ITEM 02660.868Z M – MEDIUM VOLTAGE OVERHEAD CABLES

DESCRIPTION:

This work shall consist of furnishing and installing Medium Voltage Overhead Cables complete, in accordance with the plans, specifications and as directed by the Engineer.

MATERIALS:

CABLES:

Manufacturers: Alcan Cable Co.; BICC Cables Company, General Wire & Cable Co.; Kerite; Rome Cable Corp.

15 KV Cable: Meet local utility standards.

Cable type: ACSR

Insulation: None

Connectors: Connector Manufacturing Co.; Cooper Power Systems; Hubbell Anderson.

Medium-Voltage Line Conductors: Aluminum Conductor, Steel Reinforced (ACSR), complying with ASTM B 232.

Connectors, Splices, and Conductor Securing and Protecting Components: Items include wire clamps, ties, conductor armor, fittings, connectors, and terminals. Listed for the specific applications and conductor types and combinations of materials used. Descriptions as follows for various applications:

- Aluminum Composition to Aluminum Composition: Aluminum alloy, complying with UL486B.
- Copper to Aluminum Composition: Type designated for this purpose, complying with UL486B.
- Taps for Medium-Voltage Line Conductors: Hot-line clamps, screw type, with concealed threads and bare, hard-drawn copper stirrups. Listed for the combination of materials being connected.

SUBMITTALS:

Complete manufacturer's construction details and specifications for the cables.

400mm (16 inch) sample of cable for inspection by local utility.
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BASIS OF ACCEPTANCE:

Acceptance of the Medium Voltage Overhead Cables will be based on manufacturer’s certification of compliance with these specification requirements.

CONSTRUCTION DETAILS:

Shop Drawings: Indicating ratings, dimensions and features for cable and all accessories, used on the project, shall be submitted to the engineer for approval. The contractor is not to order materials until approval is obtained.

INSTALLATION:

CONDUCTOR INSTALLATION, GENERAL:

Handle and string conductors to prevent cuts, gouges, scratches, kinks, flattening, or deformation. Remove damaged sections and splice conductors.

String new conductors to "initial" sag table values recommended by manufacturer for type and size of conductor and ruling span.

Conductors Reinstalled or Resagged: String to "final" sag values recommended by manufacturer for type and size of conductor and ruling span.

Connections, Splices, and Terminations: Use kits listed for the specific type of connection and combination of materials used in the connection, or recommended for the specific use by manufacturer of material on which applied.

Splice Location: Do not install within 3 meters of a support.

Line Conductors and Service Drops: Install so strength exceeds ultimate rated strength of conductor.

MEDIUM-VOLTAGE LINE CONDUCTOR INSTALLATION:

Application: Install bare conductors, unless otherwise indicated.

Support line conductors and taps as follows: Use wire ties for conductor attachment to pin and vertical post insulators, unless otherwise indicated.

Install wire ties tight against conductor and insulator, and turn ends back, flat against conductor, to eliminate exposed wire ends.

Use wire clamps on horizontal post, dead end, and suspension
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insulators, unless otherwise indicated.

Cable Storage: Store where cable will be at temperature recommended by cable manufacturer for optimum workability.

Installing Cables: Pull all cables with a dynamometer or strain gauge incorporated into the pulling equipment. Do not pull cables unless the Engineer is present to observe readings on the dynamometer or strain gauge during the time of actual pulling. Total strain shall not exceed that recommended by the Cable Manufacturer.

Terminations and Splices: Engage a cable splicer trained and certified by the splice material manufacturer.

All terminations are to be made in strict accordance with the Manufacturers instructions.

METHOD OF MEASUREMENT:

The work will be measured as the number of meters of single conductor (along the conductor) installed. Do not include any excess length trimmed at termination.

BASIS OF PAYMENT:

The unit price bid shall include the cost of furnishing and installing with electrical connections, field testing and all labor, materials, equipment and incidentals necessary to complete the work.

PAYMENT WILL BE MADE UNDER:

Item No. 02660.868Z

Medium Voltage Overhead Cables

Z = size code

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