

Application to DHCD Submitted through CAMS

Spotsylvania County

Spotsylvania County and Comcast FY18 VATI Application for Towles Mill Road

Application ID: 48410302017144753
Application Status: Pending
Program Name: Virginia Telecommunications Initiative
Organization Name: Spotsylvania County
Organization Address:
Profile Manager Name: Annette D'alessandro
Profile Manager Phone: (540) 507-7595
Profile Manager Email: adalessandro@spotsylvania.va.us

Project Name: Spotsylvania County and Comcast FY18 VATI Application for Towles Mill Road
Project Contact Name: Annette D'alessandro
Project Contact Phone: (540) 507-7595
Project Contact Email: adalessandro@spotsylvania.va.us
Project Location: 6917 Towles Mill Road
Spotsylvania, VA 22551-3237
Project Service Area: Spotsylvania County

Total Requested Amount: \$167,260.00
Required Annual Audit Status: Pending Review

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$167,260.00	\$200,503.00	\$367,763.00
Construction	\$167,260.00	\$200,503.00	\$367,763.00
Total:	\$167,260.00	\$200,503.00	\$367,763.00

Budget Narrative:

The proposed project consists of extending Comcast infrastructure from the existing facilities at 6917 Towles Mill Road south to the end of the road and will include Timber Trial, Horseshoe Drive and Horseshoe Spur Ct. Where the southern end reaches a "T" in the road, Comcast will extend service .25 mile west on Dickerson Road and .25 east on Duerson Lane. The total build is estimated to be 7.90 miles of infrastructure and laterals. The itemized breakdown of construction costs are confidential and proprietary information, and cannot be disclosed. However, examples of items that are included in the Materials category include power supplies, fiber, conduit, splice enclosures, pedestals and taps. Examples of items in the Labor category are in-house and contract labor to trench and backfill, lay conduct and fiber, administration of VDOT permits, and crew supervision. Comcast's Construction and Design team has managed projects that have added thousands of HFC miles to Comcast's regional network in 2015-16. This team estimates that the total cost to complete the Towles Mill Road area project is \$367,763 and will comprise approximately 7.9 miles of new construction in total. The cost anticipates internal and contract labor costs of \$279,500, or 76% of the total project costs, and material and supply costs of \$88,263, or 24% of the total project costs. If awarded VATI funding for the Towles Mill Road area, Comcast agrees to provide \$200,503, representing 54.52% of the total project costs, with the remaining \$167,260, or 45.48% of the total project costs, being requested from DHCD. Any cost overruns during construction will be borne by Comcast.

Questions and Responses:

1. Project Area

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

Answer:

With the assistance of the Virginia Telecommunications Initiative (VATI) grant, Spotsylvania County and Comcast propose to provide broadband access to the area of Towles Mill Road, located in the rural southwestern section of

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the County. This project area will extend Comcast facilities from 6917 Towles Mill Road south to the end of the road, and will include Timber Trail, Horseshoe Drive, and Horseshoe Spur Court. Where the southern end reaches a "T" in the road, Comcast will extend service a quarter-mile west on Dickerson Road and a quarter-mile east on Duerson Lane. In all, this project site covers approximately 7.9 miles of new construction. A map detailing the proposed project site of Towles Mill Road and surrounding area is attached.

In reviewing the guidance document for VATI, the Spotsylvania County Department of Information Services and Comcast identified four potential sites within the County that met the eligibility criteria as established by the Virginia General Assembly and the Department of Housing and Community Development (DHCD). The areas identified consisted of Marye Road, Partlow Road, Po River Plantation, and Towles Mill Road. On September 14, 2017, Comcast and the Department of Information Services recommended to the Spotsylvania County Cable Television and Telecommunications Commission that the Towles Mill Road site be selected for the grant application request. This recommendation was based on the fact that this site would have the largest area of impact. The Commission, which consists of seven citizen commission members, three representatives from the cable TV franchise companies of Comcast, Cox and Verizon, and five County and community representatives, approved the site recommendation.

In addition to the Spotsylvania County Cable TV & Telecommunications Commission, the grant application request and project area was also supported and recommended by the Spotsylvania County Finance Committee, and Spotsylvania County Board of Supervisors. The Board of Supervisors' Resolution, which was passed on September 26, 2017 in support of this application, is also attached.

2.

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

Answer:

There are a total of 207 residential locations within the proposed service area in Spotsylvania County. Comcast proposes to expand its network so that each of these 207 homes are serviceable. According to Comcast's video franchise, all homes within 275 feet of the public right of way will not incur any additional cost for installation. Comcast proposes to apply the same standard to the homes included in this project. The passings consist of 153 homes and 54 lots that are currently empty. Of the existing 153 homes, there are 127 homes that are within a 275' distance from the road and would be connected to Comcast's network with no customer contribution. The remaining 26 homes are located in excess of the 275' from the road center. While these homes would be serviceable, customers may be required to provide a contribution in aid of the construction to the home. Comcast would provide each home with a contribution estimate, if any, prior to construction. The average contribution would be approximately \$2,722 with the least expensive contribution being \$350 and the most expensive being \$8,810. However, many factors in addition to distance are considered when determining whether a customer

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contribution is required. Projections for overall subscriber levels are also dependent on several factors and even an initial prediction may change as the project is completed. However, a petition from the residents indicates that the take rate will be high.

Within close vicinity to the project area there are two schools: Post Oak Middle School and Spotsylvania High School. Post Oak Middle School has a projected enrollment of 720 students for the 2017-18 academic year, and Spotsylvania High School has a projected enrollment of 1,163 students for the 2017-18 academic year. Other facilities surrounding the project area include the Virginia Department of Transportation's Post Oak Area Maintenance Headquarters and Spotsylvania County's Livingston Landfill and Composting Facility. Cultural institutions, such as the Hebron Baptist Church, are also nearby. Although difficult to quantify, there are several home-based businesses in the proposed project area that would benefit greatly from broadband access.

Additionally, it has been noted that many residents within the project site have the option to work from home, but are unable to access broadband services at a sufficient service level in order to do so.

The construction and provision of broadband service to the Towles Mill Road community would produce numerous benefits to the residents and businesses in the area. As Governor McAuliffe has said, "Broadband access has become an essential tool for localities to attract new businesses and thrive." With a middle and high school neighboring the project area, there are many students in the Towles Mill Road neighborhood whose studies will be enhanced through home broadband access, so that their learning experiences will now be comparable to those of their peers who already benefit from fast home Internet provision. For the adult population, distance learning will now be possible, allowing for greater economic opportunities. Additionally, teleworking would be possible for area residents, as many Spotsylvania residents commute to Northern Virginia or Richmond for work at a growing expense due to rising fuel costs.

In addition, because Comcast has the country's largest WiFi network, residents who subscribe to XFINITY Internet packages will have XFINITY WiFi access in home and within the Towles Mill area for no additional charge. Further, these customers will be able to access XFINITY WiFi at any of Comcast's more than 18 million hotspots nationwide, including over 500,000 in Virginia, without additional charge. Subject to certain restrictions, even Towles Mill area residents and visitors who do not subscribe to XFINITY Internet can gain WiFi access at no additional charge for a limited duration.

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

Answer:

The project area is not within the Connect America accepted funding area. A copy of the FCC map located at <https://www.fcc.gov/reports-research/maps/caf-2-accepted-map/> is attached as supporting documentation

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illustrating that Spotsylvania County has not been designated to receive funding through Connect America; therefore, Spotsylvania County and Comcast would be eligible to receive VATI funding.

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

Answer:

The benefits of the proposed project are significant since construction in the Towles Mill area of Spotsylvania County will provide broadband access to a community unlikely to receive it without a VATI grant. There are no contractual or legal requirements for Comcast to extend its plant to this area on its own. While Comcast seeks to expand its network even if not required to do so, such expansion opportunities are only considered when they are economically feasible. This project's overall construction cost coupled with the area's low population density do not meet Comcast's financial model for expansion as it would not provide a sufficient return on investment for Comcast to proceed. An award of a VATI grant for the project would alter the economics sufficiently for Comcast to expand into the area.

Citizens, teachers and parents living in the project area, as well as home based businesses have petitioned the Spotsylvania County Cable TV & Telecommunications Commission for Internet solutions. The extension of services to this area will meet their needs to include the ability to apply for jobs online, educational support, distance learning, and economic development opportunities. The Towles Mill area is equal distance from Washington D.C. and Richmond, VA, where many of the residents work. Access to the Internet will allow for some of these residents to work from home as well as allow residents to operate home-based businesses.

The Spotsylvania County Public School system also requires access to the Internet to complete homework assignments. Comcast will offer its nationally acclaimed broadband adoption program, Internet Essentials, in the project area, to low-income families with school aged children that meet the eligibility requirements. Since the program's inception in 2011, over 4 million low-income Americans have been connected to the Internet, many for the first time. Studies have indicated that 95% of enrolled parents said Internet Essentials had a positive impact on their child's grades and 51% said the program helped someone in their family find a job. Internet Essentials includes an economy Internet product currently priced at \$9.95 per month (excluding applicable fees and taxes), an opportunity to purchase a refurbished laptop or desktop computer for \$149.99, and access to free digital literacy training.

Spotsylvania County has taken significant steps to work toward providing reliable broadband services to its citizens, residents and business community. As the largest physical county in Virginia, covering over 405 square miles, much of the County is rural. Not only does the proposed project further DHCD's mission to "work in partnership to make Virginia's communities safe, affordable, and prosperous places in which to live, work, and do business", it also furthers the Virginia Economic Development Partnership Authority's mission "to enhance the

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quality of life and raise the standard of living for all Virginians, in collaboration with Virginia communities, through aggressive business recruitment, expansion assistance, and trade development, thereby expanding the tax base and creating higher-income employment opportunities.”

The VATI grant opportunity will assist the County in bringing these visions to reality by encouraging business growth in the area, providing critical Internet services to school and college students, and by encouraging the growth of small entrepreneurial businesses to develop and expand the economic growth of the community. Expansion of services will be enhanced by programs that encourage business growth, especially in the County’s targeted market areas of tourism, manufacturing, defense, technology, cyber security and healthcare.

Expansion of these targeted markets requires the County to be able to sustain business growth in the area, and offer opportunities for highly trained and skilled employees that these markets require. These businesses will also demand financial services, given the rapid increase in the use of electronic payments through mobile technologies and compliance with regulatory provisions associated with healthcare and pension plans. Small-sized enterprises continue to thrive while larger scale “data centers” face challenges in meeting ready access to trunk line broadband capacity, along with source water to cool stacked computers and dual-power to protect from losses of power. Making broadband available to this market sector and its employees will attract business, create jobs and utilize or create local supporting services. Many of these employees in Spotsylvania work primarily from home. Providing broadband in the rural areas will assist in retention and recruitment.

Information Technology, Defense, and Cyber Security industries can build upon the many defense and contractor businesses currently located in the County. Long time larger employers in the area such as Lockheed Martin, CACI and Northrop Grumman, as well as the numerous smaller federal contractors in this area are well positioned to expand and recruit select sectors for the industry group. The Internet of Things is producing marketable items that require a heavier reliance on broadband capabilities. When combined with other market products such as open-road intelligent transportation systems, mobile medical monitors, and other measure and monitoring systems from energy, military, health and biotechnical sectors, and the consumer electronics market, the demand for broadband technology becomes critical to the success of the County.

Access to broadband services that are reliable and sustainable has been identified as one of the key attributes for business retention and attracting businesses in Spotsylvania County’s targeted market areas. Additionally, access to broadband services for students, from elementary school through college, levels the playing field for each student, irrespective of their location, age, or socioeconomic background.

5. Need

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

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of the information.

Answer:

The Towles Mill Road area has been recommended as the project site for the construction and provision of last-mile broadband Internet due to its demonstrated need, which has been identified by residents in the proposed project area and acknowledged by the Spotsylvania County Cable TV and Telecommunications Commission, Spotsylvania County Information Services, Comcast, and the Spotsylvania County Board of Supervisors. Under the definition provided in the VATI guidelines, this area is unserved, as it does not possess broadband access and any Internet provision in the area is less than 10 Mbps download and 1 Mbps upload speeds.

The proposed project site of Towles Mill Road meets the VATI definition of unserved, as there are no broadband service providers in the area with sufficient upload/download speeds. There are a few options for residents depending on their location for Internet connection, but the speeds are not sufficient per the VATI requirements. These slower options include mobile Internet service from AT&T and T-Mobile, or satellite providers. Verizon historically provided Internet service for this area using copper DSL, but these lines are not being maintained and Verizon is not taking new customers. Verizon is phasing out their service, which does not meet the speed requirements in any case, and are no longer a viable option for Internet provision for the project area.

In addition to the data noted above, numerous minutes from the Spotsylvania County Cable TV and Telecommunications Commission reflect attendance and comments from citizens living in the proposed project area who express their need for access to broadband.

Comcast's broadband infrastructure will allow customers in the project area to choose the speeds that meet their personal needs. Comcast's technology allows them to implement DOCSIS 3.1 in Spotsylvania County, providing customers with access to speeds up to 1Gbps. All the speeds available to the residents will exceed the minimum requirements for a VATI grant.

Comcast appreciates this opportunity to meet the broadband needs of such consumers in the Towles Mill area of Spotsylvania County. Comcast has changed the Internet experience for millions of customers by providing the nation's fastest, most reliable Internet and in-home Wi-Fi speed. Its broadband service aligns with phone and video services to create new ways for customers to access beneficial communications tools and content at their convenience.

6. Project Description

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

Answer:

The proposed project will involve constructing "last mile" broadband infrastructure, and will provide connectivity to the households and businesses within the service area represented in the attached project area map. Comcast

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will own, operate, and maintain the network it constructs pursuant to this application, in accordance with Comcast's general business operations, and in agreement with Comcast's franchise agreement with Spotsylvania County.

Comcast has built a fiber backbone at the core of its network that stretches across the country with about 600,000 route miles of fiber – enough to wrap around the earth nearly six times – using the industry's most advanced optics/lasers and Internet Protocol ("IP") routing technologies. Dozens of converged regional area networks interconnect to create this fiber backbone that delivers video, voice, and high-speed Internet services to tens of millions of customers throughout the country. IP technology ties all of this together, creating a highly scalable connectivity platform or "IP core." Comcast has been building fiber into its networks incrementally over the past decade. In 2015, Comcast introduced Gigabit Pro, the industry's first residential fiber-to-the-home 2 Gigabit-per-second ("Gbps") service ever offered by an internet service provider in the United States.

Comcast's hybrid fiber coaxial ("HFC") network model offers the most flexibility and the best economics now and into the future. The company can surgically add speed, capacity and fiber to its networks in a smart and economically feasible way. Its existing HFC network will deliver speeds up to 1 Gbps to residential customers. These speeds will be among the fastest and most widely available and include access to the nation's largest Wi-Fi network of more than 18 million hotspots. Combined with the company's recently launched XFINITY xFi platform, a new and personalized home Wi-Fi experience, Comcast would provide its Towles Mill Road area customers the fastest speeds, the best Wi-Fi coverage, and ultimate Wi-Fi control in their homes.

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

Answer:

The broadband infrastructure Comcast would put in place in the Towles Mill Road area offers all residential customers six different broadband options and all business customers nine different broadband options. All offered options exceed the minimum requirements for VATI, as noted in the tables below:

Residential Tier	Speeds up to
Performance	25 Mbps down / 5 Mbps up
Performance Pro	100 / 5
Blast	200 / 10
Extreme Pro	400 / 10
Gig	1000 / 35

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Gigabit Pro	2000 / 2000
Business Tier	Speeds up to
Starter	16 Mbps down / 3 Mbps up
Deluxe 25	25 / 5
Deluxe 50	50 / 10
Deluxe 75	75 / 15
Deluxe 100	100 / 20
Deluxe 150	150 / 20
Deluxe 250	250 / 25
Business Internet 500	500 / 35
Business Internet 1G	1000 / 35

Comcast will utilize DOCSIS technology in building the network. DOCSIS technology is an international telecommunications standard that permits the addition of high-bandwidth data transfer to an existing cable TV system. It is employed by many cable television operators, including Comcast, to provide Internet access over an existing HFC infrastructure. The industry continues to deliver great speeds over DOCSIS 3.0, and is moving purposefully toward increased adoption of DOCSIS 3.1, which Comcast began deploying in Spotsylvania County earlier this year. DOCSIS 3.1 enables Comcast to bring broadband speeds of up to almost 1 Gbps to a service area.

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

Answer:

Currently, Comcast service exists outside of the proposed project area. If VATI funding is approved the proposed plans will provide for fiber line extension from the network's primary Internet points of presence to end users in the Towles Mill Road project area. Comcast proposes to complete the construction of the area with a Hybrid Fiber Coaxial ("HFC") solution, emanating from the closest facility to the project. Fiber optic cables would be constructed to the service area, commonly referred to as a serving node, where optical signals are converted to electrical or radio frequency for distribution on the coaxial network. Comcast engineering and construction teams have evaluated this area for line expansion, and can add capacity to the existing Comcast backbone, down Towles Mill Road, to allow the delivery of Internet and bundled services to residents, as noted. The advantage of using

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this technology include the various speed options available to customers, who are able to decide the appropriate download/upload speeds at their various price-points to meet their individual needs.

9. Other Service Providers

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

Answer:

AT&T, Verizon and Sprint all provide various levels of wireless service; however, with no towers in close proximity of Towles Mill Road, reliable wireless service is not readily available for residents to use.

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

Answer:

Verizon has, in the past, provided DSL service in the Towles Mill Road area; however, as the copper infrastructure degrades due to age and construction, DSL performance no longer meets the advertised speeds that Verizon promotes, nor does Verizon offer DSL services to any new customers in the area, stating that they are at capacity. As per Verizon's business plans for 2011-2016, they are aggressively replacing copper infrastructure with fiber-based facilities, and no longer repairing copper lines. Verizon does not offer DSL service or FIOS service in this area, over fiber connections. Verizon is also no longer a carrier of last resort, and will rely on companies such as Comcast to provide those services, if available in the area.

New customers have no options for broadband service and must rely on mobile Internet providers such as AT&T and T-Mobile in some service areas in the project site, as well as some satellite Internet providers. The speeds provided by these service providers qualify this area as unserved.

11. Project Timeline

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

Answer:

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Comcast has completed the planning and preliminary engineering phase for the proposed Towles Mill Road project area. Final design and construction shall commence upon the award of the grant by DHCD and shall continue to completion on or before June 20, 2018. This is an aggressive schedule but Comcast is confident they can complete the proposed work before the deadline. Workflow is included in the attached project management plan.

The specific initial tasks include project engineering and right of way preparation. These projects are designed to place all new facilities underground, thus avoiding time consuming and expensive make-ready work and pole application agreements. Comcast will need to obtain the necessary permits from the Virginia Department of Transportation (VDOT) to place facilities underground in the VDOT right of way and will need support from the County to ensure that all necessary power supplies are coordinated and installed with the local electric company. Comcast will request assistance from Spotsylvania County officials to obtain the necessary permits and power supplies expeditiously. This coordination will need to begin immediately upon notice of the grant award. Also upon receipt of the grant, Comcast will make contact with all "nonstandard drop" customers to determine if they will be interested in Comcast services and if they would allow Comcast to perform work on their private property. Material procurement and some pre-construction work will occur in this period and this will enable Comcast to proceed with actual construction as soon as VDOT issues the right of way permits.

Activation of all HFC plant will be completed by both in-house Comcast employees and select contract personnel. The final quality control inspection of all new infrastructures will be completed by Comcast employees to insure all new construction meets or exceeds FCC standards. Notice to potential customers of service availability will occur on a rolling basis as construction is completed. As noted above, an additional notice of service availability will be provided not later than 20 days prior to the Completion Date.

Below is a proposed timeline based on past work performed by Comcast in another Virginia locality. Comcast and Spotsylvania County propose to follow a similar timeline in order to accomplish all tasks by the June 20, 2018 project completion date.

Task	Responsible Entity	Proposed Timeline					
		January	February	March	April	May	June
VATI project awarded	VADHCD	X					

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Review of the award contract by legal and acceptance and appropriation of the award by Spotsylvania County	Comcast, Spotsylvania County	X	X					
Project engineering	Comcast, Spotsylvania County	X	X					
Obtain permits from VDOT for VDOT right of way	Spotsylvania County, Comcast	X	X					
Materials procurement	Comcast	X	X					
Construction/installation of fiber	Comcast		X	X	X	X		
Turn-up, test and database work	Comcast		X	X	X	X	X	
Service availability notification to potential customers	Comcast				X	X	X	
Final field inspection	Comcast, Spotsylvania County, VADHCD					X	X	
Submit VATI close out report and reimbursement request	Spotsylvania County							X

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

Answer:

The proposed project consists of extending Comcast infrastructure from the existing facilities at 6917 Towles Mill Road south to the end of the road and will include Timber Trial, Horseshoe Drive and Horseshoe Spur Ct. Where the southern end reaches a “T” in the road, Comcast will extend service .25 miles west on Dickerson Road and .25 miles east on Duerson Lane. The total build is estimated to be 7.90 miles of infrastructure and laterals. The itemized breakdown of construction costs are confidential and proprietary information, and cannot be disclosed. However, examples of items that are included in the Materials category include power supplies, fiber, conduit, splice enclosures, pedestals and taps. Examples of items in the Labor category are in-house and contract labor to

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trench and backfill, lay conduct and fiber, administration of VDOT permits, and crew supervision.

Comcast's Construction and Design team has managed projects that have added thousands of HFC miles to Comcast's regional network in 2015-16. This team estimates that the total cost to complete the Towles Mill Road area project is \$367,763 and will comprise approximately 7.9 miles of new construction in total. The cost anticipates internal and contract labor costs of \$279,500, or 76% of the total project costs, and material and supply costs of \$88,263, or 24% of the total project costs. The table below represents the estimated expenditures:

Categories	Cost	Percentage
Materials	\$88,263	24%
Labor	\$279,500	76%
Total Cost Estimate	\$367,763	100%

Comcast's construction estimates are determined through a detailed project analysis that includes a field survey, an analysis of permitting costs (internal or external), a network impact study to determine necessary hub site preparation and possible infrastructure requirements, and a financial evaluation for overall build costs and likely return-on-investment. When contract labor is utilized, costs are accrued according to the fee schedule in the contract. This design and construction process is standard within the telecommunications industry.

The precise amount to be spent on contract labor versus in house resources will be determined when the grant is approved and the work commences. The allocation of work will depend on the level of construction activity at that time. Any contracted engineering and design work outlined in this proposal will be performed by Comcast approved contractors. A copy of the contract between Comcast and its selected contractors can be made available for confidential review upon award of this grant.

If awarded VATI funding for the Towles Mill Road area, Comcast agrees to provide \$200,503, representing 54.52% of the total project costs, with the remaining \$167,260, or 45.48% of the total project costs, being requested from DHCD. Any cost overruns during construction will be borne by Comcast. The table below represents the estimated revenues:

Source:	VATI	Comcast	Spotsylvania County
Amount:	\$167,260 (45.48%)	\$200,503 (54.52%)	In-kind support
Total	\$367,763		

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Comcast and DCHD will be the only two entities providing cash resources for the Towles Mill Road area project. The amount sought through a VATI grant is the difference between the total cost of construction and the capital investment Comcast can make according to its financial models. The grant funds received would be used in conjunction with the contribution of labor and material from Comcast to complete the project. Spotsylvania County will provide in-kind services for project management, assistance in facilitating permit requests and citizen contacts, and grant administration.

The table below represents the anticipated revenue source for each expenditure category:

	VATI Grant Award 45.48%	Comcast Cash Match 54.42%	Total
Materials	\$40,142	\$48,121	\$88,263
Labor	\$127,118	\$152,382	\$279,500
Total	\$167,260	\$200,503	\$367,763

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

Answer:

If awarded VATI funding for the Towles Mill Road area, Comcast agrees to provide \$200,503, representing 54.52% of the total project costs, with the remaining \$167,260, or 45.48% of the total project costs, being requested from DHCD. Any cost overruns during construction will be borne by Comcast. The table below represents the estimated revenues:

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	VATI Grant Award 45.48%	Comcast Cash Match 54.42%	Total
Materials	\$40,142	\$48,121	\$88,263
Labor	\$127,118	\$152,382	\$279,500
Total	\$167,260	\$200,503	\$367,763

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

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

Answer:

For this project, Comcast would provide 54.42% of the total project costs, or \$200,503 as a cash match. Spotsylvania County and Comcast are requesting \$167,260, or 45.48% of the total project costs, in VATI grant funds to complete the Towles Mill Road project. Spotsylvania County will provide in-kind services via staff time for project management, assistance in facilitating permit requests and citizen contacts, and grant administration.

As the applicant, Spotsylvania County will provide in-kind services for project management, assistance in facilitating permit requests and citizen contacts, and grant administration. As co-applicant, Comcast will be responsible for any cash matching funds. Comcast will provide the labor and materials to complete the provision of services to the area delineated for the Towles Mill Road area project. The total value of the labor and materials provided by Comcast is \$200,503.

A breakdown of costs is attached below.

Name	Home passed	Mileage	HP/Mile	Total Cost	Comcast Cost	Requested Gap Funding	VATI Gap Funding

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Towles Mill Road Area	153	7.9	19.4	\$367,763	\$200,503	\$167,260	45.48%
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Comcast’s itemized breakdown of construction costs are confidential and proprietary information, and cannot be disclosed. Attached is a document provided by Comcast indicating their estimated summary budget costs for this project.

15. Applicant and Co-Applicant

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

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

Answer:

A written agreement between Comcast and Spotsylvania County has not yet been established, but a Memorandum of Understanding would be drafted and signed upon receipt of VATI funding.

Spotsylvania County and Comcast have a long standing working relationship in developing creative means to expand broadband in the County. The parties worked together to identify an area that met the criteria of the VATI grant. If grant is awarded, Comcast and Spotsylvania County will enter into a formalized Memorandum of Understanding related to the proposed project. The staff of Spotsylvania County coordinated this partnership arrangement with Comcast. Potential sites were selected and reviewed by Spotsylvania County staff and Comcast. Upon the recommendation of staff and Comcast the Spotsylvania County Cable TV & Telecommunications Commission, the Spotsylvania County Finance Committee, and the Spotsylvania County Board of Supervisors approved the submission of the Towles Mill Road area for a VATI grant. The project area was selected in part because there were no contractual or legal requirements for Comcast, or any other provider, to extend service there.

Comcast and Spotsylvania County are working on a formal agreement to make review of work and processing of payments as efficient as possible. Comcast anticipates submitting invoices at the mid-point of the project and at project completion. The partners have agreed in principle on the following responsibilities:

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- Spotsylvania County, VA, as the applicant, intends to partner with Comcast, as the co-applicant, for the Virginia Telecommunication Initiative funding (VATI) to extend broadband service to unserved areas of Spotsylvania County.
 - Spotsylvania County would complete the grant application (with Comcast assistance); submit the completed application to the Virginia Department of Housing and Community Development (DHCD); and manage the processing of work payments. Since Spotsylvania County will be the funded applicant in the event of award, the County would timely process all VATI related Comcast invoices that applied directly to the approved work plans, design, and statement of work. Any delays in completing the work as planned would be negotiated with DHCD as partners.
 - Spotsylvania County would provide services and support for any necessary citizen engagement activities, including but not limited to: processing applications for right of way in a manner consistent with all local, state, and federal law; advocating and describing the benefits of the project to those affected; and working with Comcast and other partner agencies (e.g. VDOT) and private industry (e.g. Dominion Power) to help coordinate construction and/or pole attachments.
 - Comcast would provide accurate VATI construction plans; associated material and work invoices to match the construction plans; detailed descriptions of necessary right of way or pole attachments; and timely notice of other needs to Spotsylvania County.
 - This general agreement proceeds from the notice of VATI award to the completion of the project.
16. Identify key individuals, including name and title, who will be responsible for the management of the project. Describe their role and responsibilities for the project. *If information is provided in a table format, please upload the document into attachments the document into the attachment section and note the title in the narrative response.*

Answer:

Name	Title	Role and Responsibilities
Jane Reeve	Director of Information Services, Spotsylvania County	Supervision of County project responsibilities
Katy da Silva	Administrative Assistant, Spotsylvania County	Coordination with Comcast

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Annette D'Alessandro	Grants Manager, Spotsylvania County	Supervision of financial management coordination with Comcast; Submission of grant related items through DHCD's online CAMS
Brian Engle	Construction Manager, Comcast	Supervision of construction
Brad Allen	Construction Supervisor, Comcast	Supervision of construction
Marie Schuler	Director Government Affairs, Comcast	Coordination with Spotsylvania County

17.

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

Answer:

Spotsylvania County has extensive grant experience and maintains a Grants Division within the Finance Department to assist Departments and Constitutional Officers in acquiring and administering federal, state, corporate, and foundation grants. Spotsylvania County's FY 2018 Adopted Budget includes \$17,482,541 in federal revenue and \$171,166,412 in state revenue.

Comcast is a leading communications provider in Virginia, offering video, high-speed Internet, home security, and phone services to residential customers under the XFINITY brand and also providing services to businesses through its Comcast Business suite of products. Comcast has invested in technology to build an advanced network that delivers among the fastest broadband speeds, and brings customers personalized video, communications, and home management offerings. Comcast has invested billions of dollars to create a network across the U.S. that makes broadband widely available, as part of its commitment to provide superior services to its customers.

Since 1996 Comcast has made nearly \$2.3 billion in capital investment in Virginia to offer reliably fast speeds even during peak use periods. The company has invested significant resources in both local and national Network Operations Centers to ensure continued proactive monitoring of network health, and has increased its Internet speeds for customers 17 times in 16 years. In Virginia, Comcast employs over 2,100 people. The company maintains a large, locally based engineering technical operations team that works around the clock to maintain network reliability and to directly support the company's business and residential customers. Comcast also has extensive experience in administering grants.

Comcast's Annual Report can be located at <http://www.cmcsa.com/annuals.cfm> while Spotsylvania County's Comprehensive Annual Financial Reports can be located at <http://www.spotsylvania.va.us/content/20925/20963/21966/36522/36526/default.aspx>

18. **Service**

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Describe the Internet service offerings to be provided after completion of this project and your price structure for these services. The service offerings should include all relevant tiers.

Answer:

Upon completion of this project, Comcast will provide the following Internet service options to residents in the Towles Mill Road project site:

Tier	Speeds up to
Performance	25 Mbps down / 5 Mbps up
Performance Pro	100 / 5
Blast	200 / 10
Extreme Pro	400 / 10
Gig	1000 / 35
Gigabit Pro	2000 / 2000

Upon completion of the Towles Mill Road area build, Comcast will be able to offer its full suite of products and services to residents in the proposed service area, including broadband services, voice, video, and home security. With respect to broadband service, Comcast's 1 Gigabit Internet service will use DOCSIS 3.1 technology to deliver the speeds through its HFC network. To enjoy the service, all customers need to do is install a DOCSIS 3.1 cable modem. Pricing for all relevant residential XFINITY Internet tiers is listed below.

Residential Tier	XFINITY Internet Service Only	With XFINITY TV or Voice Service
Performance	\$74.95	\$61.95
Performance Pro	\$84.95	\$71.95
Blast!	\$87.95	\$74.95
Extreme Pro	\$99.95	\$86.95
Gig	\$104.95	\$91.95
Gigabit Pro	\$299.95	\$299.95

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Xfinity Internet customers will also have access to XFINITY X1. X1 is a video platform that delivers the simplest, fastest, and most complete way for customers to access all their entertainment on all of their screens. Features include Netflix access for those with a Netflix streaming membership, YouTube access, advanced search and recommendations, and XFINITY apps for home and on the go. XFINITY X1 customers can also use the X1 Voice Remote for voice commands to change channels, search for shows, get recommendations, and more.

Comcast Small Business customers will have access to gig speeds through the newly-launched “Business Internet 1 Gbps” product. Comcast’s “Business Internet 1 Gig” and “Business Internet 500” speed tiers are now available to business customers using the company’s existing network, without the need for any costly or disruptive construction of new network facilities. Pricing for all relevant Comcast Business SMB Internet tiers is listed below.

Business Tier	Standalone Pricing
Starter	\$69.95
Deluxe 25	\$99.95
Deluxe 50	\$109.95
Deluxe 75	\$149.95
Deluxe 100	\$199.95
Deluxe 150	\$249.95
Deluxe 250	\$349.95
Business Internet 500	\$399.95
Business Internet 1G	\$499.95

Residents and businesses in the proposed service area will be offered broadband services of the same quality and current price as those offered in other Comcast service areas. Comcast will not offer a separate rate applicable to only those customers within the project area included in this proposal. The customer will ultimately decide which service tier best suits his or her needs and preferences. The price structure is subject to change, but is publically available on Comcast’s website: <https://www.xfinity.com/locations/internet-service/virginia/spotsylvania.html>.

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

Answer:

There is no additional information to add.

Attachments:

Supporting Documentation of Cost Estimates

R1DerivationofCost1031201720429.docx

Map(s) of project area, including proposed infrastructure

Q1R4MapofTowlesMillProjectArea1031201720519.pdf

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

R5MapofTowlesMillExistingBroadband1031201720532.pdf

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

R6DocumentationofRelationshipBetweenApplicantandCoApplicant1031201720601.docx

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

Q13R9DocumentationofProjectCosts1031201720625.pdf

Two most recent Form 477 submitted to FCC

R7Form477Dec20161031201720641.pdf

Documentation for in-kind contribution, including value(s)

R8DocumentationforInKindContributions1031201720750.docx

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Documentation of source of match funding

R10DocumentationofSourceofMatchFunding1031201720817.docx

Documentation that proposed project area is unserved based on VATI criteria

R11DocumentationthatProjectAreaisUnservedBasedonVATICriteria1031201720847.docx

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

Q3R12DocumentationthatProjectAreaisnotDesignatedforCAF1031201720920.docx

(Optional) || Second Recent Form 477 submitted to FCC

R7Form477June20171031201720707.pdf

(Optional) || Spotsylvania County Board of Supervisor Resolution

Q1SpotsylvaniaBOSResolution1031201721038.pdf

(Optional) || Project Management Plan

R2ProjectManagementPlan1031201721149.docx

(Optional) || Comcast Construction Estimate

R3Constructionestimatewithamounts1031201721310.pdf

(Optional) || Supporting Documentation for Cost

R3SupportingDocumenttionforCost1031201721428.pdf