

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Application ID: 86508262021104830
Application Status: Incomplete
Program Name: Virginia Telecommunications Initiative 2022
Organization Name: Hanover County
Organization Address:

Profile Manager Name: Kevin Nelson
Profile Manager Phone: (804) 365-6168
Profile Manager Email: knelson@hanovercounty.gov

Project Name: Hanover County 2022 Accelerated Universal Fiber Deployment Initiative
Project Contact Name: Kevin Nelson
Project Contact Phone: (804) 365-6168
Project Contact Email: knelson@hanovercounty.gov
Project Location: 7516 County Complex Road
Hanover, VA 23069-1530
Project Service Area: Hanover County

Total Requested Amount: \$14,430,100.00
Required Annual Audit Status: No Current Audits Found

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$14,430,100.00	\$45,776,006.88	\$60,206,106.88
Construction	\$11,106,043.39	\$42,199,920.26	\$53,305,963.65
Construction Related Soft Costs	\$2,824,792.61	\$2,824,792.61	\$5,649,585.22
Other: Other CAPEX	\$499,264.00	\$751,294.01	\$1,250,558.01
Total:	\$14,430,100.00	\$45,776,006.88	\$60,206,106.88

Budget Narrative:

This application seeks \$14,430,100 in VATI funds to support deployment of a broadband network to achieve universal coverage in Hanover County.

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 application for Hanover County is for the Hanover County 2022 Accelerated Universal Fiber Deployment Initiative (“Initiative”) and is submitted by Hanover County (“County”) and All Points Broadband (“APB” or “All Points”), as applicant and co-applicant, respectively.

The attached map and shape files demonstrate the specific boundaries of the proposed project area.

In October 2019, the County’s Board of Supervisors appointed a citizens committee to develop a broadband plan that would address the County’s unserved areas. That Blueprint to Broadband Internet Plan (see attachment 19) was adopted in December 2020. This Plan identified 11 strategies to achieve universal broadband coverage in the County. The County has been pursuing many of the recommendations in the Plan, including dedicating staff resources, working with regional groups, issuing a number of communication related resources, partnering with a company to design and implement a broadband solution, leveraging the County’s tower infrastructure, and pursuing State, federal, and private funding to enhance broadband across the County.

In March of 2021, the County issued an RFP to select an Internet service provider to develop an engineering plan and implementation timeline to achieve universal broadband access in the County, and to provide assistance to obtaining required VATI and other grant funding to deploy the related network. APB’s responded to the RFP with a proposal to deploy universal fiber-to-the-home in partnership with its electric utility middle mile partners, Dominion Energy Virginia (“Dominion”) and Rappahannock Electric Cooperative (“REC”) (see attachment 8).

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

In June of 2021, after a competitive selection process, the County selected All Points as its ISP partner and the County and All Points entered into a related Broadband Partnership Agreement (see attachment 8), through which the County engaged All Points as a broadband deployment partner to pursue broadband deployment for all areas of the County that are unserved by broadband.

In June of 2021, the County, All Points and Dominion entered into a Memorandum of Understanding (see attachment 8) pursuant to which All Points assumed primary responsibility for developing a VATI-eligible network that would offer FTTH service to all locations within the County that are unserved by broadband.

From June of 2021 until the date of this application, APB and a team of senior County personnel have held routine coordination meetings to refine the proposed project.

To determine the proposed project area, All Points' field teams visited and visually inspected all areas within the County where incumbent wireline providers are not offering service. Specifically, All Points personnel visited all of the areas proposed to be served by the project to verify that each such area is not currently served by wireline technology (cable or fiber) that is capable of providing 25/3 service. All Points' preliminary analysis was reviewed by the County and compared to County information gathered from previous studies and analysis.

Jointly, the County and All Points then published a map of the proposed service area and an online survey which residents and property owners could complete to verify whether a specific location was served or unserved by broadband. More than 3,000 online surveys were completed by residents and property owners and the survey data was used to refine the proposed service area and to ensure that the unserved locations in the County will be included in the proposed project.

The project will extend FTTH infrastructure so that broadband service will be made available to 7,235 discrete locations in the County. On the basis of the extensive field inspections, comparisons to County data, and the online survey results, the County and All Points agree that the proposed project area will provide broadband access to all of the locations in the County that remain unserved by cable or FTTH broadband as of the date of this application. The primary reason why the proposed project area was selected is because the proposed project area includes all the remaining unserved locations in the County.

A secondary reason why the proposed project area was selected is because it is an ideal area in which partnerships with electric utilities can make FTTH broadband available. Approximately 50% of the project area is within Dominion's electric service area, and Dominion is participating in this project pursuant to Virginia Code §56-585.1:9, as amended,

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

(the "Utility Leverage Statute").

The remaining 50% of the project area is within REC's electric service area. REC is building its Fiber Utility Network to replace 30-year-old microwave communications between each of its offices and key devices on its electric grid. REC's Fiber Utility Network is being installed on REC's existing infrastructure such as poles and related equipment. The design for REC's Fiber Utility Network includes additional strands of fiber within its core routes to support All Points extension of last mile FTTH to currently unserved areas within the proposed project area.

The project area includes approximately 3,155 Low or Moderate Income ("LMI") households. To determine the LMI household count, the County and APB analyzed the currently available U.S. Census data for the proposed project area by Census tracts. LMI households account for approximately 43% of all households in the proposed project area, 23% of which are considered low income and 20% are considered moderate income. The project will therefore have a significant benefit by making high quality broadband available to 3,155 LMI households, which is the total number of remaining unserved LMI households in the County.

A map of the project area is attached as Attachment 1.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

There are three wireline broadband providers in the County: Comcast, which has a franchise agreement with the County, Verizon and Lumen.

All Points has visited each area proposed to be served by the project to visually verify that wireline broadband does not exist at the locations in these areas

The proposed project area contains those communities and neighborhoods where Comcast has determined it is not required to complete network buildout under the thresholds in the County's franchise agreement.

The proposed project area does not contain any areas where Verizon offers fiber-optic broadband service and the County has confirmed with Verizon that Verizon does not intend to challenge this application.

The proposed project area includes areas within Lumen's footprint. Lumen has provided the County with the specific locations within its footprint where Lumen claims to offer DSL service with download speeds of 40mbps or greater.

There is no fixed wireless provider offering service in the proposed project area.

On July 15, 2021, All Points submitted a petition to DHCD to have the entire proposed project area designated as unserved by broadband under the Utility Leverage Statute. Under the DHCD guidelines for the Utility Leverage program, any provider has the ability to provide evidence that they already offer service within the proposed project area. A final determination on the petition submitted in July is pending as of the date of this application.

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:

The Maps attached in Attachment 2 demonstrate that Lumen (formerly Centurylink, Inc.) received CAF II funding to provide 10/1 broadband in areas near and within the proposed project area.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

Attachment 3 shows a map of the project area and the areas where other providers are the provisional RDOF winners. An estimated 1,651 locations in the project were provisionally awarded to RDOF bidders other than APB.

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:

As noted above, All Points conducted extensive field surveys in each portion of the project area to determine unserved areas. All Points visited and visually inspected the areas proposed to be served by the project to verify they are not currently served by wireline technology (cable or fiber) that is capable of providing 25/3 service.

Neither All Points nor the County were able to field-verify that any fixed wireless provider offers speeds of 25/3 in any of the areas to be served by the project. None of the locations in the proposed project area that completed the broadband survey used to confirm the proposed project area indicated the ability to subscribe to fixed wireless service of 25/3 or greater.

These areas where All Points completed its field surveys were mapped to determine the project area and compared to data available and supplied by the County.

Lumen provided the County with 997 locations within the County where it claims to offer DSL service capable of offering 40mbps download or greater. Only 458 of these locations, representing 6.3% of all locations within the project area, are locations where Lumen claims to offer qualifying DSL service. Because these locations represent less than 10% of all locations within the proposed project area, the proposed project area is unserved according to VATI guidelines.

The map of currently served areas in the County is included as Attachment 4.

Despite our extensive efforts to verify the unserved status of these areas, it is possible that a small number of locations were incorrectly identified as unserved. In the unlikely event that the Utility Leverage challenge process demonstrates that more than 10% of locations within the proposed service area are already served by broadband, the project scope will be modified by the County and All Points as required by VATI and Utility Leverage program rules.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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.
- a. 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)
 - b. 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.
 - c. 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.
 - d. 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.
 - e. 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. To determine the number of residential, business, non-residential and community anchor institutions in the proposed project area, each of the 7,253 locations in the projec area was cross-referenced with parcel-specific land use data in the County's GIS database. This process resulted in 7,148 passings categorized as residential, 44 passings categorized as non-home based businesses, 741 residential passings where a home based business was located, 8 community anchor institutions, and 342 passings categorized as non-residential.

Among the business passings in the proposed project area are 107 active farms, Montpelier Food Lion, CVS Shopping Center, Montpelier Veterinary Hospital, Hollows Golf Club, Scotchtown Historic Site, Ashland Berry Farm, Ashland Roller Mill, Camp Hanover, and Cavalier Gun Club.

The community anchors in the proposed project area are Hanover Fire EMS Station 8, Hanover Fire EMS Station 2, West Hanover Volunteer Fire Department, the Old Church Community Center, the Montpelier Community Center, the Rockville Community Center, the Montpelier Branch Library, the Montpelier Center for Arts & Education.

b.

APB did not receive RDOF funding in any portion of the project area.

c.

None of the passings included in the proposed project area will require special construction costs. For the first twelve months after service is available at any location within the proposed project, All Points' standard installation fee of \$199.00 will include any length of service drop required to make service available to that location. Therefore, as All

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Points has confirmed with DHCD during the technical assistance process prior to submission of this application, all of the passings within the proposed service area will be considered serviceable units.

d.

As noted above, for the first twelve months after service is available at any location within the proposed project, All Points' standard installation fee of \$199.00 will include any length of service drop required to make service available to that location. All Points' detailed design for the project calculated the projected service drop length for all locations in the proposed project area and the average drop length used to determine the project budget is based on the weighted average drop length indicated by the project design.

e.

It is estimated that 2,322 of the passings in the proposed project area lack access to service of at least 10/1 Mbps. To determine the number of passings currently served by service of 10/1 or greater service, All Points compared each of the passings in the project to the most recent Form 477 data available from the Federal Communications Commission and conducted availability searches online.

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:

Not applicable as this is a FTTH project.

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:

The last-mile FTTH network will offer four speed tiers that are fully symmetrical: 50/50 Mbps, 100/100 Mbps, 500/500 Mbps, and 1/1 Gbps, with no data caps. The intended monthly pricing for these plans is \$59.99, \$79.99, \$99.99, and \$119.99, respectively, with a flat \$5 service fee to cover applicable taxes and FCC fees.

Customers will also have the ability to subscribe to VOIP phone service with multiple calling features and local and continental US long distance calls included for an additional \$14.99 per month.

Because the project is a FTTH network, the only locations sharing of bandwidth may occur are at a fiber concentration cabinet or at the network core. All Points has planned more than adequate capacity to consistently deliver advertised speeds to all customers.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

The project is a new FTTH deployment that will make FTTH service available to currently unserved locations in the County. The network includes approximately 595 miles of distribution fiber, of which approximately 42 miles consist of routes within REC's Fiber Utility Network. Approximately 441 miles will be built by All Points and approximately 112 miles will be built by Dominion pursuant to the Utility Leverage Statute. The final mileage to be constructed by Dominion is contingent of approval of Dominion's related petition to be submitted to the State Corporation Commission ("SCC") under the Utility Leverage Statute. As indicated in its letter included in Attachment 13, Tilson Technology Management, Inc. has assisted All Points with the planning and design of this network, and preparation of indicative bills of materials, and related cost estimates.

At completion, the network will include 3 upstream connection points to All Points' network core in the data center cluster in Ashburn, Virginia and 2 independent connections to All Points' redundant network core in the Cermak data center in Chicago, Illinois.

All existing and new fiber distribution infrastructure will use all-dielectric self-supporting ("ADSS") fiber cable, with AFL Telecommunications ("AFL") as the principal cable manufacturer. Because ADSS cable is fully self-supporting and requires no messenger wire, it can be installed in a single pass, resulting in lower construction costs and more rapid deployment timeframes. ADSS is optimized for deployments on electric utility poles and infrastructure and can be placed in closer proximity to conductors, which reduces pole make ready expense. The project will use cables of various strand counts, generally ranging from 24 to 288 strands, depending on the specific network segment. As indicated in the letter included in Attachment 13, AFL, APB's primary supplier of fiber optic cables, connectors, terminals, and related hardware, has allocated committed manufacturing capacity to support APB's materials requirements and specific schedule for this project.

The network will include approximately 5 fiber feeder hubs and approximately 28 fiber distribution hubs. Service drops will be made to one of approximately 1,469 fiber distribution terminals. Fiber distribution terminals will be AFL Titan Ready-to-Deploy Multipoint Terminals in multiple sizes depending on location and network requirements.

Service drops will be made using AFL Trident hardened drop cables.

All customer premises equipment, including optical network terminals and Wi-Fi internet access gateways will be from the Calix ecosystem of products.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

All network optronics will use the XGS-PON (ITU G.9807.1) architecture, which is capable of delivering 10 gigabit, symmetric service, to all end users.

The network has been designed to be scalable and expandable to meet future needs as new locations are built within the project area and as end user demands require higher bandwidth connections.

For example, throughout all distribution routes, a minimum of 12 fiber strands will be reserved to accommodate future needs. This will ensure sufficient distribution capacity so that no additional fiber routes would need to be constructed to offer service to any new locations built in the proposed project area after project completion.

At all feeder and distribution hubs, sufficient capacity has been reserved to enable the network to be upgraded to offer 10 gigabit, symmetric service, to all end users on the network in the future as consumer demands require higher bandwidth connections. All distribution terminals have been sized to accommodate additional connections in the future to accommodate new and in-fill development without requiring additional splicing.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

Achieving universal broadband access has been a long-term objective of the County.

In October 2019, the County's Board of Supervisors appointed a citizens committee to develop a broadband plan that would address the County's unserved areas. That Blueprint to Broadband Internet Plan (see attachment 19) was adopted in December, 2020. This Plan identified 11 strategies to achieve universal broadband coverage in the County. The County has been pursuing many of the recommendations in the Plan, including dedicating staff resources, working with regional groups, issuing a number of communication related resources, partnering with a company to design and implement a broadband solution, leveraging the County's tower infrastructure, and pursuing State, federal, and private funding to enhance broadband across the County.

In March of 2021, the County issued an RFP to select an Internet service provider to develop an engineering plan and implementation timeline to achieve universal broadband access in the County, and to provide assistance to obtaining required VATI and other grant funding to deploy the related network. After a competitive selection process, APB was selected as the County's partner to achieve universal broadband in the County.

As discussed above, the County and All Points have undertaken extensive field inspections, franchisee network review, and provider and community outreach to ensure that all remaining unserved locations in the County are included in the proposed project area. All Points' field teams visited and visually inspected all areas within the County where the incumbent cable provider is not offering service and verified that each such area is not currently served by wireline technology (cable or fiber) that is capable of providing 25/3 Mbps service. All Points' preliminary analysis was reviewed by the County and compared to County information gathered from previous studies and analysis.

All Points and the County then published a map of the proposed service area and an online survey which residents and property owners could complete to verify whether a specific location was served or unserved by broadband. The County and members of the Board of Supervisors publicized this survey through email communications and news coverage to ensure it was widely available. More than 3,000 online surveys were completed by residents and property owners and the survey data was used to refine the proposed service area and to ensure that the unserved locations in the County will be included in the proposed project.

Because this project includes all 7,235 locations in the County that remain unserved, completing the project will achieve universal broadband in the County.

11.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

In June of 2021, after a competitive selection process, the County selected APB as its ISP partner and the County and APB entered into a related BPA (see attachment 8), through which the County engaged APB as its broadband deployment partner to achieve universal coverage.

In June of 2021, the County, APB and Dominion entered into an MOU (Attachment 8) pursuant to which APB assumed primary responsibility for developing a VATI-eligible network that would offer FTTH service to all remaining unserved locations in the County.

From June of 2021 until the date of this application, APB and a team of senior County personnel have held routine coordination meetings to refine the proposed project.

In July and August of 2021, APB completed high-level network design for the project in collaboration with Dominion and REC, and the network design now incorporates those design consultations with Dominion and REC, including the specific routes to be constructed by Dominion and the portions of REC's network to be leveraged by APB's network. The high-level network design is now complete.

REC commenced construction of its Fiber Utility Network in late 2020 and is on schedule for completion by Q4 2022.

In July 2021, APB included the proposed project in a petition to DHD for a certification that the proposed project area is unserved for purposes of the Utility Leverage Statute. Upon receipt of DHCD's final determination regarding the Utility Leverage petition, APB and Dominion will finalize the petition to be submitted to the SCC.

In August of 2021, APB and REC agreed on the specific terms that will apply to APB's use of REC's Fiber Utility Network and commenced make-ready analysis for all fiber distribution routes proposed to be located on REC infrastructure. APB and REC have agreed on a timeframe for completing make-ready engineering and construction that will enable the project to be completed on the proposed timeframe.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Through our shared experience achieving SCC approval of Dominion's participation in the VATI-supported Northern Neck Initiative, APB and Dominion have developed a standard final design coordination process that runs concurrently with the SCC petition process. This approach reduces costs for APB and Dominion, ensures that all information required to be submitted to the SCC is available on the required timeframes, and enables network construction to begin immediately upon SCC approval of Dominion's petitions. APB commenced final design for this project in September and will complete final design during the pendency of the SCC petition.

Dominion and REC have assigned project managers who will lead their involvement in this project.

All Points and Dominion have an agreed form of fiber lease in place for the project.

As indicated in the letter included in Attachment 13, AFL Telecommunications, APB's cable manufacturer, has allocated committed manufacturing capacity to support APB's requirements and specific schedule for this project. By involving AFL in the design and fiber technology evaluation from the beginning, APB has ensured that the project will benefit from APB's strategic partnership with AFL, including firm pricing and dedicated manufacturing capacity. Further details from bills of materials and cost estimates are provided in Attachment 13.

Dominion is anticipated to initiate contact with potentially affected property owners regarding the project and commencing discussions regarding easements and related rights in Q3 2022. Because the project has been designed to place all new fiber distribution routes within public rights of way or within areas subject to existing easements held by the electric utilities, APB does not anticipate requiring a significant number of new easements.

Dominion will also be preparing needed environmental permits for its proposed routes during the pendency of the SCC petition. Provided the SCC petition is submitted and approved on the planned timeframe, APB and Dominion will both commence network construction in Q4 of 2022.

APB will construct its last-mile infrastructure concurrently with Dominion's construction and completion of related REC routes. APB will deploy, and provision service terminals and service drop in conjunction with Dominion's construction schedule so that end users can be connected to the network as soon as there is distribution fiber in place to connect their location to APB's network core.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Once construction has commenced, APB will be able to rapidly deliver service to customers who have pre-registered. The same survey that APB and the County made available for property owners to confirm whether their location was unserved by broadband also provided the option for owners of locations within the proposed project area to subscribe for updates regarding the project and to request to be contacted in advance of service availability. More than 3,000 online surveys have been completed by residents and property owners who have provided their contact information, pre-registered for service and requested to be contacted when service becomes available at their location.

To ensure the network is successfully and promptly used by presently unserved locations, APB will begin marketing the network to potential customers as soon as the SCC has ruled on the petition.

The County will serve as fiscal agent and administer VATI funds for the project. In accordance with the terms of the MOU that is already in place, upon receipt of a VATI award the County and APB will enter into a definitive agreement reflecting the terms of this application.

Because this project involves the coordination between APB and two electric utility providers, requires substantial electric utility infrastructure to be in place before last-mile deployments can begin, and requires that Dominion obtain SCC approval, substantial completion of the project will require 24 months from grant award and SCC approval.

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:

Hanover County has not received any funding from VATI grants.

All Points received a VATI grant in the 2021 application cycle for another project that will achieve universal FTTH access within a project area in four counties on Virginia's Northern Neck (the "Northern Neck Initiative"). Similar to the project proposed in this application, the Northern Neck Initiative was a partnership between All Points, Dominion, an electric cooperative (the Northern Neck Electric Cooperative) and participating counties, and Dominion's participation in the Northern Neck Initiative also required approval from the State Corporation Commission.

The SCC petition for approval of Dominion's participation in the Northern Neck Initiative was submitted in September of 2020, and the SCC's final order approving that project was issued in March of 2021.

Construction of fiber distribution routes for the Northern Neck Initiative commenced in July of 2021 and construction is now underway. Customer installations are on schedule to commence in December 2021, and the overall project is on schedule for completion in the third quarter of 2023.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

As set forth in Attachment 9, the total cost of the proposed project is \$60,206,107 and this application is requesting VATI funds in the amount of \$14,430,100 representing 24% of the total project cost. All Points will be responsible for providing \$24,311,007, representing 40.4% of the total project cost. The County is contributing \$15.84 million, representing 26.3% of the total project cost. Dominion is anticipated to invest \$5.625 million, representing 9.3% of total project cost, pending SCC approval of Dominion's participation in the project.

The County's commitment of \$15.84 million is reflected in the County's letter included in Attachment 10.

All Points's lead equity sponsor, Searchlight Capital Partners, has committed all required financing to complete the project, as demonstrated in the letter included in Attachment 10.

Dominion is providing support for the project through the Utility Leverage Program. Dominion has entered into an MOU with All Points and the County to submit its Utility Leverage Petition for this project (see Attachment 8) and has confirmed its participation pending final approval from the SCC (see Attachment 10). The project budget includes only that portion of Dominion's anticipated investment that will be allocated to broadband deployment.

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:

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

The County has previously invested \$75,000 to engage All Points to assist the County by comprehensively identifying all areas in the County that are not currently served by broadband, and to fund the development of the high level design for this project which forms the basis of this application.

The County has provided extensive in-kind support to the planning process that resulted in the proposed project. Since June of 2020, senior County personnel have participated in routine coordination meetings with the APB project team. The County has also agreed to provide all required support for the SCC Petition process on an in-kind basis and at no cost to the project.

The County will also administer the VATI grant funds and support project construction without charging administrative costs to the project.

The County will also assist All Points with all required permitting and easements at no cost to the project, providing additional leverage in the form of approximately \$100,000 in cost savings for the project.

All Points has dedicated a full-time sales manager who will oversee all marketing and adoption activities within the County and APB has allocated a \$400,000 marketing budget for the project in its first two years (which is not included in the project budget set forth in this application).

Dominion and REC have also participated in the planning process at no cost to the project.

By providing APB with access to its Utility Fiber Network, REC is providing leverage of in the form of \$1,452,500 in cost savings to the project.

Support from the County and electric utility partners will continue through final design and construction. The relevant County supervisors will participate in joint marketing events and public meetings to market the project and encourage adoption by their residents. Dominion and APB will each incur significant costs related to the SCC Petition Process, including legal fees and other related costs that are not included in the project construction costs.

The project will leverage APB's existing network core and related data-center infrastructure, as well as All Points's customer service, support, and billing functions.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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.

APB has already performed substantial marketing activities. The same survey that APB and the County made available to determine broadband availability provided the option for locations within the project area to subscribe for project updates and request to be contacted in advance of service availability. To date, more than 3,000 surveys were completed by residents who provided their contact information, pre-registered for service and requested to be contacted when service is available.

APB prepared an extensive marketing campaign to ensure that customers are connected to the network as soon as it is available. See Attachment 17.

APB has dedicated a sales manager to oversee marketing and adoption activities and allocated a \$400,000 marketing budget for the project in its first two years. This marketing budget is not included in the VATI project budget.

APB will also leverage REC customer marketing channels to reach potential customers, including direct communications to REC's members via email and mail, and use of REC's magazine, website and social media. All marketing will direct potential customers to APB's Crowd Fiber tool to preregister for service and to inform APB how to be contacted. APB will use this tool to accept pre-registrations from customers and to keep those customers informed regarding the deployment schedule, so that these customers will be ready to subscribe and receive service as soon as it is available.

APB and the County will conduct media events to keep media outlets informed about the project and generate media coverage to reinforce APB's direct marketing activities. As each area of the network is nearing completion, APB will use the preferred contact method selected by each pre-registered customer to inform them of their service availability date and to schedule installations.

All Points will provide and make resources available on the best practices from the National Digital Equity Center, the National Digital Inclusion Alliance, and NTIA's BroadbandUSA toolkits. Information regarding All Points' Digital

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Academy is described below and in Attachment 18.

90 days before service is available at a specific location, APB will send an additional series of direct mail to potential customers that have not pre-registered for service, and leverage REC's customer marketing channels to inform REC's members that have not pre-registered about the availability of service.

APB's marketing materials will also highlight APB's commitment, for the first 12 months after it is available, to provide service to any serviceable unit (regardless of service drop length) for the same one-time installation charge of \$199.00. This offering is projected to increase take rates.

In addition, All Points will continue to use its website and social media channels, billboards, and public meetings in conjunction with the County to market the project. As last-mile construction is completed in each area of the project, All Points will place door hangers at each serviceable location and yard signs in each serviceable neighborhood.

The County has also developed a Marketing Plan for its overall Connect Hanover Initiative (see Attachment 19).

As part of its Connect Hanover marketing plan, the County will distribute project information in its semi-annual Hanover Review print newsletter, which is distributed to 45,000 homes and business in the County. The County will also leverage its strong relationships with local newspapers to generate continue coverage and interest in Connect Hanover and this specific project. The County will also distribute an informational flyer regarding Connect Hanover and this project to various community centers and local libraries.

The County has already launched a series of community meetings to publicize the project and to ensure that all citizens know how to take advantage of Internet access and to subscribe to service, including by driving preregistrations to All Points' Crowd Fiber tool. The first of these meetings was held on September 2, 2021 at the Old Church Community Center, and was attended by 60 County residents. Future community meetings regarding the project are planned to be held at the Montpelier Community Center, Rockville Community Center and County Administration Building.

To project take rates for this project, a third party was commissioned to perform a residential survey and conjoint analysis, which was completed in June of 2021. Redacted excerpts from this third party analysis are attached as part of Attachment 17. As demonstrated in the attached excerpts, the analysis concluded that APB could achieve market share of broadband subscribers of 75%, 71%, and 95%, respectively, in various portions of the proposed project area, depending on whether the options currently available to consumers are (a) satellite and DSL, (b) DSL and fixed wireless, or (c) only satellite. APB has applied these projections across the proposed project to estimate a take rate of

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

75% for the project.

b.

All service offerings made available through this project will be eligible for the federal EBB program and future affordability programs available to LMI households.

For the first 12 months after service is available, APB will provide service drops to all passings, regardless of drop length, for the same fixed installation fee of \$199.

In order to ensure that high quality broadband is available to all currently unserved locations that are within the proposed project area, All Points has committed to maintain the 50/50 mbps service tier at the fixed price of \$59.99 for the life of the project. This rate will be indexed to inflation and will not increase in real terms.

The County's marketing plan (Attachment 19) is designed to educate citizens on options for Internet service providers and how to subscribe to these services.

All Points has developed a Digital Inclusion Academy through Google for Education (see Attachment 18), based on best practices and recommendation from the National Digital Equity Center, the National Digital Inclusion Alliance, and NTIA's BroadbandUSA toolkits, which includes courses such as "Use Digital Tools for Everyday Tasks", "Avoid Online Scams", "Build Healthy Digital Habits", "Edit Your Resume", and others of a similar nature. All Points will offer free access to this Academy.

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:

The following table depicts key members of the project team from the County, All Points, Dominion and REC:

Key Individual

Roles and Responsibilities

Previous Experience

Jimmy Carr

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

CEO, APB

See attachment 20

Sean Flora

Director of Fiber Construction, APB

See attachment 20

Brandon Ogilvie

CFO, APB

See attachment 20

Tom Innes

SVP of Public-Private Partnerships, APB

See attachment 20

Chuck Hogg

SVP of FTTH Deployments, APB

See attachment 20

Darren Glatt

Partner and Co-Head of Infrastructure Investing, Searchlight Capital Partners

See attachment 20

Ajit Pai

Partner, Searchlight Capital Partners

See attachment 20

Ed Diggs

Manager, Rural Broadband, Dominion

See attachment 20

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Mark Ponton

Director of Broadband and Fiber Services, Rappahannock Electric Cooperative

See attachment 20

Frank Harksen

Deputy County Administrator, Hanover County

See attachment 20

Kevin Nelson

IT Director, Hanover County

See attachment 20

Additional information on the project team is included in Attachment 20.

The County has significant experience in the successful management of grant projects. In FY21 alone, the County processed nearly \$40 million in grant funds for projects in many categories including the CARES Act, road construction, drug addiction treatment programs and many more. The County is an annual recipient of most of these grants, which is indicative of the scope of grant management Hanover routinely handles. Grant tracking and reporting processes are continually reviewed for improvements and efficiencies. Grant reporting to both state and federal agencies is a standard business activity for Hanover and Hanover has consistently received positive results on annual audits. Grants management and acceptance is included the financial policies adopted by the County's Board of Supervisors.

All Points Broadband is a highly successful rural broadband provider that operates last-mile fiber, fixed-wireless, and hybrid-fiber-wireless networks serving locations in Virginia, West Virginia, Maryland, and Kentucky. All Points has grown through acquisitions and organic network expansions and been named to Inc. magazine's list of America's 5000 fastest-growing companies in each of the last four years. All Points has successfully managed numerous rural broadband deployments in partnership with rural Counties, and it has managed the development of a similar multi-partner broadband initiative on the Northern Neck.

The company's senior managers hold leadership positions in our national industry association. All Points CEO is a member of Virginia's Broadband Advisory Council and has testified before the US Senate and Virginia General Assembly on rural broadband deployment strategies.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Searchlight Capital Partners is APB's lead equity sponsor. Searchlight is a private investment firm with over \$9 billion of assets under management with extensive expertise investing in the global telecommunications and media sectors. Over the last two years, Searchlight has invested in excess of \$1.25 billion in FTTH in the United States, making Searchlight the number one investor in domestic FTTH infrastructure in that period. And as of today, through its investments in All Points, Consolidated Communications and Zply Fiber, Searchlight is the fourth largest builder of FTTH passings in America. All Points benefits from the tremendous volume purchasing arrangements for Searchlight's portfolio companies, which ensure availability of required supply and the best available pricing.

Searchlight has deep familiarity with broadband markets and the associated competitive dynamics in the broader United States. Searchlight's leadership, both through their time at Searchlight and at previous investment firms, have also acquired multiple decades of experience investing specifically in fiber-based broadband businesses in the U.S. and globally, which has made it a core competency and strategic focus for the firm.

Additional letters of support are included as Attachment 11.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

As set forth in Attachment 12, the total cost of the proposed project is \$60,206,107 and this application is requesting VATI funds in the amount of \$14,430,100 million representing 24% of the total project cost. All Points will be responsible for providing \$24,311,007 million, representing 40.4% of the total project cost. The County is contributing \$15.84 million, representing 26.3% of the total project cost.

Dominion's anticipated investment of \$5.625 million includes only the portion of Dominion's cost that will be allocated to broadband.

The Derivation of Costs divides the project into the following categories: Final Design and Engineering, Project & Construction Management, Headed/Central Office, Field Network Equipment, Utility Middle Mile, Aerial Make Ready & Construction, Underground Construction, Fiber Drop Construction, Subscriber Equipment & Installation Labor, Other Capex and Construction Bond.

To develop the project budget, All Points prepared a high-level design for the project and developed an indicative bill of materials based on that design.

As part of APB's design and cost estimation process, All Points engaged Tilson Technology Management, Inc. ("Tilson") to supplement APB's internal engineering and design resources and to assist in the development of the high-level design and related bill of materials and cost estimates. Tilson is one of America's leading providers of consulting, design and construction management services to the telecommunications industry. As described in Tilson's letter included in Attachment 13, the cost estimates that form the basis of the project budget are based on Tilson's bill of materials and related cost estimates and reflect current pricing available to All Points.

All Points then obtained current pricing for each item on the bill of materials from its primary vendors, including AFL, APB's primary supplier of fiber optic cables, connectors, terminals, and related hardware. As described in AFL's letter included in Attachment 13, AFL provided the pricing used for all relevant cost categories included in the project budget and AFL has allocated committed manufacturing capacity to support APB's materials requirements and specific schedule for this project.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

- a. Total VATI funding request

- b. Number of serviceable units
(up to 125 points)

Answer:

a.

This application is requesting VATI funds in the amount of \$14,430,100.

b.

7,235

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:

a.

The project area includes 44 passings that are non-home based businesses and 8 community anchor institutions.

Among the business passings in the proposed project area are 107 active farms, Montpelier Food Lion, CVS Shopping Center, Montpelier Veterinary Hospital, Hollows Golf Club, Scotchtown Historic Site, Ashland Berry Farm, Ashland Roller Mill, Camp Hanover, and Cavalier Gun Club.

The community anchors in the proposed project area are Hanover Fire EMS Station 8, Hanover Fire EMS Station 2, West Hanover Volunteer Fire Department, the Old Church Community Center, the Montpelier Community Center, the Rockville Community Center, the Montpelier Branch Library, the Montpelier Center for Arts & Education.

b.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

This project is a partnership between the County, a last-mile ISP, and two electric utilities, and is following the successful model developed by All Points and Dominion for the Northern Neck Initiative that was also supported by VATI funding.

This project does not take an incremental, "cherry picking" approach. Instead, it represents the County's comprehensive strategy for achieving universal broadband access in the County.

The project leverages the Utility Leverage Statute with an investor-owned utility and the participation of an electric cooperative (REC) to simultaneously upgrade and harden Virginia's electric grid while making last-mile FTTH available to all remaining unserved locations in the County. Pursuing these two objectives simultaneously reduces aggregate costs for all the partners and benefits the entire community. Achieving universal broadband access throughout the County will only be possible if this project is leveraged in coordination with Dominion's ongoing fiber-deployment activities and with REC's deployment of its Fiber Utility Network.

The project also involves the partnership between the County and the Pamunkey Regional Library, which has a full digital literacy program that includes providing public wireless access, mobile hotspots, and other digital equity and inclusion services.

The project also involves the partnership between the County's Connect Hanover Initiative and the County's school system, that provides an on-line educational program that includes issuance of tablets to all students in grades 3-12 and to all teachers in the County school system.

c.

The project area includes approximately 3,155 LMI households, which account for approximately 43% of all households in the project area. This project will make broadband available at all remainin unserved LMI households in the County.

All service offerings made available through this project will be eligible for the federal Emergency Broadband Benefit program and future affordability programs available to LMI households.

For the first 12 months of availability, APB will provide service drops to all locations within the project area, regardless of drop length, for the same fixed installation fee of \$199.00.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

In order to ensure that high quality broadband is available to all currently unserved locations that are within the proposed project area, All Points has committed to maintain the 50/50 mbps service tier at the fixed price of \$59.99 for the life of the project. This rate will be indexed to inflation and will not increase in real terms.

The County's Marketing Plan for its overall Connect Hanover Initiative (Attachment 19) is designed to educate citizens on the Connect Hanover initiative, their current and future options for Internet service providers, reporting services and plans offered by current providers and how to subscribe to these services, and providing information about the status of the project for universal broadband described in this application.

Hanover County is a member of the Pamunkey Regional Library, which will be a partner in the Connect Hanover Initiative and has a full digital literacy program that includes providing public wireless access, mobile hotspots, and other digital equity and inclusion services.

APB has developed a Digital Inclusion Academy through Google for Education (see Attachment 18), based on best practices and recommendation from the National Digital Equity Center, the National Digital Inclusion Alliance, and NTIA's BroadbandUSA toolkits, which includes courses such as "Use Digital Tools for Everyday Tasks", "Avoid Online Scams", "Build Healthy Digital Habits", "Edit Your Resume", and others of a similar nature. All Points will offer free access to this Academy.

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

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:

N/A

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMapHanover914202145426.pdf

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

Attachment2DocumentationonFederalFundingAreaHanover9122021113304.pdf

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

Attachment3RDOFAwardedAreasincludedinVATIApplicationHanover914202145741.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment4DocumentationUnservedAreaVATICriteriaHanover914202142422.pdf

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

Passings Form (Use template provided)

Attachment5PassingsFormHanover914202153922.docx

Propagation Map if Wireless Project

Attachment6PropagationMapWirelessProjectonly9122021113312.pdf

Timeline/Project Management Plan

Attachment7TimelineProjectManagementPlanHanover914202154004.pdf

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

Attachment8MOUBetweenCountyandCoApplicantHanover913202185902.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSourcesTableHanover914202152209.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFundingHanover914202154035.pdf

Letters of Support

Attachment11LettersofSupportHanover913202175600.pdf

Derivation of Cost/Project Budget (Use template provided)

Attachment12DerivationofCostsHanover914202153800.pdf

Documentation of Supporting Cost Estimates

Attachment13DocumentationofSupportingCostEstimatesHanover914202153846.pdf

Two most recent Form 477 submitted to the FCC or equivalent

Attachment14TwoMostRecentForm477sRedacted9122021113322.pdf

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

Attachment15PointsandPollygonShaprefilesHanover914202154630.zip

Application to DHCD Submitted through CAMS

Hanover County

Hanover County 2022 Accelerated Universal Fiber Deployment Initiative

For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area

Attachment16RSSIProjectionShapefiles9122021113336.pdf

Optional

Attachment17MarketingPlanHanover913202145939.pdf

Optional

Attachment18AllPointsBroadbandDigitalInclusion9122021113345.pdf

Optional

Attachment19HanoverBlueprinttoBroadbandandConnectHanoverMarketingPlan9142021123725.pdf

Optional

Attachment20ProjectManagementTeamHanover914202110047.pdf