Digital Access Infrastructure Overview

VISION STATEMENT

We want every Detroiter to have affordable, reliable, and abundant digital access that elevates local communities and accelerates opportunities.

The world today runs on digital technology – from cell phones to banking, to games, music, the tools we use to learn, and the systems that help us work. Software and the internet touch our lives at every turn – cars, trains, and planes run on software. Grocery stores rely on technology to keep shelves stocked. The maps we use to move around the city are controlled by software. And these software-controlled systems are connected through a web of digital roads we call the internet. The internet helps us navigate the world – for school, work, play, and even keeping in touch with those we love.

Because software and the internet now affect every aspect of life, **the infrastructure supporting these systems is essential**. A student of any age today without a reliable internet connection is at a significant disadvantage. We want our students to have every opportunity to learn, get the best jobs, have the brightest futures, and help our communities and the local economy grow.

The pandemic made it clear just how essential the internet has become:

- Reliable, fast, affordable internet access is needed for students to attend virtual classes, keep up with learning, and do homework and research online
- Reliable, fast, affordable internet access is needed for residents to work from home, search and apply for jobs, receive job training, visit a doctor online, handle banking, pay bills, and so much more

Modern water and sewer systems, electricity, and our roads are examples of essential infrastructure. As a society, we agree to organize these systems and make them open to everyone for the good of all. A key role cities play is to build, operate, and maintain essential infrastructure and ensure it is affordable and accessible for everyone.

City leaders in Detroit are committed to taking bold action, with the ultimate goal of building a world class digital infrastructure, so all **Detroiters will have affordable and reliable digital access.**

That effort will begin in Hope Village. An initial $10M investment will be made in the west side Detroit neighborhood to begin installing fiber optic lines as early as this summer. Approximately 5,700 residents live in 2,000+ homes in the area between the Lodge and Davison Freeways, Dexter to the west, and Hamilton to the east. This area experienced an internet outage for 45 days during the pandemic, and the current lines need replacement.

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The city will use American Rescue Plan Act (ARPA) funding to kick start the Hope Village project as part of a larger plan that will request federal infrastructure money for other areas of need. It is estimated that a fiber optic system will last for more than half a century. As more internet speed is needed, cables would not need to be changed, making this an effective long-term solution.

In pursuit of digital access equity, Detroit's policy is:

1. Focus on access and affordability for all Detroiters.

a. Use public funds to invest in an open public infrastructure to enable true competition and choice for private services.

b. Officially create an open access fiber optic infrastructure utility in chapter 48 of the municipal code to hold and manage the infrastructure in a fund for public benefit.

c. Leverage established municipal utility operational models for funding, construction, operation, and fees.

d. Leverage established municipal utility powers, tax exemptions, and liability benefits to drive costs down and service levels up.

2. Focus on addressing the root causes of the digital divide, prioritizing the use of public funds for investments that create long-term solutions.

a. Use laws, ordinances and practices to separate public infrastructure investment and operation from private service investment and operation.

b. Recognize the installation of fiber optic lines as the preferred infrastructure investment.

c. Establish Ethernet (a way of connecting computers together in a local area network) as the infrastructure communications standard.

3. Create local value for Detroit.

a. Improve property values through the installation of affordable fiber optic access.

b. Make the infrastructure itself directly available to Detroiters for their use.

4. Leverage existing investments and institutions for support.

a. The city will put its own telecommunications needs onto the city owned network which will save the city $2.3 million in operating expenses.

b. Use already established programs, such as Connect 313, to provide fiber optic utility training, support, and devices to improve digital literacy.

5. Establish fair, equitable and sustainable fiber optic utility fees.

a. Fees shall be based on infrastructure costs regardless of services consumed or provided.

b. Fees shall help recover capital and operational costs, not for excessive reserve funding or profit.

c. Fees shall be established, published, charged, and collected using already established municipal utility infrastructure, assets, and systems.

6. Use Detroit's digital infrastructure as a platform for equity and innovation.

a. Establish models and funding to provide basic connectivity for all at no cost.

b. Develop and implement Customer Affordability Programs.

c. Encourage innovation through fee structures that focus on infrastructure costs, regardless of bandwidth.

d. Create and improve digital opportunities available to all Detroiters.

Achieving digital equity will require Detroit to develop strategy and policy around more than digital access. This policy represents an important and crucial first step in the development of a broader and ongoing effort focused on eliminating the digital divide in Detroit.

This is the right first step because only by owning the infrastructure can Detroit provide the necessary foundation to assure access and equity. It is also the right public investment because it avoids favoring any single private provider, while at the same time not preventing any provider from using Detroit's new infrastructure or continuing to use private infrastructure.

Fiber Optics
The City of Detroit will begin building a fiber optic network in 2022 and construction will start in Hope Village with the goal of expanding to other neighborhoods most impacted by affordability and availability gaps. **There are very few fiber optic connections to the homes and small businesses in Detroit.** The city is building a fiber optic network because fiber is the future.

Fiber optic cable has more than 10,000times the capacity of the wires available in Detroit today. That means it is faster, more reliable, and it will last for decades.

Open Access
The City of Detroit is building an Open Access Network. The on-ramp to the internet goes through an Internet Service Provider (ISP). Today, most Detroit residents have only a few options for an ISP. The city is going to build a world-class fiber optic network and then make it easy for many ISPs to offer services to residents and businesses in Detroit.

The system will be automated so residents can switch their ISP if they are not satisfied. Real competition will drive costs down and improve service. The technology to do this has existed for many years.

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Timeline
The city plans to start with the Hope Village pilot project and continue building from there. The network will primarily be buried and installation will take a significant amount of time. Going forward, plans include producing a map and more detailed timelines.

Pilot Project
More than 2,000 homes have been identified in the Hope Village area of Detroit for a pilot project. The pilot project is a miniversion of the plan, and it will confirm the assumptions in the city's plan. The Hope Village area was selected because of the critical need that exists in the area.

Ownership
The fiber optic network will be owned by the residents and businesses in Detroit. The City of Detroit will operate and manage the network as a new city department. Services will be provided by private sector companies. Existing ISPs will be invited to run their services across this new and improved infrastructure.

Cost
Detroit's planning team estimates that residents and businesses are currently paying more $200 million per year for internet access. That is more than $4 billion over 20 years. City projections are that this new network will be able to provide a meaningful reduction in cost for network users and a significant increase in speed and reliability.

The cost for very fast connectivity is expected to range from $30 to $40 per month for households that do not qualify for federal subsidies. Households that qualify for federal subsidies will be connected for free, or a nominal fee, as long as the subsidies last. More than $128 billion in new public funding has been allocated for broadband infrastructure improvements and the City of Detroit will get a portion of that funding.

Can Detroit Do This?
The Open Technology Institute's "The Cost of Connectivity 2020" report found that city sponsored networks offer faster, more affordable service. Cities are accustomed to building and operating infrastructure. This is precisely what will be doing by building this network. The city currently operates multiple utilities and this infrastructure will require similar operation.

Is This Necessary?
YES! The gaps in internet affordability, availability, and reliability aren't a challenge for the connected, but these barriers can be substantial for the disconnected. Detroit can and will fix this problem.

Other Questions
The City of Detroit will provide regular updates on its plan through the city's Digital Inclusion & Equity page and other city informational outlets.