California Advanced Services Fund Infrastructure Grant Application

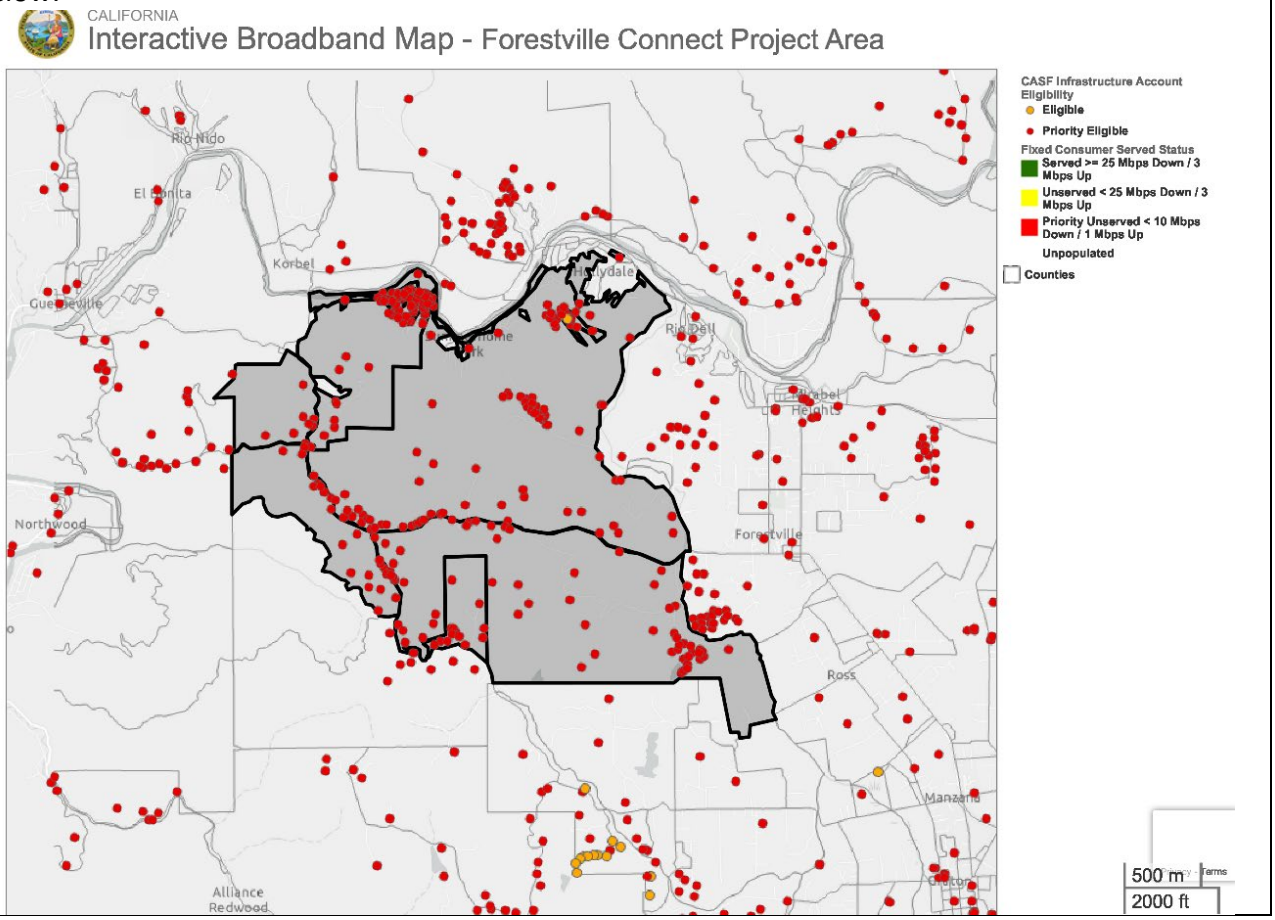
Forestville Connect: June 2023

Application Item #1 - Project Summary

Applicant Name	WiConduit
Eligible Applicant Title:	Non-Telephone corporation that is a full facilities based provider
CPCN	In Progress
Contact Person	Calvin Sandeen Executive Director (707) 396-2478 csandeen@wiconduit.org
Project Title	Forestville Connect
Named Project Location	Forestville | Unincorporated Sonoma County
Project Type	Last Mile
Amount of CASF grant funding requested and project cost	Project Cost: $6,866,026.04 Amount Requested: $6,866,026.04

Map of the proposed project area, including identification of serviceable locations (points) proposed to be served:

We will serve all the priority eligible locations located within the shaded census blocks in the map below.



The number of serviceable locations the proposed project will serve	281
Maximum mbps download and upload speed currently offered to serviceable locations in the project area	No internet.
Median Household Income of the project area	$ 83,357.29
The number of businesses, anchor institutions and public safety locations in the project area that will receive new or improved service.	The project area is estimated to contain 10 businesses.

A description of the major infrastructure to be deployed: miles of planned fiber, central offices used, number of remote terminals/fiber huts/wireless towers to be built, and if an IRU is used:

The project will provide high-speed Internet, delivered over 35 miles of fiber optic cable, including the total drop fiber connecting the distribution cable to the premise. The fiber design calls for deploying underground as much as possible to preserve infrastructure during wildfires, floods, and other unforeseen disasters. The infrastructure will require FTTP OSP equipment, including a central office w/network equipment, fiber optic cable, conduit, generators, hand holes, and headend equipment. A 10 Gbps 5 Year IRU will be used from a private carrier.

Estimated breakdown of aerial and underground installation.	100% percent of the households are estimated to be connected via underground fiber installation, pending a more detailed design after the grant award.

Major equipment expenses (e.g., number of remote terminals, optical line terminals, fiber switches, fiber distribution hubs, etc.).

Material	Unit	Quantity
Drop Conduit	Ft.	70250
Drop Fiber	Ft.	70250
ONT Box	Ea	281
Cat6 Cable	Ea	28.1
Patch Cables	Ea	281
Gateway Patch Cable	Ea	281
Misc Parts Fiber wipes, Splice sleeves, tools, misc.	Ea	281
(ONT) Optical Network Terminals	Ea	281
(FDH) Fiber Distribution Hubs	Ea	281
2" Conduit	Ft.	184800
96 Fiber	Ft	184800
17x30 Handhole	Ea	462
48x30 Handhole	Ea	140.5
Ground Rods	Ea	616

Marker Post	Ea	184.8
Marker Post with Test Station	Ea	123.2
Mule Tape	Ea	36.96
Splice Trays	Ea	281
Fiber Optic Distribution Frames	Ea	2
(OLT) Optical Line Terminal	Ea	1
PDU Tripp Lite	Ea	1
Tripp Lite 6RU cabinet	Ea	1
Tripp Lite Cabinet fans	Ea	1
Power/Temp Sensor	Ea	1
Central Office	Ea	1
Mounting Kits, connectors	Ea	1
Back Up Power	Ea	1

Estimated construction timeline.	The deployment schedule assumes a start date of December 2023 and a completion date of June 2025, or a total of 18 months from start to finish, including permitting.

Description of proposed broadband project plan for which CASF funding is being requested, including the type of technology to be provided in the proposed service areas:

WiConduit's approach is to provide up to 1 Gbps symmetrical Internet connectivity to homes and small businesses in Forestville. WiConduit has designed and will build, manage, and maintain the open access network by providing all the necessary equipment so that service providers can light the network with internet services, provide quality customer service, and manage billing. Our primary goal is to provide a reliable high-speed open access internet network to all potential users in the communities at competitive prices, encouraging economic development, providing excellent customer service, and doing so in a manner that minimizes risk.

Download speed capabilities of proposed facilities.	1000
Upload speed capabilities of proposed facilities.	1000

The project description will provide enough construction detail to enable a preliminary indication of the need for a California Environmental Quality Act (CEQA) review and if proposed project areas contains any environmentally sensitive areas. For example, when trenching is required, the applicant will state and describe the manner in which the site is to be restored, post-trenching. WiConduit's design will be 100% underground in the public right of way and existing easements as much as possible, where it is assumed, there will not be environmental concerns as the equipment will be trenched and placed in previously disturbed soil. The technology deployed will be fiber optic cable, encased in conduit to protect from damage or unwanted cable cuts, along with electronics capable of providing 1Gbps symmetrical connectivity to subscribers. The network will lease Internet backhaul services from carriers who have existing facilities and services available for interconnection near the community. A central office will be installed on private property and will connect to an existing backhaul circuit. The central office will have access to commercial power and will be constructed with backup power. From the central office, WiConduit will place conduit and fiber within the right of way using minimally invasive technologies such as a micro- trencher, vibratory plow, or horizontal directional drill. Every few hundred feet, hand holes and distribution boxes will be installed to provide access points for pulling fiber and for connecting nearby homes. At each end-user location, we plan to place a fiber drop at an average length of 400 ft., connected from the distribution cable terminal to a point on each location (typically at the main point of entry (MPOE) where other utilities exist). The MPOE, typically is a fiber cable clamshell installed at the termination point. From the termination point, we will perform in-house fiber cable installation in a neutral location in the home. At this neutral location, we will place an integrated optical network (ONT) termination device with backup power that provides both fiber light termination and indoor Wi-Fi capabilities; additionally, this device will terminate voice services. This device will have four Ethernet ports and one voice jack in the event a customer wants hard wired connectivity into the Internet The construction and installation will be outsourced to a third-party telecommunications contractor to build and maintain and repair network after deployment is completed. The project is assumed to be CEQA exempt with an estimated 18-month construction timeline, unless unexpected issues arise that cause delay. WiConduit is aware of its responsibilities if this proposed project is not exempt from CEQA. WiConduit anticipates the project will not require CEQA review as construction is planned to occur primarily in previously disturbed soil.	
Identification of the leveraging of existing available facilities (e.g., interconnection in lieu of overbuilding existing facilities of another	Our network will interconnect to an existing 10Gbps fiber backhaul circuit.

provider)	
A statement of whether the applicant is disputing the Broadband Map depiction of served status.	N/A
A statement of whether the applicant is seeking Ministerial Review and, if so, information that the application meets all requirements for Ministerial Review	We are seeking ministerial review. We believe we qualify for ministerial review process because: • Cost per premise is $24,434.26; • Total grant amount requested is $6,866,026.04 which is less than $20,000,000; and, • The project area is CEQA exempt.
An explanation of why any middle mile facilities in the proposed project are necessary for accessing the proposed last-mile infrastructure.	N/A
A statement accepting the open access requirements for any middle mile facilities in the proposed project. Projects will interconnect with the statewide open-access middle mile network, where reasonable and feasible; if interconnection to the statewide middle mile network is not feasible or reasonable, a verifiable statement explaining why interconnection is not feasible or reasonable is also required. This project will accept the open access requirements. Our network will interconnect with the state's middle mile network wherever it is available and feasible. The middle mile network is located near our project area on Highway 116, between Forestville and Guerneville. We will interconnect at any location that is suitable, preferably in the town of Forestville.