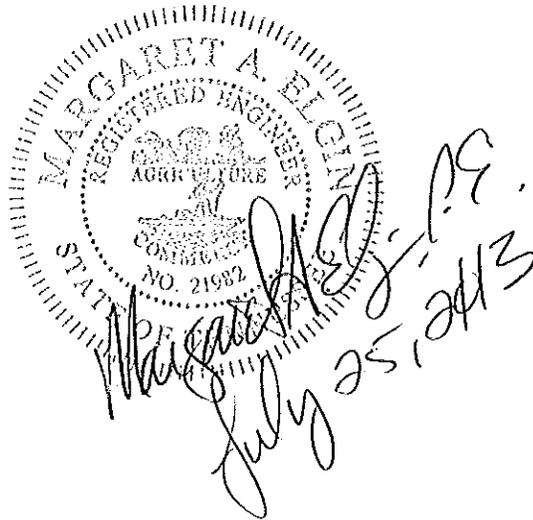


SPECIFICATIONS
AND
BID DOCUMENTS
FOR
UNDERGROUND DISTRIBUTION CABLE
CITY OF OAK RIDGE, TENNESSEE

Bids due by 2:00 PM Local Time
August 13, 2013



Specification #: 2013 Purchase of 500 MCM UGD CU Cable
City of Oak Ridge Electric Department

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1.0 INVITATION TO BIDDERS

Sealed bids will be received by the City of Oak Ridge, Tennessee, at its office in Oak Ridge, Tennessee for the project bid package shown below, until the date and time indicated, and immediately thereafter will be opened, and publicly read.

The City of Oak Ridge reserves the right to reject any or all bids and to waive any informalities or technicalities therein. The bid will be awarded to the lowest and best responsive bidder as determined by the Engineer.

No bidder may withdraw a bid for a period of thirty (60) days after the date set for opening of bids.

Specifications may be obtained from the Engineer. Specifications may be examined at the office of the Engineer.

OWNER: City of Oak Ridge, Tennessee
Electric Department
100 Woodbury Lane
Post Office Box 1
Oak Ridge, TN 37831-0001

ENGINEER: ATTN : Philip Stokinger
TEL : 865 425 1864
FAX : 865 482 8313
email : pstokinger@oakridgetn.gov

PROJECT / PACKAGE : 2013 Purchase of 15kV 500 MCM Copper Cable

BID DATE: 2:00 PM, August 13, 2013

2.0 INSTRUCTIONS TO BIDDERS

- 2.1 You are invited to submit a Bid for Distribution Cable – the City of Oak Ridge, Tennessee.
- 2.2 The Owner does not obligate itself to accept the lowest or any other bid and specifically reserves the right to reject any and all bids.
- 2.3 The Bidder shall provide all information requested. The Bidder shall take care to complete all portions of the Proposal documents and to provide all required submittals. Failure to comply may result in the rejection of the bid.

Bidder shall return three (3) signed and priced copies of the Bid documents and all submittals required at the time of the Bid to:

City of Oak Ridge
100 Woodbury Lane
Oak Ridge, TN 37831-0001
ATTN: Lyn Majeski, Materials Management

sealed and marked in the lower left corner :

"SEALED BID for 15kV 500 MCM CU Distribution Cable
Confidential - To be delivered to addressee unopened"

- 2.4 No proposal security will be required to accompany proposals.
- 2.5 The Owner invites cost saving and schedule improving alternatives. A Bidder shall first complete the Base Bid as issued by the Owner; Bidder may then submit the alternatives referenced to the base proposal. If the Bidder recommends any changes or deviations from the documents, Bidder shall describe the change fully and furnish complete information so that the Owner can make a decision based upon the alternative information provided.
- 2.6 If the Bidder requires additional information or is in doubt as to the meaning of any part of the Contract documents, Bidder may telephone or submit a written request to the Engineer for such information or clarification. For questions to be answered, they must be received at least five (5) days prior to the Bid due-date. Addenda may be issued as deemed necessary by the Engineer.
- 2.7 The Engineer will represent the Owner in all matters pertaining to the project, including but not limited to, answering technical questions of prospective bidders, bid evaluation and recommendation, review and approval of fabrication drawings and similar documents, and approval of invoices prior to payment by the Owner.
- 2.8 The terms Purchaser and Owner shall refer to the City of Oak Ridge. The terms Bidder, Seller and Manufacturer shall refer to the supplier of the equipment described by the documents.

- 2.9 If these specifications call for material, equipment or manufacturing procedures different from the Manufacturer's standard, the Manufacturer shall clearly identify all deviations or substitutions in this bid. When possible, the Manufacturer should bid according to the specifications with the Manufacturer's standard as an option.
- 2.10 Equal shall mean a satisfactory equivalent as approved solely by the Engineer.
- 2.11 Proposals should include Manufacturer's best delivery date that is as close as possible to the requested delivery date.
- 2.12 The Bidder shall clearly state all exceptions to this specification. Unless specifically stated otherwise, the Bidder shall furnish equipment, material and services in exact accordance with this specification, and any modifications to equipment, material and services necessary to comply with this specification shall be made by the Bidder at no additional cost to the Purchaser.
- 2.13 The cost to furnish any and all prints, drawings, diagrams, instruction manuals, cutsheets, AutoCad electronic files, reports, and certified test reports shall be included in the bid process and shall not be listed as a separate item.
- 2.14 All requested options, devices, and equipment are required, and expected per the specifications, and the cost to furnish fully operational equipment with explanatory documentation shall be included in the bid process and shall not be listed as separate items.

3.0 TERMS AND CONDITIONS

3.1 Acceptance; Entire Agreement

Acceptance of this order by acknowledgement, shipment or other performance shall be expressly limited to the terms and conditions contained in this order. Any additional or different terms or conditions proposed by the Seller are objected to and are hereby rejected. Upon acceptance, the terms contained in this order shall constitute the entire agreement between Seller and Purchaser with respect to the subject matter of this agreement (hereinafter referred to as the "Agreement") and may not be modified, added to, or rescinded except by a written document signed by Seller and Purchaser.

3.2 Assignment and Setoff

The Seller shall not assign any right or interest under this Agreement nor delegate any work or other obligation to be performed or owned under this Agreement without the prior written consent of Purchaser. Any attempted assignment or delegation in contravention of this provision shall be void. Purchaser shall be entitled to set off any amounts owed by Seller to Purchaser against any amounts payable to Seller.

3.3 Delivery Terms

All goods ordered hereunder shall be shipped F.O.B. destination, unless otherwise agreed. No charge will be allowed for packing, crating, freight, express, or cartage, unless agreed to and specified on this order. This order shall not be filled at prices higher than last quoted or charged without proper authorization.

3.4 Payment

Upon the shipment of any material hereunder, the Seller shall submit to the Purchaser a detailed invoice duplicate of the materials shipped. Within 30 days after written acknowledged receipt, the Purchaser shall make payment thereof to the Seller.

3.5 Time of Performance

Time is of the essence of this Agreement. If tender of conforming goods is not made by the delivery date specified or services are not completed by the completion date specified, Purchaser may treat such failure as a breach hereof and will have all remedies afforded to it by law including, but not limited to, the rights to cover.

3.6 Identification; Risk of Loss

Identification of the goods ordered herein shall occur at the moment this order is accepted by Seller. Risk of loss shall pass to the Purchaser at the time that conforming goods to the Agreement are confirmed received at the Delivery Site.

3.7 Infringement

Seller shall indemnify Purchaser and Purchaser's customers for any and all loss, damage,

expense, (including but not limited to attorney's fees) claims or liability arising out of any infringement or claim of infringement of any patent, trademark, copyright, trade secret or other proprietary interest based on the manufacture, installation, normal use, lease, or sale of any service of material furnished to Purchaser under this Agreement. Purchaser shall notify Seller promptly of any such claim or infringement and Seller shall, at its own cost, defend, compromise, or settle, any such action or actions to satisfy and discharge the same without any cost or expense whatsoever to the Purchaser.

3.8 Warranties

Seller warrants to Purchaser that material furnished will be merchantable, fit for Purchaser's intended purposes and free from defect in design, material and workmanship and will conform to and perform in accordance with Purchaser's drawings and specifications and will be safe for its intended use. Seller also warrants to Purchaser that services will be performed in a first class workmanlike manner consistent with accepted industry standards. In addition, if material furnished contains one or more manufacturers' warranties, Seller hereby assigns such warranties to Purchaser. All warranties shall survive inspection, acceptance and payment. Material not meeting the warranties shall at Purchaser's option be repaired, adjusted or replaced by Seller at no cost to Purchaser. Services not meeting the warranties shall at Purchaser's option be reperformed by Seller at no cost to Purchaser. Such remedies shall be available to Purchaser in addition to all others afforded to it at law or equity.

3.9 Rejected Goods

Purchaser shall give notice to Seller of any rejection of goods, and goods rejected will, at Seller's expense, be returned to Seller or otherwise disposed of as Seller may reasonably request. Payment for the goods prior to inspection and approval shall not constitute acceptance thereof. Neither Purchaser's inspection nor its failure to inspect the goods delivered hereunder shall release Seller from its warranties and obligations under this Agreement.

3.10 Termination

- A) Purchaser may terminate this Agreement for default upon notice to Seller if: 1) Seller fails to comply with any of the terms and conditions of this Agreement, including failure to deliver goods or perform services required within the time specified in this Agreement; 2) at any time reasonable grounds for insecurity arise with respect to Seller's expected performance and Seller fails to furnish adequate assurance of due performance within ten (10) days after a written demand by Purchaser for such adequate assurance; 3) Seller shall become insolvent or make an assignment for the benefit of creditors; or 4) Seller shall file a voluntary petition in bankruptcy or insolvency or shall be involuntarily petitioned into bankruptcy or insolvency.
- B) Purchaser may terminate this Agreement, in whole or in part, for its convenience, at any time by giving written notice to Seller, and Seller shall promptly comply with the directions contained in such notice. In such event, Purchaser shall make payment to Seller for all costs incurred by Seller prior to such termination

reasonably allocable to this Agreement under recognized accounting practice, less any scrap or salvage value.

3.11 Liens

Seller shall promptly pay for all materials, supplies and labor employed by it in manufacturing the ordered goods to the end that such goods may be kept free from Materialmen's, Warehousemen's and Mechanics' liens. Seller shall promptly discharge any such liens arising from the performance of this Agreement.

3.12 Indemnity of the Purchaser

The Seller shall indemnify and hold Purchaser and its officers, employees, and agents harmless from and against all suits or claims that may be based upon any alleged injury to or the death of any person or damage to property that may occur or that may be alleged to have occurred in the course of performance of this Agreement whether or not such claim is made by a third person, except when it shall be proved that the alleged injury was caused solely by a negligent act or omission of the Purchaser. Seller shall, at its own cost and expense, pay all costs and expenses of such suit or claim, including attorney's fees in connection therewith, and if any judgement shall be rendered against the Purchaser in any such action or actions the Seller shall satisfy and discharge the same without cost or expense to Purchaser.

3.13 Compliance with Laws

Seller and all material furnished by Seller shall fully comply with all federal, state, and local laws, ordinances, regulations, orders and codes, including identification and procurement of required permits, certificates, approvals and inspections in performance hereunder. Any provision required to be included in this Agreement by any such law, rule or regulation shall be deemed to be included herein. The Equal Opportunity Clause contained in Executive Order 11246 as amended, relating to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin, the Affirmative Action Clause contained in 41 C.F.R. Chapter 60.250 relating to affirmative action obligations to disabled veterans and to veterans of the Vietnam Era, and the Affirmative Action Clause contained in 41 C.F.R. Chapter 60.741 relating to affirmative action obligations to handicapped workers, are incorporated herein by reference. The Seller also certifies that it does not engage in and requires that its subcontractor's (if any) employees or agents not engage in, any form of discrimination based on race, color, religion, sex or national origin. Seller agrees to indemnify Purchaser for any loss or damage that may be sustained by reason of any failure to do so.

3.14 Labeling

All goods and materials to be supplied by Seller under this Agreement shall be labeled in accordance with the requirements of the Federal Occupational Safety and Health Act Hazard Communication Standard (29 CFR 1910.1200) and/or applicable State law or standard of similar effect. Seller shall immediately send to the Purchaser, referencing this purchase order number, all required written safety information materials including without limitation, Material Safety Data Sheets, required under said standards.

3.15 Non-Waiver

No course of dealing or failure of either party to strictly enforce any term, right or condition of this Agreement shall be construed as a waiver of such term, right, or condition.

3.16 Choice of Law

The construction, interpretation and performance of this Agreement and all transactions under it shall be governed and resolved in accordance with the laws of the State of Tennessee.

3.17 Notification

The Manufacturer shall acknowledge in writing to the Engineer that the Owner's Purchase Order or acceptance has been received within 5 days ARO. The acknowledgement shall include the date that the Purchase Order or acceptance is received and the date that equipment delivery is expected.

3.18 Terminology

The terms "shall" and "will" which appear in the Proposal and specifications place an absolute obligation on the Manufacturer to do that which is designated and/or specified.

3.19 Taxes

City of Oak Ridge, Tennessee is exempt from sales tax.

4.0 EQUAL OPPORTUNITY PROVISIONS

- 4.1 This Contract is subject to the provisions of Section 202 of Executive Order Number 11246 of September 24, 1965 as amended relating to Equal Opportunity and to the Affirmative Action requirements of 41CFR60. The Contractor, in performing the work or services of this contract, shall not discriminate against any person seeking employment with or by the contractor because of race, creed, color, sex, sexual orientation, or national origin or other legally protected status.
- 4.2 The City of Oak Ridge, Tennessee encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects and the Bidder is encouraged to actively solicit the participation of these businesses.
- 4.3 Each Bidder shall complete the following Equal Opportunity Compliance Certificate as part of the submitted proposal.

**EQUAL OPPORTUNITY
COMPLIANCE CERTIFICATE**

We hereby certify:

As a(n): _____ Division of Parent Company _____
_____ Subsidiary
_____ Affiliate Address _____
_____ Separate Corporation _____

And being: _____ a Small Business (Ref: ASPR-1-701-1)
_____ Minority Owned Business (Ref: 41CFR-1.701-1)
_____ from a Labor Surplus Area (Ref: 41CFR 1-1.801-1);

Having _____ employees in all divisions , subsidiaries, affiliates and parent (number) company;

That we shall comply with the applicable portions of the Equal Opportunity Clause as promulgated under Executive Order 11246, September 24, 1965 as amended, and all other federal laws and regulations pertaining to the Equal Employment Opportunity and Affirmative Action obligations of Federal Government Contractors, and shall submit the required compliance reports, and shall maintain non-segregated facilities.

Contractor _____

Address _____

Signature of Authorized Representative _____

Date of Signing _____

5.0 SHIPPING

- 1 Unit(s) shall be furnished F.O.B. Destination, Freight Prepaid and Allowed to the destination. Unloading will be provided by the Owner. Destination is: City of Oak Ridge Warehouse, 100 Woodbury Lane, Oak Ridge, TN 37830
- 2 Manufacturer shall be responsible for obtaining necessary permits, providing and verifying routing and, in general, making all the necessary arrangements for transporting the equipment provided to Purchaser's destination.
- 3 No incomplete or partial or unfinished shipments shall be accepted or received without written permission from the Engineer.
- 4 **Provide forty-eight (48) hours advance notice to the Engineer of the exact time delivery will be made at destination, along with information listed 5.5 below.**
- 5 The manufacturer shall, at the time arrangements for delivery are to be made, inform the Engineer of:
 - a. Purchase Order Number
 - b. Number of items being shipped per purchase order
 - c. Weight of each item (heaviest)
 - d. Estimated time of arrival
 - e. Location of use ("to be used for:" not "ship to:")

6.0 CABLE SPECIFICATION

1.0 Standards

The primary standards to which this equipment shall be constructed and tested are:

- 1.1 National Electric Code
- 1.2 American National Standards Institute
- 1.3 National Electric Safety Code
- 1.4 American Society for Testing Materials
- 1.5 Institute of Electrical and Electronic Engineers
- 1.6 Insulated Power Cable Engineers Association
- 1.7 All applicable local codes including the SSBC

2.0 Bid Specification:

The Bid shall be for concentric neutral cable meeting the specifications below:

CABLE, 15 kV, 133% Insulation Level, 500 MCM STRANDED BARE COPPER, 1C, Rated 105 degree C, with polyethylene jacket, 1/3 Concentric Neutral, 220 MIL EPR INSULATION, TYPE MV-105.
Quantity of cable required: 8,400' on six 1400' reels, reels shall be 66" tall x 36" wide.
Stamp CORED every 24" on the exterior of the cable.

Approved Manufacturers and Catalog Numbers:

Okonite 500 MCM	No. 37052 (refer to dwg CS-17660)
Kerite 500 MCM	Catalog No. 150C15-33200 (with 18 x #10 AWG neutral)
Prysmian 500 MCM	QNE040A (refer to dwg QXR354A)

Conductor – Annealed uncoated stranded copper per ASTM B-496

Neutral – 18 x #10 AWG bare copper concentric wires.

Strand Shield and Insulation Shield – Shall be extruded semi conducting EPR and shall meet or exceed the physical and electrical requirements of ICEA S-94-649, AEIC CS8 and UL 1072 (or latest revision).

Insulation – Shall be ethylene-propylene (EPR) compound and shall meet or exceed the physical and electrical requirements of ICEA S-94-649, AEIC CS8 and UL 1072 (or latest revision).

Jacket – Shall be .07” Black polyethylene, with 3 red stripes and shall meet or exceed the electrical and physical requirements of ICEA S-94-649 and UL 1072 (or latest revision). Stamp CORED every 24” on the exterior of the cable.

7.0 BID PROPOSAL

In submitting this Proposal, the Manufacturer agrees as follows:

The prices set forth herein do not include any sums which are or may be payable by the Manufacturer on account of taxes imposed by any taxing authority upon the sale, purchase, or use of the equipment. If any such tax is applicable to the sale, purchase, or use of the equipment, the amount thereof shall be added to the purchase price and paid by the Owner.

The prices set forth herein are firm if accepted by the Owner within sixty (60) days and shall include the cost of delivery to the job site, inspection, testing and certification.

The equipment shall be delivered to the Delivery Site on or before Delivery Date and certified for the Owner's use by the Manufacturer on or before the Certification Date. Include delivery and certification dates with proposal.

Certification by the Manufacturer shall include such inspections and tests as required to certify the units for external connection and subsequent energization.

Title of equipment shall pass to the Owner once the equipment has been delivered, satisfactorily inspected for transit damage, and certified ready for energization by the Manufacturer.

The Manufacturer agrees that all requests for time extensions shall be in writing, and that only such time extensions as are granted by the Owner in writing shall be considered.

Descriptive literature, including dimensions and weight of manufacturer equipment, shall be furnished with the proposal.

PROPOSAL FORM

BASE BID:

TO: CITY OF OAK RIDGE, TENNESSEE

Manufacturer _____ Supplier _____

	Price/Ft	Extended Price
500 MCM CU 15KV 1C Concentric Neutral 8,400'	_____	_____

Base Bid contract amendment budget for overage, shall not exceed: $5\% \times 8,400 \times \text{Price/Ft} =$ _____

Bidder : _____

Manufacturer: _____

Address: _____

City, State, Zip _____

Prepared By: _____

Title: _____

Telephone Number : _____

Fax Number : _____

email : _____

Date : _____

PROPOSAL FORM

OPTION A: (You must submit a Base Bid to qualify for an Option A bid)

TO: CITY OF OAK RIDGE, TENNESSEE

Manufacturer _____ Supplier _____

	Price/Ft	Extended Price
500 MCM CU 15KV 1C Concentric Neutral 10,000'	_____	_____

Option A contract amendment budget for overage, shall not exceed: $5\% \times 10,000 \times \text{Price/Ft} =$

Bidder : _____

Manufacturer: _____

Address: _____

City, State, Zip _____

Prepared By: _____

Title: _____

Telephone Number : _____

Fax Number : _____

email : _____

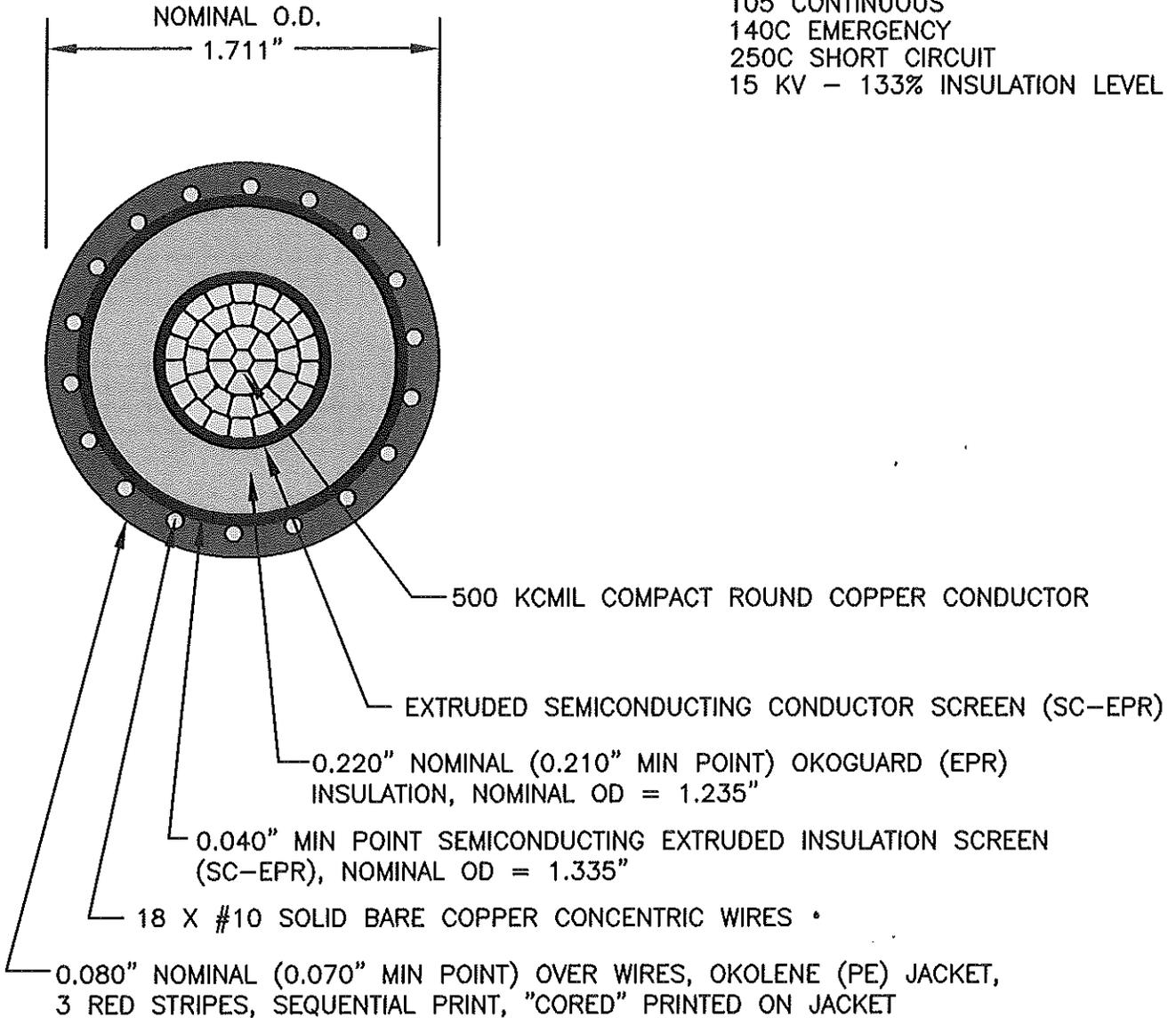
Date : _____

KEY

EPR—ETHYLENE PROPYLENE RUBBER
PE—POLYETHYLENE
SC—SEMICONDUCTING

RATINGS:

105 CONTINUOUS
140C EMERGENCY
250C SHORT CIRCUIT
15 KV - 133% INSULATION LEVEL



CABLE WEIGHT = 2.923 LBS./FT.

STUART IRBY/CITY OF OAK RIDGE
OKONITE INQUIRY ATLANTA 41-10474 (R13), ITEM #1

1/C, 500 KCMIL C/RD COPPER, OKOGUARD, CONCENTRIC NEUTRAL, OKOLENE, 15 KV

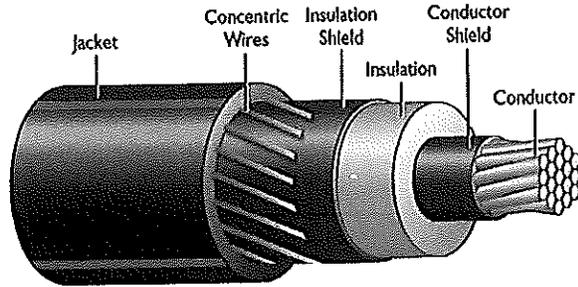
THE OKONITE COMPANY
RAMSEY, N.J. U.S.A.

DATE 8/4/11	SCALE NTS	REVISIONS
DR. NV	APP. JZJR	DRAWING NUMBER
DISK OFA	EST. NUMBER 77525	CS-17660

Underground Distribution Cable (URD)

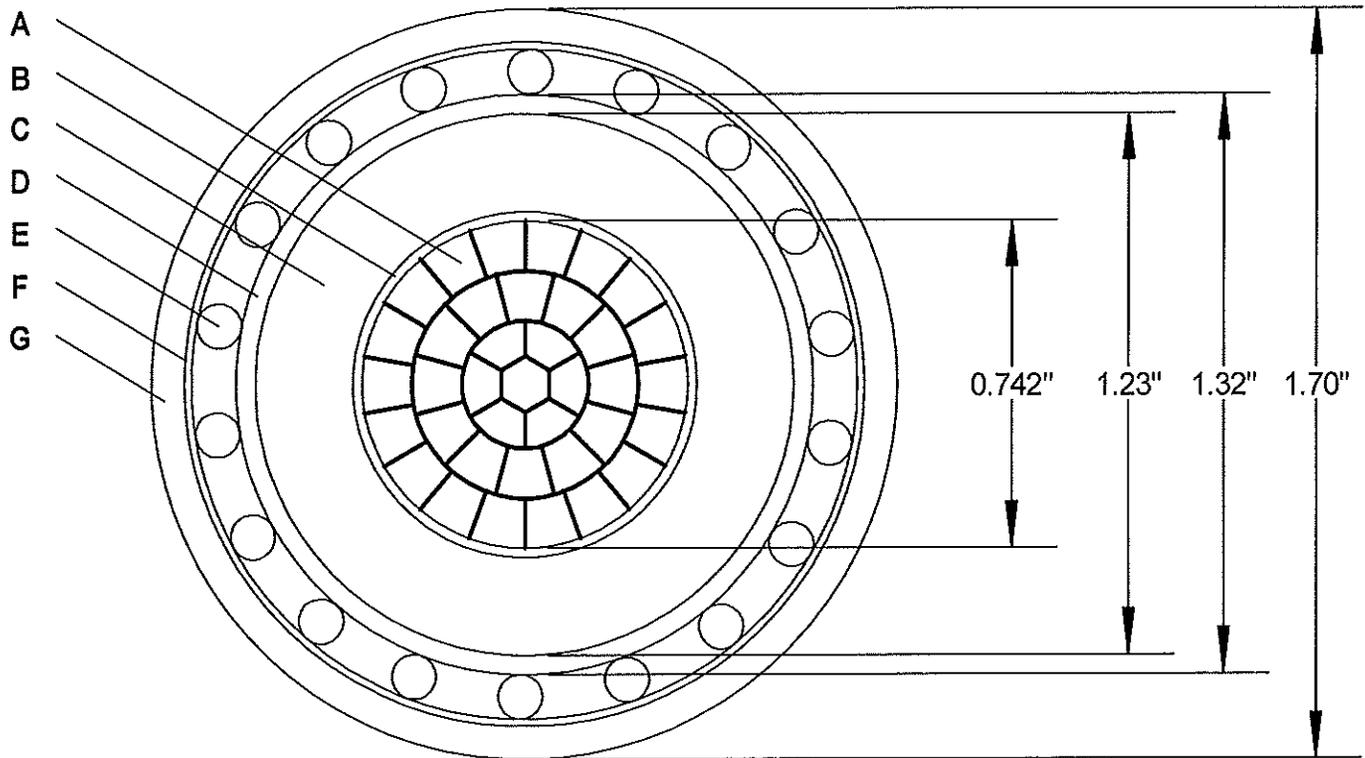
15kV Copper Conductor 90°C (UL) Rating

- **Conductor Shield** – Non-Conducting Permashield® Stress Control Layer
- **Insulation** – Discharge Resistant EPR Insulation
- **Insulation Shield** – Extruded Free Stripping Semi-Conducting Layer
- **Concentric Wires** – One-third or Full Neutral *w/ 16-#10 Cu wires*
- **Jacket** – Non-Conducting Polyethylene (LLDPE) with 3 Red Stripes, Semi-Conducting Available



One-Third Neutral			175 mil Insulation (100%)				220 mil Insulation (133%)			
Size (AWG/kcmil)	No. of Strands	Copper Neutral Wires (No.-#AWG)	O.D. Over Insulation (Inches)		O.D. Over Jacket (Inches)	Cable Weight (lbs/ft)	O.D. Over Insulation (Inches)		O.D. Over Jacket (Inches)	Cable Weight (lbs/ft)
			Min.	Max.			Min.	Max.		
2	7	6 - #14	0.635	0.72	0.99	0.549	0.725	0.815	1.08	0.618
1	19	7 - #14	0.675	0.76	1.015	0.628	0.765	0.855	1.11	0.7
1/0	19	9 - #14	0.715	0.8	1.055	0.74	0.805	0.895	1.15	0.814
2/0	19	11 - #14	0.76	0.845	1.1	0.871	0.85	0.935	1.19	0.947
4/0	19	18 - #14	0.865	0.95	1.2	1.251	0.955	1.045	1.295	1.336
250	37	21 - #14	0.92	1.005	1.265	1.441	1.01	1.1	1.38	1.549
350	37	18 - #12	1.025	1.11	1.425	1.917	1.115	1.2	1.515	2.017
500	37	16 - #10	1.15	1.235	1.595	2.64	1.24	1.33	1.75	2.822
750	61	20 - #9	1.34	1.425	1.875	3.864	1.43	1.52	1.965	3.992
Full Neutral			175 mil Insulation (100%)				220 mil Insulation (133%)			
2	7	16 - #14	0.635	0.72	0.99	0.68	0.725	0.815	1.08	0.749
1	19	20 - #14	0.675	0.76	1.015	0.798	0.765	0.855	1.11	0.87
1/0	19	16 - #12	0.715	0.8	1.09	0.957	0.805	0.895	1.18	1.032
2/0	19	20 - #12	0.76	0.845	1.135	1.145	0.85	0.935	1.225	1.222
4/0	19	20 - #10	0.865	0.95	1.28	1.682	0.955	1.045	1.37	1.768

Five minute AC Final Test Voltages
 175 mil Insulation Level: 35kV
 220 mil Insulation Level: 44kV



- | | |
|---|---|
| <p>A. 500 kcmil 37 strand compact copper with Strandseal®</p> <p>B. Semi-conducting, thermoset, conductor shield
16 mils minimum point</p> <p>C. EPR insulation, 15 kV 133%
210 mils minimum point
220 mils nominal
250 mils maximum point</p> | <p>D. Semi-conducting, thermoset insulation shield
40 mils minimum point
75 mils maximum point</p> <p>E. 18 - #10 AWG bare copper concentric neutral wires with water-swellaable powder and ripcords</p> <p>F. Longitudinally applied water-swellaable tape</p> <p>G. Black linear low density polyethylene jacket with three longitudinal red stripes
70 mils minimum point
105 mils maximum point</p> |
|---|---|

Standards

AEIC CS8
ICEA S-94-649

Cable Weight

2.77 lbs/ft

Notes

1. Cable weights and dimensions are nominal and subject to normal manufacturing tolerances.
2. Drawing is not to scale.
3. Minimum point insulation shield thickness does not include concentric neutral indent.



Cable Type 15 kV 500 kcmil Superdri™		Customer	
Drawn By D. Vinczi	Approved By J. Howard	Date 07/11/13	Drawing Number QXR354A