Expand Low-Cost Broadband Access in Melrose Commons

Create a point-to-multipoint, rooftop-based wireless broadband network serving residents, businesses, and visitors in Melrose Commons. The network would offer:

1) Free wi-fi in and around select public spaces;
2) Free access to an internet-enabled local resource portal for residents within networked buildings; and
3) Low-cost broadband service for residents within networked buildings.
Expanding the availability of broadband was a priority that emerged from the NYC Economic Development Corporation’s Lower Concourse Planning Initiative, and efforts to deploy low-cost broadband at the southern boundary of the DRI Study Area are in planning stages. The “expand affordable internet access” strategy advanced by this project received high support in a DRI public survey conducted in February/March 2018. This project received moderate support in a public-voting exercise at Public Open House #2.

High-speed home internet access is an increasing necessity for individuals to participate in the 21st century economy, including basic tasks such as job preparation and applications. Yet while most New Yorkers have access to mobile-based internet, many residents within the Civic Center lack high-speed internet access at home due to cost constraints. Thirty percent of New Yorkers do not have in-home high-speed connectivity. That figure is higher within the Civic Center; according to a recent survey of 200 Community School District 7 residents, 63% did not have home broadband access.

Nos Quedamos/We Stay, a nonprofit organization that owns and operates housing and provides community development services in Melrose Commons, has partnered with a Bronx-based internet services provider, Neture, Inc., to plan a wireless network to expand broadband internet access to residents, workers, and visitors in Melrose Commons. Neture has indicated it will reach out to local businesses and other building owners to install public access points.

The network would make use of existing fiber access at 754 Melrose Avenue and 390 E. 158th Street, two buildings owned by Nos Quedamos, to install network equipment and base towers on building rooftops. The network would create a point-to-point wireless network that can be accessed by receivers throughout buildings managed by Nos Quedamos and other partners, and in public spaces throughout Melrose Commons. After the initial installation of the base towers on these two buildings, three additional buildings will have base towers installed: tentatively among 871 Elton Avenue, 890 Washington Avenue, 3103 Third Avenue, and 3097 Third Avenue.
The network would have three components:

1. Wi-fi access points will be installed in and around public spaces, including plazas, parks, and community gardens, offering free internet access for use by an estimated 25,000 people annually.

2. The 7,000 residents within the buildings with base towers will have free access to an internet-enabled local resources portal developed by Neture and Nos Quedamos.

3. The same 7,000 residents will have an option to purchase internet access for $20 per month (plus an $175 upfront or $10 monthly equipment charge for 24 months), a rate that is discounted from present cable and fiber-based internet services, which typically cost at least $60 per month inclusive of equipment costs.

Nos Quedamos, as the recipient of the funds, would contract with Neture to oversee the installation of the necessary equipment within the targeted buildings that would serve as the backbone of the overall network, as well as the access points within the buildings themselves. Neture has identified installation partners to assist with the technical components and provision of fiber, including Kwikbit, Cogent, Transit Wireless, and Natural Wireless. Neture is in the process of identifying locations for the public access points and will work with Nos Quedamos to secure necessary installation permissions once they complete the identification process.

This project follows a beta installation in 2016-17 by Neture in partnership with Nos Quedamos that provided free and low-cost internet access options to five floors within 390 East 158th Street, a building with a diverse population of seniors, single adults, and families with children. Neture installed access points within the hallways of selected floors. The beta test provided service for two years, averaging over 500 connections per month. This beta test informed the basis of this project's network design, price structures, and proposed community access platform.

To maintain the system, Neture will use a three-tiered support system in collaboration with MAP Communications, a 24/7 call center. The first two levels of support will be handled remotely through network software that can manage all aspects of the network including ethernet switches, transmitters, access points, and receivers. The first level of support for simple problems will be handled at the call center and is estimated to account for 70% of potential issues. The second level will be escalated to more technical experts, including Neture’s team of network engineers, estimated to account for 20% of issues. The third level of support will involve site visits by Neture personnel and is expected to account for 10% of issues.

Additionally, all equipment purchased for the project will have a three-year replacement warranty in case of equipment failure.

In addition to construction and technical jobs that will be created through the installation of the network and the building of the resource portal, this project will support the long-term development of critical workforce skills for residents in the area by providing access to reliable low-cost broadband.
Nos Quedamos owns both buildings targeted for the installation of the initial network, as well as the one building targeted for expansion. Neture has received assurances from the owners of the remaining two buildings that they will obtain necessary permissions from the owners of the remaining properties upon the project being funded. Should these permissions fall through, Nos Quedamos will make two additional buildings available for network installation.

Installation of wi-fi receivers in publicly accessible spaces may require permission from other property owners, business owners, and/or public agencies.

**Short Term:** Provide free internet access to community residents through provision of free wi-fi to public spaces, and low-cost internet access to households living in buildings wired by the project. Enhance the ability of local residents to access community resources.

**Medium and Long Term:** Improve internet access in a community that relies disproportionately on mobile data plans, thereby enabling broader use of digital services, including for schoolwork, digital skills development, and job and benefits applications.

Nos Quedamos would be the recipient of DRI funds and the administrator of the project. Their buildings would be used as base stations for the wireless network. Nos Quedamos, founded in 1992, has a staff of 10, an annual budget of $800,000, and assets worth more than $3,800,000.

Neture, Inc. would be responsible for the planning, installation, and servicing of the network, and would partner with Nos Quedamos to develop and maintain the community resource portal. Neture’s CEO, Marlin Jenkins, has 10 years of experience in telecommunications sales and operations. Their four-member advisory team has a combined 50 years of experience in telecommunications, network engineering, operations, and marketing.
Base Tower and Public Access Installation
Equipment & Installation: $323,000
Contingency and Cost Escalation (34%): $114,000
Design: $18,000
Marketing & Outreach: $20,000
Ongoing Support: $83,000
Subtotal: $558,000

In-Unit Installation
Equipment & Installation: $772,000 (estimated based on the number of customers purchasing private plans)

Total: $1,330,000

• All installations must comply with the National Electrical Code and various telecommunications standards such as EIA/TIA and BICSI.
• All installations on property owned by entities other than Nos Quedamos require approval by the owner.
• NYC Department of Buildings permits for construction or alterations to facilities including towers, electrical equipment facilities, HVAC improvements for data/telecom facilities.
• For facilities owned or regulated by NYC Housing Preservation and Development permits and compliance with established standards are required.
• Standards compliance and infrastructure alteration subject to Con Edison requirements and easements.

DRI: $437,000 for the purchase and installation of base tower and public access equipment.

Private Sources: Neture, Inc. will be responsible for the design, maintenance, and marketing of the network, estimated to cost $122,000, and an estimated $772,000 for the expansion of the system to offer residential service plans – a total of $894,000.

This project will provide numerous benefits, including free access to the internet in public spaces for approximately 25,000 residents, and the potential for 7,000 residents within networked buildings to obtain below-market high-speed internet access.

In the impacted neighborhood, there are currently three methods for households to access high-speed broadband: 1) through the local cable provider, Optimum, 2) through a residential fiber provider such as Verizon Fios, and 3) through LinkNYC kiosks, a network of public wi-fi enabled devices installed on public streets. Optimum charges a minimum of $55 per month ($40 as a promotional rate) for residential access, not including equipment charges, nearly three times the rate proposed by Neture. Verizon Fios is unavailable at any of the targeted buildings. LinkNYC kiosks are installed on Third Avenue up to 158th Street, with more due to be installed up to 163rd Street. Because of restrictions on where Links can be installed, they do not reach the residential sections of Melrose Commons. This project fills a portion of the gap in free coverage, and enables more households to purchase broadband at a rate they can afford.
This project would leverage private resources in excess of $120,000 for the base installation, and additional investment in equipment and installation costs to serve private households that sign up for the paid access, estimated at $772,000, pending the level of uptake. Neture estimates that 4,000 households would sign up for the paid service.

**Months 1-6:** Rooftop installation on first building and fiber installation at additional network buildings.

**Months 6-12:** Installation of receivers at participating buildings and in public spaces, averaging one new building per month.

Neture has actively engaged design partners, and has lined up two potential installation contractors for the project. Nos Quedamos has indicated that Neture will have access to their buildings for network installation, which can happen immediately upon funds being granted.

Key metrics for Nos Quedamos to track include:
- Number of public wi-fi locations
- Number of logins from public locations
- Number of logins to the resource portal
- Average length of stay on the resource portal
- Number of households signing up for paid internet service
- Scope of installations (every 6 months until completion)
- Worker and shopper perceptions of safety (by annual survey)
- Rents for retail and office space along corridors targeted for streetscape improvement