

BILL OF MATERIALS

PAY CODE	ITEM	UNIT	QUAN
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L. SUM	1
80700140	GROUND ROD, 5/8" DIA. x 10 FT	EACH	17
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	110
81018600	CONDUIT PUSHED, 2 1/2" DIA. GALVANIZED STEEL	FOOT	152
81018900	CONDUIT PUSHED, 4" DIA. GALVANIZED STEEL	FOOT	58
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	200
81702440	ELECTRIC CABLE IN CONDUIT 600 V (XLP TYPE USE) 3 -1/2" NO. 1/0	FOOT	200
82102100	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 100 WATT	EACH	8
82102150	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 150 WATT	EACH	12
82500505	LIGHTING CONTROLLER, SPECIAL	EACH	1
83006400	LIGHT POLE, ALUMINUM 30 FT. M.H. 10 FT MAST ARM	EACH	8
83008400	LIGHT POLE, ALUMINUM 40 FT. M.H. 10 FT MAST ARM	EACH	8
83600400	POLE FOUNDATION METAL	EACH	16
83800105	BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5" BOLT CIRCLE	EACH	8
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15" BOLT CIRCLE	EACH	8
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	1
X8070200	GROUND ROD ARRAY	EACH	1
X006505	EXTERNAL LIGHT SHIELD, HOUSE SIDE	EACH	20
X006506	POLYETHYLENE DUCT, BORED AND PULLED, 1/4" DIA WITH ELECTRIC CABLE 600 V (XLP TYPE - USE), 2-1/2" NO. 6, 1/2" NO. 6 GROUND AND 1/2" NO. 14 GRAY TRACER WIRE	FOOT	3,000

GENERAL NOTES

- WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED AND SHALL BE MEASURED ONLY ONCE FOR PAYMENT, AS TRENCH AND BACKFILL.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER AT THE PRECONSTRUCTION INSPECTION. THE EXACT LOCATIONS OF ALL OTHER ROADWAY LIGHTING ITEMS, INCLUDING THE LIGHTING CONTROLLER(S), SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
- THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL BE REMAIN WITH THE CONTRACTOR.
- THE CONTRACTOR SHALL SUBMIT FOR THE RESIDENT ENGINEER REVIEW, WITHIN 30 DAYS AFTER CONTRACT EXECUTION, EIGHT (8) COPIES OF APPROVABLE MANUFACTURER'S PRODUCT DATA AND DETAIL SHOP DRAWINGS TO THE ATTENTION OF COUNTY ENGINEER, DIRECTOR OF TRANSPORTATION, 16111 NELSON ROAD, WOODSTOCK, IL 60098.
 - TRENCH: ELECTRICAL WARNING TAPE
 - FOUNDATION CONCRETE: CLASS "SI" CONCRETE, REINFORCEMENT, RACEWAYS. ANCHOR BOLTS WITH NUTS & WASHERS. METAL: SHOP DRAWING
 - CONDUIT: CONDUIT AND CONDUIT FITTINGS.
 - GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.
 - UNIT DUCT/CABLES: UNIT DUCT, CABLES
 - ELECTRIC CABLES: ELECTRIC CABLES
 - LIGHT POLE/ARM: POLE DETAILS, SHOP DRAWING, & WIND LOAD CALCULATIONS, POLE WIRE
 - LUMINAIRE: ROADWAY LUMINAIRE WITH BALLAST ASSEMBLY.
 - ELECTRICAL ITEMS: ELECTRIC TAPES, QUICK DISCONNECT WITH FUSE, LAMPS.
 - LIGHTING CONTROLLER: CIRCUITRY DETAIL, CATALOG ON MATERIALS, PAINT.
 - LUMINAIRE SHIELD: MANUFACTURER CATALOG AND DETAILS
 - BREAKAWAY DEVICE, TRANSFORMER BASE.
- UNIT DUCT PROVIDED IN THIS CONTRACT SHALL BE 1/4" DIA. DUCT WITH 2-1/2" NO. 6 (BLACK-RED), 1/2" NO. 6 (GREEN) GROUND AND 1/2" NO. 14 TRACER WIRE (GRAY) SOLID COLOR CODED INSULATED CONDUCTOR.
- THE CONTRACTOR SHALL SUBMIT FOUR (4) SET FULL SIZED COMPLETE, NEAT AND ACCURATE "RECORD DRAWINGS" TO THE ENGINEER FOR REVIEW AND COMMENT. AS SPECIFIED. THE "RECORD DRAWINGS" SHALL BE UPDATED ON REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.
- THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL GIVE IN WRITING TO THE ENGINEER FOR REVIEW, CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING WORK, AND THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
- THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVELED PAVEMENT SHALL BE 10 FT OR 8'-6" FROM THE BACK FACE OF THE CURB TO THE FACE OF FOUNDATION.
- RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- THE PROPOSED TRENCH SHALL BE 30 INCH BELOW GRADE.

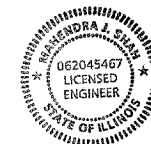
SYMBOLS

- LIGHTING UNIT, ALUMINUM 40 FT. MOUNTING HEIGHT, 10 FT MAST ARM, LUMINAIRE WITH HOUSE SIDE LIGHT SHIELD AND 150 WATT HIGH PRESSURE SODIUM VAPOR LAMP. BALLAST -240 VOLT AUTO REGULATOR (LEAD TYPE) CWA. LIGHTING UNIT IS MOUNTED ON METAL FOUNDATION WITH BREAKAWAY DEVICE-TRANSFORMER BASE.
- LIGHTING UNIT, ALUMINUM 30 FT. MOUNTING HEIGHT, 10 FT MAST ARM, LUMINAIRE WITH HOUSE SIDE LIGHT SHIELD AND 100 WATT HIGH PRESSURE SODIUM VAPOR LAMP. BALLAST -240 VOLT AUTO REGULATOR (LEAD TYPE) CWA. LIGHTING UNIT IS MOUNTED ON METAL FOUNDATION WITH BREAKAWAY DEVICE-TRANSFORMER BASE.
- STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT. MOUNTING HEIGHT, 15 FT MAST ARM, FOR ROADWAY LUMINAIRE WITH HOUSE SIDE LIGHT SHIELD AND 150 WATT HIGH PRESSURE SODIUM VAPOR LAMP. BALLAST -240 VOLT AUTO REGULATOR (LEAD TYPE) CWA.
- STATION NUMBER (TYP)
- POLE NUMBER (TYP)
- BRANCH CIRCUIT DESIGNATION (TYP)
- GROUND ROD, 5/8" DIA. x 10 FT
- CONDUIT IN TRENCH (T) OR PUSHED (P)
- RIGID GALVANIZED CONDUIT (RGC) DIA. x LENGTH
- UNIT DUCT WITH 600V CABLES (XLP-TYPE USE), POLYETHYLENE CONDUIT, CABLE AND DUCT SIZE AS SHOWN ON THE PLAN.
- PROPOSED LIGHTING CONTROLLER 225 AMP MAIN BREAKER
- EXISTING UTILITY SERVICE POLE
- EXISTING LIGHTING UNIT, TO BE REMOVED AND SALVAGE

CAUTION

"THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTS BETWEEN THE PROPOSED LIGHT POLE FOUNDATION LOCATIONS AND EXISTING UTILITIES, PROPOSED UTILITIES, EXISTING DRIVEWAYS, AND PROPOSED DRIVEWAYS. IF A CONFLICT IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE."

PROJECT ENGINEER



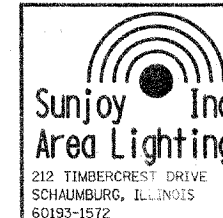
LICENSE EXPIRE: NOVEMBER 30, 2007

Reshonda L. Slick

PROJECT DRAWINGS #E-1 TO #E-9
ARE PREPARED BY SUNJOY INC.

NOTE:

- THE MATERIALS AND WORK FOR THIS PROJECT SHALL CONFORM TO THE APPLICABLE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ISSUED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, SPECIAL



McHENRY COUNTY DIVISION OF TRANSPORTATION
CITY OF CRYSTAL LAKE
INTERSECTION OF GOLF COURSE ROAD
WITH ACKMAN ROAD

BILL OF MATERIALS, SYMBOLS & GENERAL NOTES

SCALE: NONE
DATE: NOV. 23, 2005

DRAWN BY: HKO
CHECKED BY: JS