

BRIDGING GOWANUS || DRAFT FRAMEWORK PLAN

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GUARANTEEING INFRASTRUCTURE INVESTMENTS

Background and Key Considerations

Dating back to the original transformation of Gowanus Creek into the Gowanus Canal, there has been intensive human intervention on the natural marshlands and topography of the watershed. Gowanus faces a number of interrelated environmental challenges, generated in large part by historic industrial uses and the complex, historically undersized sewer infrastructure that was originally designed to overflow into the Canal, which was both a waterway and open sewer. However, the infrastructure challenges are not exclusive to this legacy. Other challenges include open space that is at a premium and school seats that are in short supply.

The term infrastructure is used here to refer to environmental systems that keep the area clean and healthy; physical open spaces that provide important amenities and intra-community connectivity; transit systems into and out of the area; and public institutions such as schools.

Industrial Contamination of the Canal

One hundred years ago, the Gowanus Canal was a major transportation route for nearby industrial uses such as manufactured gas plants, tanneries, and chemical and dye plants. Long after the offending users along the Canal have departed, the contaminants left behind in the soil and sediment of brownfield sites continue to migrate into the canal.

More than a dozen contaminants including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and heavy metals such as mercury, lead, and copper, have been found in high levels in the sediment along the floor of the Canal. PCBs were used as coolants and lubricants in electrical equipment and were banned in 1979. PAHs are legacy contaminants that formed when coal, wood or other organic matter were being burned by industry along the Canal. Both PCBs and PAHs are suspected of being carcinogens, and PCBs are believed to impact neurological functioning. The water itself has also been found to contain PAHs and heavy metals.

In 2010, in large part due to the Gowanus community's strong environmental advocacy, the Canal was added to the Federal Superfund list of most contaminated hazardous waste sites in the United States. The Superfund program operates on the principle that the parties legally responsible for the contamination, rather than taxpayers, should pay for the costs of investigation and cleanup. A plan to clean the Canal known as the Record of Decision (or ROD) was released in late September 2013.

Waste and Storm Water Management Issues

On top of decades of industrial discharges, frequent combined sewer overflows (CSO) that mix sanitary waste with rainwater have led the Gowanus Canal to become one of the nation's most seriously polluted water bodies.

There are many issues that need to be addressed regarding the functioning of the current waste and storm water management system. From the sewer system, the Canal is the destination of multiple combined sewer overflow outfalls, which deliver a combination of ground-level water run-off, chemicals, and other materials that water conveys, and the sewage that the system cannot handle during extreme rain events.

The City's sewer system functions primarily through force of gravity necessitating large collector or "interceptor" lines to be located in low-lying areas such as Gowanus. Much of this

infrastructure was built around the turn-of-the-century and has seen minimal care until recent years. This infrastructure includes the Bond-Lorraine Sewer, which runs south under Bond Street along the west side of the Gowanus Canal and then west under Lorraine Street until it connects with the Columbia Street Interceptor in Red Hook. Other aging infrastructure includes the Fourth Avenue Sewer, which runs south along the east side of the canal, and the Gowanus pump station located at the head of the canal on Butler Street. This infrastructure accepts much of the sewer and storm water flows from areas upland and outside of the Gowanus neighborhood (see Fig. 1). The results of this poorly maintained and undersized sewer system include street and catch-basin flooding, basement flooding, and sewer back-ups.

See map “Sub-Sewersheds that Impact the Gowanus area”

Flooding is a major issue that arises even during normal rain events in the neighborhood, caused in large part because the area is low-lying and has insufficient storm management infrastructure to absorb the amount of storm water generated. Rivers of water regularly flow along Fourth Avenue, Ninth Street, and elsewhere during heavy or prolonged rain. Basement flooding and sewer back-ups are common in private homes and businesses, and they are acutely and consistently experienced in the NYCHA public housing developments. Complaints about these issues are common and widespread. Figure 2 provides a snapshot of their extent.

See map “Flooding and Sewer problems in Gowanus”

Climate change has also made the area increasingly vulnerable. Superstorm Sandy wrought devastating impacts on Gowanus. Flood waters inundated building systems causing loss of power and heat for residents and businesses, destroyed merchandise and materials, and disrupted daily activities for weeks on end.

There is concern about the need to better understand how site-by-site interventions to mitigate flooding from rain- and storm-surges impact the area’s hydrology. Specifically, this concern involves piecemeal re-grading of development sites, namely the Lightstone development, which could adversely impact surrounding properties by pushing floodwater to nearby properties and impede drainage from properties further inland and uphill.

Air quality is another environmental issue of community concern. Truck traffic and traffic from buses that park in the area emit pollutants such as particulate matter that at high levels are linked to respiratory illness.

Lack of Public Open Space and Transit Service

In addition to these burdens, the Gowanus neighborhood is also underserved by open space resources and public transit. There are only a few open spaces, which are fairly small and disconnected from each other. They are extremely well-used by the local community. Public open spaces have been identified by local stakeholders as places of opportunity to foster arts activities while also addressing environmental issues such as improving storm water retention. However, these existing spaces are in need of improvement and increased maintenance to better meet their current and envisioned functions, and would benefit from measures that enhance physical access to them and connectivity to each other. The areas bordering the Gowanus Canal itself have also been identified as potential places to increase publicly accessible open space.

As a whole, Gowanus is difficult to traverse. Increased transit service for residents, especially workers, has long been articulated as a priority for the community, along with improved

pedestrian, biking, and boating infrastructure. The Gowanus Dredgers, an important and growing group of mariners, have a unique perspective on accessibility issues along the Canal and should be included in solutions for the area.

Need for Additional School Facilities

Gowanus faces a shortage of public school seats for local students. The School Construction Authority's Capital Plan for 2014-2019 identified a need for 4,000 new seats in District 15¹ and provided funding for 2,200 of those seats. Within these projections was an identified need of 640 seats in the District 15 sub-area that includes Carroll Gardens and Gowanus, and 1,096 seats in Park Slope (the majority of the need was in Sunset Park). These projections are based on current land uses, so they consist of estimates of new development on land zoned for residential development (e.g. the Lightstone project); however, they do not include additional capacity that would be required as a result of future rezonings allowing residential development.

The number of pre-kindergarten seats is also insufficient and the recent expansion of New York City's Universal Pre-K program requires schools and providers to identify new spaces in an already overcrowded district. A June 2014 analysis by WNYC's "SchoolBook"² initiative showed that in Park Slope and Gowanus, there were only 30 pre-K seats for every 100 4 year-olds.

New school seats must be provided to accommodate school children and solving this need presents an opportunity to simultaneously meet other community goals. For example, new school facilities could provide publicly accessible space for arts, cultural, and community activities, which is also limited in Gowanus.

PS 32 (the Samuel Mills Sprole school at 317 Hoyt Street), which serves much of the Gowanus area and shares the building with MS 442, is a good example of the strengths and challenges faced by schools in the district. The school's vibrant library program, ASD/NEST program for children on the autism spectrum, frequently-used auditorium, after-school programs sponsored by Good Shepherd Services and the Brooklyn Historical Society, interactive garden, and advocacy for the Gowanus Houses Community Center, all make it a hub of Gowanus community life. However, the school is forced to rely on classroom units in impermanent structures and class sizes are growing.

Improvement Projects in the Pipeline

Despite the above challenges, there are a number of environmental infrastructure upgrades planned for Gowanus, as well as a broad vision for open space that serves both recreational needs and improves environmental quality of the area. Significant upgrade projects aimed at addressing the issues described above are underway, as well as additional longer-term projects that upon completion, will have a dramatic impact on the ability of water-systems infrastructure to serve the area and improve local environmental quality.

The Superfund plan to clean the Canal was released by the U.S. EPA in late September 2013 and contains provisions for dredging the contaminated sediment from the floor of the Canal (slated to begin in 2016) as well as an effort to significantly reduce combined sewer overflows into the Canal. This plan includes two retention tanks designed to significantly reduce the overflows by capturing the excess waste water from outfall drainage areas on the east and west

¹ District 15 includes Cobble Hill, Carroll Gardens, Red Hook, Sunset Park, Park Slope, Windsor Terrace, Kensington, and encompasses most of Gowanus.

² <http://www.wnyc.org/story/map-pre-k-expands-some-neighborhoods-fair-better-others/>

sides of the Canal. These must be installed at sites that are supported by science and engineering, while also agreed to in dialogue with residents and without compromising public open space and recreation. The tanks are expected to be sited by summer 2015.

At the head end of the Canal, NYC DEP has repaired and upgraded the 1.2 mile Gowanus Canal Flushing Tunnel to pump as much as 252 million gallons of fresher water (from Buttermilk Channel) into the Canal each day. The Gowanus Pump Station is also in the process of being upgraded. This project includes installation of a new mile-long force main that will pump sewage from the head end of the canal, through the Flushing Tunnel, and to an interceptor under Columbia Street, thereby reducing CSOs into the canal by 34% each year.³

Another project underway is the Green Corridor for 6th Street, a model green infrastructure (GI) project that broke ground in October 2014.⁴ GI uses vegetation, soils, and natural processes to manage water and create healthier urban environments⁵ through landscape elements such as bioswales, green roofs, and porous pavement. The Green Corridor's network of eleven bioswales will collect storm water from adjacent streets, reducing combined sewer overflows into the Canal. The curbside areas that capture water also enhance the streetscape with trees, native grasses, and flowers. The project will be closely monitored for several years to measure and record water volumes captured, pollutants removed, and the extent to which air temperature is moderated.

A portion of the proposed Sponge Park is now under construction, with expected completion by the end of 2016.⁶ The Sponge Park will eliminate surface storm water run-off entering the Canal from 2nd Street through a demonstration of green and environmental infrastructure. Concrete cells filled with soil will be installed under the street to catch and filter storm water before it runs into the Canal. The park will be covered with plants that naturally absorb or breakdown toxins, heavy metals, and contaminants from sewer overflows, along with plants that soak up excess water.⁷

Work has also begun on a High Level Storm Sewer (HLSS) pilot project (also known as a "sewer separation" project) to reduce CSO discharge at the Carroll Street outfall. This is scheduled for completion in the next decade. HLSS are an effort to limit CSO events and alleviate pressure on the combined sewer system. They are designed to capture 50% of rainfall before it enters traditional drainage systems and divert it directly into the waterways through permitted outlets, reducing the volume of flows that pass through the combined sewer system. They also have the benefit of alleviating street flooding in problem areas. Due to HLSS requiring special siting considerations, the Gowanus HLSS is one of only seven such efforts in the city.⁸

Finally, in the 2013 report issued by Mayor Bloomberg's Special Initiative for Rebuilding and Resiliency (SIRR), the City indicated that a storm surge barrier (such as a floodgate) along the Canal may be necessary to protect the community against increased storms the area will face due to climate change. The City called on the U.S. Army Corps of Engineers to work with them to develop an implementation plan and preliminary designs for a local storm surge barrier along

³ http://www.nyc.gov/html/dep/html/harborwater/gowanus_canal_improving.shtml

⁴ Gowanus Canal Conservancy managed the design and construction of this project, working with EDesign Dynamics LLC, Drexel University and Perfetto Contracting Co. Funding was provided by DEP and the EPA.

⁵ Definition courtesy of the EPA: http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm

⁶ http://www.nyc.gov/html/dep/html/press_releases/13-083pr.shtml#.VGw451fF9FM

⁷ Concept by Gowanus Canal Conservancy and dland Studios

⁸ http://www.nyc.gov/html/dep/html/stormwater/other_investments_hlss.shtml

the Gowanus Canal. In June 2014,⁹ the NYC Office of Recovery and Resiliency issued an RFP for a feasibility study and is moving forward to assemble a team of experts to study the related issues of coastal protection and storm water management. While this study was originally focused more narrowly on an analysis of floodgates, the de Blasio Administration agreed to broaden it. This was in response to feedback based on the desire expressed by Bridging Gowanus residents for a hydrology study to include a broader review of storm water management, run-off, water-flow, and coastal protection issues.

Many of these resiliency infrastructure improvements, as well as the previously mentioned open space improvements, have the potential to meet multiple community goals simultaneously, through design that improves connectivity and green space. However, the planning for these infrastructure upgrades is often done in silos. Coordination across projects and agencies, in close communication with community stakeholders, is critical to achieving the best possible environmental recovery of the area.

Recommendations

Environmental Infrastructure

1. Guarantee investments in sustainable infrastructure upfront, with real sources identified to pay for them, and a timetable that is synchronized with other planning measures.

As part of any area-wide rezoning action, the City should commit to a comprehensive infrastructure plan, coordinated with Federal, State, and local actors. The plan should commit to the projects needed for a sustainable future and identify the appropriate financing streams to pay for them. These projects are described in detail below. A variety of potential funding streams could support their implementation, but they must be secured and coordinated, including:

Superfund resources

The parties responsible for the pollution of the Canal – most significantly National Grid and the City of New York – are anticipated to fund the dredging of the Canal, as well as significant improvements to water quality through two storm water retention tanks.

Other planned public investments

Some public monies are already committed to specific projects, such as high-level sewers, the City's Green Infrastructure Plan, and a new school for the area in the School Construction Authority's 5-Year Capital Plan. Flood protection via a storm surge barrier, if warranted, should be provided through Federal resiliency funding authorized after Superstorm Sandy. Additional resources necessary for the infrastructure plan must be committed in the City's 10-Year Capital Plan and not simply through a non-binding Memorandum of Agreement letter that accompanies a land use action.

A Gowanus "tax increment financing" (TIF) mechanism

In a TIF program, when property values increase, the higher taxes that are generated from the increase are captured and committed to area-wide infrastructure improvements. TIFs have been used around the country and beyond, but are not common in New York City. Gowanus is an

⁹ <http://www.nycedc.com/press-release/nycedc-and-mayors-office-recovery-and-resiliency-announce-request-proposals-conduct-0>

excellent place to pilot this type of financing program, given its high real estate values and significant infrastructure needs. TIF funding should be used to address the most pressing infrastructure needs, and the ones that have been the most difficult to fund, such as water management improvements for the area's NYCHA housing.

A TIF district, especially one that includes sites where affordable housing, mixed-use space, and waterfront access would be mandated, presumes significant value increases. To clarify whether this is possible, the organizers requested that the City Council Land Use Division staff perform an analysis of the land value increases associated with the Lightstone Group project currently under development. That analysis is discussed in "A Roadmap to Responsible Development" section.

See infographic "Tax Increment Financing"

2. Ensure that the Gowanus Canal Cleanup is comprehensive.

The Gowanus Canal Cleanup must be comprehensive. The Record of Decision for the Gowanus Cleanup requires the dredging of extremely contaminated sediment, as well as measures designed to prevent the re-contamination of the Canal from nearby polluted brownfield sites. In addition to dredging, a comprehensive cleanup should also include significant water quality improvements through a combination of measures. These include:

- Two CSO retention tanks that meet or exceed the goals in the EPA Record of Decision, at sites supported by science and engineering, agreed upon in dialogue with residents, and that do not compromise public open space and recreation;
- Green infrastructure throughout the entire drainage area to the Canal as a method to reduce storm water runoff;
- A plan for new bulkheads once dredging has been completed;
- Remediation of brownfields that impact the Canal.

To accomplish all of these projects successfully, to make sound choices based on the best information, and to minimize their impacts on residents, the EPA effort must be closely coordinated with the upcoming DEP Long-Term Control Plan (LTCP) and the NYS DEC supervised remediation of the coal-tar at the three manufactured-gas plant sites. The Environmental Quality Partnership (recommendation 10 in this section) will be essential to accomplishing this.

Critically, and as recommended in the "Making Sure Manufacturing Can Thrive" section of this report, special attention must be paid to linking jobs created by the Superfund effort with local job training and placement. Local workforce organizations should be supported to develop programs to train local residents in the skills needed for related jobs. The EPA should collaborate closely to help identify needed skills, Superfund cleanup monies and National Institute of Environmental Health and Safety (NIEHS) funding may be a source of support for this effort.¹⁰

3. Minimize street flooding and end sewer back-ups by tackling their root causes.

¹⁰ Information about NIEHS' Minority Worker Training Program is available at http://www.niehs.nih.gov/careers/hazmat/about_wetp/

The causes of street flooding and sewer back-ups are not as obvious as they might first appear. There are neighborhoods far from the area of interest, such as parts of Downtown Brooklyn, Prospect Heights, Carroll Gardens, and Boerum Hill, where the storm and waste water management of these areas deeply impact the Gowanus neighborhood. Meanwhile there are closer areas, such as Park Slope, where the sewage management capacity does not affect Gowanus' sewer back-ups (see Fig. 1). To address the Gowanus neighborhood's flooding and sewer back-up problems, interventions must be strategic and encompass both upland and neighborhood actions.

Ground action in science and engineering

Through the community planning process, strong concern has been expressed about the need to better understand how site-by-site interventions to mitigate flooding from rain and storm surges impact the area's hydrology. Any intervention should not create adverse hydrological impacts within the area, either by exacerbating flooding for surrounding property owners or impeding drainage further inland and uphill. As noted above, as a result of input gained through the Bridging Gowanus process, the de Blasio Administration agreed to broaden the flood gate feasibility study to include storm water management, run-off, water-flow, and coastal protection issues. It will now investigate how storm surge barriers would impact nearby properties and infrastructure, as well as drainage. Attention should also be paid to synergy with Red Hook, where the State and the City will develop a comprehensive flood management system, and where the community has proposed conducting a drainage study to analyze existing conditions related to frequent flooding. Clear, accurate, and comprehensive information about the hydrology should help guide decision making about flood management in Gowanus. This study must be completed, and whether or not floodgates make sense, a plan must be developed to address both coastal protection and storm water flooding.

Upland: Improve storm water management

Upland interventions are measures aimed at decreasing the amount of waste water and storm water generated in neighborhoods that drain into Gowanus via the combined sewer system, from Downtown Brooklyn, Prospect Heights, Carroll Gardens, and Boerum Hill. Meaningful interventions in those neighborhoods will reduce system overloads and improve conditions around the entire canal. This should be through design practices for new development, retrofits of existing sites, and the installation of green infrastructure. DEP's efforts through its GI Bioswale Construction Project, which will bring dozens of bioswales to the Gowanus watershed in 2015, are a great step in the right direction.

Gowanus Neighborhood: Restore the waterfront ecosystem

New, water-absorbent park space along the canal and wetland restoration projects should strongly support storm water management goals. There are many projects and proposals for these types of multi-functional spaces in the area, such as Sponge Park and the 6th Street Green Corridor. All such efforts could be connected to the Superfund remedy and/or brownfield remediation efforts. Their benefits should be quantified and integrated into the plans for achieving storm water management goals for the area.

Identify sites for storm water controls, leading by example on public sites

City-owned land in the areas that drain to CSO outfalls along the Gowanus Canal including parks and schools should be considered as potential sites for additional green infrastructure projects (such as green roofs and water plazas) to minimize storm water run-off. There should also be attention given to matching new green infrastructure projects to the historical structural patterns of where water flows and drains. The Environmental Quality Partnership (see recommendation 10 in this section) can serve as a venue for identifying a variety of funding

sources. A plan to phase in storm water capture improvements on public sites can synch up with the Long Term Control Plan goals and timeline. It is estimated that improvements to the public sites alone in areas that feed in to the Gowanus Pump Station could reduce storm water runoff by 5%.

Shape new development in the Gowanus sewer-sheds

New development sites should aspire to produce zero storm water run-off. Developments should be incentivized to exceed DEP's existing Performance Standards, especially through green infrastructure, grey water reclamation, and rainwater harvesting. For substantially sized development sites close to major sewer lines, the installation of retention tanks to absorb excess storm/waste water would provide a major benefit to the system and should be explored.

Pilot cross-neighborhood storm water management collaboration at the sewershed scale within Red Hook and Owls Head Sewersheds

Gowanus is not the only New York City neighborhood that bears the burden of accepting runoff from surrounding neighborhoods. To solve the downstream problem, there must be an effective coordination mechanism that guides storm water planning across neighborhoods, Community Boards and other jurisdictions. The Environmental Quality Partnership (recommendation 10 in this section) provides an opportunity to design effective management models; the knowledge that emerges from such an effort should be further developed to inform a DEP pilot program. If effective, this could be a model that is extended to other sewersheds facing the same issues.

4. Address extreme weather vulnerability in the long-term and align with other community goals

The SIRR report recommends enhanced flood protection for Gowanus and a feasibility study to assess the viability of a storm surge barrier to achieve these goals. The City's feasibility study of floodgates should be completed, and a course of action set, as part of the Gowanus plan. In addition to the floodgates feasibility study, existing buildings must be retrofitted to improve resiliency. This is especially important in the three NYCHA developments near the Canal. It is also important that resources and incentives be made available to businesses owners for building system's upgrades and flood mitigation measures. Telecommunications systems must be upgraded and strengthened neighborhood-wide.

5. Study, monitor, and improve air quality

Concern was expressed about the impact of local truck traffic on residents' and workers' health. In order to tackle sources of mobile pollution, the routing and fleet compositions of trucks and buses should be examined to identify ways to minimize vulnerable populations' exposure to emissions. Public/private partnerships to retrofit bus and other significantly sized fleets that traverse the neighborhood should be explored. A potential source of support for this is the NY Truck Voucher Incentive Program.

6. Create a "Model Green Neighborhood" with heightened local sustainability standards

The concentration of environmental burdens in Gowanus and the pressing reality of local impacts from climate change are impetus for the neighborhood as a whole to transform itself into a model for environmental performance. A green agenda for Gowanus should include waste diversion goals, support for the materials re-use business cluster, and energy efficiency and emissions reduction goals for existing and new buildings. The manifestation of this vision for a model green neighborhood could be supported by the Environmental Quality Partnership.

Open Space and Canal Access

7. Create, improve upon, maximize, and connect public recreational sites and open space

The following recommended improvements to meet open space needs in the community could also contribute to area-wide storm water management goals by incorporating green infrastructure and special design features.

Salt Lot

The Department of Sanitation (DSNY) and the Gowanus Canal Conservancy (GCC) should build on their strong relationships to create composting and waterfront access at the Salt Lot site, addressing the community vision for this location. This vision includes enhanced environmental education facilities and community-operated and stewarded “soft edges” of vegetative habitat along the canal.

Renovate and revive neighborhood parks

Over the years there have been a total of four public parks in the Gowanus neighborhood: Thomas Green Playground (with the adjoining Douglass-Degraw Pool), Ennis Playground, St. Mary’s Park, and Under-the-Tracks Fran Brady Playground. Of those four, two are currently closed, and the other two are in need of upgrades. Capital investments must be prioritized for these open spaces, and a thoughtful plan developed to connect them to the Gowanus Greenscape (see below).

Ennis Playground is located midblock between 2nd and 3rd Avenues and 11th and 12th Streets. The playground includes play equipment, basketball courts, and a seating area, as well as plantings maintained by volunteers. The Parks Department has committed to engaging in a community visioning session for renovations to Ennis Playground in early 2015.

Thomas Green Playground is bounded by Nevins Street, Douglass Street, 3rd Avenue, and Degraw Street. The playground includes play equipment, picnic tables, two basketball courts, and four handball courts. During the summer months, adjoining outdoor Douglass and Degraw “Double D” Pool is well-used by families and children. This location has been put forth as a potential site for one of two retention tanks required by the U.S. EPA as part of the Superfund remedy. In the event of temporary closure, commitments must be secured for continued access to open space.

St. Mary’s Park and Under-the-Tracks Playground are both located below the Culver Viaduct, which carries the F and G subway trains from Carroll Gardens, through Gowanus, to Park Slope. St. Mary’s Park is divided into two sections. The first is located on the west side of Smith Street between Luquer and Huntington Streets, and the second is on the west side of Smith Street between Huntington and Nelson Streets. Under-the-Tracks Playground is located between 9th and 10th Streets, and 2nd and 3rd Avenues.

St. Mary’s Park was closed to the public at the start of the MTA’s (still ongoing) renovation of the Culver Viaduct. Following the reopening of the Smith-9th Street F/G subway station in 2013, the Parks Department removed the playground equipment from St. Mary’s Park. The Parks Department will be meeting with Brooklyn Community Board 6 and other stakeholders to discuss the existing plans for renovation and reopening of both sections in the coming weeks.

Under-the-Tracks Playground, once home to play equipment and open to the public, has been closed for many years. The space remains mapped parkland, and a plan ought to be created to envision and secure public access to this unused public property.

Create a Gowanus Greenscape, a network of green nodes and paths

In the vision articulated for the Gowanus Greenscape, art, culture, history, and environmental science are incorporated into the design and signage of a network of paths and destinations.¹¹ Storm water management features are prevalent and the spaces at the end of streets that lead to the Canal are maximized as destinations. Recreational elements, including features to support boating, will be incorporated. The Greenscape will be woven into and connect with existing parks through safe pedestrian, cycling, and boating infrastructure.

Formulate a Canal access plan

A waterfront access plan that addresses Gowanus' specific needs should be crafted through a DCP-led process that engages relevant agencies, landowners, tenants, and community representatives. Such a plan would support environmental restoration where possible and ensure contextually appropriate waterfront access.

Elements of such a plan would include¹²:

- Promoting increased maritime movement of people and goods;
- Helping waterfront property owners take advantage of the opportunity to upgrade bulkheads in concert with the EPA's cleanup process;
- Incentivizing and supporting manufacturing uses to create public access where possible, without placing undue burdens upon them. When new canal-front buildings are developed (in particular, where new FAR is allowed, whether manufacturing, commercial or residential), the City's waterfront open space and access requirements must be met. However, it must be possible for manufacturing property owners to renovate their buildings (as several were forced to do by Superstorm Sandy) without triggering new waterfront access requirements;
- Ensuring that use-changes that trigger waterfront regulations have active ground floors and restrict parking at grade along the canal.

Transportation

8. Improve connectivity, circulation, and transit

Restore the B71 bus and make subway stations comply with the Americans with Disabilities Act

The B71 was a much used route that ran east and west over the Canal on Union Street. Subway alternatives in the area are a long distance from much of the residential population and lack elevators, making the B71 critical to many residents and workers who do not have other mobility options, such as seniors, the disabled, and young students. Eliminated in 2010, full service along this route must be restored. Another critical bus route serving the area, the B37 along Third Avenue, was also cut in 2010, but has since been restored, due to the [tireless](#)

¹¹ "Gowanus Greenscape" builds on ideas developed by the Gowanus Canal Conservancy and Susannah Drake of dlandstudios.

¹² Many of these ideas were articulated through the New York State Brownfield Opportunity Area (BOA) Step II Nomination study for Gowanus, awarded to Friends of Community Board 6 and conducted by a technical team lead by Starr Whitehouse.

[advocacy of local residents and workers](#).¹³ However, it is not clear that the reinstatement is permanent; it should be made so. Finally, compliance with the accessibility standards of the Americans with Disabilities Act (ADA) should be achieved at subway stations serving the area.

Invest in pedestrian and bicycle infrastructure

A street hierarchy should be designed to guide usage and create a neighborhood that is easy to traverse and accommodates the multiple uses in Gowanus. The pedestrian experience can be improved and especially encouraged on certain streets, while safety can be enhanced and conflicts minimized wherever possible. Thoughtful placement of bike infrastructure, bike parking, and enhanced bike paths are essential to realizing full connectivity in the area and for ensuring the safety of cyclists.

Expand and explore sharing programs to support mobility

NYC BikeShare has been a successful and welcome addition in the neighborhoods where it has been implemented. Gowanus, which is adjacent to the current zones where CitiBikes are available, is a natural and feasible site for expansion. Also, a car-share franchise for environmentally friendly electric vehicles, modeled on the [Autolib in Paris](#), could potentially be piloted in the area.

Schools

9. Address school shortages through public commitments, creative solutions, and private requirements

Build new school and pre-K seats

As described above, the School Construction Authority has already identified the need for 4,000 new school seats in District 15, 640 of them in the Gowanus/Carroll Gardens area, and 1,096 in Park Slope, with funding provided in the plan for more than half of these seats.

Any rezoning to allow additional residential development would create additional school seat needs. These needs must be fully analyzed as any plans move forward. In addition to grade school seats, there is also a need to identify new space to accommodate the growth in public universal pre-kindergarten. New school seat demand created by allowing future residential development must be clearly identified, with funding provided through amendments to the SCA's Five Year Capital Plan, and concrete plans for siting those seats.

New school seats can be provided by expanding existing school buildings (e.g. through constructing a building in place of the trailers at PS 32), siting and constructing new school buildings, and including pre-K classrooms in new development.

Enable schools to function as community hubs

At the same time that Gowanus and the surrounding neighborhoods are facing a need for additional school seats, affordable space for community-oriented programs is also in short supply. New school facilities must be built to accommodate the neighborhood's current (and future) population of school children, and this need presents an opportunity to simultaneously provide public spaces that are accessible for arts, cultural or community activities.

¹³ Founding members of the Save the B37 Bus! Coalition are UPROSE, Transit Forward, and Lutheran Family Health Centers

The concept of a flexible or “super” school space that could accommodate other users from the community during evenings, weekends, and summers should be explored. The NYC Department of Education has a long history of such schools, through its “Beacon Schools” program, and is expanding on this idea through its new “Community Schools” initiative. Local residents and workers could use classroom and non-classroom spaces like the auditorium, gym, and library for a wide range of uses including adult education, art and cultural performances, athletics, meeting space for community groups, and more.

Build school partnerships with Gowanus nonprofit, arts, and business organizations

Gowanus includes a vibrant community of nonprofit, arts, environmental, and business organizations (e.g. Groundswell Community Mural Project, ReelWorks, Textile Arts Center, Curious Jane, Gowanus Canal Conservancy, Fifth Avenue Committee/Brooklyn Workforce Innovations, South Brooklyn Local Development Corporation, South Brooklyn Industrial Development Corporation, and Curious Jane, just to cite a few). Partnerships between these organizations and schools in Gowanus could offer a vibrant array of educational, arts, cultural, and employment opportunities for Gowanus students and families.

Coordination

10. Create an Environmental Quality Partnership to coordinate environmental infrastructure plans and projects across many government agencies.

Recognizing the extensive number, complexity, and interrelated nature of environmental infrastructure projects in the Gowanus neighborhood, there should be an entity where government agencies can coordinate across projects and collaborate in communicating with community members about a project’s impact. Based on the model of the [Onondaga Lake Watershed Partnership](#), a roundtable should be convened that brings together the appropriate agencies and connects them with community members to:

- Coordinate Superfund, brownfield and resiliency plans for the area;
- Assist in the integration of actions of different levels of government;
- Monitor the impact of infrastructure improvements on sewer back-ups in the neighborhood and CSO discharge to the Canal Pump Station;
- Ensure that quality job opportunities for local residents are created by construction and maintenance activities related to environmental infrastructure ;
- Monitor construction impacts;
- Inform community members of important actions they can take to support the environmental improvement of the area.

The Environmental Quality Partnership should also make every effort to take a truly comprehensive approach that includes planning for infrastructure upgrades on both private and public property in the area. By creating a centralized place for discussion and monitoring of the neighborhood’s overall progress in environmental infrastructure, stakeholders will be able to identify and capitalize on important synergies across projects as well as minimize impacts.

11. Obtain better information on related issues.

There are a number of areas where additional study would support and enhance these recommendations. These include:

- Identify possibilities for improving environmental performance of infrastructure through coordinating/integrating systems for managing storm water, sewage sludge, electricity generation and delivery;
- Examine the hydrology of the area as part of the City's feasibility study for floodgates;
- Analyze the feasibility of sewer renovation opportunities;
- Analyze the composition of truck and bus fleet(s) that serve Gowanus;
- Identify ways to support the "materials re-use" sustainability business cluster.

FOSTERING THE MANUFACTURING SECTOR

Background and Key Considerations

The manufacturing community in Gowanus is flourishing; new types of firms are moving in and setting up shop alongside more traditional industrial businesses that have been part of the community for decades. This reflects larger trends in Brooklyn where after decades of decline, manufacturing is now showing signs of resurgence. It also reflects the national conversation about the changing nature of U.S. manufacturing, which is becoming more based in technology and innovation. Friends of Brooklyn Community Board 6 has recently sponsored a Brownfield Opportunity Area (BOA) Nomination Study to develop an economic development strategy to encourage new investment in Gowanus' businesses and buildings while preserving the area's existing industrial and cultural uses. This section of the planning framework reflects many of the findings and recommendations from that study.

The Gowanus area is a vibrant hub of industrial, manufacturing, and commercial business activity, with thousands of jobs found within hundreds of businesses throughout the area.¹⁴ Local manufacturers produce a broad variety of goods – such as metal grilles, chemicals, coffee, cell phones, knitwear, and neon light tubes, to name but a few – in facilities that employ as few as one person to as many as 50. Also, more traditional, heavier industrial users have been in the area for decades. There is a notable cluster of building materials and trades, with related businesses ranging from lumber yards and contractors to retailers such as Build it Green, which resells materials salvaged from deconstructed buildings. Business advocates and other local stakeholders have noted that Gowanus is emerging as a natural home for “green building” enterprises that operate at the cross-section of the environmental and construction business sectors. And of course, the area has long been home to group and individual artists' studios. In recent years there has also emerged a growing and visible presence of graphic design, printing, and film companies, as well as numerous designers and producers of textile products, jewelry, and accessories.

A Gowanus location offers many benefits to businesses: highway access, proximity to markets, access to Manhattan, and a strong business-to-business sense of community. A majority of firms anticipate growth and want to stay in Gowanus¹⁵, and throughout the planning process we heard that a wide spectrum of local stakeholders (i.e., not just business owners and advocates) wants to preserve the existing economic base and see the business community grow.

Achieving the vision of a strengthened and expanded local economy entails facing some fundamental challenges. The vast majority of businesses in Gowanus are tenants, who are vulnerable to the pressures of an increasingly hot local real estate market. Relatedly, non-industrial uses businesses that can thrive despite higher land prices – like hotels and entertainment/recreational venues – are increasingly opening in Gowanus. Not only do they compete for land against job-creating industrial and related businesses, but if the status quo continues they threaten to permanently alter the industrial and creative character of the neighborhood's economic base.

In addition to requiring a stable real estate climate in order to thrive, local businesses are hindered by outdated and inferior physical and technological infrastructure. These deficiencies

¹⁴ Data analyzed for the Gowanus Canal BOA Nomination Study showed that in 2012 there were 420 firms with 3,500 employees in that project's study area, which is comprised of the most densely commercial/industrial parts of Gowanus.

¹⁵ Survey of business owners from the Gowanus Canal BOA Nomination Study, April 2014

will need solutions in order for local businesses to be strengthened and expanded. Inadequate loading zones, a sub-par sewage system, and a faulty to non-existent telecommunications infrastructure all undermine local businesses' ability to continue to thrive into the future.

Given all the businesses that call Gowanus home (and that are currently moving to the area) there is considerable potential to create much-needed employment opportunity for local residents. This has historically been the case, but as of late the proportion of local residents who also work in the neighborhood has declined.¹⁶ Unemployment levels are high in local NYCHA developments, whose residents make up a quarter of local renters.¹⁷

Upcoming environmental infrastructure, resiliency and remediation projects described in the previous chapter – as well as potential new and expanded local businesses – will create new jobs that could benefit local residents in need of employment. However, in order to connect underemployed residents to these kinds of jobs, the problem of “skills mismatch” will need to be addressed; local residents will require appropriate training to ensure they have the skill sets to meet the needs of the new employment opportunities. In addition, there need to be solid relationships between businesses, residents and community groups to ensure that residents are recruited for local jobs.

Recommendations

1. Create a new “Gowanus Manufacturing Zone” that strengthens industrial land use protections for the current Industrial Business Zone (IBZ), and potentially for areas outside the IBZ

See map “Area of Interest & Existing Zoning”

Restrict non-industrial uses

In order to maintain the area's integrity as a destination for a wide range of industrial and manufacturing related businesses (from lighter to heavier types of industry), commercial business types that are known to escalate local rents and can be incompatible with industrial activity should no longer be allowed as-of-right. These include: hotels, big-box retail, self-storage facilities, nightclubs, amusements (like large sports facilities), and large floor plate office buildings.¹⁸

Use zoning to increase the allowable densities

Currently much of the area's maximum allowable FAR¹⁹ is only 1.0. This can restrict building owners who want to enlarge their buildings to expand their businesses and capitalize on the area's proximity to both downtown Brooklyn and Lower Manhattan. While multi-storied industrial buildings are unusual outside of New York City where land is more plentiful, they are viable in New York City where business owners place a premium on proximity to

¹⁶ Between 2000 and 2010, the percentage of the local workforce drawn from Gowanus Census tracts declined from 7% to 1% (U.S. Census).

¹⁷ *Weathering the Storm: Rebuilding a More Resilient New York City Housing Authority Post-Sandy*, 2014.

¹⁸ Types of large footprint office buildings that would be allowed as-of-right are those that house firms that are ancillary to manufacturing and/or are design-related.

¹⁹ Maximum allowable FAR, which is dictated by zoning, essentially indicates how large a building can be built. Floor Area Ratio (FAR) is the ratio for a building's total floor area to the size of the lot on which it was built. See the NYC Department of City Planning's website for more information on zoning and FAR.

customers. Many stakeholders support increasing the FAR to as much as 3.0 in order to create more opportunity for the retention and expansion of industrial firms.

2. Improve and invest in critical business infrastructure

Many businesses face place-based challenges related to poor and outdated physical and communications infrastructure in Gowanus. In order for the area's business community continue to grow and thrive, improvements must be made to key infrastructure systems, including but not limited to broadband internet/telecommunications, the sewage system, road improvements, and loading zones for trucks.

3. Support the development of multi-tenant industrial/commercial buildings

There are already some successful examples of buildings that are home to a broad range of commercial and industrial businesses, such as the Old American Can Factory. These should be replicated to help meet the high unmet demand for small, flexible, affordable, sometimes shared spaces for both start-up and more established firms to do business.

4. Incentivize business owners to purchase their property

Long-term real estate stability, a challenge for any type of business, is key to operating a successful business over time. Locational stability can be achieved when business owners own, rather than rent, their space. Financial and related tools like loan guarantee funds, public purpose investors, and favorable tax treatment for owners who develop commercial condos can help incentivize Gowanus business owners to overcome the prohibitive cost of real estate and purchase the property in which they run their business.

However, at some point the business/property owner can also feel the financial pressure to flip their space. Two strategies to ensure the long-term preservation of manufacturing space would be the creation of limited equity coops, along the lines of an "industrial Mitchell Lama" that would require disposition to an industrial user, or a nonprofit land trust that is resourced to acquire a site and bound by its mission to preserve the manufacturing use. (See the section on mixed-use for more regarding the role of nonprofit organizations in the stewardship of industrial space.)

5. Explore the creation of an Industrial Business Improvement District

A Business Improvement District (BID) is a specially designated commercial area that is managed by a nonprofit organization that derives its funding from a special tax assessment placed on each of the district's property owners. An Industrial BID (IBID) builds on the concept of a commercial BID but with important distinctions. Instead of striving to attract more shoppers into the district, its goals are to preserve the industrial nature of an area by retaining industrial tenants, providing services beneficial to industrial businesses, and helping them improve their competitiveness. For example, an IBID in Gowanus could serve as a hub of information, communication, and coordination for local firms, makers, and working artists that facilitates doing business locally. The IBID might also play a critical role in helping existing and potential tenants identify space, both as renters from property owners and also as sub-letters from other tenants. It might also play a critical role in enforcing zoning by either undertaking or funding cyclical building inspections and reporting illegal conversions to the City's Department of Buildings. Finally, it could also improve firms'

financial viability by helping them tap into their collective power, such as facilitating cost-sharing among a group of businesses for infrastructure improvements and/or health insurance.

Despite all the potential benefits of an Industrial BID, there are several important considerations to address. These include the potential for industrial rents to increase as property owners seek to have their tenants cover the cost of the special assessment and the potential for inequity in the BID's governing structure since the traditional BID board structure often grants little power to tenants. Friends of Community Board 6 has received discretionary funding to issue a feasibility study for the creation of an IBID in Gowanus, and the existing IBZ service provider, Southwest Brooklyn Industrial Development Corporation (SBIDC) should also play a key role in developing any IBID initiative for the area.

6. Foster and support the emerging materials re-use business cluster

There is a strong presence of businesses and nonprofits in Gowanus that employ a business model based on the re-use and re-purposing of materials: Build it Green, Gowanus Canal Conservancy, Film Biz Recycling, and the LES Ecology Center Electronic Waste Recycling Warehouse. This fledgling cluster should be further supported and expanded.

7. Facilitate coordination among workforce development nonprofits, local businesses, environmental contractors, and the City to explore potential to create job training programs.

Several local models for workforce development exist and should be built upon, including Stronger Together, a multi-year collaborative initiative to address economic disparities and combat generational poverty, led by Fifth Avenue Committee, Inc. in partnership with Brooklyn Workforce Innovations, Red Hook Initiative, and the Southwest Brooklyn Industrial Development Corporation. This collaboration will provide adult education and literacy classes as well as sector-based workforce development training paired with employer-focused job placement and retention assistance.

8. Provide public support for workforce development programming that targets Gowanus businesses.

To successfully connect local job seekers to local job openings, businesses themselves need to be meaningfully engaged. This will ensure that any workforce development program addresses the skill sets that local businesses require. Public support for workforce development programs will help enable such programs to work directly with existing businesses.

ENSURING A GENUINE MIX OF USES

Background and Key Issues to Address

Industrial, Residential, and Commercial Uses

In contrast to its heavily residential neighboring communities like Carroll Gardens and Park Slope, Gowanus is characterized by industrial, residential, and commercial uses mixing and comingling block to block and sometimes door to door. Throughout the planning process a majority of stakeholders consistently expressed that they value the mixed-use nature of Gowanus and that they want to see this character preserved and strengthened.

However, Gowanus' current mixed-use character is precarious. The challenge to maintaining and even growing the current mix is that individual land use actions (e.g., spot rezonings and zoning waivers or variances) are haphazardly chipping away at the balance of uses and threatening its longevity. As real estate pressures continue to mount, the manufacturing-zoned areas are becoming susceptible to private land owners filing variance and rezoning applications to build structures like the large Whole Foods store and the residential Lightstone development. Most of these new uses serve to drive up property values, which in turn inspires land speculation, which threatens to displace the manufacturing businesses that remain.

See map "[Land Use](#)"

Both business and residential communities have the strong potential to thrive in a balanced, stable, mixed-use area. Many of the light industrial and commercial sectors that are doing well in Gowanus (such as creative and maker firms) are environmentally compatible with other uses, including housing. Also, businesses often want to be near their consumer markets, and mixed-use neighborhoods can promote workers' ability to walk to work.

New York City's existing land use tools are inadequate for promoting stable, balanced mixed-use areas that remain mixed-use in perpetuity. The "MX" zoning designation introduced by the NYC Department of City Planning in 1997 and used in 15 districts throughout the city allows for manufacturing and housing to co-exist within a district, but it does not have any provisions for maintaining a *balance* of uses. Therefore, MX zones are vulnerable to market forces and what begin as genuinely mixed-use areas will, under MX zoning, slowly convert to be largely dominated by new development of non-industrial uses. For example, between 2004 and 2012, the MX districts in Greenpoint-Williamsburg (which were designated in 2005) experienced a 60% reduction in land area devoted to manufacturing land uses. A recent student thesis cites the loss of 24 out of 32 manufacturing businesses in just one 14-block area of the new Greenpoint-Williamsburg MX district; the market pressure created by the potential to develop property for residential use, unchecked by any provision in the MX zoning, is clearly a force too strong for the manufacturing sector to withstand.²⁰

While it might be desirable to have mixed residential and industrial uses in one building from both an economic development and an aesthetics or lifestyle perspective, it is challenging financially and operationally, and very difficult to enforce. Combining these uses often adds expenses for sound attenuation, ventilation, safe egress and movement of goods within the

²⁰ Chavez, Christina R. (2014). *Learning from Greenpoint and Williamsburg: Zoning and The Future of Industry in New York City* (Unpublished master's thesis). Pratt Institute, Brooklyn, New York.

building, which creates a premium cost that must be paid by the manufacturer or the tenant for the mix of uses in a building.

An alternative approach to preserving some of the mixed-use character of the area would be to foster a mixed-use district in which residential and industrial buildings existed side by side. This could be achieved through a development rights transfer option that required that property owners provide manufacturing onsite but that gave developers the option of providing industrial space elsewhere in the district. A development rights transfer district would preserve production space but avoid some of the premium costs which would ultimately reduce the cost for either the industrial or residential tenant.

Historically Significant Places and Buildings

Community members have expressed a strong desire to preserve the physical fabric of key historic places and buildings, especially those related to industrial history, as well as to capture the scale, character and unique sense of place of the neighborhood. Preserving the maritime character around the canal, the industrial and residential mix that reflects the working class history of the area, and public access to the canal's edge, have been expressed as preservation priorities by many in the community. However, there are differing opinions about whether specific preservation strategies and designations are desirable for the neighborhood.

Arts and Culture

The production and dissemination of arts and culture is of particular importance in Gowanus and is a strong part of the neighborhood's mixed-use nature and multi-layered cultural identity. In addition, arts and culture have a strong synergy with light industry in the neighborhood. Creative professionals with artist/artisan studios, galleries, and performance spaces have been flocking to the area for its relatively affordable space for many years, a trend that is threatened because of rising real estate pressures. At the same time, a broad range of community cultural expression and civic participation should be accommodated with spaces that include public housing residents, immigrant groups, youth, and creative/"maker" businesses. Therefore, strategies for preserving and increasing spaces for art and culture must be integrated into many approaches, including those described in the "Greenscape" recommendation described in the infrastructure section.

Recommendations

1. Rezone the current Industrial Ombudsman area to a new, "Mandatory Mixed-use" zoning district that can foster a stable, balanced mix of light industry, artists and cultural uses, and housing in appropriate locations.

See map "Area of Interest & Existing Zoning"

The new zoning should include the following elements:

A requirement for creating or preserving industrial, or "maker," space

All new development in the district must provide new space or preserve existing space for productive/"maker" work space either on-site or elsewhere in the district. Creating a Transfer of Development Rights (TDR) district would facilitate a balance of uses over time by allowing individual landowners within the district to sell or purchase otherwise unused development

rights in order to meet a requirement to maintain a fixed ratio of “maker” space to other uses throughout the district. Maker space could include light manufacturing, art/artisan space, or nonprofit organization work space.

See infographic “Transfer of Development Rights”

A new Mandatory Mixed-use land use policy will have to pay particular attention to preserving existing commercial tenants, makers, and manufacturers (and the spaces where they work) and ensuring that their past contributions to the local culture and economy are not punished by direct displacement from new development. A balanced mixed-use district will only be achieved over time with a thoughtful combination of requirements and incentives for preserving or creating space for production.

Creation of a mission-driven nonprofit organization to own and manage “maker” spaces

One way to facilitate operations of a TDR district would be the creation or designation of a mission-driven nonprofit organization to serve as the steward of the “maker” buildings and spaces within the district. A nonprofit organization dedicated to creating space for production and the growth of “maker” spaces could play variety of roles in Gowanus: It could act as a developer and owner of industrial space tenanted by small businesses, which is similar to the operations of the Greenpoint Manufacturing and Design Center. Their space development costs could be partially underwritten by payments from property owners who are seeking to undertake residential but not industrial development, and in that way preserve a balance of uses. It could also manage privately-owned industrial space to ensure compliance with mixed-use requirements, a function which might be funded through the Industrial BID, discussed below. It could also manage arts spaces, a la Spaceworks, a nonprofit cultural community development organization dedicated to expanding the supply of long-term, affordable rehearsal and studio spaces for artists working in New York City.

Finally, the organization could work directly with property owners to help them access local and state incentives and other forms of assistance that would make such an undertaking possible. The Southwest Brooklyn Industrial Development Corporation (SBIDC) helps companies and property owners obtain assistance and could play this stewardship role.

Allowing certain uses as-of right, where appropriate

In addition to a range of light industrial and “maker” uses in mixed-use zones, other uses could be accommodated in appropriate parts of this district, including neighborhood-serving retail. Housing could be built in appropriate areas, and in addition to the requirement for “maker” space, there should be mandates for preserving and creating affordable residential units. (See the affordable housing section of this planning framework for more on this.)

Restricting certain uses

Local stakeholders have voiced opposition to uses that out-price “maker” space. Businesses such as nightclubs/entertainment venues, hotels, self-storage facilities, and depots for buses and trucks should only be allowed by special permit in this balanced mixed-use zone.

Ensuring compatibility between different uses

Various regulatory tools, including performance standards and genuine enforcement mechanisms, will be needed in order to promote and maintain the harmonious co-existence of industrial with residential and other land uses. Other useful mechanisms could include design guidelines for noise proofing, buffers to separate heavy industry in the Gowanus

Manufacturing Zone from the mixed-use zone, and a commercial traffic plan to guide trucks onto particular streets during specified times of day.

2. Preserve Iconic Historic Buildings

Because of the sensitivity various stakeholders have to potential regulatory processes that stem from some of historic preservation's more traditional tools, it is important for community organizations to work collaboratively to develop an agreed-upon set of strategies and next steps for enacting historic preservation measures. The community would greatly benefit from engaging a seasoned preservation expert who can guide it through a preservation planning process and provide accurate information about the impacts of employing various actions and tools.

NYC Landmark Designation

NYC Landmark designation imposes site-based regulation; for designated properties, a permit from the NYC Landmarks Preservation Commission is required prior to altering built features. The Commission has developed a large catalogue of rules and guidelines that assist property owners in selecting historically appropriate materials, which can expedite the permit process.

A number of individual buildings in Gowanus were identified as being of particular architectural and historic significance by Bridging Gowanus participants and local preservation advocates such as Friends and Residents of Greater Gowanus (FROGG), including the following sampling:²¹

- R.J. Dun and Company Building, 255 Butler Street
- ASPCA Memorial Building, 233 Butler Street
- Gowanus/Douglass Street Pumping House, 209 Douglass Street
- National Packing Box Factory, 543 Union Street
- 505 Carroll Street
- 333 Carroll Street
- BRT Powerhouse, 322 3rd Avenue
- American Can Factory, 232 3rd Street
- Brooklyn Lyceum, 227 4th Avenue)
- Brooklyn Arts Space, 168 7th Street)
- Thomas Roulston Grocery Waterhouse, 70-124 9th Street
- 170 2nd Avenue (at 13th Street)

²¹ Many of these and other potential landmark structures in the Gowanus neighborhood are described in a 2012 publication of the Historic Districts Council. See: <http://www.6tocelebrate.org/wp-content/uploads/2013/09/HDC-6toC-Gowanus.pdf>

These buildings and others recommended by the community should be reviewed by the NYC Landmarks Preservation Commission. In addition, Bridging Gowanus and other community forums have elicited considerable support for extending and enlarging the existing Carroll Gardens Historic District, which was designated in 1973 and protects a very small pocket of the intact 19th century set-back row house blocks on the western flank of the greater Gowanus area.

State / National Register Historic District

A proposal has been made to “list” a Gowanus Historic District on the State and National Registers of Historic Places (S/NR). Such listing would not impose regulation over private actions that impact privately owned historic resources. Commercial properties included in the district would be eligible for tax incentives for qualified rehabilitation work. The State Historic Preservation Office (SHPO) consults with government agencies when a government action such as funding or permitting may impact eligible or listed historic resources, or when a State or Federally owned structure within the district is to be altered. In such consultations, SHPO does not have authority to stop the action, but works to persuade government entities to require sensitive treatment of historic resources.

There has been recent controversy surrounding the proposed district. With sufficient public notice, open dialogue could aid the community in reaching consensus on whether or not to support the listing. The district has already been declared “eligible” for the Registers, thus putting it under the consultative authority of SHPO should any public action potentially impact sites within its boundaries. However, to access the tax incentive program for qualified rehabilitation, actual listing of the district (or of individual properties within it) is required.

3. Publicly Interpret Community History

As mentioned elsewhere in this planning framework, community members and preservation advocates are eager to uncover, understand, interpret and honor the fascinating history of the Gowanus neighborhood. There are a number of upcoming programmatic opportunities where such interpretations could be integrated with other efforts to green and animate public spaces in the community. Through such interpretive tools as special signage and markers, creative approaches to public space and greenscape design, and through artistic efforts, education about the history of the area can be offered to the public.

For example, building upon the neighborhood’s artistic and cultural traditions, stories of the past told visually through graphics, photographs and maps could become a central feature of the design of public open spaces in the community. A permanent “interpretive trail” installation about the area’s history could be a component of this framework’s proposed Gowanus Greenscape and other green space designs. The neighborhood’s active arts, culture and preservation organizations could collaborate to compile research and brainstorm creative ideas for historical interpretation as part of the streetscape of Gowanus. With such iconic and visible historic industrial structures as the BRT Powerhouse and the Douglass Street Pumping Station as anchors, the community’s industrial history could be told in markers, signage, and recordings or texts accessed by smart phones, leading visitors from site to site. Permanent historical installations could be planned as part of new arts studio facilities and community centers. These and many other ideas already generated by community members and organized groups should be resourced so that the history of Gowanus is appropriately highlighted and presented.

4. Explore other Approaches to Historic Preservation

Special Zoning District (aka Special Purpose District) Designation

The New York City Planning Commission has been designating special zoning districts, also known as special purpose districts, since 1969 to achieve specific planning and urban design objectives in defined areas with unique characteristics. Special zoning districts respond to specific conditions and can contain regulatory provisions about scale, materials, and site configuration for new development, as well as design guidelines to preserve special architectural features and/or guide the design, massing, and materials used in new development. Many Bridging Gowanus participants expressed interest in exploring the use of this tool, as it could strike a balance between preservation of important neighborhood features and flexibility to modestly grow and change.

Conservation District Designation

The primary goal of a typical conservation district is to provide the community with design and preservation guidelines that shape new development and in some cases call for the retention of specific existing buildings or building features. Conservation districts are not regulated by State or Federal government, and regulation by a municipality is optional. Generally, guidelines are not focused on architectural details, but on the scale, massing and materials used in site development. Many U.S. cities employ conservation districts to guide the scale and design of new development in historic areas; however, this tool has not been used in New York City. Participants in Bridging Gowanus workshops expressed interest in learning more about and exploring the potential to establish a conservation district for the Gowanus community.

National Heritage Corridor (NHC) Designation

Created by Congress and administered by the State and/or local nonprofits, NHC designation is non-regulatory but can bring financial incentives. Corridors of this type are typically designated around public land, and in fact New York's "premier" NHC is the Erie Canal Corridor. Used to spark economic development for the many towns and small cities along the Erie Canal, the NHC designation has brought grant and public funding opportunities, branding and marketing themes, and national status. Participants in Bridging Gowanus' preservation workshop expressed interest in learning more about NHC designation, and community preservation organizations may want to pursue this with the assistance of their Congresswoman's office.

5. Create dedicated arts centers with affordable space for creating and exhibiting art and gathering as a creative community.

Planning for these centers should include performance and exhibition space as well as space for production, rehearsals, and offices for arts and cultural nonprofits. It should also be connected to the planning for the adaptive re-use of the BRT Powerhouse building for arts and cultural uses and to the preservation of Proteus Gowanus as an artist-owned space. This includes preservation of community-based arts and nonprofit organizations through incentives for developers (who need to meet a requirement to preserve or create "maker" space) to deed over maker-spaces. It also includes incentives that enable artists, cooperatives, and nonprofit organizations to own their own space.

The Powerhouse Workshop

The owner of the BRT Powerhouse building has formed a nonprofit arts foundation to occupy the building and is contemplating creating space for artist studios, afterschool

programs, performances, collaborative workspace for artists, and exhibition space. Given the building's size and prominence, the Powerhouse Workshop will be a major symbol and permanent space for the neighborhood's continuing legacy of artistic and cultural expression.

6. Explore the potential for creating affordable, sustainable live-work spaces

Live-work buildings can be affordable spaces in which working artists can both reside and work, but previous models for this in New York City (e.g., lofts in SoHo and NoHo) are outdated and difficult to enforce and maintain as affordable, long-term spaces of production and residence. This is especially true for ownership models, as non-artist/makers can inherit live-work spaces. Nonprofit ownership by a mission-driven organization is a potential strategy for ensuring that live-work spaces do not become vehicles of gentrification.

7. Increase the accessibility of public and private spaces and facilities to community-based artists and organizations

There are many ways in which local groups can gain access to existing non-traditional spaces for artistic and cultural expression. For example, the City should create more opportunities to establish ongoing workspaces in city-owned property, including NYCHA, through long-term leases nonprofit partnerships, and RFPs.²² City agencies should also facilitate and support partnerships with community cultural groups to make construction sites and scaffolding bridges sites for public art. Finally, space-sharing agreements between private and public sector parties that facilitate community uses should be encouraged.

Also, a standing public art program should be part of the proposed Gowanus Greenscape (which is recommended in the Infrastructure chapter). This could also potentially meet a historic interpretation goal, if for example, the dismantled Kentile sign were part of the installation.

8. Provide ongoing programmatic support for art and cultural groups in Gowanus

Capital funding should be more accessible to small arts and cultural organizations for local projects. An array of cultural groups is doing grounded, community-based work in Gowanus and vicinity (e.g., Interference Archive, Groundswell, Center for Urban Pedagogy, etc.), and they should be given ongoing support to continue their important work that promotes civic engagement and cultural equity.

²² For more on this, see the Infrastructure section of this planning framework for a recommendation about creating "Superschools."

PRESERVING AND CREATING AFFORDABLE HOUSING

Background and Key Considerations

The neighborhoods surrounding the Gowanus Canal area – Carroll Gardens, Park Slope, and Boerum Hill – are some of Brooklyn’s most expensive and hottest neighborhoods, far beyond the reach of most New Yorkers. Rents within Gowanus have risen at an astonishing pace – 17% in the last year, compared to 8.6% overall for Brooklyn. The average market rent in the area is currently \$3,134 per month -- a price that is affordable to a family of four earning more than \$125,000 a year (half of Brooklyn’s households earn less than \$45,000 a year).

Yet Gowanus itself remains a more diverse and inclusive neighborhood. It has a median income 15% lower than Brooklyn and 30% lower than New York City. African- American and Latino residents make up 50% of the population within the areas zoned for manufacturing, and 20% are new immigrants.²³

The diversity of Gowanus is due primarily to the 1,864 units in three NYCHA public housing developments: Gowanus Houses, Wyckoff Gardens, and 572 Warren Street (also known as Warren Houses, which is how it will hereafter be referred to). In addition, several hundred units of rent-regulated housing continue to provide housing in (and on the edges of) the manufacturing-zoned areas around the canal.

Maintaining this diversity is a key priority for many Bridging Gowanus stakeholders. Recent land use actions in the area have contributed to the rapid acceleration of gentrification. There is widespread speculation around new sites for condos and requests for variances to build them under the current manufacturing zoning.

NYCHA public housing

The primary source of affordable housing in the Gowanus area is three NYCHA public housing developments that together house approximately 4,500 residents:

- *Gowanus Houses* (a 12.57 acre complex bordered by Wyckoff, Douglass, Bond and Hoyt Streets) consists of 14 buildings, 4, 6, 9, 13 and 14-stories high. It has 1,134 apartments housing an estimated 2,836 residents.
- *Wyckoff Gardens* (a 5.81 acre complex bordered by Third Avenue, Nevins, Wyckoff, and Baltic Streets) consists of three 21-story buildings with 528 apartments housing some 1,226 people.
- *Warren Street Houses* on the south side of Warren Street and the corner of Third Avenue, is a 6-story development that contains 202 apartments, with approximately 300 residents.

The average family income in NYCHA developments is \$23,150, and the average monthly rent is \$445. Of NYCHA households, 47% are working families; 11% receive Public Assistance; and 41% are supported by Social Security, SSI, Pensions, Veteran's Benefits, etc. Approximately

²³ Fifth Avenue Committee, *Getting a Fair Exchange: Preserving and Creating Truly Affordable Housing in the Rezoning of Gowanus, Brooklyn* (2010), 8.

37% of NYCHA households are headed by persons age 62 and older. Of NYCHA residents, 19% are 62 or older, and 27% are under 18.²⁴

Privately-owned and rent-regulated housing

There are approximately 1,300 residential units located in the manufacturing-zoned areas of Gowanus. These units were built prior to the 1961 NYC Zoning Resolution that created the current zoning designations. Most of these units are in 1-3 family, privately-owned homes on the blocks of 6th, 7th, and 8th Street east of Third Avenue, around Our Lady of Peace on Carroll Streets, and along Union and Nevins Street.

Approximately 200 of these units in the area are rent-regulated (stabilized and controlled) stock. Many of these units are in buildings four stories or less.²⁵ Because of their age and proximity to active manufacturing uses, these older residential units have historically been more affordable than newer housing in the area, and they are certainly more affordable than those in the adjacent neighborhoods of Carroll Gardens, Boerum Hill, and Park Slope.

Under current manufacturing zoning, these units are unlikely to be demolished, because they could only be replaced by non-residential uses. However, a change in zoning without consideration for this housing and protections for the tenants is likely to lead to a loss of affordable units.

New housing development

New residential development has taken place in recent years near the Gowanus Canal, including the Hudson Group's Third + Bond development (44 residential condominiums in eight 4.5 story townhouses). Most of these developments were not in areas zoned for manufacturing, and did not contain any affordable units.

- *Lightstone Group (363-365 Bond Street)*
The Lightstone Group is currently in construction of a development containing 700 rental units at 363-365 Bond Street, occupying most of the two blocks bordered by Carroll Street, Bond Street, the Gowanus Canal, 2nd Street, and the Gowanus Canal. The development will consist of two 12-story buildings along the canal (268 units at 363 Bond Street and 429 units at 365 Bond Street), as well as 5-story buildings on Carroll, First, and Bond Streets. Twenty percent, or 140 of these units, will be affordable under the City's inclusionary zoning program. The development will also include publicly-accessible open space along the Canal, under NYC's waterfront zoning requirements.

This canal-front site was rezoned from manufacturing to allow residential use in 2009. At the time, it was owned by Toll Brothers, who proposed a 450-unit condo development (with the same square footage as the current development). After Superfund designation, Toll Brothers chose not to continue, and the Lightstone Group purchased the site. Lightstone altered its plans in order to comply with new resiliency regulations after Superstorm Sandy and is required to move substantial amounts of contaminated soil and build a barrier to prevent future contamination of the Canal under agreements with the U.S. EPA and the NYS Department of Environmental Conservation. Construction at the site involves

²⁴ New York City Housing Authority, "About NYCHA: Fact Sheet," last modified January 1, 2014, <http://www.nyc.gov/html/nycha/html/about/factsheet.shtml>.

²⁵ Fifth Avenue Committee, *Getting a Fair Exchange*, 13.

extensive pile-driving and the removal of contamination, which has created severe nuisances for neighbors.

- *Public Place/Gowanus Green*
The six-acre, City-owned site known as “Public Place” is along the Gowanus Canal, bordered by 5th Street, 7th Street, the Canal, and Smith Street. In 2008, the NYC Department of Housing Preservation and Development conducted a Request for Proposals and selected (through a process that included local stakeholders and elected officials) the “Gowanus Green” team (Fifth Avenue Committee, Hudson Companies, Jonathan Rose Companies, and the Bluestone Group) to develop the site. The Gowanus Green proposal includes 774 units of rental and for-sale housing and 65,000 square feet of community and retail space, in 8 buildings ranging from 5 to 14 stories. Seventy percent (70%) or 540 of the units will be affordable to households with incomes between 30 percent and 130 percent of area median income (i.e., \$25,770 to \$110,670 annually for a family of 4).²⁶ More than 100 apartments will be affordable rentals for seniors. The proposal also calls for a waterfront park along the Canal (though this is a site that may be utilized for staging the Superfund cleanup, and there is a sewer interceptor line that may need to be re-routed).
- *Stakeholder Priority*
Recognizing Gowanus’ historic affordability and rapid pace at which it is disappearing, in the third public meeting of Bridging Gowanus, 65% of the participants identified “affordable housing” as a benefit that must accompany any new density added to the neighborhood, and 58% also selected “deeply affordable housing” as a required benefit. 72% of respondents who said they could accept new density in the neighborhood said that it was because they felt it would advance the shared value of preserving and creating affordable housing. Where new residential is allowed, therefore, a significant share of it must be affordable, and attention must be paid to the impact that new housing has on existing affordable housing.

The process by which new developments of any type come to Gowanus is also critically important. Community members expressed concern over the negative impact that previous land use actions in the area, such as the Fourth Avenue rezoning, have had on pre-existing affordable units in the area, and this was echoed by the experiences shared by housing advocates. Furthermore, community members expressed widespread dissatisfaction with the land use and zoning approval process that led to the Lightstone development as well as the subsequent construction practices undertaken at the site.

Recommendations

1. *Make overdue investments NYCHA housing*

Gowanus Houses, Wyckoff Gardens, and Warren Houses have deteriorated from a long history of capital disinvestment. Common problems reported by tenant organizations include broken

²⁶ New York City Housing Development Corporation, “Income Eligibility,” accessed on November 20, 2014, <http://www.nychdc.com/pages/Income-Eligibility.html>.

elevators, interruptions in heat and hot water and inadequate maintenance.²⁷ Heavy rains are regularly followed by sewer backups. This chronic condition of under-maintenance was further exacerbated by Superstorm Sandy, which flooded parts of Gowanus Houses, causing a power outage that lasted weeks and exposing how climate change increases vulnerability of NYCHA residents. Making these developments resilient will require the relocation of electrical and heating infrastructure within the buildings. The community centers need to be modernized and maintained. Playgrounds and open spaces in the developments are in need of repair and improvement. These investments must be prioritized as part of any future Gowanus plan. Funds that are generated for local capture by the Gowanus TIF program (see the Infrastructure section) or provided in the New York City Capital Budget should be directly tied to NYCHA improvements.

2. Implement anti-harassment provisions

Too often, when new residential development is allowed, existing tenants suffer. In too many cases, building owners harass and seek to evict them in order to increase prices or directly displace residents in order to build new, denser housing that can deliver market-rate rents. Such activities have already taken place nearby, as witnessed in the extensive case study by the Fifth Avenue Committee of 150-158 4th Avenue, where 5 buildings containing 40 units of rent-stabilized housing were eliminated to make way for a luxury development.²⁸

New York City zoning has previously included provisions to protect tenants from harassment and displacement, such as in the 1974 Clinton Special District (and much less strongly in the more recent Greenpoint-Williamsburg and Hudson Yards rezonings). These protections should be included in any rezoning that allows residential development in the Gowanus area.

Anti-harassment provisions require that when an owner seeks to demolish or change the use of a property within such districts they must first receive a “Certificate of No Harassment” from HPD (the City’s Housing Preservation and Development agency). HPD conducts an investigation consisting of tenant interviews and works with local community groups. If HPD concludes that tenants in the subject building have been harassed, the landlord is typically given the option of “curing” the act by setting aside 28% of residential floor area in the proposed development, at 60% AMI (Area Median Income), for affordable housing or the same for offsite within the special district (in addition to any additional affordable housing requirements for new development). These provisions act as deterrent to harassment and protect the most vulnerable tenants.

3. Require one-to-one replacement of affordable housing

Even with anti-harassment provisions in place, New York’s Rent Stabilization Code will not shield tenants from eviction due to demolition. Developers must only demonstrate credible building plans and adequate financing to satisfy DHCR (Division of Housing and Community Renewal, a State agency) in such applications. The condition of the existing building and the fate of displaced tenants do not meaningfully factor into DHCR decisions. In most cases, relocation requirements within the demolition statute are not stringent enough to deter demolition nor are they enough to protect tenants. DHCR requires owners to relocate displaced

²⁷ Nyman, Schwartz, and Scanlon, *Reconsidering Gowanus: Opportunities for the Sustainable Transformation of an Industrial Neighborhood*, 26.

²⁸ Fifth Avenue Committee, *Getting a Fair Exchange*, 14.

tenants to a nearby area into a suitable apartment with a comparable regulated rent and pay moving expenses for displaced tenants in addition to a \$5,000 stipend.

To protect against the loss of affordable units, a one-to-one replacement provision would impact developers whose actions directly result in the loss of rent-regulated or subsidized housing, either through conversion of properties to condominiums or through demolition. A precedent in Arlington, Virginia accomplishes this goal through a zoning overlay and calculates bedrooms (instead of units) as the basis for replacement.²⁹ Such a provision is most appropriate in strong housing markets like Gowanus, where there is virtually no market incentive to preserve affordable units. In addition to protecting units, a one-to-one replacement provision must also protect tenants, ensuring adequate relocation requirements equivalent to those required for rent-controlled tenants. This “one-to-one replacement provision” must be in addition to the “mandatory inclusionary zoning” requirements outlined below.

4. Ensure not just affordable housing but an affordable neighborhood

As the neighborhoods surrounding Gowanus have become increasingly gentrified, so too has the retail serving the area. This presents special challenges for the area’s low-income residents, who become less able to afford the local prices of basic necessities, such as food. This is exemplified by the recent closure of the Met Foods supermarket on Smith Street, which was the last affordable large grocery store near Gowanus Houses. Steps should be taken to facilitate a retail mix that serves all the neighborhood’s residents.

5. Apply Mandatory Inclusionary Zoning

Affordable housing must be required for any new developments (new construction or conversions) that would be allowed through changes in Gowanus zoning that permit residential development. The de Blasio Administration is currently developing plans for “mandatory inclusionary zoning” that build such requirements into the zoning itself. This zoning tool was applied in New York City for the first time at the Astoria Cove site in Queens, where 25% of the units were required to be affordable (with an additional 2% through City subsidies). The City’s new mandatory inclusionary zoning provisions should be required in any areas of Gowanus that are rezoned to allow residential development.

Under such a plan, where new market-rate housing is allowed in areas currently zoned for manufacturing, and/or where there is an increase in allowable density, developers would be required to include a minimum percentage affordable units, with additional units and/or more deeply affordable units required when developers access public financing.

One important element of mandatory inclusionary zoning is changing the current practice of wholesale “double dipping” – where developers are allowed to receive both a voluntary “density bonus” (i.e., the right to build additional market-rate units) and a 25-year tax exemption (under Section 421-a of the Real Property Finance Law) for the same 20% affordable units. Astoria Cove required a greater percentage of affordable units for the first time, to 25%, in order to receive these benefits. With market-rate values even higher in Gowanus, and with the extensive potential value increases identified in the [City Council Land Use Division’s analysis](#), a higher rate should be achieved in Gowanus.

²⁹ Ibid., 23.

In the area's "Mandatory Mixed-Use" zone, these affordable housing requirements will need to be calibrated with both the requirements for market uses and the Gowanus TIF payments for necessary infrastructure.

6. Explore the potential for new affordable and senior housing on NYCHA properties

In close collaboration with residents from these developments, it may be possible to examine whether existing NYCHA parking lots are appropriate for the creation of more age-friendly senior housing for existing residents. This could open up new public housing units for low-income families. In addition, this exploration could explore the creation of spaces for community-serving retail and services, to counter the loss of retail serving NYCHA residents (such as affordable grocery stores and laundromats) due to gentrification.

7. Advance the Gowanus Green development on the Public Place site

The Gowanus Green (see the "Background and Key Considerations" section of this chapter) project has progressed slowly, due to environmental cleanup, industrial tenant relocation, and infrastructure requirements. Moreover, many stakeholders have indicated that any changes in zoning or development must be done as part of a broader, comprehensive plan for the Gowanus area that addresses the broader range of infrastructure, sustainability, mixed-use, and other goals identified in this framework. As part of a broader set of actions to achieve the Bridging Gowanus goals, the Gowanus Green development presents by far the most significant opportunity for new affordable housing.

A PATHWAY FOR RESPONSIBLE GROWTH

These four core values – upfront commitments to investment in sustainable infrastructure, making sure manufacturing can thrive, insuring a genuine mix of uses, and preserving and advancing affordability – are shared by the overwhelming majority of Gowanus stakeholders.

The areas of disagreement in the Bridging Gowanus public process were around whether, where, and at what scale to allow new residential development. In general, Gowanus stakeholders do not see new, market-rate residential development – especially at heights taller than the surrounding brownstone neighborhoods – as a goal in and of itself.

However, most stakeholders recognize that the community will only realize these shared values with some growth and development. Allowing some residential development – in proscribed locations, with attention to sustainability standards and design, and with the requirements and investments noted in this plan – will create the real estate value that will make it economically viable to pay for upfront infrastructure investments (including environmental cleanup, flood protection, open space and transportation), create and/or preserve production spaces, and maintain affordability.

Realizing the reality of trade-offs, and given the participatory nature of Bridging Gowanus, we gave local stakeholders an opportunity to weigh the difficult choices required for meeting the community's goals. At the third large-scale community planning session in June 2014 (attended by well over 100 neighborhood stakeholders), we conducted an exercise for the public to weigh the hard choices of density and development. This is infrequently done in community planning, since it can highlight differences and provoke controversy. But it was important to confront these issues directly, given their centrality to the future of Gowanus.

Along with supporting plans that a significant portion of the neighborhood remain zoned for manufacturing, more than 60% of participants supported creating a balanced mixed-use zone that allows some increased residential density in order to meet a variety of community goals. Moreover, nearly three-quarters of the participants who chose this scenario expressed openness to buildings of more than 10 stories if and only if those buildings genuinely advance the community's goals for infrastructure, sustainability, good jobs, a mix of uses, and affordability.

Not everyone agreed. Some participants argued that no new development should be allowed in areas that flooded during Hurricane Sandy. Others felt that new housing could be allowed but should be capped at four or five stories, essentially connecting the brownstone neighborhoods of Carroll Gardens and Park Slope with another low-rise neighborhood. There was some dissent from the trade-off exercise (as there has been throughout the process) – about a dozen people were angry about it and did not participate. And there is certainly broader skepticism that developers will get what they want, while the community will not get the protections, regulations, and investments that are needed to meet *its* goals.

However, most participants felt that change would be inevitable – and that it is therefore better to assert influence over that change than pursue a “no action-no change” strategy. Without a plan for the neighborhood's future, the status quo presents several risks: continued flooding and environmental degradation, spot rezonings and variances that will eventually result in major land use changes lacking comprehensive planning, and the ongoing proliferation of hotels, big-box stores, self-storage facilities, and nightclubs that are allowed as-of-right.

More than that: many stakeholders believe that the shared vision for a strong Gowanus future – one with infrastructure that can handle the challenges of our times, with a vibrant mix of uses, and reflective of Brooklyn’s diversity – can best be achieved through a responsible plan for smart and balanced development. The Bridging Gowanus planning framework therefore strives to create a balanced, nuanced pathway for targeted and responsible growth, so that Gowanus can be a more sustainable, equitable, inclusive, and livable neighborhood.

We did not endeavor in this process to prepare a map, a specific urban design, or height and bulk rules for new buildings. Rather, what has been developed is a framework and the guidelines for more specific decision-making. Urban design plans for Gowanus have been undertaken by a range of designers and architects in recent years.¹ Part of the challenge for the NYC Department of City Planning in getting Gowanus right will involve working with community stakeholders to build from this framework toward a full-fledged plan. To guide that effort, Bridging Gowanus stakeholders spoke to a series of principles:

- The current Industrial Business Zone should be preserved for manufacturing, with no residential development allowed (and strengthened into the Gowanus Manufacturing Zone, as outlined above).
- Any new zone allowing residential development in areas that were previously zoned for manufacturing should be both “mandatory mixed-use” and “mandatory inclusionary zoning.”
- Thoughtful attention must be paid to building design to encourage integration with the existing neighborhood aesthetic.
- A mix of heights should be incorporated (to avoid the Fourth Avenue canyon effect).
- Activate ground floor uses (primarily with makerspaces) to animate the streetscape.
- Canal front properties must comply with waterfront open space requirements, active ground floor uses, and connections and enhancements to the Gowanus greenscape network.
- Establish high sustainability standards (e.g. onsite storm water retention, flood protection, low or no emissions, low or no waste).
- Standards should be in place for good, safe, quality jobs, with an emphasis on hiring local residents.

Achieving these goals adds significant expense to development, and it will be necessary to develop clear, specific, feasible requirements that strike the right balance. If requirements are too onerous, projects will not be built, and these goals will not be delivered. However, in more recent years the opposite has occurred: too little has been required, and development has proceeded without meeting community goals.

Elaborating the specific standards was beyond the scope of Bridging Gowanus, and will need to account for the de Blasio Administration’s current policy work on mandatory inclusionary zoning, 421-a tax exemption reform, industrial and mixed-use zoning. However, to begin this process, we asked the New York City Council’s Land Use Division to analyze and estimate the potential value increases that could result from rezoning some areas around the Gowanus Canal to allow residential uses. This analysis (made public as part of Bridging Gowanus) identifies highly significant increases in both land values and potential tax revenue if sites were rezoned (ranging from 4 to 24 times their current value, depending on assumptions about the changes). These increases in values – resulting from public action – are sufficient to achieve significant public

goals identified in this framework, and still meet return rates needed for private investment and development.

It is important to note that the timeline for new development will need to be synchronized with the Gowanus Canal Superfund cleanup, which will take place over the next decade. Dredging the length of the Canal and installing two new CSO detention tanks will have significant impacts at all sites along the canal, and potentially many nearby. In addition, especially for sites along the Canal, the specific requirements of the cleanup itself (e.g. consent decree payments, site remediation, bulkhead replacement) will directly impact the economics and design of any future efforts. As the details of the cleanup emerge over the next year, they will need to inform plans for development.

We have sought to listen carefully. Many of the elements of this plan come from residents who we know will disagree with the provision for new residential development. We invite interested residents to submit responses that will accompany this document, so others will be able to consider all points of view.

ACTIVATING THE PLAN

Making the shared vision for Gowanus a reality will require more than just a description of a vision. A real plan must include upfront funding commitments, mechanisms to oversee the implementation of projects, and strong enforcement of the rules established.

There is fair reason for skepticism regarding whether the vision articulated in the plan can actually be accomplished. Promises to clean up the Gowanus Canal have been coming for a century. Land use actions in other parts of the city have failed to deliver on many stated intentions, including infrastructure, open space, and affordable housing. As noted above, the city's current mixed-use zone ("MX") allows residential development as-of-right, and has therefore allowed wholesale conversion of manufacturing areas to residential. Construction violations by private developers in Gowanus have also become a substantial nuisance.

We believe that real and significant progress toward this vision is possible at this moment, thanks to a powerful confluence of forces. The Superfund cleanup, together with clarity of the need for strengthened resiliency in the face of climate change, are pushing forward some of the necessary infrastructure investments. The de Blasio Administration is focused on preserving and creating affordable housing, and has committed to doing so in a way that attends to infrastructure, neighborhood planning, and maintaining mixed-use communities. Bridging Gowanus offers a way to bring those goals together.

Several elements of this plan are especially important to insure that the rules are followed, and the community's goals are achieved:

- **Upfront capital commitments:** A combination of funding sources for environmental and social infrastructure must be committed at the onset of this plan. Some of this will be provided through the Superfund cleanup, and it is possible that Federal funds could be used to pay for flood protection. However, significant additional capital funding will be required – from the dedicated Gowanus TIF proposed in the plan, from New York City's capital budget, and/or through commitments from developers. These should not be promises or non-binding "Memorandum of Agreement." They must be real, binding commitments.
- **Environmental quality partnership:** A partnership of all levels of government and neighborhood stakeholders that builds on (and preserves) the EPA's Superfund authority, and includes the City DEP's Long Term Control Plan for CSOs, storm water management and flooding reduction goals, flood protection, and the State DEC's oversight of brownfield cleanups should be established to coordinate across projects and keep strong regulatory attention to cleanup obligations for years to come. The partnership must maintain significant community stakeholder engagement.
- **Manufacturing preservation through enforcement and incentives**
 - NYC DOB must aggressively enforce the rules, in both the "Gowanus Manufacturing Zone" and in the "Mandatory Mixed Use Zone" to ensure that illegal conversions do not crop up.
 - Incentives should be provided for developers to place makerspaces and affordable housing in the hands of mission-driven organizations, for whom the "rules" are actually "goals."

- **Anti-harassment and anti-displacement provisions for tenants:** New residential development should not be allowed without strong protections for existing tenants in the area.
- **Resources for essential programming:** Certain critical goals of Bridging Gowanus, such as local job linkages, will require a commitment of programmatic resources. Funding sources must be identified and committed at the front end of the plan moving forward.
- **Construction compact:** Environmental cleanup, infrastructure, and development projects in the Gowanus area will inevitably create headaches for local residents and businesses (as witnessed by the Lightstone Development, Flushing Tunnel reconstruction, and High Level Storm Sewers project). To manage these to the best extent possible, a construction compact should be established, which includes all entities engaged in significant construction, together with stakeholder, agency, elected official, and Community Board 6 representatives. This will provide a better framework for quick responses to violations, in development as well as infrastructure projects. Resources must be provided for oversight and cooperation.
- **Community oversight:** Local oversight representing residents and stakeholders is needed to track progress, address concerns, and solve problems that will arise in activating and implementing this community planning framework. Both Community Board 6 and the Community Advisory Group (CAG) for the EPA's Superfund effort should be central to this oversight – which may involve a new group dedicated to this task. Such a group would meet quarterly with public agencies and elected officials to review progress toward implementation.

Building upon the Bridging Gowanus effort, there is an opportunity to convert the effort and energy that went into the creation of this vision into a reality for the neighborhood. To be successful, the community will have to demonstrate its clarity of purpose and unwavering commitment to its shared values. And the de Blasio Administration will have to answer that call with the new planning tools upon which this vision is predicated. With sustained effort, it will be possible to achieve a future for Gowanus that is motivated by this vision.

This is a significant challenge, but one worth rising to. Gowanus might just be able to demonstrate a model for a vibrant, sustainable, inclusive, mixed-use neighborhood in a low-lying, once-polluted industrial area on a warming planet.

ⁱ Innovative recent design efforts in Gowanus include dlandstudio, Eco-Gowanus, Gowanus By Design/Gowanus LowLine, the Gowanus Canal Conservancy's Gowanus Design Summit, and TEDxGowanus. As part of Bridging Gowanus, the Center for Urban Pedagogy also conducted a neighborhood workshop on Gowanus urban design.