1. Project Summary

Applicant's Name: Bright Fiber Network, LLC

Contact Person: John Paul, 530-478-9822, john@brightfibernetwork.com

Project Title: Nevada County Connected

Proposed Project Area Location (Community/County):

Located in western Nevada County; primarily in unincorporated areas and partially within the city limits of Grass Valley and Nevada City, California.

Project Type (Last Mile or Middle-Mile): Last Mile

CASF Funding Requested (Amount of Grant / Amount of Loan):

$16,566,311 Grant / $500,000 Loan

Description of Project:

Nevada County Connected is a fiber-to-the-premise last-mile project to be located in western Nevada County, California in an "underserved" contiguous area that is rural, geographically diverse, and heavily forested. The project will encompass 26.2 square miles, pass 3,214 premises, and consist of 150 miles of construction in existing rights-of-way. Each premise passed will have the capacity for symmetrical 1 Gbps Internet access speeds over an active ethernet network. The project will utilize the middle-mile infrastructure and help fulfill the last-mile connection goals of the ARRA and CASF-funded Central Valley Next Generation Broadband Infrastructure Project.

Map of the Proposed Project: See Attachment **Exhibit 1A**

List of Census Block Groups:

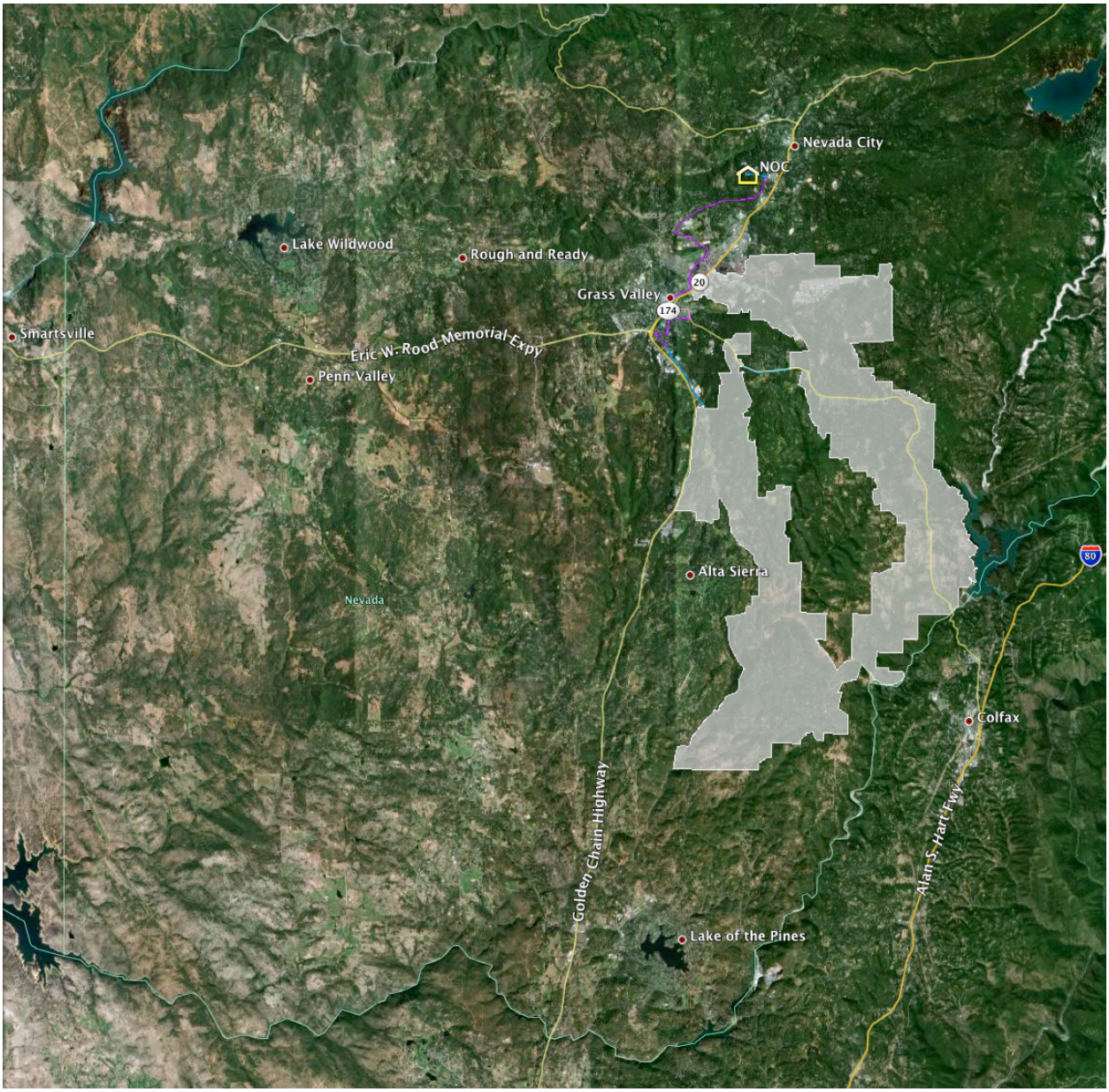
060570001022	060570001024	060570001031
060570001032	060570001041	060570001042
060570001051	060570006001	060570006002
060570006003	060570006004	060570007013
060570007014	060570007015	060570007016
060570007021	060570007022	

List of ZIP Codes:

95713	95722	95945	95949

Exhibit 1A

Map of the Proposed Project: Nevada County Connected



2. Type of Funds Requested

2nd check box: Grant/Loan

Grant Amount: $16,556,311 Loan Amount: $500,000

3. Area Applied for

3rd check box: Underserved ... whether existing or ongoing construction not CASF funded.

4. CPCN

2nd check box: Proof of CPCN application pending approval

Attachment **Exhibit 4A**

5. Information Sheet with a Certificate of Good Standing issued by CA Secretary of State

Information Sheet

See Attachment **Exhibit 5A**.

Certificate of Formation and Good Standing

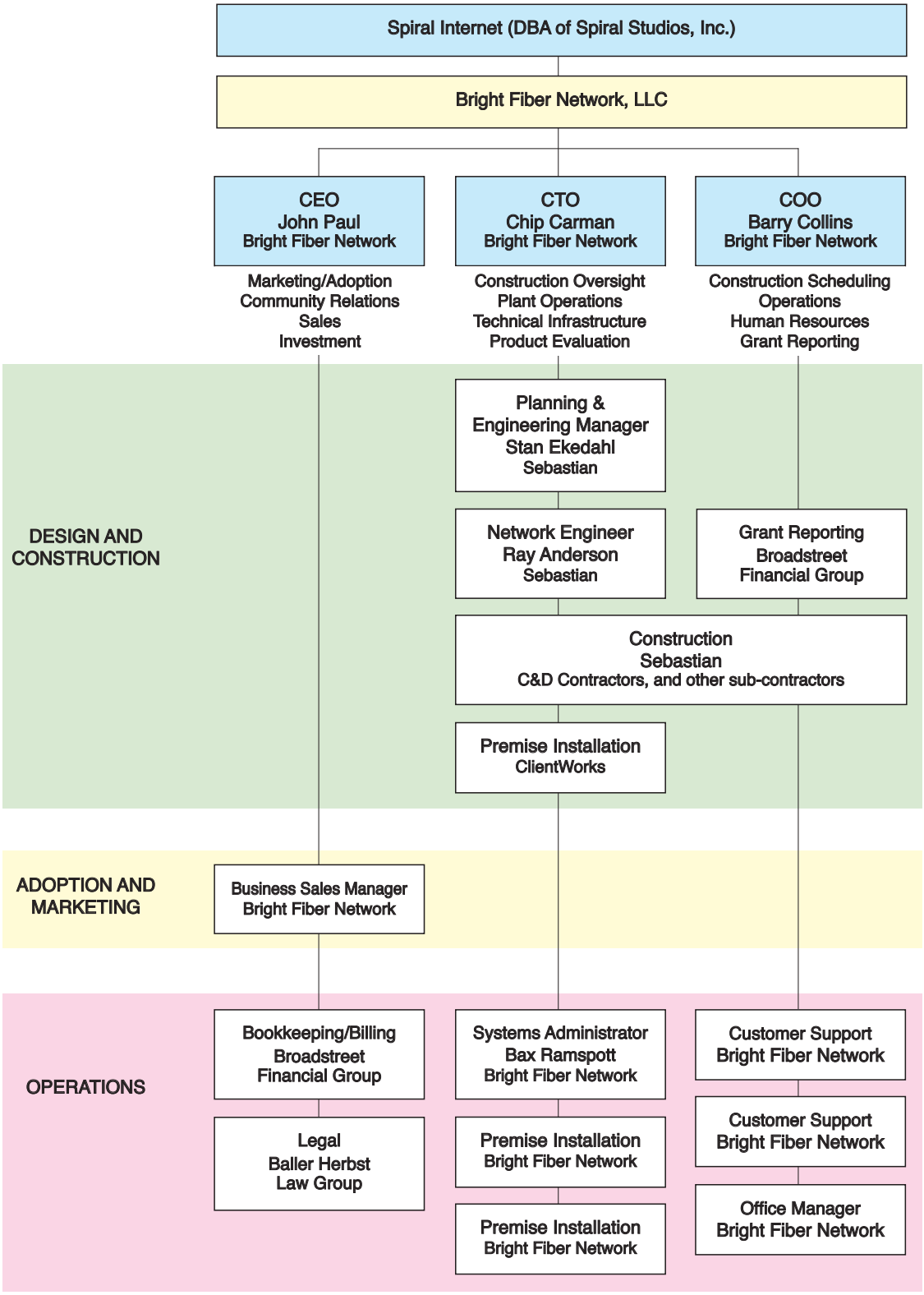
See Attachment **Exhibit 5B**.

The application for Bright Fiber Network LLC's Articles of Organization was mailed by USPS to the California Secretary of State's office on December 18, 2012 with receipt at their office on December 20, 2012. It was anticipated that the Proof of Formation would arrive by January 15, 2013, however the department, due to an overload of overall applications, is running late.

In Attachment **Exhibit 5B**, see the submitted document, and a screenshot from the CA Secretary of State's office indicating that, as of January 31, 2013, they are processing applications submitted on December 14, 2013, would indicate that this filing will be completed soon, and the final documents will be submitted to the CPUC upon receipt. An in-person application for the Certificate of Good Standing will be submitted to facilitate faster turn around of this document.

Spiral Studios Inc. (DBA Spiral Internet) can provide an existing Certificate of Formation and a current Certificate of Good Standing if requested.

6. Organizational chart



6. Company history

Chip Carman, co-owner and CTO, was a member of the Nevada County Economic Resource Council Telecommunications Infrastructure Task Force for over eight years; trying to encourage the existing ILEC and cable companies to expand their service speeds and areas.

Spiral Internet (DBA of Spiral Studios Inc.) was formed in May 2006 by Chip Carman and John Paul to take over the customer base of Nevada County Community Network (NCCN), a non-profit formed in 1996 to provide better Internet access to rural western Nevada County and Sierra County.

In recognizing the changing landscape of the telecommunications industry, NCCN's board of directors decided to fold the non-profit; identifying Chip and John as the best individuals in the community to maintain the spirit of the organization and bring new life into a new for-profit Internet Service Provider business.

With hundreds of customers still relying on dial-up in 2006, the company knew that new technologies and networks would need to be deployed in order to bring western Nevada County into the 21st century.

Spiral Internet partnered with the Nevada County Economic Resource Council to apply for CASF and ARRA funding to deploy a carrier-grade terrestrial fixed wireless infrastructure that would enable multiple WISPs, as well as public safety, access to much faster speeds in the most "unserved" areas. Matching CASF funding was awarded for the project in 2009, but the grant application to BTOP was denied outright in Round 1, made it into due diligence during Round 2, but was subsequently denied the second time.

Concurrently with those grant applications, Spiral Internet applied to Google's Fiber for Communities initiative on behalf of western Nevada County. That endeavor provided the impetus to investigate fiber-to-the-premise networks and their deployment across the country in rural areas over a two-year period; resulting in this project's implementation.

In late 2012, Bright Fiber Networks, LLC was established as a wholly-owned subsidiary of Spiral Internet in order to secure matching private investment funding for the project via a private placement memorandum.

6. Readiness to build, manage and operate broadband

Spiral Internet currently has over 1,200 customers, offering DSL, email, and website hosting services in western Nevada County, and offering ADSL2+ service in Sacramento, Davis and Woodland as a re-seller of Sonic.net's Fusion service. Customer service, technical support, systems administration, marketing, and billing infrastructure are already in place.

The location of a new Network Operations Center and offices that are required for the addition of equipment and staff, has been secured at 310 Providence Mine Road, Suite 1A, Nevada City, California 95959.

Initial meetings have been held with the Nevada County Public Works department and with the City Engineers of Grass Valley and Nevada City in preparation for expedited permitting processes.

Sebastian, which will be contracted for final network design and construction, is prepared to begin upon notification for CPUC approval of CASF funding. Local, Nevada County based, infrastructure contractors have also been notified, as they will enable a fast deployment.

Sebastian, a recipient of CASF grant monies for fiber-to-the-premise construction, has the engineering staff and construction crews to complete the final design and build the network infrastructure. Below is a list of completed Sebastian projects:

Project	Location	Type	Amount
1) CA Stimulus 1110	West Fresno	Conduit, Fiber Cable, FTTH Equipment	$5.4M
2) Central Valley Unified School District Ethernet	West Fresno	Conduit, Fiber Cable, Network Equipment	$1.1M
3) Fresno City Shaw ITS	Central Fresno	Conduit, Fiber Cable	$3.2M

4)	Lemoore Naval Base	Lemoore, CA	Conduit, Fiber Cable Fiber	$.3M
5)	Iowa Hill Community Service	Iowa Hill, CA	Microwave, UG Cable Network & Solar Equipment	$2.2M
6)	Todd Valley FTTH (Six Projects)	Foresthill, CA	Conduit, Fiber Cable, FTTH Equipment	$1.9M
7)	Auburn – Foresthill Trunk Interconnect	Foresthill, CA	Conduit, Fiber Cable Network Equipment	$4.2M
8)	Lincoln Ave ISP Interconnect	Auburn, CA	Conduit, Fiber Cable, Network Equipment	$.2M

The project team is ready to start immediately upon grant approval.

7. Key contact info

John Paul
Bright Fiber Network, LLC
416 Broad Street
Nevada City, California 95959
(530) 478-9822 x6005
john@brightfibernetwork.com

8. A. Key company officers

John Paul, CEO
john@brightfibernetwork.com
530-478-9822

Chip Carman, CTO
chip@brightfibernetwork.com
530-478-9822

Barry Collins, COO
barry@brightfibernetwork.com
530-478-9822

Stan Ekedahl, Planning and Engineering Manager, Sebastian
sekedahl@sebastiancorp.com
530-367-2900

Ray Anderson, Network Engineer, Sebastian
randerson@sebastiancorp.com
530-367-2530

8. Resumes of key officers and management personnel

John Paul, CEO
Spiral Internet and Bright Fiber Network, LLC

John is the co-owner of Spiral Internet. He and his business partner, Chip Carman, took a successful website development business and in 2006 merged it with Internet services when they purchased a local ISP's customer base – providing DSL, dial-up, email and website hosting. Prior to this, he was the principal in Spiral Studios, a marketing and design firm for over 11 years, adopting computers for creative work early on. In the early 1980s, he worked at Teleguide (a San Francisco Chronicle company) designing interactive digital pages – video-tex, a precursor to the Internet – for transmission to public information kiosks located throughout the Bay Area. He has designed or art directed print and digital collateral projects for technology companies such as Sun Microsystems, Intel, Palm, Oracle, RealNetworks, and Bluetooth.

John was the President of the 49er Breakfast Rotary Club of Nevada City during 2006-07. He has served as the Chair of the Board of Directors for the Nevada City Downtown Association, and has served on the Board of Directors for Rotarians for Fighting AIDS based in Atlanta, Georgia. He currently chairs the Nevada County Broadband Advisory Group, which he and Chip formed to develop a Nevada County Broadband Plan based on the FCC's National Broadband Plan.

2006-current
Spiral Internet
Nevada City CA
Oversees the operation, business development, and marketing/design for a rural ISP providing DSL, dial-up, email, website design and hosting services.

1986-2006
Spiral Studios / JPD Communications
Nevada City CA / Berkeley CA

Designed and developed print marketing and direct mail collateral materials for corporate and business clients including Sun Microsystems, Intel, Oracle, IBM, Real Networks, Bluetooth, and other smaller technology companies.

1983-1986
Teleguide / Chronicle VideoTex
San Francisco CA
Designed digital advertising and content screens for a SF Bay Area-based company owned and operated by the San Francisco Chronicle that was a pre-curser to the Internet. The intranet system was hosted by a mainframe computer in downtown San Francisco that delivered on-demand content to video terminals via dial-up modem speeds in locations such as BART stations, San Francisco International Airport, city museums, and other public spaces.

Education:
BA, Architecture, Washington University in St. Louis

Chip Carman, CTO

Spiral Internet and Bright Fiber Network, LLC

Chip is the co-owner of Spiral Internet, and has worked with his business partner, John Paul, since 1997. Prior to this, he had worked in the technology aspect of magazine publishing for over 15 years. He previously was webmaster on the founding team for Macworld Online – maintaining and creating the webserver, listserver, reports, backups, and network monitoring. He began his career as “A+” magazine’s Technical Editor, then founded and managed both “MacUser” and “Macworld” magazines’ product testing labs. Briefly he worked at Sumeria, where he produced a CD-ROM titled “Space: Manned Space Flight” from original NASA films. Starting in 1993, he traveled worldwide for the Macworld Global Product Support Center demonstrating the system he set up to electronically distribute articles and graphics to partner publications.

Chip has served on the Board of Directors of Nevada County PEEF.org (Public Education Enrichment Foundation); the umbrella organization for Nevada County Public Television, Imaginarium, and Children’s Festival. He has also served on the alumni committee of the Nevada County Community Leadership Institute, and the Nevada County Community Broadband Leadership Council, a committee of the Nevada County Economic Resource Council. He currently sits on the Nevada County Advisory Group, which includes representatives from government, education, business, ISPs, and neighborhood associations.

2006-current
Spiral Internet
Nevada City CA
Oversees the systems administration and technology operations for a rural ISP providing DSL, dial-up, email, website development and hosting services.

1997-2006
Spiral Studios
Nevada City CA
Developed the back-end code/technology and interfaces for websites and online applications for clients such as Real Networks, KVMR,

1994-1997

Macworld Online / IDG San Francisco CA

Joined a small in-house team as the webmaster/programmer in the development of *Macworld* magazine's first website and online presence.

1993-1994

Sumeria San Francisco CA

Producer and content developer for a CD-ROM titled "Space" which chronicled over 15 years of NASA Space Shuttle flights using video with an, then innovative, interactive interface.

1992-1993

Macworld International / IDG

San Francisco CA

Developed and oversaw CD-ROM distribution of magazine content for the over 30 international editions of *Macworld* magazine. Launched live streaming video for the annual *Macworld* Conference.

1986-1992

MacUser / Ziff Davis *Macworld* / IDG

San Francisco CA

Founded and operated the product testing labs for both *MacUser* and *Macworld* magazines. Tested the first ISDN line connection between San Francisco and Tokyo.

1983-1986

A+ / Ziff Davis

Belmont CA

Technical Editor and writer for a magazine focused on the then nascent Apple personal computers.

Education:

California State University, Long Beach

El Camino Jr. College

Barry Collins, COO

Spiral Internet and Bright Fiber Network, LLC

Barry is a business professional and entrepreneur with a thirty-year career in the technology industry, in both the public and private sector, starting in 1983 as a department manager for Varian Electronics, a components manufacturer. In 1986, he joined San Ramon Valley Unified School District, a midsize district with 15,000 students and 1,500 employees. Barry was the Information Technology Manager, responsible for the district's computer and software systems for both the business and educational areas.

In 1989 he partnered in a startup software company, Escape Technology. Over the following 22 years, the company grew from startup to become the leading provider of business systems for California school districts. As an owner of the business Barry managed operations, software development, system implementations, customer care, and was a member of its board of directors. In 2011, he sold his interest in the company, and became a small business consultant. He is joining Spiral Internet as COO.

1989-2011
Escape Technology, Inc.
Roseville CA
Vice President
Partnered startup software company providing integrated systems for California public education. Managed teams responsible for software development, quality assurance, documentation, software implementation, customer support. Grew the business to be the leading provider of financial systems to California school districts.

1986-1988
San Ramon Valley Unified School District
San Ramon, CA
Information Systems Manager
Responsible for administrative and financial computer systems and software. Implemented districtwide computer network for administrative and educational use. Developed software systems for management of departmental functions. Supervised network and computer techs.

1983-1986
Varian Electronics
Scotts Valley, CA
Plant Maintenance Manager
Responsible for facilities and production equipment maintenance and repair. Scheduled preventive maintenance, managed techs and admin staff. Supervised warehouse, managed just in time inventory control systems.

Education:
Diablo Valley College
Cal State University, Sonoma

Sebastian (Project Engineering & Construction)

Stan Ekedahl
Planning and Engineering Manager
Sebastian

Stan Ekedahl has worked in the communications industry for nearly thirty years. He began his career working as a contract cable splicer for various underground construction firms contracted to Pacific Bell, AT&T, and General Telephone (Verizon). He was hired by Citizens Utilities (Frontier) as a maintenance splicer in 1990 and quickly promoted to a various craft positions before being promoted to Citizens Utilities Western region E911 coordinator. He was later given the opportunity to become the core team lead on the acquisition, transition, and conversion teams to bring the GTE and ALLTEL acquisitions into the BAU processes within Citizens. He has worked as a project manager in the Y2K conversions and the team lead on multiple operational support systems implementations and conversions. In his current role with Sebastian he recently led the Iowa Hill telephone service project which was within budget and on schedule. He has consistently and successfully managed multi-million dollar FTTH projects within budget and on schedule.

Mr. Ekedahl holds an Associates of Science Degree in Construction Management from San Joaquin Valley College and a Bachelor's of Science Degree in Construction Management from Everglades University in Boca Raton Florida. While at Sebastian Mr. Ekedahl has had the opportunity to attend US-Telecom Executive leadership program at Georgetown University in Washington D.C.

Resume unavailable at time of application submission. To be provided.

Ray Anderson
Network Engineer
Sebastian

Ray Anderson has worked in the communication's industry for over forty years. His experience and expertise results from a career in Pacific Bell (AT&T) and multiple years in Global Valley Networks, Advanced Fiber Communications (AFC), and Praxis Associates. He has pioneered FTTH and middle mile design from the early nineties forward and in recent years has nearly completed an entire community design in Northeastern California. This extensive experience coupled with economic modeling, feasibility analysis and process development skills provides a comprehensive knowledge of fiber optics in communication's applications.

Mr. Anderson took his Bachelors Degree from the California State University system and holds an MBA earned in 2003. He currently serves as an adjunct professor in the School of Business and Economics at various CSU campuses. During his years in the Bell System he attended the Bell System Technical University in Illinois and more recently has completed a Data Communications Certificate at Champlain College, Vermont. At present, he is pursuing a DBA Degree with an emphasis in communications. He and his wife have six grown children and reside in the Sacramento area of Northern California.

2010-current
Sebastian Corp.
Network Engineer
Responsible for OSP and Network design in both copper and FTTH systems.
Included is field design, materials and equipment acquisition, capital control, monitoring, coordination and technology choice. Capital planning, process development, service capability planning, fiber records design, safety planning, efficiency planning and plant upgrade methods are also included in this assignment.

2005-2009
Praxis Associates, Inc.
Engineering Manager

Field engineering and coordination for residential and commercial fiber networks, cost control, project management, inter-agency and construction coordination.

2004-2005
Evans telephone/Global Valley Networks, Inc.
Managing Director – Planning & Marketing
Managed groups for strategic aspects of Business. Including:
- Network planning and design,
- Capital investment and budgeting,
- Product development and delivery,
- Technology choice and initiatives,
- Inventory control and logistics.

1995-2003
Advanced Fibre Communications, California
Application's Engr./Director Sales Operations
Designed, bid and presented access telephone systems for telephone
Companies. Revenue forecasting, account managing and sales technical support.

1964-1992
Pacific Bell, California
District Mgr. - Engineering Manager - Staff Manager - Engineer

Functions and Responsibilities:
- Technical design
- Field design
- Economic comparisons
- Data analysis
- Department leadership – Engrg. & Operations
- M&P development
- Regulatory advising
- Network design
- Budgeting and controlling

Significant Projects

- Hardened Coax CA Link
- Divestiture Planning
- FTTH Introduction
- Fiber Reperscription
- Company Renewal (Evans)
- San Francisco Bay Fiber
- Engr. Force Sizing (PacBell)
- Remote Cabinet Vendor Selection (PacBell)

Education:

AA – Bus., SBVC – San Bernardino, CA

BA – English, CSUSB – San Bernardino, CA

MBA, Sonoma State University – Rohnert Park, CA

Data Communications Certificate (23 Units) – SBC/Champlain College, VT

Telecommunications Evolution – Bell System Center for Technical Education

9. Current infrastructure description

Spiral Internet currently resells DSL and dial-up Internet access over the AT&T copper network both in western Nevada County and in Sacramento, Woodland and Davis via Sonic.net's Fusion service. Email, spam filtering, and website hosting servers are located at its location as well as remotely at Hurricane Electric, Rackspace and Acquia data centers.

As a reseller of Internet services, Spiral Internet has no current infrastructure and does not offer telephone (voice) service. Bright Fiber Network LLC has no current infrastructure, and does not offer telephone (voice) service.

9. List showing number of households per CBG and per ZIP code

Spiral Internet has no current infrastructure and does not offer telephone (voice) service. Bright Fiber Network LLC has no current infrastructure, and does not offer telephone (voice) service.

10. Current Broadband Infrastructure

As a reseller of Internet services, Spiral Internet has no current infrastructure and does not offer telephone (voice) service. Bright Fiber Network LLC has no current infrastructure, and does not offer telephone (voice) service.

No shape files have been uploaded.

11. Proposed project description

Project and Geographic Location

Bright Fiber Network LLC, a wholly owned subsidiary of Spiral Internet (a DBA of Spiral Studios Inc.), proposes to build a 100% fiber-to-the-premise (FTTP) last-mile Internet network in a 26.2 square mile contiguous underserved area. The project will leverage the ARRA and CASF-funded Central Valley Next-Generation Broadband Infrastructure Project's network for backhaul and co-location of fiber optic cable; fulfilling that project's goal to bring service to thousands of last-mile customers in Nevada County.

Feasibility Report

In order to determine this project's scope and sustainability, Spiral Internet contracted with CTC Engineering & Technology, Kensington MD to prepare a feasibility report. Spiral proposed twelve "underserved" areas and one "unserved" area in western Nevada County to the CTC team as potential CASF-funded project sites. The 6-month process and final comprehensive report resulted in this project's plan and geographic location in the county.

Project Area

The project area is located in the western segment of Nevada County, located in the Sierra Nevada foothills; anchored by the towns of Grass Valley and Nevada City. Its remote location, geographically diverse terrain, plus an area segment where the local ILEC (Verizon) does not offer DSL service, results in many households having access to only dial-up, satellite or lowest-speed DSL Internet service. Existing terrestrial fixed wireless providers offer 30% or less overall coverage due to the diverse geography and tree heights within the project area.

Project Size

The project encompasses a contiguous 26.2 square mile area.

Premises Passed with 1Gbps Service

The "underserved" project area will pass 2,904 households and 340 business locations; initially offering the capacity of up to 1 Gbps download / 1 Gbps upload symmetrical speeds to each household passed.

Project Need

In 2012, 600 surveys were completed by households within “undeserved” areas. Of that sample response, 14% reported “very slow” service speeds, 38% reported “slow” service speeds, 26% reported “intermittent” service speeds, and only 22% reported “good” service speeds. The businesses located in the project area are currently served by only an over-subscribed ILEC DSL remote terminal, resulting in 1.5Mbps download speeds, and more often no availability.

Underground Construction

In order to sustain a minimum 50-year and maximum more than 100-year infrastructure resilience, the fiber optic project will be constructed primarily underground. It was determined that this type of deployment is essential because of weather factors, tree density/height/age, plus existing pole obsolescence and unorthodox pole attachments (i.e. trees) for existing wireline networks.

Sebastian, the company contracted for final network design and project construction – an ILEC in Kerman, CA and Foresthill, CA – has recommended this type of build due to experience in construction of its own 100% fiber-to-the-premise network in Foresthill, CA – an area with similar geographic terrain and forestation.

CEQA, Rights of Way and Construction

All construction will be in existing State of California, Nevada County and City of Grass Valley rights of way along existing roadways. Permitting will be coordinated with CalTrans, the County of Nevada Public Works Department, and the City of Grass Valley Engineer’s Department. Nevada County will be the lead agency in this regard.

Planned excavation will be approximately 95% for 2 inch directional bore and 5% for off-set plow and/or minor trenching for equipment facility and service point access. Bore pits will be filled with layered slurry and a minimum of 5 inches of top soil. Plow surface disruption will be power rolled and raked. Minor trenching will be compacted to standard and erosion protected.

Carrier-Grade FTTP Technology

The technical configuration of the proposed network will be an active ethernet fiber-to-the-premise (FTTP) design conforming to the state-of-the-art for new-build “greenfield” networks,

maximizing the use of standards-compliant technology. Carrier-grade FTTP vendor products from Calix, Cisco, Clearfield and Corning are to be used in the project build.

11. Proposed Broadband Project Description

Download speed capabilities of proposed facilities by CBG:

Census Block Group	Project Download Speed (Mbps)
060570001022	1,000
060570001024	1,000
060570001031	1,000
060570001032	1,000
060570001041	1,000
060570001042	1,000
060570001051	1,000
060570006001	1,000
060570006002	1,000
060570006003	1,000
060570006004	1,000
060570007013	1,000
060570007014	1,000
060570007015	1,000
060570007016	1,000
060570007021	1,000
060570007022	1,000

Download speed capabilities of proposed facilities by ZIP Code:

Zip Code	Project Download Speed (Mbps)
95713	1,000
95722	1,000
95945	1,000
95949	1,000

11. Proposed Broadband Project Description

Upload speed capabilities of proposed facilities by CBG:

Census Block Group	Project Upload Speed (Mbps)
060570001022	1,000
060570001024	1,000
060570001031	1,000
060570001032	1,000
060570001041	1,000
060570001042	1,000
060570001051	1,000
060570006001	1,000
060570006002	1,000
060570006003	1,000
060570006004	1,000
060570007013	1,000
060570007014	1,000
060570007015	1,000
060570007016	1,000
060570007021	1,000
060570007022	1,000

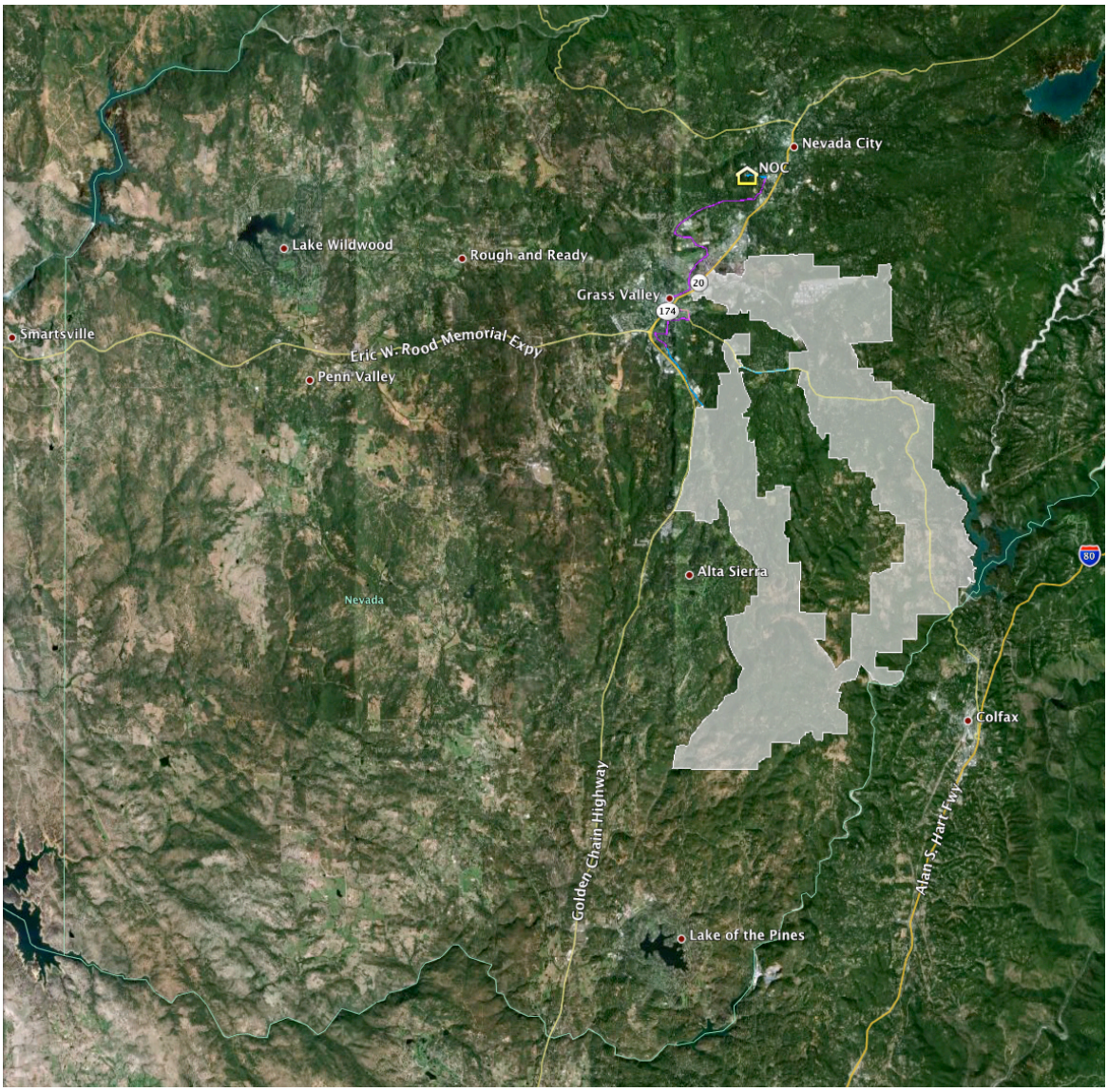
Upload speed capabilities of proposed facilities by ZIP Code:

Zip Code	Project Upload Speed (Mbps)
95713	1,000
95722	1,000
95945	1,000
95949	1,000

12. Proposed Broadband Project Location

Below, in ghosted white, is the boundary of the underserved project area, located in the southeastern portion of western Nevada County. 23.13 square miles or 88% of the project area is in unincorporated areas of Nevada County. 3.07 square miles or 12% of the project area is within the city limits of Grass Valley. Laterals that transverse through “served” areas, including those to be located within the CVNGBIP infrastructure to the Network Operations Center, are noted. Project shape files have been included with the online grant application submission.

Zip codes: 95949, 95945, 95713, 95722



12. Proposed Broadband Project Location

List of CBGs:

060570001022
060570001024
060570001031
060570001032
060570001041
060570001042
060570001051
060570006001
060570006002
060570006003
060570006004
060570007013
060570007014
060570007015
060570007016
060570007021
060570007022

Number of households per CBG and median household income per CBG that intersects the proposed project, based on most current Census data available:

Census Block Group	Total Households	Median Household Income
060570001022	681	$51,113
060570001024	593	$76,364
060570001031	331	$69,265
060570001032	530	$71,063
060570001041	419	$44,821
060570001042	686	$44,375
060570001051	373	$40,114
060570006001	812	$15,904
060570006002	528	$18,547
060570006003	672	$56,944
060570006004	344	$32,647
060570007013	479	$68,214
060570007014	346	$51,759
060570007015	635	$58,894
060570007016	532	$63,125
060570007021	857	$62,313
060570007022	845	$44,107
Total	9,663	

Zip Codes that intersect the proposed project

95713
95722
95945
95949

The list of Zip Codes that intersect the proposed project was generated matching the data provided on the latest CPUC interactive broadband availability map with the list of census blocks in the project area. This data differs from the U.S. Census Bureau's list of Zip Code Tabulation Areas (ZTCA). Because the ZTCA data is only matched to the census tract level while the interactive map data is matched a the census block group level, and because the interactive map data provides a common basis for comparison of California projects, the Zip Codes generated via the interactive map are used in this application. ZTCA-based data is available on request.

13. Proposed Broadband Project Location Shapefile

Files have been uploaded via the online application interface.

14. Assertion that area being proposed is Unserved or Underserved Area.

Census Block Group	Average Download Speed (Mbps)	Average Upload Speed (Mbps)
060570001022	1.85	0.48
060570001024	1.80	0.48
060570001031	1.13	0.48
060570001032	1.60	0.48
060570001041	1.79	0.48
060570001042	1.69	0.48
060570001051	1.13	0.48
060570006001	1.37	0.48
060570006002	1.57	0.48
060570006003	1.88	0.48
060570006004	1.88	0.48
060570007013	1.69	0.48
060570007014	1.53	0.48
060570007015	1.55	0.48
060570007016	1.13	0.48
060570007021	1.29	0.48
060570007022	1.63	0.48

Zip Code	Average Download speed (Mbps)	Average Upload speed (Mbps)
95713	1.60	0.48
95722	1.13	0.48
95945	1.48	0.48
95949	1.55	0.48

Wireline service providers

To establish CASF funding eligibility for the Nevada County Connected project area, the Round 6 data from the CPUC's State Broadband Mapping Program was examined. All the census block reports for Nevada County submitted by wireline service providers were extracted from the statewide source data files. The road segment reports were then loaded into a geographic information system. The Nevada County road segments were extracted and mapped to census blocks, retaining all reported data. The two files – Nevada County census block reports and mapped road segment reports – were then combined into a single master spreadsheet.

The list of project area census blocks was then matched to the Nevada County wireline data, and all associated reports were extracted and the results tabulated by carrier and speed tier. A total of four wireline carriers reported providing service in Nevada County:

Download						
Speed tier	**3**	**4**	**5**	**6**	**7**	**10**
AT&T California	11	10	27	95	11	
Comcast						72
New Edge Networks	3	7				
Suddenlink Communications		2			31	

Upload				
Speed tier	**2**	**3**	**4**	**8**
AT&T California	48	106		
Comcast				72
New Edge Networks	7	3		
Suddenlink Communications	2	23	8	

Any given service provider's reported advertised speeds must meet a minimum of both Tier 6 download speed and Tier 4 upload speed in order to qualify any particular area as "served" and therefor ineligible for funding.

According to the Round 6 data, AT&T's wireline level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported upload speed tier is 3 or lower in all of the project area census blocks in which it provides service.

According to the Round 6 data, New Edge Networks' level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported download speed tier is 4 or lower and reported upload speed tier is 3 or lower in all of the project area census blocks in which it provides service.

Comcast reports providing a "served" level of service in 72 project census blocks and Suddenlink does likewise in 33 project census blocks. 15 calls regarding 100 locations were placed to Comcast to ascertain broadband service availability at addresses within their reported census blocks and 10 calls were made to Suddenlink regarding 85 locations in the same manner. Every single call resulted in a verbal declaration from a company representative that broadband service was unavailable.

In fact, one Comcast representative stated "Comcast does not offer any service south of the intersection of Brunswick Road and Hwy 174, nothing on Greenhorn Rd., and nothing on Loma Rica Rd." These calls and the generated map are documented in Attachment **Exhibit 14A**, which includes a map showing each location checked in relation to the project area and the associated call logs.

Further, residents within the reported Comcast and Suddenlink census blocks were contacted and all stated that they had not been able to obtain such service. Finally, a visual inspection was made of these census blocks and no evidence of either Comcast or Suddenlink facilities could be found.

Because, according to their own reports, AT&T and New Edge Networks do not provide a "served" level of service in the project area, and because Comcast and Suddenlink representatives deny providing service in the project and no other evidence of their presence was found, we assert that no wireline broadband service provider meets the CPUC's minimum level of service in the project area.

Fixed wireless service providers

Using the same process described above, the Round 6 fixed wireless service provider reports for Nevada County were mapped to census blocks and all the data associated with project area census blocks and some adjacent areas was extracted:

Download		
Speed tier	**6**	**7**
Digital Path, Inc.	451	
SmarterBroadband, Inc.		426

Upload			
Speed tier	**3**	**4**	**5**
Digital Path, Inc.	451		
SmarterBroadband, Inc.			426

The reports for both the project area census blocks and the adjacent area were consistent.

According to the Round 6 data, DigitalPath's level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported upload speed tier is 3 or lower in all of the project census blocks in which it claims to provide service, and none of its reports in adjacent census blocks contradicts this finding.

SmarterBroadband, on the other hand, does uniformly report providing "served" levels of broadband service in much of the project area and adjacent areas, claiming Tier 7 download and Tier 5 upload speeds throughout. We assert that SmarterBroadband's claims do not render the project ineligible for funding because SmarterBroadband's own statements and information we have gathered independently demonstrate that the availability of the reported speed levels is extremely limited and might not even be possible at all.

SmarterBroadband's claim of providing Tier 5 downloads speeds is directly contradicted by the information it presents on its own website (see Attachment **Exhibit 14B**) where it plainly states "we offer upload speeds all the way up to 768Kb/s." In other words, its advertised maximum upload speed is merely half of the CPUC's "served" standard and a quarter (or less) of what it claimed in its Round 6 report. Further, the context of this statement makes it clear that residential customers should expect even lower upload speeds.

In its Round 6 filing, the only level of service that SmarterBroadband claimed was the aforementioned Tier 7 down/Tier 5 up, and it applied that claim to its entire service area, including the project area. However, its website plainly states that it offers two distinct types of service: one requiring a "clear line of sight" and another for rural customers. The maximum download speed of the rural service is 1 Mbps, far below the "served" standard. SmarterBroadband failure to disclose this fact in its filing and account for it in its availability claims is at odds with standard industry practice followed by other wireless carriers who provide service to Nevada County. For example, AT&T, Sprint, T-Mobile and Verizon routinely report different tiers of service for different types of technology and spectrum. Although the picture presented is not always completely consistent with ground truth, this standard reporting technique does set a level of expertise, capability and diligence which SmarterBroadband fails to meet.

Although the CPUC's mapping of SmarterBroadband's service claims (Attachment **Exhibit 14C**) indicates that some consideration was given to terrain in the preparation of the report, the data submitted paints a false and misleading picture. It appears to be the product of a standard modeling tool which would not take into account interference from contending spectrum users and the effect of foliage on availability and reliability.

SmarterBroadband uses unlicensed spectrum to provide its services. Per FCC rules, users of this spectrum, including SmarterBroadband, have no particular right to use any given frequency and must accept interference from other lawful users who also choose to use the same frequencies. Any concurrent use of SmarterBroadband's chosen frequencies will degrade its signal to noise ratio and consequently reduce the throughput delivered to subscribers.

Foliage also diminishes signal strength, a fact admitted by SmarterBroadband on its website, where it states that its “signal can penetrate a certain number of trees, how many and how dense the trees are will” adversely affect download and upload speeds and also cause “service fluctuations”. As SmarterBroadband notes in its fine print, “even if you are located within the mapped service area, Smarter Broadband may not be able to serve your exact location due to terrain or distance.”

As illustrated in Attachment **Exhibit 14D**, the proposed project area is heavily forested.

Because SmarterBroadband 1. Did not exercise the same level of care as other wireless carriers in reporting availability data to the CPUC, 2. Did not apparently account for interference from other lawful users of the frequencies it employs and 3. Did not apparently factor foliage into its modeling, its claims must be disregarded.

SmarterBroadband's business practices make it difficult to document its inability to deliver a “served” level of service to all but what could be a very small subset of residents in the project area. Among the methods specified by the CPUC for challenges to providers’ claims is to present “Proof of denial of service from providers in the area” and “Emails or letters of the denial of service”. We have, in fact, been able to produce the requested documentation, which is contained in Attachment **Exhibit 14E**. However, our efforts to do so were hampered by SmarterBroadband's inability to provide answers to many consumers' enquiries regarding service availability and the severe qualifications it attaches to such answers as it will provide. Attachment **Exhibit 14F** documents both denial of service and the qualified manner in which it sells its service. What it does not disclose in its direct communications is that the service alternatives it describes cannot deliver download speeds greater than 1 Mbps.

Finally, the aforementioned unlicensed spectrum employed by SmarterBroadband is limited in its capacity to provide broadband service. Because of limitations imposed by restrictions on power and antenna configurations and legal interference from contending users, there is a finite of bandwidth available for purposes of delivering service. Even allowing for standard industry oversubscription rates, the lesser standard of service that SmarterBroadband positions as suited for rural customers (such as the people living in our project area), never mind the minimum "served" standard of 6 Mbps down and 1.5 Mbps up, can only be delivered to a finite

number of residences. SmarterBroadband attempts to get around this fact by placing onerous data caps on its service, as illustrated in Attachment **Exhibit 14G**.

We contend that service speeds and total data transfer limits are in fact two sides of the same coin: a denial of adequate and qualifying digital bandwidth to subscribers. To say, in effect, we will allow you to download and upload at a certain speed but only for a limited amount of time during a given month is the same as saying we cannot deliver those speeds in a manner we believe was contemplated by the commission in Decision 12-02-015 and a manner that consumers in urban areas of California expect and receive as a matter of course.

On a fair, apples-to-apple comparison, SmarterBroadband fails to meet the “served” standard of service.

To sum up, because:

1. SmarterBroadband's own advertising states its maximum upload rate is 768 Kbps.
2. It did not follow industry practices in preparing its Round 6 data submission.
3. The modeling upon which it bases its Round 6 data submission does not appear to take into account foliage or contending users.
4. We have documented SmarterBroadband's denials of service for addresses in our project area.
5. The manner in which SmarterBroadband limits the bandwidth it provides to customers amounts to a failure to provide a bona fide “served” level of service.

We assert that SmarterBroadband's service claims do not render the project area ineligible for CASF funding as an underserved area.

Because, according to its own report, DigitalPath does not provide a “served” level of service in the project area, and because the above cited evidence demonstrates that SmarterBroadband does not do so either, we assert that no fixed wireless broadband service provider meets the CPUC’s minimum level of service in the project area.

Mobile wireless service providers

Using the same process described above, the Round 6 mobile wireless service provider reports for Nevada County were mapped to census blocks and all the data associated with project area census blocks and some adjacent areas was extracted:

Download					
Speed tier	**3**	**4**	**5**	**6**	**7**
AT&T Mobility			451		
MetroPCS	211				
Sprint	327				
T-Mobile		2			
Verizon Wireless	70				381

Upload				
Speed tier	**2**	**3**	**4**	**5**
AT&T Mobility			451	
MetroPCS	211			
Sprint	327			
T-Mobile	2			
Verizon Wireless	70			381

According to the Round 6 data, AT&T's mobile wireless level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported download speed tier is 5 or lower in all of the project census blocks in which it claims to provide service, and none of its reports in adjacent census blocks contradicts this finding.

According to the Round 6 data, MetroPCS's mobile wireless level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported

download speed tier is 3 or lower and its reported upload speed tier is 2 or lower in all of the project census blocks in which it claims to provide service, and none of its reports in adjacent census blocks contradicts this finding.

According to the Round 6 data, Sprint's mobile wireless level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported download speed tier is 3 or lower and its reported upload speed tier is 2 or lower in all of the project census blocks in which it claims to provide service, and none of its reports in adjacent census blocks contradicts this finding.

According to the Round 6 data, T-Mobile's mobile wireless level of service in the project area fails to meet the "served" standard in any portion of the project area because its reported download speed tier is 4 or lower and its reported upload speed tier is 2 or lower in all of the project census blocks in which it claims to provide service, and none of its reports in adjacent census blocks contradicts this finding.

Further, the first round of mobile broadband field testing and the CPUC's own mapping of service provider reports confirm the lack of a "served" level of service from AT&T, Sprint and T-Mobile, as documented in Attachment **Exhibit 14H**. MetroPCS was not included in the mobile field testing program, but the CPUC's mapping of its service reports likewise illustrates the lack of a "served" level of availability.

Verizon does report a "served" level of service in the project area at Tier 7 download and Tier 5 upload speeds, although by its own admission in its Round 6 data filing, the typical user would actually experience a lower level of service. Verizon claims a typical user would experience a Tier 6 level of service for downloads, however, as documented in Attachment **Exhibit 14I**, the CPUC's mobile broadband field testing shows it would be substantially lower. According to the CPUC's modeling of its field test results, Verizon's actual download service availability in the southern portion of the project area is only Tier 2 and less than that in the northern portion.

Further, the CPUC's mapping of Verizon's reported service availability in the project area shows 1. A lack of validation of Verizon's claims and, 2. A clear indication that even Verizon

acknowledges that its coverage therein is spotty and, to all appearances, adversely affected by the problematic terrain.

Because, according to their own reports, AT&T, MetroPCS, Sprint and T-Mobile do not provide a "served" level of service in the project area, and because actual mobile field test results refute Verizon's claim of a "served" level of service, we assert that no mobile wireless broadband service provider meets the CPUC's minimum level of service in the project area.

Other providers

We are not aware of any other facilities-based broadband service provider in the project area. The applicant is also an Internet service provider operating in the Nevada County market, and as such would be in a position to know if such service was offered.

Assertion of eligibility for CASF funding

As detailed above, no wireline, fixed wireless or mobile wireless broadband service provider offers a level of service in the project area that meets the CPUC "served" standard of 6 Mbps download and 1.5 Mbps upload speeds. However, substandard service is available in substantially all of the project area. On this basis, we assert that the project area proposed herein for CASF funding qualifies as an "underserved" area.

15. Estimated Potential Subscriber Size

Census Block Group	Estimated potential broadband HHs	Estimated potential subscribers
060570001022	85	55
060570001024	22	14
060570001031	4	3
060570001032	291	189
060570001041	143	93
060570001042	81	53
060570001051	6	4
060570006001	3	2
060570006002	184	120
060570006003	126	82
060570006004	15	10
060570007013	7	5
060570007014	153	99
060570007015	407	265
060570007016	308	200
060570007021	638	415
060570007022	431	280
Total	2,904	1,888

Zip Code	Estimated potential broadband HHs	Estimated potential subscribers
95713	291	189
95722	4	3
95945	2,580	1,677
95949	28	18
Total	2,904	1,888

15. Adoption plan

Overall, the owners of Bright Fiber Network have been raising public awareness about the benefit of bringing faster Internet access speeds to Nevada County for over ten years.

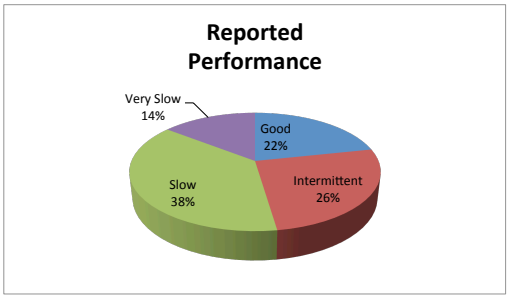
Existing Marketing / Advertising

Since 2006, Spiral Internet has promoted its services via a website that ranks #1 on Nevada County searches for Internet access, a customer referral program, advertising at the local movie theaters, social media (Facebook/Twitter/blog), direct marketing, and community speaking engagements.

Take Rate Based on Existing Infrastructure Deployment Plan

Building new to-the-premise infrastructure with construction/connection fees into neighborhoods has been championed by the Nevada Irrigation District (NID) here, the local piped water provider. NID typically has reached 95% take rates when it brings piped water into formerly well-only areas. This precedent has been established for improving infrastructure in neighborhoods. It is a model that the Nevada County Connected project will replicate, as it is based in an area of Nevada County where current Internet access is primarily dial-up, satellite, and lowest DSL speeds. A 65% subscriber take rate is feasible, if not low, as a high volume of calls have come into the Spiral Internet office over the past seven years from the project area in particular, and as a survey conducted in 2012 corroborates.

Good	Intermittent	Slow	Very Slow
115	138	201	77



Performance
2012 Spiral Internet Home Broadband Use Survey

See Attachment **Exhibit 15A** for full results of this survey completed of potential subscribers in Nevada County, indicating the high need and desire for faster Internet access.

FTTP Awareness Campaign Started in March 2010

In 2010, as part of a community initiative to promote Nevada City and Grass Valley as viable locations for Google's Fiber for Communities project, public awareness of building a 100% fiber optic network was started. Media coverage, a large public event, and subsequent video was produced – all raising public expectations and understanding of what faster Internet speeds could deliver to a rural area. – http://www.95959google.com

Nevada City's event and video was featured in the *New York Times* and on CBS Evening News due to the promotional efforts of Spiral Internet.

Broadband Blog Informs Residents

Also in 2010, Spiral starting writing a broadband blog to raise public understanding about the issues and initiatives needed toward bringing faster Internet speeds to households, businesses and community anchor institutions locally. – http://www.nevadacountyconnected.com

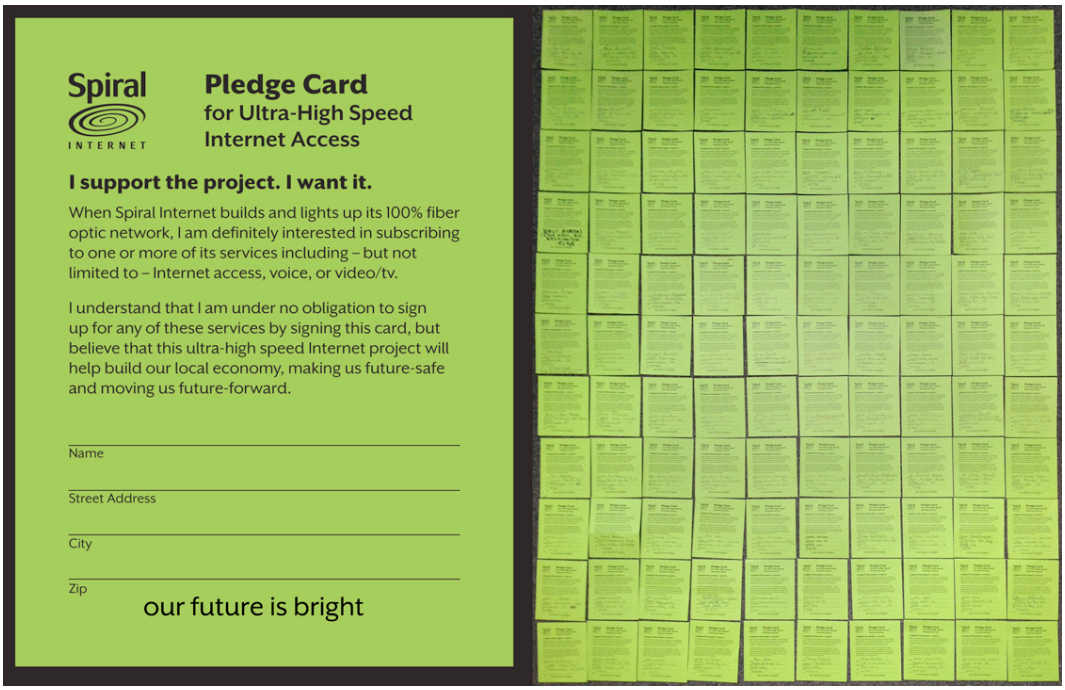
Nevada County Broadband Advisory Group

The owners of Spiral Internet convened a Nevada County Broadband Advisory Group in early 2012 consisting of representatives from government, economic development agencies, ISPs, education, technology companies, and neighborhood organizations. The organization is on track to complete a "Nevada County Broadband Plan" based on the FCC's "National Broadband Plan" by the end of May 2013. This group has also coordinated Nevada County broadband events with the Gold Country Broadband Consortium.

Direct Mail and Community Meetings Determined Project Area

In early 2012, as part of this project's initial feasibility work, a direct mail campaign was launched to bring attendees to 12 localized community meetings held in potential "underserved" project areas in western Nevada County. As a result, over 600 comprehensive residential and business surveys were completed by attendees that currently have inadequate Internet access speeds. Neighborhood volunteers were identified for future community organizing.

Over 350 Pledge Cards were also signed during those meetings:



Additionally, presentations about fiber optic Internet access were made at ten local service, business, and economic development organizations such as Rotary, Lions, and Kiwanis.

Planned FTTP Project Adoption Marketing

Kick off Event

A major public project kickoff event will be held for community leaders, neighborhood organizers, and the local media.

PR

The Spiral Internet co-owners have fostered good relationships with reporters at all local print, radio and TV media – positioning themselves as the “go to” people for talking points and comments regarding all things broadband. Those reporters are prepared to “break the news” when the Nevada County Connected project is approved for funding.

See Attachment **Exhibit 51B** – a local newspaper article on the recent CVNGBIP construction start here.

Direct Marketing and Advertising

The event will be followed by direct marketing campaigns, as well as print and radio advertising, plus coverage in the local media.

Community Information Meetings

Members of households within the project area will be encouraged to attend neighborhood meetings where they can obtain information, review Internet service plans, ask questions, and have the opportunity to sign up for installation/connection.

Branding

The Internet services will be promoted and sold under the Spiral Internet name, which has high customer satisfaction and brand awareness in western Nevada County.

16. Deployment schedule

A. Milestone start/ending dates

B. Milestone description

C. Milestone comments

D. Milestone risks

Total Build Time (Months): 24

Milestone	Year 1				Year 2			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Network Design								
Fiber Optic Cable Order/Delivery								
Equipment Order/Delivery								
CEQA								
County/City Permitting								
Rights of Way								
Construction of Laterals								
Move-in and Set-up of Network Operations Center								
Customer Premise Construction/Connection								
Adoption Marketing								

Milestone: Network Design

Start: 1st Year, 1st Quarter **End:** 1st Year, Middle of 3rd Quarter

Description: Design of fiber optic network; including final location of laterals, cabinets, vaults within CVNBIP build.

Comments: Bright Fiber Networks will be using the network engineering and construction team of Sebastian

Risks: Minimal

Milestone: Fiber Optic Cable Order/Delivery

Start: 1st Year, 1st Quarter **End:** 1st Year, Middle of 3rd Quarter

Description: Securing order of materials and delivery dates.

Comments: Once the preliminary network design is completed, fiber optic cable will be ordered.

Risks: There have been delays in the recent past in fiber optic cable delivery. Those seem to have been rectified.

Milestone: Equipment Order/Delivery

Start: 1st Year, 1st Quarter **End:** 1st Year, Middle of 3rd Quarter

Description: Securing order of equipment and delivery dates.

Comments: The equipment list based on a preliminary network map has already been generated by Calix.

Risks: Minimal

Milestone: CEQA

Start: 1st Year, Middle of 1st Quarter **End:** End of 3rd Quarter

Description: Oversight of CEQA process for project.

Comments: Due to 95% of project being bored, we anticipate a reasonable time period for the full CEQA process, based on Sebastian's experience on previous projects of this type.

Risks: Difficult to confirm this for a new project.

Milestone: County/City Permitting

Start: 1st Year, Middle of 1st Quarter **End:** 1st Year, 1st Quarter

Description: Oversight of permitting process with juridsictions for build.

Comments: Preliminary meetings have already been had with both Nevada County Public Works Director and Grass Valley and Nevada City City Engineers. All three entities will work closely with Sebastian in streamlining our process.

Risks: Minimal

Milestone: Rights of Way

Start: 1st Year, 1st Quarter **End:** 1st Year, Middle of 3rd Quarter

Description: Negotiation for rights of way with CalTrans for Hwy 174 build.

Comments: The project will be hiring Lee Pemberton, who was employed as Rights of Way Manager for the Digital 395 Project. Has good working relationship with CalTrans.

Risks: Minimal, and the process may be shorter than anticipated.

Milestone: Construction of Laterals

Start: 1st Year, 3rd Quarter **End:** 2nd Year, 4th Quarter

Description: Oversight and scheduling of construction crews for project build-out.

Comments: Sebastian has extensive experience in managing this type of fiber-to-the-premise build. Sub-contractors with experience in infrastructure construction have already been identified and interviewed within Nevada County.

Risks: Minimal

Milestone: Move-in and Set-up of Network Operations Center

Description: Oversight of any space renovation and placement of equipment.

Start: 1st Year, 1st Quarter **End:** 1st Year, 1st Quarter

Comments: A building space has been identified, and a lease will be drafted and ready to be signed once we receive approval of CASF funding.

Risks: Minimal

Milestone: Customer Premise Construction/Connection

Description: Scheduling and construction of street to premise connections.

Start: 1st Year, Middle of 3rd Quarter **End:** 2nd Year, 4th Quarter

Comments: The connection from the street into each premise will be coordinated with the Adoption Marketing process. Neighborhoods will be identified, then organized to start once the appropriate adoption rate has been reached. This has been used in Google's Fiber build in Kansas City to great effect. Sebastian has perfected this work in their fiber to the premise build in Foresthill which is in proximity to and is geographically similar.

Risks: Minimal

Milestone: Adoption Marketing

Description: Development, oversight and delivery of 2 year marketing campaign.

Start: 1st Year, 1st Quarter **End:** 2nd Year, 4th Quarter

Comments: A full marketing plan has been created to create high awareness of the project, then to organize individual neighborhoods within the project area. Neighborhood and Road Associations have already been identified, with preliminary meetings that will scheduled immediately after we receive approval of CASF funding.

Risks: Minimal

17. Proposed Project Budget

A. Detailed breakdown of cost elements

E. Amount of CASF funds requested

		Quantity	Price	Cost
Project planning	GIS mapping and data (KBA Geography)			$ 900
	Project budget/feasibility prepartation (CTC)			$ 12,500
	CPCN application preparation/filing (VantagePoint)			$ 4,775
	Grant application preparation (Tellus Ventures)			$ 3,000
	Attested financials preparation (Scinto Graziano)	3 yrs	$ 2,500.00	$ 7,500
Grant reporting to CPUC	Quarterly reports/billing	8 qtrs	$ 1,500.00	$ 12,000
Project management/logistics	24-month period (Sebastian & Bright Fiber Network)	24 mo	$ 25,000.00	$ 600,000
Network engineering	6-month period (Sebastian)	6 mo	$ 16,500.00	$ 99,000
Rights of way management	with CalTrans (Lee Pemberton)			$ 33,000
Fiber optic laterals	construction/materials (“underserved”)	762,050 ft	$ 22.00	$ 16,765,100
	construction/materials (to NOC)	28,670 ft	$ 22.00	$ 630,740
Street to premise connection	based on maximum 90% take rate	2,614 hh	$ 1,400.00	$ 3,659,040
	based on maximum 90% take rate	279 hh	$ 1,700.00	$ 474,300
Co-location in CVNGBIP route	IRU – 20 year (Vast Networks)	55,440 ft	$ 12.34	$ 684,000
	fiber jetting (Vast Networks)	55,440 ft	$ 2.50	$ 138,600
	fiber optic cable – 72 fiber (Corning)	60,940 ft	$ 0.52	$ 31,811
	vaults	22 units	$ 2,175.00	$ 47,850
Network operations center/hubs	layer 2 electronics with warranties (Calix)	3,214 units	$ 1,001	$ 3,218,702
	layer 3 electronics (Cisco)			$ 435,000
Adoption marketing	advertising, direct email, community events	3,214 units	$ 50.00	$ 160,700
Legal fees	contracts, PPM			$ 95,000
Performance bond	3% of grant total			$ 497,000
	Total Project Budget			**$ 27,610,518**

Project Budget Summary		Percentage	
	CASF grant requested	**60.00%**	**$ 16,566,311**
	CASF loan requested	**1.81%**	**$ 500,000**
	Bright Fiber Network LLC private investment	38.19%	$ 10,544,207
	Total Project	100%	**$ 27,610,518**

CASF grant requested $16,566,311

CASF loan requested $500,000

17. Proposed Project Budget

B. Amount of costs elements

See Attachment **Exhibit 17A** for a detailed breakdown of Calix equipment pricing.

See Attachment **Exhibit 17B** for detailed construction pricing from Sebastian, from which final budget for this project was calculated.

17. Proposed Project Budget

C. Availability of matching funds to be supplied by applicant

D. Amount of available funds from each individual funding source

Bright Fiber Network LLC is raising the matching funds privately to finance the project via a Private Placement Memorandum. Joey Jordan, a consultant with an extensive background in funds raising is currently in the process of interviewing over fifty key community leaders in the arena of finance to identity and secure the matching monies needed. See Attachment **Exhibit 17C**, letter of investment confirmation.

Owner Investment

To date, the owners of Spiral Internet, have invested $200,000 in the preliminary development of the Bright Fiber Network project for community marketing/adoption, a comprehensive western Nevada County-wide feasibility report, and education/training in the building of a FTTP network.

Investment Prospectus

An investment prospectus and Private Placement Memorandum is to be delivered at private meetings with individuals and organizations during the month of February. Final commitment to matching funds with supporting letters of commitment will be completed and supplied prior to the CPUC approval of the CASF monies.

18. Economic life of assets to be funded

The underground construction of a 100% fiber optic network will deliver assets that will last from 50 to 100 years, with new technologies and peripheral equipment enabling larger and larger bandwidth to be provided to households and businesses during that timeframe.

The Calix and Cisco layer 2 and layer 3 equipment deployed in this project, because of its 1 Gbps symmetrical bandwidth capacity and active ethernet technology, will remain viable for a 10 to 15 year period. See list of Calix equipment, Attachment **Exhibit 17A**.

19. Local government and community support

Letters of support follow from the following entities, organizations and individuals:

Nevada County Board of Supervisors
Grass Valley City Council
Nevada City City Council
Nevada County CIO
Sierra Business Council
Sierra Economic Development Corporation
Nevada County Economic Resource Council
Nevada County Contractors' Association
Nevada County Association of Realtors
Sierra Nevada Memorial Hospital
Sierra Nevada Memorial Hospital Foundation
Nevada County Superintendent of Schools
Sierra College – Nevada County Campus
Nevada County Library
California State Assemblyman, Rich Gordon
MAC Labs, local business
DigitalPath, regional terrestrial fixed wireless provider
Fiber to the Home Council, a letter of general support

See Attachment **Exhibit 19A**.

20. Performance Bond Documentation

Bright Fiber Network LLC has secured the assistance of an insurance agent for a Performance Bond to match the project's grant amount.

Documentation will be provided after project award.

21. Proposed pricing

A. Proposed monthly subscription fee

10 Mbps download / upload	$25 per month*
20 Mbps download / upload	$75 per month
50 Mbps download / upload	$115 per month
100 Mbps download / upload	$195 per month
250 Mbps download / upload	$395 per month
1 Gbps download / upload	$695 per month

* special pricing for low-income seniors, people with disabilities, and low-income households with K-12 school-age children

See Attachment **Exhibit 21A** showing comparable local pricing and comparable national Fiber-to-the-Premise monthly pricing to see how subscription fees were determined.

B. Initial service connection charges

Network connection and ONT equipment	$500

C. Other recurring costs

Not applicable

D. Other non-recurring costs

Not applicable

22. Price commitment period

Prices will be maintained over a two-year period following the completion of the project as outlined in “16. Deployment schedule”.

23. Financials

CPA Attested Financial Statements for the last three years

CPA Attested Financial Statements from Spiral Studios Inc. (DBA Spiral Internet, of which Bright Fiber Network LLC is a wholly owned subsidiary) are in preparation with an expected delivery date of February 19, 2013 to the CPUC.

See Attachment **Exhibit 23A** for Financials, unattested.

23. Financials

Pro Forma Financial Forecast over 5 years – Income Statement

	Year	1	2	3	4	5
Revenues						
Internet - Residential		$ 531,158	$ 3,452,524	$ 4,514,839	$ 5,311,575	$ 5,842,733
Internet - Small Business		$ 478,620	$ 757,560	$ 1,032,780	$ 1,032,780	$ 1,032,780
Internet - Business, School, Government		$ 41,640	$ 71,340	$ 71,340	$ 71,340	$ 71,340
Connection Fees		$ 535,500	$ 288,900	$ 278,400	$ -	$ -
Existing ISP (DSL, hosting, dial-up)		$ 292,796	$ 292,796	$ 248,877	$ 190,317	$ 131,758
	Total	$ 1,879,714	$ 4,863,120	$ 6,146,235	$ 6,606,012	$ 7,078,611
Expenses						
Internet - Residential + Small Business		$ 364,975	$ 641,076	$ 799,872	$ 834,960	$ 856,032
Internet - Business, School, Government		$ 18,000	$ 24,000	$ 24,000	$ 24,000	$ 24,000
Internet - Served Areas		$ 267,480	$ 802,800	$ 856,440	$ 990,000	$ 1,070,280
	Total	$ 650,455	$ 1,467,876	$ 1,680,312	$ 1,848,960	$ 1,950,312
Operating Costs						
Labor Expense		$ 211,250	$ 471,250	$ 546,000	$ 546,000	$ 546,000
Operation and Maintenance Expenses		$ 409,389	$ 423,779	$ 434,714	$ 439,311	$ 444,037
Existing ISP (DSL, hosting, dial-up)		$ 149,854	$ 149,854	$ 127,376	$ 97,405	$ 67,434
Depreciation		$ -	$ 1,959,054	$ 2,237,625	$ 2,503,197	$ 2,524,166
	Total	$ 770,493	$ 3,003,937	$ 3,345,715	$ 3,585,913	$ 3,581,638
Operating Income		$ 458,765	$ 391,307	$ 1,120,209	$ 1,171,139	$ 1,546,661
Net Income		$ 458,765	$ 391,307	$ 1,120,209	$ 1,171,139	$ 1,546,661
Property Taxes (non-building)		$ 30,000	$ 240,893	$ 240,893	$ 240,893	$ 240,893
Net Income After Taxes		$ 428,765	$ 150,414	$ 879,316	$ 930,246	$ 1,305,768

23. Financials

Pro Forma Financial Forecast over 5 years – Balance Sheet

Year	1	2	3	4	5
Assets					
Cash	$ 424,565	$ 117,054	$ 852,796	$ 910,566	$ 1,292,928
Accounts Receivable	$ 112,018	$ 381,185	$ 506,241	$ 550,501	$ 589,884
Prepaid Expenses	$ 535,500	$ 288,900	$ 278,400	$ 100,000	$ 100,000
Fixed Assets: Equipment & Furniture	$ 20,000	$ 3,683,702	$ 3,683,702	$ 3,683,702	$ 3,683,702
Fixed Assets: Fiber Optic Network	$ 5,500,000	$ 18,300,000	$ 18,300,000	$ 18,300,000	$ 18,300,000
Accumulated Depreciation	$ -	$ 1,959,054	$ 2,237,625	$ 2,503,197	$ 2,524,166
Total Assets	$ 6,592,083	$ 24,729,895	$ 25,858,764	$ 26,047,966	$ 26,490,680
Liabilities					
Loans	$ 339,200	$ 589,360	$ 468,520	$ 347,680	$ 226,840
Accounts Payable	$ -	$ -	$ -	$ -	$ -
Common Stock	$ 4,000,000	$ 11,000,000	$ 11,000,000	$ 11,000,000	$ 11,000,000
Shareholder's Equity					
Retained Earnings	$ 399,091	$ 110,031	$ 903,964	$ 855,932	$ 1,215,352
Total Liabilities and Stockholder Equity	$ 4,738,291	$ 11,699,391	$ 12,372,484	$ 12,203,612	$ 12,442,192

23. Financials

Pro Forma Financial Forecast over 5 years – Statement of Cash Flows

Year	1	2	3	4	5
Cash Flows from Operations					
Net earnings	$ 428,765	$ 150,414	$ 879,316	$ 930,246	$ 1,305,768
Additions to Cash					
Depreciation	$ -	$ 1,959,054	$ 2,237,625	$ 2,503,197	$ 2,524,166
FTTP project grant	$ 5,000,000	$ 9,000,000	$ 2,566,311	$ -	$ -
FTTP project loan	$ 150,000	$ 270,000	$ 80,000	$ -	$ -
FTTP project private investment	$ 3,163,262	$ 5,699,272	$ 1,687,073	$ -	$ -
Other operations loans	$ 70,000	$ -	$ -	$ -	$ -
Subtractions from Cash					
FTTP project expenditures	$ 8,313,262	$ 14,969,272	$ 4,333,384	$ -	$ -
Net Cash from Operations	$ 498,765	$ 2,109,468	$ 3,116,941	$ 3,433,443	$ 3,829,934
Cash Flows from Financing					
Dividends	$ (189,796)	$ (531,752)	$ (632,976)	$ (632,976)	$ (632,976)
Loan Principal	$ -	$ (110,000)	$ (110,000)	$ (110,000)	$ (110,000)
Loan Interest	$ (11,000)	$ (300,000)	$ (395,000)	$ (450,000)	$ (505,000)
Net Cash from Financing	$ (200,796)	$ (941,752)	$ (1,137,976)	$ (1,192,976)	$ (1,247,976)
Cash Flow	$ 297,969	$ 1,167,716	$ 1,978,965	$ 2,240,467	$ 2,581,958

23. Financials

Annual EBIT projection over 5 years

Year	1	2	3	4	5
Annual EBIT					
Revenues	$ 1,879,714	$ 4,863,120	$ 6,146,235	$ 6,606,012	$ 7,078,611
Expenses	$ 112,018	$ 381,185	$ 506,241	$ 550,501	$ 589,884
Operating Costs	$ 650,455	$ 1,467,876	$ 1,680,312	$ 1,848,960	$ 1,950,312
Depreciation	$ 770,493	$ 3,003,937	$ 3,345,715	$ 3,585,913	$ 3,581,638
EBIT	$ 3,412,680	$ 9,716,117	$ 11,678,503	$ 12,591,387	$ 13,200,445
TIER		32	30	28	26

23. Financials

Schedule of all outstanding and planned debt

Bright Fiber Network LLC currently has no outstanding debt.

Planned debt includes:

Nevada City Community Block Grant Loan for Operations requirement of the creation of two entry-level job positions	$70,000

23. Financials

Collateral Documentation (including depreciation schedule of assets)

Bright Fiber Network LLC currently has no assets that are depreciating. The depreciation schedule for this project is detailed in 23 B Pro Forma Forecast, Income Statement.

23. Financials

Equity requirement of 20% of the loan amount

$100,000 is currently deposited and will remain in deposit in a Bright Fiber Network LLC bank account for this purpose.

23. Financials

Minimum TIER Requirements of 1.5

Year	1	2	3	4	5
Annual EBIT					
Revenues	$ 1,879,714	$ 4,863,120	$ 6,146,235	$ 6,606,012	$ 7,078,611
Expenses	$ 112,018	$ 381,185	$ 506,241	$ 550,501	$ 589,884
Operating Costs	$ 650,455	$ 1,467,876	$ 1,680,312	$ 1,848,960	$ 1,950,312
Depreciation	$ 770,493	$ 3,003,937	$ 3,345,715	$ 3,585,913	$ 3,581,638
EBIT	$ 3,412,680	$ 9,716,117	$ 11,678,503	$ 12,591,387	$ 13,200,445
TIER		32	30	28	26

24. Proof of voice service (if providing VoIP)

Bright Fiber Network LLC will not be offering VoIP (voice) service to customers.

25. CEQA Compliance

A CEQA exemption applies as all placements will be within Nevada County and CalTrans rights-of-way which have been previously disturbed by multiple underground placements.

Planned excavation will be approximately 95% for 2 inch directional bore and 5% for off-set plow and/or minor trenching for equipment facility and service point access. Bore pits will be filled with layered slurry and a minimum of 5 inches of top soil. Plow surface disruption will be power rolled and raked. Minor trenching will be compacted to standard and erosion protected.

The project cites CEQA Article 19:

15300. Categorical Exemptions, 15304. Minor Alterations to Land.

Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. Examples include, but are not limited to:

(f) Minor trenching and backfilling where the surface is restored;

26. Notarized Affidavit

See Attachment **Exhibit 26A**.

27. Check List

√ **Project Name**

√ **1.** Project Summary

√ **2.** Type of Funds Requested

√ **3.** Area Applied for

√ **4.** CPCN

Exhibit 4A

√ **5.** Information Sheet with Certificate of Good Standing

Exhibit 5A

Exhibit 5B

√ **6.** Organizational Chart, Company History and Readiness to Build, Manage and Operate Broadband

√ **7.** CASF Key Contact Information

√ **8.** Key Company Officers

Resumes

√ **9.** Current Broadband Infrastructure Description

List showing number of households per CBG and per ZIP code

√ **10.** Current Broadband Infrastructure

Shapefiles of current service area

√ **11.** Proposed Broadband Project Description

Description

Project Size

Download speed capabilities

Upload speed capabilities

√ **12.** Proposed Broadband Project Location

Geographic locations CBG(s) where broadband facilities will be deployed

List of CBG(s) that intersect the proposed project

Median household income for each CBG

List of ZIP Code(s) that intersect the proposed project

√ **13.** Proposed Broadband Project Location Shapefile

.dbf, .prj, .sbn, .sbx, .shp, .shx, .xml

√ **14.** Assertion that area being proposed is Unserved or Undeserved

(a) average upload speed by CBG

(b) average download speed by CBG

(c) average upload speed by ZIP Code

(d) average download speed by ZIP Code

Exhibit 14A

Exhibit 14B

Exhibit 14C

Exhibit 14D

Exhibit 14E

Exhibit 14F

Exhibit 14G

Exhibit 14I

√ **15.** Estimate Potential Subscriber Size for Each CBG and ZIP Code

Estimated number of potential broadband households by CBG and Zip Code

Estimated number of potential broadband subscribers by CBG and Zip Code

Documentation of assumptions and data sources used to compile estimates

Adoption Plan

Exhibit 15A

Exhibit 15B

√ **16.** Deployment Schedule

Milestone Start and Ending Date

Milestone Description

Milestone Comments

Milestone Risks

Total Build Time (Months)

√ **17.** Proposed Project Budget

Detailed breakdown of cost elements

Amount of cost elements

Availability of matching funds to be supplied by applicant

Amount of available fund from each individual funding source and

Amount of CASF funds requested

√ **18.** Economic Life of Assets Funded

√ **19.** Local Government and Community Support

√ **20.** Performance Bond Documentation

√ **21.** Proposed Pricing

Proposed (two-years) monthly subscription fees for applicant's proposed broadband service(s).

Initial service connection charges, if any and any building of equipment in the proposed pricing.

Other recurring costs

Other non-recurring costs

√ **22.** Price Commitment Period

√ **23.** Financials

CPA Audited/Attested Financial Statements for the last three years

Pro Forma Financial Forecast over 5 years

Annual EBIT

Schedule of all outstanding and planned debt

Collateral Documentation

Equity Requirement of 20% of the loan amount

Minimum TIER Requirements of 1.5

√ **24.** Proof of Voice Service (if providing voice services)

√ **25.** CEQA Compliance. Proponent's Environmental Assessment (PEA)

√ **26.** Notarized Affidavit

√ **27.** Check List