TIDELAND EMC
28531 US Hwy 264 E
PANTEGO, NC 27860

Request for Proposals for
2026 Armored Submarine Cable
RFP No. 2026-TEMC01
Issued: January 20, 2026
Proposals Due: 2/17/2026, 5:00 p.m. EST

GENERAL INFORMATION

I. PROJECT OBJECTIVE

Tideland EMC is seeking proposals on behalf of itself to establish a single turnkey contract at a specific construction site (Exhibit A) located on Ocracoke Island, NC. The turnkey contract will include the manufacture, delivery, and installation of 2,000 linear feet of armored submarine cable (Pages 2-21).

II. INSTRUCTIONS TO RESPONDENTS

Respondents shall submit one electronic PDF proposal to Paul Spruill, paulspruill@tidelandemc.com, by 5:00 p.m. EST on Feb 17, 2026. Proposals submitted by other means or beyond the deadline will not be considered.

The subject line of the transmittal correspondence and the first page of the PDF proposal shall include the RFP number indicated on the cover page of this RFP. Respondents must respond to the entire RFP. Any requirements in the RFP that cannot be met must be so indicated in the proposal.

The Respondent agrees that Tideland EMC bears no responsibility for any costs associated with any administrative or judicial proceedings resulting from the solicitation process.

Any proposal may be withdrawn until the date and time set above for the submission of the proposals. Any proposal not so withdrawn shall constitute an irrevocable offer, for a period of 90 days, to provide the Services set forth in this RFP or until one or more of the proposals have been selected for a contract award.

All proposals must be typed and must be signed in ink by an officer having authority to bind the Respondent. **All proposals must comply with "Build America Buy America (BABA) Act" for all materials, components, and supplies including conductor, splice kits, splice boxes, and armor materials.**

Site Visit & Timeliness with requests directed to ***paulspruill@tidelandemc.com***

Respondents may visit the construction site in the presence of Paul Spruill or his designee at any time prior to the stated deadline. Respondents may submit their Proposals to the above-referenced e-mail address any time prior to the stated deadline. If more than one e-mail containing a PDF proposal is provided by the same Respondent, the most recent time-stamped proposal received prior to the deadline will be considered the Respondent's final response. Respondents remain responsible for ensuring that their Proposal is received at the time and e-mail address specified. Tideland EMC (Paul Spruill) will respond to each e-mail submission with a confirmation of receipt as a courtesy. Late proposals or proposals submitted in any other form than identified above will be rejected. The decision to refuse to consider a proposal that was received beyond the date/time established in the RFP shall not be the basis for a protest.

Tideland Electric Membership Corporation
Pantego, North Carolina

Specifications
for
Ocracoke Armored Submarine
Cable Extension

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1.0 Project Description (General)

The work included in this contract consists of furnishing and installing a minimum of 2,000 linear feet of an armored submarine cable containing three 35 kV (25 kV operated) power cables and two integral fiber optic cables along Prong Road on the northern end of Ocracoke Island. The submarine cable is being installed to replace three individual, direct buried, power cables. The new cable will be installed along the same alignment as the existing cables on Prong Rd. The project includes the furnishing, installation, termination, splicing and testing of the power and fiber optic cables. The Contractor shall furnish the power cable and certain other miscellaneous items as noted herein. Any miscellaneous or incidental materials necessary for the job and not specifically listed as Owner Furnished shall be furnished by the Contractor.

2.0 License

The contractor shall possess a valid license of the following type: Unlimited PU (Electrical – Ahead of P.O.D.) as issued by the North Carolina Licensing Board for General Contractors.

3.0 Approvals

The Contractor shall submit catalog cuts for all materials he proposes to furnish. The engineer may provide manufacturer and part numbers for some of the contractor furnished materials. The Contractor may substitute materials if approved as equivalent by the engineer. Each submittal shall show the brand name, stock number, description, size, rating, manufacturing specification, and applicable contract item number(s). The Contractor shall allow ten (10) business days for review of each submittal. The Engineer will advise the Contractor of reasons for rejected submittals and will return one (1) copy of approved submittals to the Contractor. Material shall not be delivered to the project prior to approval of submittals.

4.0 Material Review

All materials for installation shall be made available for review by the Engineer as soon as possible after award of contract to allow for review, comment, and modification.

5.0 Inspection of Concealed Work

All work shall be inspected and approved by the Engineer or Owner before concealment.

6.0 **Special Conditions**

6.1 Work on NCDOT Rights-of-Way and/or National Park Service governed land

6.1.1 Prong Road is not a North Carolina Department of Transportation governed travel way. However, NCDOT requirements shall be used with regard to safety and traffic control as required. The contractor shall adhere to all NCDOT/NPS guidelines with regard to any construction activities that will impact travel in any way. Contractor shall provide signs, cones, flagmen, etc. as necessary to facilitate re-routing of traffic and comply with NCDOT/NPS requirements. The contractor is responsible for coordination with NCDOT/NPS regarding rules and regulations. Tideland EMC will assist with public notification procedures. Hwy 12 is a NCDOT highway and will require treatment as such.

6.1.2 NPS Permit: The contractor is responsible for complying with all aspects of the National Park Service Permit (to be attached as an exhibit and made a part of the ultimate contract) obtained for the project.

6.1.3 Sedimentation and Erosion Control Plan: The Contractor is responsible for complying with all aspects of the plan (to be attached as an exhibit and made a part of the ultimate contract).

6.1.4 All permits, approvals, plans etc. shall be maintained on site for review if requested by governing agencies.

6.1.5 Delays: The contractor should expect weather issues or other delays associated with the project. The contractor's proposal should include up to 5 days of weather (or other) delays without additional charge to the Owner. Any delays beyond 5 days will be paid via change order based upon the Contractors pre-approved daily rate as noted in his proposal. Also see section 7.2 regarding delays caused by items of historical interest that may be uncovered during excavation. The contractor shall be responsible for documenting any delays as they occur and obtain concurrence from the Owner. Submission of delays at the end of the project will not be accepted.

6.1.6 The Owner will be contracting with a surveyor to record the cable location as installed. The surveyor may not be on site at all times. The contractor shall be responsible for coordination with the surveyor and updating the surveyor on the progress of the installation. In lieu of, or in addition to, a surveyor, the Owner may provide in-house personnel, at various intervals, (once a week) to document by GPS the installed cable location.

6.1.7 As noted elsewhere, the project area is extremely environmentally sensitive. The contractor shall have materials and equipment on site as necessary to deal with any fuel, oil, or similar spills and should have a written Spill Prevention, Control and Countermeasure Plan in place. Any spills should be reported to the Owner and NPS. Any spills that enter or threaten to enter any waterway should be immediately reported to the National Response Center at 1-800-424-8802.

6.1.8 CenturyLink has an existing fiber cable, from its existing pedestal near the Tideland EMC junction enclosure, along Prong Road to Hwy 12. The cable is the sole, full capacity, communication link to Ocracoke Island. The contractor

shall be responsible for the location and protection of this cable throughout the construction process. CenturyLink will transfer or splice to the new fiber optic cable in the submarine cable once the project is complete.

6.1.9 Work on Holidays will not be allowed. Work on Sundays will be allowed.

6.2 Contract

This project will be undertaken utilizing a Construction Contract with the contract format to be provided by the Owner.

6.3 Work Near Energized Lines

The Contractor will be required to work near energized power lines belonging to the Owner. The Contractor will take all steps necessary to prevent damage to or interference with existing power lines. Insulation materials and tools in sufficient quantities and ratings will be used for proper protection of personnel and property. ALL LINES ARE TO BE CONSIDERED ENERGIZED, UNLESS CLEARLY GROUNDED ACCORDING TO ALL APPLICABLE WORK AND SAFETY RULES. Contractor shall provide qualified individuals to work near 25 kV power lines while terminating and testing cables; and take all safety precautions as necessary. The Contractor shall coordinate closely with Owner personnel and follow explicitly the operating procedures (i.e. clearances, headways, etc.) as set forth by the Owner for work around energized power lines.

6.4 Periods of De-energization of Lines:

6.4.1 The overhead line along Hwy 12 will not be de-energized for the installation of terminations on the dip pole or testing of the new cable. The top of the terminations should be outside of the minimum approach distances for qualified personnel, however, the Contractor shall use only personnel trained to work in the vicinity of the energized line during the procedures noted above.

6.4.2 The existing underground cable will be de-energized for the installation of power and fiber splices. Such de-energization will require the Owner to supply the Ocracoke Island load via generator. The cutover sequence as detailed below should be planned and coordinated in detail to limit the time required on generator. All switching related to line energization/de-energization will be performed by Owner personnel. The Owner will provide protective grounding at the terminations on each end of the project (new and existing cables) during splicing. The Contractor must plan to inspect and approve the grounding in accordance with his safety practices. The Contractor shall develop and maintain for the duration of this Contract a safety program that will provide for compliance with applicable provisions of the National Electrical Safety Code (NESC), and federal, state, and local safety laws and regulations. See Section 10 for further details.

6.5 Sequence of Construction: The contractor will be responsible for providing his timeline, sequence of construction, and detailed, step-by-step, procedure for the work at the new dip pole and the cutover as part of his submittal

information. These procedures should be so detailed as to serve as not only information to the Owner/Engineer but as an instruction guide to field personnel. Procedures should include all manufacturers' instructions regarding terminating and/or splicing of fiber and power cables. Bonding procedures for tape shield, concentric wires, teredo shield, fiber armor, etc. shall be explained.

The following sequence of construction is to provide a basic chronological sequence for the major events of the project. Sequence is subject to change but overall time frame should not change significantly.

6.5.1 Cable burial.

6.5.2 Installation of boxes, splicing of fiber, and installation of power cable terminations at the new riser pole.

6.5.3 Testing of the new cable and cutover procedure

6.5.3.1 New cable testing. It is assumed that the new cable will be tested on the day prior to the cutover procedure due to the fact that Imcorp will have to be on site for the new cable testing and total cable testing after splicing. The new cable shall be deemed ready for test when burial is complete, the terminations have been installed at the new riser pole, and the cable has been suitably prepped at the splice end for partial discharge testing. Note that the existing cable is still energized and carrying load during this time. The new cable test will be at full test voltage (typically 2.5 x V_{L-G}) to verify the integrity of the newly installed terminators and buried cable. The Contractor is responsible for contacting Imcorp and scheduling all testing. Cost for partial discharge testing shall be included in the Contractor's proposal. Test results shall be reviewed and approved by Imcorp and the Owner's Engineer prior to proceeding with splicing.

6.5.3.2 Cutover procedure. The cutover will be scheduled in accordance with anticipated power loads and CenturyLink approval. It is assumed that the CenturyLink outage window will be between approximately 12:01 am and 6:00 am on the scheduled day. On the evening prior to this window (approximately 6:00 pm) the cutover procedure will begin and will follow the basic sequence list below.

- At some point the existing cable will have to be exposed from the existing junction enclosure back to the new splice point. A large pit will have to be excavated and kept "dry" for the splicing of cables. Alternately, the Contractor may propose to splice the cables above ground and excavate as necessary to bury the

complete splice installation and cables after. Contractor shall propose procedure for approval.

- The existing cable will be de-energized. Tideland EMC will provide all switching and grounding as necessary to allow safe work on the cables. The contractor will review and approve the placement of grounds.

- The armor, will be removed from the existing cable back to the splice point from the junction enclosure(without interruption of the fiber connection). The power cables will prepped to the extent possible for splicing.

- Fiber optic cutover. The fiber optic cutover time frame will be dictated by CenturyLink but will be within a 3 to 4 hour window between 12:01 am and 6:00 am (assumed). The active fibers shall be spliced, tested and connection shall be re-established. Other fibers shall be spliced and tested. CenturyLink will be splicing in their pedestal at Hwy 12 simultaneously.

- Power cables spliced. Upon establishment of fiber connections, the power cables shall be prepared and spliced.

- After the contractor completes the power cable splicing, the entire cable length (new and existing) will be partial discharge tested. The entire length cannot be tested at full recommended voltage for new cables but testing should reveal any workmanship issues with the new cable splices. If the testing fails due to any of the contractor's work, the contractor shall be liable for the cost of repair, retesting and extended outage expenses. If daylight allows, the cable will be tested on the same day as the power cable splicing. If not, the cable will be tested the following morning. Contractor is responsible for coordination and cost of testing.

- The contractor shall provide all power, lighting, physical protection etc. as necessary for overnight work.

- Splice box filled, splice box buried, power cable re-energized.

- Entire cutover procedure shall not take over 36 hours.

7.0 **Environmental/Wildlife/Cultural Concerns**

7.1 The project is being installed on property controlled by the National Park Service. All aspects of the NPS permit shall be followed. Contractor shall take all necessary

precautions to limit impacts on vegetation and wildlife. The contractor is responsible for the preservation of the work area and restoration as described in the permit and the Sedimentation and Erosion plans attached hereto.

7.2 The Owner has commissioned a subsurface survey to identify areas that might contain any items of historical interest. Prior to project construction, the Owner and NPS will be excavating in the areas where items were detected to identify and remove any relevant items. It is anticipated that these efforts will significantly lessen the possibility that any such items will be uncovered during the project. However, in the event that the excavation uncovers any items of historical interest, the excavation will be suspended until a representative of the NPS can review the site. Contractor shall provide a per-hour cost for any delays of this type in his proposal. The contractor will be given specific instructions and details regarding this procedure at the pre-construction meeting.

8.0 **Scope of Contractors Work (not necessarily in chronological order)**

The Contractor's work shall include the following services and materials as necessary to complete the installation of the cable and to provide a complete and functional system. Miscellaneous services or materials necessary for a complete installation shall be provided (unless specifically excluded below) although such work may not be specifically shown or specified.

8.1 Services by Contractor

8.1.1 Provide facilities for secure storage of all materials.

8.1.2 Procure miscellaneous materials as specified. Submit for approval.

8.1.3 Provide and install power cable. Approximately 2,000 cable feet. Includes:

- Trenching for cable installation or plowing if applicable
- Dewatering
- Location, Uncovering and Management of existing fiber cable
- Placement of armored cable in trench (if open trench)
- Backfill (if open trench)
- Surface Restoration

8.1.4 Install Owner-furnished conduit and mounting brackets at dip pole. 6 inch, Schedule 40 conduit. Seal all conduits.

8.1.5 Furnish and install armor termination box with PVC elbow/riser and armor termination fitting on dip pole. Terminate armor and extend cables up pole in conduit described above.

8.1.6 Furnish and install three power cable terminations at new riser pole (35 kV heat-shrink type) with two-hole compression/shear-bolt lug and applicable grounding

accessories to bond tape shield and concentric neutral to system ground. Furnish 3 spare terminations.

8.1.7 Furnish and install all materials necessary for complete grounding system at riser pole.

8.1.8 Furnish and install fiber optic junction box with mounting hardware on new riser pole. Extend fiber cables from armor termination box to fiber junction box. Allow for splice of four CenturyLink leased fibers in fiber closure.

8.1.9 Furnish and install submersible splice box for power cable and fiber splices. Furnish two spare splice boxes.

8.1.10 Furnish and install three power cable joints (splices); furnish 6 spares

8.1.11 Furnish and install filling/encapsulating compound inside splice box.

8.1.12 Splice fiber optic cable in submersible splice box. Contractor to furnish all materials.

8.1.13 Test new section of power cable using factory grade partial discharge test procedure. Temporary terminations will be required at splice point to allow for partial discharge testing.

8.1.14 Test entire length (existing and new) of power cable using factory grade partial discharge test procedure.

8.1.15 Test fiber optic cable from new termination box at riser pole to termination box on Hatteras Island.

8.2 Tools and Equipment

The Contractor shall furnish all incidental tools, machinery, equipment, and vehicles as necessary to fully execute a complete job. The Contractor's cost for use of such tools, machinery, and equipment shall be included in the Contractor's quotation for the work. The following is an example of (specialty) tools and equipment that may be required for this project. This list is for illustrative purposes only and is not intended to be exhaustive.

8.2.1 Machinery for excavation, cable handling and backfill.

8.2.2 Equipment for trench dewatering and bracing of excavation.

8.2.3 Appropriate tools for the splicing and termination of 35 kV cable.

8.2.4 Appropriate tools for the splicing, termination and testing of fiber optic cable.

8.2.5 Materials, signage, and equipment needed for detour routing.

8.2.6 Lighting and other equipment necessary for night work.

8.3 Subcontracted Work

8.3.1 Some portions of the work may be subcontracted by the Contractor to others.

However, the Contractor shall be responsible to the Owner for the satisfactory installation of all work described herein.

8.3.2 Any work proposed by the contractor to be subcontracted must be identified as such in writing with the Contractor's proposal.

9.0 Owner's Responsibilities

Tideland EMC and/or their designated representative(s) will:

9.1 Provide names and telephone numbers of responsible individuals to answer questions concerning plans and specifications.

9.2 Assist in coordination with National Park Service or other agencies as necessary.

9.3 Furnish and install riser pole and pole top assembly; including arms, insulators, switches, arresters and necessary jumpers.

9.4 Coordination of switching, grounding of lines, etc.

10.0 **Job Site Safety and Housekeeping**

10.1 General

10.1.1 The Contractor shall be totally responsible for providing a safe working environment and performing all work activities in a manner that minimizes risk to all workers on site, all visitors to the site, and to the general public in the immediate vicinity of the site.

10.1.2 The Contractor shall command and maintain professional quality in the organization of the jobsite through the proper housekeeping of all temporary office structures, storage areas, construction equipment, and jobsite hardware.

10.1.3 The Contractor shall provide safe, well-maintained equipment and tools which have been properly outfitted for the work assignment.

10.1.4 The Contractor's work methods shall comply with all federal, state, and local laws and regulations as applicable to all aspects of this project.

10.1.5 Contractor shall be thoroughly familiar with and adhere to all OSHA, NC Department of Labor, or other applicable organization, rules and regulations regarding work in open trenches and in the vicinity of energized electric supply lines.

10.2 Safety Training and Manuals

10.2.1 The Contractor shall thoroughly train his employees in the safe execution of their work assignments prior to placing them on the project site.

10.2.2 Whenever special skills or training is required to operate specific types of

equipment, perform specialized work procedures, or handle potentially hazardous materials, the Contractor shall assign such work only to those operators who have been adequately trained and certified to be competent for the work activity.

10.2.3 The Contractor shall maintain a structured set of safety rules and practices for all employees and subcontractors to follow. The more stringent of the Contractor rules or the Owner safety rules shall apply.

10.2.4 The Contractor's Safety Manual shall provide instructions regarding emergency procedures. Copies of the emergency procedures should be given to all jobsite crews including subcontractors.

10.3 Jobsite Supervision

10.3.1 The Contractor shall assign and provide a Jobsite Supervisor for the specific oversight of all construction aspects of this project. The Jobsite Supervisor shall plan daily and weekly assignments so that the work will be performed in accordance with established safety laws, procedures, and regulations. The jobsite supervisor shall also coordinate all activities with the Owner, National Park Service, NCDOT, Engineer and Subcontractors as applicable. The Jobsite Supervisor(s) and any individuals acting in their behalf shall be proficient in the English language.

10.3.2 The Jobsite Supervisor shall proactively administer and enforce all jobsite activities in compliance with applicable safety rules. The Supervisor will see that all rules and procedures are observed by the Contractor's crews, and immediately enforce appropriate corrective measures whenever violations are observed.

10.3.3 The Jobsite Supervisor shall provide the Owner and the Owner Engineer with project construction schedule and weekly progress reports and notice of any anticipated delays.

10.3.4 Whenever the jobsite supervisor must leave the project site, the Contractor shall designate a responsible individual to provide interim supervision of the work.

10.4 Safeguarding of On-Site Materials

10.4.1 The Contractor shall assume responsibility for all materials entrusted to his care and safekeeping for installation on the jobsite. The Contractor shall properly store, secure, and safeguard all construction materials entrusted to his care to minimize damage and theft to such materials. If applicable, any Owner-furnished material which is damaged, lost or stolen while in the care of the Contractor shall be replaced at the expense of the Contractor.

10.4.2 If applicable, any Owner-furnished materials received by the Contractor which are obviously stored in an inadequate manner may be protected by the Owner at the expense of the Contractor. This shall in no way relieve the Contractor of all responsibility of properly protecting all materials.

10.5 Safety Equipment

10.5.1 Contractor's employees must wear an NCDOT approved safety vest.

10.5.2 Contractor's employees, subcontractors or visitors on the project site must wear approved hard hats, hard toe shoes, and eye protection which meet OSHA requirements.

10.5.3 Hearing protection must be available at all times and worn by employees exposed to noise levels as designated by OSHA or local authorities.

10.5.4 Fall protection shall be worn by all employees working in locations where such equipment is required by OSHA and local regulations.

10.5.5 Insulating gloves, sleeves and insulated tools shall be provided by the Contractor as required by OSHA or local regulations.

10.5.6 All OSHA or other applicable regulations regarding open trenches shall be followed.

10.6 Protection to Persons and Property

10.6.1 The Contractor will so conduct the construction of the line as to cause the least practical obstruction to Prong Road and Hwy 12. NCDOT may utilize Prong Road for access to a sand borrow pit. The contractor shall coordinate with NCDOT as necessary.

10.6.2 The Contractor will provide and maintain all such guard lights and other protection for the public as may be required by applicable statutes, ordinances, and regulations or by local conditions.

10.6.3 The Contractor will provide and maintain at his sole cost, telephonic communications, either permanent or mobile at the work site, for the length of the contract period.

10.6.4 The Contractor will do whatever is necessary or expedient to properly protect any and all parallel, converging, and intersecting lines, and any and all property of others from damage. If any such lines, or other properties are damaged during the construction of the line, the Contractor will, at its own expense, immediately restore any or all of such damaged property to as good a state as before such damage occurred.

10.6.5 The Contractor will limit the movement of crews and equipment so as to cause as little damage as possible to property and will endeavor to avoid marring the lands. The Contractor will be responsible for all loss of property, whether on or off the right-of-way, and for all damage caused by the construction of the line.

10.6.6 Any and all excess earth, debris, underbrush, and other useless material will be removed by the Contractor from the site of the line as rapidly as practicable as the work progresses.

10.6.7 The Contractor will take all necessary measures required for the prevention of soil erosion in accordance with the Sedimentation and Erosion Control Plans and Specifications. Grading or digging operations will be protected by appropriate measures to prevent sediment runoff. The Contractor will be responsible for installing and maintaining, at his expense, all soil erosion and sediment control measures required or as directed by federal, state, or local governmental agencies. All of these measures shall be installed and approved before any excavation commences.

10.6.8 Before beginning work in or around any areas where underground facilities may exist, the Contractor will locate or make provisions to locate all such facilities including water, sewer, gas, telephone, and electrical lines.

10.6.9 Upon violation by the Contractor of any provisions of this section after written notice of such violation is given to the Contractor by the Owner, the Contractor will immediately correct such violation. Upon failure of the Contractor to do so, the Owner may correct such violation at the Contractor's expense.

10.6.10 The Contractor shall report immediately and document all accidents, giving such data as may be prescribed by the Owner.

11.0 Owner Furnished Materials

11.1 Pole and pole top assemble components including arms, insulators, switches, arresters, brackets, and jumpers as necessary.

11.2 6" Schedule 40 conduit, fittings, and mounting brackets

12.0 Contractor Furnished Materials

12.1 35 kV Armored Submarine Cable equivalent (except as noted) to cable provided in 2020 with:

- Conductor: 2/0 AWG, 19 str, filled, compressed copper (3 cables)
- Insulation: 345 mil EPR
- Insulation Shield: Semicon w/ 5 mil copper tape and concentric neutral (13-10 AWG copper)
- Jacket: 50 mil LLDPE
- Teredo Shield: 10 mil bronze tape
- Armor: No. 6 BWG Galvanized each
- Overall jacket: 45 mil MDPE jacket (red)
- Fiber #1: 12 fiber, single mode, SS tube, armored
- Fiber #2: 12 fiber, single mode, SS tube, armored

- Diameter(approximate): 5.0 inches
- Weight(approximate): 17.2 lbs/ft (air)
- Contractor shall make every effort to furnish material (cable) with the full length specified as a minimum of 2,000 linear feet delivered on a single reel.

12.2 Terminations: Contractor shall supply 35 kV heat-shrink type terminations compatible with the cable supplied. Termination shall have compression or shear-bolt type 2-hole pad included. Terminations shall have provisions for connection to tape shield. Tape shield and concentric neutral cables shall be brought out for Owner connection to grounding system. Terminations shall be TE/Raychem HVT-ZL-353-SG or approved equal (353 depicts cable size compatibility and should be verified by contractor). Ensure kit has 2-hole lug or provide separately. Contractor shall supply 3 spare terminations to Owner. Spare terminations shall be available during cutover should any need to be replaced due to failure of PD test. Terminations used as replacements due to failed test shall be replaced such that the Owner has 3 spare terminations at the end of the project.

12.3 Splice box w/ armor termination fittings. Provide 2 spare boxes. New splice boxes shall be equivalent to that shown on the detail drawings except as approved by the Owner. Boxes shall be split such that cables can be laid in box rather than threading through a solid end or ends of boxes shall be removable to facilitate easier cable entry. Final box design subject to approval by Owner or Owner's Engineer.

12.4 Splices: Contractor shall supply power cable joints (splices) compatible with the cable supplied, compression or shear-bolt connector included. Splices shall have provisions for splicing of concentric neutral wires, continuation of tape shield, and continuation/bonding of Teredo shield. Contractor to supply all material necessary to bond Teredo shield/ to splice box. Tape shield and concentric neutral wires shall not be brought outside of splice assembly. Contractor shall supply 6 spare splices to Owner. Spare splices shall be available at cutover should any splices need to be replaced due to failure of partial discharge test. Splices used as replacements due to failed test shall be replaced such that the Owner has 6 spare splices at the end of the project.

12.5 Fiber Splices & Terminations: Contractor shall supply all necessary materials to splice or terminate fiber optic cables in splice box and at new dip pole. Materials for bonding of armor and SS tubes shall be provided. Fiber shall be spliced in separatee closures equivalent to Preformed Line Products Coyote closure with appropriate grommets for different size cables.

12.6 Splice box filling compound. TE/Raychem Guroflex MV or approved equal with alternatives to be specified prior to release of procurement document . Preform Line Products type RD encapsulant is also suitable.

12.7 Armor termination/breakout box and mounting brackets at riser pole.

12.8 Fiber optic splice box, mounting brackets, etc at riser pole.

12.9 Fiber optic splice closure at riser pole.

12.10 All grounding/bonding fittings as necessary at splice box and riser pole breakout box.

12.11 Conduit sealing compound.

12.12 Incidental conduit (liquidtight), fittings, etc as needed to connect breakout box to fiber junction box at riser pole.

12.13 Armor termination fitting for new dip pole location. Fitting should be OZ-Gedney type FT (or approved equal) for 6" PVC male adapter.

12.14 All materials necessary for a complete job not listed above or identified as Owner Furnished shall be furnished.

13.0 Cable Installation

The installation of the power cable is one of several steps considered critical to ensuring the appropriate service life of the cable system. Proper handling and installation procedures, proper equipment and appropriately skilled personnel shall be used to avoid any mechanical damage or stressing of the cable beyond specified limits. All procedures in these specifications and procedures recommended by the cable manufacturer shall be followed to ensure a properly installed system.

13.1 Contractor Receipt, Transportation, Offloading of Cable: Contractor shall coordinate with the cable manufacturer to take responsibility of submarine cable and shall maintain sole responsibility of the cable until testing is complete and project is accepted by the Owner. The Contractor shall be responsible for all loading, transportation off loading, etc. of cable. The Contractor shall be responsible for any and all permitting required for said activities as well as coordination with ports or delivery locations.

13.2 Pre-work Site Inspection and Planning: The contractor will assign an individual fully qualified by education, training and related work experience to inspect all work sites prior to beginning work. This person will direct the work activities to ensure that all assigned personnel are fully trained, appropriately experienced, and instructed to perform all work in a professional and safe manner. All rules and regulations related to the work covered by OSHA, NESC, other State and Federal regulating bodies, and the safety rules of the contractor and the Owner will be strictly adhered to and it will be the full responsibility of the contractor to ensure compliance. The contractor shall ensure that the contractor's safety rules and the qualifications of personnel assigned to the work are adhered to and that all specifications and drawings are made readily available to those performing the work.

13.3 Cable Storage and Handling: The armored cable to be installed is not as susceptible to damage as typical medium voltage cable that is not armored. However, the contractor is responsible for replacement of cable that does not pass the acceptance tests described herein if it is deemed that the issue is a result of installation. Therefore, it is crucial that the contractor note any possible pre-existing cable damage and handle cable as necessary to avoid causing damage.

13.3.1 Upon delivery of the cable, the cable protective covering, single reel, etc. should be inspected for evidence of damage during shipment. Any damage found shall be immediately reported to the carrier for proper settlement. At the time of cable delivery, both end seals of the reel shall be inspected. Cables with broken end

seals shall be immediately reported to the Engineer and the manufacturer for recommendations on testing. Also, check the cable reel tag to be sure the specified cable and the correct length of cable is present.

13.3.2 Unloading shall be accomplished so that equipment does not contact the cable surface. If unloading is accomplished by crane a spreader bar should be used to prevent lifting cable pressure on the reel flanges.

13.3.3 Under no circumstances shall the reel be allowed to drop from any distance.

13.3.4 Reels shall be stored on a hard surface to ensure that flanges do not sink into the earth.

13.3.5 Reels shall not be stored in an area where any vehicle, equipment, falling or flying objects or other materials will contact the cable.

13.3.6 Cable shall not be stored in area where chemicals or petroleum products will be spilled or sprayed on the cable.

13.3.7 Cable shall not be stored in an area where it could be damaged by open fires or other sources of high heat.

13.3.8 Cable End Sealing Procedure: Moisture or water entering an underground power cable damages conductor and insulation system resulting in a decrease in cable life expectancy. All cable ends shall be sealed when in storage and during the cable installation process. Seals shall remain in place until the cable is permanently spliced or terminated. If a length of cable has been cut from a reel or a cable end seal has been removed for any reason, the cable end should be immediately resealed to prevent the entrance of moisture. To properly seal the cable ends, the cable end shall be cleanly and squarely cut. A heat shrink or cold shrink cable end boot shall be applied following manufacturer's instructions.

13.4 Trench Excavation For Direct Bury Cable

13.4.1 General: The Contractor shall furnish all labor, materials, tools, equipment, and perform all work and services necessary for, or incidental to, the complete installation of all operations in connection with excavation, trenching and backfilling of underground utilities as shown on drawings and as specified in accordance with provisions of the contract documents and completely coordinated with that of all other trades. All supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure, complete and compatible installation shall be furnished and installed as part of this work, although such work may not be specifically shown or specified.

13.4.2 Protection of Existing Facilities: The Contractor shall verify the location of all site facilities. Omission from or inclusion of located items on plans does not constitute non-existence or definite location. The Contractor shall secure and examine records for available location data and positively locate all underground facilities prior to commencement of mechanical excavation. The Contractor shall take necessary precautions to protect existing site facilities from damage due to any construction activity. Repair of all damages to items will be at the

Contractor's expense. The Contractor shall assess no cost to Owner, Engineer or auxiliary party for any damages. Location of existing utilities shall be by hand digging or, preferably, the use of a compressed air or air/water vacuum system.

13.4.3 Do not restrict access to premises, to fire hydrants, sidewalks and other points unless prior approval is obtained.

13.4.4 Trench Excavation: Clear brush, vines, and other debris from the proposed cable route and place cleared materials such that it does not become mixed with any potential backfill material. Unless otherwise indicated, excavate trenches by open cut method to depth shown on plans and necessary to accommodate the cable installation. All excavation on this project shall be considered as unclassified. Remove and dispose of rock excavation, clay, silt, gravel, hard pan, loose shale and loose stone as directed by the Engineer. Avoid surcharging ditch banks by placing excavated material a sufficient distance back from edge of excavation to prevent slides or caving.

13.4.5 Avoid creating sharp angles. Where 90 degree turns are necessary, undercut the trench wall to create a smooth radius.

13.4.6 Trench routing will be as staked in the field unless conditions encountered are such that changes are necessary to accomplish the work. In such events, the Engineer will be notified promptly. Owner will provide offset stakes along route.

13.4.7 Construction shall be arranged so that trenches will be left open for the shortest practical time to avoid creating a hazard to the public and to minimize the likelihood of trench collapse due to other construction activity, rain, accumulation of water in the trench, etc.

13.4.8 Trench Size/configuration: Trench depth shall be 5' deep and trench width shall be as needed to install cable.

13.4.9 Dewatering: Keep trenches free of water. Include cost of any anticipated dewatering in original bid. Include cost of keeping surface water out of open trench.

13.4.10 Cave-in protection If conditions dictate, the contractor must slope, bench, or shore the excavation to provide protection for any workers inside the trench. Approved trench shields can also be used. A qualified person shall evaluate the soil and all methods shall be in full compliance with OSHA requirements. Take precautions such that installation and removal of protections do not damage the cable.

13.4.11 Backfilling: Sand shall be returned to the excavation and water from dewatering will be used to provide compaction. Compaction shall match existing and shall be approved by NPS. Trash or other items shall not be buried in the trench as a means of disposal.

13.4.12 Before any backfilling operations are begun, the Engineer or Owner may inspect all trenches, cable placement, and other construction not accessible after backfilling. If corrections are required, a second inspection may be made after completion of the changes.

13.4.13 All areas which are disturbed by trenching, backfilling, operation of equipment,

or by any other means by the Contractor will be returned to their pre-construction state. Original grade, including slope, elevation, and surface texture will be maintained by and at the cost of the Contractor. Excess soil, rock, and debris excavated will be hauled off and properly disposed of by the Contractor. Cost of excavation restoration above and beyond normal trenching and backfilling cost will be borne by the Contractor.

13.4.14 Compaction: Compact all trench backfill such that it is equal to the as found condition. Final condition shall be approved by NPS.

13.4.15 Contractor is responsible for disposal of all spoil in accordance with the NPS requirements and plans attached hereto.

13.4.16 Open excavations during non-working times should be avoided to the extent possible. Contractor shall install measures to warn and protect public where unattended open excavations are necessary.

13.4.17 Surface restoration: During construction the contractor should attempt to limit the impact to vegetation by avoiding damage of tree and/or shrub roots. The Contractor shall stabilize all disturbed areas after backfill is complete. Soil stabilization shall be installed as quickly as practical after the final backfill is compacted. Contractor shall restore surface vegetation as required in the attached Sedimentation and Erosion Control Plan.

13.5 Alternate cable installation methods such as plowing will be considered. Alternate installation methods should be carefully chosen as to protect the integrity of the cable and not exceed manufacturer's parameters such as pulling tensions and bending radius.

13.6 Primary Cable Installation (Trench/Pole)

13.6.1 Cables shall not be installed at a temperature below. that which is recommended by the manufacturer.

13.6.2 When handling or unreeling cables, care shall be taken not to exceed the minimum bending radius. The minimum bending radius for primary voltage cable is 12 times its outside diameter. The distance between the surfaces of a cable which has been doubled back (180 degree turn) is double the minimum bending radius. In all cases, the minimum radius specified is measured to the surface of the cable on the inside of the bend. No cable bends will be made within 6" of a cable terminal base.

13.6.3 Wherever possible, cable will be paid out from the reel mounted on a moving vehicle or trailer. The reel will be supported and operated so that it can turn easily without undue strain on the cable.

13.6.4 The cable will be inspected carefully by the Contractor as it is removed from the reel in laying operations to be certain that it is free from visible defects. The Engineer will decide upon corrective action when defects are discovered.

13.6.5 Contractor shall be responsible for maintaining proper phasing of cables. Color

coding of cables will be accomplished using vinyl electrical tape colored red (A), white (B) or blue (C) to denote the phasing of the circuit. Contractor shall use a "phase tracer" at the end of the project to verify that the marking is consistent throughout the cable run. Owner's representative shall be present for verification.

13.7 Power Cable Termination and Splicing

13.7.1 The Contractor shall provide personnel experienced in the termination and splicing of medium voltage power cables. The Contractor shall provide the name(s) of the personnel to be used and information concerning previous experience. A representative from the splice/termination supplier shall witness the installation of the first splices and terminations. The representative will be responsible for communicating to the Owner whether the installation techniques are acceptable. The Contractor shall give appropriate notice to the Owner so that the representative can be present for initial splice installation.

13.7.2 Confirm in advance of the splicing operation that the termination or joint is the proper one for the application and that all components of the kit are included.

13.7.3 The splices and terminations shall be installed according to the manufacturer's detailed installation and assembly instructions (included in each connector package) when splicing or terminating cables. DO NOT deviate from the manufacturer's dimensions and do not assume that a similar installation performed previously has the exact same instructions or dimensions as the current installation. Similar devices made by different manufacturers have different installation requirements. Also, manufacturers may change the details of an installation as they develop and improve products.

13.7.4 The Contractor shall prepare a work area that allows the cable, connectors, and other components to remain clean at all times. Exposed semi-conducting, insulating, and connecting surfaces should be cleaned as directed by the manufacturer's instructions, and they should be kept clean until the assembly is complete. Contamination of prepped cables by foreign substances is a common cause for failures. The terminations and joints shall be installed as not to exceed the cable bending radius. A portable covering or shelter shall be available for use when splices or terminations are being prepared. The shelter will be used as necessary to keep rain, snow, and wind-blown dust off the insulating surfaces of these devices. Since cleanliness is essential in the preparation and installation of primary cable fittings, care must be exercised to prevent the transfer of conducting particles from the hands to insulating surfaces. Mating surfaces will be wiped with an approved solvent to remove any accumulation of dirt, moisture, or other conducting materials.

13.7.5 The Contractor shall have properly adjusted and well maintained tools specifically designed for cable preparation. Knives are not acceptable for the removal of semiconductor and insulation layers. The common practice of using

one of the concentric neutral wires to cut the jacket should be avoided unless the appropriate tooling is used. Using pliers can result in broken neutral wires. Tools are available which will place a uniform load on the neutral wire and prevent breaking.

13.7.6 The contractor should take care to cut the conductor clean and square. Most connectors depend on a precise conductor length; an angled cut can alter the required dimensions. The manufacturer's instructions will generally have different cutting dimensions for a compression connector than for a mechanical connector. The compression connector can "grow" as it is compressed while a mechanical connector will not.

13.7.7 The contractor shall verify that the die to be used for a compression connection is acceptable for the particular connector. All compression tools shall be calibrated. Proof of calibration is required.

13.8 Fiber Optic Cable Splicing and Testing

13.8.1 Contractor shall splice fiber optic cable using fusion splice method to splice new fiber to existing fiber. Contractor may also be responsible for terminating the applicable fibers at the dip pole in accordance with the user's standards. Contractor shall follow manufacturer's instructions and applicable standards such as NECA/FOA 301-2016. Note: The splice of fiber optic cable is assumed to take place inside the Contractor furnished splice box attached to the dip pole/riser pole.

13.8.2 Contractor shall obtain a testing methodology from the fiber manufacturer and submit it to the Owner before testing fiber. Methodology shall describe testing procedure, acceptable loss parameters, etc. Testing shall include but not be limited to:

- Continuity Testing
- End to End insertion loss with OLTS power meter and source
- OTDR (in addition to loss testing above, NOT in lieu thereof)

13.8.3 Splice box exterior corrosion protection: Any exposed armor wires and the entire exterior of the splice box shall be protected from corrosion by a suitable coating as approved by the Engineer.

13.9 Bonding and grounding

13.9.1 Splice box: As noted herein, the Contractor shall furnish and install all components necessary for bonding in splice box. Tape shield and concentric neutral wires on individual power cables shall be made electrically continuous

across splice. Tape shield and concentric neutral wires shall be completely encapsulated inside the overall splice jacket of each cable and shall not be bonded to the shield of other cables nor the splice box. The teredo shield shall be made electrically continuous across the splice box and shall be bonded to the splice box. Fiber optic armor and SS tube shall be bonded to splice box.

13.9.2 Breakout/armor termination box: Armor termination fitting will be attached to the threads of the PVC male adapter and therefore will not be physically attached to the enclosure as to form a low impedance bond. The armor shall be bonded by inserting a suitable solid copper wire under the top ring of the fitting and tightening the fitting bolts as to achieve an acceptable electrical connection. Jumper shall run to a bonding lug installed in enclosure. Teredo shield shall be bonded by means of a braided jumper soldered to shield and run to a bonding lug installed in enclosure. Fiber optic armor shall be bonded to enclosure. Enclosure shall be bonded to pole ground. Contractor is responsible for all materials required for bonding.

13.9.3 Fiber optic junction box: SS tube shall be bonded to enclosure. Enclosure shall be bonded to pole ground. Contractor is responsible for all materials for bonding.

13.9.4 Terminations: Contractor shall supply suitable accessories as necessary to extend tape shield and concentric neutral wires outside of termination assembly. Owner will bond said extensions together, bond to arresters, and extend to system neutral.

13.9.5 Owner will furnish and install ground rod(s) at pole and connect to pole ground.

14.0 Power Cable Testing

The contractor is responsible for installing the cable system utilizing proper precautions in storage, handling and installation procedures which ensure the cable, splices and terminations will realize their full life expectancy. To confirm the integrity of the installed cable, each underground cable shall be tested. The contractor's bid shall include the cost of testing the new cable before splicing and testing the entire cable (new and existing) after splicing. The test on each new cable will be performed after the cable has been installed, trained into its final position, and dip pole terminations have been installed. The partial discharge testing herein does not have the capability of testing the entire run of new and existing cable at full recommended voltage. Therefore, the new cable shall be prepped at the splice end and a temporary termination shall be installed. The new cable will then be tested before splicing at the full recommended voltage. After splicing, the new and existing cable shall be tested up to the maximum voltage available from the testing equipment or as recommended by the testing subcontractor (Imcorp). The test shall be performed using test equipment appropriate for the test and performed by personnel qualified through experience and training to conduct the test in a safe and effective manner. All tests will be observed by the Owner's representative. The test will be conducted in accordance with the following procedures and in accordance with all manufacturers' recommendations. Results of each test will be recorded and submitted to the Owner. If the test results indicate that

the cable does not meet minimum criteria, the contractor will be responsible for replacing the identified defects at no expense to the Owner and re-testing.

14.1 IMCORP of Manchester Connecticut is the only approved testing subcontractor for this project. Contact:

Tim Morello
IMCORP - Power Cable Reliability Consulting & Diagnostics
tim.morello@imcorp.com
860.558.9005

14.2 The testing subcontractor shall utilize a non-destructive, factory grade, off-line partial discharge (PD) test in accordance with the parameters set forth herein. No other test is acceptable. Hi-Pot testing shall NOT be done on cable.

14.3 The testing subcontractor shall utilize a 50 or 60 Hz, PD free, voltage source to energize the cable system gradually from zero to the maximum recommend test voltage. As noted above the recommended test voltage will vary from the new cable test to the total system test.

14.4 The cable system's PD response at each step (1.0 Uo, 1.5 Uo and maximum test voltage) shall be monitored and recorded. The application of overvoltage shall not exceed 30 seconds.

14.5 Recorded measurements at each step shall include test sensitivity, PD location, PD magnitude, PD phase pattern, and voltage source level.

14.6 The testing subcontractor's equipment shall have a calibration procedure which allows verification of sensitivity levels.

14.7 Prior to testing, the cable system should be mapped using a low voltage TDR to locate joints and other key components.

14.8 The testing subcontractor will prepare a preprinted form for recording the test data. The form will include:

- Date of test
- Personnel conducting the test
- Cable identification
- Cable length
- Termination and splice points
- Defect location (if any)

14.9 If any system component exceeds the PD threshold standards, the testing subcontractor shall quantify severity and recommend corrective action. Contractor is responsible for the cost of any and all corrective action.

Exhibit A

Project Photos

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Real People. Real Power.

ECE
155 US HWY 70 EAST
GARNER, NC 27529-3942
TEL: 919.773.9789
N.C. FIRM NO. F-0429
ECEPOWER.COM

TIDELAND ELECTRIC MEMBERSHIP CORP.
PANTEGO, NORTH CAROLINA

OCRACOKE ARMORED CABLE EXTENSION

DRAWN BY: ABB	JOB #: 53-013	FOR REVIEW ☑	SCALE: N.T.S.
CHECKED BY: TBP	CAD FILE: ARMOREDCABLE		
APPROVED BY: TBP	DATE: 01/16/2026	FINAL ☐	SHEET #: 1 of 1

Exhibit B

Project Drawings

NOTES:

1. LOCATE AND AVOID EXISTING POWER AND FIBER OPTIC CABLES.
2. APPROXIMATE CABLE ROUTE SHOWN. EXACT ROUTE TBD.
3. EXISTING POWER CONDUCTORS FROM JUNCTION ENCLOSURE TO HWY. 12 ARE THREE, INDIVIDUAL, 35KV, DIRECT BURIED POWER CABLES (NOT ARMORED)
4. NEW SUBMARINE CABLE TO BE INSTALLED AT 5' BELOW GRADE BY OPEN TRENCH OR PLOWING METHOD(S). OTHER METHODS MAY BE PROPOSED BY CONTRACTOR.

OCRACOKE TO HATTERAS FERRY TERMINALS

SPLICE EXISTING (1999 OKONITE) CABLE TO NEW CABLE (EQUIVALENT TO 2020 KERITE CABLE)

OKONITE (1999) ARMORED CABLE (APPROXIMATE LOCATION)

EXISTING 600 AMP JUNCTION ENCLOSURE

DIRECTIONAL BORE (8" HDPE) MAY BE REQUIRED IN AREA OF WATER ENCROACHMENT. APPROXIMATELY 500'

JE ≈5.5'

16+87

−0.5'

0.1'

2.5'

2.6'

16+00

2.4'

2.3'

15+00

1.9'

0.5'

14+00

−0.3'

2.2'

13+00

2.1'

12+00

2.5'

2.8'

11+00

4.0'

3.4'

10+00

3.0'

2.9'

9+00

3.0'

8+00

3.0'

2.9'

7+00

2.9'

6+00

3.0'

2.7'

5+00

2.4'

4+00

2.8'

2.9'

3+00

2.7'

2.9'

2+00

2.7'

3.0'

1+00

3.0'

5.2'

3.0'

2.9'

3.1'

NEW RISER POLE BY OWNER

3.1'

0+00

3.3'

FIBER MARKER

EXISTING OH POWER

NC HWY 12

LEGEND:

⊠ ELEVATIONS

11+00 STATIONING

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No.	DATE	REVISION

PRELIMINARY

ECE

155 US HWY 70 EAST
GARNER, NC 27529-3942
TEL: 919.773.9789
N.C. FIRM NO. F-0429
ECEPOWER.COM

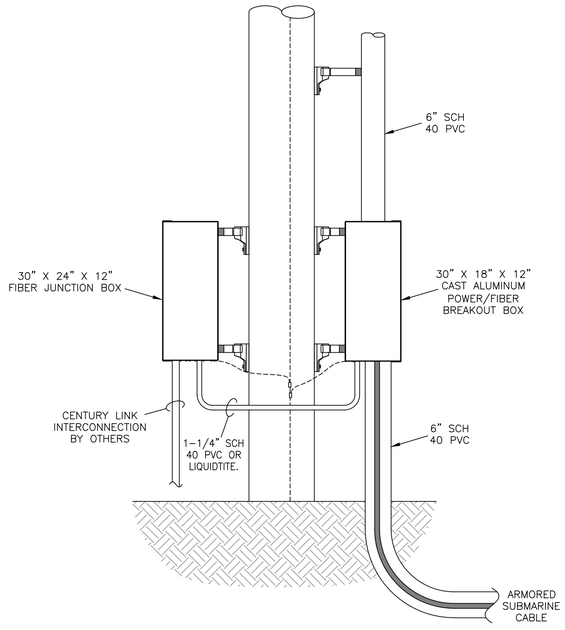
TIDELAND ELECTRIC MEMBERSHIP CORP.
PANTEGO, NORTH CAROLINA

OCRACOKE ARMORED CABLE EXTENSION

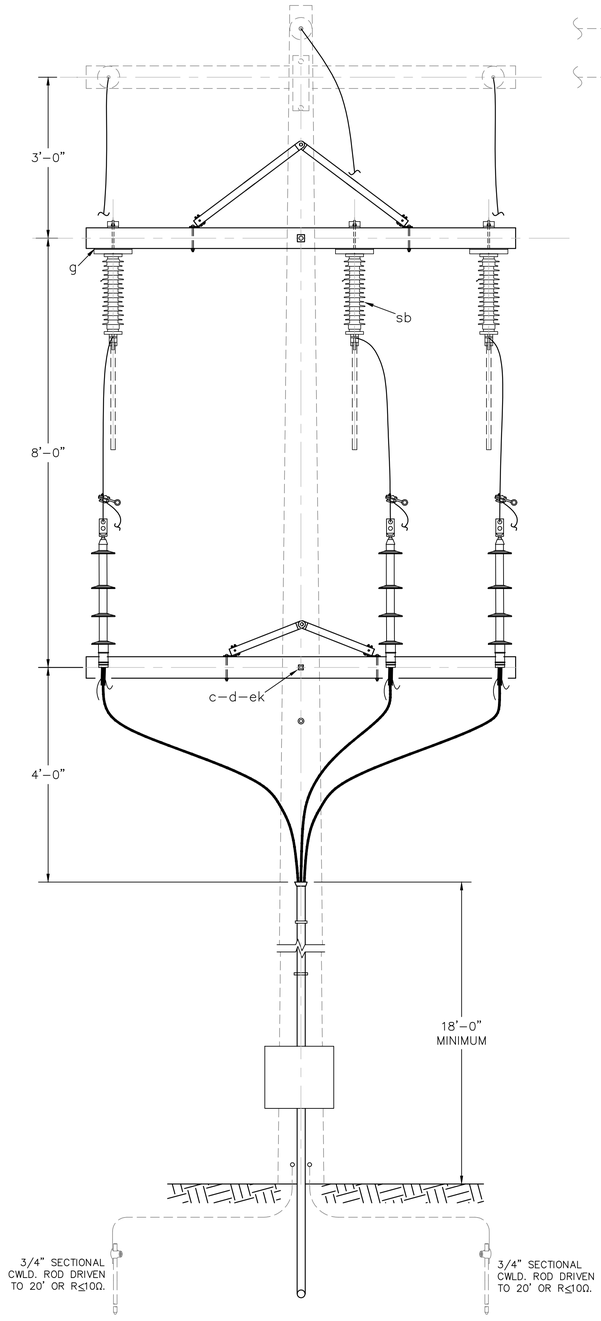
DRAWN BY: ABB	JOB #: 53-013	FOR REVIEW ☑	SCALE: 1" = 50'
CHECKED BY: TBP	CAD FILE: ARMOREDCABLE		
APPROVED BY: TBP	DATE: 11/24/2025	FINAL ☐	SHEET #: 1 of 1

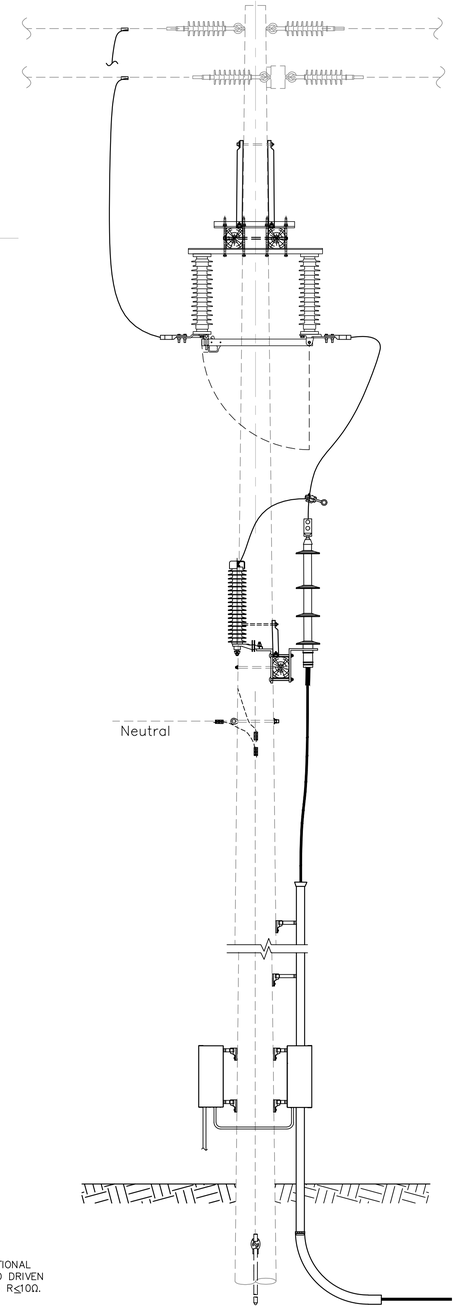
NOTES:

1. FIBER JUNCTION BOX TO SERVE AS PHYSICAL PROTECTION FOR SPLICE CLOSURE AND UNTERMINATED CABLE/FIBERS.
2. RUN FIBER CABLES THROUGH ONE 2" SCH 40 PVC CONDUIT OR LIQUIDTITE FLEXIBLE CONDUIT FROM CAST ALUMINUM BOX TO FIBER JUNCTION BOX.
3. BOND CABINETS TO POLE GROUND WITH 4 AWG SOLID COPPER.
4. BOND ANY METALLIC PARTS OF CENTURY LINK FIBER CABLE TO TIDELAND NEUTRAL.



POLE MOUNTED CAST JUNCTION BOX DETAIL
N.T.S.

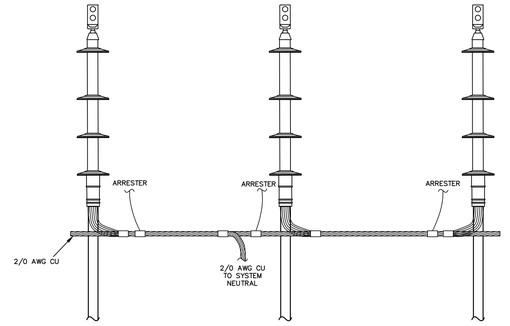




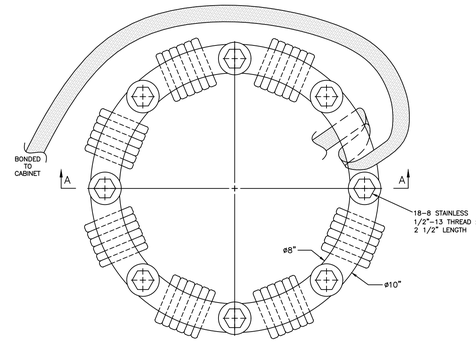
THREE PHASE PRIMARY RISER POLE WITH ARMORED CABLE
SCALE: 3/4" = 1'-0"

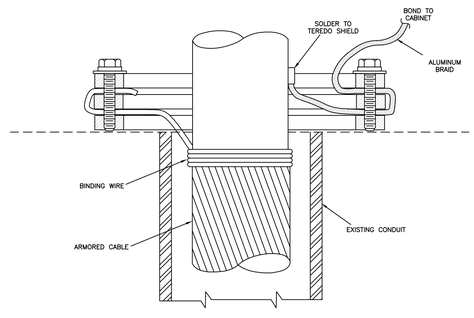
NOTES:

1. USE APPROPRIATE ACCESSORIES TO BOND TAPE SHIELD AND CONCENTRIC WIRES TO 2/0 "BUS" ALONG BOTTOM OF TERMINATORS. ATTACH ARRESTERS TO BUS AND BOND BUS TO SYSTEM NEUTRAL.



2/0 AWG CU NEUTRAL BUS DETAIL
N.T.S.





ARMORED CABLE SUPPORT DETAIL
N.T.S.

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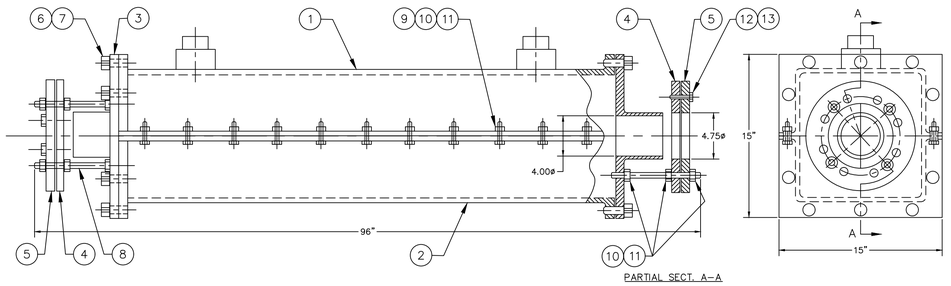
PRELIMINARY

ECE
155 US HWY 70 EAST
GARNER, NC 27529-3942
TEL: 919.773.9789
N.C. FIRM NO. F-0429
ECEPOWER.COM

TIDELAND ELECTRIC MEMBERSHIP CORP.
PANTEGO, NORTH CAROLINA

OCRACOKE ARMORED CABLE DETAILS

DRAWN BY: ABB	JOB #: 53-016	FOR REVIEW ☑	SCALE: AS SHOWN	
CHECKED BY: TBP	CAD FILE: 53-016 DT1			
APPROVED BY: TBP	DATE: 11/21/2025	FINAL ☐	SHEET #: DT1	



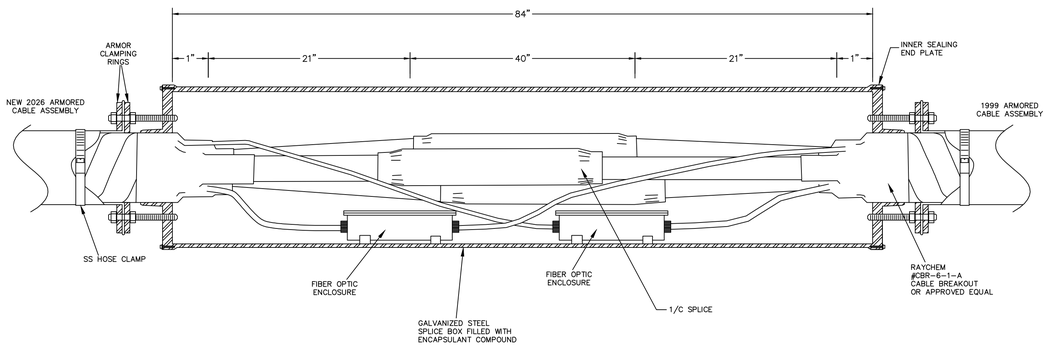
PARTIAL SECT. A–A

ALL HARDWARE TO BE STAINLESS STEEL

ITEM	DESCRIPTION	QTY
13	3/8" SPLIT LOCKWASHER	16
12	3/8"–16 X 1 1/2" LG. HEXBOLT	16
11	1/2" SPLIT LOCKWASHER	46
10	1/2"–13 HEX NUT	46
9	1/2"–13 X 1 1/2" LG. HEXBOLT	22
8	1/2"–13 X 6" LG. THREADED ROD	8
7	5/8" SPLIT LOCKWASHER	20
6	5/8" – 1 1/2" LG. HEXBOLT	20
5	OUTER CLAMP RING	2
4	INNER CLAMP RING	2
3	FLANGE WELDMENT	2
2	SPLIT CASING WELDMENT (LOWER)	1
1	SPLIT CASING WELDMENT (UPPER)	1

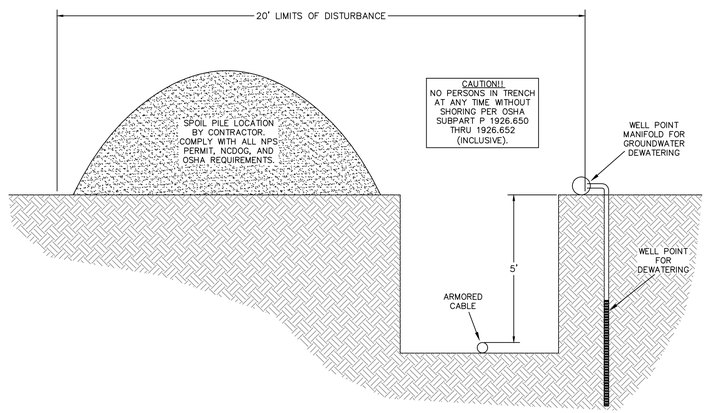
NOTES:
1. INSIDE CAVITY DIMENSIONS – 11.37" SQUARE X 84" LONG
2. APPROXIMATE COMPOUND CAPACITY – 30 GALLONS.
3. APPROXIMATE WEIGHT (FULL) – 750 LBS.
4. INFORMATION FROM MAC PRODUCTS, INC. C–12605–3

- FIBERS 1–10 OF ONE NEW 12CT FIBER SPLICED TO EXISTING 10CT FIBER
- SECOND NEW 12CT FIBER SPLICED TO EXISTING 12CT FIBER



NOTE:
10AWG SOLID INSULATED WIRE BONDS FIBER ARMOR AND SS TUBE INSIDE CLOSURE. GROUNDWIRE EXITS CLOSURE VIA GROMMET AND IS BONDED TO TOREDO SHIELD AND/OR JUNCTION BOX.

SPLICE BOX DETAIL
N.T.S.



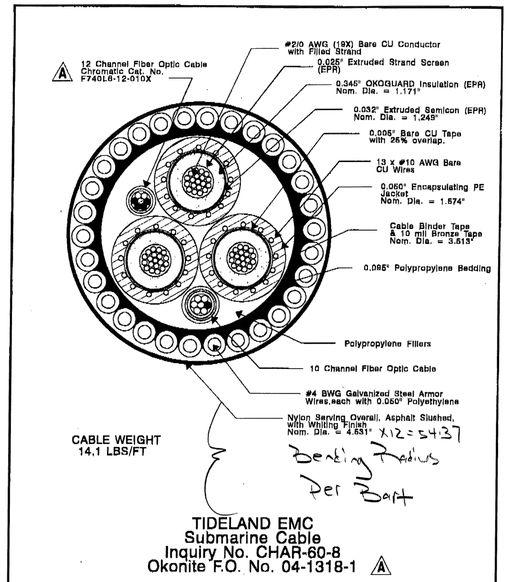
LIMITS OF DISTURBANCE DETAIL
EXCAVATION TRENCH & SPOIL
(TYPICAL)
N.T.S.

DETAIL NOT APPLICABLE IF CABLE INSTALLED BY PLOWING

Description	Part #
Cast aluminum box 30" x 18" X 12"	Hope Electrical Products H22-301812-AL. Custom holes: 1 top, 1 bottom (centered) for 6" conduit. 2 bottom, back left and right for 1-1/4" conduit
Fiber Optic junction box 316 SS, 30" x 24" X 12"	Hammond Mfg. 1418N4S16K12 (316 SS option for enclosure and SS panel)
Underhung Disconnect Switch 38 kV 200 kV BIL 600 amp 40Ka (By Owner)	Siemens (custom). Item # HB_840C-TDC01 Designation: EH 38 200 600 Model/Ref: 20194782
Arresters 21kV/17 kV MCOV, extended creep (By Owner)	Cooper URT21130A1A1B1A 36.2" leakage (optional housing)
Primary Terminator	Raychem/TE HVT-ZL-353-SG
Primary Splice	Rachem/TE HVS-3511S-J
Fiber Optic closure (splice box)	Preformed Line Products Coyote COYLCC-FOO4 Grommets chosen to fit fiber cables and ground wire exit.
Splice Box Encapsulant	Preformed Line Products Type RD
Box mounting bracket (6")	Alumaform 6-CS0-36
Conduit standoff bracket (9")	Alumaform 9-CS0-12
Conduit strap kit	Alumaform STK-6

PARTIAL MATERIAL LIST

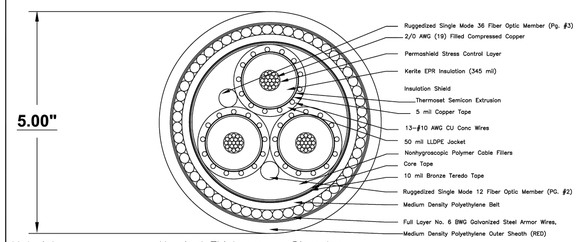
1999 ARMORED CABLE ASSEMBLY



3/C 2/0 AWG CU OKOGUARD SUBMARINE CABLE w/ #4 BWG GALV. STEEL ARMOR WIRES 25 KV			
THE OKONITE COMPANY RAMSEY, N.J. USA	DATE: 01/19/99	SCALE: NTS	REVISIONS A 8/8/00
	DR. EJB DSK	APP. EST. NUMBER 994307	DRAWING NUMBER CS-8330

2020 ARMORED CABLE ASSEMBLY

KERITE CATALOG NO. 321G35–JE158002

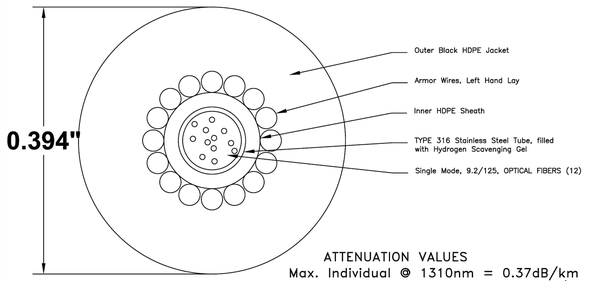


Material	Nominal Thickness	Diameter
2/0 AWG (19) Filled Strand Conductor	0.406"	0.406"
Permashield Stress Control Layer	0.025"	0.440"
Kerite Discharge Resistant EPR Insulation	0.345"	1.155"
Extruded Thermoset Semicon	0.030"	1.220"
5 mil thick Copper Tape (20% overlap)	0.018"	1.240"
LLDPE Jacket	0.060"	1.550"
Fabric Core Tape	0.010"	3.730"
Bronze Tape (Toredo Protection)	0.010"	3.750"
Mylar Bedding Tape	0.010"	3.780"
MDPE Extrusion	0.160"	4.090"
Galvanized Steel Armor Wires	0.208"	4.490"
Fiber Tape	0.010"	4.500"
Mylar Tape	0.010"	4.530"
MDPE Extrusion	0.240"	5.000"

Note: All dimensional data subject to manufacturing tolerances.

Kerite	3/C CABLE 2/0 AWG (19) FILLED CU, 35KV SPS 100%, 345 MIL KERITE, EXTRUDED SEMICON, 5 MIL CU TAPE, 13–#10 AWG CU CONC WIRES, 50 MIL BLACK LLDPE JKT, CABLED WITH 1–12F & 1–36F SM OPTIC CORES, 10 MIL BRONZE TAPE, NOMINAL 140 MIL MDPE JKT, FULL LAYER #6 BWG GALV. ST. ARMOR WIRES, RED MDPE JKT OVERALL.	Drawing: 321G35–JE158002	
		Drawn By: WSR.M	Scale: NONE
		Appr:	Date: 07_09_20

Detailed Drawing – 12 Fiber Single Mode Optical Core

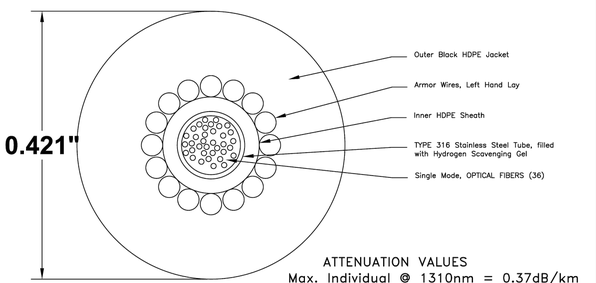


ATTENUATION VALUES
Max. Individual @ 1310nm = 0.37dB/km
Max. Individual @ 1550nm = 0.22 dB/km

Page #2 0f 3

Kerite	One Core containing 12 single mode fiber optic members in a Type 316 Stainless Steel Tube with 27 mil HDPE layer, Full layer Galv. St. Wires, 67 mil Black HDPE Jacket, Overall.	Drawing: REV._3	
		Drawn By: MCD	Scale: NONE
		Appr:	Date: 01–29–16

Detailed Drawing – 36 Fiber Single Mode Optical Core



ATTENUATION VALUES
Max. Individual @ 1310nm = 0.37dB/km
Max. Individual @ 1550nm = 0.22 dB/km

Page #3 0f 3

Kerite	One Core containing 36 single mode fiber optic members in a Type 316 Stainless Steel Tube with 27 mil HDPE layer, Full layer Galv. St. Wires, 81 mil Black HDPE Jacket, Overall.	Drawing: REV._1	
		Drawn By: MCD	Scale: NONE
		Appr:	Date: 02–07–19

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DETAILS

DRAWN BY: ABB	JOB #: 53-016	FOR REVIEW ☑	SCALE: AS SHOWN
CHECKED BY: TBP	CAD FILE: 53-016 DT1		
APPROVED BY: TBP	DATE: 11/21/2025	FINAL ☐	SHEET #: DT2