



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

June 2025 – Broadband Updates

Concord Broadband is pleased to share the following updates and information from the past month. Please do not hesitate to contact us at broadband@concordma.gov should you have any questions, concerns, or feedback.

Operations

We are spending time on doing financial analysis of costs to perform installations to help us with our next-generation equipment and services pricing. An external consultant who helped during the formation of Concord Broadband along with several staff are working to update financial models that will help recommend adequate revenue collection to support Concord Broadband's mission.

The network team continues to prepare for the installation of the new XGS-PON equipment, which should be delivered in late August or early September. Power looks good for the new equipment, and we have nearly migrated to all of the 100 Gb/s switches and routers. This month's maintenance will allow for the transfer to the new switches. The routers will be the last upgrade we make.

Lightpath, our new ISP, is nearly fully provisioned. We have confirmed routing is enabled, and we are making use of the IP addresses we obtained from them. The circuit is up and tested, and during our maintenance window on 8/13, we will attempt to use this as our primary circuit.

Our Commitment to Digital Equity: A Local and State-Wide Effort

We're proud to be a part of a larger, state-wide movement to ensure every resident has access to high-speed internet. This summer, the Healey-Driscoll administration and the Massachusetts Broadband Institute (MBI) announced a significant investment of \$31.5 million to bring reliable, high-speed internet to public and affordable housing units across Massachusetts.

This initiative, funded through the state's Residential Retrofit Program, is a huge step toward bridging the digital divide and ensuring that a lack of adequate infrastructure doesn't prevent anyone from accessing online education, telehealth services, or job opportunities.

As your municipal broadband provider, we share this vision of digital equity. It's why our network is designed to be affordable and accessible, serving every home and business in

Upcoming Maintenance

A maintenance window is currently scheduled from 3-6am on Wednesday, August 13, 2025. During this period of time, there will be intermittent disruptions of service while our engineers migrate circuits to new equipment.

Learn more on our maintenance page here:

<https://concordma.gov/3144/Broadband-Maintenance>

our community. We believe that access to modern internet is a fundamental right, not a luxury. The state's investment reinforces our local mission and highlights the importance of publicly-owned networks in achieving these goals.

We are committed to working with state and local partners to ensure our community benefits from every available program and funding opportunity. By investing in our own infrastructure, we're not only providing you with the best possible service but also creating a model for how communities can take control of their digital future.

Behind the Scenes: How Our Fiber Network Stays Resilient

Have you ever wondered what makes a fiber connection so reliable, even in the face of unpredictable weather? While traditional copper-based internet can be susceptible to electrical interference and signal degradation over long distances, our fiber-optic network is built on a foundation of resilience.

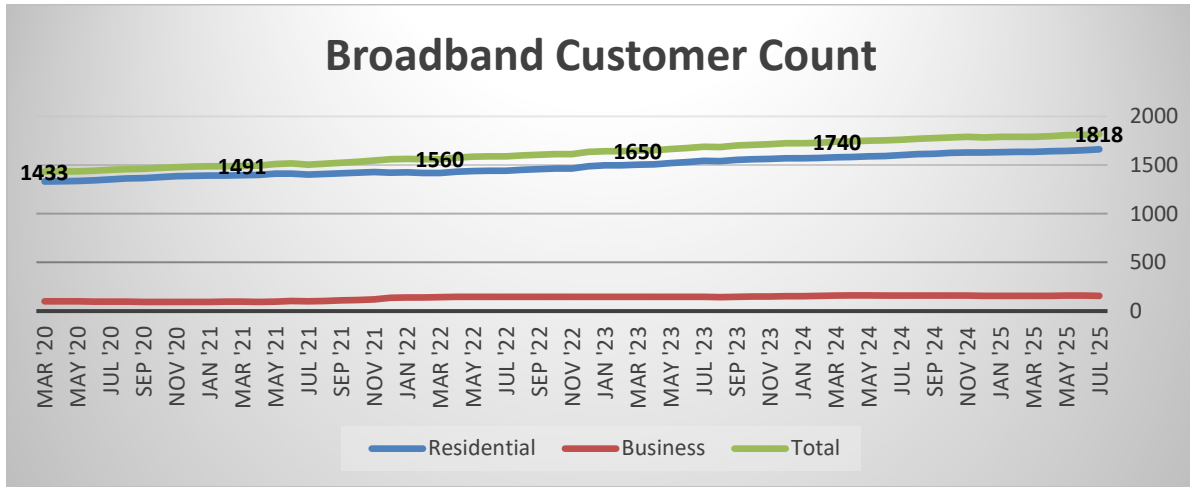
Here are a few of the technical innovations that keep our network running smoothly:

- **Light, Not Electricity:** Fiber optic cables transmit data as pulses of light through tiny glass strands. Since light isn't affected by electromagnetic interference from power lines, thunderstorms, or other electrical sources, your connection remains stable and secure.
- **Bend-Insensitive Fiber:** In the past, a sharp bend in a fiber cable could cause signal loss. However, modern "bend-insensitive" fiber is designed with a special core that maintains signal integrity even when bent at sharp angles. This makes installations in tight spaces, like your home, far more reliable and efficient, ensuring consistent performance.
- **Fusion Splicing for Seamless Connections:** When we connect two fiber cables, we don't just clamp them together. We use a process called "fusion splicing" that uses a specialized machine to melt and fuse the two glass strands together with microscopic precision. This creates a nearly perfect, seamless connection that minimizes signal loss and ensures the fastest speeds possible.

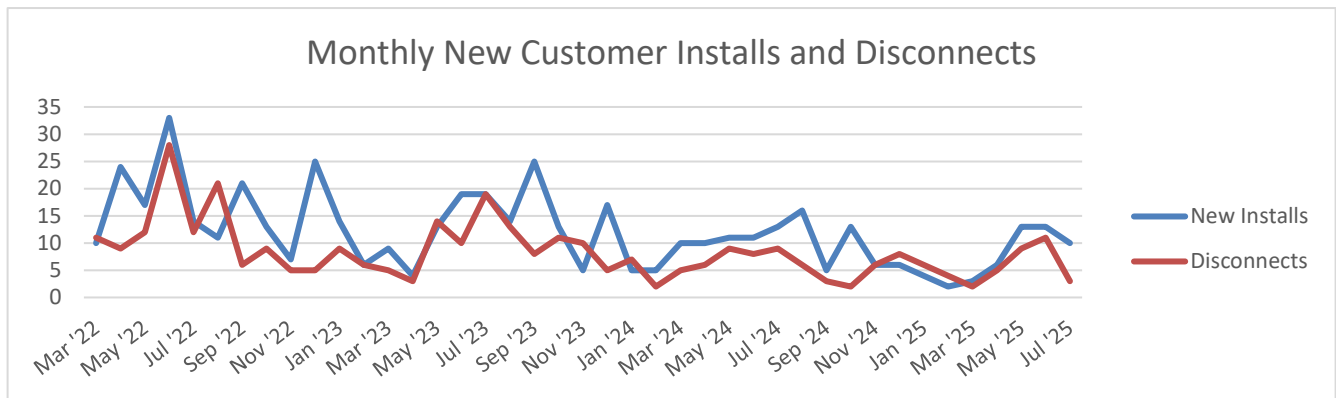
These are just a few of the reasons why our fiber-to-the-home network is the most advanced and dependable internet solution available. It's built to withstand the elements and provide you with a consistent, high-performance connection every day.

Visit <https://concordma.gov/broadband> to learn more or call us at (978) 318-3101.

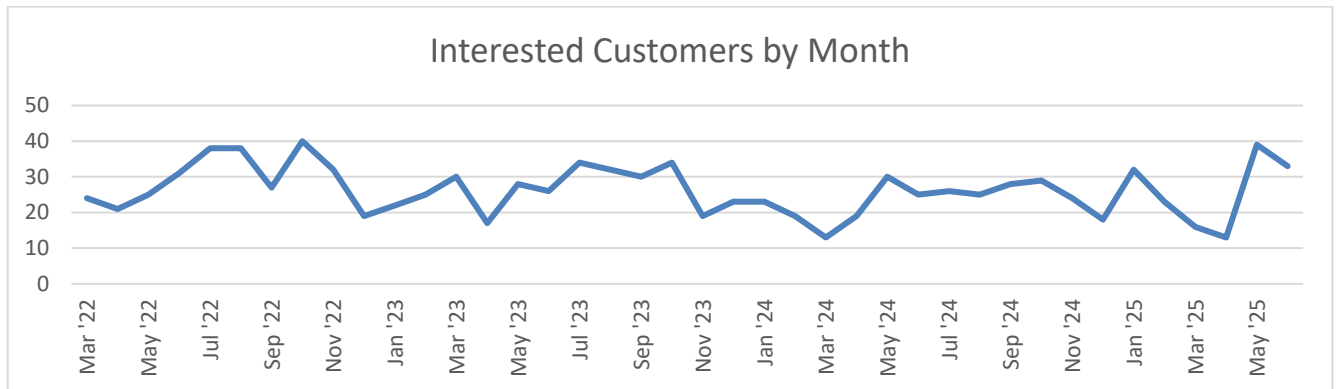
Monthly Metrics and Business Data



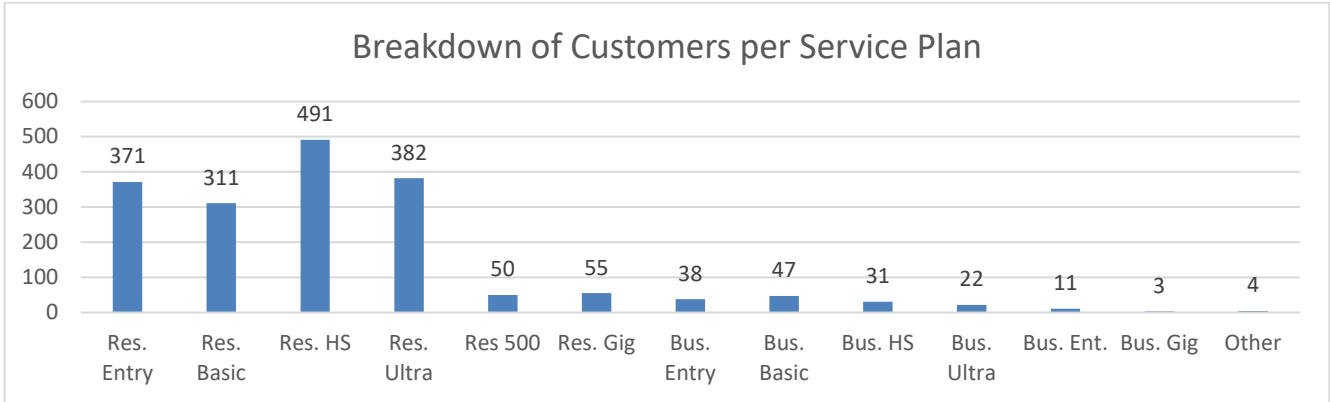
(Customer count: March 2020 – Present)



(The number of new installations and disconnects completed each month.)

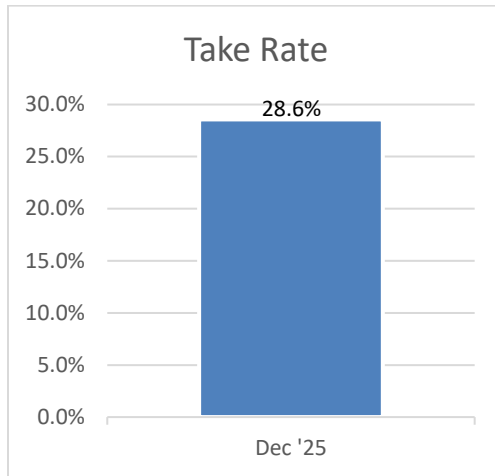
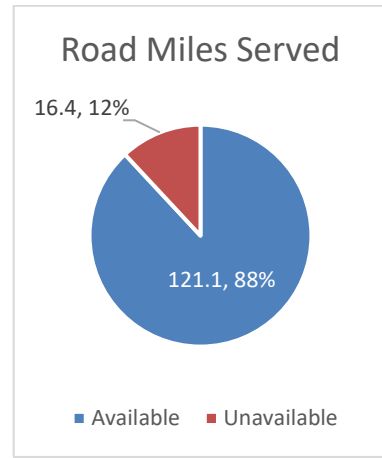
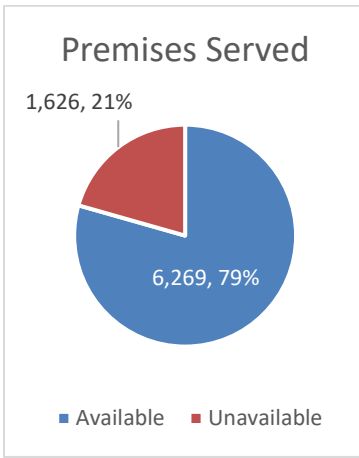
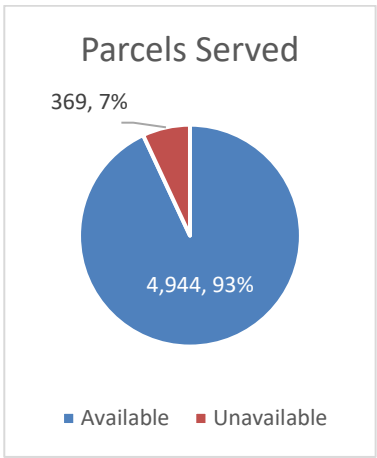


(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 7/31/2025.)

Other Metrics



(As of 2/15/2025)

Appendix

Fiber Broadband Completion Task Force's Report Goals

Goal	Type	Priority	Responsible Party	Additional Info.
Policies (p.39)				
• Universal Access	Policy	Highest	Select Board/Town Meeting	
• Expansion outside current territory	Policy	Low	Select Board/Town Meeting	Conversations happening
• Support Economic Vitality, Sustainability, Equity & Inclusion	Policy	High	Select Board/Light Board/TM Economic Development	Rate subsidy planned
• Affordable Housing	Policy	Medium	Select Board/Housing Groups	Rate subsidy planned; working on Concord Housing Authority properties
• Public Safety	Policy	Medium	Select Board/Town Manager	
• Education	Policy	Medium	Select Board/School Dept.	
• Government Access (PEG)	Policy	Medium	Select Board/PAAC	
Recommended metrics for tracking (p.41)				
• Parcels served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Premises served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Road miles served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Subscribers	Metric	High	Town Staff/Light Board	Complete; will report monthly
• Take rate	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Churn	Metric	High	Town Staff/Light Board	Complete; included in monthly report
• Installations	Metric	Highest	Town Staff/Light Board	Complete; will report monthly
Governance (p.39)				
• Track progress against completion	Metric	Highest	Light Board/Town Staff	Working on this
• Rate of return policy	Policy	High	Light Board/Town Staff	Working on this
• Financial goals with regular reporting	Policy	High	Light Board/FinCom	Working on this
• Retained earnings and reserve policy	Policy	High	Light Board/FinCom	Working on this

Goal	Type	Priority	Responsible Party	Additional Info.
Strategic Planning Goals (p.43)				
• Marketing and growth	Metric	High	Light Board/Town Staff	Working on this
• Business return	Policy	High	Light Board/Town Staff	Working on this
Budgeting Process for Fiber Expansion (p.41)				
• Expand to fill existing opportunities	Planning	High	Light Board/Town Staff	
• External funding sources	Research	Medium	Light Board/Town Staff	Working on this
• ARPA Relief Funds Allocation, incl. Lost Revenue	Finance	Highest	Select Board/Town Manager	Complete
• Review/Confirm Internal Loan Findings	Finance	Highest	Financial Audit Comm/Staff	Complete
• Review and Rescind PILOF to MMN	Finance	High	Select Board/Town Manager	Complete
Capital Planning Process (p.42)				
• Review/Revise Debt financing schedule	Policy	Highest	Light Board/Town Staff	In progress; due to positive financial situation, anticipating being able to repay faster.
• Quantifying cost of expansion	Planning	Medium	Town Staff	Working on this
• How to fund expansion	Planning	Medium	Light Board/Town Staff	Working on this
• Revise/refine methods for computing ROI	Planning	Medium	Light Board/Town Staff	Working on this
Construction and Logistics (p.42)				
• Vibratory plow – direct buried fiber cables	Operations	Medium	Town Staff	Working on this
• Revise/Refine Communication conduit construction standards and guidance	Policy	Medium	Town Staff	Working on this
• Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric	Planning	High	Town Staff	Working on this