Designing New York: Quality Affordable Housing

NYC DESIGN

AIA New York
Housing Committee

THE FINE ARTS FEDERATION OF NEW YORK

Designing New York: Quality Affordable Housing

The City of New York
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Mayor Bill de Blasio breaks ground on new infrastructure for Phase II of Hunter's Point South, the largest new affordable housing development built in New York City in nearly forty years.

May 2018

Dear Friends:

I am pleased to join the New York City Public Design Commission in introducing *Designing New York: Quality Affordable Housing*.

Affordable housing is the cornerstone of New York's diversity and vitality, and my administration has made unprecedented efforts to achieve our goal of building and financing 300,000 affordable homes by 2026 as part of our ambitious *Housing New York 2.0* plan. It is critical that affordable housing projects across the five boroughs are planned and designed to be high quality, innovative, and safe for their residents, and the NYC Public Design Commission is playing a key role in these efforts with its bold advocacy for excellence in urban design.

Featuring a wide variety of research, project documentation, case studies of noteworthy designs, interviews, and more, this report will share best practices and highlight the groundbreaking strategies that are fueling the progress being made in designing affordable housing. It also contains PDC's guidelines for creating more equitable, sustainable, and resilient housing developments to best meet the needs of New Yorkers.

The leadership of the Public Design Commission has been essential in our mission to improve the quality of housing developments, champion innovative design, and ensure New York continues to serve as a progressive model of urban housing, and I invite you to learn more about its vital work as we continue to build one city, where all can rise together.

Sincerely,

Bill de Blasio
Mayor

A New Era for Housing in New York

Stable, well-designed housing provides the foundation for a fulfilling life. Dignified, affordable homes near resources and infrastructure like jobs, schools, and transit allow families and communities to thrive. Housing not only can transform residents' lives, but also forms the building blocks for vibrant, diverse neighborhoods. Housing makes up the majority of the built environment; each development contributes to the unique character of its neighborhood and block. Superbly designed residential developments can be lasting, place-based interventions that foster greater equity, sustainability, resiliency, and healthy living.

Designing New York: Quality Affordable Housing coincides with increasing recognition of the role design plays in meeting the City's most pressing goals. This initiative is a collaboration of the New York City Public Design Commission (PDC), The Fine Arts Federation of New York (FAFNY), and the American Institute of Architects New York Chapter (AIANY). A larger publication working group includes the Department of City Planning (DCP), Housing Preservation and Development (HPD), the Department of Design and Construction (DDC), and the Economic Development Corporation (EDC). These public agencies and nonprofit organizations, representing a cross-section of the city's architecture, design, housing, and planning professions, have come together to advance this important opportunity to create higher quality housing and a more equitable New York.

Building on a Tradition of Innovation

This effort draws inspiration from New York's rich history of residential design innovations that have supported new ways of living. Since the late 19th century, when model tenement designs and legislation helped to fight the spread of infectious disease by increasing access to light and air, advancements in housing design have helped to improve New Yorkers' lives. The city's multifamily buildings present specific architectural challenges: design innovations over time have accommodated not only individual dwellings but also the semi-public spaces, where residents come together, and the public zones, where a building meets the street.

Today's mixed-use buildings connect to historic cooperative developments like the Amalgamated Housing Cooperative (Springsteen and Goldhammer, 1927), which included a store, cultural facilities, and social services. The high cost of land in New York has driven dense development, making it a challenge to include green and open space. Sunnyside Gardens (Clarence Stein and Henry Wright, 1928) offered one solution often referenced by today's architects, with low-rise, dense housing surrounding a system of private and shared gardens.

At different points in New York's history, government agencies and authorities have advanced the best affordable housing ideas of their time. The New York City Housing Authority's First Houses (NYCHA staff, under Frederick Ackerman, 1936) began the development of what would become 326 public housing developments in a range of typologies, now housing over 400,000 New Yorkers. In the 1960s and '70s the Urban Development Corporation enlisted some of the country's most notable architects, including members of the Institute for Architecture and Urban Studies, to design housing for people with low and middle incomes.

"Urbanists think of housing as a critical part of community building and design as an equity issue. We want all neighborhood planning, including housing and urban design, to be thoughtful, open, and welcoming to all."

— James Patchett, President and CEO, NYC Economic Development Corporation

More recently, affordable housing has evolved to incorporate sustainable building practices. The 2005 New Housing New York competition, which resulted in the lauded mixed-income South Bronx development Via Verde (Dattner Architects and Grimshaw Architects, 2012) called for a combination of affordability and sustainability, which has now become standard. The kinds of strategies seen at Via Verde—like solar power, cross-ventilated apartments, on-site health services, and resident garden plots—have influenced other projects, and the City now has related guidelines that help shape affordable housing developments in New York City, including *Enterprise Green Communities Criteria* and the City's *Active Design Guidelines* (see appendix, p. 94).

The next generation of housing developments must address the challenges that have come before, while also supporting new ways of living. Today only 17 percent of New York households are nuclear families; more people live alone or in non-traditional shared living arrangements.[1] Many residents also work from home, meaning that their apartments must function as living spaces and offices. Ninety-six percent of New York's growing population of seniors are aging in place,[2] with many needing homes constructed or adapted for reduced mobility. Most pressing, new housing must help to develop neighborhoods without displacing long-term residents.

Across the country, persistent economical and social inequalities are linked to a history of disinvestment in low-income communities of color. Disparities exist in all realms of life, including housing, which we see in New York City. These disparities have profound impacts on individual outcomes, especially health. The average life expectancy in East Harlem, for instance, is 76. In the more affluent Upper East Side, directly south, residents live to an average of 85.[3] Building quality housing is complex. Challenges—funding, zoning, labor, and community concerns—are compounded by increased disinvestment at the federal level. Each new affordable housing development plays a part in addressing these legacies and constraints.

Housing New York

Confronting the City's major housing challenges, Mayor Bill de Blasio's ambitious *Housing New York 2.0* plan (see appendix, p. 94) calls for the creation and preservation of 300,000 units of affordable housing by 2026.[4] Through a comprehensive set of policies and programs, the plan aims to retain the diversity and vitality of New York's neighborhoods. Senior and supportive housing programs support especially vulnerable populations, while dwellings for non-traditional households, such as micro units, accommodate changing demographics, and experiments in areas like modular construction and adaptive reuse leverage evolving construction technologies for faster, more sustainable development. HPD—in partnership with over 13 sister agencies, advocates, developers, tenants, community organizations, elected officials, and financial institutions—leads the execution of the plan.

Design is a critical component of the *Housing New York* initiative. History shows that rapid housing production, without quality design, can be short-sighted. Housing developments in New York from earlier eras, when not built well at the beginning, have required costly renovations. Beyond the practical necessities of quality architecture and construction, well-designed housing contributes to neighborhood character and can bring a sense of dignity to all residents.

"We look at all projects through the lens of the city's urban design principles, promoting a sense of place, access, attention to detail and comfort. We want housing developments that stand proud."

— Claudia Herasme, Chief Urban Designer and Director of Urban Design, NYC Department of City Planning

This publication coincides with the development of a new review process for affordable housing built on City-owned land that remains under City ownership, overseen by the Public Design Commission. While privately developed affordable housing in New York has often been built on land that the City sells or transfers to developers, New York also, at times, retains ownership of affordable housing sites by leasing land to private entities instead of selling it. These land-lease agreements place these affordable housing developments under PDC jurisdiction and review.

To this end, PDC has collaborated with partner City agencies—DCP, HPD, and the EDC—to create a streamlined interagency review process designed to reduce review timelines and result in better affordable housing (see Review Process diagram, p. 90). As New York City's design review agency, the Commission advocates for excellence and innovation in the public realm, and in advancing quality affordable housing design, the PDC seeks to strengthen and enhance New York neighborhoods while creating affordable units where they are needed most.

About this Publication

The partners of *Designing New York: Quality Affordable Housing* have published this report to synthesize and summarize research to date on achieving affordable

housing design excellence in New York City. Incorporating information from interviews with New York housing leaders from the public and private sectors, the document illustrates best practices in affordable housing design. Through the pursuit of design excellence in affordable housing and the public realm, the ultimate goal of this publication, and the related review process, is to contribute to the public good.

"Great design is one of the best tools that we have to build a fairer city. By designing solutions across different contexts and scales, we can affect real change that not only produces better buildings but better serves our communities."

— Justin Garrett Moore, Executive Director, NYC Public Design Commission

Designing New York: Quality Affordable Housing is designed to be accessible to professionals and the public. The contents should serve as a reference for New York City agencies and their applicants seeking guidance on affordable housing design. Case studies offer inspiration to the broader world of real-estate developers, designers, and affordable housing organizations to show the level of quality that can be achieved in New York City. More broadly, the publication is intended to empower citizens and community organizations to demand design excellence in affordable housing projects in their neighborhoods. The report is organized in three main sections:

Guiding Principles offer design considerations in the categories covered by the Public Design Commission review process: site planning, massing, materiality, façade, windows and doors, ground floor condition, circulation, and open space design.

Case Studies show the design of seven exemplary recent local housing developments, each taking on the specific contexts and challenges of New York City. Connected with the principles, these examples show design innovations from the scale of urban design to architectural detailing.

An **Appendix** gives national and global examples of affordable housing innovation, from areas like California and Europe, and will be developed further into an online reference.

These principles and case studies demonstrate that design is an important tool to address the inequalities that, unfortunately, have historically been manifested in our housing and in the built environment of our communities. The developments presented in this publication were financed through a range of government subsidies to developers. Tax incentives, low-interest loans and other subsidies, including the transfer of City-owned land, encourage developers to create affordable housing, which sometimes returns to market-rate after a certain time period. Developments built under New York City's Mandatory Inclusionary Zoning policy adopted in 2016 or on City-owned land, leased to developers, are required to incorporate permanently affordable units. By requiring private developers to keep rents at below-market levels in perpetuity, the City seeks to provide affordable housing for generations to come.

"We are committed to standards of excellence that promote accessibility, resilience, active design, aging in place, and energy efficiency."

—Maria Torres-Springer, Commissioner, NYC Department of Housing Preservation and Development

This publication uses the U.S. Department of Housing and Urban Development's definition of affordable housing, which states that a housing unit is affordable when it costs 30 percent or less of a household's income.[5] Case study descriptions refer to Area Median Income (AMI), a federally defined standard used to set income bands for residents—for instance, a portion of apartments in a building may be reserved for households with incomes up to 50 percent of the AMI. The affordable and supportive housing covered in this document is set aside for "very low income" to "medium income" households, or from 30 to 250 percent of the AMI. In one case, a development also includes apartments reserved for public housing residents. Each case study provides specific information on its affordability breakdown.

When discussing affordable housing, residents and community leaders often ask, "Affordable to whom?" The AMI for New York comes from the New York Metro Area, a federally defined zone larger than the city. *Housing New York* serves residents making between zero and 165 percent of New York AMI. In the current climate, finding affordable housing is a challenge not only for people with low incomes, but also middle-class New Yorkers. The average New York two-bedroom apartment ($3,562)[6] rents for an unaffordable 45 percent of the median income for a household of four ($95,400).[7] Too many New Yorkers still struggle to find quality housing they can afford.

Toward a More Equitable City

Designing New York: Quality Affordable Housing builds on a number of recent New York City programs, design guidelines, and standards for housing and the built environment (see Appendix, p. 94). Excellent housing has been built, preserved, and supported by these City initiatives, but much work remains.

This collaborative effort by the City and the New York design community represents an opportunity to develop a new generation of high-quality affordable housing that contributes to the quality, character, diversity, and experience of New York City's communities. The document outlines different design strategies tailored to specific neighborhoods, scales, and programs. The Peninsula (see p. 92), for instance, will also address local economic development and provide neighborhood services. In this way, housing provides more than just a home—it offers an infrastructure for New York City, its neighborhoods, and its people.

In pursuing these goals, the publication's partners believe that good design can help build neighborhoods that are better for the environment, better for our health, and better for a shared sense of community and civic pride. As New York City aspires to be a global leader in affordable housing development, preservation, and design, we hope this initiative may offer another tangible step toward the ultimate goal of well-designed housing for all.

1. Citizens Housing and Planning Council: Making Room. (http://chpcny.org/research/making-room/)

2. U.S. Census Bureau: 2010-2014 American Community Survey 5-Year Estimates. (https://www.census.gov/programs-surveys/acs/)

3. Virginia Commonwealth University Center on Health and Society: New York City Life Expectancy Methodology and Data Table. (https://societyhealth.vcu.edu/media/society-health/pdf/CSH-NewYorkMethods.pdf)

4. New York City Housing: Housing New York; By the Numbers. (http://www1.nyc.gov/site/housing/action/by-the-numbers.page)

5. U.S. Department of Housing and Urban Development: Glossary of HUD Terms. (https://www.huduser.gov/portal/glossary/glossary_a.html)

6. Rent Jungle: Rent Trend Data in New York, New York. (https://www.rentjungle.com/average-rent-in-new-york-rent-trends/)

7. New York City Housing Preservation and Development: Area Median Income. (http://www1.nyc.gov/site/hpd/renters/what-is-affordable-housing.page)

“Whether it’s a public or private space within a residential building, is it inviting? Are the materials warm and durable and easily maintained? Are shared spaces designed to encourage the mixing of different types of users? These are the questions we ask.”

— Rosanne Haggerty, President and CEO, Community Solutions

Guiding Principles

The Public Design Commission’s affordable housing review process pursues citywide development goals—equity, sustainability, resiliency, and healthy living—through eight design categories, ranging from site considerations to material selection, based on the distinct phases of PDC’s conceptual, preliminary, and final reviews. Amid New York’s diverse set of neighborhood contexts and development constraints, these points are meant to inspire sensitive and holistic approaches to quality affordable housing design.

While site restrictions, building regulations, and funding challenges often heavily influence design decisions, PDC encourages welcoming and contextually responsive designs, with the understanding that New York City is composed of a diversity of neighborhoods, each with distinct histories, identities, and needs. Many design improvements proposed to address this are often low-cost or cost-neutral. Ultimately, well-designed housing can contribute to a more equitable city, where all residents live in safe and dignified homes and neighborhoods.

The principles are not meant to be prescriptive; rather, they offer areas for evaluation and enhancement. Though PDC purview covers only building exteriors, some interior design decisions are included here—especially for spaces that touch exterior walls—as these influence both the exterior and the overall impact of a development.

Please consult the appendix for additional information on PDC’s review (p. 90) and related NYC guidelines (p.94), including the Department of City Planning’s *Urban Design Principles for Planning New York City*, the Department of Housing Preservation and Development’s *Design Guidelines*, the Mayor’s Office of Recovery and Resiliency’s *Climate Resiliency Design Guidelines*, and the Center for Active Design’s *Active Design Guidelines*. The principles are intended to bridge and supplement existing City guidelines on the design of neighborhoods and residential spaces.

1.
Site Planning

The most impactful design decisions are often made during the site planning phase, laying the groundwork for a project that positively contributes to the lives of its residents and to its neighborhood, and creating the framework for the rest of the design development. The placement and positioning of a project should respond to neighborhood context, adjacent infrastructure and activities, and, in some cases, consider flexibility for future development. Design and development teams, City agencies, and community partners must coordinate site planning early in project development to ensure that projects integrate with existing built fabric and work to further enhance neighborhoods.

- **Consider vehicular, bike, and pedestrian circulation through and around the site...**
- **Consider prominent view corridors and physical intersections...**
- **At corner or full block developments, consider concentrating any commercial activities along main thoroughfares and allow for residential and more passive uses along side streets...**
- **At midblock or infill sites, consider small-scale strategies, such as orientation and screening, to mitigate suboptimal conditions, such as noise, traffic, and unpleasant views...**

2.
Massing

The mass of a building—its form and size—accommodates interior program while also providing a sense of identity and presence on the street. Massing articulations, such as varied building heights and setbacks, can visually connect a building to adjacent structures and respond to a neighborhood's character and scale. Thoughtful and well-designed massing can help to make even a large residential building sensitive to the pedestrian scale and feel like home. Working within zoning constraints, the mass of a building should be designed to take advantage of a site's best features—including views and connections to neighboring buildings —while also mitigating any challenging conditions.

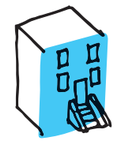
- **Consider breaking up the scale of overall massing to relate to lower or adjacent building heights...**
- **Consider using setbacks to optimize views and public outdoor spaces, such as yards and terraces...**
- **Consider the relationship of building height and setbacks to street width and pedestrian experience on the sidewalk...**
- **At corner or full block developments, consider concentrating bulk adjacent to existing buildings with height, and integrating lower heights adjacent to open spaces and pedestrian thoroughfares...**
- **At midblock or infill sites, consider concentrating bulk at the center of the building, and stepping down toward adjacent lower buildings and the street...**

3.
Materiality

Both aesthetic and functional, building materials can enhance a development's massing and façade strategy, while also contributing to overall building identity. Materials also contribute to a development's environmental impact, constructability, and durability. By selecting sustainable materials as part of a high-performance building envelope, designers can reduce environmental impact and energy costs. Materials should be selected with local construction expertise in mind, noting that a well-designed building requires quality construction. Durable, easily-maintained materials can contribute to the longevity of a building; up-front investment in materials and construction details often results in cost savings over time by reducing the need for renovations.

- **Consider materials that complement rather than strictly match adjacent buildings...**
- **Consider using a combination of materials to help articulate the façade, enhance massing, and distinguish programs at the interior...**
- **Consider materials with low environmental impact that are easily maintained...**
- **Consider the life expectancy of a building, and how materials selected will change over time...**

4.
Façade



Façades are a building's "faces" to the neighborhood, bringing together massing and material decisions to create presence and character. While a street-facing façade can help to create a welcoming identity for the building and its residents, buildings often have visible rear and side façades, giving additional opportunities for design. The façades of a building should be designed with colors, materials, and articulations that form a coherent image. Different faces should be designed in response to interior programs and site conditions. It may be appropriate, for instance, to have distinct and complementary façade designs for street- and rear-facing sides of a building. A beautiful façade can help give residents and neighbors a sense of dignity and feeling of home.

- **Consider how façade design can help enhance a building's character and identity both in the existing community and for its residents...**
- **Consider how each façade uniquely responds to adjacent programs and conditions...**
- **Consider avoiding co-planar material connections to further break down the overall massing...**
- **Consider using functional components, such as sunshades or window frames, to provide depth and shadow lines...**

5. Windows and Doors

While windows and doors are primarily functional, they also help to establish visual connections between interior programs and the surrounding site, and can contribute to a sense of security. A central challenge is to maximize access to natural light and air while meeting energy efficiency goals and providing a sense of privacy for areas like bedrooms and bathrooms. Fenestration—the arrangement of windows and doors on the façade of a building—should be designed to enhance a building's light control and energy efficiency. The location of windows and doors on the façade directly affects the quality of light and flexibility of space at the interior. These elements should be designed to promote visual connections between the sidewalk and interior shared spaces while also providing privacy at private and support areas.

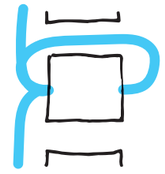
- **Consider how placement of windows and doors can promote visual and physical connections between the interior and exterior...**
- **Consider impacts of the patterning, size, and geometry of windows and doors on interior spaces and programs...**
- **Consider window size, frames, and sunshades as both functional and decorative elements...**
- **Consider integrating HVAC louvers into window framing to simplify detailing...**

6. Ground Floor Condition

The ground floor is where a building meets the street, where residents enter their home, and where neighbors interact with a development. Whether a building contains retail and public programs on the ground floor, or is purely residential, the ground floor should be as welcoming as possible. The design of a ground floor, including fenestration, landscaping, and materials, should enhance a building's presence on the street and accommodate interior programs. Ground floors should be programmed to be as activated as possible, considering shared spaces for residents and visual connections to the street. If a building is in a flood zone, the ground floor should integrate flood resilient strategies and materials.

- **Consider a welcoming arrival threshold with a space designed for residents to gather...**
- **Consider large windows to promote visual connections between the ground-floor activity and the street...**
- **Consider shared residential or public ground floor usages that enhance presence and street life...**
- **Consider plantings or unique design elements to buffer the street wall...**
- **Consider integrated screening of trash and service areas, and if security screening is necessary, consider designs that connect the screening to the overall building character...**

7. Circulation



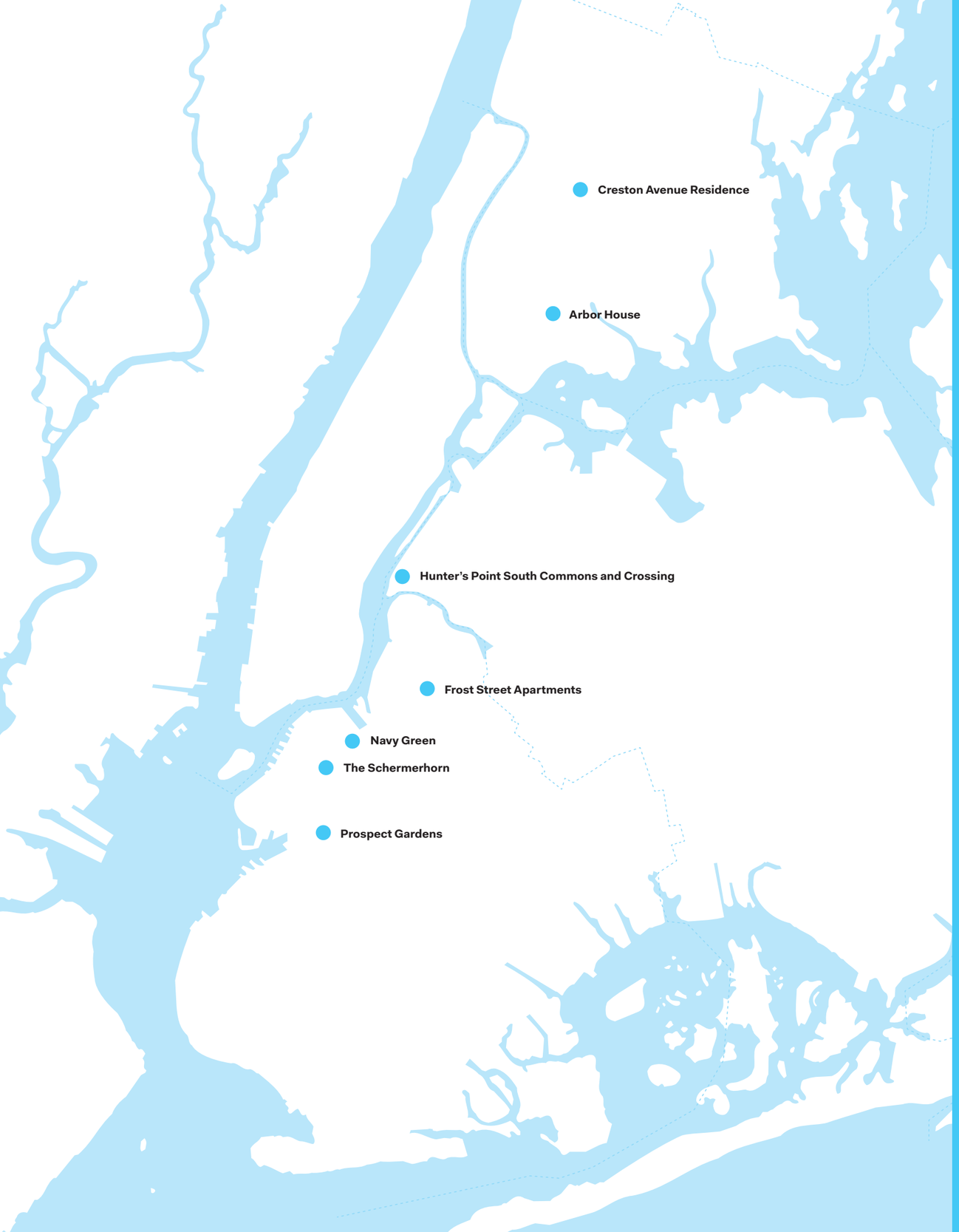
The paths that allow people to move through and around a development can help form well-used public and shared spaces, and provide visual connections between interior programs or between buildings and the street. Often viewed as secondary space, circulation can be used to promote healthy living by making it easier or more inviting to walk, exercise, or climb stairs. Through-site pedestrian circulation can encourage connections between new developments and existing neighborhood communities. Integrating with larger-scale transit infrastructure, such as subway lines and bike lanes, can connect a development's pathways with larger circulation systems.

- **Within a development, consider vehicular, bike, and pedestrian circulation through and around the site...**
- **Within a building, consider integrating circulation, such as stairs, into shared and public spaces to encourage active use and enhance the visual connection between spaces...**
- **Consider using warm and welcoming materials, natural lighting, and educational graphics to promote use...**
- **Consider that visual connections promote physical connections, and use visual corridors to highlight through-site and through-building circulation...**

8. Open Space Design

Outdoor open spaces are critical amenities for residents, and can also provide benefits to the general public. Extending from interior common spaces, front and rear yards, as well as other kinds of open space, such as terraces, are vital design components that can help connect a new building with adjacent development and existing urban fabric. Front yards often provide a semi-public threshold between a private development and the street, while rear yards, courtyards, terraces, and rooftops are typically favorite places for residents to gather. Open spaces should be designed and landscaped to accommodate residents' and neighbors' desired uses, and to contribute to sustainability and resiliency goals.

- **Consider plantings to strategically buffer from street activity and adjacent lot line building walls, and to provide privacy where needed at the ground floor...**
- **Consider seating to connect various programmed areas or to help create distinct zones...**
- **Consider places for tot play and passive seating for seniors...**
- **At terraces, consider programmatic and visual connections to link to larger open spaces adjacent or below...**
- **At large open spaces, consider designs that maximize flexible use...**



Case Studies

The seven case studies included here represent some of the best recent affordable housing built in New York City. Organized from smallest to largest—16 units to 925—these examples illustrate creative and successful design approaches to challenging sites, tight budgets, and ambitious programs. The built projects are all majority income restricted and defined "affordable" by current City regulations. Some projects also include supportive housing components.

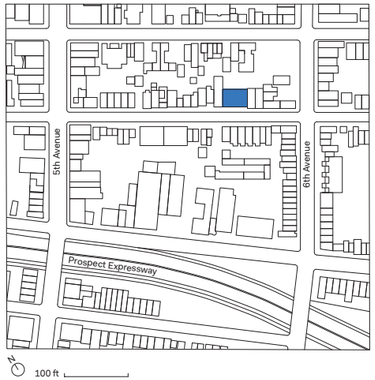
The following text descriptions highlight how these projects thoughtfully address the Public Design Commission's eight guiding principles—considering site planning, massing, materiality, façade, windows and doors, ground floor conditions, circulation, and open space design. Though not explicitly in the Public Design Commission's purview, interior spaces are also discussed, as these areas, including the design of individual units, common spaces, and interior circulation, not only physically connect to the exterior parts of the building that are reviewed by the Commission, but greatly impact the overall design strategy. Well-designed windows, for instance, not only help create pleasing façades—part of the Commission's review—but also produce brightly lit apartments.

Chosen to demonstrate design excellence, these projects exemplify a range of architectural achievements. Together, these case studies pave the way for the next generation of affordable housing design and a more equitable New York, to not only produce better buildings, but better serve our communities.

1

Prospect Gardens (Pilot Infill Prototype)

249-251 16th Street, Brooklyn, NY 11215



Architect: RKTB Architects **Developer:** CPC Resources (CPCR: a for-profit subsidiary of CPC, the Community Preservation Corporation)	**Units:** 16 (8-units per infill prototype, built side-by-side) **Unit Breakdown:** 6 one-bedrooms; 8 two-bedrooms; 2 three-bedrooms (3 one-bedrooms, 4 two-bedrooms, and 1 three-bedroom per infill module)
Site: Midblock **Size:** Extra Small **Stories:** 4 (plus a mezzanine and cellar)	**SF:** 21,680 GSF **SF Breakdown:** 16,905 SF units; 4,775 SF circulation and support space **Open Space:** 3,712 GSF (including both the back yard and 3'-6" setback from the front property line)
Year Bid: 2002 **Year Completed:** 2004	**Funding Source:** CPC Private Equity
$/SF (Hard Cost): $99/SF **Total Construction Cost:** $2 million ($1 million per building) **Total Development Cost:** Unavailable	**Labor Type:** Non-union
% Affordable: 100% Affordable (homeownership program) **AMI Breakdown:** 130%-160% AMI (Citywide affordable homeownership programs capped at 175% AMI in 2004)	
Construction: Steel decking; masonry bearing walls **Façade:** Face-brick	**Energy Rating:** NYSERDA compliant

2

How can one efficient design for infill housing be adapted to a range of sites in medium-density New York neighborhoods?

Prospect Gardens was developed in collaboration by RKTB Architects and CPC Resources, and built in 2004, in South Slope, Brooklyn. The project was created as a pilot for the team's infill prototype model; designed for a typical New York City 25- by 100-foot building lot, intended to be adaptable for a range of infill sites across New York City. The Prospect Gardens development is comprised of two adjacent and nearly identical infill prototype models; each with eight units, a common storage room, cellar recreation rooms, and a rear yard accessible to ground-floor residents. A pitched roof accommodates a mezzanine level in top-floor apartments, hidden from street view, and ground-floor units are handicap accessible. Scaled in reference to the traditional New York row houses along the street, with cornice detailing to complement the façade accents on adjacent buildings, each module is built around a glass-enclosed central stair that acts as the visual focal point of the development both day and night. The articulation of the central stairs, in combination with the slight setback and offset of the two buildings, work to break up the massing impact of the side-by-side modules on the street. The integration of green metal accents at the handrails, stair framing, and street-level trash screening illustrate a sensitive approach to pedestrian scale.

Since Prospect Gardens, which was built as an affordable homeownership program, RKTB has designed and built four subsequent versions of the prototype. Each iteration has been adapted for various lot widths and depths across different R-6 neighborhoods in Brooklyn (see p. 24). A total of 336 apartments are a mix of rental and homeownership. The prototype, at four stories plus a mezzanine and cellar, is designed to be as efficient as possible. It maximizes the allowable height and area for a non-elevator residential building with a single stair. Each module functions and is designed to look like an individual building, each with its own entrance, which breaks down the visual impact on the street when more than one infill model is developed in a series side-by-side.

Under NYC Building Code, the infill prototype is small enough to not require a second means of egress. Apartments are accessed directly from stair landings, organized around a prominent shared stair, eliminating the need for corridors and cutting down on construction costs. All versions of the prototype have floor-through units that bring daylight to both living areas and bedrooms and allow for cross-ventilation. Façade materials and details are changed to respond to unique contexts. Depending on materials and finishes, iterations of the prototype are LEED certified. The prototype is designed for scatter-site development in neighborhoods with discontinuous vacant lots. To date, in addition to South Slope, the prototype has been built in Brownsville, Bedford-Stuyvesant, Prospect Heights, and Crown Heights. While the neighborhood context differs at each of the sites, the prototype is typically built among existing, similarly scaled row houses. A testament to adaptability, this typology of development can be looked to and referenced for infill sites in medium density neighborhoods across New York City.

1. Page 19: Street view.

2. Massing: Scaled close to traditional New York row houses, each module is built around a glass-enclosed central stair that projects beyond the façade. The buildings are set back slightly from the street and offset from each other to break up the overall massing.

Materiality: The red brick façades match adjacent vernacular buildings, while green metal detailing at the railings and stair enclosures add contrast. Thin striping along the window sills contrasts with the red brick façade and complements the sill and lintel details on neighboring buildings. Street-level metal screening hides trash bins from view and further establishes the green metal accent material.

Façade: Two central stairs break up the façade. Cornice detailing echoes façade accents on adjacent buildings and casts shadows on the façades below to accentuate depth.

3. Typical floor plan.

4. Site plan.

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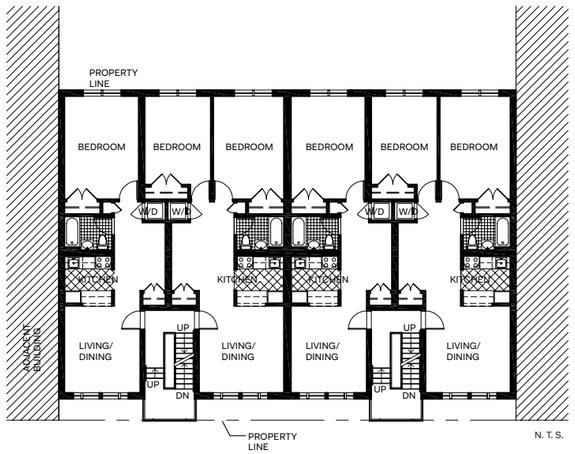

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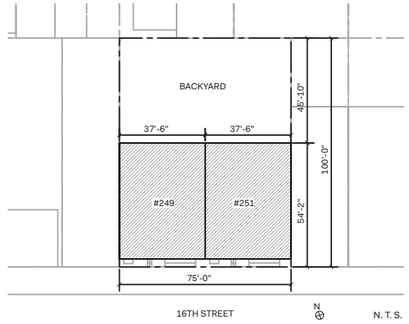

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5. Circulation: Combining form and function, the common staircases become visual focal points, emphasizing the buildings' shared spaces. At night time, the glowing stairwells give the buildings a presence on the street and visually connect the sidewalk, building entrance, and circulation spaces.

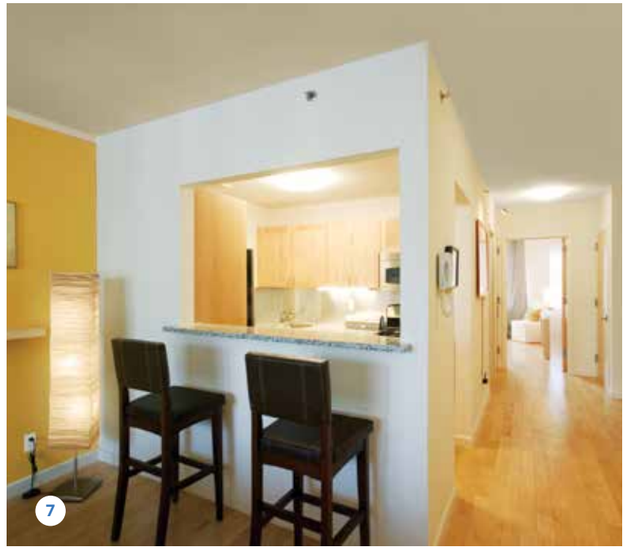
6

6. Circulation: The glass-enclosed stairs are designed to be inviting spaces, in line with NYC Active Design principles. Continuous glazing brings in ample light and provides visual connections with the street.

7. Windows and Doors: The floor-through units are well day-lit and allow for cross-ventilation. Large windows at the front and back of each unit provide ample light for living and dining spaces, as well as for bedrooms. Wood flooring and light finishes are warm and welcoming.

8. Top-floor units have a loft-like space, the mezzanine level, accessed via an internal stair (see building section). These units also have an extra row of clerestory windows and skylights, further brightening the space.

9. Building section.



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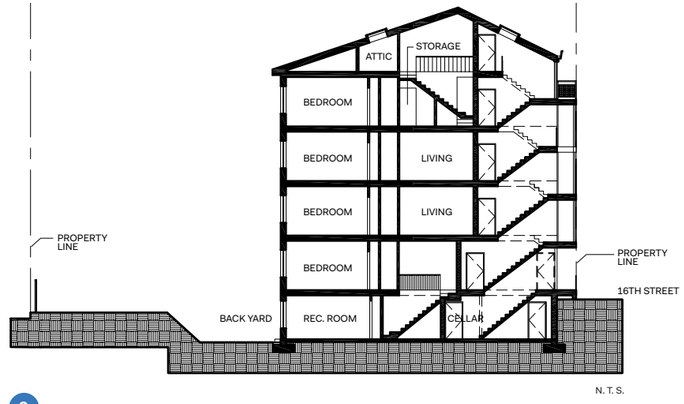

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"Every building has a responsibility to add to people's experience of the city. We want to help create neighborhoods with a welcoming attitude, that make everyone feel good."

— Claudia Herasme, Chief Urban Designer and Director of Urban Design, NYC Department of City Planning

Additional RKTB/CPC Infill Prototype Developments

Msgr. Anthony J. Barretta Apartments 2356 & 2374 Atlantic Avenue, and 2353 Pacific Street, Brooklyn, NY 11233	**Units:** 64 units (8 buildings) **Year Completed:** 2013 **SF:** 65,592 GSF **Total Construction Cost:** $12.06 million **Total Development Cost:** $18 million **$/SF (Hard Cost):** $180/SF
Madison Putnam Housing 926 & 930 Madison Street, and 1009, 1013, 1025, 1052 & 1054 Putnam Avenue, Brooklyn, NY 11221	**Units:** 48 units (7 buildings; 5 of which contain 8 units and 2 of which contain 4 units) **Year Completed:** 2012 **SF:** 60,000 GSF **Total Construction Cost:** $11 million **Total Development Cost:** $15 million **$/SF (Hard Cost):** $183/SF
Sterling Place (not pictured) 476 Sterling Place, Brooklyn, NY 11238	**Units:** 8 units (1 building) **Year Completed:** 2010 **SF:** 8,500 GSF **Total Construction Cost:** $1.5 million **Total Development Cost:** $3.2 million **$/SF (Hard Cost):** $176/SF
Maynard Co-ops 1509 Bergen Street, Brooklyn, NY 11213	**Units:** 48 units (6 buildings) **Year Completed:** 2009 **SF:** 60,000 GSF **Total Construction Cost:** $10.5 million **Total Development Cost:** $16 million **$/SF (Hard Cost):** $175/SF


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10. Msgr. Anthony J. Barretta Apartments: These scatter-site developments were constructed on three nearby lots in Brownsville. In total, eight buildings house 64 units.

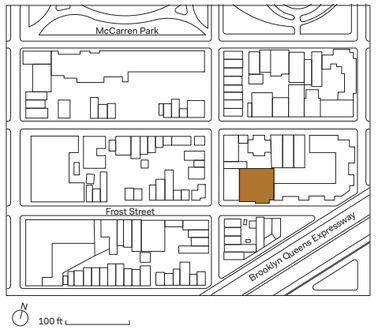
11. Madison Putnam Housing: Built in the Bedford-Stuyvesant neighborhood of Brooklyn, this version of the prototype accommodates 48 units in seven buildings.

12. Maynard Co-ops: Forty-eight apartments are housed in six buildings in this co-op version of the prototype, in Crown Heights.

2

Frost Street Apartments

59 Frost Street, Brooklyn, New York, 11211



Architect: Curtis + Ginsberg Architects

Developer: Dunn Development Corporation

Development Partner: The Center for Family Support

Site: Midblock

Size: Small

Stories: 7

Units: 47

Unit Breakdown: 11 studios; 12 one-bedrooms; 24 two-bedrooms

SF: 45,000 GSF

SF Breakdown: 40,800 SF units; 4,185 SF common & support space (1,050 SF of residential amenity space, comprised of a recreation room, bike room, and support services office; 1,815 SF of circulation space; 1,320 SF of utility & support space)

Open Space: 1,923 GSF (backyard)

Year Bid: 2013

Year Completed: 2015

$/SF (Hard Cost): $213/SF

Total Construction Cost: $9.6 million

Total Development Cost: $13.3 million

% Affordable: 100% Affordable and Supportive

AMI Breakdown: 23 units at 50% AMI (8 of which are supportive studios for adults with developmental disabilities); 14 units at 60% AMI; 9 units at 80% AMI; and 1 super's unit

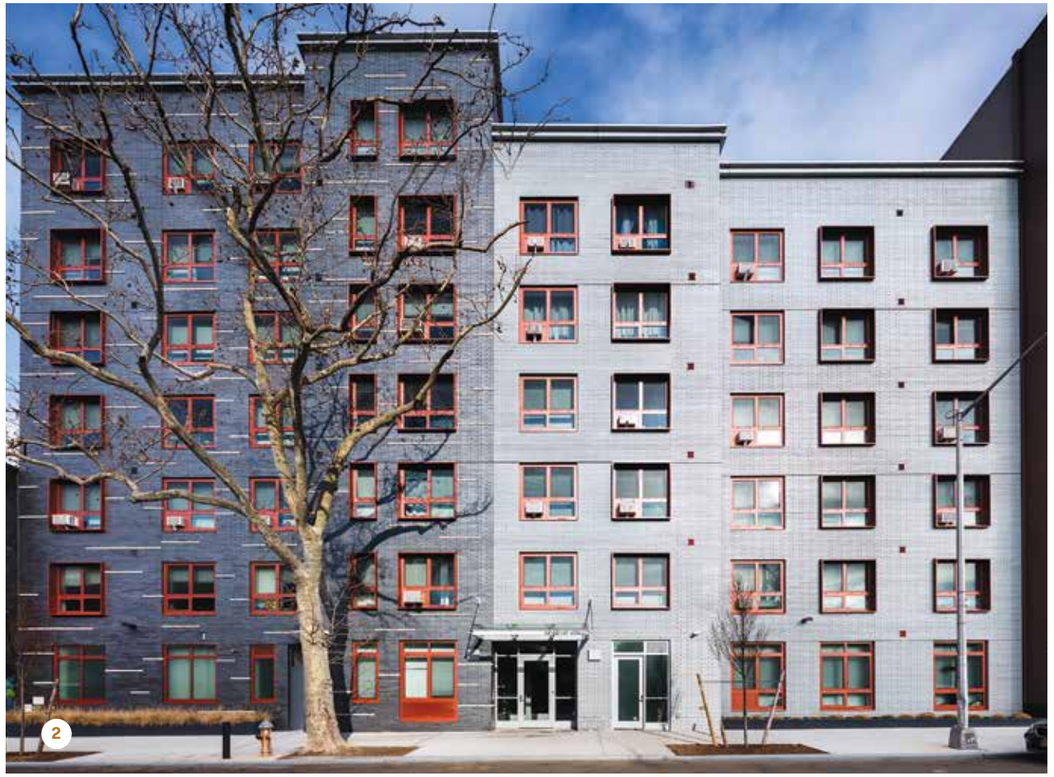
Funding Sources: NYS Homes and Community Renewal Low-Income Housing Tax Credits; NYC Housing Preservation and Development Inclusionary Housing Program; JPMorgan Capital Corporation; JPMorgan Chase Bank

Labor Type: Non-union; non-prevailing wage

Construction: Precast concrete plank on ICF (Insulated Concrete Framework) bearing walls

Façade: Face-brick

Energy Rating: NYSERDA compliant; meets NYSHCR Green Design criteria



2

How can a building embody the concept of development without displacement?

The Frost Street Apartments provide 47 units of permanently affordable housing in the increasingly gentrified neighborhood of Williamsburg, Brooklyn. Apartments are reserved for households with incomes at 50%, 60%, and 80% of the area median, with eight set aside for adults with developmental disabilities. The seven-story building is designed to complement a wide range of surrounding typologies, from row houses and mid-density residential, to light industrial. The building is constructed to the same height as the contemporary apartment building to the east, but the massing is broken down and articulated through setbacks along the street wall and two colors of face-brick. These massing gestures and design decisions allow the building to add residential density, while also connecting the building to the scale of the neighboring two- and three-story row houses from the 1920's. From the street, the development appears as four, small attached buildings, rather than one large structure.

At the façade, red window frames project beyond the masonry wall, which is detailed with cast stone accents and a metal cornice, to reference the detailing of the 1920's row houses but with a contemporary adaptation. Accessed through the lobby on the ground floor, Frost Street's community room opens onto a rear yard landscaped with both distinct areas for play and more passive uses.

3

In addition to the community room and rear yard, on-site support services are available for residents with disabilities, and bike storage is provided for all residents. In the individual apartments, light-filled units feature bamboo flooring and open kitchens. Five percent of the units are pre-adapted to be handicapped accessible.

Faced with difficult site conditions, the Frost Street development is located near the elevated Brooklyn-Queens Expressway (BQE) and is in the 500-year flood plain. High-performance windows and a heavy masonry and concrete structure mitigate noise from BQE traffic, while MEP systems are located above sidewalk level, with the boiler at the seventh floor, to prevent flood damage. To achieve energy efficiency, Insulated Concrete Framework (ICF) bearing walls provide a continuous thermal envelope, while high-performance windows and cogeneration increase energy efficiency. Through these design and construction strategies, Frost Street requires 15% less energy than the baseline.

From massing strategies to façade details and mitigation techniques, Frost Street exemplifies inspired design that elegantly roots affordability in a rapidly evolving neighborhood.

1. Page 27: Street view.

2. Massing: Frost Street is sited amid two- and three-story buildings from the 1920s, a large contemporary apartment building, and the nearby elevated Brooklyn-Queens Expressway (BQE). Responding to this diverse context, setbacks along the street wall, along with a change in height, give the feeling of four, smaller attached buildings.

Materiality: Complementing the varied massing, two brick façade colors—dark and light gray—visually break the building into two halves. Bright red window frames add an additional pop of color and visual interest.

Ground Floor Condition: A fully glazed and transparent entrance door, transom, and side panels visually connect the sidewalk with the entrance vestibule and lobby beyond. A glass awning provides weather protection and marks the building entrance. Plantings accentuate building setbacks.

3. View of Frost Street from the BQE. To mitigate noise transmission from the nearby elevated Brooklyn-Queens Expressway (BQE), Frost Street was built using a combination of heavy masonry and concrete, with high-performance windows.

"We look for projects that are designed to respond to the priorities of communities and add to the physical context of the surrounding neighborhood."

— Maria Torres-Springer, Commissioner, NYC Department of Housing Preservation and Development

4. Façade: The façade is articulated with bright red window frames that irregularly project beyond the masonry. Courses of linear cast stone distributed in the brickwork and the minimal metal cornice, including a double-banded coping detail, further accentuate variations in plane. These details, combined with building setbacks, introduce shadow lines on the façade and help articulate the street-wall.

Windows and Doors: Large window assemblies, many with projecting frames, incorporate through-wall air conditioning units, streamlining the building systems detailing. High-performance windows allow in ample daylight, while also mediating noise.

5. Circulation: Wood paneling on the walls in the compact, light-filled lobby welcomes residents and contrasts with the cool tones of the brick exterior.

6. Circulation: A sill below the mailboxes gives residents a place to set down mail and packages. Elevators are marked with stone tile.

7. Building section through the lobby.

LOBBY BUILDING SECTION N.T.S.

"Well-designed affordable housing weaves into the fabric of a sustainable and stable neighborhood. We cannot continue to segregate and isolate affordable housing residents with poor doors, poor floors, and fences."

— Barika X. Williams, Deputy Director, Association for Neighborhood & Housing Development (ANHD)

8

8. Open Space Design: Front Street's small rear yard is designed with distinct zones for play, incorporating play equipment on turf grass, and more passive uses, including tables and seating. A curved low wall defines the play space from the passive spaces and provides additional seating. Native and adapted plants buffer the space from adjacent properties.

9. Located at the back of the building, the simply furnished community room provides direct access to the rear yard. Floor-to-ceiling windows create a seamless visual connection between the interior and exterior spaces.

10. Ground floor plan.

11. Typical floor plan.

9

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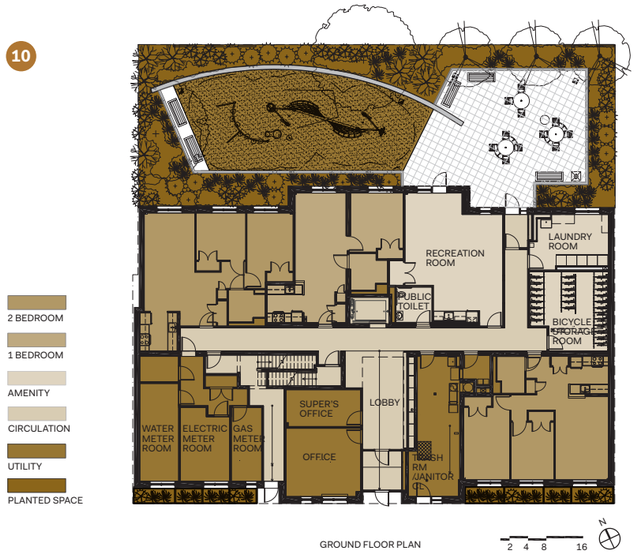
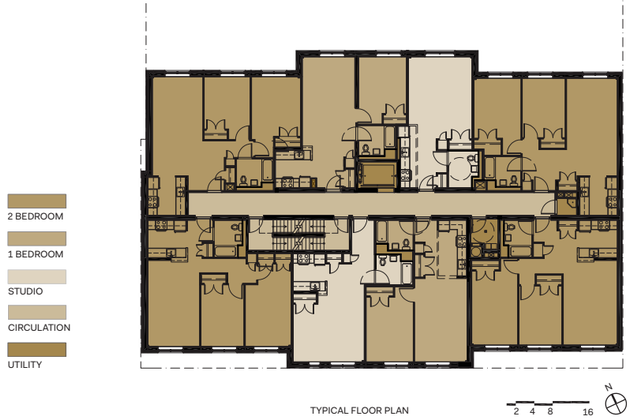


GROUND FLOOR PLAN

11



TYPICAL FLOOR PLAN

"Design can never be an afterthought. It has to be integrated from the beginning. We're building for generations. It's the only way to have a lasting impact."

— James Patchett, President and CEO, NYC Economic Development Corporation

3

Creston Avenue Residence

2388 Creston Avenue, Bronx, NY 10468

Architect: Magnusson Architecture & Planning

Landscape Architect: Terrain-NYC

Developer: Volunteers of America-Greater New York

Development Partners: The Housing Collaborative with Robert Sanborn

Site: Midblock

Size: Small/Medium

Stories: 10 (plus a cellar)

Units: 66

Unit Breakdown: 21 studios; 12 one-bedrooms; 33 two-bedrooms

SF: 63,032 GSF

SF Breakdown: 44,000 SF units; 5,132 SF common and support spaces (including administration offices, laundry room, and a bike room); 11,000 SF circulation; 2,200 SF mechanical and utility space

Open Space: 4,400 GSF (including 2,900 SF rear yard and 1,500 SF non-accessible terraced green roofs)

Year Bid: 2012

Year Completed: 2015

$/SF (Hard Cost): $230/SF

Total Construction Cost: $14.37 million

Total Development Cost: $24.1 million

% Affordable: 100% Affordable & Supportive

AMI Breakdown: 21 supportive units at 30% AMI; 44 affordable units at 60% AMI; and 1 super's unit

Funding Sources: NYS Medicaid Redesign Team Supportive Housing Initiative; NYS Homeless Housing Assistance Program; NYS Bond Financing; Low-Income Housing Tax Credits; Federal Home Loan Bank; Private Commercial Loan

Labor Type: Non-union; prevailing wage

Construction: Block and plank; select areas at the cellar cast-in-place concrete; steel columns at the ground floor

Façade: Face-brick and metal panel cladding

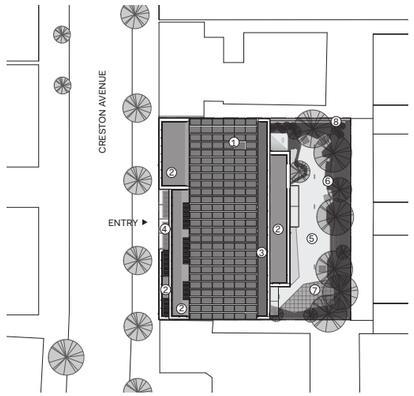
Energy Rating: LEED Home Platinum; NYSERDA MPP & Energy Star Certified

2

3

How can a new supportive and affordable housing development, twice the height of its neighboring buildings, help to bring dignity to its often-stigmatized residents, while enhancing its block and neighborhood?

Magnusson Architecture & Planning designed Creston to connect visually with its neighboring buildings through complementary façade materials and an articulated building mass. Creston's front entrance is pulled back from the street and set between two brick volumes, reflecting adjacent residential buildings with recessed entry courts. The building's height is disguised through setbacks and brick-faced sections of the building, designed with proportions and materials similar to neighboring properties. A contemporary, muted color palette, with gray brick veneer and light metal panels, provides visual interest without deploying façade designs associated primarily with low-income housing. The firm even designed some of the building's most visible environmental sustainability elements with the building's surroundings in mind. Vertical shade structures on the front façade are inspired by neighboring fire escapes.



4

1 SOLAR PANELS
2 GREEN ROOF
3 BLUE ROOF
4 SUN SHADE DEVICES
5 OUTDOOR TERRACE W/POROUS PAVERS
6 URBAN VEGETABLE GARDEN
7 CHILDREN'S PLAY SPACE
8 RAINWATER HARVESTING SYSTEM

1. Page 35: Street View.

2. Massing: Creston is broken into sections, giving the feel of a series of smaller buildings. On the street side, two brick-faced volumes align with adjacent older residences and echo their smaller scale, while the center portion, clad in metal panels, pulls back to create a generous covered entrance. The tallest portion of the building is set back from the street, forming upper-floor (non-accessible) terraces.

3. Façade: Sunshades wrap the top row of windows and are scaled to reference fire escapes on adjacent buildings.

4. Roof plan.

5. Building section.

6. Materiality: Subtly varied façade materials complement Creston's surrounding brick buildings without copying them. A façade pattern of elongated gray veneer bricks, plus metal façade panels and light-colored sunshades, creates visual interest without using the bright colored brick striping that many have come to associate with low-income housing.

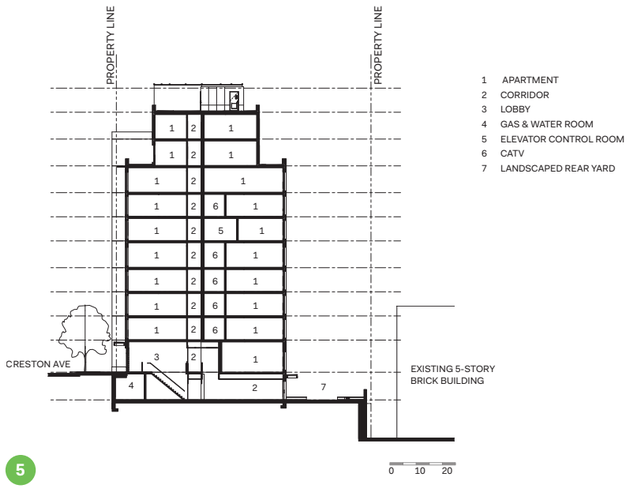
Façade: The front façade is well articulated, using a variety of materials, terraces and setbacks. Functional sunshades also help to break up the overall impact of the massing. The vertical façade element complements horizontal bands of windows. At the back façade, recessed windows show an attention to detail and create depth and shadow lines.

Windows and Doors: Large windows at the ground floor and on both the front and back of the building provide ample light to apartments and visually connect outdoor and indoor uses. Air intake panels are integrated into window systems, creating a cleaner façade.

Creston combines 44 one- and two-bedroom affordable apartments with 21 supportive-housing studio apartments and a super's unit. The building provides housing to individuals and families who are chronically homeless, or in danger of becoming homeless, veterans with housing vouchers, and households meeting income eligibility requirements. Residents of the studio apartments have access to onsite supportive services in a suite of ground-floor offices. Featuring an array of environmentally sustainable features, including rooftop photovoltaics, green roofs at the upper floor setbacks, and a rainwater harvesting system, Creston is one of few LEED Platinum Certified supportive housing buildings in the United States. Creston is located one block from a subway station, three blocks from Saint James Park, and close to the Grand Concourse.

Inside, large windows bring ample light to the apartments, while glazing at the ground floor lobby and at street-facing supportive service offices connect internal building activity to the street during the day, and provide street-level illumination at night, all designed with safety in mind. Cellar-level community rooms and amenities open onto a rear courtyard landscaped with native plants, with built-in seating and tables.

Creston is the first building funded by the New York State Medicaid Redesign Team Supportive Housing Initiative, an initiative that recognizes housing as a social determinant of health. The New York State Department of Health has provided funding to supportive housing projects like Creston to improve the quality of care provided to residents using Medicaid and to reduce avoidable hospital use. This unorthodox funding source was part of the combination of federal and state public subsidies and private sources that funded the $24.1 million development.



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"Sustainability is not just about green building, not just a checklist. How do you incorporate active design, promote the use of the stairways, and positively impact residents' health?"

— Fernando Villa, AIA LEED AP BD+C, Principal, Magnusson Architecture and Planning; Co-Chair, AIANY Housing Committee

7

8

7. Ground Floor Condition: Gray brick wraps from the exterior of the building into the interior lobby, making a visual connection with the street. Lobby furniture and finishes in warm colors complement the tones of the exterior, giving an overall visual identity for the building.

8. Ground Floor Condition: Large windows at the ground floor provide visibility to and from the sidewalk and give a sense of safety. A canopy and distinctive paving at the front entrance distinguishes the building entry.

9. Ground floor plan. Creston's sloped site places rear yard-facing community rooms on the cellar level, below this plan.

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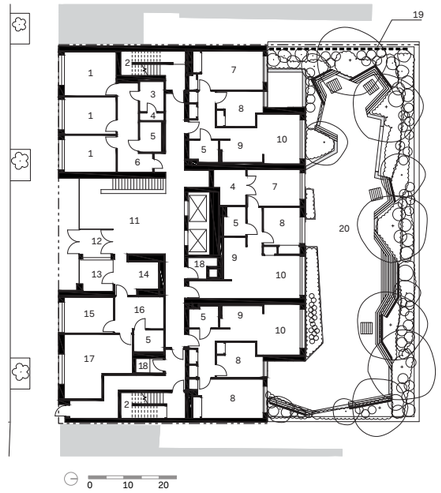

1 OFFICES
2 STAIR
3 KITCHENETTE
4 STORAGE
5 BATHROOM
6 WAITING ROOM
7 MASTER BEDROOM
8 BEDROOM
9 KITCHEN
10 LIVING & DINING
11 LOBBY
12 VESTIBULE
13 SECURITY
14 MAIL AREA
15 PROGRAM DIRECTOR OFFICE
16 ADMIN ASSISTANT
17 CONFERENCE ROOM
18 TRASH ROOM
19 RAINWATER HARVESTING TANKS
20 BACKYARD (accessed from Cellar Level)

10

11

10. Open Space Design: An articulated wood bench lines the full rear and side perimeter of the yard, with built-in tables. Native plantings provide a visual buffer at lot lines. A covered rear entry with large glass doors provides a visual connection between interior and exterior spaces.

11. Community rooms are located at the cellar level, toward the back of the building, to provide a sense of privacy. Looking out onto the garden through large windows, the spaces have a calm feel.

12. Windows and Doors: Generous apartment windows create light-filled spaces, while contemporary cabinetry and finishes help bring a sense of dignity to all residents.

13. Typical floor plan.

14. Creston's array of environmentally sustainable systems and materials goes above and beyond typical supportive housing developments. The residence incorporates water- and energy-saving building systems and landscape features with low-VOC interior finishes and formaldehyde-free materials.

Where some buildings neglect roof design, Creston combines a blue roof water harvesting system with a solar canopy to maximize environmental sustainability. The technically engineered elements are also designed to connect visually with the lines of the windows, sunshades, and massing breaks below.

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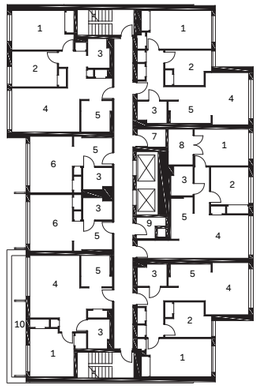


1 MASTER BEDROOM
2 BEDROOM
3 BATHROOM
4 LIVING & DINING
5 KITCHEN
6 LIVING, DINING & SLEEPING
7 CATV
8 STORAGE
9 TRASH ROOM
10 GREEN ROOF

WATER
1 RAINWATER HARVESTING SYSTEM
2 "BLUE ROOF"—WATER CONTAINMENT
3 STORM WATER STORAGE SYSTEM
4 WATER SENSE PLUMBING FIXTURES
5 GREEN ROOF

ENERGY
6 SOLAR PANELS
7 HIGH EFFICIENCY PTAC'S
8 SUPER-INSULATED ENVELOPE
9 HIGH EFFICIENCY BOILER
10 LED LIGHTING
11 ENERGY STAR LIGHTING
12 SUN SHADES

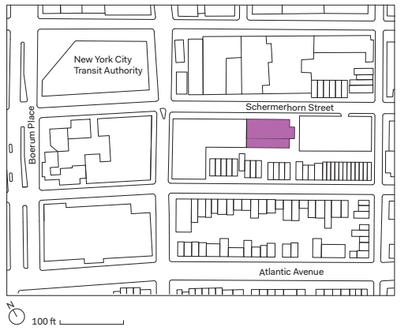
GREEN
13 LOW VOC PAINTS
14 FORMALDEHYDE FREE CABINETS

SITE
15 DROUGHT TOLERANT NATIVE PLANT SPECIES
16 CHILDREN'S PLAY SPACE
17 PERMEABLE PAVERS

4

The Schermerhorn

160 Schermerhorn Street, Brooklyn, NY 11201



Architect: Ennead Architects

Structural Engineer: Silman

Developer: Breaking Ground; Hamlin Ventures; Time Equities

Development Partners: The Actors Fund

Site: Midblock

Size: Medium

Stories: 11

Units: 217

Unit Breakdown: 180 studio units; 9 multi-person suites (each with 4 single bedrooms and shared facilities); and 1 super's unit

SF: 98,000 GSF

SF Breakdown: 64,314 SF units; 4,914 SF common and social services space; 1,904 SF lobby and gallery space; 3,187 SF theater space; 1,935 SF flex multi-purpose room (currently a dance studio); 14,512 SF circulation; 4,185 SF support spaces; approximately 4,000 SF mechanical

Open Space: 3,500 GSF (rear terrace)

Year Bid: 2006

Year Completed: 2009

$/SF (Hard Cost): $429/SF

Total Construction Cost: $43.6 million

Total Development Cost: $59 million

% Affordable: 100% Affordable and Supportive

AMI Breakdown: 109 units for formerly homeless and persons living with HIV/AIDS; 107 units at 60% AMI; and 1 super's unit

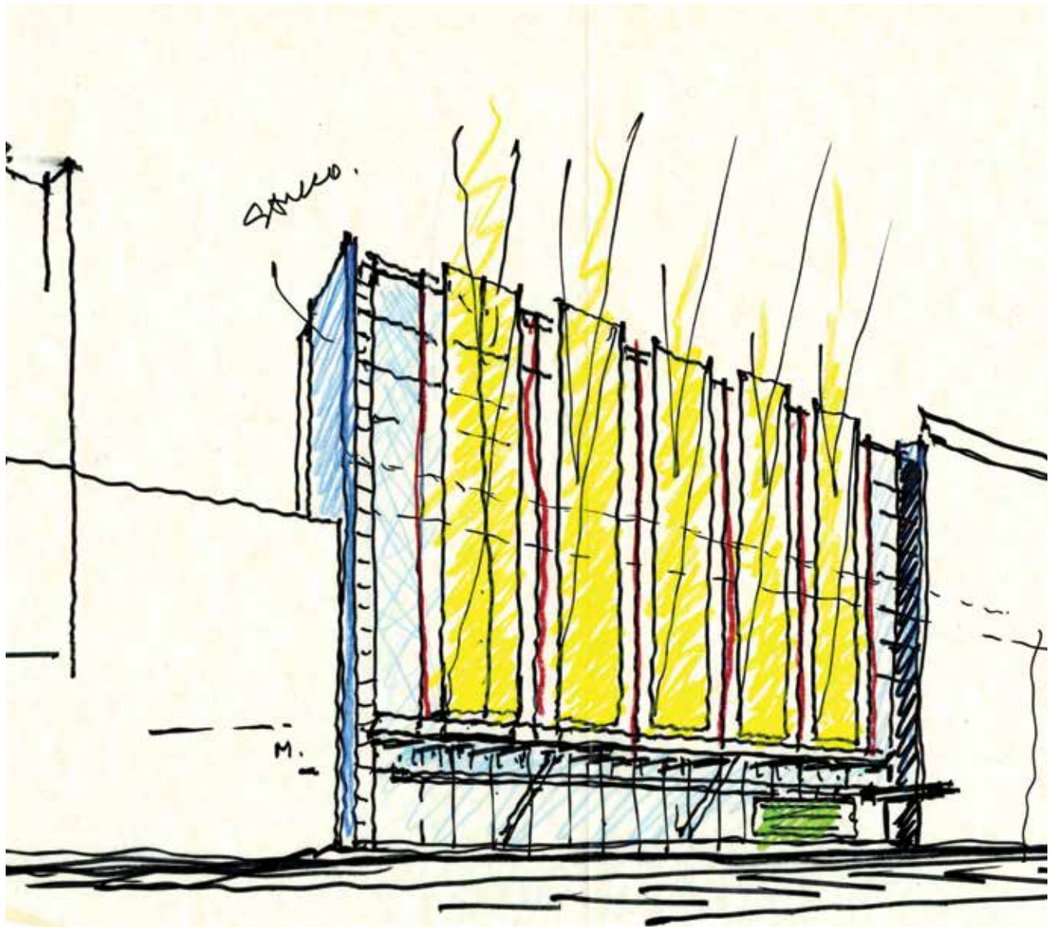
Funding Sources: NYC Housing Development Corporation Bond Financing; NYC Housing Preservation and Development Inclusionary Housing Program; NYS Homeless Housing and Assistance Corporation Loans; Federal Home Loan Bank of New York Grant; Low-Income Housing Tax Credits; Private Bond Financing (cross-subsidized by an adjacent market-rate development, see project description)

Labor Type: Union

Construction: Steel trusses on piles (four steel trusses cantilever the building over the subway lines that run below)

Façade: Glass and aluminum panel cladding

Energy Rating: Not Rated: Sustainable design principles informed the selection of systems and materials for the project (see project description)



2

How can a building contribute to a sense of community, and help its residents regain stable, independent lives?

Built on a challenging site in rapidly changing Boerum Hill, Brooklyn, The Schermerhorn incorporates studio apartments for a range of residents, supportive services, and The Actors Fund Arts Center. The award-winning building, designed by Ennead Architects (formerly Polshek Partnership), also represents a feat of engineering completed by Silman: four giant trusses cantilever the structure over the subway tunnel directly below the site, while a lightweight glass and aluminum façade reduces structural loads.

The Schermerhorn was developed by Breaking Ground (formerly Common Ground Community), with Hamlin Ventures, Time Equities, and The Actors Fund. Hamlin Ventures and Time Equities purchased the development site for The Schermerhorn and the adjacent, market-rate State Street Townhouses from New York State. To comply with an affordable housing requirement in its Land Disposition Agreement (LDA), the developers transferred a 15,000 SF portion of the nearly two-acre site to Breaking Ground at no cost, to develop affordable and supportive housing. The site is part of the Brooklyn Center Urban Renewal Plan, and had been leased as parking lots since 1977.

Each of The Schermerhorn's nine residential floors arrays 20 affordable studio apartments along day-lit, double-loaded corridors. A suite at one end of each floor contains four additional single supportive housing units, with a shared kitchen and bathrooms. Housing is reserved for formerly homeless single adults, people living with HIV/AIDS, and low-income residents from the local community, with a preference given to those working in the performing arts. Though not formally rated, sustainable design principles informed the selection of project materials. The second floor "green" roof terrace works to minimize the heat-island effect, and the building's channel glass is fabricated with a high percentage of post-consumer waste glass, with low-E glazing used on all other windows and curtainwall systems.

Located at the border of primarily residential Boerum Hill and the municipal and commercial buildings of Downtown Brooklyn, The Schermerhorn is within blocks of 11 different subway lines. To respond to these two distinct contexts, the building has two main façades. On Schermerhorn Street, facing dense Downtown Brooklyn, five vertical façade elements, made of translucent channel glass with aluminum trim, extend past the building's roofline, over a transparent glass base. The rear façade, oriented toward a traditionally lower-scale, but now rapidly developing Boerum Hill, features horizontal bands of windows and cement board panels and a second-floor planted outdoor terrace.

The building's double-height ground floor, with exposed trusses, is fully glazed along Schermerhorn Street, visually connecting the lobby and multi-purpose room (currently a Brooklyn Ballet dance studio) to the street. The Mark O'Donnell Theater at The Actors Fund Arts Center, a black box performance space, also on the ground floor, hosts performances by Brooklyn-based artists and arts groups, along with Schermerhorn residents. The building's second floor is occupied by social services and shared tenant spaces, opening onto a rear terrace.

Situated along the seam of two neighborhoods and above difficult site conditions, The Schermerhorn implements creative structural strategies and façade systems, in partnership with inspired programming, to provide housing and positively impact the public realm.

3

1. Page 45: Front façade at night.

2. The front façade is visually defined by five vertical channel glass panels. A blue structural fin extends from the front to the rear of the building.

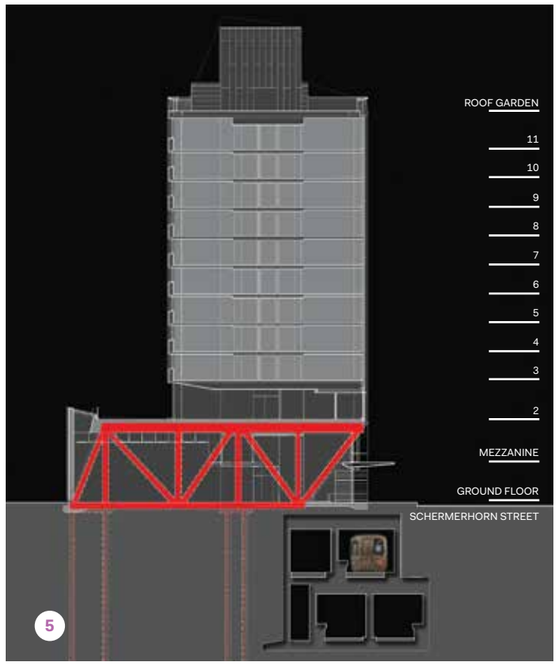
3. Façade: Ennead designed the façade with panelized channel glass and aluminum panels in order to lighten the building's structural load, a functional approach that resulted in a unique design incorporating generous glazing. Layered glass and metal panels give depth to the façade and introduce shadow lines.

Massing: The building's simple, extruded mass is articulated on the front with vertical glass panels extending beyond the roofline and on the back with horizontal window bands and a terrace.

4

4. <u>Ground Floor Condition:</u> The Schermerhorn's front façade is fully glazed at the ground floor. An oversized awning marks the building entrance, used by residents and the public. At night, the ground-floor lobby and multi-purpose room (currently a dance studio) glow.

5. Building The Schermerhorn over the two subway lines that run below the site required a truss and cantilever structure that took up the majority of the construction budget. Four steel trusses are exposed in ground-floor community spaces and visible through façade glazing. These trusses structurally isolate the building and support a flat plate concrete structural system above.



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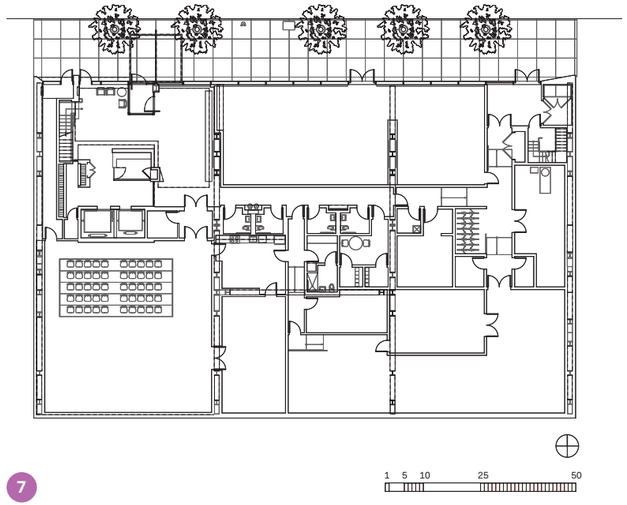

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6. The Schermerhorn was developed in collaboration with The Actors Fund, a non-profit that provides services and support, including housing, for performing arts and entertainment professionals. Flexible ground- and second-floor community and performance spaces, including a dance studio run by the Brooklyn Ballet, a 2,000 SF black box performance space operated by The Actors Fund, and social service offices provide amenities to residents and the community at large.

7. Ground floor plan.

8

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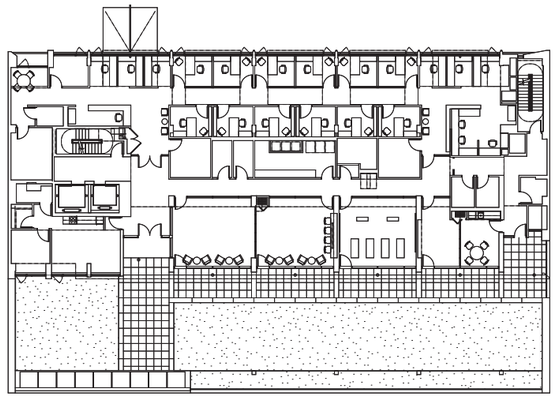

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8. Second-floor social service and community spaces have direct views onto the rear terrace through floor-to-ceiling glazing. Interiors are accented with brightly colored walls and furniture.

9. Façade: The rear façade incorporates large windows and horizontal bands of cement board panels, accented with porthole louvers accommodating HVAC units.

10. Second floor plan.

11. Open Space Design: A rear terrace with simple landscaping provides a shared lawn, buffered by edge plantings, for use by residents.

Windows and Doors: Floor-to-ceiling glazing at the double-height ground floor and second-floor rear terrace provide visual connections between outdoor and indoor spaces. Large windows at the residential units bring in ample light to the small apartments. Low-E glazing is used throughout.

11

"Our residents want to live in a safe, well-maintained, private, affordable place—not a building that stands out as housing for formerly homeless people."

— Rosanne Haggerty, President and CEO, Community Solutions

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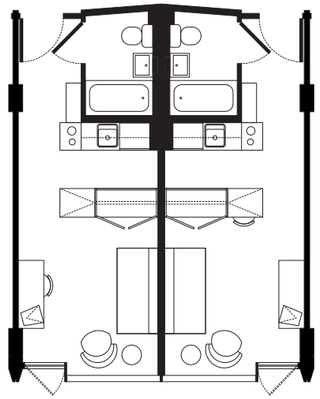

N. T. S.

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12. Apartments are small, but light-filled, and furnished with Ennead-designed built-ins. Façade walls are almost fully glazed, with translucent channel glass to provide privacy. Floors are finished with warm-colored linoleum.

Oversized air conditioning unit casings provide usable surface space. Hinged built-in wood furniture folds down to create a table or desk, separating the sleeping and living areas from the kitchen.

13. **Materiality:** Complementary glass and aluminum front façade components are framed in gray and beige elements. The overall cool color palette contrasts with the neighboring red and yellow brick building, while the building's blue fin and yellow elevator bulkhead give pops of color.

Windows and Doors: Translucent channel glass allows in light, while providing a sense of privacy (see interior photo, left).

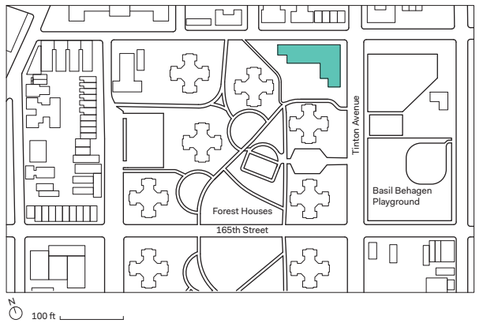
14. Rear façade detail.

15. Typical unit plans.

5

Arbor House

770 East 166th Street, Bronx, New York, 10456



Architect: ABS Architects; Danois Architects

Landscape Architect: Hanna Packer; Town and Garden

Artist: Beatrice Coron

Energy Consultant: Steven Winter Associates

Developer: Blue Sea Development Company

Development Partners: Housing Partnership Development Corporation

Site: Corner lot; NYCHA infill site

Size: Medium

Stories: 8

Units: 124

Unit Breakdown: 16 studios; 33 one-bedrooms; 75 two-bedrooms

SF: 129,000 GSF

SF Breakdown: 120,000 SF core building and residential; 9,000 SF rooftop greenhouse and farm

Open Space: 10,000 GSF (courtyard)

Parking Spaces: 43 (cellar level)

Year Bid: 2008-2010 (from RFP award to project close)

Year Completed: 2012

$/SF (Hard Cost): $256/SF

Total Construction Cost: $31 million ($28.875 million, residential; $1.32 million, greenhouse; $1 million, parking)

Total Development Cost: $37.7 million

Funding Sources: NYC Housing Development Corporation Low-Income Affordable Marketplace Program (LAMP); Housing Preservation and Development Mixed Income Rental Program (MIRP); NYS Homes and Community Renewal Homes for Working Families (HWF) Program; NYS Energy Research and Development Authority (NYSERDA) Multifamily Performance Program; Low-Income Housing Tax Credits; RBC Capital Markets; JP Morgan Chase; Bronx Borough President, Ruben Diaz, Jr.; City Council Member Helen Foster

% Affordable: 100% Affordable

AMI Breakdown: up to 60% AMI; 25% of units set aside for current NYC Housing Authority (NYCHA) residents and those on the NYCHA waitlist

Labor Type: Mix of union and non-union

Construction: Poured-in-place reinforced concrete foundation; precast concrete bearing walls; precast concrete plank floors (Building construction used primarily local and recycled products; over 90% of the construction waste was recycled and diverted from landfills)

Façade: Cast-in brick panels; metal panel cladding

Energy Rating: NGBS Gold; LEED Platinum; Energy Star certified

Health: Active Design Certified

2

How can an apartment building contribute to its residents' health?

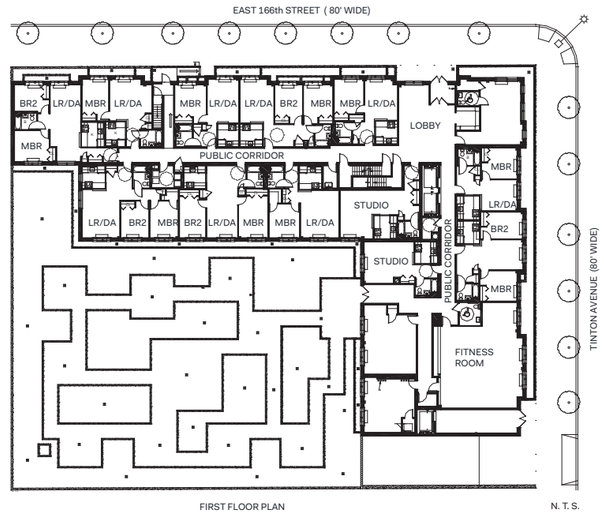
Built in the Morrisania section of the Bronx—where residents have lower life expectancies and disproportionally high rates of preventable chronic diseases like diabetes, compared to New Yorkers in more affluent neighborhoods—Arbor House incorporates healthy building materials and strategies from the NYC *Active Design Guidelines* in an attempt to positively affect the health of its residents. ABS Architects with Danois Architects integrated a range of building elements designed to promote physical activity, including an indoor gym, an outdoor fitness circuit, and a wide, central stair with a fire-rated glass enclosure to bring in daylight. As part of an overall environmental strategy by Steven Winter Associates, all building materials have low VOC content. A hydroponic farm in a 9,000 SF rooftop greenhouse produces lettuces and herbs that may be purchased by residents. In a multi-year study conducted by the Mount Sinai School of Medicine, residents reported increased stair use, instead of using elevators that are programmed to be slow, and made suggestions to improve the use of indoor and outdoor communal spaces.

Arbor House is a mid-rise, L-shaped building on a corner infill lot. The building's façade is articulated through setbacks and cantilevered dormer bay windows. Its exterior material palette, of cast-in brick, accented with prefab metal panels and precast concrete panels, links the building to its brick New York City Housing Authority (NYCHA)-tower neighbors without copying them. Organic-themed artwork created by local artist Beatrice Coron, inspired by her collaboration with children from the adjacent NYCHA Forest Houses, is integrated into exterior fencing and security screens and accents common interior spaces. Relatively inexpensive to create and install, the series of integrated artworks helps to give the building a sense of identity.

The 8-story LEED Platinum building contains 124 generously sized studio, one-bedroom, and two-bedroom apartments. Studios, for instance, average 430 SF, well above the 350 SF minimum now set by NYC Housing Preservation and Development (HPD), while one-bedrooms average 562 SF, compared to the 500 SF minimum, and two-bedrooms average 841 SF, well over the minimum of 650 SF. Instead of the typical block-and-plank construction, Arbor House was built using precast concrete bearing walls and a manufactured façade system that together reduced construction time for the building's full structural system to 42 days.

Arbor House, developed by Blue Sea Development Company with the Housing Partnership Development Corporation, was built under Quality Housing zoning, which allowed an FAR of 3.0 in the site's R-6 zone. By obtaining a waiver for a street-wall setback height requirement, the developers were able to maximize the buildable area. A cellar-level parking garage contains 43 unattended parking spaces.

The site for Arbor House was purchased from NYCHA at its Forest Houses campus. As part of the agreement, 25% of the units were set aside for current NYCHA residents and those on NYCHA's waitlist, while the rest were reserved for households making 60% of the area median income. Funded by a range of public and private sources, Arbor House was developed under the NYC Housing Development Corporation's Low-Income Affordable Marketplace Program (LAMP) and subsidized by the Housing Preservation and Development Mixed Income Rental Program (MIRP). Funding was also provided by the offices of the Bronx borough president and a local city councilmember.



3

1. Page 55: Street view across Tinton Avenue.

2. **Site Planning:** In contrast to the six 14-story, cruciform public housing towers spaced across the adjacent six-acre verdant NYCHA lot, the L-shaped, 8-story Arbor House is built up to the edge of the sidewalk, defining the corner of the NYCHA campus.

Massing: Arbor House is built to the maximum site FAR without building setbacks. Its simple form is accented with four-floor, metal-clad façade projections. The building is topped with a set of three pitched-roof greenhouses that glow at night.

Materiality: Clad mainly in cast-in brick, echoing the adjacent NYCHA towers, Arbor House also features prefab metal paneling at façade projections, precast concrete panels at the top and ground floors, and decorative metal security screens at the ground floor.

Façade: A simple pattern of large windows, varied metal panel bump-outs, upper-level balconies, a stepped parapet, and ground-floor window screens work together to create a well-articulated façade. The rear façade has less depth and articulation but the patterning of windows, use of multiple materials, and the decorative screens maintain elements of visual interest.

3. Ground floor plan.

4

6

4. Ground Floor Condition: Large windows and glazed entryways at the ground floor are inviting (see building entrance below). Decorative screens and coordinated building signage are both artistic and functional, and reflect the community engagement process.

5. Building entrance at East 166th Street.

6. Open Space Design: The 10,000 SF "fitness plaza" courtyard is the focal point of the L-shaped building. Designed around a series of structures promoting physical activity, it is well planted and has ample seating for more passive outdoor activities.

7. The building incorporates several strategies from the NYC *Active Design Guidelines*, including physical activity prompts, a large indoor fitness center with equipment for all ages, at no fee to residents, bike storage, and a rooftop greenhouse. The outdoor "fitness plaza" is filled with equipment accompanied by educational signage (see image, right).

8. Signage is placed by exercise equipment to assist in proper use.

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9. The 9,000 SF hydroponic rooftop farm and greenhouse is the first in the country to be built atop a residential building. The greenhouse produces pesticide-free lettuces and herbs for the building's residents and the larger neighborhood through a Community-Supported Agriculture (CSA) arrangement, organized by Sky Vegetables in partnership with Agritecture Consulting.

In sites like this one, where residents and the community at large lack access to affordable healthy food, integrating food production into affordable housing has the potential to provide local jobs and improve access to nutritious food.

Arbor House has been given a LEED Platinum rating, rare for a project of this scale and budget. Its environmentally sustainable features include rainwater harvesting, low VOC materials, and an advanced storm-water management system.

10. Aerial view of the hydroponic rooftop structure.

10

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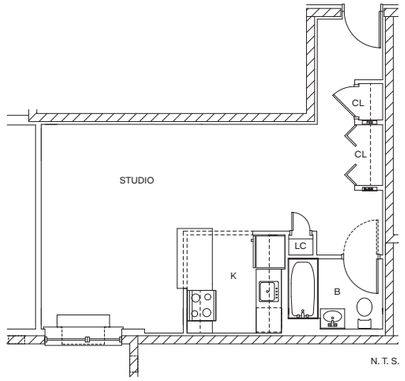


TYPICAL STUDIO UNIT — "K" PARTIAL FLOOR PLAN (1ST–8TH FLOOR)

12

11. Large windows bring ample natural light into the apartments, which also have warm toned wood flooring. Combined living and dining areas allow for flexible use of space.

12. Typical studio floor plan.

13

13. Circulation: A green wall in the lobby and wood veneer accents on the ground-floor walls and ceiling give the feeling of a welcoming space and extend the building's "green" identity into the interior.

14

14. Local artist Beatrice Coron created decorative security screens and perimeter fencing, as well as graphics displayed in interior circulation areas and the courtyard. Relatively inexpensive to create and install, the series of integrated artworks helps to give the building a sense of identity. Additional signage encourages residents to take the stairs instead of using the elevator.

15

15. Coron's designs were inspired from artwork created by children from the adjacent NYCHA Forest Houses during after-school workshops facilitated by the artist.

16. The backyard is separated from the NYCHA site by decorative metal fencing designed by Beatrice Coron.

16

"Think about what a building is going to look like 20 years from now. Build housing that will last, without needing expensive rehabs down the line."

"The best role that design can play is to not define buildings as affordable housing. Anything that we can do to get away from that helps the community."

— Les Bluestone, Co-Founder and Principal, Blue Sea Development Company

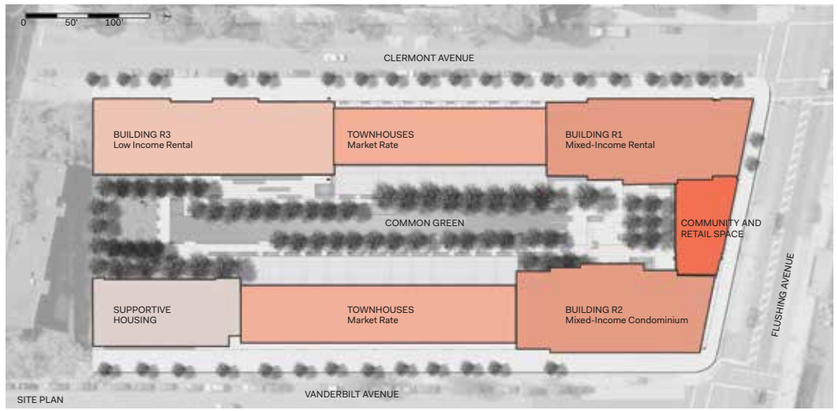
6

Navy Green

130 Flushing Avenue, Brooklyn, NY 11205

Master plan: FXCollaborative **Architects:** FXCollaborative; Curtis + Ginsberg Architects; Architecture in Formation **Landscape Architect:** Todd Rader + Amy Crews Architecture Landscape Architecture **Developers:** Dunn Development Corp.; L+M Development Partners; Impacct Brooklyn	**Site:** (almost) Full block **Size:** Large **Units:** 433
	SF: 453,491 GSF
	Open Space: Approximately 32,000 SF (3/4 acre)
Year Bid: 2006–2007 **Year Completed:** 2012–2017	**Labor Type:** Open shop (for the full development); supportive housing was prevailing wage; R1-R3 and the townhouses were non-prevailing wage
Total Development Cost: $124.4 million	**Energy Rating:** LEED Silver for Neighborhood Development
For additional information and per-building breakdowns of R1, R2, R3, Supportive Housing, and the Townhouses, please see p. 66.	

R1 **Architect:** FXCollaborative **Stories:** 12 **Units:** 112 **SF:** 116,556 GSF **Year Completed:** 2012 **$/SF:** $215	**AMI:** 40% – 100% AMI (rental) **Funding Sources:** NYC Housing Development Corporation Low-Income Affordable Marketplace Program (LAMP); NYC Housing Preservation and Development (multiple programs); NYS Homes and Community Renewal; JP Morgan Chase **Construction:** Block and plank; concrete pedestal **Façade:** Face-brick
R2 **Architect:** FXCollaborative **Stories:** 12 **Units:** 99 **SF:** 114,600 GSF **Year Completed:** 2016 **$/SF:** $229	**AMI:** 74 at 90% - 150% AMI; 24 market-rate (all homeownership) **Funding Sources:** NYC Housing Preservation and Development (multiple programs); Wells Fargo Bank **Construction:** Block and plank **Façade:** Face-brick
R3 **Architect:** Curtis + Ginsberg Architects **Stories:** 8 **Units:** 101 **SF:** 96,014 GSF **Year Completed:** 2012 **$/SF:** $196	**AMI:** 20% at 40% AMI; 80% at 60% AMI (rental) **Funding Sources:** NYC Housing Development Corporation Low-Income Affordable Marketplace Program (LAMP); NYC Housing Preservation and Development (multiple programs); NYS Homes and Community Renewal; JP Morgan Chase **Construction:** Block and plank **Façade:** Face-brick
Supportive **Architect:** Curtis + Ginsberg Architect (Executive Architect); Architecture in Formation (Design Architect) **Stories:** 8 **Units:** 98 **SF:** 56,321 GSF **Year Completed:** 2012 **$/SF:** $297	**AMI:** 100% Supportive; up to 50% AMI **Funding Sources:** NYC Housing Preservation and Development Supportive Housing Loan Program **Construction:** Block and plank **Façade:** Precast and metal panel cladding
Townhouses **Architect:** Curtis + Ginsberg Architect (Executive and Interior Architect); FXCollaborative (Design Architect) **Stories:** 3 **Units:** 23 **SF:** 71,392 GSF (3,104 SF per townhouse) **Year Completed:** 2016 **$/SF:** unavailable	**AMI:** Market-rate **Funding Sources:** Wells Fargo Bank **Construction:** Wood joist and block **Façade:** Face-brick and metal panel cladding



2 SITE PLAN

3

How can a contaminated brownfield be transformed into a socially equitable mini-neighborhood?

Taking up almost an entire city block, Navy Green is comprised of seven distinct building developments ringing a common green and accommodating residents with a wide range of incomes and needs. Built on City land that was formerly home to a naval prison, the development was built under special-use Large Scale Development regulations that relaxed setback requirements without increasing overall bulk. The 450,000 SF development in Brooklyn's Wallabout district incorporates four 8- to 12-story apartment buildings at the site's corners, consolidating mass at the development edges, and includes two rows of low-rise townhouses between them, along the east and west site frontages. At the north end of the site, a single story retail space, located along the existing Flushing Avenue commercial corridor, steps down to create an un-obstructed visual corridor through the site. This range of building types and sensitivity to scale both echoes and respects the diverse adjacent building stock.

In addition to the diverse Wallabout neighborhood context, Navy Green is directly south (just across Flushing Avenue) of the Brooklyn Navy Yard, an expanding industrial park with four million square feet of space. Navy Green's four apartment buildings—a low-income rental, a mixed-income rental, a mixed-income condominium, and a supportive housing residence—are strategically positioned to block views of the adjacent 15-story Navy Yard Building 77 warehouse

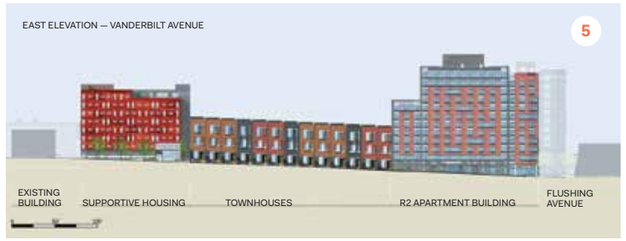
1. Page 65: Central Navy Green retail space, flanked by R2 (left) and R1 (right), viewed from Flushing Avenue.

2. Site Planning: Incorporating housing tower blocks at its corners and midblock townhouses and a low community and retail structure, Navy Green deploys a range of building types mirroring the diverse building stock in the site's immediate context. Four residential buildings at 8 and 12 stories are sited along busy Flushing Avenue to the north and near the Brooklyn Queens Expressway to the south, while three-story townhouses sit on lower-scale side streets. Lower buildings allow light and views into the common green and the adjacent neighborhood.

Together, the buildings of Navy Green form a solid perimeter around the development's shared green, while incorporating a variety of building heights, façade materials and colors, and setbacks as might appear in a neighborhood built over time. As part of the redevelopment, the sidewalk around the perimeter was widened.

3. Massing: At the north end of the site, a one-story retail space is built between R2 (left), a residential condo and R1 (right), a residential rental building. This allows for windows along the full interior façade of the tower blocks. The low, mid-block storefront building lets light onto the common green behind and breaks up the otherwise high-rise northern edge of the development. Both housing structures have ground-floor commercial space.

4



4. Open Space Design: A linear common lawn is lined with trees and ringed by a hardscaped perimeter walking path with benches and movable seating. Wood fences separate the shared space from private townhouse backyards.

5. East elevation.

6. West elevation.

7. North elevation.

and the elevated Brooklyn-Queens Expressway (BQE). In contrast, the three-story, market-rate, midblock townhouses complement the scale and character of the turn-of-the-century row-houses directly to the east. Each of the individual buildings that make up Navy Green are designed with distinct façades, but complement each other and create a pedestrian-level character, helping the site to appear as if it were developed over time.

The development was the first in New York State to receive LEED certification for Neighborhood Development. Navy Green's three-quarter acre common green is open and accessible to every resident from the development's 433 units, an especially valuable amenity in a neighborhood with few public parks. The development relies heavily on grid-sourced renewable power sources and, as a large-scale building mass, significantly reduces the urban heat island effect with highly reflective or planted roof and outdoor surfaces. Residential units are fully equipped with low-flow plumbing fixtures. Eighty-nine percent of the housing units on the site are enrolled in affordable housing programs.

8. Massing: At 12 stories, R2 is similar in height to the 15-story warehouse across Flushing Avenue in the Navy Yard. Sited on a busy corridor, the building blocks views of Building 77 from the Navy Green buildings and the open space to the south.

9. Neighborhood view along Flushing Avenue.

10. Ground Floor Condition: An exaggerated concrete awning marks the set-back entrance to a fully glazed double-story lobby in Navy Green's supportive housing building, at the southeast corner of the site. The entrance provides views from the street into the ground-floor common room.

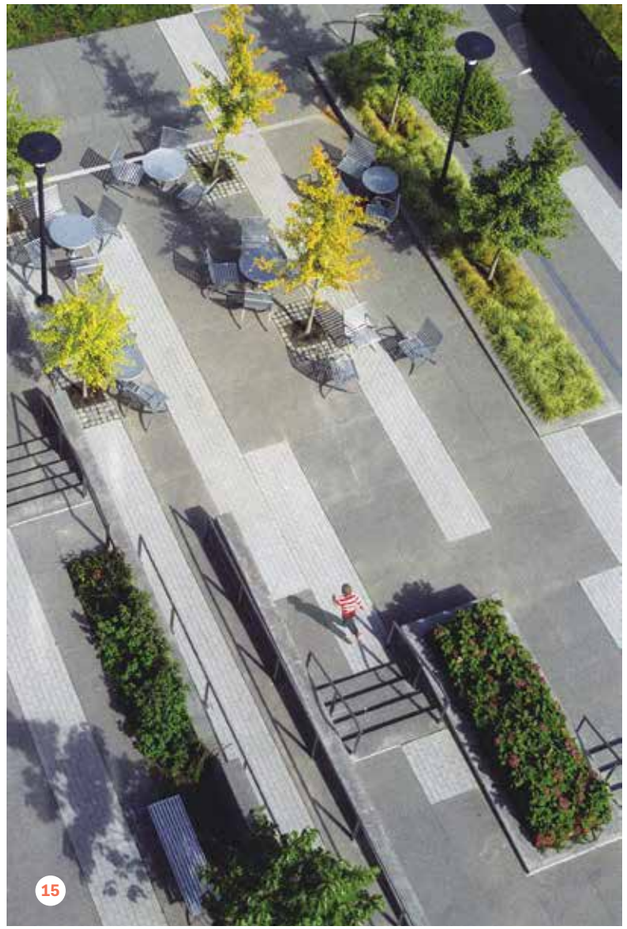
11. Ground Floor Condition: A stepped, double-height common room adjacent to the lobby is furnished with brightly colored furniture and playful lighting. The ground floor also contains a doctor's office and staff offices. Street-level plantings separate the building from the sidewalk beyond.

12. Façades: Townhouses are faced in brick in a range of warm tones, separated by gray brick channels, and wood doors and light-colored stoops. Extruded metal frames around large windows provide depth and shadow.

13. Ground Floor Condition: On the street side, townhouses have stepped entrances with plantings and screening for trash and recycling, all contributing to a pedestrian-oriented streetscape. The buildings are set back from the sidewalk.

Massing: The low townhouses, combined with the high-rises at the site's corners, break up overall visual impact of the large development.

14. Open Space Design: Fenced private backyards for the townhouses open onto the shared green and walkway. Every third townhome steps back at a second-floor, wood-paneled balcony, creating varied massing.



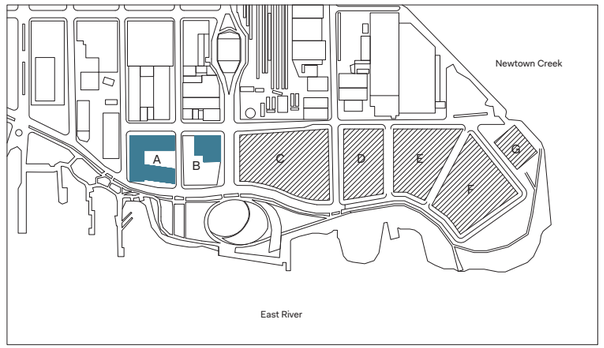
15. Open Space Design: The common green incorporates wider hardscapes with plantings at both the north and south ends.

16. Façades: Rear building façades, facing the common green, are designed to a similar level of detail as the street sides of the buildings. This creates two building faces, one along the public sidewalks, and the other at the interior common green.

7

Hunter's Point South Commons and Crossing

Hunter's Point South Commons: 1-50 50th Avenue, (Parcel A)
Hunter's Point South Crossing: 1-55 Borden Avenue, (Parcel B)
Long Island City, Queens, NY 11101



Architect: Ismael Leyva Architects (Executive Architect); SHoP Architects (Façade System) **Developer:** Related Companies **Development Partners:** Monadnock Construction; Phipps Houses	**Units:** 924 **SF:** 911,000 GSF
Site: Infill sites as part of a master plan for waterfront redevelopment **Size:** Extra Large	**Open Space:** 19,037 GSF **Flood Zone:** Zone AE (100-year floodplain)
Year Bid: 2012 **Year Completed:** 2015	**% Affordable:** 67% (remaining 33% is income-restricted at 165-230% AMI) **AMI Breakdown:** 40% to 230% AMI: 3.4% at 40% AMI; 16.8% at 50% AMI; 27.3% at 130% AMI; 19.3% at 140-150% AMI; 33.2% at 165-230% AMI
$/SF (Hard Cost): Approximately $274/SF **Total Construction Cost:** Approximately $250 million (for both buildings) **Total Development Cost:** $330 million in total cost	**Funding Sources:** NYC Housing Preservation and Development Subsidy; Low-Income Housing Tax Credits; Developer Private Equity **Labor Type:** Union; negotiated affordable housing Project Labor Agreement (PLA)
Construction: Flat plate poured-in-place reinforced concrete **Façade:** Glass; metal panel cladding	**Energy Rating:** LEED Silver and Gold

For additional information and per-building breakdowns of the Commons (Parcel A) and the Crossing (Parcel B), please see p. 76.

2

Commons (Parcel A)	**SF:** 628,000 GSF
Site: Full block **Stories:** 37	**SF Breakdown:** 455,948 SF units; 7,003 SF residential amenities; 16,222 SF lobby and support spaces; 13,768 SF retail **Open Space:** 18,641 GSF (7,589 SF 5th floor terrace; 4,573 13th floor east terrace; 6,479 SF 13th floor west terrace)
Units: 618 **Unit Breakdown:** 165 studios; 205 one-bedroom; 213 two-bedroom; 34 three-bedroom	**Energy Rating:** LEED Gold
Crossing (Parcel B)	**SF:** 283,000 GSF
Site: Corner lot **Stories:** 32	**SF Breakdown:** 225,731 SF units; 6,509 SF lobby and support spaces; 2,983 SF retail **Open Space:** 396 SF (terrace)
Units: 306 **Unit Breakdown:** 100 studios; 82 one-bedroom; 101 two-bedroom; 23 three-bedroom	**Energy Rating:** LEED Silver

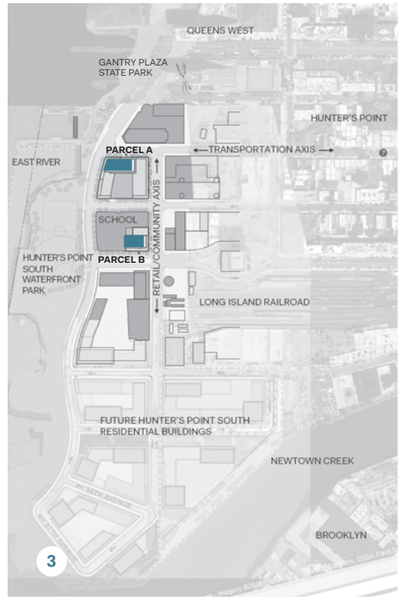
How can two mixed-use buildings help to anchor a future, more equitable, resilient waterfront neighborhood?

Designed by Ismael Leyva Architects, with a façade system by SHoP Architects, Hunter's Point South Commons and Crossing are built on the two westernmost blocks of a seven-block master plan redevelopment of the Long Island City waterfront. The 37- and 32-story buildings, with active ground floors, articulated façades, and lighted tower tops, are helping to reshape the Long Island City skyline. All units in the two buildings are designated as affordable or income-restricted, with apartments in both reserved for residents with incomes between 40% and 230% of AMI, or from $38,160 to $219,420 (as of 2017) for a household of four people. Commons contains almost 14,000 SF of retail space, while Crossing incorporates nearly 3,000 SF. Retail in the two buildings opens onto the street and is accessible from the adjacent waterfront Hunter's Point South Park, designed by Thomas Balsley Associates and Weiss Manfredi. At the street level, the buildings' ground floors are designed with multiple building entrances, inviting lobbies, and floor-to-ceiling glazing, accessed from generous sidewalks.

At its base, the Commons' apartments and retail space wrap a four-story parking structure on four sides. A tower above is oriented east-west to maximize down- and up-river views and solar access. A middle section, transitioning from the wider base to the more slender tower, tops out at the 14th floor and encloses a south-facing courtyard. Smaller than the Commons, the Crossing building shares a block with a low-rise school building designed by FXCollaborative. Built on a tighter site, negotiating a relationship with the school on two sides, the Crossing has an L-shaped base that wraps an inner courtyard, and shifts to a rectangular tower at the 28th floor. An upper-level roof terrace is open to residents as part of an amenity package.

The primarily glass façades of both buildings incorporate complementary accents of colors (orange at the Commons and blue at the Crossing) to provide visual interest and distinguish the two buildings. Strategically deployed, the pops of color throughout the buildings disguise louvers which are accommodating HVAC units under windows. Often detailed as leftover or insurmountable components, the use of color at the under-window HVAC louvers and façade paneling turn a building systems negotiation into a façade feature.

Another critical design consideration for this development was flooding; both Commons and Crossing were redesigned after October 2012 Hurricane Sandy floodwaters rose four feet higher than the previously designated flood elevations for the area. To address flooding, critical building infrastructure was raised to higher elevations within the tall ground floor of Commons, and up to the second floor of Crossing. In addition, the buildings are designed to withstand substantial water loads, and temporary flood barriers are integrated into the design of the ground floor, detailed to be deployed at building openings.



3

1. Page 75: Hunter's Point South Commons (left) and Crossing (right), with a school building designed by FXCollaborative in the foreground, viewed from the southeast. The buildings are Parcels A and B, part of an overall Parcel A-G waterfront redevelopment.

2. Massing: The two towers of Commons (left) and Crossing (right) are concentrated on the north and east sides of their blocks, toward existing Long Island City development and away from the open waterfront landscape, designed by Thomas Balsley Associates and Weiss Manfredi. Lower base volumes are located adjacent to the school building.

Materiality: The primarily glass façades on both towers complement recent development in Long Island City and contrast with the dark gray brick of the neighboring school building. Orange accents on the Commons and blue accents on the Crossing provide visual interest.

3. Site Planning: Crossing and Commons are built on the two westernmost blocks of a seven-block development, which when completed, will stretch from Gantry Plaza State Park to the Newtown Creek Inlet. An educational building designed by FXCollaborative, on the same block as the Crossing, houses a public high school, intermediate school, and a District 75 special school. The massing of the towers, streetscape design, and cross-site circulation are all coordinated with the overall development plan.

4

4. Massing: Commons' tower is oriented east-west to optimize East River views. Lower building wings terminate at the 14th floor, and are topped with outdoor amenity spaces. The roof of a four-story parking structure contained within the building base forms a landscaped courtyard.

Façade: A panelized façade system incorporates accents of color.

5

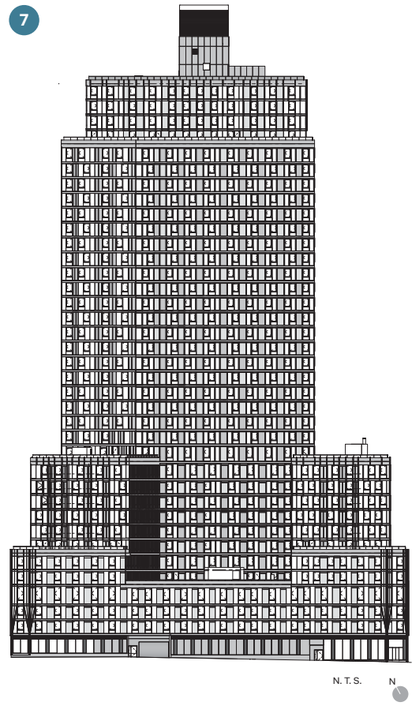
5. Open Space Design: At the Commons, residents can access amenity spaces including sundecks, grilling areas, and raised garden plots (see rooftop garden image, adjacent) with views of the East River and Manhattan.

6. Rooftop garden.

7. South elevation.

8. East elevation.

6



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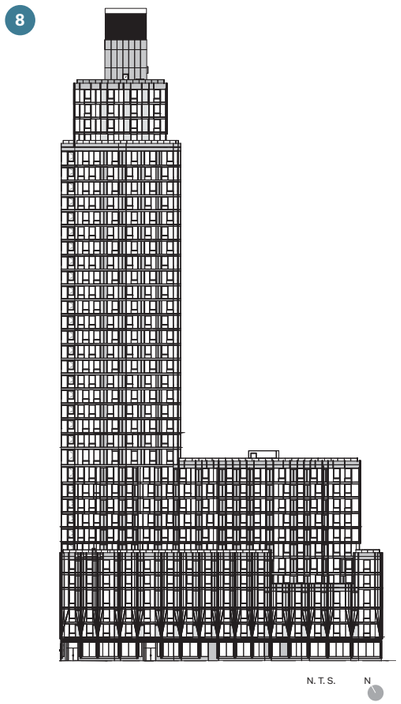

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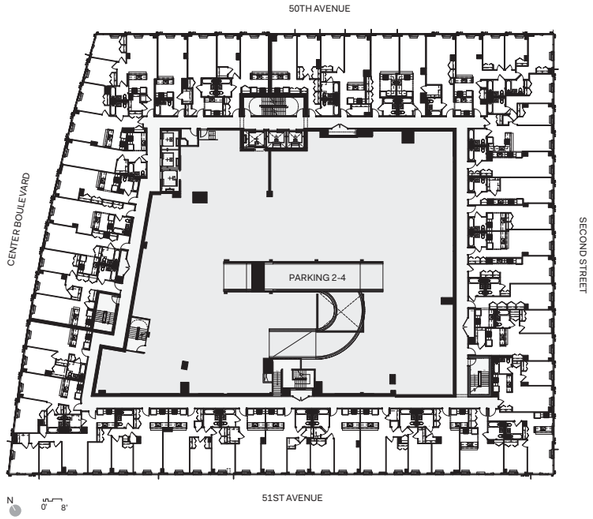
9. Commons, typical floor plan (floors 2 to 4). The lower floors of the Commons wrap around a four-story parking structure. Units are organized around an inner single-loaded corridor.

10. Commons, typical floor plan (floors 5 to 11).

11. Commons, typical floor plan (floors 16 to 34).

12. Windows and Doors: The Commons' apartments are well-lit, and include HVAC units efficiently integrated into window framing systems, creating usable ledges above.

13. Ground Floor Condition: At the ground floor of the Commons building, a children's play room is designed with tall ceilings and ample daylight.



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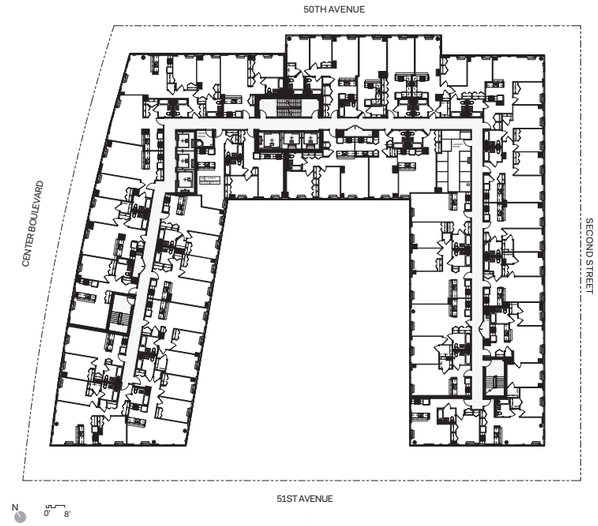

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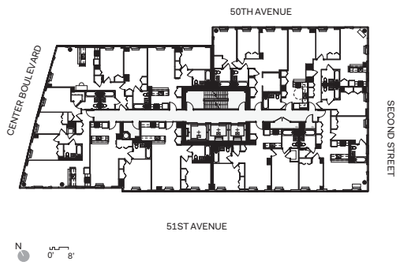

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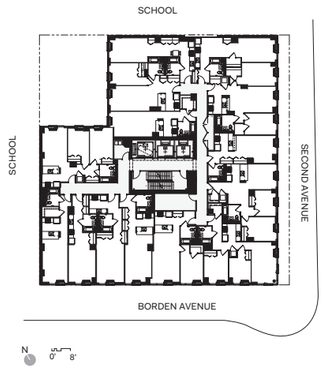
"We strive to create a world where people can walk by affordable housing and not know it's subsidized."

— James Patchett, President and CEO, NYC Economic Development Corporation

14

15



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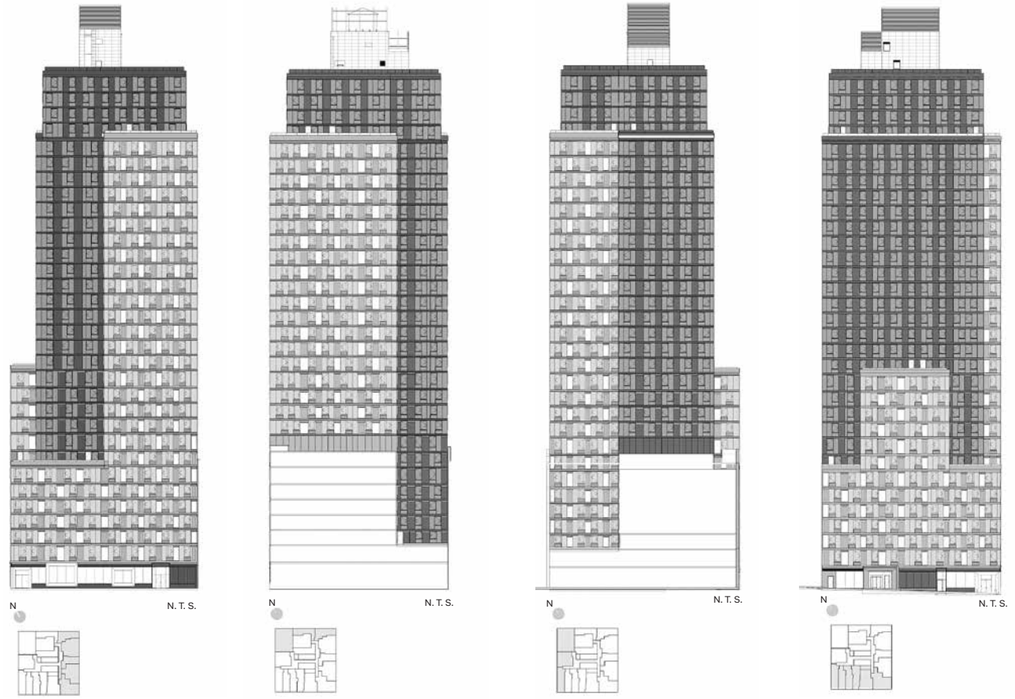

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18

14. Windows and Doors: The SHoP-designed façade (visible here at the Crossing building) integrates HVAC units into window systems, incorporating the louver panels at the exterior, which streamlines the visual impact of the building system components.

Open Space Design: A building setback along Borden Avenue provides space for wood-decked shared terraces with well-detailed glass and metal railings and space for sitting.

15. A kitchen window frames a Manhattan view.

16. Typical floor plan.

17. Massing: Each elevation of the Crossing is uniquely designed to respond to the adjacent school building.

18. Massing: Crossing negotiates a tight site and abuts a school building on two sides. Its tower incorporates subtle vertical and horizontal setbacks. Color and material changes, between the base of the building and the tower, visually connect Crossing to the lower-height school structure.

“Thoughtful attention to materials, scale, green space, sustainability and common areas can be the difference between an affordable housing development that feels isolating and one that is connected to the community and feels like home.”

— Barika X. Williams, Deputy Director, Association for Neighborhood & Housing Development (ANHD)

Appendix

Additional Case Studies from the U.S. & Abroad

Highlighting innovative strategies for our guiding principles within a diversity of contexts.
Additional projects and information can be found at:
nyc.gov/designcommission/affordablehousing

1.
Site Planning



Charlesview Residences and Town Homes at Brighton Mills
123 Antwerp Street, Brighton MA 02135

Architect: CBT Architects
Developer: The Community Builders, Inc.
Year Completed: 2013

2.
Massing



Tetris Apartments
Poljanska cesta 61, 1000 Ljubljana, SI

Architect: Ofis Arhitekti
Developer: Gradis G Group and the Slovenian Housing Fund
Year Completed: 2007

3.
Materiality



Drs. Julian and Raye Richardson Apartments
365 Fulton Street, San Francisco, CA 94102

Architect: David Baker Architects
Associate Architect: Baker Vilar Architects
Landscape Architect: Andrea Cochran Landscape Architects
Developer: Community Housing Partnership, Mercy Housing California
Year Completed: 2011

4.
Façade



Bacton Estate Phase I
Wellesley Road, Gospel Oak, London NW5 4PA, UK

Architect: Karakusevic Carson Architects
Developer: London Borough of Camden
Year Completed: 2016

5.
Windows and Doors



Step Up on Fifth
1548 5th Street, Santa Monica, CA 90401

Architect: Brooks + Scarpa
Developer: Step Up
Year Completed: 2009

6.
Ground Floor Condition



Bellfield Townhomes
1735-1739 Bellfield Avenue, Philadelphia, PA 19141

Architect: Onion Flats
Developer: Co-developed by Onion Flats and Raise of Hope
Year Completed: 2012

7.
Circulation



Broadway Affordable Housing
2602 Broadway, Santa Monica, CA 90404

Architect: Kevin Daly Architects
Developer: Community Corporation of Santa Monica
Year Completed: 2014

8.
Open Space Deisgn



Town Hall Apartments
3600 North Halsted Street, Chicago, IL 60613

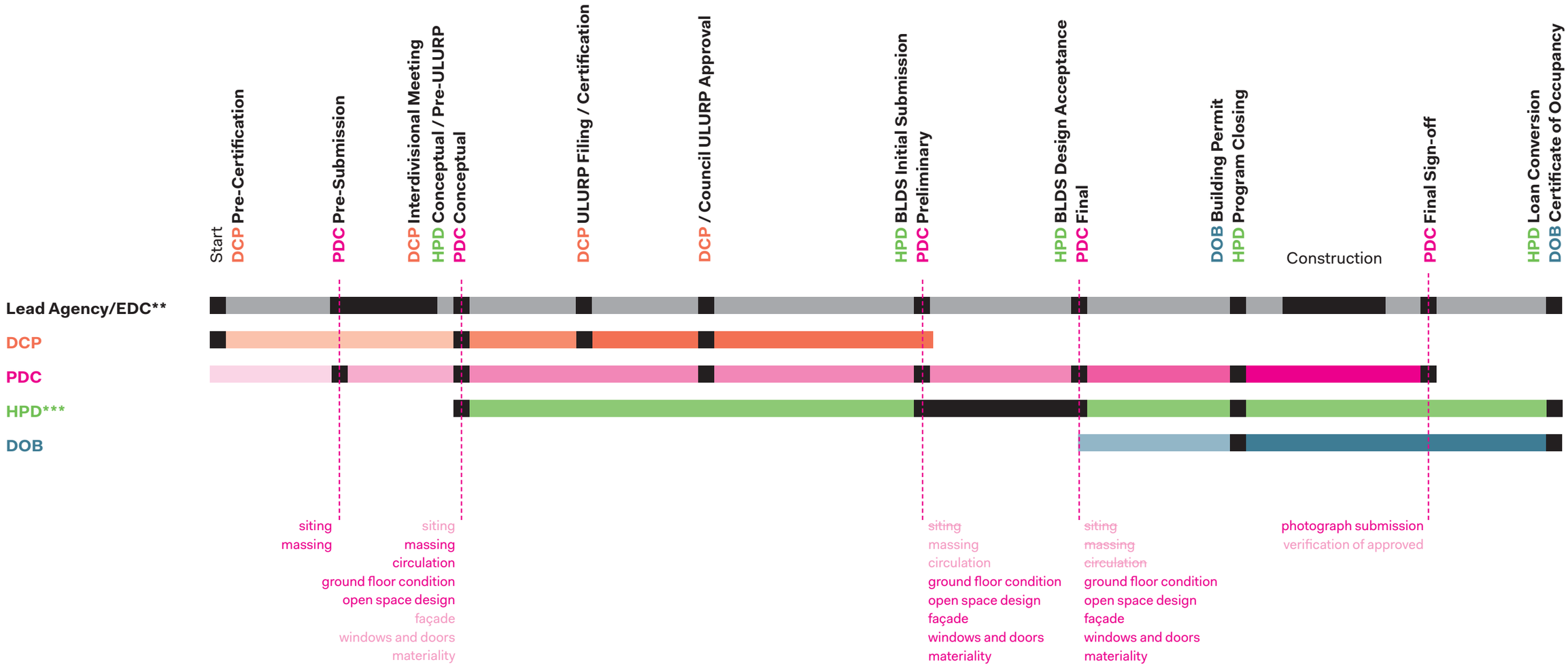
Architect: Gensler
Landscape Architect: Christy Webber Landscapes
Developer: Heartland Alliance
Year Completed: 2014

NYC Interagency Affordable Housing Review*

*Not scaled to time, for illustrative purposes only.

**EDC to be lead agency to coordinate the PDC review process, unless otherwise noted.

***HPD review required on all affordable housing projects receiving City subsidies, loans, or incentives.



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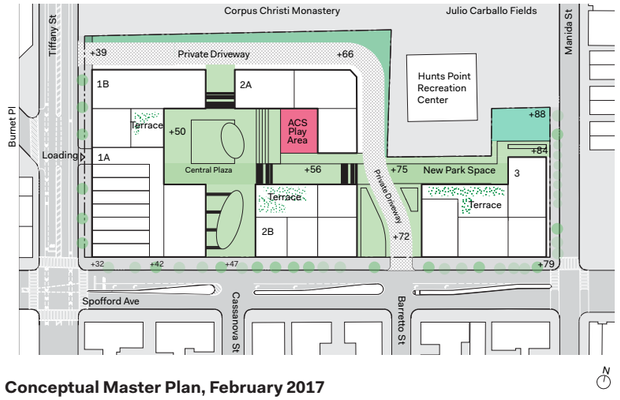
Historically, affordable housing developed independently of NYCHA has been developed through disposition (sold) to developers. However, the City also develops housing through a land-lease development model, maintaining ownership of the land, meaning that these additional developments are subject to PDC review.

In order to streamline City-agency processes, PDC has collaborated with partner agencies to develop a system for coordinated interagency review. The intent is that timely and synchronized joint reviews, along with open channels of communication between the City agencies and design teams, will lead to improved design and ultimately expedite the review process.

Pilot Review: The Peninsula

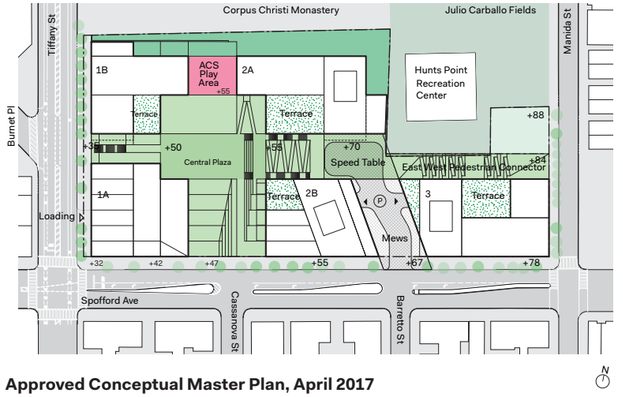
The Peninsula, a mixed-use affordable housing project in the Bronx (designed by blA + WXY, jointly developed by Gilbane Development Company, Hudson Companies, and the Mutual Housing Association of New York) is the first large-scale development to pilot this new method of review. The Peninsula master plan received PDC conceptual approval in spring 2017 and is expected to return for Phase I preliminary review in late-spring 2018. The impact of early engagement and coordinated interagency review can be seen by comparing the original February 2017 proposal to the iterated April 2017 proposal, which was ultimately approved. Evident in the design development between the two proposals, the coordinated review resulted in improved through-site circulation, adjusted massings that allow for more light and air throughout the site, and overall, created more openness and integration with the existing neighborhood.



Conceptual Master Plan, February 2017

PREVIOUS SITE PLAN

PROPOSED SITE PLAN



Approved Conceptual Master Plan, April 2017

Conceptual Rendering, February 2017

Approved Conceptual Rendering, April 2017

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Information provided by Magnusson Architecture & Planning unless otherwise noted.
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Information provided by Ennead Architects and Breaking Ground unless otherwise noted.
Additional references: The Actors Fund: Mark O'Donnell Theater at The Actors Fund Arts Center. (Accessed March, 2018) New York, NY: The Actors Fund (actorsfund.org); Fried, J. P. (2000, November 15). State Seeks Plans for Neglected Brooklyn Area. New York, NY: The New York Times (nytimes.com); Hamlin Ventures (Accessed March, 2018, hamlinventures.com)
Drawings: © Ennead Architects
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5. Arbor House

Information provided by Blue Sea Development unless otherwise noted.
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Drawings: © ABS Architects / Danois Architects
Images: © Bernstein Associates

6. Navy Green

Information provided by Curtis + Ginsberg Architects, Dunn Development, and L+M Development Partners unless otherwise noted.
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7. Hunter's Point Commons and Crossing

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Additional references: FXCollaborative (Accessed March, 2018, fxcollaborative.com)
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