


BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

<p>Primary Applicant (Name and Address):</p> <p>Bug Tussel Wireless, LLC 417 Pine Street Green Bay, WI 54301 (920) 940-0138</p>	<p>Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx. Refer to section 2.3 for detailed instructions.</p> <p>Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.</p>
	<p>Contact for further information: PSCStatebroadbandoffice@wisconsin.gov</p>
	<p>Date: March 17, 2022</p>
<p>The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.</p>	
<p>Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.</p>	
<p>Name of Authorized Representative (Type or Print)</p> <p>Mitchel Olson</p>	<p>Title</p> <p>Chief Development Officer General Counsel</p>
	<p>Phone ()</p> <p>920.940.0138</p>
<p>Signature of Authorized Representative</p> 	<p>Date</p> <p>March 17, 2022</p>

SUMMARY OF GRANT APPLICATION

Primary Applicant Name Bug Tussel Wireless, LLC	Amount of Broadband Grant Request (round to nearest dollar) \$2,000,000
Federal Employer Identification No. 20-0284635	Amount of Matching Funds Pledged (round to nearest dollar) \$6,500,000
Contact Name and Title Mitchel Olson – Chief Development Officer General Counsel	Total Cost of Proposed Project (round to nearest dollar) \$8,500,000
Telephone Number 920.940.0138	Project Name R.O.A.D. to Digital Equality - Wood County
E-mail Address(es) mitchel.olson@bugtusselwireless.com	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) FTTH
Grant Manager, if different than Primary Applicant N/A	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) Middle-mile / Last-mile
Grant Manager Contact Name N/A	Grant Manager Email Address and Telephone Number N/A
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations Wood County 400 Market Street Wisconsin Rapids, WI 54494	
Brief Project Description (2 sentences) The Wood County R.O.A.D. to Digital Equality Project is the deployment of 139.1 miles of fiberoptic middle-mile, completing a ring throughout Wood County, while providing gigabit service to homes and business locations along that route. This project is “Open Access” allows for future expansion and encourages faster deployment of countywide fiber to the premise, which supports immediate economic opportunity for residents and businesses.	
Maximum Proposed Download Transmission Speed 1 Gbps`	Maximum Proposed Upload Transmission Speed 1 Gbps
Minimum Proposed Download Speed to Customer Location 200 mbps	Minimum Proposed Upload Transmission Speed to Customer Location 200 mbps

<p>County or Counties served by this project</p> <p>Wood County</p>	<p>Community or Communities served by this project</p> <p>Town of Remington, Town of Dexter, Town of Cranmoor, Town of Hansen, Town of Sigel, Town of Seneca, Town of Cary, Village of Vesper, Town of Milladore, Town of Sherry, Town of Wood, Village of Hewitt, Town of Marshfield, Town of Rock, Town of Auburndale, Village of Auburndale, Town of Rudolph, Town of Arpin, City of Marshfield, Town of Lincoln, Town of Cameron, Town of Richfield, City of Pittsville, Town of Hiles, Village of Arpin, Village of Rudolph</p>
<p>List of the broadband service providers, if any, currently serving the area the applicant proposes to serve</p> <p>Astrea, Charter Communications, Frontier Communications, Solarus, TDS, Country Wireless, NSight, US Cellular</p>	
<p>Does proposed project serve an <i>unserved</i> area of the State, as defined in Section 1.4 of the application instruction? (yes/no)</p> <p>Yes</p>	<p>Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no)</p> <p>Yes</p>
<p>For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access).</p> <p>113</p>	<p>For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access).</p> <p>2,141</p>
<p>Of the improved business locations, how many locations are <i>unserved</i>?</p> <p>84</p>	<p>Of the improved residential locations, how many are <i>unserved</i>?</p> <p>1,591</p>
<p>For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no)</p> <p>Yes</p>	<p>Are there any programs available for low-income households to access low-cost service or discounts? (yes/no)</p> <p>Yes</p>
<p>Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no)</p> <p>Yes</p>	<p>Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no)</p> <p>Yes</p>
<p>Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no)</p> <p>Yes</p>	

FY22 Broadband Expansion Grant Application

Budget & Income Summary



Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
Bug Tussel Wireless, LLC	R.O.A.D. to Digital Equality - Wood County

Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 1,294,141.76	\$ 4,205,823.24	\$ 5,499,965.00
2	Equipment	\$ 149,744.92	\$ 486,655.08	\$ 636,400.00
3	Supplies	\$ 428,842.72	\$ 1,393,693.28	\$ 1,822,536.00
4	Labor (Salary, Fringe)	\$ 86,357.81	\$ 280,866.19	\$ 367,224.00
5	Permitting, Licensing Fees	\$ 40,912.79	\$ 132,962.21	\$ 173,875.00
6	Travel	\$ -	\$ -	\$ -
7	Other	\$ -	\$ -	\$ -
Total:		\$ 2,000,000.00	\$ 6,500,000.00	\$ 8,500,000.00
76.5% match requested				

Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	Bug Tussel Wireless / Wood County Partnership	Applicant	Cash	\$ 6,500,000.00
2				
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 6,500,000.00

FIGURE 1. PROPOSED FIBER ROUTE

— Proposed Fiber Route PSC - Underserved
PSC - Unserved

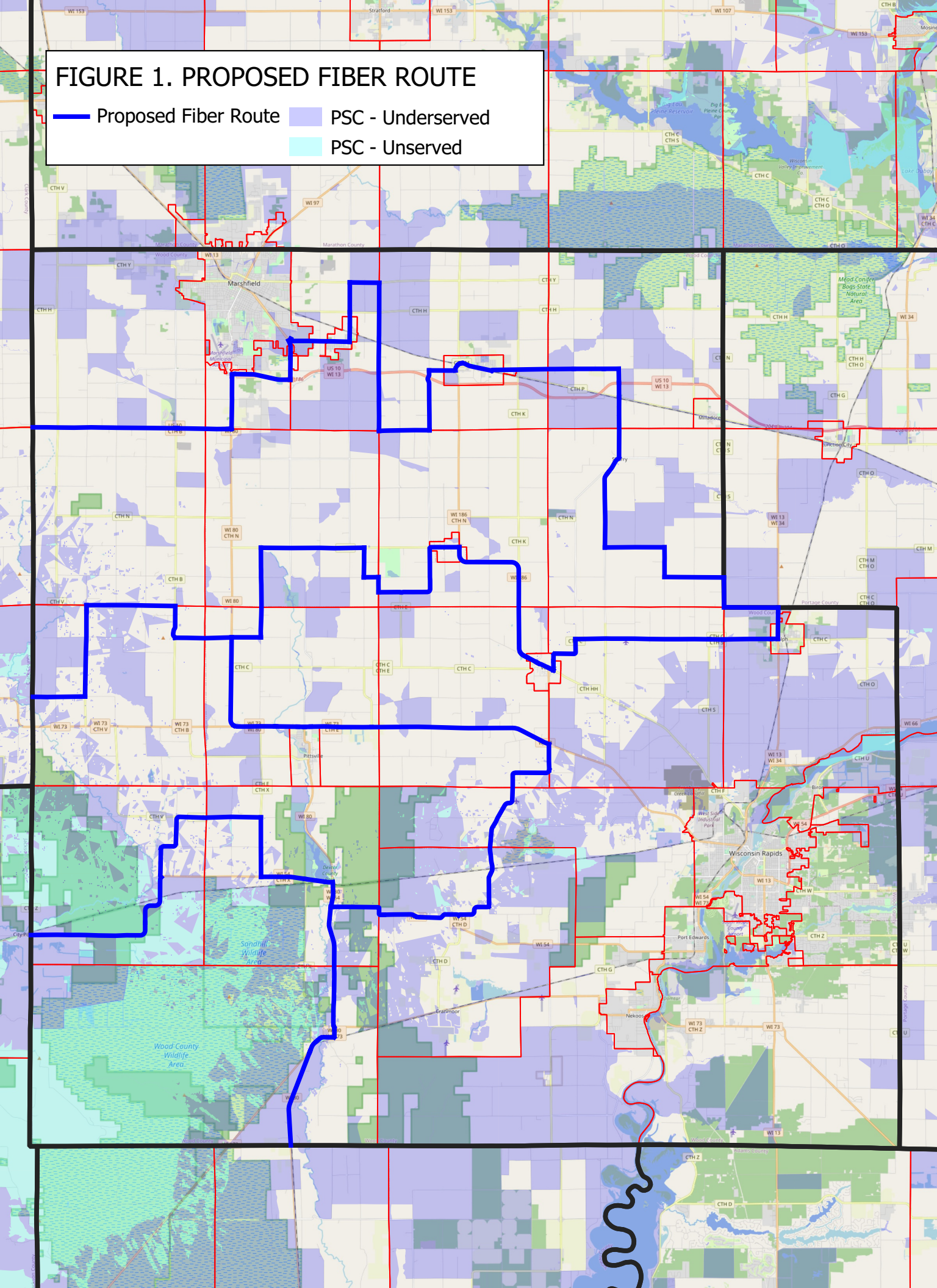
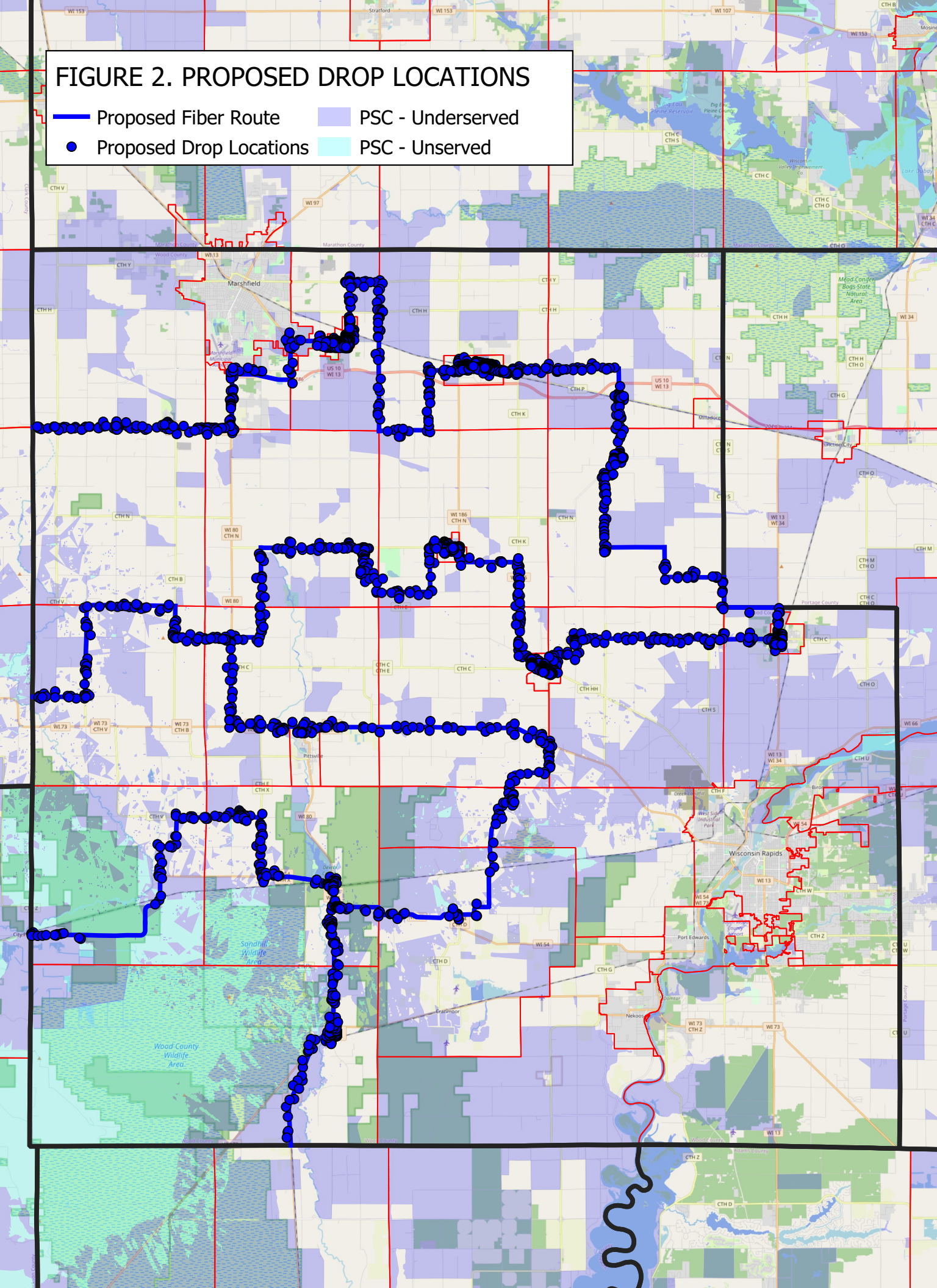


FIGURE 2. PROPOSED DROP LOCATIONS

- Proposed Fiber Route
- Proposed Drop Locations
- PSC - Underserved
- PSC - Unserved



3.2 Mandatory application requirements

3.2.1 Applicant identification and contact information

a. The name and address of the entity applying for the grant, and the mailing address, telephone number and e-mail address of one or more contact persons representing the applicant.

Name of Entity: Bug Tussel Wireless, LLC ("Bug Tussel")
Mailing Address: 417 Pine Street
Green Bay, WI 54701

Contact: Mitchel Olson
Title: Chief Development Officer | General Counsel
Phone: 920.940.0138
Email: mitchel.olson@bugtusselwireless.com

b. If the application proposes a public-private partnership, the identity and contact information for all application partners.

Name of Entity: Wood County
Mailing Address: 400 Market Street
Wisconsin Rapids, WI 54494

Contact: Mr. Jason R. Grueneberg
Title: Director of Planning & Zoning
Phone: 715.421.8466
Email: jgrueneberg@co.wood.wi.us

c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. § 196.504(1).

Hilbert Communications, LLC, and its subsidiary, Bug Tussel Wireless, LLC, are Wisconsin Limited Liability Companies, with their headquarters located at 417 Pine Street, Green Bay, WI 54701, and are Eligible applicants, as defined by §196.504(1)(ac)(1).

3.2.2 Description of the project

a. A static map and description of the area of the State that will be affected by the proposed project.

Please see the enclosed project maps, located on pages 5 and 6. The enclosed maps show the proposed middle-mile route throughout Wood County, along which fiber to the home will be deployed, but the impact will be well beyond the route as shown. Future expansion projects, utilizing the middle-mile, will reach beyond the original territory served in this phase of deployment. With these additional projects, all of Wood County will be affected by this project.

- b. If the project area lies within a census block designated as served on the PSC Broadband Map, provide additional documentation to demonstrate the actual broadband service that is available in the proposed project area.**

Please see the attached statement (attached as **Exhibit B**) Lance A. Pliml, Chairman of the Wood County Board, which details the need for broadband infrastructure expansion in rural Wood County.

- c. An explanation of how the proposed project will increase broadband access. Include information about the:**

This project will increase broadband access by making last-mile fiber to the premises connections, in addition to installing middle-mile fiber with substantial capacity for expansion.

This project will have the capacity to service the 2,141 households located along the fiber route, in addition to the 113 business. Of those, 1,591 homes and 84 businesses are in underserved and unserved areas.

The fiber to the premises packages available will include a symmetrical 200 mbps download / 200 mbps upload option for \$64.99, in addition to a 1 Gbps download / 1 Gbps upload option for \$99.99.

- d. A statement whether the proposed project is targeting the “last mile,” “middle mile,” or backbone portion of the broadband infrastructure.**

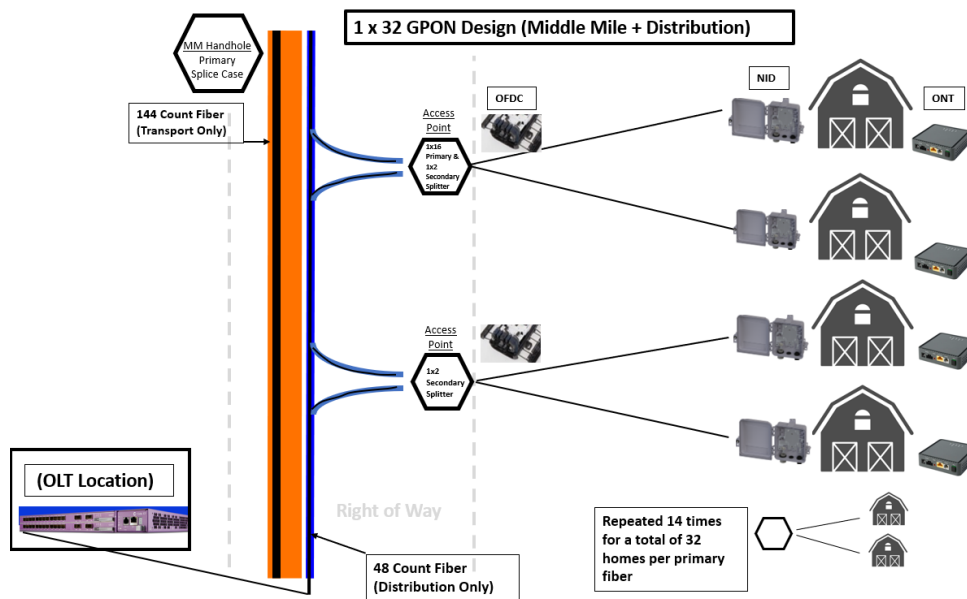
The proposed project will consist of both middle-mile and last-mile assets. The proposed project area is in significant need of additional backbone infrastructure and capacity, with last-mile connections being made along that route to promote a “dig-once” construction model.

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

The network will consist of fiber optic cable connected to GPON/ONT electronics that will provide capacity for over 1 Gbps to each residence and business along the fiber route along with Dense Wave Division Multiplexing (DWDM) equipment for traffic aggregation, capable of supporting 200 to 800 Gbps.

As shown in Figure 3 below, a 144 strand transport fiber will be buried alongside a separate 48 strand fiber that will be utilized for fiber to the premises.

Figure 3 – Middle-mile and Distribution Design.



f. For middle mile projects:

At this time, no additional last-mile connections can be disclosed publicly. That said, Bug Tussel with itself be making last mile connections utilizing the middle-mile for transport.

Connections incident to this grant application will be made within the two-year construction window contemplated for this project, and additional last-mile projects will be completed, by both Bug Tussel and other internet service providers, in the years that follow.

By making the last-mile connections along the middle-mile route simultaneous to the installation of the middle-mile, it will not be necessary to perform additional construction projects along the same route. This conforms to the “dig-once” construction model, saving both time and construction expense.

g. A schedule by which the applicant intends to complete the components of the proposed project. The project period is up to 24 months.

Final route design, in conjunction with Bug Tussel’s partners, and engineering will commence immediately following the announcement of the grant award. This process will last through the end of 2022, with construction beginning in early 2023. Construction of the main-line fiber is anticipated to be completed in June, 2023, with last-mile drops and installations beginning shortly thereafter. It is Bug Tussel’s expectation that the project with be completed by June, 2024.

3.2.3 Itemized Budget (all amounts should be rounded to the nearest dollar)

- a. In addition to the Summary of Project Budget that is included as page 3, applicants should include a price list or quote for any equipment the applicant intends to purchase, including capital expenditures. The application should also indicate whether any facilities involved would be owned, rented, or leased.

At this time, Bug Tussel does not intend to purchase any equipment to facilitate construction pursuant to this grant application. All assets installed incident to this project will be owned and operated by Bug Tussel, or a related entity.

- b. The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidize means a contribution to the operating costs, including profit, of the telecommunications provider.

The sole purpose of the grant contemplated herein is to facilitate the construction of fiber assets. The grant, if awarded, will not subsidize the expenses of Bug Tussel, nor will it be used to subsidize the costs paid by customers.

- c. The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application. Construction of broadband infrastructure may include any of the following:

Other than the work done in formulation of this grant application, no planning, engineering, permitting, or construction has taken place. All of the costs of this project, as identified on the enclosed budget, will be incurred during the performance period.

3.2.4 Priority factors supporting the application

- a. **Matching funds.** A description of the matching funds the applicant will invest in the proposed project, if any. For each element, indicate the type of match (cash, salary expense, or in-kind contribution). If the application is submitted by a partnership, identify the partner responsible for providing each element of the proposed matching funds. *Note: The requirement for this information is satisfied via inclusion of the completed Funding Statement as page 4 of the application.*

As discussed in Section b below, through the R.O.A.D. to Digital Equality Program, and additional funding sources, Bug Tussel and its partner, Wood County, are pledging a total of \$6,500,000, or 76.5% of the total project cost.

- b. **Public-private partnerships.** If the public-private partnership is memorialized in a joint venture agreement or other writing, provide a copy of that agreement. If the partnership has not been reduced to a written agreement, provide a short description of the management role, financial commitment, or other contribution to the project for each participating partner.

To fund this project, Bug Tussel is utilizing a conduit bond issuance called the Rural Open Access Design (R.O.A.D.) to Digital Equality. In this public private partnership, the County's contribution to the project will take the form of an underlying guaranty on the bond issuance, and Bug Tussel will be responsible for all payments and costs associated with the project. Bug Tussel will own and operate all assets, and the county will benefit through free use of the fiber for governmental purposes for the lifetime of the bonds in addition to other financial considerations.

The creation of the public private partnership between Bug Tussel and Wood County is memorialized by an Agreement to Establish Public Private Partnership for the Purpose of Applying for a Broadband Expansion Grant (attached as **Exhibit A**).

c. Existing broadband service. A list of the broadband service providers, if any, currently serving the area the applicant proposes to serve. In scoring this element, the following factors will be taken into account:

The design of the project contemplated herein has given significant priority to areas avoided by existing internet service providers. Although the middle-mile route passes through areas with existing service, this is a necessary step to develop a reliable broadband network through the project area.

As shown on Table 1 below, several providers have some level of coverage in the project area. This coverage, however, is rarely, if ever, capable of reliably providing broadband service at speeds of 25 mbps download / 3 mbps upload. The services currently offered in the project area do not meet the needs of the residences and businesses in the project area, which is our sole motivator in undertaking this project.

Table 1. Internet Service Providers.

Service Provider	Technology Platform	Price Range	Advertised Download Speeds	Advertised Upload Speeds
Astrea	Cable		1,000 mbps	100 mbps
Charter Communications	Cable		940 mbps	35 mbps
Frontier Communications	DSL		18 mbps	1.0 mbps
Solarus	DSL		20 mbps	20 mbps
TDS	DSL		15 mbps	2.0 mbps
Country Wireless	Fixed Wireless		50 mbps	6.0 mbps
NSight	Fixed Wireless		.7 mbps	.4 mbps
US Cellular	Fixed Wireless		2 mbps	.064 mbps

Insofar as the middle-mile portion of this project is concerned, installation of the middle-mile pursuant to this project will substantially limit future construction costs related to additional last-mile projects. County governments, municipalities, commercial organizations, and economic development advocates have all identified the need for expanded middle-mile transport to meet current needs, anticipate future needs, and to promote economic development.

The design of the middle-mile route was done in cooperation with Wood County Department Directors, wherein County officials were able to provide first-hand knowledge of existing broadband assets. This information was utilized to avoid existing areas with adequate coverage if at all possible, while still accomplishing County objectives and allowing for the development of a robust middle-mile capable of serving all of the communities throughout Wood County.

d. Project impact. A description of the geographic area and the population, both in terms of absolute numbers and likely users, which will be served by the proposed project. Indicate the number of anticipated residential and business customers in the project area, if known. Explain the speed and quality of internet service that will be available. Include information about the range of packages available for purchase. Provide details on any low-income access programs and steps the project will take to support adoption.

This project will have a profound impact on broadband access in Wood County. Of the 2,254 homes and businesses that will be able to immediately take service off the middle-mile fiber route, 1,675 are outside of metropolitan areas where broadband service is severely lacking, both in terms of access and affordability.

All last-mile connections made incident to this project will be fiber to the premises. Packages available will include a symmetrical 200 mbps download / 200 mbps upload option for \$64.99, in addition to a 1 Gbps download / 1 Gbps upload option for \$99.99. Bug Tussel is an Affordable Connectivity Program participant, with dedicated staff available for assistance, meaning support and connectivity for low-income residents is readily achievable.

This expanded access will enable improvements in the lives of the residents of Wood County by enabling remote work opportunities, improving access to educational opportunities, and enhancing access to medical services and information.

e. Scalability. A description of how the proposed project could expand or improve the broadband service it delivers, while maintaining the quality of its broadband service. This description should include specific projected increases in the following parameters that are known at the time of the application:

Bug Tussel is undertaking a significant fiber-optic build out across Wisconsin, with proposed projects in more than 45 of the 72 counties. When completed, this will create a statewide, rural focused fiber optic network with as many as 60 redundancies between the end user and the destination of their data traffic.

For too long, networks have been designed on an ad hoc basis, connecting only those areas with significant enough population to allow for a quick return on investment. This has resulted in unreliable networks that travers through entire communities without making connections to the residents. Bug Tussel has designed networks that focus first on reliability and need, and has found that profitably follows closely when you put the community, and its residents, first.

The project contemplated herein, as part of the statewide network design, will have the capacity to serve significantly more than the 2254 homes and businesses first able to take service. There will be 7 network aggregation points along the middle-mile, allowing future projects to expand in every direction with the capacity to provide service for the totality of Wood County, and beyond.

Bug Tussel is installing a 144 strand transport fiber as its middle-mile. Of those 144, 24 have been given to Wood County through the public private *partnership. Of the remaining 120 fibers, 48 fibers will be used for transport related FTTP, fixed wireless broadband, and cellular traffic, leaving 72 fibers, or one half of the installed assets, of additional capacity for future growth and expansion.

f. Economic development. A description of how the proposed project will promote job growth or retention, expand the property tax base or improve the overall economic vitality of the municipality or region. This description may be supplemented with a letter from one or more persons discussing the potential economic impact the project could have for that individual or business. In scoring this element, the following factors will be taken into account:

Wood County is considered a mid-sized Wisconsin county based on a population of 72,999. It is comprised of 22 towns, 8 villages and 4 cities. Besides the cities of Wisconsin Rapids and Marshfield (where approximately half the population live) most municipalities are considered rural in nature and experience the benefits of “small town” quality-of-life. The future sustainability of these rural communities is currently being challenged due to being unserved or underserved when it comes to broadband access at speeds of 25/3. The divide between communities with and without broadband has been realized and it will impact which communities thrive and which ones stagnate or slip into decline.

According to [Wisconsin’s Future Population: Projections for the State, Its Counties and Municipalities, 2010-2040](#), Wood County will experience a 5% decrease in total population from 2010 to 2040. In order to moderate that projected decline or stay even, Wood County must attract businesses and young families through economic development.

From an economic development perspective, it is well-documented and apparent that areas without adequate broadband face significant disadvantages as compared to communities that are fortunate enough to offer it. According to a November 2020 report from [Forward Analytics](#), Wood County ranks 54 out of 72 Wisconsin counties for percent of rural population with broadband access at various speeds.

Prior to Covid-19, Wood County was well aware of the challenges of minimizing projected population growth in the county. Without broadband, this challenge is further exacerbated. Simply put, Wood County will not be afforded the opportunity of future growth and sustain rural economies without adequate broadband. Future workforce solutions are also dependent on having communities that provide amenities that create a desirable quality-of-life, and the highest priority amenity is broadband.

The most recent Wood County labor market information from the [Wisconsin Department of Workforce Development \(2020\)](#) is as follows:

Education and Health Services	30%
Trade, Transportation and Utilities	23%
Manufacturing	13%

The top two are employment sectors that were especially forced to transition employees to remote work, and some are still offering remote options for employees with access to high-speed broadband. In today’s economic environment, that means less travel and money spent on gas, and more money in the family checkbook. But if an employee lives in a rural unserved or underserved area of the county, that option is just not possible.

Wood County is also home to a diverse agricultural economy, built on a bedrock of dairy and cranberry producers. Modern agriculture needs robust broadband to follow commodity market movements, purchasing supplies, and interacting with consultants. Higher speeds will enable the use of precision ag tools linking spatial variability in the field to variability of inputs such as fertilizer nutrients, seed and tillage. Dairy farmers who now have difficulty keeping current with milk production, laboratory quality tests and fluctuating feed inventories will have greater profitability.

Wood County is home to the largest concentration of cranberry growers in the world. Access to high speed internet would allow a transition from manual collection of temperature and water quality data to continuous monitoring. Instead of flat-rate application of fertilizer, with the ability to capture and process high-resolution imagery of vines in-season, fertilizer application could be precisely tailored to the plants needs. All of this results in an improved cost structure, as well as higher yields and better environmental outcomes.

Many businesses that shifted to remote work during the pandemic experienced serious access and reliability issues. This project will enable local business to not only continue to offer remote employees options, but also speed businesses processes for those located in rural areas of Wood County. High speed internet is a necessary infrastructure for recruitment and retention of employees, as well as attracting new residents who can telecommute to work in large cities while enjoying a rural lifestyle.

Telecommuter *Julie D.* offered the following in an attached letter of support: “I work from home and have done so since well before the pandemic. I manage a team across Wisconsin, Michigan and Illinois and our corporate office is in Chicago. Therefore, my internet is literally my bread & butter. If I cannot connect to the internet, I cannot do my work. The ability to have a higher speed, more reliable internet connection will be a wonderful thing for those of us that do not live in a larger city. We are often stuck with one option and so I never feel there is a lot of action taken by that company offering the one option to do improvements timely.”

There is a direct relationship between high-speed Internet access and residential property values. We do not have local sales data for the rural lightly-populated of Wood County, so we cite national literature. From an article published pre-pandemic in [Applied Economics](#) in 2019: **“Results show that single-family homes with access to a 25 Mbps broadband connection have a price that is about \$5,977, or 3%, more than similar homes in neighborhoods with 1 Mbps. The rural premium is lower at \$5,099.”** *Post-pandemic, one may assume that 3% is a low estimate.*

Perhaps most telling is this testimonial from local Realtor Lance Pliml in his attached letter of support: “I can unequivocally state, that even before the challenges COVID brought in 2020, there were buyers that refused to even consider a home without fiber or internet speeds of at least 100 mbps both up and down. If a property does not have internet access, where one can work remotely from home, or access school curriculum, there is a tremendous loss in value. Besides decreased value of the home, which can range anywhere from 5 – 10%, there are other financial implications impacting both families and governmental units. It also tends to create technology deserts where the ability to sell your home becomes extremely difficult. Entire communities suffer and eventually disappear.”

g. Effect upon broadband service to adjacent areas. A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

This project is about open-access expansion. In addition to compromising their reliability for the sake of profits, ad hoc networks that focus on dense, isolated population areas have a detrimental effect on future development.

Bug Tussel’s middle-mile/last-mile fiber will allow immediate access to those along the route, and it was designed not with dense population areas as the prime motivator. This will facilitate further development, by Bug Tussel and other competing broadband service providers, by greatly reducing the cost to serve even the most remote customers.

3.2.5 Other information supporting the application

a. A description of applicant’s history or experience constructing broadband communications facilities in the State and elsewhere.

As a growth oriented company with a statewide footprint, Bug Tussel has a long history of undertaking projects of this magnitude.

Through the PSC, Hilbert Communications, and its subsidiaries, have been awarded a number of grants, as shown on Table 2 below. All projects have been completed, or are in the process of being completed, within the parameters outlined in each respective grant application:

Table 2. Grant Awards.

Grant	Year	Technology	Status	Customers
Oneida County - I	2015	Fixed Wireless	Completed	199
Oneida County – II	2017	Fixed Wireless	Completed	256
Florence County	2018	Fixed Wireless	Completed	42
Oneida County – III	2018	Fixed Wireless	Completed	179
Juneau County	2018	Fixed Wireless	Completed	25
Green County	2018	Fixed Wireless	Completed	93
Oneida County – IV	2018	Fixed Wireless	Completed	169
LaFayette County	2019	Fixed Wireless	Completed	24

Green Lake County	2019	Fixed Wireless	Completed	31
Town of Deerfield	2019	Fixed Wireless	Completed	7
Oneida County – V	2019	Fixed Wireless	Pending	Pending
Kewaunee County	2020	Fixed Wireless	Pending	Pending
Menominee County	2020	Fixed Wireless	Pending	Pending
Forest County	2020	Fixed Wireless / Fiber	Pending	Pending
Green County	2020	Fiber	Pending	Pending
Iowa County	2020	Fiber	Pending	Pending
Florence County	2021	Fixed Wireless	Pending	Pending
Fond du Lac County	2021	Fixed Wireless	Pending	Pending
Iron County	2021	Fixed Wireless	Pending	Pending
Wood County – SW	2021	Fixed Wireless	Pending	Pending
Wood County	2021	Fixed Wireless	Pending	Pending
Kewaunee County	2021	Fiber	Pending	Pending
Forest County	2022	Fiber	Pending	Pending

Bug Tussel completed a number of American Rescue Plan Act Broadband Access Grant applications that were not awarded, and four of those projects will commence irrespective of the grant award. Construction on fiber-optic networks in Marathon, Waushara, Calumet, and Fond du Lac Counties will begin this spring.

b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

The project area is one where legacy providers have not continued to make the investments necessary to support modern technological advancement. As discussed above, existing access exists only in areas where profitability facilitated the investment, which leaves large geographic tracts throughout Wood County with little to no broadband access.

This necessitates the installation of a middle-mile, from which future expansions efforts can grow. The existing middle-mile infrastructure, in addition to being sparse, was not installed to facilitate widespread FTTP. The middle-mile contemplated here reaches far into the corners of the county, enabling low cost projects to make last mile connections.

c. A description of an applicant's financial ability to undertake the proposed broadband construction project. This may include information such as the number of years the company has been in operation, documentation of successful completion of similar infrastructure projects, evidence that sufficient funds are available to cover project expenditure and match, customer turn-over rates, and credit rating.

Bug Tussel Wireless was founded in 2003, and in 2008 joined forces with McKinley Reserve and Paul Gehl to form Hilbert Communications through a merger of seven companies. With the goal to remedy the dire need for broadband and cellular access of those living in rural communities, Bug Tussel has grown substantially in its nearly 20 year history.

The core investment group has made investments in rural wireless and broadband in excess of \$30 million and is currently completing a series of financing agreements to fund over \$500,000,000 of new capital projects through a number of joint ventures with private equity firms and public bond issuances. Consolidated revenues per Hilbert's most recent audited financial statements is nearly \$65,000,000, a doubling year on year increase.

Bug Tussel has a proven track record of operating, maintaining, and continually investing in its network to provide its thousands of rural customers with the best technologies on the market. Collaborating with partners like AT&T, Bug Tussel currently operates approximately 600 broadband and cellular sites throughout rural Wisconsin, Michigan and Iowa. Further, Bug Tussel has a rapidly expanding fiber footprint with existing fiber assets in Forest and Oconto Counties, as well as ongoing projects in Iowa, Green, Kewaunee, Marathon, Forest, Fond du Lac, Calumet, and Waushara Counties all set to be completed in 2022.

Bug Tussel and its subsidiaries can provide turnkey solutions for nearly any rural community. From site acquisition, tower construction, network operations, and sales and service, Bug Tussel can connect rural communities and keep residents competitive with larger urban centers.

Bug Tussel has been very deliberate in its network design creating significant redundancies through the use of "ring design" and a combination of over the air and fiberoptic connectivity resulting in industry high performance standards. This design and reputation resulted in the award of construction and operational contracts with AT&T for a portion of the FirstNet® National Emergency Communications Network. Bug Tussel brings the same reliability and redundancy design to an individual customer in rural Wisconsin as it does to a national emergency communications network.

Bug Tussel also believes that networks need to be sustainable and as such cannot be reliant on future grants or funding but must seek creative ways in rural markets to leverage assets. This application and our entire network leverages assets and relationships to create a superior network. Bug Tussel is in the final stages of a national build agreement with AT&T, with nearly 350 sites completed across Wisconsin and southwestern Iowa that also provides a basis for our broadband network and makes broadband possible on AT&T's network. Since 2018, Bug Tussel has ramped its site acquisition and construction teams from 2 to 4 sites per month to up to 20 sites per month and has completed nearly 200 sites in a single year. These sites met the stringent quality standards of FirstNet and of AT&T. They also met our own stringent quality standards for each rural customer.

d. For middle mile projects, state the terms under which the applicant will make its middle mile fiber resource available to last mile providers. Without disclosing project-specific or customer-specific negotiated rates for service or access, state whether access to the middle mile fiber resource will be offered to last mile providers at a rate that is reasonable and common to the industry. Describe any restrictions or limits that may limit the availability or interconnection with the middle mile route.

Bug Tussel's network is open to all providers, and we believe that by strategically placing the fiber in unserved or underserved areas and opening the DWDM network to other providers, that the speed of deployment for other providers who may want to use our fiber for backhaul, temporarily or permanently until their construction plans catch up, will be positively impacted.

The rates Bug Tussel intends to charge will be reasonable, and will include shorter-term lease agreements, longer-term IRUs, and fiber swap agreements. By including 7 access points throughout the middle-mile route, the capacity available for expansion will be easily accessible to any and all who may have an interest.

e. For middle mile routes, state the amount of fiber capacity, by number of fiber strands in a cable, that the applicant has been reserved for public use. Describe any commitment or tentative discussion indicating the local government or State agency that might use those fiber strands, and for what purpose. Describe any restrictions or limits that may limit the public use (e.g. a possible use conflicts with an existing program covering the same subject matter).

Through Bug Tussel's public private partnership with Wood County, 24 dark fiber strands are reserved for the County at no cost. This commitment to free access for Wood County is contracted for 30 years.

Moreover, Bug Tussel engaged with Wood County in the planning stages of this grant application to design a network that accomplishes numerous County objectives, better allowing the County to utilize the fiber they are given.

f. A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.

Wood County is home to one of the nation's premier rural health care systems: Marshfield Clinic Health System (MCHS). It has provided over 400,000 telehealth visits in the past 2 years. In its **attached letter of support**, it likewise noted that telehealth appointments demand a high-speed connection, and this project addresses several areas of broadband deficiency in its service area. The pandemic accelerated the move to delivering care via telehealth much more quickly than expected. Looking forward to a post-Covid-19 world, telehealth is not going away, as it allows better access to care without the need to travel or miss work or school. It will allow patients to maintain chronic disease appointments, visit their primary care doctor or complete follow-up care. Higher internet speeds will enable more use of home monitoring, thus reducing healthcare costs and improving outcomes. A Wood County patient's access to broadband at home will be a determining factor in which services they can and cannot use.

National studies provide evidence of cost savings with the use of telehealth services. In a pre-COVID-19 study of 40,000 Cigna beneficiaries, the 20,000 beneficiaries who used the MDLive telehealth platform had 17% lower costs when compared with non-virtual care. Virtual care users also experienced a 36% net reduction in ED use per 1,000 people compared to non-virtual care users ([Healthcare IT News](#)). The National Committee for Quality Assurance (NCQA) [Report of the Taskforce on Telehealth Policy](#) discusses a variety of evidence that the use of telehealth services lowers the overall cost of care. We are confident that this national data can be extrapolated to this project area. Considering that in-person health care services may be 5 to 20 or more miles away for rural residents in Wood County, use of telehealth also results in savings related to travel, gas and time away from work or school.

g. A description of how the proposed project will affect the ability of students to access educational opportunities from home.

Wood County is served by six K-12 school districts: Auburndale, Marshfield, Nekoosa, Pittsville, Port Edwards, and Wisconsin Rapids. Together they serve 13,027 K-12 students. Although Marshfield and Wisconsin Rapids are larger cities with robust broadband, each of those two school districts serves students in rural Towns that are labeled as underserved, as do the other four districts.

At the start of the pandemic, each Wood County School District distributed hotspots to families. However, even with that assistance, some families simply had an inability to get reliable internet where they lived. Students at Mid-State Technical College and UW – Stevens Point at Marshfield had similar struggles, as did teachers at all levels of the educational system. Stories abound of students in school parking lots or fast food parking lots accessing wi-fi to participate in education.

Since this is a 139.1 mile middle mile project, the only way to confidently report the number of students to be served would be via a door-to-door survey, which is not currently practical. So, we estimate approximately 5% of the county's K-12 student population (651 out of a total student population of 13,027) live along this route. Mid State Technical College reports that 421 students live in rural Wood County Towns that are on the middle mile route. Using the same formula, we estimate approximately 21 Technical College students would benefit.

There are many online educational programs currently available for students of all ages in the project area. Several school districts have on-line learning labs, where a student can be physically located in their high school but take a class for college credit. While K-12 schools have largely returned to in-person instruction, some families prefer an on-line option. With improved internet access, families in the project area may wish to open-enroll in accredited online schools such as Acellus Academy, Virtual Charter Schools, or the Wisconsin Connections Academy. Mid-State Technical College offers 17 programs totally on-line, as well as 9 Career Accelerator Certificates which combine in-person and online instruction. All University of Wisconsin campuses, as well as most private colleges and universities, offer online classes and degrees that can be accessed with a high-speed connection.

Adult professional continuing education has made a major shift to online course delivery, and will be aided by this project. Rural health care providers at all levels, from nursing assistants to sub-specialty physicians, REALTORS, HVAC technicians, accountants, firefighters, childcare providers and others need access to highspeed internet for continuing education to maintain credentials and improve skills.

h. A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public-private partnership above, including but not limited to:

This project is the result of a true partnership between Bug Tussel and Wood County. From planning and design forward, Bug Tussel and the County have been engaged, and will continue to be engaged to complete the shared goal of expanded broadband access throughout Wood County.

Moreover, Bug Tussel will continue to partner with Wood County following the completion of the construction project. Bug Tussel works diligently to level the playing field so that rural areas can utilize the same types of services as urbanized areas and therefore able to fully compete economically and socially to attract and retain residents and businesses. Through its community outreach component, Bug Tussel University, Bug Tussel will work with Wood County to provide educational seminars ranging from basic classes ("How to use the internet" and "How to use social media") to more advanced curriculum. Bug Tussel University personnel are always very engaged in the communities in which Bug Tussel operates, seeking user feedback on ways to assist them in connecting technology and the community.

i. Letters and messages in support of the application submitted by prospective customers, local government officials, and other interested persons.

We have received a total of 27 letters of support for this project. Due to page limitations, a curated comments page has been prepared (attached as **Exhibit C**). The remainder Letters of Support from schools, government officials, health care institutions, and residents that will benefit from this project, are collectively attached as **Exhibit D**, the first ten of which have been identified.

EXHIBIT LIST

- A. Agreement to Establish Public Private Partnership for the Purpose of Applying for a Broadband Expansion Grant**
- B. Statement of Need – Chairman of the Wood County Board**
- C. Curated Comments**
- D. Letters of Support**
 - a. Senator Kathy Bernier;**
 - b. Senator Patrick Testin;**
 - c. Town of Hansen;**
 - d. Town of Hiles;**
 - e. Town of Sherry;**
 - f. Town of Dexter;**
 - g. Town of Wood;**
 - h. School District of Pittsville;**
 - i. School District of Auburndale; and**
 - j. School District of Marshfield.**

AGREEMENT TO ESTABLISH PUBLIC PRIVATE PARTNERSHIP FOR THE PURPOSE OF APPLYING FOR A BROADBAND EXPANSION GRANT

THIS PUBLIC PRIVATE PARTNERSHIP AGREEMENT ("Agreement") is made this 15th day of March, 2022 ("Effective Date") by and between Wood County, Wisconsin (the "County"), a political subdivision of the State of Wisconsin, and Hilbert Communications, LLC, a Wisconsin limited liability company ("Hilbert"). The County and Hilbert are collectively referred to as the "Parties".

RECITALS

- A. The County seeks to promote development of high-speed broadband services to unserved and underserved areas within its boundaries and believes that cooperation with private-sector partners is necessary for the development of a county-wide broadband network that meets the needs of the County, its resident, and its businesses.
- B. To encourage and facilitate deployment of high-speed broadband service in unserved and underserved areas within the County, the County and Hilbert seek to enter into a public-private partnership to construct broadband infrastructure to facilitate the future development by Hilbert and/or other third-party internet service providers (the "Project").
- C. The full scope of the Project is yet to be defined but will be defined in the final partnership agreement between the Parties ("Final Partnership Agreement").
- D. The Parties intend that Hilbert, with the County as its public partner, apply to the State of Wisconsin Broadband Expansion Grant Program ("Grant Program") to obtain a grant to be used to pay for a portion of the cost of constructing the Project.
- E. The County finds the Project to be in the public interest of the residents and businesses of Wood County.

AGREEMENT

THE PARTIES agree as follows:

- 1. **Purpose.** By this Agreement, the County and Hilbert agree to form a public-private partnership so that Hilbert can apply to the Grant Program to obtain funds to be applied toward construction of the Project. The County agrees that, as Hilbert's public partner, it will cooperate with Hilbert in preparation of the grant application.
- 2. **Project.** The Project will be developed by Hilbert. The estimated cost of the Project is \$8,500,000.
- 3. **Project Funding.** In its grant application, Hilbert shall request a grant for Two Million Dollars (\$2,000,000). If the Grant is awarded and if the Project receives final approval from each Party's respective governing body, each Party agree in principle to be responsible for a portion of the estimated project costs, subject to further review.

4. **Authorization.** Each Party represents that it has the authority to execute this Agreement.
5. **Records.** Hilbert shall provide the County with a copy of its application to the Grant Program at the same time the application is submitted to the PSC.
6. **Termination.** This Agreement shall become effective on the Effective Date and shall terminate if Hilbert's grant application is unsuccessful. If the grant application is successful, this Agreement shall terminate one (1) year after the grant award or in the event that the Parties enter in a Final Partnership Agreement before the one (1) year period expires.
7. **Entire Agreement.** There are no representation or understandings of any kind not stated in this Agreement.
8. **Governing Law.** This Agreements shall be governed by the laws of the State of Wisconsin.
9. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

WOOD COUNTY

The undersigned Wood County officials have executed this Agreement pursuant to duly adopted Resolution No. 22-2-3 day February 15, ~~2022~~ 2022.

* [Signature]
Lance A Pliml, Chairman
Wood County Board of Supervisors

Attest:
[Signature]
County Clerk

STATE OF WISCONSIN)
) SS.
WOOD COUNTY)

Personally came before me on March 15, 2022, the above named Lance A Pliml, to me known to be the persons who executed the foregoing instrument and acknowledge the same.

[Signature]
Deputy County Clerk Notary Public, State of Wisconsin
My Commission Expires: 1/6/2025
term

HILBERT COMMUNICATIONS, LLC

[Signature]

Dated: March 16, 2022

Attest:
[Signature]
Notary Public

STATE OF WISCONSIN)
) SS.
BROWN COUNTY)

Personally came before me on Nitchel Olsen, to me known to be the persons who executed the foregoing instrument and acknowledge the same.

[Signature]
Notary Public, State of Wisconsin
My Commission Expires: 10.24.22





Wood County

WISCONSIN

COUNTY BOARD CHAIRMAN'S OFFICE

March 14, 2022

Ms. Kristy Nieto
Division Administrator
Public Service Commission of Wisconsin 4822 Madison Yards Way
P.O. Box 7854
Madison, WI 53705-9100

Re: Unserved and Underserved Areas of Wood County

Dear Ms. Nieto

On behalf of the Wood County Board of Supervisors, I want to express our support for the partnership between Bug Tussel Wireless and Wood County, and their application for the R.O.A.D. to Digital Equality – Wood County.

Bug Tussel and Wood County has developed a comprehensive plan for broadband expansion in Wood County, including the installation of a middle-mile fiber ring that will be the backbone for high-speed broadband service in areas of Wood County that have minimal to no existing broadband service.

This investment is desperately needed as, outside the major population centers, specifically Wisconsin Rapids and Marshfield, there is no infrastructure capable of supporting significant broadband development.

The residents in all corners of rural Wood County are currently lacking affordable, reliable options for broadband access sufficient to supporting their needs.

Thank you for your attention to this matter, and for your due consideration.

Sincerely,

Lance A. Pliml
Wood County Board Chairman

Wood County Middle Mile Broadband Grant - Additional Information and Curated Comments

The Wood County R.O.A.D. to Digital Equality Project will construct a 139 Middle Mile route through the county, which will bring fiber-to-the-premise (FTTP) for over 2,500 resident and business addresses along the route and be used for future FTTP expansion. **To grow and prosper, and for residents to remain safe and healthy, we need reliable internet/broadband service for this unserved and underserved area.** Wood County stakeholders have established a county-wide Digital Equity Solutions Team, and this project is Phase 2 of the effort to bring fiber-to-the-premise for all Wood County residents & visitors.

We received a total of **37 letters of support** for this project; all are attached at the end of the application.

K-12 School Districts with the largest unserved/underserved geography, Auburndale, Pittsville, Marshfield, submitted letters.

Auburndale School District – “Broadband access increases opportunities in other class offerings through shared virtual classrooms. High school students can attend classes not only with different districts, but also advanced courses – earning college credit from their home districts.”

Pittsville School District – Located in the unserved/underserved South West quadrant of Wood County this district attached speed test data in its letter of support.

Mid-State Technical College – “Beyond virtual learning at the college level, our local K-12 districts are filled with students without access to fast, reliable and affordable internet, affecting their ability to fully experience educational opportunities which in turn shapes their future career success. Additionally, many of our local business partners also operate in rural communities and a broadband expansion would also support data management and overall business sustainability and growth.”

Wood County Planning & Zoning Department, which is home to the Economic Development function, letter is attached and describes how the future sustainability of our rural communities is being challenged.

The Marshfield Chamber of Commerce & Industry has a mission to reach beyond its discreet community to serve the rural areas. , “Broadband is a critical recruitment and retention tool for industry.equitable broadband service is as critical for business sustainability and growth, as is, access to reliable energy and a transportation infrastructure. The lack of or inadequate broadband services in Wood County made it difficult, if not impossible, to perform necessary work in those rural areas of the county.”

Oakdale Electric Co-op and Dairyland Power both support this project, and Dairyland noted the importance of “....opportunities for entrepreneurship, tourism and a robust, diverse economy.”

Wood County Parks and Forestry – Ownes/manages 3 campgrounds. “Over 60% of our campers reside outside of Wood County. With the addition of broadband access within our campgrounds, there is no doubt we would attract more visitors and our visitors would stay longer.”

UW Extension Statewide Cranberry Specialist – “The areas impacted by this project (especially Cranmoor, Pittsville, Babcock, and other towns) are home to some of the most productive cranberry farms in North America. The ability of these farmers to capture and transmit data (such as high-resolution imagery) will improve their future production. Having fast, reliable, and affordable internet service in rural areas of Wood County is directly related to the success of the agriculture economy.”

Marshfield Clinic Health System – Wisconsin’s premier rural health care system is headquartered in Wood County and provides compelling evidence for accelerated use of telehealth care in its letter of support.

Wood County Sheriff – “Faster download speeds will ensure a quicker response from our Deputies out in the field. The phase two part of this project will positively affect public safety, which our Wood County citizens deserve.”

Town of Sherry –This municipality is Broadband Forward! Certified.

Town of Dexter – “Our deputy clerk works from home and has immense struggles with her current internet speeds.” This affects the ability to complete town paperwork.

This project has the support of all state legislators who represent the rural areas of Wood County: Senators Testin & Bernier, Representatives VanderMeer and Rozar.



PATRICK TESTIN
STATE SENATOR

March 8, 2022

Public Service Commission of Wisconsin
4822 Madison Yards Way
Madison, WI 53705

Dear Public Service Commission of Wisconsin Officials,

It is critical that we continue to focus on connecting Central Wisconsin, and I am asking that we build on our previous successes. That is why I am urging you to approve the Wood County Broadband Expansion Project - a middle mile project proposed by Wood County and Bug Tussel Wireless.

This project would bring fiber to nearly 2,500 homes and businesses in Wood County. As our economy evolves, the importance of connectivity only increases. It is important that rural areas maintain access to the same opportunities to compete that are found in more urban areas of our state and country.

Bug Tussel and Wood County have proven to be reliable partners for the PSC in the past, and they and Wood County are excellent candidates for further investment. I ask that you approve the project.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick Testin", with a stylized flourish at the end.

Patrick Testin
WI State Senator,
Senate District 24

STATE SENATOR KATHY BERNIER
TWENTY-THIRD SENATE DISTRICT



State Capitol • P.O. Box 7882 • Madison, WI 53707
Office: (608) 266-7511 • Toll Free: (888) 437-9436
Sen.Bernier@legis.wi.gov • www.SenatorBernier.com

March 7, 2022

Steffany Powell Coker
Public Service Commission of Wisconsin
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way

Dear Ms. Powell,

As the Senator for Wisconsin's 23rd Senate District, I am writing to express my support for the approval of the Wood County Broadband Expansion Project. The expansion and improvement of internet connectivity for the residents in rural areas of my district will aid critical daily functions like healthcare communications, public safety, education, and workplace activities.

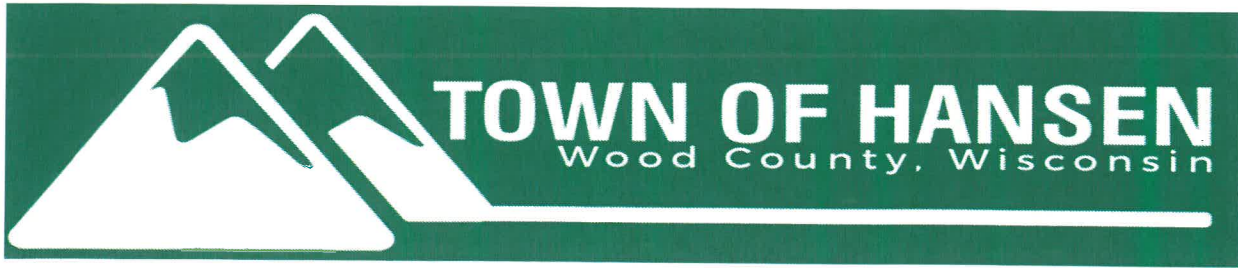
Previous improvements in Wood County implemented broadband speeds of 25 mbps download and 3 mbps upload. These speeds are not fast enough to meet new federal standards. This grant would allow the Wood County Broadband Project to construct a middle mile fiber route and bring internet speeds to minimums of 100/100, reaching over 2,500 addresses in the county. These speeds comply with federal guidelines and creates a foundation for further fiber expansion. The establishment of this project will benefit residents and businesses alike and allow for future improvements as technology advances.

The residents of Wood County need adequate internet connectivity for the safety and flourishing of their communities. I strongly support this critical project and appreciate your consideration of this important grant application. If you have any further questions about this grant application, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kathy Bernier". The signature is fluid and cursive, with the first name "Kathy" and last name "Bernier" clearly distinguishable.

Kathy Bernier
Wisconsin State Senator
23rd Senate District



March 14, 2022

Ms. Kristy Nieto, Division Administrator
Public Service Commission of Wisconsin
4822 Madison Yards Way
Madison, WI 53705-9100

Dear Ms. Nieto,

We are writing in support of the Wood County Broadband Expansion Project. The successful operation of the Town of Hansen, residents and businesses, depends on reliable and cost effective internet. We currently have internet speeds of 11.92 upload 1.11 download, but at times the internet speeds are as low as 5.41 upload and .67 download. This project would upgrade the service to the new federal standard of 100 download/upload speed.

Our current internet is unreliable and very expensive. The Town of Hansen residents deserve to be able to get fast and affordable internet. The Middle Mile Project will enable critical activities such as virtual learning, economic development, and the ability to work virtually. This project will allow our residents to be able to receive the kind of services that are available to people that live in bigger communities and have access to high speed internet.

Without quality internet services, we are not keeping up with the world around us. Please give your full consideration to this important project being proposed for rural Wood County.

Our town board is highly supportive of this project. If you have questions or would like additional information, please feel free to reach me at 715-459-5530 or hansenclerk@gmail.com . Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads 'Diane L. Kohls'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Diane L. Kohls
Clerk, Town of Hansen



March 7, 2022

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Ms. Powell Coker;

I am writing in support of the proposed "Wood County Broadband Expansion Project", in collaboration with Bug Tussel Wireless. The successful operation of the Town of Hiles residents and businesses depends on reliable and cost-effective internet service. According to PSC maps, the majority of the Town of Hiles is unserved for this crucial infrastructure service.

This has been made extremely clear to us during the Covid-19 pandemic which has seen the youth of our Town have to attend school virtually. Not having proper internet service puts our youth at a disadvantage. Not only has this affected our younger students, but also those attending school at institutions of higher learning.

From the standpoint of Town government, it would bring fiber to the Hiles Town Hall and make it easier to access state & federal resources, complete forms and file reports.

Without quality internet services, we are not keeping up with the world around us. Please give your full consideration to this important project being proposed for Wood County. If funded, it would install a fiber backbone along state and county roads in the Town of Hiles, thus bringing fiber to the home for many of our residents.

If you have any questions or would like additional information, please feel free to reach me at 715-572-0703 or at tom@haycreekpallet.com. Thank you for your consideration.

Respectfully,

A handwritten signature in black ink that reads "Thomas C. Gardner".

Tom Gardner
Chairman, Town of Hiles

TOWN OF SHERRY WOOD COUNTY WISCONSIN

Visit our Website: townofsherry.com

March 13, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th Floor
Madison, WI 53705

Subject: Wood County Broadband Expansion Project

Ms. Coker,

I am writing this letter in support of the Wood County Broadband Expansion Project. I am the Chairman for the Town of Sherry here in Wood County. I am also the father of a middle school student and work from home for BouMatic, LLC., a Madison based dairy equipment company. The pandemic has changed the way we do business and teach our students. This has put an emphasis on the need for high-speed internet in our rural area. I have heard from several residents about their frustration with slow internet speeds. In our house, we have had to juggle schedules so we can use the internet for work and school and have gone as far as disconnecting all other devices from WIFI to have a Zoom meeting. We normally see 12.5 Mbps download and 1.05 Mbps upload speeds, far below the new federal standard of 100 Mbps upload/100 Mbps download speeds. Our current speeds are not fast enough for two people working from home and a student trying to do schoolwork or watch TV.

The Town of Sherry has a population of approximately 800 people. We have a diverse workforce with connections to agriculture, education, healthcare, forestry, construction, transportation, and several other fields. We have several established businesses and home-based businesses in the township, along with elementary, high school and college students that all rely on reliable internet daily. Working from home and virtual learning have been a struggle for everyone. Families are sitting in school and business parking lots to download schoolwork and send email. Dairy farms cannot incorporate the latest technology needed to stay competitive in today's market. Our local trucking company struggles to keep in contact with their trucks and home-based businesses cannot access their websites. Safety is also a concern. Some residents rely on the internet for weather and safety alerts.

With COVID still causing problems and the uncertainty of how work and school will look in the future, it is important to work towards providing faster and more reliable internet service to our residents. With this grant, Wood County would be able to upgrade the service to meet the federal standard of 100

upload Mbps/100 download Mbps. The Town of Sherry is Broadband Forward & Telecommuter Forward Certified and will cooperate fully with Bug Tussel to implement the project is our jurisdiction.

If you have any questions or would like additional information, please feel free to reach me at 608-807-8090 or dave.homb@gmail.com. Thank you for your consideration.

Respectfully,

Dave Homb
Chairman
Town of Sherry

Town Hall Address: 9285 Second St. Milladore, WI

Mailing Address: 8755 County Rd S, Milladore WI 54454

Email:sherrytownchairman@gmail.com

March 6, 2022

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Subject: Wood County Broadband Expansion Project

Ms. Powell Coker,

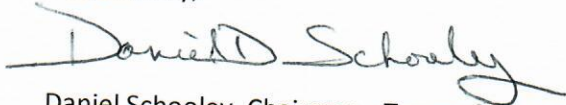
I am writing in support of the Wood County Broadband Expansion Project in collaboration with Bug Tussel Wireless. The success operation of the Town of Dexter, resident and businesses, depends on reliable and cost-effective internet service. According to PSC maps, much of Wood County is underserved for this crucial infrastructure service, and a portion is actually unserved. This project would bring fiber to our Dexter Town Hall which would allow us to utilize our facilities for more educational and training opportunities in addition to meetings where guests would be able to use internet while attending.

- Town of Dexter, Wood County, has a total number of residents of 362 and our total township is within the Pittsville School District. We have two brick and mortar businesses and many others who work from home in our township. The Lakeside Oasis, which is a gas station/convenience store and restaurant combination, and a Root Beer Stand that is typically open during the summer months. Also, this is cranberry country and we have a couple of operating marshes. Our town hall is used for meetings, elections, etc and is rented out during the year for family reunions, weddings, graduation parties, baby showers and other get togethers. Wood County has the Dexter County Park in our township and it's also very popular and full during the summer months.
- Our deputy clerk is a perfect example of a resident that works from home. She has immense struggles with her current internet speeds. Her family pays for the fastest speeds possible but they never see more the 11.4 Mbps on downloads and 3.3 Mbps on uploads. Only one person can be on the internet at a time or the internet speed slows down significantly to the point of not being able to complete required work. This includes completing town paperwork and sending emails in addition to her normal required workload.

Without quality internet services and fiber cable, we are not keeping up with the world around us. Rural Wisconsin towns are suffering and lagging behind because of the lack to access to affordable technology. Please give your full consideration to this important project being proposed for our area of Wood County.

If you have any questions, or would like additional information, please feel free to reach me at 715-213-8665 or at djschool@outlook.com. Thank you for your consideration.

Respectfully,



Daniel Schooley, Chairman - Town of Dexter

March 11, 2022

Steffany Powell Coker, Secretary to the Commission

Public Service Commission

4822 Madison Yards Way

North Tower, 6th floor

Madison, WI 53705

Ms. Powell Coker:

I am writing in support of the proposed Wood County Broadband Expansion Project. Modern life is dependent on fast, reliable, and affordable internet service. As residents of rural Wood County, we expect digital equity with those living in larger communities.

I am a town clerk. Much of my work entails use of the internet. Without expedient internet service I am unable to fulfill my duties, as much of my reports to the state cannot be done by any other means. At election times I need quick and accurate service to access election records as well as send data to the WEC.

The middle mile project will serve Town of Wood residents living on Highway 80 and Highway 73 East. This area would include many of the residents of the Town of Wood.

I am highly in support of the expansion of broad band in this area which this project would provide.

If you have any questions or are in need of additional information, please feel free to reach me at 715-884-6634 or townofwoodclerk@gmail.com. Thank you for your consideration.

Respectfully,

Patricia Krueger

Town of Wood Clerk

School District of Pittsville



DISTRICT OFFICE

Rodney Figueroa, Superintendent
5459 Elementary Avenue, Suite 2
Pittsville, WI 54466
715-884-6694
FAX 715-884-5218

HIGH SCHOOL

Dr. Rod Watson, Principal
5407 First Avenue
Pittsville, WI 54466
715-884-6412
FAX 715-884-2870

ELEMENTARY SCHOOL

Heather Friday, Principal
5459 Elementary Avenue, Suite 1
Pittsville, WI 54466
715-884-2517
FAX 715-884-5232

3/7/2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th floor
Madison, WI 53705

Ms. Powell Coker,

I am writing in support of the Wood County Broadband Expansion Grant. If funded, this middle mile project will bring fiber to the homes for Pittsville School District students in the unserved Towns of Hiles, Remington, and parts of the underserved Towns of Arpin, Cary, Hansen, Richfield, and Wood.

Pittsville School District is 367 square miles in Jackson, Juneau, Wood, and Clark Counties. We educate 560 students and have 1.53 students per square mile. Pittsville has invested heavily in user end technology and infrastructure to provide on-site internet access which is robust and high speed.

Pittsville is an invested member of the Rural Virtual Academy and has 12 fulltime virtual students. We offer additional courses in a virtual setting we would otherwise be unable to offer due to lack of qualified staffing for classes of 5 or less students. During the last 2 years, we have used virtual education to keep our students and staff who are quarantined connected to teach and learn in synchronous and asynchronous classrooms. At no time since the start of the pandemic has Pittsville stopped educating our students.

It is the District's goal to promote the development of high-speed broadband services to unserved and underserved areas within our District. Supporting students and families in rural communities with increased broadband access has merit beyond meeting the needs of a pandemic. Some families choose to live in rural areas, but many live in rural areas because that is where they need to be to make a living. Thank you for your consideration.

Our best for their best,

R. Figueroa

Rodney Figueroa
Superintendent Pittsville School District

Download data collected from 12 locations in our 367 square mile boundaries.
Underlined in yellow are Jackson county locations within our School district.

	Kaieet	MiFi	AT&T
1. 6660 Bluff Rd Arpin	10mbps	0mbps	2.7mbps
2. 10 miles north of Pitt. Ctv Rd A	1.5mbps	2 mbps	1.6mbps
3. Hwy B 5 miles N of 73	1.6mbps	18mbps	4.5mbps
4. Hwy B and Carv Rock Rd	0	NS	0
5. intersection 73 and B	5.2mbps	83mbps	2.4mbps
6. Hwy 73 town/Sherwood	1.5mbps	310kbps	3.4mbps
7. Hwy 73 and Ctv W	4.9mbps	10mbps	2.3mbps
8. Old Hwy 54 and Pray Rd	0	0	1.3mbps
9. Hwy 54 and Saddle Mound Rd	16mbps	15mbps	4.4mbps
10. Hwy 54 and Cranberry Rd	2.7mbps	670kbps	3.8mbps
11. Hwy 54 and Hwy 80 Dexterville	8.3mbps	6.7mbps	o
12. Hwy 80 and Hwy 173 Babcock	13mbps	39mbps	4.1mbps



SCHOOL DISTRICT OF AUBURNDALE

10564 School Ave. • P.O. Box 139 • Auburndale, WI 54412
715-652-2117 • Fax: 715-652-2836 • <http://www.aubschools.com>

Mr. James Delikowski ~ District Administrator

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

March 7, 2022

Subject: Letter of Support for Wood County Broadband Expansion Project

Ms. Powell Coker,

I am writing in support of the proposed Wood County Broadband Expansion Grant. If funded, this middle mile project will bring fiber to the home for Auburndale School District students in parts of the underserved Towns of Arpin, Auburndale, Milladore and Sherry.

All levels of our educational system stand to gain from this project as broadband can overcome geographical and financial barriers to provide a wide range of educational and cultural opportunities.

For residential internet service, broadband makes it possible for students to attend their virtual classes and complete assignments at home – something that many students cannot currently do. Being unable to attend online classes and complete assignments at home creates a burden on students as they must find other means of internet provision, including traveling to the public library, a local fast food restaurant, or friends house which can take a great deal of time, money, and health exposure. Beyond virtual learning and homework, quality residential internet service, students can easily access information and learn about their community and the world. They can also learn about secondary education options, research job opportunities, and communicate with others.

Broadband access increases opportunities in other class offerings through shared virtual classrooms. High School students can attend classes not only with different districts, but also advanced courses -- earning college credit from their home districts. These opportunities enable professional development and career advancement opportunities.

At this time of unprecedented need for all of our district families, I sincerely support an extensive expansion of Broadband access for my district and our county.

If you have any questions or would like additional information, please feel free to reach me at 715-652-2117 or at jdelikowski@aubschools.com. Thank you for your consideration.

Respectfully,

Mr. James Delikowski
District Administrator
School District of Auburndale
Auburndale, WI



Unified School District of Marshfield

March 9, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th floor
Madison, WI 53705

Dear Steffany Powell Coker:

I am writing in support of the proposed Wood County Broadband Expansion Grant in partnership with Bug Tussel. If funded, this middle mile project will bring fiber-to-the-home for students in our school district along the route in parts of the underserved Towns of Cameron, Lincoln, Marshfield, Richfield and Rock.

All levels of our school system stand to gain from this project as improved broadband could help our families overcome geographical and financial barriers and provide students a wider range of educational and cultural opportunities. For our students, reliable broadband is of critical importance when it comes to their capability to attend virtual/remote learning while at home. Many of our rural students continue to experience significant limitations in their capacity to complete virtual/remote learning from home, which has only been exasperated by the COVID-19 pandemic. When reliable Internet connectivity is not available to assist students with completing their school work at home, great burden (time, financial, etc.) is placed on families as they must find other means for Internet provision. Beyond virtual learning and homework, high-quality residential Internet service can serve as a gateway to diverse world-of-work exploration experiences that allow students to learn about post-secondary education options, research careers, and communicate with others. Broadband access also increases students' opportunities to engage unique course offerings, such as college credit classes and other advanced coursework, which can enhance high school students' college and career readiness.

If you have any questions for me or would like more information about the Unified School District of Marshfield, feel free to contact me at christiansonr@marshfieldschools.org or 715-387-1101 [ext. #1114]. Thank you for your consideration.

Respectfully Submitted,

Ryan Christianson, Ed.D
Superintendent
Unified School District of Marshfield

March 14, 2022

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Ms. Powell Coker,

I am writing in support of the proposed R.O.A.D. to Digital Equality - Wood County Broadband Grant. I am the Cranberry Outreach Specialist with the University of Wisconsin – Madison Division of Extension. My office is in Wood County, and I serve cranberry farmers in all 18 cranberry-producing counties. The areas impacted by your project (especially Cranmoor, Pittsville, Babcock, and other towns) are home to some of the most productive cranberry farms in North America. The ability of these farmers to capture and transmit data (such as high-resolution imagery) will improve their future production. Having fast, reliable, and affordable internet service in rural areas of Wood County is directly related to the success of the agriculture economy.

If funded, this grant would improve internet service to the Town of Cranmoor, one of the largest cranberry producing towns in the nation. Managing a profitable cranberry farm requires attentive management. Farmers today rely on hardwired connections to temperature sensors to protect from frost. They must take water quality samples manually. Reliable high speed broadband would enable continuous data logging and data transmission, allowing better management and time-tracking of these important items. Currently cranberry farmers apply fertilizer in flat-rate applications, but if they had the ability to capture and process high-resolution imagery of their vines in-season, they would be able to tailor their fertilizer applications to the plant's needs more precisely. This will result in reduced unnecessary cost for farmers, along with improved yields and environmental outcomes. We have seen these outcomes in rowcrops already, and improved data throughput in cranberry growing regions will enable this progress for cranberries as well.

Further, having access to high-speed internet will enable the recruiting of staff who otherwise might need to move to cities. With broadband, a spouse of a cranberry worker can work remotely in a field of their expertise without having to leave Cranmoor; or for those who find work in Wood County, quality of life will be boosted by better connectivity with hobbies and educational opportunities throughout the world. If you have any questions or would like additional information, please feel free to reach me at allison.jonjak@wisc.edu. Thank you for your consideration.

Respectfully,

Allison Jonjak
Cranberry Outreach Specialist
University of Wisconsin – Madison Division of Extension



Wood County

WISCONSIN

3-9-22

Ms. Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, Wi. 53705-9100

Subject: Wood County Broadband Expansion Project


My name is Bill Leichtnam; I am a Wood County Board Supervisor, District # 19, and a Town of Saratoga Board supervisor. In both elective positions, I see the economic disadvantages imposed upon "unserved and underserved" residents who need improved broadband services in rural areas in order to work from home, access the internet for educational and shopping purposes and prosper economically on par with more urban residents. Having access to improved broadband could provide a potential economic impact of at least 3-5%, contribute to workforce development by enhancing opportunities to "work-at-home", and raise residential property values at least 10-15%.

On the Wood County Board, I serve on the CEED (Conservation, Education, & Economic Development) Committee where improved broadband is a monthly agenda item. Having grown up in a rural community of Clark County, I've witnessed a steady decline in the size and the ability of rural communities to provide essential services and the amenities of life to their residents. As a retired educator, I recognize the importance of being instantly connected to the outside world. In an ever-evolving global and technological society, rural America without adequate upload and download speeds, is falling farther and farther behind. We can not allow this alarming trend to continue.

In some areas of rural Wood County, Solarus provides internet services. I support the grant application submitted by Hilbert Communications in cooperation with Wood County because it would lead to a much needed 1st or 2nd telecommunications provider for this area.

During this grant funding cycle, I would ask your help in better positioning rural Wood County for economic growth by providing support for improved broadband infrastructure.

Thank you!


Bill Leichtnam

Wood County Board Supervisor, Dist. # 19
Town of Saratoga Board Supervisor



March 8, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission of Wisconsin
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Dear Commissioners,

I am writing in support of Wood County's Wisconsin Broadband Expansion Grant Application. Wood County's proposed fiber backbone/middle mile project, in partnership with Bug Tussel Wireless, is very much in line with the Public Service Commission of Wisconsin's program mission "to encourage the deployment of advanced telecommunication capability in underserved areas of the state."

As the generation and transmission electric cooperative serving rural distribution cooperatives throughout Western Wisconsin, we are working hard to address the challenges as well as the opportunities facing our rural communities. Attracting and retaining talent to keep our communities and companies strong is the most important objective in economic development today. Broadband connectivity is a critical element in accomplishing this goal. No longer can high-speed internet be looked at as a luxury but as a necessity that allows our children to learn, businesses to grow and communities to thrive. High-speed internet allows residents to make their homes in our communities even though their employer may be hundreds of miles away. It provides opportunities for entrepreneurship, tourism and a robust, diverse economy in rural Wisconsin.

Oakdale Electric Cooperative, our local member distribution cooperative, is also supportive of this effort as it aligns with the co-op's mission to "enhance the quality of life for our members, while exceeding member expectations."

We encourage you to give every consideration of funding support for this project which will allow Wood County and Bug Tussel Wireless to continue expanding quality telecommunication infrastructure in rural Wisconsin.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Ridge".

Brent Ridge, President & CEO
Dairyland Power Cooperative

BJR:JAR:av

March 4, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th floor
Madison, WI 53705

RE: Fiber Backbone (middle mile) for Wood County

Steffany,

I was extremely excited to see that there is a proposed initiative to have a middle mile fiber backbone for my area!! I live between Marshfield and Pittsville and currently the only service that provides internet is TDS Telecom. The internet quality is good at some points, but there are a lot of times when it is not. I have the highest available speed from TDS for my area - Turbo. Their definition of turbo is quite lacking. After doing an internet speed test at www.speedtest.net my home internet has the following results:

- Download – 14.39 Mbps
- Upload – 0.84 Mbps

In 2020, TDS advertised with me that they had higher speed internet called "Warp" and stated they would install this in July 2020. As of today's date, - my area still does not have the "equipment" needed for it to be installed at my residence. To see the proposed speeds that could be accomplished through the Broadband project for Wood County is really bringing our residents into the norm that our bigger cities consider an everyday thing.

I work from home and have done so since well before the pandemic. I manage a team across Wisconsin, Michigan and Illinois and our corporate office is in Chicago. Therefore, my internet is literally my bread & butter. If I cannot connect to the internet, I cannot do my work. The ability to have a higher speed, more reliable internet connection will be a wonderful thing for those of us that do not live in a larger city. We are often stuck with one option and so I never feel there is a lot of action taken by that company offering the one option to do improvements timely.

Thank you so much for taking this on!!!

Sincerely,

Julie David, RHIT
R1 Manager Revenue Integrity WI, MI, & Amita IL
7592 State Highway 80
Pittsville, WI 54466
715-676-2659



3/12/2022

Steffany Powell Coker, Secretary to the Commission

Public Service Commission

4822 Madison Yards Way

North Tower, 6th floor

Madison, WI 53705

Ms. Powell Coker,

I am writing in support of the proposed Wood County Broadband Expansion Grant in partnership with Bug Tusel. This Middle Mile project through the county will bring fiber-to-the-premise (FTTP) for over 2,500 resident and business addresses along the route and be used for future FTTP expansion.

I write today, coming from a couple of different perspectives, but with a common need. I am the long time Wood County Board Chairman as well as the Broker/Manager of two First Weber Real Estate Inc. branch offices located in southern part of the county.

As an elected official, I've had to deal with problems related to a lack of access to internet service, for business expansion, school districts, and provision of tele-health options. This became highly apparent during and due to Covid-19 restrictions and limitations.

Secondly, and no less important, I've been a real estate broker for more than 30 years. I can unequivocally state, that even before the challenges Covid brought in 2020, there were buyers that refuse to even consider a home without internet access. If a property does not have internet access, where one can work remotely from home, or access the school curriculum, there is a tremendous loss in value. Beside decreased value of the home, which can range anywhere from 5-10%, there are other financial implications impacting both families and governmental units. It also tends to create technology deserts where the ability to sell your home becomes extremely difficult and entire communities suffer.

I am highly in support of the Wood County Broadband Expansion Grant application. If you have any questions or would like additional information, please feel free to reach me by phone or email.

Respectfully,

Lance A. Pliml

Wood County Board Chair

Cell 715-213-4002 email lance1@charter.net



Wood County

WISCONSIN

COUNTY BOARD CHAIRMAN'S OFFICE

March 14, 2022

Ms. Kristy Nieto
Division Administrator
Public Service Commission of Wisconsin 4822 Madison Yards Way
P.O. Box 7854
Madison, WI 53705-9100

Re: Unserved and Underserved Areas of Wood County

Dear Ms. Nieto

On behalf of the Wood County Board of Supervisors, I want to express our support for the partnership between Bug Tussel Wireless and Wood County, and their application for the R.O.A.D. to Digital Equality – Wood County.

Bug Tussel and Wood County has developed a comprehensive plan for broadband expansion in Wood County, including the installation of a middle-mile fiber ring that will be the backbone for high-speed broadband service in areas of Wood County that have minimal to no existing broadband service.

This investment is desperately needed as, outside the major population centers, specifically Wisconsin Rapids and Marshfield, there is no infrastructure capable of supporting significant broadband development.

The residents in all corners of rural Wood County are currently lacking affordable, reliable options for broadband access sufficient to supporting their needs.

Thank you for your attention to this matter, and for your due consideration.

Sincerely,

Lance A. Pliml
Wood County Board Chairman



March 9, 2022

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Subject: Wood County Middle Mile and FTTP Project.

Ms. Powell Coker,

On behalf of the Marshfield Area Chamber of Commerce & Industry (MACCI), I am writing in support of the Bug Tussel Wood County Middle Mile and FTTP broadband expansion project, which will provide fiber to the premise for approximately 2,500 residents and businesses along the route and up to 1500 feet off the route. Business success and growth is dependent on reliable, and affordable internet service, as it allows business to complete nearly all aspects of operations.

Broadband is a critical recruitment and retention tool for industry. As a chamber of commerce representing the best interests of our 500 business members and their 21,000 employees and an economic development organization providing leadership and support for the economic advancement of our county and communities; equitable broadband service is as critical for business sustainability and growth, as is, access to reliable energy and a transportation infrastructure.

For businesses to grow, they must be able to attract a qualified, skilled workforce. For that to occur, regions, counties, areas, communities must offer Quality of Place attributes. These attributes are an affordable place to live, cultural and recreational options offered, good schools are available, adequate public safety is present and as importantly, equitable, efficient broadband communication services. Many businesses and their associates lack access to the minimum broadband access speeds of 25/3 mbps; much less, access to the new federal guidelines of 100/100 mbps internet speeds.

The goal of MACCI and Wood County partnering with Bug Tussel Wireless on a grant application to the PSC is to provide middle mile fiber to the premise, which will bring a minimum internet speed of

Scott Larson, EDPF, IOM // President // larson.scott@marshfieldchamber.com
700 S. Central Avenue, Marshfield, WI 54449 // PH 715-384-3454 // FAX 715-387-8925
WWW.MARSHFIELDCHAMBER.COM

100 mpbs download and 25 mpbs upload, scalable to 100/100, to all residents and businesses of Wood County, specifically serving the following rural towns of Arpin, Auburndale, Cameron, Cary, Dexter, Hiles, Lincoln, Marshfield, Milladore, Remington, Rock and Wood. These new internet speeds would comply with federal guidelines. This project will bring fiber-to-the-premise (FTTP) for residents and businesses; as well as, provide the backbone for future fiber expansion. This would allow for the following enhancements:

- Public safety operations are improved, thus improving the quality of life for residents in Wood County.
- Improvement in the quality of education services offered to students, thus making Wood County a more attractive place to live.
- Improvements to the ability of healthcare providers to enhance medical services to rural residents in Wood County.
- Improvements to the quality of life by offering flexible work arrangements, access to more career and entertainment opportunities for Wood County residents.

The lack of or inadequate broadband services in Wood County make it difficult, if not impossible, to perform necessary work in those rural areas of the county. Rural school districts struggle to offer virtual instruction due to the inadequate broadband service. This reveals the digital inequity and disadvantages to rural residents in Wood County.

For these reasons, it is critical that broadband service upgrades occur. If you have any questions or would like additional information, please feel free to reach me at 715-384-3454 or at larson.scott@marshfieldchamber.com . Thank you for your consideration.

Respectfully,

A handwritten signature in cursive script that reads "Scott Larson".

Scott Larson
President
Marshfield Area Chamber of Commerce & Industry



Marshfield Clinic Health System

Marshfield Medical Center
1000 North Oak Avenue
Marshfield, WI 54449

March 10, 2022

Ms. Kristy Nieto, Division Administrator
Public Service Commission of Wisconsin
4822 Madison Yards Way
Madison, WI 53707-9100

Re: Letter of Support for the Wood County Middle Mile Broadband Expansion Grant proposal

Marshfield Clinic is an integrated health system located in Marshfield, WI serving central, north-central and north-western Wisconsin, this includes patients who reside in Wood County. We are a Mission, Vision and Value's driven organization that strives to "Enrich the Lives of those we serve". MCHS has used Telehealth to reach unserved and underserved populations throughout Wisconsin since 1997.

MCHS is supportive of the efforts of this proposed project in Wood County and offer this letter of support for their grant application. This project will expand broadband and increase resiliency in the Wood County Market.

Over the course of the last 6 years, MCHS has worked closely with the communities we serve in an effort to help them prepare for a time in which more healthcare can be delivered using technology directly into the patient's home. The COVID-19 Pandemic accelerated the move to delivering care via telehealth much more quickly than expected. However, Telehealth was able to respond quickly and offer continued access to healthcare services by our patients throughout the Pandemic. Since March of 2020, MCHS has completed over 400,000 telehealth encounters that were not permissible prior to the Pandemic. Despite the rapid advancement of Telehealth, access to broadband internet services continue to be our patient's top barrier in accessing these services.

Looking forward to a Post-COVID world, Telehealth is not going away. Federal legislation is expected to make these new flexibilities to use telehealth permanent. Telehealth visits allow patients better access to healthcare without the need to travel or miss work or school. This allows patients to more conveniently maintain their chronic illness appointments, have a visit with their Primary Care Doctor or complete needed follow-up care. A number of new services are likely to join the array of telehealth services already offered by health systems across the country. A patient's access to broadband at home will be a determining factor in which services they can consume and which they cannot. MCHS will be at the forefront of offering these new care modalities.

Collaborative efforts are needed to expand broadband across Wisconsin and MCHS is proud to support this Broadband expansion project and we urge the Public Service Commission to fund this project.

Sincerely,

Susan Turney MD, MS, FACP, FACMPE
CEO

March 11, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission of Wisconsin
4822 Madison Yards Way
North Tower, 6th Floor
Madison, WI 53705-9100

Ms. Powell Coker,

This letter is in support of the Wood County Broadband Expansion Project in partnership with Bug Tussel. This proposal seeks to construct a fiber backbone (also known as a Middle Mile) through the county, which will bring fiber-to-the-premise (FTTP) for over the 2,500 resident and business and addresses along the route and be used for future FTTP expansion.

Mid-State is one of 16 colleges in the Wisconsin Technical College System, offering associate degrees, technical diplomas, and industry credentials in a variety of high-demand fields. With campuses in Adams, Marshfield, Stevens Point, and Wisconsin Rapids the College district serves a resident population of over 172,000 while also serving 19 public, private, charter, alternative school districts.

All levels of our educational system stand to gain from this project. Broadband can overcome geographical and financial barriers to provide a wide range of educational experiences which we know lead to socio-economic equalization. At Mid-State, we serve nearly 7,000 students per year and our largest campus is located in Wisconsin Rapids, in southern Wood County. Broadband makes it possible for students to attend virtual classes from home – something that many students may not have the ability to do, even more so with the current COVID19 pandemic. In fact, when the pandemic began, Mid-State transitioned just over 80% of our classes to a virtual format. With many of our students not having access to reliable broadband, the college invested in parking lot internet technology so students could come to campus and complete virtual classes and assignments from their cars. Not ideal, but necessary. Although we have transitioned some classes back to an in-person format, Mid-State is still offering flexible class options which means that many students still attend classes virtually making broadband expansion a crucial element to their ongoing success.

Beyond virtual learning at the college level, our local K-12 districts are filled with students without access to fast, reliable, and affordable internet, affecting their ability to fully experience educational opportunities which in turn shapes their future career success. Additionally, many of our local business partners also operate in rural communities and a broadband expansion would also support data management and overall business sustainability and growth.

While at the College proper, we meet the standard 100 Mb/s download and upload speeds and added repeaters to our parking lots, however, to support our students within their homes, our local rural businesses, community members, and K12 students we highly advocate for this expansion. If you have any questions or would like additional information, please feel free to reach me at 715-422-5421 or at bobbi.damrow@mstc.edu. Thank you for your consideration.


Respectfully,

Dr. Bobbi Damrow
Vice President of Workforce Development and Community Relations
Mid-State Technical College



Oakdale Electric Cooperative

PO Box 40 • Oakdale, WI 54649-0040

Phone: (608) 372-4131 • 1-800-241-2468

FAX: (608) 372-5173

www.oakdalerec.com

March 10, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission of Wisconsin
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Subject: Wood County Broadband Expansion Project

Dear Commissioners,

I am writing in support of the proposed Wood County Broadband Expansion Grant Application. Rural success and growth are dependent on reliable and affordable internet service.

Oakdale Electric Cooperative provides reliable and affordable electricity, and related energy services to residential, business, and farm members in most of Monroe and Juneau Counties, plus portions of Jackson, Sauk, and Wood Counties. The proposed project will bring a true fiber backbone/middle mile line(s) to the area. We currently provide electricity to over 14,000 members in most of Monroe and Juneau Counties, plus portions of Jackson, Sauk, and Wood Counties. This will greatly increase the speed and reliability to our members and other residents in the area.

Below are a few additional facts as to why providing reliable internet to these areas is important.

Cooperatives and Businesses

Broadband is a key part of modern co-op operations. It can improve grid reliability and efficiency and help pinpoint outages and speed the restoration of service.

Communities

A 2018 NRECA study showed that the 6.3 million households in co-op service areas that do not have broadband would receive an annual average of nearly \$2,000 each in economic benefits—more than \$12 billion total—if they had access. Benefits include improved health care, online learning opportunities, increased productivity for local businesses, higher housing values, and consumer savings through access to more products from competitive online sellers.

The 2020 pandemic that gripped the state and much of the nation shined a bright light on a big problem—lack of high-speed internet service in many rural areas. At a time when virtual schooling, working from home, and telemedicine had become the norm almost overnight, those without broadband access were simply left behind. It's similar to the fight many farmers took on more than 80 years ago—when those living in urban areas had access to electricity, but rural residents did not.

<https://wecnmagazine.com/article/broadening-rural-broadband/>

For these reasons, it is critical that Wood County served by Oakdale Electric Cooperative is able to construct a fiber backbone/middle mile fiber line in our area.

If you have any questions or would like additional information, please feel free to reach me at (608) 372-8824 or at ctackmann@oakdalerec.com. Thank you for your consideration.

Sincerely yours,

A handwritten signature in black ink, appearing to read "CTackmann", with a long horizontal flourish extending to the right.

Christopher P. Tackmann
General Manager & CEO



5388 Fourth Avenue · Box 241

Pittsville, WI 54486

Tel. 715-884-6514

FAX 715-884-2880

PITTSVILLE FIRE DEPARTMENT AND EMERGENCY MEDICAL SERVICES



Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th floor
Madison, WI 53705

March 3, 2022

Ms. Powell Coker,

I am writing in support for the R.O.A.D. to digital equality – Wood County project. We have previously gone on record to support rural access to expanded Broadband access in our area. The Pittsville area encompasses a large area of Wood and Clark county -all rural. This is where the largest problem for access is for us.

Pittsville Fire covers roughly 300 square miles of Fire and EMS response area in Wood and Clark counties. We manage all different kinds of high-speed trauma, medical issues and basically anything else you can think of in the realm of patient care. Multiple State and County highways, railway and recreational areas encompass our district. We are a minimum of 25 minutes to a maximum of 1 hour from our primary trauma hospital in Marshfield. This great distance quite often requires data transmission to our receiving facility in the form of transmitting EKG's as well as being able to reach Medical Control via cellular. VHF radio does not have the capability in a simplex system to cover that area.

The future of pre-hospital treatment will eventually lead to the "Doc in a box" transmission ability where receiving physicians can see and speak directly with care givers and patients. While this technology is not new it is nearly impossible in our rural areas with the current technology. Requesting and receiving orders via cellular sometimes can be as difficult.

Receiving healthcare remotely is the gold standard whether it be in the home or in a moving ambulance. Pre-hospital care is very often life or death, the decisions we make need the support of "digital equality". Metropolitan areas with better digital coverage are also much closer to their receiving hospitals than we are, and they may see a greater number of patients than we do. Those rural patients that we are responsible for need that same level of coverage for the care they must receive.

Please feel free to contact me for any clarifications or additional questions you may have.

Sincerely,

Chief Gerald (Jerry) Minor – Pittsville Fire Co.



DONNA M. ROZAR

STATE REPRESENTATIVE • 69TH ASSEMBLY DISTRICT

Office: (608) 267-0280
Toll Free: (888) 534-0069
Rep.Rozar@legis.wi.gov

P.O. Box 8953
Madison, WI 53708-8953

March 7, 2022

Ms. Kristy Nieto, Division Administrator
Public Service Commission of Wisconsin
4822 Madison Yards Way
Madison, WI 53705-9100

Subject: Letter of Support for Wood County Broadband Expansion Project

Dear Ms. Nieto:

Thank you for the opportunity to express my support for the above Access Grant. As the State Representative for the 69th Assembly District and a Wood County Board Supervisor, I represent the northwestern part of Wood County. In my capacity as a public servant, I have witnessed the necessity for broadband expansion in rural Wood County.

Phase 1 was funded in 2020, in which Wood County was awarded grants to provide speeds of 25 mpbs download and 3 mpbs upload that began in the fall of 2021. This was the first step in a process to provide high-speed broadband internet connectivity throughout rural Wood County. However, current download/upload speeds do not meet the new federal standard of 100 mpbs download/upload speeds and this grant would allow for this increased speed. Partnering again with Bug Tussel Wireless, this Phase 2 project will allow for meeting the new federal standard by building a fiber-to-tower backbone throughout Wood County known as the Middle Mile. This new fiber backbone will provide enhanced fiber-to-the-premise (FTTP) for over 2,500 residents and businesses along the route, which will help residents in Wood County be more competitive. This increase in download/upload speed will enable activities such as virtual instruction and work, healthcare services, and public safety.

Thank you for your consideration of the application submitted for this project. My contact information is listed above if you have questions or would like additional information. Please feel free to reach out to my office.

Sincerely,

A handwritten signature in black ink that reads "Donna Rozar". The signature is stylized with a large "D" and "R".

Donna Rozar
State Representative
69th Assembly District



NANCY VANDERMEER

STATE REPRESENTATIVE • 70TH ASSEMBLY DISTRICT

March 7, 2022

Public Service Commission of Wisconsin
Broadband Expansion Grant Review Committee
4822 Madison Yards Way
Madison, WI 53705

Public Service Commission Officials:

Please accept this letter in support of the efforts of the Wood County Broadband Expansion Project, and Bug Tusel Wireless, as they apply for a Broadband Access Grant through the Public Service Commission ARPA allocation. The continuation of this project is located in and around the 70th Assembly District.

As State Representative for the 70th Assembly District and Chairperson of the Assembly Committee on Rural Development, I have worked hard to improve access for residents of rural and underserved areas of the state and throughout my legislative district because I know how important access to broadband internet service is to communities, workers, businesses, and students.

The approval of this grant proposal would allow residents, students and our future workforce to continue to adequately prepare for the challenges of a changing economy. Additionally, the approval of this proposal would allow current residents, workers, and business owners to have the tools they need to continue to succeed in the digital age and in a dynamic economy.

I appreciate your thoughtful consideration of this request and ask that Wood County and their Phase 2 Broadband Project proposal be given serious consideration. If there are any questions, concerns, or reservations about the proposal, I would respectfully ask that you work with the key stakeholders to help try to help remedy them. Please do not hesitate to contact me if you have any questions or concerns.

With appreciation,

A handwritten signature in black ink that reads "Nancy VanderMeer". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Nancy VanderMeer
State Representative



March 11, 2022

Subject: Letter of Support for Wood County Broadband Expansion Project

Dear Grant Committee,

I am writing in support of the proposed Wood County Broadband Expansion Project.

As the Campus Executive for UWSP at Marshfield Campus I am writing to you on behalf of our institution and our local campus located in Wood County. Most of our students are from rural areas and commute to our school for their college education. College students depend on having reliable and strong internet service and this basic necessity is critical to their success. I cannot express enough how much our educational system and students stand to gain from your support of broadband expansion. This support can help us all to overcome geographical and financial barriers to provide a wide range of educational and cultural opportunities. Not having dependable internet puts our rural students at risk and at a disadvantage to those who live in the city.

The pandemic compounded the internet issue for our rural students. Before COVID19, the issue for many students was weak or lack of internet service. Internet service is a basic need for all residents, and it is extremely important for students, but also for daily living.

For residential internet service, broadband makes it possible for students to attend virtual classes and meetings, do research, and complete assignments at home – something that many students struggle with due to internet service. I have spoken to many students about their frustrations, during the pandemic we had to open vacant offices, additional labs, and extend our library hours so that our rural students could come to the campus to complete their classes, homework, testing, and research. Again, this puts these students at a huge disadvantage as it takes them additional time, money, and travel.

During the pandemic, because of the lack of internet service or weak signals in Wood County and the surrounding area, many of my staff have had to still report to work in person, as working from home was not an option. If they do stay home because of illness, or to stay safe, they need to use the internet to get their work done. When our students or staff log on to a virtual meeting, we experience no video, dropped calls, and audio going in and out. Many times, I feel we live in an undeveloped country as our daily lives struggle with having this basic necessity.

Broadband access should be available to all, equally and affordably. Imagine your child, spouse, or perhaps yourself taking a timed test from home, one that is so important that your career depends on it... and your internet crashes. What do you do? This is what many of our students and staff are struggling with every day. I have too many stories to give you all the details, but the one that breaks my heart is Tia, who was a 4.0 student and dropped out of school because she could not adjust to the internet issues. On behalf of our staff, students, and rural community, please help us have the quality of life, education, and service we all deserve.

If you have any questions or would like additional information, please feel free to reach me at 715-897-5920 or email me at mboernke@uwsp.edu.

Thank you for your consideration.

Respectfully,

A handwritten signature in cursive script that reads "MBoernke".

Michelle Boernke, Campus Executive
University of Wisconsin Stevens Point at Marshfield



Wood County WISCONSIN

OFFICE OF PLANNING AND ZONING

Date: 3/8/2022

Ms. Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705-9100

Subject: Wood County Broadband Expansion Project

Ms. Steffany Powell Coker,

I am writing this letter in support of the grant application submitted by Hilbert Communications in cooperation with Wood County to provide broadband to unserved and underserved areas in the County. My name is Jason Grueneberg and I am the Director of the Planning & Zoning Department, and am responsible for economic development in the County. The economy of Wood County is dependent on the provision of high-speed broadband to all residents, in order to provide an adequate quality-of-life for families that make up the workforce. Additionally, adequate broadband infrastructure is essential for businesses to function and remain competitive in an ever increasing digital-dependent society.

Wood County is considered a mid-sized Wisconsin County based on its population of 72,999. The County is comprised of 22 townships, 8 villages and 4 cities. Besides the city of Wisconsin Rapids, and the city of Marshfield, most of the municipalities are considered rural in nature and experience the benefits of "small town" quality-of-life. The future sustainability of these rural communities is currently being challenged due to being unserved or underserved when it comes to broadband access. With COVID-19, the divide between communities with and without broadband has dramatically been realized, and it is a defining amenity that will impact which communities thrive and which ones stagnate or slip into decline.

From an economic development perspective, it is well-documented and apparent that areas without adequate broadband face significant disadvantages as compared to communities that are fortunate enough to offer it. Prior to COVID-19, Wood County was well aware of the challenges of minimizing projected population decline in the region. With heightened awareness of the need to have broadband access, this challenge is further exacerbated. Simply put, most of Wood County will not be afforded the opportunity of future growth, and maintain the ability to sustain rural economies without adequate broadband. Future workforce solutions are also dependent on having communities that provide amenities that create a desirable quality-of-life, and the highest priority amenity is broadband.

Wood County has a strong agricultural economy as well. As agriculture and agribusiness continues to evolve, we know that the use of technology will continue to increase, as will the dependence on broadband for precision farming, and all other aspects of running a business. Agricultural operations in Wood County generate \$1.1 billion in economic activity annually, and are especially vulnerable given their relatively rural locations in areas with very low population density. For agriculture in the County to remain competitive in the future, it is extremely important that there is access to necessary technology that is dependent on broadband.

As a resident of Wood County I fully realize the quality-of-life benefit of having high-speed broadband access. I am fortunate enough to live in the town of Grand Rapids that is served by 2 telecommunications providers. In the past few months I have been able to work from home and facilitate WebEx meetings for large groups across the region from my home office. My 2 daughters have been able to learn virtually from home. My family has been able to utilize telehealth options without putting a strain on an already stressed healthcare system. We have been able to stay in touch with family and friends in a virtual manner without risking the health of those who are high risk or furthering the spread of COVID-19. With recreation and entertainment options currently limited due to COVID-19, we are still able to spend family time together streaming entertainment and news.

I sympathize with the families that are not fortunate to have access to the broadband I take for granted. After the last few months I realize that I probably would never consider moving anywhere without having some level of high-speed broadband, and I know that I am not alone in this way of thinking. With this in mind I strongly support Hilbert Communication's applications to provide broadband access to unserved and underserved areas. Access is essential to the current and future populations of these areas that make up our workforce, and will determine if the economies of these areas stagnate or flourish. Much of Wood County's geographic area is considered unserved and underserved when it comes to broadband. Please help position Wood County for economic growth by providing financial support for broadband infrastructure investments during this grant funding cycle.

If you have any questions or would like to discuss the importance of broadband to Wood County's economy, please contact me at 715-421-8478 or jgrueneberg@co.wood.wi.us. Thank you for considering the grant applications to provide much-needed broadband for Wood County.

Thank you,

A handwritten signature in cursive script that reads "Jason R. Grueneberg". The signature is written in dark ink and is positioned above the printed name and title.

Jason R. Grueneberg
Director of Wood County Planning and Zoning/Economic Development



Wood County WISCONSIN

PARKS AND
FORESTRY
DEPARTMENT

Date: March 14, 2022

Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
4822 Madison Yards Way
Madison, WI 53705

Subject: Wood County Broadband Expansion Project

Ms. Coker,

I am writing in support of the proposed Wood County Broadband Expansion Project. Outdoor recreation is a huge tourism draw in Wood County, including ATV/UTV riding, camping, disc golfing, fishing, hunting, just to name a few.

Wood County owns and maintains 5 large parks and over 38,000 acres of county forest land. In 2020, our 3 campgrounds saw over 19,000 camping unit nights. Over 60% of our campers reside outside of Wood County. With the addition of broadband access within our campgrounds and park areas, there is no doubt we would attract more visitors, and our visitors would stay longer. Remote working and learning has increased rapidly over the past 3 years, and quality broadband is essential for meeting the needs of those visitors. Wood County's proposed Middle Mile project would allow 3 of our County Parks to access this high speed broadband.

Currently, Dexter County Park, Powers Bluff County Park, and North Wood County Park do not have high speed internet available to general park users. With the Middle Mile addition coming into these parks, there would be opportunity to provide this service, and to meet the federal standard of 100 download/upload speeds.

The Wood County Parks and Forestry Department plays a large role in bringing visitors to central Wisconsin. According to the WI Dept. of Tourism, there was \$100.2 Million in visitor spending in 2019, visitors also helped sustain 2,292 jobs in Wood County. Visitors rank internet and smart phone connection one of their top priorities when traveling, such as GPS and finding attractions and restaurants.

If you have any questions or would like additional information, please feel free to reach me at 715-421-8422 or at cschooley@co.wood.wi.us. Thank you for your consideration.

Respectfully,
Chad Schooley

Chad Schooley
Director
Wood County Parks and Forestry Department



WOOD COUNTY SHERIFF'S DEPARTMENT



SHAWN BECKER, SHERIFF

March 7th, 2022

Steffany Powell Coker, Secretary to the Commission
Public Service Commission
4822 Madison Yards Way
North Tower, 6th floor
Madison, WI 53705

Subject: Wood County Broadband Expansion Project

To whom it may concern,

I am writing in support of the proposed Support for the Wood County Broadband Expansion Project. Modern life is dependent of fast, reliable, and affordable internet service. As residents of rural Wood County, we expect digital equity with those living in large communities.

There have been many situations where people in Wood County struggle with adequate internet services. Students in rural school districts have found in challenging to attend their required classes during the pandemic. Even more alarming some of our citizens find it hard to communicate during emergency circumstances due to poor cellular/internet services. During hunting season, the Sheriff's Department fields calls of lost hunters, or hunting accidents. Poor to no internet service leads t delayed response for emergency services that can cost lives. The Sheriff's Department also communicates with our dispatch center through internet services. Each squad car is GPS tracked. There are dead arears in rural Wood County. This creates an officer safety concern when dispatch cannot see where our deputies are. This also creates an issue with response time to emergencies. From an efficiency standpoint, dispatchers will send the nearest deputy to a call to service. If they cannot see the deputy on their monitor, they will not know to send them. Faster download speeds will ensure a quicker response from our Deputies out in the field. The phase two part of this project will positively affect public safety, which our Wood County citizens deserve.

Our rural citizens deserve better internet services, from a law enforcement view, their lives depend upon it.

Without quality internet services, we are not keeping up with the world around us. If this Wireless proposal is funded, it will provide better access will improve our life and well-being. Communication online is crucial for our community.

If you have any questions or would like additional information, please feel free to reach me at (715) 421-8750 or email the Wood County Sheriff's Department. Thank you for your consideration.

Respectfully,

Shawn Becker
Wood County Sheriff