

Application to DHCD Submitted through CAMS

Bedford County

Bedford County Zitel broadband 2022

Application ID: 86508202021155933
Application Status: Pending
Program Name: Virginia Telecommunications Initiative 2022
Organization Name: Bedford County
Organization Address: 122 E. Main St., Suite 202
Bedford, VA 24523

Profile Manager Name:

Profile Manager Phone:

Profile Manager Email:

Project Name: Bedford County Zitel broadband 2022

Project Contact Name: John Putney

Project Contact Phone: (540) 586-7601

Project Contact Email: jputney@bedfordcountyva.gov

Project Location: 122 East Main Street
Bedford, VA 24523-2000

Project Service Area: Bedford County

Total Requested Amount: \$11,050,566.91

Required Annual Audit Status: No Current Audits Found

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Budget Information:

| Cost/Activity Category | DHCD Request | Other Funding | Total |
|---------------------------|------------------------|------------------------|------------------------|
| Telecommunications | \$11,050,566.91 | \$11,050,566.92 | \$22,101,133.83 |
| Construction | \$11,050,566.91 | \$0.00 | \$11,050,566.91 |
| Other: County Funded | \$0.00 | \$5,525,283.46 | \$5,525,283.46 |
| Other: Zitel Funded | \$0.00 | \$5,525,283.46 | \$5,525,283.46 |
| Total: | \$11,050,566.91 | \$11,050,566.92 | \$22,101,133.83 |

Budget Narrative:

See Attachment 12 - Derivation of Cost for a more full and complete description of Project Costs

Questions and Responses:

1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

Answer:

This project is designed to assist in accomplishing functional universal coverage in Bedford County. The project area and all sections were selected through engagement activities with Bedford County, residents, and existing ISPs. Each section is considered unserved, and a high priority based on data gathers from Bedford County GIS and planning. The project would be a new area build for ZITEL fiber work and would commence in coordination with other fiber to the homework in progress. Most of the respondents reported struggling with reliability and data caps on wireless providers and have given up on the satellite offerings available to them. Our analysis of the data entered, combined with consistent messaging with residents helped us develop our proposed project area map.

Attachment 1 – Project Area Map, Attachment 18 - ZITEL Footprint Internet Survey, Attachment 19 Bedford County Story Map– <https://arcg.is/19vzy40>

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2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

Local providers in the proposed area were determined by a couple different methods: by the delineated FCC maps, the County's input and survey data, but then also by the local knowledge based on our experience and citizen outreach. Where there were discrepancies between the two, we placed more weight on the feedback we received from customer base and local knowledge. There are also difficulties in finding the appropriate pricing and speeds for certain provider as they only release that information once you have contracted for service.

Brisnet is in the area with a couple of tower sites. They are providing 25/3 or less service. Determining exact service area for fix wireless is very difficult, as they publish a larger radius that they can realistically reach, from citizen response and interview we have determined they have an approx. 1-mile radius reaching out from their towers.

Shentel is adjacent to this project footprint. Shentel currently offers speeds ranging from 25 Mbps to 1 Gbps for both download and upload. County staff, in conjunction with ZITEL, has diligently worked to limit overlap of any fiber builds. Please reference Attachment 18 - Universal coverage ISP Footprints Map

Comcast currently offers from 200mbps up to 1200 Mbps* download for most customers. Comcast's cable uploads speeds, ranging from 3Mbps to 35Mbps, are so low that Comcast hides them deep within its online ordering system. Comcast footprint is also difficult to determine as they report, to the FCC, middle mile runs of Coax as locations they provide service to customers, but from local investigation and working with citizens, areas on the FCC map that are labeled as Comcast areas, persons in those areas have been denied service.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, Community Connect, and Rural Digital Opportunity Funds (RDOF). If there have been federal funds awarded near the project area(s), provide a map showing these areas, verifying the proposed project area does not conflict with these areas. Do not include areas awarded to satellite broadband providers. Label Map: Attachment 2 – Documentation on Federal Funding Area.

Answer:

Wilkes Telephone Membership Corporation, Inc. has received both ReConnect Funding and CAF II funding for the South by Southeastern portion of Bedford County. This includes the service areas of entities that received a Telecommunications Infrastructure loan, Farm Bill Broadband loan (Farm Bill), Broadband Initiatives Program (BIP) loan, or ReConnect Program grant or loan in or after Fiscal Year (FY) 2000. Service areas of projects that were approved but were subsequently de-obligated are not protected and have been omitted from this information. The current dataset is dated January 27, 2021.

Attachment 2 – Documentation on Federal Funding Area - Auction 903 - Wilkes Telephone Membership Corporation, Inc. **AND** Documentation on Federal Funding Area - Reconnect - Wilkes Telephone Membership Corporation, Inc.

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4. Describe if any blocks awarded in Rural Digital Opportunity Fund (RDOF), excluding those awarded to satellite internet service providers, are included in the VATI application area. If RDOF areas awarded to terrestrial internet service providers are included in the VATI application, provide a map of these areas and include information on number of passings in RDOF awarded areas within the VATI application area, and Census Block Group ID number for each block group in the project area. Label Attachment: Attachment 3 – RDOF Awarded Areas Form in VATI Area

Answer:

Of our project area ZITEL will have two (2) RDOF awarded blocks that have passings included in the VATI application.

147 passings through – 510190303002 – Shenandoah Cable Television, LLC

Attachment 3 – RDOF Awarded Areas Form in VATI Area – Shenandoah Cable Television, LLC
Shentel is NOT requesting VATI funding to complete their RDOF area.

4 passings through – 510190305011 – Wilkes Telephone Membership Corporation

Attachment 3 – RDOF Awarded Areas Form in VATI Area – Wilkes Telephone Membership Corporation

5. Overlap: 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 below 25/3 mbps and with less than 25% service overlap within the project area for wireless projects and 10% for wireline projects. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 4 – Documentation Unserved Area VATI Criteria.

Answer:

With this proposal ZITEL is making every effort to avoid encroaching on incumbent ISP territories except where absolutely necessary for a conjoined build or connections of current footprint to underserved and unserved areas.

Attachment 4 – Documentation Unserved Area VATI Criteria – Comcast Cable Communications, LLC **AND**
Documentation Unserved Area VATI Criteria – Shenandoah Telecommunications Company

Although the current incumbent ISP's report having much more service area blocks than they currently do service. ZITEL has those mappings to be very inaccurate and in conjunction with Bedford County there is still a great need in most of those areas. Please reference Attachment 17 - ZITEL Footprint Internet Survey and Attachment 19 – ZITEL Bedford County Story Map.

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6. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 5 – Passings Form.
- Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. (Up to 10 points for businesses and community anchor institutions)
 - If applicable, of the total number of RDOF passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
 - If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise . Describe the methodology used for these projections.
 - If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.
 - Provide the number of passings in the project area that have 10/1 mbps or less. Describe the methodology used for these projections. (up to 15 points)

Answer:

A. - D. Referenced on Attachment 5 – Passings Form

E.) GIS Staff utilized GIS analysis tools to identify current E911 Addresses within the proposed ZITEL footprint.

In its GIS database, Bedford County has its E911 Addresses categorized by the following values:

- Commercial or Industrial
- Government
- Group Home
- Multi-Family
- Residential
- Other Types
- Utility

- Staff removed any Address that did not qualify as a Passing, based on the VATI definition. Examples include cell towers and substations.
 - Included any Address from the categories of Residential, Multi-Family, and Group Home as a **Residential Passing**.
 - Included most Addresses categorized as Commercial or Industrial as a **Business (non-home based) Passing**.
 - Staff did not have sufficient information to calculate the number of **Business (home-based) Passings**.
 - Identified Public Safety facilities and a Community Center as a **Commercial Anchor Passing**.
 - Identified several places of worship and a few other Addresses in the “Other Types” category as a **Non-Residential Passing**.
 - Verified Total Number of Passings
7. **For wireless projects only:** Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

Question No. 7 is not applicable to the Project Proposal subject of this application.

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8. **Speeds:** Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps. (up to 10 points)

Answer:

Speeds: Download and Upload Speeds: All locations will have access to ZITEL's Fiber Gigabit service, which provides a 1000 Mbps download and 1000 Mbps upload. Bandwidth is dedicated.

Technology: The technology that will be used is "Fiber to the Home," or "GPON." GPON is "Gigabit Passive Optical Network." In a Fiber to the Home/GPON environment, voice, and high-speed data (up to 1Gbps) is transported on a single fiber (one wavelength for transmit, another wavelength for receive) from the office/remote electronics to the home or premises. The single fiber operates at a rate of 2.4Gbps downstream (to the home) and 1.2Gbps upstream (from the home). The GPON infrastructure eliminates the need for active electronics (and the associated powering, real estate, and maintenance costs) in the distribution plant, depending on the distance from the Central Office/ Remote and available feeder fibers.

Service offering: Pricing for ZITEL services is generally a nationwide price, so that customers in rural Virginia pay the same rate as customers in urban areas or other states. ZITEL currently advertises three speed tiers for fiber-to-the-home residential customers as part of ZITEL Broadband package, which are Essentials 100 Mbps for \$49.99/month, Deluxe 300 Mbps for \$64.99 or Extreme 1000 Mbps for \$89.99/month without any introductory offers or periods that would increase pricing after a period of time. There are additional options bundled with other services like Fiber Gigabit (1000 Mbps) plus Home Phone Unlimited. ZITEL offers 3 tiers for business class customers along with Enterprise class service as well. The above rates do not include any required taxes or fees, and plans are always subject to change, please refer to www.ZITEL.com for the most up to date information. We are working toward other opportunities for digital equity for this project; working with the school division to consider credits and other creative options. ZITEL can provide qualifying low-income customer's access to Lifeline. Lifeline is the FCC's program to help make communications services more affordable for low-income consumers. Lifeline provides subscribers a discount on monthly telephone service purchased from participating providers. The discounts, which can be applied to standalone broadband or bundled voice-broadband packages that low-income consumers can afford state-of-the-art Broadband and the access it provides to jobs, education, and opportunities.

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9. Network Design: 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. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 6 – Propagation Map Wireless Project.

Answer:

ZiTEL currently has no existing infrastructure in the proposed areas. These proposed areas will border along our existing footprints, and ZiTEL will utilize parts of its existing fiber infrastructure to extend throughout the areas. This expansion of our footprint throughout Bedford County will join multiple areas into a large continuous service location. This will not only allow ZiTEL to extend service to many unserved areas, but also be able to provide better service and support to its current customer base and put us in a position to develop our coverage area to different locations with the County.

For ZiTEL's solution all proposed areas will have new fiber optic cable built to each service location from current or future point(s) of presence or the ZiTEL Central Office. ZiTEL will have 492 miles of new fiber construction utilizing single mode fiber either buried in the VDOT easement or along pole attachments with various pole owners. In the field it will be deployed as a distributed split model which will serve up to 32 customers per original strand based on our split methodology. The fiber is continued all the way to the customer location, terminated on their home or business with an outside test point inside the NID. Then utilizing a GPON ONT we convert the Category 6 Ethernet cable to provide a DMARC into the home to install the router. Our service is completely scalable because the upper limits of fiber have yet to be found, so we can increase bandwidth with simple electronic equipment changes at the data center and customer end. Our current standard electronics allow up to 2.4 Gbps Downstream and 1.2 Gbps Upstream, supports up to 20 km GPON Links, with powerful Layer 2/3 management features.

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10. Explain how the proposed project achieves universal broadband coverage for the locality or fits into a larger plan to achieve universal broadband coverage for the locality. If applicable, explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage. (up to 50 points)

Answer:

This project achieves universal broadband coverage by designing a network to reach the unserved locations that lack existing service or federal, state, or locally funded coverage commitments. Broadband development is the top policy priority of the Board of Supervisors (Broadband Authority) and they view this as absolutely essential infrastructure for our citizenry and business community. A community survey was released in February 2021 with 64% of the 1,625 respondents indicated they either have no viable internet service or are underserved with non-functional broadband. Thru this data, the County learned much more broadband infrastructure was needed and existing supply was vastly inadequate.

After hearing a desire from ISPs to further partner and invest in Bedford County; in May 2021, the County released an RFP requesting ISPs to propose projects to help achieve functional universal coverage, especially those who are unserved and underserved. In conjunction with Bedford's VATI applications with Shentel and Riverstreet, this project will bring the county to functional universal coverage. Leveraging the joint unserved analysis outlined in question 1, the Shentel, ZITEL, and Riverstreet projects are designed to achieve functional universal coverage. These three VATI projects will cover nearly 20,000 unserved homes, building on existing Comcast and Shentel coverage as well as Bedford's previous VATI grant with Briscnet, and Cares Act projects with B2X and ZITEL. Throughout these iterations of private and public funding broadband expansion, Bedford County, in conjunction with its private-sector partners, has developed a more robust understanding of its broadband needs and has collaboratively developed this set of VATI projects to fill the remaining broadband gaps.

Bedford's goal in continuing collaboration with its private-sector partners is to continue to drive fiber further into remote areas to reach even these remaining homes. This effort will build off existing expansion projects in the County as well as refined broadband maps being developed at the federal and state level. The Shentel, ZITEL, and Riverstreet projects will address Bedford's known broadband needs, and as more information is obtained in the future, the County will be excellently positioned with an extensive and competitive set of fiber networks that will be able to address any further broadband holes that emerge.

Attachment 18 - Universal coverage ISP Footprints Map

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11. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 7 – Timeline/Project Management Plan; Attachment 8 – MOU/MOA between Applicant/Co-Applicant; (up to 20 points)

Answer:

The project is currently in the planning stage, although most of the network planning has been completed. ZITEL's map in Attachment 1 – Project Area Map shows all fiber routes needed to complete the project. All the planning needed to submit this application has been completed and the remaining work would begin once an award is made. ZITEL has attached as Attachment 7 – Timeline/Project Management Plan a timeline of work from grant award to completion of the project. This project management plan is a custom plan that ZITEL created to use for this project but, is very similar to other projects in the county for the Cares Act Funding, where ZITEL completed the work on time and within budget. A formal partnership between Bedford County and ZITEL is in process. An executed MOU is included in Attachment 8 – MOU/MOA between Applicant/Co-Applicant. A formal agreement is prepared and will be signed once the grant is approved. This agreement is included for reference in Attachment 8 – MOU/MOA between Applicant/Co-Applicant. ZITEL's obligations are 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 assistance is needed with issues where the County can provide assistance, to submit requests for payment as work is completed, to complete all work within the required timeframe, to provide the County with information showing the locations where broadband has been enabled and to propose any non-disclosure agreements that ZITEL believes might be required if ZITEL is requested to share confidential information. The agreement includes obligations of Bedford County to process requests for payment in a timely manner, review information provided by ZITEL and submit requests for additional information in a timely manner, complete any necessary non-disclosure agreements, provide necessary right of way, and assist in contacting citizens and others when appropriate to assist in completing the project within the required timeframe.

12. Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.

Answer:

In 2019, Bedford County received a VATI grant for \$1,040,000. This grant was awarded to construct four 200' fixed wireless towers which was part of a greater network of another six 200' towers and one water tower co-location. This project was part of PPEA agreement with Blue Ridge Towers and Briscnet. The construction phase of this grant was complete in the fall of 2020. Briscnet has been providing wireless internet service from all tower locations. Bedford County has not officially closed out the grant.

ZITEL has not directly received any VATI grants.

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13. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note that a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 9 - Funding Sources Table; Attachment 10 – Documentation of Match Funding

Answer:

The matching funds invested by Zitel are listed on Attachment 9 – Funding Sources Table and Attachment 10 – Documentation of Match Funding; Those funds include all the cost for the project, including engineering, planning, permits, materials, and labor for the construction of OSP of the fiber plant necessary for this project. Cost estimates are documented supporting the proposed budget.

Zitel is investing \$5,525,283.46 of in-kind resources and cash to the project as co-applicant. Bedford County is providing \$5,525,283.46 in cash to supplement the request from VATI for \$11,050,566.91. Bringing the total estimated project cost to \$22,101,133.83. The co-applicant match percentage of 25% and the applicant match percentage of 25% exceeds the minimum 20% match.

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14. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project. (up to 10 points)

Answer:

Bedford County and ZITEL will be utilizing the Central Virginia Planning District Commission as lead grant facilitator, specifically the services of Special Projects Manager Matt Perkins who has extensive experience in managing a variety of professional level projects and assignments that benefit the CVPDC and member localities. Additionally, during the preliminary stages of exploring potential regional/multi-locality public sector and private sector partnerships and recruiting stakeholder support, the county conducted regular Zoom meetings with the Lynchburg Regional Business Alliance and other regional localities. Our application team will also leverage our strong relationships with our community college system, public school system, and public library system to assist with distance learning, workforce development, and digital literacy opportunities. Bedford County, our PDC, and the LRBA leadership have provided extensive in-kind support to the planning process. The County's GIS staff and resources have been and will continue to be utilized throughout the final design and construction of the project, also on an in-kind basis

The County permitting office will fast-track all ISP permitting submissions and will create a protocol to facilitate this process to ensure success with not only the County procedures but also any required coordination with VDOT. ZITEL has a great ongoing working relationship with VDOT and are a CLEC to allow us into the VDOT easements, as well as any other public utility easement. The goal will be to avoid lengthy processing delays with the understanding there may be a large volume of mapping and permitting data submitted. ZITEL currently has a pole attachment agreement with AEP to facilitate all engineering and make ready during the installation. AEP and ZITEL have already worked very closely in the Bedford County during Care Act Funding project starting in 2020. ZITEL also has a partnership agreement with Bedford Electric where we provide them primary fiber repair services as well as dark fiber in exchange for a pole attachment agreement and permits.

ZITEL plans to leverage strong relationships to provide distance learning and workforce training working with the Bedford County Public Schools (BCPS), Central Virginia Community College, the Bedford County Library Systems, and other not for profit private organizations. We also have a longstanding working relationship with the Bedford County staff. All these groups will be essential in providing support for the application. Finally, Bedford County GIS will continue to map the fiber and wireless builds as data is received to accurately portray the County and VATI investment in achieving universal coverage. These maps can also be used publicly to explain to citizens and businesses what ISPs are operating in their general vicinity.

The County GIS staff who have been invaluable throughout the RFP review and VATI application development. They have spent many dozen staff hours working on project shape files, reviewing overlap data, assisting with passing counts, and corresponding with County Administration and ISPs on specific requests. The County paid Atlantic Technology Consultants, Inc. to assist in reviewing the Phase III RFP, providing county staff with technical advice and input, and serving as a neutral subject matter expert for both the County and ISPs. The County also hired a full-time Broadband Project Manager, John Putney, to assist with finalizing the grant application and if awarded, coordinating with external agencies, legislators, and VATI, and to work as project manager from the County to see the project delivered to a successful completion. This is an extraordinary move by the Board of Supervisors, undoubtedly unique to counties similar to Bedford County, and further illustrates the Board's commitment to achieve universal broadband coverage.

ZITEL will be utilizing its existing fiber footprint and the available over capacity of fiber from its Headquarters based in Downtown Moneta. The southern routes and expansion will be feed from our Downtown Moneta CO and expanded into an additional POP in the southern most portion of the county. The additional fiber capacity in our Northern and Western footprints will farther allow our expansion to these portions of the county via new POP's and completing our redundant ring around the county.

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15. Marketing: Describe the broadband adoption plan.

a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate. (up to 10 points)

b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

Answer:

A. The projected take rate for this project area is 45% to 55% within one year of project completion. The projection is based on ZITEL's experience in providing broadband in localities across the Commonwealth, as well as our experience in other states. That projection is also supported by ZITEL's experience in its 2020 Cares Act funded project with Bedford County, where the overall take rate is currently at 63%. The actions the co-applicants will take to reach the identified potential customers include frequent notices from both Bedford County and ZITEL indicating this upcoming project supported by the Virginia Telecommunication Initiative and DHCD. We will schedule at least one public meeting, to be facilitated by Bedford County, in or near each of the designated major sections of the project area to inform the residents about the upcoming work and answer questions. Nearer the completion of the project, we will hold meeting with various HOA organizations in the major areas, place signage, and deliver bulk mailings to the residents to encourage sign-ups and answer questions.

B. During the public meetings and HOA meeting we will have a presentation showing our route maps and footprint along with various slides explaining how fiber to the premise or home is offered. We will also allocate ample time to answer questions and concerns of citizens. As a part of our digital literacy efforts, we will spend time explaining to the public the deference's in bandwidth, Speeds, and latency, and use real world examples to describe them, an example of that would be to use a water pipe example of a 2" vs 4" vs a 10" pipe to describe bandwidth. The County will create a VATI broadband page on our website to provide project status reports and post specific outreach points of contact for citizens interested in contacting ISPs about broadband availability near their residences and businesses. The County and the ISP will coordinate outreach efforts and promote program opportunities with schools, libraries, and other county offices that routinely correspond with the general public, including the Cooperative Extension, Recreation, Social Services Department, and select non-profits.

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16. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co applicant's history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If the applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 11 – Letters of Support.

Answer:

Brandon Camden, President/CEO: Overall project design, budget management and overall operational control

Rodney Gray, COO: Daily operations of installations and outside plant construction. Material procurement and inventory

Coty Lilley, VP / Director of Construction: Outside plant construction and main line design

Adam Bowyer, Director of Engineering: Point of presence design, equipment design configuration and installation, overall system architecture

Justice Camden, Quality Assurance Manager: Daily inspections of mainline construction and drops.

Dawna Lewis, Director of Customer Relations: Customer service, help desk supervision. Marketing and public relations

John Putney, Broadband Project Manager: POC, liaison with ZITEL, prepare reports to VATI and Broadband Authority, assist with project logistics

Eric Smedley, County Engineer: Will serve as Bedford County construction inspector

Ashely Anderson, Finance Director: Provide financial oversight

Patrick Skelley, County Attorney: Will draft and review agreements with ISPs and provide legal direction as needed

Carl Levandowski, GIS Coordinator: Will provide GIS mapping assistance

Robert Hiss, County Administrator: Will provide general oversight, coordination, and direction to the project team

Amanda Kaufman, Deputy County Administrator: Will provide general oversight, coordination, and direction to the project team

ZiTEL has its largest and its most recent footprint is in the Bedford County area of the Commonwealth, we have executed service passing 2100 residents in underserved rural areas of Bedford County utilizing Care's Act funding in a partnership with the County Broadband Authority starting in October of 2020. There has been expansion under way and planned future builds. Bedford County has reached back out to amend, expand, and continue our current contract with them for and additional area.

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17. Project Budget and Cost Appropriateness

Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 12 – Derivation of Costs; Attachment 13 - Documentation of Supporting Cost Estimates. (up to 10 points)

Answer:

Bedford County consists of 764 square miles in the west-central portion of Virginia known as the Piedmont Plateau. The Town of Bedford, the county seat, is located in the heart of the county on the U.S. Route 460 corridor, midway between the cities of Lynchburg to the east and Roanoke to the west. The County's boundaries consist of the Blue Ridge Mountains on the west, the James River on the northeast, and Smith Mountain Lake on the south. The area has a rolling to hilly terrain with elevations from a low of 800 feet above sea level, with some mountainous areas reaching an elevation of 4,200 feet. The County's 2017 population was estimated at approximately 78,000. Bedford County exemplifies the Digital Divide that the Federal Communications Commission (FCC) has taken on

Attachment 12 – Derivation of Costs; Attachment 13 - Documentation of Supporting Cost Estimates are completed and included in the Attachment Section. A detailed budget itemizes fiber plant construction costs as proposed expenses.

The total project cost is \$22,101,133.83. ZITEL is contributing 25%, \$5,525,283.46. Bedford County is contributing \$5,525,283.46, 25% for a combined "Other Funding" total of \$11,050,566.92. The remaining 50%, \$11,050,566.91 is being requested from DHCD.

ZiTEL costs include their 25% of the total cost including labor (design and engineering, etc.); equipment, and approximately 492.16 miles of fiber cable. Enabling Fiber Gigabit for the unserved and underserved areas of the County.

This project provides for the placement of at least eleven (11) Fiber Distribution Huts, 3,445 Fiber Distribution Points, 74 FTTP/GPON OLTs and approximately 492 miles of fiber cable in Bedford County to bring fiber based broadband services to 11,756 serviceable units. With the Bedford County contribution, our calculations indicate a cost to VATI of \$939.99 per serviceable unit. As is industry standard, customers subscribing to Fiber Gigabit will be able to get speeds up to 1000Mbps while uploading or downloading data in the unserved and underserved project areas noted.

18. The cost benefit index is comprised of state cost per unit passed. Individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:
- Total VATI funding request
 - Number of serviceable units (up to 125 points)

Answer:

- The Total VATI Funding requested is 50% (\$11,050,566.91) of the total project cost (\$22,101,133.82)
- There are 11,756 serviceable units total in the project area.

Application to DHCD Submitted through CAMS

Bedford County

Bedford County Zitel broadband 2022

19. Commonwealth Priorities (Up to 40 points)

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- b. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- c. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

Answer:

Please see Attachment 20 - Commonwealth Priorities_Question 19-Zitel for full and complete answer to this Question.

20. Additional Information

Provide the two most recent Form 477 submitted to the FCC, or equivalent, as well as point, polygon, and, for wireless providers, RSSI shapefiles for the project area **in .zip file form**. With attachments 17 through 20, attach any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 14 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 15 - Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area
- c. Attachment 16 - For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area
- d. Attachment 17 – XXXXXXXX
- e. Attachment 18 – XXXXXXXX
- f. Attachment 19 – XXXXXXXX
- g. Attachment 20 – XXXXXXXX

Answer:

Attachments 14 - 20 are included in this application.

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap913202161720.pdf

Application to DHCD Submitted through CAMS

Bedford County

Bedford County Zitel broadband 2022

Documentation of Federal Funding (CAF/ACAM/USDA/RDOF, etc...) in and/or near proposed project area.

Attachment2DocumentationonFederalFundingArea913202161752.pdf

RDOF Awarded Areas included in VATI Application (Use template provided)

Attachment3DocumentationofRDOFAwardedAreaIncludedinVATIApplication913202161923.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment4DocumentationUnservedAreaVATICriteria913202161948.pdf

Passings Form (Use template provided)

Attachment5PassingsForm913202162011.pdf

Timeline/Project Management Plan

Attachment7TimelineProjectManagementPlan913202162118.pdf

MOU/MOA between applicant/co-applicant (can be in draft form)

Attachment08MOUMOABetweenApplicantCoapplicant913202162204.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSourcesTable913202162235.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFunding913202162256.pdf

Letters of Support

Attachment11LettersofSupportZitel9132021112846.pdf

Derivation of Cost/Project Budget (Use template provided)

Attachment12DerivationofCosts913202162336.pdf

Documentation of Supporting Cost Estimates

Attachment13DocumentationofSupportingCostEstimates913202162357.pdf

Application to DHCD Submitted through CAMS

Bedford County

Bedford County Zitel broadband 2022

Two most recent Form 477 submitted to the FCC or equivalent

Attachment14TwoMostRecentForm477SubmittedtotheFCCorEquivalent914202133514.pdf

Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area

Attachment15PointandPoly913202125143.zip

Optional

Attachment17ZiTELFootprintInternetSurvey913202162709.pdf

Optional

Attachment18UniversalcoverageSPFootprintsMap913202162743.pdf

Optional

Attachment19BedfordCountyStoryMap914202133128.pdf

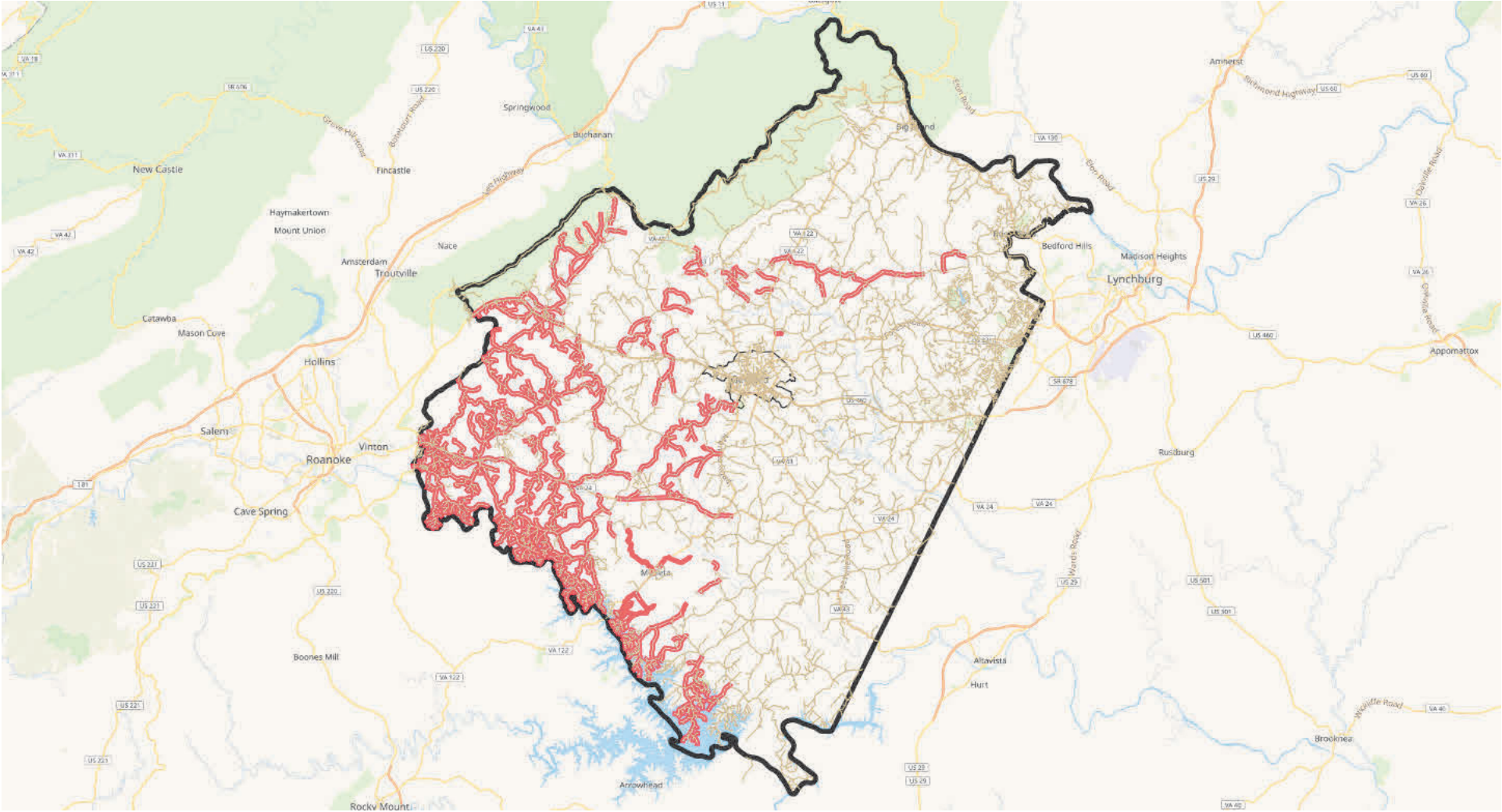
Optional

Attachment20CommonwealthPrioritiesQuestion19Zitel914202124411.pdf

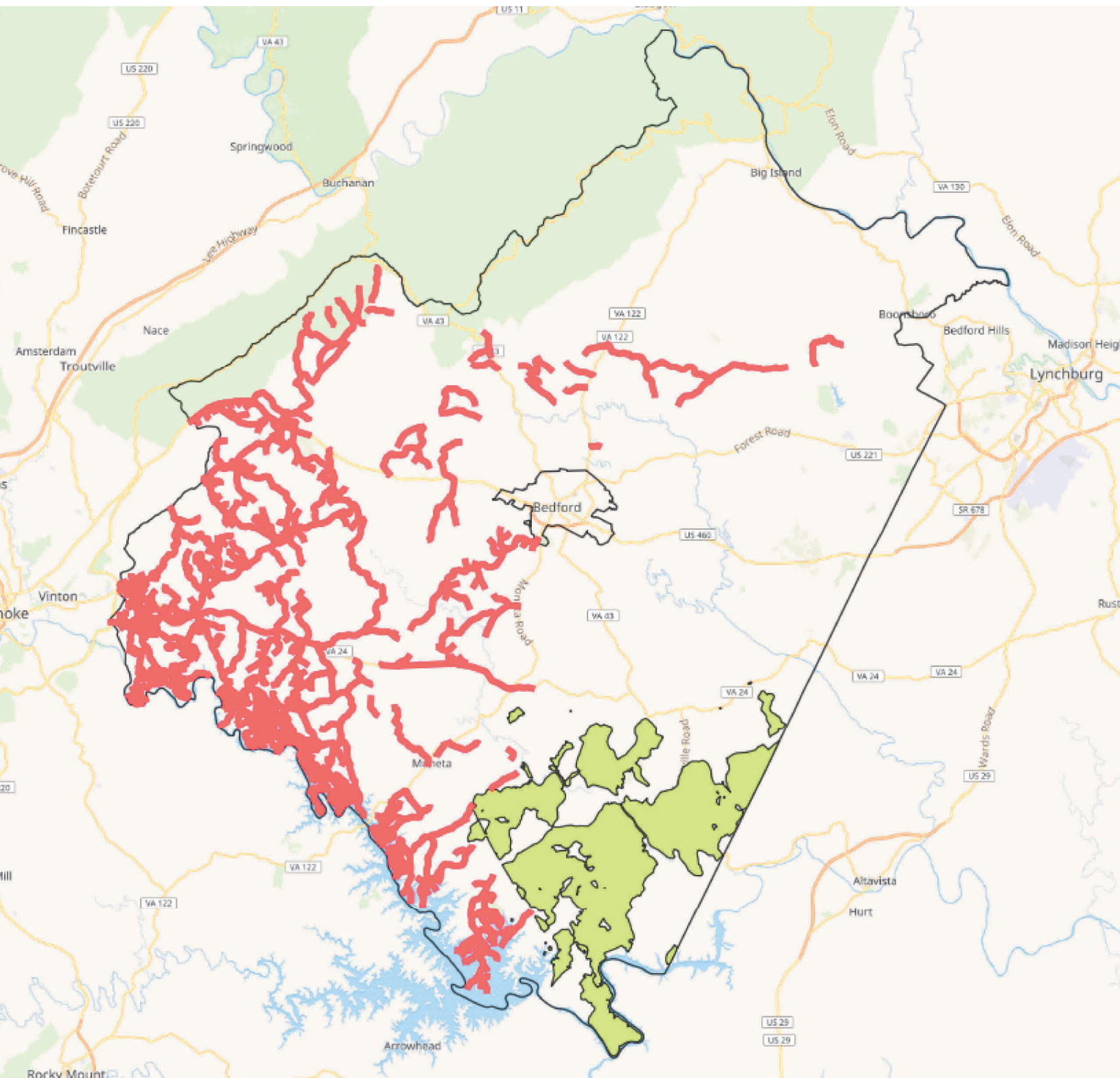
Notes:

This grant application to achieve functional universal broadband is the top policy and infrastructure priority for the Bedford County Board of Supervisors and Broadband Authority. Your serious consideration of this funding request to benefit the citizens of Bedford County is greatly appreciated.

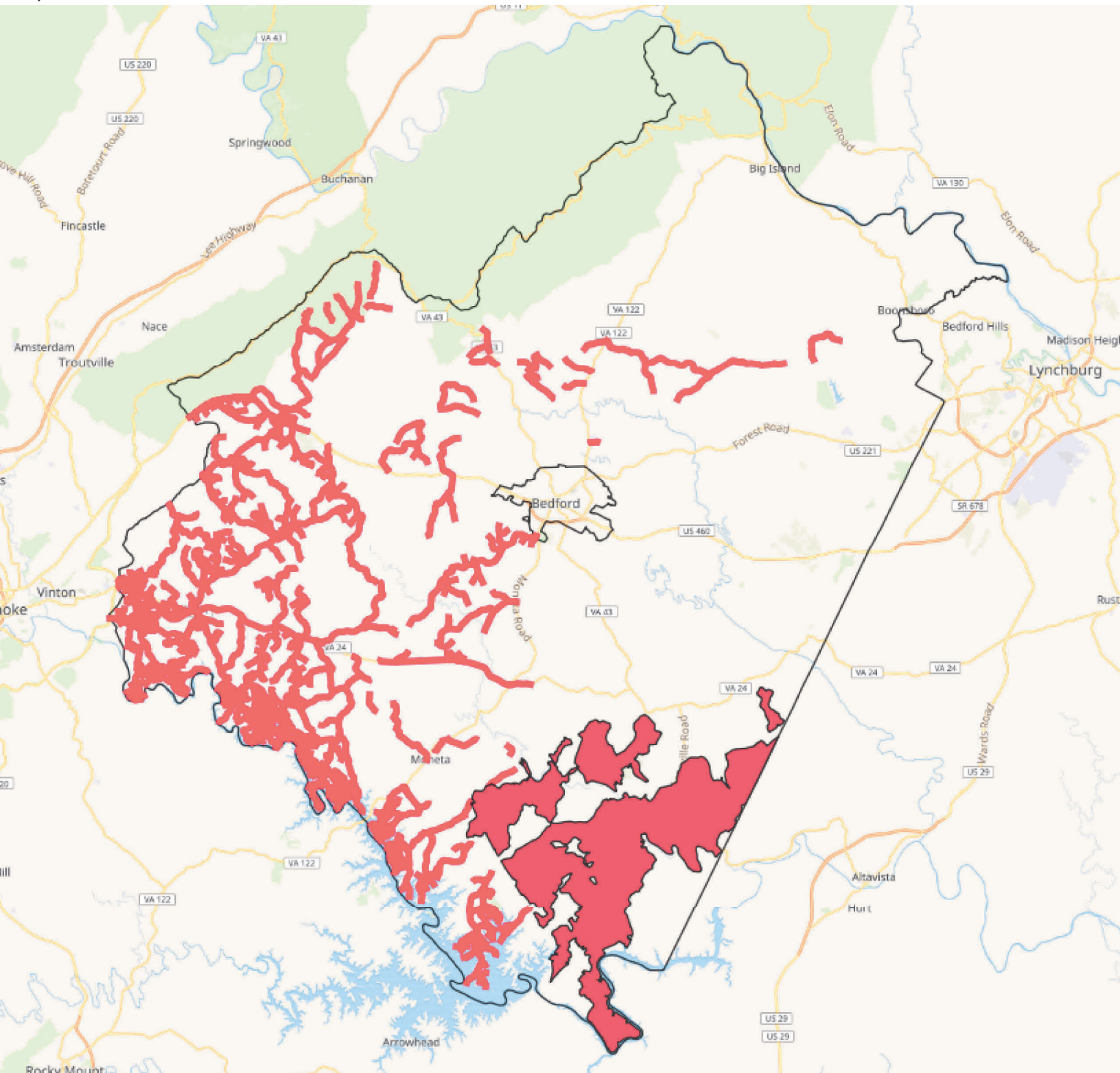
Attachment 1 – Project Area Map



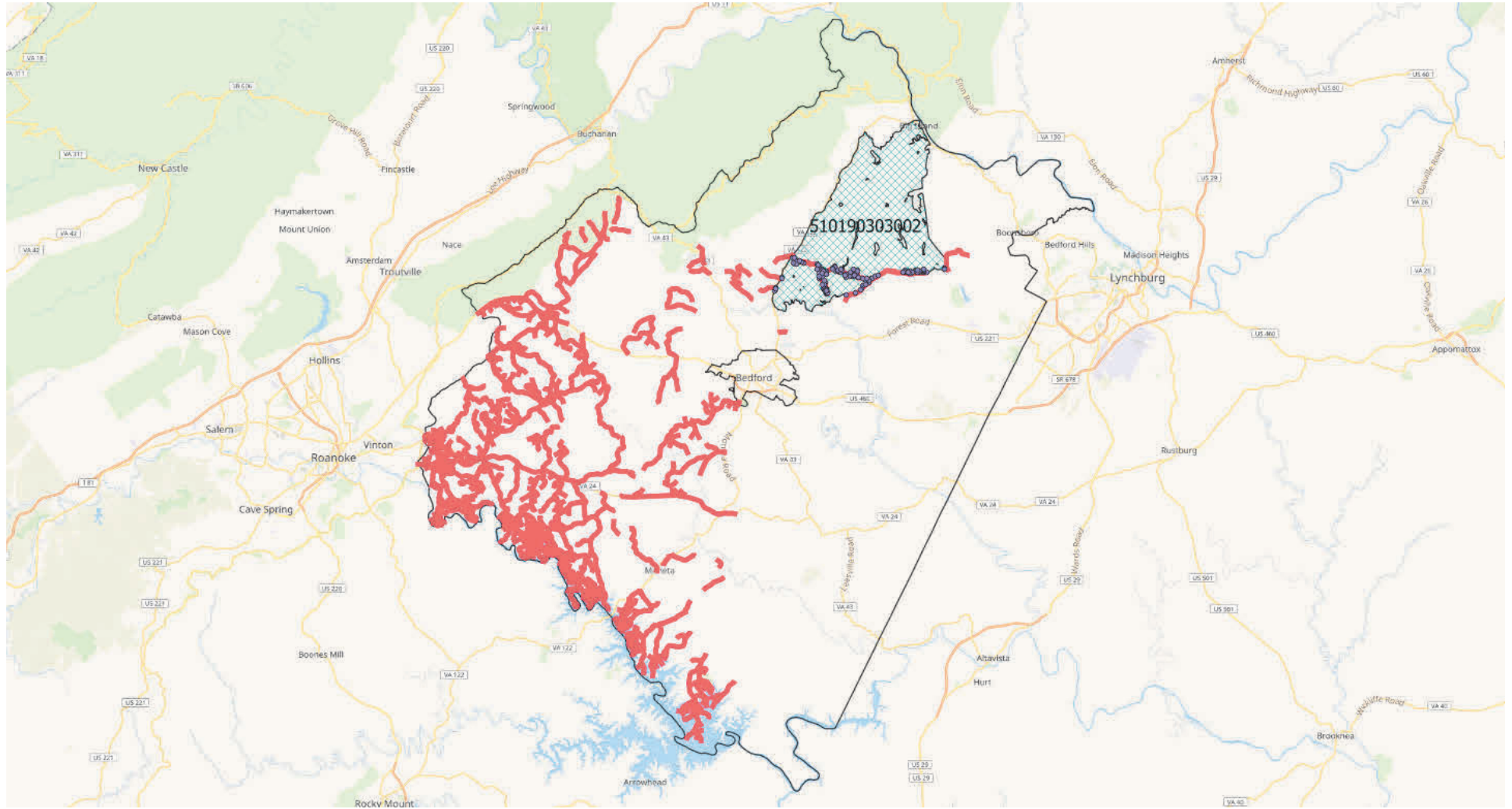
Attachment 2 – Documentation on Federal Funding Area - Auction 903 - Wilkes Telephone Membership Corporation, Inc.



Attachment 2 – Documentation on Federal Funding Area - Reconnect - Wilkes Telephone Membership Corporation, Inc.



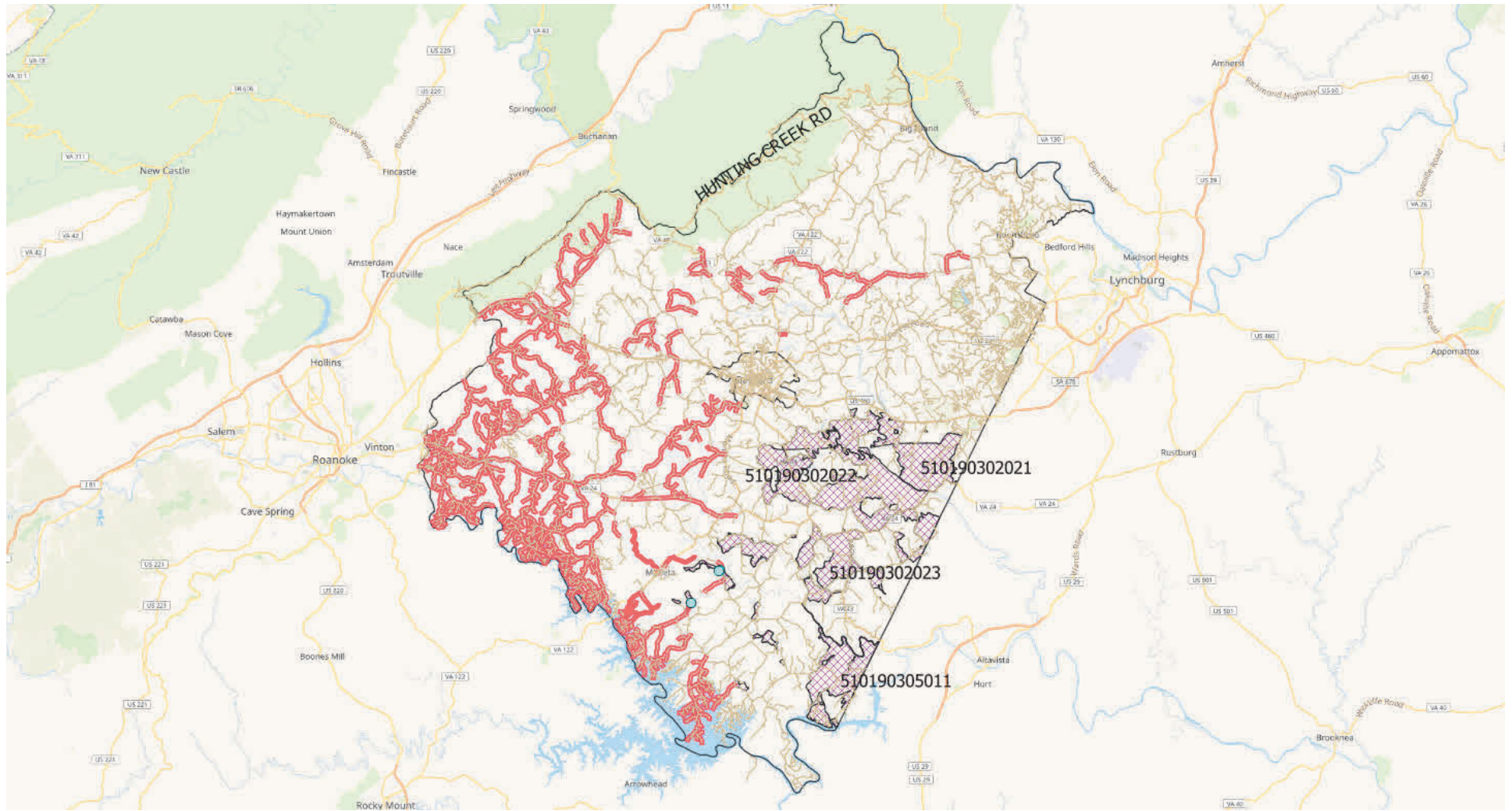
Attachment 3 - RDOF Awarded Areas Form in VATI Area - Shenandoah Cable Television, LLC



| Auction_ID | Item | State | County | locations | bidder | FRN | latency | census_jd | tier |
|------------|--------------------|-------|---------|-----------|------------------|----------|---------|--------------|----------|
| 1 | 904 VA-019-0303002 | VA | Bedford | 898 | Shenandoah Ca... | 21657853 | Low | 510190303002 | Baseline |

147 passings through census block 510190303002 awarded to Shenandoah Cable Television, LLC

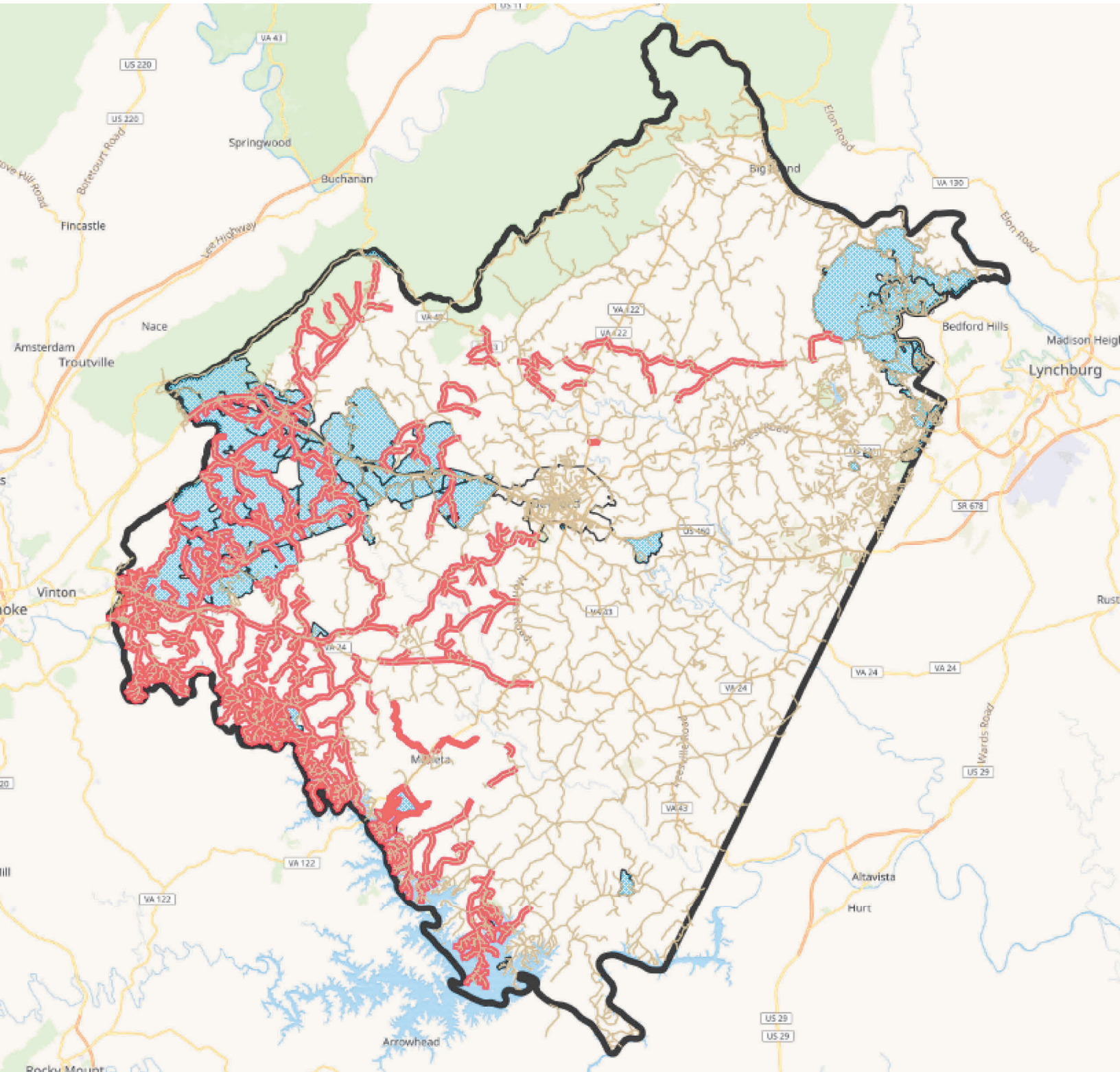
Attachment 3 - RDOF Awarded Areas Form in VATI Area - Wilkes Telephone Membership Corporation



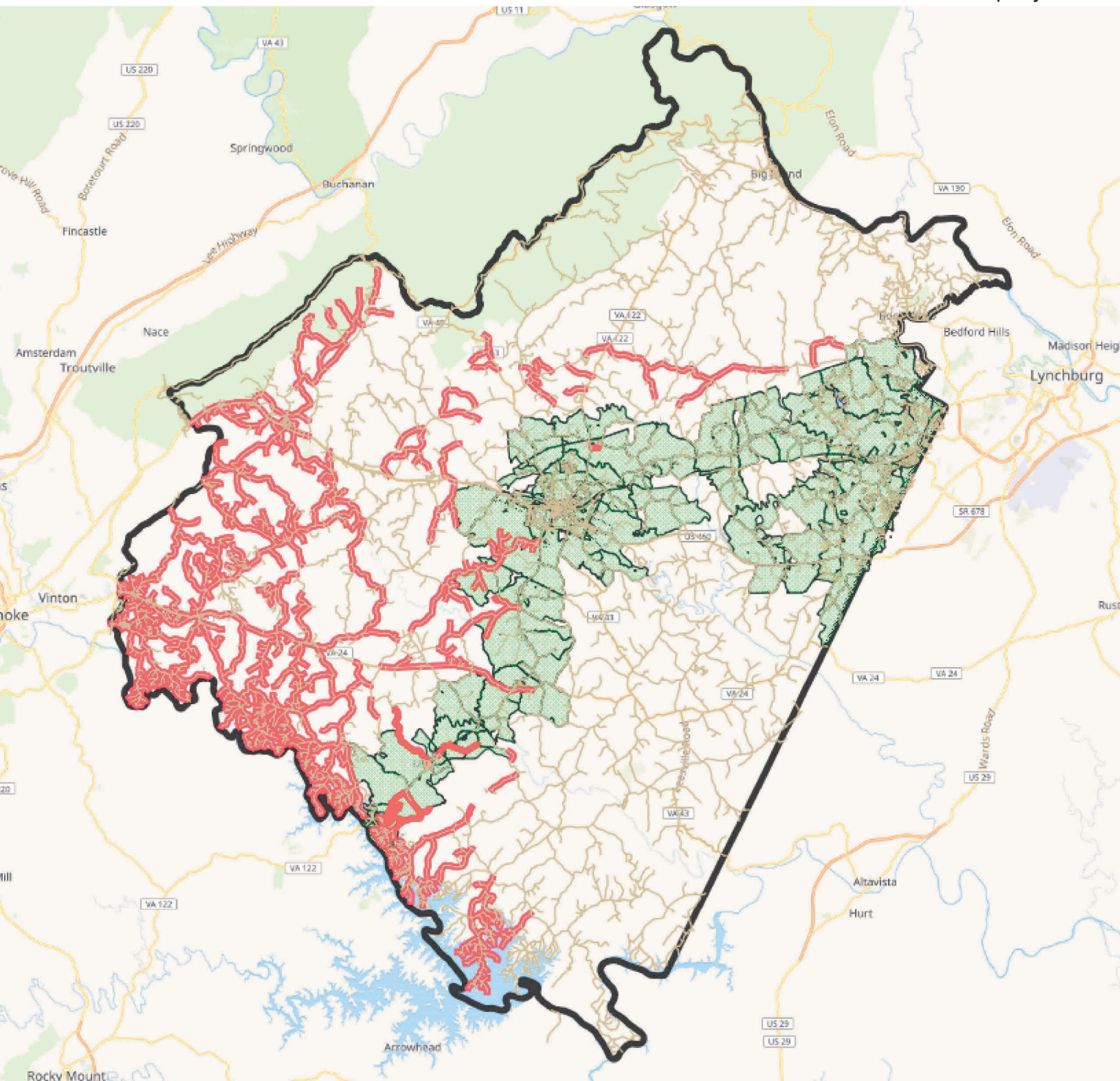
| Auction_ID | Item | State | County | locations | bidder | FRN | latency | census_id | tier | |
|------------|------|----------------|--------|-----------|--------|-------------------|---------|-----------|--------------|---------|
| 1 | 904 | VA-019-0305011 | VA | Bedford | 260 | Wilkes Telepho... | 3718426 | Low | 510190305011 | Gigabit |

4 passings through census block 510190305011 awarded to Wilkes Telephone Membership Corporation

Attachment 4 – Documentation Unserved Area VATI Criteria – Comcast Cable Communications, LLC



Attachment 4 – Documentation Unserved Area VATI Criteria – Shenandoah Telecommunications Company



Attachment 5 – Passings Form

2022 Virginia Telecommunication Initiative (VATI)

Passing Form

| Type of Passings | Total Number of Passings in the Project Area ¹ | Passings in the Project Area, without Special Construction Costs Required ² | Passings with Special Construction Costs budgeted in the Application ³ | Number of Passings with Speeds at 10/1 or below in Project Area ⁴ |
|-----------------------------|---|--|---|--|
| Residential | 11,479 | 11,398 | 81 | 7979 |
| Businesses (non-home based) | 194 | 194 | | 104 |
| Businesses (home-based) | | | | |
| Community Anchors | 24 | 24 | | |
| Non-residential | 59 | 59 | | 59 |
| Total | 11,756 | 11,675 | | 8082 |

Note: The Total Number of Passings **MUST** be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

Note: Do not include passings in RDOF awarded areas that were awarded to the co-applicant; these passings should be included in the RDOF Passings Form. Passings included in this application in RDOF awarded areas that were not awarded to the co-applicant, unless successfully challenged, are considered unserved and should be counted as passings in this form.

¹The total number of structures in the project area that can receive service. See definition of passing below for more detail.

²The number of structures in the project area that will not require special construction costs to provide service to. These passings fall within the broadband provider’s standard service connection drop length and do not require nonstandard equipment or any additional fees above normal service connection fees required to provide broadband access to a premise.

³The number of structures in the project area with all construction costs budgeted in the application. These passings will not require any additional special construction costs beyond those budgeted for in the VATI application.

⁴The number of structures in the project area that do not have access to internet at speeds of at least 10 mbps download and 1mbps upload.

Definitions

Passing – any structure that can receive service. Multi-unit structures may be counted as more than 1 passing, provided individual connections and account are planned at that structure.

Business – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

Community Anchor - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

Non-Residential Passing – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

Attachment 8 – MOU/MOA

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (“MOU”) entered into on this 8th day of September, 2021, by and between ZITEL LLC, a Virginia Limited Company, located at 1123 Celebration Avenue, Moneta Suite 103, Virginia 24121, hereinafter referred to as “ZITEL”, and the County of Bedford, Virginia, a political subdivision of the Commonwealth of Virginia, located at 122 East Main Street, Bedford, Virginia 24523, hereinafter referred to as the “County” (ZITEL and County are collectively referred to as the “Parties”), for the purpose of establishing and achieving various goals and objectives relating to the project contemplated by the Parties.

WHEREAS, the Parties are desirous to enter into this Memorandum to set forth the working arrangements that both Parties agree shall be necessary to pursue their efforts to bring the Project to fruition;

MISSION

The Project is intended to provide the areas of the County with access to broadband Internet service (“Broadband”), in order to meet the future needs of residents and businesses in those areas of the County.

PURPOSE AND SCOPE

The Parties intend for this Memorandum to outline the structure for any binding contracts which the Parties may enter into in the future related to the Project.

OBJECTIVES

The Parties agree to work together to attempt to secure funding and establish policies and procedures that will promote and sustain a market for Broadband availability and intend to work toward delivering a product and/or services that meet or exceed business and industry standards.

RESPONSIBILITIES AND OBLIGATIONS OF THE PARTIES

The Parties agree to work together in good faith and collaboratively in an effort to bring the Project to successful completion. This Memorandum does not create any legal or equitable obligations or rights on the part of either Party and no such obligations or rights shall exist unless and until such time as the Parties may enter into a written agreement signed by both Parties.

SERVICES COOPERATION

The goal of the Project is to provide the following services in the areas of the County contemplated in the Project, which services include, but are not necessarily limited to:

Broadband Internet access services

Phase 1 (beginning after MOU execution): The Parties will work together to apply for Virginia Telecommunication Initiative (“VATI”) grant(s). The Parties anticipate that VATI guidelines will require contributions by ZiTEL and by the County as matching funds to secure a FY2022 VATI Grant through the Virginia DHCD. DHCD funding shall not exceed 80% of Project costs.

The total budget for the Project is expected to be \$22,101,133.83. The County agrees to provide a total match of \$5,525,283.46 in funding for the Project. ZiTEL agrees to provide a minimum match of \$5,525,283.46 in funding for the Project. The amount of the VATI Grant to be requested for the Project will be at least \$11,050,566.91 and the total number of homes projected to be passed by the Project shall be at least 11,756.

Phase 2 (beginning after Phase 1): ZiTEL will work with the County to continue Project planning and the Parties will seek additional Federal, State and local funding to expand the availability of Broadband service in the County.

TIMELINE

The above outlined scope and objective shall be contingent on the Parties’ ability to obtain the necessary funding required for the Project, as described in any applicable grant or business loan application. Responsibilities with regard to commencement and completion of the Project will be established in any future agreement between the Parties, and may coincide with the period specified in connection with any grants awarded in connection with the Project.

TERM

This MOU shall remain in effect, subject to the termination provisions in this MOU, up until the Parties mutually determine whether they are able to move forward with the Project.

If the Parties are successful in securing sufficient grant funding that they are both willing to move forward with the Project, then they agree to use good faith efforts to negotiate, execute and deliver a formal contract regarding the Project (“Project Agreement”). The Parties contemplate that a Project Agreement will contain terms and conditions, representations, warranties, covenants, and other provisions that are customary in service arrangements of the sort contemplated in this MOU. If the Parties are unable to agree on the terms and conditions of a Project Agreement within 60 days of receiving notice of the award of such grant funding, then either Party may give notice of the termination of this MOU. In that event, the Parties shall have no further obligations to each other under this MOU except for any obligations which are specifically provided to survive a termination of this MOU. This MOU does not create any legal or equitable obligations or legal rights.

AMENDMENT OR CANCELLATION OF THIS MEMORANDUM

This Memorandum may be amended or modified at any time in writing by mutual agreement of both Parties.

In addition, this MOU may be cancelled by either Party without cause on sixty (60) days advance written notice. This MOU may be terminated for cause, where cause for termination may include, but is not limited to, a material breach of any of the provisions contained herein, upon delivery of written notice of such termination to the other Party.

GENERAL PROVISIONS

The Parties acknowledge and understand that they must be able to fulfill their responsibilities under this MOU in accordance with the provisions of the law and regulations that govern their activities. Nothing in this Memorandum is intended to negate or otherwise render ineffective any such provisions or operating procedures. The Parties assume full responsibility for their performance under the terms of this Memorandum.

If at any time either Party is unable to perform its duties or responsibilities under this MOU consistent with such Party's statutory and regulatory mandates, the affected Party shall immediately provide written notice of such to the other Party and, if possible, establish a date for such performance.

LIMITATION OF LIABILITY

No rights or limitation of rights shall arise or be assumed between the Parties as a result of the terms of this MOU.

ARBITRATION/MEDIATION DISPUTE RESOLUTION

The Parties to this MOU agree that should any dispute arise regarding any aspect of their relationship or the Project, including, but not limited to, any matters, disputes or claims, the Parties shall confer in good faith to promptly resolve any such dispute. In the event that the Parties are unable to resolve the issue or dispute between them, then the matter shall be subject to non-binding mediation in an attempt to resolve any and all issues between the Parties.

The Parties agree that venue for any claim or dispute that arises from or through this MOU shall be in the state and Federal courts for Bedford County, Virginia.

NOTICE

Any notice or communication required or permitted under this MOU shall be sufficiently given if delivered in person or by certified mail, return receipt requested, to the address

set forth in the opening paragraph or to such address as one may have furnished to the other in writing.

GOVERNING LAW

This MOU shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, exclusive of its conflicts of laws rules.

SEVERABILITY CLAUSE

In the event that any provision of this Memorandum shall be deemed to be severable or invalid, and if any term, condition, phrase or portion of this Memorandum shall be determined to be unlawful or otherwise unenforceable, the remainder of the Memorandum shall remain in full force and effect, so long as the clause severed does not affect the intent of the Parties. If a court should find that any provision of this Memorandum to be invalid or unenforceable, but that by limiting said provision it would become valid and enforceable, then said provision shall be deemed to be written, construed and enforced as so limited.

ASSIGNMENT

Neither Party may assign this Memorandum without the prior written consent of the non-assigning Party, whose approval shall not be unreasonably withheld or conditioned. Notwithstanding the foregoing, ZiTEL shall have the right to assign this MOU without the County's consent to any parent, subsidiary, affiliate, or any person, firm, or corporation that shall control, be under the control of, or be under common control with ZiTEL, or to any entity into which ZiTEL may have merged or consolidated or which purchases all or substantially all of the assets of ZiTEL.

ENTIRE UNDERSTANDING

This MOU reflects the entire understanding and agreement of the Parties pertaining to all matters contemplated hereunder.

MOU SUMMARIZATION

The Parties to this MOU have mutually acknowledged and agreed to the following:

- The Parties to this MOU shall work together in a cooperative and coordinated effort, and in a manner and fashion intended to bring about the achievement and fulfillment of the goals and objectives of the Project.

- It is not the intent of this MOU to restrict the Parties from their involvement in or participation with any other public or private individuals, agencies or organizations or opportunities.


- The Parties to this MOU shall mutually contribute and take part in any and all phases of the planning and development of the Project, to the fullest extent possible.
- This MOU is not a binding contract, and it is not the intent or purpose of this MOU to create any rights, benefits, obligations and/or trust responsibilities by or between the Parties.
- This MOU shall in no way hold or obligate either Party to supply or transfer funds to maintain and/or sustain the Project or the effort to bring it to fruition.
- Should there be any need or cause for the reimbursement or the contribution of any funds to or in support of the Parties' efforts relating to the Project, then such shall then be done in accordance with applicable Virginia laws, regulations and/or procedures, and any Project Agreement which the Parties may enter into in the future.
- In the event that it should become necessary to provide funding for the effort to develop the Project, then any such endeavor shall be addressed in a separate and mutually agreed upon written agreement signed by the Parties or their representatives, in accordance with applicable laws and regulations, and in no way does this MOU provide such right or authority or obligate any Party to provide any such funding.
- The Parties have the right to individually or jointly terminate their participation in this MOU provided that advanced written notice is delivered to the other Party as provided for herein.

AUTHORIZATION AND EXECUTION


The signing of this Memorandum of Understanding does not constitute a formal undertaking, and as such it simply reflects the intentions of the Parties to undertake preliminary efforts to achieve the goals and objectives stated in this MOU.

IN WITNESS WHEREOF, the Parties hereto have set their hands as of the day and year first above written.

ZITEL, LLC

By: 
Title: President

BEDFORD COUNTY, VIRGINIA

By: 

Robert Hiss

County Administrator

Attachment 9 - Funding Sources Table

| Source | Amount | % | Status |
|--------------------------------------|-------------------------|-------------|--|
| Requested VATI | \$ 11,050,566.91 | 50% | Pending |
| Local Funding Bedford County | \$ 5,525,283.46 | 25% | Approved to be appropriated on September 7, 2021 by the Bedford County Board of Supervisors |
| Private Funding Through ZITEL | \$ 5,525,283.46 | 25% | Included and Authorized on Aug. 19, 2021 by ZITEL CFO |
| TOTAL | \$ 22,101,133.83 | 100% | |



COUNTY OF BEDFORD, VIRGINIA
County Administration Building
122 East Main Street, Suite 202
Bedford, Virginia 24523
Tel: (540) 586.7601

ROBERT HISS
COUNTY ADMINISTRATOR

OFFICE OF THE COUNTY ADMINISTRATOR

September 8, 2021

Virginia DHCD
600 E. Main Street, Suite 300
Richmond, VA 23210

RE: VATI 2022 Application - Attachment 10 Documentation of Matching Funding

DHCD Staff:

During a special called meeting on September 7, 2021, the Bedford County Board of Supervisors (the "BOS") appropriated the full local match in the amount of **\$5,525,283.46** for our VATI 2022 Application in conjunction with Zitel. The funds will be made available as required by Zitel to pay for the construction of the fiber to the home (FTTH) project. These funds will be considered appropriated by the Board for once the grant is approved and awarded.

We are very pleased to be associated with this application and feel that it will help us reach our goal of ubiquitous broadband service in our County.

Thank you for your consideration and potential partnership with Zitel and Bedford County.

Regards,

Robert Hiss
County Administrator



At a Special Called Meeting of the Board of Supervisors and the Broadband Authority of the County of Bedford, Virginia held at the Bedford County Administration Building on the 7th day of September 2021, beginning at 5:00 pm:

| <u>MEMBERS:</u> | <u>VOTE:</u> |
|--------------------------|--------------|
| Tommy W. Scott, Chair | Yes |
| Tammy Parker, Vice-Chair | Yes |
| Mickey Johnson | Yes |
| Edgar Tuck | Yes |
| Charla Bansley | Yes |
| John Sharp | Yes |
| Bob Davis | Yes |

On motion of Vice-Chair Parker, which carried by a vote of 7-0, the following was adopted:

A RESOLUTION

WHEREAS, broadband is a critical piece of necessary infrastructure and significant gaps remain in Bedford County for those who are unserved or underserved with broadband; and

WHEREAS, the County received American Rescue Plan Act (ARPA) funds and CARES Act funds in which broadband is an eligible expense; and

WHEREAS, the County desires to receive a grant from the Virginia Telecommunications Initiative (VATI) to leverage further broadband development; and

WHEREAS, thru a request for proposals, Zitel, Riverstreet, and Shentel were selected as internet service providers the County desires to partner with to achieve universal broadband coverage in conjunction with a VATI grant.

NOW, THEREFORE, BE IT RESOLVED, by the Bedford County Broadband Authority, that the County Administrator is authorized to submit a VATI application in partnership with Zitel, Riverstreet, and Shentel; approved to sign a memorandum of understanding with Zitel, Riverstreet, and Shentel; and appropriates the following to serve as the County cash match for each respective VATI grant: \$5,525,283.46 to Zitel and \$5,446,920 to Shentel from ARPA funds, and \$2,014,874 to Riverstreet from general fund balance previously identified as recovered salaries from the CARES Act.

A Copy-Teste:

Robert Hiss
County Administrator

Attachment 10 – Documentation of Match Funding

ZiTEL will be providing all the planning, engineering, materials, and labor for the installation of the fiber plant necessary for this project. The value of the ZiTEL contribution that is not reimbursed by VATI is \$5,525,283.46. ZiTEL has committed to provide the 25% amount of match funding.

Bedford County Board of Supervisors on September 7, 2021 committed to a 25% match of the overall cost of the project and will encumber \$5,525,283.46 in support of the project.



COMMONWEALTH OF VIRGINIA

HOUSE OF DELEGATES
RICHMOND

TERRY L. AUSTIN

POST OFFICE BOX 400
BUCHANAN, VIRGINIA 24066
NINETEENTH DISTRICT

COMMITTEE ASSIGNMENTS:
TRANSPORTATION
APPROPRIATIONS
RULES

August 27, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes:

I write in support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long been at a disadvantage with little to no internet service in many of its rural areas, a reality that quickly became apparent during the COVID-19 pandemic. Students and teachers were unable to effectively conduct their lessons and classwork virtually, with some having to park in public library parking lots just to get internet service. Businesses who needed to continue operations were hamstrung by the fact that their employees did not have the broadband connections necessary to work remotely. School boards, local governments and other public entities who were mandated to conduct public business virtually struggled to reach large number of their constituents who did not have enough bandwidth to livestream meetings. Telemedicine, which would have provided much need relief to the overburdened health care industry, was not feasible.

We all recognize the incredible importance of broadband to the citizens in Bedford County. Strong, reliable internet connectivity is no longer a want, it is now a need. Improving broadband access will increase educational opportunities, enable economic growth, and close the digital divide that is so apparent between rural communities and more populated areas. Like water and electricity, broadband connectivity is an essential utility, and this VATI Grant will bring our rural areas into the 21st century.

I ask that you strongly consider this application and the benefits and opportunities it will create for Bedford County.

Sincerely,

Delegate Terry L. Austin
19th House District



COMMONWEALTH OF VIRGINIA
HOUSE OF DELEGATES
RICHMOND

KATHY J. BYRON
MINORITY CAUCUS CHAIR

POST OFFICE BOX 900
FOREST, VIRGINIA 24551

TWENTY-SECOND DISTRICT

COMMITTEE ASSIGNMENTS:
FINANCE
LABOR AND COMMERCE
COMMUNICATIONS, TECHNOLOGY
AND INNOVATION

September 8, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
600 E Main St Ste 300
Richmond VA 23219-2430

Dear Dr. Holmes:

I am writing to encourage the approval of the VATI grant application, filed jointly by Bedford County and ZITEL LLC, to expand broadband service in Bedford's rural areas.

Having sponsored the successful legislation that accelerated the expansion of broadband to unserved and underserved portions of the Commonwealth, I know the cost per household of these expansions is much greater due to the topographical challenges. Having spearheaded a solution that involved those most qualified and experienced at meeting such challenges, private communications firms, I also know that a public-private approach produces the best results at the lowest cost with no deficiencies.

Now, with the unprecedented levels of funding these projects are receiving from the federal government, I would hope applications are being approved promptly. Expediently approving these grants will quickly ameliorate the "digital divide" long afflicting rural areas of the commonwealth.

Those living in the rural areas of Bedford County have long experienced the effects of this inequity. That situation has become more pronounced during the COVID pandemic, with many businesses requiring employees work from home and most schools requiring remote learning. In rural regions, the disruption occurring throughout America because of the pandemic was exacerbated by the lack of access to reliable broadband service. Ultimately, this deficiency affected every aspect of life in unserved regions, making a difficult situation nearly impossible to address.

The prompt approval of the Bedford County/ZITEL joint VATI grant application will be of tremendous benefit to the people of Bedford. I ask that you give it your serious consideration for approval.

Sincerely,



Kathy J. Byron, Member
Virginia House of Delegates
22nd District

OFFICE OF THE PRESIDENT

September 3, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes:

I am writing to endorse Bedford County's VATI application to expand broadband internet service. Broadband availability is critical to individuals, households, and businesses; it is key to community and economic development. As a community college educator, however, I am especially concerned with its importance to educational accessibility, advancement, and equity—all of which depend upon access to broadband.

COVID-19 has magnified the inequities that exist among our students and in our communities, Bedford County included. The gaps in broadband coverage, in particular, have created a chasm that puts large groups of students at a disadvantage and disrupts their progress—in some cases, even preventing them from pursuing a higher education. While broadband may have been advantageous to students before, it is essential to students today.

The truth of that statement is reflected in enrollment statistics. During spring 2020, Central Virginia Community College (CVCC) was forced to suspend all face-to-face programming and move all its courses and services to a remote environment. Those with access to broadband were able to continue their education; those who lacked access were relegated to patching together temporary access points or, worse, abandoning their education altogether. The statistics speak for themselves. Enrollments at CVCC among Bedford County students fell from 948 in fall 2019—a pre-pandemic period—to 768 in fall 2020 when the college was still operating primarily in a virtual environment. No doubt other factors contributed to that decrease; however, we can be sure that limited access to broadband was a major factor.

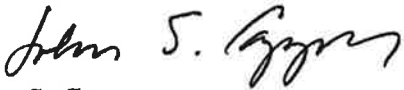
With online access to higher education being so important, citizens without broadband are at a profound disadvantage as they strive to further their education. It is a disadvantage that has employment consequences for individuals and economic consequences for communities. Students from low-income households and rural areas that lack broadband are especially vulnerable. Increasing coverage to these households creates an on-ramp to higher education, making community college more affordable and accessible. From that standpoint, access to broadband is not a merely luxury. It is a necessity—an imperative that is crucial to personal, community, and economic development.

September 3, 2021

Page Two

The “new normal” is going to be our familiar reality for a long time to come, resulting in far-reaching and transformational effects on how we approach teaching and learning in the years ahead. Online learning—and the access that broadband affords to online learning platforms—will become more and more important as more coursework is adapted to virtual delivery. Universal access to broadband is therefore not just a practical issue, critical to educational and economic advancement. It is also a moral mandate since it promotes equity and inclusion among all citizens. For all these reasons, I endorse Bedford County’s proposal to expand broadband internet service throughout the county.

Sincerely,

A handwritten signature in black ink that reads "John S. Capps". The signature is written in a cursive style with a large, sweeping flourish at the end.

John S. Capps
President



BEDFORD COUNTY PUBLIC SCHOOLS

School Administration Building

Empowering Learners for Future Success

Office of the Chief Operations Officer

August 29, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dr. Holmes,

I am writing to express my enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have struggled with a patchwork infrastructure that has provided little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet.

Students in Bedford County Public Schools have been affected directly by the lack of broadband internet access in parts of our county, during and prior to the COVID pandemic. We are in the fifth year of a 1:1 device program in grades 6-12. This program started in the fall of 2017, and currently we have 13,055 Chromebooks available for our students. These devices are crucial for continuity of instruction for in person and remote learning formats. In 2020-21, over 20% of our students opted for a remote learning format, and while that number is much smaller this year, most school work is assigned electronically. A Chromebook has very little benefit without internet access, and in approximately 30% of Bedford County homes, access is poor or non-existent. Students who do not have a good internet connection are forced to go to school parking lots or local places of business to access their learning materials.

We recognize the vital importance of broadband to the citizens in our county. Such improvements will increase both educational opportunities and economic growth in the area. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility. The residents of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. I hope you give strong consideration to this application, and, if needed, I would be happy to give additional information about the needs our students have for affordable, reliable broadband internet access. I can be reached at (540) 586-1045, x10708 and mduis@bedford.k12.va.us.

Sincerely,

Mac Duis
Chief Operations Officer

STAUNTON RIVER Middle School

1293 Golden Eagle Drive
Moneta, VA 24121-5563
Office: (540) 297-4152
Fax: (540) 297-4076



September 10, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes:

I am writing in support of Bedford County's VATI application and their joint grant application with Zitell for building improved internet in rural areas of Bedford County.

The citizens of Bedford County have long suffered from little to no internet service in many of our rural areas. During the recent COVID-19 pandemic this has become a necessity. As an administrator, I have witnessed firsthand the struggles for many students and families with the lack of broadband internet access across Bedford County. All students at Staunton River Middle School have been provided with a Chromebook that has many capabilities; however, many capabilities are driven by the internet. While students are able to upload assignments prior to leaving school for the day, various tools require internet access. Many students are limited in their ability to utilize these tools. Now more than ever, students need access to the internet otherwise they must seek other avenues such as local libraries, restaurants, parking lots, etc in order to access instructional material. Additionally, some students may require paper copies of assignments. Learning opportunities are limited when paper copies are provided. Bedford County Public Schools has worked to provide hot spots to students without internet access. However, there is a limited number of hot spots available, not nearly enough to support the required need. There is no question that implementing broadband access where all community members of Bedford County have access will only enhance educational experiences. Now more than ever, broadband connectivity is imperative in Bedford County.

We recognize the importance of broadband to citizens, businesses, schools, and other important institutions in our county. Such improvements will increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. The citizens of Bedford County in the covered region will have access to broadband equal to citizens in larger cities and more populated areas. I hope you give strong consideration to this letter of support, and, if needed, I will be happy to provide additional information about the needs our students have for affordable, reliable broadband internet access. I can be reached at (540) 297-4152.

Sincerely,

A handwritten signature in blue ink that reads "Jessica H. Geyer". The signature is written in a cursive style.

Jessica H. Geyer
Principal

August 30, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Subject: Letter of Support for Bedford County's VATI grant for rural broadband expansion

Dear Dr. Holmes,

I am pleased to provide this letter of support for Bedford County's joint VATI application with Zitel to achieve universal broadband coverage. As the Executive Director of the Virginia Career Works – Central Region, I know first-hand the struggles that job seekers have in researching and applying for jobs when they don't have adequate high-speed Internet at home. Additionally, we saw great difficulty for those employees who received stay at home work orders during the height of the Covid pandemic, yet didn't have adequate broadband to do business. There were extensive attempts by this workforce office to set up hotspots where people could connect at a church or library just to be able to conduct business and keep their job. As you can imagine, that situation is not ideal and is not sustainable.

The Central Virginia Workforce Development Board recently conducted a SWOT analysis for our region which includes Bedford County, and identified the lack of access to broadband as a limiting factor for educational opportunities, as well as business growth, customer engagement, and workforce mobility. The Board also found that limited or lack of access to broadband has accelerated the equity gap.

In the Federal Reserve Board's recent report, "Broadband in the Labor Market", "Home Internet can reduce the time and monetary costs of working by allowing individuals to work from home, reduce search frictions in the labor market by connecting potential employees to employers, and save users time in home production tasks like shopping and paying bills, freeing up time to engage in market work."

High Speed Internet to all areas of Bedford County will allow residents to engage in telework, whether conducting some or all of their work remotely. Telework can reduce commute times and increase wages by reducing absenteeism and increasing worker productivity.

On behalf of the Virginia Career Works – Central Region office and the Central Virginia Workforce Development Board, we appreciate your consideration to approve VATI funding for this critical need in Bedford County.

Thank you. I can be reached at 434-818-7612 if you have any questions.



*Traci Blido, Executive Director
Virginia Career Works – Central Region*



COUNTY OF BEDFORD, VIRGINIA

COUNTY ADMINISTRATION BUILDING
122 EAST MAIN STREET, SUITE 202
BEDFORD, VIRGINIA 24523

ECONOMIC DEVELOPMENT AUTHORITY

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Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Letter of Support for Bedford County, VA 2022 VATI Grant

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet. Similarly, the health care industry needed to conduct appointments online as well.

When attracting businesses to the county, Broadband is a critical part of the infrastructure companies expect to have readily available. For businesses, robust bandwidth is the foundation for innovation and is a critical part of the infrastructure needed for success. Bedford County is one of the fastest growing localities in Virginia, yet only certain pockets are available to be developed for business due to lack of quality, high-speed internet. With today's economy more dependent on innovation and connectivity to survive and thrive, providing high-speed Internet is critical to bringing business to the county and keeping them competitive.

We recognize the incredible importance of broadband to all the citizens in our County. Such improvements will both increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents and businesses of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

A handwritten signature in blue ink, appearing to read "James T. Messier", written over a light blue horizontal line.

James T. Messier
Board Chairman
Bedford County Economic Development Authority



COUNTY OF BEDFORD, VIRGINIA

COUNTY ADMINISTRATION BUILDING
122 EAST MAIN STREET, SUITE 202
BEDFORD, VIRGINIA 24523

OFFICE OF ECONOMIC DEVELOPMENT

August 30, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Letter of Support for Bedford County, VA 2022 VATI Grant

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet. Similarly, the health care industry needed to conduct appointments online as well.

When attracting businesses and a strong workforce to the county, Broadband is a critical part of the infrastructure people expect to have readily available. For businesses, robust bandwidth is the foundation for innovation and is a critical part of the infrastructure needed for success. Bedford County is one of the fastest growing localities in Virginia, yet only certain pockets are available to be developed for business due to lack of quality, high-speed internet. Our workforce also requires broadband as became more apparent over the last year with more people working from home. With today's economy more dependent on innovation and connectivity to survive and thrive, providing high-speed Internet is critical to bringing business to the county and keeping them competitive.

We recognize the incredible importance of broadband to all the citizens in our County. Such improvements will both increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents and businesses of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

A handwritten signature in black ink that reads "Pam Bailey". The signature is written in a cursive style.

Pam Bailey
Acting Economic Development Director



DEPARTMENT OF SOCIAL SERVICES

Burks Scott Building

Post Office Box 1187
119 East Main Street
Bedford, Virginia 24523
Tel: (540) 586.7750

August 25, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Letter of Support for 2021 NTIA Grant for Bedford County, VA

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia. The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic.

All Virginia Department of Social Services computer systems are now web based, making internet a critical infrastructure for our citizens and staff. Our citizens use the internet to apply for benefits, report changes, and to communicate with our staff either my email or video calls. Citizens need access to the quality internet to find resources for their family, to apply for jobs, and to have access to training. Likewise our staff need access to quality internet to complete their work in the field or when teleworking. The Department has employees who currently drive to local churches or businesses, to complete mandated work, as these organizations have better Wi-Fi speed than what they can access at the office or at home.

We recognize the incredible importance of broadband to the citizens in our County. Such improvements will both increase educational opportunities and economic growth. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Crawford".

Andrew Crawford, LCSW
Director



Bedford County Sheriff's Office

Sheriff Michael W. Miller

1345 Falling Creek Road
Bedford, Virginia 24523
www.bedfordcountysheriff.org



Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Re: Letter of Support for 2021 VATI Grant for Bedford County, VA

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with **ZITEL** for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet. Similarly, the health care industry needed to conduct appointments online as well.

In today's mobile world, universal broadband is critical in the infrastructure of public safety. Our citizens increasingly need mobile capability to bring equity in public safety services to those who need it most. Apps which allow mobile/remote reporting and text-to-911 capabilities are now "must-haves" for public safety organizations and allows ease of communications, particularly for those in our community who suffer from some form of physical or mental impairment. Additionally, public safety agencies are almost universally suffering from manpower shortages. This results in "mutual-aid" situations in which multiple agencies will respond to handle a large-scale operation. Universal broadband will be a force-multiplier, adding the abilities to coordinate and communicate through a common app, easily downloaded in the field, without being tied to a hot-spot at a command post, and provide real-time data which will most certainly save lives.

We recognize the incredible importance of broadband to the citizens in our County. Such improvements will both increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

Professionalism, Integrity, Commitment



Bedford County Sheriff's Office

Sheriff Michael W. Miller

1345 Falling Creek Road
Bedford, Virginia 24523
www.bedfordcountysheriff.org



The residents of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

/s/: Michael W. Miller

Michael W. Miller
Sheriff of Bedford County

Professionalism, Integrity, Commitment



COUNTY OF BEDFORD, VIRGINIA

COUNTY ADMINISTRATION BUILDING
122 EAST MAIN STREET, SUITE 202
BEDFORD, VIRGINIA 24523

Jeff Powers
Chairman
Don Gardner
Vice Chairman

Pete Fellers
Ronnie Gross
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Joy Powers
Pam Willoughby

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Kenneth Newman
Lindsay Tomlinson

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Letter of Support for Bedford County, VA 2022 VATI Grant

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Health care appointments needed to be conducted online. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet. Similarly, our agriculture community was forced to conduct online sales.

With more than 211,000 acres of farmland and 1,418 farms, Bedford County is home to a strong agriculture industry and a growing local food movement. Farm sales account for \$26.4 million in annual farm sales and 1,547 ag-based jobs. The County's most valuable commodity is beef cattle and calves, and our producers need the ability to use the latest technology to be successful. Whether it is checking the price of a commodity, marketing their products online, purchasing their next herd sire through an online sale, or participating in an online seminar, broadband internet is crucial for today's modern agriculture business.

We recognize the incredible importance of broadband to all the citizens in our County. Such improvements will increase wellness, educational opportunities, and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents and businesses of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

Jeff Powers

Board Chairman

Bedford County Agriculture Economic Development Advisory Board

BEDFORD CHRISTIAN MINISTRIES ASSOCIATION, INC.

An outreach ministry of some 25 churches and service organizations

A member of the United Way of Central Virginia

540-586-2633

217 W. Washington Street

540-586-7313 (Fax)

August 26, 2021

Dr. Tamarah Holmes
Director of Broadband
Virginia Department of Housing and Community Development
VATI Program
600 East Main St., Suite 300
Richmond, VA 23219

SUBJECT: Bedford County VATI

Dear Dr. Holmes:

This is a letter of support for Bedford County's joint VATI grant application with Zitel for building improved internet in the County.

I am the Director of Bedford Christian Ministries, a 501(c) (3) non-profit founded in 1984 to serve low-income, senior and disabled residents. I have been a Financial Aid Counselor at BCM for 11 years, providing rent and utility assistance to those who are behind in their payments. Between 9/30 and 12/31/2020, BCM distributed CARES Act utility assistance funds to 205 individuals whose income was adversely impacted by the pandemic. This letter of support addresses the importance of reliable internet access to those individuals and families we have assisted over the years and especially during the pandemic.

I estimate that fully 60% of those we assist financially are unemployed or underemployed for either of two reasons: limited job skills for available jobs and limited jobs available. Most of those we see only have the skills to work in personal care, food service, or construction. As adult education moves more and more toward the online learning platforms, these individuals will need internet access to develop the job skills necessary enter, stay in, and advance in a more technologically-based workplace. The lack of this access leaves them falling farther and farther behind and thus inevitably out of the workforce.

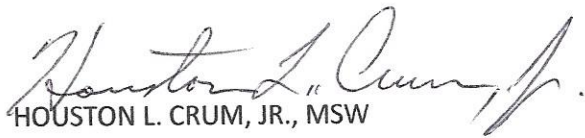
If the enhancement of community-wide broadband access attracts more businesses to the County, there will be more employment opportunities for those who can obtain the work skills to fill those jobs. It will be easier to motivate unemployed and underemployed individuals to improve their skills if they believe that there are more jobs that will pay better for those improved skills.

Applying for assistance and benefits from governmental agencies has gone "online" for virtually every form of assistance. Information that the people we serve need is now digital. For many low-income, disabled and senior individuals, applying for assistance or getting information has become a nightmare. Their difficulties navigating the internet and governmental web pages are largely the result of

inexperience with using the internet and infrequent use: in many cases because of lack of internet access. Only a few people know how to use the Public Library computers to use the internet.

Equal opportunity for rural residents of all ethnicities is very much about income opportunity. As we know in this county, income opportunity is very much about educational opportunity for youth and for adults. Increased broadband access can significantly impact each of these areas in Bedford County.

Sincerely,

A handwritten signature in cursive script that reads "Houston L. Crum, Jr." with a period at the end.

HOUSTON L. CRUM, JR., MSW

Director



Bedford Public Library System

Serving Our Community Since 1900

321 North Bridge Street
Bedford, VA 24523
www.bplsonline.org

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Letter of Support for 2021 NTIA Grant for Bedford County, VA

Dear Dr. Holmes:

We are writing in continued support of Bedford County's joint VATI grant application with Zitel for building improved internet in underserved areas of Bedford County, Virginia.

The citizens of our county have long suffered with little to no reliable, broadband internet service in many of our rural and suburban areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually and families were trying use the Library's streaming resources and electronic book collections to supplement the school's online learning paradigm. Many citizens were unable to access these services because of insufficient or nonexistent broadband infrastructure at their houses.

County businesses and the local government needed employees to work entirely or partially remotely. School boards, and other public entities needed to conduct public business; however, they were unable to do so in-person. The digital divide in our county only grew worse. The pandemic continued to disenfranchise our citizens, who lacked home broadband internet, from those essential government and healthcare services that were only being offering online.

Because of a lack of broadband infrastructure in much of the county, the public library's WIFI was in very high demand. At the 6 public library facilities, it was not uncommon to see as many as 10 cars idling in the parking lot before and after operating hours, so citizens could use the limited, public WIFI to conduct their online business or school work. Students huddled near exterior electrical outlets during off-hours when their laptop batteries died. People competed for limited table space inside the Libraries, due to social distancing protocols, as soon as the doors opened each morning. The Library's WIFI usage increased at all 6 County facilities from the pre-pandemic year, 2019, to the pandemic year 2020 and has remained high. Furthermore, this indicator of community need (WIFI usage) increased almost 200% at one of our most rural and Internet-starved areas, Stewartsville, Virginia, during that time period.

The Bedford Public Library purchased and started circulating mobile hotspots, so that people who lacked home internet, did not have to come to the buildings in order to get online. We would hear stories from frustrated parents that the only signal they could get at home was through their cellular provider, there was no internet provider in the area to offer access. After the kids finished their

schoolwork, there would be little data left on the family's cellular plans to do much else that month. Other families bemoaned the fact that the lines stopped short of their physical address, "my neighbor is the last house on this street who can get internet, right there, only one house down, it is not fair." The fact that Bedford County is such a mountainous area, for many families, there is no direct line of sight to a delivery tower, so not even fixed wireless access is available at this time. In many cases, that last mile internet gap is all that prevents families from getting online at home and being able to do everyday things like, order groceries from Walmart for pick up or use online banking or check out an electronic book from the library.

We recognize the incredible importance of broadband to the citizens in our County. Such improvements will both increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

Jenny Novalis, MLIS
Director
Bedford Public Library System



Bedford Community Health Foundation

Post Office Box 1104, 321 North Bridge Street, Bedford, VA 24523 540-586-5292 Email: info@healthybedford.org

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Re: Letter of Support for 2021 VATI Grant for Bedford County, VA

Dear Dr. Holmes:

We are writing in enthusiastic support of Bedford County's joint VATI grant application with Zitel for building improved internet in rural areas of Bedford County, Virginia.

The citizens of Bedford County have long suffered with little to no internet service in many of our rural areas, a reality that became immediately prevalent during the recent COVID-19 pandemic. Students and teachers were trying to conduct their classwork virtually rather than doing so in the classroom. Businesses needed employees to work entirely or partially remotely. School boards, local governments and other public entities needed to conduct public business; however, they were unable to do so in-person. They, too, needed to do so via the internet. Similarly, the health care industry needed to conduct appointments online as well.

The Bedford Community Health Foundation views broadband access as a community health issue. The ability for citizens to access the resources necessary to maintain their health and wellness is critical. COVID exposed, even more, the need for broadband access. Telehealth has increasingly become a main avenue to access medical appointments and health resources. It is especially important as it relates to mental health and substance abuse disorders. The rural nature of Bedford County provides significant challenges for those without high speed internet. We support every effort by the County to improve and expand access to broadband services to the citizens of Bedford County.

We recognize the incredible importance of broadband to the citizens in our County. Such improvements will both increase educational opportunities and economic growth in the area. Their proposed investment in broadband infrastructure utilizing a VATI Grant would bring our community into the 21st century. Strong, reliable internet connectivity is no longer a want; it is now a need. Like water and electricity, broadband connectivity is an essential utility.

The residents of Bedford County in this covered region will have access to broadband equal to citizens in larger cities and more populated areas, thereby helping to bridge the digital divide. Please give all due consideration to this application and know we will stand in strong support of their efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Denny Huff", is written over a light blue horizontal line.

Denny Huff
Executive Director
Bedford Community Health Foundation

Attachment 12 – Derivation of Costs

A budget template document is attached. The following additional information is provided.

The cost for this project includes logistics of planning and engineering, the equipment electronics necessary for broadband service, along with materials and labor of the installation of the fiber plant necessary to complete the build. These cost estimates are based on ZiTEL's previous experience in building similar plants throughout our current footprint. ZiTEL and the County has thoroughly reviewed the passing, the build footprint, and the need for service throughout the County. This cost projection has been based on a FTTx distributed split solution for rural Bedford County.

The project cost is \$22,101,133.82, consisting of the eight (8) major reference points listed below; Detailing out the Aerial, Buried, Splicing, and Electronic portions of the build.

| | GPON Materials | GPON Labor | Total Cost |
|-------------|-----------------------|---------------------|---------------------|
| Aerial | \$ 1,955,190.25 | \$ 2,271,180.60 | \$ 4,226,370.85 |
| Buried | \$ 4,462,843.88 | \$ 8,685,024.48 | \$ 13,147,868.36 |
| Splicing | \$ 1,333,077.20 | \$ 1,481,204.74 | \$ 2,814,281.94 |
| Electronics | \$ 665,392.15 | \$ 1,247,220.52 | \$ 1,912,612.67 |
| | \$ 8,416,503.48 | \$ 13,684,630.33 | \$ 22,101,133.82 |

Attachment 13 - Documentation of Supporting Cost Estimates

The cost for this project includes logistics of planning and engineering, the equipment electronics necessary for broadband service, along with materials and labor of the installation of the fiber plant necessary to complete the build. These cost estimates are based on ZITEL's previous experience in building similar plants throughout our current footprint. ZITEL and the County has thoroughly reviewed the passing, the build footprint, and the need for service throughout the County. This cost projection has been based on a FTTx distributed split solution for rural Bedford County.

The following charts, quotes, and SLAs have already been received and accepted from ZITEL and have been used to create our budget for the build.

| | GPON Materials | GPON Labor | Total Cost |
|-------------|-----------------------|---------------------|---------------------|
| Aerial | \$ 1,955,190.25 | \$ 2,271,180.60 | \$ 4,226,370.85 |
| Buried | \$ 4,462,843.88 | \$ 8,685,024.48 | \$ 13,147,868.36 |
| Splicing | \$ 1,333,077.20 | \$ 1,481,204.74 | \$ 2,814,281.94 |
| Electronics | \$ 665,392.15 | \$ 1,247,220.52 | \$ 1,912,612.67 |
| | \$ 8,416,503.48 | \$ 13,684,630.33 | \$ 22,101,133.82 |

Raptas LLC

Rate Sheet, Unit Pricing

| Unit # | Unit of Measurement | Unit Description | Virginia |
|--------|---------------------|--|-----------|
| 101 | EA | Anchor - all types and sizes | \$ 110.00 |
| 102 | EA | Rock anchor - all types and sizes | \$ 265.00 |
| 103 | EA | Sidewalk anchor - all types and sizes | \$ 180.00 |
| 104 | EA | Bust anchor- all types and sizes | \$ 225.00 |
| 105 | EA | Place riser & u-guard - wood pole | \$ 65.00 |
| 106 | EA | Place riser & u-guard - concrete pole | \$ 112.50 |
| 107 | EA | Place riser & u-guard - metal pole | \$ 121.00 |
| 108 | FT | Aerial strand/messenger - all sizes | \$ 0.80 |
| 109 | FT | Lash copper < 600 pair | \$ 1.30 |
| 110 | FT | Lash copper > 600 pair | \$ 2.10 |
| 111 | FT | Additional lashed cable - all types and sizes | \$ 1.40 |
| 112 | FT | Self-support cable - all types and sizes | \$ 1.90 |
| 113 | FT | Additional self-support copper cable - all sizes | \$ 1.90 |
| 114 | FT | Self-support flexible duct | \$ 1.50 |
| 115 | FT | Additional self-support flexible pipe | \$ 1.05 |
| 116 | FT | Over-lash copper cable - all types and sizes | \$ 1.60 |
| 117 | FT | Lash coax up to two (2) cables - all sizes | \$ 1.15 |
| 118 | FT | Over-lash coax cable up to two (2) cables - all sizes | \$ 1.15 |
| 119 | FT | Additional lashed/over lashed coax cable - all sizes | \$ 0.75 |
| 120 | FT | Lash aerial fiber optic cable - all types and sizes | \$ 1.50 |
| 121 | FT | Over-lash fiber cable - all types and sizes | \$ 1.60 |
| 122 | FT | De-lash/re-lash - all types and sizes | \$ 1.85 |
| 123 | FT | Additional lashed/over lashed fiber optic cable - all sizes | \$ 0.75 |
| 124 | FT | Aerial copper service wire - up to 12 pair | \$ 0.95 |
| 125 | FT | Aerial fiber optic service wire - up to 12 strands | \$ 0.95 |
| 126 | FT | Aerial Coax service wire - all types and sizes | \$ 0.95 |
| 127 | FT | Handle and/or create fiber slack loops | \$ 1.10 |
| 128 | EA | Place snow shoe - all types and sizes | \$ 70.00 |
| 129 | FT | Aerial placing-all methods & cable sizes - Copper | \$ 3.35 |
| 130 | FT | Aerial placing-all methods & cable sizes - Fiber | \$ 3.35 |
| 131 | FT | Aerial placing-all methods & cable sizes - Coax | \$ 3.35 |
| 132 | EA | Transfer Attachment - all sizes | \$ 105.00 |
| 133 | EA | Transfer Aerial service wire-pole or strand mounted | \$ 55.00 |
| 134 | EA | Transfer Aerial riser & U-guard - all types and sizes | \$ 135.00 |
| 135 | EA | Make ready without down guy - all types and sizes of cables | \$ 105.00 |
| 136 | EA | Make ready with down guy - all types and sizes of cables and anchors | \$ 135.00 |
| 137 | EA | Remove top of pole and remove from work site | \$ 135.00 |
| 138 | FT | Removal Copper cables - all sizes and types | \$ 0.85 |
| 139 | FT | Remove COAX and fiber optic - all sizes and types | \$ 0.85 |
| 140 | FT | Removal Strand/messenger - all types and sizes | \$ 0.85 |
| 141 | EA | Removal Guys - all types and sizes | \$ 37.50 |
| 142 | EA | Removal Cabinets - all types and sizes | \$ 147.50 |
| 143 | FT | De-lash/re-lash - all types and sizes | \$ 1.85 |
| 144 | EA | Removal Strand or pole mounted electronic equipment | \$ 62.50 |
| 145 | EA | Remove riser cable to include the u-guard and all hardware - all types and sizes | \$ 46.00 |
| 146 | EA | Straighten pole | \$ 187.50 |


| Unit # | Unit of Measurement | Unit Description | Virginia |
|--------|---------------------|--|-----------|
| 147 | EA | Repair/replace lashing wire (each span) | \$ 83.50 |
| 148 | EA | Place/replace u-guard | \$ 105.00 |
| 149 | EA | Place/replace pole steps per pole | \$ 80.00 |
| 150 | EA | Resag/tension strand or messenger per span | \$ 108.00 |
| 151 | EA | Aerial Minimum Charge | \$ 500.00 |
| 152 | FT | Plow up to 2 inches < or = to 36 inches | \$ 4.25 |
| 153 | FT | Trench up to 4 inches < or = to 36 inches | \$ 5.25 |
| 154 | FT | Backhoe greater than 4 inches | \$ 5.75 |
| 155 | FT | Additional depth > 36 inches in 6 inch increments | \$ 0.95 |
| 156 | FT | Additional cable or conduit in same trench while on site - all sizes and types | \$ 0.85 |
| 157 | FT | Hand digging | \$ 9.50 |
| 158 | FT | Additional depth > 36 inches in 6 inch increments (Hand Dig) | \$ 1.90 |
| 159 | FT | Pull through cable or duct in Supplier placed conduit- primary cable or pipe | \$ 1.20 |
| 160 | FT | Pull through cable or duct in Supplier placed conduit- secondary cable or pipe | \$ 0.65 |
| 161 | FT | Place cable or duct in a open conduit - primary | \$ 1.67 |
| 162 | FT | Place cable or duct in a occupied conduit - primary | \$ 2.10 |
| 163 | FT | Place additional cable in conduit or pipe - secondary | \$ 0.75 |
| 164 | FT | Place pull line - primary function | \$ 1.10 |
| 165 | FT | Handle and/or create slack loops | \$ 1.25 |
| 166 | FT | Install buried copper drop - all methods & sizes | \$ 2.10 |
| 167 | FT | Install buried fiber drop - all methods & sizes | \$ 2.10 |
| 168 | FT | Additional service wire in same trench - all types & sizes | \$ 0.75 |
| 169 | FT | Install buried coax drop 0'-150'- all methods & sizes | \$ 1.85 |
| 170 | FT | Install buried coax drop 151'-300'-all methods & sizes | \$ 1.85 |
| 171 | FT | Additional CIC in same trench while on site | \$ 1.00 |
| 172 | FT | Replace coax drop in existing conduit | \$ 1.10 |
| 173 | EA | Cut-over copper service wire | \$ 53.00 |
| 174 | EA | Cut-over COAX service wire | \$ 38.00 |
| 175 | EA | Pedestal - all types and sizes | \$ 87.50 |
| 176 | EA | Pedestal install node | \$ 147.00 |
| 177 | EA | Pedestal install line extender/amplifier | \$ 125.00 |
| 178 | EA | Pedestal install tap/splitter | \$ 140.00 |
| 179 | EA | Drop wire terminal - all types and sizes | \$ 45.00 |
| 180 | EA | Hand hole less than or equal to 2' X 3' X 3' | \$ 275.00 |
| 181 | EA | Hand hole > 2' X 3' X 3' | \$ 355.00 |
| 182 | EA | Stub pole | \$ 195.00 |
| 183 | EA | 6 X 6 post | \$ 155.00 |
| 184 | FT | Bore - directional - 2 inch in diameter | \$ 16.00 |
| 185 | FT | Bore - directional - 4 inch in diameter | \$ 18.00 |
| 186 | FT | Bore - directional - 6 inch in diameter | \$ 20.00 |
| 187 | FT | Bore- directional - over 6 inches in diameter | \$ 22.50 |
| 188 | FT | Adder - Rock bore - Rail head | \$ 48.00 |
| 189 | FT | Adder- Rock bore - Air hammer | \$ 65.00 |
| 190 | FT | Removal rock buried - Ram Hoe | \$ 48.00 |
| 191 | FT | Removal rock buried - Rock Saw | \$ 75.00 |
| 192 | FT | Place buried locate wire in trench (primary function) | \$ 1.10 |
| 193 | FT | Place buried locate wire in duct (primary function) | \$ 1.75 |
| 194 | FT | Place direct buried locate wire (primary function) | \$ 2.25 |
| 195 | FT | Place buried locate wire in trench (secondary function) | \$ 0.40 |
| 196 | FT | Place buried locate wire in duct (secondary function) | \$ 0.40 |

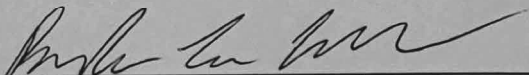
| Unit # | Unit of Measurement | Unit Description | Virginia |
|--------|---------------------|--|-------------|
| 197 | FT | Place direct buried locate wire (secondary function) | \$ 0.30 |
| 198 | EA | Place ground rod | \$ 35.00 |
| 199 | FT | Place ground wire | \$ 1.45 |
| 200 | CU.FT. | Select backfill | \$ 4.35 |
| 201 | FT | Buried placing all methods - Copper (including solid rock) | \$ 67.00 |
| 202 | FT | Buried placing all methods - Fiber (including solid rock) | \$ 67.00 |
| 203 | FT | Buried placing all methods - Coax (including solid rock) | \$ 67.00 |
| 204 | FT | Bundles in excess of the 2" diameter in 2" increments | \$ 15.00 |
| 205 | FT | Additional cover in excess of 36" in 6" increments | \$ 12.00 |
| 206 | FT | Buried placing all methods - Copper (excluding solid rock) | \$ 14.75 |
| 207 | FT | Buried placing all methods - Fiber (excluding solid rock) | \$ 14.75 |
| 208 | FT | Buried placing all methods - Coax (excluding solid rock) | \$ 14.25 |
| 209 | FT | Bundles in excess of the 2" diameter in 2" increments | \$ 2.30 |
| 210 | FT | Additional cover in excess of 36" in 6" increments | \$ 2.30 |
| 211 | CU.FT. | Remove/replace concrete | \$ 55.14 |
| 212 | CU.FT. | Remove/replace asphalt | \$ 118.17 |
| 213 | FT | Remove cable or duct from conduit system - all sizes and types | \$ 1.47 |
| 214 | FT | Remove direct buried cable - all sizes and types | \$ 1.25 |
| 215 | FT | Remove additional cable or duct - removed simultaneously | \$ 0.95 |
| 216 | EA | Locate buried conduit end(s) | \$ 85.00 |
| 217 | EA | Intercept existing conduit = or < than 4 feet | \$ 785.00 |
| 218 | EA | Intercept existing conduit > than 4 feet | \$1,675.00 |
| 219 | FT | Rod/slug conduit and provide measurements | \$ 2.30 |
| 220 | FT | Flush conduit or duct - primary function | \$ 2.30 |
| 221 | FT | Rod and provide measurements - secondary function | \$ 1.20 |
| 222 | EA | Replace cable route markers | \$ 45.00 |
| 223 | EA | Replace pedestal - all sizes | \$ 165.00 |
| 224 | EA | Replace hand hole & lid - all sizes | \$ 265.00 |
| 225 | EA | Replace hand hole lid - all sizes | \$ 42.45 |
| 226 | EA | Straighten, raise, or lower pedestal - all sizes | \$ 245.00 |
| 227 | EA | Straighten, raise, or lower hand hole - all sizes | \$ 245.00 |
| 228 | EA | Dig and backfill splice pit up to 30 cu. ft. | \$ 585.00 |
| 229 | EA | Dig and backfill splice pit over 30 to 60 cu. ft. | \$ 785.00 |
| 230 | EA | Pothole existing buried facilities in dirt | \$ 130.00 |
| 231 | EA | Pothole existing buried facilities in concrete | \$ 667.50 |
| 232 | EA | Pothole existing buried facilities in asphalt | \$ 400.00 |
| 233 | FT | Rod/slug conduit and provide measurements | \$ 2.30 |
| 234 | FT | Flush conduit or duct - primary function | \$ 2.30 |
| 235 | FT | Rod and provide measurements - secondary function | \$ 1.20 |
| 236 | EA | Buried Minimum Charge | \$ 500.00 |
| 237 | FT | Place all types cables on the customers building | \$ 36.00 |
| 238 | FT | Place all types cable in customer building | \$ 1.65 |
| 239 | FT | Place additional cable in customer building | \$ 0.50 |
| 240 | FT | Place rigged EMT in customer building, up to 2" | \$ 14.00 |
| 241 | FT | Place rigged EMT in customer building, up to 4" | \$ 16.00 |
| 242 | FT | Place plenum rated roll pipe in customer building, up to 2" | \$ 1.65 |
| 243 | FT | Place plenum rated roll pipe in customer building, up to 4" | \$ 1.65 |
| 244 | EA | Cabinet - small = <10 square feet | \$ 807.50 |
| 245 | EA | Patch panel - all sizes | \$ 95.00 |
| 246 | EA | Cabinet and pad - small | \$ 1,187.50 |
| 247 | EA | Cabinet and pad - large | \$ 1,662.50 |
| 248 | EA | Cabinet over vault - small | \$ 850.00 |
| 249 | EA | Cabinet over vault - large | \$ 1,450.00 |

| Unit # | Unit of Measurement | Unit Description | Virginia |
|--------|---------------------|--|-------------|
| 250 | EA | Join individual fibers 1-12 | \$ 46.00 |
| 251 | EA | Join individual fibers 13-48 | \$ 34.50 |
| 252 | EA | Join individual fibers 49-96 | \$ 27.50 |
| 253 | EA | Join individual fibers 97+ | \$ 26.25 |
| 254 | EA | Hot splice individual fibers 1-12 | \$ 167.50 |
| 255 | EA | Hot splice individual fibers 13-48 | \$ 56.75 |
| 256 | EA | Hot splice individual fibers 49-96 | \$ 49.25 |
| 257 | EA | Hot splice individual fibers 97+ | \$ 41.00 |
| 258 | EA | Place fiber optic closure w/two cable ends | \$ 206.25 |
| 259 | EA | Additional cables entering the same closure | \$ 55.00 |
| 260 | EA | Ring cut fiber optic closure w/ three cable ends | \$ 261.19 |
| 261 | EA | Additional cables entering the same closure | \$ 110.00 |
| 262 | EA | OTDR unidirectional testing | \$ 21.50 |
| 263 | EA | OTDR Bi-directional testing | \$ 33.50 |
| 264 | EA | Chromatic Dispersion testing | \$ 3,731.34 |
| 265 | EA | OTDR unidirectional testing - stand alone unit | \$ 42.00 |
| 266 | EA | OTDR bi-directional testing - stand alone unit | \$ 57.00 |
| 267 | EA | Chromatic Dispersion testing - stand alone unit | |
| 268 | EA | Maintenance case replacement - like for like | \$ 378.12 |
| 269 | EA | Fiber audit - case only; inside and out | \$ 584.37 |
| 270 | EA | Fiber audit - inspecting the case and gathering splice | \$ 653.12 |
| 271 | EA | Fiber audit - splice schematic w/ photos | \$ 240.63 |
| 272 | EA | Re-enter fiber splice closure; aerial - all types and sizes | \$ 206.25 |
| 273 | EA | Re-enter fiber splice closure; underground - all types and sizes | \$ 206.25 |
| 274 | HR | Services | \$ 45.00 |
| 275 | HR | Services - Manual labor | \$ 32.00 |
| 276 | HR | Services - Snow removal | \$ 119.00 |
| 277 | HR | Large vehicle with tools | \$ 55.00 |
| 278 | HR | Medium vehicle with tools | \$ 29.50 |
| 279 | HR | Small vehicle with tools | \$ 20.50 |
| 280 | HR | Large equipment & trailer | \$ 55.00 |
| 281 | HR | Medium equipment & trailer | \$ 45.00 |
| 282 | HR | Small equipment & trailer | \$ 30.00 |
| 283 | HR | Generator | \$ 9.00 |
| 284 | HR | Light tower | \$ 22.00 |
| 285 | HR | Crash cushion | \$ 52.00 |
| 286 | HR | Flashing arrow board | \$ 9.50 |
| 287 | HR | Lighted barricade | \$ 21.00 |
| 288 | HR | Traffic barrel - per 10 barrels | \$ 17.00 |
| 289 | HR | Work zone sign - all types | \$ 0.95 |
| 290 | HR | Traffic cone - per 10 cones | \$ 0.65 |
| 291 | HR | Lane closure with crash cushion | \$ 148.00 |
| 292 | FT | Aerial line clearing - all methods | \$ 2.75 |
| 293 | FT | Buried line clearing - all methods | \$ 2.60 |
| 294 | FT | Additional width and height - all methods | \$ 1.35 |
| 295 | FT | Clearing and grubbing - 6" trunk diameter and less | \$ 3.95 |
| 296 | EA | Tree removal <= 6" in diameter | \$ 355.00 |
| 297 | EA | Tree removal > 6" to 12" in diameter | \$ 565.00 |
| 298 | EA | Tree removal > 12" to 24" in diameter | \$ 715.00 |
| 299 | EA | Tree removal > 24" in diameter | \$1,000.00 |
| 300 | EA | Existing brush removal - per round trip | \$ 570.00 |
| 301 | % | Material Mark-up | 10% |
| 302 | % | Urban Adder - Aerial | 10% |

| Unit # | Unit of Measurement | Unit Description | Virginia |
|--------|---------------------|---------------------------|----------|
| 303 | % | Urban Adder - Underground | 15% |
| 304 | % | Urban Adder - Buried | 15% |

Exhibit contains the understanding of parties, hereto, with respect to the unit pricing and may not be changed except in writing by both parties.

Approved: 
 Printed Name: Caty Litley
 Title: President
 Date: 9/10/21

Approved: 
 Printed Name: Brandon Lee Camden
 Title: President
 Date: 9/10/2021

Materials Quote**Quote # 0002158**

Bedford County GPON Build 2022

6/24/2021

| Quantity | Item # | Description | Price Each | Price |
|-----------------|---------------|---|-------------------|------------------------|
| 398 | 3106407 | Grommet Kit | \$ 39.14 | \$ 15,577.72 |
| 20 | 3106406 | End of Line Grommet Kit | \$ 45.87 | \$ 917.40 |
| 2576 | 20567 | (G6) Splice Trays | \$ 52.82 | \$ 136,064.32 |
| 3428 | 31000240 | Cable Coil Storage Bracket | \$ 38.42 | \$ 131,703.76 |
| 3445 | 6018090 | Closure Mounting Bracket | \$ 65.78 | \$ 226,612.10 |
| 3445 | 18110000 | Splice Enclosures | \$ 237.51 | \$ 818,221.95 |
| 1 | | Special Handle Shipping | \$ 3,979.95 | \$ 3,979.95 |
| Sub | | | | \$ 1,333,077.20 |
| 74 | 12587-OLT | OLT Terminal | \$ 2,989.75 | \$ 221,241.50 |
| 77 | 12592-RTR | Edge Router | \$ 1,279.88 | \$ 98,550.76 |
| 150 | 18536-UPS | Battery UPS | \$ 844.56 | \$ 126,684.00 |
| 77 | 12514-SWT | Edge 10G Swith | \$ 1,474.21 | \$ 113,514.17 |
| 1174 | 12526-TRS | Point to MultiPoint Transceiver | \$ 89.78 | \$ 105,401.72 |
| Sub | | | | \$ 665,392.15 |
| 9722 | 1211009 | Grade Level Box, 11x11x12 BULK Utilities 24x36x24 SHIELD Lid | \$ 85.85 | \$ 834,633.70 |
| 4615 | 243624 | (TIER 22) | \$ 624.58 | \$ 2,882,436.70 |
| Sub | | | | \$ 3,717,070.40 |
| | | Fiber Average Composite STR | | |
| 2598606 | | SJSA All Counts | \$ 1.04 | \$ 2,700,963.73 |
| Sub | | | | \$ 2,700,963.73 |
| Total | | | | \$ 8,416,503.48 |

Form 477 Filing Summary

FRN:
0029764370Data as of:
Jun 30, 2021Operations:
Non-ILECSubmission Status:
Revised - SubmittedLast Updated:
Sep 13, 2021 05:08
PM

Filer Identification

| Section | Field | Response |
|--|-----------------------------------|-------------------|
| Filer Information | Company Name | ZITEL LLC |
| | Holding Company Name | ZITEL LLC |
| | Filing Type | Non-ILEC |
| | SAC ID | N/A |
| | 499 ID | N/A |
| Data Contact Information | Data Contact Name | Brandon Camden |
| | Data Contact Phone Number | (540) 328-1970 |
| | Data Contact E-mail | bcamden@zitel.com |
| Emergency Operations Contact Information | Emergency Operations Name | Brandon Camden |
| | Emergency Operations Phone Number | (540) 328-1970 |
| | Emergency Operations E-mail | bcamden@zitel.com |
| Certifying Official Contact Information | Certifying Official Name | Brandon Camden |
| | Certifying Official Phone Number | (540) 461-0800 |
| | Certifying Official E-mail | bcamden@zitel.com |

Data Submitted

| Form Section | File Name | Date & Time | Number of Rows |
|------------------------------|--|-----------------------|----------------|
| Fixed Broadband Deployment | Fixed Broadband Deployment June 30 2021.txt | Sep 13, 2021 05:07 PM | 31 |
| Fixed Broadband Subscription | Fixed Broadband Subscription Data June 30 2021.txt | Sep 13, 2021 05:07 PM | 4 |
| Fixed Voice Subscription | Fixed Voice Subscription Data June 30 2021.txt | Sep 13, 2021 05:07 PM | 3 |

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

| State | DBA Name | Technology | Blocks |
|-------|----------|------------|--------|
|-------|----------|------------|--------|

| State | DBA Name | Technology | Blocks |
|--------------|----------|---------------------------------------|-----------|
| Virginia | ZiTEL | Optical Carrier/Fiber to the End User | 31 |
| Total | | | 31 |

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

| State | Technology | Census Tracts | Subscriptions | | |
|--------------|---------------------------------------|---------------|---------------|----------------|-----------|
| | | | Consumer | Business/Govt. | Total |
| Virginia | Optical Carrier/Fiber to the End User | 4 | 76 | 8 | 84 |
| Total | | 4 | 76 | 8 | 84 |

Fixed Broadband Subscriptions by Bandwidths and End User Type

| Downstream Bandwidth (in Mbps) | Upstream Bandwidth (in Mbps) | Consumer | Business/Govt. | Total |
|--------------------------------|------------------------------|-----------|----------------|-----------|
| 1,000.000 | 1,000.000 | 76 | 8 | 84 |
| Total | | 76 | 8 | 84 |

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

| Technology | Downstream Bandwidth (in Mbps) | Upstream Bandwidth (in Mbps) | Consumer | Business/Govt. | Total |
|---------------------------------------|--------------------------------|------------------------------|-----------|----------------|-----------|
| Optical Carrier/Fiber to the End User | 1,000.000 | 1,000.000 | 76 | 8 | 84 |
| Total | | | 76 | 8 | 84 |

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

| State | Total VGE Lines | Consumer VGE Lines | Total VoIP Subscriptions | Consumer VoIP Subscriptions |
|--------------|-----------------|--------------------|--------------------------|-----------------------------|
| Virginia | 0 | 0 | 31 | 0 |
| Total | 0 | 0 | 31 | 0 |

Fixed Voice Subscription (iVoIP)

Over-the-Top VoIP Subscriptions by State and End User Type

| State | Total | Consumer | Business/Govt. |
|--------------|----------|----------|----------------|
| Virginia | 0 | 0 | 0 |
| Total | 0 | 0 | 0 |

All Other VoIP Subscriptions by State, End User Type, Bundle and Last-Mile Medium

| State | Total | by End User Type | | by Bundle | | by Last-Mile Medium | | | |
|----------|-------|------------------|----------------|------------------|-------------------|---------------------|------|----------------|--------|
| | | Consumer | Business/Govt. | Sold w/ Internet | Sold w/o Internet | FTTP | Coax | Fixed Wireless | Copper |
| Virginia | 31 | 0 | 31 | 31 | 0 | 31 | 0 | 0 | 0 |
| Total | 31 | 0 | 31 | 31 | 0 | 31 | 0 | 0 | 0 |

Reminder: You must continue to use Census 2010 geographic codes in FCC Form 477.

For help or assistance, please contact (877) 480-3201 or (717) 338-2834 (TTY) or you may submit an [online e-support ticket](#).

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[TTY: 1-888-835-5322](tel:1-888-835-5322)

[Videophone: 1-844-432-2275](tel:1-844-432-2275)

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Public Safety

Wireless

Wireline

Offices

Form 477 Filing Summary

FRN:
0029764370

Data as of:
Dec 31, 2020

Operations:
Non-ILEC

Submission Status:
Original - Submitted

Last Updated:
May 13, 2021 01:18
PM

Filer Identification

| Section | Field | Response |
|--|-----------------------------------|-------------------|
| Filer Information | Company Name | ZITEL LLC |
| | Holding Company Name | ZITEL LLC |
| | Filing Type | Non-ILEC |
| | SAC ID | N/A |
| | 499 ID | N/A |
| Data Contact Information | Data Contact Name | Brandon Camden |
| | Data Contact Phone Number | (540) 461-0800 |
| | Data Contact E-mail | bcamden@zitel.com |
| Emergency Operations Contact Information | Emergency Operations Name | Brandon Camden |
| | Emergency Operations Phone Number | (540) 461-0800 |
| | Emergency Operations E-mail | bcamden@zitel.com |
| Certifying Official Contact Information | Certifying Official Name | Brandon Camden |
| | Certifying Official Phone Number | (540) 461-0800 |
| | Certifying Official E-mail | bcamden@zitel.com |

Data Submitted

| Form Section | File Name | Date & Time | Number of Rows |
|------------------------------|---|-----------------------|----------------|
| Fixed Broadband Deployment | Fixed Broadband Deployment Dec 31 2020.txt | May 13, 2021 01:06 PM | 2 |
| Fixed Broadband Subscription | Fixed Broadband Subscription Data Dec 31 2020.txt | May 13, 2021 01:09 PM | 1 |
| Fixed Voice Subscription | Fixed Voice Subscription Data Dec 31 2020.txt | May 13, 2021 01:11 PM | 1 |

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

| State | DBA Name | Technology | Blocks |
|-------|----------|------------|--------|
|-------|----------|------------|--------|

| State | DBA Name | Technology | Blocks |
|--------------|----------|---------------------------------------|----------|
| Virginia | ZiTEL | Optical Carrier/Fiber to the End User | 2 |
| Total | | | 2 |

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

| State | Technology | Census Tracts | Subscriptions | | |
|--------------|---------------------------------------|---------------|---------------|----------------|----------|
| | | | Consumer | Business/Govt. | Total |
| Virginia | Optical Carrier/Fiber to the End User | 1 | 0 | 4 | 4 |
| Total | | 1 | 0 | 4 | 4 |

Fixed Broadband Subscriptions by Bandwidths and End User Type

| Downstream Bandwidth (in Mbps) | Upstream Bandwidth (in Mbps) | Consumer | Business/Govt. | Total |
|--------------------------------|------------------------------|----------|----------------|----------|
| 200.000 | 200.000 | 0 | 4 | 4 |
| Total | | 0 | 4 | 4 |

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

| Technology | Downstream Bandwidth (in Mbps) | Upstream Bandwidth (in Mbps) | Consumer | Business/Govt. | Total |
|---------------------------------------|--------------------------------|------------------------------|----------|----------------|----------|
| Optical Carrier/Fiber to the End User | 200.000 | 200.000 | 0 | 4 | 4 |
| Total | | | 0 | 4 | 4 |

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

| State | Total VGE Lines | Consumer VGE Lines | Total VoIP Subscriptions | Consumer VoIP Subscriptions |
|--------------|-----------------|--------------------|--------------------------|-----------------------------|
| Virginia | 0 | 0 | 16 | 0 |
| Total | | 0 | 16 | 0 |

Fixed Voice Subscription (iVoIP)

Over-the-Top VoIP Subscriptions by State and End User Type

| State | Total | Consumer | Business/Govt. |
|--------------|-------|----------|----------------|
| Virginia | 0 | 0 | 0 |
| Total | | 0 | 0 |

All Other VoIP Subscriptions by State, End User Type, Bundle and Last-Mile Medium

| State | Total | by End User Type | | by Bundle | | by Last-Mile Medium | | | |
|----------|-------|------------------|----------------|------------------|-------------------|---------------------|------|----------------|--------|
| | | Consumer | Business/Govt. | Sold w/ Internet | Sold w/o Internet | FTTP | Coax | Fixed Wireless | Copper |
| Virginia | 16 | 0 | 16 | 16 | 0 | 16 | 0 | 0 | 0 |
| Total | 16 | 0 | 16 | 16 | 0 | 16 | 0 | 0 | 0 |

Reminder: You must continue to use Census 2010 geographic codes in FCC Form 477.

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Public Safety

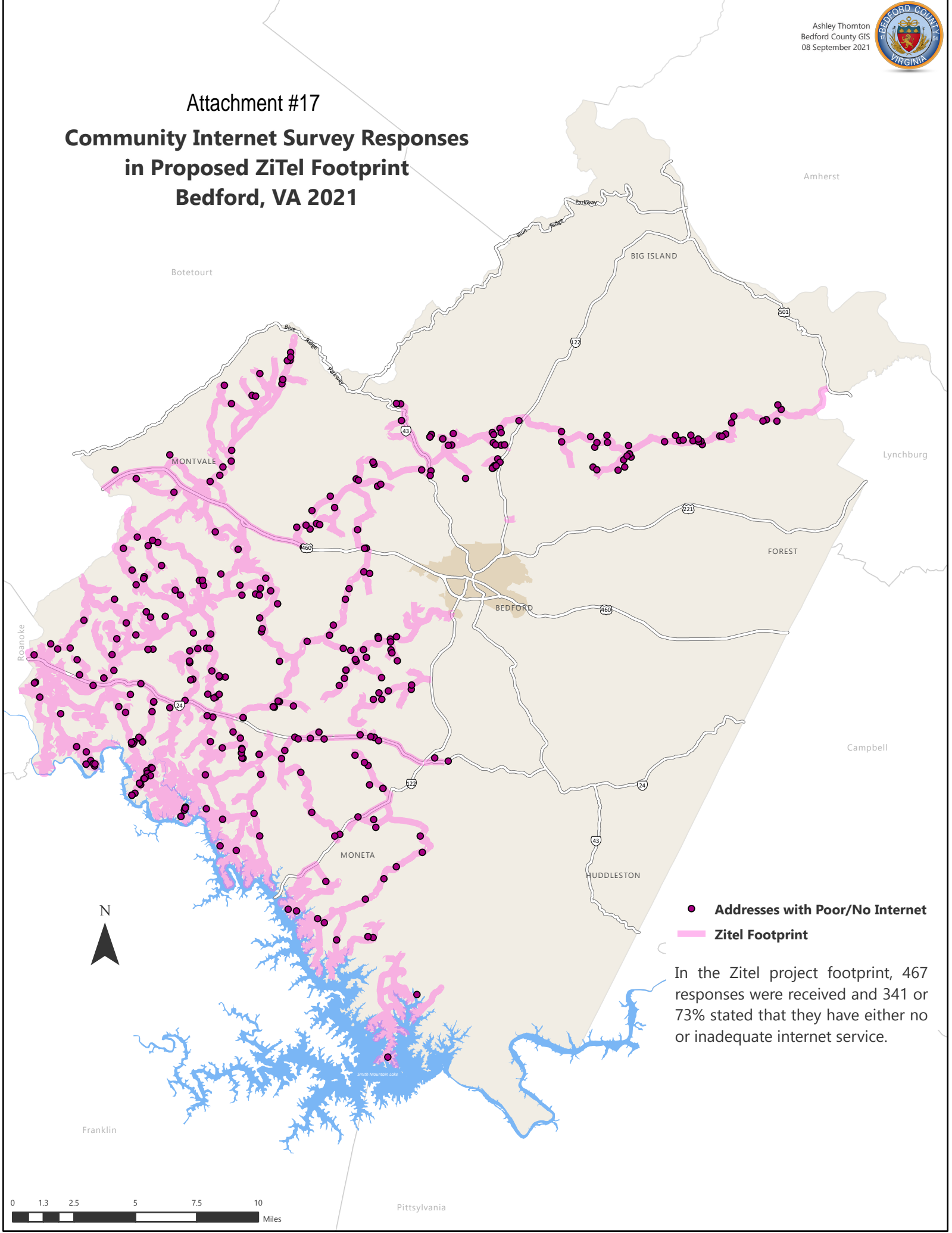
Wireless

Wireline

Offices



Attachment #17 Community Internet Survey Responses in Proposed Zitel Footprint Bedford, VA 2021

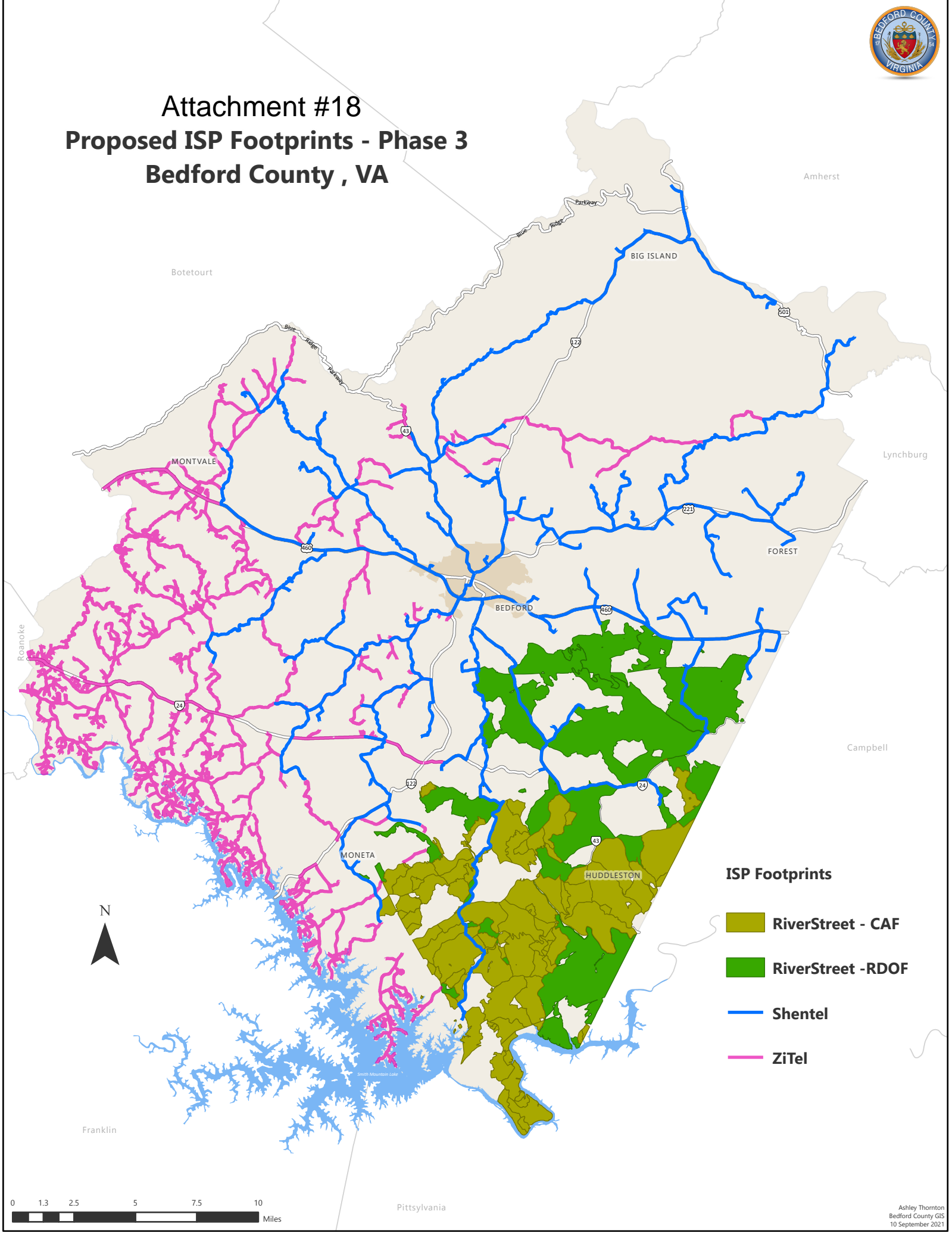


- **Addresses with Poor/No Internet**
- **Zitel Footprint**

In the Zitel project footprint, 467 responses were received and 341 or 73% stated that they have either no or inadequate internet service.



Attachment #18 Proposed ISP Footprints - Phase 3 Bedford County, VA



- ISP Footprints**
- RiverStreet - CAF
 - RiverStreet - RDOF
 - Shentel
 - ZiTel

Attachment 20

Bedford County GIS created the following story map to aide in understanding the proposed project scope to achieve universal broadband.

<https://arcg.is/19vzy40>

The story map shows the proposed broadband coverage to the block group level and has the following illustrations:

FCC broadband score

Community anchors

Agriculture impact

Citizen feedback

Educational attainment

Median household income

Poverty level

We believe this story map will be helpful in illustrating how the goal of universal broadband coverage is achieving digital equity in Bedford County.

Attachment 20 – ZiTel

Narrative Question 19

Commonwealth Priorities

- 1) Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:
 - a) *Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.*
 - b) *Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.*
 - c) *Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.*

- a) Access to quality broadband internet services in rural areas like Bedford County is a significant economic development tool for small businesses, farmers and ranchers, and community anchors, driving innovation, cost reductions, and market expansion. Broadband also fosters economic development by enabling telecommuting, e-education, and telemedicine in these areas, an even more pronounced reality during the pandemic. Bedford Economic Development Director Pam Bailey insists, when attracting businesses to the county, broadband is a critical part of the infrastructure companies expect to have readily available. Bedford County is one of the fastest growing localities in Virginia, yet only certain pockets are available to be developed for business due to lack of quality in high-speed internet. This applies to a major sector of the economy for both the Commonwealth and the County: agriculture. Owner and operator of Wilmont Farms and Bedford Agricultural Extension Agent W.P. Johnson contends the County’s producers need the ability to use the latest technology to be successful – whether it is checking the price of a commodity, marketing their products online (locally, nationally, and globally), purchasing livestock through an online sale, or participating in an online seminar, broadband internet is crucial for today’s modern agriculture business. Not having reliable, high-speed internet connectivity places rural farmers and ranchers, like all other small businesses, at a significant disadvantage. According to Fire and EMS Chief Jack Jones, the benefits of reliable broadband for first responders include being able to use mobile data terminals in public safety vehicles to provide real-time call date and reporting, as well as allowing for mapping functions. It also allows members in vehicles to perform license and record checks and complete reports. EMS agencies may transmit and submit their reports and EKG tracings directly to the hospital. For a more detailed and enhanced visual illustration the lack of high-speed, reliable internet connectivity on other community anchors and impacted passings in these project areas of the county, please click the link to the provided Story Map. (Carl’s link here once completed for low income, community anchors, etc.) Need to highlight any significant churches and fire departments in the story

map that will be served by these projects.

- b) The importance of Virginia's Community College system cannot be overstated. That certainly applies to CVCC's Bedford's campus. According to CVCC President, Dr. John Capps, during spring 2020, CVCC was forced to suspend all face-to-face programming and move all its courses and services to a remote environment. Those with access to broadband were able to continue their educations; those who lacked access were relegated to patching together temporary access points or, worse, abandoning their education altogether. The statistics speak for themselves. Enrollments at CVCC among Bedford County students fell from 948 in fall 2019—a pre-pandemic period—to 768 in fall 2020 when the college was still operating primarily in a virtual environment. Enrollments still haven't recovered, for Bedford County students' number 702 in fall 2021. Dr. Capps insists limited access to broadband and technology was a major factor. The inequities stemming from uneven access to broadband are especially detrimental to students from underserved populations, who already face significant barriers to their education. That is an issue of special import at CVCC. Of the 31,206 households in Bedford County, 46%—almost half—fall below the United Way's ALICE (Asset Limited Income Constrained Employed) threshold. That statistic reflects the percentage of county residents who live in poverty or who qualify as the working poor (<https://unitedforalice.org/virginia>). Of the 1,968 African American households in the county, 60% fall below the ALICE threshold (<https://unitedforalice.org/demographics/virginia>). Please see Dr. Capps' letter to understand his immense support for this grant and the proposed project. Bedford County has also partnered with the County School System and Library system to help fund more technology dependent programming for students and patrons. From learning devices, to hotspots, and eBooks, the County has been a willing partner to bring new products to those who utilize educational services. Finally, Bedford County has been working with three Internet Service Providers to further expand broadband in the community.
- c) For decades digital technology equity, more specifically the lack thereof, has negatively impacted minority students, low-income families, and rural student populations in disproportionate numbers. This digital and technology divide exists in the Commonwealth as well as Bedford County. If our project is approved, the County and respective ISP partners will each engage in extensive community outreach efforts, identifying low-to moderate-income households to ensure they know to take advantage of affordably priced, high-quality broadband. The project will ensure that all residents in this project area can telework and participate in distance-learning, so that no child or family continues to be disadvantaged. Bedford County provides digital literacy programs through its library system. According to Director of Bedford's Public Library System, Jenny Novalis, during the pandemic, but certainly not limited to this period, few community anchors have proven as indispensable as public libraries. Thousands of county residents rely on our library system as a technology hub for educational access, but also employment updates and other essential government services. The Library's WIFI usage increased at all

six county facilities from the pre-pandemic year, 2019, to the pandemic year 2020 and has remained high. Further, this indicator of community need increased almost 200% in some of our most rural libraries. As part of its digital literacy program, BPLS began purchasing e-book collections 10 years ago and now spends about 1/3 of its overall book budget on these digital resources. E-books offer not only instantaneous access to reading and educational materials from a home Internet connection, but they are also a touchless, COVID-friendly way to continue learning. Without a home Internet connection this literacy option is unavailable to our citizens. Bedford County Public Schools' students have been directly affected by the lack of broadband connectivity in many parts of the county prior to and during the pandemic. Bedford is in the fifth year of a 1:1 device program in grades 6-12, with currently over 13,000 Chromebooks available for student use. These devices are crucial for continuity of instruction for in-person and remote learning formats. In 2020-2021, over 20% of BCPS students opted for remote learning. While that number is significantly lower this year, much of the schoolwork is assigned electronically. These computer devices have very little benefit without internet access, and in approximately 30% of Bedford County homes, access is poor or non-existent, again demonstrating how low- and moderate-income households stand to benefit by having quality, high-speed internet connectivity. According to County Social Services Director, Andrew Crawford, all Virginia Department of Social Services computer systems are now web based, making broadband internet critical infrastructure for both citizens and staff. Bedford's citizens use the internet to apply for benefits, report changes, and to communicate with Social Services staff either by email or video calls. Citizens need access to the quality internet to find resources for their family, to apply for jobs, and to have access to training. Similarly Social Services staff need access to quality internet to complete their work in the field or when teleworking, which became far more prevalent during the throes of the pandemic but continues to be a major issue.