

480 VOLT
STREET LIGHT STANDARD RELOCATION

I. Quantity

II.

The base bid shall include the indicated number of poles to be relocated.

II. Material

- a. Ground Rod - The ground rod shall be a minimum of ½" x10' copperweld, Porcelain Product #8430; Blackburn #5010 or approved equal.
- b. Ground Wire - The ground wire to the pole shall be #6 AWG solid copper.
- A. Ground Rod Clamp - The ground rod clamp shall be ½" copper alloy, HEX or square head screw with 1/2"-13UNC; Joslyn #J8591H; Blackburn #JAB ½H or approved equal.
- B. Crimp Connectors - The crimp compression connectors shall be copper, Burndy YC2C4 and YC4C4 or approved equal.
- C. Compression Terminal Lug - The copper lug shall one hole type to fit ¼" machine bolt. The seamless copper tubing shall be a minimum of 1" and be marked for #4 conductor. The lug shall be hot tin dipped to provide corrosion resistance and be HOMAC L4-14 or approved equal.
- D. Fuse Kit – The fuse kit for the phase (hot) wire shall have a super lag type fuse. The fuse kit shall be Buchanan 82S-EAFB1-C, or approved equal. Use KTK-3 amp fuse for 250W HPS/480V luminaire or less, and KTK-6 amp fuse for 400W HPS/480V luminaire._-
- E. Wire - The pole and bracket wire shall be #10AWG copper, 7 strand, thermosetting chemically crosslinked polyethylene insulation, 600 volt. The hot wire shall be black and neutral shall be white. The ground wire shall be green.
- F. Cable Grip - The cable grip shall be a Kellam's cable grip for insulated wire.
- G. Tape –Tape shall be 1/2" vinyl tape. The tape shall be coded Red or White, Scotch #35 or approved equal.

III. Installation

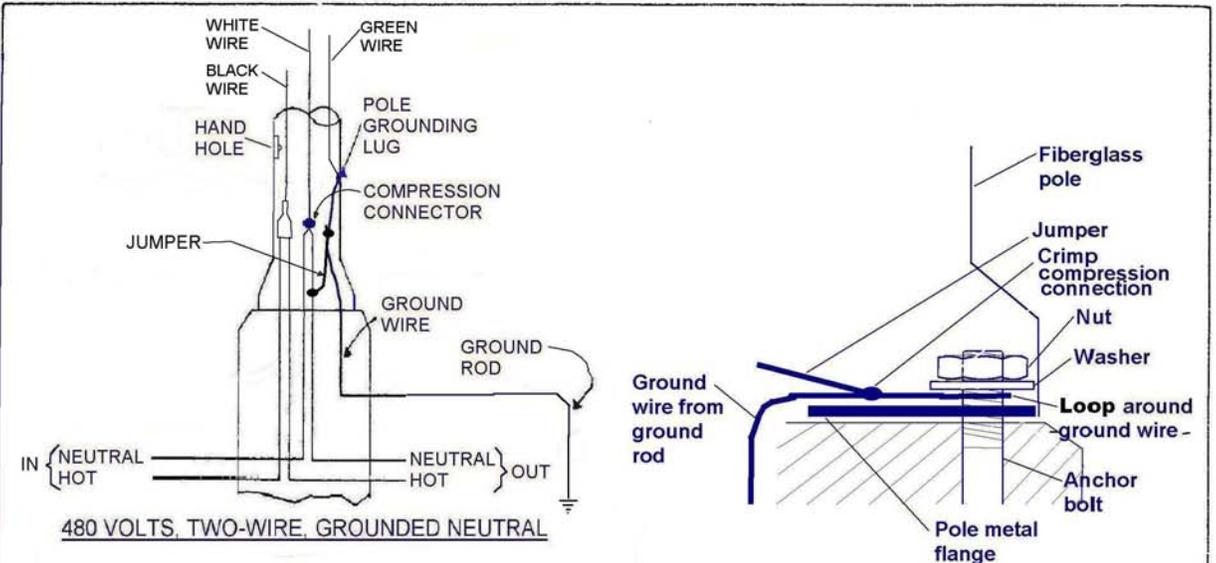
The standard shall be removed from the old foundation and placed directly on the new concrete foundation with sufficient care as to preserve the exterior finish of the pole and the surface of the foundation. The pole shall be plumbed and tightened in place.

New connector kits and ground wire shall be installed as follows:

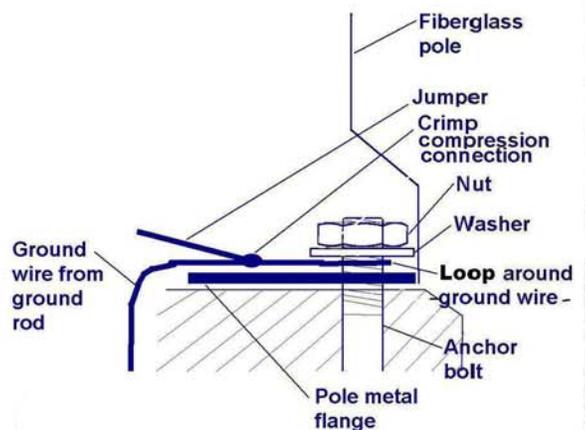
- a. The hot wire of the circuit shall be connected to the fused connector kit.
- b. The bare ground wire shall be connected to the ground rod and the pole.
- c. The riser wires shall be run through the shaft to the luminaires.
- d. The riser wires shall be supported by the cable grip near where it enters the mast arm or luminaire.
- e. The ground rod shall be installed in un-disturbed earth. **Testing shall indicate 25 ohms or less.**
- f. to Ground a Metal Pole - The bare ground wire shall be connected to the ground rod with a ground rod clamp. The ground wire shall be crimped to the terminal lug and bolted to the pole, and tightened with a nut and washer until secure. A jumper ground wire shall be crimped to the main ground wire and bonded to the #4 neutral (black with white tracer) by using a crimp connection. White tape shall be wrapped around the #4 neutral wire five (5) times below the crimp. See Drawing 01S130, "Detail 1".
- g. To Ground a Fiberglass Pole - The bare ground wire shall be connected to the ground rod with a ground rod clamp. The ground wire shall be wrapped around an anchor bolt and tightened with the anchor nut and washer until secure. See Drawing 01S130 "Detail 2". A jumper ground wire shall be crimped to the main ground wire and bonded to the #4 neutral (black with white tracer) by using a crimp. White tape shall be wrapped around the #4 neutral wire five (5) times below the crimp.
- h. The #4, phase (hot) wire and the black, #10 pole wire shall be connected to the terminal block fuse kit. Red tape shall be wrapped five (5) times around the hot wire below the fuse kit.
- i. The #10 black wire shall run from the fuse kit through the pole shaft to the luminaire.
- j. The white #10 wire shall run from the compression crimp of the #4 neutral (black with white tracer) and the ground wire, through the pole shaft to the luminaire.
- k. The green #10 wire shall run from the compression crimp of the #4 neutral (black with white tracer) and the ground wire, through the pole shaft to the luminaire.
- l. The #10 black, Green and white pole wires shall be supported by the cable grip near the mast arm or luminaire entrance.

IV. Quotation

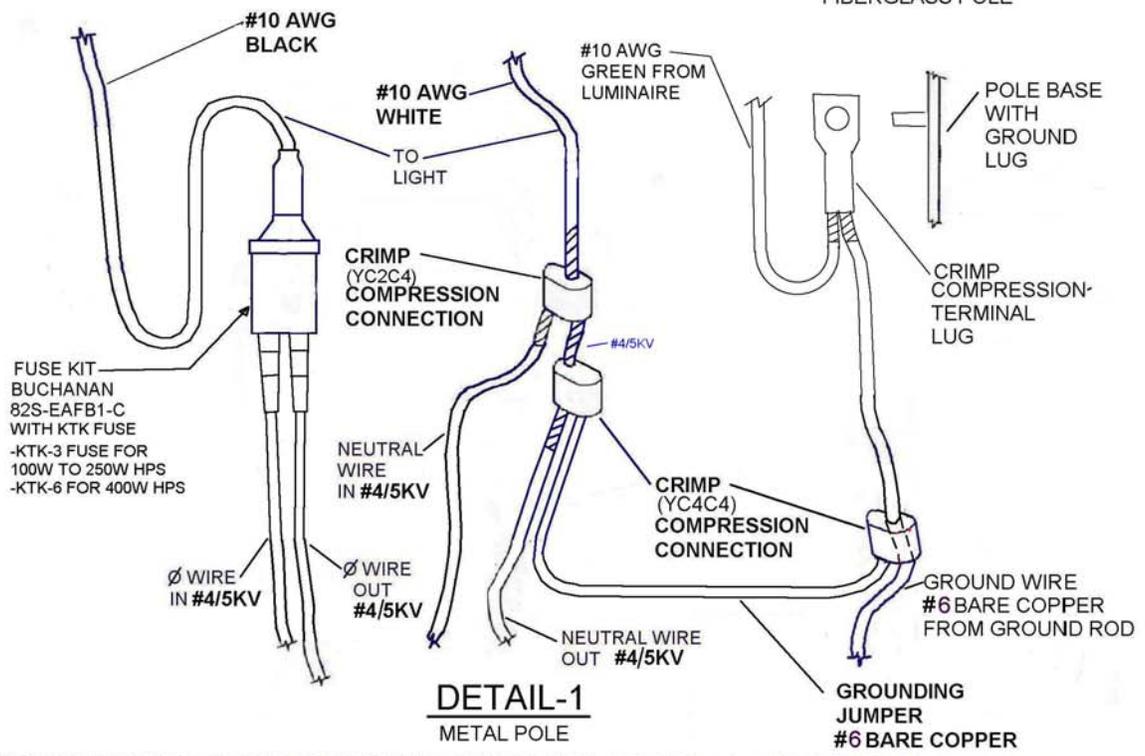
The poles to be wired shall be quoted as a unit price in the appropriate places of this document.



480 VOLTS, TWO-WIRE, GROUND NEUTRAL



DETAIL-2
FIBERGLASS POLE



DETAIL-1
METAL POLE

GROUNDING JUMPER #6 BARE COPPER

<p>MEL & P MUNICIPAL ELECTRIC LIGHT & POWER SYSTEM CITY OF COLUMBUS, OHIO DEPT. OF UTILITIES & AVATION - DIV. OF ELECTRICITY</p>		<p>POLE WIRING 480 VOLT -2 WIRE</p>																
		SCALE NONE	DRAWN AMPUDIA 9/03	DRAWING NO. 01S0130														
<p>REVISIONS</p> <table border="1"> <tr><td>9/1/03</td><td></td></tr> <tr><td>9/15/03</td><td></td></tr> <tr><td>10/24/03</td><td></td></tr> <tr><td>12/10/03</td><td></td></tr> <tr><td>03/23/05</td><td></td></tr> <tr><td>08/25/05</td><td></td></tr> <tr><td>11/17/06</td><td></td></tr> </table>		9/1/03		9/15/03		10/24/03		12/10/03		03/23/05		08/25/05		11/17/06		C. O. NUMBER	APPROVED	SHEET 1 OF 1
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