

# Application to DHCD Submitted through CAMS

Mecklenburg County

BIT Fiber Project

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**Application ID:** 48410182017093543  
**Application Status:** Pending  
**Program Name:** Virginia Telecommunications Initiative  
**Organization Name:** Mecklenburg County  
**Organization Address:** 350 Washington Street  
Boydton, VA 23917-0307  
**Profile Manager Name:** Teresa Boyter  
**Profile Manager Phone:** (434) 738-6191  
**Profile Manager Email:** teresa.boyter@mecklenburgva.com

**Project Name:** BIT Fiber Project  
**Project Contact Name:** Wayne Carter  
**Project Contact Phone:** (434) 738-6191  
**Project Contact Email:** wayne.carter@mecklenburgva.com  
**Project Location:** 2443 Great Landing  
Bracey, VA 23919-1234  
**Project Service Area:** Mecklenburg County

**Total Requested Amount:** \$217,173.00  
**Required Annual Audit Status:** Pending Review

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$217,173.00</b>	<b>\$49,293.00</b>	<b>\$266,466.00</b>
Construction	\$141,645.00	\$0.00	\$141,645.00
Construction Related Soft Costs	\$0.00	\$40,346.00	\$40,346.00
Other: ONT Wireless Routers	\$10,253.00	\$8,947.00	\$19,200.00
Other: Equipment	\$65,275.00	\$0.00	\$65,275.00
<b>Total:</b>	<b>\$217,173.00</b>	<b>\$49,293.00</b>	<b>\$266,466.00</b>

Budget Narrative:

## Questions and Responses:

### 1. Project Area

A map and description of the proposed geographic area including specific boundaries of the project area e.g.; street names, local and regional boundaries, etc. Explain why and how the project area(s) was selected. Attach a copy of your Map(s)

**Answer:**

Several populated areas were considered by BIT as in need of improved broadband service. BIT engaged in extensive research and prioritized these areas in an effort to exercise best practices by the company. The area selected for the project, for the purpose of this application, is identified as Great Creek Landing, a remote residential populated rural area in Mecklenburg County. The area collectively consists of the southern corridor of Greak Creek Drive including Aimee Court, and Clai Court. Additional households located alongside Nellie Jones Road and the northern corridor of Great Creek Drive will also benefit from the project as these homes will be passed to reach the Great Creek area. This project is defined as four (4) miles of new plant construction, passing approximately 123 households; all 123 households are currently served by BIT's DSL service, of which, 65 households or 53% are considered unserved according to DHCD definition. The remaining 58 households passed will also benefit from fiber-to-the-home at BIT's expense. The map depicting the project area is attached (Attachment #4).

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2.

Describe population both in terms of absolute numbers within the project area and the likely users that will be served by the proposed project. Indicate the numbers of residential, businesses and community anchor institutions the proposed project will pass in the project area, as well as the estimated number of potential subscribers and the anticipated “take rate”. Describe the basis for these projections.

**Answer:**

This project is defined as four (4) miles of new plant construction, passing approximately 123 households; all 123 households are currently served by BIT’s DSL service, of which, 65 households or 53% are considered unserved according to DHCD definition.

Of the 65 households located in the proposed unserved area, approximately 41 are subscribed to BIT’s DSL service but cannot achieve speeds up to 10/1. Of the 65 locations, all are listed as residential, but according to the letters of support at least 15 state they work from home and need higher internet speeds. The project area is residential and currently does not include any community anchor institutions or larger businesses. The letters of support also addressed the issue of residents needing higher internet speeds for educational purposes, as many of the households contain school-aged children.

BIT anticipates a take rate of approximately 66%. This is based on the current take rate that BIT is experiencing within its network. BIT has approximately 3,067 telephone lines of which 2,040 have subscribed to internet service. In utilizing the estimated take rate of 66%, it is estimated that of the 65 households located in the unserved area, a total of 43 will subscribe to BIT Fiber. Additionally, of the remaining 58 households that will be passed with fiber, it is estimated that a total of 38 will subscribe to BIT Fiber. In summary, a total of 123 households will be served with BIT Fiber of which a total of 81 are projected to subscribe.

3. Has the locality where the proposed project area is located been designated to receive funding through Connect America? The applicant must provide supporting documentation proving the VATI project area is NOT to be served by Connect America Funding.

**Answer:**

The proposed BIT fiber build out area is not eligible for funding through Connect America. The attached map (Attachment #12) from the FCC website further supports that the area is not served. The green highlighted areas depict the areas that are eligible for CAF II funding; the BIT project is not located in the eligible areas.

Supporting source of information : <https://www.fcc.gov/maps/connect-america-phase-ii-final-eligible-areas-map/>

4. Discuss the benefits to the community. For example, the applicant should discuss how broadband availability will help foster economic development and how the use of broadband applications is relevant to residents, businesses, telemedicine, teleworking/telecommuting, public schools, distance learning, e-commerce, e-government, public safety, tourism, entertainment, etc.

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## **Answer:**

Great Creek Landing is a community comprised of households that are unable to receive DSL speeds of 10 Mbps down and 1 Mbps up. Households in this community are receiving limited average DSL speed of 6 Mbps down and .5 Mbps up. This rural community increasingly faces challenges due to slow, sporadic and limited broadband services. They rely on broadband service to connect them to the global marketplace for basic lifestyle needs. Sustainable broadband to perform daily activities is critical to this remote rural community.

## **Education:**

Speed and a consistent connection are imperative for educational purposes. The option of pursuing online classes becomes bleak with poor broadband service. Students find that it is a must to have a reliable connection and download speeds between 10 Mbps and 15 Mbps and upload speeds between 1 Mbps and 3 Mbps. Increasing educational options will give way to improved job opportunities which in turn strengthens the local economy.

K-12 - The internet has deeply rooted itself into our schools, and e-learning has become common practice in the American school system. The rise of technology has given access to information that was once inaccessible. Students rely on the internet to complete assignments, research information and further their knowledge of subjects being studied. Great Creek residents need quality internet service to support students in completing homework assignments, research papers, and projects. Most rural communities unfortunately do not have higher education facilities located nearby and must rely on quality broadband to pursue online options.

Home School - The internet has made it possible for children to receive an education without ever stepping into a classroom. Our community is comprised of many children that are schooled outside of the public school and would greatly benefit from receiving the speed necessary to complete their assignments online. Without quality reliable internet service, parents have no option other than to transport their homeschooled children to locations outside of the home to areas that offer higher internet speeds.

Distance Learning - Perhaps more than any other distance media; the Internet and the Web overcome the barriers of time and space in teaching and learning. Educational uses of the Internet are rapidly increasing. "The Internet in Education," including online degree programs is offered by traditional institutions as well as nontraditional entities.

## **Employment:**

Technology has changed the way we work. The advent of the internet and networking solutions has made it possible for people to work from their home instead of their offices. The job market of today requires a stable high speed (at least 10 Mbps down 1 Mbps up or higher) internet connection whether you are looking for a job, working in an office, telecommuting, or teleworking. The area targeted for this project does not receive the required speed or connection.

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**Job Search** - Today's job market requires an individual to have internet access to apply for a position, submit a resume and possibly participate in an online video interview

**Work from Home** - An individual who wishes to work from home must have access to the internet to effectively communicate with the prospective employer; the telecommuting/teleworking job market requires no less than 10 Mbps down and 1 Mbps up. In today's job market the trend is the ability to take your job home with you: working from home has many benefits to the employee, employer, and the community within which the employee resides. The Great Creek area consists of many residents who work from home or operate home-based businesses and desperately need quality-based internet service to do so. Job searching is almost impossible without internet access. A company now requires an individual to connect online, complete an application, and upload a resume. Many companies are now implementing online video interviews.

**Home-Based Business** - To own your own business is an American dream. With a stable connection and higher speeds this dream could become a reality for many individuals in our area. The growth of varying businesses would greatly enrich our area by keeping money local and investing in our future. By using e-commerce, businesses would have the option of providing goods that would not normally be available in our area. Internet-based employment will foster our local economy: less traveling means business will remain local. Less travel by vehicle means less natural resources will be used and fewer emissions will pollute our air.

## **Health Care:**

Our health care system is now also internet based, from scheduling an appointment to visiting with a health care provider by video.

**Telemedicine** - This area does not have means of public transportation for those unable to drive to appointments. The ability to visit a doctor online with the use of telecommunications and information technology will help to overcome distance barriers and to improve access to medical services that would often not be consistently available in distant rural communities. Telemedicine is also used to save lives in critical care and emergency situations. Telemedicine would benefit this rural area; it would provide care locally from a distance that has never been available. Patients would be provided online services such as making appointments, retrieving health records and lab reports and researching drug interactions. Online video communication which is often required in the health care industry demands higher speed and a consistent connection.

The issues faced on a daily basis by this community are the inability to 1) obtain educational information, 2) home school children, 3) work from home, 4) operate a home-based business, 5) apply for a job, and 6) access health records and perform research. In summary, this community is severely limited by its disconnection to the internet global economy.

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## 5. Need

To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds <10 Mbps/1 Mbps. Provide a list of the broadband service providers, if any, currently serving the area the applicant proposes to serve and the available broadband speeds, including the source of the information.

### Answer:

BIT is currently the exclusive Incumbent local exchange carrier for the Great Creek area other than satellite and cellular broadband service providers which operate with data caps. The map included in Attachment #5 illustrates the existing broadband providers for the project area.

Supporting sources of information:

[https://www.internode.on.net/residential/broadband/adsl/easy\\_broadband/performance/](https://www.internode.on.net/residential/broadband/adsl/easy_broadband/performance/)

<https://nbnmyths.wordpress.com/why-not-fttn/>

## 6. Project Description

A statement whether the proposed project is targeting the “last mile,” “middle mile,” or “backbone” portion of the broadband infrastructure. This statement should also indicate whether the facilities involved would be owned, rented or leased.

### Answer:

This project will be comprised of backbone, middle mile, and last mile infrastructure to serve the homes that extend 2 miles beyond BIT's current remote. All of the facilities will be owned and maintained by BIT.

7. Provide a description of the broadband service to be provided, including estimated download and upload speeds, whether that speed is based on dedicated or shared bandwidth, and the technology that will be used. This description should be illustrated by a map or schematic diagram, as appropriate.

### Answer:

Broadband service is to be provided by a FTTH network with single mode fiber from the BIT Blackridge Central Office.

A dedicated fiber will be provided to each service location with initial speeds of 25 Mbps download and 3 Mbps upload.

The Outside Plant fiber network will consist of the placement of 100% buried fiber. The proposed fiber will be ribbonized Corning 144, 96 and 72 count cables. The use of ribbon fiber enables initial reduced splicing costs and is becoming the fiber type used by most companies deploying a FTTH network.

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A schematic reflecting the overall fiber routing is attached (Attachment #14) to illustrate the fiber design.

8. Provide a description of the network system design used to deliver broadband service from the network's primary Internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Also describe specific advantages of using this technology.

**Answer:**

The existing middle mile equipment from the Bracey Remote Switch to the Beechwood Central Office that will be used to backhaul the new service is Calix E-7 equipment with 1 Gig transport. This will be upgraded to 10 Gig by replacing the optics resulting in 10 Gig service from the Beechwood Office to the existing Internet access location at the Blackridge Central Office. It should also be noted that the proposed E-7 platform can be used for GPON or Active design networks depending on the cards equipped and the desired service. The cost difference between GPON and Active is minimal in this design as the outside plant fiber sizing would not change. The Splitters in the GPON case or the Fiber Cross-connect frame in an Active plan would both be located in the Blackridge Central Office. BIT currently uses the Calix E-7 equipment in their existing Network.

The design for the FTTH service within the Great Creek area is with an Active Ethernet platform. The advantages of using FTTH versus traditional copper plant includes not only greater bandwidth but low attenuation, longer distance, enhanced security and immunity to many environmental factors, thus resulting in heightened reliability to the customers.

9. **Other Service Providers**

Provide a list of all wireless broadband service providers in or near the proposed project area. Provide an estimate of the customers within the proposed project area that are served by these providers and the speeds of the service provided. Provide a detailed explanation of how this information was compiled and the source(s).

**Answer:**

There are currently no wireless broadband providers in or near the proposed area if you exclude satellite and cellular broadband service providers. A map is attached (Attachment #5) that provides a list of providers in the proposed service area and the speeds they currently offer.

Supporting source of information:

<https://www.fcc.gov/reports-research/maps/fixed-broadband-deployment-data/#lat=36.583589&lon=-78.084962&zoom=15>

10. Provide a list of all facilities-based landline telecommunications providers in or near the proposed project area. Describe the extent to which any facilities-based landline telecommunications providers are currently offering a digital subscriber line (DSL) or cable broadband service. Provide an estimate of the customers within the proposed project area that are served by these providers and the speeds of service provided. Provide a detailed explanation of how this information was compiled and the source(s).

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## Answer:

BIT is currently the only facility-based provider in the area and offers ADSL2+ with speeds up to 10/1 Mbps up to 2 Miles from the base remote. BIT serves the Great Creek community and currently offers ADSL2+ service from the Blackridge remote, but customers are not located close enough to the remote to get 10/1 Mbps. Great Creek residents live beyond the 2-mile fully served area, thus 10/1 Mbps is not available. Of the 65 households located in the proposed unserved area, approximately 41 currently have BIT DSL service but cannot achieve speeds up to 10/1.

Attachment #11 includes a chart that illustrates the drop in DSL speeds to customers that are located beyond the 2-mile range from the remote. 2 miles = 3,218 meters which is approximately 8 Mbps. BIT's testing confirms that 2 miles is the limit to receive 10 Mbps.

Source for graph: [https://www.internode.on.net/residential/broadband/adsl/easy\\_broadband/performance/](https://www.internode.on.net/residential/broadband/adsl/easy_broadband/performance/)

Source for graph: <https://nbnmyths.wordpress.com/why-not-fttn/>

## 11. Project Timeline

What is the current state of project development (i.e. planning, preliminary engineering, final design, etc.). Prepare a detailed project timeline or construction schedule, which identifies specific tasks, staff, contractor responsible(s), collection of data, etc., and estimated start and completion dates. The timeline should include all activities being completed by June 20, 2018.

## Answer:

The proposed project schedule/timeline is included in Attachment #13 for the FTTH Great Creek project. Following is an analysis of the activities by timeline category and status of the project as of October 23, 2017.

**Design Phase: Status-Complete** - The final design of both the Central Office equipment and the outside plant buried fiber network was completed on October 7, 2017. This included all phases of the planning process including the number of potential customers and the most economical routing of the fiber cable to the areas within the proposed serving areas. This data was used to determine correct fiber sizes not only for the existing homes, but for future growth within the area boundary to be served. Also, the Central Office planning was completed based upon the collected data. All planning information was used to develop a budgetary cost analysis for the project. The Central Office equipment and outside plant design was completed by Mid South Consulting Engineers Inc., Inc. based upon the deliverables requested by BIT and approval has been obtained for the project by BIT.

- **Field Staking: Status 95% Complete** - A pre staking meeting was conducted on October 10, 2017 at the BIT office in Bracey, VA. The purpose of the meeting was to ensure that all field staking would be in compliance with the plan as approved by BIT. The attendees included:



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**BIT:**

Glenn Isaccs – Wireless Network Manager  
Eugene Hostetter – Outside Plant/Central Office Manager

**Mid South Consulting Engineers, Inc.:**

Mark Williams – Resident Engineer  
Larry Hartman – Project Manager

Based upon the meeting the field staking began on October 10, 2017 and was submitted to the Mid South Consulting Engineers, Inc. CAD Department on October 18, 2017. The CAD Department is scheduled to complete the field staking drawings by November 3, 2017.

- **Project Review (approval): Status-Pending** - The final project review as reflected on page 1 of 2 is scheduled to begin on November 6, 2017 and be submitted and approved by BIT Communications, Inc. by December 8, 2017.
- **Prepare Construction Contract: Status-Pending** - Mid South Consulting Engineers, Inc. will prepare a Construction Contract for the project beginning December 11, 2017. The Contract will be for all outside plant units contained on the final staking sheets. The estimated approval of the Construction Contract by BIT, is December 22, 2017.
- **Submit Contract Bids: Status-Pending** - Mid South Consulting Engineers, Inc. with the concurrence of BIT will submit the Contract for the Outside Plant Construction to three Contractors for competitive bids. This is scheduled to begin by December 26, 2017 and be completed by January 5, 2018. This included review of the bids received and submitted to BIT for approval.
- **Approval/Award Contract: Status- Pending** - BIT will provide approval of the Contractor that will perform the outside plant construction. This is scheduled to begin by January 8, 2018 and be completed by January 12, 2018. This includes notification to the awarded Contractor.
- **Order Material: Status-Pending** - This includes authorizing the Outside Plant Contractor to order all materials for the construction based on the units required on the approved Contract. In addition BIT will order the Central Office equipment required. Assistance by Mid South Consulting Engineers, Inc. will be provided in ordering the Central Office Equipment as required. These tasks are scheduled to begin by January 15, 2018 with all materials (Central Office and Outside Plant) received by March 2, 2018.
- **Construction PHASE: Status-Pending** - This includes all Outside Plant Construction and Central Office equipment installation. Mid South Consulting Engineers, Inc. will provide an on-site Inspector for the Outside Plant Construction to ensure all construction is completed to the Contract specifications. A weekly progress report will be submitted to BIT to confirm the scheduled completion date is met. This construction is scheduled to begin March 5, 2018 with all work completed by June 1, 2018.

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- **FTTH in Service: Status-Pending** - The customer activation of service is scheduled to begin no later than June 4, 2018. Although the timeline indicates a one week period this phase will continue based upon the customer requests received for service installation.

The enclosed schematic diagram reflects that FTTH service will also be provided to customers along the fiber route that do not reside within the Great Creek area. The fiber drops on this portion of the project will be funded by BIT.

12. **Project Budget-** *Applicants shall provide a detailed budget as to how the grant funds will be utilized, including an itemization of equipment and construction costs and a justification of proposed expenses.*

**Answer:**

The project budget is included in Attachment #1.

13. Provide a brief summary showing the revenue source, including estimated VATI grant funds and matching funds, for each expenditure itemized above.

**Answer:**

This is included in Attachment #1-Derivation of Costs.

14. Matching funds: Provide a description of the matching funds the applicant and co-applicant will invest in the proposed project, (VATI funding cannot exceed 80% of total project cost)

- For each element of matching funds in the description, indicate the type of match (cash, salary expense, or in-kind contribution).
- Identify whether the applicant or co-applicant is responsible for providing each element of the proposed matching funds.

**Answer:**

BIT will be providing a cash match totaling approximately 20% of the total project cost. Included in Attachment #10 is a bank deposit statement verifying that the funds are available.

1. BIT will be providing all of the services (e.g., planning and engineering), labor and materials necessary for this project. The cost of these services and materials are approximately 20% of the total project.
2. The applicant, Mecklenburg County, is not responsible for providing any matching funds, only the co-applicant, BIT.

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Included in Attachment #10 is a copy of the bank deposit account that will used to provide the project match totaling \$49,293.

## 15. Applicant and Co-Applicant

Provide a brief description of the public-private partnership involved in the project.

- i. If the partnership is formalized in a written agreement provide a copy of that agreement.
- ii. If the partnership has not been formalized, provide a short description of the project management role, financial commitment, or other contribution to the project for the applicant and co-applicant and any additional partners.

### Answer:

A partnership between Mecklenburg County and BIT has not yet been formalized for this project, but both partners are collaborating on an agreement to be executed upon receiving notification that the DHCD grant was awarded. Included as Attachment #6 are the minutes from Mecklenburg County Board of Supervisors evidencing the partnership with BIT and authorizing BIT to submit the application.

An agreement would cover the following:

BIT would commit to implement the Project Management Plan within the designated period, to provide updates to the County on the status of the project, to notify the County, if County assistance were needed, to submit requests for payment as work was completed, to complete all work within the required timeframe, and to provide the County with information showing the locations where broadband had been enabled.

The agreement would also be expected to include the County's commitment to review information provided by BIT, to provide any necessary rights of way, and to assist in contacting citizens and others when appropriate to assist in completing the project within the required timeframe.

16. Identify key individuals, including name and title, who will be responsible for the management of the project. Describe their role and responsibilities for the project. *If information is provided in a table format, please upload the document into attachments the document into the attachment section and note the title in the narrative response.*

### Answer:

**BIT**

**NAME**

**TITLE**

**ROLE/RESPONSIBILITIES**

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**Michele Taylor**

**General Manager**

Responsible for all decisions that are proposed for the Great Creek Project. This includes interaction with the BIT Board of Directors on any issues that require their attention/approval. She is also responsible for approval of all Contracts associated with the project as well as all invoicing required for both the Central Office equipment as well as the Outside Plant Construction costs.

**Glenn Isaccs**

**Wireless Network Manager**

He is responsible for the coordination of all deliverables on the Great Creek project with Mid-South Consulting Engineers, Inc. This includes the design, Outside Plant construction, review of Contracts and is the primary point of contact for the project.

**Eugene Hostetter**

**Outside Plant/Central Office Manager**

He is responsible for the coordination of the Central Office Equipment for the Great Creek Project. His responsibilities include coordination with Mid-South Consulting Engineers, Inc., in obtaining Equipment quotes from the Equipment vendor, ordering the Equipment and the installation of the Central Office equipment for the project.

**MID-SOUTH CONSULTING ENGINEERS, INC.**

**Howard Tipton**

**Vice President-Engineering**

He is responsible for the coordination of the FTTH design as well as the budgetary pricing for the project. He is also responsible for the preparation of the Request for Proposal (RFP) for approval by BIT Communications, Inc., to engage Mid-South Consulting Engineers, Inc. He will also interact with all Mid-South team members, as required, during the project implementation design and be involved in the project construction.

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**Russ Feight**

**CAD Supervisor**

He is responsible for the CAD group to produce the field staking sheets. Also, once the field staking is completed, he will coordinate the final completion of all CAD-generated drawings for the project.

**Larry Hartman**

**Project Manager-  
Outside Plant**

He is responsible for all phases of the Outside Plant portion of the Great Creek project. This includes review of the final staking sheets, coordination of the Contract preparation and coordination with the Inspector assigned during the Outside Plant construction of the project. In addition, he will review and forward to BIT Communications, Inc., the weekly Progress Reports of construction. He will review and submit Contractor's invoices to BIT Communications, Inc., for approval. He will inform the Mid-South Vice President-Engineering of any items that may require his input/attention.

**Mark Williams**

**Resident Engineer-  
Outside Plant**

He is responsible for the actual field staking of all units required for the Outside Plant fiber construction.

**Robert Schlabach**

**Project Manager-  
Central Office**

He is responsible for any coordination with BIT on the quotes from vendors for the Central Office equipment for the project. He will also assist in ordering the equipment as required. He is also responsible for the budgetary pricing for the Central Office equipment for the plan design.

**To Be Determined**

**Outside Plant  
Construction  
Inspector**

He is responsible for on-site inspection of the Outside Plant construction phase of the project. He will monitor the construction quality as well as quantity of construction. He will prepare a weekly Progress Report and submit it to the Mid-South Project Manager for review and submittal to BIT Communications, Inc. He will interface with the Contractor and resolve any issues that may arise during the construction of the project.

**Southside Planning  
District Commission**

11/1/2017 11:51:07 AM

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**Deborah Gosney**

**Grant Administrator**

Deborah is responsible for preparing and submitting the draw remittances and all required reporting, attending all required meetings/compliance reviews, and preparing and submitting the required grant close-out documents

17.

A description of applicant and co-applicant's history or experience with managing grants and constructing broadband communications facilities in the Commonwealth of Virginia and elsewhere.

**Answer:**

Buggs Island Telephone Cooperative (BIT), founded in 1951, provides quality communications services and products along with rapid deployment of the latest wireless technology and infrastructure necessary to assist in the economic revitalization efforts of south central Virginia. Buggs Island Telephone Cooperative (BIT) located in Bracey, Virginia has been serving its members located in portions of Mecklenburg County for 63 years. BIT currently serves 100% of its territory with DSL with approximately 80% that can receive speeds up to 10Mbps, but the remaining areas are too far from a remote to provide the higher speeds. BIT is currently planning to begin deploying fiber-to-the-home, which will replace its existing copper infrastructure and provide the higher broadband speeds to all its members, beginning in the areas that struggle to receive at least 10 Mbps. BIT has experience with managing grants and constructing broadband communications facilities in the Commonwealth. In portions of Southern Virginia, BIT has provided voice and data services to its members for decades. BIT has built and provided high-speed Internet services to residential and business customers since the inception of those services. Thriving and operating under the Cooperative principles, BIT has been in business for 63 years dedicated to helping provide high-speed internet, phone and other services to unserved areas. BIT has extensive experience in the design, installation, and maintenance of broadband infrastructure. Today, BIT has approximately 3,200 access lines and over 2,500 internet subscribers.

In 2010, BIT was awarded an NTIA federal broadband stimulus grant and a Virginia Tobacco Indemnification and Community Revitalization Commission grant to build a wireless broadband network infrastructure. These grants would then enable BIT to provide wireless broadband access where Buggs Island Telephone Cooperative has Federal Communications Commission wireless licenses. This project, after a technology change and geographic scale-back, was successfully completed on time and within budget and serves five counties with a fixed wireless broadband offering.

Mecklenburg County has worked with numerous state and federal agencies on many different types of Grants.

**18. Service**

Describe the Internet service offerings to be provided after completion of this project and your price structure for

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these services. The service offerings should include all relevant tiers.

**Answer:**

Upon project completion, BIT will offer the Great Creek area with high-speed fiber-to-the-home service of 25 Mbps Down/5 Mbps Up that includes “free” phone service for a monthly fee of only \$79.95, plus fees and taxes (new equipment will be required). Higher speed packages up to 100 Mbps will be available upon grant approval and request.

19. Any other equitable factor that the applicant desires to include.

**Answer:**

The residents included in this grant have participated in a survey which provided the need for broadband for school, work and teleworking. Many indicate that they are operating home-based businesses and require faster internet to be competitive. Over the past several years community interest and support for establishing reliable broadband service to this area has been extremely high. The residents located in the proposed service area have been extremely supportive of this grant effort. Neighbors just outside of this community have been cheerleaders for this initiative as well.

Again, this area is currently not served by DHCD's definition of broadband. Letters of support are included in Attachment #15.

**Attachments:**

Supporting Documentation of Cost Estimates

Attachment9Documentationsupportingprojectcosts10272017113743.pdf

Map(s) of project area, including proposed infrastructure

Attachment4GreatCreekProjectMap10272017113824.pdf

Map(s) of schematic of existing broadband providers (inventory of existing assets)

Attachment5MapofExistingBroadbandProviders10272017113834.pdf

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Documentation of relationship between applicant and co-applicant (formal or informal)

Attachment6MeckCoMinutes10272017113753.pdf

Documentation supporting project costs (i.e. vendor quotes)

Attachment9Documentationsupportingprojectcosts10272017113800.pdf

Two most recent Form 477 submitted to FCC

Attachment7BITForm477Filing102620171153031030201794436.pdf

Documentation of source of match funding

Attachment10SourceofMatchingFunds1027201714116.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment11VATIUnservedArea10272017121843.zip

Documentation that the proposed project area is not designated for Connect America Funding (CAF) or does not have other state or federal resources for construction

Attachment12ConnectAmericaFundingArea10272017113857.pdf

(Optional) || Project Timeline

Attachment13ProjectTimeline1027201713003.pdf

(Optional) || Schematic Design

Attachment14SchematicDesign1027201712902.pdf

(Optional) || Letters of Support

Attachment15LettersofSupport1030201792522.pdf



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Derivation of Costs

Attachment1DerivationofCostsWorksheet10272017113737.pdf

Project Management Plan

Attachment2ManagementPlan1027201713943.xlsx