

Community Broadband Network (CBN) Design/Build & Operate Contracts Award Presentation

County Council Meeting
November 19, 2024



Attachment A

LOS ALAMOS

Team / Proposed Vendor

County Team

- Jerry Smith, Broadband Manager (presenter)
- Derrill Rodgers, Procurement
- Thomas Wyman, Attorney's Office
- RFP Evaluation Committee
- Other LAC team members

Bonfire

- Brian Hollister (Co-Founder and CEO)
- Drew Pappas (Director of Business Development)

Agreements Overview

1. Consider CBN Item 1: Design/Build Agreement

1. AGR24-46a
2. Attachments: this presentation, staff report
3. One presentation, two council agenda items
4. The purpose of the project is to design and construct a County-owned open access fiber-to-the-premises (FTTP) Community Broadband Network.

2. Consider CBN Item 2: Operations Agreement

1. AGR24-46b
2. Attachments: this presentation, staff report
3. The purpose of this agreement is to govern operations of the County-owned open access fiber-to-the-premises (FTTP) Community Broadband Network, and manage the ISPs as they provide services to subscribers.

Background – Council

- 2013 – Broadband study and business plan from vendor Crestino.
 - Cost to build was estimated to be \$47.2M (consisting of 8K passings)
- Nov-Dec 2021 – Broadband Manager position created and hired
- Winter/Spring 2022/ongoing – Council strategic plan continues to have a community broadband goal and action plan: “Provide community broadband as a basic essential service that will enable reliable high-speed internet services throughout the County at competitive pricing”.
- Spring 2022 – Council directs staff to do an updated broadband study
- Summer/Fall 2022 – Staff and consultant present interim broadband study findings. Strong survey responses, public engaged in forum-type meetings.
- January 2023 – Staff presents broadband strategic plan. Council authorizes design/build + operate procurement for county-owned open access fiber optic network.



Background - Council *(continued)*

- *Council direction to staff at 1/24/2023 meeting after Broadband Strategic Plan was presented:*
 - *“Pursue a procurement option for a Community Broadband Network (CBN). In that pursuit, note that the Council values the following characteristics listed in order of importance:*
 - 1. the option is likely to actually be implemented;*
 - 2. the network should permit open access;*
 - 3. the County should retain ownership or an option to obtain ownership of the basic infrastructure;*
 - 4. the network should provide the option of fiber to the premise to any resident who subscribes; and*
 - 5. the network should be built promptly.”*

Background – Middle Mile

- *March 2024 – Council approved \$2M in state grant matching funds for an 11 mile “middle mile” project that San Ildefonso Pueblo is doing that will provide the county a new second fiber optic line up the hill.*
 - *This new fiber line will be used by the CBN as soon as it is completed and available.*
 - *The recently approved NM4 Waterline Replacement project includes collaborating with the Pueblo to place fiber conduit in the open trench, as a part of the larger 11-mile project.*

Background - Procurement

- The strategy for procurement was decided on:
 - Design/Build type of need
 - Operate
- A Phase 1 and Phase 2 process was required.
 - Phase 1 qualifications (up to 5 respondents can advance)
 - Phase 2 detailed proposal & cost
- Common industry approach is to provide design, construction, and operation.



Background - Procurement

- The Design phase of the project is what happens first.
 - High Level Design (HLD) = preliminary
 - Low Level Design (LLD) = final
 - These terms represent major project tasks used in complex construction projects such as the CBN.
 - Construction is based off these design documents.
 - Council will review and approve final (LLD) design in order for construction to move forward.

Background - Procurement

Timeline:

1. August 2023 – RFP was published for Phase 1, responses received and evaluated. Strong interest. Vendor finalists moved to Phase 2.
2. Oct/Nov 2023 – RFP Phase 2 published. Multiple responses received. None were deemed responsive. Initial RFP closed.
3. December 2023 – RFP was re-issued with expedited timeline. Strong interest from vendors remained for Phase 1 and Phase 2.

Background - Procurement

- RFP Phase 1 was republished in December 2023
- 7 vendors responded to *Phase 1*
- Of the 7 responding vendors, 5 were moved to *Phase 2*
- For Phase 2 responses, 3 were deemed responsive
- RFP Evaluation Committee makeup:
 - IM/IT, DPU, Public Works, CMO
 - Non-voting members: Finance, Broadband Consultant CTC used during broadband study

Background - Procurement

RFP Outcome:

- Proposals received in Phase 2 from 5 vendors
- The RFP Evaluation Committee scored the proposal from Bonfire highest and is making recommendation for award.

Project Purpose

Build and operate a fiber-optic network to all homes and businesses

1. The proposed vendor will design and build the network to 10,014 locations (passings).
2. The proposed vendor will then build the portion from the curb to the home (drops).
3. The project budget includes doing 60% drops, done only when a customer orders service.
4. The proposed vendor will be the *network operator*, but not the *internet provider (ISP)*.
5. The *network operator* will contract with 4 to 6 ISPs on the “open access” network.
6. ISPs provide services to subscribers. Subscribers choose which ISP they want.
7. An upcoming slide will show a table of estimated costs for subscribers/customers.
8. The operations agreement with the network operator will be for an initial 5 years, with three 5- year renewal options, for a total of 20 years.

**Partial list from RFP's Scope of Work*



Design/Build Cost Summary

Design Costs	\$ 1,241,790.68
Construction: Passings	\$ 21,944,637.00
Construction: Drops	\$ 6,168,896.00
Design & Construction Total	\$ 29,355,323.68
Contingency	\$ 5,622,676.32
Total Project Budget	\$ 34,978,000.00
Total Not to Exceed Amount	\$ 35,000,000.00

60% of passings

Note: These amounts are from Exhibit C in the Design/Build project vendor agreement (AGR24-46a)

Funding

- Council has adopted a \$35M CIP Budget for Broadband.
- The County will issue GRT Revenue Bonds to fund the project.
- Debt Service over 20 yrs has been built into the adopted budget and long - range financial projection.
- Once the contract is approved, Administrative Services will get started on the bond issuance which will take 4 – 6 months to turn around, with proceeds anticipated prior to the end of FY25.
- We may bring back a reimbursement action to allow for bond proceeds to pay the County back with any upfront costs between now and issuance.

Bond Issuance Timeline

The County has engaged municipal bond financial advisors (RBC Capital Markets) and Bond Counsel, (Modrall Sperling) to assist with the sale of GRT Revenue Bonds.

- December 2024 – Preliminary Introduction Documents
- January 2025 – Introduction of Ordinance and Public Hearing
- February 2025 – Receive Bond Rating (Moody's and/or S&P)
- March 2025 – Complete Bond Sale

* Any of these dates may be adjusted if necessary with the intent to complete sale before the end June, 2025.



Project Timeline: Engineering – 7 months (30 months total – as currently proposed by Bonfire)

High-Level Design (Month 1-3)

- Updating feasibility design to hand off to low-level engineering

Permit Discovery (Month 1-2)

- Detailed review of all permitting requirements
- Sets up low-level engineering team to create permittable prints

Field Validation (Month 3-6)

- Bonfire engineering team deploys in-market team to gather data for final design

Final Design (Month 3-7)

- As field data comes in, Bonfire begins creating permit-ready/construction-ready prints

Final step (Month 7): Present Low Level Design to Council for approval. If approved, construction can proceed.

Project Timeline: Construction – Months 2-30

(30 months total – as currently proposed by Bonfire)

Engineering Handoff (Month 2-30)

- Site walks and review with engineering team
- Value-added placement decisions based on FTTH construction expertise

Permit Submission (Month 2-22)

- Tracking, managing, and executing on all project permits
- Always providing updates and visibility to County

Construction (Month 3-30)

- Required make-ready work will allow UG work to start before aerial
- Includes all tasks associated with building, testing, and turning up the network (drops included)

As-Builts/Project Closeouts (Month 4-30)

- Closing out permits, collecting as-built data, and getting them back into network management system

Operate

- As portions of the build are completed, services will be made available.
- Long term agreement to operate the CBN
- Network Operating Fee funded from subscriber fees.

CBN Operating Roles

Role	Entity	Working Relationship
Network Owner	LAC	Works directly with Network Operator
Network Operator	Bonfire	Works with County and ISPs
ISPs	TBD (4-6)	Works with Network Operator, and works directly with subscribers to provide services.

Sample Rate Table

Residential

	Residential Speed Tier						
	250 Mbps	1 Gbps	2 Gbps	5 Gbps	10 Gbps	25 Gbps	50 Gbps
Network Operating Expenses	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32
Business Operating Expenses	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42
Network Operator Fee (Year 1)	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25
TOTAL Opex per Subscriber	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99
Network Infrastructure Fee (Year 1)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
TOTAL Wholesale Fee	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99
<i>ISP Fee (Range/Estimate/TBD)</i>	<i>\$12.60-\$16.80</i>	<i>\$20.70-\$27.60</i>	<i>\$28.80-\$38.40</i>	<i>\$33.53-\$44.70</i>	<i>\$38.03-\$50.70</i>	<i>\$42.53-\$56.70</i>	<i>\$47.03-\$62.70</i>
TOTAL \$ to Customer (Range)	\$50.59-\$54.79	\$58.69-\$65.59	\$66.79-\$76.39	\$71.52-\$82.69	\$76.02-\$88.69	\$80.52-\$94.69	\$85.02-\$100.69

Sample Rate Table

Small & Medium Business

	SMB Speed Tier						
	250 Mbps	1 Gbps	2 Gbps	5 Gbps	10 Gbps	25 Gbps	50 Gbps
Network Operating Expenses	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32	\$8.32
Business Operating Expenses	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42
Network Operator Fee (Year 1)	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25	\$17.25
TOTAL Opex per Subscriber	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99	\$27.99
Network Infrastructure Fee (Year 1)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
TOTAL Wholesale Fee	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99	\$37.99
<i>ISP Fee (Range/Estimate/TBD)</i>	<i>\$37.80-\$50.40</i>	<i>\$67.23-\$89.64</i>	<i>\$86.11-\$114.82</i>	<i>\$109.94-\$146.58</i>	<i>\$125.69-\$167.58</i>	<i>\$141.44-\$188.58</i>	<i>\$150.89-\$201.18</i>
TOTAL \$ to Customer (Range)	\$75.79-\$88.39	\$105.22-\$127.63	\$124.10-\$152.81	\$147.93-\$184.57	\$163.68-\$205.57	\$179.43-\$226.57	\$188.88-\$239.17

Infrastructure Replacement Strategy

- In the previous slides showing sample rate tables, there was a line item called “Network Infrastructure Fee”.
- This fee amount of \$10 per month will be collected from each subscriber.
- The fee is to be set aside primarily to accumulate over the life of the operations agreement (20 years), as a fund to be used to go towards long-term replacement of the fiber and conduit network as it nears end of life.
- Stated life for the CBN network is 30 to 40 years.
- The county will have the ability to adjust the fee amount at any time.
- The fund may also be used for any drop costs beyond the 60% “take rate” included in the construction project.

Next Steps

- Review Operations Agreement – next agenda item
- If approved, agreements can be executed right away so work on design and engineering can begin ASAP.
- Upcoming action for council, approx. 7 months from now:
 - Review Low Level Design results
 - Potentially approve LLD, so construction could begin.

Questions

- Thank you!