ELECTRICAL SERVICE | 1 | SERVICE TO GROUND | 13.5 | |
| | | GROUND CABLE | 1 | POSTMOUNTED | 6 | |

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

US ROUTE 52 (MANHATTAN RD.) AND LARAWAY RD. - SCHEDULE OF QUANTITIES, CABLE PLAN & PHASE DESIGNATION DIAGRAM

SCALE: NONE SHEET NO. 9 OF 12 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------------------|-------------|---|-------------|
| F.A.P. RTE. VAR. | SECTION 2009-098 TS | COUNTY WILL | TOTAL SHEETS 12 | SHEET NO. 9 |
| CONTRACT NO. 60154 | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | |