

BASIC INFORMATION

Regional Economic Development Council (REDC) Region: New York City

Municipality Name: New York City

Downtown Name: 135th St. Smart City Corridor

County: New York

Vision for Downtown. *Provide a brief statement of the municipality's vision for downtown revitalization.*

The Manhattan Borough President's Office and local partner organizations, including Silicon Harlem and the Zahn Innovation Center at The City College of New York, share one overarching vision – to see Greater Harlem thrive as an economic engine for New York and build on its wonderful heritage. Today, Harlem is undergoing a revival as it welcomes new residents from a variety of racial, cultural and social backgrounds. Established professionals, recent college graduates, artists, and immigrants from all over the world, including West Africa, the Caribbean, Europe and South Asia are drawn to the neighborhood's prime location, beautiful architecture and deep history. Along with the advent of new residents, new businesses are also moving into the area. The goal for this specific "downtown" initiative, centers on Harlem's 135th Street corridor and seeks to transform the area into a vibrant, successful place for economic growth and a hub for innovation.

In order to achieve this vision, we need to improve job readiness and, create job opportunities, while increasing access to healthcare and public safety services. Not only will these changes enhance this thriving community, they will also foster opportunities for better placemaking. To satisfy these needs and achieve these outcomes, we look towards innovative technology solutions that will ultimately drive economic growth. Transforming the 135th St. corridor into a Smart City Corridor will capitalize on current projects and build on existing local support to connect the major institutions in the area and help them better serve those who live, work, and visit the neighborhood.

Justification. *Provide an overview of the downtown, highlighting the area's defining characteristics and the reasons for its selection. Explain why the downtown is ready for Downtown Revitalization Initiative (DRI) investment, and how that investment would serve as a catalyst to bring about revitalization.*

Harlem is a place with tremendously rich culture and while still strongly rooted in its important history, Harlem is also an ever-changing and evolving place. In recent years, the neighborhood has received many investments to preserve its roots and create a vibrant community. Thanks to these investments and the work of local community organizations, Harlem is uniquely positioned to be a hub for technology and innovation. With a \$10 million investment through the Downtown Revitalization Initiative (DRI), we can build on the momentum that has been created and unite efforts to transform this corridor. Technology can help drive change, eradicate crime, lower unemployment rates, and increase educational and job opportunities in the area.

The 135th St. corridor and surrounding area is a particularly ideal slice of the Greater Harlem community because it is home to an abundance of key institutions that serve all members of the community. The present institutions range from public elementary, middle and high schools, to the NYC Health + Hospitals/Harlem (Harlem Hospital), to outdoor gardens, to new mixed use developments, and the Schomburg Center for Research in Black Culture (Schomburh). There are numerous well-established non-profit organizations in the area promoting students education and job training. Along the corridor also sits the newly renovated Harlem Hospital Center, which serves thousands of patients in the community. There are also a number of public and charter schools along the corridor, with The City College of New York anchoring the street to the west of St. Nicolas Park. City College is one of the most diverse schools in the nation, serving approximately 16,000 students annually, of which more than 80% of students are minorities and from underrepresented communities. City College was the first free public institution of learning in the United States and is the flagship school of the CUNY

public university system. For 170 years, City College has remained true to its original mission of access and excellence.

An important organization in the area, and one that is central to our application, is Silicon Harlem. Silicon Harlem has developed a robust tech ecosystem in Upper Manhattan that is creating jobs, STEM educational opportunities, driving the development of new startups and attracting tech companies into Harlem. Their mission and business model places emphasis on an inclusive approach to technology that ensures the community of the future is for everyone. DRI funding would continue to support these efforts within our investment area, while also helping to finance Silicon Harlem's plan to transform the 135th St. corridor into a Smart City Corridor, fully equipped with state-of-the-art 5G broadband. The goal of this project is to bring a full range of tech opportunities and support to the community, whether this be in digital literacy programs, data analysis, or digital placemaking.

As a public university with public purposes, City College seeks to contribute to the cultural, social, and economic life of New York. To that end, the City College Fund (a nonprofit organization serving City College) launched the Zahn Innovation Center, an on-campus startup incubator in 2012 and has promoted innovation and assisted students to actualize their entrepreneurial ideas. The Zahn Innovation Center offers a co-working space and an array of resources including: annual competitions, a startup boot camp, mentorship and pro-bono services, networking opportunities, and rapid prototyping facilities. The Zahn Center and City College serve as a hub for innovation and technological progress. With an infusion of DRI funds, the Zahn Center at City College will continue to serve students and the community by making Harlem a technological center of New York City.

The Zahn Center is planning to create a manufacturing institute that will serve as a place for both students and the Harlem community to gain exposure to advanced manufacturing opportunities while becoming certified to operate prototyping machinery and give life to new ideas. Funding will enable the Zahn Center to build a manufacturing center that promotes job

growth and new industry by bringing startup concepts to life, serving entrepreneurs in the community and providing skills based training on advanced manufacturing techniques to students and the community. To date, the Zahn Center has graduated 155 start-ups from its incubator, and has placed hundreds of students at startups and companies around NYC. The Zahn Center has created a fertile ground for City College students to feel empowered by their own ingenuity and several of our startups have opened offices in NYC and are contributing to this community's economy.

The 135th St. corridor has experienced economic growth, population growth, cultural growth, and development growth over the past years. With the help of the DRI funds, the community will continue on this positive progression. In reviewing the criteria for Round II of the Downtown Revitalization Initiative, we believe that this corridor more than satisfies the desired elements for an ideal downtown and is on the verge of becoming an economic engine and destination for New York City residents. Simultaneously, we feel that the area faces particular challenges that are hindering economic development efforts and funding from DRI will go a long way to addressing these needs. **1)** There is an overall need for job and business growth in the area. One major obstacle to substantial job and business growth is the current infrastructure and a lack of broadband access. Without proper infrastructure, local small businesses cannot manage, operate, and advertise their storefronts and services. Moreover, a strong infrastructure will make the area more desirable to new businesses looking to move into the available space for rent. **2)** Along with business growth, there is a need for skills based training. There are currently efforts to provide skills-based training in technology and advanced manufacturing to community members in order for them to enter the growing technology job market. Educational facilities and cultural institutions in the area, who are all trying to impact students and members in the most effective way possible, need to consistently adopt these types of job training and programmatic efforts. **3)** Another need for the community is streetscape improvement to repair broken sidewalks, improve sanitation, and make the area a destination for those who may not live along the corridor or even in the borough. **4)** Meanwhile, health and safety are primary concerns for any community - considering innovative

methods of improving of health outcomes and access and the efficiency of first responders is key to elevating the quality of life along the corridor. **5)** Finally, with an increase in development in the area, keeping housing affordable for residents who already live in the area is a major concern.

The wide scope of institutions, large amounts of recent investments, and innovative partners and plans for the future make this “downtown” ideal for successful revitalization.

DOWNTOWN IDENTIFICATION

1) Boundaries of the Downtown Neighborhood. *Detail the boundaries of the targeted neighborhood, keeping in mind that there is no minimum or maximum size, but that the neighborhood should be concentrated and well-defined. Core neighborhoods beyond a traditional downtown or central business district are eligible, if they can meet other criteria making them ripe for investment. Attach a map that clearly delineates the downtown neighborhood.*

Our downtown area is made up of a specific zone of targeted investment within a broader area that will be impacted by these investments. The boundaries of our targeted investment area begin with the City College campus and continue east to include St. Nicholas Park and the entire length of 135th St. till the Harlem River Drive. Our investment area extends north and south to capture portions of each avenue that intersects with 135th St. and a number of the blocks between these avenues. The blocks north and south of 135th St. are primarily residential, however there are a number of new developments, institutions, and space available for rent that will benefit from an investment of DRI funds. As outlined in our map, the infusion of DRI funds will be focused within these boundaries of our investment area but will have a broader impact entirety of the three community boards that make up Harlem (9, 10 and 11). The corresponding zip codes for this impact area are 10031, 10030, 10037, and 10027, with portions of 10035 and 10039. The overall impact area is the broader neighborhood we envision

benefiting from and accessing the downtown. This impact boundaries have many residents, businesses, institutions, and public areas that will experience growth as a result of DRI funding into the targeted investment area. Please see the map below:



2) Catchment area. *Outline why the downtown, or its catchment area, is of a size sufficient to support a vibrant, year-round downtown, with consideration of whether there is a sizeable existing or increasing population within easy reach for whom this would be the primary downtown destination.*

While our investment area is contained within Community Board 10, the initiatives outlined in this application will affect all residents of our impact zone. Community Boards 9, 10, and 11 make up this impact zone and have a total population of 350,000 residents. This reflects the number of people who permanently reside in the area; however the 135th St. corridor is also an active destination for those who travel. Since the 135th St. corridor maintains five different subway lines and seven different bus lines that each travel through multiple neighborhoods, districts, and zones, a diverse array of individuals travel through each area. According to the MTA, 4,867,017 people ride the 2 3 train to 135th St. (ranked 98 of 420 in 2016), 1,731,460 people ride the B C train to 135th Street, and 4,564,432 people ride the 1 train to 137th St. City College. A total of 11.1 million people travel to this corridor annually. In addition, over 1, 600 children attend school along the corridor at the Percy Sutton Educational Complex, Thurgood Marshall Academy for Learning and Social Change, and P.S 197 John B. Russwurm. There are a number of schools in the surrounding blocks as well.

3) Past Investment, future investment potential. *Describe how this downtown will be able to capitalize on prior or catalyze future private and public investment in the neighborhood and its surrounding areas.*

There have been many investments into the 135th St. corridor in recent years on a variety of projects and towards a large spectrum of institutions. These investments have gone into spheres such as technology, arts, housing, area surveys and many more initiatives that promote economic growth. The momentum of investments has set up this downtown be a flourishing site.

Public Sector Investments

- *Health Totaling - \$273,885,00 million*
 - \$270 million awarded to Central Harlem as a part of Mayor de Blasio's Building Healthy Communities initiative, which is a multi-agency project that is set to help chronically underserved communities across NYC. The goal of this program is to promote public health and safety to various communities.
 - \$3.8 million for Harlem Hospital Center (on the corridor) from Governor Cuomo's HEAL NY grants
 - \$85,000 for Harlem Hospital Center (2017) and \$100,000 for Harlem Hospital Center (2016) to be put towards equipment
- *Education Totaling - \$3 million*
 - \$1.5 million dollars for Countee Cullen Library (2017)
 - \$370,000 for P.S. 175 Henry Highland Garnet Elementary School to be put towards new gymnasium (2017) and \$100,000 to be put towards technology upgrades (2016)
 - \$500,000 for Zahn Innovation Center Prototyping Lab from MBPO to City College
 - \$500,000 into A. Phillip Randolph High School for an urban agriculture greenhouse project
- *Housing and planning totaling - \$ 67.95 Million*
 - Manhattan Borough President Capital Funding Awards
 - \$250,000 for Clayton Apartments for interior renovations (2016)
 - \$350,000 for the Greater Harlem Housing Development Corporation (FY 2017 and FY 2018)
 - \$500,000 for Lemor Realty for affordable housing (2016)
 - \$3.8 million for Philip's Senior House in upgrades in its previously decaying infrastructure

- East Harlem Neighborhood Planning study by Housing New York, which aims at examining land use and zoning issues and creating a comprehensive investment and development plan
- African Burial ground memorial and affordable housing proposal in the works
- \$63 million dedicated to City College for construction of The Towers apartments, which is the first residence hall to be built on campus and houses 589 students (2006)
- *Recreational Totaling - \$4.9 million*
 - \$2.9 million to Riverbank State Park from Governor Cuomo for infrastructure repairs, park access improvements, and technology advancement of amenities available
 - \$2 million for Abraham Lincoln Playground in 2017 as part of the Mayor's Community Parks Initiative
 - NYC grants Harlem YMCA building landmark status in 2016, along on the corridor
- *Arts and Culture Totaling - \$704 million*
 - \$700 million for East Harlem Media, Entertainment and Cultural Center (MECC) which has begun construction
 - \$4 million for Harlem Hospital Center Murals
- *Transportation Totaling - \$6 billion*
 - \$6 billion allocated for expanding the Q train to 125th St. which is already home to the 4,5, and 6 trains, Metro-North Railroad, and M60 Select bus service to LaGuardia Airport. This improves transportation in the greater Harlem area located 130th St. between Amsterdam and Frederick Douglass Blvd.

Private Sector Investments

- *Technology & STEAM Initiatives \$51 million*
 - The Zahn Center was established in 2012 by the City College Fund with the support of the Moxie Foundation and the Manhattan Borough President's Office. Gifts to the City College Annual Fund support a variety of programs

including as scholarships, professorships, programming for departments and divisions, and scholarly lectures. These programs keep City College competitive. The Zahn Innovation Center is one such example of the City College Fund's programming. The Zahn Center was established with an initial one million dollar gift from the Moxie Foundation and a \$440K investment from the Manhattan Borough President's Office. The Moxie Foundation created the Social Impact program and the internship program at the Zahn Center. The Zahn Center is also supported by alumnus Harvey Kaylie and Standard Chartered Bank. The Zahn Center is also supported by Bank of NY Mellon.

- Silicon Harlem is a for-profit social venture seeking to eliminate the digital divide across the United States through the deployment of next generation broadband networks and online services. They also host digital literacy and readiness courses for a variety of educational and community partners throughout the five boroughs and are helping to ensure everyone in NYC has a connection.
 - City College is home to the Grove School of Engineering, established with a \$26 million dollar gift from alumnus Dr. Andrew Grove and the Spitzer School of Architecture, which was established with a \$25 million gift from Bernard and Anne Spitzer.
 - The City College of New York: Solar Roofpod & Harlem Garden for Urban Food is located on the roof of the Spitzer School of Architecture. The Roofpod provides an opportunity for students and residents to take advantage of the health benefits of urban gardening.
- *Housing and Development \$204.3 million*
 - \$71.5 million Strivers Garden condominium built in 2005 , NYC Partnership housing
 - \$49.9 million for the Rose Smart Growth Investment Fund's acquisition of 198 units of affordable housing and approximately 4,500 square feet of ground floor retail at 107-145 West 135th St. The Fund redeveloped the building to be the

first housing development to benefit from HUD's Green Retrofit Program. A LEED rating is being pursued.

- \$26.7 million dollar project that includes 60 apartments for low income households with units for households earning below 60 percent of the Area Median Income (AMI) by Roseland Property Company. This is in partnership with Harlem Dowling Organization and Children's Village for young adults aging out of Foster Care and is located on 2139 Adam Clayton Powell Blvd (127th).
- \$10.2 million remodel of The Metropolitan AME Church (135th between Malcolm X and 5th) by Elmo Realty and Empire Development fund. The new development will include a church space on the ground level and residential space above totaling to 30,000 sq ft.
- \$46 million BRP Development Corporation has completed the Aurum Building on Adam Clayton Powell BLVD

Future Potential

With recent momentum in the area supported by the private sector and the City, the Downtown Revitalization funds will take an area on the edge of prosperity and propel it forward. With all the partners and pieces in place, now is an opportune time. Transforming 135th St. into a technology hub will address the critical needs of the community and provide further opportunities for growth. The area will be extremely attractive for further investments in business expansion, especially with regard to new, updated, and expanded incubation spaces supported by the Zahn Center at City College. The Zahn Center will enable easy and efficient access to rapid manufacturing. Harlem Hospital's utilization of high speed broadband will make it an attractive opportunity for investment by healthcare innovators. And, as Harlem becomes a desirable place to live, developers will seek to build new mixed use, multi-income buildings that are in accordance in MIH housing regulations and keep affordable housing units in the area.

4) Recent or impending job growth. *Describe how recent or impending job growth within, or in close proximity to, the downtown will attract professionals to an active life in the downtown, support redevelopment, and make growth sustainable in the long-term.*

In 2015, a study on Community Board 10 showed that the unemployment rate of Central Harlem is 13%, compared to the 11% unemployment rate of New York City. While Central Harlem demonstrates a high unemployment rate, the neighborhood has experienced a surge in job growth in recent years. Between 2000 and 2015, business growth increased by 99%. The majority of this business growth has been in food services and accommodations industry, with small businesses like hotels, coffee shops, and restaurants emerging throughout Harlem. For example, Harlem Shake is a shake and burger restaurant with two locations in Central and East Harlem. The restaurant is committed to hiring from within the community, meaning nearly 65% of their staff are Harlemites. With job growth evident in low-wage sectors, now is the time to capitalize on this momentum and encourage job growth in higher paying industries like tech. As the area becomes a tech hub, it will attract tech companies and startups to the area.

While 135th St. is home to a number of small business storefronts and health, public safety, arts, and education institutes, there is a fair amount of retail space available for rent on 135th St. Robust broadband access, the availability of trained workers, and access to prototyping facilities, will encourage and attract tech business and other businesses from similar industries to the 135th St. corridor. Robust broadband will also improve current businesses operations and management, enabling next generation Smart City technology like 5G sensors on the sidewalks can ping potential passing customers about a new promotion. Residents will be able to receive information about local business as they walk around empowered by AR-like services. Heating and water issues in apartments will become a problem of the past as Smart City technology allows problems to be diagnosed and repaired before you even notice them. With help from existing area nonprofits and other organizations, like Silicon Harlem, this leap forward will provide job training opportunities employing local residents. Silicon Harlem has already contributed to job growth by hiring and training local talent to asses existing

infrastructure in Harlem. Silicon Harlem's Smart City Corridor plan will continue to create an impressive number of new jobs by employing individuals to install access points, update the existing infrastructure to facilitate the broadband, and maintain the broadband infrastructure. In order to steward this shift towards tech in the community, residents of Lincoln Houses, which is located on 135th St. between Park and Madison Ave., will be employed as Digital Stewards to share with their neighbors that high speed broadband has arrived in their neighborhood.

Equipping local residents with the resources they need to take advantage of these job opportunities in new tech businesses is critical to prevent residents from being priced out of their own neighborhoods. There are numerous established nonprofits that provide resources for local Harlemites to access this business growth in the tech field. The National Urban League, located on 136th St. between Frederick Douglass Blvd. and Adam Clayton Powell Blvd., offers a career preparation institute and programming for adults looking to learn more about STEM skills and related jobs in a changing economy more geared towards technology. Harlem Congregations for Community Improvement Inc.(HCCI) is an organization hosting a range of programming, including programs for health and wellness, financial literacy, community organizing, social service referrals, and more. HCCI also has a job development programs with an emphasis on training in tech and construction. Meanwhile, STRIVE is a job training program for vulnerable individuals like recovering addicts, veterans, and the homeless. This national program has a location in Harlem that recently received \$483,000 to launch the East Harlem Talent Network (EHTN), a sustainable employment program that connect employers with qualified unemployed Harlem residents. EHTN has placed over 100 Harlemites at full-time jobs.

The 135th St. corridor will not only be a startup-friendly environment with the arrival of robust broadband, but even more so, with the close proximity of the Zahn Innovation Center at City College. The Zahn Center will equip students as well as local residents with the tools, resources and means to take advantage of new jobs in the tech sector. The Manhattan Borough President's Office, which funded the initial prototyping lab at the Zahn Center is funding the purchase of new prototyping equipment that will allow for rapid manufacturing and replace

outdated equipment. In addition to supporting the community, startups in the Zahn Center incubator will have easy access to rapid prototyping after they complete Kickstarter campaigns for their products. The prototyping space will provide engineering students at City College's Grove School with real-world experience before going into the workforce. Engineering students will be working as assistant engineers within the facility. Moreover, the Zahn Center will foster new businesses (leading to job growth) by providing local entrepreneurs with the space, tools and support to build prototypes. The Zahn Center is looking to launch a certificate program in various types of advanced manufacturing for City College students and the community. Graduates of the Zahn incubator may very well be the new businesses who open in the area. The Zahn Center has a robust internship program and can place interns at area businesses and startups. Zahn has specifically worked within the financial services, high tech, advanced manufacturing, mechanical and electrical engineering, as well as biomedical.

5) Attractiveness of physical environment. *Identify the properties or characteristics that the downtown possesses that contribute, or could contribute if enhanced, to the attractiveness and livability of the downtown for a diverse population of varying ages, income, gender identity, ability, mobility, and cultural background. Consider, for example, the presence of developable mixed-use spaces, varied housing types at different levels of affordability*

Harlem is a diverse neighborhood that reflects multiple cultures in addition to its historically African American makeup. In terms of demographics, the area's population consists approximately of African Americans (63%), Hispanic (22%), White (10%), and Asian (2%). In addition to the demographic data, Harlem is home to various bistros, cafés, and restaurants that represent even more cultures such as the Ponty Bistro which caters French and African Cuisine, an African and Caribbean market, an Ethiopian restaurant, and a bar and lounge that recently opened called Harlem Nights. These restaurants attract a wide range of visitors and residents to the area. Harlem's diverse nature is also reflected in its residential units. Harlem's new, established, and old housing developments cater to every level of income. Newer housing

developments such as The Aurum for high income residents, and The Renny for both high income and lower income affordable housing will house Harlem's wealthier residents while at the same time providing lower income residents with the same luxury under the same establishment. In addition, the construction of a new development that is a partnership between the Children's Village, Harlem Dowling, and the Alembic Community Development Corp will provide low income and extremely low income housing for youth aging out of foster care who are on the verge of homelessness. For Harlem's middle income residents, which are key to the area's development, Lenox Terrace at 135th Street is a comfortable development.

In support of Harlem's significant residential space, there is an abundance of community spaces, libraries, and institutions that reflect the neighborhood's cultural diversity. Some of these centers include but are certainly not limited to the Harlem YMCA, James L Varick Community Center, Schomburg Center for Research in Black Culture, Iglesia Gospel, the construction of the East Harlem Media Entertainment and Cultural Center, and The Harlem Arts Alliance which helps foster artistic practices and performances in the greater Harlem Area. These various institutions also serve as centers of development for the neighborhood's seniors, young adults, and youth. A unique attribute to 135th St. is its diversity in its age population, especially with regards to academics. One has the ability to attend elementary school and completed their graduate degree without having to leave 135th Street due to its number of high schools, elementary schools, and City College. City College's unique neo-gothic architecture is home to many pieces of art as well as a planetarium, and is located at the summit of the 135th Street corridor.

The neighborhood is served by five different subway lines that include trains 1, 2, 3, B, C, and seven different bus lines that include Bx33, M7, M1, M2, M3, M10, and M102. These bus lines serve as a bridge for easy accessibility both throughout the neighborhood and in between existing ones. In addition to its high level of transportation accessibility, the area is also highly walkable. The neighborhood has wide sidewalks that has the ability to support a bustling downtown area with a lot of activity. Along the 135th St. corridor between avenues Adam

Clayton Powell Jr. and Frederick Douglass Blvd, there is a Harlem Walk of Fame that features diamond shaped plaques embedded in the sidewalk with famous Harlem renaissance figures and residents such as Billie Holiday, Langston Hughes, and Adam Clayton Powell Jr. Parallel to the inner side of the sidewalk are Belgian blocks which showcase the area's historically rich nature. The area is largely bikeable due to the neighborhood's density in parks available to the public. Various parks include St. Nicholas Park, Abraham Lincoln Playground, Howard Bennett Playground and Tennis Courts, and Riverbank State Park, all located in walking distance from the 135th St. corridor. St. Nicholas Park provides barbecuing areas, playgrounds, and dog areas that are great gathering spaces for both single and multi-family residential areas. Riverbank State Park provides a wide range of recreational amenities that include a roller/ice skating rink, an indoor and outdoor pool, an outdoor track field, tennis courts, seasonal programs offered to youth and seniors, and has its own restaurant called Sofrito, which reflects Puerto Rican culture in the area. Riverbank State Park's view of the Hudson River, the George Washington Bridge, and the esplanade, makes it a great gathering space for all ages.

6) Quality of Life policies. *Articulate the policies in place that increase the livability and quality of life of the downtown. Examples include the use of local land banks, modern zoning codes, comprehensive plans, complete streets plans, transit-oriented development, non-discrimination laws, age-friendly policies, and a downtown management structure. If policies achieving this goal are not currently in place, describe the ability of the municipality to create and implement such policies.*

In recent years, New York City government has put a number of policies in place to improve livability throughout the five boroughs. In regards to zoning, transportation, health, and public safety, recent policy measures have positively impacted the Harlem community and make the area well-disposed for revitalization that is to come. In regards to modern zoning codes and the affordable housing crisis, new developments in the area will be subject to Mayor de Blasio's Mandatory Inclusionary Housing (MIH) plan, which requires a share of any new housing developments to be permanently affordable, when built in an MIH zone. This effort will

increase the income diversity across the city. In East Harlem, a comprehensive community-led rezoning plan will promote new affordable housing, job creation, and foster cultural preservation.

Residents of Harlem will also benefit from the MTA's expansion of the Second Avenue Subway. Phase 2 of the project will allow the Q train to reach into East Harlem at 125th street, which is already a major transportation hub. After additional environmental evaluations, this phase of the subway should open within the next 10 years. The 135 St. also benefits from police presence along the corridor. Within recent years, the NYPD has placed an emphasis on neighborhood policing efforts by attempting to eliminating racial profiling and demonstrating a dramatic decline in stop-and-frisk. Moreover, the neighborhood coordinating officer program (NCO) aims to foster relationships between officers and the communities they patrol.

7) Support for the local vision. *Describe the public participation and engagement process conducted to support the DRI application, and the support of local leaders and stakeholders for pursuing a vision of downtown revitalization. Describe the commitment among local leaders and stakeholders to preparing and implementing a strategic investment plan. Identify an initial local lead for the program that will work with outside experts to convene a local DRI Planning Committee to oversee the plan.*

Establishing a vision to improve, enhance and enrich the 135th St. Smart City Corridor has been an extremely collaborative effort. As the local lead for this application, the Manhattan Borough President's Office has partnered with Silicon Harlem and The City College Fund's Zahn Innovation Center to create a transformative set of projects that will turn the 135th St. corridor and the surrounding area into a hub for technology and manufacturing. Our investment plan for the corridor is the result of site visits, a comprehensive assessment of community needs, and cooperative meetings with partners.

A number of local stakeholders and elected officials have supported this project:

- New York State Senator Brian Benjamin
- New York State Assemblymember Inez Dickens
- Manhattan Community Board 10
- NYCHA Lincoln housing
- City College Fund
- Zahn Innovation Center
- The Greater Harlem Chamber of Commerce

The following organizations have expressed their interest in this moving forward:

- Schomburg Center for Research in Black Culture
- The Harlem YMCA
- New York Public Library Countee Cullen Library
- SCHOOLS: PS 197 John B Russwurm; Democracy Prep Harlem Middle School; A Philip Randolph Campus High School;Thurgood Marshall Academy; P.S 092 Mary Mcleod Bethune; High School for Math Science and Engineering at City College
- Iglesia Gospel; The Abyssinian Baptist Church
- NYC Health + Hospitals/Harlem
- NYC Police Department 32nd precinct
- FDNY Engine 59 Ladder 30 Firehouse
- Central Harlem Senior Citizens City college
- New Heritage Theatre Group
- Community Boards 9, 10, 11
- 125th Business improvement District
- Developers in the area
 - Apex Development
 - BRP Companies
 - Greystone development
 - Roseland Property Company
 - Empire Development Fund

- Parks Department

8) Readiness. *Describe opportunities to build on the strengths described above, including a range of transformative projects that will be ready for implementation with an infusion of DRI funds within the first one to two years (depending on the scope and complexity of the project) and which may leverage DRI funding with private investment or other funds. Such projects could address economic development, transportation, housing, and community development needs. While such projects should have demonstrated public support, it is recognized that projects will ultimately be vetted by the Local Planning Committee and the State. Explain how the majority of projects proposed for DRI funding demonstrate their readiness for implementation.*

The envisioned projects are fully prepared to leverage an infusion of DRI funds along with existing investment and funding. Funding will position the area as a pipeline to new innovation and careers by helping people get hands on with next generation hardware and software (tools of production, devices, robotics, electronics and tooling) and moving the community to sustainable economic growth.

The Smart City Corridor (SCC) is a for-profit social venture with thorough conceptual and logistical development that demonstrate its readiness. As a collaborative initiative led by Silicon Harlem, the SCC will create an achievable vision of the future hyper-connected urban market. At its core features a robust, interoperable, next generation ultra-broadband network for ubiquitous indoor and outdoor connectivity; this infrastructure allows for the layering on of a variety of smart devices, applications and services that will generate critical data to improve overall network functionality, new efficiencies and user experience. The strategy is to deploy a next generation ultra-broadband network along the 135th St. corridor to provide key stakeholders with connectivity for the purpose of enhancing services in the community. The network has a fiber backbone and will use millimeter wave transmission to provide indoor and outdoor connectivity. Silicon Harlem is working with building owners to ensure the network

topography is fully optimized. Already existing copper cables will be updated to facilitate the next generation ultra-broadband network.

By focusing on a corridor, collaborators (The Zahn Center, Harlem Hospital, startups, etc.) have a controlled test bed where they can efficiently deploy their devices, applications, products and services and collect real-time data as a means to enhance their product and service offerings. The Smart City Corridor has potential civic applications; commuters will know when their bus is arriving, NYCHA will have access preventative analytics for building utilities and police along with other first responders will improve public safety. Silicon Harlem envisions having strategic showcase locations demonstrating what a future smart home, smart office, smart buildings and other community spaces will look like and in turn, how these demo spaces translate into the design for an overall smart city.

Silicon Harlem has reached out to carrier-grade technology partners at the cutting edge of 5G along with local institutions such as the Harlem YMCA, Schomburg Center and Harlem Hospital Center to share the vision of the Smart City Corridor and begin building a relationship with these community stakeholders. Silicon Harlem expects that the 135th St. Smart City Corridor will be ready for implementation in 12-24 months.

Since The City College Fund established the Zahn Innovation Center in 2012, the Zahn Center has demonstrated its ability to leverage funds to provide programs and it embraces an entrepreneurial mindset in its approach to education, furthering critical thinking and problem solving skills as well as encouraging creativity and innovation. To date, Zahn has graduated 155 start-ups from the training program and residency, generating nearly \$9 million in start-up capital, and enabled CCNY students and alumni to generate over \$3.5 million in revenue and file 62 provisional and full patents. With financial support from Moxie Foundation, Bank of New York Mellon and board member Howard Morgan, ZIC also developed a robust internship program that has created 100 paid internship opportunities and 185 employment positions for students.

Currently, the Zahn Center's prototyping equipment is for learning and building a single high-quality, low-cost rapid hardware or electronic prototype. The Zahn Center will be expanding its prototyping facilities in the Fall, moving from merely a learning facility for a select group of startups to a manufacturing center. The new rapid prototyping machines will allow the Zahn Center to do small runs of electronics and create plastic and metal encasements and parts for shelf-ready products. It will enable students to run a Kickstarter campaign and get their business off the ground. Additionally, CCNY students in the Engineering School will facilitate the creation of prototypes and small batch runs of initial products for area companies, giving them real world experience before graduation.

With funds from the DRI, the Zahn Innovation Center envisions a manufacturing institute where CCNY students receive certifications to use the machines and then become assistants in the facility getting on-the-job training and overseeing incoming students to the program as they progress. Initial runs of the program will have about 25 students but the program could grow to have 125 students working on manufacturing. The students will work on different areas of manufacturing and technology, including software, design, electronics, and fabrication.

A vital component Silicon Harlem's Smart City Corridor and The Zahn Center's manufacturing institute is transforming the lives of those who live and work in Harlem. The SCC will impact nearly every facet of life on 135th St. with the most impressive effects being on education, health, and public safety. The STEAM education at the center of Silicon Harlem's digital literacy programs will be implemented in schools along the corridor, as well as community and cultural spaces like the Schomburg Center, Countee Cullen Library, and the Harlem YMCA. During off school hours, the broadband wired through schools will be rerouted to strengthen internet connections in residences and local businesses along the corridor. The presence of broadband in housing such as the 135th St. Apartments, Riverton Square, and the NYCHA Lincoln Community, will enable residents to access all that the internet has to offer in the comfort of

their homes. As internet access becomes a necessity for children to complete their homework, broadband will fulfill a critical need.

The manufacturing certification program available to CCNY students will also be open to Harlem residents who want to broaden their skillset and get training for new industries. The new prototyping facilities in the manufacturing institute will be available to the Harlem community at a greatly reduced nominal fee, providing an outlet for those who want to advance their tech education and get hands on experience with their certifications. The Zahn Center envisions creating a off-campus Manufacturing Institute in order to best serve the community, which will house the new prototyping equipment as well as have space available for workshops, conferences and offices for staff.

Broader programs for the community involve street beautification and improved sanitation procedures along the corridor. Maintaining flower planters along the corridor will enhance the wide sidewalks and beautiful belgian block, while restoring the Harlem Walk of Fame plaques embedded in the sidewalk on 135th St. between Adam Clayton Powell, Jr. Boulevard and Frederick Douglass Boulevard will emphasize Harlem's rich cultural history. Overflowing trash bins along the corridor can be exchanged for larger dumpsters to attractively accommodate volume. When approaching the eastern part of the corridor, there is a noticeable increase in crumbling concrete sidewalks and litter. Simple community improvements will contribute to the 135th St. Corridor's transformation into not only a tech hub, but also a pleasant and distinguished destination for people to work, shop, and learn.

Harlem Hospital Center sits on the corner of 135th St. and Malcolm X Blvd.; the side facing 135th St. would benefit from remodeling so that it matches the attractiveness of the building side facing Malcolm X Blvd.. There is a large open space in front of Harlem Hospital Center on Malcolm X Blvd. that could be transformed into a tech pavilion, with seating for hospital visitors, staff, Harlem residents, or people traveling through the area. With broadband

presence, charging stations, and an inviting appearance, this area would help shape the 135th St. corridor into a destination as mentioned before.

9) Administrative Capacity. *Describe the extent of the existing local administrative capacity to manage this initiative, including potential oversight of concurrent contracts. Click here to enter text.*

As stated in the previous section, the 135th St. Smart City Corridor is a collaborative work between the Manhattan Borough President's Office, City College, and Silicon Harlem. The 135th St. Smart City Corridor is an effort with layers of placemaking in order to establish transparent roles for each major partner involved. The Manhattan Borough President's Office will oversee the project as a whole. This includes budgeting and ensuring that all parties involved possess all necessary tools. Silicon Harlem will play the physical role of providing the necessary infrastructure for the area. This includes making the proper installations of towers and other devices, making reparations of existing cables in the area's infrastructure and providing the service for high quality internet on demand while connecting existing and future schools, businesses, institutions, and individuals. In addition, Silicon Harlem will play the role of ensuring digital literacy and workforce training so that the community can possess the necessary knowledge on how to utilize the broadband and experience its benefits. This will catalyze job growth by galvanizing skilled labor in the neighborhood and serve as an economic engine. Finally, City College through the Zahn Innovation Center will provide a manufacturing institute for training both its students and the community in advanced manufacturing, skill building hardware, and prototyping. These three layers of placemaking is the foundation on which the 135th St. Smart City Corridor is built on.

10) Other. *Provide any other information that informed the nomination of this downtown for a* The Greater Harlem Community is ready for economic infusion from the State and is prepared to meet the needs of the people and businesses within the community. We feel that this proposal is the kind of proposal that the DRI was established for.