

TRAFFIC SIGNAL/ROADWAY LIGHTING GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. (J.U.L.I.E. 1-800-829-0123)
- THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT PAY ITEM.
- EXACT SIGNAL LOCATIONS MAY BE MODIFIED IN THE FIELD TO AVOID EXISTING UTILITIES, AS DIRECTED BY THE CITY ENGINEER.
- ALL SIGNAL BASES SHALL BE LOCATED A MINIMUM OF 6 FEET FROM THE FACE OF CURB OR AT THE LOCATIONS SHOWN ON THE PLANS, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- ALL MAST ARM POLE BASES SHALL BE PROTECTED BY A STAINLESS STEEL MESH SCREENING AROUND THE BASE BOLTS TO PREVENT RODENT ENTRY. THE MESH SHALL BE SECURED TO THE BASE BY STAINLESS STEEL BANDING AS INCIDENTAL TO THE INDIVIDUAL MAST ARM ASSEMBLY PAY ITEM.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FEET MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- ALL ELECTRIC CABLE REQUIRED FOR THE INSTALLATION OF THE LIGHT DETECTOR SHALL BE INCLUDED IN THE COST OF THE LIGHT DETECTOR. SPLICES IN THE LIGHT DETECTOR CABLE SHALL NOT BE ALLOWED.
- DRILLING HOLES THROUGH CURB AND CUTTER, INSERTING CONDUIT, AND FILLING WITH APPROVED SEALER FOR DETECTOR LOOPS SHALL BE INCIDENTAL TO THE DETECTOR LOOP PAY ITEM. ALL DETECTOR LOOP AMPLIFIERS SHALL BE RACK MOUNTED AND SHALL BE LABELED ON THE EDGE OF THE SHELF BELOW THE AMPLIFIERS WITH THEIR RESPECTIVE DIRECTIONS, PHASES, LOOP TERMINALS, AND CONTROLLER INPUTS AS INCIDENTAL TO THE INDUCTIVE LOOP DETECTOR PAY ITEM.
- A 12 GAUGE STRANDED THIN WIRE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS WITH SIX (6) FEET OF SLACK AT EACH HANDHOLE AS INCIDENTAL TO THE CONDUIT PAY ITEM.
- ALL CONDUITS SHALL BE HIGH DENSITY POLYETHYLENE AND COILABLE OR SCHEDULE 80 PVC EXCEPT AT THE LOCATIONS SHOWN ON THE PLANS.
- THE DOUBLE HANDHOLE SHALL BE FURNISHED WITH RECESSED, INTEGRAL HINGED LIDS.
- ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED, ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
- THE SIZES OF ALL LENSES SHALL BE 12" UNLESS OTHERWISE NOTED.
- ALL MAST ARM MOUNTED SIGNAL HEADS ON EACH INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
- ALL BRACKET MOUNTED SIGNAL HEADS SHALL BE MOUNTED ON THE SIDE OF THE POLE AS DIRECTED BY THE CITY ENGINEER IN ORDER TO MINIMIZE VEHICLE DAMAGE.
- A 24" x 30" ALUMINUM "LEFT TURN YIELD ON GREEN" SIGN SHALL BE MOUNTED ADJACENT TO EACH MAST ARM MOUNTED 4-SECTION HEAD LEFT TURN SIGNAL AS DIRECTED BY THE ENGINEER.
- THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE 14 GAUGE SOLID, SOFT COPPER.
- THE PROPOSED TRAFFIC SIGNAL CONTROL CABINET SHALL BE FURNISHED WITH A DOOR SWITCH, CONFLICT FLASH AND MANUAL FLASH INPUTS WIRED TO THE APPROPRIATE CONTROLLER 'D' CONNECTOR INPUTS. THE CABINET SHALL ALSO BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CORD WITHIN THE POLICE COMPARTMENT DOOR AS INCIDENTAL TO THE CONTROLLER PAY ITEM.
- AN INNOVATIVE TECHNOLOGIES MODEL HS-P-SP-120A-30A-RJ SUPPRESSOR OR APPROVED EQUAL WITH A 3 POSITION TERMINAL BLOCK SHALL BE MOUNTED ON AN ALUMINUM PLATE BELOW THE CABINET POWER DISTRIBUTION PANEL. INCOMING POWER SHALL CONNECT TO THE TERMINAL BLOCK WHICH SHALL FEED THE "IT" SUPPRESSOR THROUGH 10 GAUGE SOLID COPPER WIRE (AC+, AC-, GND.) WITH APPROXIMATELY TEN 1.5 TO 2 INCH COILS IN THE AC+ AND AC- LINES.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL SIGNAL COMPONENTS TO THE CITY OF BLOOMINGTON FOR APPROVAL PRIOR TO ORDERING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS AND ROADWAY LIGHTING. THE CONTRACTOR SHALL CONTACT THE POWER SUPPLIER PRIOR TO BEGINNING WORK IN ORDER TO MEET THE POWER SUPPLIER'S REQUIREMENTS.
- THE CONTRACTOR SHALL COORDINATE WITH THE POWER SUPPLIER TO ENERGIZE THE CIRCUIT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 72 HOURS BEFORE THE CIRCUIT IS ENERGIZED.
- THE ENGINEER SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO SIGNAL TURN ON.
- THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNALS ARE TURNED ON AS INCIDENTAL TO THE CONTROLLER PAY ITEM.
- ALL LED SIGNAL LENSES SHALL BE OF THE SAME TYPE, DESIGN, ETC. AND SHALL BE FROM THE SAME MANUFACTURER FOR ANY GIVEN INTERSECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE CABINET ENERGIZED AND FULLY FUNCTIONAL EXCEPT FOR THE FIELD DISPLAYS A MINIMUM OF 24 HOURS IN ADVANCE OF THE SCHEDULED SIGNAL TURN ON.
- THE SCHEDULED TRAFFIC SIGNAL TURN ON SHALL OCCUR BETWEEN THE HOURS OF 9 AND 10 AM. UNLESS OTHERWISE AGREED UPON BY ALL PARTIES, THE INSPECTION SHALL OCCUR THE SAME DAY AS THE TURN ON.
- ALL TRAFFIC SIGNAL HEADS SHALL HAVE LOUVERED BACKPLATES.
- THE MAST ARM MOUNTED LUMINAIRES SHALL BE ENERGIZED FROM AN UNMETERED SERVICE WITH A DISCONNECT AND PHOTOCELL CONTROLLER, SEPARATE FROM THE METERED TRAFFIC SIGNAL SERVICE. THE DISCONNECT AND PHOTOCELL CONTROLLER SHALL BE MOUNTED TO THE TRAFFIC SIGNAL WOOD POLE.
- THE LUMINAIRE DAVIT AND TRUSS ARMS, THE LUMINAIRE, AND THE LUMINAIRE WIRING SHALL BE SUPPLIED AND ERECTED WITH THE TRAFFIC SIGNAL MAST ARM BY THE CONTRACTOR. THE MAST ARM FOUNDATION SHALL INCLUDE A SEPARATE STUB AND CAP FOR THE LUMINAIRE WIRING. TRAFFIC SIGNAL CABLE AND ROADWAY LIGHTING CABLE SHALL NOT BE INSTALLED IN THE SAME CONDUIT.
- THE LUMINAIRE DAVIT ARMS SHALL MEASURE FIFTEEN (15) FEET IN LENGTH.
- ALL LUMINAIRES SHALL BE HIGH PRESSURE SODIUM, 250 WATT, 110 VOLT, AND HORIZONTAL MOUNT, WITH TYPE M-C-III DISTRIBUTION.
- ALL LUMINAIRES SHALL BE WIRED TO THE LOAD SIDE OF THE SERVICE DISCONNECT.
- THE CONTROLLER SHALL BE ORIENTED SUCH THAT INTERSECTION OPERATION AND CONTROLLER COMPONENTS CAN BE VIEWED SIMULTANEOUSLY.
- A PEDESTRIAN PUSH-BUTTON SIGN SHALL BE MOUNTED ABOVE EACH PEDESTRIAN PUSH-BUTTON. THE SIGN SHALL BE ACCORDING TO SECTION 888 OF THE STANDARD SPECIFICATIONS AND SHALL BE INCLUDED IN THE COST OF THE PEDESTRIAN PUSH-BUTTON.
- AGENCY RESPONSIBLE FOR ENERGY CHARGES: CITY OF BLOOMINGTON.
- REFER TO THE PAVEMENT MARKING PLANS FOR THE LOCATION OF PAVEMENT MARKINGS.

TRAFFIC SIGNAL/ROADWAY LIGHTING BILL OF MATERIALS

ITEM	UNIT	QUANTITY
SIGN PANEL, TYPE 1	SO FT	20
SIGN PANEL, TYPE 2	SO FT	50
SERVICE INSTALLATION, TYPE A	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
TRAFFIC SIGNAL WOOD POLE, 30 FT., CLASS 4	EACH	1
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	190
CONDUIT IN TRENCH, 1/4" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	164
CONDUIT IN TRENCH, 2" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	1180
CONDUIT IN TRENCH, 2 1/2" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	120
CONDUIT IN TRENCH, 4" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	113
CONDUIT IN TRENCH, 5" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	111
CONDUIT AUGERED, 3", HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	118
CONDUIT AUGERED, 4", HIGH DENSITY POLYETHYLENE, COILABLE	FOOT	130
JUNCTION BOX (SPECIAL)	EACH	10
CONCRETE HANDHOLE	EACH	3
CONCRETE DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1878
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1485
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
PHOTOCELL CONTROLLER	EACH	1
FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE IV, 8 PHASES, IN TYPE IV CABINET	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	880
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	900
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1310
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1630
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	8005
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	95
PEDESTRIAN PUSH-BUTTON POST, GALVANIZED STEEL, TYPE II	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	4
CONCRETE FOUNDATION, TYPE D	FOOT	3.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	72
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR, RACK MOUNTED	EACH	18
INDUCTIVE LOOP DETECTOR, RACK MOUNT WITH SYSTEM OUTPUT	EACH	10
DETECTOR LOOP, TYPE I	FOOT	2520
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED, SPECIAL	EACH	4

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL PLANS
HAMILTON ROAD/MORRIS AVENUE
 TRAFFIC SIGNAL/ROADWAY LIGHTING
 GENERAL NOTES AND BILL OF MATERIALS
 DATE : 3-05
 DRAWN BY : J.A.J.
 CHECKED BY : J.T.P.

SCALE : NONE