## 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	62
81000700	CONDUIT IN TRENCH, 21/2" DIA., GALVANIZED STEEL	FOOT	20
81001000	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	140
81000700	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	82
81018700	CONDUIT PUSHED, 3" DIA. GALVANIZED STEEL	FOOT	322
81500200	TRENCH AND BACKFILL FOR ELECTICAL WORK	FOOT	3,500
82102100	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 100 WATT	EACH	20
82102400	DECORATIVE LANTERN STYLE LUMINAIRE, SODIUM VAPOR, TENON MOUNT, 100 WATT	EACH	47
82500505	LIGHTING CONTROLLER, SPECIAL	EACH	1
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	342
84200600	REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	6
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
	UNIT DUCT WITH 5-I/C NO.6 AND I/C NO.6 GROUND 600 V (XHHW-2), I/4" DIA POLYTHYLENE	FOOT	4,500
81702180	ELECTRIC CABLE IN CONDUIT 600 V(XLP TYPE USE) I/C NO. 3/0	FOOT	150
	ELECTRIC CABLE IN CONDUIT 600 V (XHHW-2), 6 I/C NO. 6	FOOT	540
	ELECTRIC CABLE IN CONDUIT 600 V (XHHW-2), 5 I/C NO. 10	FOOT	660
	DECORATIVE, LIGHT POLE, ALUMINUM, 16 FT MOUNTING HEIGHT, FLUTED SHAFT AND 2 PIECE BOLT ON DECORATIVE BASE	EACH	37
	DECORATIVE, LIGHT POLE, ALUMINUM, 10 FT FLUTED SHAFT AND 2 PIECE BOLT ON DECORATIVE BASE	EACH	10
	LIGHT POLE, ALUMINUM, 25 FT MOUNTING HEIGHT, 6 FT MAST ARM	EACH	20

THE FOLLOWING LISTED ITEMS ARE EMBEDDED IN BRIDGE STRUCTURE:

- d. ANCHOR BOLTS IN CONCRETE BRIDGE RAIL FOR LIGHTING UNIT FOUNDATION.
  b. JUNCTION BOX WITH COVER STAINLESS STEEL, ELECTRIC PANEL WITH
  DISTRIBUTION BLOCKS AND FUSE.
- c. 11/2" DIA PVC CONDUIT (SCHEDULE 40) d. 1" DIA PVC CONDUIT (SCHEDULE 40)

IN A BRIDGE STRUCTURAL JOINTS, EXPANSION FITTINGS SHALL BE INSTALLED. FOR ALL ELECTRICAL RACEWAY RUNS.

COST OF FURNISHING AND INSTALLATION THESE MATERIAL SHALL BE INCLUDED WITH BRIDGE STRUCTURE MATERIALS AND WILL NOT BE PAID SEPERATELY.

## 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 FOR ELECTRICAL WORK.
- 2. 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.
- 3. THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL BE REMAIN WITH THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL SUBMIT FOR THE RESIDENT ENGINEER APPROVAL, WITHIN 30 DAYS AFTER CONTRACT EXECUTION, EIGHT (8) COPIES OF APPROVABLE MANUFACTURER'S PRODUCT DATA AND DETAIL SHOP DRAWINGS TO THE ATTENTION OF SMITH ENGINEERING, 4500 PRIME PARKWAY MCHENRY, IL 60050, Ph. 815-385-1778 THE FOLLOWING:
- d. TRENCH: ELECTRICAL WARNING TAPE
   b. FOUNDATION: CLASS "SI" CONCRETE, REINFORCEMENT, RACEWAYS.
   ANCHOR BOLTS WITH NUTS & WASHERS.
   c. CONDUIT: CONDUIT AND CONDUIT FITTINGS.

- d. GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.

  e. UNIT DUCT/CABLES: UNIT DUCT, CABLES

  f. ELECTRIC CABLES: ELECTRIC CABLES

  g. LIGHT POLE/ARM: POLE DETAILS, SHOP DRAWING, & WIND
- LOAD CALCULATIONS, POLE WIRE
  h. LUMINAIRE: ROADWAY LUMINAIRE WITH BALLAST ASSEMBLY. I. ELECTRICAL ITEMS: ELECTRIC TAPES, QUICK DISCONNECT WITH FUSE, LAMPS.
  J. LIGHTING CONTROLLER: CIRCUITRY DETAIL, CATALOG ON MATERIALS, PAINT. k. JUNCTION BOX: CATALOG CUTS.
- 5. UNIT DUCT SHALL BE 11/4" DIA. DUCT WITH 5-1/c NO.6 (BLACK-RED, BLUE-ORANGE, WHITE) 1/c NO.6 (GREEN) GROUND SOLID COLOR CODED INSULATED CONDUCTOR.
- 6. THE CONTRACTOR SHALL SUBMIT FOUR (4) SET FULL SIZED COMPLETE, NEAT AND ACCURATE "RECORD DRAWINGS" PLAN SETS 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.
- 7. 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.
- 9. THE LIGHT POLE SETBACK SHALL BE  $6^\prime$  FROM THE BACK OF CURB TO THE FACE OF FOUNDATION.
- 10. RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
- 11. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
- 12. THE PROPOSED TRENCH SHALL BE 36 INCH BELOW FINISHED GRADE
- 13. BALLAST LOSSES SHALL NOT EXCEED 37% FOR A 100 WATT HPS, 55V LAMP LUMINAIRE.

## SYMBOLS

- LIGHT POLE, ALUMINUM, 25 FT MOUNTING HEIGHT, 6 FT MAST ARM, 111/2" DIA BOLT CIRCLE, LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 100 WATT CLEAR LAMP, 240 VOLT BALLAST,
- DECORATIVE, LIGHT POLE, ALUMINUM, 16FT MOUNTING HEIGHT, 12/2" DIA BOLT CIRCLE, 2 PIECE BOLT ON DECORATIVE CAST ALUMINUM BASE, WITH BANNER ARMS AND FESTOON GFCI OUTLET, DECORATIVE LANTERN STYLE LUMINAIRE TENON MOUNT. 100 WATT CLEAR LAMP, 240 VOLT BALLAST CWA.
- DECORATIVE LIGHT POLE, ALUMINUM, MOUNTED ON BRIDGE CONCRETE RAIL, 16 FT MOUNTING HEIGHT, 6¾" DIA BOLT CIRCLE, 2 PIECE BOLT ON DECORATIVE CAST ALUMINUM BASE, WITH BANNER ARMS AND FESTOON GFCI OUTLET, DECORATIVE LANTERN STYLE LUMINAIRE - TENON MOUNT, 100 WATT CLEAR LAMP, 240 VOLT BALLAST CWA

-STATION NUMBER (TYP) STA 19+42 A13-F17 -NUMBER OF LOAD ON CIRCUIT BREAKER -FESTOON CIRCUIT BREAKER DESIGNATION POLE NUMBER (TYP) -LIGHTING CIRCUIT BREAKER DESIGNATION

EXISTING LIGHTING POLE TO BE REMOVED, FROM BRIDGE RAIL

UTILITY SERVICE POLE. MOUNTED TRANSFORMER EXISITNG LIGHTING CONTROLLER, TO BE REMOVED

GROUND ROD, 5/8" DIA. × 10 FT

CONDUIT IN TRENCH (T) CONDUIT, PUSHED (P) RIGID GALVANIZED STEEL (RGSC) CONDUIT DIA. x LENGTH

ELECTRIC CABLE IN UNIT DUCT, NUMBER OF CONDUCTORS AND DIAMETER OF CONDUIT AS SHOWN IN DETAILS

UNIT DUCT WITH 5-1/C NO. 6 AND 1-1/C NO.6 GROUND, 600 V (XHHW-2), 11/4" POLYETHYLENE

LIGHTING CONTROLLER, SPECIAL

JUNCTION BOX STAINLESS STEEL EMBEDDED IN STRUCTURE JB

CONDUITS EMBEDDED IN STRUCTURE

## NOTE:

THE MATERIALS AND WORK FOR THIS PROJECT SHALL CONFORM TO THE LATEST APPLICABLE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ISSUED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. SPECIAL PROVISIONS CHECK LIST IS ATTACHED WITH THIS PROJECT.



PROJECT DRAWINGS #E-1 TO #E-12 ARE PREPARED BY SUNJOY INC. REVISION 02-26-05

Sunjoy Inc. Area Lighting 212 TIMBERCREST DRIVE

SCHAUMBURG, ILLINOIS

VILLAGE OF CARPENTERSVILLE MAIN STREET OVER FOX RIVER

**BILL OF MATERIALS, SYMBOLS** & GENERAL NOTES

SCALE: NTS DATE: 02-05-05

E-I OF 12

DRAWN BY: HMQ

CHECKED BY: JS