

13.B.1 Executive Summary

Reliable internet connectivity is essential in the 21st century. Just as electricity enabled the first industrial revolution, fiber optic infrastructure is the foundation for the digital revolution. Since the residents and business owners in Mountain Home have been experiencing mediocre access to the internet for some time, Mountain Home's Mayor and City Council have made it a key priority of the City to establish local control of a City-run essential utility. The goals of the City for this project include the following:

The deployment of a fiber optic utility throughout the city is intended to meet critical service needs.

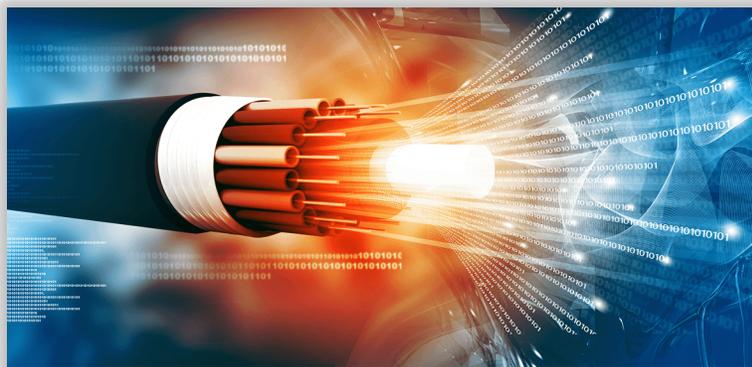
As such, the fiber optic infrastructure will be implemented as a public works project, and managed as a public utility.

- 1) **Lower the cost of internet access by 25% - 30% for the community.**
- 2) **Significantly increase the speed and reliability of internet access.**
- 3) **Increase competition and give residents multiple options for ISPs.**
- 4) **Build a state-of-the-art network that will improve economic development and foster innovation.**
- 5) **Leverage the network to improve the services provided in the city including public safety, transportation, healthcare, education, emergency communications, and new services that will become possible with advanced network infrastructure.**

The City is not trying to compete with the private sector. The endeavor simply involves the City building and operating the fiber infrastructure. This infrastructure will then be open to any service provider that seeks to offer services in Mountain Home. The City has adopted this model to achieve its goals because the plan involves nearly every priority of the City.

13.B.2 What is Fiber?

Fiber optic cable is an innovative type of signal delivery system. Instead of sending electrical signals over copper wire or radio waves transmitted through the air, fiber uses small strands of glass to send light signals over great distances. Fiber is not only the fastest way to send data, it's also stronger, more reliable, and harder to hack than cable, DSL, or fixed wireless. Fiber is not subject to interference like copper or wireless, so it won't matter if the weather gets bad or if everyone in the neighborhood is streaming at the same time.



13.B.3 How Fast is Fiber?

FAST.

Not just fast.

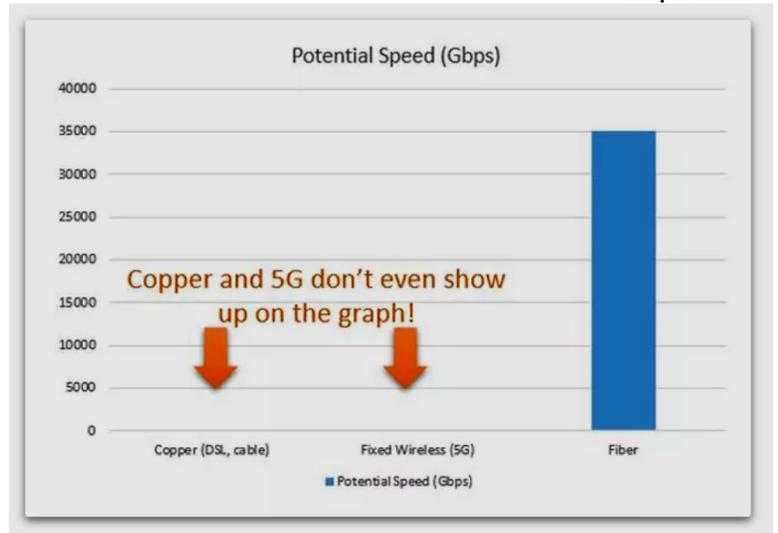
The fastest there is — **by far**.

Graph 13.B.1 shows a comparison of recently tested 'maximum transmission speeds' (how fast each type of technology has tested in a technology in a lab).

DSL and Cable, as well as 5G, did not score high enough to show up on the graph in comparison to the Fiber.

Bandwidth demand based on modem speed was 120 Mbps in 2014. Bandwidth demand grows by a surprising amount each year. While a number of different media can satisfy current bandwidth requirements, only fiber can satisfy future demand requirements. In fact, fiber has another 2000x more capacity using "today's" technologies.

Graph 13.B.1

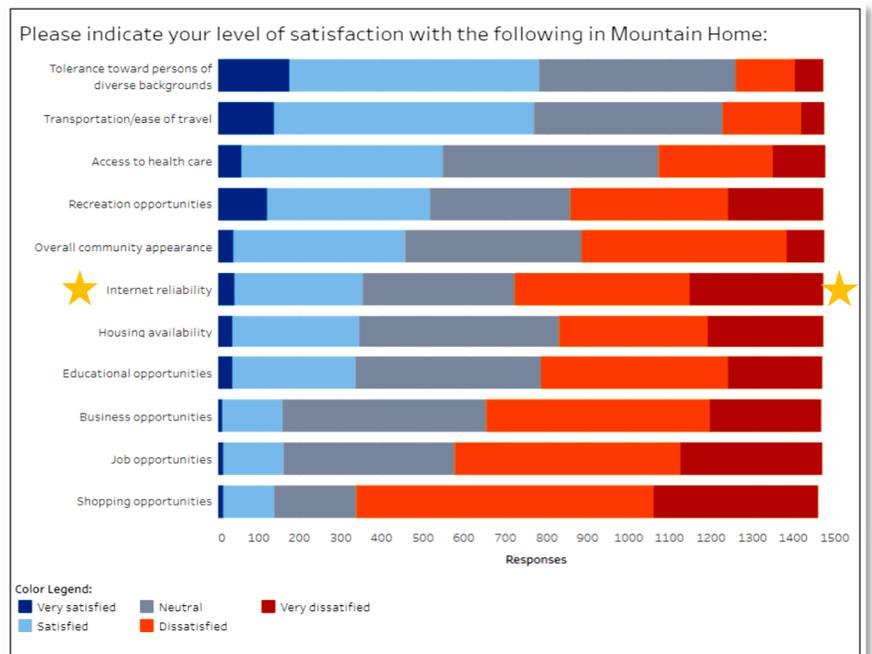


13.B.4 COMMUNITY INTEREST

Is there community support for this new City utility?

The results from the public survey conducted for this Comprehensive Plan update shows a strong relationship between the public's desire for increased and enhanced internet connectivity and the City's decision to implement a fiber utility (see graph on the right).

Additionally, **Map 13.B.1** on the next page illustrates the area where residents and businesses have expressed specific interest in learning more about, and/or even signing up, to be part of the City's fiber network utility (per a separate survey done for the purpose of the fiber project, via the fiber utility website).

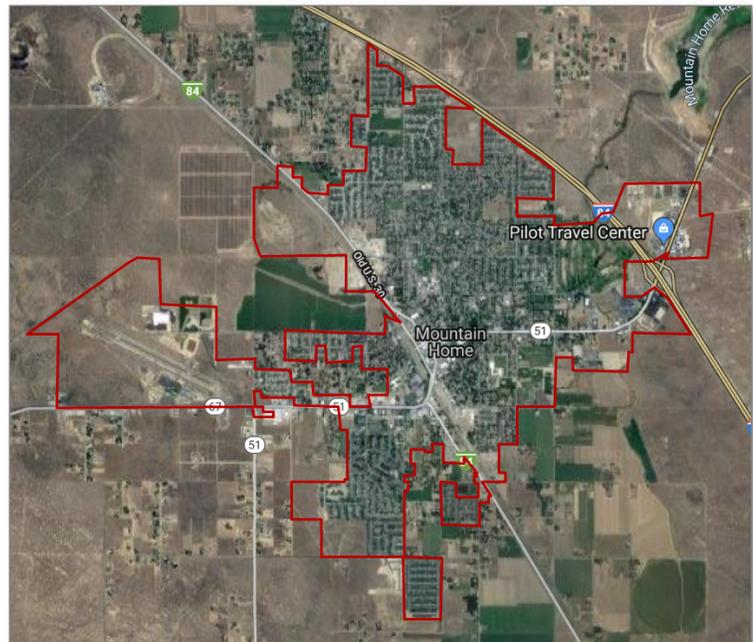


13.B.5 GOAL 1

Successfully execute installation of fiber optic utility city-wide for the benefit of the community.

- A. Prior to launch, establish Codes, Ordinances and Policies that will protect City and subscribers, and provide clear directives in deployment of and using the program.
- B. Develop systems at the City to support the functioning of the project and provide customers an avenue of quality service.
- C. Identify and engage potential project partners (Construction, Middle Mile, ISP).
- D. Create plan for construction and long-term financing
- E. City goal is to eventually deliver free WI-FI to all municipal parks and other public facilities.
- F. Create Community Engagement Plan and begin process of executing Plan.
- G. Deploy fiber optics as a utility throughout the city, starting in the highest demand areas.

Map 13.B.1



Map showing geographic areas from which public interest in the fiber utility has been expressed; by both potential residential and commercial users.