Idaho Broadband Fund: CARES Act Broadband Grant

Applicant	Rebecca Wood
Applicant ID	APP-004798
Company Name	Lincoln County
Recipient Address	Lincoln County 111 W "B" St Ste C Shoshone, ID 83352
Phone	(208) 886-7641
Email	commishwood@gmail.com
Amount Requested	$1,516,015.00
Status	Submitted
Funded	☐

Application Title: Lincoln County Broadband Project

Applicant Information

NOTICE: Grant applications, challenges, and responses to challenges will be posted to the Idaho Department of Commerce website

1.Program Description
The Idaho Broadband Advisory Board is soliciting projects that meet the CARES Act funding criteria for the $10 million appropriated to the Idaho Department of Commerce from the Federal COVID Relief Fund. These funds may only be expended to provide financial assistance in broadband infrastructure consistent with CARES Act criteria. The Idaho Broadband Advisory Board seeks to fund broadband projects across the state that are necessary for the COVID-19 public health emergency, and may include assisting with or improving distance learning, telehealth, telework, and public safety. This Idaho Broadband Fund: CARES Act Broadband Grant (the “Broadband Grant”) is designed to meet the CARES Act criteria, helping Idaho rebound from the COVID-19 public health emergency.

Question: Applicant’s contact information: a. Name b. Title/Position c. Mailing Address d. Email Address e. Phone Number

a. Rebecca Wood
b. Lincoln County Commissioner - Chairman of the Board
c. 111 West B Street, Ste C, Shoshone, Id, 83352
d. commishwood@gmail.com
e. (208)886-7641

Question: List the cities/communities in the census blocks where the project(s) will take place.

This project will include Census Tract 9501 encompassing the cities of Dietrich, Richfield, and Shoshone, with service to the County Seat in Shoshone and the greater rural areas of Lincoln County.

Question: Grant Administrator a. Provide the name and title of the designated grant administrator. b. Provide the email address of the designated grant administrator. c. Provide the phone number of the designated grant administrator.

a. Jake Goddard, Disaster Recovery Assistant
Region IV Development Association, Inc
b. jgoddard@csi.edu
c. 208-732-5727 Extension – 3013

Project Requirements

2.Eligible Projects
A. To be eligible for funding under the Broadband Grant, projects must meet the following eligibility criteria:

- Projects must satisfy the CARES Act criteria, which is designed to address key areas of public health and safety by improving opportunities to telework, improving access to telehealth services, facilitating distance learning, and improving public safety (CARES Act Federal Register Guidance can be found here. Frequently asked questions can be referenced here.)
- Projects must be necessary due to the COVID-19 public health emergency.
- Projects must expand rural broadband capacity to assist with telework, telehealth, distance learning, and public safety. Projects that would not be expected to increase capacity to a significant extent until the need for telework, telehealth, distance learning, and public safety have passed due to this public health emergency would not be necessary due to the public health emergency and therefore would not be eligible uses of Broadband Grant funds. Projects must provide broadband service within the proposed project areas.
- Projects must be completed and operable and verified no later than December 31, 2021. **Projects that are not completed, operable, and verified by December 31, 2021 will not be reimbursed.**
- Include broadband infrastructure and equipment costs meeting CARES Act criteria. Satellite service is not eligible for grant award.

Eligible applicants may apply for multiple grants. County governments may apply for grants on behalf of unincorporated communities.

Question: Does your project meet the CARES Act criteria?

☑ Yes

☐ No

Question: I understand that the State of Idaho will provide no funding and have no obligations for CARES funded projects that fail to be completed by December 31, 2021.

☑ Yes

☐ No

Scored Criteria

Scored Criteria
1. Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide: the broadband service being sought, the required technologies and equipment, and the installation and operation of the new broadband service. (30 Points)
a. Scope of Work: outlines the detailed plans of the infrastructure build. This may include, but is not limited to, the following: project area, type of infrastructure installed, locations of underserved households, known existing infrastructure, known existing anchor institutions (schools, hospitals, public facilities, etc.), potential middle-mile infrastructure that will be utilized, and locations of existing infrastructure.
2. Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community? (25 Points)
3. Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future? (20 Points).
4. Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000) (Y/N) (15 Points).
5. Explain how your project delivers a cost-effective broadband infrastructure solution to the community (10 Points).

Question: Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide the proposed service.

In Lincoln County, lack of access to adequate broadband internet is the most significant roadblock to education, healthcare, and industry development. The COVID-19 health emergency has exacerbated this hardship. 3000 of Lincoln County's 5208 citizens are severely under-served and do not have access to the minimum adequate broadband connection as measure by access to 25mbps/3Mbps broadband.

This proposal is the first in a comprehensive two-phase broadband plan to bring fiber to the home, serving 90-95% of the households and businesses in Lincoln County. This independent, shovel-ready project will establish five judiciously designed and placed 120-250 ft. towers in Lincoln County, providing wireless fiber access for under-served homes and businesses, within the city limits of municipalities and in rural, unincorporated portions of Lincoln County. These towers will provide households with symmetrical speeds up to 1GB/1GB and no less than 25Mbps/25Mbps, surpassing the current FCC standards for broadband of 25Mbps/3Mbps. (See 3_LCID_SOW)

Several providers could provide the services and infrastructure proposed in this application (e.g., CenturyLink, Viasat, HughesNet, Sparklight, Truleap, and Speedconnect). However, we posit

the following, "Why have they chosen not to provide adequate services that they seem capable of delivering and that have been sought by government, businesses, and citizens?"

Our communities have been let down by incumbent providers and are looking for an integrative solution that encourages community-focused internet solutions. Learning from other municipalities, we seek to create a community-owned infrastructure, inviting ISPs to compete through community-sanctioned RFP processes. This process will ensure community-focused services, achieving the fast, affordable, reliable broadband access Lincoln County citizen genuinely need and deserve.

(See 4_LCID_FAQs)

In Lincoln County, lack of access to adequate broadband internet is the largest roadblock to education, healthcare, and industry development. The COVID-19 health emergency has exacerbated this hardship. 3000 of Lincoln County's 5208 citizens are severely under-served and do not have access to the minimum adequate broadband connection as measure by access to 25mbps/3Mbps broadband.

This proposal is the first in a comprehensive two-phase broadband plan to bring fiber to the home, serving 90-95% of the households and businesses in Lincoln County. This independent, shovel-ready project will establish five judiciously designed and placed 120-250 ft. towers Lincoln County, providing wireless fiber access for under served homes and businesses, within the city limits of Shoshone, Dietrich, and Richfield, and in rural, unincorporated portions of Lincoln County. These towers will provide households with symmetrical speeds up to 1GB/1GB and no less than 25Mbps/25Mbps, surpassing the current FCC standards for broadband of 25Mbps/3Mbps.

Question: Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community?

Lack of access to fast, reliable, and affordable broadband internet has separated rural Americans from much-needed services and opportunities for economic development, public safety, telehealth, and education. This proposal directly promotes increased equity by establishing the necessary foundational infrastructure to provide better than adequate internet to most Lincoln County residents, focusing first on those with the least access to adequate connectivity due to lack of competition, overpricing, or geographic location.

Data from Broadbandnow shows a dearth of internet service in Lincoln County negatively impacting businesses, citizens, and communities. Public polling confirms this disparity as 83.25% of citizens polled reported that internet service did not meet their desired needs. Several citizens directly reported that lack of adequate internet access directly impacted their job opportunities, education, and health care. (See 4_LCID_FAQs and 5_LCID_Research_Outreach.)

Question: Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future?

This project explicitly addresses significant rural broadband access disparities in Lincoln County, directly addressing criteria in the CARES Act guidelines.

This proposal increases the response capabilities of municipal and county governing agencies

concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of rural households to access and utilize resources through fast, reliable, and adequate broadband connectivity.

The planned infrastructure improvements are designed to be “future proof” mitigating the effects of similar widespread emergencies. The proposed infrastructure provides service and speed improvement that are more than adequate for today's needs while scalable for meeting the future needs of Lincoln County. Well-designed and implemented infrastructure improvements are essential for preparing for the needs of today and for those of the next generation. (See 5_LCID_Research_Outreach for details.)

Question: Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000)?

☑ Yes

☐ No

Question: Explain how your project delivers a cost-effective broadband infrastructure solution to the community?

The proposed infrastructure improvements use two strategies, economy of scale and sensible engineering, to provide cost effective improvements to broadband access. Lincoln County and the cities within, are unique in their forward-thinking approach to collaborative efforts and partnerships. Building a comprehensive broadband network providing service for the whole of Lincoln County is more cost effective and efficient than independent endeavors, driving cost per household down, while increasing service areas.

Additionally, the proposed improvements are sensibly engineered to employ existing fiber trunks that bring high speed internet near the cities of Lincoln County, but as of yet have been underutilized. Utilizing the available “digital highways” we can build more economical solutions for increased service through wireless fiber towers in this phase-one project, laying the foundation for wired fiber to the home in the future phase-two project.

Additional Requested Information (if applicable)

Question: Please detail any project match included to complete this project.

This project does not have a matching component from the County or Cities within, however, the Municipal and County Leaders are utilizing a cooperative, united broadband plan that drives down costs through economy of scale. The unique approach that Lincoln County is utilizing to drive down costs and increase outcomes is a pioneering concept that stands to be a flagship model in rural broadband expansion. Furthermore, Lincoln County Commissioners have already

invested $11,000 in preliminary engineering studies for the initiative, proving both their investment in a unified broadband initiative, and the feasibility of the entire project.

Question: Estimated total project cost?

1516015.00

Question: Number of households that will be connected to broadband service under the scope of the grant if applicable? If not applicable please answer N/A.

450

Question: What is the average cost per household of new broadband service based on this project cost if applicable? If not applicable please answer N/A.

Average cost per household $3,369.00

Question: What is the maximum broadband speed that will be provided by the project?

1000Mbps/1000Mbps

Question: Are permits, permissions, and zoning requirements all obtainable in order for the project to be completed and paid for by December 31, 2021 if it is a CARES funded project? Please provide details.

Yes. County commissioner, Idaho department of transportation. Advantage is using infrastructure for backhauls. (Contracted)

Question: Please describe who will be providing the broadband service and ownership of the broadband infrastructure..

Lincoln County is posed to overcome their broadband internet connectivity deficits with an innovative, collaborative effort to develop community-owned broadband infrastructure that is self-sustaining, invites better service through competitive bidding, and allows citizens to access quality internet now and for years to come. Lincoln County will use an RFP process to engage the contractors (engineering and construction) needed to build the proposed infrastructure. Then through a similar RFP process, Community leaders will identify a trusted, vetted, and capable network management partner who cooperatively work to realize the integrative vision of Lincoln County’s broadband connectivity initiative.

Question: Describe how the project will be administered and audited for completion, and how the accounting will be performed.

Administration and auditing for completion will be completed in cocreation with RIVDA in accordance with the rules and regulations of the project, state, and county.

Question: Has your project area received or been awarded any federal funds (CAFII/RDOF/USDA Reconnect) in the past two years, or will it receive federal funding over the next two years? If so, explain why additional funding was/is necessary in the project area?

No they have not received federal funds in the past two years.

Question: Has your project area received state funds (Cares Act Broadband Grants, E-Rate,

etc.) in the past two years? If so, please explain what state funds were received and why the additional state funding was necessary in the project area.

Yes our schools have received E-Rate
The E-Rate funding does not reach the households in the Lincoln County area and the cities within this county.

Question: Include any other relevant information as to why your project should be considered for funding.

Lincoln County is ready to expand its reach and the ability of all citizens and institutions to communicate, participate, create, educate, inform, and compete in today's fast paced and global community. To accomplish this, sustainable broadband connectivity must be recognized as an essential utility for both individuals and businesses. County and Municipal officials advocate increasing competition and choice in all telecommunication services offered to residents and businesses further expanding opportunities and allowing folks to vote with their wallets to access great service at affordable prices.

Question: Submit 10 or more, recent, fixed location Speed Tests. Applicants can choose which speedtest application to use across the proposed project area (if applicable).

Lincoln County Speed Test Samples.pdf (7/15/2021 3:37 PM)
Lincoln County Broadband Project 2021 Speed Tests.pdf (7/15/2021 10:28 AM)

Attachments & Additional Supporting Documents

Upload Required Attachments & Additional Supporting Documents

Project Attachment Templates:
CARES Act Certification
Grant Budget Template
Project Schedule Form
Letters of Support/Community match template

Question: Project Area Identification Documentation: Applicant must upload supporting documents identifying the scope of work for the proposed project(s). Applicant must include 1Pdf &1Shape/Kmz map clearly showing the location and details of the proposed project.

OneDrive_1_7-15-2021.zip (7/15/2021 2:44 PM)
Lincoln County Broadband Scope of Work 2021.pdf (7/15/2021 2:42 PM)
Lincoln County Broadband Maps Project Area Identification 2021.pdf (7/15/2021 2:41 PM)

Question: Grant Budget Template: Complete, upload, and attach to the application a completed Grant Budget Template for the project that outlines each of the various costs.

Lincoln County Broadband Budget.pdf (7/15/2021 2:45 PM)

Question: Project Schedule Form: Complete, upload, and attach to the application the Project Schedule Form.

Lincoln County Broadband Schedule 2021.pdf (7/15/2021 2:49 PM)

Question: CARES Act Certification: Upload and attach to the application a notarized CARES Act Certification that this project meets the CARES Act criteria.

cares act notorized.pdf (7/15/2021 3:54 PM)

Question: Letters of Support: Upload and attach to the application any Letters of Support or Community Match documentation. (if applicable)

Lincoln County Citizen Support Letter.pdf (7/15/2021 3:16 PM)
Lincoln County Citizen Support Petition Signatures.pdf (7/15/2021 3:15 PM)

Question: Letters of Commitments from Anchor Institutions: Upload and attach to application letters of commitments from community anchor institutions or public safety networks which will utilize your service if the project is funded. (if applicable)

Lincoln County Business Petition of Support.pdf (7/15/2021 3:14 PM)
Lincoln County Business Support Letter.pdf (7/15/2021 3:13 PM)
Lincoln County Anchor Letter of Support.pdf (7/15/2021 3:10 PM)

Question: Community Broadband Plan: Upload and attach a copy of your Community Broadband Plan (if applicable).

Lincoln County Community Broadband Plan 2021.pdf (7/15/2021 3:35 PM)

Question: Any applicable Site Plans, studies, or photographs.

Lincoln County Speed Test Samples.pdf (7/15/2021 3:33 PM)
Lincoln County Raw Speed Tests.pdf (7/15/2021 3:33 PM)
Lincoln County Research Outreach.pdf (7/15/2021 3:32 PM)
Lincoln County Shoshone Engineering.pdf (7/15/2021 3:31 PM)
Lincoln County Richfield Engineering.pdf (7/15/2021 3:31 PM)
Lincoln County Deitrich Engineering.pdf (7/15/2021 3:30 PM)
Lincoln County Prelim Engineering Summary 2021.pdf (7/15/2021 3:30 PM)
Lincoln County RIVDA Technology Report.pdf (7/15/2021 3:28 PM)
Lincoln County FAQ.pdf (7/15/2021 3:26 PM)

Signature

Your identity has been authenticated through the login process with a unique email address and password available only to you. You agree that by typing your name, title and date below, you are electronically signing the application. By electronically signing the application, you acknowledge and represent that you understand and accept all the terms and conditions stated within the application and declare that the information provided is true and that the documents you are submitting in support of your application are genuine and have not been altered in any way.

Question: Type your name.

Rebecca Wood

Question: Type your title.

Chairman of the Board of Lincoln County Commissioners

Question: Type the submission date.

07/15/2021

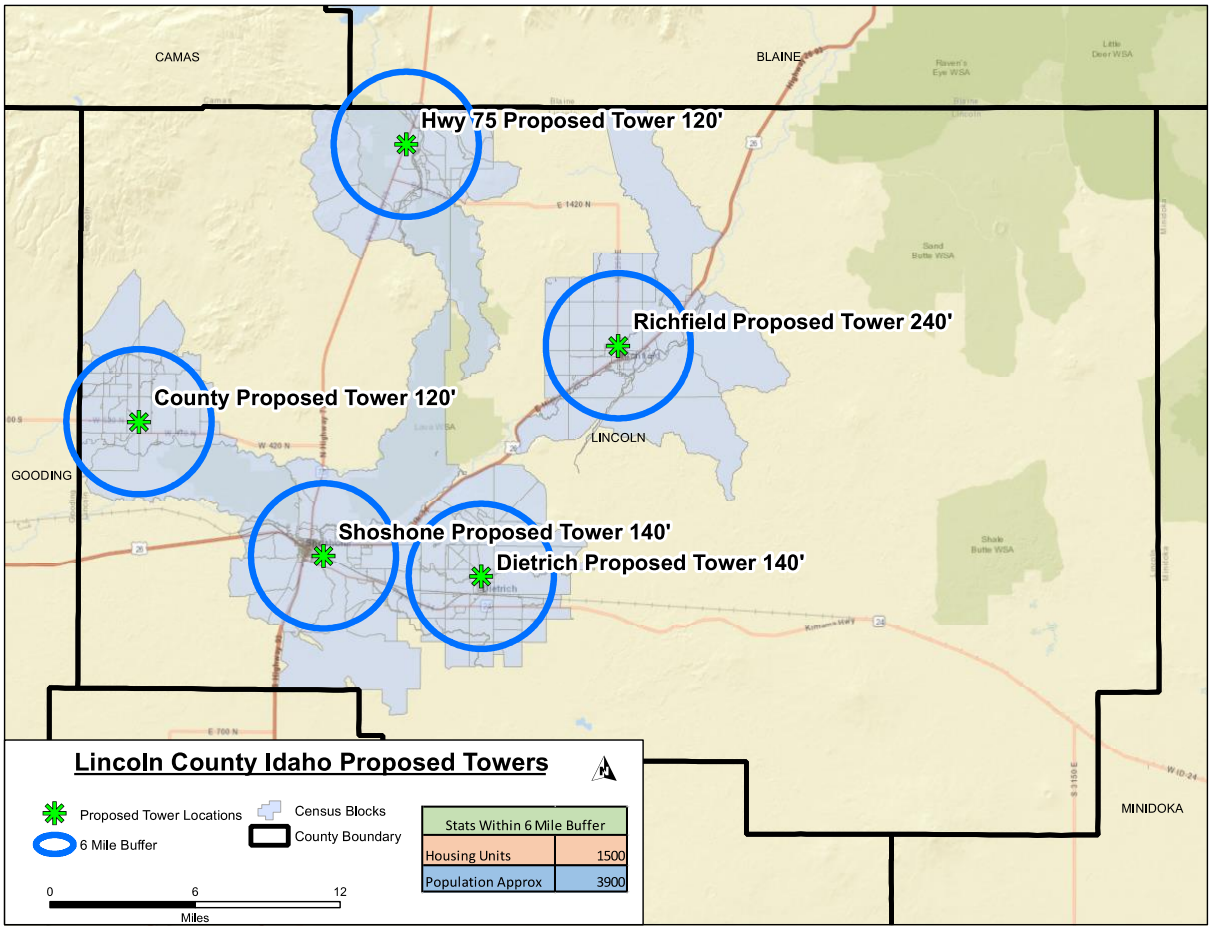
Rebecca Wood | 208.886.7641 | commishwood@gmail.com

// July 15th, 2021

Lincoln Broadband Grant Maps Project Area Identification

Outlines the **proposed area of service** encompassing the cities of Dietrich, Richfield, Shoshone, and the greater rural areas of Lincoln County

Project Area Map



This project will include Census Tract 9501 encompassing the cities of Dietrich, Richfield, and Shoshone, with service to the County Seat in Shoshone and the greater rural areas of Lincoln County. Services will include the following census blocks: 1127, 2069, 2538, 1390, 1397, 1104, 1155, 1375, 1357, and 1407.

The number of households within the service area number 1,500. Of those 1,500, 30% or 450 households have been estimated to be in the most need of service improvements due to lack of service, critically insufficient

service, or critically unaffordable service. The cost to provide quality broadband access to these critically underserved residences is $3,357 per household.

It is important to note that this is Phase-1 of a two-phase comprehensive broadband plan. Included in the comprehensive broadband initiative is Phase-2, which would bring broadband to the home of most residents that are within city limits, increasing connectivity for residents while driving overall costs down.

Please see the attached **18_LCID_RIVDA_Technology_Report** for a comprehensive explanation of this well researched and expertly designed flagship broadband initiative.

The current broadband speeds provided in Dietrich and Richfield max out at 100Mbps and in Shoshone the speeds are up to 1000Mbps; however, max speed availability is low. This project will provide speeds up to 1000Mbps serving the least connected community residents. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This Phase-1 project proposes wireless fiber infrastructure to be expanded in the future with Phase-2 to include wired fiber connections to homes.

// July 15th, 2021

Lincoln County Broadband Infrastructure Initiative - Phase 1

Proposal Scope of Work

Integrating wireless point-to-point and point-to-multipoint technologies to provide **reliable, high-speed internet** to rural consumers

Rebecca Wood | 208.886.7641 | commishwood@gmail.com

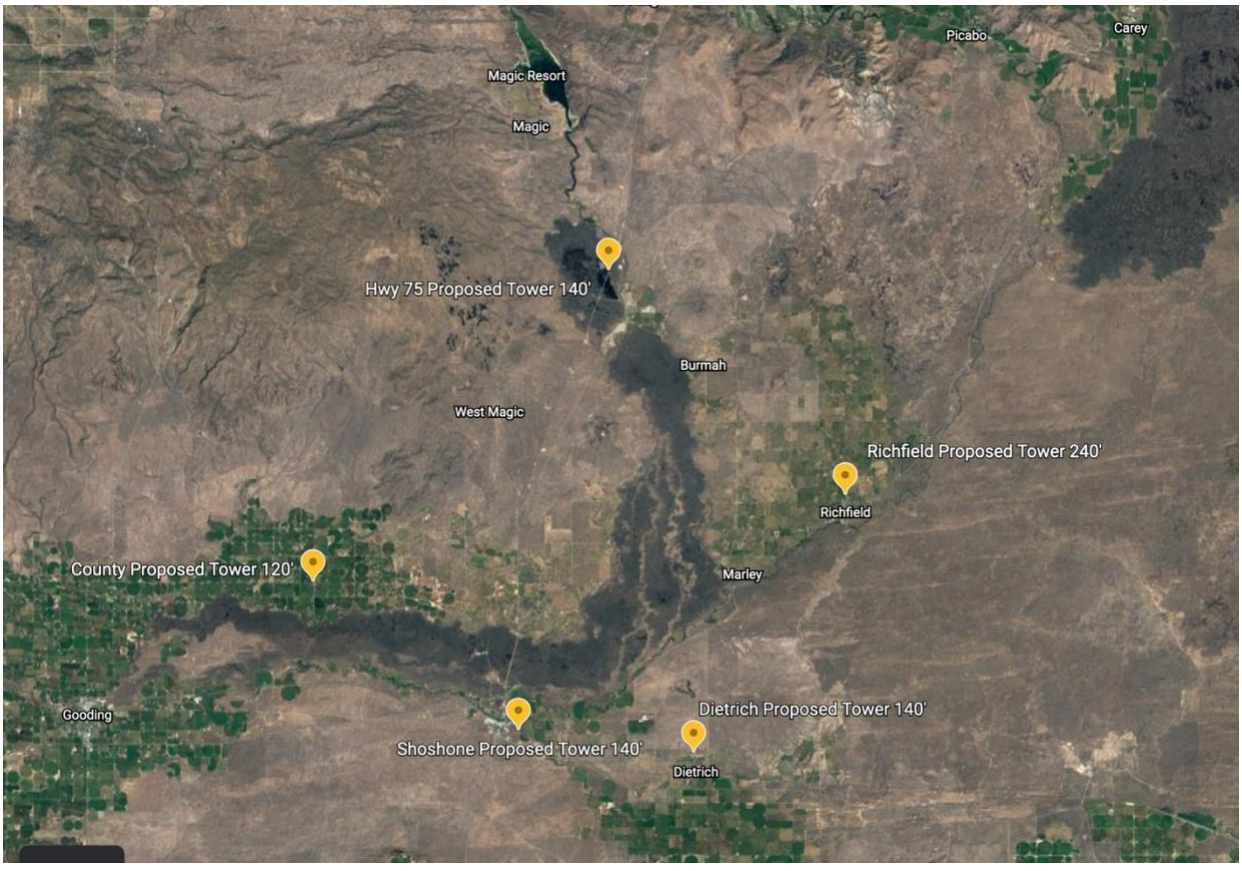
Introduction

In Lincoln County, lack of access to adequate broadband internet is the **largest roadblock** to education, healthcare, and industry development. The COVID-19 health emergency has exacerbated this hardship. 3,000 of Lincoln County's 5,208 citizens are severely underserved and do not have access to the minimum adequate broadband connection as measure by access to 25Mbps/3Mbps broadband.

This proposal is the first in a comprehensive two-phase broadband plan to bring fiber to the home, serving 90-95% of the households and businesses in Lincoln County. This independent, shovel-ready project will establish five judiciously designed and placed 120-250 ft. towers in Lincoln County, providing **wireless fiber access for underserved homes and businesses**, within the city limits of municipalities and in rural, unincorporated portions of Lincoln County. These towers will provide households with symmetrical speeds up to 1GB/1GB and no less than 25Mbps/25Mbps, surpassing the current FCC standards for broadband of 25Mbps/3Mbps.

Project Area

Although the exact locations have not been secured, the map below indicates the areas where the towers would be most beneficial throughout Lincoln County. These locations will offer the most ideal coverage to underserved households and organizations.



Type of Infrastructure

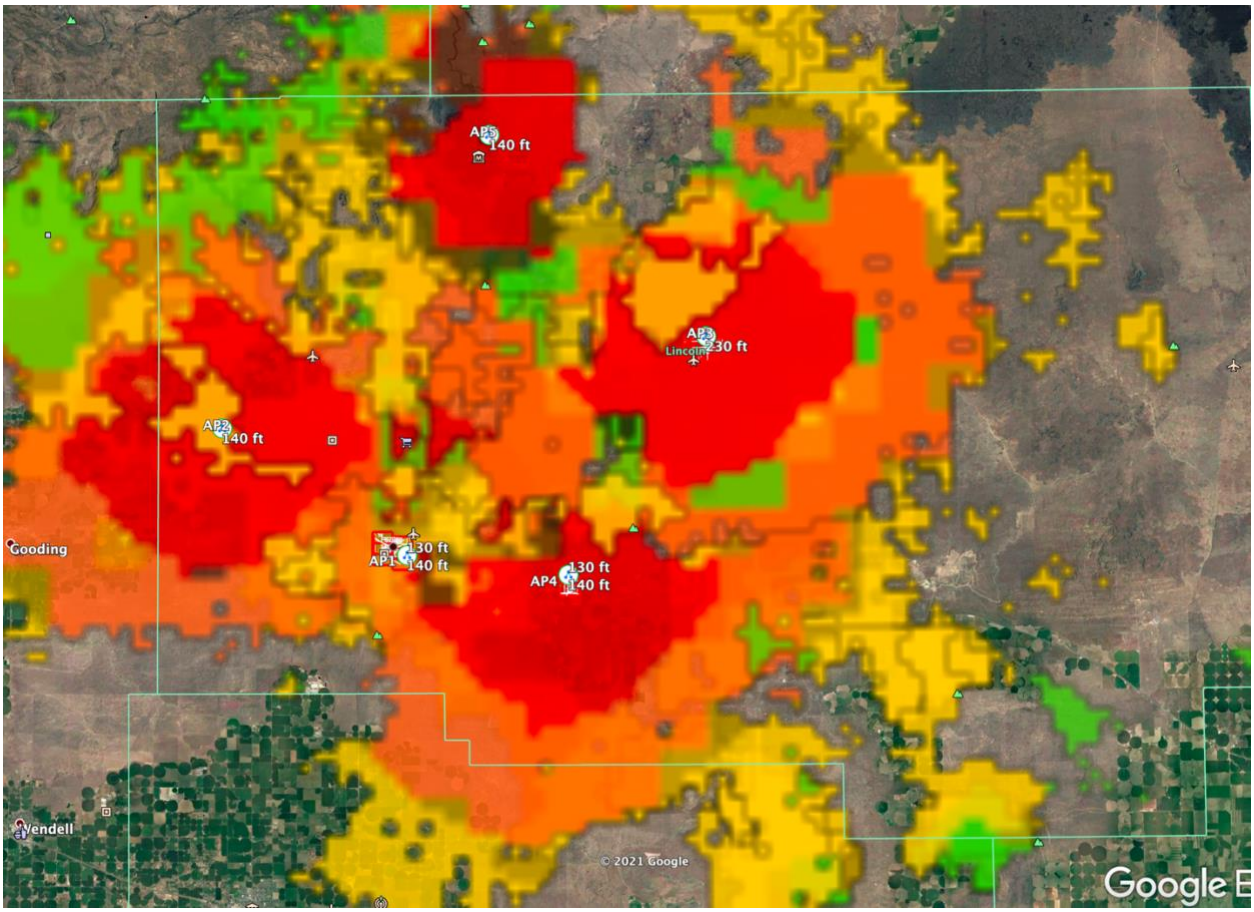
Based on the proposed tower locations, taking into account the topography of the area, communication towers between 120’ and 240’ will be erected to provide the best line of sight for connection points within the area. The scope of work to build each tower will include the following.

- Provide Geotechnical soil reports
- Procure building permits from cities and county as necessary.
- Procure main power to tower site.
- Excavate and prepare site for tower base.
- Underground electrical work.
- Install engineered rebar cage and pour concrete foundation.
- Set tower base template in concrete foundation
    - Concrete to pass pressure test (20-30 days after pour).
- Install 120’-240’ self-supporting tower.
- Install according to local building code and engineered plans.
- Install electrical needs according to electrical plans.
- Install Outdoor NEMA rated Network Cabinet
- Low-Voltage Cabling
    - Cable and equipment include a backhaul 12-Strand CMX OM3 cable, Cat 6 CMX Network Cable to the sector arrays and a fiber distribution box.
- Install mounting gear/bracing for backhaul radios and sector arrays.
- Install 1Gb Point to Point backhaul radios.
- Install six (6) sector arrays for 360-degree coverage around tower.

The on-site network integration equipment kit will include:

- 1Gb capable Point-to-Point dish
- Wireless Access Point
- Managed Network Switch
- Cat 6 Cabling
- Installation Labor

Coverage Area



Red	Best Coverage Area
Orange	High coverage area with some obstructions
Yellow	Possible with obstructions
Green	Low possibility with obstructions
No Color	No Coverage

Known Existing Infrastructure

Shoshone

Shoshone City / County-Owned Tower This location will provide a secondary option to reach subscribers within the city that would be otherwise obstructed by large trees from the proposed tower location within the city. The placement of a cabinet and power would need to be addressed with the owner of the tower.

Richfield

Water Tower This location in the City of Richfield will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Known Existing Anchor Institutions

The known existing anchor institutions, such as schools, hospitals, and public facilities, include the following.

Shoshone

- County Building
- City Hall
- Mary L Gooding Memorial Park
- Shoshone Elementary School
- Shoshone Middle-High School
- IDOT
- Local businesses
- County Sherriff

Dietrich

- City Hall
- Dietrich High School
- City Park

Richfield

- City Hall
- Richfield School
- Lincoln County School District
- Glanbia
- Youth Center

LINCOLN COUNTY COMMISSIONERS

Lincoln County Courthouse
Shoshone, Idaho

State of Idaho Broadband Grant

CARES Act Certification.

STATE OF IDAHO

COUNTY OF LINCOLN

The undersigned, Rebecca Wood, representing Lincoln County, 111 W. B Street, Suite C, Shoshone, Idaho, hereby swear (affirm) that:

1. I am Chairman of the Board of the Lincoln County Commissioners of Lincoln County and thereby authorized to make these statements.

2. I have personal knowledge of the facts herein and can testify completely thereto.

3. The purpose of this statement is to assure the Idaho Department of Commerce that the project will meet the CARES Act Criteria.

   i. Expenses to facilitate distance learning, including technological improvements, in connection with school closings to enable compliance with COVID-19 precautions

   ii. Expenses to improve telework capabilities for public employees to enable compliance with COVID-19 public health precautions.

The proposed infrastructure improvements are designed to increase, or in some areas newly allow reliable and adequate access to connectivity sufficient to facilitate telehealth networks, telework, and distance learning initiatives in direct response to needs arising from the COVID-19 pandemic. This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of rural households to access and utilize these resources through fast, reliable, and adequate broadband connectivity.

Signature Rebecca Wood Date 7/15/21

SUBSRIBED AND SWORN before me on this 15th day of July, 2021

LU ANN SWAINSTON
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20841
MY COMMISSION EXPIRES 7-19-2023

Notary Public for IDAHO

Residing at Richfield Idaho

Commission expires 7-19-23

111 West B Street Suite C Shoshone, Idaho 83352 (208) 886-7641 Fax (208) 886-2458

DIETRICH SCHOOL DISTRICT NO. 314

Home of the Blue Devils

Administration
Stefanie Shaw, Superintendent

Dalonna Hurd, Business Manager

June 24, 2021

RE: City of Dietrich

Letter of Support

Dear Mayor Moon:

I strongly support the Idaho Broadband Grant application through the CARES (The Coronavirus Aid, Relief, and Economic Security) Act funding in our community and are very excited for the opportunities this funding will provide to install broadband service options for our rural residents.

I understand the need to provide the businesses and residents of the City of Dietrich with highspeed and reliable broadband services.

I have several students that live within the city limits of Dietrich that do not have access to the internet at their homes. With the current situation that we are in the chances that students will be forced to do some online work is very great. Being able to provide reliable internet to our students who live within the city limits is critical to their success as a student at Dietrich Schools.

Thank you in advance for taking the time to read our letter of support.

Best wishes,

Stefanie Shaw

Dietrich Schools Superintendent

~Trust~Honesty~Respect~
~Fairness~SelfControl~Loyalty

Richfield School District #316
555 North Tiger Drive
Richfield, Idaho 83349
208-487-2790 Fax 208-487-2055

Mike Smith, Superintendent
Kevin Case, K-12 Principal

To Whom It May Concern:

As the Superintendent of the Richfield School District, I know that we have families of students and teachers in our school district that struggle to access the internet or in some cases have no access at all. In our rural setting we do not have the population density to motivate businesses to improve or provide better internet service to our community and school district. Students and staff living within my school district are at a distinct disadvantage to students living in areas with more robust internet access and service. This makes it much harder for them to access and provide opportunities that are taken for granted in other areas of our state.

I support Lincoln County's application for the Cares Act Broadband Grant to help provide high speed internet to all of Lincoln County.

Sincerely,

Mike Smith

Mike Smith, Superintendent, Richfield School District #316

SHOSHONE JOINT SCHOOL DISTRICT 312
61 EAST HIGHWAY 24
SHOSHONE, IDAHO 83352
(208) 886-2381

Dr. Rob Waite
Superintendent ext 312

Shannon Harris
Business Manager ext 311

Heather Wallace
District Clerk ext 310

June 22, 2021

To Whom It May Concern,

It has come to my attention that our community is involved in a project to attempt to bring broadband service to everyone in the community. It is without hesitation that we support this cause. Modern schools, ours included, rely on technology in our teaching. At this point, all of our students have a lap top that they may use to access school work from home. Many of our students are taking online college courses or from other k-12 sources. One of the biggest barriers we have for these students is internet speed. Any project that would help eliminate barriers to education would have our full support.

To reiterate, our school district fully supports this internet access project. It will serve a clear need in our community, is a great group project, and is a great example of local entities working together to serve our children. Thank you in advance for your consideration of this application.

Thank you,

Rob Waite
Dr. Rob Waite
Superintendent
Shoshone School District

Idaho CARES Act Broadband Grant Budget

Line Item	Grant Dollars				Total
Richfield 240' Tower	$318,860.00				$318,860.00
Dietrich 140' Tower	$260,070.00				$260,070.00
Shoshone 140' Tower	$260,070.00				$260,070.00
County 120' Tower	$260,070.00				$260,070.00
Hwy 75 140' Tower	$261,945.00				$261,945.00
Point of Presence Server Room (Shoshone)	$150,000.00				$150,000.00
Grant Administration	$5,000.00				$5,000.00
Totals	$1,516,015.00	$0.00	$0.00	$0.00	$1,516,015.00

Rebecca Wood | 208.886.7641 | commishwood@gmail.com

// July 15th, 2021

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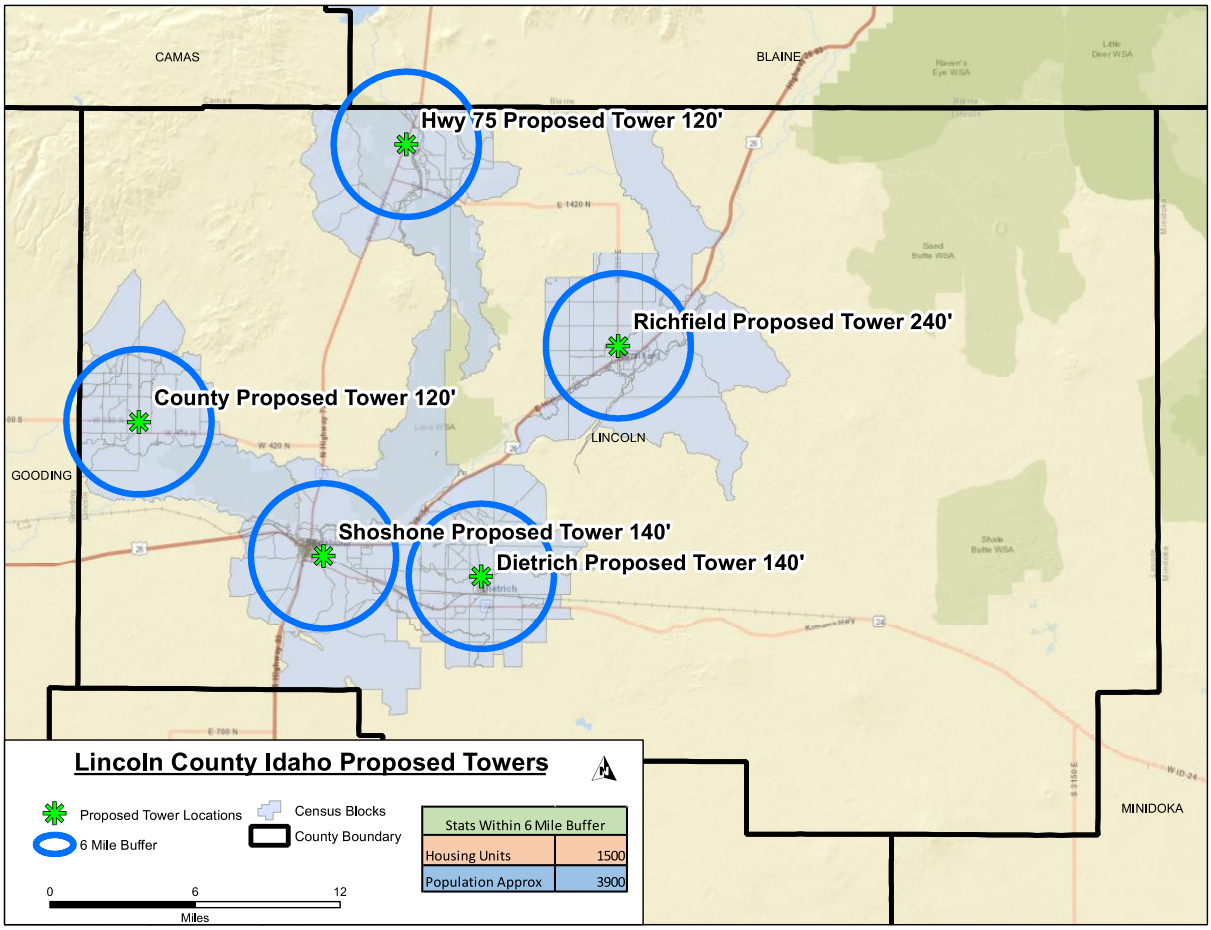

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The number of households within the service area number 1,500. Of those 1,500, 30% or 450 households have been estimated to be in the most need of service improvements due to lack of service, critically insufficient

service, or critically unaffordable service. The cost to provide quality broadband access to these critically underserved residences is $3,357 per household.

It is important to note that this is Phase-1 of a two-phase comprehensive broadband plan. Included in the comprehensive broadband initiative is Phase-2, which would bring broadband to the home of most residents that are within city limits, increasing connectivity for residents while driving overall costs down.

Please see the attached **18_LCID_RIVDA_Technology_Report** for a comprehensive explanation of this well researched and expertly designed flagship broadband initiative.

The current broadband speeds provided in Dietrich and Richfield max out at 100Mbps and in Shoshone the speeds are up to 1000Mbps; however, max speed availability is low. This project will provide speeds up to 1000Mbps serving the least connected community residents. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This Phase-1 project proposes wireless fiber infrastructure to be expanded in the future with Phase-2 to include wired fiber connections to homes.

Lincoln County Speed Test Samples:

The following table contains speed tests collected through public outreach surveys in Lincoln County. The speed tests were collected from participants who filled in the broadband survey before July 8th, 2021. Participants for the survey outreach were not selected based on any criteria other that living in Lincoln County. Participation in the survey and optional speed test were voluntary and uncompensated, serving as the least biased sampling we could acquire.

Lincoln County - Idaho Broadband Fund: CARES Act Broadband Grant – Speed Tests

resultDate	ipAddress	country	region	city	serverName	serverSponsor	ispName	OS	download (Mbps)	upload (Mbps)	latency (ms)
2021-06-17T00:38:25.000Z	216.57.165.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Safelink Internet Services	Android 11	0.732	2.028	70
2021-06-15T05:29:43.000Z	205.185.74.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Rise Broadband	iOS 14.6	4.356	0.773	31
2021-06-15T05:29:02.000Z	205.185.74.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Rise Broadband	iOS 14.6	4.538	0.891	27
2021-06-23T16:54:57.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	iOS 13.6.1	6.032	1.088	22
2021-06-16T17:08:58.000Z	208.98.146.0	United States	Idaho	Dietrich	Idaho Falls, ID	Syringa Networks	Syringa Networks	Chrome OS	6.099	1.049	30
2021-06-16T17:08:07.000Z	208.98.146.0	United States	Idaho	Dietrich	Idaho Falls, ID	Syringa Networks	Syringa Networks	Chrome OS	6.131	1.051	34
2021-06-17T02:11:12.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Syringa Networks	Windows 10.0	6.178	1.06	26
2021-06-17T02:12:16.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Syringa Networks	Windows 10.0	6.201	1.069	20
2021-06-07T16:06:21.000Z	208.98.146.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Syringa Networks	iOS 14.6	6.38	1.049	20
2021-06-07T17:20:49.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Windows 10.0	7.608	1.636	40
2021-06-21T17:02:33.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	Windows 10.0	7.74	0.996	22
2021-06-09T02:30:25.000Z	216.57.165.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.4	16.143	3.722	22
2021-06-28T16:39:57.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	24.723	4.807	30
2021-06-28T16:41:17.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	24.862	4.955	37
2021-06-09T01:35:17.000Z	216.57.165.0	United States	Idaho	Shoshone	Albion, ID	ATC Communications	Safelink Internet Services	Windows 10	3.023	0.996	54
2021-06-15T03:09:42.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	4.86	0.734	40
2021-06-15T03:12:17.000Z	75.98.149.0	United States	Idaho	Shoshone	Albion, ID	ATC Communications	Safelink Internet Services	Android 11	5.625	0.841	65
2021-06-06T20:41:23.000Z	75.98.149.0	United States	Idaho	Shoshone	Rockland, ID	Direct Communications	Safelink Internet Services	iOS 14.6	9.848	2.045	55
2021-06-06T20:40:42.000Z	75.98.149.0	United States	Idaho	Shoshone	Rockland, ID	Direct Communications	Safelink Internet Services	iOS 14.6	10.107	1.927	56
2021-06-06T20:54:43.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	10.11	1.886	33
2021-06-16T04:22:37.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	11.319	1.625	35
2021-06-16T00:19:40.000Z	75.98.149.0	United States	Idaho	Shoshone	Idaho Falls, ID	Syringa Networks	Safelink Internet Services	Android 10	17.821	4.043	43
2021-06-10T00:46:17.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Android 11	4.985	0.957	33
2021-06-07T16:23:31.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	OS X 10.15.6	5.98	0.97	33

Idaho CARES Act Broadband Grant: Project Schedule

Activity	Responsible Party	Start Date	End Date
Grant Award	IBAB	1-Aug	15-Aug
Project Start	Contractor	20-Aug	
Provide GeoTech Reports	Contractor		
Procure Building Permits	Contractor/County		
Procure Main Power to Sites	Contractor/County		
Excavate and prepare sites for tower bases	Contractor		
Underground Electrical	Contractor		
Install engineered rebar cage and pour foundations	Contractor		
Set tower base templates	Contractor		
Concrete Pressure Test	Contractor		
Install 5 120'-240' Towers	Contractor		
Install Outdoor NEMA rated Network Cabinet	Contractor		
Low-Voltage Cabling	Contractor		
Install mounting gear, radios, and sector arrays	Contractor		
Install Network equipment at PoP facility	Contractor		
Project Finalization			**15-Dec**

// July 15th, 2021

Lincoln County Broadband Infrastructure Initiative - Phase 1

Proposal Scope of Work

Integrating wireless point-to-point and point-to-multipoint technologies to provide **reliable, high-speed internet** to rural consumers

Rebecca Wood | 208.886.7641 | commishwood@gmail.com

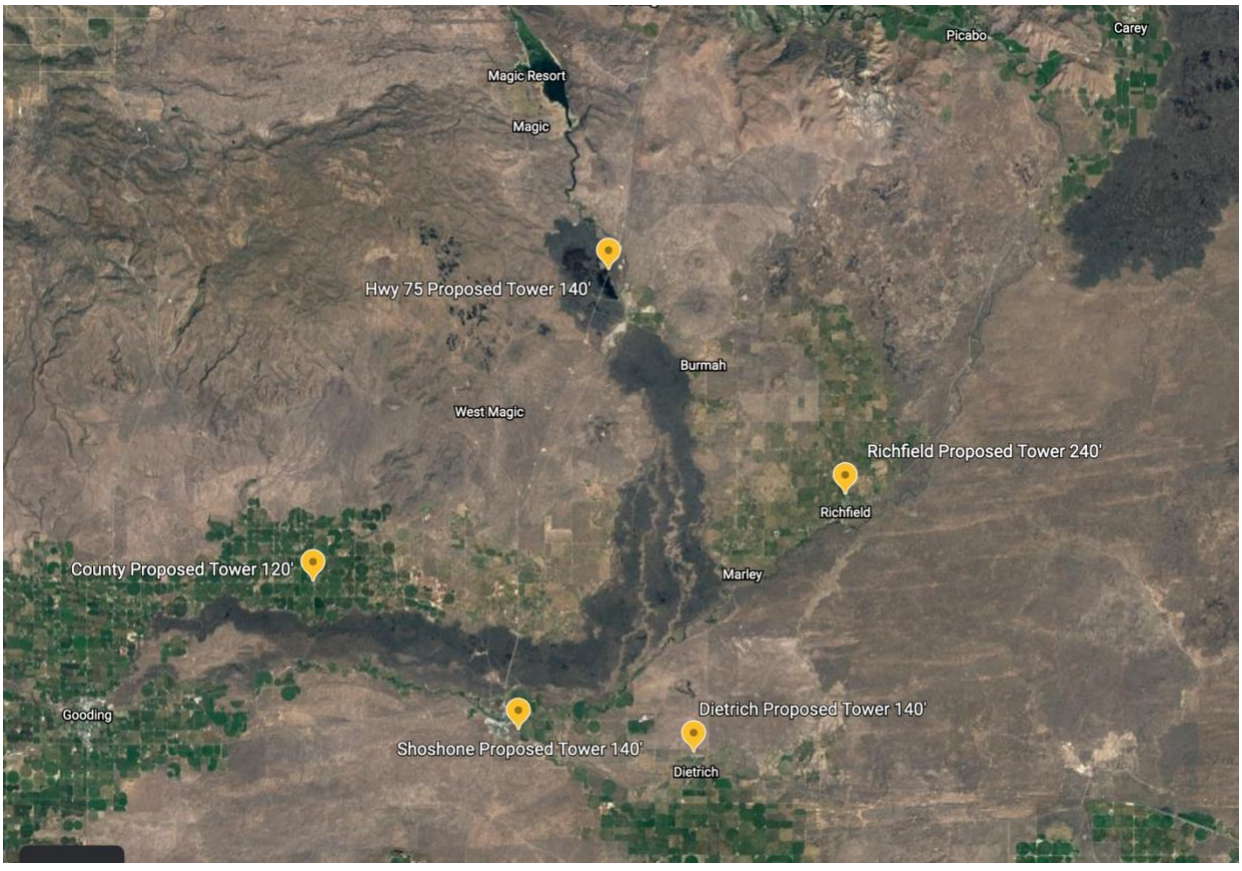
Introduction

In Lincoln County, lack of access to adequate broadband internet is the **largest roadblock** to education, healthcare, and industry development. The COVID-19 health emergency has exacerbated this hardship. 3,000 of Lincoln County's 5,208 citizens are severely underserved and do not have access to the minimum adequate broadband connection as measure by access to 25Mbps/3Mbps broadband.

This proposal is the first in a comprehensive two-phase broadband plan to bring fiber to the home, serving 90-95% of the households and businesses in Lincoln County. This independent, shovel-ready project will establish five judiciously designed and placed 120-250 ft. towers in Lincoln County, providing **wireless fiber access for underserved homes and businesses**, within the city limits of municipalities and in rural, unincorporated portions of Lincoln County. These towers will provide households with symmetrical speeds up to 1GB/1GB and no less than 25Mbps/25Mbps, surpassing the current FCC standards for broadband of 25Mbps/3Mbps.

Project Area

Although the exact locations have not been secured, the map below indicates the areas where the towers would be most beneficial throughout Lincoln County. These locations will offer the most ideal coverage to underserved households and organizations.



Type of Infrastructure

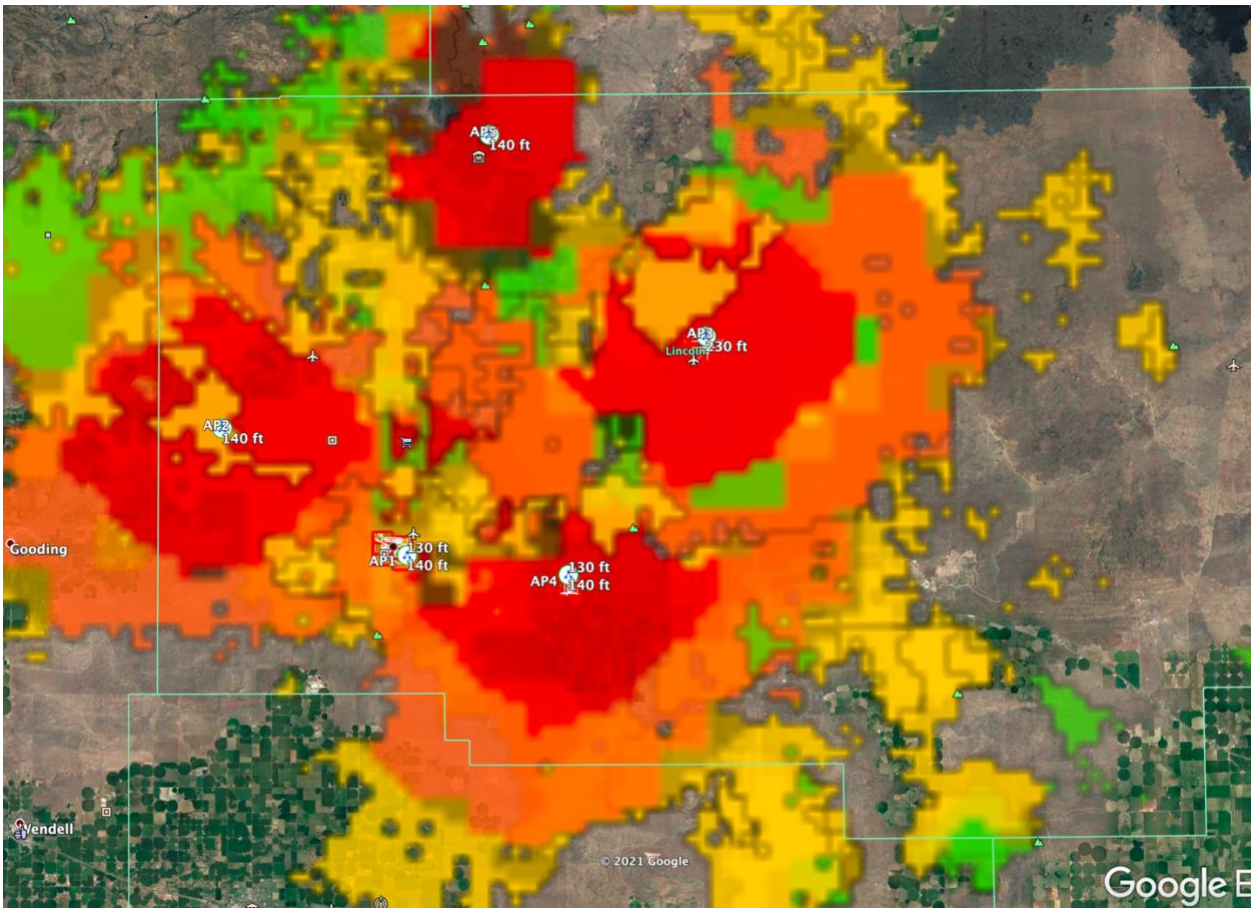
Based on the proposed tower locations, taking into account the topography of the area, communication towers between 120’ and 240’ will be erected to provide the best line of sight for connection points within the area. The scope of work to build each tower will include the following.

- Provide Geotechnical soil reports
- Procure building permits from cities and county as necessary.
- Procure main power to tower site.
- Excavate and prepare site for tower base.
- Underground electrical work.
- Install engineered rebar cage and pour concrete foundation.
- Set tower base template in concrete foundation
    - Concrete to pass pressure test (20-30 days after pour).
- Install 120’-240’ self-supporting tower.
- Install according to local building code and engineered plans.
- Install electrical needs according to electrical plans.
- Install Outdoor NEMA rated Network Cabinet
- Low-Voltage Cabling
    - Cable and equipment include a backhaul 12-Strand CMX OM3 cable, Cat 6 CMX Network Cable to the sector arrays and a fiber distribution box.
- Install mounting gear/bracing for backhaul radios and sector arrays.
- Install 1Gb Point to Point backhaul radios.
- Install six (6) sector arrays for 360-degree coverage around tower.

The on-site network integration equipment kit will include:

- 1Gb capable Point-to-Point dish
- Wireless Access Point
- Managed Network Switch
- Cat 6 Cabling
- Installation Labor

Coverage Area



Red	Best Coverage Area
Orange	High coverage area with some obstructions
Yellow	Possible with obstructions
Green	Low possibility with obstructions
No Color	No Coverage

Known Existing Infrastructure

Shoshone

Shoshone City / County-Owned Tower This location will provide a secondary option to reach subscribers within the city that would be otherwise obstructed by large trees from the proposed tower location within the city. The placement of a cabinet and power would need to be addressed with the owner of the tower.

Richfield

Water Tower This location in the City of Richfield will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Known Existing Anchor Institutions

The known existing anchor institutions, such as schools, hospitals, and public facilities, include the following.

Shoshone

- County Building
- City Hall
- Mary L Gooding Memorial Park
- Shoshone Elementary School
- Shoshone Middle-High School
- IDOT
- Local businesses
- County Sherriff

Dietrich

- City Hall
- Dietrich High School
- City Park

Richfield

- City Hall
- Richfield School
- Lincoln County School District
- Glanbia
- Youth Center

Lincoln County Broadband Expansion Petition

Business

As a business owner in Lincoln County, I fully support the efforts of our County and City leaders in securing potential funds made available through Federal and State Grants to improve our Broadband Internet capabilities.

Rural communities such as those throughout our county are in urgent need of immediate change in this regard. We need more reliable and economical options. We need **greater broadband capacity and speeds** to compete and operate more efficiently. The resources are available, and the time has come to bring those resources to our community.

Additionally, we support these efforts for the good of our children and students who need - in their homes - access to information that gives them greater opportunities for learning and success.

Signature	Name	City
Melissa Wright	Melissa Wright	Shoshone
Anthony Bozzuto	Anthony Bozzuto	Shoshone
	Kevin Wyant	Shoshone
	MANDY GAGE	Shoshone
LaVonne Jurack	LaVonne Jurack	Shoshone
Devon Davis	Devon Davis	Shoshone
	Ale Hadden	Shoshone
	Bryson Reese	Shoshone
Susie Peterson	Susie Peterson	Shoshone
Brooklynne Burbank	Brooklynne Burbank	Shoshone
Jami Jones	Jami Jones	Shoshone
Cage Peck	Cage Peck	Shoshone
B. Cuthbertson	B. Cuthbertson	Shoshone
Mary Rocha	Mary Rocha	Shoshone

102 South Rail Street East
Shoshone, Idaho 83352
(208) 886-9811
www.shoshonechamber.com
shoshonechamber@gmail.com

July 12, 2021

To Whom it May Concern,

Please accept this letter on behalf of Lincoln County. I understand that they are applying for a grant that would allow them to provide increased broadband options and affordable pricing which is vital for the businesses we represent. This last year has proven, now more than ever, how necessary reliable and affordable access to the worldwide net truly is.

The Shoshone Chamber of Commerce serves Lincoln County and the communities of Dietrich, Richfield and Shoshone which are certainly deemed rural. As the business representative for this community, we can safely say this is an urgent need. Again, many businesses allowing employees to work remotely, each with unique needs - dependable access to the net is critical.

We are particularly interested in this effort for the good of our students. Although the schools are well connected, the individual student in their home, particularly in rural areas such as ours, are challenged in every way.

Our vision here at the Shoshone Chamber of Commerce is to see our communities grow and prosper and certainly want to see our area continue to thrive.

We hope that the application Lincoln County has provided will be favorable considered.

Sincerely,

Payson Reese
President
Shoshone Chamber of Commerce
Shoshone, Idaho

SRFA
SNAKE RIVER FARMERS ASSOCIATION

21 December 2020

To Whom It May Concern:

Snake River Farmers' Association is an Idaho-based non-profit association of agricultural producers. Our organization was created in 1986 by farmers in the Burley/Paul area to assist farmers and ranchers with the application process and program compliance for the H-2A agricultural labor program. Since its founding, we have grown to serve more than 600 agricultural producers in 15 States as they sponsor over 4,800 individuals to provide seasonal work during their production seasons.

On behalf of our non-profit association and its 600+ Agricultural producer Members, I extend support for projects in the Mountain West, including in the Magic Valley Region of Southern Idaho, that would provide rural households greater (and in many cases, ANY) access to broadband internet service. Increased options, more infrastructure, and new service providers in the region would also increase fair competition, which I firmly believe would benefit all consumers in the Magic Valley.

Many of our Members have farms or ranches that are very remote. We consistently face communication challenges with several of them. It is concerning that in 2020, so many of our Members are still compelled to conduct business by US Postal Service or overnight courier service (e.g. FedEx and UPS). This significantly impacts our ability to timely submit their applications for seasonal Ag workers to various government agencies. Delays in the application process result in delays of seasonal worker arrival. This jeopardizes the producer's crop and livestock.

I firmly believe that increased internet access for communities in the rural Mountain West is critical for ongoing business viability for many employers, and to the extent that Eminent Technical Solutions seeks to help fill the void, I support their efforts to help provide more dependable and functional access to the internet the underserved members in our communities.

Thank you for your consideration in this matter. Please feel free to contact me with any questions at 208.436.9737 or via email at janderson@snakeriverfarmers.org.

Sincerely,

Joel Anderson
Executive Director

406 West 400 South, Heyburn, Idaho 83336 • (208) 436-9737 • Fax: (208) 436-0573 • info@snakeriverfarmers.org

Gateway Motel & Rentals, LLC
Chuck and Joann Rutler
412 North Greenwood Street
Shoshone, Idaho 83352

July 1, 2021

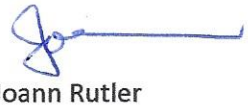
RE: Broadband Service for Lincoln County Idaho

To Whom It May Concern:

My husband and I own the Gateway Motel & Rentals, LLC located in Shoshone, Idaho, Lincoln County. Our complex is a mixed-use commercial property. It consists of 2 motel rooms, short- and long-term apartments, RV spaces and a mobile home park. We currently have contracted with Sparklight, formerly Cable One, for our internet service. We offer free WIFI with the motel rooms and we charge a monthly fee for the other units. Most of our tenants choose to use our internet as it is more cost effective for them. We are in a low to moderate income county and cost is of utmost concern. We have one long-term tenant that is an online student and her WIFI can be very slow during the evening hours; particularly if I have another tenant enjoying online gaming and vice versa. May times throughout the month I have to reset our WIFI if there is heavy use with streaming video. It also becomes very problematic for those of us who work from home.

We would strongly support the opportunity to get reliable, faster broadband into the Lincoln County.

Sincerely,



Joann Rutler
Owner Gateway Motel & Rentals
(208) 308-2955

To Whom It May Concern:

As a business in Lincoln County, specifically in Dietrich, a truly rural area of the State of Idaho, we are writing this letter of support for any effort to improve broadband internet speeds, costs, and reliability.

We cannot convey in any clearer terms the urgent need we have to see, once and for all, improvement with this ongoing issue. Rural Idaho has been ignored long enough. The state's major cities have the internet they need to operate efficiently and profitably. It is time, *past time*, for our community to receive the assistance we need to be able to operate more effectively the business we are trying to run. In this day and age, access to good internet options shouldn't even be an issue.

We understand our County in collaboration with Dietrich, Richfield, and Shoshone has applied to the Department of Commerce for available funds, and provided a viable, well-designed plan to provide the broadband access we are seriously lacking. *Please*, carefully and thoughtfully consider this application. We need the help!

Thank you,

Shirley Bingham, Owner
The Eagles Nest Bar & Grill LLC
Dietrich, Idaho 83324

To Whom It May Concern:

As a business in Lincoln County, specifically in Dietrich, a truly rural area of the State of Idaho, we are writing this letter of support for any effort to improve broadband internet speeds, costs, and reliability.

We cannot convey in any clearer terms the urgent need we have to see, once and for all, improvement with this ongoing issue. Rural Idaho has been ignored long enough. The state's major cities have the internet they need to operate efficiently and profitably. It is time, *past time*, for our community to receive the assistance we need to be able to operate more effectively the business we are trying to run. In this day and age, access to good internet options shouldn't even be an issue.

We understand our County in collaboration with Dietrich, Richfield, and Shoshone has applied to the Department of Commerce for available funds, and provided a viable, well-designed plan to provide the broadband access we are seriously lacking. *Please*, carefully and thoughtfully consider this application. We need the help!

Thank you,

The Shaw Merc
Dietrich, Idaho 83324

July 11, 2020

400 W. North Rail St
Dietrich, ID 83324

RE: City of Dietrich
Letter of Support

Dear Mayor Moon:

We strongly support the Idaho Broadband Grant application through the CARES (The Coronavirus Aid, Relief, and Economic Security) Act funding in our community and are very excited for the opportunities this funding will provide to install broadband service options for our rural residents.

We understand the need to provide the businesses and residents of the City of Dietrich with highspeed and reliable broadband services.

I currently have 2 at home businesses that I run, one being only online and the other relying on online services for the majority of it. There have been many days that I have needed better services to run my businesses, but due to where I live there has just been no other options. I know that this change with highspeed internet will greatly assist me in my business to grow and expand and provide better services.

Personally, this will help my children with online learning services, having 3 children at home trying to access their materials was not possible due to slow service. Even in normal times we have needed better services because my high school aged child did several classes online (IDLA) and many times videos or other items she needed to access wouldn't be available with the current services we have. I know this will help my children's learning experiences especially in this day and age where so much is only accessible through the internet.

I know that this will help my families learning experiences, my own business experiences, helping us all grow and contribute more to our town.

Thank you in advance for taking the time to read our letter of support.

Best wishes,

Rick and Debi Bingham

Lincoln County Broadband Expansion Petition

As a citizen of Lincoln County, I fully support the efforts of our County and City leaders in securing potential funds made available through Federal and State Grants to **improve our Broadband Internet capabilities**.

Rural communities such as those throughout our county are in urgent need of immediate change in this regard. We need more reliable and economical options. The resources are available, and the time has come to bring those resources to our community.

We particularly support these efforts for the good of our children and students who need - in their homes - access to information that gives them greater opportunities for learning and success. Please carefully consider citizens in rural communities who need internet access, options, and reasonable pricing. The time has come to place us on more equal footing, with the rest of the State.

Signature	Name	City
Joan M. Pilgrim	Joan M. Pilgrim	Shoshone
Amber Riley Moore	Amber Riley Moore	Richfield
Cameron Hubbs	Cameron Hubbs	Shoshone
Randy Helsley	Randy Helsley	Dietrich
Lytle Gaskill	Lytle Gaskill	Dietrich
Denise L. Helsley	Denise L. Helsley	Dietrich, Id
Zia McKnight	Zia McKnight	Shoshone
Gracie Sage	Gracie Sage	Shoshone
Caitlynn Sullivan	Caitlynn Sullivan	Shoshone
Abigail Owens	Abigail Owens	Shoshone
	Janet Caballos	Shoshone
	Vernon C. Johnson	Shoshone
	Debbie Hiesn	Shoshone
	Dan Meyer	Shoshone
	Jamie Vale	Shoshone
Claudia Reese	CLAUDIA REESE	SHOSHONE
Payson Reese	Payson Reese	Shoshone

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Signature	Name	City
	Joan Castro	Shoshone
	Jim Guthrie	Richfield
	Rachel Barnes	Richfield
	Makaroi P. Mendoza	Richfield
	Tracy Alanis	Richfield
	Teresa Patterson	Richfield.
	Ty Hatch	Richfield
	Maighan Hatch	Richfield
	Lauren Hatch	Richfield Id
	Mike Race	Richfield
	Whitney Bates	Shoshone
	Hollek. Cook	Dietrich
	Harold A. Cook	Dietrich
	DARREN JOHNSTON	Richfield
	Mark Jacob Whitesell	Richfield
	mark D whitesell	Richfield
	Leonard Owens	Shoshone

Lincoln County Broadband Expansion Petition

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Signature	Name	City
	Rusty Parker	Shoshone
	Kim Peyman	Shoshone
	CRAIG LANCASTER	Shoshone
	TAMARA L. BARNES	HAILEY/POCATELLO
	Patricia Fitzgerald	Shoshone
	Alexander Baird	Richfield
	Lanita G Hall	Shoshone

Lincoln County
Broadband Expansion Petition

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Signature	Name	City
	Karma Fitzgerald	Shoshone
Rebecca Wood	Rebecca Wood	Richfield
Mike Piper	Mike Piper - Michael	Richfield
Linda Bohachef	Linda Bohachef	Richfield Idaho
Debra L Barnes	Debra L Barnes	Richfield
Jaden Hamilton	Jaden Hamilton	Richfield
Jolene Wood	Jolene Wood	Richfield
Lindsey Henson	Lindsey Henson	Richfield
Heather Wallace	Heather Wallace	Shoshone,
Amber Riley Moore	AMBER RILEY MOORE	RICHFIELD
April Wood	April Wood	Richfield
Justin Wood	Justin Wood	Richfield
Karrie Hamelton	Karrie Hamelton	RICHFIELD
Jeff Ham	JEFF HAMILTON	RICHFIELD

Lincoln County
Broadband Expansion Petition

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Signature	Name	City
	Cindi Sievers	Richfield
	DeWayne Sievers	Richfield

Lincoln County
Broadband Expansion Petition
Business

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Additionally, we support these efforts for the good of our children and students who need - in their homes - access to information that gives them greater opportunities for learning and success.

Signature	Name	City
[signature]	The Cactus Shack LLC	Richfield
[signature]	Speedy Butte	Richfield
[signature]	Speedy Butte	Richfield
[signature]	Lofia Wood Ranch	Richfield
[signature]	Woodwerks LLC	Dietrich

// July 15th, 2021

Lincoln County Broadband Infrastructure Initiative

Community Broadband Plan

Outlining the primary goals and step-by-step actions to achieve high-speed, robust, and **reliable Broadband connections** in Lincoln County

Rebecca Wood | 208.886.7641 | commishwood@gmail.com

Vision and Goals

Lincoln County's Broadband Strategy Vision Statement

1. **Realize the potential** for transformative and substantial improvement in broadband access with a holistic, unified, community-based approach to broadband infrastructure.

2. **Execute a two-phase broadband infrastructure initiative** that will bring high-speed fiber access to the homes and businesses of Lincoln County, fulfilling the Municipal and County leadership's vision of equitable access to sustainable and innovative economic, educational, and healthcare opportunities and development.

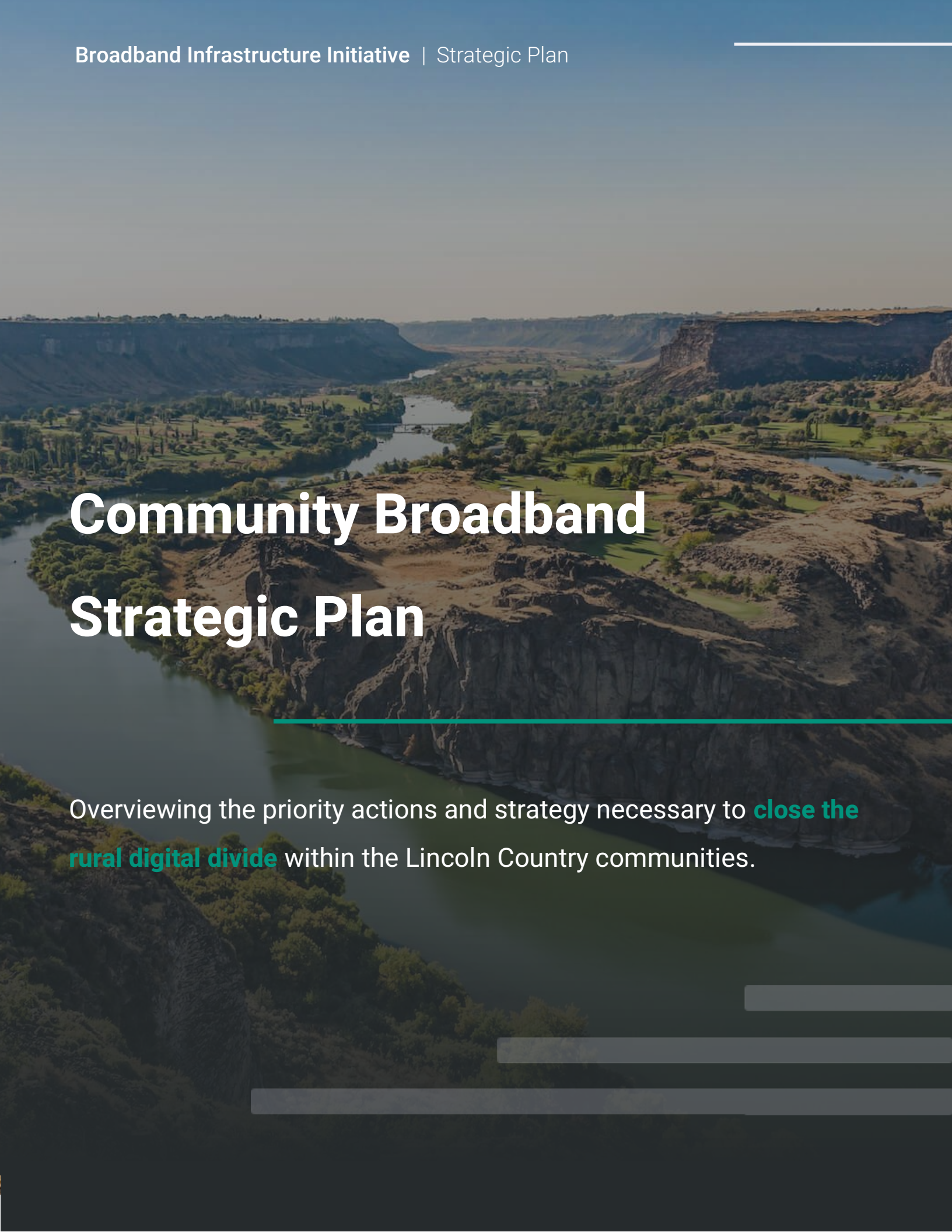
Lincoln County's Broadband Strategic Goals

1. **Close the rural digital divide** in Lincoln County Communities by providing access to high-speed, robust, and reliable broadband connections in economic, educational, and
private home sectors, creating a unified and innovative Lincoln County.

2. **Increase community awareness and outreach** regarding the benefits of affordable and competitive broadband access within communities.

3. **Support and develop public innovation spaces** in Lincoln County Communities (The Youth Center in Richfield, Public Libraries, School Facilities, etc.) to expand digital literacy education and develop opportunities for businesses and individuals.

4. **Provide robust opportunities for education and employment** tracks within Lincoln County, providing continual growth and employment opportunities for future generations allowing our children to stay in Lincoln County.



Community Broadband Strategic Plan

Overviewing the priority actions and strategy necessary to **close the rural digital divide** within the Lincoln Country communities.

Priority Actions

Within 6 Months (2021)

1. Complete the Idaho Broadband Fund CARES Act Broadband Grant – ***Complete*** *(Under Review)*

2. Complete Information Technology Assessments of Lincoln County, Dietrich, Richfield, and Shoshone – ***Complete***

3. Complete preliminary Site Studies for Broadband Infrastructure Initiative Phase 1 – Wireless tower construction – ***Complete***

4. Complete preliminary Engineering Studies for the Lincoln County Broadband Infrastructure Initiative Phase 2 – Fiber to the Home construction – ***Complete***

5. Community Outreach through thoughtfully designed surveys to further understand community broadband needs - ***Complete***

Within 24 Months

1. In response to the COVID-19 pandemic, utilizing the wireless fiber capabilities build during Phase 1 of the Lincoln County Broadband

Initiative to connect institutions and households with the most need to affordable adequate internet.

2. Utilize community outreach, educational institutions, and public centers such as the Youth Center in Richfield to engage citizens in digital literacy programs increasing education and employment opportunities.

3. Complete a Department of Commerce grant application for funding the Lincoln County Broadband Infrastructure Initiative Phase 2 – Fiber to the Home construction – ***In Progress***

Lincoln County's Community Broadband Strategic Plan: The What and the Why

In direct response to the stress and strain of the COVID-19 pandemic on citizens and municipal services, Lincoln County in collaboration with the municipalities of Dietrich, Richfield, and Shoshone developed the cohesive Broadband Infrastructure Initiative. The initiative has been developed through well researched and engineered designs, and is continually reviewed, refined, and updated as new information, studies, and feedback are available.

The Broadband Infrastructure Initiative's current and future implementation plans are guided by fundamental **Elements of Success**, tailored to the needs of Lincoln County and its cities, Dietrich, Richfield, and Shoshone.

Elements of Success

- **Sustainability** – The aspects that encourage sustainability include grants (Federal and State), volunteer work, neighborhood champions and public engagement, broad use of the proposed infrastructure for ongoing maintenance.
- **Resource sharing** – Resource Sharing requires fewer resources and cost to maintain one set of servers vs. four. Collaborative cost

reductions while maintaining independence and confidentiality through shared managed cloud-based resources.

- **Innovation** – Overcoming past paradigms of limited internet service, discipline for the collaborative process, creating plans for current and future needs.
- **Transformation** – Righting the past wrongs and looking towards the future on a solid foundation. This includes planning for the future with proactive concordant efforts by contractors to build access to services in new/future housing and developments. City planning with an eye to the future, including city easements to assets such as poles, towers, common ditches, new construction, etc., is essential to the overall success and sustainability of a well-integrated network.
- **Public Safety/Cybersecurity** – While seemingly less critical in the more rural areas, attacks on essential services provided by most counties and municipalities are becoming increasingly common. These attacks include water and other utilities as well as fire and police protection. As rural townships tend to have fewer resources to combat these attacks, they become more frequent targets (**NYTimes; CBSNews**).
- **Educational Narrative** – This is an essential component to success. The digital divide and educational disconnect both in Idaho and the whole of rural America are well documented. The sustainment of population and economic health is critically impacted by the opportunities afforded to the youth of your communities. While the connectivity of our schools is vitally important, circumstances from the previous 18 months clearly show that individual student connectivity in the home is imperative for

uninhibited, comprehensive education. Connectivity is essential to students at every level, from primary and secondary students to those continuing their education with trade certifications and university degrees.

- **Telehealth** – While telehealth programs do not lie directly within the cities' or county's purview, connectivity to available telehealth services does. Developing a high-speed network that meets the needs of telehealth providers brings more accessible primary care to citizens at a decreased cost. As the population in the United States ages, telehealth can also provide affordable, comprehensive care to more isolated and aged citizens.

The Need for a Local Broadband Strategy

Implementing the 2-Phase broadband initiative bringing fiber to the home and wireless fiber alternatives to rural outskirts of Lincoln County is imperative to prevent stagnation and encourage healthy growth in Lincoln County. Currently citizen, businesses, and institutions struggle with inadequate broadband placing all at a disadvantage.

The county government, municipalities, and businesses are unable to implement current industry standard technologies, much less implement new and innovative technology solutions. While all the cities in Lincoln County suffer from inadequate connectivity, they each have unique needs that must be addressed by a comprehensive broadband plan.

- **Dietrich**

  Dietrich is the smallest of the three municipalities. A lack of quality service and a lack of delivery on service promises inhibit technology growth for the whole of the community.
- **Richfield**

  In Richfield, the lack of affordability in the internet market gives the appearance of accessible internet without the equitable access needed to provide growth in educational, health, and employment sectors.
- **Shoshone**

  Shoshone is the largest and most connected municipality in Lincoln County; however, their service shows the lowest average internet speeds at 1,629.1% slower than the national average.

Lincoln County is ready to expand its reach and the ability of all citizens and institutions to communicate, participate, create, educate, inform, and compete in today's fast paced and global community. To accomplish this, sustainable broadband connectivity must be recognized as an essential utility for both individuals and businesses. County and Municipal officials advocate increasing competition and choice in all telecommunication services offered to residents and businesses further expanding opportunities and allowing folks to vote with their wallets to access great service at affordable prices.

Conclusion

Lincoln County Commissioners and Municipal leaders of Dietrich, Richfield, and Shoshone appreciate the work and effort this collaborative endeavor has taken from each participant. We are especially grateful for our partnership with RIVDA and the work that their team has put in to help accomplish a collaborative Broadband Initiative, significant public outreach, and advisement for accomplishing our goals as a unified Lincoln County. County and Municipal leaders will continue to review and update this plan and the full 2-Phase initiative, weaving in new and exciting opportunities as they become realizable following increased access to broadband internet. As the finalizations for the initiative solidify, this Broadband Plan will be available for public review on our websites and presented to leadership councils for approval.

Our well researched and community supported Broadband Initiative has laid out an ambitious set of goals to further the development of Lincoln County and the cities of Dietrich, Richfield, and Shoshone. Continuing and growing the strong relationships with our leadership councils, anchor institutions, businesses, and citizens are needed to accomplish our Broadband Initiative, creating a better Lincoln County with opportunities today and for generations to come.

The unique collaborative strategies that a united Lincoln County is modeling can be a new standard for the technological advancement

of rural America. Lincoln County will continue to work with surrounding areas to further expand broadband internet in rural Idaho filling the digital divide and preparing an Idaho that is ready for innovation.

VICINITY MAP LOCATION

DEITRICH, IDAHO

MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
8				PED
4				(30X48X36) VLT
1				REMOTE GPON CABINET
2				288 SPLITTER CABINET
7				1X32 SPLITTER
3400				BFOV(2-1.25)T
1700				BFO 24
1700				BFO 48
7400				CO 24(6M)
12000				CO 48 (6M)
23				MST-6(50)
2				MST-6(250)
3				MST-6(500)
11				MST-8(50)
1				MST-8(250)
4				MST-8(500)
22200				SEAO(4)
3000				SEBO(4)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE: DEITRICH VICINITY MAP

EXCHANGE NAME: DEITRICH

EXCHANGE NUMBER:

ENGINEER: RMWT

SIGNATURE

DATE

TOWNSHIP: -

RANGE: -

SECTION: -

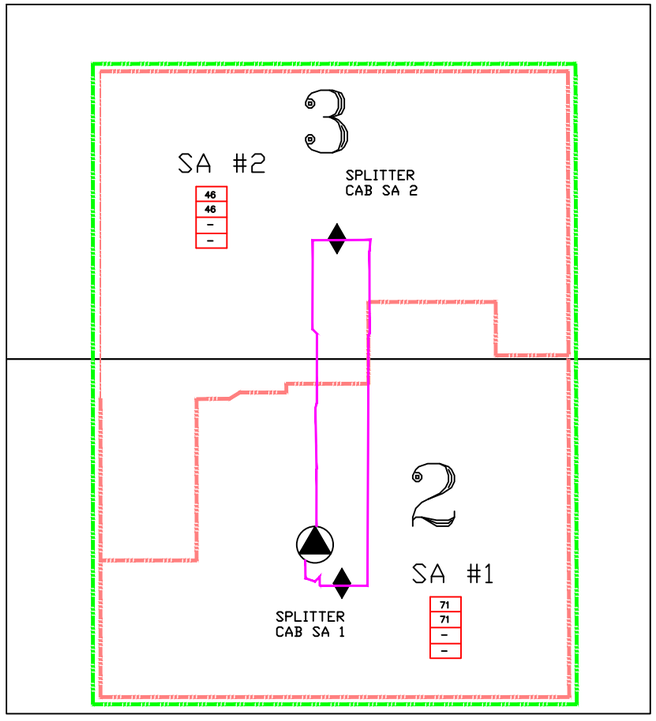
DATE: -

JOB NUMBER:

SHEET NUMBER: TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN

DEITRICH, IDAHO
KEY MAP



LEGEND

FILLBOX
1 TOTAL LOTS
2 EX ESTABLISHMENTS
3 MIN FIBER SIZE
4 DESIGN FIBER SIZE

- MULTIPLE DWELLING UNIT
- BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE AERIAL DISTRIBUTION FIBER WILL PARALLEL THE AERIAL FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (2) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT LESS THAN 50% OF CABINET CAPACITY.

TITLE
DEITRICH FTTH DESIGN

ENGINEER	RANGE	SECTION
RMWT	-	-
EXCHANGE NAME	TOWNSHIP	
DEITRICH	-	
EXCHANGE NUMBER		

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

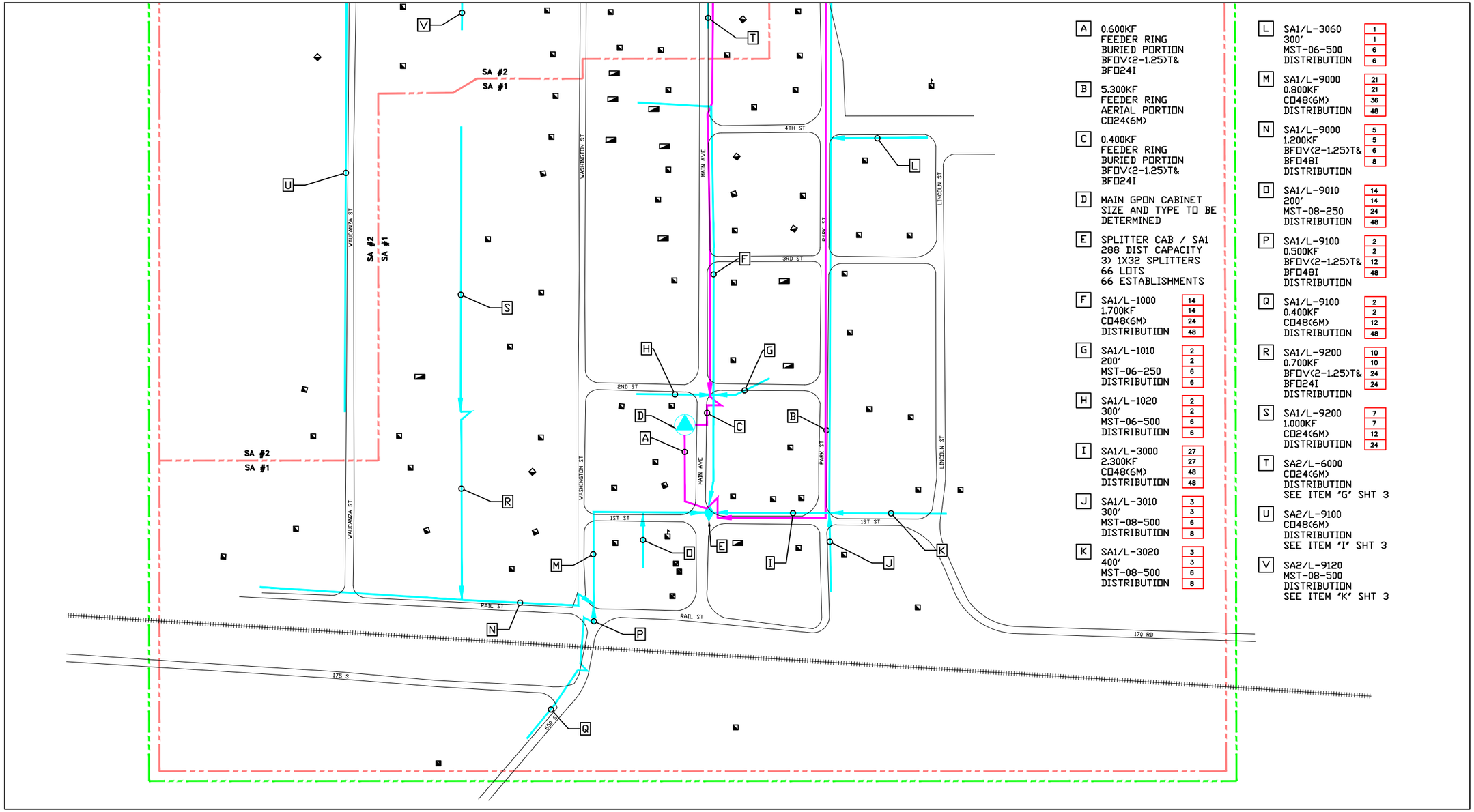
PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN

SEE SHEET 3



A	0.600KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BF024I		
B	5.300KF FEEDER RING AERIAL PORTION CO24(6M)		
C	0.400KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BF024I		
D	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED		
E	SPLITTER CAB / SA1 288 DIST CAPACITY 3) 1X32 SPLITTERS 66 LOTS 66 ESTABLISHMENTS		
F	SA1/L-1000 1.700KF CO48(6M) DISTRIBUTION	14 14 24 48	
G	SA1/L-1010 200' MST-06-250 DISTRIBUTION	2 2 6 6	
H	SA1/L-1020 300' MST-06-500 DISTRIBUTION	2 2 6 6	
I	SA1/L-3000 2.300KF CO48(6M) DISTRIBUTION	27 27 48 48	
J	SA1/L-3010 300' MST-08-500 DISTRIBUTION	3 3 6 8	
K	SA1/L-3020 400' MST-08-500 DISTRIBUTION	3 3 6 8	
L	SA1/L-3060 300' MST-06-500 DISTRIBUTION	1 1 6 6	
M	SA1/L-9000 0.800KF CO48(6M) DISTRIBUTION	21 21 36 48	
N	SA1/L-9000 1.200KF BFOV(2-1.25)T& BF048I DISTRIBUTION	5 5 6 8	
O	SA1/L-9010 200' MST-08-250 DISTRIBUTION	14 14 24 48	
P	SA1/L-9100 0.500KF BFOV(2-1.25)T& BF048I DISTRIBUTION	2 2 12 48	
Q	SA1/L-9100 0.400KF CO48(6M) DISTRIBUTION	2 2 12 48	
R	SA1/L-9200 0.700KF BFOV(2-1.25)T& BF024I DISTRIBUTION	10 10 24 24	
S	SA1/L-9200 1.000KF CO24(6M) DISTRIBUTION	7 7 12 24	
T	SA2/L-6000 CO24(6M) DISTRIBUTION SEE ITEM 'G' SHT 3		
U	SA2/L-9100 CO48(6M) DISTRIBUTION SEE ITEM 'I' SHT 3		
V	SA2/L-9120 MST-08-500 DISTRIBUTION SEE ITEM 'K' SHT 3		

TITLE
DEITRICH FTTH DESIGN

EXCHANGE NAME	DEITRICH	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S
		RANGE	18E
		SECTION	12,13

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF **3**

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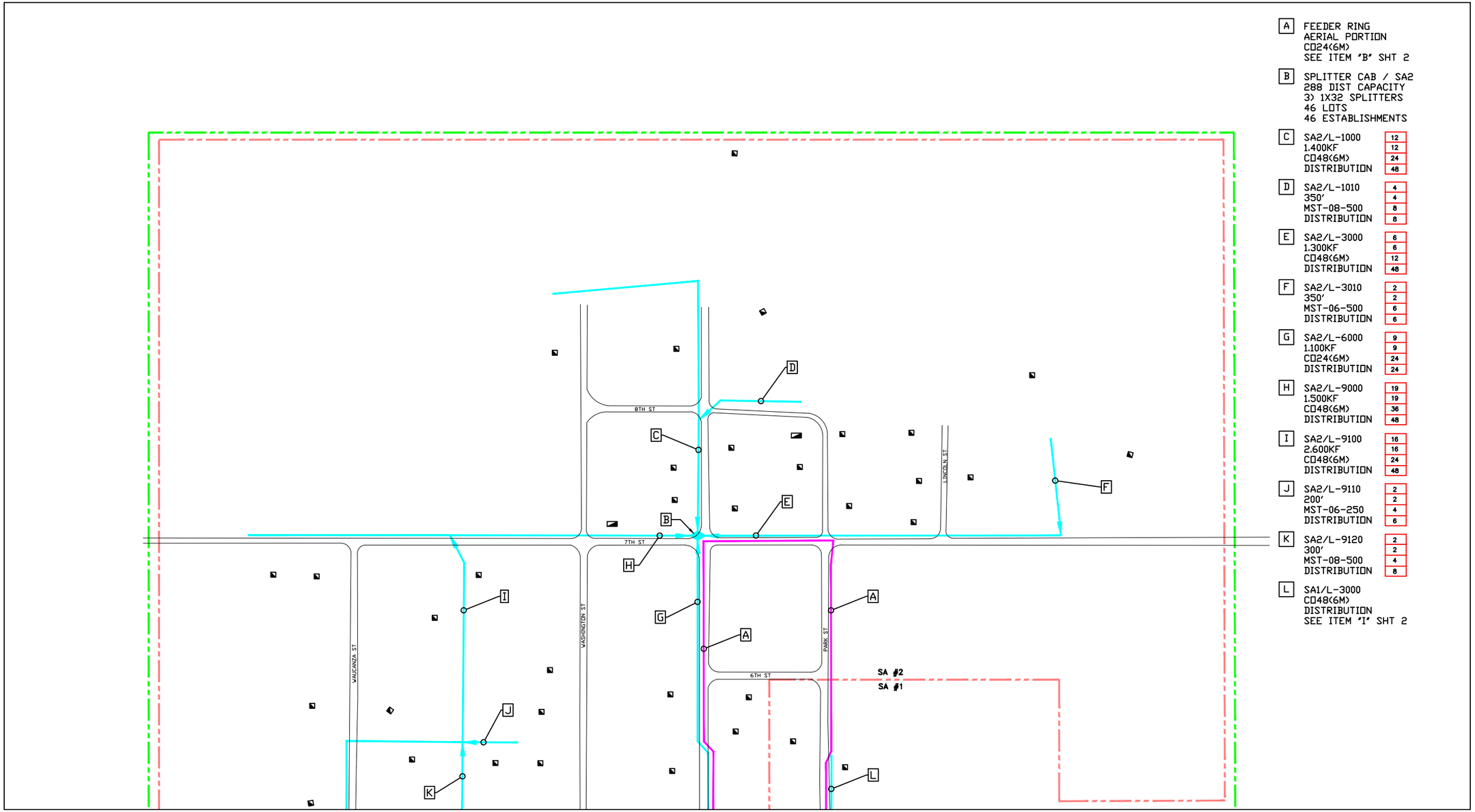

A FEEDER RING
AERIAL PORTION
C□24(6M)
SEE ITEM 'B' SHT 2

B SPLITTER CAB / SA2
288 DIST CAPACITY
3) 1X32 SPLITTERS
46 LOTS
46 ESTABLISHMENTS

C	SA2/L-1000	12	
	1,400KF	12	
	C□48(6M)	24	
	DISTRIBUTION	48	
D	SA2/L-1010	4	
	350'	4	
	MST-08-500	8	
	DISTRIBUTION	8	
E	SA2/L-3000	6	
	1,300KF	6	
	C□48(6M)	12	
	DISTRIBUTION	48	
F	SA2/L-3010	2	
	350'	2	
	MST-06-500	6	
	DISTRIBUTION	6	
G	SA2/L-6000	9	
	1,100KF	9	
	C□24(6M)	24	
	DISTRIBUTION	24	
H	SA2/L-9000	19	
	1,500KF	19	
	C□48(6M)	36	
	DISTRIBUTION	48	
I	SA2/L-9100	16	
	2,600KF	16	
	C□48(6M)	24	
	DISTRIBUTION	48	
J	SA2/L-9110	2	
	200'	2	
	MST-06-250	4	
	DISTRIBUTION	6	
K	SA2/L-9120	2	
	300'	2	
	MST-08-500	4	
	DISTRIBUTION	8	

L SA1/L-3000
C□48(6M)
DISTRIBUTION
SEE ITEM 'I' SHT 2

SEE SHEET 2

TITLE
DEITRICH FTTH DESIGN

ENGINEER	RMWT
RANGE	18E
TOWNSHIP	6S
SECTION	12
EXCHANGE NAME	DEITRICH
EXCHANGE NUMBER	

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NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
3 OF 3

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Rebecca Wood | 208.886.7641 | commishwood@gmail.com

// July 15th, 2021

Lincoln Broadband Grant Frequently Asked Questions

Outlines the **current areas of Broadband service** provided throughout Lincoln County, including the cities of Shoshone, Richfield, and Dietrich.

Lincoln County Coverage

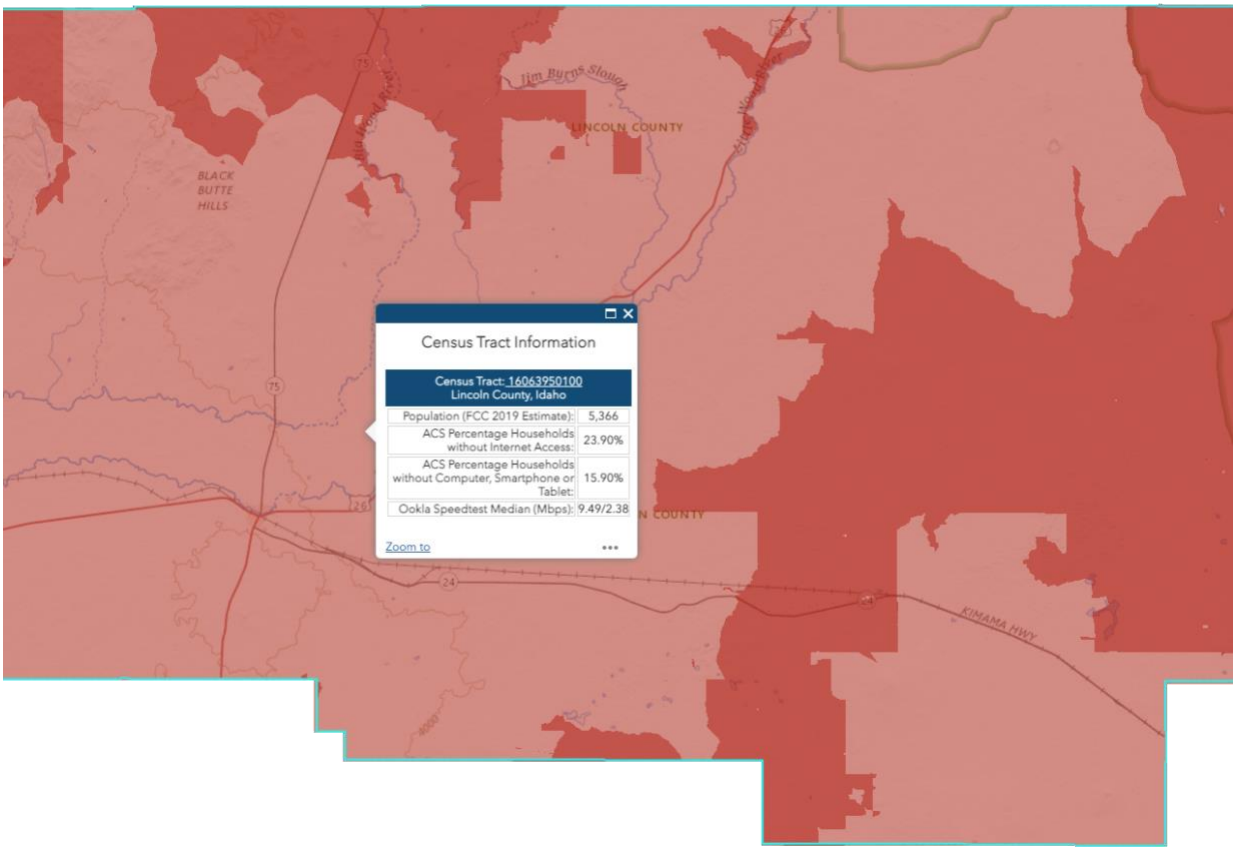

Figure 1

ARCGIS map of Lincoln County, Idaho, with Internet access statistics.

Key Dark Red indicates areas where FCC Form 477 reports – No Provider Reports Consumer Fixed Broadband Services at 25/3Mbps (Census Block Level). Light Red indicates Areas where Ookla Median Speeds Fixed Broadband Below 25/3 Mbps (Census Tract Level). (Accessed: 07/12/2021)

As shown in the map above, Lincoln County has **no areas whose median speeds meet minimum broadband speeds** measured by the FCC 25Mbps/3Mbps minimum in any Census Tract. There are also considerable

areas where there are no Fixed Broadband services. Citizens in these zones, much of which is covered by the zone of impact, would greatly benefit from completing this project.

Currently, fiber optic internet is available to just 4% of Lincoln County residents. This project and the following Phase-2 of the Lincoln Broadband Initiative would offer fiber optic broadband access to approximately 90% of Lincoln County households, greatly improving equitable access.

Dietrich Coverage

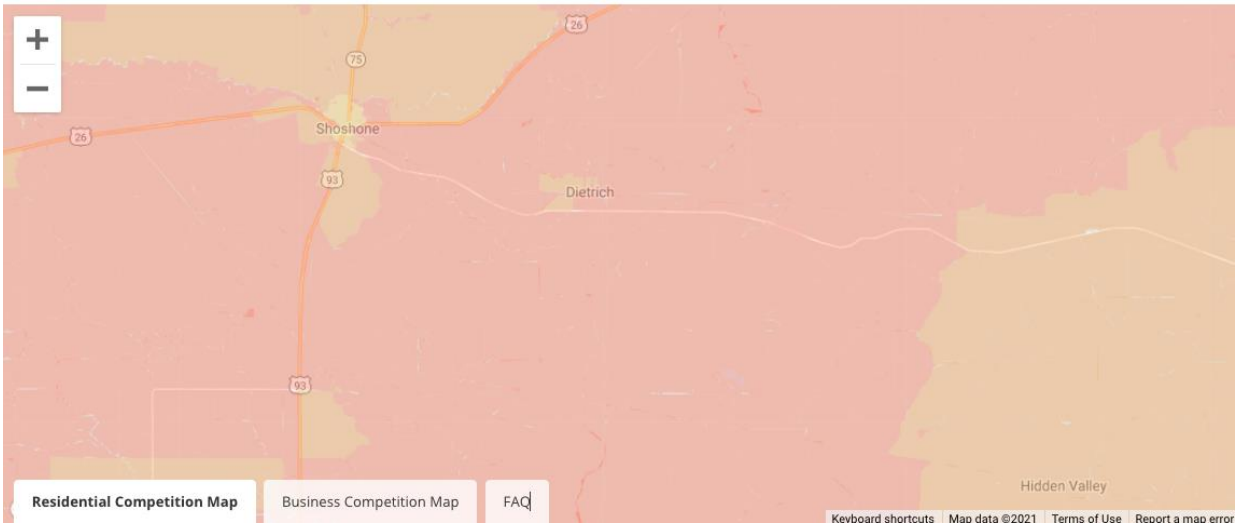

Figure 2

Broadbandnow provider competition map of the City of Dietrich, Lincoln County, Idaho. **Key** Red indicated no providers. Orange indicates 1 provider. Yellow indicates 2 providers. (Accessed: 07/12/2021)

100.0% of consumers in Dietrich only **have access to 1 or fewer wired internet providers** available at their address (**Broadbandnow2**). This lack of competition has led to an absence of consumer choice for connectivity, with many consumers unable to access adequate internet speeds. Those that can access higher speeds are beholden to a single provider regardless of service quality or price. If the advertised speeds are similar to those at City Hall, delivery speeds may not match service plans. Speed tests collected in public outreach (See **9_LCID_Speed_Tests**) support a lack of follow-through on service promises.

Richfield Coverage

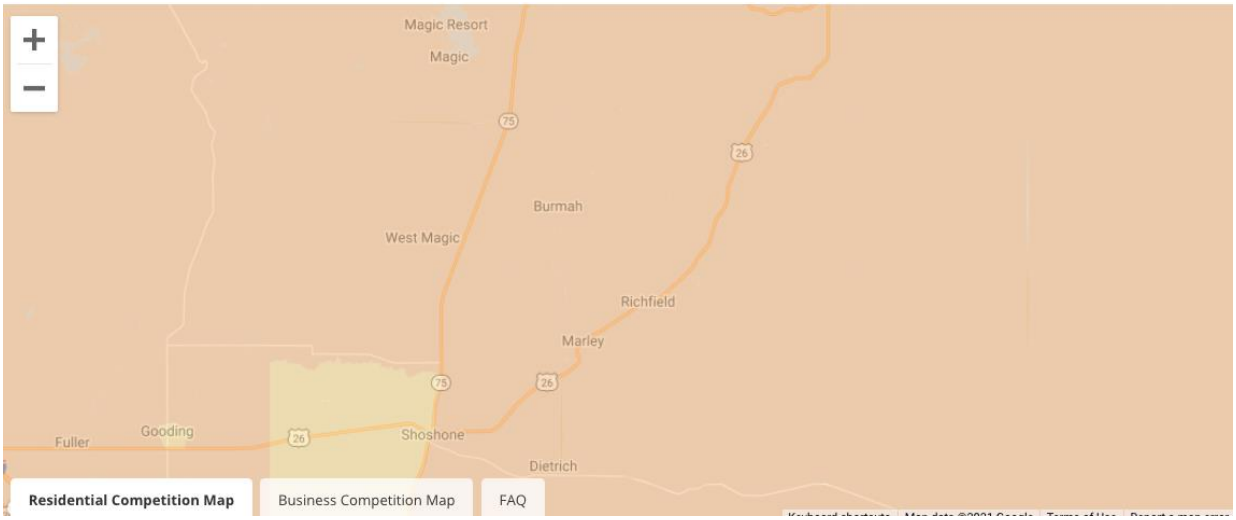

Figure 3

Broadbandnow provider competition map of the City of Richfield, Lincoln County, Idaho. **Key** Red indicated no providers. Orange indicates 1 provider. Yellow indicates 2 providers. (Accessed: 07/12/2021)

100% of Richfield residents are still severely limited in wired broadband choices with **access to 1 or fewer internet providers** available at their address (Broadbandnow3). A quick search on common civilian research sites for internet plans available in the area shows that plan choice is both onerous and expensive. While several providers claim speeds “up to 100Mbps” average speeds hover much lower at 20Mbps (Internetadvisor1). Further, finding a good plan does not ensure availability as each carrier has carved out its own slivers of geography. Average prices among the three main carriers for speeds up to 20Mbps is upwards of $60 (Internetadvisor1). Lack of affordability in the internet market gives the appearance of accessible internet without the equitable access needed to provide growth in educational, health, and employment sectors.

Shoshone Coverage

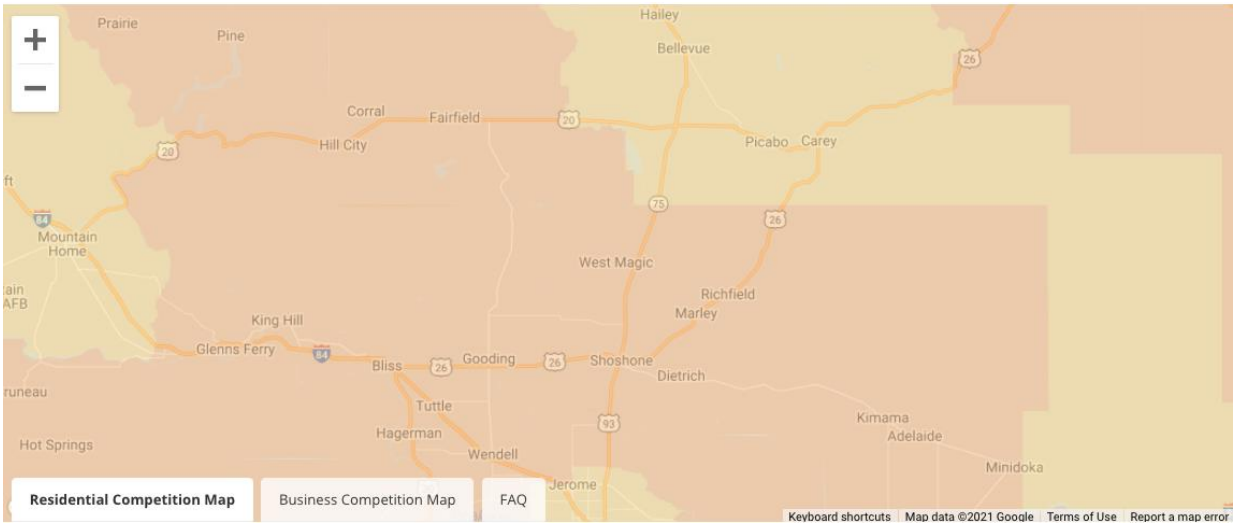

Figure 4

Broadbandnow provider competition map of the City of Shoshone, Lincoln County, Idaho. **Key** Red indicated no providers. Orange indicates 1 provider. Yellow indicates 2 providers. (Accessed: 07/12/2021)

The average download speed in Shoshone is 5.4 Mbps. Download speeds are 92.3% slower than the average in Idaho and 1,629.1% slower than the national average (**Broadbandnow4**). The thoroughfare that exists is the most underutilized in the region. In Shoshone, similar to other cities in Lincoln County, the appearance of connectivity hides insidious underlying issues.

Service plans are generally fairly expensive, with the average price of plans landing at about $70 per month for households in Shoshone. Furthermore, these plans generally have a relatively high cost to speed ratio. High speed internet is only offered by one provider and is limited to less than 50% of households in Shoshone (**Broadbandnow4**). The lack of competition and lack of incentive to broaden offerings to more of the underserved population in Shoshone emphasizes the importance of community owned

fiber infrastructure that incentivizes providers to consider the needs of the populous and city expanding competition and offerings to meet real need.

Rebecca Wood | 208.886.7641 | commishwood@gmail.com

// July 15th, 2021

Lincoln Broadband Grant Preliminary Engineering Summary

Explains the **design and cost analysis report** for a unified Lincoln Country Broadband Infrastructure Initiative involving the cities of Dietrich, Richfield, and Shoshone.

This report is for **Phase 2 of the Initiative – Fiber to the Home**.

The following is an explanation of the design and forthcoming cost analysis report for a Unified Lincoln County Broadband infrastructure including Dietrich, Richfield, and Shoshone.

Dietrich Engineering Summary

The following is an explanation of the design and cost analysis report for the Dietrich, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Dietrich, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for

commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with the City of Dietrich to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed two separate splitter cabinets. We have placed a ring feeder fiber to each of these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the Pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready

costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $10,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

An additional consideration that we will need to factor is yearly attachment fees established by the pole owner. For every pole we are attached to, the pole owner will charge us a yearly fee to attach to that pole, we believe $8-$12 per pole is a great price. Any price higher and we will want to complete a cost comparison taking into consideration maintenance, costs over depreciation, etc. to concur that aerial will be the best scenario long term.

Funding and Environmental

Great ways to fund these types of projects is through USDA-RUS, State Funded or other funding models. The great A significant thing about allowing Century Link or another carrier be our back-haul provider is that we do not have to deal with federal or state undertakings due to being on federal or state lands. Although, with most funding models whether they are state or federal programs, they will require environmental work of some type be completed. This is imperative when putting an application together with these programs. We suggest that prior research is done when completing these applications to properly consider appropriate costs.

Explanation of Costs

Preliminary estimates of cost are incomplete, but will include labor, engineering, project management, and materials. This number is estimated to be a 2022/2023 build, so we have taken into consideration increases in construction and material costs. This estimate also includes drop placement costs to each and every subscriber in town limits as well as GPON Electronic and cabinet costs. If we were to complete a government funded application, we would want to allocate costs for inspection, environmental work, etc. that would increase project costs to meet requirements but would create less costs for the city.

Richfield Engineering Summary

The following is an explanation of the design and cost analysis report for the Richfield, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Richfield, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with the City of Richfield to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed three separate splitter cabinets. We have placed a ring feeder fiber to each of these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $30,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

An additional consideration that we will need to factor is yearly attachment fees established by the pole owner. For every pole we are attached to, the pole owner will charge us a yearly fee to attach to that pole, we believe $8-$12 per pole is a great price. Any price higher and we will want to complete a cost comparison taking into consideration maintenance, costs over depreciation, etc. to concur that aerial will be the best scenario long term.

Funding and Environmental

Great ways to fund these types of projects is through USDA-RUS, State Funded or other funding models. The great thing about allowing Century Link or another carrier be our back-haul provider is that we do not have to deal with federal or state undertakings due to being on federal or state lands. Although, with most funding models whether they are state or federal programs, they will require environmental work of some type be completed. This is imperative when putting an application together with these programs. We suggest that prior research is done when completing these applications to properly consider appropriate costs.

Explanation of Costs

Preliminary estimates of cost are incomplete, but will include labor, engineering, project management, and materials. This number is estimated to be a 2022/2023 build, so we have taken into consideration increases in construction and material costs. If we were to complete a government

funded application, we would want to allocate costs for inspection, environmental work, etc. that would increase project costs to meet requirements but would create less costs for the city.

Shoshone Engineering Summary

The following is an explanation of the design and cost analysis report for the Shoshone, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Shoshone, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with the City of Shoshone to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed two separate splitter cabinets. We have placed a ring feeder fiber to each of

these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $30,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

An additional consideration that we will need to factor is yearly attachment fees established by the pole owner. For every pole we are attached to, the pole owner will charge us a yearly fee to attach to that pole, we believe $8-$12 per pole is a great price. Any price higher and we will want to complete

a cost comparison taking into consideration maintenance, costs over depreciation, etc. to concur that aerial will be the best scenario long term.

Funding and Environmental

Great ways to fund these types of projects is through USDA-RUS, State Funded or other funding models. The great thing about allowing Century Link or another carrier be our back-haul provider is that we do not have to deal with federal or state undertakings due to being on federal or state lands. Although, with most funding models whether they are state or federal programs, they will require environmental work of some type be completed. This is imperative when putting an application together with these programs. We suggest that prior research is done when completing these applications to properly consider appropriate costs.

Explanation of Costs

Preliminary estimates of cost are incomplete, but will include labor, engineering, project management, and materials. This number is estimated to be a 2022/2023 build, so we have taken into consideration increases in construction and material costs. This estimate also includes drop placement costs to each and every subscriber in town limits as well as GPON Electronic and cabinet costs. We would also estimate field engineering to be somewhere around $96,000. If we were to complete a government funded application, we would want to allocate costs for

inspection, environmental work, etc. that would increase project costs to meet requirements but would create less costs for the city.

resultDate	ipAddress	country	region	city	latitude	longitude
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2021-06-28T	162.212.198.	United State	Idaho	Dietrich	42.873	-114.243
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2021-06-21T	208.98.146.0	United State	Idaho	Dietrich	42.873	-114.243
2021-06-19T	76.8.4.0	United State	Idaho	Eden	42.571	-114.252
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2021-06-17T	174.204.2.0	United State	Utah		40.761	-111.891
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2021-06-17T	208.98.146.0	United State	Idaho	Dietrich	42.873	-114.243
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2021-06-16T	75.98.149.0	United State	Idaho	Shoshone	43.119	-114.407
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2021-06-15T	160.3.63.0	United State	Idaho	Jerome	42.724	-114.519
2021-06-15T	75.98.159.0	United State	Idaho	Jerome	42.724	-114.519
2021-06-15T	76.8.4.0	United State	Idaho	Eden	42.571	-114.252
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2021-06-15T	75.98.149.0	United State	Idaho	Shoshone	43.119	-114.407
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2021-06-09T	172.58.43.0	United State	Washington	Seattle	47.61	-122.334
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2021-06-08T	76.8.4.0	United State	Idaho	Eden	42.571	-114.252
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2021-06-07T	162.212.198.	United State	Idaho	Heyburn	42.567	-113.81
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2021-06-07T	75.174.25.0	United State	Idaho	Corral	43.357	-114.986
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2021-06-06T	76.8.4.0	United State	Idaho	Eden	42.571	-114.252
2021-06-06T	160.3.60.0	United State	Idaho	Jerome	42.724	-114.519
2021-06-06T	75.98.149.0	United State	Idaho	Shoshone	43.119	-114.407
2021-06-06T	162.212.198.	United State	Idaho	Heyburn	42.567	-113.81
2021-06-06T	75.98.149.0	United State	Idaho	Shoshone	43.119	-114.407
2021-06-06T	75.98.149.0	United State	Idaho	Shoshone	43.119	-114.407
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Boise, ID	Syringa Netv	WEBKIT	605.1.15	Mozilla/5.0 (	Syringa Netv	Syringa Netv
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Pendleton, O	Pendleton Fi	Chrome	91.0.4472.10	Mozilla/5.0 (	Amazon	AMAZON.CO
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Rupert, ID	Safelink Inte	CHROME	91.0.4472.77	Mozilla/5.0 (	Safelink Inte	SAFELINK IN
Rupert, ID	Safelink Inte	Chrome	89.0.4389.72	Mozilla/5.0 (	Verizon	VERIZON WI
Rupert, ID	Safelink Inte	Chrome	91.0.4472.10	Mozilla/5.0 (	Safelink Inte	SAFELINK IN
Albion, ID	ATC Commu	FACEBOOK	322.0.0.35.11	Mozilla/5.0 (	Safelink Inte	SAFELINK IN
Rupert, ID	Safelink Inte	WEBKIT	605.1.15	Mozilla/5.0 (	Safelink Inte	SAFELINK IN
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Murray, UT	UTOPIA Fibe	Safari	14.0.3	Mozilla/5.0 (Verizon	VERIZON WI
Idaho Falls, I	Sparklight	CHROME	91.0.4472.77	Mozilla/5.0 (Sparklight	Sparklight
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Idaho Falls, I	Syringa Netv	Mozilla	5	Mozilla/5.0 (Safelink Inte	SAFELINK IN
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Rockland, ID	Direct Comm	FACEBOOK		Mozilla/5.0 (Safelink Inte	SAFELINK IN
Rockland, ID	Direct Comm	FACEBOOK		Mozilla/5.0 (Safelink Inte	SAFELINK IN
Salt Lake City	CenturyLink	CHROME	91.0.4472.77	Mozilla/5.0 (CenturyLink	CenturyLink
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OS	download (K	upload (Kbps	latency (ms)	jitter	testId
Android 10	18108	2320	28	2	1901b850-dd99-11eb-aa7
iOS 14.6	9882	1612	31	18	af7ca920-db19-11eb-981e
OS X 10.14.6	10017	1303	35	29	34ce86f0-d9aa-11eb-a846
iOS 14.6	24862	4955	37	8	91931490-d82f-11eb-9e3c
iOS 14.6	24723	4807	30	8	636c8150-d82f-11eb-99bb
Android 11	133823	19339	81	40	e937af10-d615-11eb-92c7
iOS 13.6.1	6032	1088	22	6	a66e5cc0-d443-11eb-9e87
Windows 10	5100	892	33	1	284e2070-d2e3-11eb-bbac
Windows 10	7740	996	22	14	61d2d1f0-d2b2-11eb-ad56
Android 10	3080	970	33	9	2ba3a3b0-d0d8-11eb-83ec
iOS 14.4.2	17326	5995	69	9	fc721ab0-cfc7-11eb-876c-
Windows 10	6140	996	20	7	f5d04770-cfb5-11eb-a448-
iOS 12.0	616	328	69	15	2c1d8df0-cf80-11eb-b159-
iOS 12.0	615	57	63	24	02d88580-cf80-11eb-b159
Windows 10	6201	1069	20	11	5b59fd70-cf11-11eb-9c5f-
Windows 10	6178	1060	26	13	34dd8ae0-cf11-11eb-9c5f-
Android 11	732	2028	70	51	39e83470-cf04-11eb-afb9-
iOS 14.6	7918	537	44	12	c4c10de0-cede-11eb-973c
Chrome OS 9	6099	1049	30	7	73b6c890-cec5-11eb-a768
Chrome OS 9	6131	1051	34	16	5402c940-cec5-11eb-a768
iOS 14.6	11319	1625	35	55	63e802a0-ce5a-11eb-a0b9
Android 10	17821	4043	43	139	72f2fe70-ce38-11eb-81ea-
iOS 14.4.2	2532	2961	72	8	a4fd6820-ce23-11eb-a2c7
Windows 10	3870	629	54	4	cd219410-ce1f-11eb-9e23
Windows 10	14922	833	26	4	91bac470-cdf5-11eb-a7da
Windows 10	69976	10591	14	2	440d18a0-cdd1-11eb-981f
Windows 10	6748	722	25	1	521c7b90-cd9d-11eb-8fc3-
iOS 14.6	4356	773	31	79	987eb330-cd9a-11eb-a792
iOS 14.6	4538	891	27	77	80988930-cd9a-11eb-a792
Android 11	333906	31136	20	8	c44692c0-cd96-11eb-b968
iOS 14.6	60079	20238	23	7	21273c20-cd96-11eb-bbe2
Android 10	5936	3015	36	26	9ddd7030-cd8d-11eb-a055
Android 10	3467	1704	34	20	4e104eb0-cd88-11eb-b8b3
Android 11	6929	1757	37	56	45e95ce0-cd88-11eb-94c6
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Windows 10	9079	488	39	5	86332570-cd87-11eb-87ec
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Windows 10.	2982	902	49	5	7b40fff0-cd2a-11eb-9e01-
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Windows 10	345005	29714	22	4	4efbbcb0-c941-11eb-b9de
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iOS 14.4	16143	3722	22	6	8ef015e0-c8ca-11eb-b0fe-
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Windows 10	8739	682	39	11	e8b57fb0-c880-11eb-bdc3
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WINDOWS 7	4210	695	31	2	ca4ee710-c703-11eb-b3bc
Windows 10.	91063	8975	14	3	cb926690-c6e2-11eb-9b04

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Rebecca Wood | 208.886.7641 | commishwood@gmail.com

// July 15th, 2021

Lincoln Broadband Grant Research Outreach

Analyzing rural consumers' need for **increased access to high-speed Broadband internet** to secure economic development, public safety, telehealth, and educational services.

Introduction

In Lincoln County, lack of access to reliable, fast, and affordable broadband internet is the **largest roadblock** to education, healthcare, and industry development. This hardship has been exacerbated by the COVID-19 health emergency. 3,000 of Lincoln County's 5,208 citizens are considered severely underserved and do not have access to the minimum adequate broadband connection as measure by access to 25mbps/3Mbps broadband (**Broadbandnow1**).

This proposal is the first in a two-phase comprehensive broadband initiative to bring fiber to the home serving 90-95% of the households and businesses in Lincoln County. This independent, shovel-ready project will establish five judiciously designed and placed 120-250 ft. towers in Lincoln County, providing wireless fiber access for underserved homes and businesses, both within the city limits of municipalities (Dietrich, Richfield, and Shoshone) and in rural, unincorporated portions of Lincoln County. These towers will provide households with symmetrical speeds up to 1GB/1GB and no less than 50Mbps/50Mbps, surpassing the current FCC standards for broadband of 25Mbps/3Mbps.

Providing Equity

Equity in economic development, public safety, telehealth, and educational opportunity

The COVID-19 pandemic has brought new challenges and difficulties to American citizens everywhere, and rural Americans arguably have suffered more significant hardship due to the persistent digital divide. In Lincoln County, citizens and municipal governments struggle with inadequate internet connectivity and fall short of current industry standards and national averages when measured by multiple metrics.

According to U.S. News and World Report statistics (06/25/2021), only 39% of Lincoln County households have adequate access to the internet compared to 87% for the national median. This digital divide means that in Lincoln County, 3,000 of the 5,208 citizens do not have access to the minimum adequate broadband connection as measure by access to 25mbps/3Mbps broadband (**Broadbandnow1**). Compared to the average access and speeds for households living in typical well-served urban communities and suburban areas (195Mbps/68Mbps, provided by speedtest.net January 2021 **Analysis**), the disparity is apparent. **This proposal directly promotes increased equity by establishing the necessary infrastructure to provide internet to most Lincoln County residents, focusing first on those with the least access to adequate connectivity due to lack of competition, overpricing, or geographic location**.

Lack of access to fast, reliable, and affordable broadband internet has separated rural Americans from much-needed services and opportunities for economic development, public safety, telehealth, and education. In collaboration with the Region IV Development Association, Lincoln County leaders have collected systematic Information Technology audits and have solicited public comment regarding internet accessibility through surveys. The inadequacies and inequities observed in Lincoln County have only been exacerbated by the strain and stress COVID-19 has placed on already overburdened infrastructure. We can see unique examples of this inequity at the County level and within each city, Dietrich, Richfield, and Shoshone, each of whom have their own challenges.

Improved accessibility to high-speed internet can improve economic opportunities in several ways while simultaneously improving public health initiatives. As the COVID-19 pandemic has progressed, decreasing employee exposure to potential interpersonal infection has become a priority. As a result, work-from-home opportunities have grown in number and necessity. Nationally economic development is trending toward growth in technology-related fields, however in Lincoln County, while the business growth and unemployment rates are on par for national and state averages, accessible work within 45 minutes of the home is low.

Increased access to high-speed broadband can significantly improve access to new job sectors and bring more jobs closer to home for citizens in Lincoln County. For example, Richfield proudly supports the Glanbia manufacturing facility; however, inadequate broadband capabilities have hampered the development and implementation of new technologies in the facility, stifling potential growth and job opportunities within Lincoln

County. Survey responses show that citizens have been denied job opportunities and have struggled to perform necessary duties from home.

A citizen from Dietrich who reported having lost a job opportunity due to her poor service stated:

> "I have been turned down on job offers from home because my internet is too slow, yet I have the fastest speed the only internet provider has. Very frustrating."

28.08% of citizens polled (Accessed 07/08/2021) reported that their internet did not meet their current needs due to speed or expense. Furthermore, 55.17% of those polled indicated that they would prefer better options for internet price and speed in their area.

Citizens from Shoshone said it best:

> “I am on a limited income and have not been able to afford internet nor am I familiar with internet service in town. I do need internet.”

> "Thank you for the chance to respond. My issues are mostly from the speed. I work from home part time now and my internet cannot always keep up, loses service, etc. The other challenge is when multiple people are using internet at the same time."

Increases in the need for multiple users utilizing two-way communication for telework, telehealth, and education has increased the difficulties faced by citizens of Lincoln County.

Meeting Needs

Meeting the CARES Act Needs of Today and the Needs of Tomorrow

This project explicitly addresses significant rural broadband access disparities through infrastructure expansion in Lincoln County, directly addressing criteria delineated in the CARES Act guidelines from the Department of the Treasury including:

- Expenses to **facilitate distance learning**, including technological improvements, in connection with school closings to enable compliance with COVID–19 precautions.
- Expenses to **improve telework capabilities** for public employees to enable compliance with COVID–19 public health precautions.

The proposed infrastructure improvements are designed to increase, or in some areas newly allow reliable and adequate access to connectivity sufficient to facilitate telehealth networks, telework, and distance learning initiatives in direct response to needs arising from the COVID-19 pandemic.

This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of rural households to access and utilize these resources through fast, reliable, and adequate broadband connectivity.

The planned infrastructure improvements are designed to be “future proof”, mitigating the effects of similar widespread emergencies in the future.

Although not yet required, service goals above the FCC minimum are essential to the longevity and sustainability of this investment into the future. Already the 25Mbps/3Mbps standards are deemed inadequate for households as simultaneous communications become more prevalent.

FCC Commissioner Jessica Rosenworcel has argued that the minimum speed recommendations should be closer to 100Mbps/100Mbps to adequately meet the needs of households and look to future innovations and preparation for unexpected events like those we have seen during the COVID-19 pandemic. The proposed infrastructure improvements in this project are more than adequate for today's needs while scalable for meeting the future needs proposed by FCC Commissioner Jessica Rosenworcel.

Well-designed and implemented infrastructure improvements are essential for preparing for the needs of the next generation.

VICINITY MAP LOCATION

RICHFIELD, IDAHO

MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
2				(30X48X36) VLT
1				REMOTE GPON CABINET
3				288 SPLITTER CABINET
14				1X32 SPLITTER
1200				BFOV(2-1.25)T
1400				BFO 24
14500				CO 24(6M)
14900				CO 48 (6M)
1600				CO 72(6M)
4100				CO 96(6M)
48				MST-6(50)
2				MST-6(250)
4				MST-6(500)
15				MST-8(50)
1				MST-12(50)
71400				SEAO(4)
1500				SEBO(4)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE
RICHFIELD VICINITY MAP

EXCHANGE NAME
RICHFIELD

EXCHANGE NUMBER

ENGINEER
RMWT

SIGNATURE

DATE

TOWNSHIP
-

RANGE
-

SECTION
-

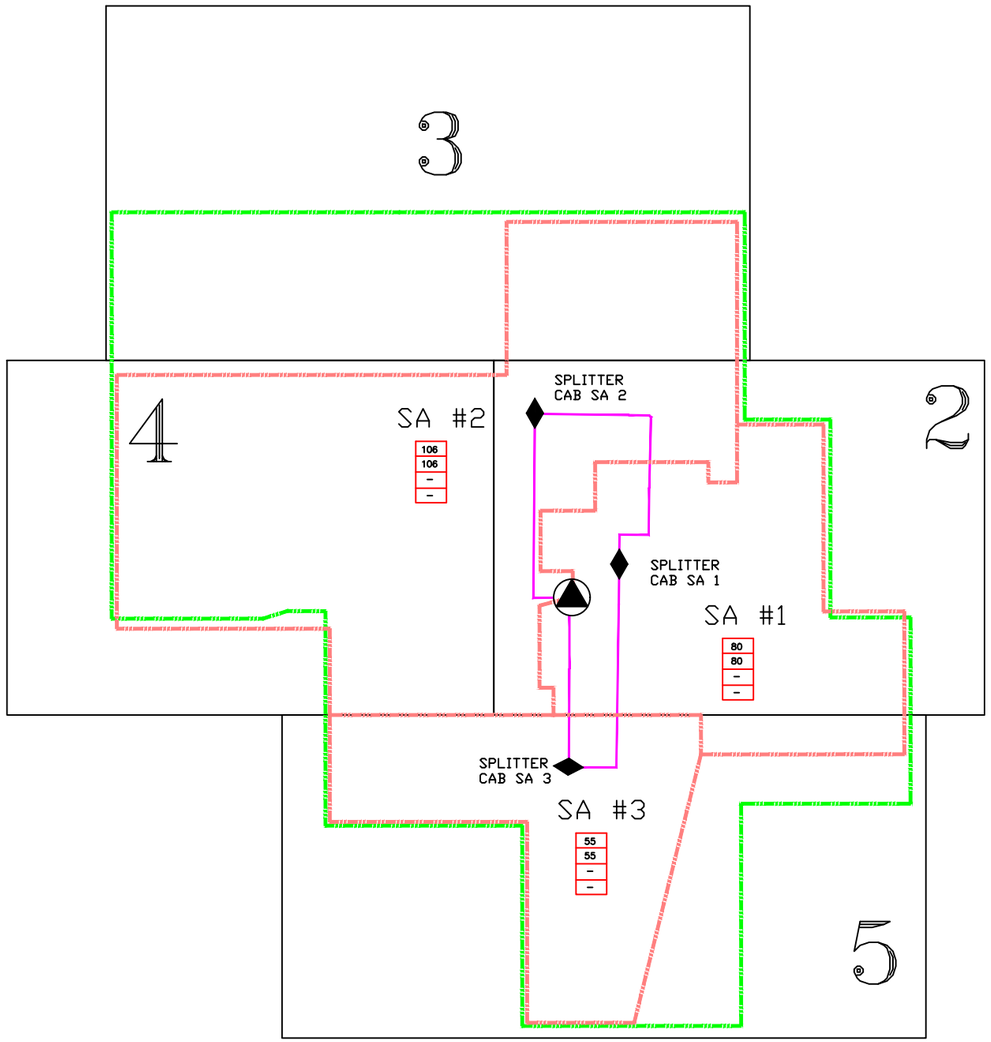
DATE
-

JOB NUMBER

SHEET NUMBER
TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

RICHFIELD, IDAHO
KEY MAP



LEGEND

FILLBOX

1	TOTAL LOTS
2	EX ESTABLISHMENTS
3	MIN FIBER SIZE
4	DESIGN FIBER SIZE

- M — MULTIPLE DWELLING UNIT
- B — BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE AERIAL DISTRIBUTION FIBER WILL PARALLEL THE AERIAL FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND.

THERE ARE AREAS WHERE THERE IS NO POLE LINE FOR THE FEEDER RING. FEEDER RING IS DESIGNED WITH (2) 1.25" CONDUITS IN THESE AREAS.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (3) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT LESS THAN 50% OF CABINET CAPACITY.

TITLE
RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD
EXCHANGE NUMBER	-
ENGINEER	RMWT
TOWNSHIP	-
RANGE	-
SECTION	-

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

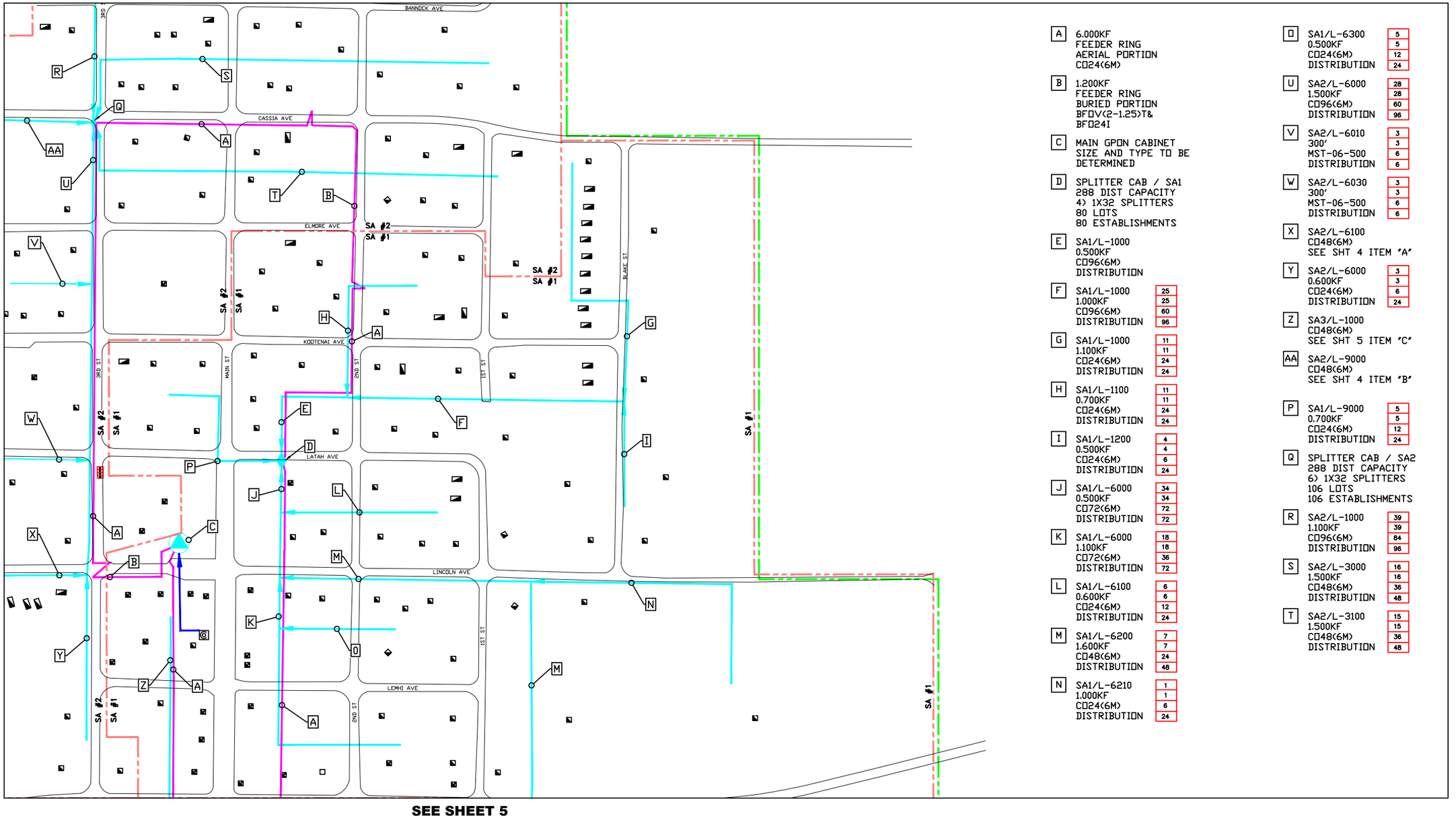
PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

SEE SHEET 3



SEE SHEET 4

SEE SHEET 5

A	6.000KF FEEDER RING AERIAL PORTION CO24(6M)			D	SA1/L-6300 0.500KF CO24(6M) DISTRIBUTION	5 5 12 24	
B	1.200KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BFO24I			U	SA2/L-6000 1.500KF CO96(6M) DISTRIBUTION	28 28 60 96	
C	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED			V	SA2/L-6010 300' MST-06-500 DISTRIBUTION	3 3 6 6	
D	SPLITTER CAB / SA1 288 DIST CAPACITY 4) 1X32 SPLITTERS 80 LOTS 80 ESTABLISHMENTS			W	SA2/L-6030 300' MST-06-500 DISTRIBUTION	3 3 6 6	
E	SA1/L-1000 0.500KF CO96(6M) DISTRIBUTION			X	SA2/L-6100 CO48(6M) SEE SHT 4 ITEM 'A'		
F	SA1/L-1000 1.000KF CO96(6M) DISTRIBUTION	25 25 60 96		Y	SA2/L-6000 0.600KF CO24(6M) DISTRIBUTION	3 3 6 24	
G	SA1/L-1000 1.100KF CO24(6M) DISTRIBUTION	11 11 24 24		Z	SA3/L-1000 CO48(6M) SEE SHT 5 ITEM 'C'		
H	SA1/L-1100 0.700KF CO24(6M) DISTRIBUTION	11 11 24 24		AA	SA2/L-9000 CO48(6M) SEE SHT 4 ITEM 'B'		
I	SA1/L-1200 0.500KF CO24(6M) DISTRIBUTION	4 4 6 24		P	SA1/L-9000 0.700KF CO24(6M) DISTRIBUTION	5 5 12 24	
J	SA1/L-6000 0.500KF CO72(6M) DISTRIBUTION	34 34 72 72		Q	SPLITTER CAB / SA2 288 DIST CAPACITY 6) 1X32 SPLITTERS 106 LOTS 106 ESTABLISHMENTS		
K	SA1/L-6000 1.100KF CO72(6M) DISTRIBUTION	18 18 36 72		R	SA2/L-1000 1.100KF CO96(6M) DISTRIBUTION	39 39 84 96	
L	SA1/L-6100 0.600KF CO24(6M) DISTRIBUTION	6 6 12 24		S	SA2/L-3000 1.500KF CO48(6M) DISTRIBUTION	16 16 36 48	
M	SA1/L-6200 1.600KF CO48(6M) DISTRIBUTION	7 7 24 48		T	SA2/L-3100 1.500KF CO48(6M) DISTRIBUTION	15 15 36 48	
N	SA1/L-6210 1.000KF CO24(6M) DISTRIBUTION	1 1 6 24					

TITLE: RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD	RANGE	19E
EXCHANGE NUMBER		ENGINEER	RMWT
		TOWNSHIP	4S
		SECTION	25,24,23,26

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF 5

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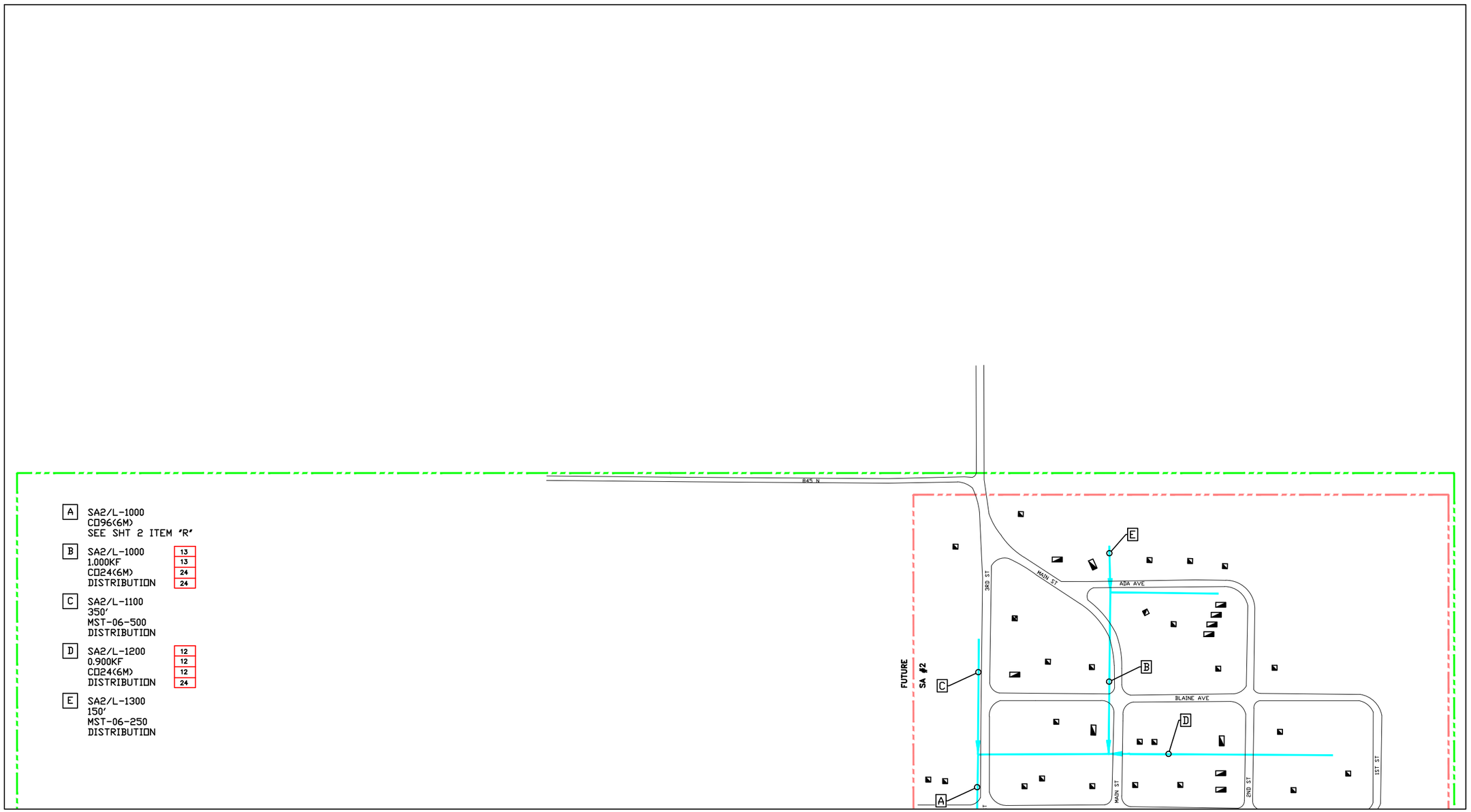

SEE SHEET 2

TITLE RICHFIELD FTTH DESIGN

ENGINEER RMWT	RANGE 19E
TOWNSHIP 4S	SECTION 24,23
EXCHANGE NAME RICHFIELD	
EXCHANGE NUMBER	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

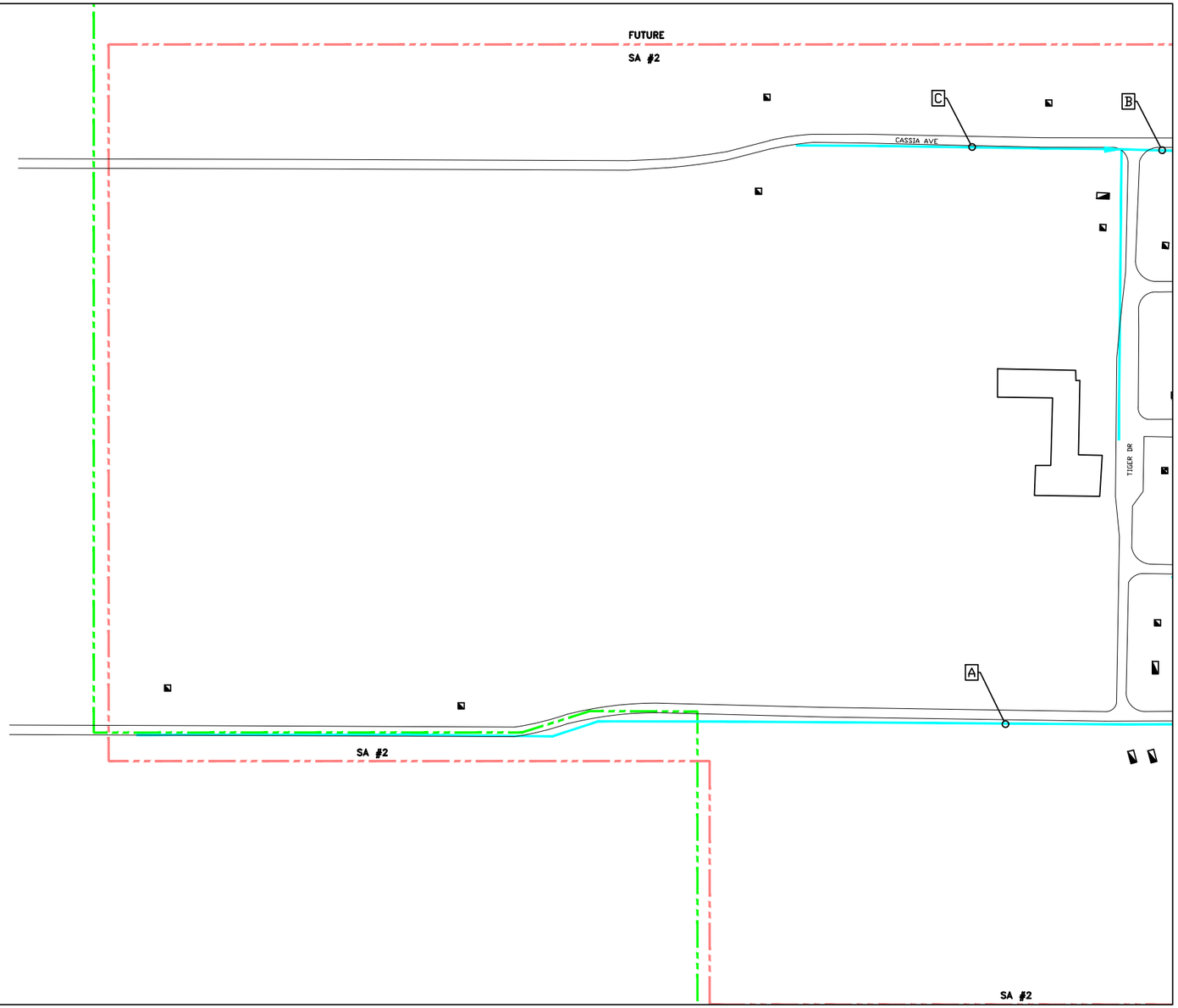
PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
3 OF 5

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

A	SA2/L-6100	8
	3.000KF	8
	CD48(6M)	12
	DISTRIBUTION	48
B	SA2/L-9000	8
	1.300KF	8
	CD48(6M)	12
	DISTRIBUTION	48
C	SA2/L-9100	3
	1.000KF	3
	CD48(6M)	6
	DISTRIBUTION	48



SEE SHEET 2

TITLE
RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD	RANGE	19E
EXCHANGE NUMBER		TOWNSHIP	4S
		SECTION	23,26

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

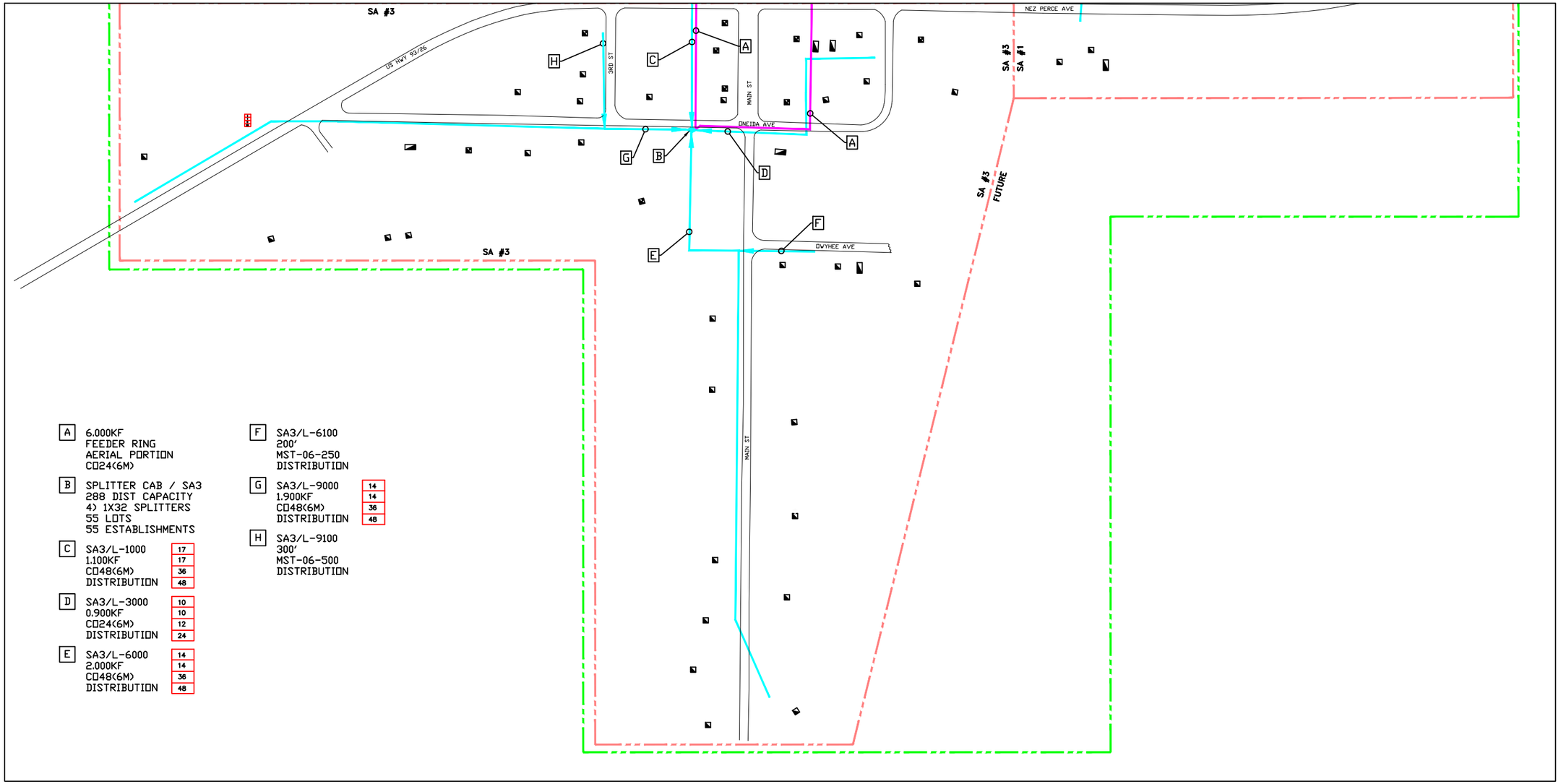
PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
4 OF 5

T:\CLIENT_FILE_DATABASE_ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

SEE SHEET 2



A 6.000KF
FEEDER RING
AERIAL PORTION
CO24(6M)

B SPLITTER CAB / SA3
288 DIST CAPACITY
4) 1X32 SPLITTERS
55 LOTS
55 ESTABLISHMENTS

C SA3/L-1000 — 17
1.100KF — 17
CO48(6M) — 36
DISTRIBUTION — 48

D SA3/L-3000 — 10
0.900KF — 10
CO24(6M) — 12
DISTRIBUTION — 24

E SA3/L-6000 — 14
2.000KF — 14
CO48(6M) — 36
DISTRIBUTION — 48

F SA3/L-6100
200'
MST-06-250
DISTRIBUTION

G SA3/L-9000 — 14
1.900KF — 14
CO48(6M) — 36
DISTRIBUTION — 48

H SA3/L-9100
300'
MST-06-500
DISTRIBUTION

TITLE
RICHFIELD FTTH DESIGN

ENGINEER	RANGE	SECTION
RMWT	19E	25,26
EXCHANGE NAME	TOWNSHIP	EXCHANGE NUMBER
RICHFIELD	4S	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

PLOT DATE
5

JOB NUMBER
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SHEET NUMBER
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REGION IV DEVELOPMENT

Prepared by Eminent Technical Solutions | **ETS**

Region IV Development Association Technology Report

A Road Map to Connectivity

The traveler's guide to developing self-sustaining, high-quality Broadband Internet in **Lincoln County, Idaho**

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The Overlook

In Lincoln County, and across rural America, lack of access to reliable, fast, and affordable broadband internet is the largest roadblock to education, healthcare, and industry development. However, Lincoln County is at the precipice of a prodigious opportunity for positive broadband infrastructure development. This document is serves as a *Traveler's Guide to Developing Broadband Connectivity* across Lincoln County, serving our communities now and for generations to come.

Roadblocks

Lincoln County citizens struggle with adequate internet connectivity and falls short when measured by multiple metrics. Inadequate internet access places the citizens, townships, and the county at a disadvantage. The county government, municipalities, and businesses are unable to implement current industry standard technologies, much less implement new and innovative technology solutions. While all the cities in Lincoln County suffer from inadequate connectivity, they each have unique needs that must be addressed by a comprehensive broadband plan.

- **Dietrich**
  - Dietrich is the smallest of the three municipalities. A lack of quality service and a lack of delivery on service promises inhibit technology growth for the whole of the community.
- **Richfield**
  - In Richfield, the lack of affordability in the internet market gives the appearance of accessible internet without the equitable access needed to provide growth in educational, health, and employment sectors.
- **Shoshone**
  - Shoshone is the largest and most connected municipality in Lincoln County; however, their service shows the lowest average internet speeds at 1629.1% slower than the national average.

Pioneering an Innovative Solution

Lincoln County is posed to overcome their technology and connectivity deficits with an *innovative, collaborative effort to develop community owned broadband infrastructure* that is self-sustaining, invites better service through RFP bids, and allows citizens to access quality internet now and for years to come. This document walks step by step through the needs of Lincoln County as a collective and each community using systematic municipal and county IT assessments, SWOT analyses, engineering studies, and community research.

The Road Forward – Broadband Infrastructure Plan Brief:

The comprehensive broadband plan consists of a unified effort by Lincoln County in cooperation with Dietrich, Richfield, and Shoshone to build fiber networks and wireless fiber towers serving the majority, about 90%, of households in Lincoln County. The plans, detailed in the engineering and wireless studies, includes fiber to the home for all residents within the city limits of Dietrich, Richfield, and Shoshone with speeds up to 1GB/1GB. Residents outside of city limits can be reached with well-engineered and judiciously placed wireless towers. We understand that residents may be wary of wireless connections due to poor past performance, however, the wireless connections proposed here are no less than 50 Mbps /50 Mbps. These speeds are not theoretical and are being achieved in practice with similar technology here in Idaho. These plans also anticipate no connection fees for households and a monthly cost for service between $60 to $70.

The Preliminary Estimated Costs:

The total costs as determined by the preliminary engineering studies and informed by previous build costs are shown below. The total cost for Lincoln County to improve its broadband connectivity is estimated to be $6,017,041.32. The cost of connection per household is estimated to be $3,438 assuming a take rate of approximately 70%, or about 1,750 homes and businesses, of the 2,017 households and 500 businesses in Lincoln County. *It is important to note that these numbers are inclusive of wireless*

towers to reach rural homes and fiber to the home at terminus. These numbers including labor, engineering, project management, and materials. This estimated is considerably more economical than previous submissions by other entities.

Lincoln County	Costs	Per Household
Shoshone	$2,800,561.68	
Richfield	$1,790,106.90	
Dietrich	$1,426,372.74	
Totals	**$6,017,041.32**	**$3,438.00**

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The Direction

Region IV Development Association's mission is to develop partnerships to promote economic opportunities by acting as a catalyst in providing resources that foster resilient communities across Southern Idaho.

Eminent Technical Solution's mission is to solve the problems that technology creates so that individuals, organizations, and communities can fully reap the benefits technology offers.

Region IV, in collaboration with Eminent Technical Solutions (ETS), has teamed up to assess broadband internet technology, cybersecurity, and form a proactive, strategic plan for ongoing technological improvement within the region.

The purpose of this assessment is to assist communities in Region IV to proactively preparing broadband internet, technology, cybersecurity, and telehealth plans to improve community driven outcomes. These assessments, with preliminary plans of action, will provide a clear path for developing valuable resources and options for the sustainment of foundational community tools into the future. With this plan, communities will be better positioned when opportunities such as Federal and State funds become available. The information in these assessments will help communities complete grant applications and possibly provide a competitive advantage. Those communities who have taken the initiative to prepare will have compelling, effective plans with clear narratives and will be in a much better position for future opportunities for funding, budgeting, and mutually beneficial partnerships.

In the 2020-2025 ***Region IV Comprehensive Economic Development Strategy***, specific objectives were clearly identified, supporting the need for a broad technology assessment and plan designed specifically for the various municipalities, counties, and the region.

Chief among those objectives is to, *"Create opportunities for communities to utilize broadband networking and assist them in their access to faster broadband. Enhance community communications ability, home-based businesses, and work from home opportunities. Provide training and funding opportunities to communities, schools, healthcare facilities, public service providers, small businesses, and financial institutions for distance learning, telehealth, telework, and remote access. Strengthen our regional presence with the Idaho Broadband Initiative."*

"Develop opportunities for funding resources for broadband and telemedicine opportunities. Create telemedicine opportunities for individuals within their homes. Work with communities, healthcare facilities, and community members for opportunities." (Pg. 31, 32, Region IV CEDS Report).

It is universally recognized that better broadband internet connections enhance municipal and county technology across the board, including IT management, cybersecurity, telehealth, and education, particularly in rural areas like Lincoln County. As broadband internet improves, so improves the technology needed to serve and protect your community's citizens.

This assessment identifies areas of concern that can and should be directly addressed to improve network connectivity and technology upgrades positively impacting economic development, education, public health, public safety, emergency communications, efficient community services, and livability. For long-term and sustainable change, **Job #1** is enhancing broadband capabilities throughout the community generally and for each citizen. To that end, this report focuses on:

- Identifying community needs
- Creating a unified vision of a holistic fiber network for Lincoln County
- Creating a "Road Map" Lincoln County can navigate to build a sustainable, reliable, fiber broadband infrastructure
- Developing concrete **Next Steps** toward funding and construction

Community Need

These days information travels at the speed of light. Accessing internet resources should be as easy as getting in your car, backing down the driveway, and taking a well-paved pothole-free drive to your desired destination. However, in rural communities, there are often roadblocks preventing adequate internet access.

The fiber superhighway for broadband internet has already been built close to Lincoln County. However, currently, the towns, businesses, and citizens of Lincoln County are bypassed by this information speedway. While the thoroughfare exists, it is of no service. It provides little benefit or security to the citizens without the addition of fiber off-ramps, leading to well-maintained county and neighborhood fiber roads.

Providing access to the superhighway of information, education, telehealth, and other vital resources requires a defined construction plan. Accessible, affordable, and reliable fiber roads need to be built. Roads void of obstacles and potholes.

Historical consensus tells us that lack of access is the status quo and a circumstance to be accepted, particularly for rural areas. Now is the time to defy the status quo with definitive and transparent steps to improve access to information speedways, boosting health, education, and business opportunities now and for future generations. Lincoln County is poised to overcome obstacles currently in the way of gaining access to the information superhighway.

Leadership

The way forward for rural communities is through collaboration, economies of scale, and partnered, proactive responses to common challenges.

Lincoln County can serve as a model for this type of pioneering vision, with the insight necessary to look to the future and collaboratively innovate. Only a regional or county flagship plan that recognizes each municipality's individual needs while working in concert with one another will have the power to affect desired outcomes.

The potential for transformative and sustainable change is significant with a holistic approach from a unified Lincoln County. Success, measured in vitally needed broadband service access, cost savings, maintaining independence from less capable providers, and general community health, can be the legacy of Lincoln County's pioneering foresight and entrepreneurship, while providing resources necessary for individual citizens, students, and businesses, both traditional and in-home today.

Additionally, potential, and ongoing relationships with trusted, vetted, and capable advocates, on every level, who understand and are deeply committed to the vision of the community are essential. Incorporating the assistance and resources of state organizations such as Region IV Development Association (RIVDA) and the Idaho Department of Commerce in that vetting process is equally crucial.

Strategy

Building, managing, and deploying a large-scale fiber-optic network is a significant public works and information technology project with complex geographic and logistical solutions.

This Broadband Technology report, current, and future implementation plans are guided by fundamental **Elements of Success**, tailored to the needs of Lincoln County and its cities, Dietrich, Richfield, and Shoshone.

Elements of Success

- **Sustainability** – The aspects that encourage sustainability include grants (Federal and State), volunteer work, neighborhood champions and public engagement, broad use of the proposed infrastructure for ongoing maintenance.
- **Resource sharing** – Resource Sharing requires fewer resources and cost to maintain one set of servers vs. four. Collaborative cost reductions while maintaining independence and confidentiality through shared managed cloud-based resources.
- **Innovation** – Overcoming past paradigms of limited internet service, discipline for the collaborative process, creating plans for current and future needs.
- **Transformation** – Righting the past wrongs and looking towards the future on a solid foundation. This includes planning for the future with proactive concordant efforts by contractors to build access to services in new/future housing and developments. City planning with an eye to the future, including city easements to assets such as poles, towers, common ditches, new construction, etc., is essential to the overall success and sustainability of a well-integrated network.
- **Public Safety / Cybersecurity** – While seemingly less critical in the more rural areas, attacks on essential services provided by most counties and municipalities are becoming increasingly common. These attacks include water and other utilities as well as fire and police protection. As rural townships tend to have fewer resources to combat these attacks, they become more frequent targets (NYTimes; CBSNews).

- **Educational Narrative** – This is an essential component to success. The digital divide and educational disconnect both in Idaho and the whole of rural America are well documented. The sustainment of population and economic health is critically impacted by the opportunities afforded to the youth of your communities. While the connectivity of our schools is vitally important, circumstances from the previous 18 months clearly show that individual student connectivity in the home is imperative for uninhibited, comprehensive education. Connectivity is essential to students at every level, from primary and secondary students to those continuing their education with trade certifications and university degrees.
- **Telehealth** – While telehealth programs do not lie directly within the cities' or county's purview, connectivity to available telehealth services does. Developing a high-speed network that meets the needs of telehealth providers brings more accessible primary care to citizens at a decreased cost. As the population in the United States ages, telehealth can also provide affordable, comprehensive care to more isolated and aged citizens.

IT Assessments

Systematic assessment of the needs of the communities, municipalities, and government of Lincoln County and the whole of Region IV is a vital component of creating a holistic, complete roadmap for building a successful fiberoptic network infrastructure and getting resources and services into the hands and homes of citizens.

To this end, Region IV has teamed up with ETS to conduct comprehensive IT assessments at **no cost and with no obligations** for the communities within Region IV. To clarify, these IT assessments help communities identify their technological strengths and weaknesses, helping them plan and budget the technical future goals addressing the **Elements of Success** and apply for funding to help pay for improvements. With no cost or obligations, these reports provide accurate and timely information to the decision-makers and planners which will help guide them now and in the future to make informed choices for their communities.

Region IV extended an open invitation to all counties and cities within the region. Only those communities who responded are included in the reports. However, we firmly believe that the diversity of the participating communities represents an accurate cross-section of the region's needs, particularly related to the more rural areas.

Participating communities include:

- **Lincoln County**
  - Dietrich
  - Richfield
  - Shoshone
- **Minidoka County**
  - Heyburn
  - Paul
  - Rupert
- **Cassia County**
  - Burley

- **Twin Falls County**
  - Twin Falls
- **Jerome County**
  - Jerome
- **Elmore County** (Not Part of Region IV but included by request)
  - Mountain Home

Methodology

Over the years, ETS has honed a systematic, comprehensive IT Assessment method designed to measure, weigh, and analyze IT Infrastructure and utilization. The assessments are completed in person by a well-trained team of experienced professionals specializing in IT Management, Telecommunications, and Network Management. The assessments focus on the tenets below:

- **Internet and Broadband**
  - Broadband Commentary
  - Municipal Internet Connectivity
- **Physical Facilities**
- **Network Infrastructure**
  - Public IP Block
  - Firewall
  - Core Router and Switches
  - Wireless Network
  - DNS and Web Presence
- **Server Configurations**
  - Physical Servers
  - Virtual Servers
- **Cybersecurity, Disaster Recovery, and Security Monitoring**
  - Backups/Disaster Recovery
  - Security Monitoring
- **Computer, Device, and Systems Configurations**
  - Devices
  - Software
  - Email Configuration
  - Telephone System

Based on the findings of the assessment, the subject under review receives a color-coded scaled rating. These color-coded ratings are given based on current industry standards and the ability of the technology assessed to meet the stated goals and desired effects of the organization or municipality being assessed. Recommendations are also given when appropriate to improve IT structure and utilization to best meet an organization's needs and budgets.

Colors can be generally interpreted as follows:

	**Red**	Very Poor. Severe limitations in delivering the desired effect.
	**Orange**	Poor. Major limitations in delivering the desired effect.
	**Yellow**	Good. Moderate Limitations in delivering the desired effect
	**Light Green**	Very Good. Only Minor limitations in delivering the desired effect.
	**Green**	Excellent. No limitations in delivering the desired effect.

The IT assessments along with research of publicly available broadband connectivity reports were then utilized to inform **S**trength, **W**eakness, **O**pportunity, and **T**hreat (**SWOT**) analyses specific to broadband connectivity for Lincoln County as a whole and the communities of Dietrich, Richfield, and Shoshone individually. The following section contains a summary for the findings of the IT assessment and the corresponding SWOT analysis for each area. Raw data from the IT assessments may be referenced in **Appendix A**.

Lincoln County IT Assessment Summary

Lincoln County received a **Very Poor** Broadband and Information Technology Rating.

Broadband

Lincoln County citizens struggle with adequate internet connectivity and falls short when measured by multiple metrics. According to U.S. News and World Report statistics, only 39% of Lincoln County households have adequate access to the internet compared to 87% for the national median. Furthermore, Lincoln County has an overall population of 5,208, and approximately 3,000 people do not have access to adequate internet as measure by access to 25mbps wired broadband (Broadbandnow1). Inadequate internet access places the citizens and county at a disadvantage. The effects of poor connectivity ripple through the health, education, and employment sectors. In Lincoln County, 17.6% have no health insurance, and availability to primary doctor care is low. Better connectivity to Telehealth could greatly improve these metrics.

Educational opportunities are also negatively affected by poor connectivity. In Lincoln County, children meeting standard grade levels, high school graduation rates, and the population with advanced degrees is approximately 10-15 points lower than the national average and equally lower than state averages. Challenges brought on by the past year's pandemic are likely to increase the educational gap unless action is taken to increase educational opportunities.

In the employment sector, technology related job fields are growing, however in Lincoln County, while the business growth and unemployment rates are on par for national and

state averages, accessible work within 45 minutes of the home is relatively low. Improving broadband connectivity improves business opportunities and remote work and learning, improving job prospects and encouraging industry growth in all sectors. Each of the cities in Lincoln County (Shoshone, Richfield, and Dietrich) figures into the statistics and information above. All communities in Lincoln County could see these metrics improve with better access to the fiber superhighway, currently just out of reach.

Information Technology

Municipal Internet Connectivity

Currently the Court House is receiving high speed internet (15 Gbps up by 110 Gbps down), however, it is unable to truly take advantage of the high speeds due to a lack of connectivity with the rest of the municipal government. The rest of the municipal buildings have glacial speeds (2.5Mbps up by 5Mbps down) that inhibit everyday municipal activities and reduce the ability to incorporate improved technologies into their work strategies.

IT Infrastructure

The technology equipment is currently housed in an insecure location that is not specifically designed for housing sensitive systems. Cabling is adequate, but unorganized and in need of improvement to accommodate upgrades to the system.

There are not adequate server systems on site to support security and backup systems. Lincoln County would benefit from a data center.

Security

There is a closed-circuit camera system in place and hosted on site. Currently there are no door access controls or independent monitoring.

Cybersecurity is inadequate. Backup procedures are not in place, nor is a disaster recovery plan. There are no systematic anti-virus end user protections in place. At the time of the assessment, details were not fully available for network security, but it did not appear that the firewall and security procedures were up to industry standards.

An email system is in place, but it is consumer grade and not up to standards. Many users use their own personal Gmail addresses.

Technology Life Cycle

There are no budgetary plans for device “end of life” cycling. Devices are not standardized and are purchased when needed.

City Goals

City goals include Audio Recording for the Court House, and improved camera and door access for municipal buildings.

Lincoln County Preliminary IT Recommendations

- **Broadband**
  - Adequate connectivity to high-speed fiber internet is essential to increasing the efficacy of Lincoln County’s technological footprint. All other components are reliant to some degree on proper connectivity.
  - Investing in a sustainable fiber infrastructure is foundational for the future endeavors of Lincoln County and providing quality internet to the homes of citizens in the near future.
- **Municipal Internet Connectivity**
  - Lincoln County would benefit from short term goals of connecting municipal buildings to high-speed internet, then completing roll outs to other entities.
  - Accomplishing connectivity for the government facilities will ease the burden of current inadequate speeds while allowing for further upgrades

with other simultaneous infrastructure improvements, ultimately bringing internet into the homes of citizens.

- **IT Infrastructure**
  - Lincoln county would benefit from a dedicated data center with the potential to collectively serve County Municipal Government needs as well as the needs of Dietrich, Richfield, and Shoshone.
  - The economy of scale would provide better server and network systems while sharing the cost burdens, decreasing the overall costs for the whole of Lincoln County.

- **Security**
  - Lincoln County would benefit from upgraded security systems, both physical and cybersecurity. Accomplishing upgrades is heavily reliant on aforementioned data center and connectivity upgrades.
  - Grant funding is currently coming available for security upgrades and Lincoln County would benefit from cybersecurity measures such as:
    - Systematic backups
    - Yearly Cybersecurity trainings
    - Systematic anti-virus protection
    - Implementation of an account-based system for employees that includes two-factor authentication
    - Utilization of an email system that meets industry standards.
  - Lincoln County would also benefit from enhanced physical security measures such as:
    - Centralized door access control
    - Improved security cameras
    - Off-site storage for security footage
- **Technology Life Cycle**
  - Lincoln County would benefit from a complete 5-year technology plan. Building a comprehensive plan allows for proper budgeting to maintain and improve the technological fleet while improving buying power further saving funds that can be utilized for further improvement projects.
- **County Goals**
  - Lincoln County's stated goals are fully able to be realized with the appropriate foundational infrastructure in place and have been addressed in previous sections.

- Further improvements are on the horizon with improved broadband connectivity.

Lincoln County Broadband SWOT Analysis

STRENGTHS	➢ The collaborative efforts and a forward-thinking approach by County and Municipal Leaders are the greatest strength. Common goals confronting similar issues provide a consistent dialog and transferable planning from city to city. ➢ Lincoln County has keen interest from State Government and Regional interest groups to assist in funding opportunities for infrastructure builds. ➢ A shovel-ready, engineered plan prepared for the next rounds of grant submissions and budgetary cycles. This comprehensive plan will connect the communities of Lincoln County to the existing fiber network thoroughfare running nearby. ➢ Consumer demand and support, driven by ongoing dissatisfaction with current internet services.
WEAKNESSES	➢ Public education is crucial to success. Only the most fundamental understanding of broadband capabilities and knowledge exists. ➢ While frustrated with current services, most consumers are not informed about why they are getting poor service. Further, they have become desensitized to paying high prices for unsatisfactory service. ➢ Public outreach and education are a crucial part of Lincoln County's next steps.
OPPORTUNITIES	➢ Competitive pricing for better services, faster speeds, increased reliability, reduced costs, and better business connectivity. ➢ Positive impacts on educational and economic growth opportunities, including improved property values. ➢ Increased public connectivity with hotspots in strategic locations in towns, including parks and municipal areas. Increased public safety and utility. ➢ Community-owned infrastructure increasing self-reliance and inviting competitive services that benefit the communities and the consumers.
THREATS	➢ Breakdown in the collaborative efforts is the greatest threat. There is strength in numbers and the shared objectives of Lincoln County. ➢ Community fears, driven by misinformation and propaganda. ➢ Resistance to change and resistance to government intervention. ➢ Improperly vetted, predatory third-party partnerships. Consumers hearing about failed projects and towns that have been "fleeced" or "scammed."

Dietrich IT Assessment Summary

Dietrich received a **Very Poor** Broadband and Information Technology Rating.

Broadband

Dietrich, the smallest of the three municipalities in Lincoln County, at the surface appears to have relatively good connectivity. However, the appearance of adequate connectivity is a harmful illusion. While the average download speeds seem comparatively high in Dietrich at 29.39 Mbps, these speeds are still 58.1% slower than the average in Idaho and 217.7% slower than the national average. Further, 100.0% of consumers in Dietrich only have access to 1 or fewer wired internet providers available at their address (Broadbandnow2). This lack of competition has led to a dearth of consumer choice for connectivity with many consumers unable to access adequate internet speeds. Those that can access higher speeds are beholden to a single provider regardless of service quality or price. If the advertised speeds are similar to those at City Hall, delivery speeds may not match service plans.

Educational opportunities also appear to be affected by connectivity inequality. Several anecdotal reports of students utilizing public access points before and after school point to inadequacies in home access.

Dietrich would greatly benefit from more telehealth opportunities. Though within 15 minutes on a family practice clinic, the closest hospital is about 45 minutes away. Telehealth options would provide greater access to a wider range of specialist and decrease burden on local facilities. Increased broadband access would provide opportunities in the health sector.

Information Technology

Municipal Internet Connectivity

Municipal internet connectivity as measured at City Hall is truly dismal. The bandwidth speed being delivered is 0.5 Mbps up by 0.89 Mbps down. Based upon the needs of the organization, the bandwidth speed is deemed to be inadequate. At $55.90 per month, internet is also expensive for the service being rendered.

IT Infrastructure

Dietrich's IT footprint is very small. They have 1-3 end user devices. Only one computer is present and is not connected to a domain and does not utilize user profiles.

No Networking technology is present.

Security

The City has no physical or Cyber security elements in place and no backup systems.

Technology Life Cycle

The City does not have any replacement schedules or concrete plans for future upgrades.

City Goals

In direct quote of Mayor Moon, "Dietrich wants it all!" When discussing future goals it was indicated that Dietrich would like to implement industry standard technology in all aspects of their workings.

Dietrich Preliminary IT Recommendations

Dietrich is in a unique position as it has both the both the challenge and opportunity to start from the most fundamental and primary levels in building their IT footprint. They have few technological integrations at present, but they have the opportunity to expand their capacity exponentially through positive partnerships with Lincoln County, Richfield, and Shoshone. They would also benefit from partnership with a competent, trusted, IT management consultant. The small technological footprint in Dietrich provides ample room for growth in all capacities especially, security and automation for the town and its citizens.

- **Broadband**
  - Adequate connectivity to high-speed fiber internet is essential to creating Dietrich's technological footprint. All other components are reliant to some degree on proper connectivity.
  - Investing in a sustainable fiber infrastructure is foundational for all future technological endeavors in Dietrich.
- **Municipal Internet Connectivity**
  - The priority for Dietrich will be getting its municipal facilities connected to the fiber broadband network. Improving connectivity for municipal function will give Dietrich more opportunities for community outreach and education, improving overall fiber network uptake.
  - Improvements to existing technologies are relatively futile without improved connectivity in Dietrich.
- **IT Infrastructure**
  - Dietrich would benefit from access to a data center. If possible, a joint endeavor with Lincoln County, Richfield, and Shoshone would be ideal. With their own servers in a shared joint facility, the cities of Lincoln County would benefit from higher quality facilities accomplished at a lower cost due to economy of scale while maintaining their individual independence.
  - Centralized data storage would also improve the city's ability to implement much needed automation for utility billing, public notices, and information sharing.
- **Security**

- At present, there are no security measures in Dietrich. This is an opportunity to build a system that meets the exact needs of the city. Basic improvements are listed below, but can be exacted to best fit the needs and budget of Dietrich.
- Security can be improved through the implementation of SCADA monitoring systems, door access controls, and security cameras in key locations.
- Cybersecurity could be greatly improved, and grant funding is currently coming available for upgrades. Dietrich would benefit from cybersecurity measures including:
  - Systematic backups
  - Yearly Cybersecurity trainings
  - Systematic anti-virus protection
  - Implementation of an account-based system for employees that includes two-factor authentication
  - Utilization of an email system that meets industry standards.

- **Technology Life Cycle**
  - Dietrich has a great deal of growth to do and are in a great position to start good IT habits. Dietrich would greatly benefit from a complete 5-year technology plan. A comprehensive plan would allow for proper budgeting develop technology goals and expand the horizons for what the city needs and wants as it looks to the future.
- **City Goals**
  - City goals are completely reliant on improved network connectivity and affordable, reliable, broadband access. Dietrich has the capacity to jump into the 21st century with both feet. Solid community owner network infrastructure will bring this city's dreams to fruition.

Dietrich Broadband SWOT Analysis

STRENGTHS	➢ Dietrich has strong leadership with collaborative mindsets and strong ties to broader Lincoln County cooperatives. The collaborative efforts and a forward-thinking approach by County and Municipal Leaders are the greatest strength. ➢ Dietrich has a small technological footprint and can build up from a base level without the need to remove outdated technological roadblocks. ➢ Main fiber backhaul is presently ready for “last mile” to deliver broadband to homes, businesses, and schools. ➢ Dietrich’s size, while sometimes a challenge, can be of benefit. Feasibility of completing a broadband project in a relatively quick time frame is possible for this community. ➢ Cost of integrating into large, shared network system is expected to be within the bounds of grant offerings.
WEAKNESSES	➢ While also mentioned as a strength, Dietrich’s size could be a challenge as well. It is important for the communities of Lincoln County to work together to achieve their connectivity goals. Faltered collaboration could inhibit project feasibility. ➢ While also partially a benefit, Dietrich has very small technological footprint, and plans will need to include the proper facilities and base infrastructure to ensure quality service on the new network. ➢ Lack of Cybersecurity will need to be addressed including proper education and proactive cybersecurity measures.
OPPORTUNITIES	➢ Competitive pricing for better services, faster speeds, increased reliability, reduced costs, and better business connectivity. ➢ Positive impacts on educational and economic growth opportunities, including improved property values. ➢ Increased public connectivity with hotspots in strategic locations in towns, including parks and municipal areas. Increased public safety and utility. ➢ Community-owned infrastructure increasing self-reliance and inviting competitive services that benefit the communities and the consumers.
THREATS	➢ Breakdown in the collaborative efforts is the greatest threat. There is strength in numbers and the shared objectives of Lincoln County. ➢ Community fears, driven by misinformation and propaganda. ➢ Lack of education regarding broadbands positive impact on development and growth. ➢ Resistance to change and resistance to government intervention. ➢ Improperly vetted, predatory third-party partnerships. Consumers hearing about failed projects and towns that have been "fleeced" or "scammed."

Richfield IT Assessment Summary

Lincoln County received a **Poor** Broadband and Information Technology Rating.

Broadband

Richfield statistically has the highest average download speeds in Lincoln County at 81.6 Mbps. However, the appearance of adequate connectivity in Richfield is deceptive. Even with relatively higher speeds in Richfield, the city trails behind the national average with 14.4% slower speeds. Further, competition is stifled in Richfield. 100% of Richfield residents are still severely limited in wired broadband choices with access to 1 or fewer internet providers available at their address (Broadbandnow3). A quick search on common civilian research sites for internet plans available in the area shows that plan choice is both onerous and expensive. While several providers claim speeds “up to 100Mbps” average speeds hover much lower at 20Mbps (Internetadvisor1). Further, finding a good plan does not ensure availability as each carrier has carved out its own slivers of geography. Average prices among the three main carriers for speeds up to 20Mbps is upwards of $60 (Internetadvisor1). Lack of affordability in the internet market gives the appearance of accessible internet without the equitable access needed to provide growth in educational, health, and employment sectors.

Reliance on internet connectivity for schoolwork has led to a marked divide between students with high and low Socio-Economic Status (SES). In Richfield the lack of competitive internet service plans and prices create potential pitfalls for low SES students. Further, lack of affordable internet plans lessens opportunity for online trade and other higher education programs.

The lack of competition, the expense of high-speed internet, and the insufficient service provided by wireless, copper, and satellite providers not only impacts the growth of new economic sectors, but also inhibits the expansion of current employers. Richfield proudly supports the Glanbia manufacturing facility, however, inadequate broadband capabilities have hampered the development and implementation of new technologies in the facility. This impacts the overall growth of the plant and the expansion of jobs within the community (Idaho Broadband Report).

Information Technology

Municipal Internet Connectivity

Municipal bandwidth speed is being delivered at 3 Mbps up by 15Mbps down. These speeds are not adequate for the needs of the organization, limiting utility. Though exact monthly cost details were unavailable at the time of the assessment, verbal inquiry indicated that costs for this low level of service were high compared to national averages.

IT Infrastructure

City IT equipment is housed in an insecure location that, while organized, is not adequate. The small unventilated area is not designed for network equipment and maintains a temperature that is too hot. Cabling is organized and adequate, but under-utilized.

The wireless network is commercial grade and has a continuous seamless connection. Though improperly configured, this system provides adequate coverage that is only hampered by the inadequate network speeds provided. It is a good start but would benefit from upgraded connection speed to maximize utility.

The core network router is consumer grade and inadequate for municipal needs. There are no physical servers on site.

Security

Security monitoring for both physical and cyber platforms are not currently available in Richfield. At present there are no physical monitoring systems such as door access control and security cameras for facilities.

Cybersecurity measures are also lacking with no systematic backups of data, no disaster backup recovery plans, and no systematic use of anti-virus protection across devices. Network breach protections and alerts are not in place, leaving the organization vulnerable to cyber-attack.

At present an email system is not in place, and users either use their personal or work emails for official municipal business.

Technology Life Cycle

There are no budgetary plans for device “end of life” cycling. Devices are not standardized and are purchased when needed.

City Goals

Stated city goals included:

1. SCADA and Process Controls
2. Internet available to public in parks or community center

Richfield Preliminary IT Recommendations

- **Broadband**
    - Adequate access to high-quality, high-speed fiber internet is of foundational importance to the growth and improvement of Richfield’s technological footprint.

    - Investing in a Lincoln County collaborative infrastructure plan is essential to long term sustainable success and the overall expansion of cyber resources in the area.
- **Municipal Internet Connectivity**
    - Current municipal internet speeds are not adequate to meet city goals and growth desires. The priority for Richfield to accomplish growth and support the expansion of a high-speed fiber network should be connecting municipal facilities to available splice points within the city.
    - Improved municipal connectivity will move the timeline forward for other improvement projects simultaneous to overall city-wide network infrastructure development.
- **IT Infrastructure**
    - Richfield would benefit from access to a data center. If possible, a joint endeavor with Lincoln County, Dietrich, and Shoshone would be ideal. With their own servers in a shared joint facility, the cities of Lincoln County would benefit from higher quality facilities accomplished at a lower cost due to economy of scale while maintaining their individual independence.
    - Centralized data storage would also improve the city's ability to implement stated city goals of utilizing a SCADA system and implementing process controls, streamlining project management.
- **Security**
    - Physical and cyber security concerns can be addressed fully with the integration of better connectivity and access to a data center.
    - Grant funding is currently coming available for security upgrades and Richfield would benefit from cybersecurity measures such as:
        - Systematic backups
        - Yearly Cybersecurity trainings
        - Systematic anti-virus protection
        - Implementation of an account-based system for employees that includes two-factor authentication
        - Utilization of an email system that meets industry standards
    - Richfield would also benefit from enhanced physical security measures such as:
        - Centralized door access control
        - Improved security cameras
- **Technology Life Cycle**

    - Richfield would benefit from a complete 5-year technology plan. Building a comprehensive plan allows for proper budgeting to maintain and improve the technological fleet while improving buying power further saving funds that can be utilized for further improvement projects.
- **City Goals**
    - Achieving the goals of the city are fully possible with proper investment in broadband infrastructure and systematic planned upgrades of municipal equipment.
    - Achieving the implementation of public access points in parks and community centers for citizen use and public safety measures are well within reach with the integration of a comprehensive community owned fiber network infrastructure in place.

Richfield Broadband SWOT Analysis

STRENGTHS	➢ Richfield has strong leadership with collaborative mindsets and strong ties to broader Lincoln County cooperatives. The collaborative efforts and a forward-thinking approach by County and Municipal Leaders are the greatest strength. ➢ Main fiber backhaul is presently ready for “last mile” to deliver broadband to homes, businesses, and schools. ➢ Cost of integrating into large, shared network system is expected to be within the bounds of grant offerings. ➢ Feasibility of completing a broadband project in a relatively quick time frame is possible for this community.
WEAKNESSES	➢ Public education is crucial to success. Only the most fundamental understanding of broadband capabilities and knowledge exists. ➢ While frustrated with current services, most consumers are not informed about why they are getting poor service. Further, they have become desensitized to paying high prices for unsatisfactory service. ➢ Lack of Cybersecurity will need to be addressed including proper education and proactive cybersecurity measures. ➢ Public outreach and education are a crucial part of Lincoln County's and Richfield’s next steps.
OPPORTUNITIES	➢ Competitive pricing for better services, faster speeds, increased reliability, reduced costs, and better business connectivity. ➢ A main backhaul of high-speed fiber access is available from a limited splice point in the city. ➢ Positive impacts on educational and economic growth opportunities, including improved property values. ➢ Increased public connectivity with hotspots in strategic locations in towns, including parks and municipal areas. Increased public safety and utility. ➢ Community-owned infrastructure increasing self-reliance and inviting competitive services that benefit the communities and the consumers.
THREATS	➢ Breakdown in the collaborative efforts is the greatest threat. There is strength in numbers and the shared objectives of Lincoln County. ➢ Community fears, driven by misinformation and propaganda. ➢ Resistance to change and resistance to government intervention. ➢ Lack of education regarding broadbands positive impact on development and growth. ➢ Improperly vetted, predatory third-party partnerships. Consumers hearing about failed projects and towns that have been "fleeced" or "scammed."

Shoshone IT Assessment Summary

Shoshone received a **Very Poor** Broadband and Information Technology Rating.

Broadband

Despite recent population decline, Shoshone serves 1282 citizens, a strong majority of the 5208 citizens in Lincoln County. While statistically, the most connected city in the region, the citizens and city government, in general, strongly feel they are underserved by the current providers. The impression of inadequate service is well supported, as although connectivity is high, quality is low. The average download speed in Shoshone is 5.4 Mbps. Download speeds are 92.3% slower than the average in Idaho and 1629.1% slower than the national average (Broadbandnow4). The thoroughfare that exists is the most underutilized in the region. In Shoshone, similar to other cities in Lincoln County, the appearance of connectivity hides insidious underlying issues. Service plans are generally fairly expensive, with the average price of plans landing at about $70 per month for households in Shoshone. Furthermore, generally these plans have a relatively high cost to speed ratio. High speed internet is only offered by one provider and is limited to less than 50% of households in Shoshone (Broadbandnow4). The lack of competition and lack of incentive to broaden offerings to more of the underserved population on Shoshone emphasizes the importance of community owned fiber infrastructure that incentivizes providers to consider the needs of the populous and city expanding competition and offerings to meet real need.

The Idaho State Department of Education has set clear guidelines indicating that a stable broadband connection is required to ensure remote learning efficacy. They outline minimum bandwidth needs to be at least 25 Mbps download speeds. They also explain that inadequate upload speeds, due to often asymmetrical plan offerings with lower upload speeds, inhibit file uploads and two way communication methods such as video conferencing (RemoteLearning). The recent increase in remote learning over the last year and the increased general reliance on internet-based learning management systems in traditional schooling environments has made the need for reliable, fast, affordable internet in the home an imperative. With generally expensive service plans and low average download speeds, many households in Shoshone are

underserved for their educational needs decreasing opportunities for youth and increasing the chance of future population decline.

Information Technology

Municipal Internet Connectivity

The current bandwidth speed being delivered to City Hall is 10Mbps up by 100Mbps down. Speeds are congruent with the service plan that is being paid for, however the cost of the service is rather high compared to national averages for a cable connection (BroadbandSearch). While the highest municipal speeds were observed at City Hall overall the organization lack sufficient bandwidth to cover all of their needs, and have relatively high costs for the service they currently own.

IT Infrastructure

The area housing the Information Technology equipment is located on main floor in a office approximately 2 foot x 1 foot cupboard. The facility is not adequate for the needs of the organization. The cabling is neither labeled nor organized, and he facility is not properly cooled for the equipment.

Wireless networks were only available at the Library. They are commercial grade with adequate coverage though they are not properly configured to industry standards.

Security

Physical security for the networking equipment is lacking and the network facility is completely accessible. Door access controls for municipal facilities are not present and security cameras are also not installed. A closed-circuit camera system is in development.

Currently there are insufficient cybersecurity measures. The internet is not connected to a firewall, there are not systematic backups in place, nor is there a disaster recovery plan in place. Anti-virus software is being used on end user devices. However, email systems are consumer grade and security for communication is not adequate.

Technology Life Cycle

There are no budgetary plans for device “end of life” cycling. Devices are not standardized and are purchased when needed.

City Goals

At the time of assessment, the city had no stated extra goals, but generally wants to improve capabilities and existing facilities and infrastructure.

Shoshone Preliminary IT Recommendations

- **Broadband**
    - Adequate access to high-quality, high-speed fiber internet is of foundational importance to the growth and improvement of Shoshone’s technological footprint.
    - In Shoshone particularly, the investment in fiber to the home will make the largest impacts on community connectivity and opportunity.
    - Investing in a Lincoln County collaborative infrastructure plan is essential to long term sustainable success and the overall expansion of cyber resources in the area.
- **Municipal Internet Connectivity**
    - Current speeds are not adequate for municipal needs and are costly. Investing in municipal connectivity to fiber should be high priority in Shoshone.
    - Improved municipal connectivity will move the timeline forward for other improvement projects simultaneous to overall city-wide network infrastructure development.
- **IT Infrastructure**

    - Physical servers at this site are adequate. However, the city would benefit from a joint endeavor with Lincoln County, Dietrich, and Richfield to invest in an off-site data center.
    - This investment would offset the eventual costs of upgrading systems through economy of scale and the ability to expand.
- **Security**
    - Grant funding is currently coming available for security upgrades and Shoshone would benefit from cybersecurity measures such as:
        - Systematic backups
        - Yearly Cybersecurity trainings
        - Implementation of an account-based system for employees that includes two-factor authentication
        - Utilization of an email system that meets industry standards
    - Shoshone would also benefit from enhanced physical security measures such as:
        - Centralized door access control
        - Improved security cameras
- **Technology Life Cycle**
    - Shoshone would benefit from a complete 5-year technology plan. Building a comprehensive plan allows for proper budgeting to maintain and improve the technological fleet while improving buying power further saving funds that can be utilized for further improvement projects.

Shoshone Broadband SWOT Analysis

STRENGTHS	➢ Shoshone has strong leadership with collaborative mindsets and strong ties to broader Lincoln County cooperatives. The collaborative efforts and a forward-thinking approach by County and Municipal Leaders are the greatest strength. ➢ Consumer demand and support, driven by ongoing dissatisfaction with current, inadequate, internet services. ➢ Improving the services in Shoshone will reach a large population.
WEAKNESSES	➢ Public education is crucial to success. Only the most fundamental understanding of broadband capabilities and knowledge exists. ➢ This appearance of connectivity and infrastructure. Shoshone though still inadequate, has a relatively high connectivity rate and more extant infrastructure than most of Lincoln County. ➢ While frustrated with current services, most consumers are not informed about why they are getting poor service. Further, they have become desensitized to paying high prices for unsatisfactory service.
OPPORTUNITIES	➢ Competitive pricing for better services, faster speeds, increased reliability, reduced costs, and better business connectivity. ➢ Positive impacts on educational and economic growth opportunities, including improved property values. ➢ Increased public connectivity with hotspots in strategic locations in towns, including parks and municipal areas. Increased public safety and utility. ➢ Community-owned infrastructure increasing self-reliance and inviting competitive services that benefit the communities and the consumers.
THREATS	➢ Breakdown in the collaborative efforts is the greatest threat. There is strength in numbers and the shared objectives of Lincoln County. ➢ Community fears, driven by misinformation and propaganda. ➢ Resistance to change and resistance to government intervention. ➢ Improperly vetted, predatory third-party partnerships. Consumers hearing about failed projects and towns that have been "fleeced" or "scammed."

The Road Ahead: Next Steps

The next steps for Lincoln County are listed below, and Lincoln County has proactively begun both engineering studies, cost analysis, and outreach. Cost analysis and preliminary engineering studies are included in this report following next steps.

1. Finalize comprehensive recommendations for a proposed community owned broadband fiber and wireless fiber infrastructure for the first round of funding (~June 30th, 2021). Preliminary engineering studies, showing high project feasibility, have been summarized in this report. Costs for the proposed infrastructure build have also been estimate utilizing both the engineering studies provided, and data from similar, successful projects realized in other rural areas (e.g., Burley).
    a. Provide a clear "shovel ready" plan for the proposed infrastructure including fiscal sustainability plan.
    b. Provide a clear public narrative derived from public engagement, including educational and business commentary and County and City resolutions.
    c. Provide a collaborative County plan highlighting economy of scale, potential cost savings and cost per household.
    d. Collective and individual statements from the county and individual city leaders.
2. Complete formal public and business internet access connectivity and service perception surveys.
    a. Surveys have already been created and thoroughly vetted.
        i. Municipal - https://www.surveymonkey.com/r/LincolnMunicipal
        ii. Community - https://www.surveymonkey.com/r/LincolnCountyID
        iii. Business - https://www.surveymonkey.com/r/LCIDBusiness
    b. Mailers have been created and are in the process of being sent to households in Lincoln County (**Appendix C**).
3. Create a comprehensive community outreach and engagement program to properly inform and educate the citizens.
4. Apply for appropriate grants and funding through State and Federal sources. Incorporate the resources available through RIVDA, the Idaho Department of Commerce and other trusted partners.
5. Upon approval of federal or state grants, seek through an approved Request for Proposal Process (RFP) the contractors (engineering and construction) needed to build the proposed infrastructure.

During construction, through a similar RFP process, identify a network management partner

Engineering Study Summaries

After completion of the IT Assessments, ETS recommended engineering studies be performed to further address methodology, cost, and more exact measures of project feasibility for building a complete highspeed broadband network. The engineering studies deliver a firm but flexible connectivity plan that provides the road from **Very Poor** to **Excellent** technological capabilities to meet Lincoln County's **Elements of Success**.

These studies were completed by the independent consulting and engineering firm, Rocky Mountain West Telecom (RMWT). The studies yielded positive results with detailed plans that give Lincoln County and the cities within a head-start on shovel ready plans. The following sections contain a *Lincoln County Preliminary Broadband Cost Analysis* and summaries of the engineering plans provided by RMWT. The complete engineering studies and preliminary cost analyses can be referenced in **Appendix B.**

The total costs as determined by the preliminary engineering studies and informed by previous build costs are shown below. The total cost for Lincoln County to improve its broadband connectivity is estimated to be $6,017,041.32. The cost per household is estimated to be $3,438 assuming a take rate of approximately 70%, or about 1750 homes and businesses, of the 2017 households and 500 businesses in Lincoln County. *It is important to note that these numbers are inclusive of wireless towers to reach rural homes and fiber to the home at terminus.* These numbers including labor, engineering,

project management, and materials. This estimated is considerably more economical that previous submissions by other entities.

Lincoln County	Costs	Per Household
Shoshone	$2,800,561.68	
Richfield	$1,790,106.90	
Dietrich	$1,426,372.74	
Totals	**$6,017,041.32**	**$3,438.00**

Dietrich Engineering Summary

The following is an explanation of the design and cost analysis report for the Dietrich, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Dietrich, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with City of Dietrich to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed two separate splitter cabinets. We have placed a ring feeder fiber to each of these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as

much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the Pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $10,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

An additional consideration that we will need to factor is yearly attachment fees established by the pole owner. For every pole we are attached to, the pole owner will charge us a yearly fee to attach to that pole, we believe $8-$12 per pole is a great price. Any price higher and we will want to complete a cost comparison taking into consideration maintenance, costs over depreciation, etc. to concur that aerial will be the best scenario long term.

Funding and Environmental

Great ways to fund these types of projects is through USDA-RUS, State Funded or other funding models. The great thing about allowing Century Link or another carrier be our back-haul provider is that we do not have to deal with federal or state undertakings due to being on federal or state lands. Although, with most funding models whether they are state or federal programs, they will require environmental work of some type be completed. This is imperative when putting an application together with these programs. We suggest that prior research is done when completing these applications to properly consider appropriate costs.

Explanation of Costs

We estimate the construction of this project to be somewhere around $1,426,372.74 including labor, engineering, project management, and materials. This number is estimated to be a 2022/2023 build, so we have taken into consideration increases in construction and material costs. This estimate also includes drop placement costs to each and every subscriber in town limits as well as GPON Electronic and cabinet costs. If we were to complete a government funded application, we would want to allocate costs for inspection, environmental work, etc. that would increase project costs to meet requirements but would create less costs for the city.

Richfield Engineering Summary

The following is an explanation of the design and cost analysis report for the Richfield, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Richfield, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with City of Richfield to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed three separate splitter cabinets. We have placed a ring feeder fiber to each of these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $30,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

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Shoshone Engineering Summary

The following is an explanation of the design and cost analysis report for the Shoshone, Idaho *Fiber to the Home* project. This report summary was prepared for The City of Shoshone, Idaho by Rocky Mountain West Telecom (RMWT).

Introduction

The plan outlines the launch of a Fiber-To-The-Home (FTTH) Technology Network to provide high-speed internet services. The new services provided will create opportunities for Tele-medicine, Tele-Education, and Voice-Over-Internet-Protocol capabilities, month-to-month subscriptions to avoid lengthy contracts, subsidized rates for low-income subscribers, and dark fiber leasing, all with reliable and high-speed connectivity. Having fiber optic service increases home values as well as creates opportunities for commerce by narrowing the gap between rural and urban areas. ETS and their contractors are committed to working with City of Shoshone to make this possible. Rocky Mountain West Telecom (RMWT) has completed an Outside Plant Design, an Opinion of Cost, as well as some other variations that we would want to consider in planning our FTTH Project.

Explanation of Design

We implemented a GPON Network into this design that will feed two separate splitter cabinets. We have placed a ring feeder fiber to each of these cabinets as well as looped this fiber back to origination to create redundancy. This has created three separate serving areas that we believe will be best for cost as well as management of the infrastructure. From these splitter cabinets we have established a distribution network to address every home within city limits. Within the design, you will see units that are specified in the RUS 515 Handbook. We have utilized the existing pole infrastructure as much as feasibly possible to obtain a low-cost solution as well as a path of least resistance.

Arial Infrastructure

With the pros of utilizing existing power pole infrastructure, it also comes with some things that we will want to take into consideration. Where there may be locations that we would create an NESC Violation with our attachment we would have to request that the pole owner “make-ready” or “change-out” the pole. This does create additional costs. Make-Ready costs may range from $1,200-$3,000 while Pole Changeouts will range from $5000-$15,000 per pole. Initial site research done from google earth has given us the conclusion that we may want to allocate a budget of $30,000 for pole changeouts and make ready work. This number is an estimate and will need field engineering for verification.

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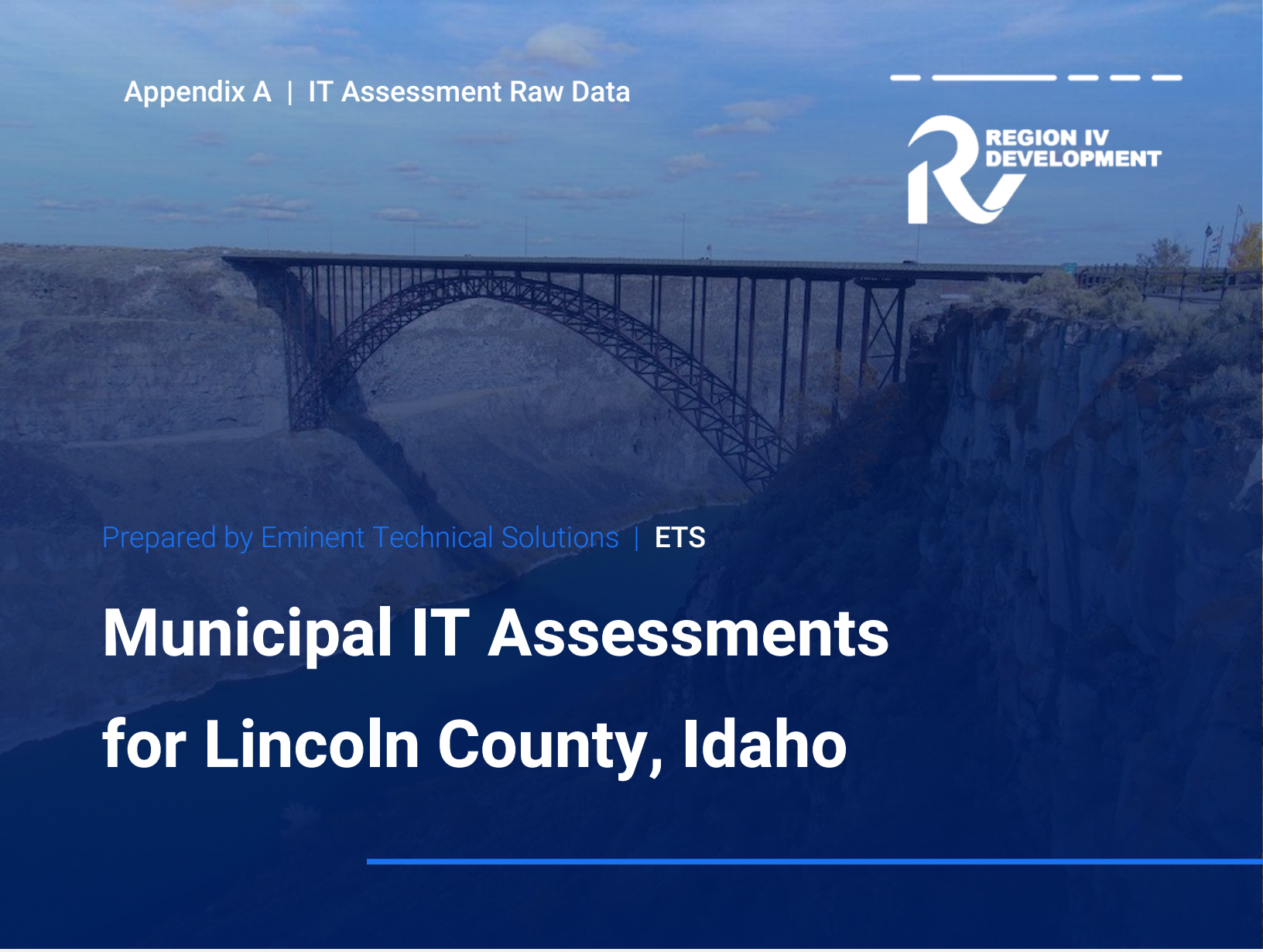
Explanation of Costs

We estimate the construction of this project to be somewhere around $ 2,800,561.68 including labor, engineering, project management, and materials. This number is estimated to be a 2022/2023 build, so we have taken into consideration increases in construction and material costs. This estimate also includes drop placement costs to each and every subscriber in town limits as well as GPON Electronic and cabinet costs. We would also estimate field engineering to be somewhere around $96,000. If we were to complete a government funded application, we would want to allocate costs for inspection, environmental work, etc. that would increase project costs to meet requirements but would create less costs for the city.

REGION IV DEVELOPMENT



Prepared by Eminent Technical Solutions | ETS

Municipal IT Assessments for Lincoln County, Idaho

The Path for Community Development

Assisting communities in Region IV to proactivity prepare Broadband Internet, Technology, Cybersecurity, and Telehealth plans to improve outcomes.

Lincoln County IT Assessment

Executive Summary

The purpose of this assessment is to assist communities in Region IV in proactively preparing Broadband Internet, Technology, Cybersecurity and Telehealth plans to improve outcomes. This assessment with corresponding plans of action will provide a clear path for development of these valuable resources as well as options for sustainment of these foundational community tools into the future. With this plan communities will be better positioned when opportunities such as Federal and State funds become available. The information contained in this assessment will help communities complete grant applications and possibly provide a competitive advantage. Those communities who have taken the initiative to prepare, will have compelling plans with clear narratives, and will be in a much better position for future opportunities for funding and partnerships.

To this end Region IV has been proactively reaching out to communities to help start this process and has engaged with a partner ETS that will complete these assessments at no cost to the parties wishing to participate. *To be clear there is no obligation, the assessment is comprehensive and of no cost whatsoever to the communities. It does not obligate a community to any provider or solution but is solely intended to provide accurate and timely information to those decision makers and planners to help guide them now and in the future.*

IT Audit

Preparers

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CTO / Lead Engineer	Director of Operations	IT Consultant

Contributors

Rebecca Wood – Commissioner District 2

Brenda

The physical IT Assessment was performed on 2/23/2021.

Properties and General Information

- IT Service Provider: Stephenson's Computer consultant of Twin Falls (also service Sircom co-op) 208-733-4747
- 3 Cities Comprise Lincoln County: Richfield, Shoshone, Dietrich
    - Taxes for the cities
    - Highway Districts
    - Ordinances and Governances of the county (rules and regulations)
    - Sheriff is over all 3 Cities and the County: Drivers Licenses
    - Ambulance, Dispatch, Elections, Marriages, Passports, Courts
    - Assessor's Office: Car Registrations
    - Planning and Zoning
- External:
    - Probation Office
    - Lincoln County Ambulance
    - 4H Office

    - Fairgrounds
    - Lincoln County Youth Center (Need Broadband)
- School districts
    - Shoshone School District
    - Richfield School District
    - Dietrich School District.
- Libraries
    - Support for Shoshone City Library
    - Support for Richfield City Library
- Joint Business Support:
    - Sircomm 911 joint venture with other counties
    - South Central Public Health

Internet and Broadband

Municipal Commentary

Fiber is available but it is not activated and dispersed to Business clients or Citizens

Do you see the county Broadband internet playing an important role in all the county services/needs? Yes, it plays a big part in each of the county Services and buildings

Are you currently satisfied with the internet (Broadband) connection? If not, Why? (Stability, outages, slow)? Not Satisfied

1. Not Stable
2. Slow
3. Interruptions
4. Outage happens once per week.

What services would you use if you had access to city wide private broadband?

- ☒ Security Systems (Camera's and alarms)
- ☒ Door Access Control
- ☐ SCADA
- ☒ Telehealth

- ☒ City Community Center
- ☒ Public Wi-Fi in Parks and County owned and operated areas
- ☒ Remote Education Resources

Broadband Commentary

Structured commentary from contributors on local internet availability and quality.

Rebecca: SafeLink / $85/month

Brenda: SafeLink / $60-$70/month

1. Who are the internet service providers in your area?
   SafeLink, Cable-one, PMT, Sparklight

2. What level of service is being provided?
   - ☐ Poor: 0-10Mbps
   - ☒ Good: 10-25Mbps
   - ☒ Better: 25-100Mbps
   - ☐ Best: 100-1000Mbps

3. What are citizens using the internet for?
   - ☒ Personal Entertainment
   - ☒ Telehealth
   - ☒ Education
   - ☒ Work
   - ☐ Water/Infrastructure
   - ☐ Public Safety
   - ☐ Agriculture

4. What is the general cost of service? $60-$100/month
5. How do citizens rate their service?
   - What do you like about your internet?

- Are you happy with your internet speeds?
- What are your speeds?
- What is your cost per month for these speeds?

6. Would you be interested in receiving better internet service? Yes

7. If you had $40-$60 in your budget available for other expenses, what would you be able to do with that cost savings?

Municipal Internet Connectivity

The Internet Service Provider is Cable One (Spark light) utilizing a cable connection. The bandwidth speed being delivered to Court house is 15 Gbps up by 110 Gbps down and all other buildings is 5Mbps/2.5Mbps. Based upon the needs of the organization, the bandwidth speed is deemed to be inadequate. Upon reviewing past invoices, the monthly cost of the current connection is $158.94. The speeds observed throughout the organization are congruent with what is being paid for.

Physical Facilities

- Organization owned buildings (Qty): 10
    - Court House
    - 2 x Trailers
    - Probation Office
    - Cooperative Extension Community Building
    - Fairgrounds
    - Maintenance and (Ambulance, Sheriff impound)
    - Youth Center (Richfield)
    - DMV Building
    - Masonic Lodge

- Organization owned Towers (Qty): 1
    - Only Sircom ¼ share co-op

- Does the organization own fiber or wireless infrastructure for interconnect? Yes
    - Not connected.

The area housing the Information Technology equipment is located on main floor in a room approximately 12x12 foot. The area is well organized, but is not specifically designed for housing technology. The area is well ventilated and cool but is not ideal for the network equipment. The equipment is unlocked and unsecure.

The cable infrastructure consists of Cat5e. The cabling is in disarray and not labled.

Network Infrastructure

Public IP Block

The organization currently does not have a public IP Block.

Firewall

At the time of the assessment, details for the firewall technology were unavailable.

Core Router and Switches

There is 1 core network router in place. It is12 Port Catalyst managed layer 3 router. The core network router is corporate grade Additionally, there are 2 x 24 Port Cisco edge network switch in place and 1 x 24 Port Unifi Layer 2 Switch.

Wireless Network

At the time of the assessment, details for the firewall technology were unavailable.

Wireless signal throughout the facilities provides inadequate coverage, and is a non-seamless connection. The wireless network is configured improperly based on industry standard and needs of the organization.

The IP configuration of the wireless network appears to be a flat network and not segmented to adhere to proper security configurations.

DNS and Web Presence

The County Manages their own website: http://lincolncountyid.us/ via word press functionality.

The overall status of the external DNS structure is fair.

The organization has the following registered domain names: lincolncountyid.us The registrar is listed as Rusty Parker. This should be registered and listed under the city with a city email contact.

The organization currently has a website in place using the URL : http://lincolncountyid.us The website does not have points of entry for employees or clients (ie. Login option for specific web applications). The website was built using Wordpress. Media links pointing to social media are not present. The organization has low SEO positioning.

Server Configurations

Physical Servers

The following **physical servers** are present onsite:

Model	Specifications	Server Function
IBM Power S914	Storage: Not Available RAM: Not Available Processors: Not Available OS: Not Available Warranty: Not Available	Not Available

The physical appearance of the server(s) is dusty and dirty. The physical servers were note bale to be determined if they are built using industry standard. Based on their condition and functionality, replacement of the physical servers is recommended. The login credentials are not provided.

Virtual Servers

There may be virtual server in place but due to the IT provider not present during assessment we were not able to obtain this information.

Virtualization Product	Designated Specifications	Server Function
Not Available	Storage: Not Available RAM: Not Available Processors: Not Available OS: Not Available	Not Available

The virtual server(s) may be configured properly based upon industry standard. Based on their condition and functionality, reconfiguration [is/is not] recommended.

It was not fully determined if the current IT provider has a backup system in place. There is a storage device on premise with unknown storage amount.

Cybersecurity, Disaster Recovery, and Security Monitoring

At the time of the assessment limited data was available for network security protocols. It appears that protocols that meet industry standards are not in place.

There is anti-virus installed on end-user devices. The product used is Misc freeware anti-virus.

Backups/Disaster Recovery

There are not adequate backup procedures in place to protect the data of the organization.

There is not a disaster recovery plan in place.

Security Monitoring

The support provider for the security system is N/A. There is not a door access control system in place. There is a camera system in place. It is a closed circuit camera system and the camera data is hosted onsite using Misc Lorex. The camera types include: Misc Models.

Computers, Devices, and Systems Configurations

The exact inventory of systems was not provided. Though the following operating system(s) installed on the systems is/are: Win 7 pro, Win 8, Win 10 Pro. The end-user devices are attached to a domain, and do utilize user profiles. There is not a standard configuration on end-user devices. A replacement schedule is not set up and followed.

Software

The organization uses the following specialized software programs: ArcGIS, Driver's License and Registration, AS400

Email Configuration

The email system used is Hostway. This is a consumer grade email system. Proper security protocols are not in place. There is not data redundancy. The email is smart phone and tablet capable. A lot of users use their own personal Gmail accounts with their own passwords.

Telephone System

The organization is currently using a analog phone system. The backend system is Mitel and the phone handsets are Mitel. The support provider for the phone system is Datatel, and Centurylink/Lumen provides 9 phone lines. The monthly cost for the phone system is $765.58.

Notes

Linda Jones (Assessor/GIS): Can assist with mapping and census data information

Courts:
Request for Audio Recording System Improvement
Security Cameras are needed

Dietrich IT Assessment

Executive Summary

The purpose of this assessment is to assist communities in Region IV in proactively preparing Broadband Internet, Technology, Cybersecurity and Telehealth plans to improve outcomes. This assessment with corresponding plans of action will provide a clear path for development of these valuable resources as well as options for sustainment of these foundational community tools into the future. With this plan communities will be better positioned when opportunities such as Federal and State funds become available. The information contained in this assessment will help communities complete grant applications and possibly provide a competitive advantage. Those communities who have taken the initiative to prepare, will have compelling plans with clear narratives, and will be in a much better position for future opportunities for funding and partnerships.

To this end Region IV has been proactively reaching out to communities to help start this process and has engaged with a partner ETS that will complete these assessments at no cost to the parties wishing to participate. *To be clear there is no obligation, the assessment is comprehensive and of no cost whatsoever to the communities. It does not obligate a community to any provider or solution but is solely intended to provide accurate and timely information to those decision makers and planners to help guide them now and in the future.*

IT Audit

Preparers

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CTO / Lead Engineer	Director of Operations	IT Consultant

Contributors

Deborah Moon – Mayor – 208.544.2102 – **deborahmoon@dietrichidaho.com**
Taylor Astle – City Clerk – **clerk@dietrichidaho.com**

The physical Broadband Assessment was performed on 5/25/2021.

Properties and General Information

- **City Employees (Qty:):** 2 (Clerk and Maintenance)
- **Organization owned buildings (Qty):** 1 maybe more
- **Lift Stations: 0**
- **Wells:** 1 well that houses pump to the tank
- **Organization owned Towers (Qty):** 0
- **Does the organization own fiber or wireless infrastructure for interconnect?** None that they are aware of
- **Irrigation:** Dietrich takes payment for irrigation (that goes back to water control), but does not control water
- **Does the Organization own any Conduit or Innerduct?** None that they are aware

- **Does the City own a utility Easement on poles for ariel runs?** They believe so.
  - Through Idaho power
- **Departments operated by the city:**
  - City Park
  - Sewer
  - Infrastructure and Roads
  - Water
  - Maintenance
- **SCADA and Process Control:** No

Internet and Broadband

Broadband Commentary

Structured commentary from contributors on local internet availability and quality.

1. Who are the internet service providers in your area?
   Filler, Safelink, Centurylink, Whitecloud

2. What level of service is being provided?
   - [x] Poor: 0-10Mbps
   - [ ] Good: 10-25Mbps
   - [ ] Better: 25-100Mbps
   - [ ] Best: 100-1000Mbps

4. What is the primary use of your internet connection?
   - [ ] Personal Entertainment
   - [ ] Telehealth
   - [ ] Education
   - [ ] Work
   - [ ] Water/Infrastructure
   - [ ] Public Safety
   - [ ] Agriculture

3. What is the general cost of service?
   $69/month
4. How do citizens rate their service:
   - What do you like about your internet?
   - Are you happy with your internet speeds? No,
   - What are your speeds? 10-15Mbps
   - What is your cost per month for these speeds? $69

5. Would you be interested in receiving better internet service?

6. If you had $40-$60 in your budget available for other expenses, what would you be able to do with that cost savings?

Municipal Internet Connectivity

The Internet Service Provider is Speedconnect. The plan speed appears to be “up to 15Mbps”. The bandwidth speed being delivered is 0.5 Mbps up by 0.89 Mbps down. Based upon the needs of the organization, the bandwidth speed is deemed to be inadequate. Monthly bill $55.90.

Physical Facilities

There is not an ideal area present for housing the Information Technology equipment. The area is disorganized and is not specifically designed for housing technology. The area is not well ventilated and hot which is not ideal for the network equipment. The equipment is unlocked and unsecure.

The cable infrastructure consists of Cat5e. The cabling is well organized and labled.

Network Infrastructure

Public IP Block:

The organization currently does not have a public IP Block.

Firewall

The internet is connected into a Unknown firewall which is consumer grade grade. The firewall is improperly configured based on industry standards.

Core Router and Switches

At the time of the assessment, this technology was not present.

Wireless Network

At the time of the assessment, details were not available.

DNS and Web Presence

The organization has the following registered domain names:
https://dietrichidaho.com/

Server Configurations

Physical Servers

There are no **physical servers** present onsite.

Virtual Servers

There are no **virtual servers** present.

Cybersecurity, Disaster Recovery, and Security Monitoring

There are not network security protocols in place. The virus and spyware protection products are not present. Boundary security including intrusion detection and intrusion prevention is not setup using.

There is not anti-virus installed on end-user devices. The product used is Windows defender.

Backups/Disaster Recovery

There are not backup procedures in place to protect the data of the organization.

There is not a disaster recovery plan in place.

Security Monitoring

There is not security monitoring in place, and they do not have any cameras or door access control in place.

Computer, Device, and Systems Configurations

There are approximately 1-3 end-user devices throughout the organization. The end-user devices are not attached to a domain, and do not utilize user profiles. There is not a standard configuration on end-user devices. A replacement schedule is not set up and followed.

Software

The organization uses the following specialized software programs: Cassell for water, QuickBooks for accounting and Microsoft Office or online web applications for office use.

Email Configuration

The email system is currently in place using a basic web host included service.

Telephone System

The organization is currently using a analog phone system. The support provider for the phone system is CenturyLink, and Centurylink provides the phone lines. The monthly cost for the phone system is $64.03 for the one phone line in City Hall.

Notes

Goals:

1. SCADA and Process Controls
2. Internet available to public in parks or community center

Richfield IT Assessment

Executive Summary

The purpose of this assessment is to assist communities in Region IV in proactively preparing Broadband Internet, Technology, Cybersecurity and Telehealth plans to improve outcomes. This assessment with corresponding plans of action will provide a clear path for development of these valuable resources as well as options for sustainment of these foundational community tools into the future. With this plan communities will be better positioned when opportunities such as Federal and State funds become available. The information contained in this assessment will help communities complete grant applications and possibly provide a competitive advantage. Those communities who have taken the initiative to prepare, will have compelling plans with clear narratives, and will be in a much better position for future opportunities for funding and partnerships.

To this end Region IV has been proactively reaching out to communities to help start this process and has engaged with a partner ETS that will complete these assessments at no cost to the parties wishing to participate. *To be clear there is no obligation, the assessment is comprehensive and of no cost whatsoever to the communities. It does not obligate a community to any provider or solution but is solely intended to provide accurate and timely information to those decision makers and planners to help guide them now and in the future.*

IT Audit

Preparers

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Contributors

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Lea'ven Hatch – 208.420..2395 – **lhatch@glanbia.com**

The physical Broadband Assessment was performed on 3/30/2021.

Properties and General Information

- **City Employees (Qty:):** 4
    - 3 Full time Public Works
    - 1 Part time
- **Organization owned buildings (Qty):** 6 total buildings
- **Lift Stations:** 0
- **Wells:** 4
- **Organization owned Towers (Qty):** 1 (Functional)
- **Does the organization own fiber or wireless infrastructure for interconnect?** None
- **Irrigation:** City owns water rights sold to areas in town coupled with property owner's water rights.
- **Does the Organization own any Conduit or Innerduct?** None
- **Does the City own a utility Easement on poles for ariel runs?** Yes
    - Through Idaho power
- **Departments operated by the city:**
    - Public Works

    - Recreation
    - Water
    - Wastewater
    - Streets
    - Administration
- **SCADA and Process Control:** Yes
        - With email notifications

Internet and Broadband

Broadband Commentary

Structured commentary from contributors on local internet availability and quality.

1. Who are the internet service providers in your area?
   Filler, Safelink(on tower), Centurylink, Whitecloud

2. What level of service is being provided?
   - ☒ Poor: 0-10Mbps
   - ☐ Good: 10-25Mbps
   - ☐ Better: 25-100Mbps
   - ☐ Best: 100-1000Mbps

5. What is the primary use of your internet connection?
   - ☐ Personal Entertainment
   - ☐ Telehealth
   - ☐ Education
   - ☐ Work
   - ☐ Water/Infrastructure
   - ☐ Public Safety
   - ☐ Agriculture

4. What is the general cost of service?
   $69/month
5. How do citizens rate their service:
   - What do you like about your internet?
   - Are you happy with your internet speeds? No,
   - What are your speeds? 10-15Mbps
   - What is your cost per month for these speeds? $69

6. Would you be interested in receiving better internet service?

7. If you had $40-$60 in your budget available for other expenses, what would you be able to do with that cost savings?

Municipal Internet Connectivity

The Internet Service Provider is Safelink utilizing a wireless connection. The bandwidth speed being delivered is 3 Mbps up by 15Mbps down. Based upon the needs of the organization, the bandwidth speed is deemed to be inadequate. Upon reviewing past invoices, the monthly cost of the current connection was not provided though in asking what the price was for the speeds given it is not sufficient compared to Idaho proper and national industry standard.

Physical Facilities

The area housing the Information Technology equipment is located on main floor in a closet approximately 2 ft x 2 ft. The area is disorganized and is not specifically designed for housing technology. The area is not well ventilated and hot which is not ideal for the network equipment. The equipment is unlocked and unsecure.

The cable infrastructure consists of Cat5e. The cabling is well organized and labled.

Network Infrastructure

Public IP Block:

The organization currently does not have a public IP Block.

Firewall

The internet is connected into a Unknown firewall which is consumer grade grade. The firewall is improperly configured based on industry standards.

Core Router and Switches

There is 1 4 port Ubiquiti Edge core network router in place. It is managed layer 2 router. The core network router is consumer grade Additionally, there is 1 x 24 port edge network switch in place. They are 24 Port 1GB Switch Cudy and is an unmanaged layer 2 switch.

Wireless Network

The wireless network is comprised of 1 x Unifi Lite. These are corporate grade wireless access points. Wireless signal throughout the facilities provides adequate coverage and is a seamless connection. The wireless network is configured improperly based on industry standard and needs of the organization.

The IP configuration of the wireless network is flat and not segmented.

DNS and Web Presence

The organization has the following registered domain names:
http://www.cityofrichfield.us.

Server Configurations

Physical Servers

There are no **physical servers** present onsite.

Virtual Servers

There are no **virtual servers** present.

Cybersecurity, Disaster Recovery, and Security Monitoring

There are not network security protocols in place. The virus and spyware protection products are not present. Boundary security including intrusion detection and intrusion prevention is not setup using.

There is not anti-virus installed on end-user devices. The product used is Windows defender.

Backups/Disaster Recovery

There are not backup procedures in place to protect the data of the organization.

There is not a disaster recovery plan in place.

Security Monitoring

There is not security monitoring in place, and they do not have any cameras or door access control in place.

Computer, Device, and Systems Configurations

There are approximately 3 end-user devices throughout the organization. The following model(s) were observed: HP Pro Desk. The operating system(s) installed on the systems is/are: Windows 10 and Windows XP. The end-user devices are not attached to a domain, and do not utilize user profiles. There is not a standard configuration on end-user devices. A replacement schedule is not set up and followed.

Software

The organization uses the following specialized software programs: Cassell for water, QuickBooks for accounting.

Email Configuration

The email system is not in place currently. Their IT team is working towards a new email platform.

Telephone System

The organization is currently using a analog phone system. The backend system is POTS and the phone handsets are ATT EP5962. The support provider for the phone system is CenturyLink, and Centurylink provides the phone lines. The monthly cost for the phone system was not provided.

Notes

Goals:

1. SCADA and Process Controls
2. Internet available to public in parks or community center

IT Support Company:
Total Techs: Kevin Emery is the technician out of twin falls

Shoshone IT Assessment

Executive Summary

The purpose of this assessment is to assist communities in Region IV in proactively preparing Broadband Internet, Technology, Cybersecurity and Telehealth plans to improve outcomes. This assessment with corresponding plans of action will provide a clear path for development of these valuable resources as well as options for sustainment of these foundational community tools into the future. With this plan communities will be better positioned when opportunities such as Federal and State funds become available. The information contained in this assessment will help communities complete grant applications and possibly provide a competitive advantage. Those communities who have taken the initiative to prepare, will have compelling plans with clear narratives, and will be in a much better position for future opportunities for funding and partnerships.

To this end Region IV has been proactively reaching out to communities to help start this process and has engaged with a partner ETS that will complete these assessments at no cost to the parties wishing to participate. *To be clear there is no obligation, the assessment is comprehensive and of no cost whatsoever to the communities. It does not obligate a community to any provider or solution but is solely intended to provide accurate and timely information to those decision makers and planners to help guide them now and in the future.*

IT Audit

Preparers

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CTO / Lead Engineer	Director of Operations	IT Consultant

The physical Broadband Assessment was performed on 3/11/2021.

Properties and General Information

- City Employees: **9**
- Organization owned buildings (Qty): **3 City Hall, Sewer Treatment, Public Works**
- Parks: **3**
- Lift Stations: **5 total**
  - John Peyman or Bill Hays
- Wells: **3**
- Organization owned Towers (Qty): **Water tower (Lease Agreements needed)**
- Is their fiber, wireless infrastructure or interconnect in place? (Y/N): **No**
- Does the Organization own any Conduit or Innerduct: (Y/N): **Yes, Under Railroad Tracks**
- Does the City own a utility Easement on poles for ariel runs: (Y/N): **Doesn't know at the time of assessment.**

Internet and Broadband

Broadband Commentary

Structured commentary from contributors on local internet availability and quality.

1. Who are the internet service providers in your area?

   SafeLink(water-tower), Whitecloud, Sparklight, CenturyLink, AT&T(water-tower), Syringa Networks

2. What level of service is being provided?
   - ☐ Poor: 0-10Mbps
   - ☐ Good: 10-25Mbps
   - ☒ Better: 25-100Mbps
   - ☐ Best: 100-1000Mbps

3. What is the primary use of your internet connection?
   - ☐ Personal Entertainment
   - ☐ Telehealth
   - ☐ Education
   - ☒ Work
   - ☐ Water/Infrastructure
   - ☐ Public Safety
   - ☐ Agriculture

4. What is the general cost of service?
   $60-$150
5. How do citizens rate their service:
   - What do you like about your internet? Average for the area.
   - Are you happy with your internet speeds? No
   - What are your speeds? Unknown
   - What is your cost per month for these speeds? $60-$120

6. Would you be interested in receiving better internet service? Yes

Municipal Internet Connectivity

The Internet Service Provider is Sparklight utilizing a cable connection. The bandwidth speed being delivered is 10Mbps up by 100Mbps down. Based upon the needs of the organization, the bandwidth speed is deemed to be inadequate. Upon reviewing past invoices, the monthly cost of the current connection is $135.81. The speeds observed throughout the Organization are congruent with what is being paid for.

Sampling of Business Internet Services at Shoshone City Buildings:
City Hall is $135.81 for 100Mbps/10Mbps

- City Hall: $67.90
- Police: $67.91
- Sewer: $36.37
- Water: $36.37

Library Internet is $93.98 for 50Mbps/5Mbps (After 50% E-rate Credit)

Physical Facilities

The area housing the Information Technology equipment is located on main floor in a office approximately 2 foot x 1 foot cupboard. The area is disorganized and is designed for housing technology. The area is not well ventilated and hot which is not ideal for the network equipment. The equipment is unlocked and unsecure.

The cable infrastructure consists of Cat3 to phones and Cat5e patch cables to computers. The cabling is in disarray and not labled.

Network Infrastructure

Public IP Block:

The organization currently does not have a public IP Block.

Firewall

The internet is not connected into an enterprise grade firewall.

Core Router and Switches

There is 1 netgear network router in place. It is an 8 port 1 GB unmanaged layer 2 router. The core network router is consumer grade Additionally, there is 1 edge network switch in place in the library. It is a 24 port managed layer 2 switch.

Wireless Network

The wireless network is only present in the library and is comprised of Cisco Access Points. These are corporate grade wireless access points. Wireless signal throughout the facilities provides adequate coverage and is a seamless connection. The wireless network is configured improperly based on industry standard and needs of the organization.

The IP configuration of the wireless network was based on a flat network topology.

The wireless SSIDs observed are: Shoshone City and Shoshone Patron Free Wireless

The wireless passwords were not provided.

DNS and Web Presence

The organization has the following registered domain names:
https://www.shoshonecity.com/

The website does not have points of entry for employees or clients (ie. Login option for specific web applications). Media links pointing to social media are present. The organization has low SEO positioning.

Server Configurations

Physical Servers

The following **physical servers** are present onsite:

Model	Specifications	Server Function
Power Edge T140	Storage: 2TB 7200RPM RAM: 32GB 2 x 16GB Processors: Intel Xeon E-2124 3.3GHz OS: Windows SERVER 2016 Standard Warranty: EXP SEP 26 2022	ACCOUNTING, DOMAIN

The physical appearance of the server(s) is clean. The physical server(s) are configured improperly based upon industry standard. Based on their condition and functionality, replacement of the physical servers is not recommended. The login credentials are not provided.

Virtual Servers

There are no **virtual servers** present.

There is a backup system in place. There is not any enterprise level backup devices present.

Cybersecurity, Disaster Recovery, and Security Monitoring

There are not network security protocols in place. Boundary security including intrusion detection and intrusion prevention is not setup in the current environment.

There is anti-virus installed on end-user devices. The product used is Vipre Endpoint.

Cyber Liability is in place and the city has had 1 incident or breach in the past 5 years. Stephensons IT provides the security for the computers.

Backups/Disaster Recovery

There are not backup procedures in place to protect the data of the organization. If so: The backups are performed daily but they are not audited regularly. The backups are performed offsite through an online product

There is not a disaster recovery plan in place.

Security Monitoring

The support provider for the security system is Not Applicable. There is not a door access control system in place. There is not a camera system in place. The City will be implementing It is a closed circuit camera system and the camera data is hosted onsite using Night Owl Costco. The camera types include: Bullet.

Computer, Device, and Systems Configurations

There are approximately 4 end-user devices throughout the organization. The following model(s) were observed: OptiPlex, Dell Inspiron. The operating systems installed on the systems is/are: Windows 10 Pro. The end-user devices are attached to a domain, and do not utilize user profiles. There is not a standard configuration on end-user devices. A replacement schedule is not set up and followed.

Software

The organization uses the following specialized software programs: Vipre, Microsoft Office, Accounting Software, Web Applications.

Email Configuration

The email system used is hosted with Yahoo @shoshonecity.com. This is a consumer grade email system. Proper security protocols are not in place. There is not data redundancy. The email is smart phone and tablet capable.

Telephone System

CLINK for 3 lines basic business system the organization is currently using a analog phone system. The backend system is Analog and the phone handsets are AT&T Advacn4d American Telephones. The support provider for the phone system is not available, and Centurylink provides the phone lines. The monthly cost for the phone system is $171.40, $184 for analogs long distance is around $44 for long distance under 208-886-2030-365B

Notes

Stephensons IT provides the security for the computers.

$184 for 3 POTS lines phone numbers for 3 pots line
$44 month for long distance

Reference Pic of order receipt of unifi gear:
9 x UVC-G4-Pro

3 x US-8-60W

6 x Nanastation5 US

2 x US-8-150W

1 x UCK-G2-Plus Cloud Key Gen 2

1 x UNVR 4 bay

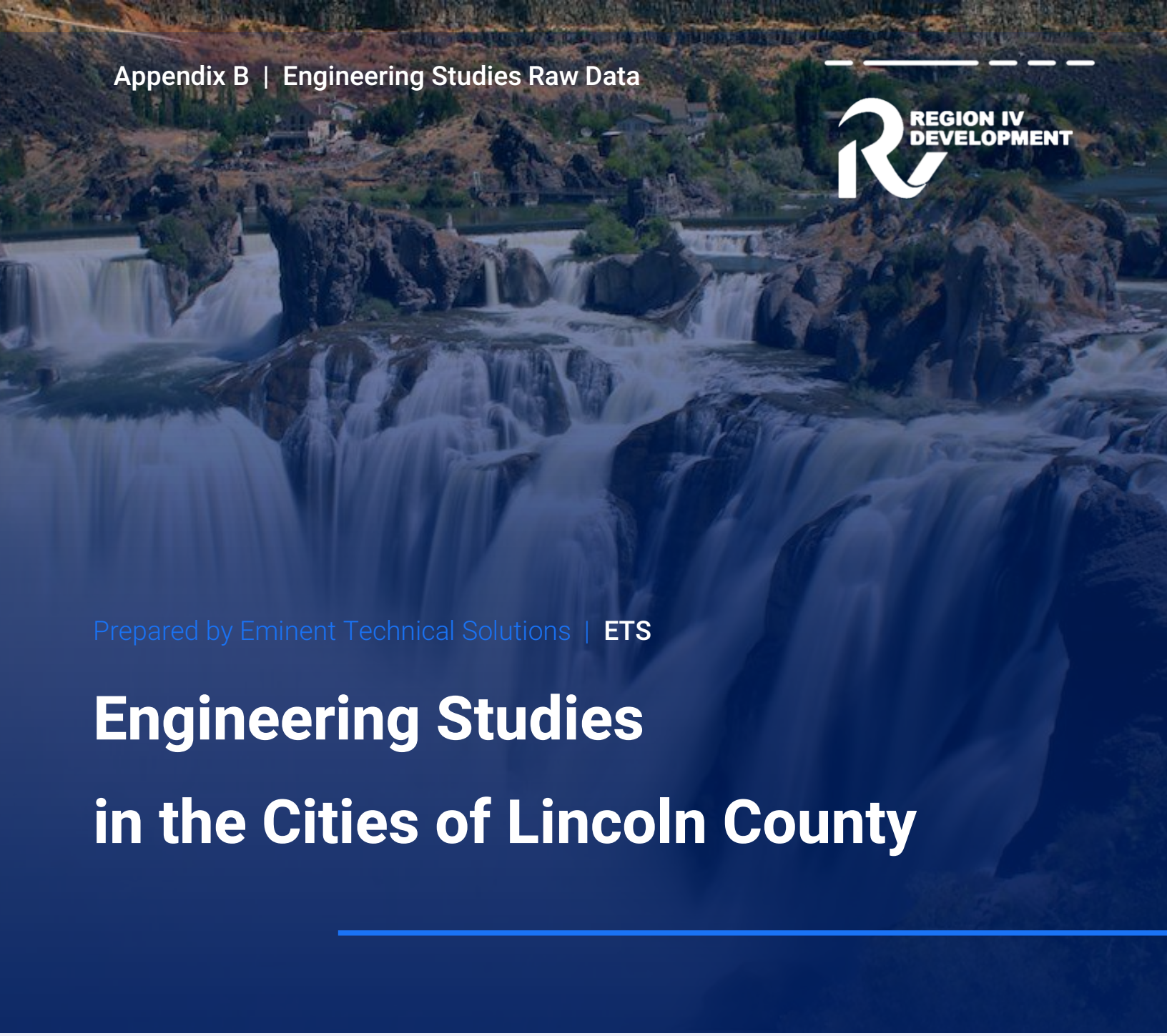
1 x 6TB

1 x USG Pro

Post Meeting Follow-up Item:

The City of Shoshone completed a recent project providing wireless internet to the Shoshone city park along with all 9 cameras that were available during the IT Assessment.

REGION IV DEVELOPMENT



Prepared by Eminent Technical Solutions | ETS

Engineering Studies in the Cities of Lincoln County

An overview of the preliminary costs and materials associated with bringing **Broadband Internet** services to the Cities of Dietrich, Richfield, and Shoshone.

Dietrich Engineering Study

VICINITY MAP LOCATION

DEITRICH, IDAHO

MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
8				PED
4				(30X48X36) VLT
1				REMOTE GPON CABINET
2				288 SPLITTER CABINET
7				1X32 SPLITTER
3400				BFOV(2-1.25)T
1700				BFO 24
1700				BFO 48
7400				CO 24(6M)
12000				CO 48 (6M)
23				MST-6(50)
2				MST-6(250)
3				MST-6(500)
11				MST-8(50)
1				MST-8(250)
4				MST-8(500)
22200				SEAO(4)
3000				SEBO(4)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE: DEITRICH VICINITY MAP

EXCHANGE NAME: DEITRICH

EXCHANGE NUMBER:

ENGINEER: RMWT

SIGNATURE

DATE

TOWNSHIP: -

RANGE: -

SECTION: -

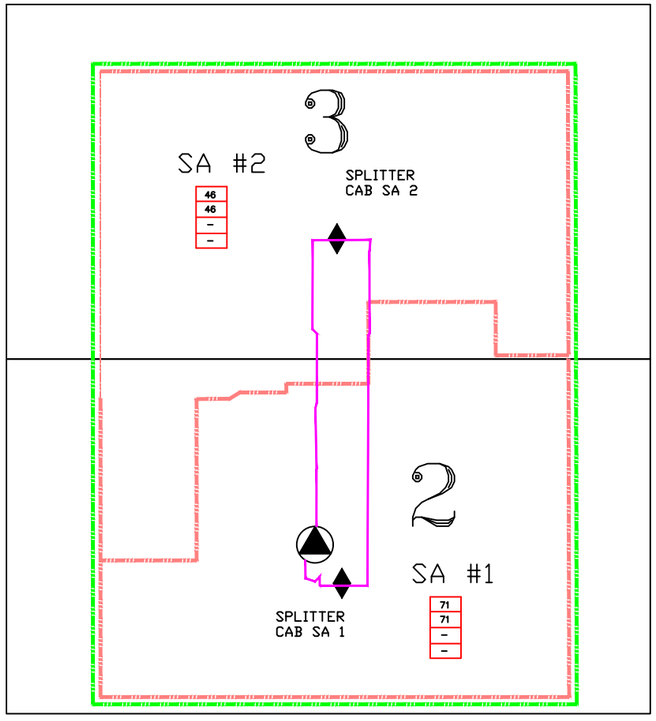
DATE: -

JOB NUMBER:

SHEET NUMBER: TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN

DEITRICH, IDAHO
KEY MAP



LEGEND

FILLBOX
1 TOTAL LOTS
2 EX ESTABLISHMENTS
3 MIN FIBER SIZE
4 DESIGN FIBER SIZE

- MULTIPLE DWELLING UNIT
- BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE AERIAL DISTRIBUTION FIBER WILL PARALLEL THE AERIAL FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (2) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT LESS THAN 50% OF CABINET CAPACITY.

TITLE
DEITRICH FTTH DESIGN

ENGINEER	RANGE	SECTION
RMWT	-	-
EXCHANGE NAME	TOWNSHIP	
DEITRICH	-	
EXCHANGE NUMBER		

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

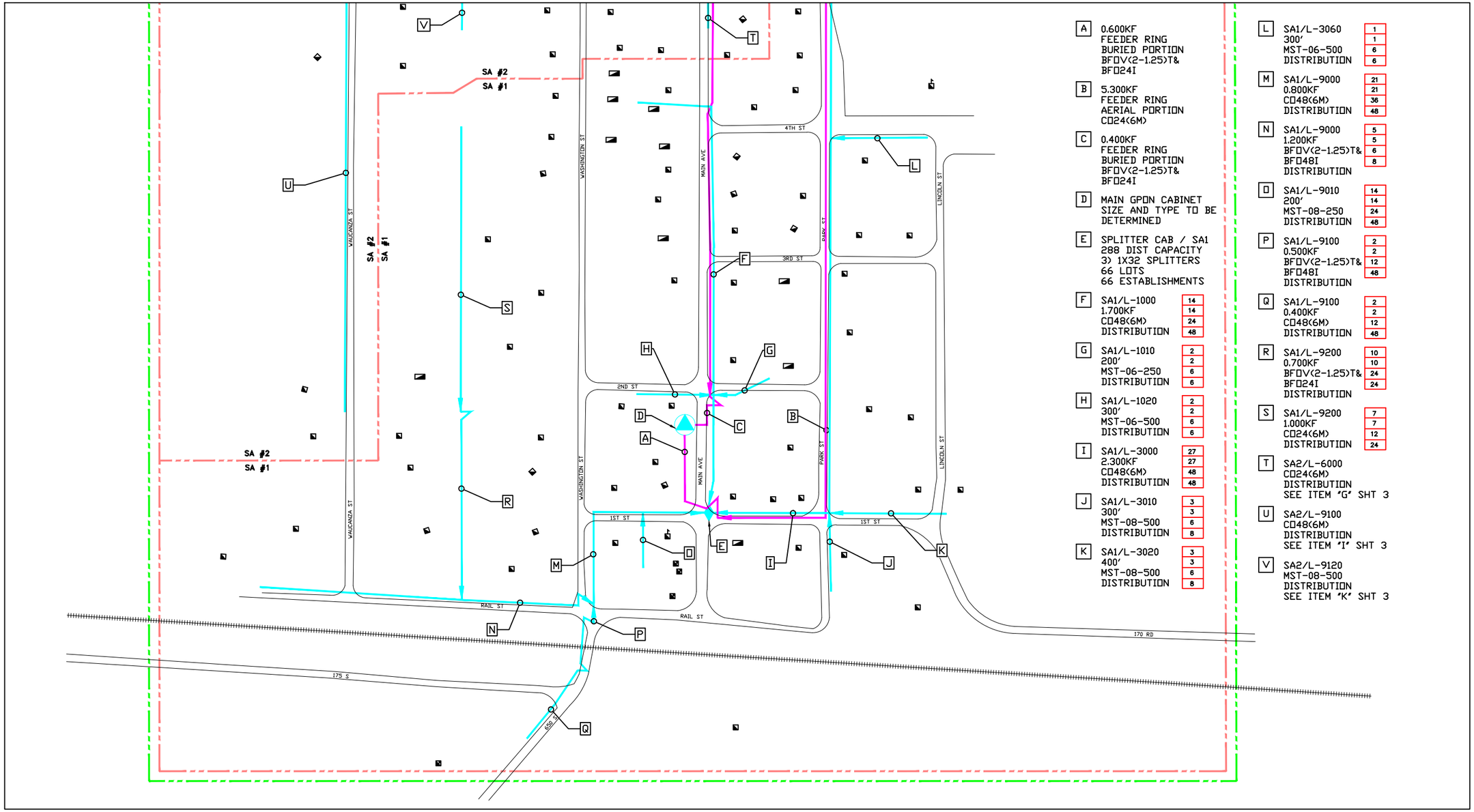
PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN

SEE SHEET 3



A	0.600KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BF024I		
B	5.300KF FEEDER RING AERIAL PORTION CO24(6M)		
C	0.400KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BF024I		
D	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED		
E	SPLITTER CAB / SA1 288 DIST CAPACITY 3) 1X32 SPLITTERS 66 LOTS 66 ESTABLISHMENTS		
F	SA1/L-1000 1.700KF CO48(6M) DISTRIBUTION	14 14 24 48	
G	SA1/L-1010 200' MST-06-250 DISTRIBUTION	2 2 6 6	
H	SA1/L-1020 300' MST-06-500 DISTRIBUTION	2 2 6 6	
I	SA1/L-3000 2.300KF CO48(6M) DISTRIBUTION	27 27 48 48	
J	SA1/L-3010 300' MST-08-500 DISTRIBUTION	3 3 6 8	
K	SA1/L-3020 400' MST-08-500 DISTRIBUTION	3 3 6 8	
L	SA1/L-3060 300' MST-06-500 DISTRIBUTION	1 1 6 6	
M	SA1/L-9000 0.800KF CO48(6M) DISTRIBUTION	21 21 36 48	
N	SA1/L-9000 1.200KF BFOV(2-1.25)T& BF048I DISTRIBUTION	5 5 6 8	
O	SA1/L-9010 200' MST-08-250 DISTRIBUTION	14 14 24 48	
P	SA1/L-9100 0.500KF BFOV(2-1.25)T& BF048I DISTRIBUTION	2 2 12 48	
Q	SA1/L-9100 0.400KF CO48(6M) DISTRIBUTION	2 2 12 48	
R	SA1/L-9200 0.700KF BFOV(2-1.25)T& BF024I DISTRIBUTION	10 10 24 24	
S	SA1/L-9200 1.000KF CO24(6M) DISTRIBUTION	7 7 12 24	
T	SA2/L-6000 CO24(6M) DISTRIBUTION SEE ITEM 'G' SHT 3		
U	SA2/L-9100 CO48(6M) DISTRIBUTION SEE ITEM 'I' SHT 3		
V	SA2/L-9120 MST-08-500 DISTRIBUTION SEE ITEM 'K' SHT 3		

TITLE
DEITRICH FTTH DESIGN

EXCHANGE NAME	DEITRICH	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S
		RANGE	18E
		SECTION	12,13

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

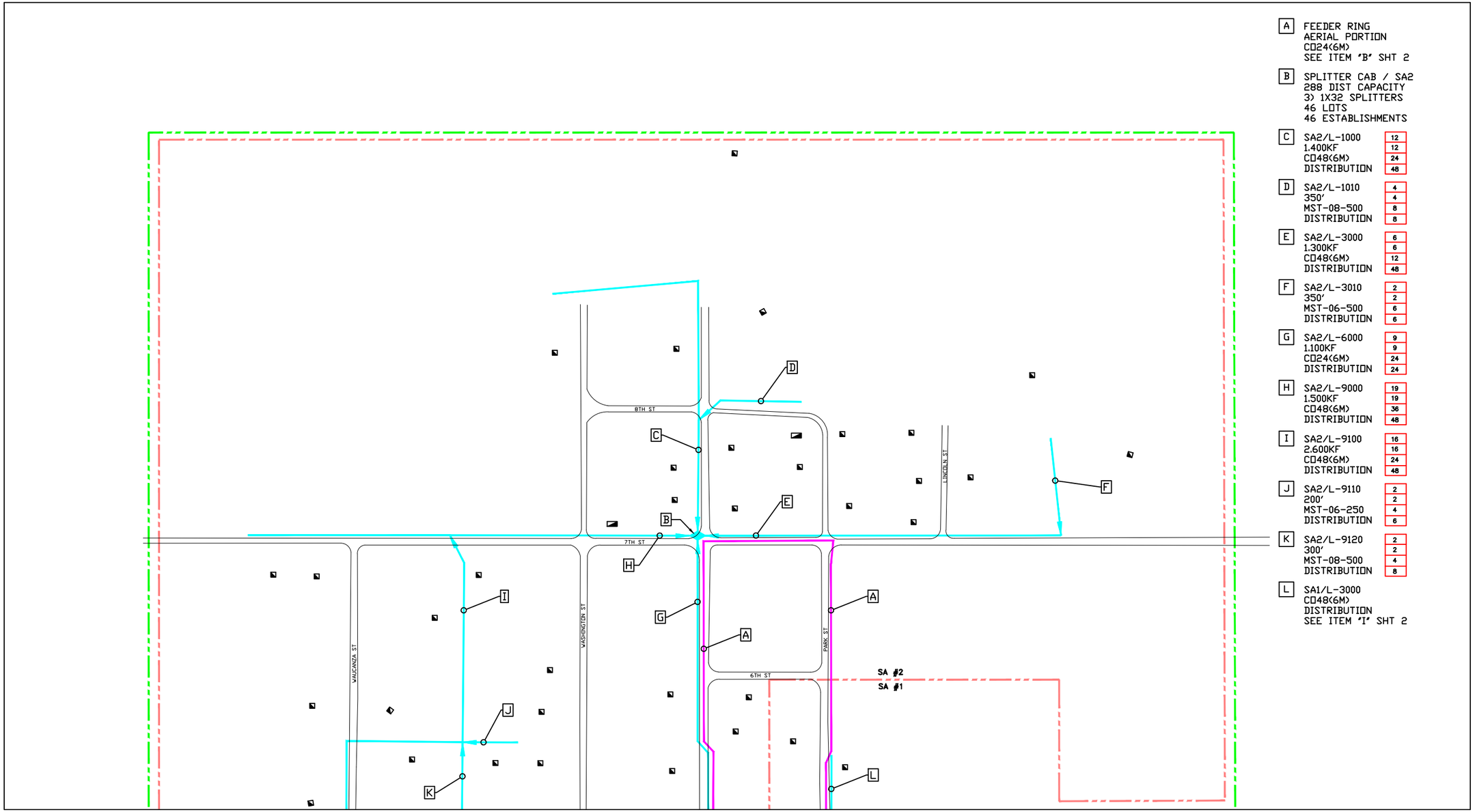
NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF **3**

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN



A FEEDER RING
AERIAL PORTION
C□24(6M)
SEE ITEM 'B' SHT 2

B SPLITTER CAB / SA2
288 DIST CAPACITY
3) 1X32 SPLITTERS
46 LOTS
46 ESTABLISHMENTS

C	SA2/L-1000	12	
	1,400KF	12	
	C□48(6M)	24	
	DISTRIBUTION	48	
D	SA2/L-1010	4	
	350'	4	
	MST-08-500	8	
	DISTRIBUTION	8	
E	SA2/L-3000	6	
	1,300KF	6	
	C□48(6M)	12	
	DISTRIBUTION	48	
F	SA2/L-3010	2	
	350'	2	
	MST-06-500	6	
	DISTRIBUTION	6	
G	SA2/L-6000	9	
	1,100KF	9	
	C□24(6M)	24	
	DISTRIBUTION	24	
H	SA2/L-9000	19	
	1,500KF	19	
	C□48(6M)	36	
	DISTRIBUTION	48	
I	SA2/L-9100	16	
	2,600KF	16	
	C□48(6M)	24	
	DISTRIBUTION	48	
J	SA2/L-9110	2	
	200'	2	
	MST-06-250	4	
	DISTRIBUTION	6	
K	SA2/L-9120	2	
	300'	2	
	MST-08-500	4	
	DISTRIBUTION	8	

L SA1/L-3000
C□48(6M)
DISTRIBUTION
SEE ITEM 'I' SHT 2

SEE SHEET 2

TITLE
DEITRICH FTTH DESIGN

ENGINEER	RMWT
RANGE	18E
TOWNSHIP	6S
SECTION	12
EXCHANGE NAME	DEITRICH
EXCHANGE NUMBER	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
3 OF 3

T:\CLIENT_FILE_DATABASE\ETS\RM21-144 DEITRICH\DRAFTING\DWG\DEITRICH DESIGN

Dietrich Preliminary Cost Study

Category	Quantity	Unit
FTTH Parts	40	PED
FTTH Parts	20	(30X48X36) VLT
FTTH Parts	1	REMOTE GPON CABINET
FTTH Parts	2	288 SPLITTER CABINET
FTTH Parts	7	1X32 SPLITTER
FTTH Parts	3400	BFOV(2-1.25)T
FTTH Parts	1700	BFO 24
FTTH Parts	1700	BFO 48
FTTH Parts	7400	CO 24
FTTH Parts	12000	CO 48
FTTH Parts	0	CO 72
FTTH Parts	0	CO 96
FTTH Parts	0	CO 144
FTTH Parts	0	CO 288
FTTH Parts	23	MST-6(50)
FTTH Parts	2	MST-6(250)
FTTH Parts	3	MST-6(500)
FTTH Parts	0	MST-6(750)
FTTH Parts	11	MST-8(50)
FTTH Parts	1	MST-8(250)
FTTH Parts	4	MST-8(500)
FTTH Parts	0	MST-8(750)
FTTH Parts	0	MST-12(50)
FTTH Parts	0	MST-12(250)
FTTH Parts	0	MST-12(500)
FTTH Parts	0	MST-12(750)
FTTH Parts	22200	SEAO(4)
FTTH Parts	3000	SEBO(4)
FTTH Parts	20	BM2
FTTH Parts	1200	BM61
Engineering	1	Full Engineered Plan
Towers	-	Wireless Towers
System Management	-	System Management
Labor	-	Labor

Totals	**$ 1,426,372.74**

Richfield Engineering Study

VICINITY MAP LOCATION

RICHFIELD, IDAHO

MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
2				(30X48X36) VLT
1				REMOTE GPON CABINET
3				288 SPLITTER CABINET
14				1X32 SPLITTER
1200				BFOV(2-1.25)T
1400				BFO 24
14500				CO 24(6M)
14900				CO 48 (6M)
1600				CO 72(6M)
4100				CO 96(6M)
48				MST-6(50)
2				MST-6(250)
4				MST-6(500)
15				MST-8(50)
1				MST-12(50)
71400				SEAO(4)
1500				SEBO(4)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE
RICHFIELD VICINITY MAP

EXCHANGE NAME
RICHFIELD

EXCHANGE NUMBER

ENGINEER
RMWT

SIGNATURE

DATE

TOWNSHIP
-

RANGE
-

SECTION
-

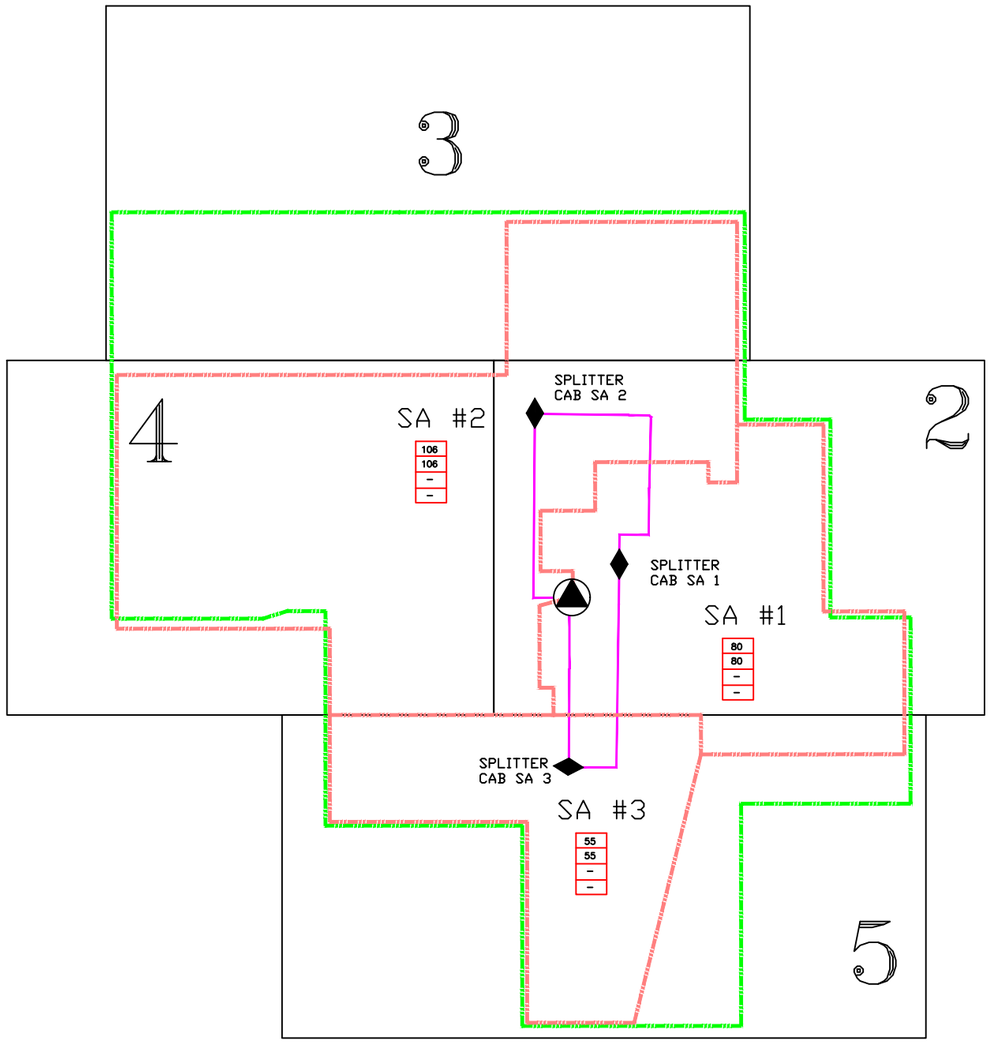
DATE
-

JOB NUMBER

SHEET NUMBER
TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

RICHFIELD, IDAHO
KEY MAP



LEGEND

FILLBOX

1	TOTAL LOTS
2	EX ESTABLISHMENTS
3	MIN FIBER SIZE
4	DESIGN FIBER SIZE

- M — MULTIPLE DWELLING UNIT
- B — BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE AERIAL DISTRIBUTION FIBER WILL PARALLEL THE AERIAL FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND.

THERE ARE AREAS WHERE THERE IS NO POLE LINE FOR THE FEEDER RING. FEEDER RING IS DESIGNED WITH (2) 1.25" CONDUITS IN THESE AREAS.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (3) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT LESS THAN 50% OF CABINET CAPACITY.

TITLE
RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD
EXCHANGE NUMBER	-
ENGINEER	RMWT
TOWNSHIP	-
RANGE	-
SECTION	-

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

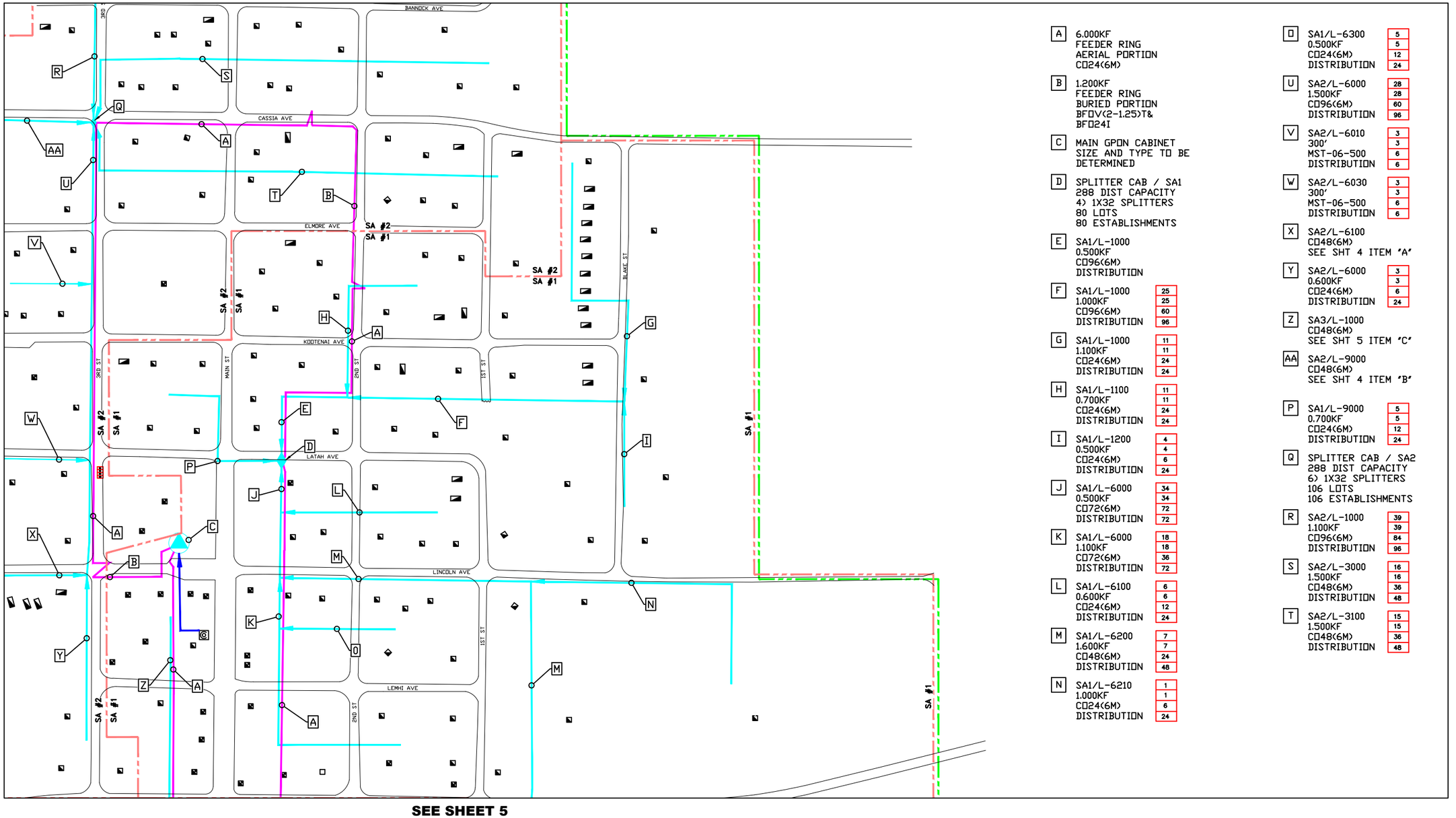
PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

SEE SHEET 3



SEE SHEET 4

SEE SHEET 5

A	6.000KF FEEDER RING AERIAL PORTION CO24(6M)			D	SA1/L-6300 0.500KF CO24(6M) DISTRIBUTION	5 5 12 24	
B	1.200KF FEEDER RING BURIED PORTION BFOV(2-1.25)T& BFO24I			U	SA2/L-6000 1.500KF CO96(6M) DISTRIBUTION	28 28 60 96	
C	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED			V	SA2/L-6010 300' MST-06-500 DISTRIBUTION	3 3 6 6	
D	SPLITTER CAB / SA1 288 DIST CAPACITY 4) 1X32 SPLITTERS 80 LOTS 80 ESTABLISHMENTS			W	SA2/L-6030 300' MST-06-500 DISTRIBUTION	3 3 6 6	
E	SA1/L-1000 0.500KF CO96(6M) DISTRIBUTION			X	SA2/L-6100 CO48(6M) SEE SHT 4 ITEM 'A'		
F	SA1/L-1000 1.000KF CO96(6M) DISTRIBUTION	25 25 60 96		Y	SA2/L-6000 0.600KF CO24(6M) DISTRIBUTION	3 3 6 24	
G	SA1/L-1000 1.100KF CO24(6M) DISTRIBUTION	11 11 24 24		Z	SA3/L-1000 CO48(6M) SEE SHT 5 ITEM 'C'		
H	SA1/L-1100 0.700KF CO24(6M) DISTRIBUTION	11 11 24 24		AA	SA2/L-9000 CO48(6M) SEE SHT 4 ITEM 'B'		
I	SA1/L-1200 0.500KF CO24(6M) DISTRIBUTION	4 4 6 24		P	SA1/L-9000 0.700KF CO24(6M) DISTRIBUTION	5 5 12 24	
J	SA1/L-6000 0.500KF CO72(6M) DISTRIBUTION	34 34 72 72		Q	SPLITTER CAB / SA2 288 DIST CAPACITY 6) 1X32 SPLITTERS 106 LOTS 106 ESTABLISHMENTS		
K	SA1/L-6000 1.100KF CO72(6M) DISTRIBUTION	18 18 36 72		R	SA2/L-1000 1.100KF CO96(6M) DISTRIBUTION	39 39 84 96	
L	SA1/L-6100 0.600KF CO24(6M) DISTRIBUTION	6 6 12 24		S	SA2/L-3000 1.500KF CO48(6M) DISTRIBUTION	16 16 36 48	
M	SA1/L-6200 1.600KF CO48(6M) DISTRIBUTION	7 7 24 48		T	SA2/L-3100 1.500KF CO48(6M) DISTRIBUTION	15 15 36 48	
N	SA1/L-6210 1.000KF CO24(6M) DISTRIBUTION	1 1 6 24					

TITLE: RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD	RANGE	19E
EXCHANGE NUMBER		ENGINEER	RMWT
		TOWNSHIP	4S
		SECTION	25,24,23,26

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

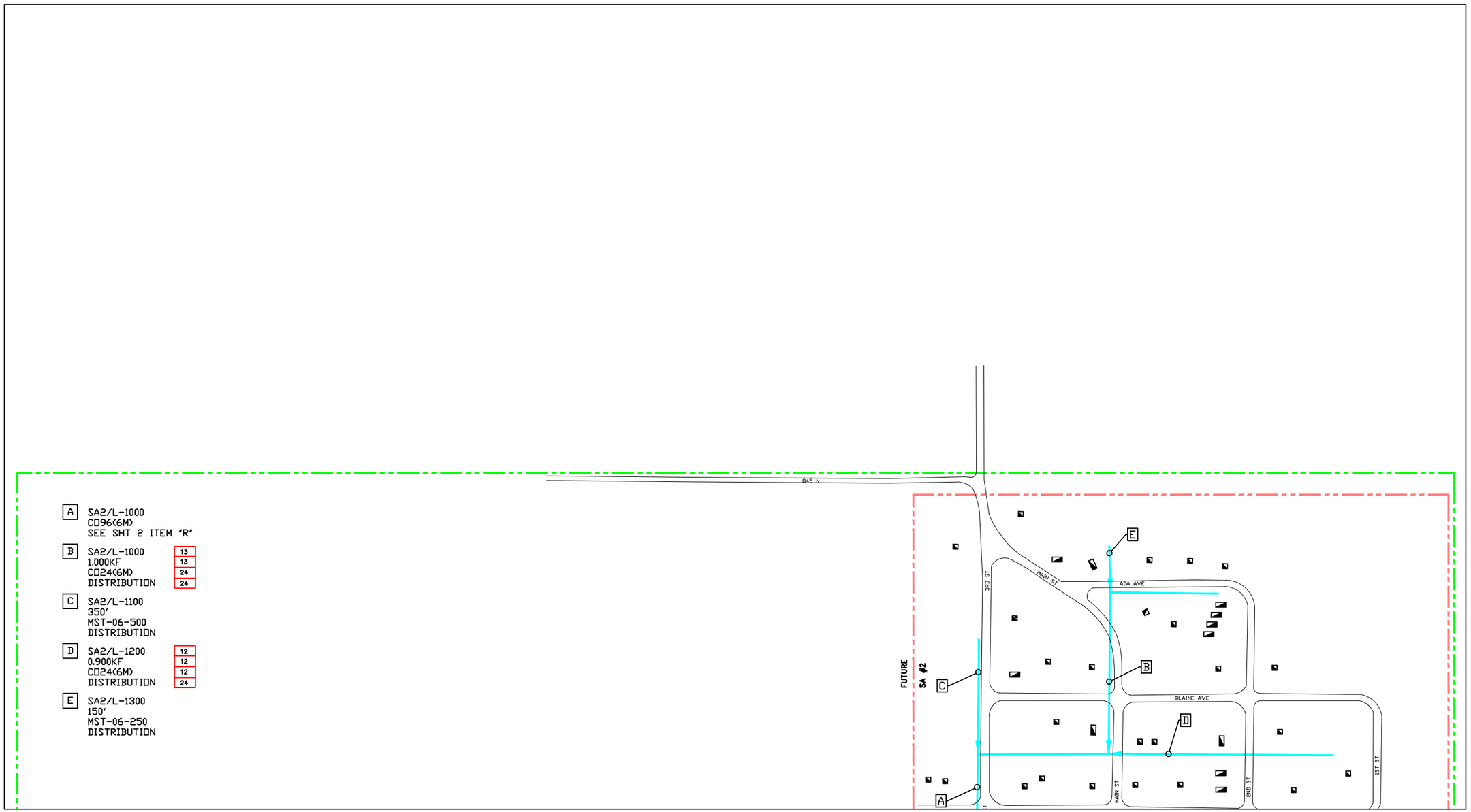
NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF 5

F:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN



SEE SHEET 2

TITLE RICHFIELD FTTH DESIGN

ENGINEER RMWT	RANGE 19E
TOWNSHIP 4S	SECTION 24,23
EXCHANGE NAME RICHFIELD	
EXCHANGE NUMBER	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

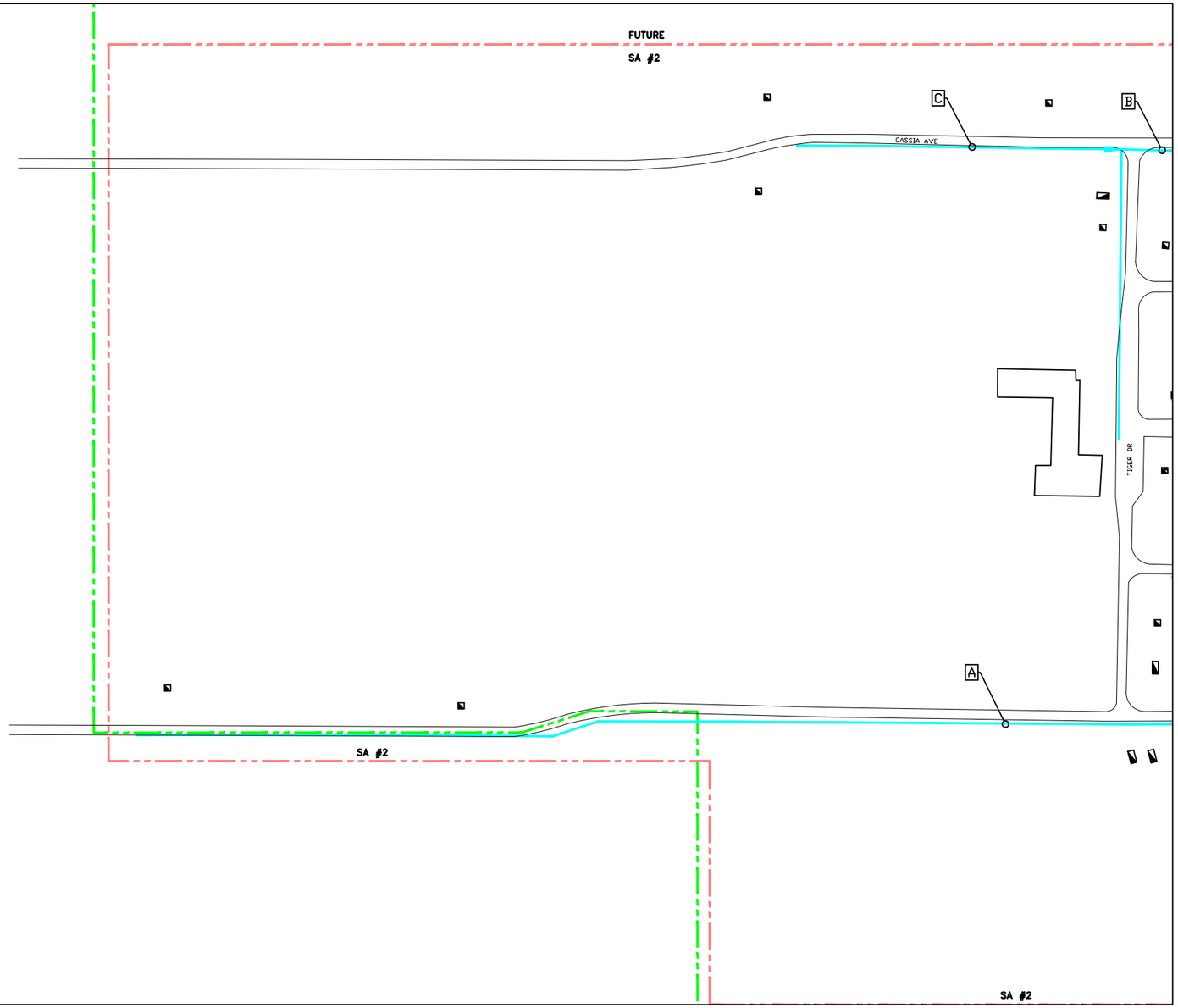
PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
3 OF 5

T:\CLIENT_FILE_DATABASE\ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

A	SA2/L-6100	8
	3.000KF	8
	CD48(6M)	12
	DISTRIBUTION	48
B	SA2/L-9000	8
	1.300KF	8
	CD48(6M)	12
	DISTRIBUTION	48
C	SA2/L-9100	3
	1.000KF	3
	CD48(6M)	6
	DISTRIBUTION	48



SEE SHEET 2

TITLE
RICHFIELD FTTH DESIGN

EXCHANGE NAME	RICHFIELD	RANGE	19E
EXCHANGE NUMBER		TOWNSHIP	4S
		SECTION	23,26

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

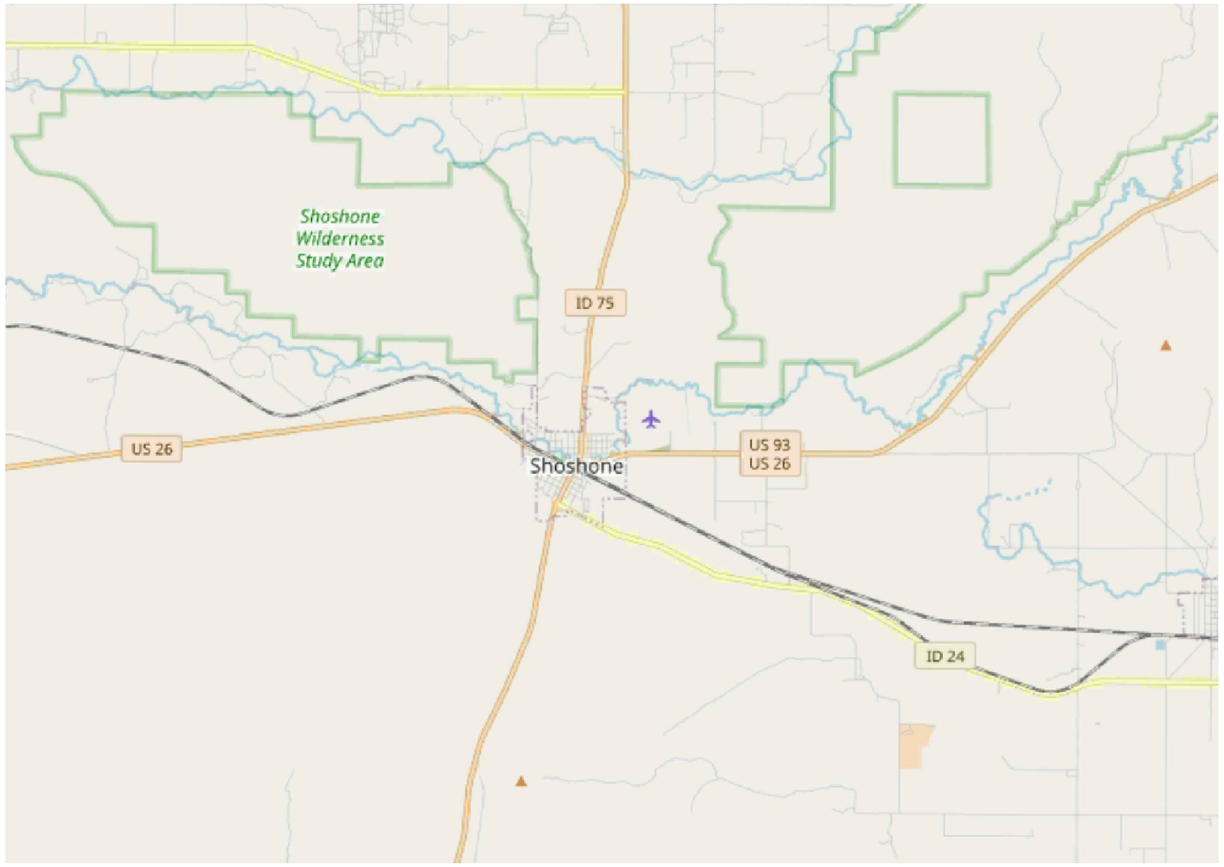
SHEET NUMBER
4 OF 5

T:\CLIENT_FILE_DATABASE_ETS\RM21-146 RICHFIELD\DRAFTING\DWG\RICHFIELD DESIGN

Shoshone Engineering Study

VICINITY MAP LOCATION

SHOSHONE, IDAHO



MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
8				PED
6				(30X48X36) VLT
1				REMOTE GPON CABINET
4				288 SPLITTER CABINET
30				1X32 SPLITTER
5200				BFOV(2-1.25)T
2900				BFO 24I
4700				BFO 48I
14650				CO 24(6M)
23800				CO 48 (6M)
4400				CO 72 (6M)
4800				CO 96 (6M)
6250				CO 144 (6M)
1500				CO 288 (6M)
77				MST-6 (50)
1				MST-6 (750)
41				MST-8 (50)
4				MST-8 (500)
30				MST-12 (50)
3				MST-12 (250)
5				MST-12 (500)
97650				SEAO(4)
21600				SEBO(4)

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE: SHOSHONE VICINITY MAP

EXCHANGE NAME: SHOSHONE

EXCHANGE NUMBER:

ENGINEER: RMWT

SIGNATURE

DATE

TOWNSHIP: -

RANGE: -

SECTION: -

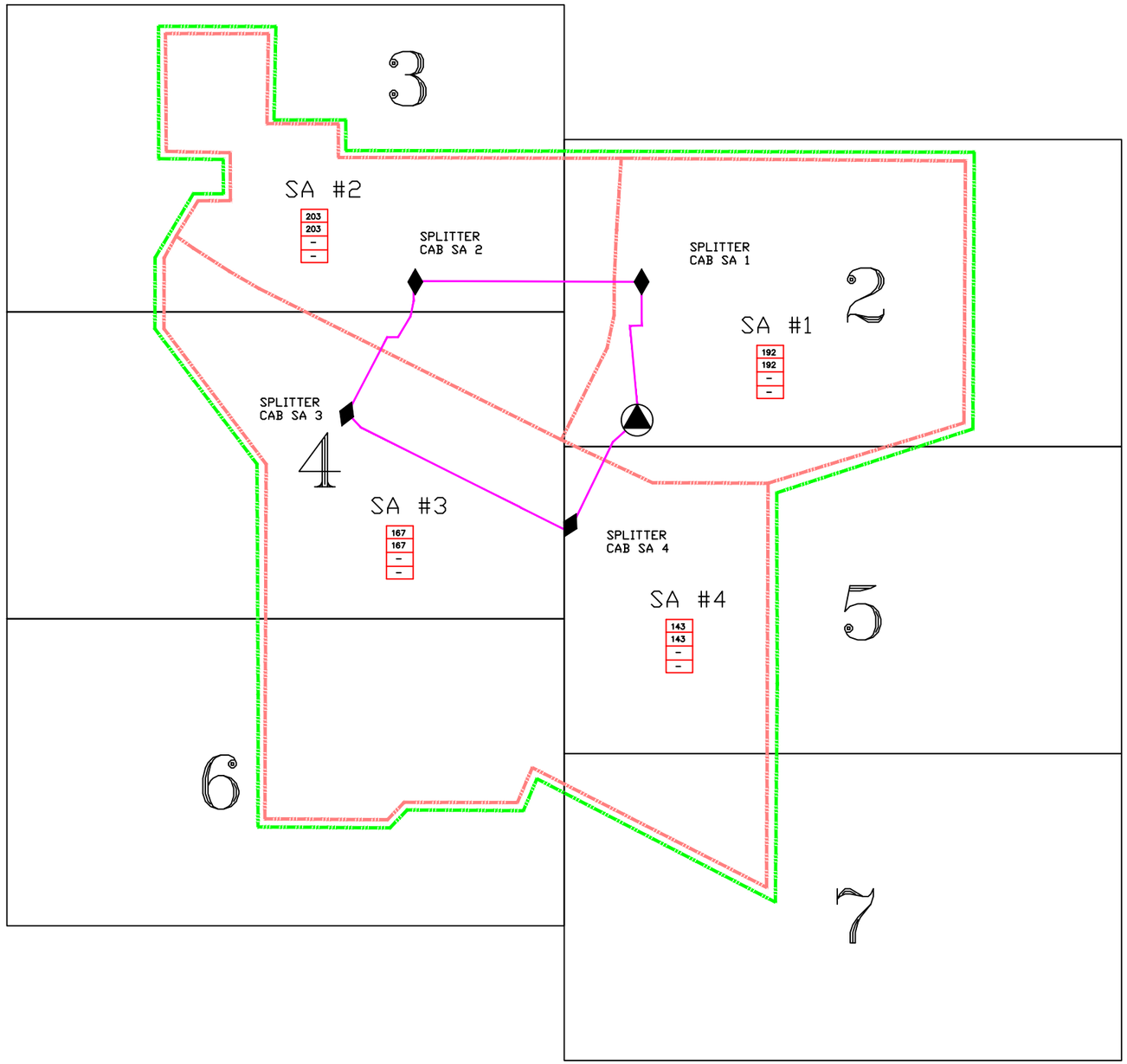
DATE: -

JOB NUMBER

SHEET NUMBER: TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SHOSHONE, IDAHO
KEY MAP



LEGEND

FILLBOX
TOTAL LOTS
EX ESTABLISHMENTS
MIN FIBER SIZE
DESIGN FIBER SIZE

- M — MULTIPLE DWELLING UNIT
- B — BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE DISTRIBUTION FIBER WILL PARALLEL THE FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND OR PULLED IN THE SAME CONDUIT.

THERE ARE AREAS WHERE THERE IS NO POLE LINE FOR THE FEEDER RING. FEEDER RING IS DESIGNED WITH (2) 1.25" CONDUITS IN THESE AREAS.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (4) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT 80% OF CABINET CAPACITY OR LESS.

TITLE: SHOSHONE FTTH DESIGN

RANGE	-	SECTION	-
ENGINEER	RMWT	TOWNSHIP	-
EXCHANGE NAME	SHOSHONE	EXCHANGE NUMBER	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

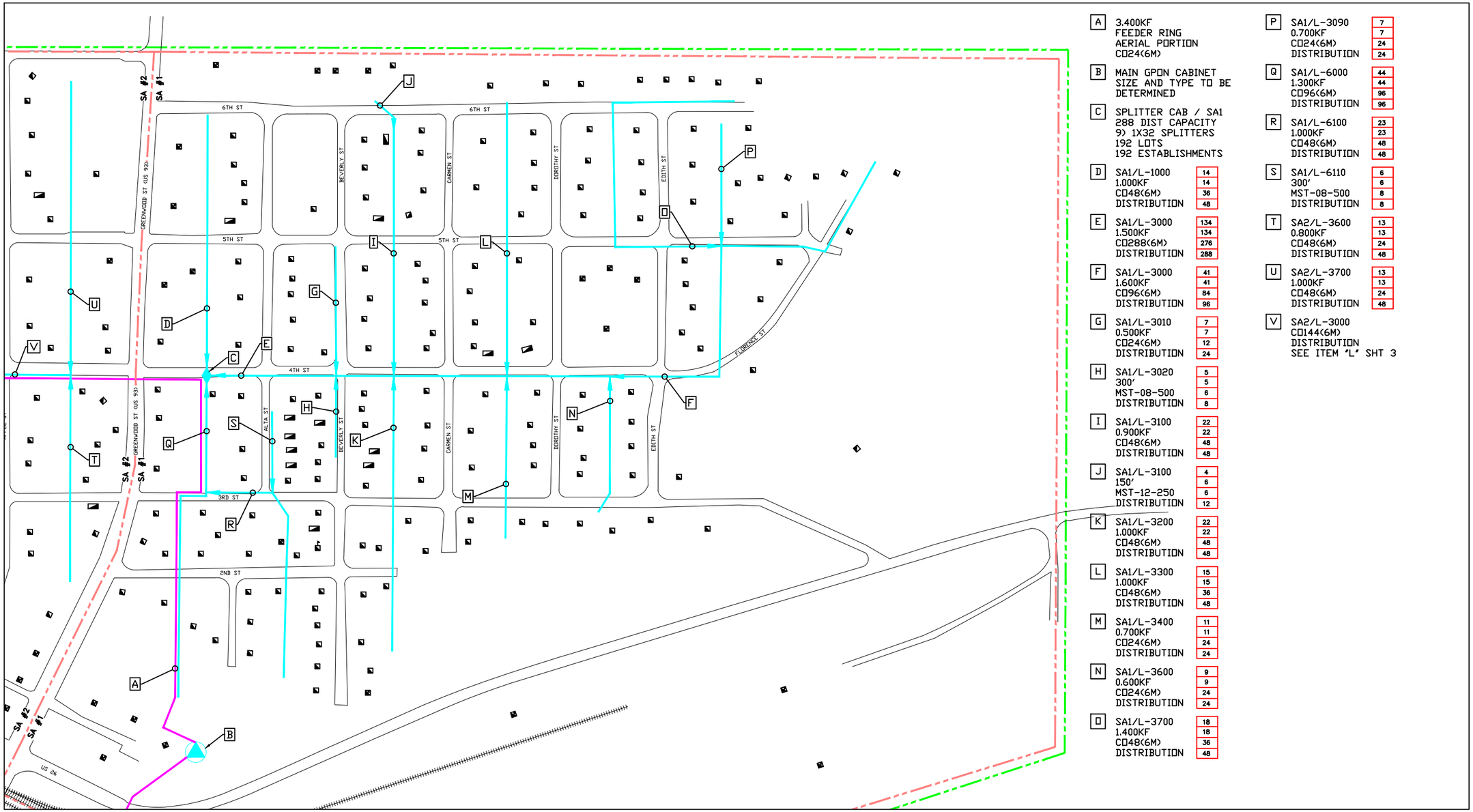
NORTH DIRECTION

PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE_ETS_RM21-147 SHOSHONE_DRAFTING_DWG\SHOSHONE DESIGN



SEE SHEET 5

A	3.400KF FEEDER RING AERIAL PORTION CO24(6M)		
B	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED		
C	SPLITTER CAB / SA1 288 DIST CAPACITY 9) 1X32 SPLITTERS 192 LOTS 192 ESTABLISHMENTS		
D	SA1/L-1000 1.000KF CO48(6M) DISTRIBUTION	14 14 36 48	
E	SA1/L-3000 1.500KF CO288(6M) DISTRIBUTION	134 134 276 288	
F	SA1/L-3000 1.600KF CO96(6M) DISTRIBUTION	41 41 84 96	
G	SA1/L-3010 0.500KF CO24(6M) DISTRIBUTION	7 7 12 24	
H	SA1/L-3020 300' MST-08-500 DISTRIBUTION	5 5 6 8	
I	SA1/L-3100 0.900KF CO48(6M) DISTRIBUTION	22 22 48 48	
J	SA1/L-3100 150' MST-12-250 DISTRIBUTION	4 6 6 12	
K	SA1/L-3200 1.000KF CO48(6M) DISTRIBUTION	22 22 48 48	
L	SA1/L-3300 1.000KF CO48(6M) DISTRIBUTION	15 15 36 48	
M	SA1/L-3400 0.700KF CO24(6M) DISTRIBUTION	11 11 24 24	
N	SA1/L-3600 0.600KF CO24(6M) DISTRIBUTION	9 9 24 24	
O	SA1/L-3700 1.400KF CO48(6M) DISTRIBUTION	18 18 36 48	
P	SA1/L-3090 0.700KF CO24(6M) DISTRIBUTION	7 7 24 24	
Q	SA1/L-6000 1.300KF CO96(6M) DISTRIBUTION	44 44 96 96	
R	SA1/L-6100 1.000KF CO48(6M) DISTRIBUTION	23 23 48 48	
S	SA1/L-6110 300' MST-08-500 DISTRIBUTION	6 6 8 8	
T	SA2/L-3600 0.800KF CO48(6M) DISTRIBUTION	13 13 24 48	
U	SA2/L-3700 1.000KF CO48(6M) DISTRIBUTION	13 13 24 48	
V	SA2/L-3000 CO144(6M) DISTRIBUTION SEE ITEM 'L' SHT 3		

TITLE: SHOSHONE FTTH

EXCHANGE NAME	SHOSHONE	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S,5S
		RANGE	17E
		SECTION	1,36

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

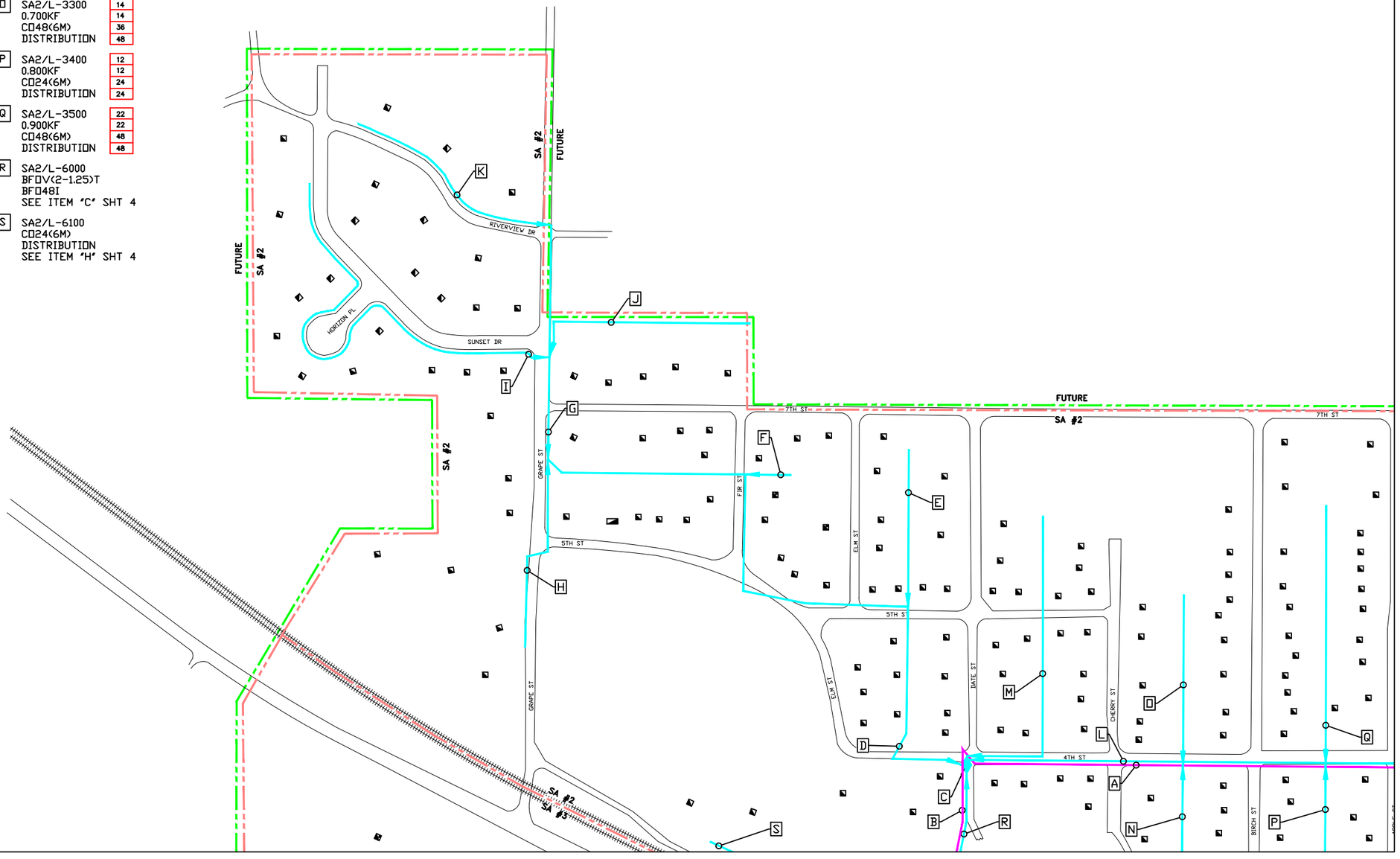
PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF 7

T:\CLIENT_FILE_DATABASE_ETS_RM21-147_SHOSHONE_DRAFTING_DWG_SHOSHONE_DESIGN

A	FEEDER RING AERIAL PORTION CABLE (6M) SEE ITEM 'A' SHT 2		
B	FEEDER RING BURIED PORTION BFOC24 SEE ITEM 'A' SHT 4		
C	SPLITTER CAB / SA2 288 DIST CAPACITY 9) 1X32 SPLITTERS 203 LOTS 203 ESTABLISHMENTS		
D	SA2/L-1000 2.250KF CABLE144(6M) DISTRIBUTION	77 77 120 144	
E	SA2/L-1100 0.600KF CABLE48(6M) DISTRIBUTION	10 10 24 48	
F	SA2/L-1050 200' MST-12-250 DISTRIBUTION	7 7 12 12	
G	SA2/L-1000 0.800KF CABLE72(6M) DISTRIBUTION	27 27 48 72	
H	SA2/L-1200 0.700KF CABLE24(6M) DISTRIBUTION	4 4 12 24	
I	SA2/L-1300 1.600KF BFOV(2-1.25)T& BFO48I DISTRIBUTION	16 16 36 48	
J	SA2/L-1400 0.800KF CABLE24(6M) DISTRIBUTION	5 5 12 24	
K	SA2/L-1500 0.900KF BFOV(2-1.25)T& BFO48I DISTRIBUTION	5 5 12 24	
L	SA2/L-3000 1.600KF CABLE144(6M) DISTRIBUTION	81 81 120 144	
M	SA2/L-3100 1.000KF CABLE48(6M) DISTRIBUTION	18 18 36 48	
N	SA2/L-3200 300' MST-12-500 DISTRIBUTION	7 7 8 12	
O	SA2/L-3300 0.700KF CABLE48(6M) DISTRIBUTION	14 14 36 48	
P	SA2/L-3400 0.800KF CABLE24(6M) DISTRIBUTION	12 12 24 24	
Q	SA2/L-3500 0.900KF CABLE48(6M) DISTRIBUTION	22 22 48 48	
R	SA2/L-6000 BFOV(2-1.25)T BFO48I SEE ITEM 'C' SHT 4		
S	SA2/L-6100 CABLE24(6M) DISTRIBUTION SEE ITEM 'H' SHT 4		



SEE SHEET 2

SEE SHEET 4

TITLE
SHOSHONE FTTH DESIGN

EXCHANGE NAME	EXCHANGE NUMBER
SHOSHONE	

ENGINEER	TOWNSHIP
RMWT	5S

RANGE	SECTION
17E	36,35

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

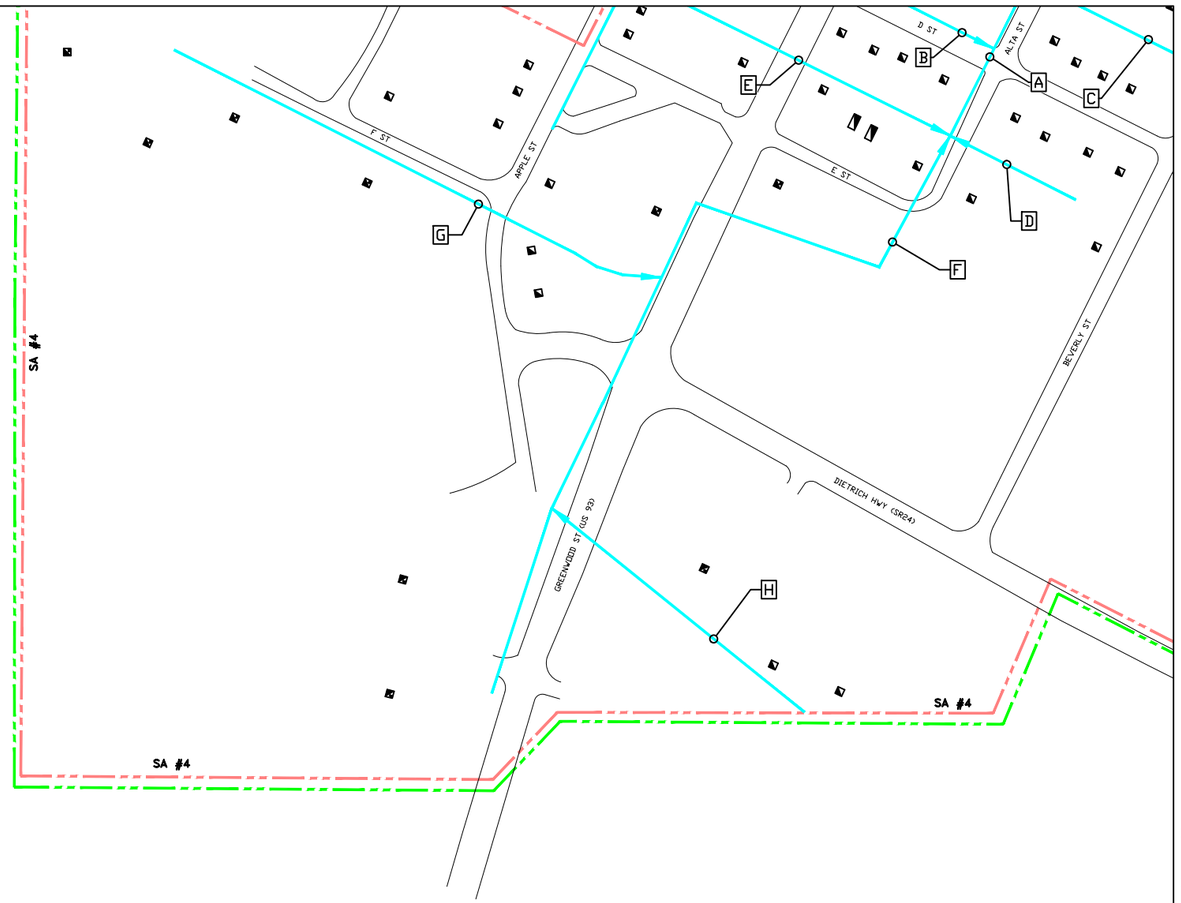
JOB NUMBER
-

SHEET NUMBER
3 OF 7

F:\CLIENT_FILE_DATABASE_ETS_RM21-147 SHOSHONE_DRAFTING_DWG_SHOSHONE DESIGN

SEE SHEET 2

A	SA4/L-6000 CD144(6M) DISTRIBUTION SEE ITEM 'T' SHT 4	
B	SA4/L-9600 MST-6-750 DISTRIBUTION SEE ITEM 'Z' SHT 4	
C	SA4/L-9300 CD96(6M) DISTRIBUTION SEE ITEM 'I' SHT 5	
D	SA4/L-9070	6
	350'	6
	MST-12-500	12
	DISTRIBUTION	12
E	SA4/L-9800	17
	1.400KF	17
	CD48(6M)	36
	DISTRIBUTION	48
F	SA4/L-9000	16
	2.100KF	16
	CD48(6M)	24
	DISTRIBUTION	48
G	SA4/L-9900	9
	1.400KF	9
	CD48(6M)	24
	DISTRIBUTION	48
H	SA4/L-9090	3
	0.900KF	3
	CD24(6M)	12
	DISTRIBUTION	24



SEE SHEET 5

SEE SHEET 7

TITLE: SHOSHONE FTTH DESIGN

EXCHANGE NAME	SHOSHONE	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S
		RANGE	17E
		SECTION	1

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

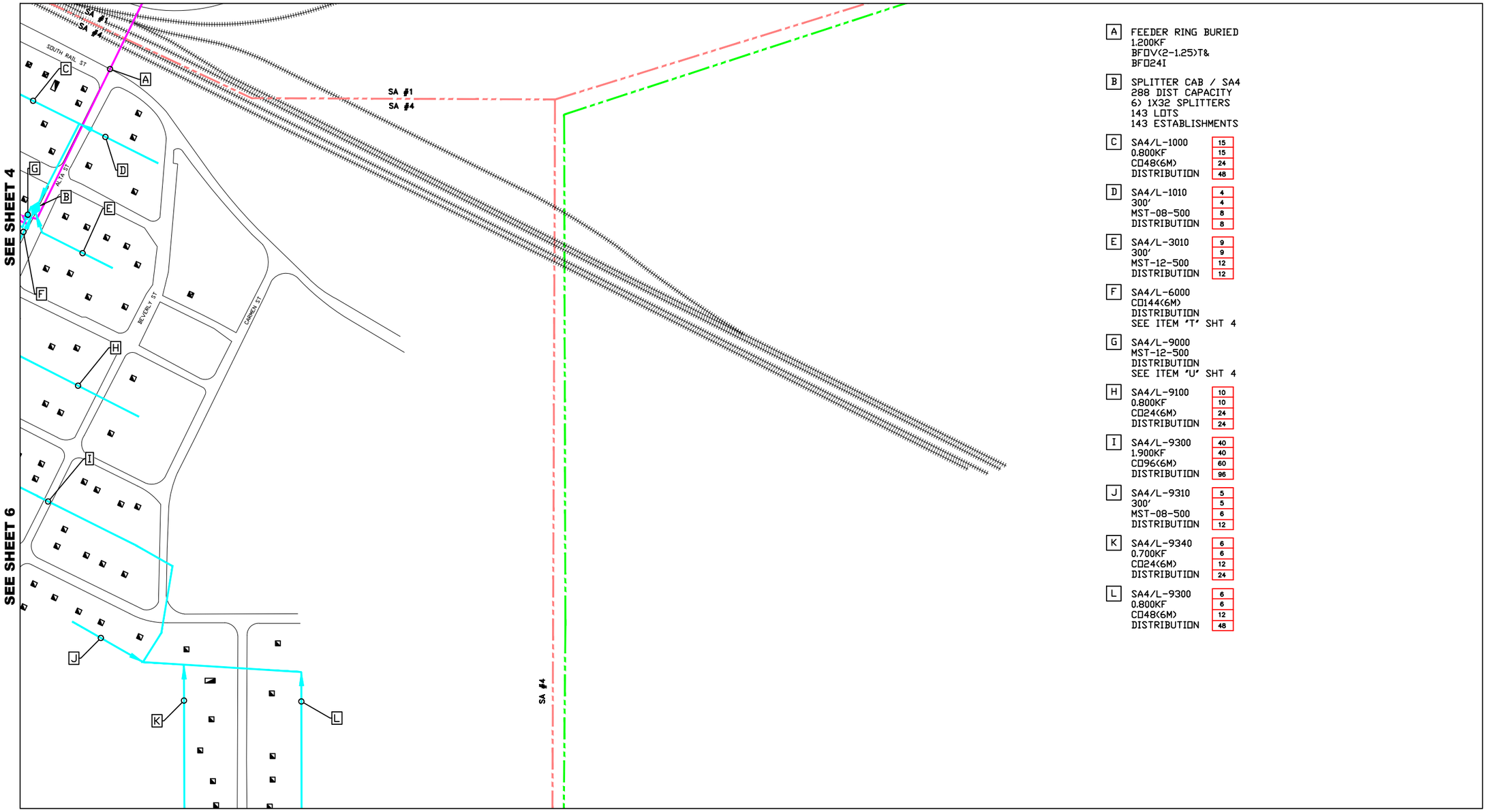
PLOT DATE

JOB NUMBER
-

SHEET NUMBER
6 OF 7

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 2



SEE SHEET 4

SEE SHEET 6

A	FEEDER RING BURIED 1.200KF BFOV(2-1.25)T& BFO24I		
B	SPLITTER CAB / SA4 288 DIST CAPACITY 6) 1X32 SPLITTERS 143 LOTS 143 ESTABLISHMENTS		
C	SA4/L-1000 0.800KF CO48(6M) DISTRIBUTION	15 15 24 48	
D	SA4/L-1010 300' MST-08-500 DISTRIBUTION	4 4 8 8	
E	SA4/L-3010 300' MST-12-500 DISTRIBUTION	9 9 12 12	
F	SA4/L-6000 CO144(6M) DISTRIBUTION SEE ITEM 'T' SHT 4		
G	SA4/L-9000 MST-12-500 DISTRIBUTION SEE ITEM 'U' SHT 4		
H	SA4/L-9100 0.800KF CO24(6M) DISTRIBUTION	10 10 24 24	
I	SA4/L-9300 1.900KF CO96(6M) DISTRIBUTION	40 40 60 96	
J	SA4/L-9310 300' MST-08-500 DISTRIBUTION	5 5 6 12	
K	SA4/L-9340 0.700KF CO24(6M) DISTRIBUTION	6 6 12 24	
L	SA4/L-9300 0.800KF CO48(6M) DISTRIBUTION	6 6 12 48	

SEE SHEET 7

TITLE
SHOSHONE FTTH DESIGN

EXCHANGE NAME	SHOSHONE	RANGE	17E
EXCHANGE NUMBER		SECTION	1
ENGINEER	RMWT	TOWNSHIP	6S

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

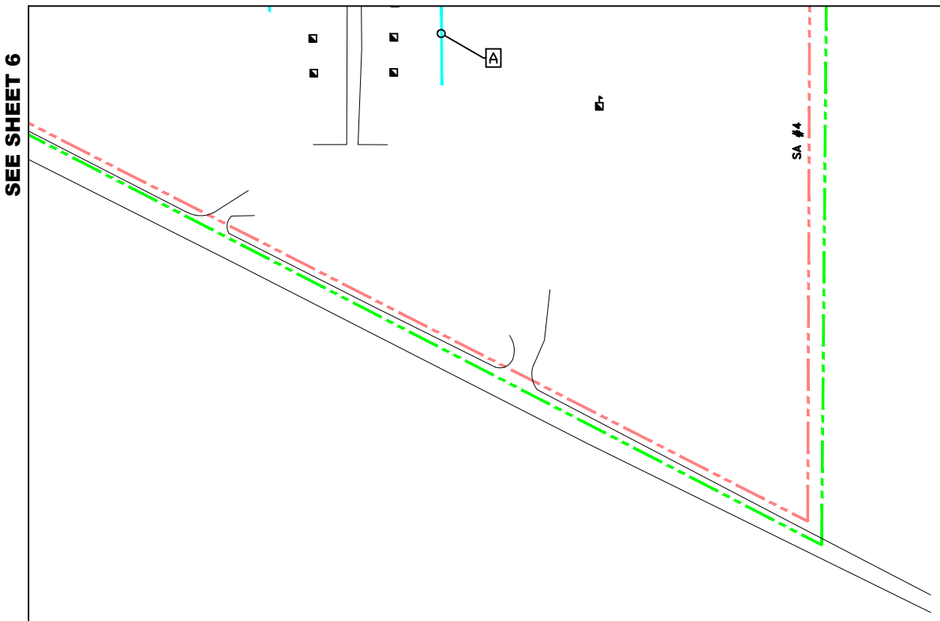
JOB NUMBER
-

SHEET NUMBER
5 OF 7

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 5

SEE SHEET 6



A SA4/L-9300
CD48(6M)
DISTRIBUTION
SEE ITEM 'L' SHT 5

TITLE
SHOSHONE FTTH DESIGN

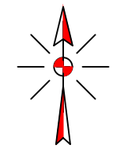
EXCHANGE NAME	ENGINEER	RANGE
SHOSHONE	RMWT	17E
EXCHANGE NUMBER	TOWNSHIP	SECTION
	6S	1

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION



PLOT DATE
-

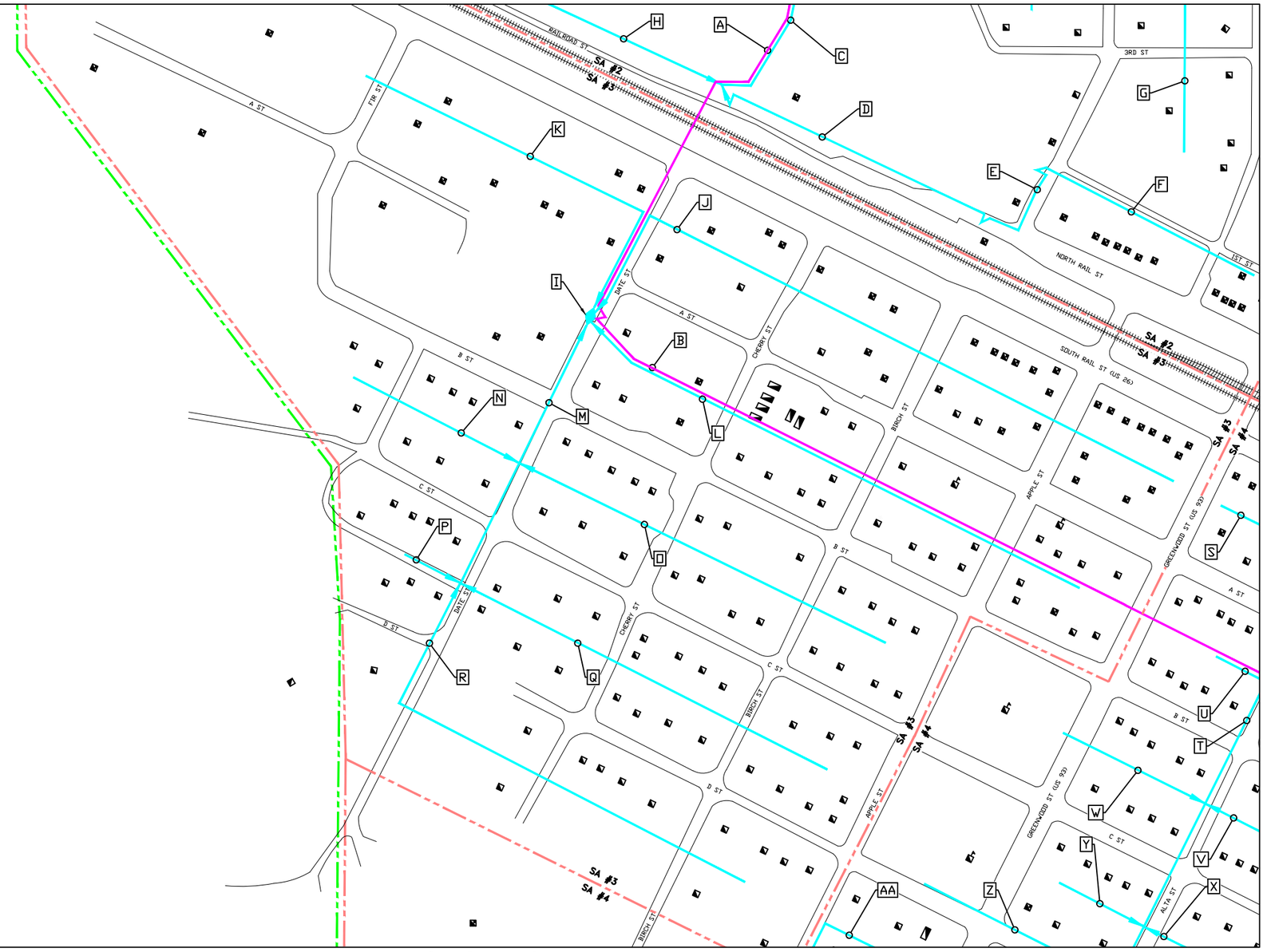
JOB NUMBER
-

SHEET NUMBER
7 OF **7**

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 3

A	FEEDER RING BURIED 1.700KF BF□V(2-1.25)T& BF□24I		
B	FEEDER RING AERIAL 2.000KF CD24(6M)		
C	SA2/L-6000 0.800KF WITH FEEDER BF□48I DISTRIBUTION	22 22 36 48	
D	SA2/L-6000 1.000KF CD48(6M) DISTRIBUTION	20 20 36 48	
E	SA2/L-6000 0.500KF BF□V(2-1.25)T& BF□48I DISTRIBUTION	20 20 36 48	
F	SA2/L-6000 0.900KF CD48(6M) DISTRIBUTION	15 15 36 48	
G	SA2/L-3400 CD24(6M) DISTRIBUTION SEE ITEM 'P' SHT 3		
H	SA2/L-6100 0.700KF CD24(6M) DISTRIBUTION	2 2 6 24	
I	SPLITTER CAB / SA3 288 DIST CAPACITY 6) 1X32 SPLITTERS 167 LOTS 167 ESTABLISHMENTS		
J	SA3/L-1000 2.000KF CD72(6M) DISTRIBUTION	36 36 60 72	
K	SA3/L-1100 1.200KF CD48(6M) DISTRIBUTION	14 14 24 48	
L	SA3/L-3000 1.600KF CD72(6M) DISTRIBUTION	14 14 24 24	
M	SA3/L-6000 1.000KF CD144(6M) DISTRIBUTION	80 80 120 144	
N	SA3/L-6100 0.700KF CD24(6M) DISTRIBUTION	10 10 24 24	
D	SA3/L-6200 1.200KF CD48(6M) DISTRIBUTION	24 24 36 48	
P	SA3/L-6050 200' MST-12-250 DISTRIBUTION	8 8 12 12	
Q	SA3/L-6400 1.200KF CD48(6M) DISTRIBUTION	23 23 36 48	
R	SA3/L-6000 1.400KF CD48(6M) DISTRIBUTION	13 13 24 48	
S	SA4/L-1000 CD48(6M) DISTRIBUTION SEE ITEM 'C' SHT 5		
T	SA4/L-6000 1.400KF CD144(6M) DISTRIBUTION	108 108 162 288	
U	SA4/L-9000 300' MST-12-500 DISTRIBUTION	11 11 12 12	
V	SA4/L-9100 CD24(6M) DISTRIBUTION SEE ITEM 'H' SHT 5		
W	SA4/L-9200 0.650KF CD24(6M) DISTRIBUTION	10 10 24 24	
X	SA4/L-9300 CD96(6M) DISTRIBUTION SEE ITEM 'I' SHT 5		
Y	SA4/L-9400 300' MST-12-500 DISTRIBUTION	8 8 12 12	
Z	SA4/L-9600 600' MST-6-750 DISTRIBUTION	1 1 6 6	
AA	SA4/L-9000 CD48(6M) DISTRIBUTION SEE ITEM 'E' SHT 6		



SEE SHEET 5

SEE SHEET 6

TITLE: SHOSHONE FTTH DESIGN

EXCHANGE NAME: SHOSHONE
EXCHANGE NUMBER:
ENGINEER: RMWT
RANGE: 17E
TOWNSHIP: 5S,6S
SECTION: 36,35,1,2

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
4 OF 7

T:\CLIENT_FILE_DATABASE_ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

Shoshone Preliminary Cost Study

Category	Quantity	Unit
FTTH Parts	120	PED
FTTH Parts	60	(30X48X36) VLT
FTTH Parts	1	REMOTE GPON CABINET
FTTH Parts	4	288 SPLITTER CABINET
FTTH Parts	30	1X32 SPLITTER
FTTH Parts	5200	BFOV(2-1.25)T
FTTH Parts	2900	BFO 24
FTTH Parts	4700	BFO 48
FTTH Parts	14650	CO 24
FTTH Parts	23800	CO 48
FTTH Parts	4400	CO 72
FTTH Parts	4800	CO 96
FTTH Parts	6250	CO 144
FTTH Parts	1500	CO 288
FTTH Parts	77	MST-6(50)
FTTH Parts	0	MST-6(250)
FTTH Parts	0	MST-6(500)
FTTH Parts	1	MST-6(750)
FTTH Parts	41	MST-8(50)
FTTH Parts	0	MST-8(250)
FTTH Parts	4	MST-8(500)
FTTH Parts	0	MST-8(750)
FTTH Parts	30	MST-12(50)
FTTH Parts	3	MST-12(250)
FTTH Parts	5	MST-12(500)
FTTH Parts	0	MST-12(750)
FTTH Parts	97650	SEAO(4)
FTTH Parts	21600	SEBO(4)
FTTH Parts	60	BM2
FTTH Parts	3500	BM61
Engineering	1	Full Engineered Plan
Towers	-	Wireless Towers
System Management	-	System Management
Labor	-	Labor

Totals	**$ 2,800,561.68**

REGION IV DEVELOPMENT

Prepared by Eminent Technical Solutions | ETS

Survey Materials for the Cities of Lincoln County

Mailer

COMPLETE THE ONLINE SURVEY BY JUNE 30TH

LINCOLN COUNTY
BROADBAND INTERNET SURVEY

LET YOUR VOICE BE HEARD!

www.surveymonkey.com/r/LincolnCountyID

PLACE POSTAGE STAMP HERE

Lincoln County, in partnership with Idaho Region IV Development Association, is working to improve broadband access for Idahoans.

The information you provide in this survey will help us understand your needs; helping to bring in funding for development in the near future.

Your *feedback* is important!

www.surveymonkey.com/r/LincolnCountyID

LINCOLN COUNTY
BROADBAND INTERNET SURVEY

LET YOUR VOICE BE HEARD

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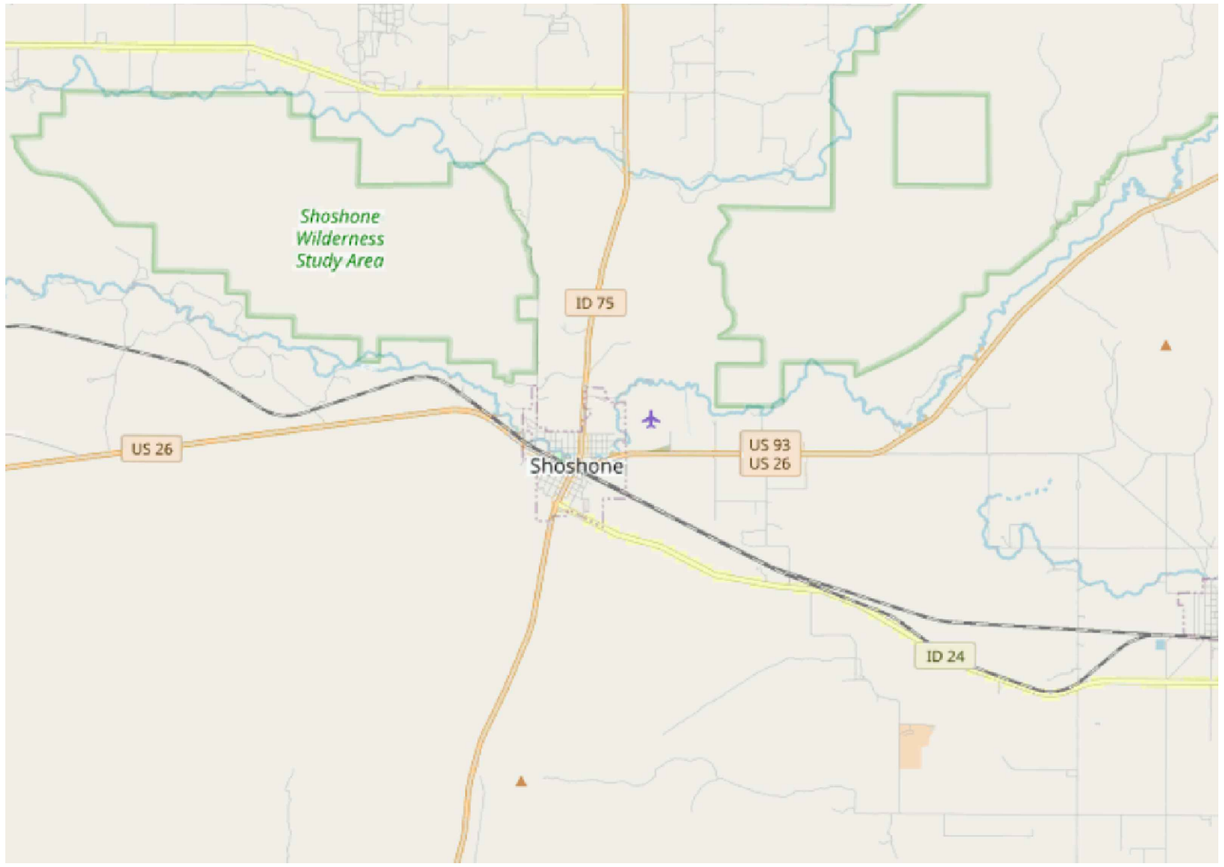
Your *feedback* is important!

PLEASE COMPLETE THE ONLINE SURVEY BY JUNE 30TH

www.surveymonkey.com/r/LincolnCountyID

VICINITY MAP LOCATION

SHOSHONE, IDAHO



MASTER TAB UNIT SUMMARY

UNITS AS STAKED	UNITS AS BUILT	YEAR PLACED	REEL #	UNIT DESCRIPTION
8				PED
6				(30X48X36) VLT
1				REMOTE GPON CABINET
4				288 SPLITTER CABINET
30				1X32 SPLITTER
5200				BFOV(2-1.25)T
2900				BFO 24I
4700				BFO 48I
14650				CO 24(6M)
23800				CO 48 (6M)
4400				CO 72 (6M)
4800				CO 96 (6M)
6250				CO 144 (6M)
1500				CO 288 (6M)
77				MST-6 (50)
1				MST-6 (750)
41				MST-8 (50)
4				MST-8 (500)
30				MST-12 (50)
3				MST-12 (250)
5				MST-12 (500)
97650				SEAO(4)
21600				SEBO(4)

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

TITLE: SHOSHONE VICINITY MAP

EXCHANGE NAME: SHOSHONE

EXCHANGE NUMBER:

ENGINEER: RMWT

SIGNATURE

DATE

TOWNSHIP: -

RANGE: -

SECTION: -

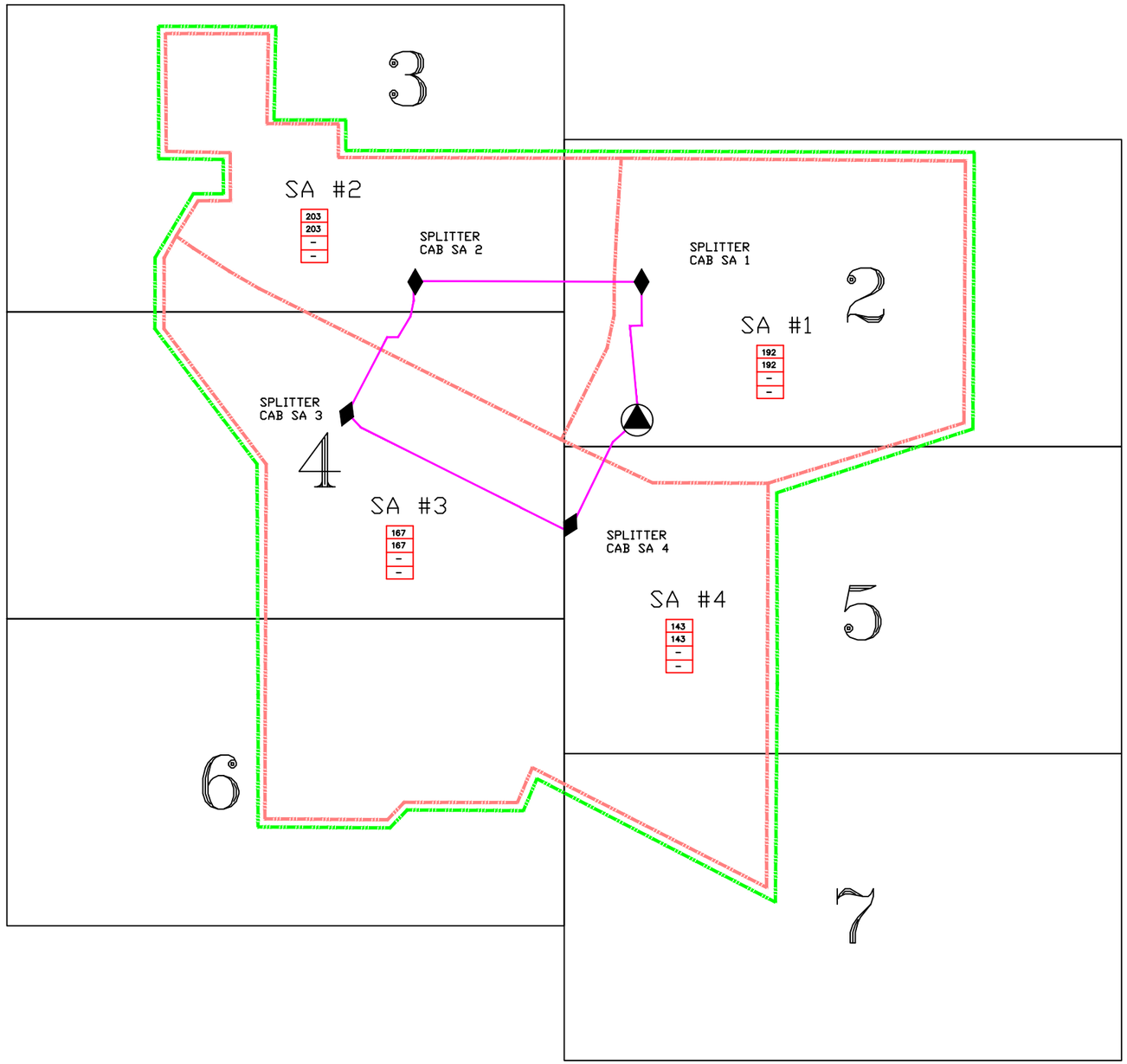
DATE: -

JOB NUMBER

SHEET NUMBER: TAB

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SHOSHONE, IDAHO
KEY MAP



LEGEND

FILLBOX
TOTAL LOTS
EX ESTABLISHMENTS
MIN FIBER SIZE
DESIGN FIBER SIZE

- M — MULTIPLE DWELLING UNIT
- B — BUSINESS
- HOUSE
- VAC LOT
- MOBILE HOME
- VAC MOBILE HOME LOT
- GPON CABINET
- SPLITTER CABINET
- JOINT USE POWER POLE
- DISTRIBUTION COND/FIBER
- DISTRIBUTION AERIAL FIBER
- FEEDER RING COND/FIBER
- IOF FIBER
- EXISTING IOF FIBER
- SA BOUNDARY
- PFSA BOUNDARY

NOTES:

IN SOME AREAS THE DISTRIBUTION FIBER WILL PARALLEL THE FEEDER RING. THESE WILL BE SEPARATE CABLES LASHED ON THE SAME STRAND OR PULLED IN THE SAME CONDUIT.

THERE ARE AREAS WHERE THERE IS NO POLE LINE FOR THE FEEDER RING. FEEDER RING IS DESIGNED WITH (2) 1.25" CONDUITS IN THESE AREAS.

ALL MAIN LINE ROUTES ARE DESIGNED WITH SUFFICIENT FIBER TO ALLOW FOR POTENTIAL FOR FUTURE GROWTH.

DESIGN INCLUDES (1) GPON CABINET AND (4) SPLITTER CABINETS, EACH WITH 288 DIST PORTS. SERVING AREAS WERE DESIGNED AT 80% OF CABINET CAPACITY OR LESS.

TITLE: SHOSHONE FTTH DESIGN

RANGE	-	SECTION	-
ENGINEER	RMWT	TOWNSHIP	-
EXCHANGE NAME	SHOSHONE	EXCHANGE NUMBER	

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

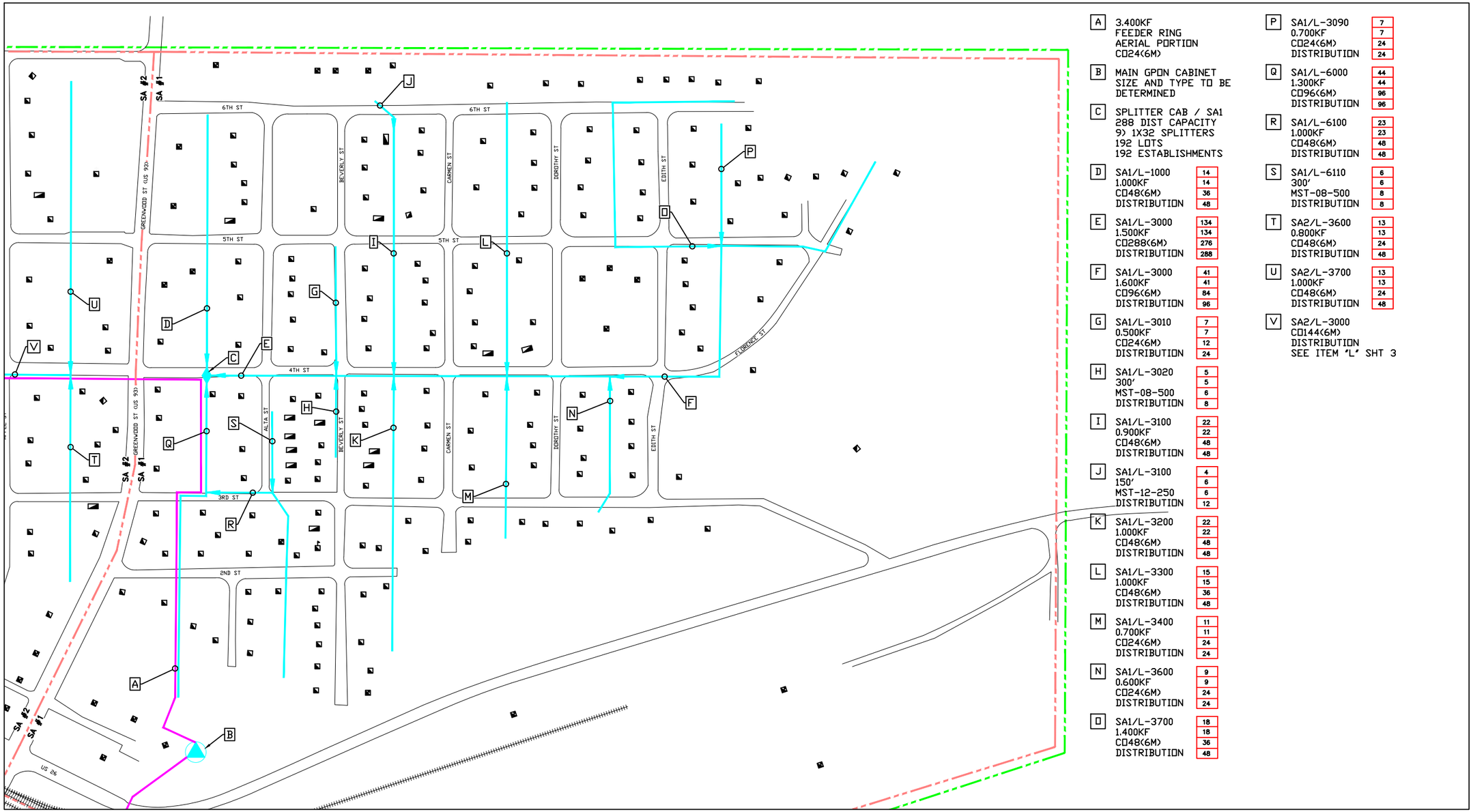
NORTH DIRECTION

PLOT DATE
-

JOB NUMBER

SHEET NUMBER
KEY

T:\CLIENT_FILE_DATABASE_ETS_RM21-147 SHOSHONE_DRAFTING_DWG\SHOSHONE DESIGN



SEE SHEET 5

A	3.400KF FEEDER RING AERIAL PORTION CO24(6M)		
B	MAIN GPON CABINET SIZE AND TYPE TO BE DETERMINED		
C	SPLITTER CAB / SA1 288 DIST CAPACITY 9) 1X32 SPLITTERS 192 LOTS 192 ESTABLISHMENTS		
D	SA1/L-1000 1.000KF CO48(6M) DISTRIBUTION	14 14 36 48	
E	SA1/L-3000 1.500KF CO288(6M) DISTRIBUTION	134 134 276 288	
F	SA1/L-3000 1.600KF CO96(6M) DISTRIBUTION	41 41 84 96	
G	SA1/L-3010 0.500KF CO24(6M) DISTRIBUTION	7 7 12 24	
H	SA1/L-3020 300' MST-08-500 DISTRIBUTION	5 5 6 8	
I	SA1/L-3100 0.900KF CO48(6M) DISTRIBUTION	22 22 48 48	
J	SA1/L-3100 150' MST-12-250 DISTRIBUTION	4 6 6 12	
K	SA1/L-3200 1.000KF CO48(6M) DISTRIBUTION	22 22 48 48	
L	SA1/L-3300 1.000KF CO48(6M) DISTRIBUTION	15 15 36 48	
M	SA1/L-3400 0.700KF CO24(6M) DISTRIBUTION	11 11 24 24	
N	SA1/L-3600 0.600KF CO24(6M) DISTRIBUTION	9 9 24 24	
O	SA1/L-3700 1.400KF CO48(6M) DISTRIBUTION	18 18 36 48	
P	SA1/L-3090 0.700KF CO24(6M) DISTRIBUTION	7 7 24 24	
Q	SA1/L-6000 1.300KF CO96(6M) DISTRIBUTION	44 44 96 96	
R	SA1/L-6100 1.000KF CO48(6M) DISTRIBUTION	23 23 48 48	
S	SA1/L-6110 300' MST-08-500 DISTRIBUTION	6 6 8 8	
T	SA2/L-3600 0.800KF CO48(6M) DISTRIBUTION	13 13 24 48	
U	SA2/L-3700 1.000KF CO48(6M) DISTRIBUTION	13 13 24 48	
V	SA2/L-3000 CO144(6M) DISTRIBUTION SEE ITEM 'L' SHT 3		

TITLE: SHOSHONE FTTH

EXCHANGE NAME	SHOSHONE	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S,5S
		RANGE	17E
		SECTION	1,36

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

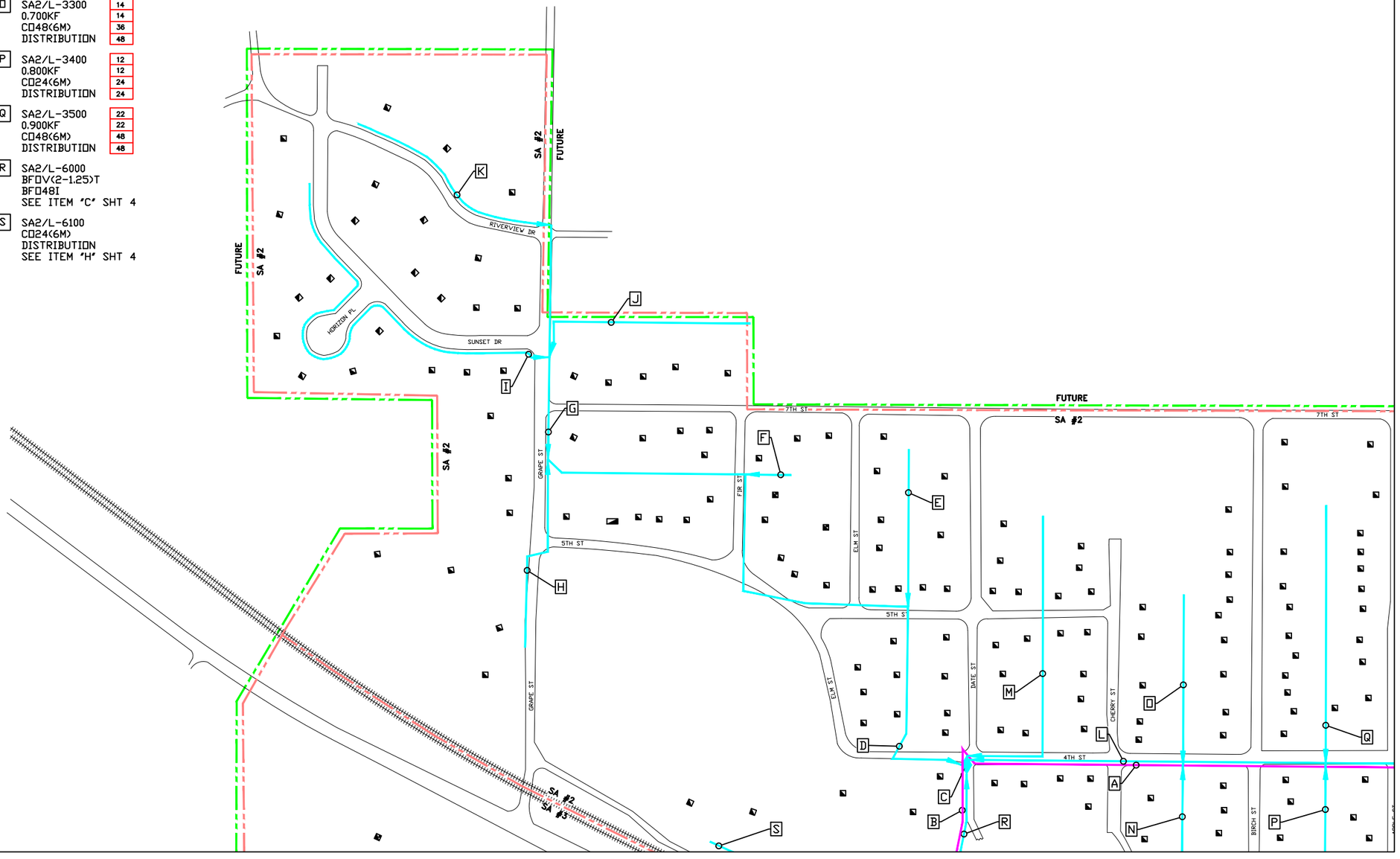
PLOT DATE
-

JOB NUMBER
-

SHEET NUMBER
2 OF 7

T:\CLIENT_FILE_DATABASE_ETS_RM21-147_SHOSHONE_DRAFTING_DWG_SHOSHONE_DESIGN

A	FEEDER RING AERIAL PORTION CABLE (6M) SEE ITEM 'A' SHT 2		
B	FEEDER RING BURIED PORTION BFOC24 SEE ITEM 'A' SHT 4		
C	SPLITTER CAB / SA2 288 DIST CAPACITY 9) 1X32 SPLITTERS 203 LOTS 203 ESTABLISHMENTS		
D	SA2/L-1000 2.250KF CABLE144(6M) DISTRIBUTION	77 77 120 144	
E	SA2/L-1100 0.600KF CABLE48(6M) DISTRIBUTION	10 10 24 48	
F	SA2/L-1050 200' MST-12-250 DISTRIBUTION	7 7 12 12	
G	SA2/L-1000 0.800KF CABLE72(6M) DISTRIBUTION	27 27 48 72	
H	SA2/L-1200 0.700KF CABLE24(6M) DISTRIBUTION	4 4 12 24	
I	SA2/L-1300 1.600KF BFOV(2-1.25)T& BFO48I DISTRIBUTION	16 16 36 48	
J	SA2/L-1400 0.800KF CABLE24(6M) DISTRIBUTION	5 5 12 24	
K	SA2/L-1500 0.900KF BFOV(2-1.25)T& BFO48I DISTRIBUTION	5 5 12 24	
L	SA2/L-3000 1.600KF CABLE144(6M) DISTRIBUTION	81 81 120 144	
M	SA2/L-3100 1.000KF CABLE48(6M) DISTRIBUTION	18 18 36 48	
N	SA2/L-3200 300' MST-12-500 DISTRIBUTION	7 7 8 12	
O	SA2/L-3300 0.700KF CABLE48(6M) DISTRIBUTION	14 14 36 48	
P	SA2/L-3400 0.800KF CABLE24(6M) DISTRIBUTION	12 12 24 24	
Q	SA2/L-3500 0.900KF CABLE48(6M) DISTRIBUTION	22 22 48 48	
R	SA2/L-6000 BFOV(2-1.25)T BFO48I SEE ITEM 'C' SHT 4		
S	SA2/L-6100 CABLE24(6M) DISTRIBUTION SEE ITEM 'H' SHT 4		



SEE SHEET 2

SEE SHEET 4

TITLE
SHOSHONE FTTH DESIGN

EXCHANGE NAME	EXCHANGE NUMBER
SHOSHONE	

ENGINEER	TOWNSHIP
RMWT	5S

RANGE	SECTION
17E	36,35

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

UTILITY LOCATIONS SHOWN ARE APPROX. IT'S THE CONTRACTORS RESPONSIBILITY TO DETERMINE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA.

NORTH DIRECTION

PLOT DATE
-

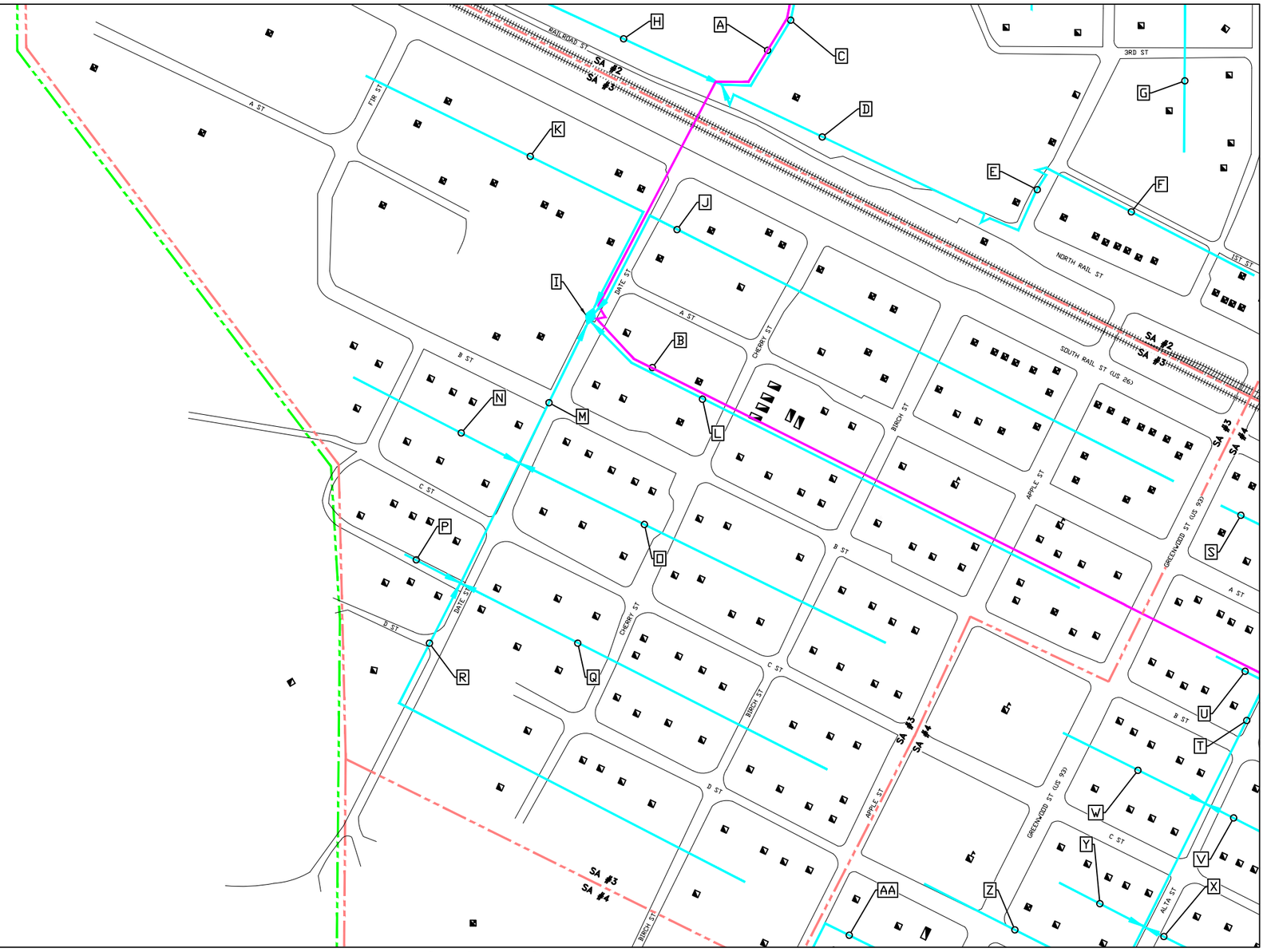
JOB NUMBER
-

SHEET NUMBER
3 OF 7

F:\CLIENT_FILE_DATABASE_ETS_RM21-147 SHOSHONE_DRAFTING_DWG_SHOSHONE DESIGN

SEE SHEET 3

A	FEEDER RING BURIED 1.700KF BF□V(2-1.25)T& BF□24I		
B	FEEDER RING AERIAL 2.000KF CD24(6M)		
C	SA2/L-6000 0.800KF WITH FEEDER BF□48I DISTRIBUTION	22 22 36 48	
D	SA2/L-6000 1.000KF CD48(6M) DISTRIBUTION	20 20 36 48	
E	SA2/L-6000 0.500KF BF□V(2-1.25)T& BF□48I DISTRIBUTION	20 20 36 48	
F	SA2/L-6000 0.900KF CD48(6M) DISTRIBUTION	15 15 36 48	
G	SA2/L-3400 CD24(6M) DISTRIBUTION SEE ITEM 'P' SHT 3		
H	SA2/L-6100 0.700KF CD24(6M) DISTRIBUTION	2 2 6 24	
I	SPLITTER CAB / SA3 288 DIST CAPACITY 6) 1X32 SPLITTERS 167 LOTS 167 ESTABLISHMENTS		
J	SA3/L-1000 2.000KF CD72(6M) DISTRIBUTION	36 36 60 72	
K	SA3/L-1100 1.200KF CD48(6M) DISTRIBUTION	14 14 24 48	
L	SA3/L-3000 1.600KF CD72(6M) DISTRIBUTION	14 14 24 24	
M	SA3/L-6000 1.000KF CD144(6M) DISTRIBUTION	80 80 120 144	
N	SA3/L-6100 0.700KF CD24(6M) DISTRIBUTION	10 10 24 24	
D	SA3/L-6200 1.200KF CD48(6M) DISTRIBUTION	24 24 36 48	
P	SA3/L-6050 200' MST-12-250 DISTRIBUTION	8 8 12 12	
Q	SA3/L-6400 1.200KF CD48(6M) DISTRIBUTION	23 23 36 48	
R	SA3/L-6000 1.400KF CD48(6M) DISTRIBUTION	13 13 24 48	
S	SA4/L-1000 CD48(6M) DISTRIBUTION SEE ITEM 'C' SHT 5		
T	SA4/L-6000 1.400KF CD144(6M) DISTRIBUTION	108 108 162 288	
U	SA4/L-9000 300' MST-12-500 DISTRIBUTION	11 11 12 12	
V	SA4/L-9100 CD24(6M) DISTRIBUTION SEE ITEM 'H' SHT 5		
W	SA4/L-9200 0.650KF CD24(6M) DISTRIBUTION	10 10 24 24	
X	SA4/L-9300 CD96(6M) DISTRIBUTION SEE ITEM 'I' SHT 5		
Y	SA4/L-9400 300' MST-12-500 DISTRIBUTION	8 8 12 12	
Z	SA4/L-9600 600' MST-6-750 DISTRIBUTION	1 1 6 6	
AA	SA4/L-9000 CD48(6M) DISTRIBUTION SEE ITEM 'E' SHT 6		



SEE SHEET 5

SEE SHEET 6

TITLE: SHOSHONE FTTH DESIGN

EXCHANGE NAME: SHOSHONE
EXCHANGE NUMBER:
ENGINEER: RMWT
RANGE: 17E
TOWNSHIP: 5S,6S
SECTION: 36,35,1,2

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

PLOT DATE
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JOB NUMBER
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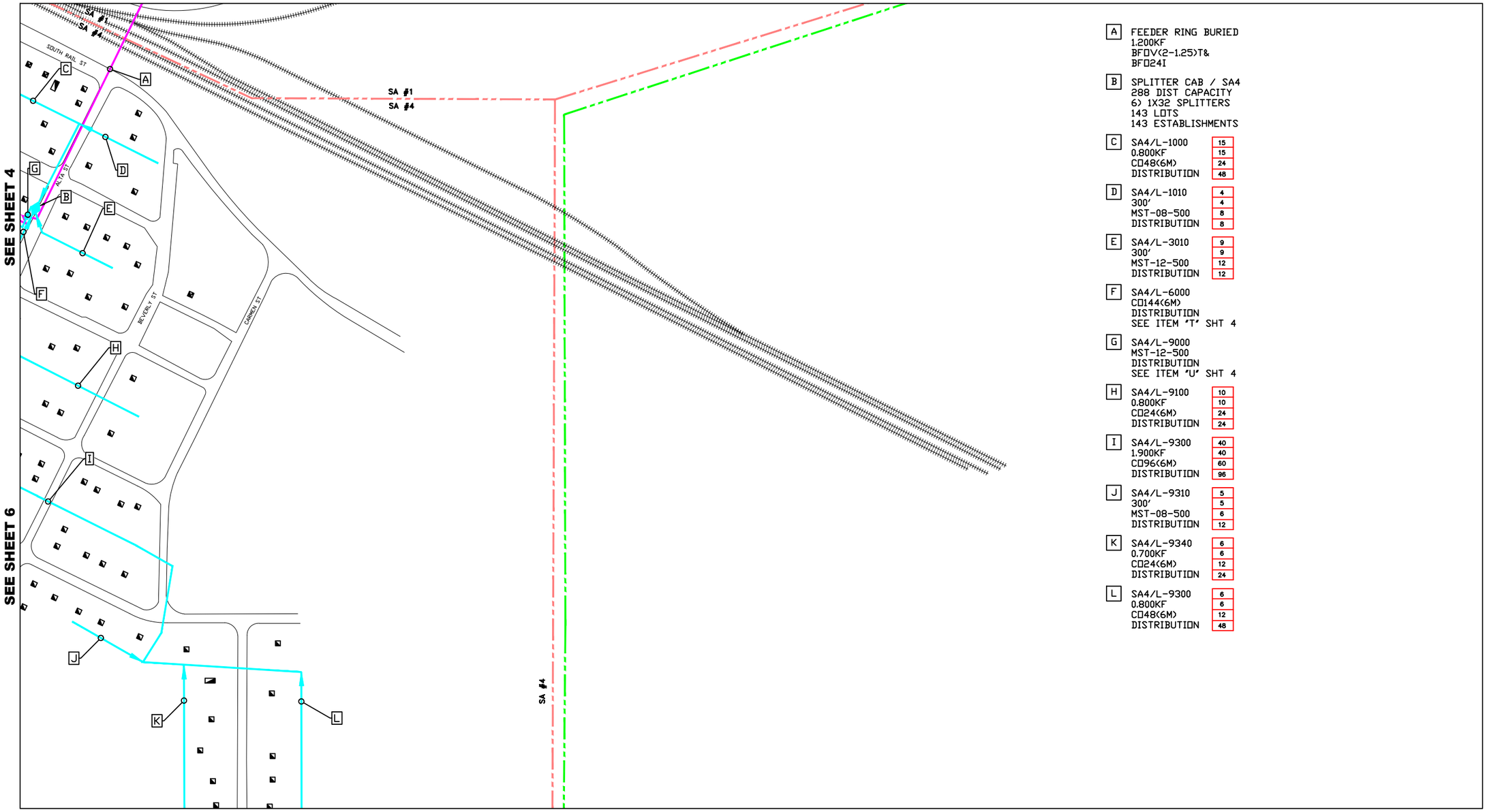
SHEET NUMBER
4 OF 7

T:\CLIENT_FILE_DATABASE_ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 2



SEE SHEET 4

SEE SHEET 6

A	FEEDER RING BURIED 1.200KF BFOV(2-1.25)T& BFO24I		
B	SPLITTER CAB / SA4 288 DIST CAPACITY 6) 1X32 SPLITTERS 143 LOTS 143 ESTABLISHMENTS		
C	SA4/L-1000 0.800KF CO48(6M) DISTRIBUTION	15 15 24 48	
D	SA4/L-1010 300' MST-08-500 DISTRIBUTION	4 4 8 8	
E	SA4/L-3010 300' MST-12-500 DISTRIBUTION	9 9 12 12	
F	SA4/L-6000 CO144(6M) DISTRIBUTION SEE ITEM 'T' SHT 4		
G	SA4/L-9000 MST-12-500 DISTRIBUTION SEE ITEM 'U' SHT 4		
H	SA4/L-9100 0.800KF CO24(6M) DISTRIBUTION	10 10 24 24	
I	SA4/L-9300 1.900KF CO96(6M) DISTRIBUTION	40 40 60 96	
J	SA4/L-9310 300' MST-08-500 DISTRIBUTION	5 5 6 12	
K	SA4/L-9340 0.700KF CO24(6M) DISTRIBUTION	6 6 12 24	
L	SA4/L-9300 0.800KF CO48(6M) DISTRIBUTION	6 6 12 48	

SEE SHEET 7

TITLE
SHOSHONE FTTH DESIGN

EXCHANGE NAME	SHOSHONE	RANGE	17E
EXCHANGE NUMBER		SECTION	1
ENGINEER	RMWT	TOWNSHIP	6S

CONTRACTOR GENERAL NOTES

- PEA GRAVEL PEDS
- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

PLOT DATE
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JOB NUMBER
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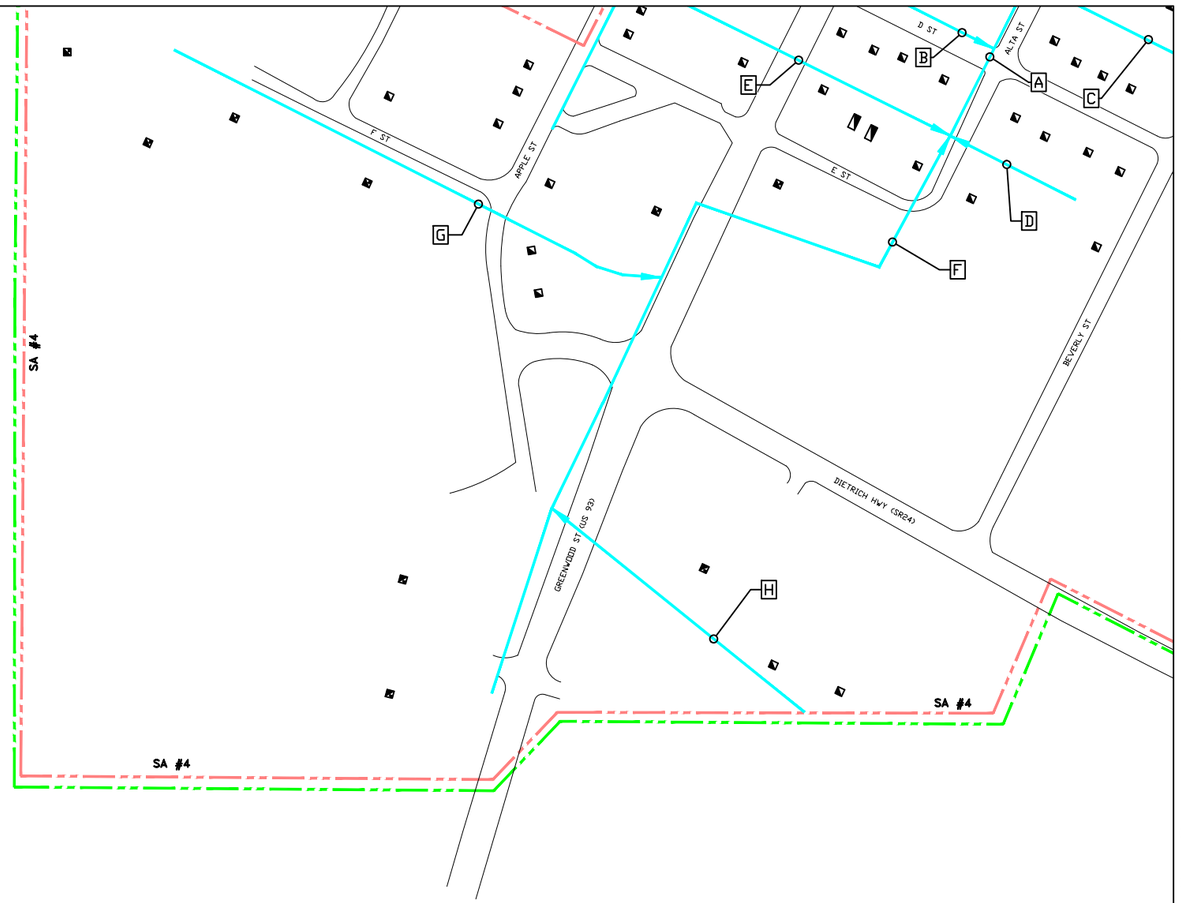
SHEET NUMBER
5 OF 7

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 2

A	SA4/L-6000 CD144(6M) DISTRIBUTION SEE ITEM 'T' SHT 4	
B	SA4/L-9600 MST-6-750 DISTRIBUTION SEE ITEM 'Z' SHT 4	
C	SA4/L-9300 CD96(6M) DISTRIBUTION SEE ITEM 'I' SHT 5	
D	SA4/L-9070	6
	350'	6
	MST-12-500	12
	DISTRIBUTION	12
E	SA4/L-9800	17
	1.400KF	17
	CD48(6M)	36
	DISTRIBUTION	48
F	SA4/L-9000	16
	2.100KF	16
	CD48(6M)	24
	DISTRIBUTION	48
G	SA4/L-9900	9
	1.400KF	9
	CD48(6M)	24
	DISTRIBUTION	48
H	SA4/L-9090	3
	0.900KF	3
	CD24(6M)	12
	DISTRIBUTION	24



SEE SHEET 5

SEE SHEET 7

TITLE: SHOSHONE FTTH DESIGN

EXCHANGE NAME	SHOSHONE	ENGINEER	RMWT
EXCHANGE NUMBER		TOWNSHIP	6S
		RANGE	17E
		SECTION	1

CONTRACTOR GENERAL NOTES

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- RE-BOND EX. CABLES
- STENCIL PEDS

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NORTH DIRECTION

PLOT DATE

JOB NUMBER
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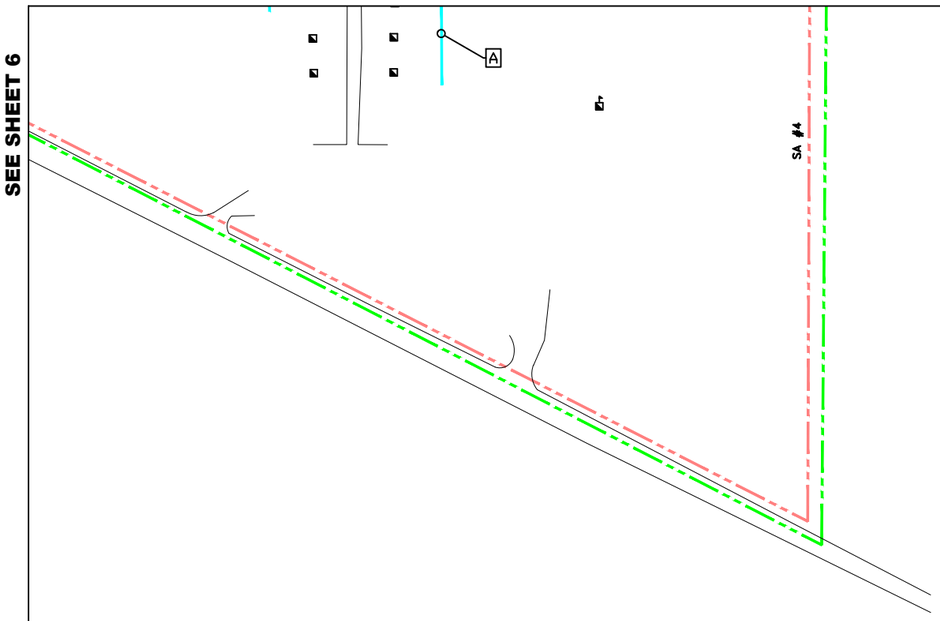
SHEET NUMBER
6 OF 7

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

SEE SHEET 5

SEE SHEET 6



A SA4/L-9300
CD48(6M)
DISTRIBUTION
SEE ITEM 'L' SHT 5

TITLE
SHOSHONE FTTH DESIGN

EXCHANGE NAME	ENGINEER	RANGE
SHOSHONE	RMWT	17E
EXCHANGE NUMBER	TOWNSHIP	SECTION
	6S	1

CONTRACTOR GENERAL NOTES

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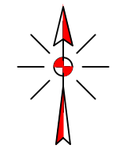
NORTH DIRECTION



PLOT DATE
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JOB NUMBER
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SHEET NUMBER
7 OF **7**

T:\CLIENT_FILE_DATABASE\ETS\RM21-147 SHOSHONE\DRAFTING\DWG\SHOSHONE DESIGN

Lincoln County
Speed Test Samples

The following table contains speed tests collected through public outreach surveys in Lincoln County. The speed tests were collected from participants who filled in the broadband survey before July 8th, 2021. Participants for the survey outreach were not selected based on any criteria other that living in Lincoln County. Participation in the survey and optional speed test were voluntary and uncompensated, serving as the least biased sampling we could acquire.

resultDate	ipAddress	country	region	city	serverName	serverSponsor	ispName	OS	download (Mbps)	upload (Mbps)	latency (ms)
2021-06-17T00:38:25.000Z	216.57.165.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Safelink Internet Services	Android 11	0.732	2.028	70
2021-06-15T05:29:43.000Z	205.185.74.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Rise Broadband	iOS 14.6	4.356	0.773	31
2021-06-15T05:29:02.000Z	205.185.74.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Rise Broadband	iOS 14.6	4.538	0.891	27
2021-06-23T16:54:57.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	iOS 13.6.1	6.032	1.088	22
2021-06-16T17:08:58.000Z	208.98.146.0	United States	Idaho	Dietrich	Idaho Falls, ID	Syringa Networks	Syringa Networks	Chrome OS	6.099	1.049	30
2021-06-16T17:08:07.000Z	208.98.146.0	United States	Idaho	Dietrich	Idaho Falls, ID	Syringa Networks	Syringa Networks	Chrome OS	6.131	1.051	34
2021-06-17T02:11:12.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Syringa Networks	Windows 10	6.178	1.06	26
2021-06-17T02:12:16.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Syringa Networks	Windows 10	6.201	1.069	20
2021-06-07T16:06:21.000Z	208.98.146.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Syringa Networks	iOS 14.6	6.38	1.049	20
2021-06-07T17:20:49.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Windows 10	7.608	1.636	40
2021-06-21T17:02:33.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	Windows 10	7.74	0.996	22
2021-06-09T02:30:25.000Z	216.57.165.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.4	16.143	3.722	22
2021-06-28T16:39:57.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	24.723	4.807	30
2021-06-28T16:41:17.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	24.862	4.955	37
2021-06-09T01:35:17.000Z	216.57.165.0	United States	Idaho	Shoshone	Albion, ID	ATC Communications	Safelink Internet Services	Windows 10	3.023	0.996	54
2021-06-15T03:09:42.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	4.86	0.734	40
2021-06-15T03:12:17.000Z	75.98.149.0	United States	Idaho	Shoshone	Albion, ID	ATC Communications	Safelink Internet Services	Android 11	5.625	0.841	65
2021-06-06T20:41:23.000Z	75.98.149.0	United States	Idaho	Shoshone	Rockland, ID	Direct Communications	Safelink Internet Services	iOS 14.6	9.848	2.045	55
2021-06-06T20:40:42.000Z	75.98.149.0	United States	Idaho	Shoshone	Rockland, ID	Direct Communications	Safelink Internet Services	iOS 14.6	10.107	1.927	56
2021-06-06T20:54:43.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	10.11	1.886	33
2021-06-16T04:22:37.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	11.319	1.625	35
2021-06-16T00:19:40.000Z	75.98.149.0	United States	Idaho	Shoshone	Idaho Falls, ID	Syringa Networks	Safelink Internet Services	Android 10	17.821	4.043	43
2021-06-10T00:46:17.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Android 11	4.985	0.957	33
2021-06-07T16:23:31.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	OS X 10.15.6	5.98	0.97	33

Lincoln County
Speed Test Samples

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2021-06-23T16:54:57.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	iOS 13.6.1	6.032	1.088	22
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2021-06-17T02:12:16.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	CenturyLink	Syringa Networks	Windows 10	6.201	1.069	20
2021-06-07T16:06:21.000Z	208.98.146.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Syringa Networks	iOS 14.6	6.38	1.049	20
2021-06-07T17:20:49.000Z	162.212.198.0	United States	Idaho	Dietrich	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Windows 10	7.608	1.636	40
2021-06-21T17:02:33.000Z	208.98.146.0	United States	Idaho	Dietrich	Boise, ID	Syringa Networks	Syringa Networks	Windows 10	7.74	0.996	22
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2021-06-06T20:54:43.000Z	75.98.149.0	United States	Idaho	Shoshone	Rupert, ID	Safelink Internet Services	Safelink Internet Services	iOS 14.6	10.11	1.886	33
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2021-06-10T00:46:17.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	Android 11	4.985	0.957	33
2021-06-07T16:23:31.000Z	76.8.7.0	United States	Idaho	Richfield	Rupert, ID	Safelink Internet Services	Safelink Internet Services	OS X 10.15.6	5.98	0.97	33

Idaho Broadband Fund: CARES Act Broadband Grant

Applicant	Tony Morley
Applicant ID	APP-004814
Company Name	Heyburn
Recipient Address	Heyburn 941 18th St Heyburn, ID 83336
Phone	(208) 679-8158
Email	tmorley@heyburncity.org
Amount Requested	$959,921.00
Status	Submitted
Funded	☐

Application Title: City of Heyburn Idaho Broadband Project 2021

Applicant Information

NOTICE: Grant applications, challenges, and responses to challenges will be posted to the Idaho Department of Commerce website

1.Program Description
The Idaho Broadband Advisory Board is soliciting projects that meet the CARES Act funding criteria for the $10 million appropriated to the Idaho Department of Commerce from the Federal COVID Relief Fund. These funds may only be expended to provide financial assistance in broadband infrastructure consistent with CARES Act criteria. The Idaho Broadband Advisory Board seeks to fund broadband projects across the state that are necessary for the COVID-19 public health emergency, and may include assisting with or improving distance learning, telehealth, telework, and public safety. This Idaho Broadband Fund: CARES Act Broadband Grant (the “Broadband Grant”) is designed to meet the CARES Act criteria, helping Idaho rebound from the COVID-19 public health emergency.

Question: Applicant’s contact information: a. Name b. Title/Position c. Mailing Address d. Email Address e. Phone Number

a. Tony Morley
b. Heyburn City Administrator
c. 941 18th Street, Heyburn, Idaho 83336
d. tmorley@heyburncity.org
e. 208-679-8158

Question: List the cities/communities in the census blocks where the project(s) will take place.

The proposed project will include the city of Heyburn and will have impact in the surrounding communities. Services will include the following census blocks: 1050, 1055, 1068, 2048, 1080, 4001, 1076, 2055, 2027, 4084

Question: Grant Administrator a. Provide the name and title of the designated grant administrator. b. Provide the email address of the designated grant administrator. c. Provide the phone number of the designated grant administrator.

a. Jake Goddard, Disaster Recovery Assistant
b. jgoddard@csi.edu
c. 208-732-5727 ext 3013

Project Requirements

2.Eligible Projects
A. To be eligible for funding under the Broadband Grant, projects must meet the following eligibility criteria:

- Projects must satisfy the CARES Act criteria, which is designed to address key areas of public health and safety by improving opportunities to telework, improving access to telehealth services, facilitating distance learning, and improving public safety (CARES Act Federal Register Guidance can be found here. Frequently asked questions can be referenced here.)
- Projects must be necessary due to the COVID-19 public health emergency.
- Projects must expand rural broadband capacity to assist with telework, telehealth, distance learning, and public safety. Projects that would not be expected to increase capacity to a significant extent until the need for telework, telehealth, distance learning, and public safety have passed due to this public health emergency would not be necessary due to the public health emergency and therefore would not be eligible uses of Broadband Grant funds. Projects must provide broadband service within the proposed project areas.
- Projects must be completed and operable and verified no later than December 31, 2021. **Projects that are not completed, operable, and verified by December 31, 2021 will not be reimbursed.**
- Include broadband infrastructure and equipment costs meeting CARES Act criteria. Satellite service is not eligible for grant award.

Eligible applicants may apply for multiple grants. County governments may apply for grants on behalf of unincorporated communities.

Question: Does your project meet the CARES Act criteria?

☑ Yes

☐ No

Question: I understand that the State of Idaho will provide no funding and have no obligations for CARES funded projects that fail to be completed by December 31, 2021.

☑ Yes

☐ No

Scored Criteria

Scored Criteria
1. Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide: the broadband service being sought, the required technologies and equipment, and the installation and operation of the new broadband service. (30 Points)
a. Scope of Work: outlines the detailed plans of the infrastructure build. This may include, but is not limited to, the following: project area, type of infrastructure installed, locations of underserved households, known existing infrastructure, known existing anchor institutions (schools, hospitals, public facilities, etc.), potential middle-mile infrastructure that will be utilized, and locations of existing infrastructure.
2. Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community? (25 Points)
3. Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future? (20 Points).
4. Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000) (Y/N) (15 Points).
5. Explain how your project delivers a cost-effective broadband infrastructure solution to the community (10 Points).

Question: Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide the proposed service.

The City of Heyburn is proposing to build on our previous successful municipal broadband infrastructure to provide broadband access to the community at large. We propose installing a 24-count armored single-mode fiber line from an existing Point of Presence (POP) in Burley, owned by the City of Burley (one of our community partners), and extending this connection to City Hall in Heyburn. From City Hall, we will extend 12-count armored single-mode to the Police Department, Parks-and-Rec Building, and a newly constructed tower. We will also extend fiber to the building located to the east of City Hall. While previously an employee break room and storage building, the east side building will be converted into a Digital Learning and Access Center through matching funds from the City and community partners. This space, furnished with computers, will serve as an educational space and community center, available 24 hours a day via automated door access and secured with cameras.

Upon completing this project, the City of Heyburn and surrounding areas will have cutting-edge fiber internet connections. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The city will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE) symmetrical and modern wireless solutions for immediate deployment. The estimated cost of this project is$954,921.

At this point, the goal is to extend service using fiber to the center of the city and provide symmetrical upload and download speeds ranging from 100 Mbps –10,000 Mbps.

The following modes of distribution will be employed to provide this service:(FTTH/FTTP)using Single Mode Fiber and modern wireless 5 GHz, 6 GHz, and millimeter wavelength technology in the 60-80 GHz range to connect homes, business, and municipal facilities. As part of this plan, a 150 ft tower will be constructed south of city hall on property owned by the city.Plans and permits are ready and available for all work.

Additionally, we will provide public internet access (spaces) at the community center, city hall, RV, Riverfront, and all public parks.A funded project will provide a high quality of service to citizens while increasing the capacity and hardiness of the city infrastructure, further improving the capabilities of public safety and municipal action. The proposed improvements will serve the community by creating a "future proof" source of reliable and innovative broadband connectivity.

Several ISPs could provide the services and infrastructure proposed in this application(e.g.,PMT, CenturyLink, Viasat, Hughes Net, Sparklight, and Rise Broadband). However, we posit the following, "Why have they chosen not to provide adequate services that they seem capable of delivering and that have been sought by government, businesses, and citizens?"

Our communities have been let down by incumbent providers and are looking for an integrative solution that encourages community-focused internet solutions. Learning from other municipalities, we seek to create a community-owned infrastructure, inviting ISPs to compete through community-sanctioned RFP processes. This process will ensure community-focused services, achieving the fast, affordable, reliable broadband access Heyburn citizen genuinely need and deserve.

Question: Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community?

Lack of access to fast, reliable, and affordable broadband internet has separated rural Americans from much-needed services and opportunities for economic development, public safety, telehealth, and education. This proposal directly promotes increased equity by establishing the necessary foundational infrastructure to provide vital municipal, residential,and public access points in Heyburn. This project focuses first on critical municipal services, while providing residential connectivity and general availability for those with the most need through accessible public spaces.

Broadbandnow shows that fiber connectivity is available to less than 25% of Heyburn. While there are 12 providers in Heyburn, service quality remains low, with average download speeds of 34.67Mbps;50.6% slower average in Idaho and 169.3% slower than the national average. While deemed minimally adequate, the current services are not "future proof" and have proved insufficient during the COVID-19 pandemic.

Question: Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future?

This project explicitly addresses significant rural broadband access disparities in Heyburn,

directly addressing criteria in the CARES Act guidelines.

This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of citizens in rural Idaho to access and utilize resources through fast, reliable, and adequate broadband connectivity.

The planned infrastructure improvements are designed to be “future proof” mitigating the effects of similar widespread emergencies. The proposed infrastructure provides service and speed improvement that are more than adequate for today's needs while scalable for meeting the future needs of Heyburn. Well-designed and implemented infrastructure improvements are essential for preparing for the needs of today and for those of the next generation.

Question: Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000)?

- [x] Yes
- [ ] No

Question: Explain how your project delivers a cost-effective broadband infrastructure solution to the community?

The proposed infrastructure improvements use sensible engineering and community partnerships, primarily with Burley, to provide cost-effective improvements to broadband access. The proposal builds on previous successes both in Heyburn and Burley to expand services while creating an economically viable and sustainable network. By developing the existing infrastructure (e.g., utilizing existing backhauls and the POP in Burley), we can build more economical solutions for increased service throughout Heyburn while preparing for future growth. Learning from previous successes and utilizing proven methodologies provides Heyburn a high degree of self-efficacy in successfully completing this project if funding is provided.

Additional Requested Information (if applicable)

Question: Please detail any project match included to complete this project.

Heyburn commits $100,000.00 to the creation,construction,and equipping of a much-needed Community Center.The site has been identified,which is a city owned building adjacent to City Hall,currently a break room for City employees.This Center will provide 24/7 access to Heyburn citizens and will be monitored with security,camera, and door access systems.The Center will be equipped with six (6) full-service computers with access to 1GB of internet speeds, in addition to all other necessary resources (printers, tables, chairs, study areas, etc.). It will act as a gathering place for citizens,businesses,and students,with the resources needed to assist them.Most importantly, we anticipate this Community Center will be the entry point for an

eventual and highly desired City Library which we currently do not have and believe will be a vital service for all citizens.

Question: Estimated total project cost?

959921.00

Question: Number of households that will be connected to broadband service under the scope of the grant if applicable? If not applicable please answer N/A.

1,190 to 3,300

Question: What is the average cost per household of new broadband service based on this project cost if applicable? If not applicable please answer N/A.

$290.88 to $806.65. The number of households within immediate reach is 1,190 withup to 3,300availableto be connected in partnership with Burley.

Question: What is the maximum broadband speed that will be provided by the project?

10,000Mbps/10,000Mbps

Question: Are permits, permissions, and zoning requirements all obtainable in order for the project to be completed and paid for by December 31, 2021 if it is a CARES funded project? Please provide details.

Yes
This grant has been written in cooperation with appropriate permitting authorities. Permitting, permissions, and zoning requirements have been considered, and where possible and applicable, are in progress.

Question: Please describe who will be providing the broadband service and ownership of the broadband infrastructure..

Heyburn is posed to overcome their broadband internet connectivity deficits with an innovative, collaborative effort to develop community-owned broadband infrastructure that is self-sustaining, invites better service through competitive bidding, and allows citizens to access quality internet now and for years to come.Community leaders will identify a trusted, vetted, and capable network partners who cooperatively work to realize the integrative vision of the community of Heyburn.

Question: Describe how the project will be administered and audited for completion, and how the accounting will be performed.

Administration and auditing for completion will be completed in co-creation with Region IV Development, Inc. in accordance with the rules and regulations of the project, state, and county.

Question: Has your project area received or been awarded any federal funds (CAFII/RDOF/USDA Reconnect) in the past two years, or will it receive federal funding over the next two years? If so, explain why additional funding was/is necessary in the project area?

No

Question: Has your project area received state funds (Cares Act Broadband Grants, E-Rate, etc.) in the past two years? If so, please explain what state funds were received and why the additional state funding was necessary in the project area.

No

Question: Include any other relevant information as to why your project should be considered for funding.

Heyburn and its community partner, Burley, have had considerable success in completing similar projects of this type and magnitude in the recent past. Further, these projects have consistently produced results surpassing original goals and providing more services and successes than our ambitions anticipated. Providing funding to Heyburn is not a gamble, but an investment into the future of a city,the state of Idaho, and rural Idahoans.

Question: Submit 10 or more, recent, fixed location Speed Tests. Applicants can choose which speedtest application to use across the proposed project area (if applicable).

13_HEY_Speed_Tests.pdf (7/16/2021 10:41 AM)

Attachments & Additional Supporting Documents

Upload Required Attachments & Additional Supporting Documents

Project Attachment Templates:
CARES Act Certification
Grant Budget Template
Project Schedule Form
Letters of Support/Community match template

Question: Project Area Identification Documentation: Applicant must upload supporting documents identifying the scope of work for the proposed project(s). Applicant must include 1Pdf &1Shape/Kmz map clearly showing the location and details of the proposed project.

City_of_Heyburn_CensusBlocks_Shape_Files.zip (7/16/2021 11:02 AM)
City_of_Heyburn_Maps_Project_Area_Identification.pdf (7/16/2021 11:02 AM)
City_of_Heyburn_Scope_of_Work.pdf (7/16/2021 11:01 AM)

Question: Grant Budget Template: Complete, upload, and attach to the application a completed Grant Budget Template for the project that outlines each of the various costs.

City_of_Heyburn_Grant_Budget.pdf (7/16/2021 11:06 AM)

Question: Project Schedule Form: Complete, upload, and attach to the application the Project Schedule Form.

City_of_Heyburn_Project_Schedule.pdf (7/16/2021 11:06 AM)

Question: CARES Act Certification: Upload and attach to the application a notarized CARES

Act Certification that this project meets the CARES Act criteria.

City of Heyburn CARES Act Cert 2021.pdf (7/15/2021 4:40 PM)

Question: Letters of Support: Upload and attach to the application any Letters of Support or Community Match documentation. (if applicable)

City_of_Heyburn_Business_Support_Letters.pdf (7/16/2021 11:07 AM)

Question: Letters of Commitments from Anchor Institutions: Upload and attach to application letters of commitments from community anchor institutions or public safety networks which will utilize your service if the project is funded. (if applicable)

City_of_Heyburn_Anchor_Letters.pdf (7/16/2021 11:09 AM)

Question: Community Broadband Plan: Upload and attach a copy of your Community Broadband Plan (if applicable).

City_of_Heyburn_Community_Broadband_Plan.pdf (7/16/2021 11:34 AM)

Question: Any applicable Site Plans, studies, or photographs.

City_of_Heyburn_Technical_Overview.pdf (7/16/2021 11:37 AM)
City_of_Heyburn_FAQs.pdf (7/16/2021 11:36 AM)
City of Heyburn Idaho Broadband Grant Resolution 2021.pdf (7/15/2021 4:48 PM)

Signature

Your identity has been authenticated through the login process with a unique email address and password available only to you. You agree that by typing your name, title and date below, you are electronically signing the application. By electronically signing the application, you acknowledge and represent that you understand and accept all the terms and conditions stated within the application and declare that the information provided is true and that the documents you are submitting in support of your application are genuine and have not been altered in any way.

Question: Type your name.

Tony Morley

Question: Type your title.

Heyburn City Administrator

Question: Type the submission date.

7/16/2021

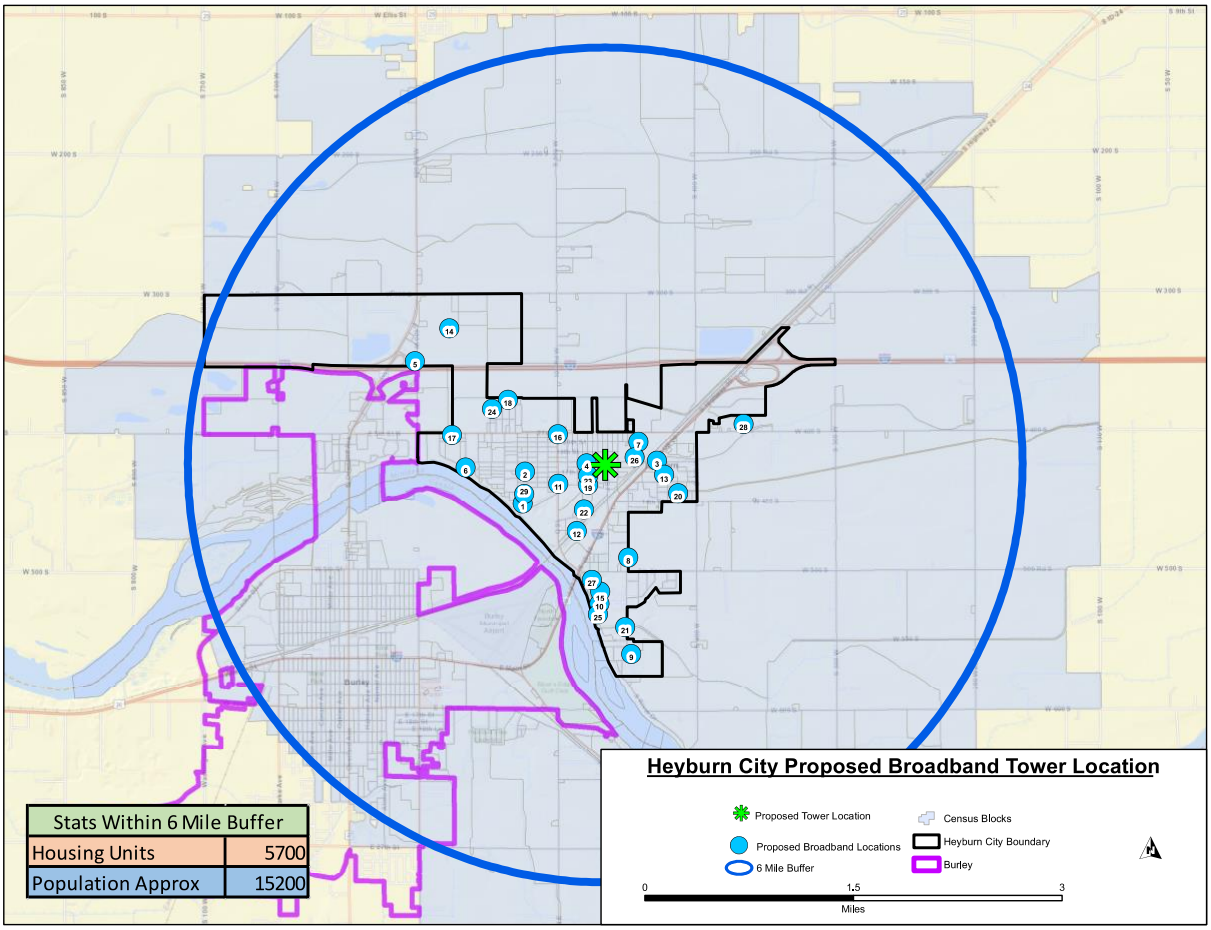
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn
Maps Project Area Identification

Outlines the **proposed area of service** encompassing the City of Heyburn and surrounding communities.

Project Area Map



The proposed project will include the city of Heyburn and will have impact in the surrounding communities. Services will include the following census blocks: 1050, 1055, 1068, 2048, 1080, 4001, 1076, 2055, 2027, 4084

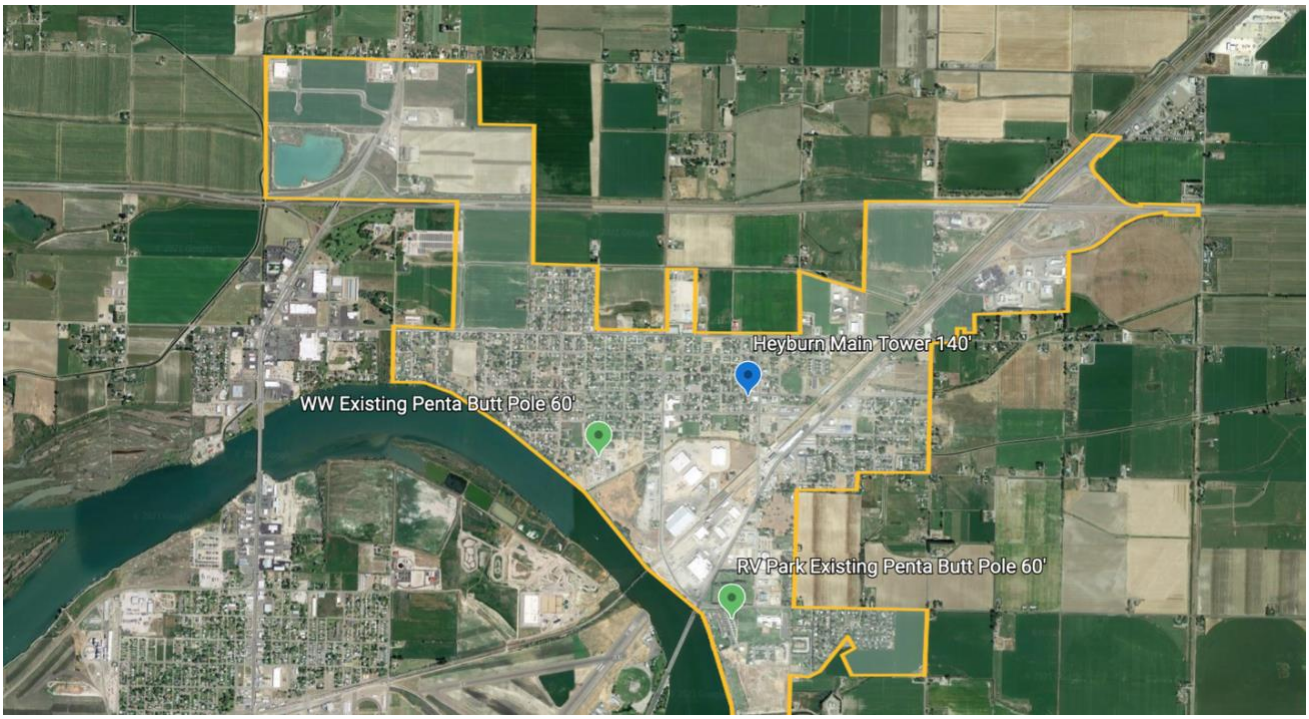
This work can reach 1,190 residences with potential to reach 3,300 residences in partnership with Burley and is also scalable for future expansion and fiber –to the home applications. Successful implementation of residential offerings by our community partner Burley, shows proof of concept and a great example of future scaling in Heyburn.

The current broadband speeds provided in Heyburn max out at 1000Mbps; however, max speed availability is low. This project will provide speeds up to 10,000Mbps. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This project proposes wired fiber infrastructure that is scalable for future uses.

City Offices 60’ Pole

Existing RV Park 50’ Vantage

Existing WW Pole 60’



Heyburn Project Area with Pins

Streets Department 60’ Pole

// July 15th, 2021

City of Heyburn
CARES Act Broadband Grant

Proposal Scope of Work

Developing **cutting-edge fiber Internet** to allow residents in the City of Heyburn to thrive in an increasingly digital world

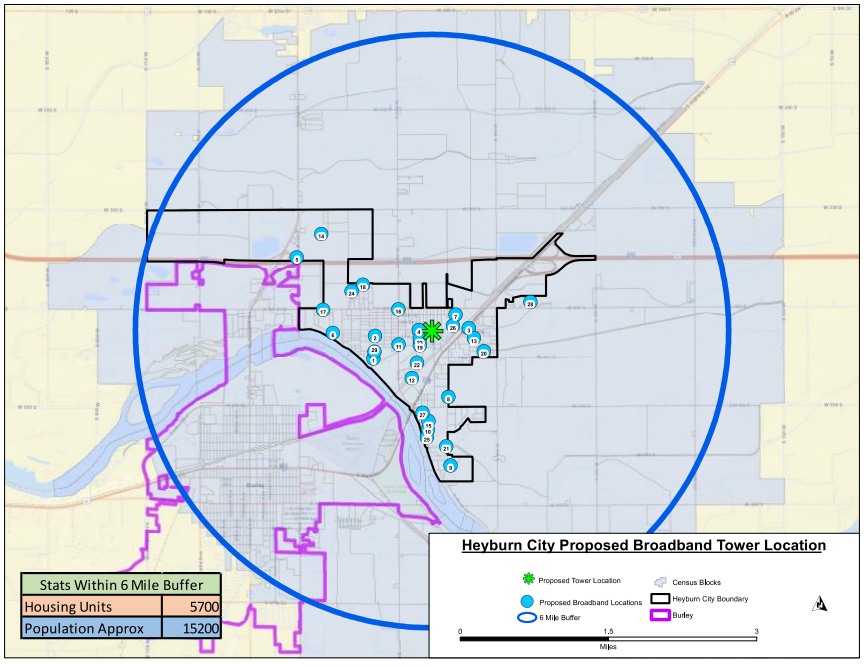
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

Introduction

In Heyburn City, **lack of access** to adequate broadband internet is the largest roadblock to education, healthcare, public safety and industry development. The COVID-19 health emergency has exacerbated this hardship.

Project Area

The map below indicates the area where a communications tower would be most beneficial within Heyburn City. It also illustrates locations of City facilities, public spaces, potable water sites, wastewater plants, lift stations, electrical substations, irrigation and other critical infrastructure where current connectivity is greatly lacking. These locations will offer the most ideal coverage to underserved households and organizations within the City and its surrounding areas.



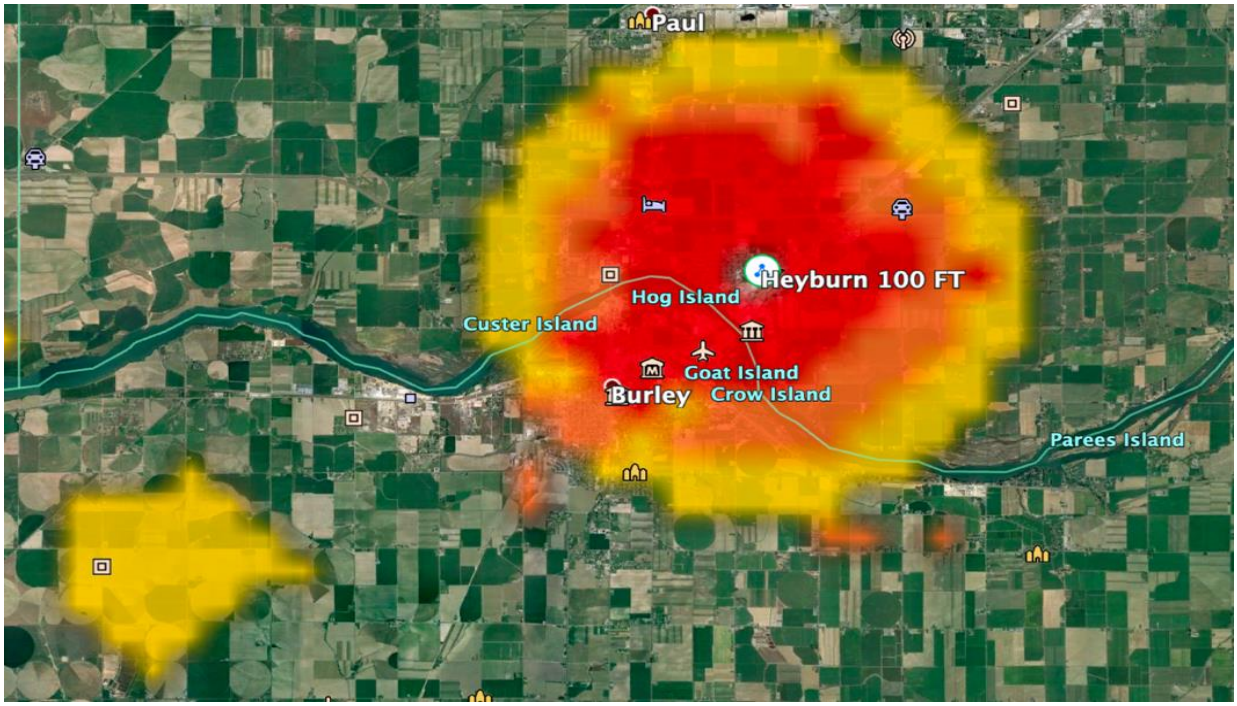
Main Communications Tower

Based on the proposed tower location, taking into account the topography of the area, a main communication tower, at 140', will be erected to provide the best line of site for connection points within the area. The scope of work to build this tower will include the following.

- Provide GeoTechnical soil reports
- Procure building permits from city and county as necessary.
- Procure main power to tower site.
- Excavate and prepare site for tower base.
- Underground electrical work.
- Install engineered rebar cage and pour concrete foundation.
- Set tower base template in concrete foundation
- Concrete to pass pressure test (20-30 days after pour).
- Install 140' self-supporting tower.
- Install according to local building code and engineered plans.
- Install electrical needs according to electrical plans.
- Install Outdoor NEMA rated Network Cabinet
- Low-Voltage Cabling
- Cable and equipment include a backhaul 12-Strand CMX OM3 cable, Cat 6 CMX Network Cable to the sector arrays and a fiber distribution box.
- Install mounting gear/bracing for backhaul radios and sector arrays.
- Install 1Gb Point to Point backhaul radios.
- Install six (12) sector arrays for 360-degree coverage around tower.

Coverage Area

This single tower will provide broadband coverage across the City and its surrounding areas. There will be spots where line of site is not possible due to trees or other obstructions; however, with the other sites and locations proposed to provide connectivity to public infrastructure, this issue will be greatly diminished. These other sites can be utilized to provide broadband to nearby locations as well.



Red	Best coverage area
Orange	High coverage area with some obstructions
Yellow	Possible with obstructions
Green	Low possibility with obstructions
No Color	No coverage

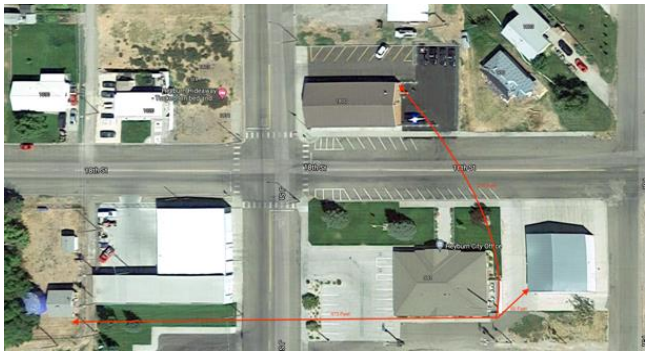
City Parks and Public Spaces

There are 7 sites throughout the city that are designated as parks or public spaces. 60’ penta butt poles will be erected and outfitted with the equipment to provide access to public Wi-Fi.

Fiber Buildout

Fiber will be built to the following locations by utilizing a boring rig that will lay conduit to precise locations.

- **Police Department**
- **Public Works**
- **Parks Department**



Wireless Point to Point

There are 22 locations throughout the City including Wastewater lift stations, drinking water wells, irrigation pumps, and an electrical substation, where 60’ penta butt poles will be erected to provide connectivity to critical infrastructure.

Known Existing Infrastructure

Heyburn City Hall

Heyburn City-owned 60’ penta-butt tower. This location will provide a secondary option to reach subscribers within the city that would be otherwise obstructed by large trees from the proposed tower location within the city. The placement of a cabinet and power would need to be addressed with the owner of the tower.

Heyburn Streets Department

The city-owned 60’ penta-butt tower will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Heyburn Wastewater

The city owned 60’ penta-butt tower will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Heyburn RV Park

The city owned 50’ penta-butt tower will provide an additional location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Known Existing Anchor Institutions

The known existing anchor institutions (schools, hospitals, public facilities, etc.) include the following.

Heyburn City

- City Hall
- Minidoka County Schools
- Mount Harrison Jr. High
- Mount Harrison High School
- Heyburn Elementary School
- South Central Public Health District
- United Electric Coop
- Post office
- Minidoka County Fire Protection District
- Heyburn City Wastewater treatment plant
- Mini-Minidoka Chamber of Commerce

Idaho Cares Act Broadband Grant Budget

Line Item	Grant Dollars				Total
Fiber Buildout (PD, PW, Parks)	$71,053.00				$71,053.00
Wastewater Connectivity (12 Sites)	$218,556.00				$218,556.00
Drinking Water Wells (3 Sites)	$54,639.00				$54,639.00
Irrigation Pump Stations (6 Sites)	$109,278.00				$109,278.00
Electrical (1 Site)	$18,213.00				$18,213.00
City Parks (5 Sites)	$91,065.00				$91,065.00
Public Spaces (2 Sites)	$36,426.00				$36,426.00
City Hall Building	$19,750.00				$19,750.00
Site 48 Comm Tower 140'	$279,239.00				$279,239.00
Work/Travel Expenses	$56,702.00				$56,702.00
Grant Administration	$5,000.00				$5,000.00
Totals	$959,921.00	$0.00	$0.00	$0.00	$959,921.00

Idaho Cares Act Broadband Grant Budget

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Idaho Cares Act Broadband Grant – Project Schedule

Activity	Responsible Party	Start Date	End Date
Grant Award	IBAB	8/2/2021	
Project Start	Contractor		
Provide GeoTech Report	Contractor	8/2/2021	8/16/2021
Procure Building Permits	Contractor	8/16/2021	8/25/2021
Procure Main Power to Sites	Contractor	8/16/2021	10/8/2021
Excavate and prepare sites for tower base	Contractor/Sub	9/1/2021	9/30/2021
Underground Electrical	Contractor/Sub	9/1/2021	9/30/2021
Install engineered rebar cage and pour foundation	Contractor/Sub	9/1/2021	9/10/2021
Set tower base template		9/1/2021	9/17/2021
Concrete Pressure Test		9/1/2021	9/30/2021
Install 140' Tower		9/30/2021	12/15/2021
Install Outdoor NEMA rated Network Cabinet		9/30/2021	12/15/2021
Low-Voltage Cabling		11/15/2021	12/15/2021
Install mounting gear, radios, and sector arrays		11/15/2021	12/15/2021
Bore Conduit to designated facilities		9/1/2021	10/18/2021
Run Fiber through conduit and connect		10/18/2021	11/5/2021
Install 29 x 60' poles in designated locations		9/1/2021	10/15/2021
Install mounting gear, radios, and sector arrays		10/15/2021	12/15/2021
Install network equipment onsite		10/15/2021	10/15/2021
Project Finalization			12/15/2021

SRFA
SNAKE RIVER FARMERS ASSOCIATION

21 December 2020

To Whom It May Concern:

Snake River Farmers' Association is an Idaho-based non-profit association of agricultural producers. Our organization was created in 1986 by farmers in the Burley/Paul area to assist farmers and ranchers with the application process and program compliance for the H-2A agricultural labor program. Since its founding, we have grown to serve more than 600 agricultural producers in 15 States as they sponsor over 4,800 individuals to provide seasonal work during their production seasons.

On behalf of our non-profit association and its 600+ Agricultural producer Members, I extend support for projects in the Mountain West, including in the Magic Valley Region of Southern Idaho, that would provide rural households greater (and in many cases, ANY) access to broadband internet service. Increased options, more infrastructure, and new service providers in the region would also increase fair competition, which I firmly believe would benefit all consumers in the Magic Valley.

Many of our Members have farms or ranches that are very remote. We consistently face communication challenges with several of them. It is concerning that in 2020, so many of our Members are still compelled to conduct business by US Postal Service or overnight courier service (e.g. FedEx and UPS). This significantly impacts our ability to timely submit their applications for seasonal Ag workers to various government agencies. Delays in the application process result in delays of seasonal worker arrival. This jeopardizes the producer's crop and livestock.

I firmly believe that increased internet access for communities in the rural Mountain West is critical for ongoing business viability for many employers, and to the extent that Eminent Technical Solutions seeks to help fill the void, I support their efforts to help provide more dependable and functional access to the internet the underserved members in our communities.

Thank you for your consideration in this matter. Please feel free to contact me with any questions at 208.436.9737 or via email at janderson@snakeriverfarmers.org.

Sincerely,

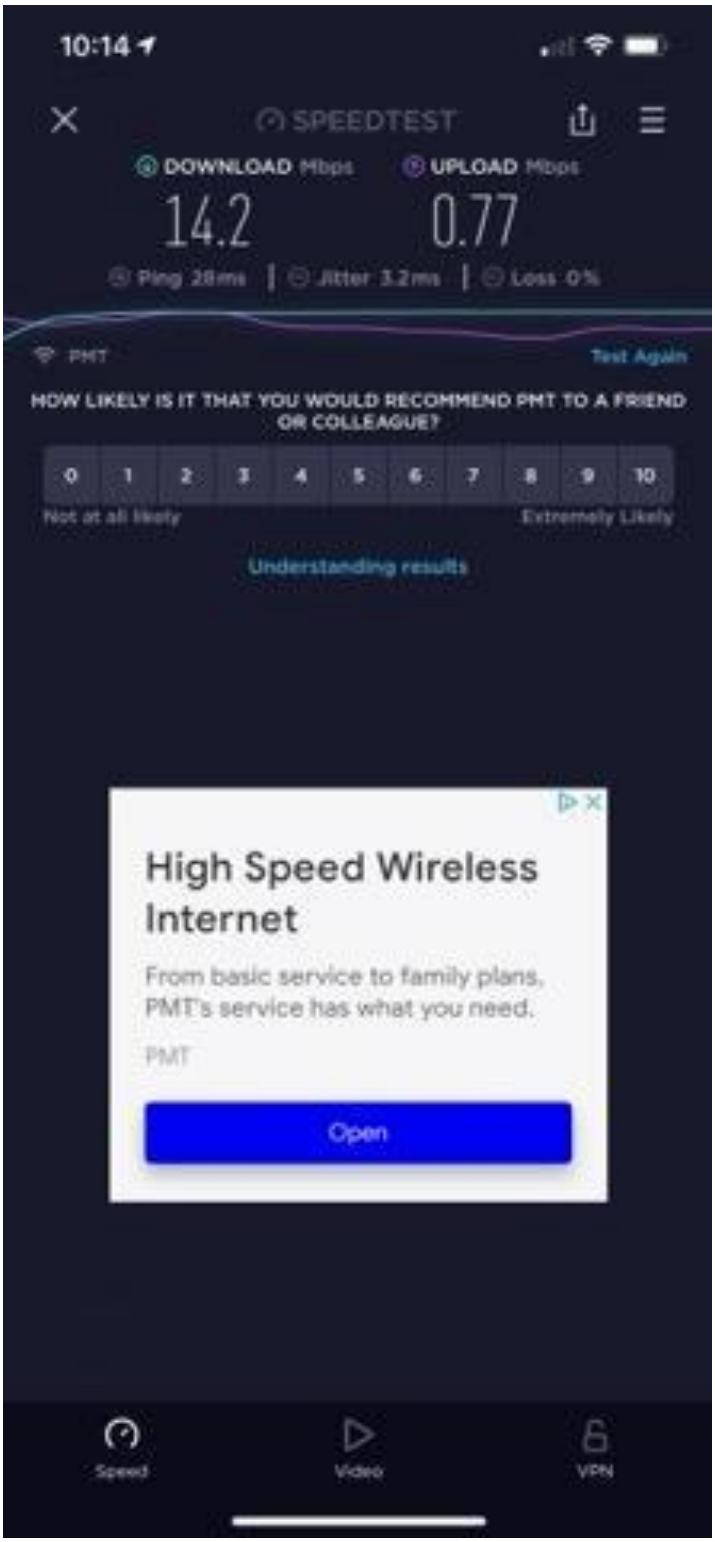
Joel Anderson
Executive Director

406 West 400 South, Heyburn, Idaho 83336 • (208) 436-9737 • Fax: (208) 436-0573 • info@snakeriverfarmers.org

City of Heyburn Speed Test Submissions

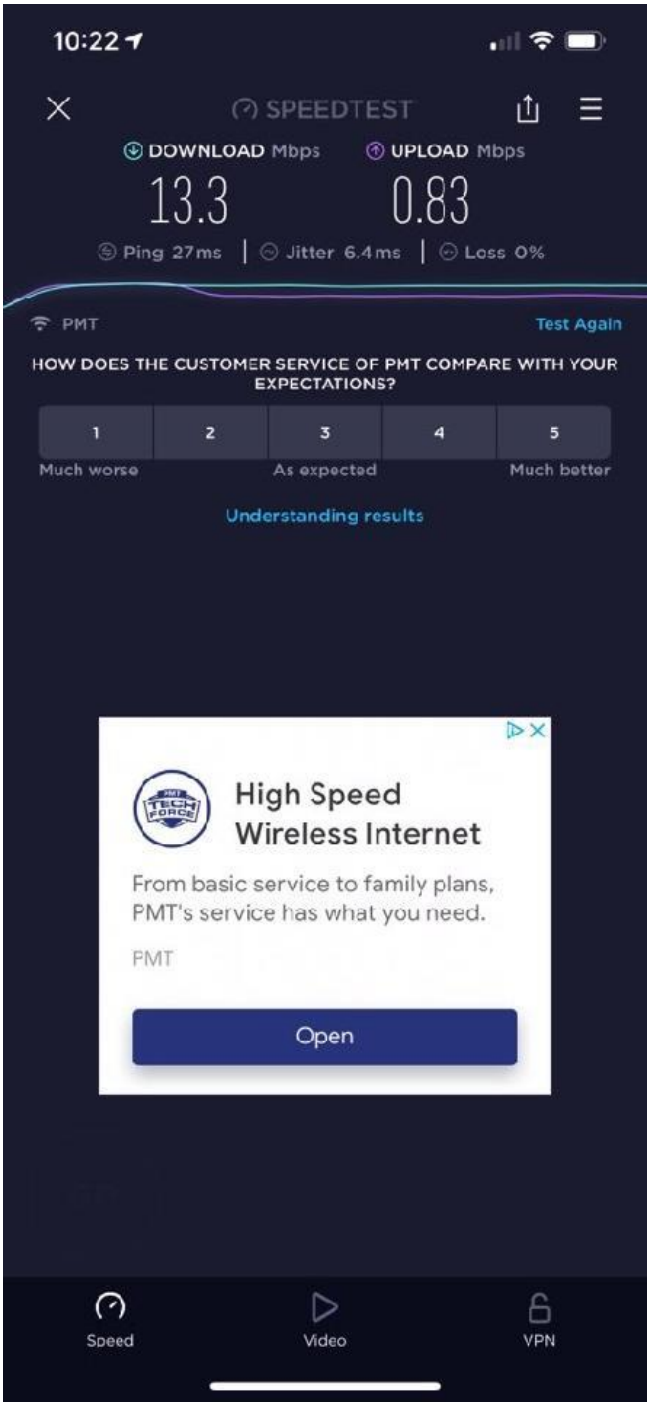
15 Speed Tests: Ping, download speed, and upload speed transcribed for clarity where applicable.

Ping: 104
Download: 5.42 Mbps
Upload: 1.26 Mbps

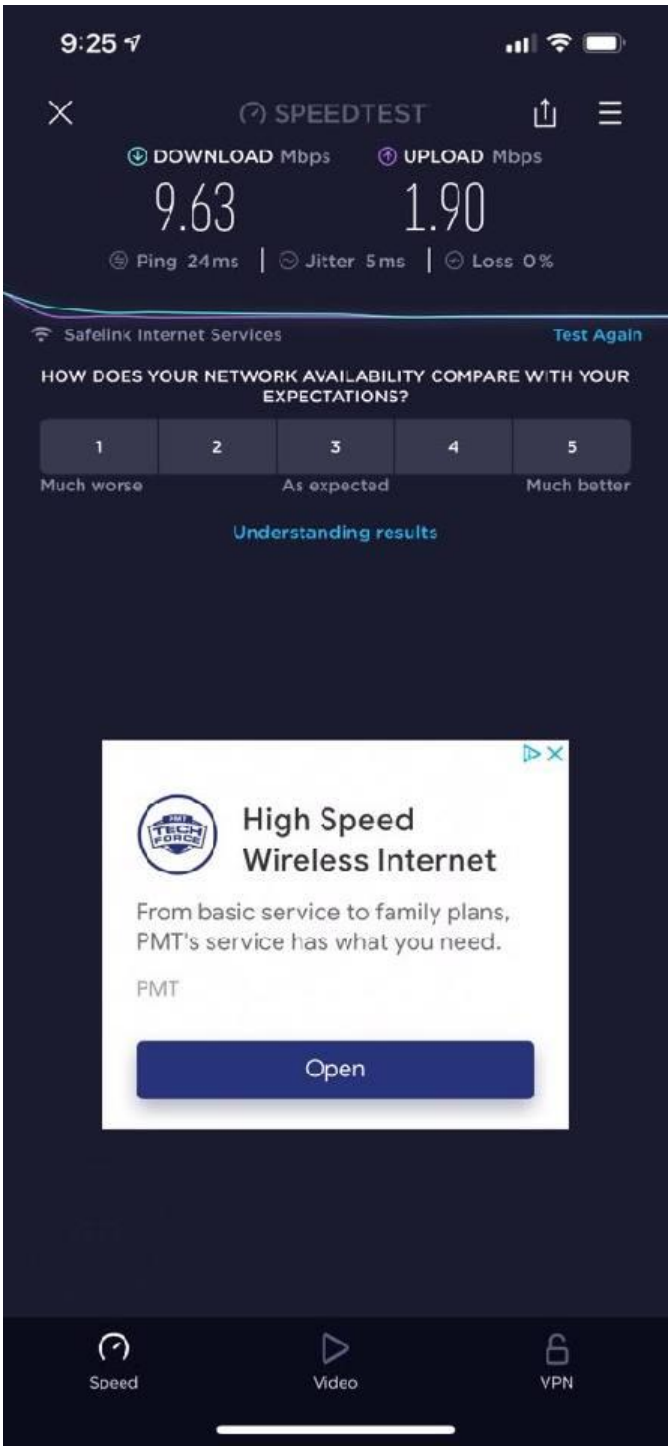


Ping: 28
Download: 14.2 Mbps
Upload: 0.77 Mbps

Download: 16.9Mbps
Upload: 3.9 Mbps



Ping: 27
Download: 13.3 Mbps
Upload: 0.83 Mbps



Ping: 24
Download: 9.63 Mbps
Upload: 1.90 Mbps

Ping: 30
Download: 4.87 Mbps
Upload: 0.84 Mbps

Ping: 79
Download: 6.51 Mbps
Upload: 1.57 Mbps

Ping: 24
Download: 5.12 Mbps
Upload: 1.00 Mbps

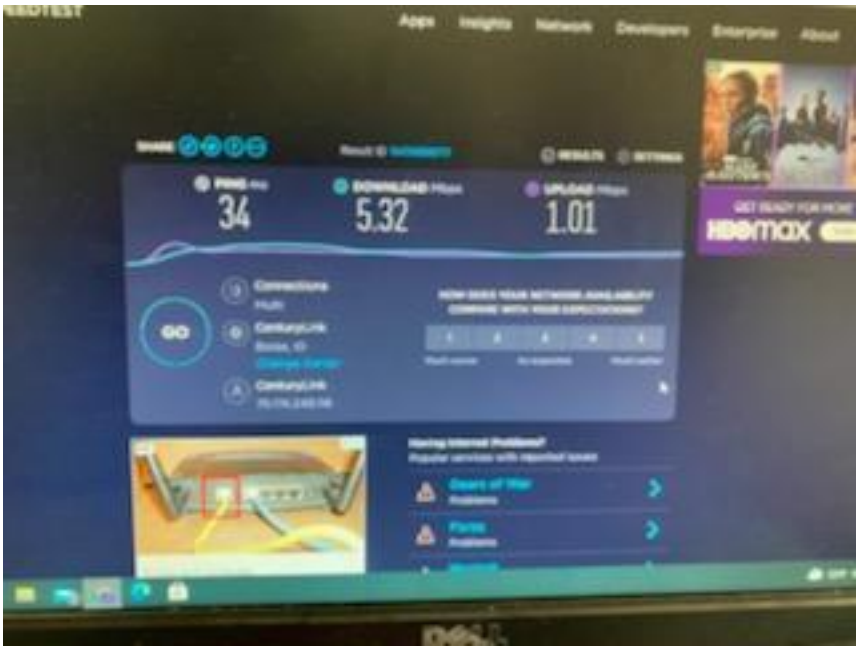
Ping: 99
Download: 5.37 Mbps
Upload: 1.89 Mbps

Ping: 83
Download: 4.03 Mbps
Upload: 0.94 Mbps

Ping: 38
Download: 14.19 Mbps
Upload: 0.95 Mbps

Ping: 39
Download: 22.16 Mbps
Upload: 2.09 Mbps

Ping: 40
Download: 4.31 Mbps
Upload: 0.90 Mbps



Ping: 34
Download: 5.32 Mbps
Upload: 1.01 Mbps

Ping: 64
Download: 9.41 Mbps
Upload: 2.86 Mbps

Minidoka County School District #331

"Empowering Students for Success"

To Whom It May Concern:

As the Director of Student Achievement for the Minidoka County School District, I thoroughly understand the need to provide our students with greater and reliable access to the internet, particularly in the rural and underserved areas of our state and district. With complications due to COVID-19 the need is greater and immediate. We need to address the significant challenges students living in these areas confront, making quality education, which is their right, more difficult to achieve.

I support this initiative and ask you to carefully and affirmatively consider the grant application for these reasons.

Respectfully,

Ashley Johnson

Ashley Johnson
Director of Student Achievement
Minidoka County School District

Idaho Cares Act Broadband Grant Budget

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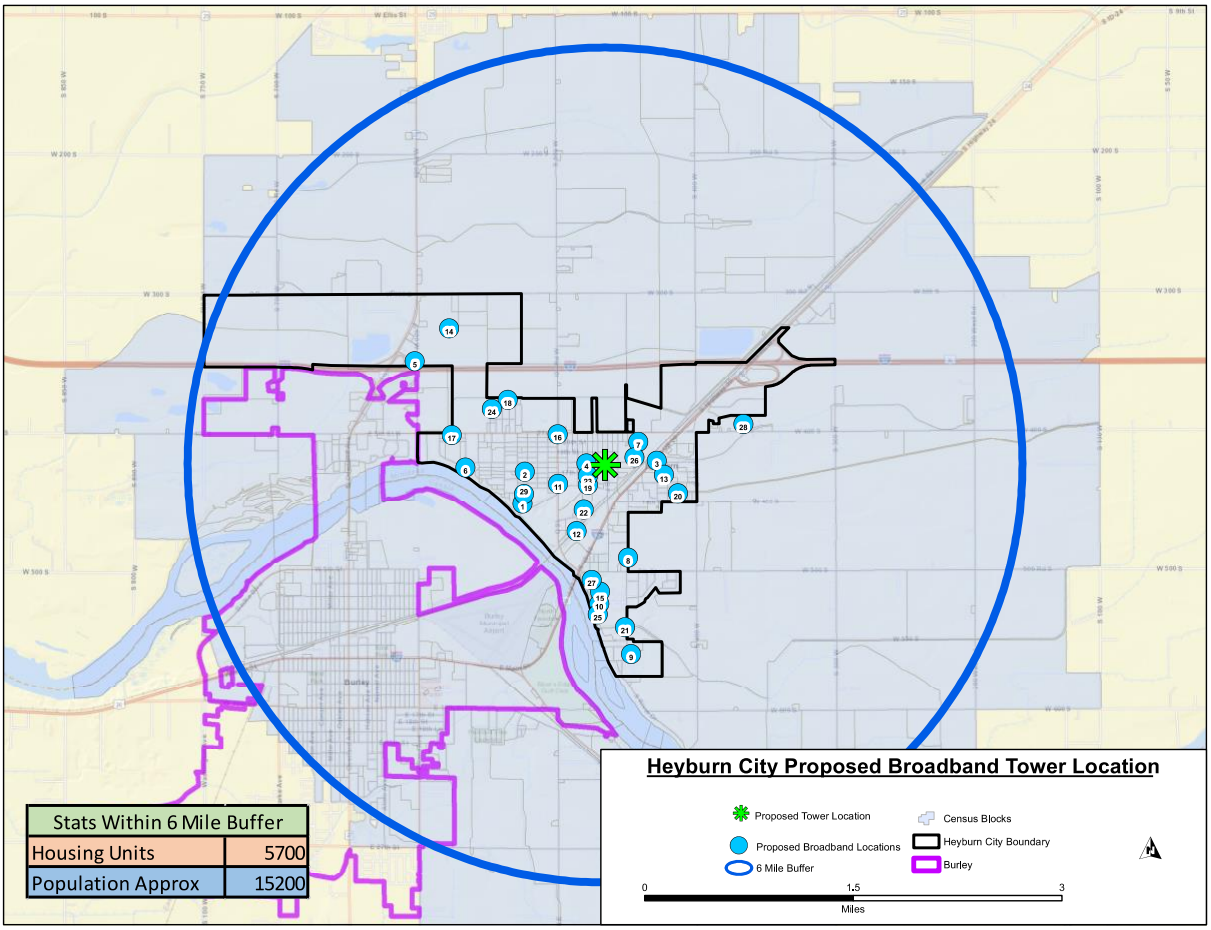
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn
Maps Project Area Identification

Outlines the **proposed area of service** encompassing the City of Heyburn and surrounding communities.

Project Area Map



The proposed project will include the city of Heyburn and will have impact in the surrounding communities. Services will include the following census blocks: 1050, 1055, 1068, 2048, 1080, 4001, 1076, 2055, 2027, 4084

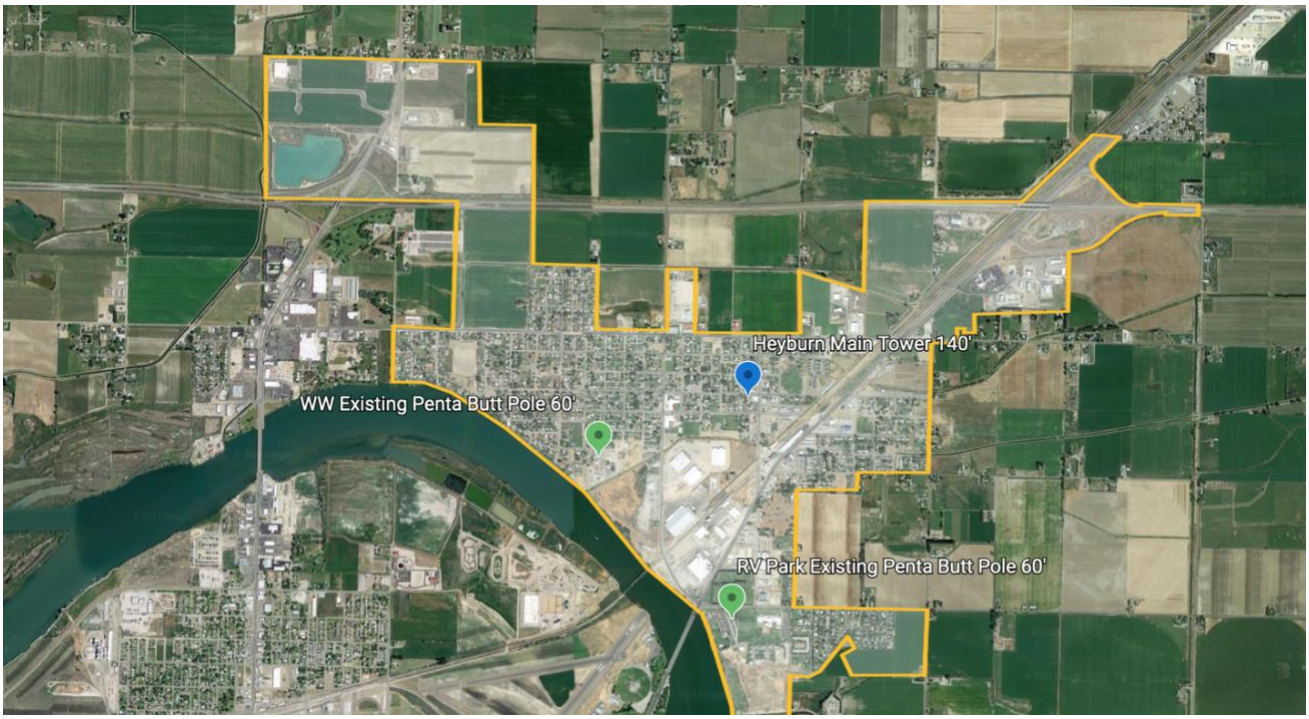
While this scope of work does not include direct residential access the proposed infrastructure is scalable for future expansion and fiber-to-the home applications. Successful implementation of residential offerings by our community partner Burley, shows proof of concept and a great example of future scaling in Heyburn.

The current broadband speeds provided in Heyburn max out at 1000Mbps; however, max speed availability is low. This project will provide speeds up to 10,000Mbps. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This project proposes wired fiber infrastructure that is scalable for future uses.

City Offices 60’ Pole

Existing RV Park 50’ Vantage

Existing WW Pole 60’



Heyburn Project Area with Pins

Streets Department 60’ Pole

// July 15th, 2021

City of Heyburn
CARES Act Broadband Grant

Proposal Scope of Work

Developing **cutting-edge fiber Internet** for residents in the City of Heyburn to allow residents to thrive in an increasingly digital world

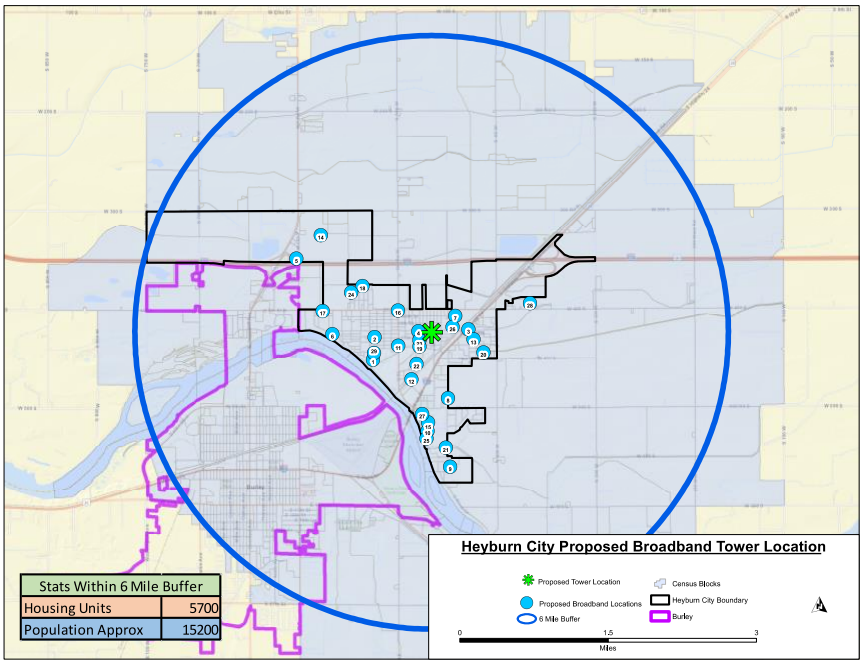
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

Introduction

In Heyburn City, lack of access to adequate broadband internet is the largest roadblock to education, healthcare, public safety and industry development. The COVID-19 health emergency has exacerbated this hardship.

Project Area

The map below indicates the area where a communications tower would be most beneficial within Heyburn City. It also illustrates locations of City facilities, public spaces, potable water sites, wastewater plants, lift stations, electrical substations, irrigation and other critical infrastructure where current connectivity is greatly lacking. These locations will offer the most ideal coverage to underserved households and organizations within the City and its surrounding areas.



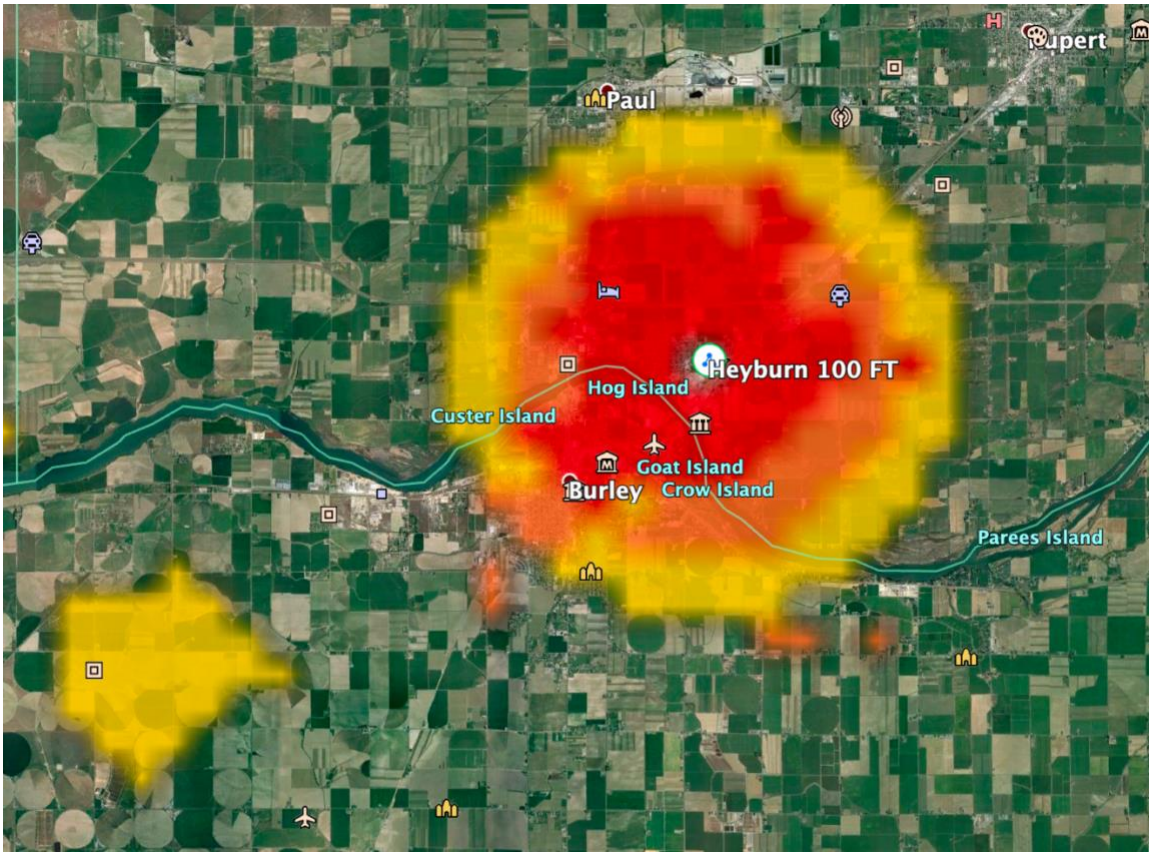
Type of Infrastructure

Main Communications Tower

Based on the proposed tower location, taking into account the topography of the area, a main communication tower, at 140', will be erected to provide the best line of site for connection points within the area. The scope of work to build this tower will include the following.

- Provide GeoTechnical soil reports
- Procure building permits from city and county as necessary.
- Procure main power to tower site.
- Excavate and prepare site for tower base.
- Underground electrical work.
- Install engineered rebar cage and pour concrete foundation.
- Set tower base template in concrete foundation
    - Concrete to pass pressure test (20-30 days after pour).
- Install 140' self-supporting tower.
- Install according to local building code and engineered plans.
- Install electrical needs according to electrical plans.
- Install Outdoor NEMA rated Network Cabinet
- Low-Voltage Cabling
    - Cable and equipment include a backhaul 12-Strand CMX OM3 cable, Cat 6 CMX Network Cable to the sector arrays and a fiber distribution box.
- Install mounting gear/bracing for backhaul radios and sector arrays.
- Install 1Gb Point to Point backhaul radios.
- Install six (12) sector arrays for 360-degree coverage around tower.

Coverage Area. This single tower will provide broadband coverage across the City and its surrounding areas. There will be spots where line of site is not possible due to trees or other obstructions, however, with the other sites and locations proposed to provide connectivity to public infrastructure, this issue will be greatly diminished. These other sites can be utilized to provide broadband to nearby locations as well.



Red	Best Coverage Area
Orange	High coverage area with some obstructions
Yellow	Possible with obstructions
Green	Low possibility with obstructions
No Color	No Coverage

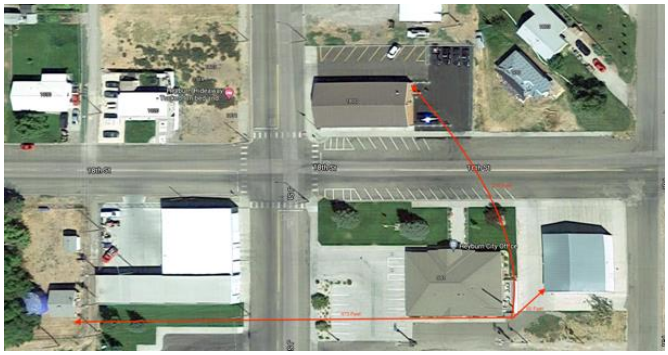
City Parks and Public Spaces

There are 7 sites throughout the city that are designated as parks or public spaces. 60’ penta butt poles will be erected and outfitted with the equipment to provide access to public WiFi.

Fiber Buildout

Fiber will be built to the following locations by utilizing a boring rig that will lay conduit to precise locations.

1. **Police Department**
2. **Public Works**
3. **Parks Department**



Wireless Point to Point

There are 22 locations throughout the City including Wastewater lift stations, drinking water wells, irrigation pumps, and an electrical substation, where 60’ penta butt poles will be erected to provide connectivity to critical infrastructure.

Known Existing Infrastructure

Heyburn City Hall

Heyburn City owned 60’ penta-butt tower. This location will provide a secondary option to reach subscribers within the city that would be otherwise obstructed by large trees from the proposed tower location within the city. The placement of a cabinet and power would need to be addressed with the owner of the tower.

Heyburn Streets Department

The city owned 60’ penta-butt tower will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Heyburn RV Park

The city owned 50’ penta-butt tower will provide an additional location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Known Existing Anchor Institutions

The known existing anchor institutions (schools, hospitals, public facilities, etc.) include the following.

Heyburn City

- City Hall
- Cassia County Schools
- Mount Harrison Jr. High
- Mount Harrison High School
- Heyburn Elementary Schol
- South Central Public Health District
- United Electric Coop
- Post office
- Minidoka County Fire Protection District
- Heyburn City Wastewater treatment plant
- Mini-Cassia Chamber of Commerce

SRFA
SNAKE RIVER FARMERS ASSOCIATION

21 December 2020

To Whom It May Concern:

Snake River Farmers' Association is an Idaho-based non-profit association of agricultural producers. Our organization was created in 1986 by farmers in the Burley/Paul area to assist farmers and ranchers with the application process and program compliance for the H-2A agricultural labor program. Since its founding, we have grown to serve more than 600 agricultural producers in 15 States as they sponsor over 4,800 individuals to provide seasonal work during their production seasons.

On behalf of our non-profit association and its 600+ Agricultural producer Members, I extend support for projects in the Mountain West, including in the Magic Valley Region of Southern Idaho, that would provide rural households greater (and in many cases, ANY) access to broadband internet service. Increased options, more infrastructure, and new service providers in the region would also increase fair competition, which I firmly believe would benefit all consumers in the Magic Valley.

Many of our Members have farms or ranches that are very remote. We consistently face communication challenges with several of them. It is concerning that in 2020, so many of our Members are still compelled to conduct business by US Postal Service or overnight courier service (e.g. FedEx and UPS). This significantly impacts our ability to timely submit their applications for seasonal Ag workers to various government agencies. Delays in the application process result in delays of seasonal worker arrival. This jeopardizes the producer's crop and livestock.

I firmly believe that increased internet access for communities in the rural Mountain West is critical for ongoing business viability for many employers, and to the extent that Eminent Technical Solutions seeks to help fill the void, I support their efforts to help provide more dependable and functional access to the internet the underserved members in our communities.

Thank you for your consideration in this matter. Please feel free to contact me with any questions at 208.436.9737 or via email at janderson@snakeriverfarmers.org.

Sincerely,

Joel Anderson
Executive Director

406 West 400 South, Heyburn, Idaho 83336 • (208) 436-9737 • Fax: (208) 436-0573 • info@snakeriverfarmers.org

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Joel Anderson
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CITY OF HEYBURN

WHERE PEOPLE ARE IMPORTANT

State of Idaho Broadband Grant
CARES Act Certification

STATE OF IDAHO

COUNTY OF MINIDOKA

The undersigned, Dick Galbraith, representing City of Heyburn, 941 18th Street, Heyburn, Idaho, hereby swear (affirm) that:

1. I am Mayor of City of Heyburn and thereby authorized to make these statements.
2. I have personal knowledge of the facts herein and can testify completely thereto.
3. The purpose of this statement is to assure the Idaho Department of Commerce that the project will meet the CARES Act Criteria.

    i. Expenses to facilitate distance learning, including technological improvements, in connection with school closings to enable compliance with COVID-19 precautions
    ii. Expenses to improve telework capabilities for public employees to enable compliance with COVID-19 public health precautions.

The proposed infrastructure improvements are designed to increase, or in some areas newly allow reliable and adequate access to connectivity sufficient to facilitate telehealth networks, telework, and distance learning initiatives in direct response to needs arising from the COVID-19 pandemic. This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of rural households to access and utilize these resources through fast and reliable internet in selected accessible public spaces.

Signature Dick Galbraith Dated this 15th day of July 2021.

SUBSRIBED AND SWORN before me on this 15th day of July 2021.

Ashlee D Langley

ASHLEE D. LANGLEY
COMMISSION NO. 57137
NOTARY PUBLIC
STATE OF IDAHO

Notary Public for STATE: Idaho
Residing: Minidoka County
Commission expires: 12/07/2022

// July 15th, 2021

City of Heyburn
CARES Act Broadband Grant

Community Broadband Plan

Outlining the primary goals and step-by-step actions to achieve high-speed, robust, and **reliable Broadband connections** in the City of Heyburn

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

Vision and Goals

Heyburn's Broadband Strategy Vision Statement

Goal Execute the City Council's vision for a connected and vibrant community that ranks high on the list for regional and national connected communities relative to broadband adoption, digital literacy, and 21st century skills through balanced investments in talent, infrastructure (fiber, wireless, facilities, and carrier partners) as well as to create an excellent economy centered on innovation and digital equality.

Heyburn's Broadband Strategic Goals

1. Engage Heyburn's P-12 (preschool through high school) students and teachers by creatively using broadband technologies and applications.

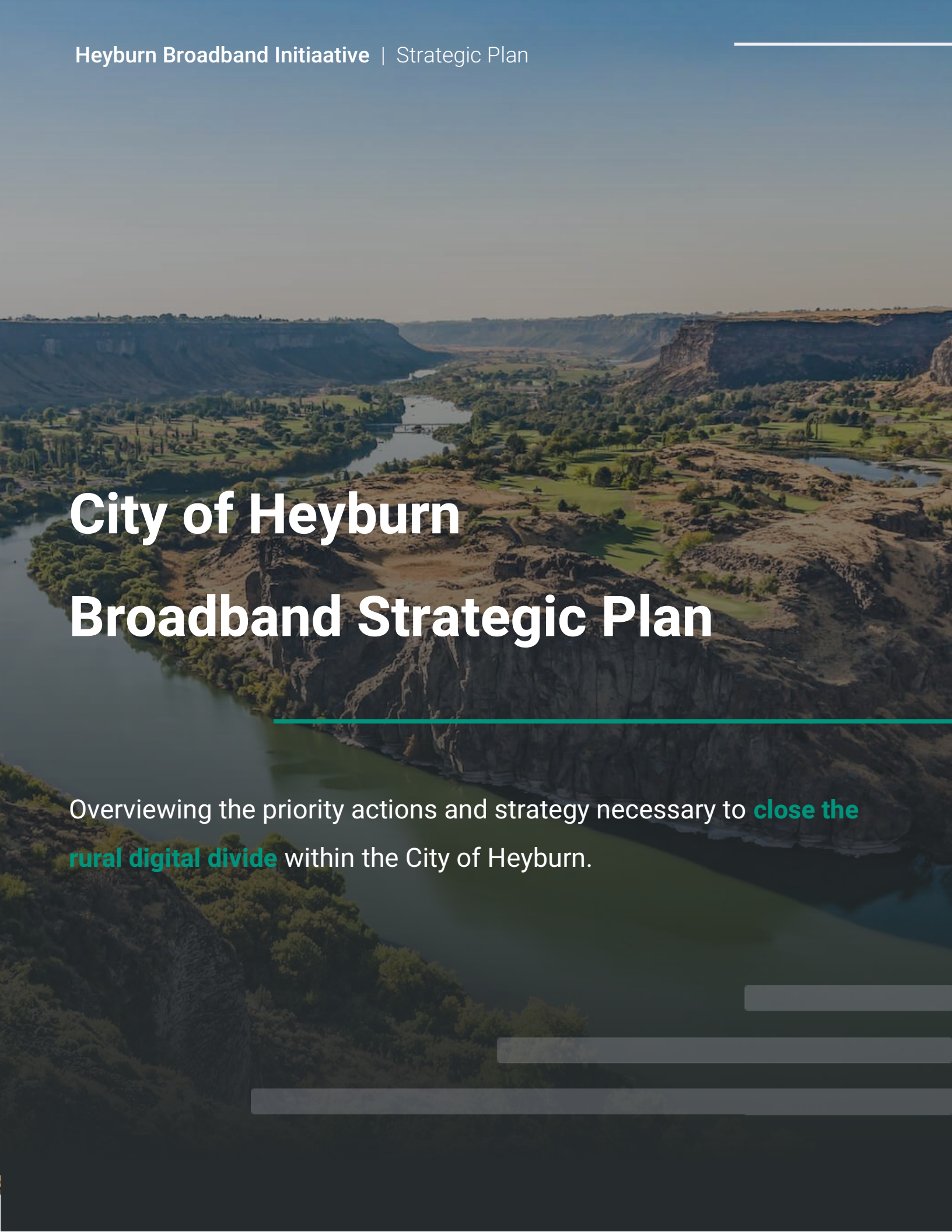
2. Close the digital divide in our communities: Take action toward universal digital literacy and access to affordable, robust broadband connections.

3. Increase community and service provider awareness of the benefits of a higher rate of broadband adoption in the community

4. Develop Heyburn as a center for innovation; support a growing network of learning centers and innovation spaces connected by broadband that

helps students, families, and businesses increase digital literacy and transform individual outcomes through knowledge and hard/soft skills.

5. Build a high-quality broadband network in Heyburn and participate in regional efforts to accelerate broadband development and deployment by working collaboratively with our sister cities and other partners at a local, regional, state, and federal level.



City of Heyburn Broadband Strategic Plan

Overviewing the priority actions and strategy necessary to **close the rural digital divide** within the City of Heyburn.

Priority Actions

Within 6 Months (2021)

1. Complete a USDA Community Connect Application – Complete (No award to date. All applications nationwide are under review)

2. Complete a resubmission of the Idaho Broadband Fund: CARES Act Broadband Grant using lessons learned and improvements from the first application. – Complete

3. Form and foster 15 Community Partnerships to support local broadband efforts – Complete

4. Complete Cybersecurity and Technology assessments for the City of Heyburn - Complete

Within 24 Months

1. In response to the COVID-19 pandemic, further develop a partnership within the educational community, including Minidoka School District, CSI, etc. Develop a Wireless Mesh Network that can distribute both Municipal Access Networks and Educational Networks to public spaces and surrounding neighborhoods.

2. Develop a committee within the City government whose role is to work as the liaison between community groups, government agencies,

businesses, and school districts to identify gaps and recommend partner activities to increase broadband adoption and digital literacy.

3. Involve and engage the existing Education Partnership Initiative (including universities, community colleges, and schools) to prioritize broadband awareness and digital literacy.

4. Seek and apply for collaborative grant funding to support any projects related to the above.

Heyburn’s Community Broadband Strategic Plan: The What and the Why

In response to the COVID-19 pandemic, the City of Heyburn identified the need for a Broadband Plan to identify lacking infrastructure and connectivity, prioritizing the needs of the city and community as a whole. It is reviewed, refined, and updated regularly, focusing on community development and exploring new economies and opportunities. The following questions are used as a guide for developing the Broadband Plan:

- What's at stake for our region's economic, social, educational, and healthcare future?
- What parts of our communities are most affected by lack of broadband access, awareness, adoption, and utilization capabilities?
- What barriers prevent broadband access, awareness, adoption, and utilization?
- What community assets and opportunities can be leveraged to overcome barriers?
- Why are broadband inclusion, adoption, and utilization essential in our community?

The Need for a Local Broadband Strategy

Adoption and implementation of Heyburn's Community Broadband Plan is a crucial undertaking towards realizing what our Regional Prosperity Economic Development Plan calls a "learning community" that "invests in tomorrow's talent" and "energizes a creative economy."

Implementation will also further the economic opportunity strategies in Heyburn's long-range vision for growing and accommodating a wide range of jobs, housing opportunities, and educational excellence.

Broadband is transforming society as it continues to expand individuals' capability to communicate, participate, create, educate, inform, and compete. Access to adequate broadband resources and the adoption of broadband-associated tools are fundamental to our community's economic and civic vitality. Our ability to participate as residents in Heyburn's civic matters, effectively utilize healthcare and education services, and interact with the world around us requires digital literacy skills.

Some participating business leaders also cited the lack of quality, cost-effective high-capacity broadband infrastructure in the city and county—or affordable options for Heyburn's start-ups or fastest-growing businesses—as a limiting factor in the community's growth.

Broadband must be recognized as an essential utility for both individuals and businesses. The city officials advocate increasing competition and choice in all telecommunication services offered to residents and businesses.

More work is required to bring affordable, higher-capacity broadband to our commercial corridors and industrial areas, in addition to neighborhood and rural residents. Heyburn's community broadband strategic plan focuses on improving broadband access and adoption by:

- Underscoring the relevance of broadband adoption to all sectors of our community.
- Raising expectations of digital literacy skills, employing the creative ways broadband technologies in our classrooms and our community.
- Encouraging the leveraging of the assets of our higher education institutions and leadership in educational research.
- Pursuing local private sector capabilities to build learning products and social science research organizations to validate the effectiveness of education technologies.
- Expanding Heyburn's innovation ecosystem by extending lifelong learning opportunities and affordable access to information.
- Deploying world-class broadband network capabilities in the town and along major corridors to accelerate business growth and access to the internet within Heyburn, consistent with Heyburn City Economic Growth Plan and the Regional Plan.

Those polled in public outreach noted that University graduates, skilled workers, visitors, and entrepreneurs would be more likely to stay in Heyburn and grow their businesses here if they associate the region's capacity for growth with its livability and global connectedness.

Citizens also expressed that Heyburn's children will be more likely to develop into tomorrow's innovators with exposure to global ideas and interactions sourced through broadband in their schools, homes, and a myriad of locations distributed equitably across the city. Engaging students through technology to develop their creativity, critical thinking, and collaboration will require, as it always has, the mentorship and guidance of professionals.

Confronting challenges to both our municipal broadband infrastructure and striving for a culture of innovation in our communities will require continued committed partnerships between private and public sectors to enact recommendations impacting both physical assets like fiber or computer equipment and or prerational support for trainers, teachers, and mentors. In an era of resource constraint, public institutions and private entities must exercise their creativity and commitment to collaborate to achieve the desired collective impact.

Conclusion

The city staff appreciates the efforts and participation of all in the planning required for this digital transformation. Without their involvement, the scope of this plan would be much more limited. City staff will review how this drafted initiative is consistent with other recently adopted city plans, post the Broadband Plan draft on our project website for a review by citizens and committees, and present the Broadband Plan to City Council for approval.

A critical dialogue has begun, and the city has laid out an ambitious set of strategies and an action plan that can only be successful through strong partnerships and collaboration. The continued participation of the area's K-12 schools, the business community, our public agencies, our community service organizations, and our eager residents are all needed to accomplish these goals as they promote broadband adoption strategies and policies statewide.

City staff will continue to post its products to the State's project website in the interest of other communities studying the same issues and will provide additional avenues for public input as staff continues to share our progress with the Heyburn City Council. We look forward to ongoing relationships within the City of Heyburn, School District, and other communities participating in Idaho Broadband Grant and other grant-sponsored efforts in the State of Idaho.

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn
Broadband Initiative Facts

Outlines the **current areas of Broadband service** provided in the City of Heyburn and surrounding communities.

City of Heyburn Coverage

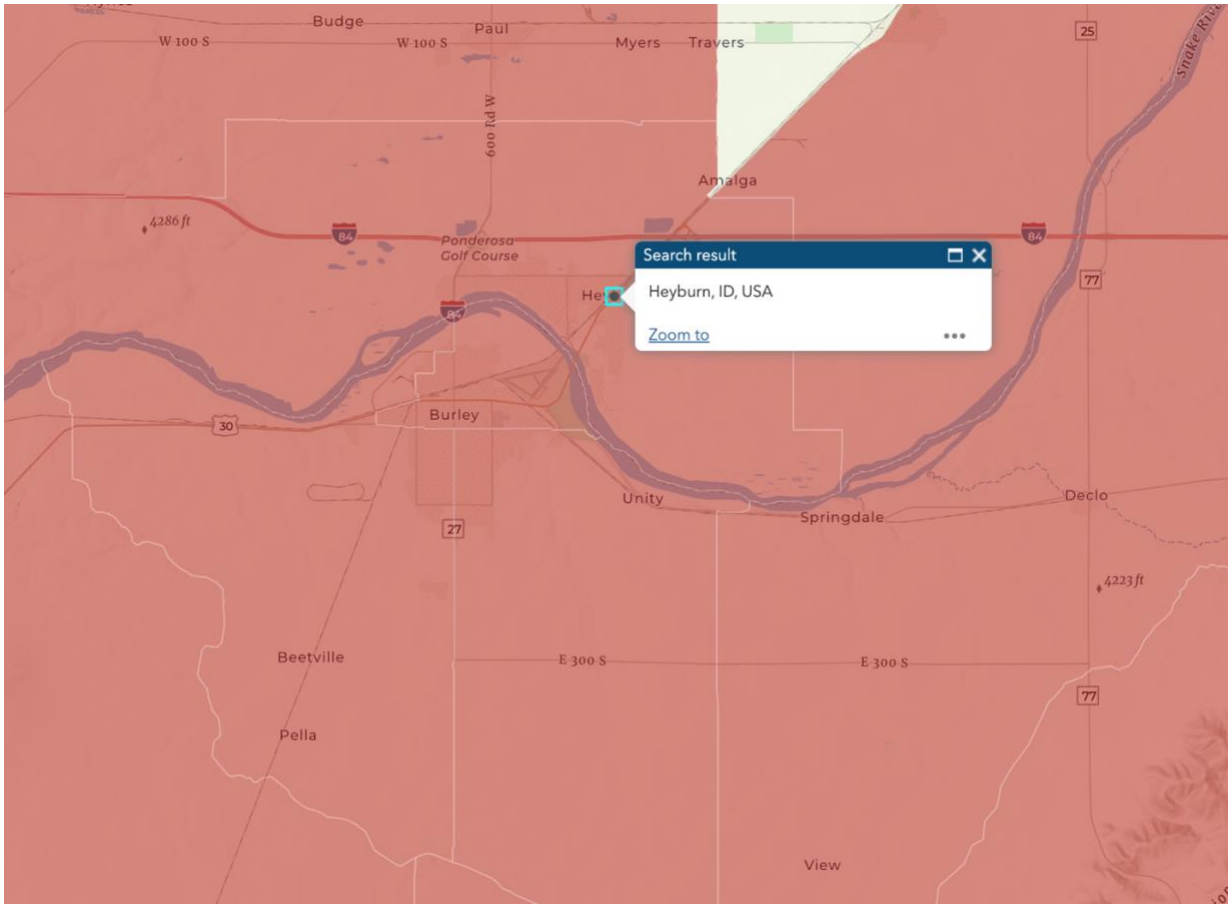


Figure 1

ARCGIS map of Heyburn, Idaho, with Internet Access Statistics.

Key Red indicates areas where Ookla Median Speeds Fixed Broadband Below 25/3 Mbps (Census Tract Level), M-Lab Median Speeds Fixed Broadband below 25Mbps (County Level), and Usage – 75% or More of Devices Connect to Microsoft Updates/Services via Fixed Broadband Download Speeds below 25 Mbps (County Level). (Accessed: 07/12/21)

As shown in the map above, Heyburn and the surrounding region has no areas whose median speeds meet minimum broadband speeds as measured by the FCC 25Mbps/3Mbps minimum.

Further, although there are multiple providers in the area, less than 25% of residents have any access to fiber connection. Additionally, costs are relatively high at $84.71 in the context of average speed which is relatively low at 34.67 Mbps.

AMENDED RESOLUTION 2021-10

RESOLUTION OF CITY OF HEYBURN, AUTHORIZING THE MAYOR TO ENTER INTO A PROFESSIONAL SERVICES AGREEMENT WITH REGION IV DEVELOPMENT ASSOCIATION, INC., TO PROVIDE GRANT WRITING AND PROJECT ADMINISTRATION SERVICES IN CONNECTION WITH THE IDAHO BROADBAND GRANT; AUTHORIZING THE MAYOR TO SIGN AND SUBMIT AN APPLICATION TO THE IDAHO DEPARTMENT OF COMMERCE FOR AN IDAHO BROADBAND GRANT TO FINANCE IMPROVEMENTS TO ENHANCE BROADBAND SYSTEMS.

WHEREAS, stable, reliable broadband infrastructure is necessary to support and attract business, improve educational training, enhance public safety and services, and enrich the quality of life for all citizens; and

WHEREAS, additional federal funding has been, or will be, received by the State of Idaho to fund projects across the state that create and retain local jobs and result in purposeful outcomes, including distance learning, telehealth, public safety, commerce, and the overall well-being of the citizens in Idaho; and

WHEREAS, Idaho CARES Act Broadband Grant funding is again available for the same purpose as provided in Resolution 2020-11, and

WHEREAS, Heyburn is an eligible applicant of the Idaho Broadband Grant program and intends to apply for funding through this grant program; and

WHEREAS, the Idaho Broadband Grant requires a project administrator to oversee project implementation activities and to ensure alignment with program requirements; and

WHEREAS, Heyburn has engaged the services of Region IV Development Association, Inc., to provide grant writing and grand administrative services in connection with the project outlined; and

WHEREAS, Heyburn will comply with Idaho Code Title 67 Chapter 28 regarding this grant; and

WHEREAS, Heyburn has signed a Memorandum of Understanding with Eminent Technical Solutions, LLC, to install infrastructure that will expand and improve broadband access to the unserved and underserved areas of our community; now

BE IT RESOLVED by the Mayor and City Council of City of Heyburn as follows:

1. Mayor is authorized to sign a service agreement with Region IV Development Association, Inc., to provide grant writing and grand administrative services in connection with the project as outlined in the Idaho Cares Act Broadband Grant Application.

2. Mayor is authorized to sign and submit appropriate application materials to the Idaho Department of Commerce to seek funding through the Idaho Broadband Grant Program to enhance broadband access in our community.

DATED 14 July 2021

THE CITY OF HEYBURN

Dick Galbraith

MAYOR
DICK GALBRAITH

ATTEST

Ashlee Langley

CITY CLERK
ASHLEE LANGLEY

Idaho CARES Act Broadband Grant - Project Schedule

Activity	Responsible Party	Start Date
Grant Award	IBAB	8/2/2021
Project Start	Contractor	
Provide GeoTech Report	Contractor	8/2/2021
Procure Building Permits	Contractor	8/16/2021
Procure Main Power to Sites	Contractor	8/16/2021
Excavate and prepare sites for tower base	Contractor/Sub	9/1/2021
Underground Electrical	Contractor/Sub	9/1/2021
Intsall engineered rebar cage and pour foundation	Contractor/Sub	9/1/2021
Set tower base template		9/1/2021
Concrete Pressure Test		9/1/2021
Install 140' Tower		9/30/2021
Install Outdoor NEMA rated Network Cabinet		9/30/2021
Low-Voltage Cabling		11/15/2021
Intsall mounting gear, radios, and sector arrays		11/15/2021
Bore Conduit to designated facilities		9/1/2021
Run Fiber throught conduit and connect		10/18/2021
Install 29 x 60' poles in designated locations		9/1/2021
Intsall mounting gear, radios, and sector arrays		10/15/2021
Install network equipment onsite		10/15/2021
Project Finalization		

End Date
8/16/2021
8/25/2021
10/8/2021
9/30/2021
9/30/2021
9/10/2021
9/17/2021
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10/15/2021
12/15/2021

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn

Technical Research Overview

Leveraging broadband infrastructure to provide the underserved community with much-needed, reliable, and robust **Broadband internet access** in public spaces

Introduction

With the unprecedented paradigm shift we have witnessed in the last 12 months, all aspects of our lives turn to the internet to stay educated, entertained, and connected. A reliable connection has become the fundamental backbone of almost every aspect of life and our community. Heyburn will help solve our community's lack of reliable connectivity with a well-executed plan, backed by diligent research and implemented by passionate community members and partners.

During the COVID-19 pandemic, the City of Heyburn and its citizens have been placed in an uncomfortable position due to a lack of adequate, reliable, fast, and affordable internet access. Heyburn found themselves squarely on the wrong side of the digital divide. The immediate onset of the pandemic exposed the limitations of existing critical infrastructures, lack of adequate bandwidth, and lack of last-mile infrastructure was made plain and apparent.

Both citizens and municipal employees found themselves forced to adapt to new ways of working, learning, communicating, and trying to care for their health and loved ones without the tools to do so in meaningful ways.

Lack of access to reliable and ubiquitous high-speed internet in Heyburn, Idaho, is cause for constant concern to community leaders, school administration, teachers, students, business owners, employees, and citizens of all ages.

Due to the unprecedented pressures and constraints brought on by the COVID-19 pandemic, employees and students alike have experienced times when they have been ordered to work from home, and students have been asked to move from the classroom to the kitchen table to complete assignments and tests. Unfortunately, buffering, delays, and lost connections are common occurrences in Heyburn.

Heyburn's internet services are limited copper-based DSL, onerous, hamstrung data capped services with minimal areas of availability, and a few spotty wireless internet solutions with no options for critical symmetrical service. IT assessments and public outreach feedback indicate that advertised service speeds often do not meet expectations and are offered in critically limited areas causing consternation and frustration. The lack of high-speed internet access poses critical barriers to day-to-day commerce, agriculture, and our citizens' overall health and well-being.

Economic Development

Economic development, public safety, telehealth, and educational opportunity

The City of Heyburn is proposing to build on our previous successful municipal broadband infrastructure to provide broadband access to the community at large. We propose installing a 24-count armored single-mode fiber line from an existing Point of Presence (POP) in Burley, owned by the City of Burley (one of our community partners), and extending this connection to City Hall in Heyburn. From City Hall, we will extend 12-count armored single-mode to the Police Department, Parks-and-Rec Building, and a newly constructed tower. We will also extend fiber to the building located to the east of City Hall. While previously an employee breakroom and storage building, the east side building will be converted into a Digital Learning and Access Center through matching funds from the City and community partners. This space, furnished with computers and multimedia equipment, will serve as an educational space and community center, available 24 hours a day via automated door access and secured with cameras.

Upon completing this project, the City of Heyburn and surrounding areas will have cutting-edge fiber internet connections. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The City will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE) symmetrical and modern wireless solutions for immediate deployment. The estimated cost of this project is $954,921.00.

At this point, the goal is to extend service using fiber to the center of the City and provide symmetrical upload and download speeds ranging from 100 Mbps – 10,000 Mbps.

The following modes of distribution will be employed to provide this service: FTTH/FTTP using Single Mode Fiber and modern wireless 5 GHz, 6 GHz, and millimeter wavelength technology in the 60-80 GHz range to connect homes, business, and municipal facilities. As part of this plan, a 150 ft tower will be constructed south of city hall on property owned by the City. Plans and permits are ready and available for all work.

Additionally, we will provide public internet access (spaces) at the community center, city hall, RV, Riverfront, and all public parks.

A funded project will provide a high quality of service to citizens while increasing the capacity and hardiness of the City infrastructure, further improving the capabilities of public safety and municipal action. The proposed improvements will serve the community by creating a "future proof" source of reliable and innovative broadband connectivity.

The City of Heyburn has the utmost confidence in the efficacy of this project, as we have carefully studied the successful improvements achieved by our community partner, the City of Burley. Modeling our process after the successes of Burley to provide expanded community access and public safety capacity ensures that this project is not a gamble but an initiative with teeth that will provide well-defined results.

The cohesive broadband network will invite competitive services. We have drafted an RFP for lease agreements available to one or more private ISPs to help with the long-term growth, deployment, and administration of this municipal network/community asset.

The City of Heyburn has applied for funding from the Idaho CARES Act Broadband Grant program previously and has improved this application per valuable feedback provided in the last grant session. The City is performing further due diligence by actively pursuing grants with the State of Idaho, USDA, and matching funds from Private Partners.

This opportunity will allow residents to drastically improve service, improving communication with the municipality and the global community.
Further, the proposed project provides the vital infrastructure needed to mitigate potential future emergencies like the COVID-19 pandemic by providing broadband capabilities suited to telework, distance learning, telehealth, and facilitating critical family connections. Heyburn is a city of families. Funding this project would provide the resources those families need to promote personal, economic, and professional growth opportunities. These opportunities will provide security for generations to come, a celebrated achievement for the city and its citizens.

Small cities such as Heyburn, with populations close to 3,000 residents, struggle to provide many services and amenities to residents that other larger cities can provide. Cooperation through the valued partnership with the City of Burley opens doors and opportunities for the City and Citizens that would not be possible in isolation. The residents and municipality will significantly benefit from the proposed services now and in the future.

Though a small community, Heyburn maintains and operates its own water, wastewater, parks-and-rec, streets, law enforcement, and electrical facilities. Operated by a small group of employees, they often must work overtime and long hours to make sure that their systems are functioning well and that necessary repairs are timely and efficient. Due to the lack of adequate internet services to facilities, limited technological improvement capacity puts undue strain on municipal workers. These limitations and pressures can lead to interruptions to municipal services (Water, Waste, Sewer, Streets, Civic/Law Enforcement, etc.), possible shortages, delays in service, and shutdowns citizens at an elevated risk.

The constraints imposed by COVID-19 social distancing and safety measures placed unprecedented stress on our staff and monitoring systems. Employee exposure or potential exposure to COVID-19 required the City to quarantine several employees simultaneously. These issues could have been mitigated through access to monitoring systems such as SCADA and Security Cameras to view and inspect systems such as

wastewater, biohazard transfer stations, etc. Adequate broadband access is critical to improving the City's capabilities in these sectors, mitigating future emergency measures. Further, city workers could facilitate their processes more efficiently with fewer person-hours increasing public safety and quality of work/life for our valued employees.

Systems monitoring could be accomplished securely from a remote location by an employee or a necessary 3rd party during self-quarantine or if City staff were unavailable. The City has great fear and anxiety about the future efficacy of critical infrastructure in the face of COVID-19 and potential future emergencies. Suppose 50% of employees are unable to perform in-person duties. In that case, the City is at risk of having an equipment breakdown or a security incident that goes undetected, causing critical service delays of shutdowns. Increased internet connectivity to municipal locations provides communication pathways for public safety systems, systems monitoring tools (SCADA, Door Access, Cameras, Environmental Controls, Wireless Access, Process Control Systems), and employees at points of critical infrastructure, allowing for remote monitoring and operation of systems citizens rely on for safety.

Innovation in Action

In addition to providing critical resources to our municipal departments, we will leverage our broadband infrastructure to provide our underserved community with much-needed broadband internet access in public spaces. Expansion of service can be accomplished via 802.11ax WIFI and connectivity to the home via FTTH solutions and PTP and PTMP wireless connections in the less densely populated areas of the City. These spaces will include our parks, municipal buildings, schools, and other public spaces in and around the community providing access in both good and bad times so that our citizens can stay connected and informed. The City intends to accomplish its broadband goals utilizing the following action plan:

1. Connect all City facilities with minimum speeds of 1 Gbps x 1 Gbps service or faster.
2. Provide public Wi-Fi access in parks and other areas for events and gatherings with bandwidth of 1 Gbps/1 Gbps and speeds per device of 100/100Mbps.
3. Provide connectivity for potable water sites, wastewater plants and lift stations, electrical substations, irrigation, and other critical infrastructure.
4. Use the network to provide safety for employees in the workplace.
5. Use the network to share city maps, documents, and videos among all Departments, thereby maintaining only one set of completed and updated maps.
6. Have the system provide cybersecurity for all internal connections. (Virus, phishing, internet, etc.)
7. Connect new VOIP phones to the system to reduce phone costs.
8. Allow for remote access to systems for SCADA, security, and work-from-home options.
9. Promote digital Inclusion.
10. Increase access to public meetings by remote viewers.
11. Work with developers of Low-Income apartments and new subdivisions to put endpoints in as a part of their developments.
12. Incorporate a community center into the City's public offering.

13. Make available symmetrical internet solutions to residents below the current average market rate of approximately $70.00 per month with guaranteed minimums of 100/100 Mbps per home/business with no data caps or long-term contracts.
14. Improve (1) Economic Development, (2) Community/Involvement Outreach, (3) modernize infrastructure, (4) Improve Tourism/Hospitality.

Minidoka County School District #331

"Empowering Students for Success"

To Whom It May Concern:

As the Director of Student Achievement for the Minidoka County School District, I thoroughly understand the need to provide our students with greater and reliable access to the internet, particularly in the rural and underserved areas of our state and district. With complications due to COVID-19 the need is greater and immediate. We need to address the significant challenges students living in these areas confront, making quality education, which is their right, more difficult to achieve.

I support this initiative and ask you to carefully and affirmatively consider the grant application for these reasons.

Respectfully,

Ashley Johnson

Ashley Johnson
Director of Student Achievement
Minidoka County School District

SRFA
SNAKE RIVER FARMERS ASSOCIATION

21 December 2020

To Whom It May Concern:

Snake River Farmers' Association is an Idaho-based non-profit association of agricultural producers. Our organization was created in 1986 by farmers in the Burley/Paul area to assist farmers and ranchers with the application process and program compliance for the H-2A agricultural labor program. Since its founding, we have grown to serve more than 600 agricultural producers in 15 States as they sponsor over 4,800 individuals to provide seasonal work during their production seasons.

On behalf of our non-profit association and its 600+ Agricultural producer Members, I extend support for projects in the Mountain West, including in the Magic Valley Region of Southern Idaho, that would provide rural households greater (and in many cases, ANY) access to broadband internet service. Increased options, more infrastructure, and new service providers in the region would also increase fair competition, which I firmly believe would benefit all consumers in the Magic Valley.

Many of our Members have farms or ranches that are very remote. We consistently face communication challenges with several of them. It is concerning that in 2020, so many of our Members are still compelled to conduct business by US Postal Service or overnight courier service (e.g. FedEx and UPS). This significantly impacts our ability to timely submit their applications for seasonal Ag workers to various government agencies. Delays in the application process result in delays of seasonal worker arrival. This jeopardizes the producer's crop and livestock.

I firmly believe that increased internet access for communities in the rural Mountain West is critical for ongoing business viability for many employers, and to the extent that Eminent Technical Solutions seeks to help fill the void, I support their efforts to help provide more dependable and functional access to the internet the underserved members in our communities.

Thank you for your consideration in this matter. Please feel free to contact me with any questions at 208.436.9737 or via email at janderson@snakeriverfarmers.org.

Sincerely,

Joel Anderson
Executive Director

406 West 400 South, Heyburn, Idaho 83336 • (208) 436-9737 • Fax: (208) 436-0573 • info@snakeriverfarmers.org

SRFA
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Joel Anderson
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// July 15th, 2021

City of Heyburn
CARES Act Broadband Grant

Community Broadband Plan

Reviewing the primary goals and step-by-step actions to achieve high-speed, robust, and **reliable Broadband connections** in the City of Heyburn

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

Vision and Goals

Heyburn's Broadband Strategy Vision Statement

1. **Execute the City Council's vision** for a connected and vibrant community that ranks high on the list for regional and national connected communities relative to broadband adoption, digital literacy, and 21st century skills through balanced investments in talent, infrastructure (fiber, wireless, facilities, and carrier partners) as well as to create an excellent economy centered on innovation and digital equality.

2. **Continue growing our relationship with community partners** including Burley with whom we share goals and strategy, learning from their successes and working to create a unified, connected Idaho.

Heyburn's Broadband Strategic Goals

1. **Engage Heyburn's P-12** (preschool through high school) students and teachers by creatively using broadband technologies and applications.

2. **Close the digital divide** in our communities: Take action toward universal digital literacy and access to affordable, robust broadband connections.

3. **Increase community and service provider awareness** of the benefits of a higher rate of broadband adoption in the community

4. **Develop Heyburn as a center for innovation**; support a growing network of learning centers and innovation spaces connected by broadband that helps students, families, and businesses increase digital literacy and transform individual outcomes through knowledge and hard/soft skills.

5. **Build a high-quality broadband network in Heyburn** and participate in regional efforts to accelerate broadband development and deployment by working collaboratively with our sister cities and other partners at a local, regional, state, and federal level.

City of Heyburn Broadband Strategic Plan

Overviewing the priority actions and strategy necessary to **close the digital divide** within the City of Heyburn.

Priority Actions

Within 6 Months (2021)

1. Complete a USDA Community Connect Application – **Complete** (No award to date. All applications nationwide are under review)

2. Complete a resubmission of the Idaho Broadband Fund: CARES Act Broadband Grant using lessons learned and improvements from the first application. – **Complete**

3. Form and foster 15 Community Partnerships to support local broadband efforts – **Complete**

4. Complete Cybersecurity and Technology assessments for the City of Heyburn - **Complete**

Within 24 Months

1. In response to the COVID-19 pandemic, further develop a partnership within the educational community, including Minidoka School District, CSI, etc. Develop a Wireless Mesh Network that can distribute both Municipal Access Networks and Educational Networks to public spaces and surrounding neighborhoods.

2. Develop a committee within the city government whose role is to work as the liaison between community groups, government agencies,

businesses, and school districts to identify gaps and recommend partner activities to increase broadband adoption and digital literacy.

3. Involve and engage the existing Education Partnership Initiative (including universities, community colleges, and schools) to prioritize broadband awareness and digital literacy.

4. Seek and apply for collaborative grant funding to support any projects related to the action items stated above.

Heyburn’s Community Broadband Strategic Plan: The What and the Why

In response to the COVID-19 pandemic, the City of Heyburn identified the need for a Broadband Plan to identify lacking infrastructure and connectivity, prioritizing the needs of the city and community as a whole. It is reviewed, refined, and updated regularly, focusing on community development and exploring new economies and opportunities. The following questions are used as a guide for developing the Broadband Plan:

- What is at stake for our region's economic, social, educational, and healthcare future?
- What parts of our communities are most affected by lack of broadband access, awareness, adoption, and utilization capabilities?
- What barriers prevent broadband access, awareness, adoption, and utilization?
- What community assets and opportunities can be leveraged to overcome barriers?
- Why are broadband inclusion, adoption, and utilization essential in our community?

The Need for a Local Broadband Strategy

Adoption and implementation of Heyburn's Community Broadband Plan is a crucial undertaking towards realizing what our Regional Prosperity Economic Development Plan calls a "learning community" that "invests in tomorrow's talent" and "energizes a creative economy."

Implementation will also further the economic opportunity strategies in Heyburn's long-range vision for growing and accommodating a wide range of jobs, housing opportunities, and educational excellence.

Broadband connectivity is transforming society as it continues to expand individuals' capability to communicate, participate, create, educate, inform, and compete. Access to adequate broadband resources and the adoption of broadband-associated tools are fundamental to our community's economic and civic vitality. Our ability to participate as residents in Heyburn's civic matters, effectively utilize healthcare and education services, and interact with the world around us requires digital literacy skills.

Some participating business leaders also cited the lack of quality, cost-effective high-capacity broadband infrastructure in the city and county—or affordable options for Heyburn's start-ups our fastest-growing businesses—as a limiting factor in the community's growth.

Broadband must be recognized as an essential utility for both individuals and businesses. The city officials advocate increasing competition and choice in all telecommunication services offered to residents and businesses.

More work is required to bring affordable, higher-capacity broadband to our commercial corridors and industrial areas, in addition to neighborhood and rural residents. Heyburn's community broadband strategic plan focuses on improving broadband access and adoption by:

- Underscoring the relevance of broadband adoption to all sectors of our community.
- Raising expectations of digital literacy skills, employing the creative ways broadband technologies in our classrooms and our community.
- Encourage the leveraging of the assets of our higher education institutions and leadership in educational research.
- Pursuing local private sector capabilities to build learning products and social science research organizations to validate the effectiveness of education technologies.
- Expanding Heyburn's innovation ecosystem by extending lifelong learning opportunities and affordable access to information.
- Deploying world-class broadband network capabilities in the town and along major corridors to accelerate business growth and access to the internet within Heyburn, consistent with Heyburn City Economic Growth Plan and the Regional Plan.

Those polled in public outreach noted that University graduates, skilled workers, visitors, and entrepreneurs would be more likely to stay in Heyburn and grow their businesses here if they associate the region's capacity for growth with its livability and global connectedness.

Citizens also expressed that Heyburn's children will be more likely to develop into tomorrow's innovators with exposure to global ideas and interactions sourced through broadband in their schools, homes, and a myriad of locations distributed equitably across the city. Engaging students through technology to develop their creativity, critical thinking, and collaboration will require, as it always has, the mentorship and guidance of professionals.

Confronting challenges to both our municipal broadband infrastructure and striving for a culture of innovation in our communities will require continued committed partnerships between private and public sectors to enact recommendations impacting both physical assets like fiber or computer equipment and or prerational support for trainers, teachers, and mentors. In an era of resource constraint, public institutions and private entities must exercise their creativity and commitment to collaborate to achieve the desired collective impact.

Conclusion

The city staff appreciates the efforts and participation of all in the planning required for this digital transformation. Without their involvement, the scope of this plan would be much more limited. City staff will review how this drafted initiative is consistent with other recently adopted city plans, post the Broadband Plan draft on our project website for a review by citizens and committees, and present the Broadband Plan to City Council for approval.

A critical dialogue has begun, and the city has laid out an ambitious set of strategies and an action plan that can only be successful through strong partnerships and collaboration. The continued participation of the area's K-12 schools, the business community, our public agencies, our community service organizations, and our eager residents are all needed to accomplish these goals as they promote broadband adoption strategies and policies statewide.

City staff will continue to post its products to the State's project website in the interest of other communities studying the same issues and will provide additional avenues for public input as staff continues to share our progress with the Heyburn City Council. We look forward to ongoing relationships within the City of Heyburn, School District, and other communities participating in the Idaho Broadband Grant and other grant-sponsored efforts in the State of Idaho.

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn Broadband Initiative Facts

Outlines the **current areas of Broadband service** provided in the City of Heyburn and surrounding communities.

City of Heyburn Coverage

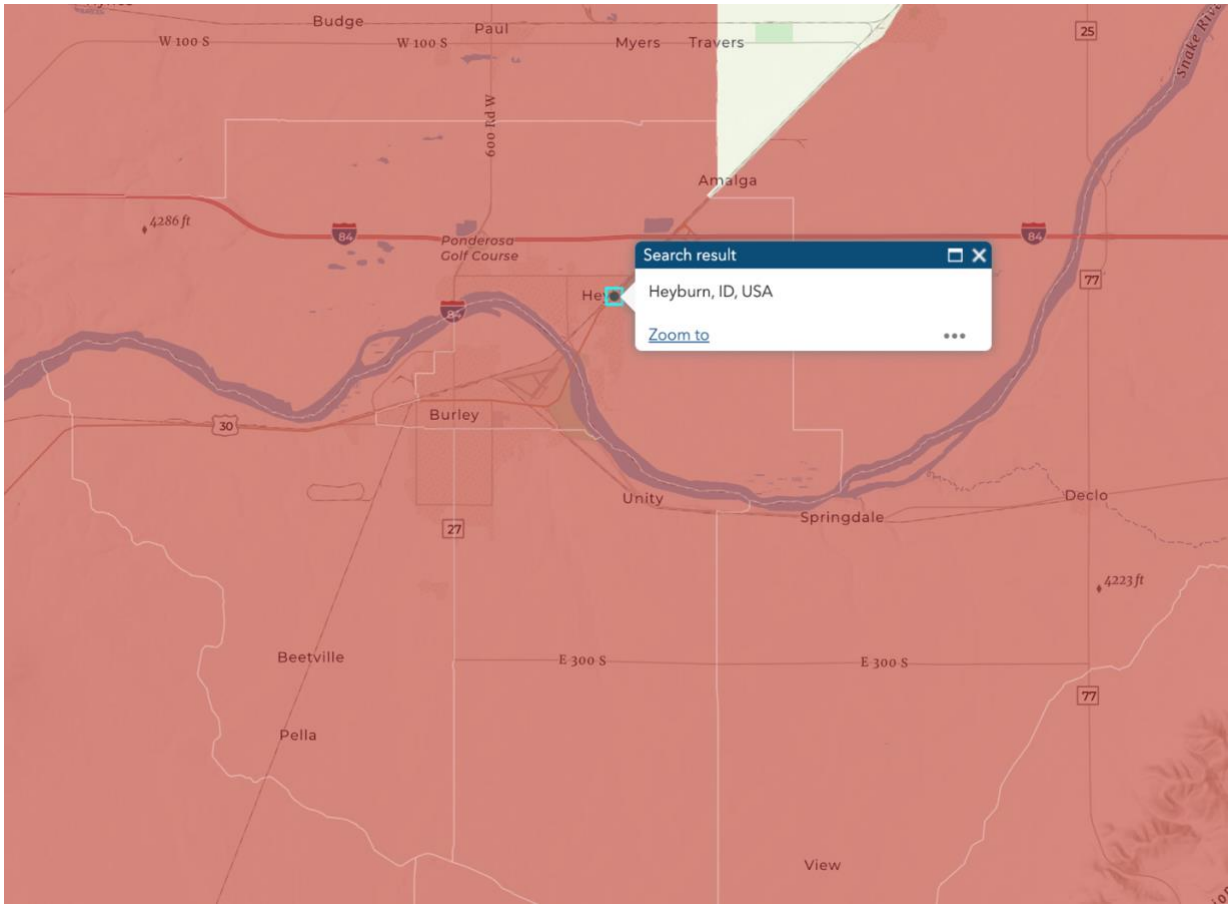


Figure 1

ARCGIS map of Heyburn, Idaho, with Internet Access Statistics.

Key Red indicates areas where Ookla Median Speeds Fixed Broadband Below 25/3 Mbps (Census Tract Level), M-Lab Median Speeds Fixed Broadband below 25Mbps (County Level), and Usage – 75% or More of Devices Connect to Microsoft Updates/Services via Fixed Broadband Download Speeds below 25 Mbps (County Level). (Accessed: 07/12/21)

As shown in the map above, Heyburn and the surrounding region have no areas whose median speeds meet minimum broadband speeds as measured by the FCC (25Mbps/3Mbps minimum). Although there are multiple providers in the area, less than

25% of residents have any access to fiber connection. Additionally, costs are relatively high at $84.71 in the context of average speed which is relatively low at 34.67 Mbps.

Idaho Cares Act Broadband Grant Budget

Line Item	Grant Dollars				Total
Fiber Buildout (PD, PW, Parks)	$71,053.00				$71,053.00
Wastewater Connectivity (12 Sites)	$218,556.00				$218,556.00
Drinking Water Wells (3 Sites)	$54,639.00				$54,639.00
Irrigation Pump Stations (6 Sites)	$109,278.00				$109,278.00
Electrical (1 Site)	$18,213.00				$18,213.00
City Parks (5 Sites)	$91,065.00				$91,065.00
Public Spaces (2 Sites)	$36,426.00				$36,426.00
City Hall Building	$19,750.00				$19,750.00
Site 48 Comm Tower 140'	$279,239.00				$279,239.00
Work/Travel Expenses	$56,702.00				$56,702.00
Grant Administration	$5,000.00				$5,000.00
Totals	$959,921.00	$0.00	$0.00	$0.00	$959,921.00

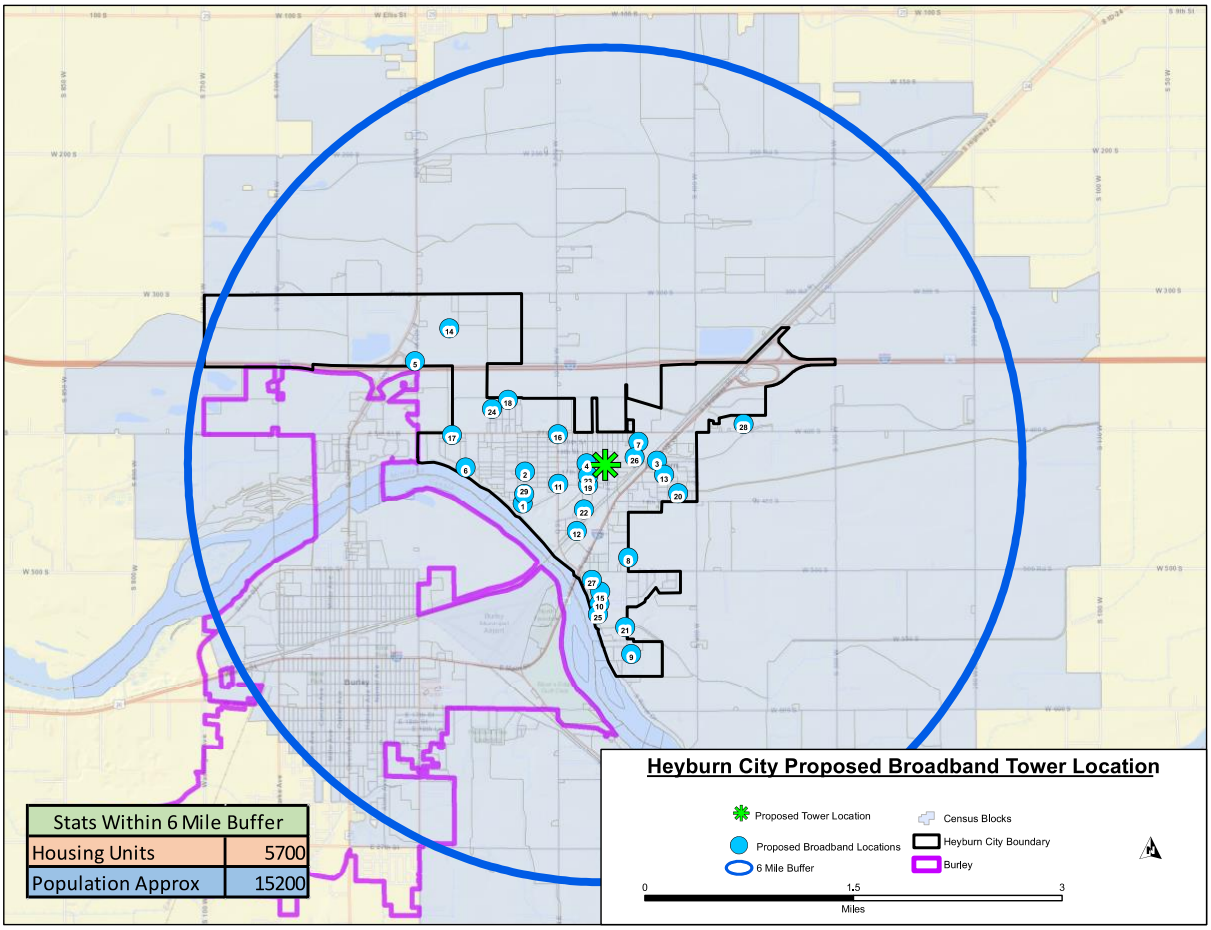
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn
Maps Project Area Identification

Outlines the **proposed area of service** encompassing the City of Heyburn and surrounding communities.

Project Area Map



The proposed project will include the city of Heyburn and will have impact in the surrounding communities. Services will include the following census blocks: 1050, 1055, 1068, 2048, 1080, 4001, 1076, 2055, 2027, 4084

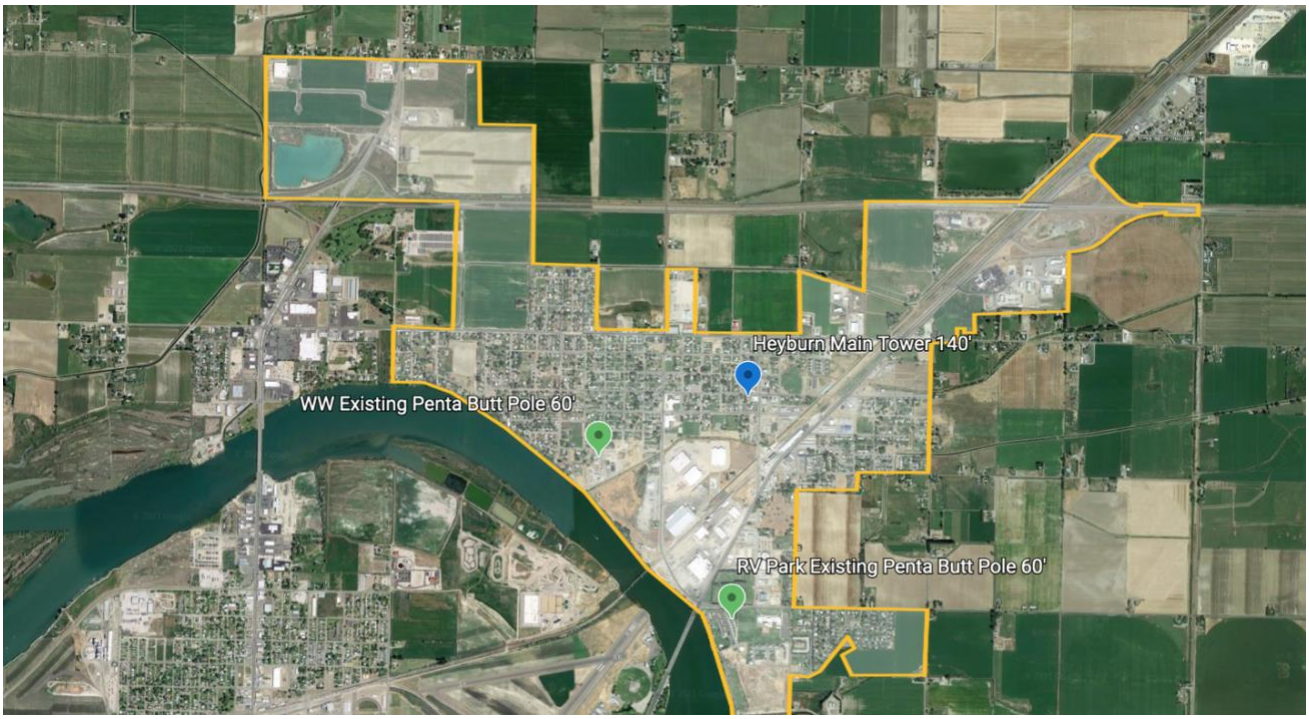
This work can reach 1,190 residences with potential to reach 3,300 residences in partnership with Burley and is also scalable for future expansion and fiber –to the home applications. Successful implementation of residential offerings by our community partner Burley, shows proof of concept and a great example of future scaling in Heyburn.

The current broadband speeds provided in Heyburn max out at 1000Mbps; however, max speed availability is low. This project will provide speeds up to 10,000Mbps. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This project proposes wired fiber infrastructure that is scalable for future uses.

City Offices 60’ Pole

Existing RV Park 50’ Vantage

Existing WW Pole 60’



Heyburn Project Area with Pins

Streets Department 60’ Pole

Idaho Cares Act Broadband Grant – Project Schedule

Activity	Responsible Party	Start Date	End Date
Grant Award	IBAB	8/2/2021	
Project Start	Contractor		
Provide GeoTech Report	Contractor	8/2/2021	8/16/2021
Procure Building Permits	Contractor	8/16/2021	8/25/2021
Procure Main Power to Sites	Contractor	8/16/2021	10/8/2021
Excavate and prepare sites for tower base	Contractor/Sub	9/1/2021	9/30/2021
Underground Electrical	Contractor/Sub	9/1/2021	9/30/2021
Install engineered rebar cage and pour foundation	Contractor/Sub	9/1/2021	9/10/2021
Set tower base template		9/1/2021	9/17/2021
Concrete Pressure Test		9/1/2021	9/30/2021
Install 140' Tower		9/30/2021	12/15/2021
Install Outdoor NEMA rated Network Cabinet		9/30/2021	12/15/2021
Low-Voltage Cabling		11/15/2021	12/15/2021
Install mounting gear, radios, and sector arrays		11/15/2021	12/15/2021
Bore Conduit to designated facilities		9/1/2021	10/18/2021
Run Fiber through conduit and connect		10/18/2021	11/5/2021
Install 29 x 60' poles in designated locations		9/1/2021	10/15/2021
Install mounting gear, radios, and sector arrays		10/15/2021	12/15/2021
Install network equipment onsite		10/15/2021	10/15/2021
Project Finalization			12/15/2021

// July 15th, 2021

City of Heyburn
CARES Act Broadband Grant

Proposal Scope of Work

Developing **cutting-edge fiber Internet** to allow residents in the City of Heyburn to thrive in an increasingly digital world

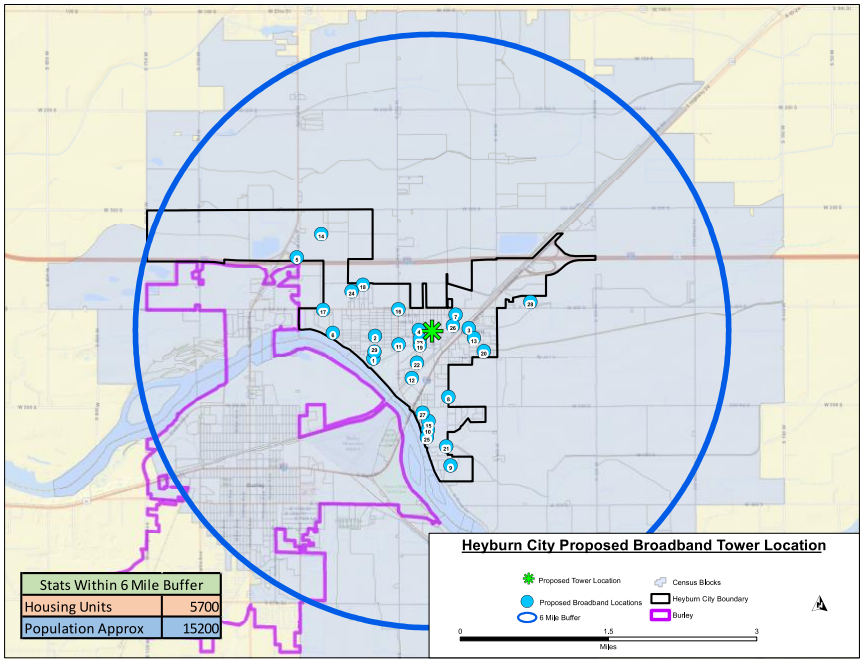
Tony Morley | 208.679.8158 | tmorley@heyburncity.org

Introduction

In Heyburn City, **lack of access** to adequate broadband internet is the largest roadblock to education, healthcare, public safety and industry development. The COVID-19 health emergency has exacerbated this hardship.

Project Area

The map below indicates the area where a communications tower would be most beneficial within Heyburn City. It also illustrates locations of City facilities, public spaces, potable water sites, wastewater plants, lift stations, electrical substations, irrigation and other critical infrastructure where current connectivity is greatly lacking. These locations will offer the most ideal coverage to underserved households and organizations within the City and its surrounding areas.



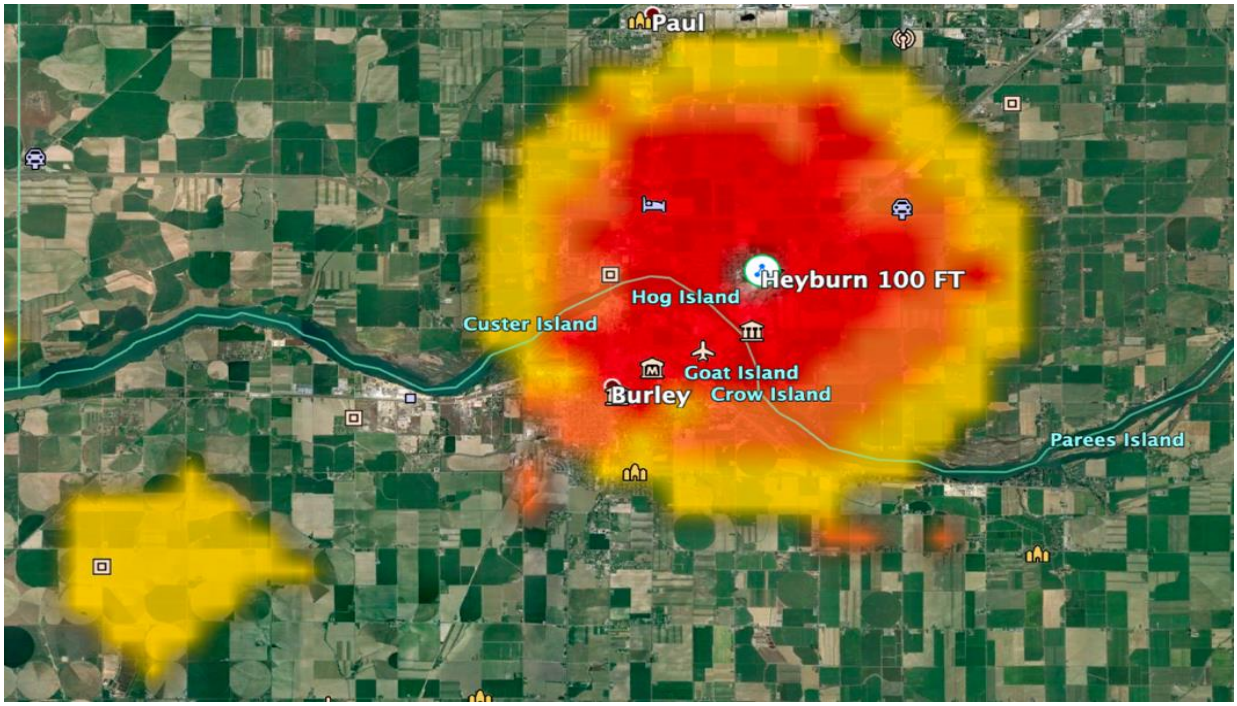
Main Communications Tower

Based on the proposed tower location, taking into account the topography of the area, a main communication tower, at 140', will be erected to provide the best line of site for connection points within the area. The scope of work to build this tower will include the following.

- Provide GeoTechnical soil reports
- Procure building permits from city and county as necessary.
- Procure main power to tower site.
- Excavate and prepare site for tower base.
- Underground electrical work.
- Install engineered rebar cage and pour concrete foundation.
- Set tower base template in concrete foundation
- Concrete to pass pressure test (20-30 days after pour).
- Install 140' self-supporting tower.
- Install according to local building code and engineered plans.
- Install electrical needs according to electrical plans.
- Install Outdoor NEMA rated Network Cabinet
- Low-Voltage Cabling
- Cable and equipment include a backhaul 12-Strand CMX OM3 cable, Cat 6 CMX Network Cable to the sector arrays and a fiber distribution box.
- Install mounting gear/bracing for backhaul radios and sector arrays.
- Install 1Gb Point to Point backhaul radios.
- Install six (12) sector arrays for 360-degree coverage around tower.

Coverage Area

This single tower will provide broadband coverage across the City and its surrounding areas. There will be spots where line of site is not possible due to trees or other obstructions; however, with the other sites and locations proposed to provide connectivity to public infrastructure, this issue will be greatly diminished. These other sites can be utilized to provide broadband to nearby locations as well.



Red	Best coverage area
Orange	High coverage area with some obstructions
Yellow	Possible with obstructions
Green	Low possibility with obstructions
No Color	No coverage

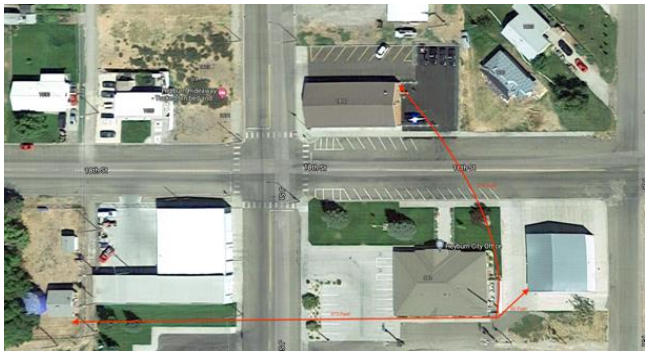
City Parks and Public Spaces

There are 7 sites throughout the city that are designated as parks or public spaces. 60’ penta butt poles will be erected and outfitted with the equipment to provide access to public Wi-Fi.

Fiber Buildout

Fiber will be built to the following locations by utilizing a boring rig that will lay conduit to precise locations.

- **Police Department**
- **Public Works**
- **Parks Department**



Wireless Point to Point

There are 22 locations throughout the City including Wastewater lift stations, drinking water wells, irrigation pumps, and an electrical substation, where 60’ penta butt poles will be erected to provide connectivity to critical infrastructure.

Known Existing Infrastructure

Heyburn City Hall

Heyburn City-owned 60’ penta-butt tower. This location will provide a secondary option to reach subscribers within the city that would be otherwise obstructed by large trees from the proposed tower location within the city. The placement of a cabinet and power would need to be addressed with the owner of the tower.

Heyburn Streets Department

The city-owned 60’ penta-butt tower will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Heyburn Wastewater

The city owned 60’ penta-butt tower will provide a secondary location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Heyburn RV Park

The city owned 50’ penta-butt tower will provide an additional location to reach subscribers within the city. Cabinet location and power availability would need to be addressed with the owner of the tower.

Known Existing Anchor Institutions

The known existing anchor institutions (schools, hospitals, public facilities, etc.) include the following.

Heyburn City

- City Hall
- Minidoka County Schools
- Mount Harrison Jr. High
- Mount Harrison High School
- Heyburn Elementary School
- South Central Public Health District
- United Electric Coop
- Post office
- Minidoka County Fire Protection District
- Heyburn City Wastewater treatment plant
- Mini-Minidoka Chamber of Commerce

Tony Morley | 208.679.8158 | tmorley@heyburncity.org

// July 15th, 2021

City of Heyburn

Technical Research Overview

Leveraging broadband infrastructure to provide the underserved community with much-needed, reliable, and robust **Broadband internet access** in public spaces

Introduction

With the unprecedented paradigm shift we have witnessed in the last 12 months, all aspects of our lives turn to the internet to stay educated, entertained, and connected. A reliable connection has become the fundamental backbone of almost every aspect of life and our community. Heyburn will help solve our community's lack of reliable connectivity with a well-executed plan, backed by diligent research and implemented by passionate community members and partners.

During the COVID-19 pandemic, the City of Heyburn and its citizens have been placed in an uncomfortable position due to a lack of adequate, reliable, fast, and affordable internet access. Heyburn found themselves squarely on the wrong side of the digital divide. The immediate onset of the pandemic exposed the limitations of existing critical infrastructures, lack of adequate bandwidth, and lack of last-mile infrastructure was made plain and apparent.

Both citizens and municipal employees found themselves forced to adapt to new ways of working, learning, communicating, and trying to care for their health and loved ones without the tools to do so in meaningful ways.

Lack of access to reliable and ubiquitous high-speed internet in Heyburn, Idaho, is cause for constant concern to community leaders, school administration, teachers, students, business owners, employees, and citizens of all ages.

Due to the unprecedented pressures and constraints brought on by the COVID-19 pandemic, employees and students alike have experienced times when they have been ordered to work from home, and students have been asked to move from the classroom to the kitchen table to complete assignments and tests. Unfortunately, buffering, delays, and lost connections are common occurrences in Heyburn.

Heyburn's internet services are limited copper-based DSL, onerous, hamstrung data capped services with minimal areas of availability, and a few spotty wireless internet solutions with no options for critical symmetrical service. IT assessments and public outreach feedback indicate that advertised service speeds often do not meet expectations and are offered in critically limited areas causing consternation and frustration. The lack of high-speed internet access poses critical barriers in day-to-day commerce, agriculture, and our citizens' overall health and well-being.

Economic Development

Economic development, public safety, telehealth, and educational opportunity

The City of Heyburn is proposing to build on our previous successful municipal broadband infrastructure to provide broadband access to the community at large. We propose installing a 24-count armored single-mode fiber line from an existing Point of Presence (POP) in Burley, owned by the City of Burley (one of our community partners), and extending this connection to City Hall in Heyburn. From City Hall, we will extend 12-count armored single-mode to the Police Department, Parks-and-Rec Building, and a newly constructed tower. We will also extend fiber to the building located to the east of City Hall. While previously an employee breakroom and storage building, the east side building will be converted into a Digital Learning and Access Center through matching funds from the City and community partners. This space, furnished with computers and multimedia equipment, will serve as an educational space and community center, available 24 hours a day via automated door access and secured with cameras.

Upon completing this project, the City of Heyburn and surrounding areas will have cutting-edge fiber internet connections. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The city will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE) symmetrical and modern wireless solutions for immediate deployment. The estimated cost of this project is $959,921.00.

At this point, the goal is to extend service using fiber to the center of the city and provide symmetrical upload and download speeds ranging from 100 Mbps – 10,000 Mbps.

The following modes of distribution will be employed to provide this service: FTTH/FTTP using Single Mode Fiber and modern wireless 5 GHz, 6 GHz, and millimeter wavelength technology in the 60-80 GHz range to connect homes, business, and municipal facilities. As part of this plan, a 150 ft tower will be constructed south of city hall on property owned by the City. Plans and permits are ready and available for all work.

Additionally, we will provide public internet access (spaces) at the community center, city hall, RV, Riverfront, and all public parks.

A funded project will provide a high quality of service to citizens while increasing the capacity and hardiness of the City infrastructure, further improving the capabilities of public safety and municipal action. The proposed improvements will serve the community by creating a "future proof" source of reliable and innovative broadband connectivity.

The City of Heyburn has the utmost confidence in the efficacy of this project, as we have carefully studied the successful improvements achieved by our community partner, the City of Burley. Modeling our process after the successes of Burley to provide expanded community access and public safety capacity ensures that this project is not a gamble but an initiative with teeth that will provide well-defined results.

The cohesive broadband network will invite competitive services. We have drafted an RFP for lease agreements available to one or more private ISPs to help with the long-term growth, deployment, and administration of this municipal network/community asset.

The City of Heyburn has applied for funding from the Idaho CARES Act Broadband Grant program previously and has improved this application per valuable feedback provided in the last grant session. The City is performing further due diligence by actively pursuing grants with the State of Idaho, USDA, and matching funds from Private Partners.

This opportunity will allow residents to drastically improve service, improving communication with the municipality and the global community.
Further, the proposed project provides the vital infrastructure needed to mitigate potential future emergencies like the COVID-19 pandemic by providing broadband capabilities suited to telework, distance learning, telehealth, and facilitating critical family connections. Heyburn is a city of families. Funding this project would provide the resources those families need to promote personal, economic, and professional growth opportunities. These opportunities will provide security for generations to come, a celebrated achievement for the city and its citizens.

Small cities such as Heyburn, with populations close to 3,000 residents, struggle to provide many services and amenities to residents that other larger cities can provide. Cooperation through the valued partnership with the City of Burley opens doors and opportunities for the city and citizens that would not be possible in isolation. The residents and municipality will significantly benefit from the proposed services now and in the future.

Though a small community, Heyburn maintains and operates its own water, wastewater, parks-and-rec, streets, law enforcement, and electrical facilities. Operated by a small group of employees, they often must work overtime and long hours to make sure that their systems are functioning well and that necessary repairs are timely and efficient. Due to the lack of adequate internet services to facilities, limited technological improvement capacity puts undue strain on municipal workers. These limitations and pressures can lead to interruptions in municipal services (Water, Waste, Sewer, Streets,

Civic/Law Enforcement, etc.), possible shortages, delays in service, and shutdowns put citizens at an elevated risk.

The constraints imposed by COVID-19 social distancing and safety measures placed unprecedented stress on our staff and monitoring systems. Employee exposure or potential exposure to COVID-19 required the city to quarantine several employees simultaneously. These issues could have been mitigated through access to monitoring systems such as SCADA and Security Cameras to view and inspect systems such as wastewater, biohazard transfer stations, etc. Adequate broadband access is critical to improving the city's capabilities in these sectors, mitigating future emergency measures. Further, city workers could facilitate their processes more efficiently with fewer person-hours increasing public safety and quality of work/life for our valued employees.

Systems monitoring could be accomplished securely from a remote location by an employee or a necessary 3rd party during self-quarantine or if city staff were unavailable. The city has great fear and anxiety about the future efficacy of critical infrastructure in the face of COVID-19 and potential future emergencies. Suppose 50% of employees are unable to perform in-person duties. In that case, the city is at risk of having an equipment breakdown or a security incident that goes undetected, causing critical service delays or shutdowns. Increased internet connectivity to municipal locations provides communication pathways for public safety systems, systems monitoring tools (SCADA, Door Access, Cameras, Environmental Controls, Wireless Access, Process Control Systems), and employees at points of critical infrastructure, allowing for remote monitoring and operation of systems our citizens rely on for safety.

Innovation in Action

In addition to providing critical resources to our municipal departments, we will leverage our broadband infrastructure to provide our underserved community with much-needed broadband internet access in public spaces. Expansion of service can be accomplished via 802.11ax WIFI and connectivity to the home via FTTH solutions and PTP and PTMP wireless connections in the less densely populated areas of the city. These spaces will include our parks, municipal buildings, schools, and other public spaces in and around the community providing access in both good and bad times so that our citizens can stay connected and informed. The city intends to accomplish its broadband goals utilizing the following action plan:

1. Connect all City facilities with minimum speeds of 1 Gbps x 1 Gbps service or faster.
2. Provide public Wi-Fi access in parks and other areas for events and gatherings with bandwidth of 1 Gbps/1 Gbps and speeds per device of 100/100Mbps.
3. Provide connectivity for potable water sites, wastewater plants and lift stations, electrical substations, irrigation, and other critical infrastructure.
4. Use the network to provide safety for employees in the workplace.
5. Use the network to share city maps, documents, and videos among all Departments, thereby maintaining only one set of completed and updated maps.
6. Have the system provide cybersecurity for all internal connections. (Virus, phishing, internet, etc.)
7. Connect new VOIP phones to the system to reduce phone costs.
8. Allow for remote access to systems for SCADA, security, and work-from-home options.
9. Promote digital Inclusion.
10. Increase access to public meetings by remote viewers.

11. Work with developers of Low-Income apartments and new subdivisions to put endpoints in as a part of their developments.
12. Incorporate a community center into the City's public offering.
13. Make available symmetrical internet solutions to residents below the current average market rate of approximately $70.00 per month with guaranteed minimums of 100/100 Mbps per home/business with no data caps or long-term contracts.
14. Improve (1) Economic Development, (2) Community/Involvement Outreach, (3) modernize infrastructure, (4) Improve Tourism/Hospitality.

Idaho Broadband Fund: CARES Act Broadband Grant

Applicant	Cinda Barker
Applicant ID	APP-004833
Company Name	Declo
Recipient Address	Declo 22 E Main St Declo, ID 83323
Phone	(208) 654-2124
Email	declo@atcnet.net
Amount Requested	$275,000.00
Status	Submitted
Funded	☐

Application Title: Declo Fiber Optic Project

Applicant Information

NOTICE: Grant applications, challenges, and responses to challenges will be posted to the Idaho Department of Commerce website

1.Program Description
The Idaho Broadband Advisory Board is soliciting projects that meet the CARES Act funding criteria for the $10 million appropriated to the Idaho Department of Commerce from the Federal COVID Relief Fund. These funds may only be expended to provide financial assistance in broadband infrastructure consistent with CARES Act criteria. The Idaho Broadband Advisory Board seeks to fund broadband projects across the state that are necessary for the COVID-19 public health emergency, and may include assisting with or improving distance learning, telehealth, telework, and public safety. This Idaho Broadband Fund: CARES Act Broadband Grant (the “Broadband Grant”) is designed to meet the CARES Act criteria, helping Idaho rebound from the COVID-19 public health emergency.

Question: Applicant’s contact information: a. Name b. Title/Position c. Mailing Address d. Email Address e. Phone Number

City of Declo
Cinda Barker
City Clerk
PO Box 46 Declo, ID 83323
declo@atcnet.net
208-654-2124

Question: List the cities/communities in the census blocks where the project(s) will take place.

City of Declo
160319502001190, 160319502001189, 160319502001192, 160319502001188, 160319502001193, 160319502001184, 160319502001187, 160319502001194, 160319502001185, 160319502001186, 1603119502001195, 160319502001183, 160319520221176, 160319503001177, 160319502001206, 160319502001204, 160319502001205, 160319502001203, 160319502001202, 160319502001201, 160319502001167(partial) 160319502001200, 160319502001175, 160319502001199, 160319502001198, 16031950200196, 160319502001197, 16031950200163, 160319502001164, 160319502001156, 160319502001157

Question: Grant Administrator a. Provide the name and title of the designated grant administrator. b. Provide the email address of the designated grant administrator. c. Provide the phone number of the designated grant administrator.

Cinda Barker, City Clerk
declo@atcnet.net
208-654-2124

Project Requirements

2.Eligible Projects
A. To be eligible for funding under the Broadband Grant, projects must meet the following eligibility criteria:

- Projects must satisfy the CARES Act criteria, which is designed to address key areas of public health and safety by improving opportunities to telework, improving access to telehealth services, facilitating distance learning, and improving public safety (CARES Act Federal Register Guidance can be found here. Frequently asked questions can be referenced here.)
- Projects must be necessary due to the COVID-19 public health emergency.
- Projects must expand rural broadband capacity to assist with telework, telehealth, distance learning, and public safety. Projects that would not be expected to increase capacity to a significant extent until the need for telework, telehealth, distance learning, and public safety have passed due to this public health emergency would not be necessary due to the public health emergency and therefore would not be eligible uses of Broadband Grant funds. Projects must provide broadband service within the proposed project areas.
- Projects must be completed and operable and verified no later than December 31, 2021. **Projects that are not completed, operable, and verified by December 31, 2021 will not be reimbursed.**
- Include broadband infrastructure and equipment costs meeting CARES Act criteria. Satellite service is not eligible for grant award.

Eligible applicants may apply for multiple grants. County governments may apply for grants on behalf of unincorporated communities.

Question: Does your project meet the CARES Act criteria?

☑ Yes

☐ No

Question: I understand that the State of Idaho will provide no funding and have no obligations for CARES funded projects that fail to be completed by December 31, 2021.

☑ Yes

☐ No

Scored Criteria

Scored Criteria
1. Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide: the broadband service being sought, the required technologies and equipment, and the installation and operation of the new broadband service. (30 Points)
a. Scope of Work: outlines the detailed plans of the infrastructure build. This may include, but is not limited to, the following: project area, type of infrastructure installed, locations of underserved households, known existing infrastructure, known existing anchor institutions (schools, hospitals, public facilities, etc.), potential middle-mile infrastructure that will be utilized, and locations of existing infrastructure.
2. Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community? (25 Points)
3. Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future? (20 Points).
4. Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000) (Y/N) (15 Points).
5. Explain how your project delivers a cost-effective broadband infrastructure solution to the community (10 Points).

Question: Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide the proposed service.

the City of Declo sits in an unfortunate geographic location, too rural to attract a Cable TV operator but not rural enough to be served by a local ILEC who receives Federal USF dollars to invest in broadband networks. Because of that, Declo is served by a national telecommunications company that offers insufficient DSL speeds over an aging copper network. The citizens are stuck with slow speeds, poor customer service, and outages that last days. The City in partnership with a local ISP, will construct a 100% buried fiber optic network to every single home and business in the city. This will provide the most reliable and robust network available today.

The Network
First, The network will be buried fiber optic cable in conduit to ensure network reliability and longevity. Second, the network design is using home-run active ethernet architecture. This

design provides a dedicated fiber optic cable to each individual subscriber. It ensures the fastest speeds possible while simplifying the network design and minimizing failures caused by faulty field electronics. The City will save money by utilizing the existing conduit infrastructure that was installed last year to connect several city offices throughout down town. To avoid middle-mile congestion, The City will require 10 GBPS buried fiber-optic interconnection within the City limits of Declo. The City will issue an RFP in the coming weeks for installation, management and ownership of the network.

The Community Benefit
Declo residents and businesses quickly learned in 2020 how important a fast and reliable internet connection can be. With Kids and parents both at home the current DSL service could not keep up with the bandwidth demand - especially as upload speeds became just as important as download speeds. (see attached speed test results).
All 156 residents and businesses will have access to the new service - that's every single location in Declo. That includes several anchor institutions, including:
Delco High School
Declo JR. High
Declo Elementary School
South Side Electric (Local Power Company)
US Post Office
LDS Church
LDS Seminary Building

Question: Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community?

Unlike other internet providers, The City of Declo will not cherry-pick which subdivisions or businesses have access to the network. Every existing structure will have the same access to affordable broadband without bias. the network will also be built to allow for growth in the community by strategically placing handholes in areas with potential growth.
As discussed above, the existing DSL service over copper has reached its end of life. The bandwidth needs of students and work-from-home parents have exceeded those capabilities. Although wireless providers do offer fast speeds, they are unable to provide service with our perfect line of sight to nearby towers. With the number of large trees in our community wireless internet is not ubiquitous and cannot be considered a viable long-term solution.

Question: Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future?

The pandemic demonstrated what City leaders have known for years - access to affordable and reliable broadband is just as important as water and sewer. In the event of another lockdown or resurgence of the virus, Declo residents will not be able to work or learn remotely. Speed tests have revealed that the average upload speed is around 1 MBPS - with some as low as 300 KBPS. A simple video conference (for remote work or school) cannot be done at those speeds.

Question: Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000)?

☑ Yes

☐ No

Question: Explain how your project delivers a cost-effective broadband infrastructure solution to the community?

A buried fiber-optic network using active Ethernet is the gold standard for network design and usually comes at a high cost. However, with this grant opportunity, and by working with a local ISP, the estimated cost of $1,763 per location is extremely affordable when compared to a typical network build. In fact several of the awarded 2020 cares projects were well over $10,000 per location.

Additional Requested Information (if applicable)

Question: Please detail any project match included to complete this project.

The City estimates that a local ISP will contribute 60%-70% of the toal cost.

Question: Estimated total project cost?

753900.00

Question: Number of households that will be connected to broadband service under the scope of the grant if applicable? If not applicable please answer N/A.

156

Question: What is the average cost per household of new broadband service based on this project cost if applicable? If not applicable please answer N/A.

With the total cost to the City at $275,000.00 (grant dollars) the average cost per household is $1,763.00. When including the investment from a local ISP ($475K) the average cost is $4,832.00.

Question: What is the maximum broadband speed that will be provided by the project?

The City will require the network to allow for speeds up to 1 Gbps symmetric (same upload and down load) to each and every home and business within the Project Area. A simple electronics upgrade will allow speeds of up to 10 Gbps.

Question: Are permits, permissions, and zoning requirements all obtainable in order for the project to be completed and paid for by December 31, 2021 if it is a CARES funded project? Please provide details.

Yes. Standard City and ITD permitting will be required and easily obtained in a timely manner.

Question: Please describe who will be providing the broadband service and ownership of the broadband infrastructure..

The entity that will provide the broadband service and will own the infrastructure will be determined by the City Council after receiving responses to the City's Request for Proposals in compliance with Idaho Code 67- 28006A. Albion Telephone Company is an ISP that serves the area and has voluntarily committed to submit a response.

Question: Describe how the project will be administered and audited for completion, and how the accounting will be performed.

the City will enter into a contract with a provider to ensure the project is completed in a timely manner. The City will consider the project completed when every customer, who requests service is a timely manner, is fully operational. The city clerk will oversee the accounting responsibilities.

Question: Has your project area received or been awarded any federal funds (CAFII/RDOF/USDA Reconnect) in the past two years, or will it receive federal funding over the next two years? If so, explain why additional funding was/is necessary in the project area?

The City of Declo has not received federal Broadband and to the best of our knowledge neither has any local ISP.

Question: Has your project area received state funds (Cares Act Broadband Grants, E-Rate, etc.) in the past two years? If so, please explain what state funds were received and why the additional state funding was necessary in the project area.

the City of Declo was awarded $99,471.00 from the Idaho Broadband Grant (CARES). The funds were used to connect several City owned buildings with fiber and provide public Wi-Fi.

Question: Include any other relevant information as to why your project should be considered for funding.

Not Answered

Question: Submit 10 or more, recent, fixed location Speed Tests. Applicants can choose which speedtest application to use across the proposed project area (if applicable).

CofD speed tests.pdf (7/15/2021 1:49 PM)

Attachments & Additional Supporting Documents

Upload Required Attachments & Additional Supporting Documents

Project Attachment Templates:
CARES Act Certification
Grant Budget Template
Project Schedule Form
Letters of Support/Community match template

Question: Project Area Identification Documentation: Applicant must upload supporting documents identifying the scope of work for the proposed project(s). Applicant must include 1Pdf &1Shape/Kmz map clearly showing the location and details of the proposed project.

CofD Project Boundry.pdf (7/15/2021 12:48 PM)
Declo Cares 2021.kmz (7/15/2021 12:46 PM)

Question: Grant Budget Template: Complete, upload, and attach to the application a completed Grant Budget Template for the project that outlines each of the various costs.

CofD FTT cost estimate.pdf (7/15/2021 12:50 PM)

Question: Project Schedule Form: Complete, upload, and attach to the application the Project Schedule Form.

CofD Projest Schedule.pdf (7/15/2021 12:52 PM)

Question: CARES Act Certification: Upload and attach to the application a notarized CARES Act Certification that this project meets the CARES Act criteria.

CofD Certification.pdf (7/16/2021 12:30 PM)

Question: Letters of Support: Upload and attach to the application any Letters of Support or Community Match documentation. (if applicable)

CofD Letters of support.pdf (7/16/2021 12:31 PM)

Question: Letters of Commitments from Anchor Institutions: Upload and attach to application letters of commitments from community anchor institutions or public safety networks which will utilize your service if the project is funded. (if applicable)

No Attachments

Question: Community Broadband Plan: Upload and attach a copy of your Community Broadband Plan (if applicable).

No Attachments

Question: Any applicable Site Plans, studies, or photographs.

No Attachments

Signature

Your identity has been authenticated through the login process with a unique email address and password available only to you. You agree that by typing your name, title and date below, you are electronically signing the application. By electronically signing the application, you acknowledge

and represent that you understand and accept all the terms and conditions stated within the application and declare that the information provided is true and that the documents you are submitting in support of your application are genuine and have not been altered in any way.

Question: Type your name.

Cinda Barker

Question: Type your title.

City Clerk

Question: Type the submission date.

7/16/2021

City of Declo
PO Box 159 ✦ Declo, ID 83323 ✦ Fax (208) 654-2423. ✦ Phone (208) 654-2124
Mayor Jay Darrington

State of ID
County of Cassia

The undersigned, Cinda Barker, representing City of Declo, 8 North Clark Street, Declo, ID. Hereby swear (affirm) that:

1. I am City Clerk of City of Declo and thereby authorized to make these statements.
2. I have personal knowledge of the facts herein, and can testify completely thereto.
3. The purpose of this statement is to assure the Idaho Department of Commerce that the project will meet the CARES Act Criteria. Further guidance can be found here and here.
    i. Expenses to facilitate distance learning, including technological improvements, in connection with school closings to enable compliance with COVID-19 precautions.
    ii. Expenses to improve telework, capabilities for public employees to enable compliance with COVID-19 public health precautions.

This grant will allow the residents of the City of Declo to access better internet with faster speeds for school and work or telemedicine when required. In the Case of a school closing the Declo School system would able to provide teachers with the ability to keep learning at a reliable pace.

Cinda Barker
Signature

July 16, 2021
Date

SUBSCRIBED AND SWORN before me on this 16 date of July, 2021.

AMBER DAWN WHITAKER NOTARY PUBLIC Comm No. 2017-9572 STATE OF IDAHO

Amber Dawn Whitaker
Notary Public for STATE
Residing at Minidoka County
Commission expires Sept 23, 2023

City of Declo - FTTx Cost Estimate

City of Declo
Declo, ID 83323

DESCRIPTION	Total
Fiber Optic Cable	*$33,318*
Duct	*$24,738*
Hand Hole Vaults	*$30,098*
Electronics	*$78,000*
Labor	*$587,710*
Total Estimated Cost of Construction	**$753,864**

Grant Amount	($275,000)
ISP Investment (estimate)	$478,864
Percent Funded by ISP (estimate)	64%
Percent Funded by Grant/City of Declo	36%
Total Locations	156
Cost Per Location (total investment)	$4,832
Cost Per Location (grant dollars)	$1,763

July 16, 2021

The City of Declo
Declo, ID 83323

To Whom It May Concern:

This letter is to inform you of our desire to have high speed internet access to the residence of the City of Declo. As business owners, we know first hand what reliable fast internet provides. At our convenience store we have had numerous days when the internet service was down for several hours. This is a financial burden to our business as it relies on having internet service for credit card purchases at our store.

Our rental properties would also benefit greatly by having high speed internet service for streaming and telephone capabilities.

As residents and business owners, we are in full support of having ATC Communications to provide fiber internet service to our small town.

Thank you,

Jay & Lesa

Jay & Lesa Fox

South Side Electric, Inc.

Declo, Idaho

To Whom it may concern,

We believe that it would be very beneficial for ATC to bring fiber optics into Declo! This would help bring speed up in the area for downloads and uploads which would benefit everyone from the schools to the residents and local business.

Thank you,

Jared Teeter

General Manager

South Side Electric, Inc.

Declo High School
505 East Main
Declo ID 83323

July 15, 2021

Declo City Office
Declo, ID 83323

To Whom It May Concern:

As the administrator at Declo High School I am thrilled about the possibility of improved internet access and speed. Such a resource will be extremely valuable to our student and our staff.

During the 2021-2022 school year our district will be moving to a one to one device model for our students. Such a move requires adequate access to internet resources. The timing of this grant could not be more appropriate.

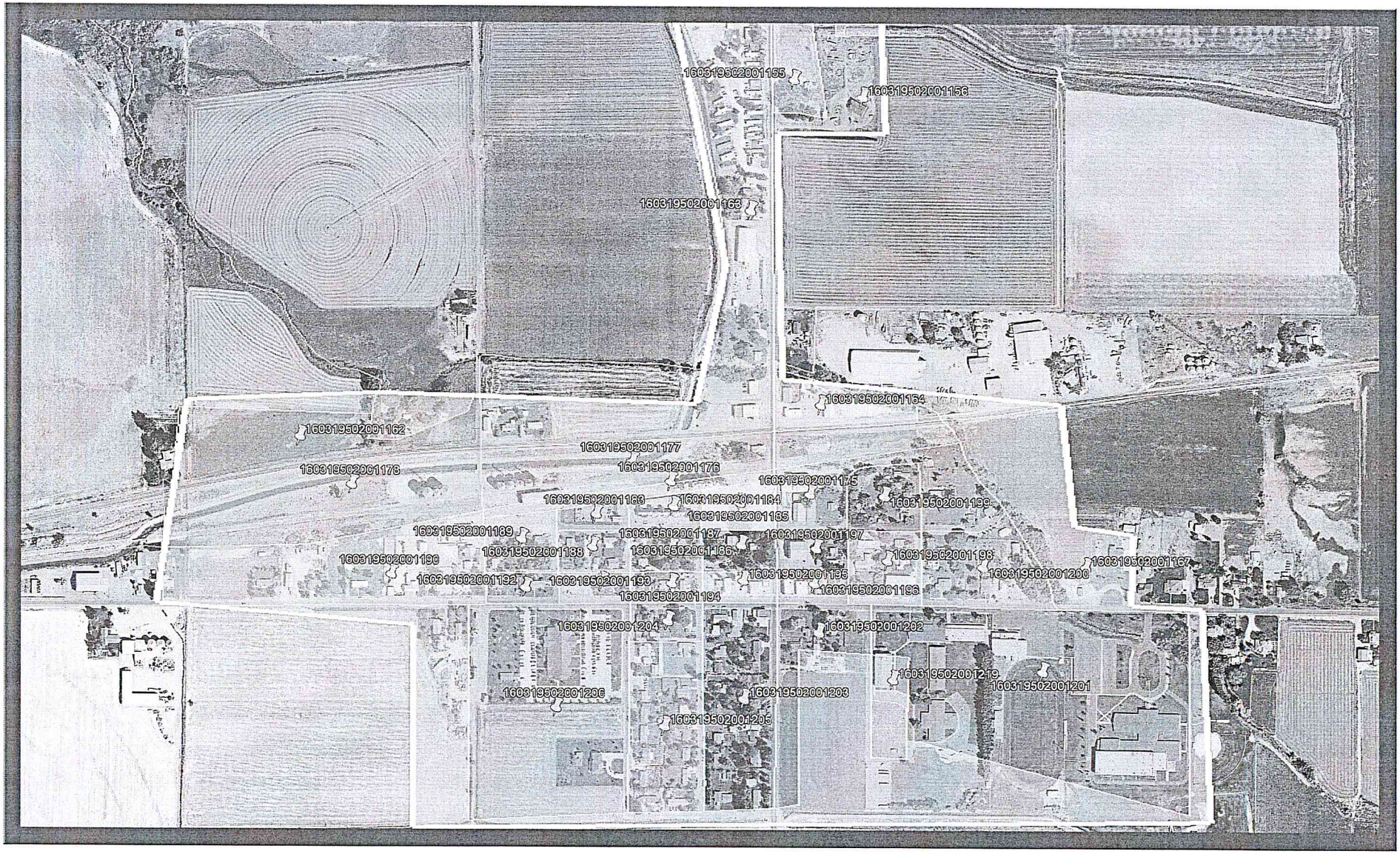
Thank you to all involved in this endeavor.

Sincerely,

Roland Bott
Principal, Declo High School

CITY OF DECLO
PROJECT BOUNDARY
WITH CENSUS BLOCKS

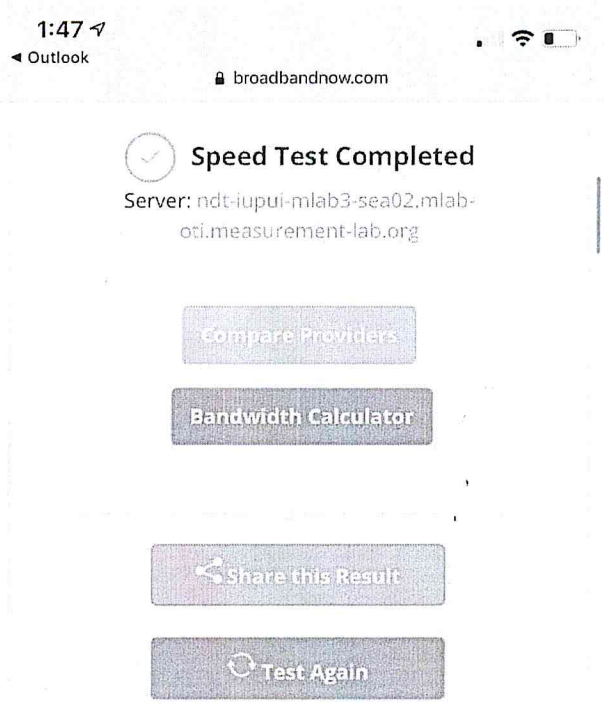
TOTAL LOCATIONS SERVED:	156
NEW MAX DOWNLOAD:	10 GBPS
NEW MAX UPLOAD:	10 GBPS

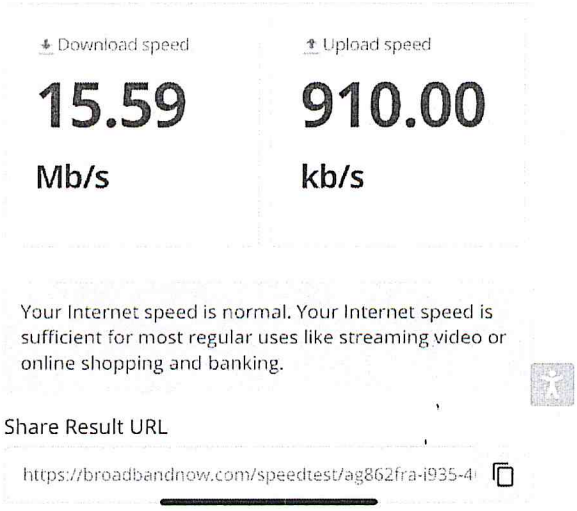


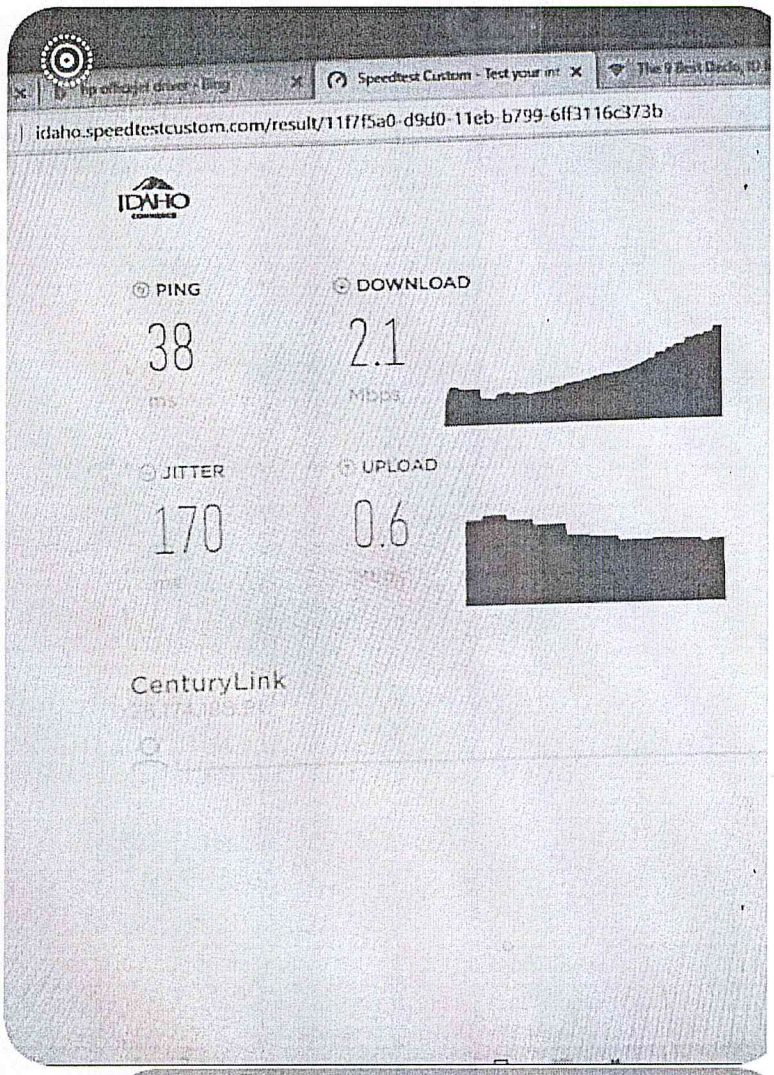
Idaho CARES Act Broadband Grant – Project Schedule

Activity	Responsible Party	Start Date	End Date
Community Outreach	City of Declo	Upon award	12-31-2021
Permitting	ATC Communication	8-1-2021	8-15-2021
Construction Contract	ATC Communication	8-1-2021	8-15-2021
Duct Installation	ATC Communication	8-20-2021	11-1-2021
Vault Installation	ATC Communication	8-20-2021	11-15-2021
Fiber Splicing	ATC Communication	11-15-2021	12-1-2021
Electronics Installation	ATC Communication	11-15-2021	12-15-2021
Tun up and Testing	ATC Communication	12-1-2021	12-15-2021
Construction Cleanup	ATC Communication	8-20-2021	12-15-2021
Demobilization	ATC Communication	12-16-2021	12-16-2021

In the past 30 days over **12,405,866** people have used speed tests to see their download speeds, upload speeds, and ping. Press "Start Test" below to get started testing your connection.







Speed test 2 picture from desktop—wired.

Delivered

IDAHO COMMERCE

SPEEDTEST

PING
87
ms

DOWNLOAD
0.1
Mbps

AGAIN

JITTER
407
ms

UPLOAD
0.3
Mbps

CenturyLink
Boise, ID

COPY LINK

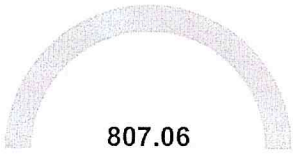
CenturyLink
63.239.3.111

CenturyLink
Boise, ID

Results

	Test Server	Seattle, US
	Download	0.33 Mb/s
	Upload	0.62 Mb/s
	Latency	77 ms
	Retransmission	1.31%

Download Speed



Speed Test Completed

Server: ndt-iupui-mlab2-sea02.mlab-oti.measurement-lab.org

Compare Providers | Bandwidth Calculator

Summary

Download speed
807.06
kb/s

Upload speed
943.01
kb/s

Your Internet speed is slower than average. It is sufficient for basic uses like email and web browsing but will likely struggle when streaming HD video, using Skype, and other video-based use cases.

Share Result URL

https://broadbandnow.com/speedtest/9m7v1nat-7929-45e4-86d7-c42

IDAHO COMMERCE

SPEEDTEST

PING
36
ms

DOWNLOAD
9.4
Mbps

AGAIN

JITTER
48
ms

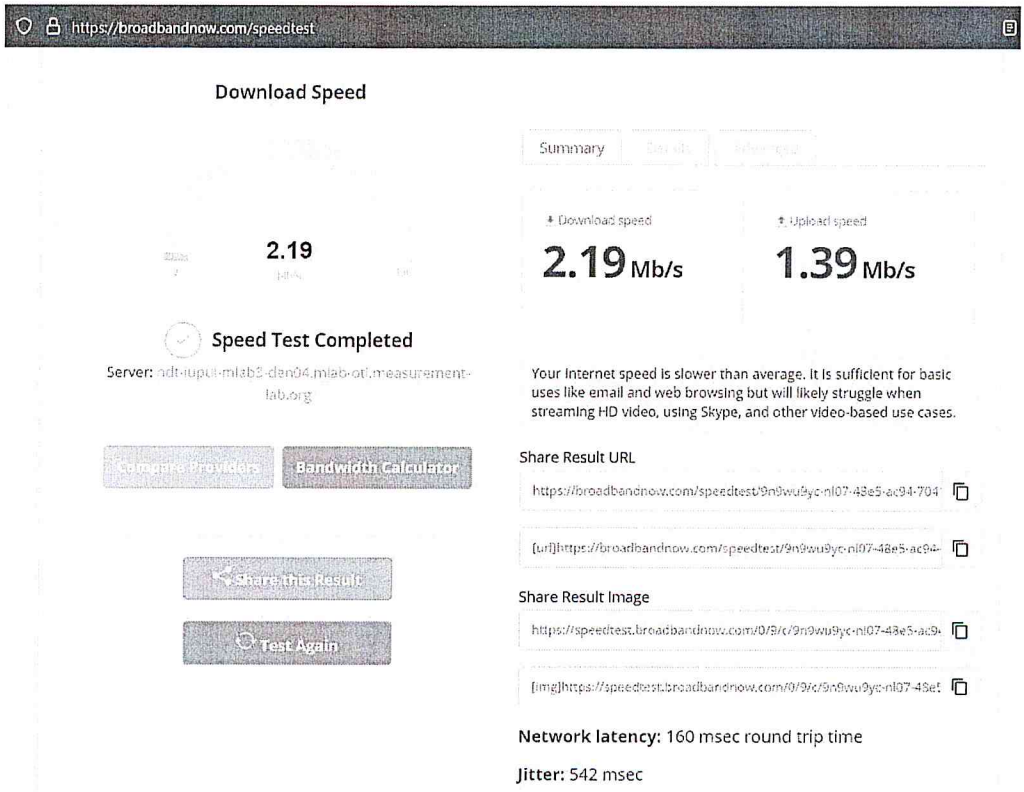
UPLOAD
1.5
Mbps

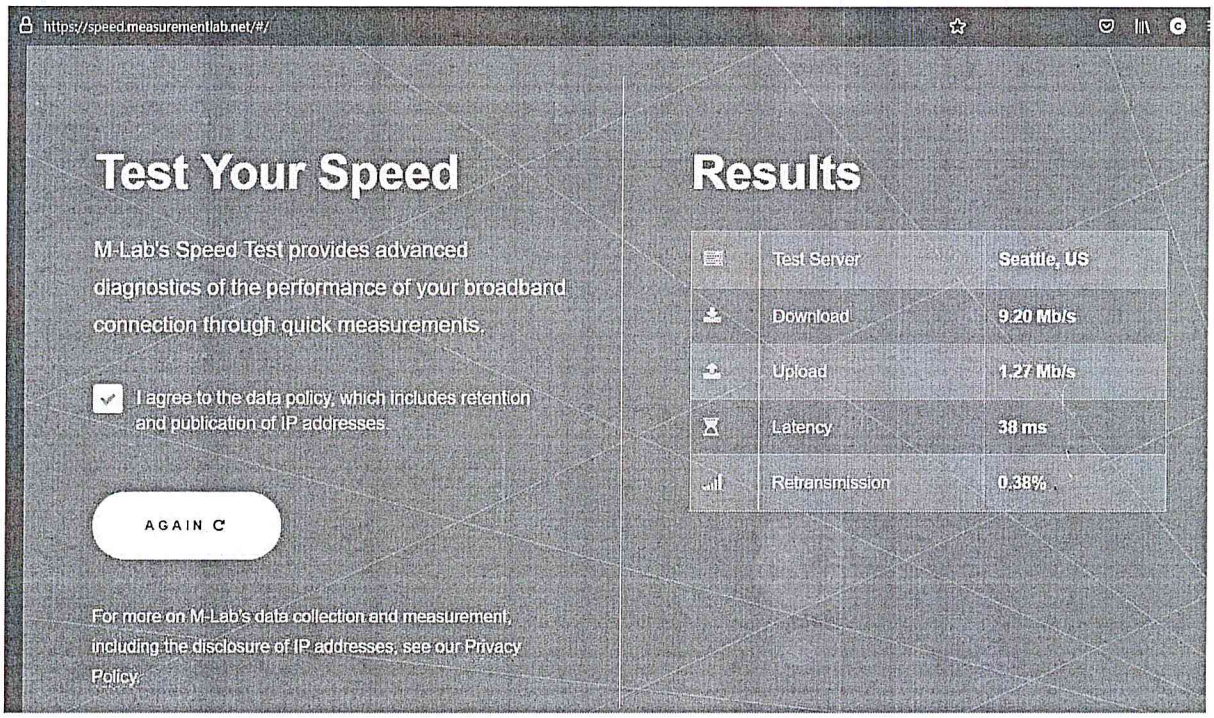
Safelink Internet Services
Rupert, ID

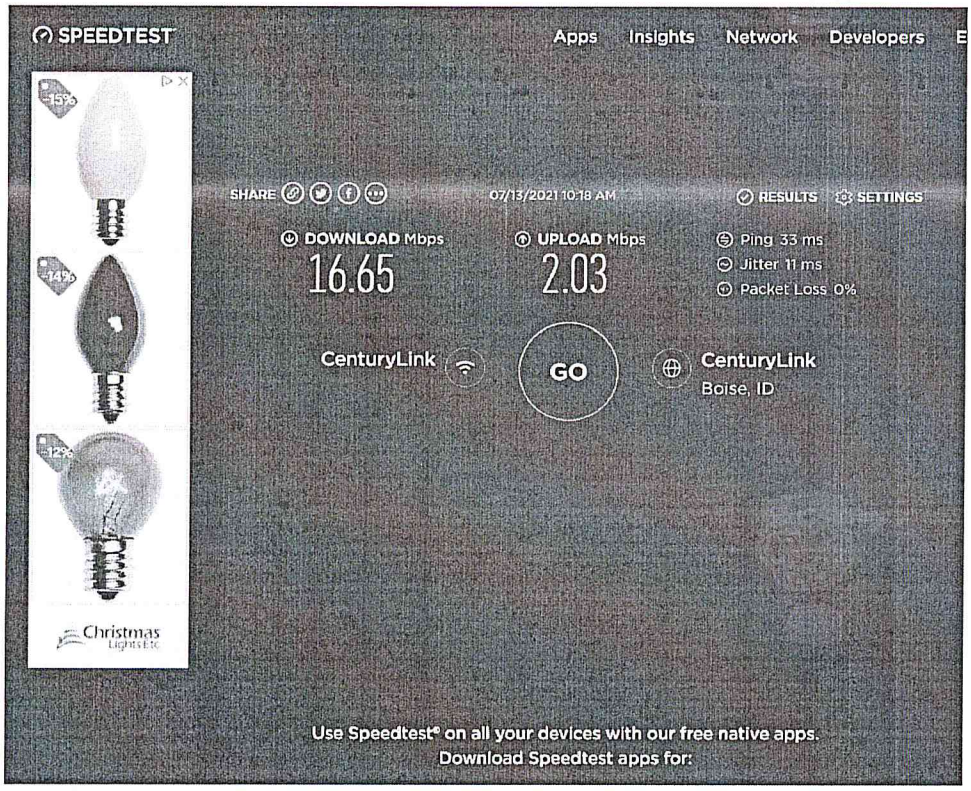
COPY LINK

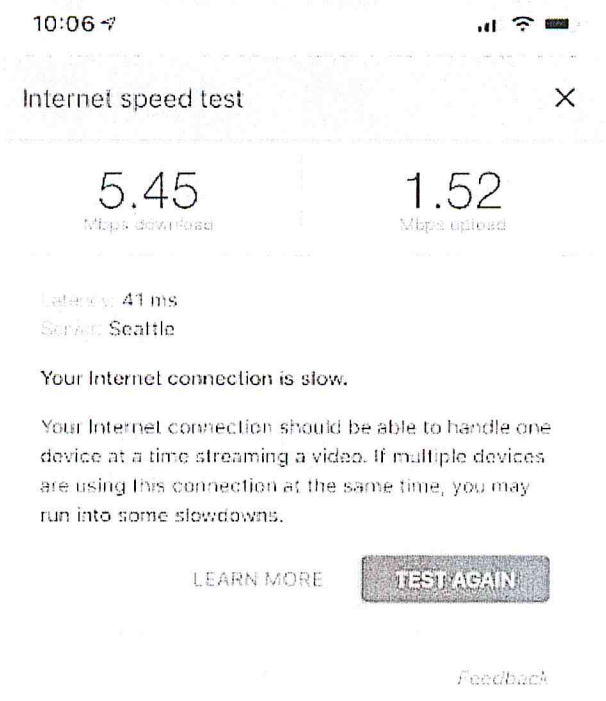
Safelink Internet Services
76.8.2.65

Safelink Internet Services
Rupert, ID


https://broadbandnow.com/speedtest
Download Speed
2.19
Speed Test Completed
Server: ndt-iupui-mlab3-den04.mlab-oti.measurement-lab.org
Compare Providers
Bandwidth Calculator
Share this Result
Test Again
Summary
Download speed
2.19 Mb/s
Upload speed
1.39 Mb/s
Your Internet speed is slower than average. It is sufficient for basic uses like email and web browsing but will likely struggle when streaming HD video, using Skype, and other video-based use cases.
Share Result URL
https://broadbandnow.com/speedtest/9n9wu9yc-nl07-48e5-ac94-704
[url]https://broadbandnow.com/speedtest/9n9wu9yc-nl07-48e5-ac94-
Share Result Image
https://speedtest.broadbandnow.com/0/9/c/9n9wu9yc-nl07-48e5-ac9
[img]https://speedtest.broadbandnow.com/0/9/c/9n9wu9yc-nl07-48e5
Network latency: 160 msec round trip time
Jitter: 542 msec


https://speed.measurementlab.net/#/
Test Your Speed
M-Lab's Speed Test provides advanced diagnostics of the performance of your broadband connection through quick measurements.
I agree to the data policy, which includes retention and publication of IP addresses.
AGAIN
For more on M-Lab's data collection and measurement, including the disclosure of IP addresses, see our Privacy Policy.
Results
Test Server
Seattle, US
Download
9.20 Mb/s
Upload
1.27 Mb/s
Latency
38 ms
Retransmission
0.38%


SPEEDTEST
Apps
Insights
Network
Developers
SHARE
07/13/2021 10:18 AM
RESULTS
SETTINGS
DOWNLOAD Mbps
16.65
UPLOAD Mbps
2.03
Ping 33 ms
Jitter 11 ms
Packet Loss 0%
CenturyLink
GO
CenturyLink
Boise, ID
Christmas Lights Etc
Use Speedtest® on all your devices with our free native apps.
Download Speedtest apps for:


10:06
Internet speed test
5.45
1.52
41 ms
Seattle
Your Internet connection is slow.
Your Internet connection should be able to handle one device at a time streaming a video. If multiple devices are using this connection at the same time, you may run into some slowdowns.
LEARN MORE
TEST AGAIN
Feedback

Idaho Broadband Fund: CARES Act Broadband Grant

Applicant	Doug Manning
Applicant ID	APP-004868
Company Name	Burley
Recipient Address	Burley P O Box 1090 Burley, ID 83318
Phone	(208) 878-2224
Email	dmanning@burleyidaho.org
Amount Requested	$438,583.41
Status	Submitted
Funded	☐

Application Title: City of Burley Idaho Broadband Project

Applicant Information

NOTICE: Grant applications, challenges, and responses to challenges will be posted to the Idaho Department of Commerce website

1.Program Description
The Idaho Broadband Advisory Board is soliciting projects that meet the CARES Act funding criteria for the $10 million appropriated to the Idaho Department of Commerce from the Federal COVID Relief Fund. These funds may only be expended to provide financial assistance in broadband infrastructure consistent with CARES Act criteria. The Idaho Broadband Advisory Board seeks to fund broadband projects across the state that are necessary for the COVID-19 public health emergency, and may include assisting with or improving distance learning, telehealth, telework, and public safety. This Idaho Broadband Fund: CARES Act Broadband Grant (the “Broadband Grant”) is designed to meet the CARES Act criteria, helping Idaho rebound from the COVID-19 public health emergency.

Question: Applicant’s contact information: a. Name b. Title/Position c. Mailing Address d. Email Address e. Phone Number

a) Mark Mitton
b) Burley City Manager
c) 1401 Overland Ave, Burley, ID 83318
d) mmitton@burleyidaho.org
e) (208) 878-2224

Question: List the cities/communities in the census blocks where the project(s) will take place.

The proposed project will include the City of Burley and will have impact in the surrounding communities. Services will include the following census blocks:3014, 3010, 3032, 3059, 1001, 3058, 2010, 1026, 1007, 3067

Question: Grant Administrator a. Provide the name and title of the designated grant administrator. b. Provide the email address of the designated grant administrator. c. Provide the phone number of the designated grant administrator.

a) Jake Goddard, Disaster Recovery Assistant
Region IV Development
b) jgoddard@csi.edu
c) 208-732-5727 Extension – 3013

Project Requirements

2.Eligible Projects
A. To be eligible for funding under the Broadband Grant, projects must meet the following eligibility criteria:

- Projects must satisfy the CARES Act criteria, which is designed to address key areas of public health and safety by improving opportunities to telework, improving access to telehealth services, facilitating distance learning, and improving public safety (CARES Act Federal Register Guidance can be found here. Frequently asked questions can be referenced here.)
- Projects must be necessary due to the COVID-19 public health emergency.
- Projects must expand rural broadband capacity to assist with telework, telehealth, distance learning, and public safety. Projects that would not be expected to increase capacity to a significant extent until the need for telework, telehealth, distance learning, and public safety have passed due to this public health emergency would not be necessary due to the public health emergency and therefore would not be eligible uses of Broadband Grant funds. Projects must provide broadband service within the proposed project areas.
- Projects must be completed and operable and verified no later than December 31, 2021. **Projects that are not completed, operable, and verified by December 31, 2021 will not be reimbursed.**
- Include broadband infrastructure and equipment costs meeting CARES Act criteria. Satellite service is not eligible for grant award.

Eligible applicants may apply for multiple grants. County governments may apply for grants on behalf of unincorporated communities.

Question: Does your project meet the CARES Act criteria?

☑ Yes

☐ No

Question: I understand that the State of Idaho will provide no funding and have no obligations for CARES funded projects that fail to be completed by December 31, 2021.

☑ Yes

☐ No

Scored Criteria

Scored Criteria
1. Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide: the broadband service being sought, the required technologies and equipment, and the installation and operation of the new broadband service. (30 Points)
a. Scope of Work: outlines the detailed plans of the infrastructure build. This may include, but is not limited to, the following: project area, type of infrastructure installed, locations of underserved households, known existing infrastructure, known existing anchor institutions (schools, hospitals, public facilities, etc.), potential middle-mile infrastructure that will be utilized, and locations of existing infrastructure.
2. Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community? (25 Points)
3. Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future? (20 Points).
4. Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000) (Y/N) (15 Points).
5. Explain how your project delivers a cost-effective broadband infrastructure solution to the community (10 Points).

Question: Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community. Include a scope of work description, along with a list of ISPs that can provide the proposed service.

With the unprecedented paradigm shift we have witnessed in the last 18 months, all aspects of our lives turn to the internet to stay educated, entertained, and connected. A reliable connection has become the fundamental backbone of almost every part of life and our community. The limitations of existing critical infrastructure have been exposed, and the lack of adequate bandwidth and last mile infrastructure,made plain and apparent.

Burley is very grateful for the efforts of the Idaho Department of Commerce in helping us facilitate the growth of the municipal city network in the last round of CARES Act funding. The broadband systems we implemented in 2020 to meet the city's public safety needs have been put to good use, and municipal capabilities have improved substantially.This significant improvement has highlighted the need for expansion to our successful broadband network taking fiber connections to the homes of our residents and businesses.

While our past network improvements have made a significant positive impact, lack of access to ubiquitous high-speed internet for residents and businesses in Burley is cause for constant concern to community leaders, school administration, teachers, students, business owners, employees, and citizens of all ages.To improve broadband access, the City of Burley is

proposing to expand its capabilities by providing fiber in a targeted area of the community that faces unique challenges speaking in terms of the age of the homes and infrastructure as well as socioeconomic factors, specifically in the areas to the west of city center between Overland Ave and Parke Ave and 20th and Main Street.

We propose to install a 3 x 244-count armored single-mode fiber line from an existing POP serviced by multiple providers in Burley. This POP is owned by the City of Burley and managed by a contracted third party. We will extend past City Hall in Burley as well as all Cassia County facilities (Court, Dispatch, Jail, Youth Corrections, Administrative Offices, etc.) in this same 2 block area. From this point we intend to extend the 3 x 244-count armored single-mode fiber west in the direction of Parke Ave landing at the city's service center thus cutting a clear path east to west across the proposed service area. The city has unique utility corridors that run north to south behind and in-between all the homes in this area. We will splice off the main trunk heading to the west and extend down the utility corridors north or south. There are approximately 701 homes located in this area that are in many cases covered by dense large old growth trees which make wireless hit and miss but reliable when the line of sight exists. Unfortunately, this means limited coverage compared to the home count relative to the previous broadband project completed with the Idaho Department of Commerce.

Upon completion of this project, the City of Burley and service area will have expanded broadband access to the internet. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The city will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE)symmetrical and modern wireless solutions for immediate deployment. The cost of this project is estimated at$438,583.41.

The following modes of distribution will be employed: FTTH/FTTP using Single Mode Fiber and vertical installation on existing poles and communication corridors located by and behind the homes and businesses. Plans and permits are ready and available for all work.

Question: Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community?

Lack of access to fast, reliable, and affordable broadband internet has separated rural Americans from much-needed services and opportunities for economic development, public safety, telehealth, and education. This proposal directly promotes increased equity by establishing the necessary foundational infrastructure to provide vital municipal and public access points in Burley. This project focuses first on critical municipal services and increased general availability for those with the most need through accessible public spaces.

Broadbandnow shows that fiber connectivity is available to less than8% of Burley. While there are 11providers in Burley, service quality remains low, with average download speeds of13.63Mbps;80.6% slower than average in Idaho and585% slower than the national average.

Services are not deemed minimally adequate nor "future proof" and have proved insufficient during the trials of the COVID-19 pandemic.

Question: Explain how your project meets Cares Act Criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future?

This project explicitly addresses significant rural broadband access disparities in Lincoln County,

directly addressing criteria in the CARES Act guidelines.This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19while increasing the ability of citizens in rural Idaho to access and utilize resources through fast, reliable, and adequate broadband connectivity.

The planned infrastructure improvements are designed to be “future proof” mitigating the effects of similar widespread emergencies. The proposed infrastructure provides service and speed improvement that are more than adequate for today's needs while scalable for meeting the future needs of Burley. Well-designed and implemented infrastructure improvements are essential for preparing for the needs of today and for those of the next generation.

Question: Will this project deliver broadband infrastructure to a rural Idaho population (less than 25,000)?

☑ Yes

☐ No

Question: Explain how your project delivers a cost-effective broadband infrastructure solution to the community?

The proposed project uses economy of scale and sensible engineering, to provide cost effective improvements to broadband access.Building a comprehensive broadband network providing service for the whole of Burley is more cost effective and efficient than independent endeavors, driving cost-per-household down, while increasing service areas.Further, partnerships with other communities (e.g., Heyburn) brings a larger market with more opportunities for growth and service expansion.

Additionally, the proposed improvements are sensibly engineered to employ existing infrastructure to bring high speed internet to new service areas in Burley and neighboring areas.Developing the available “digital highways” we can build more economical solutions for increased service.

Additional Requested Information (if applicable)

Question: Please detail any project match included to complete this project.

The city has already invested in excess of $2Mto our city owned infrastructure.Should this grant proposal be awarded, we are prepared to ensure that once the fiber is extended to the homes, we will cover the cost of installation of those opting in on the service.Please note, this will be work that will be performed after the scope of this project, as outlined herein,is completed by the agreed upon deadline.

Question: Estimated total project cost?

438583.41

Question: Number of households that will be connected to broadband service under the scope of the grant if applicable? If not applicable please answer N/A.

716

Question: What is the average cost per household of new broadband service based on this project cost if applicable? If not applicable please answer N/A.

$612.55

Question: What is the maximum broadband speed that will be provided by the project?

10,000Mbps/10,000Mbps

Question: Are permits, permissions, and zoning requirements all obtainable in order for the project to be completed and paid for by December 31, 2021 if it is a CARES funded project? Please provide details.

Yes
This grant has been written in cooperation with appropriate permitting authorities. Permitting, permissions, and zoning requirements have been considered, and where possible and applicable, are either complete or in progress.The city has a great deal of permitting completed from previous builds and is intimately familiar with the process and quick turnaround from previous successes.

Question: Please describe who will be providing the broadband service and ownership of the broadband infrastructure..

Burley has developed community-owned broadband infrastructure that is self-sustaining, invites better service through competitive bidding, and allows citizens to access quality internet now and for years to come.Community leaders will continue to identify trusted, vetted, and capable network partners who cooperatively work to realize the integrative vision of the community of Burley.

Question: Describe how the project will be administered and audited for completion, and how the accounting will be performed.

Administration and auditing for completion will be completed in co-creation with Region IV Development, Inc. in accordance with the rules and regulations of the project, state, and county.

Question: Has your project area received or been awarded any federal funds (CAFII/RDOF/USDA Reconnect) in the past two years, or will it receive federal funding over the next two years? If so, explain why additional funding was/is necessary in the project area?

No

Question: Has your project area received state funds (Cares Act Broadband Grants, E-Rate, etc.) in the past two years? If so, please explain what state funds were received and why the additional state funding was necessary in the project area.

Yes. Monies were received from the State of Idaho Department of Commerce CARES Act Grant 2020.Details as to why the funds are necessary are included in the narrative above.Essentially, the proposed projectarea cannot be fully serviced from the infrastructure currently in place.

Question: Include any other relevant information as to why your project should be considered for funding.

Burley has had considerable success in completing similar projects of this type and magnitude in the recent past. Further, these projects have consistently produced results surpassing original goals and providing more services and successes than our ambitions anticipated. Providing funding to Burley is not a gamble, but an investment into the future of a city, the state of Idaho, and rural Idahoans.

Question: Submit 10 or more, recent, fixed location Speed Tests. Applicants can choose which speedtest application to use across the proposed project area (if applicable).

City_of_Burley_Speed_Tests.pdf (7/16/2021 12:19 PM)

Attachments & Additional Supporting Documents

Upload Required Attachments & Additional Supporting Documents

Project Attachment Templates:
CARES Act Certification
Grant Budget Template
Project Schedule Form
Letters of Support/Community match template

Question: Project Area Identification Documentation: Applicant must upload supporting documents identifying the scope of work for the proposed project(s). Applicant must include 1Pdf &1Shape/Kmz map clearly showing the location and details of the proposed project.

City_of_Burley_Scope_of_Work.pdf (7/16/2021 12:23 PM)
City_of_Burley_Maps_Project_Area_Identification.pdf (7/16/2021 12:22 PM)
City_of_Burley_Census_Blocks_Shape_Files.zip (7/16/2021 12:21 PM)

Question: Grant Budget Template: Complete, upload, and attach to the application a completed Grant Budget Template for the project that outlines each of the various costs.

City_of_Burley_Grant_Budget.pdf (7/16/2021 12:24 PM)

Question: Project Schedule Form: Complete, upload, and attach to the application the Project Schedule Form.

City_of_Burley_Project_Schedule.pdf (7/16/2021 12:25 PM)

Question: CARES Act Certification: Upload and attach to the application a notarized CARES Act Certification that this project meets the CARES Act criteria.

City_of_Burley_CARES_Act_Cert (7/16/2021 12:27 PM)

Question: Letters of Support: Upload and attach to the application any Letters of Support or Community Match documentation. (if applicable)

City_of_Burley_Business_Support_Letters.pdf (7/16/2021 12:28 PM)

Question: Letters of Commitments from Anchor Institutions: Upload and attach to application letters of commitments from community anchor institutions or public safety networks which will utilize your service if the project is funded. (if applicable)

No Attachments

Question: Community Broadband Plan: Upload and attach a copy of your Community Broadband Plan (if applicable).

City_of_Burley_Community_Broadband_Plan.pdf (7/16/2021 12:32 PM)

Question: Any applicable Site Plans, studies, or photographs.

City_of_Burley_Submission.pdf (7/16/2021 12:37 PM)
City_of_Burley_Resolutions.pdf (7/16/2021 12:36 PM)
City_of_Burley_Technical_Research_Overview.pdf (7/16/2021 12:35 PM)
City_of_Burley_FAQs.pdf (7/16/2021 12:34 PM)

Signature

Your identity has been authenticated through the login process with a unique email address and password available only to you. You agree that by typing your name, title and date below, you are electronically signing the application. By electronically signing the application, you acknowledge and represent that you understand and accept all the terms and conditions stated within the application and declare that the information provided is true and that the documents you are submitting in support of your application are genuine and have not been altered in any way.

Question: Type your name.

Doug Manning

Question: Type your title.

Director of Economic Development

Question: Type the submission date.

7-16-2021

SRFA
SNAKE RIVER FARMERS ASSOCIATION

21 December 2020

To Whom It May Concern:

Snake River Farmers' Association is an Idaho-based non-profit association of agricultural producers. Our organization was created in 1986 by farmers in the Burley/Paul area to assist farmers and ranchers with the application process and program compliance for the H-2A agricultural labor program. Since its founding, we have grown to serve more than 600 agricultural producers in 15 States as they sponsor over 4,800 individuals to provide seasonal work during their production seasons.

On behalf of our non-profit association and its 600+ Agricultural producer Members, I extend support for projects in the Mountain West, including in the Magic Valley Region of Southern Idaho, that would provide rural households greater (and in many cases, ANY) access to broadband internet service. Increased options, more infrastructure, and new service providers in the region would also increase fair competition, which I firmly believe would benefit all consumers in the Magic Valley.

Many of our Members have farms or ranches that are very remote. We consistently face communication challenges with several of them. It is concerning that in 2020, so many of our Members are still compelled to conduct business by US Postal Service or overnight courier service (e.g. FedEx and UPS). This significantly impacts our ability to timely submit their applications for seasonal Ag workers to various government agencies. Delays in the application process result in delays of seasonal worker arrival. This jeopardizes the producer's crop and livestock.

I firmly believe that increased internet access for communities in the rural Mountain West is critical for ongoing business viability for many employers, and to the extent that Eminent Technical Solutions seeks to help fill the void, I support their efforts to help provide more dependable and functional access to the internet the underserved members in our communities.

Thank you for your consideration in this matter. Please feel free to contact me with any questions at 208.436.9737 or via email at janderson@snakeriverfarmers.org.

Sincerely,

Joel Anderson
Executive Director

406 West 400 South, Heyburn, Idaho 83336 • (208) 436-9737 • Fax: (208) 436-0573 • info@snakeriverfarmers.org

City of Burley
1401 Overland Ave
Burley ID, 83318
(208) 878-2224

State of Idaho Broadband Grant
CARES Act Certification

STATE OF IDAHO, CITY OF IDAHO

The undersigned, Steve Ormond, representing City of Burley, PO Box 1090, Burley ID 83318-0948, hereby swear (affirm) that:

1. I am Mayor of City of Burley and thereby authorized to make these statements.
2. I have personal knowledge of the facts herein and can testify completely thereto.
3. The purpose of this statement is to assure the Idaho Department of Commerce that the project will meet the CARES Act Criteria including

i. Expenses to facilitate distance learning, including technological improvements, in connection with school closings to enable compliance with COVID-19 precautions.
ii. Expenses to improve telework capabilities for public employees to enable compliance with COVID-19 public health precautions.

The costs covered are necessary expenditures to be incurred 1) due to the public health emergency with respect to the Coronavirus Disease 2019 (COVID–19); 2) were not accounted for in the budget most recently approved as of March 27, 2020 (the date of enactment of the CARES Act) for Idaho County; and 3) will be incurred during the period that begins on August 02, 2021, and ends on December 30, 2021

John Craner, President Burley City Council
Steve Ormond, Mayor

7-16-21
Date

SUBSCRIBED AND SWORN before me on this 16th day of July 2021

ELLEN JEAN MAIER
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 52345
MY COMMISSION EXPIRES 5-5-2026

Ellen Jean Maier
Notary Public for Idaho
Residing at Rupert
Commission expires May 5, 2026

// July 15th, 2021

City of Burley
CARES Act Broadband Grant

Community Broadband Plan

Outlining the primary goals and step-by-step actions to achieve high-speed, robust, and **reliable Broadband connections** in the City of Burley

Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

Vision and Goals

Burley's Broadband Strategy Vision Statement

1. **Realize the potential for transformative and substantial improvement** in broadband access with a holistic, unified, community-based approach to broadband infrastructure.

2. **Execute the City Council's vision** for a connected and vibrant community that ranks high on the list for regional and national connected communities relative to broadband adoption, digital literacy, and 21st century skills through balanced investments in talent, infrastructure (fiber, wireless, facilities, and carrier partners) as well as to create an excellent economy centered on innovation and digital equality.

3. **Continue growing our relationship with community partners** including Heyburn with whom we share goals and strategy, learning from our shared experiences and working to create a unified, connected Idaho.

Burley's Broadband Strategic Goals

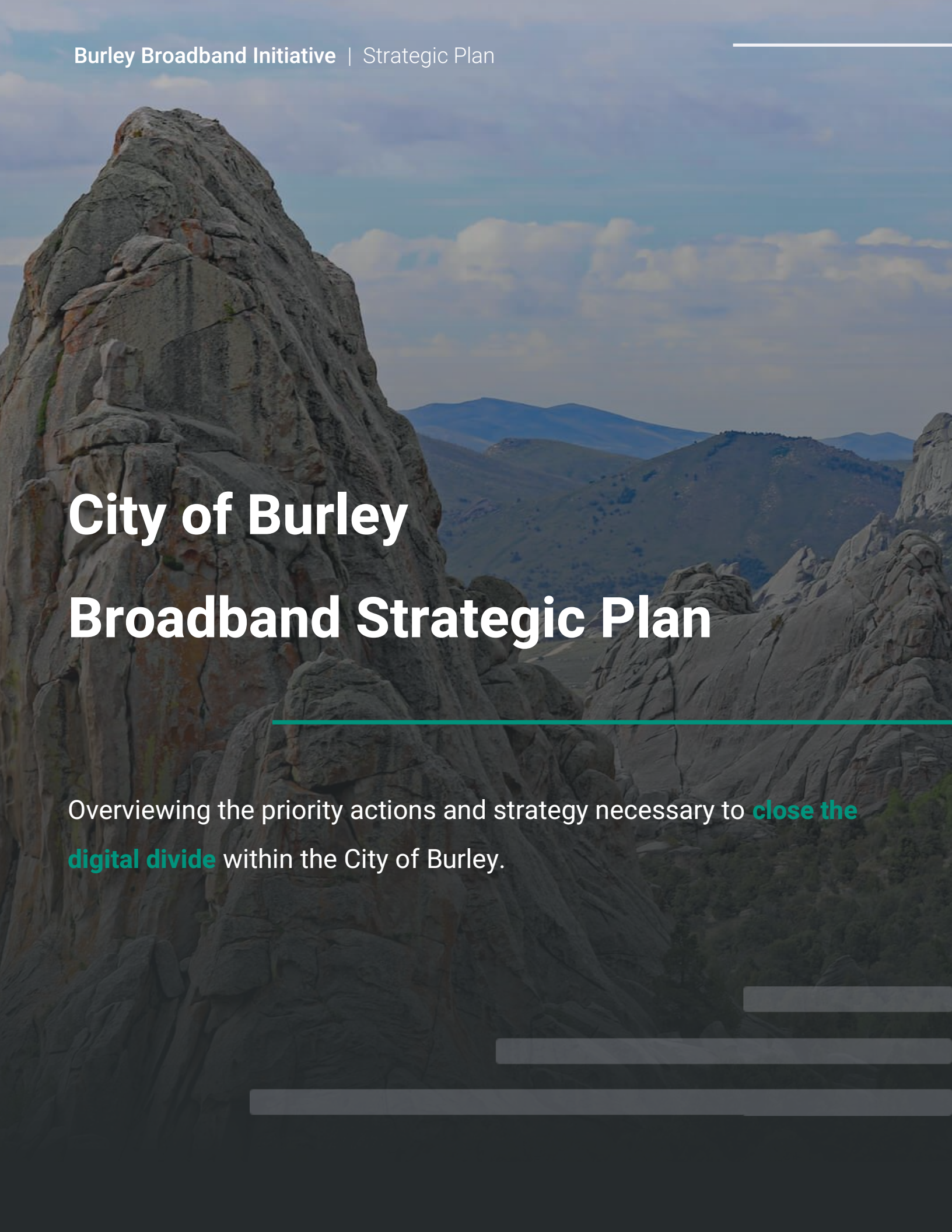
1. **Engage Burley's P-12 students** (preschool through high school) and teachers by creatively using broadband technologies and applications.

2. **Close the digital divide** in our communities: Take action toward universal digital literacy and access to affordable, robust broadband connections.

3. **Increase community and service provider awareness** of the benefits of a higher rate of broadband adoption in the community

4. **Develop Burley as a center for innovation**; support a growing network of learning centers and innovation spaces connected by broadband that helps students, families, and businesses increase digital literacy and transform individual outcomes through knowledge and hard/soft skills.

5. **Build upon our high-quality broadband network** in Burley and participate in regional efforts to accelerate broadband development and deployment by working collaboratively with our sister cities and other partners at a local, regional, state, and federal level.



City of Burley
Broadband Strategic Plan

Overviewing the priority actions and strategy necessary to **close the digital divide** within the City of Burley.

Priority Actions

Within 6 Months (2021)

1. Complete a USDA Community Connect Application – **Complete** (No award to date. All applications nationwide are under review)

2. Complete submission of the Idaho Broadband Fund: CARES Act Broadband Grant using lessons learned and improvements from the first application. – **Complete**

3. Complete Cybersecurity and Technology assessments for the City of Burley - **Complete**

Within 24 Months

1. In response to the COVID-19 pandemic, further develop a partnership within the educational community, including Cassia School District, CSI, etc. Develop a Wireless Mesh Network that can distribute both Municipal Access Networks and Educational Networks to public spaces and surrounding neighborhoods.

2. Develop a committee within the city government whose role is to work as the liaison between community groups, government agencies, businesses, and school districts to identify gaps and recommend partner activities to increase broadband adoption and digital literacy.

3. Involve and engage the existing Education Partnership Initiative (including universities, community colleges, and schools) to prioritize broadband awareness and digital literacy.

4. Seek and apply for collaborative grant funding to support any projects related to the action items stated above.

Burley’s Community Broadband Strategic Plan: The What and the Why

In response to the COVID-19 pandemic, the City of Burley identified the need for a Broadband Plan to identify lacking infrastructure and connectivity, prioritizing the needs of the city and community as a whole. It is reviewed, refined, and updated regularly, focusing on community development and exploring new economies and opportunities. The following questions are used as a guide for developing the Broadband Plan:

- What is at stake for our region's economic, social, educational, and healthcare future?
- What parts of our communities are most affected by lack of broadband access, awareness, adoption, and utilization capabilities?
- What barriers prevent broadband access, awareness, adoption, and utilization?
- What community assets and opportunities can be leveraged to overcome barriers?
- Why are broadband inclusion, adoption, and utilization essential in our community?

The Need for a Local Broadband Strategy

Building upon the success of our municipal infrastructure, through thoughtful revision and updating of our broadband strategic plan, we have found that our residential access to fast, reliable, and affordable internet is the next step to a more connected and equitable Burley.

Adoption and implementation of the residential additions in Burley's Community Broadband Plan is a crucial undertaking towards realizing what our Regional Prosperity Economic Development Plan calls a "learning community" that "invests in tomorrow's talent" and "energizes a creative economy."

Implementation will also further the economic opportunity strategies in Burley's long-range vision for growing and accommodating a wide range of jobs, housing opportunities, and educational excellence.

Broadband connectivity is transforming society as it continues to expand individuals' capability to communicate, participate, create, educate, inform, and compete. Access to adequate broadband resources and the adoption of broadband-associated tools are fundamental to our community's economic and civic vitality. Our ability to participate as residents in Burley's civic matters, effectively utilize healthcare and education services, and interact with the world around us requires digital literacy skills.

Broadband must be recognized as an essential utility for both individuals and businesses. The city officials advocate increasing competition and choice in all telecommunication services offered to residents and businesses.

More work is required to bring affordable, higher-capacity broadband to our commercial corridors and industrial areas, in addition to neighborhood and rural residents. Burley’s community broadband strategic plan focuses on improving broadband access and adoption by:

- Underscoring the relevance of broadband adoption to all sectors of our community.
- Raising expectations of digital literacy skills, employing creative uses of broadband technologies in our classrooms and our community.

- Encourage leveraging of the assets of our higher education institutions and leadership in educational research.
- Pursuing local private sector capabilities to build learning products and social science research organizations to validate the effectiveness of education technologies.
- Expanding Burley's innovation ecosystem by extending lifelong learning opportunities and affordable access to information.
- Deploying world-class broadband network capabilities in the city and along major corridors to accelerate business growth and access to the internet within Burley, consistent with the Burley City Economic Growth Plan and the Regional Plan.

Citizens also expressed that Burley's children will be more likely to develop into tomorrow's innovators with exposure to global ideas and interactions sourced through broadband in their schools, homes, and a myriad of locations distributed equitably across the city. Engaging students through technology to develop their creativity, critical thinking, and collaboration will require, as it always has, the mentorship and guidance of professionals.

Confronting challenges to both our municipal broadband infrastructure and striving for a culture of innovation in our communities will require continued committed partnerships between private and public sectors to enact recommendations impacting both physical assets like fiber or computer equipment and or prerational support for trainers, teachers, and mentors. In an era of resource constraint, public institutions and private entities must exercise their creativity and commitment to collaborate to achieve the desired collective impact.

Conclusion

The city staff appreciates the efforts and participation of all in the planning required for this digital transformation. Without their involvement, the scope of this plan would be much more limited. City staff will review how this drafted initiative is consistent with other recently adopted city plans, post the Broadband Plan draft on our project website for a review by citizens and committees, and present the Broadband Plan to the City Council for approval.

A critical dialogue has begun, and the city has laid out an ambitious set of strategies with an action plan that can only be successful through strong partnerships and collaboration. The continued participation of the area's K-12 schools, the business community, our public agencies, our community service organizations, and our eager residents are all needed to accomplish these goals as they promote broadband adoption strategies and policies statewide.

City staff will continue to post its products to the State's project website in the interest of other communities studying the same issues and will provide additional avenues for public input as staff continues to share our progress with the Burley City Council. We look forward to ongoing relationships within the City of Burley, School District, and other communities participating in the Idaho Broadband Grant and other grant-sponsored efforts in the State of Idaho.

Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

// July 15th, 2021

City of Burley

Broadband Initiative Facts

Outlines the **current areas of Broadband service** provided in the City of Burley and surrounding communities.

City of Burley Coverage

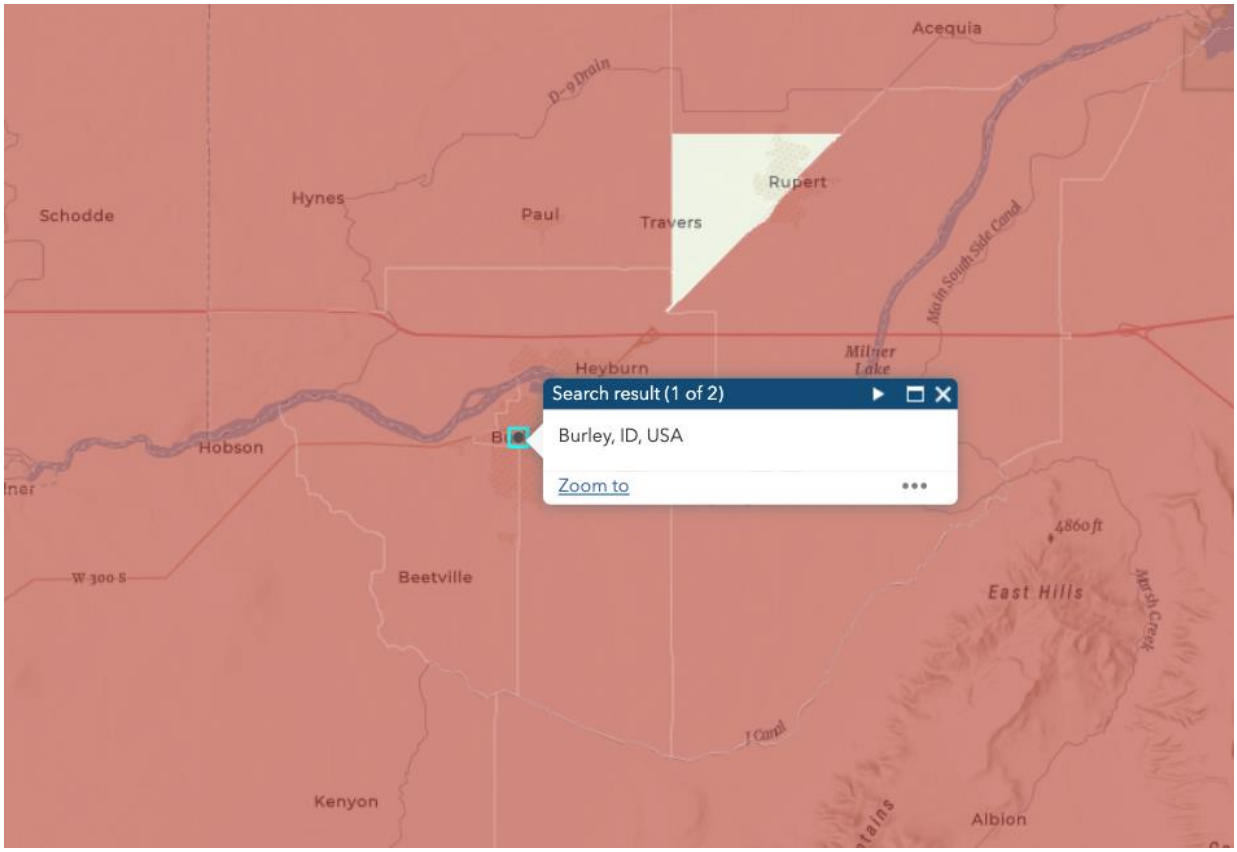


Figure 1

ARCGIS map of Burley, Idaho, with Internet Access Statistics.

Key Red indicates areas where Ookla Median Speeds Fixed Broadband Below 25/3 Mbps (Census Tract Level), M-Lab Median Speeds Fixed Broadband below 25Mbps (County Level), and Usage – 75% or More of Devices Connect to Microsoft Updates/Services via Fixed Broadband Download Speeds below 25 Mbps (County Level). (Accessed: 07/12/21)

As shown in the map above, Burley and the surrounding region have no areas whose median speeds meet minimum broadband speeds as measured by the FCC (25Mbps/3Mbps minimum). Further, although there are multiple providers in the area, less than 8% of residents have any access to fiber connection. Additionally, costs

are relatively high at $69.57 in the context of average speed which is relatively low at 13.63 Mbps.

Idaho Cares Act Broadband Grant Budget

Line Item	Grant Dollars				Total
Feeder Service	$353,630.00				$353,630.00
Fiber to the Home Labor and Materials	$80,611.00				$80,611.00
					$0.00
					$0.00
					$0.00
					$0.00
Grant Administration	$4,342.41				$4,342.41
Totals	$438,583.41	$0.00	$0.00	$0.00	$438,583.41

Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

// July 15th, 2021

City of Burley

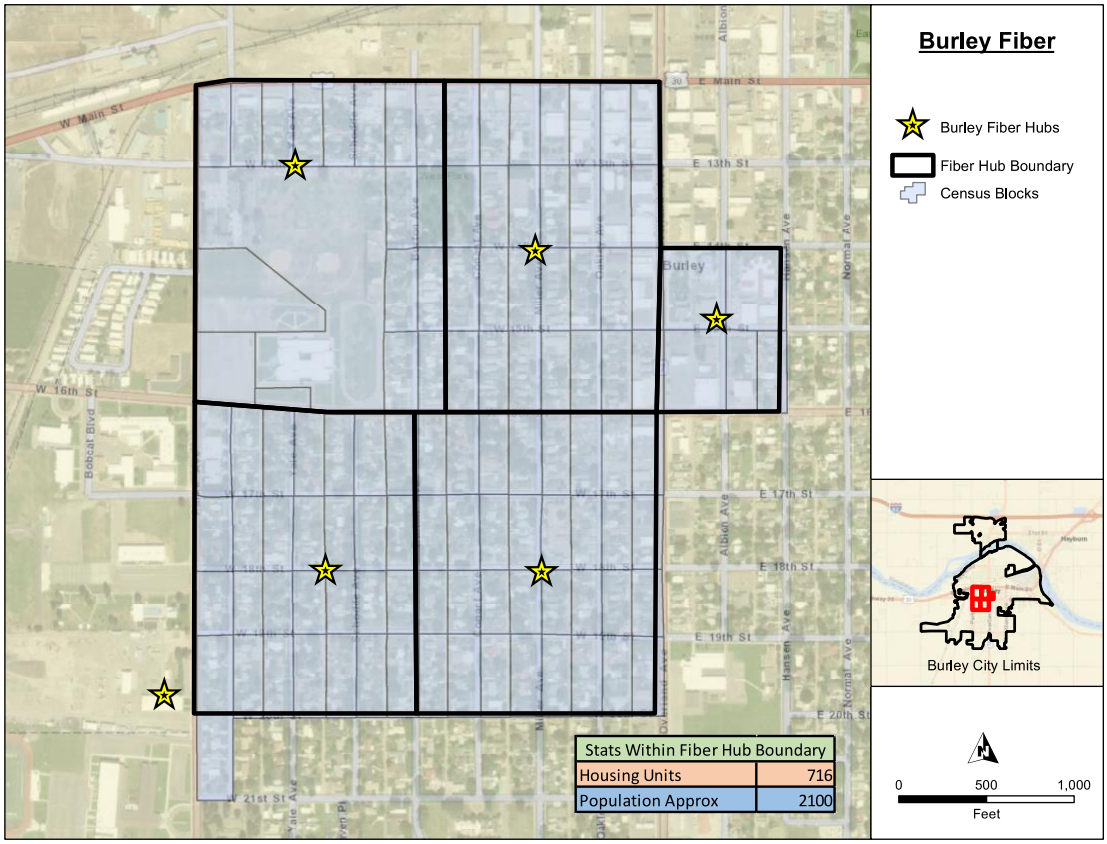
Maps Project Area Identification

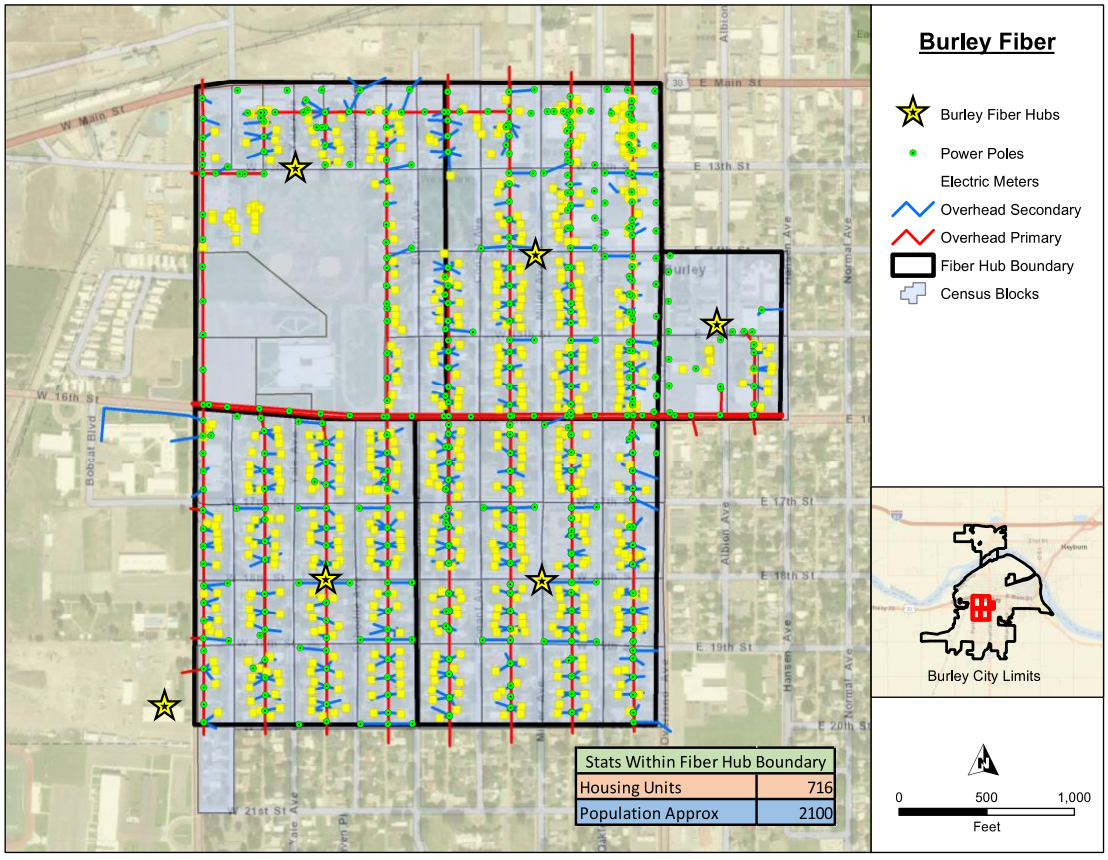
Outlines the **proposed area of service** encompassing the City of Burley and surrounding communities

Project Area Map

The proposed project will include the city of Burley and will have impact in the surrounding communities. Services will include the following census blocks: 3014, 3010, 3032, 3059, 1001, 3058, 2010, 1026, 1007, 3067

The current broadband speeds provided in Burley max out at 1,000Mbps; however, max speeds are capped, and availability is inconsistent with relatively high costs. This project will provide speeds up to 10,000Mbps. Current available service technologies vary and are limited to certain areas. Generally, Copper-DSL, Limited Fiber, Satellite, Cable, and Fixed Wireless services are available. This project proposes wired fiber infrastructure that is scalable for future uses.


Burley Fiber
Burley Fiber Hubs
Fiber Hub Boundary
Census Blocks
Burley City Limits
Stats Within Fiber Hub Boundary
Housing Units 716
Population Approx 2100
0 500 1,000
Feet


Burley Fiber
Burley Fiber Hubs
Power Poles
Electric Meters
Overhead Secondary
Overhead Primary
Fiber Hub Boundary
Census Blocks
Burley City Limits
Stats Within Fiber Hub Boundary
Housing Units 716
Population Approx 2100
0 500 1,000
Feet

Idaho Cares Act Broadband Grant – Project Schedule

Activity	Responsible Party	Start Date	End Date
Award of Grant	IBAB	8/2/2021	
Project Start	Contractor	8/2/2021	
Submit Area Coverage Design for Approval	Contractor	8/2/2021	8/9/2021
Apply and secure necessary permits	Contractor/City	8/2/2021	8/9/2021
Order materials	Contractor	8/2/2021	8/4/2021
Set project timeline upon procuring materials	Contractor	8/4/2021	8/6/2021
Install 144 strand aerial feeder fiber from central office to proposed area	Contractor	9/1/2021	10/29/2021
Install fiber splitter cabinet in a central location	Contractor	9/1/2021	10/29/2021
Install fiber distribution hub in selected locations	Contractor	10/4/2021	11/4/2021
Install multipot service terminal in selected locations	Contractor	10/18/2021	11/4/2021
Install fiber drop cable from MST to home	Contractor	11/4/2021	12/15/2021
Install optical network terminal on the selected home	Contractor	11/4/2021	12/15/2021
Finalize project	IBAB		12/31/2021

July 15th, 2021

City of Burley
CARES Act Broadband Grant

Proposal Scope of Work

The next step in providing stable, reliable **Internet access** to the underserved residents of the City of Burley

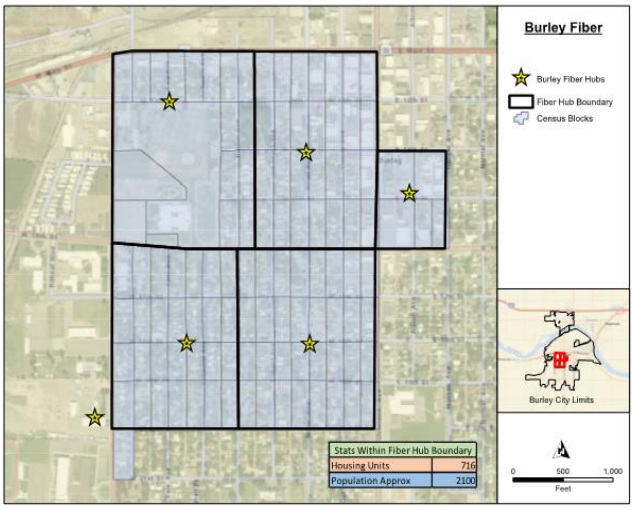
Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

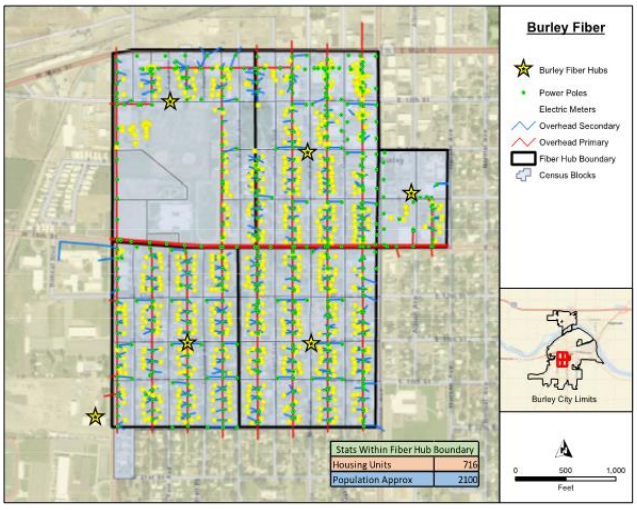
Introduction

It is our desire to offer fiber to the home to a section of the city adjacent to the current fiber feed providing service to the wireless point to point network available throughout the city. While the wireless network is stable and reliable, this will offer the next step of reliability to residents and business in this area.

Project Area

The map below indicates the area where Fiber to the home (FTTH) would be available within a section of Burley that covers just over 700 homes. It also illustrates the general locations of the proposed fiber hubs that are central to each quadrant as well as the path of each 144-strand feeder fiber to the fiber hub. These locations will offer the most ideal coverage to underserved households and organizations within the city selected quadrants.





Type of Infrastructure

City-Owned Power / Telephone Poles

Based on the proposed FTTH location the plan is to utilize the city owned power/telephone poles to run aerial fiber feeder cable as well as drop fiber cable to the home within the area. The scope of work to build this FTTH will include:

- Area Coverage Design
- Engineered FTTH plans
- Procure exact fiber hub sites
- Apply for and secure all necessary permits
- Set project timeline upon procuring the shipment of materials
- Prepare central office with networking equipment
- Install 144 strand aerial feeder fiber from central office to proposed FTTH area
- Install (6) fiber distribution hub (FDH) in selected locations
- Install Multiport Service Terminal (MST) in selected locations
- Install Fiber drop cable from MST to the home
- Install Optical Network Terminal (ONT) on the selected homes

Coverage Area

These 6 fiber hubs will provide broadband coverage across the West area of the city and its surrounding areas where there are locations that a line of site is not possible to be able to provide wireless PtP connections due to trees or other obstructions.

Known Existing Infrastructure

Burley City Power / Telephone Poles

Burley City owns a 60’ penta-butt tower that is located at the city’s Service Center. This location will provide a primary fiber connection back to the city data center to allow the option of extending to subscribers on the western reaches of the proposed quadrants.

Known Existing Anchor Institutions

The known existing anchor institutions within this location (schools, hospitals, public facilities, etc.) include the following.

- Burley Fire Department
- Burley Library
- Burley Jr. High
- Burley City Hall
- Cassia County Courthouse
- Cassia County Driver’s License
- Cassia County Courts
- Cassia County Assessor
- Mini-Cassia Criminal Justice Center

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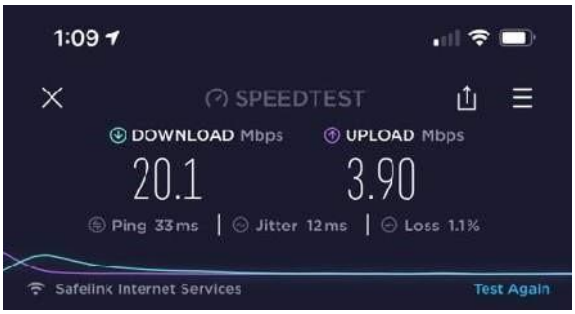
// July 15th, 2021

City of Burley Speed Tests

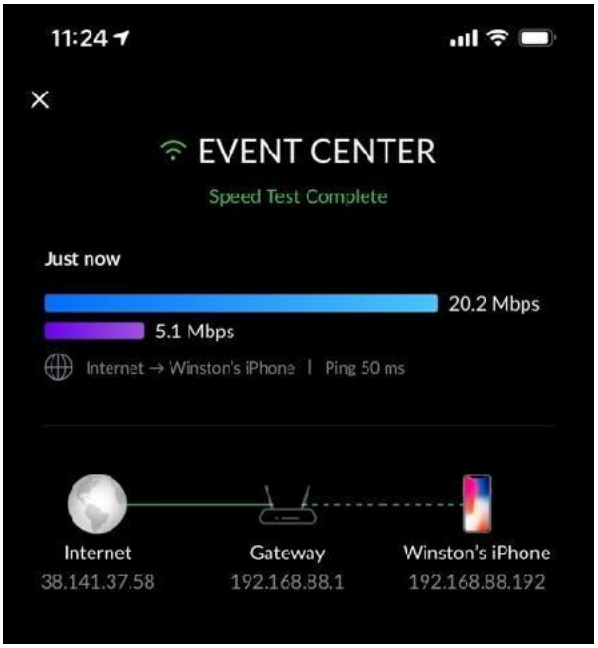
Fifteen speed tests showing ping, download speed, and upload speed.

Ping	60
Download	9.38 Mbps
Upload	1.73 Mbps



Ping	33
Download	20.1 Mbps
Upload	3.90 Mbps

Ping	33
Download	14.15 Mbps
Upload	0.91 Mbps

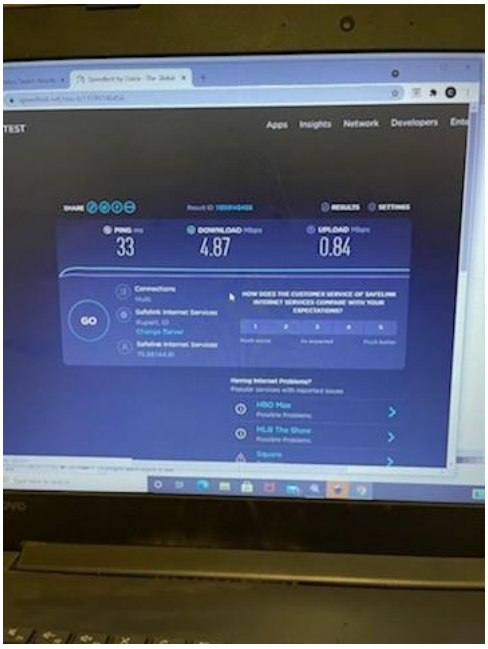


Ping	50
Download	20.2 Mbps
Upload	5.1 Mbps

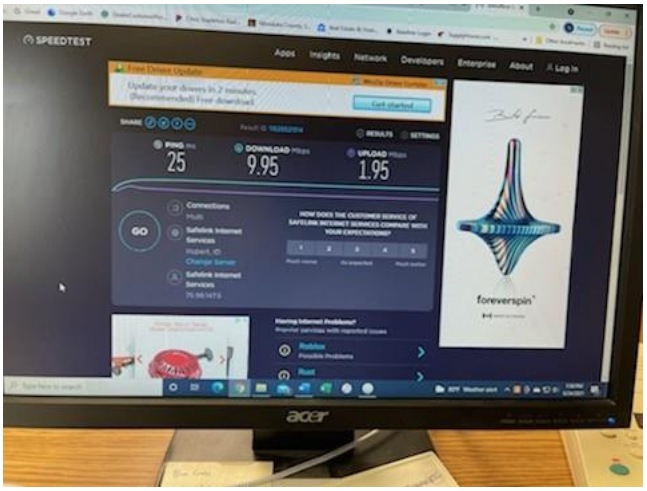
Ping	56
Download	8.9 Mbps
Upload	4.7 Mbps

Ping	33
Download	4.87 Mbps
Upload	0.84 Mbps

Ping	48
Download	18.52 Mbps
Upload	2.85 Mbps



Ping	33
Download	4.87 Mbps
Upload	0.84 Mbps



Ping	25
Download	9.95 Mbps
Upload	1.95 Mbps

Ping	35
Download	15 Mbps
Upload	3.17 Mbps

Ping	54
Download	15.2 Mbps
Upload	5.2 Mbps

Ping	27
Download	1.47 Mbps
Upload	0.43 Mbps

Ping	50
Download	9.65 Mbps
Upload	2.82 Mbps

Ping	25
Download	5.62 Mbps
Upload	0.63 Mbps

Ping	58
Download	4.79 Mbps
Upload	0.85 Mbps

// July 15th, 2021

City of Burley
CARES Act Broadband Grant

Proposal Scope of Work

Developing critical **high-speed Broadband Internet** infrastructure to improve the livelihood of City of Burley residents

Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

Applicant Information

1. Applicant's Contact Information

a) Mark Mitton
b) Burley City Manager
c) 1401 Overland Ave, Burley, ID 83318
d) mmitton@burleyidaho.org
e) (208) 878-2224

2. List the cities/communities in the census blocks where the project(s) will take place.

The proposed project will include the City of Burley and will have impact in the surrounding communities. Services will include the following census blocks: 3014, 3010, 3032, 3059, 1001, 3058, 2010, 1026, 1007, 3067

3. Grant Administrator

a) Provide the name and title of the designated grant administrator.
Jeff McCurdy, Region IV Development Association, CEO & President

b) Provide the email address of the designated grant administrator.
jmccurdy@csi.edu

c) Provide the phone number of the designated grant administrator.
(208) 732-5727 ext. 3010

Project Requirements

4. **Does Your Project Meet the CARES Act Criteria?**

   Yes

5. **[X] I understand that the State of Idaho will provide no funding and have no obligations for CARES funded projects that fail to be completed by December 31, 2021.**

Scored Criteria

1. **Provide an overview of the project, including why the project is important and how it will address the broadband needs of the community.**

   With the unprecedented paradigm shift we have witnessed in the last 18 months, all aspects of our lives turn to the internet to stay educated, entertained, and connected. A reliable connection has become the fundamental backbone of almost every part of life and our community. The limitations of existing critical infrastructure have been exposed, and the lack of adequate bandwidth and last mile infrastructure, made plain and apparent.

   Burley is very grateful for the efforts of the Idaho Department of Commerce in helping us facilitate the growth of the municipal city network in the last round of CARES Act funding. The broadband systems we implemented in 2020 to meet the city's public safety needs have been put to good use, and municipal capabilities have improved substantially. This significant improvement has highlighted the need for expansion to our successful broadband network taking fiber connections to the homes of our residents and businesses.

   While our past network improvements have made a significant positive impact, lack of access to ubiquitous high-speed internet for residents and businesses in Burley is cause for constant concern to community leaders, school administration, teachers, students, business owners, employees, and citizens of all ages.
   To improve broadband access, the City of Burley is proposing to expand its capabilities by providing fiber in a targeted area of the community
   that faces unique challenges speaking in terms of the age of the homes and infrastructure as well as socioeconomic factors, specifically in the areas to the

west of city center between Overland Ave and Parke Ave and 20th and Main Street (See **2_BUR_Maps_Project_Area_Identification**).

We propose to install a 3 x 244-count armored single-mode fiber line from an existing POP serviced by multiple providers in Burley. This POP is owned by the City of Burley and managed by a contracted third party. We will extend past City Hall in Burley as well as all Cassia County facilities (Court, Dispatch, Jail, Youth Corrections, Administrative Offices, etc.) in this same 2 block area. From this point we intend to extend the 3 x 244-count armored single-mode fiber west in the direction of Parke Ave landing at the city's service center thus cutting a clear path east to west across the proposed service area. The city has unique utility corridors that run north to south behind and in-between all the homes in this area. We will splice off the main trunk heading to the west and extend down the utility corridors north or south. There are approximately 701 homes located in this area that are in many cases covered by dense large old growth trees which make wireless hit and miss but reliable when the line of sight exists. Unfortunately, this means limited coverage compared to the home count relative to the previous broadband project completed with the Idaho Department of Commerce.

Upon completion of this project, the City of Burley and service area will have expanded broadband access to the internet. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The city will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE) symmetrical and modern wireless solutions for immediate deployment. The cost of this project is estimated at $438,583.41.

The following modes of distribution will be employed: FTTH/FTTP using Single Mode Fiber and vertical installation on existing poles and communication corridors

located by and behind the homes and businesses. Plans and permits are ready and available for all work.
(See **4_BUR_FAQs**)

Include a scope of work description, along with a list of ISPs that can provide: the broadband service being sought, the required technologies and equipment, and the installation and operation of the new broadband service. (30 Points)

Attached is a fully documented Scope of Work detailing the intricacies of the proposed infrastructure project. (See **3_BUR_SOW**)

2. Explain how the project will promote equal access in economic development, public safety, telehealth, education, including why current infrastructure is inadequate or negatively impacts the community?

Lack of access to fast, reliable, and affordable broadband internet has separated rural Americans from much-needed services and opportunities for economic development, public safety, telehealth, and education. This proposal directly promotes increased equity by establishing the necessary foundational infrastructure to provide vital municipal and public access points in Burley. This project focuses first on critical municipal services and increased general availability for those with the most need through accessible public spaces.

Broadbandnow shows that fiber connectivity is available to less than 8% of Burley. While there are 11 providers in Burley, service quality remains low, with average download speeds of 13.63 Mbps; 80.6% slower than average in Idaho and 585% slower than the national average.

Services are not deemed minimally adequate nor “future proof” and have proved insufficient during the trials of the COVID-19 pandemic.

(**4_BUR_FAQs** and **7_BUR_Technical_Research_Overview**)

3. **Explain how your project meets the CARES Act criteria, is necessary for the public health emergency, and mitigates similar disruptions in the future? (20 Points).**

This project explicitly addresses significant rural broadband access disparities in Lincoln County, directly addressing criteria in the CARES Act guidelines.
This proposal increases the response capabilities of municipal and county governing agencies concerning health, work, and educational initiatives related to COVID-19 while increasing the ability of citizens in rural Idaho to access and utilize resources through fast, reliable, and adequate broadband connectivity.

The planned infrastructure improvements are designed to be “future proof” mitigating the effects of similar widespread emergencies. The proposed infrastructure provides service and speed improvement that are more than adequate for today's needs while scalable for meeting the future needs of Burley. Well-designed and implemented infrastructure improvements are essential for preparing for the needs of today and for those of the next generation.

(**7_BUR_Technical_Research_Overview**; **5_BUR_Community_Broadband_Plan**.)

4. **Will This Project Deliver Broadband Infrastructure to a Rural Idaho Population (Less than 25,000) (Y/N) (15 Points).**

Yes, the total population of Burley is 10,313.

5. **Explain How Your Project Delivers a Cost-Effective Broadband Infrastructure Solution to the Community (10 Points).**

The proposed project uses economy of scale and sensible engineering, to provide cost effective improvements to broadband access. Building a comprehensive broadband network providing service for the whole of Burley is more cost effective and efficient than independent endeavors, driving cost-per-household down, while increasing service areas. Further, partnerships with other communities (e.g., Heyburn) brings a larger market with more opportunities for growth and service expansion.

Additionally, the proposed improvements are sensibly engineered to employ existing infrastructure to bring high speed internet to new service areas in Burley and neighboring areas. Developing the available “digital highways” we can build more economical solutions for increased service.

(See **5_BUR_Community_Broadband_Plan**)

Additional Information

A collaborative effort to develop **community-owned broadband infrastructure** that is self-sustaining, invites better service through competitive bidding, and allows citizens to access quality internet

1. **Please detail any project match included to complete this project.**

   The city has already invested in excess of $2M to our city owned infrastructure. Should this grant proposal be awarded, we are prepared to ensure that once the fiber is extended to the homes, we will cover the cost of installation of those opting in on the service. Please note, this will be work that will be performed after the scope of this project, as outlined herein, is completed by the agreed upon deadline.

2. **Estimated total project cost?**

   $438,583.41

3. **Number of households that will be connected to broadband service under the scope of the grant if applicable?**

   716

4. **What is the average cost per household of new broadband service based on this project cost if applicable? (Divide total cost by household number)**

   $612.55

5. **What is the maximum broadband speed that will be provided by the project?**

   10,000Mbps/10,000Mbps

6. **Are permits, permissions, and zoning requirements all obtainable in order for the project to be completed and paid for by December 31, 2021 if it is a CARES funded project? Y/N**

Yes

Please provide details.

This grant has been written in cooperation with appropriate permitting authorities. Permitting, permissions, and zoning requirements have been considered, and where possible and applicable, are either complete or in progress. The city has a great deal of permitting completed from previous builds and is intimately familiar with the process and quick turnaround from previous successes.

7. **Please describe who will be providing the broadband service and ownership of the broadband infrastructure.**

Burley has developed community-owned broadband infrastructure that is self-sustaining, invites better service through competitive bidding, and allows citizens to access quality internet now and for years to come. Community leaders will continue to identify trusted, vetted, and capable network partners who cooperatively work to realize the integrative vision of the community of Burley.

8. **Describe how the project will be administered and audited for completion, and how the accounting will be performed.**

Administration and auditing for completion will be completed in cocreation with RIVDA in accordance with the rules and regulations of the project, state, and county.

9. **Has your project area received or been awarded any federal funds (including but not limited to CAFII/RDOF/USDA Reconnect) in the past two years, or will it receive federal funding over the next two years? If so, explain what federal funding has been/will be received and why the additional funding was/is necessary in the project area?**

   No

10. **Has your project area received state funds (Cares Act Broadband Grants, E-Rate, etc.) in the past two years? If so, please explain what state funds were received and why the additional state funding was necessary in the project area.**

    Yes. Monies were received from the State of Idaho Department of Commerce CARES Act Grant 2020. Details as to why the funds are necessary are included in the narrative above. Essentially, the proposed project area cannot be fully serviced from the infrastructure currently in place.

11. **Include any other relevant information as to why your project should be considered for funding.**

    Burley has had considerable success in completing similar projects of this type and magnitude in the recent past. Further, these projects have consistently produced results surpassing original goals and providing more services and successes than our ambitions anticipated. Providing funding to Burley is not a gamble, but an investment into the future of a city, the state of Idaho, and rural Idahoans.

    (**7_BUR_Technical_Research_Overview**; **5_BUR_Community_Broadband_Plan**.)

12. **Submit 10 or more, recent, fixed location (non-mobile) Speed Tests. Applicants can choose which speedtest application to use (such as Idaho Ookla Application, BroadbandNow, M-Lab) across the proposed project area with the application; and submit the same amount of speed tests across the project area immediately following completion of the new broadband project if applicable (attach pdfs of speed tests in application). (If not applicable please answer N/A)**

See **13_BUR_SPEED_TESTS**

Required Attachments

1. **Project Area Identification Documentation** Applicant must upload supporting documents identifying the scope of work for the proposed project(s). Applicant must include a map(s) clearly showing the location and details of the proposed project. (Specific requirements outlined below)

Maps

i. **Shape File or KMZ Files:** Applicant must Provide Shape File or KM Z file with a shaded polygon of Census Block(s) in the project area, including the census block ID(s). This information can be provided by your chosen ISP.

ii. **Map(s) must include:**

- Proposed project area
- Provide most current Census Blocks (2010) for your proposed project area.
- Census Block Identification Number included in the proposed project area.
- Number of households, served by the proposed project (if applicable.) If no households are being served, please enter N/A.
- Current broadband speeds provided to the project area.
- Proposed broadband speeds to be provided to the project area.
- Current technology used to provide service to the project area.
- Proposed technology to be provided to the project area.

2_BUR_Maps_Project_Area_Identification
11_BUR_Census_Blocks_Shape_Files

2. **Grant Budget Template:** Complete, upload, and attach to the application a completed Grant Budget Template for the project that outlines each of the various costs. (Add Link to document/template)

   9_BUR_Grant_Budget

3. **Project Schedule Form** Complete, upload, and attach to the application the Project Schedule Form (Add Link to document/template)

   10_BUR_Project_Schedule

4. **CARES Act Certification** Upload and attach to the application a notarized CARES Act Certification that this project meets the CARES Act criteria. (Add Link to document/template)

   6_BUR_CARES_Act_Cert

Additional Supporting Documents May Include:

5. **Letters of Support** Upload and attach to the application any Letters of Support or Community Match documentation.

   12_BUR_Business_Support_Letters

6. **Letters of Commitments from Anchor Institutions** Upload and attach to application letters of commitments from community anchor institutions or public safety networks which will utilize your service if the project is funded.

7. **Community Broadband Plan** Upload and attach a copy of your Community Broadband Plan (if applicable).

   5_BUR_Community_Broadband_Plan

8. **Any applicable Site Plans, studies, or photographs.**

Mark Mitton | 208.878.2224 | mmitton@burleyidaho.org

// July 15th, 2021

City of Burley

Technical Research Overview

Leveraging broadband infrastructure to provide the underserved City of Burley community with much-needed **Broadband internet access**

Introduction

With the unprecedented paradigm shift we have witnessed in the last 18 months, all aspects of our lives turn to the internet to stay educated, entertained, and connected. A reliable connection has become the fundamental backbone of almost every part of life and our community.

Burley is very grateful for the efforts of the Idaho Department of Commerce in helping us facilitate the growth of the municipal city network in the last round of CARES Act funding. The broadband systems we implemented in 2020 to meet the city's public safety needs have been put to good use, and municipal capabilities have improved substantially. This significant improvement has highlighted the need for expansion to our successful broadband network taking fiber connections to the homes of our residents or businesses.

Due to the robust design and execution of previous infrastructure improvements, the City of Burley has been able to stretch some of its own budgetary dollars to expand services to community partners proving proof of concept and scalability of the current network. With delegated funding streams from the USDA, we can further expand our offerings to Burley residents and businesses, delivering symmetrical connections with a minimum bandwidth of no less than 50/50 Mbps with no data caps or contracts. While our minimum service capabilities are 50/50 Mbps, we are more often than not able to provide speeds of 100/100Mbps. These connections can be scaled to 1000 Mbps/1000 Mbps with optional additional equipment installation costs if required or requested. Burley will help solve our community's lack of reliable connectivity with a well-executed plan, backed by diligent research and implemented by passionate community members and partners.

During the COVID-19 pandemic, the City of Burley and its citizens have been placed in an uncomfortable position due to a lack of adequate, reliable, fast, and affordable internet access. Burley found themselves squarely on the wrong side of the digital divide. The immediate onset of the pandemic exposed the limitations of existing critical infrastructures, lack of adequate bandwidth, and lack of last-mile infrastructure was made plain and apparent.

Both citizens and municipal employees found themselves forced to adapt to new ways of working, learning, communicating, and trying to care for their health and loved ones without the tools to do so in meaningful ways.

Lack of access to reliable and ubiquitous high-speed internet in Burley, Idaho, is cause for constant concern to community leaders, school administration, teachers, students, business owners, employees, and citizens of all ages.

Due to the unprecedented pressures and constraints brought on by the COVID-19 pandemic, employees and students alike have experienced times when they have been ordered to work from home, and students have been asked to move from the classroom to the kitchen table to complete assignments and tests. Unfortunately, buffering, delays, and lost connections are common occurrences in Burley.

Economic development, public safety, telehealth, and educational opportunity

In rural America, small businesses are the catalysts of the economy. Burley is unique as the crosscut of its economy shows that small businesses thrive and grow while the city also supports major economic partners that rank amongst fortune 500. However, the lack of high-speed internet access poses critical barriers in day-to-day commerce, agriculture, and our citizens' overall health and well-being.

Many areas in downtown Burley are limited to copper-based DSL, onerous, hamstrung data capped services with minimal areas of availability, and a few spotty wireless internet solutions with no options for critical symmetrical service. Wireless connectivity is further hampered by many sizeable old-growth trees, rendering reliable wireless internet solutions moot in certain areas of town. IT assessments and public outreach feedback indicate that advertised service speeds often do not meet expectations and are offered in critically limited areas causing consternation, frustration, and limited ability for economic growth. The lack of high-speed internet access poses critical barriers in day-to-day commerce, agriculture, and our citizens' overall health and well-being.

To improve broadband access, the City of Burley is proposing to expand its capabilities by providing fiber in a targeted area of the community that faces unique challenges speaking in terms of the age of the homes and infrastructure as well as socioeconomic factors, specifically in the areas to the west of city center between Overland Ave and Parke Ave and 20th and Main Street (See 2_BUR_Maps_Project_Area_Identification).

We propose to install a 3 x 244-count armored single-mode fiber line from an existing Point of Presence (POP) serviced by multiple providers in Burley. This POP is owned by the City of Burley and managed by Eminent Technical Solutions. We will extend past City Hall in Burley and all Cassia County facilities (Court, Dispatch, Jail, Youth Corrections, Administrative Offices, etc.) in this same two-block area. From this point, we intend to extend the 3 x 244-count armored single-mode fiber west in the direction of Parke Ave, landing at the city's service center, thus cutting a clear path east to west across the proposed service area. The town has unique utility corridors that run north to south behind and in-between all homes in this area. We will splice off of the main trunk heading to the west and extend down the north or south utility corridors. There are approximately 701 homes in this area that are in many cases covered by dense sizeable old-growth trees, making wireless hit and miss but reliable when the line of sight exists.

Unfortunately, this means limited coverage compared to the home count relative to the previous broadband project completed with the Idaho Department of Commerce.
Upon completing this project, the City of Burley and service area will have considerably expanded broadband internet access. The new fiber-based service will allow residents to thrive in an increasingly digital world with no borders. The city will also be better equipped to serve the community with broadband speeds of up to 10,000 Mbps (10GbE) symmetrical and modern wireless solutions for immediate deployment. Additionally, we will be expanding public internet offerings utilizing public parks, schools, and other designated municipal or partner-owned public spaces. The cost of this project is estimated at $438,583.41.

The following modes of distribution will be employed: FTTH/FTTP using Single Mode Fiber and vertical installation on existing poles and communication corridors located by and behind the homes and businesses. Plans and permits are ready and available for all work.

If funded, this project will provide the community with another choice of internet service that can be trusted for reliable, future-proofed broadband connectivity.
We in the city of Burley have the utmost confidence in the efficacy of the implementation and completion of the proposed project as we have completed a very well-received grant previously and have leveraged it to the taxpayers' benefit for community access and public safety. We have drafted an RFP to make available this system for lease to one or more private ISPs to help with the long-term growth, deployment, and administration of this municipal network/community asset. This project is not a gamble but an initiative with teeth that will provide well-defined results. The City of Burley has actively pursued grants with the State of Idaho, USDA, Private Partners and has previously sought help from the Idaho CARES Act Broadband Grant program. We hope to continue our successful growth initiatives with funds from this grant cycle.

This opportunity would give residents in a problematic area the chance to have drastically improved service and improved communication with the municipality and the world at large. To maintain government guidelines on potential future social distancing during these unprecedented times, viable access to broadband is a necessity for all. For example, online conference meetings can be adequately held, live online class sessions can be attended, and families can be reached via phone and video chat. Burley is home to many families, and this grant would offer them a competitive edge for personal and economic growth. The Idaho Broadband Initiative in Burley would be a celebrated achievement for both the city and all of its citizens.

This opportunity will allow residents to drastically improve service, improving communication with the municipality and the global community.
Further, the proposed project provides the vital infrastructure needed to mitigate potential future emergencies like the COVID-19 pandemic by providing broadband capabilities suited to telework, distance learning, telehealth, and facilitating critical family connections. Burley is a city of families. Funding this project would provide the resources those families need to promote personal, economic, and professional growth opportunities. These opportunities will provide security for generations to come, a celebrated achievement for the city and its citizens.

Burley is a small community with just over 10,000 residents. The city operates its own water, wastewater, parks and rec, streets, law enforcement, and electrical facilities. Operated by a small group of employees, they often must work overtime and long hours to make sure that their systems are functioning well and that necessary repairs are timely and efficient. Expanded services to the homes and public spaces in Burley will help facilitate easy access to critical systems for city workers and citizens. This will improve response times, assisting workers to complete their jobs more efficiently with fewer person-hours increasing public safety and quality of work/life for our valued employees.

Innovation in Action

We intend to leverage this broadband infrastructure to provide our underserved community with much-needed broadband internet access in public spaces via 802.11ax WIFI and connectivity to the home via FTTH solutions along with PTP and PTMP wireless connections in the less densely populated areas of the city. These spaces will include our parks, municipal buildings, schools, and other identified spaces in and around the community to accomplish access during good and bad times so that our citizens can stay connected and informed. The city intends to achieve its broadband goals as follows:

1. Connect all City facilities with minimum speeds of 1 Gbps x 1 Gbps service or faster.
2. Provide public Wi-Fi access in parks and other areas for events and gatherings with bandwidth of 1 Gbps/1 Gbps and speeds per device of 100/100Mbps.
3. Provide connectivity for potable water sites, wastewater plants and lift stations, electrical substations, irrigation, and other critical infrastructure.
4. Use the network to provide safety for employees in the workplace.
5. Use the network to share city maps, documents, and videos among all Departments, thereby maintaining only one set of completed and updated maps.
6. Have the system provide cybersecurity for all internal connections. (Virus, phishing, internet, etc.)
7. Connect new VOIP phones to the system to reduce phone costs.
8. Allow for remote access to systems for SCADA, security, and work-from-home options.
9. Promote digital Inclusion.
10. Increase access to public meetings by remote viewers.
11. Work with developers of Low-Income apartments and new subdivisions to put endpoints in as a part of their developments.
12. Make available symmetrical internet solutions to residents below the current average market rate of approximately $70.00 per month with guaranteed

minimums of 100/100 Mbps per home/business with no data caps or long-term contracts.

13. Improve (1) Economic Development, (2) Community/Involvement Outreach, (3) modernize infrastructure, (4) Improve Tourism/Hospitality.