CITY OF OAKLAND

AGENDA REPORT

TO:	Jestin D. Johnson City Administrator	**FROM:**	Tony Batalla Director, Information Technology
SUBJECT:	Informational Report Regarding 2025 Oakland Broadband Master Plan	**DATE:**	March 24, 2025

City Administrator Approval Jestin Johnson (Apr 8, 2025 17:02 PDT) Date: Apr 8, 2025

RECOMMENDATION

Staff Recommends That The City Council Receive An Informational Report Regarding A Broadband Master Plan Developed By The Information Technology Department.

EXECUTIVE SUMMARY

Informational Report detailing the City's Broadband Master Plan ("BMP") completed in December, 2024.

BACKGROUND / LEGISLATIVE HISTORY

In December, 2022 the City Council adopted Resolution # 89537 C.M.S. authorizing the City Administrator to accept and appropriate $500,000 in grant funds from the California Public Utilities Commission (CPUC), Local Agency Technical Assistance Program to fully reimburse the City's costs of a Last-Mile Broadband Connectivity Planning & Design Project for the period of November 2, 2022, to December 31, 2024.

On June 6, 2023, the City Council adopted Resolution # 89760 C.M.S., which authorized the City Administrator to enter into a professional services agreement for $500,000 with Kimley Horn and Associates to provide broadband consulting for the Oakland Broadband Last-Mile Connectivity Planning and Design project.

On September 17, 2024, the City Council adopted Resolution # 90407 C.M.S., which authorized the City Administrator to accept and appropriate grant funds in the amount of $14,026,946.15 from the CPUC Last Mile Broadband Program to reimburse the City's cost of planning and constructing a fiber optic broadband network, enhancing internet connectivity across underserved communities in Oakland.

On December 3, 2024, the City Council adopted Resolution # 90524 C.M.S. authorizing the City Administrator to enter into a professional services agreement with Kimley Horn and Associates for a total amount of $1,354,000 to provide network design and engineering services under the CPUC Last Mile Broadband grant program.

ANALYSIS AND POLICY ALTERNATIVES

The Broadband Master Plan ("BMP") aligns with the Citywide priority of **responsive, trustworthy government**, and was developed through a CPUC Local Agency Technical Assistance Grant. It is a 102-page document that analyzes the "digital divide" in Oakland to understand its impacts and causes; discusses the City's successful $15.5 million CPUC Last-Mile grant application and the planned project called "OaklandConnect," which intends to develop a City-owned Municipal Broadband Network utilizing existing and newly constructed fiber optics routes; and presents a long-term vision for a cohesive system that integrates current and future fiber segments into a unified City-run Municipal Broadband Network ("MBN").

The BMP includes eight sections:

1. **Section 1. Introduction**: Provides an overview of the Digital Divide in Oakland and information about federal and state broadband funding opportunities.
2. **Section 2. Broadband Master Plan Overview**: Discusses fiber optic technology, presents the vision of the BMP and incorporates past planning efforts.
3. **Section 3. Community Voices**: Includes detailed analysis and firsthand feedback from community engagement work with Oakland residents impacted by the Digital Divide.
4. **Section 4. The Challenge: Digital Exclusion in Oakland**: Presents results from primary and secondary research that explain the root causes of the Digital Divide in Oakland.
5. **Section 5. Municipal Broadband Networks: A Primer**: Introduces the concept of a municipal broadband network (MBN), including case studies of successful examples, structures and models, and an analysis of current trends in MBNs.
6. **Section 6. Current State of Public Broadband Infrastructure in Oakland**: Analyzes the current state of publicly owned fiber segments in Oakland, including opportunities and limitations, and identifies the routes most suitable for use in an MBN.
7. **Section 7. Advancing a Solution: OaklandConnect**: Details the City's grant proposal and award from the California Public Utilities Commission (CPUC) Federal Funding Account (FFA) program; an implementation roadmap for the Project; and incorporates information from the previous sections to envision a future where capital projects are integrated, and the network is expanded.
8. **Section 8. Recommendations**: Provides strategic recommendations across two primary categories: Municipal Broadband and Digital Equity

The BMP findings show that over 33,000 households in Oakland are estimated not to have residential broadband Internet service. Deep, active community engagement performed by the #OaklandUndivided Coalition, which started during the COVID-19 pandemic and continued throughout the development of the BMP, shed light on the root causes of this digital divide: Internet affordability, access, and performance are the main barriers.

The BMP demonstrates how digital exclusion, a lack of investment in broadband infrastructure in Oakland, overwhelmingly affects low-income families and Black and Brown communities.

Barriers to Broadband
The barriers of affordability, availability, and performance are inextricably linked. Monopolistic markets in low-income communities result in less affordable and less reliable Internet. With no market competitors, Internet service providers can set plan rates at the price of their choosing, leaving customers with the choice of either paying that price or forgoing access to Internet services altogether. Without competitors, monopolistic providers are not incentivized to invest in updating antiquated infrastructure, which results in performance issues, including slow speeds, latency, and outages.

Even when affordability is not a barrier for households, outdated infrastructure may not always be capable of achieving the advertised speeds of the most expensive plans. Community data suggests that those who pay more do not indicate higher satisfaction with their Internet service provider. These overlapping barriers demonstrate that there's not a one-size-fits-all solution to closing the Digital Divide; however, spotlighting the presence of these barriers in Oakland is a start.

An Alternative to the Status Quo
Municipal Broadband Networks have flourished all over the United States, with over 330 operating as of 2020. MBNs can increase competition and provide community benefits, such as municipal data services and subsidized rates and fees. To launch an MBN in Oakland, the BMP recommends pursuing a "hybrid" model where the City constructs a fiber network designed to deliver residential broadband service and enters into public-private partnerships with Internet Service Providers (ISPs) to 1) deliver low-cost, high-speed service to residents; and 2) fund the maintenance of the network through fees and revenues.

To help achieve these goals, the BMP provides the following:

- Analyzes limitations and opportunities with existing publicly owned fiber infrastructure in Oakland and recommends segments for use in the MBN.
- Evaluates multi dwelling unit properties (MDUs) and community anchor institutions (CAIs) to locate ideal candidates for the initial MBN build.
- Explores trends in the broadband industry, such as fiber and conduit construction standards and technologies, such as next generation fixed wireless service, that have potential in the City of Oakland.
- Provides frameworks to expand and sustain the network and the digital equity ecosystem in Oakland.

Oakland's Broadband Opportunity
In September 2023, the City submitted an application to the CPUC Federal Funding Account (FFA) Last Mile grant program, a competitive program that was oversubscribed by more than 5.3X the allocated funding amount.

In July 2024, the City of Oakland was notified that the CPUC had selected their application for award in the first round in the requested amount of $14,026,946.15, with a City match of $1,563,126.85, for a total project amount of $15,590,073.00.

The BMP provides a high-level, detailed implementation plan and roadmap to design, construct, and launch the OaklandConnect project, which is planned to reach up to 2,500 households in affordable housing sites throughout West Oakland, Downtown, Fruitvale, and East Oakland.

The BMP then looks into the future to imagine an outcome where all City capital projects with fiber optics are integrated into the OaklandConnect MBN, Public Private Partnerships (PPPs) are in place with wireline and wireless service providers, thereby increasing competition. And, where the MBN is healthy and sustainable, it offers an affordable, cutting-edge alternative in the broadband space within Oakland.

The MBN concludes with recommendations across two broad categories: Municipal Broadband Infrastructure and Digital Equity.

Municipal Broadband Infrastructure Strategic recommendations include:

- Developing open-access middle mile, rooftop access, and “Dig Once” policies.
- Restoring and expanding OakWifi Public Wi-Fi service.
- Coordinating with the California Department of Technology regarding the State’s Middle Mile Initiative.
- Pursuing additional grant opportunities.
- Operational & Maintenance Plans, and more.

Digital Equity Strategic recommendations include:

- Sustaining the Digital Equity ecosystem.
- Strengthening local policies that expand Internet access.
- Supporting and calling for State & Federal Digital Equity Policies.

The full draft of the Broadband Master Plan is attached to this report and will be published on the City’s website, https://www.oaklandca.gov.

FISCAL IMPACT

This item is for informational purposes and does not have any direct fiscal impact or cost.

PUBLIC OUTREACH / INTEREST

The City worked with #OaklandUndivided to conduct public outreach for input from Oakland residents that informed this report and are discussed in the Broadband Master Plan, Section 3. Community Voices.

COORDINATION

This report was prepared and reviewed by the Information Technology Department and the City Administrators' Office.

SUSTAINABLE OPPORTUNITIES

Economic: The Broadband Master Plan demonstrates how municipal broadband networks can create and aid in economic development opportunities by Internet lower costs for small and local businesses; creating public-private partnerships; and reducing long-term infrastructure costs while enabling new service providers to compete in historically underserved areas.

Environmental*:* The Broadband Master Plan includes operational recommendations that can minimize repeated construction-related disruptions, reducing waste and carbon emissions by ensuring that fiber and conduit infrastructure is installed efficiently during roadwork and utility projects.

Race & Equity*:* The Broadband Master Plan discusses how the digital divide negatively impacts historically underserved communities, such as West and East Oakland, and recommends that current and future investments in broadband infrastructure address racial disparities in access to digital resources.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the Finance and Management Committee receive an informational report on a Broadband Master Plan developed by the Information Technology Department.

For questions regarding this report, please contact Tony Batalla, Information Technology Director, at (510) 690-4913.

Respectfully submitted,

Tony Batalla
Director, Information Technology Department

Attachments (2):

1. ITD PPT Broadband Master Plan
2. 2024 Broadband Master Plan