



Solicitation Number: IFB20000136
Fiber Construction and Repair Services

Invitation for Bid (IFB)

Anne Arundel County

March 10, 2020 - April 07, 2020

General Header Information

No. IFB20000136
Title: Fiber Construction and Repair Services
Start Date: March 10, 2020 at 8:00:00 AM EDT
End Date: April 07, 2020 at 1:30:00 PM EDT
Collaboration Start Date: March 10, 2020 at 8:15:00 AM EDT
Collaboration End Date: March 31, 2020 at 8:00:00 AM EDT
Estimated Total Value:
Who can respond to this bid? : All Vendors
Description: These specifications are intended to cover the installation, emergencies, and materials for fiber construction for all Anne Arundel County, Departments, under the direction of the Office of Information Technology.
Delivery Terms: Free On Board Destination
Payment Terms: Net 30 Days
Contact Information: Anne Arundel County
Alicia Baltimore
2660 Riva Road, 3rd Floor Annapolis MD, 21401 United States
Tel: 410-222-4418
Fax: 410-222-7624
phbalt19@aacounty.org
Contact Details: If you have any questions, Please contact:
Alicia Baltimore
2660 Riva Road, 3rd Floor Annapolis MD, 21401 United States
Tel: 410-222-4418
Fax: 410-222-7624
phbalt19@aacounty.org
Selected Categories: Cable Construction, Installation and Maintenance (Fiber Optic, Communication, Computer, etc.) (96218)

Solicitation Requirements: SOLICITATION CHECKLIST

SOLICITATION CHECK LIST

THIS CHECKLIST IS PROVIDED FOR YOUR CONVENIENCE

_____ Bid Response/Proposal shall be delivered to the County Purchasing Department or submitted online no later than the date and time shown in the Solicitation. Did you visit our website at (<http://www.aacounty.org/CentServ/Purchasing/index.cfm>) for any addenda?

_____ Did an authorized company representative sign and notarize the Affidavit form(s)?

_____ If you are an entity (limited liability partnerships, corporations, limited partnerships, limited liability companies, limited liability limited partnerships, business trusts, real estate investment trust and trade name filings), is the legal name of your company listed with the State of Maryland Department of Assessments and Taxation and in good standing? You may check by going to www.sdat.org.

_____ If this Solicitation requires a Bid/Proposal bond, did you include a scanned version if you submitted online and the original version to the Purchasing Division office prior to the deadline for submitting a Bid/Proposal?

_____ If submitting online, did you provide a scanned copy of your signed and notarized Affidavit?

_____ If submitting a paper bid or proposal, did you provide one original and one copy of your response?

_____ If submitting a paper bid, is the outside of the submittal envelope marked with the Bid/Proposal Number, the title, the due date, your company name, and your company address?

MANDATORY REQUIREMENTS

The following item(s) are **MANDATORY** and shall be submitted, in fully executed format, with Bid Response/Proposal in order to be considered for an award. If the following item(s) are not submitted with the Bid Response/Proposal, the Bid/Response/Proposal shall be considered null and void, and therefore, will be rejected.

(A) Bid Deposit of \$1,000.00

(B) County's Bid Response Form (IFB)

IFB MANDATORY REQUIREMENTS

Mandatory Requirements for IFB

The following item(s) are **MANDATORY** and shall be submitted with your Bid Response in order to be considered for an award. If the following item(s) is required by this Solicitation and is not submitted with the Bid Response, the Bid Response shall be considered null and void, and therefore, will be rejected.

(A) Bid Deposit of \$1,000.00

(B) Bid Response Form

SOLICITATION GENERAL INSTRUCTIONS

INSTRUCTIONS

NOTICE: The vendor is solely responsible for ensuring timely submission of their solicitation response, whether submitting an online response or a hard copy (paper) response. Failure to allow adequate time prior to the solicitation end date to complete and submit a response to a solicitation, particularly in the event technical support assistance is required, places the vendor and their response at risk of not being accepted on time.

PORT: To download a copy of the Solicitation specifications, go to the County's website at <https://www.aacounty.org/PORT> and click on "Print/Download Solicitation Summary" icon at the top of the page.

ELECTRONIC RESPONSES: To respond electronically to a solicitation, the vendor must first register with the County's eProcurement system (P.O.R.T.) by going to the <https://www.aacounty.org/PORT> clicking the "Registration" button at the top of the page, and completing the Vendor Registration. Detailed instructions for using the P.O.R.T. system are available by scrolling down on the P.O.R.T. home page.

Once registered, the Bidder or Offeror should log back into P.O.R.T. and edit their profile by selecting the organizational contact(s) that should receive an automated confirmation of the vendor's electronic bid or proposal responses successfully submitted to the County.

When responding electronically to a specific solicitation, the vendor must read and accept the Original Solicitation Documents and complete pricing and any other identified requirements. In addition, the vendor should download and save all of the Original Solicitation Documents on their computer so that they can prepare their response to these documents. Vendors should upload their completed response to these downloaded documents (including Affidavit, exhibits, forms, and other information concerning the solicitation) as an attachment to the electronic solicitation response. A scanned copy of the Affidavit may be submitted if responding to the solicitation online. If the responding vendor is awarded a purchase order or contract, the vendor will submit the original version of the Affidavit that was scanned and submitted online to the County's Purchasing Division, Office of the Purchasing Agent, within ten (10) calendar days of request.

PAPER BIDS AND PROPOSALS (not submitted online): Vendors are encouraged to submit their entire bid or proposal electronically; however in lieu of attaching exhibits, forms, pricing, etc. to the electronic solicitation response, a vendor may submit the exhibits, forms, pricing, etc. through mail or courier service. However, any such submission must be received in the Office of the Purchasing Agent, 2660 Riva Road, 3rd Floor, Annapolis, Maryland, 21401, prior to the solicitation's specified end date and time. Be sure to include the Solicitation number, company name, and a contact name on any hard copy Solicitation response documents submitted through mail or courier service. Sealed bids or proposals addressed to the County Purchasing Agent will be received in the Office of the Purchasing Agent, Anne Arundel County, Maryland, at the date and time noted elsewhere in this solicitation. Bid responses to an IFB will be publicly opened on that date. Bidder or Offeror may download a copy of solicitation from the Bid Board at <https://www.aacounty.org/PORT>. Paper bids or proposals shall be submitted in duplicate on and in accordance with forms for this purpose.

In the event a registered vendor electronically submits a solicitation response and also mails hard copy documents that are not identical, the Purchasing Agent may elect to reject both submittals. The Purchasing Agent's decision is final.

Paper Bids and Proposals will be submitted in duplicate in a sealed envelope. Each Bid or Proposal Response will be accompanied by a notarized affidavit (non-collusion oath/anti-bribery) executed by the Bidder or Offeror or, if the Bidder or Offeror is a business entity, by a duly authorized representative of the business entity. The form for this oath is provided in this solicitation. Additional information or clarification of any of the instructions or information contained herein may be obtained from the Office of the Purchasing Agent. The deadline for submitting a written request for clarification of requirements is noted in the Collaboration Section of this solicitation. The County Purchasing Agent will respond by notifying Bidders or Offerors by written addendum.

Any Bidder or Offeror finding any discrepancy in or omission from the Specifications resulting in doubt as to their meaning, or feeling that the Specifications are discriminatory, will notify the County Purchasing Agent in writing no later than the deadline noted in the Collaboration Section of this Solicitation. These exceptions in no way obligate the County to change its specifications. The County Purchasing Agent will respond by notifying Offerors by written addendum of any interpretations made of the Specifications.

The County shall assume no responsibility for oral communications. All official correspondence in regard to the Specifications will be directed to and will be issued by the County Purchasing Agent in writing. To better ensure fair competition and to permit a determination of the Successful Bidder or Offeror, a Bid or Proposal Response may be rejected if they show any omission, irregularity, alteration of form, addition, condition, unresponsiveness, or unbalance.

Specifications provided are based on County needs and uses, estimated costs of operation and maintenance, and other significant or limiting factors to meet County requirements and consistent with County policies. Minimum and maximum specifications, where included, are not established arbitrarily to limit competition or to exclude competitive Bidders or Offerors. In the case of discrepancy between the unit price or rate and the extension of that unit price or rate, the unit price or rate shall govern.

Contact with any County representative concerning this solicitation, other than as stated herein, is prohibited. "County representative" will include, but not be limited to, all elected and appointed officials, County employees, and members of the Evaluation Committee.

IFB TERMS AND CONDITIONS

TAXES: RESPONSIBILITY FOR PAYMENT, EXEMPTIONS, FORMS TO BE FILED, ETC.

The Successful Bidder is responsible for paying and, by submitting a Bid, agrees to pay all retail sales, income, real estate, sales and use, transportation, special, and any other taxes applicable to and assessable against any goods, processes, and operations incident to or related to this Invitation for Bid. The Successful Bidder is responsible for ascertaining applicable taxes and making all necessary arrangements to pay same. All prices quoted shall be exclusive of any State, Federal, or other applicable taxes, including Federal Excise Tax on trucks or any other goods or accessories.

RESERVATIONS

The Purchasing Agent may reject all Bids and cancel the IFB, may reject parts of all Bids, or may reject all Bids for any one or more Goods or Services if, in the Purchasing Agent's judgment, it is in the County's best interest and the public interest will be served thereby. A written record explaining the reasons for such rejection shall be maintained with the records related to the Procurement.

The County Purchasing Agent reserves the right to waive formalities or technicalities in Bids as the interest of the County may require.

The quantities appearing in this IFB are approximate only and are prepared for the canvassing of bids. Payment to the Successful Bidder will be made only for the actual quantities of goods or services provided in accordance with the resulting Contract, and it is understood that the scheduled quantities of goods or services to be furnished may be increased, decreased, or omitted without invalidating the Bid.

The County Purchasing Agent reserves the right to award contracts or place orders on a lump sum or individual item basis, or in such combination as shall, in his or her judgment, be in the best interest of the County.

The County Purchasing Agent may waive minor differences in Specifications provided these differences neither violate the Specification intent nor materially affect the operation for which goods or services are being purchased and do not increase estimated maintenance and repair costs to the County.

SUBSTITUTES

When an item is designated as "no substitutes", only that brand/manufacturer and stock number shall be accepted, except goods manufactured by the same manufacturer and sold under a competitive brand name.

For all items not designated "no substitutes", the County will consider a "County-approved equivalent." Equivalent items will be considered provided descriptive literature and specifications accompany the Bid. Each Bidder shall indicate on the Bid Response Form "As Specified", or the equivalent manufacturer and model number. The County, in its sole discretion, will evaluate and award each item. The Bidder shall indicate clearly the goods on which it is bidding, and shall supply a sample or sufficient data enabling a meaningful comparison to be made with the particular brand or manufacturer specified. Catalog cuts and descriptive data shall be included with the Bid where applicable. Failure to submit the above information may be sufficient grounds for rejection of the Bid.

No Bidder shall be allowed to offer more than one price on each item even though the Bidder may believe that two or more types or styles will meet specifications. Bidders shall determine for themselves which to offer. If a Bidder submits more than one price on any item, all prices for that item may be rejected at the discretion of the Purchasing Agent.

SAFETY DATA SHEETS

If goods or services provided to the County, including any chemicals or products to be used, contain any ingredients that could be hazardous or injurious to a person's health, a Safety Data Sheet ("SDS") shall be provided to the Purchasing Agent by the Successful Bidder. This requirement also applies to any goods or services used by the Successful Bidder when providing a service to the County.

INSPECTION

All goods delivered to and services performed for the County shall be subject to final inspection by the County and tests by the testing facilities of the County and other independent testing laboratories as may be designated by the Purchasing Agent. If the result of tests indicates that any part of the goods or services are deficient in any respect, the Purchasing Agent, in his or her absolute discretion, may reject all or any part of the goods or services provided to the County. Variances in goods and services may be waived upon approval by the Purchasing Agent, in his or her absolute discretion.

DISPUTES

In cases of disputes as to whether the goods or services quoted or delivered meet Specifications, the decision of the County Purchasing Agent shall be final and binding on both parties. The County Purchasing Agent may request the recommendation in writing of the head of the County Agency using the goods or service, the Standards and Specifications Committee, or other sources.

LAWS AND REGULATIONS

The Successful Bidder shall comply with all applicable Federal, State, and local laws and ordinances. The Successful Bidder shall protect and indemnify Anne Arundel County, Maryland, and its agents or employees against any claim or liability arising from or based on the violation of any laws, ordinances, or regulations by the Successful Bidder and by any subcontractors, agents, or employees.

EQUAL OPPORTUNITY

The Contractor assures the County that it shall not discriminate against any person in any of its activities with regard to membership policies, employment practices, or in the provision of services on the basis of gender identity, race, color, national origin, religion, ancestry, sex, age, or disability. The Contractor shall comply with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and as supplemented in U. S. Department of Labor Regulations 41CFR Part 60. The Contractor must bind its subcontractors to the provisions of this section.

INDEMNIFICATION

If a contract is awarded, the Successful Bidder shall be required to indemnify, defend, and hold the County, its employees, and agents harmless from and against any and all claims, loss, liability, cost, and expenses, including attorney fees, howsoever arising or incurred, alleging personal injury, bodily injury, including death, or property damage arising out of or attributable to the Successful Bidder's performance of the Contract awarded.

TERMINATION PROCESS

Termination for Convenience: Notwithstanding anything contained herein, the County may terminate this Agreement anytime, in whole or in part, without showing cause by providing thirty (30) days written notice to the Successful Bidder. The County shall pay all reasonable costs incurred by the Successful Bidder up to the date of termination. The Successful Bidder shall not be reimbursed for any anticipatory profits, which have not been earned to the date of termination.

The Successful Bidder shall be provided 30 days' notice of any termination not for cause and shall only perform such work during the 30-day notice period that is authorized in writing by the County's Purchasing Agent.

This Agreement may be terminated by the County upon at least seven (7) days' notice to the Successful Bidder in the event that: (1) the Work is permanently abandoned by the County; (2) continued Work is deemed by the County, in its sole discretion, not to be in the best interests of the County; or (3) monies are no longer available or are not appropriated to fund the Work being performed or to be performed under this Agreement.

Termination for Cause: Notwithstanding anything contained herein, if the Successful Bidder fails to fulfill its obligation under this Agreement properly and on time or otherwise violates any provision of this Agreement, the County may terminate this Agreement by written notice to the Successful Bidder. The notice shall specify the acts or omissions relied upon as cause for termination. All finished or unfinished goods or services provided by the Successful Bidder shall, at the County's option, become the County's property. The County shall pay the Successful Bidder fair and equitable compensation for satisfactory performance prior to receipt of notice of termination less the amount of damages caused by the Successful Bidder's breach. If the damages are more than the compensation payable to the Successful Bidder, the Successful Bidder shall remain liable after termination, and the County may take all steps necessary to collect damages.

OPTIONAL USE OF CONTRACT

The Successful Bidder reserves the right to extend all of the terms, conditions, specifications, and unit or other prices of any contract resulting from this IFB to any and all public bodies, subdivisions, school districts, community colleges, colleges, and universities, including non-public schools. This is conditioned upon mutual agreement of all parties pursuant to special requirements, which may be appended thereto. The Successful Bidder agrees to notify the issuing body of those entities that wish to use any contract resulting from this IFB and shall also provide usage information, which may be requested.

The County assumes no authority, liability, or obligation on behalf of any other public or non-public entity that may use any contract resulting from this IFB. All purchases and payment transactions shall be made directly between the Successful Bidder and the requesting entity. Any exceptions to this requirement shall be specifically noted in the Bid Response.

CORPORATION REGISTRATION

Whenever required by law, business entities not organized under the laws of the State of Maryland shall be registered with the State Department of Assessments and Taxation, 301 W. Preston Street, Baltimore, Maryland, 21201 ("SDAT") before doing any business in this State.

All Bidders that are business entities shall be and present evidence prior to award that they are in good standing with SDAT.

REFERENCES TO ALTERNATE TERMS

Any reference which may appear on any price list or literature to any terms and conditions, such as F.O.B. Shipping Point or Prices Subject to Change shall not be part of any Contract with a Successful Bidder and shall be disregarded by the County.

PAYMENT TERMS

Invoice(s) shall contain the following information: Purchase Order Number, Item Number, description of goods or services, quantities, unit prices, and extended totals. Payment terms, unless otherwise noted, shall be net thirty (30) days. The County is not subject to retail sales, income, real estate, sales, use, transportation, or special taxes. The final payment shall be based upon acceptance of goods or services from the Successful Bidder and a final invoice submitted by the Successful Bidder and approved by the County. To receive payment for services rendered, the Successful Bidder shall submit an invoice to:

Anne Arundel County, Maryland

Office of Finance

P. O. Box 2700

Annapolis, MD 21404

Payment shall be made electronically via ACH Transfer. The County reserves the right to deduct the total amount of any debts owed to the County from any payments issued pursuant to any resulting agreement for this IFB.

ASSIGNMENT

Except for assignment of an antitrust claim, a party to any contract resulting from this Solicitation may neither assign nor delegate any portion of the Contract without the prior written consent of the other party.

AVAILABILITY OF FUNDS

The obligations of the County under any Contract awarded pursuant to this IFB are subject to the availability of funds appropriated by the County Council of Anne Arundel County, Maryland, and to receipt and availability of appropriated funds.

INTERPRETATION

The Contract resulting from this Solicitation shall be construed under the laws of the State of Maryland.

INTEGRATION

The IFB, the Successful Bidder's Bid, and the County's Purchase Order contain the entire understanding between the parties, and any additions or modifications hereto may only be made in writing executed by both parties hereon.

FAIR LABOR STANDARDS

The Successful Bidder shall comply with all applicable provisions of the Federal Labor Standard Act (FLSA) and shall indemnify, defend, and hold harmless the County, its officers, employees, and agents from any and all liability, including but not limited to, wages, overtime pay, liquidated damages, penalties, court costs, and attorney's fees arising under any wage and hours law, including but not limited to, FLSA for work performed by the Successful Bidder's employees for which the County may be found jointly or solely liable.

CHANGES

The County reserves the right to add items to this Contract at the County's sole discretion if the items meet the following criteria:

- (a) The items added are, in the County's sole opinion, within the general scope of work established for this Contract and/or are ancillary to the successful completion of Work under the resulting Contract.
- (b) The price for each item as offered by the Successful Bidder is, in the County's sole opinion, fair and reasonable and consistent with the pricing for the balance of the resulting Contract.
- (c) The items added are relatively insignificant to the overall value and services under the agreement.

MOST FAVORED PUBLIC ENTITY

The Successful Bidder agrees that the prices charged the County under this Contract do not exceed existing selling prices to its other customers for the same or substantially similar items or services for comparable quantities under similar terms and conditions.

DAMAGE TO COUNTY FACILITIES, BUILDINGS, OR GROUNDS

The Successful Bidder shall repair, or cause to be repaired, at its own cost any and all damage to County facilities, buildings, grounds, equipment, vehicles, or property caused by the Successful Bidder or employees, subcontractors, or agents of the Successful Bidder. Such repairs shall be made immediately after awareness of damage, or notice by County, but in no event more than thirty (30) days after the occurrence.

CONDITIONS FOR PURCHASING ELSEWHERE

Time is of the essence. Should the Successful Bidder fail to perform as specified, in accordance with the terms and conditions specified herein, the Purchasing Agent shall then have the right to procure goods and services in the open market or by contract, in which event the additional costs of such goods or services above the Contract price shall be charged against the Successful Bidder, and may be deducted from any funds payable or which may become payable to the Successful Bidder.

The Purchasing Agent may reject, at his or her sole discretion, any goods or services ordered from the Successful Bidder if they are delivered or performed subsequent to the placement of orders elsewhere.

SIGNATURES REQUIRED FOR LEGAL ENTITIES (FOR CONTRACTS EXCEEDING \$150,000)

The chart below indicates which persons are authorized by law to sign documents. If documents submitted in response to this Solicitation are signed by other persons, then the Interested Party shall provide documents establishing that the persons have the legal authority to sign on behalf of and bind the Interested Party.

TYPE OF LEGAL ENTITY:

<p>Company/Corporation or Professional Service Corporation <i>("Inc.," "Co.," "Corp.," "Ltd.," "P.C.," "Chartered," "Chtd.," "Professional Association," "P.A.")</i></p>	<p>NO PROOF NEEDED IF SIGNED BY: President, Vice President, Chief Executive Officer or Chief Operating Officer</p>	<p>IF SIGNED BY SOMEONE ELSE, ENTITY SHALL PROVIDE: By-Laws, Articles of Incorporation, or a Corporate Resolution</p>
<p>Partnerships</p>	<p>NO PROOF NEEDED IF SIGNED BY: Partner</p>	<p>IF SIGNED BY SOMEONE ELSE, ENTITY SHALL PROVIDE: Statement of Partnership Authority</p>
<p>Limited Partnerships <i>("L.P.")</i></p>	<p>NO PROOF NEEDED IF SIGNED BY: General Partner</p>	<p>IF SIGNED BY SOMEONE ELSE, ENTITY SHALL PROVIDE: Certificate of Limited Partnership</p>
<p>Limited Liability Company / Corporation <i>("LLC" or "LC")</i></p>	<p>NO PROOF NEEDED IF SIGNED BY: Member</p>	<p>IF SIGNED BY SOMEONE ELSE, ENTITY SHALL PROVIDE: Operating Agreement or Articles of Organization of the LLC</p>
<p>Religious Corporations and Churches</p>	<p>PROOF ALWAYS NEEDED</p>	<p>ENTITY SHALL PROVIDE: By-Laws, Articles of Incorporation, or Corporate Resolution</p>
<p>Limited Liability Partnerships and Limited Liability Limited Partnerships <i>("L.L.P." or "LLLP")</i></p>	<p>PROOF ALWAYS NEEDED</p>	<p>ENTITY SHALL PROVIDE: Certificate of Limited Liability Partnership and Partnership Agreement or Statement of Partnership Authority</p>

CHANGES/ERASURES TO BID RESPONSE

To be considered, all erasures, interpolations and other changes in a Paper Bid Response shall be signed or initialed by the Bidder.

BIDDER'S UNDERSTANDING OF THE SCOPE OF IFB AND DUE DILIGENCE

By submitting a Bid in response to this IFB, the Bidder represents that it has read and understands this IFB, including any Addenda, and has familiarized itself with Federal, State, and local laws, ordinances, rules, and regulations that may affect the cost or performance under this IFB or any resulting Contract. The failure or omission of any Bidder to receive or examine any form, instrument, addenda, or other document or to acquaint itself with conditions existing at any site shall in no way relieve that Bidder from any obligations with respect to its Bid Response or to any resulting Contract.

BID RESPONSE MODIFICATIONS OR WITHDRAWAL

A Bid Response may be modified or withdrawn by the Bidder anytime before the time and date set for the receipt of Bid Responses. A request to withdraw of Paper Bid responses must be submitted to the Purchasing Division in writing.

Modified and withdrawn Bids, clearly marked and dated, may be resubmitted to the Purchasing Division up to the time and date set for the receipt of Bid Responses.

No Bid Response may be unilaterally modified or withdrawn after the time set for the receipt of Bid Response and for ninety (90) calendar days thereafter.

Bid Extension: If an award cannot be made prior to the expiration of the pricing submitted in response to this IFB, the Purchasing Agent may request that pricing be extended. The extension of pricing should be a reasonable amount of time for the contract to be fully executed between both parties.

ADDENDA TO IFB - CHANGE IN ISSUING ADDENDA

The Purchasing Division no longer provides written notification of addenda to solicitations. The Purchasing Agent will notify Bidders of any changes, additions, or deletions to the Specifications by addenda posted on P.O.R.T.

CONTENT

The contents of the Bid Response of the Successful Bidder may become contractual obligations. Failure of the Successful Bidder to accept these obligations in a Contract may result in cancellation of the award, and the Successful Bidder may not be eligible for future solicitations.

CONFLICT OF INTEREST

By submission of a Bid Response, Bidder agrees that it has no direct or indirect interest that would conflict in any manner or degree with performance by this IFB or any resulting contract of its services. The Bidder shall further covenant that, in the performance of any contract, the Bidder shall not employ any person or entity having any such known conflict. Failure of the Bidder to provide any information requested in the IFB may result in disqualification of the Bid Response.

HEADINGS

The words and phrases used in the heading of various sections and parts of this IFB are for convenience only and shall not affect the interpretation of any of the terms, conditions and requirements contained anywhere in the IFB.

IFB TEXT EMPHASIS

Throughout this IFB, there may be occasional use of underlining, bolding, oversized characters or other methods of text emphasis. No remarkable difference in emphasis or relative importance of text content is intended by the use of any one method in place of another.

PARENT COMPANY

If a Bidder is owned or controlled by a parent company, the name, main office address, and tax identification number of the parent company shall be provided in the Bid Response.

ASSIGNMENT AND DELEGATION

Except for assignment of antitrust claim, a party to any Contract resulting from this IFB may neither assign nor delegate any portion of the Contract without the prior written consent of the other party.

ACCEPTANCE OF TERMS AND CONDITIONS

By submitting a Bid Response to this IFB, the Successful Bidder accepts the terms and conditions set forth herein.

CONFIDENTIAL AND PROPRIETARY INFORMATION

All information contained in the Bid is subject to production under the Maryland Public Information Act. Each Bidder shall be responsible for identifying all information in its Bid that it considers confidential and proprietary and not subject to release to the general public for any reason by including with its Bid a separate list entitled "Confidential and Proprietary Information". The list shall identify all such information and shall include the location of such information in the Bid, including page numbers, as well as an explanation as to why each piece of information is considered to be confidential and proprietary. All information not included on the list, even if marked as confidential or "proprietary, shall be considered public information and is subject to release on request under the Maryland Public Information Act.

Reasons given for considering information within a Bid Response confidential or proprietary shall be legally justifiable, which is within the sole discretion of the County. Indicating that a Bid Response in its entirety is confidential and proprietary is not legally justifiable, is not acceptable, and may be grounds for the County rejecting the Bid Response on the grounds that the Bid Response is not responsive.

Limitations to Liability: Anne Arundel County assumes no responsibility and no liability for costs incurred by Successful Bidder in responding to the IFB, including requests for additional information. The County assumes no responsibility and shall not be liable in any way for the release to the public of information that is contained in the Bid Response.

Contractor agrees to promptly provide any non-confidential information or materials required by the County to respond to such requests, to the extent required by law.

INDEPENDENT CONTRACTOR

In the performance of this Agreement, the Contractor, including its employees, agents, and subcontractors, shall act solely as an independent contractor, and nothing contained in or implied by this Agreement shall be construed at any time to create any other relationship between the County and the Contractor, including employer and employee, partnership, principal and agent, or joint venturer.

AUDIT OF THE SUCCESSFUL BIDDER

The Successful Bidder shall retain in original form, format, and medium all books, records, and documents from the date of their inception. This shall include, but not be limited to, cost or pricing data relating to the Contract and the Successful Bidder operations, including perpetual inventory records of equipment for a period of at least three (3) years following the date of final payment by the County. The Successful Bidder shall make these records available for inspection and audit by the authorized representative of the County during normal business hours. The Successful Bidder shall receive the County's written authorization for any request to change the form, format, or medium of any record, or for earlier destruction of any record. The Successful Bidder shall comply with County notification that a record shall be retained for a longer period.

The County may audit at any time during the term of the Contract and for a period of at least three (3) years after the date of final payment by the County the Successful Bidder's books and records relating to any work performed under this IFB and any resulting contract, including, but not limited to:

- Cost or pricing data submitted by the Successful Bidder;
- The determination of Successful Bidder's costs or estimated costs in connection with any change order or contractual modification or proposed change order or contractual modification;
- The Successful Bidder's financial condition; and/or
- Claims by one party against any other.

OWNERSHIP AND RETENTION OF RECORDS

All reports, drawings, and other data prepared in connection with the work contemplated by this IFB shall become the property of the County. The Successful Bidder shall retain all records and documents related to work performed under any Contract awarded pursuant to this IFB for at least three (3) years after final Contract payment by the County, and shall make them available for inspection and audit by authorized representatives of the County at all reasonable times.

WORKPLACE FREE OF DRUG AND ALCOHOL ABUSE

Successful Bidder shall maintain a workplace free of drug and alcohol abuse during the term of the Contract; shall prohibit employees from working under the influence of drugs or alcohol; and shall refuse to hire or assign to work under the Contract anyone whom the Successful Bidder knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engage in a bona fide drug or alcohol abuse assistance or rehabilitation program.

PROCUREMENT CARD

The County retains the option to use the County procurement card for the purchase of supplies or services listed in the Contract in lieu of issuing a purchase order. No procurement card transaction shall take place without the authorization of the cardholder and shall not exceed the limit placed on the cardholder's procurement card. The Successful Bidder may receive orders by phone, facsimile, or other forms of notification from authorized County employees. The Successful Bidder may process a payment in the credit card network ONLY upon shipment of supplies or performance of the services ordered by the County agency. For partial shipments or performance, the Successful Bidder may process a payment only for the amount shipped or completed and NOT for the entire amount ordered by the County agency. Upon shipment or completion of the remaining order, the Successful Bidder may process a payment request to the credit card network for the remainder of the order. The Successful Bidder may not charge the County for any fees related to the use of a procurement card.

For all transactions, the Successful Bidder shall have a valid W-9 form on file with the Anne Arundel County, Maryland, Office of Finance.

REGULAR DEALER

Quotes shall be considered only from Bidders that qualify as a "regular dealer." A "regular dealer" means a person or entity that owns, operates, or maintains a store, warehouse, or other establishment in which the goods or services required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the Bidder shall engage in, as its principal business and in its own name, the purchase and sale of the goods or services that are the subject of this IFB.

UNBALANCED BIDS

A Bid shall be mathematically unbalanced if the Bid contains unit pricing that does not reflect reasonable costs (including actual labor and material cost, overhead and profit) for the performance of the bid item(s) in question. A Bid shall be materially unbalanced if there is a reasonable doubt that award of the mathematically unbalanced Bid will result in the lowest ultimate cost to the County. A Bid that is, in the sole discretion of the County Purchasing Agent both mathematically and materially unbalanced, may be rejected as non-responsive.

(An example would be bidding overhead labor rates below regular time rates, or bidding laborer rates above Supervisor or Foreman rates. Another example is bidding a 1 gallon container of a product higher than a 5-gallon container of the same product.)

ADDENDA

Addenda to solicitations often occur, sometimes within as little as 48 hours, prior to bid opening. It is the potential Bidder's responsibility to frequently visit the Purchasing Division's website to obtain Addenda once they have received a copy or downloaded a solicitation. No other notification will occur. A Bid may be rejected if any addendum is not acknowledged in P.O.R.T. or County's website at www.aacounty.org. If submitting a Paper Bid Response, the addenda is signed and included with the Bid Response.

IFB GENERAL SPECIFICATIONS

SCOPE

These Specifications are intended to cover the installation, emergencies, and materials for fiber construction for all Anne Arundel County Departments, under the direction of the Office of Information Technology, Telecommunications Division.

PRE-BID CONFERENCE

A Pre-Bid Conference has been scheduled for March 17, 2020, at 3:00 p.m., local time, at Patuxent Room, 2660 Riva Rd., 3rd floor, Annapolis, Maryland 21401, to answer questions about this IFB and the products or services to be provided hereunder. While attendance is not mandatory, all Bidders are strongly encouraged to attend. While every effort will be made to answer any questions concerning this IFB raised by potential Bidders at the Pre-Bid Conference, such answers shall be considered unofficial until affirmed in writing by the Purchasing Agent in the form of an addendum. Bidders are strongly encouraged to bring any issues regarding this IFB or the equipment/services to be provided to the Pre-Bid Conference or to the attention of the County Buyer prior to the deadline as detailed in General Instructions.

Any modifications, additions, or deletions to the Specifications that result from this meeting shall be in the form of an addendum to be posted on P.O.R.T.

Bidders should register for the Pre-Bid (Site Visit) Meeting at least 48-hours in advance of the meeting date and time by contacting the Buyer, Alicia Baltimore at (410) 222-4418 or phbalt19@aacounty.org. If no Bidders register, the meeting may be canceled without further notice to the Bidders.

No recording of any kind by the public will be allowed at any pre-bid conference or bid opening.

FOR ADA ACCESSIBILITY ASSISTANCE ONLY: Anyone needing special ADA accommodations must contact Andrew Hime, Purchasing Agent, at 410-222-7672, or by email phhime00@aacounty.org. TTY users call through Maryland Relay 7-1-1 at least seven days in advance of the event. All materials are available in alternative formats upon request. Otherwise, contact the Buyer as noted on the front page for everything else. Do not contact Mr. Hime for anything other than ADA accessibility assistance.

DELIVERY/INSTALLATION OF GOODS OR SERVICES

Successful Bidder shall guarantee delivery of goods or services to the Anne Arundel County Departments, under the direction of the Office of Information Technology, Telecommunications Division, between the hours of 8:30 a.m. and 3:00 p.m., local time, Monday through Friday, excluding County holidays, and weekends.

Successful Bidder shall state the number of calendar days required to deliver each item to the County following notification of an award. If submitting a Paper Bid Response, this information shall be submitted with the Paper Bid Response.

Successful Bidder shall provide a delivery ticket for each item delivered, marked clearly with the purchase order number issued by the County for the goods purchased and, if applicable, the name, model, and serial number.

All items shall be delivered F.O.B. destination and delivery costs and charges shall be included in the Bid Response. Unit prices quoted shall include delivery, all charges prepaid, and shall be exclusive of all taxes. No transportation, shipping, or handling charges shall be added to the invoice.

The County Purchasing Agent reserves the right to charge the Successful Bidder fifty dollars (\$50.00) per working day for each day the goods or services are not delivered in accordance with the delivery schedule. The per-diem charge may be invoked at the discretion of the County Purchasing Agent, shall be considered liquidated damages, and shall be deducted from the Bid Deposit or final payment, or charged back to the Successful Bidder.

BID DEPOSIT

A bid deposit in the amount of \$1,000.00 in the form of a money order, cashier's check, certified check, or bid bond is required for this IFB. Failure to submit a bid deposit with a Bid Response shall nullify the Bid.

The bid deposit shall be in the form of a money order, cashier's check certified check (made payable only to Anne Arundel County, Maryland), or bid bond. Failure to submit a bid deposit shall result in rejection of the bid. A money order, cashier's check, or certified check made payable to anyone other than, or in addition to, Anne Arundel County, Maryland, shall be null and void and shall result in rejection of the bid. Bid deposits shall be sent to the Anne Arundel County Purchasing Division, 2660 Riva Road, 3rd Floor, Annapolis, MD 21401, prior to the deadline for submitting a bid response, including those responses submitted online at P.O.R.T.

Bid deposits will be returned to unsuccessful Bidders upon the award of the Contract. The bid deposit will be returned to the Successful Bidder upon execution of a Contract, the meeting of bond requirements, and the Successful Bidder has provided all required documents.

Nonperformance by a Successful Bidder, or its failure to execute the agreement, meet bond requirements, and provide all required documents within ten (10) business days after the award, shall result in the bid deposit being forfeited to the County as liquidated damages.

Bid Bond Extension: Should Bidders choose to provide a bid bond as their form of bid deposit, they may be required to extend the bid bond coverage to align with the extension of the pricing submitted.

BLANKET ORDER CONTRACT

The agreement set forth is essentially a Blanket Order Contract and the execution of the agreement does not authorize the Successful Bidder to deliver or release any material to any department in the County. Authorization for materials to be delivered shall be by Blanket Order Release issued by the Purchasing Agent.

Non-Exclusivity: Nothing herein is intended nor shall be construed as creating any exclusive arrangement with Contractor. This Contract shall not restrict the County from acquiring similar, equal, or like goods and/or services from other entities or sources.

TERM OF CONTRACT

This Contract shall be in effect for one (1) year on or about May 1, 2020. This Contract may be renewed up to an additional four (4) one-year period(s) with the same terms and conditions at the **sole** discretion of Anne Arundel County, Maryland. After the initial term, any one-year renewals will be subject to the availability and appropriation of County funds.

AWARD OF CONTRACT

The County reserves the right to award up to three (3) responsible and responsive Bidders as determined by the County Purchasing Agent, to assure adequate service availability for the County. The decision of the Purchasing Agent is final.

If multiple awards are made, each Successful Bidder shall be designated either as "Primary" (lowest responsible, responsive bidder); "Secondary" (second lowest responsible, responsive bidder); or "Tertiary" (third lowest responsible, responsive bidder) for each award.

The County will utilize a rotational process for all successful bidders to provide fiber construction and repair services to the County. The rotational process will be directed by the County's Office of Information Technology (OIT) Administrator or designee shall be responsible for ensuring the rotational schedule is executed appropriately.

The rotational process will determine the Successful Bidder that is presently eligible to quote the fiber construction and repair services to the County. The Successful Bidder will be responsible for providing adequate services at the designated County location within the designated time frame specified by the County.

If the initial eligible bidder does not respond within three (3) business days, the County will contact the next eligible bidder in the rotational process and the original bidder will be skipped in the rotation. In addition, the Bidder may have the option to refuse to provide service. If the Bidder opts out of service, the Bidder will be skipped in the rotation and will not be eligible until their next turn in the rotation.

The County may make purchases outside of the rotational process if the Successful Bidder used is closer to the work site for emergency service only.

The County reserves the right to remove a bidder from the rotational bidder's list for lack of performance in responding to the County's requirements.

To be eligible for an award, Bidders shall bid on all line items inclusive.

Anne Arundel County, Maryland, reserves the right to accept or reject any bid and to procure no or any quantity of goods or services that are the subject of this IFB, as deemed in its best interest of the County by the Purchasing Agent.

LITERATURE AND SAMPLES

If requested, the Bidder shall provide three (3) copies of complete, current, and up-to-date manufacturer-published descriptive literature and specifications for the proposed goods or services within five (5) days of the request, giving full details as to type of goods or services to be furnished under a Contract.

Samples, when requested by the County, shall be delivered to the Purchasing Division, Heritage Office Complex, 2660 Riva Road, 3rd Floor, Annapolis, Maryland, 21401, within five (5) days of the request, unless otherwise specified. All packages shall be marked "SAMPLES FOR BID NO. 20000136". Each sample shall bear the name of Bidder and item number, and shall be carefully tagged or marked in a clear and conspicuous manner. Failure of the Bidder to deliver required samples or to clearly identify samples may be considered sufficient reason for rejection of the Bid. All deliveries under a resulting Contract shall conform in all respects with samples as submitted and accepted as a basis for the award.

The Purchasing Agent reserves the right to retain or destroy samples and will be free from any redress or claim on the part of a Bidder if any samples are lost or destroyed. Upon notification by the Purchasing Agent that a sample is available for return, it shall be removed by the Bidder within thirty (30) days, or the Purchasing Agent may dispose of it at the Purchasing Agent's discretion.

WARRANTY AND SERVICE

The Successful Bidder warrants any goods or services furnished shall be of the highest quality, shall comply with Specifications, and shall be free from all defects in workmanship and materials for at least one (1) year. Any defective goods shall be immediately replaced free of cost to the County.

INSURANCE REQUIREMENTS

Unless otherwise required by Special Conditions of this Invitation for Bids, if a Contract is awarded, the Successful Bidder shall be required to purchase and maintain during the life of the Contract Commercial General Liability Insurance, Business Automobile Liability Insurance, and Workers' Compensation Insurance with limits of not less than set forth below

COMMERCIAL GENERAL LIABILITY INSURANCE

At least \$1,000,000 combined single limit coverage on an occurrence basis covering all premises and operations and including Personal Injury, Independent Contractor, Contractual Liability and Products and Completed Operations.

BUSINESS AUTOMOBILE LIABILITY INSURANCE

At least \$1,000,000 Combined Single Limit to include owned, non-owned, and hired vehicles.

WORKERS' COMPENSATION INSURANCE

Statutory benefits as required by Maryland law and, when required, the U. S. Longshoremen's and Harbor Workers' Compensation Act, including standard Other States coverage; Employers' Liability coverage with limits of at least \$100,000 each accident/\$100,000 each employee disease/\$500,000 disease policy limit.

On all Commercial General Liability Insurance policies, Anne Arundel County, Maryland, its agents, servants, and employees shall be named as an additional insureds, which shall be shown on the insurance certificates furnished to the County under this Section.

The Successful Bidder shall provide the County with Certificates of Insurance evidencing the coverage required above. The Successful Bidder shall provide certificates of insurance before commencing work in connection with the Contract.

Providing any insurance required herein does not relieve the Successful Bidder of any of the responsibilities or obligations assumed by the Successful Bidder in any resulting Contract or for which the Successful Bidder may be liable by law or otherwise.

Failure to provide and continue in force insurance as required herein shall be deemed a material breach of any resulting Contract and shall operate as an immediate termination thereof.

Contractor shall advise the County at fax # 410-222-7624 and by first-class, certified mail within two (2) business days of any cancellation, non-renewal, or other termination of, or any substantive change to any insurance policy providing or represented as providing the coverages mandated herein. Failure to do so shall be construed as a material breach of this Agreement.

RETURN GOODS POLICY

The County shall apply the following policy to returned goods throughout the term of the Contract. By its signature on the Bid, the Bidder acknowledges it has read, understood, and agreed with the following policy.

Returns generated by the Successful Bidder's error, over shipment, defective merchandise, unacceptable substitution, or otherwise through no fault of the County shall be returned to the Successful Bidder with no restocking charge to the County. At the option of the County, replacement merchandise shall be shipped within fourteen (14) days of notification. The Successful Bidder shall bear all freight and delivery charges.

Returns of catalog stock merchandise generated by ordering error, over purchase, discontinued use, inventory reduction, or other fault of the County shall be accepted by the Successful Bidder. All catalog stock merchandise shall be unused, in the original container, and in suitable condition for resale. The Successful Bidder may assess a restocking charge of not more than twenty-five (25%) percent of the purchase price or the restocking charge noted in the Successful Bidder's published restocking charge, whichever is less. The County shall reimburse the Successful Bidder for original freight charges, if applicable, and shall bear the freight cost of returned goods.

Return of catalog stock merchandise more than six (6) months after receipt by the County shall be at the option of the Successful Bidder. Restocking charges cannot exceed the Successful Bidder's published catalog restocking fee for such returns. The County shall reimburse the Successful Bidder for original freight charges, if applicable, and shall bear the freight cost for return of the goods.

PRICE ADJUSTMENTS

All prices offered herein shall be firm against any adjustment for one (1) year from the effective date of the Contract. Prior to commencement of subsequent renewal terms, the County will entertain a request for price adjustments up to the Consumer Price Index in place exactly ninety (90) days prior to the renewal date. The Successful Bidder shall request all price adjustments in writing at least sixty (60) days and no more than ninety (90) days prior to the renewal date.

For purposes of this Section, "Consumer Price Index" shall mean the Consumer Price Index-All Urban Consumers-Baltimore, Baltimore-Columbia-Towson-All Items, Not Seasonally Adjusted (CPI-U), as published by the United States Department of Labor, Bureau of Labor Statistics.

The County reserves the right to accept, reject, or modify the request for a price adjustment. If the County approves a price adjustment, the price shall remain firm for the renewal term for which it was requested.

In the event where the CPI is a negative value, at no time will the County adjust below current pricing.

PERFORMANCE, LABOR & MATERIAL BONDS

For any individual construction project in excess of \$50,000 (including the initial quote and any subsequent County-approved change orders), the Successful Bidder shall provide bonding as detailed below. The Anne Arundel County Code 2005, Article 8, Title 2, Section 115 shall govern this Contract requirement. The Code does not allow for any exceptions to the bonding requirement. At no time shall any waiver of the bonding requirement be allowed under this Contract.

Within ten (10) calendar days of the award of an individual construction project valued at \$50,000 or above, or when the amended cost of the project reaches or exceeds this limit, and before beginning any work, the Successful Bidder shall submit Bonds in favor of the County and be executed by a surety company authorized to do business in the State of Maryland. The Performance Bond shall be equal to 100% of the estimated or amended project total. The Labor & Material (Payment) Bond, if required by this IFB, shall be equal to 50% of the estimated or amended project total.

In lieu of the Bonds, the Purchasing Agent, at his or her sole discretion, may accept an irrevocable letter of credit, an irrevocable assignment of a bank account, certified check, money order, or cashier's check in the required amounts.

The amount of the Bond or other security shall not be in the nature of liquidated damages and shall not limit the liability of the Successful Bidder to the County in the event of a breach by the Successful Bidder.

The Bond shall be on the currently accepted form as provided by the County. A copy of each currently County-approved Bond form is attached to this IFB (if applicable). The County reserves the right to modify the Bond forms from time to time at the County's sole discretion.

For Blanket Order Contracts Only that require a Performance Bond: The Bond shall be billed to the County under the "Materials for Special Projects" proposal line at cost.

NEGOTIATED PRICING

When purchasing large quantities of products or services, the County reserves the right to purchase at the prices offered under the resulting Contract or to negotiate lower prices. In no event will the County pay more than the price offered under the resulting contract.

BID RESPONSE

The person signing a Paper Bid Response shall initial any alterations in figures on this form in ink.

The Bidder certifies that the Bid Response has been duly authorized and approved by all required organizational action of the Bidder.

The person executing the Bid Response on behalf of the Bidder certifies that he or she has the legal and organizational authority to do so.

UNBALANCED BIDS

A Bid shall be mathematically unbalanced if the Bid contains unit pricing that does not reflect reasonable costs (including actual labor and material cost, overhead and profit) for the performance of the bid item(s) in question. A Bid shall be materially unbalanced if there is a reasonable doubt that award of the mathematically unbalanced Bid will result in the lowest ultimate cost to the County. A Bid that is, in the sole discretion of the County Purchasing Agent both mathematically and materially unbalanced, may be rejected as non-responsive.

(An example would be bidding overhead labor rates below regular time rates, or bidding laborer rates above Supervisor or Foreman rates. Another example is bidding a ONE-gallon container of a product higher than a 5-gallon container of the same product.)

COLLABORATION

Additional information or clarification of any of the instructions or information contained herein may be obtained from the Office of the Purchasing Agent. The deadline for submitting a written request for clarification of requirements is March 31, 2020, at 8:00 a.m., local time. The County Purchasing Agent will respond by notifying all Bidders by written addendum.

Any Bidder finding any discrepancy in or omission from the Specifications resulting in doubt as to their meaning, or feeling that the Specifications are discriminatory, shall notify the County Purchasing Agent in writing no later than March 31, 2020, at 8:00 a.m., local time. These exceptions in no way obligate the County to change its Specifications. The County Purchasing Agent will respond by notifying all Bidders by written addendum of any interpretations made of the Specifications.

IFB TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS

GENERAL REQUIREMENTS

GENERAL

Per the specifications and requirements provided by the attachment labeled, 2000136_Fiber Construction and Emergency Repair_Specifications to this solicitation.

MISCELLANEOUS MATERIAL

Any and all materials normally stocked and used by the Successful Bidder for the task as specified shall be included in the unit pricing as bid on the Bid Response Form unless that material is specifically priced separately on the Bid Response Form. Shop materials (i.e., grease, oil, rags, fasteners, etc.) are considered stocked items and thus, shall be included in the labor rate or unit pricing as bid. Any materials not normally stocked and used by the Successful Bidder (including bonds and permits as appropriate) that may be required from time to time and are not included in the unit line items shall be identified as "Miscellaneous Materials". Miscellaneous Materials may be purchased off this Contract only in conjunction with other services as listed in this IFB and as provided by the Successful Bidder. The purchase of Miscellaneous Materials only shall not be allowed.

Miscellaneous Materials shall be reimbursed at the Successful Bidders final cost (after all rebates and discounts) and shall be itemized on the invoice. The Successful Bidder shall make every effort to obtain the best available pricing for any purchase made on the County's behalf.

BASIS OF AWARD

Award of this solicitation will be made to the three (3) lowest responsible and responsive Bidders. The basis for award will be per the Grand Total for all Items Inclusive (1 through 9).

SOLICITATION HEADER - INTRODUCTION

P.O.R.T. Notice

The Division of Purchasing is now posting solicitations on the new Purchasing Operations Resource Technology ("P.O.R.T.") Bid Board <https://www.aacounty.org/departments/central-services/purchasing/index.html> P.O.R.T. is the County's web-based eProcurement system which is powered by WebProcure, through our partner, Perfect Commerce.

Vendors now have the option of submitting their solicitation response either as an electronic response or as a hard copy response. As a means to save vendors the expense of submitting a hard copy response and to provide vendors both the ease and the timeliness of responding from a computer, vendors are encouraged to submit an electronic response. Both methods of submission are explained briefly below and in more detail in the step-by-step instructions provided at <https://www.aacounty.org/departments/central-services/purchasing/index.html>

IMPORTANT NOTICE: Addenda to solicitations often occur, sometimes within as little as 48 hours, prior to bid opening or deadline for submitting a proposal. It is the potential Bidder's or Offeror's responsibility to frequently visit the P.O.R.T. website at <https://www.aacounty.org/departments/central-services/purchasing/index.html> to obtain Addenda once they have received a copy or downloaded a solicitation.

NOTE: ALTHOUGH THE SYSTEM ALLOWS FOR MULTIPLE BID OR PROPOSALS RESPONSES, THE COUNTY DOES NOT ACCEPT THEM. THEREFORE, ANY BIDDER OR OFFEROR WHO SUBMITS MORE THAN ONE BID OR PROPOSAL RESPONSE WILL BE DEEMED NON-RESPONSIVE AND HAVE ALL RESPONSES REJECTED.

REFERENCES

Related Experiences and References

RELATED EXPERIENCES AND REFERENCES

This section of the Solicitation shall establish the ability of the Bidder/Offeror/Contractor to satisfactorily provide the required work by demonstrating competence in the performance of services to be provided; the nature and relevance of recently completed work; record of satisfactory performance on similar projects; and supportive client references. Provide no less than three (3) examples of similar projects that Contractor has undertaken (indicating current status of the project) within the last five (5) years. For each reference cited as related experience, furnish the name, title, address, and telephone number of the person(s) at the purchaser's organization who is the most knowledgeable about the work performed.

REFERENCE #1:

Company Name:

Contact Name/Title:

Address:

Telephone Number:

Email Address:

Nature of Work:

Current Status of Project:

Start and End Date:

REFERENCE #2:

Company Name:

Contact Name/Title:

Address:

Telephone Number:

Email Address:

Nature of Work:

Current Status of Project:

Start and End Date:

REFERENCE #3:

Company Name:

Contact Name/Title:

Address:

Telephone Number:

Email Address:

Nature of Work:

Current Status of Project:

Start and End Date:

This bid has no questions defined.

Documents:

IFB20000136 BID RESPONSE FORM.pdf

20000136_Fiber Construction and Repair_Specifications.pdf

AFFIDAVIT 2020.pdf

Item Specifications

No.	Item	Contract#	Quantity	Unit Size
1*	Foreman		1.000	labour hour
<p><i>Item Specification for Foreman</i> Description: This item shall consist of providing a Foreman for a construction or installation crew at any location, as directed by the County. The payment for the item shall be made at the contract unit price per hour bid for "Foreman," which price and payment shall constitute full compensation for wages, transportation to and from the work site, Contractor's allowable administrative costs and markup, and necessary incidentals. Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
2*	Technician		1.000	labour hour
<p><i>Item Specification for Technician</i> Description: This item shall consist of providing a Technician for an installation crew at any location, as directed by the County. The payment for the item shall be made at the contract unit price per hour bid for "Technician," which price and payment shall constitute full compensation for wages, transportation to and from the work site, Contractor's allowable administrative costs and markup, and necessary incidentals. Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
3*	Assistant		1.000	labour hour
<p><i>Item Specification for Assistant</i> Description: This item shall consist of providing a Helper or Assistant for a cable or splice installation crew at any location, as directed by the County. The payment for the item shall be made at the contract unit price per hour bid for "Assistant," which price and payment shall constitute full compensation for wages, transportation to and from the work site, Contractor's allowable administrative costs and markup, and necessary incidentals. Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
4*	Laborer		1.000	labour hour
<p><i>Item Specification for Laborer</i> Description: This item shall consist of providing a Laborer for a construction crew at any location, as directed by the County. The payment for the item shall be made at the contract unit price per hour bid for "Laborer," which price and payment shall be made at the contract unit price per hour bid for "Laborer," which price and payment shall constitute full compensation for wages, transportation to and from the work site, Contractor's allowable administrative costs and markup, and necessary incidentals. Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
5*	Materials		1.000	percent
<p><i>Item Specification for Materials</i> Description: Proposed Contractor discount for Materials to be deducted from List Price: (reimbursed as a discount or better off manufacturer's MSRP list price). Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
6*	Proposed Foreman Rate for Emergency Repair		1.000	labour hour

<p><i>Item Specification for Proposed Foreman Rate for Emergency Repair</i> Description: Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
7*	Proposed Technician Rate for Emergency Repair		1.000	labour hour
<p><i>Item Specification for Proposed Technician Rate for Emergency Repair</i> Description: Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
8*	Proposed Assistant Rate for Emergency Repair		1.000	labour hour
<p><i>Item Specification for Proposed Assistant Rate for Emergency Repair</i> Description: Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				
9*	Proposed Laborer Rate for Emergency Repair		1.000	labour hour
<p><i>Item Specification for Proposed Laborer Rate for Emergency Repair</i> Description: Manufacturer Name: No Manufacturer Specified Delivery Address: Anne Arundel County 2660 Riva Road AnnapolisMD21401 Desired Delivery Date: Mar 01, 2020</p>				

This bid does not have any evaluation committee

Anne Arundel County, Maryland
INVITATION FOR BID
IFB NO. 20000136
FIBER CONSTRUCTION AND REPAIR SERVICES

GENERAL

1.0 SCOPE OF WORK

These specifications are intended to cover the installation, emergencies, and materials for fiber construction for all Anne Arundel County Departments, under the direction of the Office of Information Technology, Telecommunications Division as listed in the attached Bid Response Form.

All goods delivered shall be the manufacturer's current models, completely serviced by the Successful Bidder, and shall be delivered ready in all aspects to be placed in normal operating service.

2.0 MATERIALS

All necessary materials for construction of the fiber optic network shall be supplied by the Successful Bidder. The Successful Bidder is to store and issue all material for construction, except as otherwise directed by the County. The County may require certain quantities be delivered and stored at a County facility for purposes of maintenance, future construction, and/or self-performance of certain tasks. The materials specified or an approved equivalent shall be supplied by the Successful Bidder and used as needed to complete the scope defined in this document. All materials supplied shall be new and unused and, where applicable, all materials and equipment supplied shall be UL-approved.

2.1 High-density polyethylene (HDPE) roll duct shall meet ASTM D-3350 specifications. All supplied HDPE conduit shall have a smooth inner wall and smooth outer wall. All conduit shall be pre-lubricated, and contain a pre-installed 1,100 pound polyester pull tape. Conduit shall generally be provided in the following variations:

2.1.1 1.25-inch SDR 11

- a. 1.25-inch (1 1/4"), SDR 11
- b. 1.660-inch nominal outer diameter
- c. 1.358-inch nominal inner diameter
- d. 0.151-inch minimum wall thickness
- e. Carlon #A6C6D1JNNB or approved equivalent

2.1.2 2-inch SDR 11

- a. Two-inch (2"), SDR 11
- b. 2.375-inch nominal outer diameter
- c. 1.943-inch nominal inner diameter
- d. 0.216-inch minimum wall thickness
- e. Carlon #A13C6D1JNNB or approved equivalent

2.1.3 3-inch SDR 11

- a. Three-inch (3"), SDR 11
- b. 3.500-inch nominal outer diameter
- c. 2.864-inch nominal inner diameter

- d. 0.318-inch minimum wall thickness
- e. Carlon #A15C6D1JNNB or approved equivalent

2.1.4 4-inch SDR 11

- a. Four-inch (4"), SDR 11
- b. 4.500-inch nominal outer diameter
- c. 3.682-inch nominal inner diameter
- d. 0.409-inch minimum wall thickness
- e. Carlon #A16C6D1JNNB or approved equivalent

2.2 PVC Conduit shall be either Schedule 40 or Schedule 80 depending on County supplied engineering designs and shall be: ridged, in 10 foot sections, shall be UL listed, and meet ANSI/UL 651 specifications. Conduit shall generally be provided in the following variations:

2.2.1 1.25-inch Schedule 40

- a. 1.25-inch (1 1/4") nominal diameter, Schedule 40
- b. Carlon P/N 49009-010 or approved equivalent

2.2.2 2-inch Schedule 40

- a. Two-inch (2") nominal diameter, Schedule 40
- b. Carlon P/N 49009-011 or approved equivalent

2.2.3 3-inch Schedule 40

- a. Three-inch (3") nominal diameter, Schedule 40
- b. Carlon P/N 49009-013 or approved equivalent

2.2.4 4-inch Schedule 40

- a. Four-inch (4") nominal diameter, Schedule 40
- b. Carlon P/N 49009-015 or approved equivalent

2.2.5 1.25-inch Schedule 80

- a. 1.25-inch (1 1/4") nominal diameter, Schedule 80
- b. Carlon P/N 49009-010 or approved equivalent

2.2.6 2-inch Schedule 80

- a. Two-inch (2") nominal diameter, Schedule 80
- b. Carlon P/N 49009-011 or approved equivalent

2.2.7 3-inch Schedule 80

- a. Three-inch (3") nominal diameter, Schedule 40
- b. Carlon P/N 49009-013 or approved equivalent

2.2.8 4-inch Schedule 80

- a. Four-inch (4") nominal diameter, Schedule 80
- b. Carlon P/N 49009-015 or approved equivalent

2.3 Innerduct shall be high-density polyethylene (HDPE). All innerduct shall contain a pre-installed 900-pound polyester pull tape, and shall generally be provided in the following variations:

2.3.1 1.25-inch corrugated innerduct, plenum-rated

- a. Corrugated construction, orange
- b. 1.38-inch nominal inner diameter
- c. 0.035-inch minimum wall thickness
- d. Plenum rated and UL listed to UL910
- e. Tensile pulling strength: 319 pounds
- f. Color: orange
- g. Carlon CG4X1Cxxxx, or approved equivalent.

2.4 All handholes shall have the appropriate ANSI 77-2010 Tier designation/load rating and/or AASHTO Load Rating embedded in a surface that will be visible after installation. All handholes shall be straight-walled with an open bottom.

Handholes shall each be provided with a lid, lid bolts, and any required reducing coupler to support 2-inch and 1.25-inch nominal diameter conduit. Supplied lids shall be engraved with the words "COUNTY FIBER".

The Successful Bidder shall generally supply the following handhole varieties meeting the specified loading standard and having the specified nominal outer dimensions:

2.4.1 Type 1 Handhole – Tier 15, 18" x 30" x 36"

- a. Tier 15 Rated (15,000 pound design load, 22.5 test load)
- b. Composite Construction, UL listed to ANSI 77-2010
- c. External dimensions: 18" x 30" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.2 Type 2 Handhole – Tier 22, 18" x 30" x 36"

- a. Tier 22 Rated (22,500 pound design load, 33,750 pound test load)
- b. Composite Construction, UL listed to ANSI 77-2010
- c. External dimensions: 18" x 30" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.3 Type 3 Handhole – Tier 15, 24" x 36" x 36"

- a. Tier 15 Rated (15,000 pound design load, 22.5 test load)
- b. Composite Construction, UL listed to ANSI 77-2010
- c. External dimensions: 24" x 36" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.4 Type 4 Handhole – Tier 22, 24" x 36" x 36"

- a. Tier 22 Rated (22,500 pound design load, 33,750 pound test load)
- b. Composite Construction, UL listed to ANSI 77-2010
- c. External dimensions: 24" x 36" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.5 Type 5 Handhole – Tier 15, 30" x 48" x 36"

- a. Tier 15 Rated (15,000 pound design load, 22.5 test load)
- b. Composite Construction, UL listed to ANSI 77-2010

- c. External dimensions: 30" x 48" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.6 Type 6 Handhole – Tier 22, 30" x 48" x 36"

- a. Tier 22 Rated (22,500 pound design load, 33,750 pound test load)
- b. Composite Construction, UL listed to ANSI 77-2010
- c. External dimensions: 30" x 48" x 36" (WxLxD)
- d. RUS listed
- e. Straight-walled, open bottom

2.4.7 Type 7 Handhole – Tier AASHTO HS-20, 24" x 36" x 36"

- a. AASHTO HS-20 Rated
- b. External dimensions: 24" x 36" x 36" (WxLxD)
- c. RUS listed
- d. Straight-walled, open bottom
- e. Concast FHR-24-36-36, or approved equivalent

2.5 Splice enclosures shall be suitable for splicing both ribbon and loose-tube fiber cable types, and shall generally be the following variations:

2.5.1 Small Splice Enclosure and Accessories (4 cable, 48 single splices)

The enclosure and accessories shall be the Tyco FOSC 450-A4, or equivalent, with the configuration:

- a. One (1) each, FOSC 450450-A4 enclosure (FOSC 450-A4-4-NT-0-A1V)
- b. Two (2) each, FOSC-ACC-A-TRAY-24-SMV60 splice tray supporting 24 single fiber splices, including tie wraps and 6 MM SMOUV splice protection sleeves
- c. All necessary cable retention and strength member retention hardware, port plugs, grounding accessories, and closure sealing accessories.

2.5.2 Medium Splice Enclosure and Accessories (6 cable, 144 mass fusion and 72 single splices)

The enclosure and accessories shall be the Tyco FOSC 450-B6, or equivalent, with the configuration:

- a. One (1) each, FOSC 450-B6 enclosure (FOSC 450-B6-6-NT-0-B6V)
- b. One (1) each, FOSC-ACC-A/B-TRAY-12-RBN ribbon splice tray supporting 144 mass fusion splices, including tie wraps and 60MM SMOUV splice protection sleeves
- c. Three (3) each, FOSC-ACC-B-TRAY-24-SMV60 splice tray supporting 24 single fiber splices, including tie wraps and 6 MM SMOUV splice protection sleeves
- d. All necessary cable retention and strength member retention hardware, port plugs, grounding accessories, and closure sealing accessories.

2.5.3 Large Splice Enclosure and Accessories (6 cable, 216 mass fusion and 72 single splices)

The enclosure and accessories shall be the Tyco FOSC 450-C6, or equivalent, with the configuration:

- a. One (1) each, FOSC 450-C6 enclosure (FOSC 450-C6-6-NT-0-C6V)
- b. One (1) each, FOSC-ACC-C-TRAY-RIBN-18 ribbon splice tray supporting 216 mass fusion splices, including tie wraps and 60MM SMOUV splice protection sleeves
- c. Three (3) each, FOSC-ACC-C-TRAY-24-SMV60 splice tray supporting 24 single fiber splices, including tie wraps and 6 MM SMOUV splice protection sleeves
- d. All necessary cable retention and strength member retention hardware, port plugs, grounding accessories, and closure sealing accessories.

2.6 Commonly used construction hardware meeting all applicable codes and standards shall be provided as follows:

2.6.1 Cable, Suspension Strand (Messenger) ¼ inch.

- a. Utility Strength Grade Steel, 1/4-inch (6.6M)
- b. Class C Galvanized Steel

2.6.2 Wire, Lashing, Stainless Steel 316, 0.045-inch.

- a. 0.045-inch diameter
- b. 1200' linear feet
- c. Highest corrosion resistance for Anne Arundel County climate

2.6.3 U-Guard (pole riser).

- a. Minimum 2" diameter, schedule 80 PVC
- b. Meets or exceeds NEMA TC-19

2.6.4 Ground rod, 8 ft.

This item shall consist of the following components:

- a. Rob, sectional, 13 mil copper-clad steel, 5/8-inch diameter, 8-foot length, Erico 635883 or approved equivalent.
- b. Driving Stud, 5/8", high strength carbon steel. Withstands hammer impact while driving sectional rods. (same manufacturer as rod) or approved equivalent
- c. Ground Rod Clamp, 5/8", high strength bronze alloy, corrosion resistant, accommodates #12 to 1/0 AWG, suitable for direct burial. Electric Motion EM 2DB-01 or approved equivalent.
- d. #6 copper ground wire, green insulation, typical 6-foot length.

2.6.5 #10 copper tracer/ground wire, green insulation

This item consists of 10 AWG copper wire, UL-listed, with green insulation to be used as a tracer wire within conduit, or for other general electrical grounding purposes.

2.6.6 Wrap-Around Cable Marker Labels

This item consists of wrap-around cable labels, day-glow green (or orange). Labels shall be 4-inches by 4-inches, William Frick P/N WFS-ES-0004, or approved equivalent, and shall read "Anne Arundel County Fiber Optic Cable."

2.6.7 Warning Tape

This item consists of warning tape (for trenching applications), bright (Day-Glow) orange, 3-inch (or 75 mm) wide, to allow for easy visual detection with wording “WARNING – OPTICAL CABLE” or similar message approved in advance, repeated on tape at least every 3 feet or 1 meter.

2.6.8 Markers, Soil Disk

This item consists of soil disk fiber markers for areas of frequently grass cutting and maintenance. Markers shall be orange disks, 6 to 8-inch diameter, with 13 inch stainless steel stakes. Markers shall be labeled with “WARNING – BURIED FIBER OPTIC CABLE” “Call 811 Before Digging” “Anne Arundel County” in UV stabilized black lettering.

2.6.9 Markers, Domed Post

This item consists of domed post markers for road-side usage. Marker dome caps shall be orange, labeled with “WARNING – BURIED FIBER OPTIC CABLE” “Call 811 Before Digging” “Anne Arundel County” in UV Stabilized Black Lettering. Markers shall be white, 6-foot height, 3.5-inch diameter, and include an anchor bar for ground attachment.

2.7 Fiber termination (patch) panels shall include accessories for cable management and protection of splicing to outside plant cable in the space behind or inside of the panel housing. Panels designed for both wall-mounting and rack-mounting shall be provided.

Panels supporting greater than 48 fibers may have the splicing storage and handling space provided in a physically separate, but integrated housing. The following varieties shall generally be required:

2.7.1 Lateral Termination Panel, rack-mount, 12-strands

The termination panel housing shall be designed for rack-mounting in a standard 19-inch equipment rack or enclosure, and shall occupy no more than 1 RU (rack unit, 1.75-inches) of vertical rack space. The panel shall include 12 fiber pigtailed terminated with SC/APC connectors, 12 SC/APC bulkhead connectors, bulkhead panel/module, splice tray, and related cable management accessories.

This item shall be the Corning PCH-01U, or equivalent, consisting of the following:

- a. One (1) each, Corning PCH-01U Pretium Connector Housing Patch Panel
- b. One (1) each, Corning PC1-SPLC-04R – Splice Tray Bracket for PCH-01U
- c. One (1) each, Corning CCH-CP12-6C – 12 port, duplex, singlemode SC-APC connector panel
- d. Twelve (12) each, SC/APC fiber pigtail, preterminated, 2
- e. meter
- f. One (1) each, Corning M67-110 Type 4R splice tray
- g. All required cable management and mounting accessories

2.7.2 Lateral Termination Panel, wall-mount, 12-strands

The termination panel housing shall be designed for wall-mounting, and shall provide a lockable door to protect splice trays and fiber pigtailed. The panel shall include 12 fiber pigtailed terminated with SC/APC connectors, 12 SC/APC

bulkhead connectors, bulkhead panel/module, splice tray, and related cable management accessories.

This item shall be the Corning PWH-02P, or equivalent, consisting of the following:

- a. One (1) each, Corning PWH-02P Pretium Connector Housing Patch Panel
- b. One (1) each, Corning HDWR-LOCK-KIT, lock kit for PWH-02P housing
- c. One (1) each, Corning PWH-SPLC-04-12P – Splice Tray Bracket for PWH-02P
- d. One (1) each, Corning CCH-CP12-6C – 12 port, duplex, singlemode SC-APC connector panel
- e. Twelve (12) each, SC/APC fiber pigtail, preterminated, 2 meter
- f. One (1) each, Corning M67-110 Type 4R splice tray
- g. All required cable management and mounting accessories.

2.7.3 Hub Termination Panel, 288-strands

The termination panel housing shall be designed for rack-mounting, and shall occupy no more than 8 RU (14-inches) of vertical rack space for connector housings, not including storage for splice trays and cable management.

The panel shall be provided with all necessary splice trays, cable management/strain relief, mounting hardware, and related accessories necessary to accept and terminate an entire 288-count ribbon fiber cable.

The proposed solution may include the Corning CCH-04U using the CCH-CS24-A9-P003RE splice cassettes, and related accessories.

2.7.3.1 Fiber optic cable shall be provided in accordance to the following specifications:

- a. Armor Jacketed optical cable for backbone applications, containing 12-strand ribbons, in 144, 216 and 288-count sheaths, conforming to international standards ITU-T G.652.D and Telcordia G-20.
- b. Armor Jacketed Loose buffer tube optical cable for service drop applications, containing 12-strand buffer tubes, in 12, 24, 48, and 96-count sheaths, conforming to international standards ITU-T G.652.D and Telcordia G-20.
- c. Delivered on reels holding a contiguous fiber cable length of up to 16,000 feet. Pricing shall include return shipping of steel reels if used. The Successful Bidder shall be expected to coordinate cable orders to ensure cable lengths are provided as needed support contiguous cable runs without splicing (not including mid-sheath splices) according to final designs.
- d. Comprised of All Dielectric (AD) materials.
- e. Comprised of a gel-free cable design incorporating dry water-blocking elements.
- f. Marked, in permanent white characters, with:
 1. Manufacturer name

2. Month and year of manufacture
 3. Number of optical fibers
 4. Sequential length markings, minimum of every two feet, in feet
- g. The Successful Bidder shall supply the following fiber cable varieties meeting the above specifications:
1. 12-strand, loose buffer tube, outdoor cable
 2. 12-strand, loose buffer tube, plenum-rated
 3. 24-strand, loose buffer tube, outdoor cable
 4. 48-strand, loose buffer tube, outdoor cable
 5. 96-strand, loose buffer tube, outdoor cable
 6. 144-strand, ribbon, outdoor cable
 7. 216-strand Armor, ribbon, outdoor cable
 8. 12-strand Armor Jacketed lateral cable, loose buffer tube, outdoor cable
 9. 12-strand Armor Jacketed lateral cable, loose buffer tube, plenum-rated
 10. 24-strand Armor Jacketed lateral cable, loose buffer tube, outdoor cable
 11. 48-strand Armor Jacketed lateral cable, loose buffer tube, outdoor cable
 12. 96-strand Armor Jacketed lateral cable, loose buffer tube, outdoor cable
 13. 144-strand Armor Jacketed backbone cable, ribbon, outdoor cable
 14. 216-strand Armor Jacketed backbone cable, ribbon, outdoor cable
 15. 288-strand Armor Jacketed backbone cable, ribbon, outdoor cable

3.0 MATERIAL HANDLING

- 3.1.1 Contractor Provided Materials:** Any materials provided by the Successful Bidder are to be provided only on a percent off list price. The Successful Bidder shall provide all invoices for materials. The County will not pay for unused materials and will not accept unused materials for delivery. All materials must be new and unused and, if applicable, include all product information and manufacturer's warranties.
- 3.1.2 Materials Transport:** The Successful Bidder shall be responsible for transshipping material between their yards and for maintaining the inventory of these items once acquired from the County or received from suppliers on behalf of the County. Materials or equipment shall be transported in a legal fashion and shall be protected from damage or loss. Lost or unaccounted material will be the responsibility of the Successful Bidder, and will be reimbursed to the County.
- 3.1.3 Materials Damaged:** Any damage to or loss of any materials or equipment supplied by the County to the Successful Bidders, which occurs from handling or transport, or from any other source or way, shall be the sole responsibility of the Successful Bidder and the value thereof shall be deducted from any payments due the Successful Bidder.

- 3.1.4 Salvageable Materials: The Successful Bidder shall salvage all useful materials and reuse materials for other County projects to the extent feasible at the Successful Bidder's discretion.
- 3.1.5 Materials Returned to the County: The Successful Bidder shall return to the County any County-supplied materials and fiber optic cable greater than 300 feet.

3.2 BIDDER QUALIFICATIONS (PASS/FAIL)

- 3.2.1 Bidders must have a minimum of five (5) years' experience performing fiber optic construction.
- 3.2.2 Bidder shall submit with the Bid Response Form a list of three (3) current references with contracts similar in scope, size and dollar value within the past three (3) years. Failure to do may cause rejection of Bid.
 - 3.2.2.1 The Bidder's submittal shall also include their approach to construction of fiber optic cabling with an emphasis on a safe work environment, professional and quality workmanship, and timely completion of work (to include Bidder's use of equipment and facilities). The submission should detail, at a minimum, the Bidder's 1) approach to utility locates and test pitting; 2) methods protection of fiber optic cable and related materials from damage during installation; 3) equipment to be used; 4) approach to work area protection;

4.0 GENERAL WORK ELEMENTS

The following elements apply to all work specified in this document unless a particular exception is noted in the specifications for the individual item.

- 4.1.1 Each item shall be installed in accordance with the design at locations as shown on the plans or as directed by the County.
- 4.1.2 Backfill in trenches, around forms and vaults, or at any other place shall be completed thoroughly using a power tamper in lifts of not more than six inches as it is being placed unless otherwise directed in writing by the County. Any paving material or fill removed for trenching shall be replaced in kind.
- 4.1.3 All holes and trenches shall be protected at the Successful Bidder's expense from accidental entry by vehicles and pedestrians through the use of steel plates or other approved materials as required by the County or Maryland SHA standards. Should the Successful Bidder fail to provide adequate protection to the surroundings of a work site, or should the operations be carried out in such a way as to allow or cause damage to any roadway, street, sidewalk, the property of any utility, or other private or public property, work may be stopped until deficiencies are corrected. Should the repair not be undertaken and should it be necessary for the County to protect the area and/or make the repair, the cost shall be deducted from payment due the Successful Bidder.
- 4.1.4 At the discretion of the County, sod shall be removed either by the use of an approved sod cutter and then replaced, or topsoil and seed shall be placed. Care shall be taken to minimize the disturbance, and the area shall be fully restored

- 4.1.5 Concrete shall be finished to match any adjacent concrete. If no match is required, the surface area shall be broom finished and edged.
- 4.1.6 All fiber cable shall be transported by and unreeled from a cable trailer(s). The laying of reels on the ground and subsequent removal of fiber cable from this position is prohibited.

4.2 APPLICABLE STANDARDS AND QUALITY

- 4.2.1 The Successful Bidder shall comply with all applicable Anne Arundel County, State of Maryland, National Electrical Code, National Electric Safety Code and Bellcore standards. Construction methods and techniques used by the Successful Bidder shall be in accordance with the recommended practices and procedures published by leading industry manufacturers and trade associations, including but not limited to the following:

- A. Society of Cable Telecommunications Engineers (SCTE) Recommended Practices for Optical
- B. Fiber Construction and Testing;
- C. ANSI/TIA/EIA Telecommunication Standards (latest editions)
- D. National Electrical Code (NEC) (latest edition)
- E. BICSI Telecommunications Distribution Methods Manual
- F. (TDMM)
- G. BICSI Outside Plant Design Reference Manual
- H. (OSPDRM) (Latest Edition)
- I. Telcordia Blue Book – Manual of Successful Bidder’s Procedures
- J. Federal Occupational Safety and Health Administration (OSHA) regulations

- 4.2.1.1 The Successful Bidders shall also follow all applicable local standards and their application within Anne Arundel County, Maryland. Ignorance or lack of knowledge shall not be an excuse for improper work to occur. Any work constructed in violation of any applicable code shall be corrected and re-installed properly at the Successful Bidder’s expense.

- 4.2.2 *Unsatisfactory Operations:* Should it be necessary to halt the work because of incorrect or unsatisfactory operations under the terms of the awarded contract or because of failure to follow safety standards applicable hereto, the Successful Bidders must take immediate steps to remedy the deficiencies. Should repair or correction of any safety defect or deficiency not be immediately undertaken, and should the County be required to protect the site or make the repair or correction, the Successful Bidder shall be liable and any costs of such work shall be deducted from payment due the Successful Bidder.

- 4.2.3 *Inspection:* During any inspection including, but not limited to, the final inspection of each work site, should it be found that non-concealed work is substandard, the burden of proof that the concealed work is up to standard shall be the Successful Bidder’s, who shall do such as is necessary, including exposing the concealed work, to clearly establish that the concealed work meets the specifications as outlined. Any and all items such as, but not limited to, improperly set couplings and concrete or masonry work that is not up to specified standards shall be removed and replaced at the Successful Bidder’s expense.

4.3 UNDERGROUND CABLE CONSTRUCTION

- 4.3.1** Before construction, the Successful Bidder shall provide notification to other Utilities using appropriate One-Call underground location and marking services. Pull-tapes with linear length markers and a minimum tensile strength of 1,100 pounds shall be installed in all installed conduit.
- 4.3.2** The minimum bend radius specified by the cable manufacturer shall be observed by the Successful Bidder at all times when handling the fiber cable. Fiber cable storage loops shall be installed in handholes at locations prescribed by engineering drawings supplied by the County, and cable shall be coiled with a bend radius no less than specified for storage by the cable manufacturer.
- 4.3.3** New fiber installations to County facilities that are served by underground service shall be placed in existing conduit where possible. A minimum of 100 feet or 15 percent of the drop length, whichever is greater, shall be provided and stored as excess fiber at the termination location or point of facility entrance unless specified otherwise by engineering drawings supplied by the County.
- 4.3.4** Field markers or marking posts shall be installed along underground fiber routes during installation. At a minimum, one marker shall be placed next to every handhole, except where noted by the County or stated in the permit requirements.

4.4 UNDERGROUND CONDUIT AND CABLE INSTALLATION

- 4.4.1** Installation of Ground Rod
A minimum of 8 feet of the ground rod must be driven into undisturbed soil and up to 30 feet of copper grounding wire and shall cut the wire to the length as necessary. The grounding wire shall be properly bonded to the grounding rod. Materials include ground rod, 5/8" x 1-1/2" Galvanized Hex Bolts, 5/8" acorn type ground clamp, and 30 feet of copper grounding wire.
- 4.4.2** Installation of Conduit
 - 4.4.2.1** Unless otherwise specified by County-supplied engineering drawings, conduit shall have a minimum cover of 36 inches as measured from the finished grade, and a minimum of 48 inches below the elevation of the adjacent edge of pavement, whichever is deeper. Conduit not terminated to a base or in a vault shall be terminated two feet beyond the edge of the finished grade otherwise directed by the County. Conduit shall not extend more than three inches inside a vault or junction well.
 - 4.4.2.2** Splicing or joining of HDPE conduit is prohibited without prior approval from the County. All conduit joints shall be sealed with the appropriate cement to ensure that the two conduit pieces bond to one another to form a solid waterproof link. For metallic conduit, install metallic bushings and bond conduits.
 - 4.4.2.3** On or inside a building, conduit shall be installed by drilling anchors into concrete, brick, stone, steel, or wood and mounting the conduit with the proper clamps or hangers.

- 4.4.2.4** If bends are required during installation, they must be sweeping bends. The County shall be consulted before any bends are installed to ensure that the proper arc is provided.
- 4.4.2.5** If not already pre-installed by the manufacturer, a polyester or polypropylene pulling rope or tape with a minimum rated strength of 1,100 pounds shall be installed in each conduit for future use.
- 4.4.2.6** Except where armored cable with a metallic sheath or “locatable” conduit is installed immediately upon placement of the conduit, a 10-AWG copper tracer wire shall be installed in at least one conduit in each segment or conduit bank as part of this item. The tracer wire shall be pulled simultaneously with the installation of fiber optic cable in a continuous length. Where multiple pulls of fiber-optic cable are required and conduit is placed in the same trench or bore, only one tracer wire is required. Where multiple pulls of fiber-optic cable are required and conduits may separate into individual trenches, install a tracer wire in each conduit run. Provide waterproof butt splices where tracer wire is spliced. Splicing is allowed only in handholes, and must be bonded to the electrical ground rod in each handhole.
- 4.4.2.7** For all conduits entering handhole boxes, seal spare conduits with approved duct plugs. Seal conduits containing fiber-optic communications cable with mechanical sealing devices.
- 4.4.2.8** All conduit installation unit pricing shall include all basic mobilization, site preparation, utility locates / test pitting, work area protection, standard traffic control, and permanent surface restoration necessary to perform the task safely and according to all applicable permitting and specifications in this document

4.4.3 Installation Using Directional Boring

- 4.4.3.1** Directional boring is the required underground placement technique unless approved otherwise by the County. The size of a bore shall not exceed the two-inch outside diameter of the conduit by more than one (1) inch. If it does, cement grout shall be pumped into the void.
- 4.4.3.2** At all points where HDPE conduit will traverse under roadways, driveways, sidewalks, or Controlled Access Areas including entrance/exit ramps, conduit shall be placed a minimum depth of 4 feet or 8 times the back reamer’s diameter, whichever is deeper. Conduit shall be placed to maintain a clearance of one foot (12-inches) from drainage pipe less than 60-inches in diameter while maintaining all other required clearances. A depth of 15-feet below finished grade may be required when crossing an SHA-maintained controlled access highway, or as specified by approved permit drawings.
- 4.4.3.3** The Successful Bidder shall guarantee the drill rig operator and digital walkover locating system operator are factory-trained to operate the make and model of equipment provided and have a minimum of one year experience operating the make and model of drill rig.

- 4.4.3.4** The Successful Bidder shall provide a means of collecting and containing drilling fluid/slurry that returns to the surface such as a slurry pit, and shall provide measures to prevent drilling fluids from entering drainage ditches and storm sewer systems. The Successful Bidder shall prevent drilling fluid/slurry from accumulating on or flowing onto pedestrian walkways, driveways, and streets. Immediately remove all drilling fluids/slurry that are accidentally spilled. The Successful Bidder shall transport waste drilling fluid/slurry from site and dispose of in a method that complies with local, state and federal laws and regulations.
- 4.4.3.5** The Successful Bidder shall provide grounding for the drill rig in accordance with the manufacturer's recommendations.
- 4.4.3.6** All excavated material shall be placed near the top of the working pit and disposed of properly. The Successful Bidder shall backfill pits and trenches to facilitate drilling operations immediately after drilling is completed.
- 4.4.3.7** During drilling operation, the Successful Bidder shall locate the drill head every 10 feet along drill path and before traversing underground utilities or structures using a digital walkover locating system. The locating system must be capable of determining pitch, roll, heading, depth, and horizontal position of the drill head at any point.
- 4.4.3.8** Upon completion of the conduit installation, the Successful Bidder shall perform a mandrel test on the conduit system to ensure conduit has not been damaged using a non-metallic mandrel with a diameter or approximately 50% of the inside diameter of the conduit. If damage has occurred, replace the entire length of conduit and ensure that pull line is re-installed.

4.4.4 Installation Under Existing Pavement – Open Cut

- 4.4.4.1** Open Cut – All open cutting of roadways must first be approved by the County. The conduit shall be installed by cutting a slot in the pavement with a masonry saw. The Successful Bidder shall be responsible for the removal of all cut pavement and the replacement and correction of any damaged pavement once the conduit(s) are installed.
- 4.4.4.2** The Successful Bidder shall install HDPE conduit for all underground runs, unless otherwise specified by engineering drawings for special conditions (i.e. where conduits cross beneath railroad tracks). If more than one conduit is required between the same points, install conduit in one common trench. Install non-detectable marker tape.
- 4.4.4.3** The Successful Bidder shall remove all rock and debris from backfill material, and shall remove excess material from site and compact area. The Successful Bidder shall backfill with excavated material and compact to 95% of original density per AASHTO T-180. The purpose of the backfill is to provide a gradual change in elevation of the trench, so that excessive bending and stress will not be transferred to conduits once underground conduit system is installed.

4.4.4.4 After installation of conduits and upon completion of tamping and backfilling, perform a mandrel test on each conduit to ensure no conduit has been damaged. Furnish a non-metallic mandrel having a diameter of approximately 50% of the inside diameter of the conduit in which it is to be pulled through. If damage has occurred, replace the entire length of conduit. Ensure pull line is re-installed.

4.4.4.5 The Successful Bidder shall be responsible for performing temporary patching of affected pavement immediately upon installation of conduit.

4.4.5 Installation in Unpaved Right of Way – Open Trench

4.4.5.1 When trenching is used, the opening shall be filled half way with the cover material, and tamped down firmly before filling in the remainder of the opening to 12 inches below grade.

4.4.5.2 A fiber optic warning tape shall be installed and the remainder of the fill shall be added, tamping down the top layer. All fiber shall be marked in the ground with a bright orange (preferably “ULCC” orange) or yellow warning tape at least 3 inches wide. The tape shall have integrated metallic mesh or cable to allow for easy detection. The marking tape shall be buried directly above the conduit run at a depth of approximately 12 inches below existing grade. The tape shall read “WARNING - OPTICAL CABLE” or other wording approved by the County that conveys the same message.

4.4.5.3 The Successful Bidder shall rake smooth the top 1 1/2 inches, and seed with same type of grass as surrounding area. Finish unpaved areas flush with surrounding natural ground.

4.4.6 Installation of Additional Conduit

Additional conduits may be stacked one on top of the other, side by side, or in a matrix. The orientation shall be at the Successful Bidder’s discretion, but conduits shall not twist around one another or be allowed to deviate from straight-line paths, except in the case of bend installations. Conduits installed at the same time in the same trench or slot shall remain oriented the same in relation to one another throughout the conduit run. Additional conduits installed using directional boring shall be limited to a total of three conduits of the same size.

4.4.7 Installation of Innerduct

If a pull rope is not already pre-installed in the conduit, this item shall include the installation of any pull rope or mule tape required for installation of the innerduct. The Successful Bidder shall rod existing conduit to ensure that it is free of any obstructions before installing a pull rope or innerduct. If a pull rope is not already pre-installed in the innerduct, the Successful Bidder shall place a pull rope or mule tape in each innerduct.

4.4.8 Installation of Vaults/Handholes

4.4.8.1 The conduit vault shall conform to the dimensions shown in the system design. Several conduits may extend into the vault. The vaults will have a minimum 36” depth below surface that may be obtained by stacking vaults. All vault lids must be appropriate for the required loading. The base of the vault shall have gravel to a depth of one inch or as specified

by the County to promote drainage of water. All conduit ends shall be sealed to minimize water ingress. This item includes installation of dome post markers next to each installed handhole.

4.4.8.2 Vaults and iron vault lids meeting AASHTO HS-20 are required for placement within or near travel lanes of roadways. ANSI/SCTE Tier 15 or Tier 22 boxes may be specified in certain locations.

4.4.9 Cable Installation in Conduit

4.4.9.1 A strain limiter/release element that will part if the strain exceeds 300 pounds for 12-count fiber and 600 pounds for larger cables shall be used for outdoor fiber optic cable between the pulling grip and the pulling medium.

4.4.9.2 Any and all cable(s) pulled into any conduit without the use of an acceptable pulling grip, kellems or equivalent, or without the use of a strain limiter/release element, or by using methods which may result in pulling forces in excess of strain release material set forth herein or prescribed by industry standards are unacceptable.

4.4.9.3 Any and all cable(s) installed in violation of allowed methodology shall be removed and replaced with new cable(s) using correct methods at no cost to the County.

4.4.10 Removal of Fiber Optic Cable from Conduit

4.4.10.1 Hand pulling methods are required. Prior written approval by the County is required for the use of any power assisted method of pulling wire or cable(s) from conduit. A strain limiter/release element that will part if the strain exceeds 600 pounds shall be used between the pulling grip and the pulling medium.

4.4.10.2 Removed fiber optic cable shall be coiled, OTDR tested according to specification herein, and returned to the County.

4.4.11 Rodding and Roping of Existing Conduit

4.4.11.1 This includes pushing an appropriately-sized mandrel through the conduit to ensure that the conduit is intact and no damage to the conduit has occurred. A pull tape shall be supplied and installed after the mandrel is sent through the conduit. This item shall also include any site preparation necessary to complete the conduit validation such as pumping water from handholes or manholes as well as traffic management.

4.4.11.2 Any obstruction or other defect preventing the passage of the mandrel shall constitute a failure. All failures shall be immediately reported to the County project manager.

4.5 AERIAL CABLE INSTALLATION

4.5.1 Installation of Guys and Anchors

4.5.1.1 The Successful Bidder shall install anchors and down guys or sidewalk guys between screw anchors and poles. This item shall include a down

guy protector. The location of the anchor shall be in accordance with the appropriate cable installation practices.

4.5.1.2 The installation of the anchor will consist of driving the anchor into firm and undisturbed ground to a point whereby no more than six inches of the rod including the eye is exposed above ground level. A guy wire protector shall be installed with the bottom at ground level and properly anchored to the guy wire.

4.5.2 Removal of Fiber Optic Cable from Strand (De-Lashing)

The location of the fiber optic cable to be removed will be designated by the County. All tape holding cable to strand must be removed and disposed of properly. All lashing wire holding cable to strand must be removed and disposed of properly. The fiber optic cable must be completely removed from the strand and shall not be cut in shorter lengths as it is being removed. The removed fiber cable shall be coiled, OTDR-tested, and returned to the County unless otherwise stated.

4.5.3 Installation of Transition Pole Riser

Fiber cables shall be protected with non-metallic U-Type risers (i.e. "U-guards") at all underground to aerial transition poles. The U-guard shall be installed to overlap the manufactured conduit elbow or conduit sweep emerging from below ground by no less than 6 inches, and shall extend from the ground surface (leaving no gap) to a height on the pole of no less than 10 feet, including any bell boots or adapters at the pole base. The U-guard shall be properly attached to the utility pole per manufacturer instructions.

4.6 FIBER LATERALS AND INSIDE PLANT CONSTRUCTION

4.6.1 Fiber Laterals to County facilities will be minimally consist of a 12-count single mode, indoor/outdoor and/or plenum-rated fiber optic cable installed within a 2-inch underground conduit unless otherwise noted by engineering drawings supplied by the County.

4.6.2 All inside plant construction shall meet applicable federal, state, and local codes, as well as use approved construction methods and meet aesthetic standards of the building owner. All fiber cables must be properly bonded and grounded upon building entrance, where applicable. All fibers entering and exiting facilities shall be spliced in rack-mounted or wall-mounted splice enclosures and fiber patch panels. Outdoor-rated cable shall not be run for a distance of more than 50 feet internal to the facility unless installed within Electrical Metallic Tubing (EMT). Building penetrations shall be properly sealed to prevent water seepage and damage. Appropriate fire-stop sealant materials shall be used wherever cables, innerduct, and/or EMT must penetrate fire-rated walls or floor assemblies.

4.6.3 Each termination and patch panel will be labeled to identify the termination point of the fiber according to a naming schema to be approved by the County. Fiber connectors shall be SC/APC unless otherwise noted by engineering drawings supplied by the County.

4.7 FIBER SPLICING AND TESTING

4.7.1 Installation of New or Re-entry of Existing Splice Enclosure

Splice enclosure installation shall be in accordance with applicable standards and manufacture instructions.

4.7.2 Installation of Mid-sheath Splice Enclosure (Ring Cut)

4.7.2.1 Cut away a section of cable jacketing to expose the buffer tubes, cutting or splitting open a buffer tube (depending on whether or not there are active fibers in that tube), preparing the designated fibers for splicing, and installing a splice enclosure to house the exposed section of cable. It typically will be performed on the County's backbone fiber to facilitate splicing to a new or existing lateral fiber cable.

4.7.2.2 Care shall be taken not to cut any fibers that are in active use, and may require use of an active fiber identifier to verify strands not in-use before cutting strands. The work may include pulling fiber cable slack from adjacent handholes, and includes installing the splice enclosure in an underground pull box or vault for one or more cables containing up to 288 fiber strands.

4.7.3 Fiber Splicing

All fiber shall be fusion-spliced. Splices shall have an optical attenuation of no more than 0.1 dB at 1550 nm and 1310 nm.

4.7.4 Installed optical fiber OTDR test documentation shall include:

- a. Total fiber length;
- b. Individual fiber traces for complete fiber length;
- c. Losses of individual splices and connectors;
- d. Losses of other anomalies;
- e. Wavelength tested and measurement directions;
- f. Manufacturer, model and serial number of the test equipment; and
- g. Name and company of the technician performing the tests

4.7.5 All data collected at each location during the tests shall be recorded at the time of the tests using electronic means.

4.7.6 Optical Power Meter Test Procedure: Optical power meter measurements shall be made at the same time as the OTDR tests to determine overall fiber loss and to ensure that fibers have appropriate end-to-end continuity (fibers not crossed). Power meter testing shall be performed at both 1310 nm and 1550 nm and shall report the relative loss of each fiber strand.

4.8 FIBER TERMINATION AND INSIDE PLANT WORK

4.8.1 Installation of Indoor/Plenum Innerduct

The innerduct path may consist of placement in an existing conduit or affixed to ceiling or wall structure.

If a pull rope is not already pre-installed in the conduit in which innerduct will be placed, this item shall include the installation of any pull rope or mule tape required for installation of the innerduct. The Successful Bidder shall rod existing conduit to ensure that it is free of any obstructions before installing a pull rope or

innerduct. If a pull rope is not already pre-installed in the innerduct, the Successful Bidder shall place a pull rope or mule tape in each innerduct.

4.9 FIBER TESTING

- 4.9.1** The Successful Bidder shall perform optical performance tests during construction to validate that installed cable is not damaged or defective, and that outdoor splices meet performance requirements. This testing will generally occur prior to termination of fiber strands, and will require the use of bare fiber adapters for temporary connectorization. This testing must occur after cable is installed with all intermediate backbone splices and mid-sheath splices completed on any particular segment. This testing shall consist of bi-directional end-to-end OTDR testing for each fiber strand installed.
- 4.9.2** Additionally, final acceptance shall be contingent upon successful end-to-end testing of each terminated fiber strand will be tested end-to-end to validate the optical performance of the entire link, as well as to verify that fiber splicing has occurred according to supplied splice matrices. This testing will consist of bi-directional OTDR testing, as well as direct optical attenuation and continuity testing using a calibrated optical source and power meter. This testing shall occur only after fibers are terminated on both ends of a link, and all intermediate construction and/or splicing involving the re-entry of installed splice cases or handling of the fiber optic cable is completed for a particular segment under test.
- 4.9.3** The Successful Bidder shall provide the County with electronic data and documentation of all test results.
- 4.9.3.1** *Testing Criteria:* Testing shall be deemed successfully completed if: (1) maximum fiber losses meet manufacturer specifications, with an allowance for splices and connectors; (2) individual splice losses do not exceed 0.1 dB; and (3) maximum mated connector losses do not exceed manufacturer specifications. Testing will be performed by Successful Bidder personnel, and may be observed by designated representatives of the County. The County may request and/or perform additional testing to verify results prior to accepting test data.
- 4.9.3.2** *OTDR Testing Procedure:* An OTDR shall be used to measure and document splice losses and connector losses. To correctly identify abnormalities at a short range, a 100-meter or longer launch cable shall be used between the OTDR and the fiber under test. Bi-directional traces shall be acquired for each fiber. If the connection of the launch cable to the patch panel requires optimization by the operator, sampling acquisition will commence upon completion of the optimization.
- 4.9.3.3** Each fiber will be identified, and the results of the test for each fiber will be recorded as indicated below in the section "Test Data File Names." The test will be repeated for each of the fibers linking a particular site. All tests will be made at 1310 nm and 1550 nm.
- 4.9.3.4** Settings on the OTDR shall reflect the following:

- A. The Refractive Index shall be set for the actual fiber utilized (commonly-used Corning SMF-28 single mode fiber has a refractive index of 1.4677 at 1310 nm);
- B. Pulse width no greater than 100 ns (10m) for all fiber lengths;
- C. Scattering coefficient specified by the fiber manufacturer for each wavelength tested;
- D. A minimum of 10,000 sampling acquisitions (averages);
- E. Maximum range set to no more than 10 km for all fiber length less than 10 km;
- F. Event threshold: 0.05 dB

4.9.3.5 A uniform file-naming scheme for recorded data shall be used, complying with the following conventions or mutually agreed conventions by the County and Successful Bidder:

xxx000yyy111

*Where:

- a. xxx = three-place alpha-numeric site designation or splice location (Sp1, Sp2, etc.) at which the OTDR is located (see example below)
- b. 000 = three digit fiber port number (or fiber strand number for un-terminated fiber)
- c. yyy = three-place alpha-numeric site designation or splice location (Sp1, Sp2, etc.) at the opposite end from where the OTDR is located (see example below)
- d. 111 = three digit fiber port number (or fiber strand number for un-terminated fiber)

Example: ACC024PES001.trc would be the OTDR trace captured from Anne Arundel Community College connected to fiber port 24, which should provide connectivity to Pasadena Elementary School port 1. The filename PES001TACC024.trc would be for the OTDR trace captured on this same fiber in the opposite direction.

4.10 SAFETY PROCEDURES

4.10.1 The Successful Bidder shall comply with all the requirements set forth in Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327330) as supplemented by Department of Labor regulations (29 CFR Part 5). The Successful Bidder shall maintain records of safety training classes held, and any safety certifications held by its employees and sub-Successful Bidders.

4.10.2 The Successful Bidder, its employees, agents, and subcontractors must be trained on the Underground Damage Prevention statutes and best practices prior to excavating on a County project. All Successful Bidder crew members must carry a training verification card with the date of training and prime Successful Bidder/subcontractors' crew name at all times.

4.10.3 CONSTRUCTION SAFETY AND HEALTH STANDARD

The Successful Bidder and any subcontractors shall not require any laborer or mechanic employed in performance of the contract to work under working conditions or in surroundings which are unsanitary, hazardous, or dangerous to the worker's health or safety, as determined under construction safety and health standards (Title 29, Code of Federal Regulations, Part 1926, published in the Federal Register on December 16, 1972), as revised from time to time. The Successful Bidders and any subcontractors shall comply with any and all MOSH and OSHA regulations.

4.10.4 TRAFFIC CONTROL AND WORK AREA PROTECTIONS

The Successful Bidder shall provide all equipment necessary to protect the well-being of employees, motorists and all others who come in contact with construction areas. Such precautions include, but are not limited to, crash cushions, flashing arrow boards, lighted barricades, steel plates, and concrete barriers. The Successful Bidder shall ensure that all required signage meets Federal, State and Local standards.

4.10.4.1 The Successful Bidder shall furnish, erect, maintain, relocate, and/or remove traffic control devices in accordance with the Contract Documents as well as the latest versions of the SHA "Book of Standards", or as directed by the County.

4.10.4.2 All traffic control devices furnished by the Successful Bidder shall remain the property of the Successful Bidder, unless otherwise specified by the contract. Traffic control devices shall include, but are not limited to signs, drums, barricades, barriers, electronic variable message boards, cones, delineators, flashing arrow panels, temporary guardrails, temporary concrete median barriers, vehicle-mounted temporary impact attenuators, pavement markings, raised reflective pavement markers, SHA Certified flaggers, and pilot vehicles.

4.10.4.3 *Traffic Control Materials:* Unless otherwise required, materials used in the fabrication and installation of construction traffic control devices shall be in accordance with the applicable SHA standards. When traffic control devices are no longer required for traffic handling in the initial phase of construction requiring their use, they may be reused at various locations throughout the project provided the device is not defaced, is structurally sound, clean and otherwise conforms to the above requirements.

4.10.4.4 *Traffic Control Construction Methods:* Existing public streets or highways shall be kept open to traffic at all times by the Successful Bidder unless permission to close these streets, or portions thereof, is granted by the County. In addition, the County must be contacted BY THE SUCCESSFUL BIDDER A MINIMUM OF 24 HOURS before any streets are closed or partially closed. The County may request that the Successful Bidder make additional notifications to property owners. The County may request that the Successful Bidder make additional notifications to property owners.

- 4.10.4.5** Traffic control devices shall be installed at the inception of construction operations, and shall be properly maintained, relocated as necessary, cleaned, and operated during the time they are in use. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. Where operations are performed in stages, only those devices that apply to the conditions present shall be left in place.
- 4.10.4.6** The location, legends, sheeting, dimension, number of supports, and horizontal and vertical placement of warning signs, barricades, and other traffic control devices shall be as required by the plans or the SHA standards or as directed by the Engineer. The Successful Bidder may submit for the Engineer's consideration a method for handling traffic other than as shown on the plans. The alternate traffic control plans shall not be used until they are approved in writing by the Engineer. During periods when not warranted, warning signs and other devices shall be removed from the work area, covered with specified material, or otherwise positioned so that they do not convey their message to the traveling public. If covered, the covering material shall be exterior plywood and shall cover the entire face of the sign panel. The covering material shall be installed in such a manner that the sign panel will not be defaced. Non-metal washers or other spacing devices shall be used to keep the plywood covering material from direct contact with the sign panel. Covering material shall be maintained in a neat manner during its use.
- 4.10.4.7** Weeds, brush, trees, construction materials, equipment, etc. shall not be allowed to obscure any traffic control device in use. There will be no separate compensation for any trimming or cutting required for this purpose.
- 4.10.4.8** Competent and properly trained flaggers, properly attired and equipped, shall be provided in accordance with SHA standards and when directed by the Engineer or Inspector or when the Successful Bidder deems it necessary to safely handle traffic through the construction zone.
- 4.10.4.9** The Successful Bidder shall assume full responsibility for the continuous and expeditious maintenance of all construction warning signs, barricades, and other traffic control devices which in the opinion of the Engineer are damaged by traffic or other means or deteriorated beyond effectiveness. Conditions covered under maintenance shall include but not be limited to replacement due to loss of reflectivity; replacement of broken supports; plumbing of leaning signs; cleaning of dirty signs, barricades, and other devices; repair of defaced sheeting and legend; and replacement of stolen or vandalized items. All items used for traffic control shall be maintained in a satisfactory condition. Failure to maintain all traffic control devices in a satisfactory condition may be cause for suspension of construction operations until proper traffic control is re-established.
- 4.10.4.10** The Successful Bidder shall follow the construction procedure and maintenance of traffic as shown on the Traffic Control Plan, unless a more workable plan is agreed to by the Engineer prior to or during the execution

of the work. The Successful Bidder shall complete each construction phase in the sequence shown if phasing is specified.

4.10.4.11 Work on the project shall not start until all the traffic control devices required for the particular work activity have been inspected and approved by the Engineer.

4.10.4.12 The Successful Bidder shall continuously review and maintain all traffic control measures to assure that adequate provisions have been made for the safety of the public and workers.

4.10.4.13 The Successful Bidder shall furnish a material certification for all new and used reflective sheeting.

4.10.4.14 If it is necessary for the Anne Arundel County Police Department to be present to aid in the control of traffic, a 24 hour notice must be given.

4.11 ENGINEERING REDLINES & GPS SURVEY DATA

4.11.1 Latitudinal and longitudinal coordinates shall be obtained using a GPS device for all constructed fiber routes. The GPS location of fiber lines and appurtenances shall be captured to sub-foot accuracy using either Survey-Grade GPS equipment or a High Accuracy Mapping Grade unit employing either Real-Time Differential Correction or Post-Processing.

4.11.2 Additionally, The Successful Bidder shall perform field markups “redlines” of engineering drawings provided by the County reflecting specific as-built construction parameters following construction. All such documentation shall be provided to the County and any designated engineering personnel.

4.11.3 Redlines shall identify the lateral placement of conduit relative to its distance from the curb at intervals not to exceed 50 feet, and shall provide precise latitudinal and longitudinal coordinates of the center of each handhold or pole location. All latitudinal and longitudinal coordinates shall be obtained using a GPS device and have an accuracy within one foot (1’) of the actual location. Redlined prints shall identify any deviations from County supplied engineering drawings, including actual cable slack distances placed (whether more or less than specified).

4.11.4 The Successful Bidder shall supply the County with log data from the directional bore guidance system used during construction, indicating the depth of the conduit placement. Also, redlines shall indicate measured depth of conduit placement for conduit placed using open trenching or open cut methodologies.

4.11.5 Construction may not deviate from County supplied engineering drawings without prior approval from the County or its appointed designee.

4.11.6 Redline documentation must be completed and submitted to the County within two weeks of conduit placement to facilitate the County’s effective response to Miss Utility located requests.

4.12 ACCIDENT REPORTING

- 4.12.1** Any accident resulting in damage to property or causing personal injury within the limits of a work site shall be immediately reported to the appropriate police agency, other required agencies and the County.
- 4.12.2** The Successful Bidder shall immediately contact the Utility Operator/Owner and the County when damage to an underground facility is identified. If a Natural or Propane Gas line is damaged, the Successful Bidder must call 911 prior to notifying the Utility Operator. The Successful Bidder shall not backfill around the underground utility line until the Utility Operator has repaired the damage and has given clearance to backfill. The County will not pay the Successful Bidder for labor, vehicles, material, or equipment or any other cost associated with the repair to any at-fault damage. Failure to comply may result in a verbal warning, suspension of the crew, loss of work, and/or termination.

4.13 EMERGENCY REPAIRS

- 4.13.1** Repairs tasked to the Successful Bidder shall generally be affected during normal business hours with all reasonable effort made by the Successful Bidder to respond immediately to such requests. No special compensation shall apply in non-emergency situations.
- 4.13.2** In the event that repairs require emergency response by the Successful Bidder, the County will request emergency response through a designated Successful Bidder point(s) of contact. Only County-authorized individuals shall be empowered to request emergency services. In the event that emergency services are requested, the proposed emergency repair rate in Group C of the Pricing Structure form will apply.
- 4.13.3** Emergency services shall be available 24 hours per day, seven days per week. Cellular telephone numbers, and other emergency contact information shall be provided in a spreadsheet to the County. The Successful Bidder shall have under his control a reasonable inventory of materials and vehicles normally supplied under the terms of this contract for immediate use under this provision. The Successful Bidder shall provide the County with updated contact information for a single point of contact for any out of hours or emergency requirements as changes occur. The Successful Bidder is required to communicate verbally with the County with an acceptable plan of action within an hour of the notification and must arrive on the work site no more than two hours after the initial notification.
- 4.13.4** The County may utilize the Successful bidders to provide Emergency fiber repair services to the County.
- 4.13.5** The Successful Bidder is required to communicate verbally with the County with an acceptable plan of action within an hour of the notification and must arrive on the work site no more than two hours after the initial notification.
- 4.13.6** When it is within the best interest of the County, the County reserves the right to use an off contract vendor to perform Emergency repairs.

AFFIDAVIT

On behalf of _____, I do solemnly declare and affirm, under penalty of perjury,
(Contractor/Bidder/Offeror)
that to the best of my knowledge, information, and belief:

1. Neither _____, nor any of its officers, directors, or partners, or any
(Contractor/Bidder/Offeror)
of its employees who are directly involved in obtaining or performing contracts with the State of Maryland, a unit of the State (as defined in '16-101 of the State Finance and Procurement Article of the Maryland Annotated Code), or a local governmental entity in the State, has:

(a) been convicted of bribery, attempted bribery, or conspiracy to bribe, under the laws of any State or of the Federal Government;

(b) been convicted under a State or Federal law or Statute of any offense enumerated in '16-203 of the State Finance and Procurement Article of the Maryland Annotated Code; or

(c) been found civilly liable under a State or Federal Antitrust Statute as provided in '16-203 of the State Finance and Procurement Article of the Maryland Annotated Code.

2. _____ shall not knowingly enter into a contract with a public
(Contractor/Bidder/Offeror)
body under which a person or business debarred or suspended under Title 16, Subtitle 3 of the State Finance and Procurement Article of the Maryland Annotated Code will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

3. Neither _____, nor any employee or representative of
(Contractor/Bidder/Offeror)

(Contractor/Bidder/Offeror):

(a) agreed, conspired, connived, or colluded to produce a deceptive show of competition in the preparation of the bid or offer being submitted; or

(b) has in any manner, directly or indirectly, entered into any agreement, participated in any collusion to fix the price of the bid or proposal of any Bidder or offer of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the bid or offer is submitted;

4. The Contractor/Bidder/Offeror:

(a) Is not currently identified on the list created by the Maryland State Board of Public works as a person engaging in investment activities in Iran as described in Section 17-702 of the *Maryland State Finance and Procurement Article*; and

(b) Is not currently engaging in investment activities in Iran as described in Section 17-702 of the *Maryland State Finance and Procurement Article*.

If the person is unable to make the certification, it will provide the County, under penalty of perjury, a detailed description of the Contractor/Bidder/Offeror's investment activities in Iran.

Contractor/Bidder/Offeror: _____

By: _____

Title: _____

Date: _____

Subscribed and sworn to before me, a Notary Public of the State of _____,
County or City of _____, this ____ day of _____, 2020.

(Notary Public)

My Commission Expires: _____

Anne Arundel County, Maryland
INVITATION FOR BID
IFB NO. IFB20000136
FIBER CONSTRUCTION AND EMERGENCY REPAIR

BID RESPONSE FORM
 (Submit Original and One Duplicate Copy)

Purchasing Agent
 The Heritage Office Complex
 2660 Riva Road, 3rd Floor
 Annapolis, Maryland 21401

In accordance with your Announcement, the Bid Response and Specifications contained herein and dated February 18, 2020, and your General Information and Notice to Bidders bearing the same date, we wish to quote the following:

Item #	Description	Quantity	Unit	Unit Price	Total
Item #1:	Foreman per Specifications	1	Hour	\$_____	\$_____
Item# 2:	Technician per Specifications	1	Hour	\$_____	\$_____
Item# 3:	Assistant per Specifications	1	Hour	\$_____	\$_____
Item# 4:	Laborer per Specifications	1	Hour	\$_____	\$_____

Item #	Description	Quantity	(MSRP) List Price	*Discount off MSRP (%)	Total
Item# 5:	Materials 2-inch, SDR 11, HDPE Roll Duct	1	\$_____	_____%	\$_____

*This discount applies to all materials

Item #	Description	Quantity	*Per Hourly Rate	Total
Item# 6:	Proposed Foreman Rate for Emergency Repair	1	\$_____	\$_____
Item# 7:	Proposal Technician Rate for Emergency Repair	1	\$_____	\$_____

Anne Arundel County, Maryland
INVITATION FOR BID
IFB NO. IFB20000136
FIBER CONSTRUCTION AND EMERGENCY REPAIR

Item #	Description	Quantity	*Per Hourly Rate	Total
Item# 8:	Proposed Assistant Rate for Emergency Repair	1	\$_____	\$_____
Item #9:	Proposed Laborer Rate for Emergency Repair	1	\$_____	\$_____

*This price will apply to all emergencies.

Award shall be based on the Grand Total for all Items Inclusive #1 - 9:

GRAND TOTAL OF ALL ITEMS INCLUSIVE \$_____

The person signing the Bid Response shall initial any alterations in figures on this form in ink.

The Bidder certifies that this Bid Response has been duly authorized and approved by all required organizational action of the Bidder.

The person executing this Bid Response on behalf of the Bidder certifies that he or she has the legal and organizational authority to do so.

I acknowledge and accept the following: If awarded a contract, the contract, including the Successful Bidder's response, will be made public. The Bidder shall provide a separate copy of its bid that contains redactions of content that the bidder contends is confidential financial information or a trade secret. If a bidder, however, fails to provide a redacted copy, the final contract without the bid documents could be posted and if someone makes a Maryland Public Information Act request for the bid, then once the request comes in, Purchasing can advise the submitter that the County intends to publicly produce the bid unless the submitter provides a redacted version with its bid response.

Bidder's Company Name: _____

Printed Name: _____

Signature: _____

Date: _____