

“Internet for All Benzie County” (IFA-BC) Cherry Capital Connection, LLC (CCC)

It is worth recapping the Benzie County/CCC IFA-BC project. The project is comprised of multiple efforts. Additional efforts can be added if in support of connecting the unserved and underserved.

- 1) CCC RDOF,
- 2) A public Private Partnership between Benzie County and CCC,
- 3) ARPA allocation titled “Internet for all – Benzie County” to pass 1,875 households,
- 4) CCC MIHI ROBIN application to pass 4,700 households including 2,400 households that are unserved and underserved as identified by the MIHI office,
- 5) Preparation for BEADS 1) expanding fiber infrastructure and 2) Digital Equity and Inclusion,
- 6) Working with multiple Benzie County based agencies to Extending the CCC infrastructure to address the lack of Fiber in support of key economic and public safety issues and develop financially sustainable solutions:
 - a. Extending CCC infrastructure in support of the 911 tower to be constructed in Frankfort,
 - b. Other efforts in Frankfort that may require extending fiber through the downtown,
 - c. Extending the infrastructure to Elberta and Blaine Township.
- 7) Evaluating other funding sources such as USDA programs that address the barriers of adoption,

Great progress Benzie County has made:

Just a few years Benzie County began to identify unserved and underserved areas of Benzie County. Today there are currently multiple significant fiber construction efforts being conducted by Spectrum, Acentek, Point Broadband, ACD, Mercury Broadband, and CCC. Our 5-to-6-year business plan for Benzie County assumes that 100% of the households in Benzie County will be connected or will have fiber available to them to be connected.

CCC RDOF

July 2023 USAC HUBB reporting CCC reported passing 25.87% of all RDOF households. We are in the process of USAC review and verification. Our first RDOF required milestone was 20% by Nov 2023. This could affect or influence standing, and eligibility associated with future funding opportunities. CCC and Mercury Broadband are in communication on how we can work together to ensure success in Benzie County.

PPP Continues with no changes.

ARPA Internet for all – Benzie County

- a. Metro Act applications in process or processed (Benzonia, Crystal Lake, Inland, Weldon)
- b. Pre-Engineering for Inland Township (600 households passed) and Benzonia to Frankfort 100 households passed completed. Working on permits, BCRC and MDOT. We have requested the BCRC consider a utility path at 18 to 21 feet (roadside of ditch). This is a new trend to address clutter in ROW and speed up the process of installing Fiber. Refer to 3rd page.
- c. Inland Township has approved leasing 20 x 30-foot space for a Fiber Distribution Center (FDC).
 - a. Will begin relocating material from CCC yard to Inland Township yard.
- d. Crystal Lake Township has allocated their ARPA funds to expand our **IFA-BC** efforts.
- e. Crystal Lake Township is considering leasing space for FDC.
- f. Engineering documents for the first two construction efforts are being finalized. Draft copies have been provided to the county, Crystal Lake township, and Inland township.
- g. Metro act bilateral agreements for Crystal Lake township and City of Frankfort is in process.

- h. During October 2023 Metro act application and bilateral agreements are being requested from the Village of Beulah (was not required), and Homestead township.
- i. Post Cards sent. Responses arrive daily. Once Construction starts interest always grows.
 - i. Have started receiving inquiries.
 - ii. County and Township community level reach out continues,
 - 1. Grow Benzie 10-14-2023.
 - 2. Rep Party executive meeting presentation 10-16-2023.
 - 3. Dem Party member meeting presentation 10-21-2023.
 - 4. Any recommendation on groups to present to?
 - iii. Door to door reach out will begin in October,
- j. Construction is planned to continue through winter.
- k. Open access discussions and responses**
 - i. Eclipse Communications, 186Networks, Mercury Broadband, PFN
 - i. Meetings with Eclipse working on specific items of collaboration that would mutually benefit both companies. As of this status report no specifics have been identified.
 - ii. Meeting with Mercury Broadband identified areas of collaboration that need to be refined. Anticipated next meetings in Oct 2023.
 - iii. Meeting with PFN to determine their specific needs associated with providing network access for the Frankfort 911 tower service level agreement. PFN and CCC working on final agreement terms.
 - iv. Reached out to ACD net regarding open access or mutual build opportunities.

ROBIN

CCC met with the MIHI office Thursday 09-21-2023.

Spectrum and Acentek challenged the CCC ROBIN application.

MIHI waiting for E-ACAM responses. Acentek did not participate.

MIHI Office is sending us the list of addresses that were challenged and deemed valid.

Once we have the addresses, we will evaluate the impact.

Permits BCRC, City of Frankfort and MDOT in process. Approximately 30 miles.

BEADS

BEADS has funding for two aspects. 1) Constructing Infrastructure and identifying areas not covered by other funding and 2) Digital Equity and Inclusion (DEI)

CCC is focusing on item 1 - constructing the infrastructure and identifying areas not covered. The County, Mitch, Grow Benzie, working with Merit working on DEI. CCC will provide input to the DEI effort.

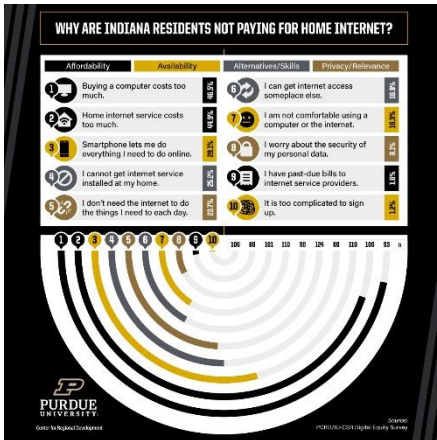
Other projects outside the funding scope of IFA-BC

- a. 911 Tower to be constructed in Frankfort. Some of the construction would be covered by the ROBIN effort. We have requested that the County allocate \$351K towards this effort.
 - i. An agreement has been provided to the county including detailed preliminary cut sheets for the construction of the infrastructure.
 - ii. County Commissioners have approved funding.
- b. There is a deepwater port proposed project that would require fiber.
- c. Extending the 911 tower fiber to Elberta would address an underfunded area.
- d. Extending the 911 tower fiber through City of Frankfort needs to be defined.
 - i. City of Frankfort processing Bi-Lateral Agreement and Road rite of way excavation permit

Evaluating other funding opportunities

Effort is focused on addressing barriers to adoption. The Link provided is a good article published by Purdue University.

https://pcrd.purdue.edu/why-are-indiana-residents-not-paying-for-home-internet/?mc_cid=91d45a9d2e&mc_eid=921b2da1f8

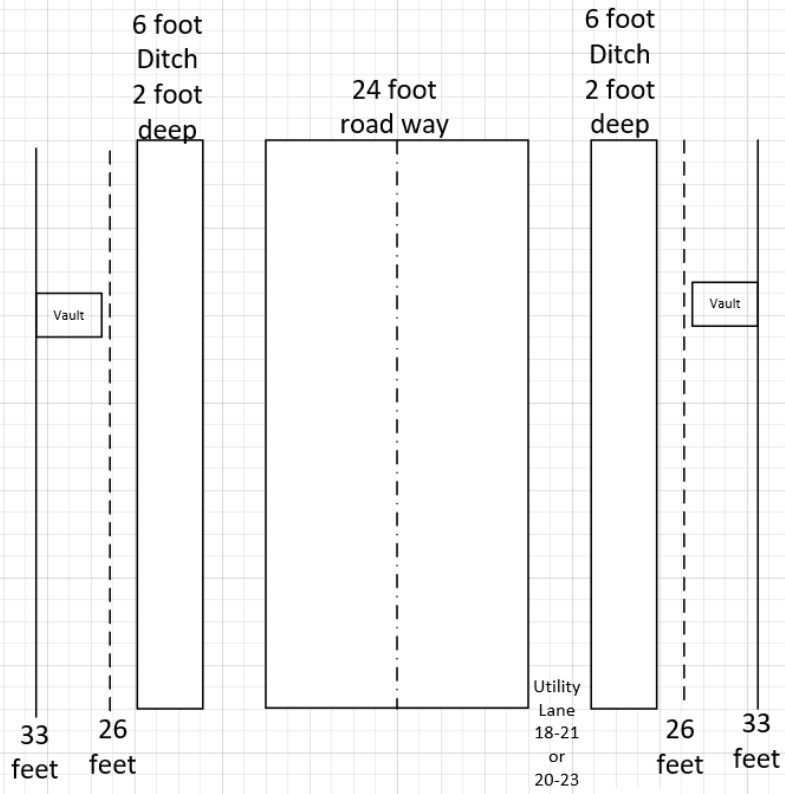


1. Buying a computer cost too much.
2. Home internet cost too much.
3. Smartphone meets my internet needs.
4. Can not get internet service at my home.
5. Don't need internet.
6. I can get internet access somewhere else.
7. I am not comfortable using the computer.
8. Worries about security.
9. Owe money to another provider.
10. Too complicated to sign up.

2023 the USDA initiated a program referred to as Community Connect

<https://www.usda.gov/reconnect/program-overview>

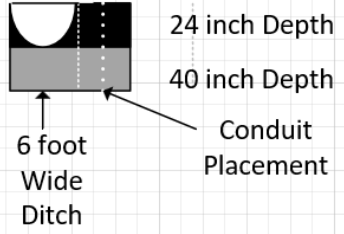
Kind Regards - Tim Maylone - CEO and Managing Member, Cherry Capital Connection, LLC



Ditch work
Each utility has 3 foot of separation

Center of utilities	
33	30"
30	depth
27	40"
24	depth

Most ditch edges are at inside 18 and 24 outer feet from centerline of road



Utility Lane – concerns and how they are addressed

1. Plow depth 40" to 48"
2. Existing Culverts – bore under at 4 foot depth.

At 4 foot depth there are no concerns

3. Future new culvert CCC at our expense rebore the area at 4 foot under proposed culvert positions and replace the fiber.
4. Shoulder disturbance we compact (general effective depth of compact 20")
5. HH and Ped are placed at far side of ROW. Path from utility lane to back of row maintains depth of 30" to 40"
6. Repair or widening of roadway usually no concern since we are at 4 foot. No need to access conduit. If required we can reposition plant to RC needs.

Open Access Opportunities and challenges

Scope of fiber in Benzie County: Based on current projects and once all existing areas are constructed 95% of all service locations (households) should be connected to fiber. **ROBIN effect on margins:** The ROBIN award was based on points. To achieve points and to bring additional funding to the Benzie County infrastructure CCC agreed to the following conditions:

- a. 100 Meg service to be offered at \$64.00 per month (this would be for all households).
- b. 100 Meg service to be offered at \$30.00 per month (this would be for all households eligible to ACP).
 1. The \$30.00 would be paid by the FCC ACP program and the household would pay \$0.00. This requires the provider to be ACP eligible to participate.

Preparation for Open Access (enhancement to network design in support of OA)

1. Upgrading multiple WWW facing routers to include redundant Broadband Gateway Network servers (BGN)
2. Incorporate multiple "S" and "C" tag VLANs in support of segregating services and locations to manage multiple providers.
3. Incorporate VLANS encapsulated inside VLANs in support of Layer 2 Point to Multi-Point (PtMp) capabilities.
4. Establish an authentication method based on equipment addressing to facilitate multiple provider routing.
5. Establish multiple Fiber Distribution Centers near consumers that includes offloading traffic flow to minimize lag associated with multiple provider routing.
6. Establish consumer demarcation gateway (DG) that will enable TR069 and TR147 transparent speed testing to FCC sites. Each Open Access location would be verified for throughput capabilities independent of provider subscription limits.
7. Integrate Optical Network Terminals into DG to reduce footprint at service location utilizing multiple provider integration.

Open access

1. CCC can offer IRU terms for dark fiber strands per route mile with terms less than cost of construction.
2. CCC can offer PtP terms starting at 2Gig that can be increased to 4Gig, 6Gig, 8Gig, 10Gig, 25Gig, 40Gig, 100Gig.
 - a. Pricing is dependent on multiple factors that can be defined once we know the A to Z endpoints.
3. CCC can offer PtMP under leased terms layer 2.
 - a. Pricing is dependent on multiple factors that can be defined once we know the A to Z locations.
4. Based on pricing options set by ROBIN for the fiber and the high rate of houses to be connected the general outlook for Fixed Point Wireless (FPW) may limited in Benzie County.
 - a. There are multiple FPW companies in Benzie County that would be effected.
5. Based on the State directed subscription rates the margins are narrowed in the 100Meg Direct Internet Access (DIA) to households.
 - a. Example 100meg under ROBIN and through the end of 2027 will be priced at \$64 or \$30.
 - b. After applying port charges, the margins to households are narrow.
6. There are margins that would support open access in a small business / large business consumer end point market that is willing to pay greater than mass market rates.
7. Other areas that would provide open access opportunities could be (there may be other areas):
 - a. DEI, Managed Services, VoIP, Security, Asset monitoring, PtP or PtMP geographically separated networking, Cyber security, Telehealth, and LAN support
8. Initial port charges would allow CCC to recover capital investment over time and profit.
9. increase adoption rate.

Example:

1. Our containers (router) support 3rd party add on (much like your cell phone). PLUME can provide a \$7.99 service to consumers that could be promoted by the CCC web site and ordered direct. This would be linked to any container that supports "open sync".
2. National providers budget a \$10 to \$16 return after port fees are applied on residential (Mass Market). Because ACP under ACP is a Net Zero the \$30 dollar level does suggest that ACP customer would not be served by providers requiring to pay a port charge.